DIMENSION

Madison Design Group

architecture · interior design · planning

6515 Grand Teton Plaza, Suite 120, Madison, Wisconsin 53719 p608.829.4444 f608.829.4445 dimensionivmadison.com

MSP - THE DRIFTLESS TOWNHOUSES

302 Kraft Street, 304 Kraft Street, 306 Kraft Street, 318 Kraft Street, 328 Kraft Street, 318 Kraft Street, 318 Kraft Street, 318 Kraft Street, 328 Kraft St 332 Kraft Street, 28 Milwaukee Street, 30 Milwaukee Street, 38 Milwaukee Street, 39 Steamboat Ct., La Crosse, WI



PROJECT RENDERING / PERSPECTIVE VIEW



SHEET NUMBER

GRIDLINE

- ELEVATION REFERENCE

LEGEND - ARCHITECTURAL SYMBOLS

1/8" = 1'-0"

PROJECT LOCATION ·

CODE INFORMATION SUMMARY			
TOWNHOME AND FLATS BUILDING CODE ANALYSIS			
OCCUPANCY TYPES:			
- R-2 (DWELLING UNITS)			
- U (PRIVATE GARAGES)			
ALLOWABLE HEIGHTS AND AREAS - CHAPTER 5			
- SEC. 503.1 BUILDINGS C, D, E, AND F CONSIDERED ONE BUILDING AND FIRE			
SEPARATION NOT REQUIRED BETWEEN THOSE BUILDINGS.			
- ALLOWABLE HEIGHT: 50'-0" - ACTUAL HEIGHT: 20'-0"			
- ALLOWABLE STORIES: 4 STORIES			
- ACTUAL STORIES: 2 STORIES			
- ALLOWABLE FLOOR AREA (PER STORY):			
- COMBINED BUILDING C/D/EF: 17,514 SF W/ 45% AREA FACTOR INCREASE.			
- COMBINED BUILDING C/D/E/F: 14.241 SF			
CONSTRUCTION TYPE & FIRE RESISTANCE RATING - CHAPTER 6:			
- EXTERIOR REARING WALLS: 1-HOUR			
- INTERIOR BEARING WALLS: 1-HOUR			
- NON-BEARING WALLS (EXTERIOR):			
- 1-HOUR < 30' TO PROPERTY LINE OR LINE OF FIRE SEPARATION DISTANCE			
- 0-HOUR > 30' TO PROPERTY LINE OR LINE OF FIRE SEPARATION DISTANCE			
- ROOF ASSEMBLIES: 1-HOUR			
REQUIRED FIRE BARRIER/PARTITION RATING & DRAFTSTOPPING:			
- SEC 406.3.4. OTHER THAN PRIVATE GARAGES ADJACENT TO DWELLING			
SEC. 508.			
- SEC 508.4: 1-HOUR SEPARATION REQUIRED BETWEEN R AND U			
- SEC 718.4.2: DRAFTSTOPPING SHALL BE PROVIDED IN ATTICS IN LINE WITH			
UNIT SEPARATIONS.			
FIRE PROTECTION - CHAPTER 9:			
BUILDINGS ARE FULLY SPRINKLERED PER NFPA 13 & IBC SEC. 903.3.1.1			
- NUMBER OF TYPE-A ACCESSIBLE UNITS: 2% OF 20 = 1 UNIT			
- TYPE-B UNITS: TOWNHOUSE UNITS AND UPPER FLOOR FLATS: NONE			
REQUIRED PER IBC SEC. 1107.7.1			
SEE CODE COMPLIANCE PLANS FOR ADDITIONAL INFORMATION			
PROJECT/BUILDING DATA			
GARAGES AT GROUND LEVEL.			
SEE GKOSS ROIFDING AKEA TARFE ON THIS SHEET			
UNIT COUNT			

TOTAL UNITS = 20 UNITS

FLAT B

FLAT C

FLAT D

FLAT E

FLAT F

OTAL PARKING SPACES = 43

TOTAL GARAGE PARKING SPACES = 12

PARKING COUNTS

TOWNHOUSE A (TH-A)

TOWNHOUSE B (TH-B)

FLAT A TYPE 'A'

= 6 UNITS

= 7 UNITS

= 1 UNIT

= 1 UNIT

= 2 UNITS

= 1 UNIT

= 1 UNIT

= 1 UNIT

OTAL SURFACE PARKING SPACES = 31 (2 ACCESSIBLE STALLS)

BUILDING AREAS		
Level Area		
BUILDING C		
GROUND FLOOR 4860 SF		
SECOND FLOOR	5016 SF	
	9876 SF	
BUILDING D		
GROUND FLOOR	3692 SF	
SECOND FLOOR	3087 SF	
	6779 SF	
BUILDING E		
GROUND FLOOR	3023 SF	
SECOND FLOOR	3733 SF	
	6756 SF	
BUILDING F	0007.5-	
GROUND FLOOR	2665 SF	
SECOND FLOOR	2348 SF	
	5014 SF	
TOTAL	28424 SF	
UNIT TOWNHOME(2-LEVEL) AREAS		
Level	Area	
Level	Area	
Level TH-A GROUND FLOOR	Area 617 SF	
Level TH-A GROUND FLOOR SECOND FLOOR	Area 617 SF 619 SF	
Level TH-A GROUND FLOOR SECOND FLOOR	Area 617 SF 619 SF 1236 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B	Area 617 SF 619 SF 1236 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR	Area 617 SF 619 SF 1236 SF 613 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR	Area 617 SF 619 SF 1236 SF 613 SF 615 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR	Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR	Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF AT AREAS	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR SECOND FLOOR	Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF AT AREAS Area	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR UNIT FL Name	Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR UNIT FL Name FLAT-A TYPE 'A'	Area Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF AT AREAS Area 1125 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR UNIT FL Name FLAT-A TYPE 'A' FLAT-B	Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR UNIT FL Name FLAT-A TYPE 'A' FLAT-B FLAT-C	Area Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF AT AREAS Area 1125 SF 1107 SF 1151 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR UNIT FL Name FLAT-A TYPE 'A' FLAT-B FLAT-C FLAT-D	Area Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF AT AREAS Area 1125 SF 1107 SF 1151 SF 1170 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR UNIT FL Name FLAT-A TYPE 'A' FLAT-B FLAT-C FLAT-D FLAT-E	Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF	
Level TH-A GROUND FLOOR SECOND FLOOR TH-B GROUND FLOOR SECOND FLOOR SECOND FLOOR UNIT FL Name FLAT-A TYPE 'A' FLAT-B FLAT-C FLAT-D FLAT-E FLAT-F	Area Area 617 SF 619 SF 1236 SF 613 SF 615 SF 1228 SF AT AREAS Area 1125 SF 1107 SF 1151 SF 1170 SF 1151 SF 1170 SF 1169 SF	





STATE MAP

Architecture :

General **Contractor:**

Civil **Engineering:**

Structural **Engineering:**

Landscape Architect

Lighting Designer

LIST OF DRAWINGS

SHEET NO.

SHEET NAME

G001

G100

G101

G102

G200

STRUCTURAL

S001

S002

S100C

S100D

S100E

S100F

S800

PROJECT #

GENERAL COVER SHEET SITE CODE COMPLIANCE PLAN CODE COMPLIANCE PLANS CODE COMPLIANCE PLANS AND SECTIONS GENERAL ACCESSIBILITY REQUIRMENTS

CIVIL SITE PLAN C1.0 C2.0 SITE GRADING PLAN SITE UTILITY PLAN C3.0 C4.0 EROSION CONTROL PLAN L100 SITE LANDSCAPING PLAN L200 LANDSCAPING NOTES AND DETAILS 1 OF 1 SITE LIGHTING PLAN

> STRUCTURAL NOTES STRUCTURAL SCHEDULES FLOOR PLANS - TOWNHOUSE C FLOOR PLANS - TOWNHOUSE D FLOOR PLANS - TOWNHOUSE E FLOOR PLANS - TOWNHOUSE F STRUCTURAL DETAILS

CONSTRUCTION DOCUMENTS - ADDENDUM B

21136

Dimension IV - Madison Design Group 6515 Grand Teton Plaza, Suite 120, Madison, WI 53719 p: 608.829.4444

MSP Construction

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CJ Engineering

9205 West Center Street, Suite 214, Milwaukee, WI 53222 p: 414.443.1312 www.cj-engineering.com

OTIE

5100 Eastpark Blvd., Ste. 300, Madison, WI 53718 p: 608.243.6470 www.oescgroup.com

raSmith

221 South 2nd Street, Suite 214, Milwaukee, WI 53204 www.rasmith.com

p: 262.781.1000 Hein Electric Supply Company 515 W. Cherry Street, Milwaukee, WI 53212

p: 414.274.6250 www.hein.com

Current Revision	SHEET NO.	S
<pre>B</pre>	S820	STRUCTURAL DETAILS
<u>ک</u> ک	ARCHITECTURAL	
<i>と</i>	A100C	FLOOR PLANS & BUILD
<i>と</i>	A100D	FLOOR PLANS & BUILD
2 2	A100E	FLOOR PLANS & BUILD
2 2	A100F	FLOOR PLANS & BUILD
2 2	A200C	EXTERIOR ELEVATION
2 2	A200D	EXTERIOR ELEVATION
2 2	A200E	EXTERIOR ELEVATION
} B {	A200F	EXTERIOR ELEVATION
2 2	A300	WALL SECTIONS
2 2	A301	STAIR SECTIONS
2 2	A500	ENLARGED TOWNHOM
2 2	A501	ENLARGED FLAT UNIT
2	A502	ENLARGED FLAT UNIT
2	A600	ASSEMBLY TYPES
} {	A601	DOOR SCHEDULES, DO
}	A602	WINDOW TYPES AND D
} B {	A700	INTERIOR ELEVATIONS
B C	A800	DETAILS
E B	SPECIFICATIONS	
	SP1.0	SPECIFICATIONS
	SP1.1	SPECIFICATIONS
	SP1.2	SPECIFICATIONS
	SP1.3	SPECIFICATIONS
	SP1.4	SPECIFICATIONS
	SP1.5	SPECIFICATIONS
	SP1.6	SPECIFICATIONS
	SP1.7	SPECIFICATIONS

SP1.8

SP1.9

04/26/2023



SPECIFICATIONS

SPECIFICATIONS

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LIST OF DRAWINGS

SHEET NAME

Current Revision

DING SECTIONS - TOWNHOUSE C DING SECTIONS - TOWNHOUSE D DING SECTIONS - TOWNHOUSE E DING SECTIONS - TOWNHOUSE F NS - TOWNHOUSE C NS - TOWNHOUSE D NS - TOWNHOUSE E NS - TOWNHOUSE F ME UNIT PLANS PLANS T PLANS

DOOR TYPES & DETAILS DETAILS







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CODE COMPLIANCE SYMBOLS LEGEND



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	CODE INFORMATION SUMMARY		
<u>T0</u> OC - R - U	WNHOME AND FLATS BUILDING CODE ANALYSIS CUPANCY TYPES: -2 (DWELLING UNITS) (PRIVATE GARAGES)		
<u>AL</u> - S - A - A - A - A - A	LOWABLE HEIGHTS AND AREAS - CHAPTER 5 EC. 503.1 BUILDINGS C, D, E, AND F CONSIDERED ONE BUILDING AND FIRE PARATION NOT REQUIRED BETWEEN THOSE BUILDINGS. LLOWABLE HEIGHT: 60'-0" CTUAL HEIGHT: 20'-0" LLOWABLE STORIES: 4 STORIES CTUAL STORIES: 2 STORIES LLOWABLE FLOOR AREA (PER STORY): - COMBINED BUILDING C/D/EF: 17,514 SF W/ 45% AREA FACTOR INCREASE. CTUAL FLOOR AREA (PER STORY): - COMBINED BUILDING C/D/E/F: 14,241 SF		
<u>CO</u> - E: - IN - N - FI - R	INSTRUCTION TYPE & FIRE RESISTANCE RATING - CHAPTER 6: INSTRUCTION TYPE-VA XTERIOR BEARING WALLS: 1-HOUR ITERIOR BEARING WALLS: 1-HOUR ON-BEARING WALLS (EXTERIOR): - 1-HOUR < 30' TO PROPERTY LINE OR LINE OF FIRE SEPARATION DISTANCE - 0-HOUR > 30' TO PROPERTY LINE OR LINE OF FIRE SEPARATION DISTANCE LOOR ASSEMBLIES: 1-HOUR OOF ASSEMBLIES: 1-HOUR		
<u>RE</u> - S UN SE - S UN	QUIRED FIRE BARRIER/PARTITION RATING & DRAFTSTOPPING: EC 406.3.4: OTHER THAN PRIVATE GARAGES ADJACENT TO DWELLING ITS, THE SEPARATON FROM OTHER OCCUPANCIES SHALL COMPLY WITH C. 508. EC 508.4: 1-HOUR SEPARATION REQUIRED BETWEEN R AND U EC 718.4.2: DRAFTSTOPPING SHALL BE PROVIDED IN ATTICS IN LINE WITH IT SEPARATIONS.		
<u>fif</u> Bu	RE PROTECTION - CHAPTER 9: ILDINGS ARE FULLY SPRINKLERED PER NFPA 13 & IBC SEC. 903.3.1.1		
<u>AC</u> - N - T RE	CESSIBILITY REQUIREMENTS - CHAPTER 11 UMBER OF TYPE-A ACCESSIBLE UNITS: 2% OF 20 = 1 UNIT YPE-B UNITS: TOWNHOUSE UNITS AND UPPER FLOOR FLATS: NONE QUIRED PER IBC SEC. 1107.7.1		
SE	E CODE COMPLIANCE PLANS FOR ADDITIONAL INFORMATION		

	BUILDING CODE COMPLIANCE GENERAL NOTES
λ.	ALL UNITS ARE TYPE "B" UNLESS NOTED OTHERWISE, REFER TO ENLARGED UNIT PLANS FOR INFORMATION AND REFERENCES TO ACCESSIBLE CRITERIA.
3.	ALL FULLY ACCESSIBLE DWELLING UNITS AND "TYPE A" UNITS ARE DESIGNED TO COMPLY WITH THE REQUIREMENTS OF IBC ACCESSIBLE UNIT.
2.	GRAB BARS: (PER 2003 ICC/ANSI A117.1) 6a) TYPE "B" UNITS PROVIDE: BLOCKING FOR FUTURE GRAB BARS IN SHOWERS BLOCKING FOR FUTURE SHOWER SEAT BLOCKING FOR FUTURE GRAB BARS AT TOILETS 6b) "TYPE A" UNITS PROVIDE: BLOCKING FOR FUTURE GRAB BARS IN SHOWERS BLOCKING FOR FUTURE SHOWER SEAT BLOCKING FOR FUTURE GRAB BARS AT TOILETS
).	REFER TO SHEET A7.0 FOR ACCESSIBLE MOUNTING AND CLEARANCES INFORMATION.
	ALL FIRE EXTINGUISHER CABINETS SHALL BE IN APPROVED LOCATIONS WITH A MAXIMUM TRAVEL DISTANCE TO EXTINGUISHER TO BE 75 FEET PER I.F.C.
	COMMON PATH OF EGRESS TRAVEL SHALL NOT EXCEED 125' PER 1006.2.1 & 1029.8.
) .	EXIT ACCESS TRAVEL DISTANCE IS 250' WITH SPRINKLERS PER TABLE 1017.2.
ł.	FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED IN THE FIELD WITH SIGNS OR STENCILING PER IBC 703.7
	ALL EXTERIOR WALLS TO BE 1HR RATED U.N.O.

CODE COMPLIANCE SYMBOLS LEGEND



- - - INDICATES ATTIC DRAFTSTOPPING (SEC 708.4.2)

----- INDICATES 1 HOUR FIRE RATED ASSEMBLY (SEC 709)



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ACCESSIBILITY REQUIREMENT ARE IN REFERENCE TO ICC A117-1 2009 BY THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) INDICATION OF GENERAL ACCESSIBILITY REQUIRMENTS ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL

INFORMATION

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SITE PLAN

LEGEN	ND
732	EXISTING CONTOUR
733	PROPOSED CONTOUR
x-734.5	PROPOSED ELEVATION
x-734.5	REVISED PROPOSED PUBLIC WALK
x —734.5	PROPOSED PUBLIC WALK GRADES
x —734.5	PROPOSED PUBLIC WALK GRADES
	PROPOSED PROJECT LIMITS* *ALL WORK OUTSIDE LIMITS SHALL

ŊĨŔŔŢŲ DIAL OR (800) 242-8511

www.DiggersHotline.com HOTLINE

3. STORM WATER MANAGEMENT WILL BE HANDLED BY OFFSITE REGIONAL FACILITY DESIGNED AND INSTALLED BY SEH 4. ALL PROPOSED SIDEWALK MAX 2% CROSS SLOPE. 5. ALL PROPOSED SPOT GRADES ALONG THE CURB ARE AT THE FLANGE LINE. ALL PROPOSED SPOT GRADES ALONG THE FACE OF A RAISED WALK ARE AT THE BOTTOM OF WALK (ASPH.) UNLESS OTHERWISE SPECIFIED.

NOTES: 1. EXISTING CONDITIONS BASED ON PROPOSED DESIGN FROM SEH DEVELOPMENT DISTRICT MASTER PLAN 2. DISTURBED AREA = 1.502 ACRES

> GRADES S – BY OTHERS L BE PERFORMED BY CITY/OTHERS*

S - NO LONGER RELEVANT/REMOVED

GRAPHIC SCALE 1 inch = 30 ft

SITE GRADING PLAN C2.0

ALL WORK OUTSIDE LIMITS SHALL BE PERFORMED BY CITY/OTHERS

SITE UTILITY PLAN

PLANT SCHEDULE

SHADE TREES SMM PSH TF SKH FXE
ORNAMENTAL TREES RHS FSM MS
<u>EVERGREEN TREES</u> IJ EA
DECIDUOUS SHRUBS IBC DD LR HI HL LDN SD2 DHW
EVERGREEN SHRUBS DSY ELY
ORNAMENTAL GRASSES CA4 PV3
PERENNIALS H4 H16 HE2 HO16 HO7 NE3 PL1 SE2

DULE		
COMMON NAME State Street Miyabe Maple Prairie Sentinel Hackberry Turkish Filbert Street Keeper Honey Locust Frontier Elm	BOTANICAL NAME Acer miyabei `Morton` TM Celtis occidentalis `Prairie Sentinel` Corylus colurna Gleditsia triacanthos `Draves` Ulmus x `Frontier`	
<u>COMMON NAME</u> Robin Hill Serviceberry Firespire Musclewood Emerald Spire® Flowering Crabapple	<u>BOTANICAL NAME</u> Amelanchier x grandiflora `Robin Hill` Carpinus caroliniana `Firespire` TM Malus x adstringens 'Jefgreen'	
<u>COMMON NAME</u> Iowa Juniper Emerald Arborvitae	BOTANICAL NAME Juniperus chinensis `Iowa` Thuja occidentalis `Emerald`	
<u>COMMON NAME</u> Iroquois Beauty Black Chokeberry Yuki Cherry Blossom® Deutzia Kodiak® Orange Diervilla Invincibelle Spirit Hydrangea Little Quick Fire Hydrangea Little Devil Dwarf Ninebark Double Play Doozie Spirea Dark Horse Weigela	BOTANICAL NAME Aronia melanocarpa 'Morton' Deutzia x 'NCDX2' Diervilla x 'G2X88544' Hydrangea arborescens `NCHA1` TM Hydrangea paniculata `Little Quick Fire' Physocarpus opulifolius `Little Devil' TM Spiraea x 'NCSX2' TM Weigela florida `Dark Horse`	
<u>COMMON NAME</u> Dense Yew Everlow Yew	<u>BOTANICAL NAME</u> Taxus x media `Densiformis` Taxus x media `Everlow`	
<u>COMMON NAME</u> Karl Foerster Feather Reed Grass Heavy Metal Switch Grass	<u>BOTANICAL NAME</u> Calamagrostis x acutiflora `Karl Foerster` Panicum virgatum `Heavy Metal`	
<u>COMMON NAME</u> Happy Returns Daylily Pardon Me Daylily	<u>BOTANICAL NAME</u> Hemerocallis x `Happy Returns` Hemerocallis x `Pardon Me`	-

Palace Purple Coral Bells

Krossa Regal Hosta

August Moon Hosta

Autumn Fire Sedum

Walkers Low Catmint

Little Spire Russian Sage

Heuchera micrantha `Palace Purple` Hosta nigrescens `Krossa Regal` Hosta x `August Moon` Nepeta x faassenii `Walkers Low` Perovskia x `Little Spire` Sedum spectabile `Autumn Fire`

SIZE 2 1/2" CAL 2 1/2" CAL 2 1/2" CAL 2 1/2" CAL 2 1/2" CAL 2 1/2" CAL	ROOT B&B B&B B&B B&B B&B	REMARKS Full, matching heads Full, matching heads Full and evenly branched Full, matching heads Full and evenly branched	MATURE 50` x 40` 45`x15` 40` x 20` 45` x 20`
<u>SIZE</u> 2" CAL 2" CAL 2" CAL	<u>ROOT</u> B&B B&B	<u>REMARKS</u> Full, matching heads Full, matching heads	<u>MATURE</u> 20` x 12` 20` x 10` 15` x 8`
<u>SIZE</u> 6` HT 6` HT	<u>ROOT</u> B&B B&B	<u>REMARKS</u> Semi-sheared, fully branched to ground Semi-sheared, fully branched to ground	<u>MATURE</u> 15`x6` 20` x5`
<u>SIZE</u> 15" HT 12" HT 15" HT 24" HT 18" HT 24" HT 15" HT 15" HT	ROOT CONT. CONT. CONT. CONT. CONT. CONT. CONT.	<u>REMARKS</u>	MATURE 4` x 5` 2` x 3` 3` x 4` 4` x 4` 4` x 4` 4` x 4` 3` x 3` 3` x 3`
<u>SIZE</u> 18"SPD 18" HT	<u>ROOT</u> CONT. POT	REMARKS	<u>MATURE</u> 4` x 5` 2.5` x 4`
<u>SIZE</u> 1 GAL 1 GAL	<u>ROOT</u> POT POT	REMARKS 24" Spacing 30" Spacing	<u>MATURE</u> 3`-4` 4`-5`
SIZE 4 1/2" 4 1/2" 4 1/2" 4 1/2" 4 1/2"	<u>ROOT</u> POT POT POT POT POT	REMARKS 18" Spacing 18" Spacing 15" Spacing 36" Spacing 24" Spacing	MATURE 1.5` x 2` 1.5` x 2` 2` x 1.5` 3` x 3` 1.5` x 2`

nd Road)5-5938 1 6745 W. Bluemo Brookfield, WI 53((262) 781-1000 E SIZE <u>E SIZE</u> ----raSmith E SIZE <u>E SIZE</u> E SIZE E SIZE E SIZE Z MSP-THE DRIFTLESS LA CROSSE, WI 1.5` x 2` 1` x 2` 30" X 30" 2` x 2` Δ ш **⊿** C **NDS** Ш SIT C COPYRIGHT 2023 R.A. Smith, Inc. DATE: **02/24/23** SCALE: 1" = 20' JOB NO. 3220294 Know what's below. Call before you dig. PROJECT MANAGER: ROB WILLIAMS DESIGNED BY: REW CHECKED BY: REW SHEET NUMBER L100

THIS PLAN IS FOR MUNICIPAL REVIEW ONLY, NOT FOR BIDDING OR CONSTRUCTION PURPOSES. ALL DETAILS AND SPECIFICATIONS WILL BE INCLUDED ON FINAL CONSTRUCTION DRAWINGS.

24" Spacing
 4 1/2"
 POT
 24" Spacing

 4 1/2"
 POT
 18" Spacing

 4 1/2"
 POT
 18" Spacing

 4 1/2"
 POT
 24" Spacing
 GRAPHIC SCALE R.A.SMITH, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH, INC. ALL COPYRIGHTS TO THESE DRAWINGS ARE RESERVED. THEY MAY NOT BE COPIED, CHANGED, OR ASSIGNED TO ANY THIRD PARTY IN ANY MANNER WITHOUT OBTAINING THE EXPRESSED WRITTEN PERMISSION OF R.A.SMITH, INC.

GENERAL LANDSCAPE NOTES

	1. Contractor responsible for contacting public and private underground utility locating service to have site marked prior to any digging or earthwork.
	2. Contractor to verify all plant quantities shown on plant list and verify with plan. Report any discrepancies immediately to general contractor.
	3. All plantings shall comply with standards as described in American Standard of Nursery Stock - ANSI Z60.1 (latest version). General contractor or owner's representative reserves the right to inspect and potentially reject any plants that are inferior, compromised, undersized, diseased, improperly transported, installed incorrectly or damaged.
	4. Any potential plant substitutions must be submitted in writing to the general contractor and approved by the owner's representative or landscape architect prior to installation. All plants must be installed as per sizes and quantities shown on plant material schedule, unless approved by the owner's representative or landscape architect. Any potential changes to sizes shown on plan and appropriate cost credits / adjustments must be submitted in writing to the general contractor and approved by the owner's representative or landscape architect prior to installation.
	5. The subsequent requirements regarding topsoil should be coordinated between the general contractor, grading contractor and landscape contractor.
	6. Subgrade areas shall be graded to within 1", more or less, of proposed subgrade. Deviations shall not be consistent in one direction.
	7. Topsoil shall be placed to meet proposed finished grade. Planting islands to be backfilled with clean topsoil free of debris (per note below) to a minimum depth of by general / grading contractor to insure long term plant health. All other landscaped areas to receive a minimum depth of 3" of clean topsoil (per note below).
	8. Topsoil shall be: screened existing stockpiled topsoil, existing in-place soil, or screened soil from an off-site source that will support plant growth, and meets the following requirements. Clean topsoil shall be free of rocks, coarse fragments, gravel, sticks, trash, roots, debris over 3/4" and any substances harmful to plant growth. It also must be free of plants or plant parts of any noxious weeds. Topsoil shall contain 3 to 5 percent decomposed organic matter and a pH between 5.5 and 7.0.
	9. Planting beds and parking lot islands: Landscape contractor is responsible for ensuring that unwanted material (gravel, debris, roots and other extraneous material harmful to plant growth) has been removed from the topsoil and for the fine grading of all landscaped areas. The fine grading of planting beds and parking lot islar may require additional topsoil to bring to finish grade, allowing for mulch depth. Crown all planting islands and planting beds not adjacent to buildings, a minimum 6" to provide proper drainage, unless otherwise specified. All other finished landscaped areas to be smooth, uniform and provide positive drainage away from structures and pavement.
	10. Seeded areas: to receive a settled minimum depth of 3" of blended, prepared and non-compacted topsoil. Landscape contractor is responsible for excavation and removal of unwanted material (gravel, debris, roots and other extraneous material harmful to plant growth) to the specified depth, supplementing with additional topsoil (if necessary) and the fine grading of all seeded areas.
	11. Tree planting (see planting detail): plant all trees slightly higher than finished grade at root flare. Remove excess soil from top of root ball, if needed. Scarify side walls of tree pit prior to installation. Remove and discard non-biodegradable ball wrapping and support wire. Remove biodegradable burlap and wire cage (if applicable) from top one-third of rootball. Carefully bend remaining wire down to the bottom of hole once the tree has been placed into the hole and will no longer moved. Score the remaining two-thirds of burlap and remove twine. Backfill pit with 75% existing soil removed from excavation and 25% compost blended prior to backfilling holes. Discard any gravel, heavy clay or stones. Avoid any air pockets and do not tamp soil down. When hole is two-thirds full, trees shall be watered thoroughly, and water left to soak in before proceeding.
	Provide a 3" deep, 4 ft. diameter shredded hardwood bark mulch ring around all trees in lawn areas. Do not build up any mulch onto trunk of any tree. Trees that installed incorrectly will be replaced at the time and expense of the landscape contractor. Trees too large for two people to lift in and out of holes, shall be placed with sling. Do not rock the trees in holes to raise them. Stake trees per detail and remove at the end of the one year warranty period.
_	12. Shrub planting (see planting detail): all shrubs to be pocket planted with a mix of 75% existing soil removed from excavation and 25% compost, blended prior to backfilling holes. When hole is two-thirds full, shrubs shall be watered thoroughly and water left to soak in before proceeding.
	13. Mulching: all tree and shrub planting beds to receive a 3" deep layer of high-quality shredded hardwood bark mulch (not enviromulch or wood chips). Mulch shall be uniform in size, color, quality and overall appearance. Mulch shall be free of debris, large wood chunks, soil, rocks, weeds, invasive plant parts or seeds and any other material injurious to plant growth. All perennial and ornamental grass planting areas to receive a 2" layer and groundcover areas a 1-2" layer of the same mulch. Do not mulch annual flower beds (if applicable). Do not allow mulch to contact plant stems and tree trunks.
	14. Edging: edge all planting beds with a 4" deep spaded edge (shovel cut or mechanical). Bedlines are to be cut crisp, as per plan. A clean definition between lawn a and plant bed is required.
	15.Plant bed preparation: the soil in all perennial, ornamental grass, annual and groundcover areas shall be amended with compost prior to plant installation. Spread 2" layer of compost (per note below) on top of clean topsoil and rototill to a depth of approximately 8".
	16. Compost shall be stable, and weed-free organic matter. It shall be resistant to further decomposition and free of compounds, such as ammonia and organic acids, concentrations toxic to plant growth. The compost shall contain no pathogens or other chemical contaminants and meet the requirements of WisDNR S100 Comp Specification.
	17. Lawn installation for all seeded turfgrass areas: remove / kill off any existing unwanted vegetation prior to seeding. Prepare the topsoil and seed bed by removing surface stones 1" or larger and grading lawn areas to finish grade. Apply a starter fertilizer and specified seed, to ensure good seed to soil contact, and provide mulch covering suitable to germinate and establish turf. Provide seed and fertilizer mix information to general contractor prior to installation. Erosion control measures are to be used in swales and on steep grades, where applicable. Methods of installation may vary at the discretion of the landscape contractor on his/h responsibility to establish and guarantee a smooth, uniform, quality turf. If straw mulch is used as a mulch covering, a tackifier may be necessary to avoid wind damage. Marsh hay containing reed canary grass is not acceptable as a mulch covering.
	An acceptable quality turf is defined as having no more than 5% of the total area with bare spots larger than 1/2 square foot and uniform coverage throughout all ta areas.
	18. Seed mix for lawn areas - use only a premium quality seed mix. Premium blend seed mix (or equivalent): 50% blended bluegrass, 25% creeping red fescue, 25% perennial rye applied at 5 lbs per 1,000 SF or at recommended rates from supplier. Provide seed specifications to general contractor prior to installation.
	19. Lawn installation for all sodded turfgrass areas: remove / kill off any existing unwanted vegetation prior to sodding. Prepare the topsoil and sod bed by removing surface stones 1" or larger and grading lawn areas to finish grade, allowing for thickness of sod. Use only premium sod blend according to TPI (revised 1995) and ASPA standards. Install sod uniformly with staggered joints, laid tightly end to end and side to side. Roll sod with a walk behind roller and water immediately upo installation to a 3" depth. Stake any sod installed on steep slopes or in swales, etc. Landscape contractor is responsible to provide a smooth, uniform, healthy tur Landscape contractor shall repair and re-sod any eroded, sunken or bare spots (larger than ½ square foot) until acceptance by owner.
	20. Warranty and replacements: All plants (trees, evergreens, shrubs, perennials, ornamental grasses and groundcovers) shall be warranted by the landscape contractor to be in healthy and flourishing condition for a period of <u>one calendar year after the date of acceptance</u> . This assumes the owner performs required maintenance (i.e. regular watering) after the landscape contractor's maintenance period has been completed. Landscape contractor shall inform owner when required maintenance has concluded. Only one replacement per plant will be required during the warranty period, except for losses or replacements due to failure comply with specified requirements. Replacements shall be plants of the same variety specified on the plan and closely match adjacent specimens in size.
	21. The landscape contractor is responsible for the watering and maintenance of all landscape areas at time of planting and throughout construction until the substant completion of the installation and acceptance by the owner. This includes all trees, evergreens, shrubs, perennials, ornamental grasses, turf grass areas and native seeding areas (if applicable). Work also includes weeding, edging, mulching (only if required), watering, fertilizing, trimming, mowing lawn areas, sweeping up grac clippings, pruning and deadheading.
	22.Project completion: upon substantial completion of the project, the landscape contractor is responsible to conduct a final review with the owner's representative and the general contractor to answer questions and ensure that all specifications have been met. The landscape contractor is to provide watering and general ongoing maintenance instructions (in writing) for the new plantings and lawn to the owner and general contractor.

STRUCTURAL DESIGN CRITERIA

D TO FOR ICATIONS

1.	THESE NOTES SUPPLEMENT THE SPECIFICATIONS. PROJECT SPECIFICATIONS SHALL B CLARIFICATIONS AND ADDITIONAL INFORMATION. IN CASE OF CONFLICT BETWEEN PRO AND THESE NOTES, THESE NOTES SHALL GOVERN.	E REFERRED TO JECT SPECIFICA	FOR TIONS
2.	GOVERNING BUILDING CODE: 2015 IBC AS AMENDED BY THE STATE OF WISCONSIN.		
3.	DESIGN LOADS		
	LIVE LOAD TYPICAL SLAB ON GRADE TOWNHOMES	100 40	psf psf
	ROOF LIVE LOAD SNOW	50 10 10	psf+DRIFTING psf psf
	SNOW LOADS GROUND SNOW (Pg) SNOW LOAD IMPORTANCE FACTOR (ls)	40 1.0 1.0 1.1 25.2	psf
	WIND LOADS BASIC WIND SPEED	115 	mph
	(SEE ASCE/SEI 7-SECTION 6 FOR ZONE DEFINITIONS AND DIAGRAMS) COMPONENT AND CLADDING SELECTED EDGE STRIP DISTANCE, (A)	5.5	ft
	TRIBUTARY WIND LOAD AREAS 10 ft² 20 ft² 10 ROOF (MONOSLOPE): ZONE 1 (NEGATIVE) 22.5 psf 22.3 psf 20.7 ZONE 2 (NEGATIVE) 37.8 psf 36.5 psf 26.3	0 ft² psf psf	
	ZONE 3 (NEGATIVE) 57.0 psf 55.3 psf 41.7 WALLS: ZONE 4 (NEGATIVE) 24.5 psf 23.9 psf 18.7 ZONE 5 (NEGATIVE) 30.2 psf 28.9 psf 18.7 ZONE 4 % 5 (DOSITIVE) 22.5 psf 21.0 psf 16.0	psf psf	
	$\begin{array}{llllllllllllllllllllllllllllllllllll$	II C 0.054 A ATED	
	ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE		
4.	FOUNDATIONS AND EARTHWORK ALLOWABLE SOIL BEARING PRESSURE FOR FOOTINGS MINIMUM SOIL BEARING REQUIRED WITH SOIL IMPROVEMENTS COMPLETED	4,000	psf
5.	CONCRETE MINIMUM 28 DAY COMPRESSIVE STRENGTH (fc) FOOTINGS	4,000 4,000 3,500 4,500 3" 1 1/2"	psi psi psi psi
	CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND	2 1"	nsi
6.	WELDED WIRE FABRIC CONCRETE MASONRY DESIGN STRESSES MASONRY (NORMAL WEIGHT) MEETING ASTM C90 GROUT: MIN COMPRESSIVE STRENGTH AT 28 DAYS MEETING ASTM C476	f'm = 2,250	psi psi
7.	STRUCTURAL STEEL STRUCTURAL STEEL YIELD STRENGTH (Fy) TUBES	46,000	psi psi
	WF COLUMNS	50,000 DIAMETER A325 DIAMETER A325 F1554 E70	μsi

8. MISCELLANEOUS

VERIFY OPENINGS THROUGH FLOOR AND WALLS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL REQUIREMENTS. CHANGES IN SIZE, LOCATION OR NUMBER OF OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. NOT ALL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS. GENERAL

1. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING SUCH REQUIREMENTS INTO THE SHOP DRAWINGS AND WORK.

2. NO OPENING SHALL BE MADE IN ANY STRUCTURAL BEAM, COLUMN, SUPPORT FLOOR, LOAD BEARING WALL, FOOTING, OR FOUNDATION WALL WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT/ ENGINEER. OPENINGS IN NON-LOAD BEARING WALLS REQUIRE THE ARCHITECT'S APPROVAL.

3. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON NEW STRUCTURAL FRAMING. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.

4. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES. THE STRUCTURAL ENGINEER ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION.

5. FIREPROOFING METHODS AND MATERIALS FOR STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR RATING REQUIREMENTS, FIREPROOFING METHODS AND MATERIALS.

6. ALL SECTIONS, DETAIL AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE NOTED.

7. WHEN CONFLICTS ARE NOTED ON THE DRAWINGS, THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE A/E FOR RESOLUTION PRIOR TO FABRICATION OR INSTALLATION.

FOUNDATION NOTES

- 1. GEOTECHNICAL INFORMATION TAKEN FROM:
- TO OVERSEE THE TESTING AND COMPACTION OF COMPACTED FILL MATERIAL. NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
- 4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ANY EXISTING FOUNDATIONS.
- . BEFORE PLACING FOOTINGS, FOUNDATIONS, GRADE BEAMS, OR SLAB-ON-GRADE, THE SUB-GRADE SHALL BE PREPARED AND INSPECTED AS REQUIRED BY THE SPECIFICATIONS AND THE DRAWINGS.
- REINFORCE ALL FOUNDATION WALLS AND FOOTINGS AS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- . CONTROL JOINTS IN THE CAST-IN-PLACE CONCRETE FOUNDATION WALLS SHALL BE PLACED AT NOT TO EXCEED 20' OC OR AS LOCATED ON THE DRAWINGS.
- 8. PERIMETER FOUNDATION WALL INSULATION IS NOT SHOWN ON THE FOUNDATION DETAILS. SEE ARCHITECTURAL DRAWINGS AND THE SPECIFICATIONS FOR INSULATION REQUIREMENTS.
- 9. SEE SPECIFICATIONS FOR FREE DRAINING BACKFILL BENEATH ALL CONCRETE WALKS AND SLABS ADJACENT TO STRUCTURE. 10. CONTRACTOR NOTE: THE BASE OF ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER AND LOOSE SOIL PRIOR
- TO PLACING CONCRETE. CARE SHOULD BE TAKEN DURING EXCAVATION AND CONSTRUCTION TO MINIMIZE DISTURBANCE OF THE BEARING SOILS. THE CONCRETE SHOULD BE PLACED AS SOON AS POSSIBLE AFTER EXCAVATION TO PREVENT EXCESSIVE DRYING OR WETTING OF THE SOIL.

CONCRETE CONSTRUCTION NOTES

- 1. ALL CONCRETE DESIGN AND CONSTRUCTION SHALL CONFORM WITH THE LOCAL BUILDING CODE REQUIREMENTS AND THOSE OF THE FOLLOWING STANDARDS (LATEST EDITION): "ACI 318, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" "ACI 315, DETAILS AND DETAILING OF CONCRETE REINFORCEMENT". "ACI 301. SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS". "ACI 307, RECOMMENDED PRACTICE FOR CONCRETE FORMWORK".
- 2. SEE SPECIFICATIONS FOR INFORMATION REGARDING CONCRETE MIX DESIGN, TESTING, MATERIALS, AND ADMIXTURES.
- 3. ALL CONCRETE REINFORCING STEEL IS TO BE ASTM A-615, GRADE 60. 4. PIPE SLEEVES OVER 1-1/2" INCHES IN DIAMETER WHICH PASS THROUGH CONCRETE WALLS OR SLABS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE. ALL OTHER SLEEVES SHALL BE 14 GAUGE SHEET METAL. SLEEVES SHALL BE ONE SIZE LARGER THAN OUTSIDE DIAMETER OF PIPE PASSING THROUGH SLEEVE. VERIFY SIZE AND NUMBER WITH MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS.
- 5. ALUMINUM CONDUIT IS NOT PERMITTED TO BE EMBEDDED IN CONCRETE.
- 6. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES.
- 7. THE CONSTRUCTION JOINTS NOTED ON THE FRAMING PLANS MUST BE PLACED AS SHOWN. ADDITIONAL CONSTRUCTION JOINTS OR MODIFICATIONS TO THOSE SHOWN WILL BE ALLOWED ONLY AFTER THEIR LOCATION HAS BEEN APPROVED BY THE ARCHITECT/ENGINEER.
- 8. REFER TO ARCHITECTURAL DRAWINGS FOR SLAB-ON-GRADE FINISH TYPES AND DEPRESSIONS AS REQUIRED FOR MATS, TILES, SLAB FLATNESS TOLERANCE, AND OTHER FINISH MATERIALS.
- 9. LAP WWF REINFORCEMENT A DIMENSION EQUAL TO THE WIRE SPACING PLUS 2" (6" MIN).

MINIMUM

14. ALL TRUSSES EXPOSED DIRECTLY TO MOISTURE SHALL BE MADE OF PRESSURE TREATED LUMBER.

WOOD TRUSS NOTES

- 1. TRUSS FABRICATOR SHALL DESIGN TRUSSES FOR LOADS SPECIFIED ON PLANS IN CONFORMANCE WITH "QUALITY CONTROL MANUAL" BY TPI. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DEAD LOADS RESULTING FROM DORMERS AND OTHER MISCELLANEOUS FRAMING. ALL TRUSSES SHALL BE DESIGNED FOR A MINIMUM OF 30 PSF LIVE LOAD PLUS 10 psf DEAD LOAD.
- 2. LIVE LOAD IS ON A HORIZONTAL PROJECTION OTHER LIVE LOADS SHOWN ON THE DRAWINGS ARE IN ADDITION TO THESE DESIGNATED LOADS.
- 3. CHECK VERTICALLY PROJECTED ELEMENTS FOR DESIGN WIND LOAD.
- 4. DESIGN TRUSSES TO RESIST A NET UPLIFT OF 10 PSF.
- 5. SUBMIT SHOP DRAWINGS AND CALCULATIONS PRIOR TO FABRICATION.
- 6. CONFORM TO NDS AND TPI SPECIFICATIONS. 7. FLOOR TRUSS LL DEFLECTION SHALL NOT EXCEED L/480.
- 8. ROOF TRUSS LL DEFLECTION SHALL NOT EXCEED L/360. 9. PERMANENT BRACING NOT SHOWN ON PLANS, WHICH IS REQUIRED FOR STRENGTH AND STABILITY OF TRUSS
- MEMBERS, SHALL BE DESIGNED AND PROVIDED BY TRUSS SUPPLIER. 10. ALL BRACING SHOWN OR DESCRIBED SHALL BE MINIMUM (2x4 W/(2) 16d) (2x6 W/(3) 10d) IN EVERY TRUSS IT
- CROSSES. 11. ALL TRUSS TOP CHORDS SHALL BE CONTINUOUSLY BRACED BY THE (ROOF/FLOOR) DECKING. ALL ROOF TRUSS
- WEB MEMBERS SHALL BE BRACED AT 4'-0" OC UNLESS CALCULATIONS SHOW OTHERWISE.
- 12. TEMPORARY BRACING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. PROVIDE IN ACCORDANCE WITH TPI GUIDELILNES.

- 13. PROVIDE 24" WIDE VIERENDEEL PANEL AT CENTER OF EACH PARALLEL CHORD TRUSS.

2. THE OWNER SHALL RETAIN A SOILS ENGINEERING FIRM TO MONITOR PROPER SUBGRADE PREPARATIONS AND

3. CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES BEFORE FOUNDATION EXCAVATION IF UNDERGROUND UTILITY CONFLICTS ARE DISCOVERED BEFORE OR ENCOUNTERED DURING EXCAVATION,

ASSOCIATION.

2. DESIGN, FABRICATION AND CONSTRUCTION OF ALL PLYWOOD FRAMING SHALL CONFORM TO "PLYWOOD DESIGN SPECIFICATIONS", LATEST EDITION, AS PUBLISHED BY THE AMERICAN PLYWOOD ASSOCIATION. ALL PRESSURE TREATED.

WOOD FRAMING NOTES

COLUMNS SHOWN ON STRUCTURAL DRAWINGS SHALL BE CONTINUOUS UNLESS NOTED. 3. 4. SILLS AND MEMBERS EXPOSED DIRECTLY TO MOISTURE OR IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE

1. DESIGN, FABRICATION AND CONSTRUCTION SHALL CONFORM TO THE "NATIONAL DESIGN SPECIFICATION FOR

WOOD CONSTRUCTION", LATEST EDITION, AS RECOMMENDED BY THE NATIONAL LUMBER MANUFACTURER'S

- 3. PLYWOOD SHALL CONFORM TO THE LATEST EDITION OF U.S. PRODUCT STANDARD PS-1. INSTALL IN STAGGERED PATTERN. NAIL AS REQUIRED FOR DIAPHRAGM ACTION.
- 4. FRAMING CONNECTIONS SHALL BE SIMPSON COMPANY OR EQUAL, OF THE CATALOG DESIGNATIONS INDICATED. INSTALL MANUFACTURERS STANDARD NAILS IN ALL HOLES PROVIDED UNLESS OTHERWISE NOTED.
- 5. SHEAR PLATE AND SPLIT RING FASTENERS SHALL BE TECO OR APPROVED EQUAL. 6. NAILS SHALL BE STRONGHOLD, GALVANIZED COMMON NAILS OF THE SIZES INDICATED, EXCEPT THAT
- GALVANIZED SIDING NAILS SHALL BE USED FOR THE ATTACHMENT OF EXTERIOR PLYWOOD SIDING.

ROUND MALLEABLE IRON OR SQUARE CUT STEEL WASHERS 1/4" THICK x 3 FASTENER DIAMETERS.

11. ALL TIMBER FRAMING SHALL BE ACCURATELY CUT, NOTCHED, OR DAPPED AS INDICATED. NO OVERCUT IS PERMITTED FOR NOTCHES OR DAPS. MEMBERS SHALL FIT TIGHT AND TRUE. EXAMINE MEMBERS FOR

- 7. WHERE NOT NOTED OTHERWISE, NAILING SHALL BE ACCORDING TO NAILING SCHEDULE IN TABLE 2304.9.1 IBC.
- 8. ALL BOLTS AND LAG SCREWS SHALL BE AMERICAN STANDARD MANUFACTURE.

PLATES OCCUR, THEY SHALL BE USED AS THE TEMPLATE FOR BORING HOLES.

18. PLYWOOD PANEL EDGES SHALL BE NAILED NOT LESS THAN 3/8" IN FROM THE PANEL EDGE.

HEAVY COATS OF THE SAME PRESERVATIVE AS THE ORIGINAL TREATMENT.

13. PROVIDE SOLID BLOCKING AT MID-HEIGHT OF ALL WALLS.

16. PROVIDE SOLID BLOCKING BETWEEN JOISTS AT ALL SUPPORTS.

ON CENTER.

OF BEAM.

17. SET ALL JOISTS WITH CROWN UP.

SPACERS TO MAINTAIN GAPS.

3/8" DIAMETER UNLESS OTHERWISE INDICATED.

9. BOLT HOLES IN WOOD SHALL BE DRILLED 1/16" MAXIMUM OVERSIZE. HOLES FOR SCREWS AND LAG SCREWS SHALL BE FIRST BORED FOR THE SAME DEPTH AND DIAMETER OF THE SHANK THEN THE REMAINDER OCCUPIED BY THE THREADED PORTION SHALL BE BORED NOT LARGER IN DIAMETER THAN THE ROOT OF THE THREAD. ALL SCREWS SHALL BE SCREWED, NOT DRIVEN INTO PLACE. 10. PROVIDE WASHERS UNDER ALL NUTS AND HEADS OF BOLTS AND LAG SCREWS, WASHERS SHALL BE EITHER

DETRIMENTAL DAMAGE BEFORE INSTALLATION, AND AVOID NATURAL DEFECTS AT CONNECTIONS. WHERE STEEL

12. WHEREVER NECESSARY TO CUT OR DRILL TREATED LUMBER, TREAT THE CUT OR BORED SURFACES WITH TWO

14. PROVIDE SOLID BLOCKING AT MID-SPAN OF SAWN JOISTS EXCEEDING 10 FOOT SPAN AND AT 10 FOOT MAXIMUM

15. MEMBERS BEARING ON CONCRETE OR MASONRY WALLS SHALL HAVE A 1/2" AIR SPACE AROUND SIDES AND END

19. PROVIDE 1/4" GAP BETWEEN 4' x 8' PLYWOOD PANELS AT SIDES AND 1/8" GAP AT ENDS. USE PLYWOOD CLIP

20. BOLT NAILERS AND BLOCKING TO STEEL, MASONRY, OR CONCRETE MEMBERS WITH BOLTS OF LENGTH

REQUIRED SPACED 2'-0" OC AND 4" FROM EACH END, EXCEPT AS OTHERWISE NOTED. ANCHOR BOLTS SHALL BE

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Contractors are responsible for the means, methods, techniques, sequences and procedures of construction including, but not limited to, temporary supports, shoring, forming to support imposed loads and other similar items.

MSP - THE DRIFTLESS TOWNHOUSES

La Crosse, WI

DATE OF ISSUE

04/14/2023

WALL FOOTING SCHEDULE					
	CONTINU	OUS FOOTING DIMENSIONS			
MARK	WIDTH	THICKNESS	FOOTING REINFORCEMENT	REMARKS	
W20	2' - 0"	1' - 0"	(x) #X; B, CONT		

SPREAD FOOTING SCHEDULE					
	FOOTING DIMENSIONS				
MARK	LENGTH	WIDTH	THICKNESS	FOOTING REINFORCEMENT	REMARKS

	CONCRETE PIER SCHEDULE					
RK	PIER DIMENSIONS		REINFORCEMENT		REMARKS	
			VERTICAL	TIES		
	24" DIAM X 5'-0" DEEP	4	(8) #6	#3 TIES AT 12" OC		

PIER NOTES 1. PIERS TO BE CENTERED ON BUILDING GRID LINE(S) UNLESS OTHERWISE NOTED.

PIER TYPES

<u>ABBF</u>	REVIATION LIST
AB	ANCHOR BOLT (ROD)
AHU ALT	AIR HANDLING UNIT
ARCH	ARCHITECTURAL
BLDG BRG	BUILDING BEARING
BP(##)	BASE PLATE CALL-OUT
CF CIP	COLD-FORMED CAST-IN-PLACE
CJ	
CLR	CLEAR (DISTANCE)
CMU	
CONC	CONCRETE
CONT DBA	CONTINUOUS DEFORMED BAR ANCHOR
DEMO	DEMOLITION / DEMOLISH
DWG	DRAWING
EOD	EDGE OF DECK
EF	EACH FACE
EJ FI FV	EXPANSION JOINT FLEVATION
EQ	EQUAL
EW EWEF	EACH WAY EACH WAY EACH FACE
EXP	EXPANSION
EXTG	EXIERIOR
FD	
FV	FIELD VERIFY
F(##) GA	FOOTING CALL-OUT GAUGE
GALV	GALVANIZED
GC GLULAM	GENERAL CONTRACTOR GLUE-LAMINATED BEAM(S)
HK	HOOK
HP	HIGH POINT
HWS IF	HEADED WELDED STUD(S)
INT	
JBE LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LTWT	LIGHTWEIGHT
LVL LW	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MECH	MANUFACTURER
MIN	
NA	NOT APPLICABLE
NTS OC	NOT TO SCALE ON CENTER
OF	OUTSIDE FACE
OPNG OPP	OPENING OPPOSITE
PC	PRECAST / PRESTRESSED
PDF	POUNDS PER CUBIC NOT
PL PI F	PLATE POUNDS PER LINEAR FOOT
PROJ	PROJECTION
PSF PSI	POUNDS PER CUBIC FOOT POUNDS PER SQUARE INCH
PT	PRE (POST) -TENSIONED
RD	ROOF DRAIN
REINF RTU	REINFORC(ED)(ING) ROOF TOP UNIT
SIM	SIMILAR
SOG SPA	SLAB-ON-GRADE SPAC(ES)(ED)(ING)
SPEC	SPECIFICATION(S)
SS	STAINLESS STEEL
SW TL	SHORT WAY TOP OF LEDGE
	TOP OF PIER
TYP	TYPICAL
UNO VERT	UNLESS NOTED OTHERWISE
WP	WORKING POINT
WWF	WELDED WIRE FABRIC

FOUNDATION LEGEND

NEW COLUMN GRID MARK
TOP OF FOOTING ELEVATION
CONCRETE PIER MARK 100'-0"
TOP OF PIER ELEVATION
TOP OF WALL FOOTING
TOP OF LEDGE ELEVATION TW = 100'-0"
TOP OF WALL ELEVATION 있니
STRIP FOOTING MARK
WALL FOOTING STEP MARKER
SLAB-ON-GRADE JOINT
TOP OF EXISTING WALL FOOTING ELEVATION
MASONRY WALL AND CONCRETE FOOTING

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- 1. SEE S800 FOR TYPICAL DETAILS AND S001 FOR DESIGN CRITERIA
- 2. REQUIRED MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 4000 PSF AT S.O.G.
- 3. TYPICAL WHERE SLAB ABUTS COLUMN OR WALL, PROVIDE 1" x SLAB WIDTH ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISHED SLAB ELEVATION.
- 4. OVER EXCAVATION MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING
- SOIL.
- 5. AVOID SITUATIONS WHERE CONTROL JOINTS ARE DISCONTINUOUS ACROSS AN ADJACENT JOINT BUT WHERE ABSOLUTELY NECESSARY, PROVIDE (2) #4 x 5'-0" LONG BARS IN UNBROKEN SLAB AT THIS T-INTERSECTION WITH THE UNDERSTANDING THAT BARS WILL LIMIT CRACK WIDTH BUT NO PREVENT IT.
- 6. JOINT SPACING 2 TO 3 TIMES THE SLAB THICKNESS (INCHES) AS FEET ON CENTER (MAXIMUM ON 12'-0" ON CENTER). RESULTING PANEL ASPECT RATIO LESS THAN 1.5 AND ACUTE ANGLES LESS THAN 45 DEGREES AVOIDED. SEE 6/S800 FOR JOINT INFORMATION.
- 7. AT RE-ENTRANT CORNERS THAT DO NOT HAVE CONTROL JOINTS (2) #4 x 5'-0" LONG BARS CENTERED IN SLAB, DIAGONAL TO CORNER PROVIDED.

WOOD FRAMING NOTES:

- 1. GENERAL NOTES APPLY TO ALL SHEETS. SEE SHEET S001
- 2. PROVIDE SQUASH BLOCKS AT CONCENTRATED LOADS PER MANUFACTURER'S
- RECOMMENDATIONS. 3. MULTIPLE PLY BEAMS ARE TO BE FASTENED TOGETHER PER THE MANUFACTURER'S
- GUIDANCE. 4. ALL STUDS SHALL BE 2x SPF #2. SEE BEARING WALL SCHEDULE
- 5. PROVIDE (4) 14" LVL STAIR STRINGERS EQUALLY SPACED. TYP AT EACH STAIR RUN.

5 psf

FLOOR FRAMING PLAN NOTES DEAD LOAD

DEAD LOAD (DECKS) LIVE LOAD (UNITS)

> GRADE: NAILING:

35 psf INCLUDING PARTITION 10 psf 40 psf AT UNITS

40 psf AT UNITS

LIVE LOAD (UNIT DECKS) ASSUMED JOIST DEAD LOAD DEFLECTION CRITERIA STRUCTURAL FLOOR PANELS:

NOMINAL THICKNESS: EXPOSURE RATING:

DL+LL = L/240 LL = L/360 SPAN RATING 48/24 23/32 EXP 1

TONGUE AND GROOVE OSB FLOOR SHEATHING 10d AT 6" OC AT EDGES AND **12" OC AT INTERMEDIATE** FRAMING MEMBERS.

- SHEAR WALL SCHEDULE SW1 = 7/16" OSB BLOCKED, 8D NAILS AT 4" OC AT EDGES AND 6" OC AT
- INTERMEDIATE STUDS. USE SIMPSON CMSTC16 STRAP TIES AT EACH END OF SHEAR WALL ON THE

UPPER FLOORS. USE TRIPLE STUD AT EACH END OF SHEAR WALL ON THE 1ST FLOOR.

★ = USE SIMPSON HDU8-SDS2.5 HOLDOWN ANCHORS AT EACH END OF SW ON 1ST FLOOR.

CONNECT TO PRECAST WITH 1/2" THROUGH BOLTS AT 48" OC W/3" DIA. WASHER. SW ARE TO EXTEND THROUGH FLOOR TRUSS SPACE W/SOLID BLOCKING

ALIGNED WITH STUDS. OSB SHEATHING TO RUN UP TO DECK ABOVE ON TRUSS ABOVE WALL OR INSTALL SOLID RIM JOIST BLOCKING FULL HEIGHT OF TRUSS CAVITY ABOVE ALL SHEAR WALLS THAT RUN PERPENDICULAR TO THE TRUSSES.

SW2 = 8" CMU WITH #4 VERT AT 48" OC

BEAM & HEADER SCHEDULE						
		017E		BEARING (EA. END) MATCH BEARING WALL GRADE UN		
	WARK	SIZE		FIRST FLOOR	SECOND FLOOR	
	S1	(2) 1 3/4" x 9 1/4"	LVL	4K/2S	3K/2S	
	S 2	(2) 2x10	SPF #2	2K/1S	2K/1S	
	S3	(2) 1.75 x 11 7/8"	LVL	4K/2S	3K/2S	
	S4	(2) 1.75" x 14"	LVL	(3) 2x6 SPF #2	(2) 2x6 SPF #2	
	S5	(3) 2x10	TREATED SPF #2	6X6 TREATED SEE NOTE 1		
	S6	(3) 2x10	CEDAR	(3) 2x6 SPF #2	(2) 2x6 SPF #2	

NOTES: 1. PROVIDE PB66 POST BASE AND PC67 POST CAP

ROOF FRAMING NOTES:

- 1. PROVIDE SQUASH BLOCKS AT CONCENTRATED LOADS PER MANUFACTURER'S RECOMMENDATIONS.
- 2. SECURE ROOF TRUSSES AT EACH BEARING WITH SIMPSON H2.5T MIN.
- 3. TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOAD: TOP CHORD: LIVE LOAD=25.2 PSF, DEAD LOAD=10 psf. BOTTOM CHORD: LIVE LOAD=10 psf, DEAD LOAD=10 psf. TRUSS DESIGNER TO ANALYZE TRUSSES FOR AN UNBALANCED ROOF SNOW LOAD PER DIAGRAM:
- 4. TRUSS SUPPLIER SHALL DESIGN AND SUPPLY ALL TRUSS TO TRUSS AND TRUSS TO BEARING CONDITIONS FOR BOTH GRAVITY AND UPLIFT CONDITIONS.
- 5. GIRDER TRUSSES ARE NOTED ON THE PLAN BUT DO NOT INDICATE THE NUMBER OF PLY'S. TRUSS DESIGNER TO DETERMINE NUMBER OF PLY'S REQUIRED TO CARRY THE APPROPRIATE LOADING AND TO PREVENT CRUSHING OF ANY BEARING PLATES. GIRDER TRUSSES TO BEAR AT LOCATIONS NOTED ON PLANS.
- 6. NO ROOF TOP EQUIPMENT PERMITTED
- 7. NO SOLAR PANELS PERMITTED
- 8. ROOF TRUSSES ARE DESIGNED BY OTHERS
- 9. VERIFY ROOF TRUSS SPACING WITH TRUSS DESIGNER
- 10. BLOCK SOLID ALL GIRDER TRUSS BEARING LOCATIONS DOWN TO THE PRECAST OR

FOUNDATION **ROOF FRAMING PLAN NOTES** ROOF LIVE LOAD 20.0 psf GROUND SNOW LOAD SLOPED ROOF SNOW LOAD ROOF CUT FLAT ROOF SNOW LOAD SNOW EXPOSURE FACTOR SNOW LOAD IMPORTANCE FACTOR 1.0 THERMAL FACTOR DEFLECTION CRITERIA: DL+LL = L/240 STRUCTURAL ROOF PANELS SPAN RATING: NOMINAL THICKNESS: EXPOSURE RATING:

GRADE: NAILING:

40.0 psf 25.2 psf SEE ARCH 25.2 1.0 1.1

LL = L/360

24/16 5/8 EXP 1 **OSB SHEATHING**

8D AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS.

2

ROOF FRAMING - BUILDING C

- 1. SEE S800 FOR TYPICAL DETAILS AND S001 FOR DESIGN CRITERIA.
- 2. REQUIRED MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 4000 PSF AT S.O.G.
- 3. TYPICAL WHERE SLAB ABUTS COLUMN OR WALL, PROVIDE 1" x SLAB WIDTH ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISHED SLAB ELEVATION.
- 4. OVER EXCAVATION MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING
- SOIL.
- 5. AVOID SITUATIONS WHERE CONTROL JOINTS ARE DISCONTINUOUS ACROSS AN ADJACENT JOINT BUT WHERE ABSOLUTELY NECESSARY, PROVIDE (2) #4 x 5'-0" LONG BARS IN UNBROKEN SLAB AT THIS T-INTERSECTION WITH THE UNDERSTANDING THAT BARS WILL LIMIT CRACK WIDTH BUT NO PREVENT IT.
- 6. JOINT SPACING 2 TO 3 TIMES THE SLAB THICKNESS (INCHES) AS FEET ON CENTER (MAXIMUM ON 12'-0" ON CENTER). RESULTING PANEL ASPECT RATIO LESS THAN 1.5 AND ACUTE ANGLES LESS THAN 45 DEGREES AVOIDED. SEE 6/S800 FOR JOINT INFORMATION.
- 7. AT RE-ENTRANT CORNERS THAT DO NOT HAVE CONTROL JOINTS (2) #4 x 5'-0" LONG BARS CENTERED IN SLAB, DIAGONAL TO CORNER PROVIDED.

WOOD FRAMING NOTES:

- 1. GENERAL NOTES APPLY TO ALL SHEETS. SEE SHEET S001
- 2. PROVIDE SQUASH BLOCKS AT CONCENTRATED LOADS PER MANUFACTURER'S
- RECOMMENDATIONS. 3. MULTIPLE PLY BEAMS ARE TO BE FASTENED TOGETHER PER THE MANUFACTURER'S
- GUIDANCE. 4. ALL STUDS SHALL BE 2x SPF #2. SEE BEARING WALL SCHEDULE
- 5. PROVIDE (4) 14" LVL STAIR STRINGERS EQUALLY SPACED. TYP AT EACH STAIR RUN.

FLOOR FRAMING PLAN NOTES

DEAD LOAD DEAD LOAD (DECKS) LIVE LOAD (UNITS)

DEFLECTION CRITERIA

GRADE:

NAILING:

STRUCTURAL FLOOR PANELS:

NOMINAL THICKNESS:

EXPOSURE RATING:

35 psf INCLUDING PARTITION 10 psf 40 psf AT UNITS

LIVE LOAD (UNIT DECKS) 40 psf AT UNITS ASSUMED JOIST DEAD LOAD

5 psf DL+LL = L/240LL = L/360 SPAN RATING 48/24

23/32 EXP 1

- TONGUE AND GROOVE OSB FLOOR SHEATHING 10d AT 6" OC AT EDGES AND 12" OC AT INTERMEDIATE FRAMING MEMBERS.
- SHEAR WALL SCHEDULE SW1 = 7/16" OSB BLOCKED, 8D NAILS AT 4" OC AT EDGES AND 6" OC AT

INTERMEDIATE STUDS. USE SIMPSON CMSTC16 STRAP TIES AT EACH END OF SHEAR WALL ON THE

UPPER FLOORS. USE TRIPLE STUD AT EACH END OF SHEAR WALL ON THE 1ST FLOOR.

★ = USE SIMPSON HDU8-SDS2.5 HOLDOWN ANCHORS AT EACH END OF SW ON 1ST FLOOR.

CONNECT TO PRECAST WITH 1/2" THROUGH BOLTS AT 48" OC W/3" DIA. WASHER. SW ARE TO EXTEND THROUGH FLOOR TRUSS SPACE W/SOLID BLOCKING

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SW2 = 8" CMU WITH #4 VERT AT 48" OC

	BEAM & HEADER SCHEDULE					
MADK	SIZE		BEARING (EA. EN	BEARING (EA. END) MATCH BEARING WALL		
	SIZE	MATERIAL	FIRST FLOOR	SECOND FLOOR		
S1	(2) 1 3/4" x 9 1/4"	LVL	4K/2S	3K/2S		
S2	(2) 2x10	SPF #2	2K/1S	2K/1S		
S3	(2) 1.75 x 11 7/8"	LVL	4K/2S	3K/2S		
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S5	(3) 2x10	TREATED SPF #2	6X6 TREATED SEE NOTE 1			
S6	(3) 2x10	CEDAR	(3) 2x6 SPF #2	(2) 2x6 SPF #2		

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FOUNDATION ROOF FRAMING PLAN NOTES ROOF LIVE LOAD 20.0 psf GROUND SNOW LOAD 40.0 psf SLOPED ROOF SNOW LOAD 25.2 psf ROOF CUT SEE ARCH FLAT ROOF SNOW LOAD SNOW EXPOSURE FACTOR 25.2 1.0 SNOW LOAD IMPORTANCE FACTOR 1.0 THERMAL FACTOR 1.1 DEFLECTION CRITERIA: DL+LL = L/240 STRUCTURAL ROOF PANELS SPAN RATING: 24/16 NOMINAL THICKNESS: 5/8 EXPOSURE RATING: GRADE: NAILING:

LL = L/360

EXP 1 **OSB SHEATHING** 8D AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS.

TW = 100' - 0"-----TL= 99' - 10"-----96' - 0" 1 \$800

_ GRADE UNC

3)-

FOUNDATION PLAN - BUILDING D

2 SECOND FLOOR FRAMING - BUILDING D

0 2' 4' 8' 12'

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MSP - THE DRIFTLESS TOWNHOUSES

La Crosse, WI

2/24/23

Addendum A Addendum B 03/10/2023 04/26/2023

- 1. SEE S800 FOR TYPICAL DETAILS AND S001 FOR DESIGN CRITERIA.
- 2. REQUIRED MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 4000 PSF AT S.O.G.
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- SOIL.
- 5. AVOID SITUATIONS WHERE CONTROL JOINTS ARE DISCONTINUOUS ACROSS AN ADJACENT JOINT BUT WHERE ABSOLUTELY NECESSARY, PROVIDE (2) #4 x 5'-0" LONG BARS IN UNBROKEN SLAB AT THIS T-INTERSECTION WITH THE UNDERSTANDING THAT BARS WILL LIMIT CRACK WIDTH BUT NO PREVENT IT.
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- 5. PROVIDE (4) 14" LVL STAIR STRINGERS EQUALLY SPACED. TYP AT EACH STAIR RUN.

FLOOR FRAMING PLAN NOTES DEAD LOAD DEAD LOAD (DECKS)

LIVE LOAD (UNITS)

NAILING:

35 psf INCLUDING PARTITION 10 psf 40 psf AT UNITS

40 psf AT UNITS

LIVE LOAD (UNIT DECKS) ASSUMED JOIST DEAD LOAD DEFLECTION CRITERIA

DL+LL = L/240 STRUCTURAL FLOOR PANELS:

5 psf

NOMINAL THICKNESS: EXPOSURE RATING: GRADE:

LL = L/360 SPAN RATING 48/24 23/32 EXP 1

TONGUE AND GROOVE OSB FLOOR SHEATHING 10d AT 6" OC AT EDGES AND **12" OC AT INTERMEDIATE** FRAMING MEMBERS.

SHEAR WALL SCHEDULE SW1 = 7/16" OSB BLOCKED, 8D NAILS AT 4" OC AT EDGES AND 6" OC AT

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SW2 = 8" CMU WITH #4 VERT AT 48" OC

BEAM & HEADER SCHEDULE				ILE		
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S3	(2) 1.75 x 11 7/8"	LVL	4K/2S	3K/2S		
S4	(2) 1.75" x 14"	LVL	(3) 2x6 SPF #2	(2) 2x6 SPF #2		
S5	(3) 2x10	TREATED SPF #2	6X6 TREATED SEE NOTE 1			
S6	(3) 2x10	CEDAR	(3) 2x6 SPF #2	(2) 2x6 SPF #2		

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FOUNDATION ROOF FRAMING PLAN NOTES ROOF LIVE LOAD 20.0 psf GROUND SNOW LOAD SLOPED ROOF SNOW LOAD ROOF CUT FLAT ROOF SNOW LOAD SNOW EXPOSURE FACTOR SNOW LOAD IMPORTANCE FACTOR THERMAL FACTOR DEFLECTION CRITERIA: DL+LL = L/240 STRUCTURAL ROOF PANELS SPAN RATING: NOMINAL THICKNESS: EXPOSURE RATING: GRADE:

NAILING:

40.0 psf 25.2 psf SEE ARCH 25.2 1.0 1.0 1.1

LL = L/360

24/16 5/8 EXP 1 **OSB SHEATHING**

8D AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS.

TW = 100' - 0"-TL= 99' - 10"-1'-0" 96' - 0" -TW = 99' - 4"— 96' - 0" TW = 100' - 0" TL= 99' - 10"----TW = 99' - 4"-++ \$800 TW = 100' - 0"-+++ က် TL= 99' - 10" <mark>- '</mark>စီ TW = 99' - 4"-----₹ | TW = 100' - 0"----က် TL= 99' - 10" - 🖊 TW = 99' - 4"----└───TL= 99' - 10" _____TW = 100' - 0"

FOUNDATION PLAN - BUILDING E SCALE: 1/8" = 1'-0"

SECOND FLOOR FRAMING - BUILDING E

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MSP - THE DRIFTLESS TOWNHOUSES

La Crosse, WI

0 2' 4' 8' 12'

2/24/23

DATE OF ISSUE

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- GUIDANCE. 4. ALL STUDS SHALL BE 2x SPF #2. SEE BEARING WALL SCHEDULE
- 5. PROVIDE (4) 14" LVL STAIR STRINGERS EQUALLY SPACED. TYP AT EACH STAIR RUN.

FLOOR FRAMING PLAN NOTES

DEAD LOAD DEAD LOAD (DECKS) LIVE LOAD (UNITS)

> GRADE: NAILING:

35 psf INCLUDING PARTITION 10 psf 40 psf AT UNITS

40 psf AT UNITS

LIVE LOAD (UNIT DECKS) ASSUMED JOIST DEAD LOAD DEFLECTION CRITERIA

5 psf DL+LL = L/240LL = L/360 SPAN RATING 48/24

STRUCTURAL FLOOR PANELS: NOMINAL THICKNESS: EXPOSURE RATING:

23/32 EXP 1

TONGUE AND GROOVE OSB FLOOR SHEATHING 10d AT 6" OC AT EDGES AND **12" OC AT INTERMEDIATE** FRAMING MEMBERS.

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SW2 = 8" CMU WITH #4 VERT AT 48" OC

	BEAM & HEADER SCHEDULE				
MADK	OLZE		BEARING (EA. EN	ID) MATCH BEARING	WALL
	SIZE		FIRST FLOOR	SECOND FLOOR	
S1	(2) 1 3/4" x 9 1/4"	LVL	4K/2S	3K/2S	
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S5	(3) 2x10	TREATED SPF #2	6X6 TREATED SEE NOTE 1		
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FOUNDATION ROOF FRAMING PLAN NOTES ROOF LIVE LOAD 20.0 psf GROUND SNOW LOAD 40.0 psf SLOPED ROOF SNOW LOAD ROOF CUT FLAT ROOF SNOW LOAD 25.2 SNOW EXPOSURE FACTOR 1.0 SNOW LOAD IMPORTANCE FACTOR 1.0 THERMAL FACTOR 1.1 DEFLECTION CRITERIA: STRUCTURAL ROOF PANELS SPAN RATING: 24/16 NOMINAL THICKNESS: EXPOSURE RATING: GRADE: NAILING:

25.2 psf SEE ARCH DL+LL = L/240

5/8 EXP 1 OSB SHEATHING 8D AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS.

LL = L/360

2x10s AT

· LEFT

14" TRUSSES AT 16" OC

16" OC

2x10s AT

16" OC

14" TRUSSES AT 16" OC -

2

0 2' 4' 8' 12'

SECOND FLOOR FRAMING - BUILDING F

0 2' 4' 8' 12'

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MSP - THE DRIFTLESS TOWNHOUSES

La Crosse, WI

2/24/23

Addendum A Addendum B 03/10/2023 04/26/2023

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Addendum A

04/14/2023

03/10/2023

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MSP - THE DRIFTLESS TOWNHOUSES

La Crosse, WI

DATE OF ISSUE:

04/14/2023

FLOOR PLAN GENERAL NOTES

A.	SEE SHEET A500 FOR LARGE SCALE UNIT TYPE PLANS.
В.	SEE SHEET A700 FOR INTERIOR ELEVATIONS.
C.	PROVIDE VERTICAL EXPANSION JOINTS WHERE STRUCTURAL SYSTEMS CHANGE, LOCATIONS THAT ARE PRONE TO CRACKING AND AS REQUIRED BY MANUFACTURES INSTALLATION RECOMMENDATIONS.
D.	VERIFY SIZE AND LOCATIONS OF ALL MECHANICAL OPENINGS. CONTRACTOR TO PAINT AND SEAL LOUVER PERIMETER, TYPICAL.
E.	PROVIDE CONCRETE EQUIPMENT PADS/CURBS AS REQUIRED FOR MECHANICAL/ELECTRICAL EQUIPMENT. VERIFY SIZE / PROFILE / LOCATION WITH PLUMBING/MECHANICAL/ELECTRICAL.
F.	INSTALL FOAM FILLER AT ALL MASONRY WALL CONTROL / EXPANSION JOINTS AND SEAL (WALL REINFORCING TO DISCONTINUE AT JOINTS).
G.	PROVIDE WOOD BLOCKING BETWEEN WOOD STUDS AS REQUIRED FOR CASEWORK/HANDRAIL/TOILET ACCESSORIES ETC. MOUNTING.
H.	PROVIDE VINYL CARPET EDGE AT TRANSITIONS FROM CARPET TO DISSIMILAR FLOOR MATERIALS, UNLESS NOTED OTHERWISE (U.N.O.).
I.	REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WALL CONTROL JOINTS.
J.	ADA CLEARANCE CIRCLES AND BOXES SHOWN ON PLAN ARE FOR INFORMATION PURPOSES ONLY.
K.	EXTERIOR DIMESIONS AT BRICK ARE FROM FACE OF BRICK. OTHER EXTERIOR WALL DIMENSIONS ARE FROM FACE OF EXTERIOR SHEATHING AT SIDING AND FIBER CEMENT EXTERIOR WALL ASSEMBLIES UNLESS NOTED OTHERWISE. UNIT DEMISING WALLS ARE DIMENSIONED TO CENTERLINE OF WALL.

SEE CODE COMPLIANCE PLANS FOR EGRESS ROUTES AND ADDITIONAL CODE REQUIREMENTS

FLOOR PLAN KEYNOTES

- F1 FIRE RATED INSULATED ATTIC ACCESS DOOR. AN OPENING NOT LESS THAN 20" X 30" SHALL BE PROVIDED TO ANY ATTIC AREA HAVING A CLEAR HEIGHT OF OVER 30 INCHES. CLEAR HEADROOM OF NOT LESS THAN 30 INCHES SHALL BE PROVIDED IN THE ATTIC SPACE AT OR ABOVE THE ACCESS OPENING. HEATED TRUSS SPACE ABOVE GARAGES FOR SPRINKLER AND F2 PLUMBING PIPING. SEE STRUCTURAL DRAWINGS FOR POST AND CONCRETE SLAB F3
- SIZE AND LOCATION
- F4 WINDOW TO BE CENTERED ON WALL REFER TO SHEET A301 FOR STAIR SECTIONS F5.1 - TYPICAL TOWNHOME STAIR SECTION, 1 / A301 F5.2 - FLAT C OVER FLAT B STAIR SECTION, 2 / A301 F5.3 - FLAT C OVER FLAT A STAIR SECTION, 3 / A301 F5 F5.4 - FLAT D OVER GARAGE STAIR SECTION, 4 / A301 F5.5 - FLAT E & F OVER GARAGE LOWER STAIR SECTION, 5 / A301 F5.6 - FLAT E & F OVER GARAGE UPPER STAIR SECTION, 6 / A301
- F6 ADD 1/2" EXTERIOR PLYWOOD AT ALL INTERIOR SIDES OF TRASH ROOM OVER WALL TYPE INDICATED.

ROOF PLAN GENERAL NOTES
ROOFING TO BE ASPHALT SHINGLES - REFER TO ROOF TYPE R60 ON SHEET A600.
CANOPY ROOF TO BE STANDING SEAM PANELS
ROOF PLUMBING VENT PIPE PENETRATIONS NOT SHOWN. COORDINATE QUANTITY AND LOCATIONS WITH PLUMBING CONTRACTOR. REFER TO SIMILAR DETAIL
PROVIDE ICE & WATER SHIELD @ ALL EAVES 3' BEYOND EXTERIOR WALL.
PROVIDE ICE & WATER SHIELD @ ALL VALLEYS 3' ON EACH SIDE OF VALLEY.
COORDINATE DOWNSPOUT CONNECTIONS TO STORM SEWER

PIPING W/ CIVIL PLANS.

ROOF PLAN KEYNOTES

- 1. CONTINUOUS ROOF RIDGE VENT 2. VALLEY 3. ICE AND WATER SHIELD MINIMUM 3'-0" FROM EDGE OF EXTERIOR WALL AND FROM EITHER SIDE OF VALLEY. 4. PREFINISHED METAL GUTTERS DOWNSPOUTS, CONNECT TO STORM SEWER LOCATION OF DRAFTSTOPPING. 1/2" OSB OR 5/8" GYPSUM BOARD ON ONE SIDE OF TRUSS TO EXTEND TO UNDERSIDE OF ROOF SHEATHING. OPENING IN DRAFTSTOPPING TO BE SELF-CLOSING DOORS WITH AUTOMATIC LATCHES. DRAFTSTOPPING TO BE PROVIDED AT EVERY TWO UNITS OR EVERY 3,000 SF, WHICHEVER IS I FSS. CATWALK IN ATTIC WITH FRAMING ATTACHED TO WOOD TRUSSES FOR FULL LENGTH OF BUILDING
- INSTALL SPLASH SHEILD METAL DIVERTER TO ADJACENT GUTTER

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3 ROOF PLAN - BUILDING D

FLOOR PLAN GENERAL NOTES

Α.	SEE SHEET A500 FOR LARGE SCALE UNIT TYPE PLANS.
В.	SEE SHEET A700 FOR INTERIOR ELEVATIONS.
C.	PROVIDE VERTICAL EXPANSION JOINTS WHERE STRUCTURAL SYSTEMS CHANGE, LOCATIONS THAT ARE PRONE TO CRACKING AND AS REQUIRED BY MANUFACTURES INSTALLATION RECOMMENDATIONS.
D.	VERIFY SIZE AND LOCATIONS OF ALL MECHANICAL OPENINGS. CONTRACTOR TO PAINT AND SEAL LOUVER PERIMETER, TYPICAL.
E.	PROVIDE CONCRETE EQUIPMENT PADS/CURBS AS REQUIRED FOR MECHANICAL/ELECTRICAL EQUIPMENT. VERIFY SIZE / PROFILE / LOCATION WITH PLUMBING/MECHANICAL/ELECTRICAL.
F.	INSTALL FOAM FILLER AT ALL MASONRY WALL CONTROL / EXPANSION JOINTS AND SEAL (WALL REINFORCING TO DISCONTINUE AT JOINTS).
G.	PROVIDE WOOD BLOCKING BETWEEN WOOD STUDS AS REQUIRED FOR CASEWORK/HANDRAIL/TOILET ACCESSORIES ETC. MOUNTING
H.	PROVIDE VINYL CARPET EDGE AT TRANSITIONS FROM CARPET TO DISSIMILAR FLOOR MATERIALS, UNLESS NOTED OTHERWISE (U.N.O.).
I.	REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WALL CONTROL JOINTS.
J.	ADA CLEARANCE CIRCLES AND BOXES SHOWN ON PLAN ARE FOR INFORMATION PURPOSES ONLY.
К.	EXTERIOR DIMESIONS AT BRICK ARE FROM FACE OF BRICK. OTHER EXTERIOR WALL DIMENSIONS ARE FROM FACE OF EXTERIOR SHEATHING AT SIDING AND FIBER CEMENT EXTERIOR WALL ASSEMBLIES UNLESS NOTED OTHERWISE. UNIT DEMISING WALLS ARE DIMENSIONED TO CENTERLINE OF WALL.
L.	SEE CODE COMPLIANCE PLANS FOR EGRESS ROUTES AND ADDITIONAL CODE REQUIREMENTS

FLOOR PLAN KEYNOTES

	ROOF PLAN GENERAL NOTES
F6	ADD 1/2" EXTERIOR PLYWOOD AT ALL INTERIOR SIDES OF TRASH ROOM OVER WALL TYPE INDICATED.
F5	REFER TO SHEET A301 FOR STAIR SECTIONS F5.1 - TYPICAL TOWNHOME STAIR SECTION, 1 / A301 F5.2 - FLAT C OVER FLAT B STAIR SECTION, 2 / A301 F5.3 - FLAT C OVER FLAT A STAIR SECTION, 3 / A301 F5.4 - FLAT D OVER GARAGE STAIR SECTION, 4 / A301 F5.5 - FLAT E & F OVER GARAGE LOWER STAIR SECTION, 5 / A30 F5.6 - FLAT E & F OVER GARAGE UPPER STAIR SECTION, 6 / A30
F4	WINDOW TO BE CENTERED ON WALL
F3	SEE STRUCTURAL DRAWINGS FOR POST AND CONCRETE SLAB SIZE AND LOCATION
F2	HEATED TRUSS SPACE ABOVE GARAGES FOR SPRINKLER AND PLUMBING PIPING.
F1	FIRE RATED INSULATED ATTIC ACCESS DOOR. AN OPENING NOT LESS THAN 20" X 30" SHALL BE PROVIDED TO ANY ATTIC AREA HAVING A CLEAR HEIGHT OF OVER 30 INCHES. CLEAR HEADROOM OF NOT LESS THAN 30 INCHES SHALL BE PROVIDED IN THE ATTIC SPACE AT OR ABOVE THE ACCESS OPENING.

RUUF PLAN GENERAL NUTES
ROOFING TO BE ASPHALT SHINGLES - REFER TO ROOF TYPE R60 ON SHEET A600.
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COORDINATE DOWNSPOUT CONNECTIONS TO STORM SEWER PIPING W/ CIVIL PLANS.

ROOF PLAN KEYNOTES

1.	CONTINUOUS ROOF RIDGE VENT
2.	VALLEY
3.	ICE AND WATER SHIELD MINIMUM 3'-0" FROM EDGE OF EXTERIOR WALL AND FROM EITHER SIDE OF VALLEY.
4.	PREFINISHED METAL GUTTERS
5.	DOWNSPOUTS, CONNECT TO STORM SEWER
6.	LOCATION OF DRAFTSTOPPING. 1/2" OSB OR 5/8" GYPSUM BOARD ON ONE SIDE OF TRUSS TO EXTEND TO UNDERSIDE OF ROOF SHEATHING. OPENING IN DRAFTSTOPPING TO BE SELF-CLOSING DOORS WITH AUTOMATIC LATCHES. DRAFTSTOPPING TO BE PROVIDED AT EVERY TWO UNITS OR EVERY 3,000 SF, WHICHEVER IS LESS.

CATWALK IN ATTIC WITH FRAMING ATTACHED TO WOOD TRUSSES FOR FULL LENGTH OF BUILDING

INSTALL SPLASH SHEILD METAL DIVERTER TO ADJACENT GUTTER

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- ----- TRUSS BEARING 119' - 5"

PROVIDE BLOCKING BETWEEN JOISTS AT OVERHEAD DOOR TRACK MOUNTING LOCATIONS

SECOND FLOOR (T.O. SHEATHING) 110' - 3 7/8" _____ R-21 SPRAY FOAM INSULATION

GROUND FLOOR 100' - 0"

0' 1' 2' 4'

	FLOOR PLAN GENERAL NOTES
A.	SEE SHEET A500 FOR LARGE SCALE UNIT TYPE PLANS.
В.	SEE SHEET A700 FOR INTERIOR ELEVATIONS.
C.	PROVIDE VERTICAL EXPANSION JOINTS WHERE STRUCTURAL SYSTEMS CHANGE, LOCATIONS THAT ARE PRONE TO CRACKING AND AS REQUIRED BY MANUFACTURES INSTALLATION RECOMMENDATIONS.
D.	VERIFY SIZE AND LOCATIONS OF ALL MECHANICAL OPENINGS. CONTRACTOR TO PAINT AND SEAL LOUVER PERIMETER, TYPICAL.
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L.	SEE CODE COMPLIANCE PLANS FOR EGRESS ROUTES AND ADDITIONAL CODE REQUIREMENTS

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F2	HEATED TRUSS SPACE ABOVE GARAGES FOR SPRINKLER AND PLUMBING PIPING.
F3	SEE STRUCTURAL DRAWINGS FOR POST AND CONCRETE SLAB SIZE AND LOCATION
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F5	REFER TO SHEET A301 FOR STAIR SECTIONS F5.1 - TYPICAL TOWNHOME STAIR SECTION, 1 / A301 F5.2 - FLAT C OVER FLAT B STAIR SECTION, 2 / A301 F5.3 - FLAT C OVER FLAT A STAIR SECTION, 3 / A301 F5.4 - FLAT D OVER GARAGE STAIR SECTION, 4 / A301 F5.5 - FLAT E & F OVER GARAGE LOWER STAIR SECTION, 5 / A30 F5.6 - FLAT E & F OVER GARAGE UPPER STAIR SECTION, 6 / A30
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	ROOF PLAN GENERAL NOTES

	ROOF PLAN KEYNOTES
F.	COORDINATE DOWNSPOUT CONNECTIONS TO STORM SEWER PIPING W/ CIVIL PLANS.
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A.	ROOFING TO BE ASPHALT SHINGLES - REFER TO ROOF TYPE R60 ON SHEET A600.

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7.	CATWALK IN ATTIC WITH FRAMING ATTACHED TO WOOD TRUSSES FOR FULL LENGTH OF BUILDING

8. INSTALL SPLASH SHEILD METAL DIVERTER TO ADJACENT GUTTER

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302 Kraft Street, 304 Kraft Street, 306 Kraft Street, 308 Kraft Street, 310 Kraft Street, 312 Kraft Street, 314 Kraft Street, 316 Kraft Street, 318 Kraft Street, 320 Kraft Street, 322 Kraft Street, 324 Kraft Street, 326 Kraft Street, 328 Kraft Street, 330 Kraft Street, 332 Kraft Street, 28 Milwaukee Street, 30 Milwaukee Street, 38 Milwaukee Street, 39 Steamboat Ct., La Crosse, WI

A HIDDEN ELEVATION

ASP----

PFM-1

PMG-

DS-

	ELEVATION LEGE	ND & NOTES
MASONF BRK-1	RY MODULAR BRICK VENEER	PRODUCT / COLOR BLACK DIAMOND (VELOUR) MORTAR: IRON BLACK 94A
CST	CAST STONE	HALQUIST: BEDFORD GRAY
CJ		SEALANT COLOR TO MATCH MORTAR
SIDING 8	<u>k TRIM</u>	PRODUCT / COLOR
LPS-1	FIBER CEMENT LAP SIDING ARCTIC 6"-4"-4" EXPOSURE PATTEI	WHITE
LPS-2	FIBER CEMENT LAP SIDING MONTEL 6"-4"-4" EXPOSURE PATTEL	REY TAUPE
FCP-1	FIBER CEMENT PANEL	ARCTIC WHITE B
FCP-2 FCP-3	FIBER CEMENT PANEL	RICH ESPRESSO
FCT-1	FIBER CEMENT TRIM	ARCTIC WHITE
		MONTENET TAOLE
ASP	ASPHALT SHINGLES	
SSP	STANDING SEAM PANELS	
PRE-FIN	ISHED METAL	PRODUCT / COLOR
APT	ALUMINUM PANEL TRIM	CLEAR
ARS PMC-1	ALUMINUM RAILING SYSTEM PRE-FINISHED METAL COPING	BLACK FIRESTONE: BONE WHITE
PMC-2	PRE-FINISHED METAL COPING	FIRESTONE: EXTRA DARK
PMC-3	PRE-FINISHED METAL COPING	FIRESTONE: RICH ESPRESSO
PMG PFM-1	PRE FINISHED METAL GUTTER	COLOR TO MATCH BONE WHIT BONE WHITE
PFM-2	PRE FINISHED METAL FASCIA	COLOR TO MATCH RICH
DS	PRE-FINISHED DOWNSPOUT	COLOR TO MATCH BONE WHIT
	GENERAL NOTES	
A.	NOT ALL MASONRY PENETRATIONS MEP CONTRACTORS.	SHOWN, COORDINATE WITH
В.	REFER TO WINDOW TYPE SHEET AG INFORMATION.	5.2 FOR ALL WINDOW
C.	SECOND FLOOR ELEVATION INDICA SHEATHING.	TES TOP OF ASSEMBLY
D.	PROVIDE EXPANSION JOINTS AT AL AND WHERE SHOWN ON ELEVATION	L MASONRY INSIDE CORNERS NS.
E.	PANEL SIDING JOINT LAYOUT INTEN LARGER THAN OVERALL PANEL DIM RESULT IN PANELS LARGER THAN A CONTACT THE ARCHITECT FOR REV PROCEEDING WITH INSTALLATION.	IT IS TO AVOID ANY SPACING IENSIONS. IF FIELD CONDITIONS AVAILABLE PANEL SIZE, /ISED JOINT LAYOUT PRIOR TO

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C HIDDEN ELEVATION

B HIDDEN ELEVATION

A HIDDEN ELEVATION

- CEMENT FIBER PANEL SIDING OVER WEATHER RESISTANT

ELEVATION LEGEND & NOTES			
MASON BRK-1	RY MODULAR BRICK VENEER	PRODUCT / COLOR BLACK DIAMOND (VELOUR)	
CST	CAST STONE	MORTAR: IRON BLACK 94A HALQUIST: BEDFORD GRAY	
CJ	CONTROL JOINT	4" @ WINDOW SILL, TYP. SEALANT COLOR TO MATCH MORTAR	
LPS-1	FIBER CEMENT LAP SIDING ARCTIO	C WHITE	
LPS-2	FIBER CEMENT LAP SIDING MONTE		
FCP-1	FIBER CEMENT PANEL	ARCTIC WHITE	
FCP-2	FIBER CEMENT PANEL	MONTERAY TAUPE	
FCP-3	FIBER CEMENT PANEL	RICH ESPRESSO	
FCT-1	FIBER CEMENT TRIM	ARCTIC WHITE	
FCT-2	FIBER CEMENT TRIM	MONTEREY TAUPE	
ROOFIN	IG		
ASP	ASPHALT SHINGLES		
SSP	STANDING SEAM PANELS		
PRE-FIN	IISHED METAL	PRODUCT / COLOR	
APT	ALUMINUM PANEL TRIM	CLEAR	
ARS	ALUMINUM RAILING SYSTEM	BLACK	
PMC-1	PRE-FINISHED METAL COPING	FIRESTONE: BONE WHITE	
PMC-2	PRE-FINISHED METAL COPING	FIRESTONE: EXTRA DARK BRONZE	
PMC-3	PRE-FINISHED METAL COPING	FIRESTONE: RICH ESPRESSO	
		COLOR TO MATCH BONE WHITE	
	PRE FINISHED METAL FASCIA	COLOR TO MATCH RICH	
		ESPRESSO	
DS	PRE-FINISHED DOWNSPOUT GENERAL NOTES	COLOR TO MATCH BONE WHITE	
A.	NOT ALL MASONRY PENETRATION	S SHOWN, COORDINATE WITH	
В.	REFER TO WINDOW TYPE SHEET A INFORMATION.	6.2 FOR ALL WINDOW	
C.	SECOND FLOOR ELEVATION INDICA	ATES TOP OF ASSEMBLY	
D.	PROVIDE EXPANSION JOINTS AT A AND WHERE SHOWN ON ELEVATIO	ll masonry inside corners NS.	
E. PANEL SIDING JOINT LAYOUT INTENT IS TO AVOID ANY SPACING LARGER THAN OVERALL PANEL DIMENSIONS. IF FIELD CONDITIONS RESULT IN PANELS LARGER THAN AVAILABLE PANEL SIZE, CONTACT THE ARCHITECT FOR REVISED JOINT LAYOUT PRIOR TO			

PROCEEDING WITH INSTALLATION.

1 SOUTH ELEVATION

0' 2' 4' 8'

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C HIDDEN ELEVATION

A HIDDEN ELEVATION

ASP-----

PFM-1

DS-----

FCT-1

LPS-1-FCT-1-

PFM-1

—LPS-1—

FCT-3

CST-

BRK-1-

FCT-1

4 EAST ELEVATION 1/8" = 1'-0"

TRUSS BEARING 119' - 5"

SECOND FLOOR (T.O. SHEATHING) 110' - 3 7/8"

GROUND FLOOR 100' - 0"

PFM-1

ASP-

PFM-1

DS-----

FCT-1

PFM-1

LPS-1-

CST----

FCT-1

BRK-1-

GROUND FLOOR 100' - 0"

SECOND FLOOR (T.O. SHEATHING) 110' - 3 7/8"

	ELEVATION LEGEND & NOTES		
	MASON BRK-1	RY MODULAR BRICK VENEER	<u>PRODUCT / COLOR</u> BLACK DIAMOND (VELOUR) MORTAR: IRON BLACK 94A
	CST	CAST STONE	
	CJ	CONTROL JOINT	SEALANT COLOR TO MATCH MORTAR
ł	SIDING	<u>& TRIM</u>	PRODUCT / COLOR
	LPS-1	FIBER CEMENT LAP SIDING ARCTI 6"-4"-4" EXPOSURE PATT	
		6"-4"-4" EXPOSURE PATT	ERN
	FCP-1 FCP-2 FCP-3 FCT-1	FIBER CEMENT PANEL FIBER CEMENT PANEL FIBER CEMENT PANEL FIBER CEMENT TRIM	ARCTIC WHITE // MONTERAY TAUPE RICH ESPRESSO ARCTIC WHITE
l	FCT-2	FIBER CEMENT TRIM	MONTEREY TAUPE
	<u>ROOFIN</u> ASP SSP	I <u>G</u> ASPHALT SHINGLES STANDING SEAM PANELS	
	PRE-FIN APT	NISHED METAL ALUMINUM PANEL TRIM	PRODUCT / COLOR CLEAR
	PMC-1 PMC-2	PRE-FINISHED METAL COPING PRE-FINISHED METAL COPING	FIRESTONE: BONE WHITE FIRESTONE: EXTRA DARK BRONZE
	PMC-3 PMG PFM-1	PRE-FINISHED METAL COPING PRE FINISHED METAL GUTTER PRE FINISHED METAL FASCIA	FIRESTONE: RICH ESPRESSO COLOR TO MATCH BONE WHITE BONE WHITE COLOR TO MATCH BICH
			ESPRESSO
	DS	PRE-FINISHED DOWNSPOUT GENERAL NOTES	COLOR TO MATCH BONE WHITE
	A.	NOT ALL MASONRY PENETRATION MEP CONTRACTORS.	IS SHOWN, COORDINATE WITH
	В.	REFER TO WINDOW TYPE SHEET A	A6.2 FOR ALL WINDOW
	C.	SECOND FLOOR ELEVATION INDIC SHEATHING.	CATES TOP OF ASSEMBLY
	D.	PROVIDE EXPANSION JOINTS AT A AND WHERE SHOWN ON ELEVATION	ALL MASONRY INSIDE CORNERS DNS.
	E.	PANEL SIDING JOINT LAYOUT INTE LARGER THAN OVERALL PANEL D RESULT IN PANELS LARGER THAN CONTACT THE ARCHITECT FOR R	ENT IS TO AVOID ANY SPACING IMENSIONS. IF FIELD CONDITIONS I AVAILABLE PANEL SIZE, EVISED JOINT LAYOUT PRIOR TO

PROCEEDING WITH INSTALLATION.

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⊢FCP-1

6 / A200F

/---FCT-2

PFM-1 PMG ASP LPS-2 FCP-3 PFM-1

(r60)

— SIDING - SEE ELEVATION

	ELEVATION LEGE	ND & NOTES
<u>MASONI</u> BRK-1	<u>RY</u> MODULAR BRICK VENEER	PRODUCT / COLOR BLACK DIAMOND (VELOUR)
CST	CAST STONE	HALQUIST: BEDFORD GRAY
CJ	CONTROL JOINT	SEALANT COLOR TO MATCH MORTAR
SIDING	* Yr Yr Yr Yr Yr Yr Yr Yr Y	PRODUCT / COLOR
LPS-1	FIBER CEMENT LAP SIDING ARCTIC 6"-4"-4" EXPOSURE PATTE	WHITE
LPS-2	FIBER CEMENT LAP SIDING MONTE	
FCP-1	FIBER CEMENT PANEL	ARCTIC WHITE
FCP-2	FIBER CEMENT PANEL	MONTERAY TAUPE
FCP-3	FIBER CEMENT PANEL	RICH ESPRESSO
FCT-1	FIBER CEMENT TRIM	ARCTIC WHITE
FCT-2	FIBER CEMENT TRIM	MONTEREY TAUPE
<u>ROOFIN</u>	<u>G</u>	
ASP SSP	ASPHALT SHINGLES STANDING SEAM PANELS	
PRE-FIN	IISHED METAL	PRODUCT / COLOR
APT	ALUMINUM PANEL TRIM	CLEAR
ARS	ALUMINUM RAILING SYSTEM	BLACK
PMC-1 PMC-2	PRE-FINISHED METAL COPING PRE-FINISHED METAL COPING	FIRESTONE: BONE WHITE FIRESTONE: EXTRA DARK
PMC-3		COLOR TO MATCH BONE WHIT
PFM-1	PRE FINISHED METAL FASCIA	BONE WHITE
PFM-2	PRE FINISHED METAL FASCIA	COLOR TO MATCH RICH
DS	PRE-FINISHED DOWNSPOUT	COLOR TO MATCH BONE WHIT
	CENERAE NOTED	
A.	NOT ALL MASONRY PENETRATIONS MEP CONTRACTORS.	S SHOWN, COORDINATE WITH
В.	REFER TO WINDOW TYPE SHEET A INFORMATION.	6.2 FOR ALL WINDOW
C.	SECOND FLOOR ELEVATION INDIC/ SHEATHING.	ATES TOP OF ASSEMBLY
D.	PROVIDE EXPANSION JOINTS AT A AND WHERE SHOWN ON ELEVATIO	ll masonry inside corners NS.
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WALL SECTION 3/8" = 1'-0"

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WALL CAP DETAIL 1 1/2" = 1'-0"

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4 SECOND FLOOR PLAN - TOWNHOUSE B

3 GROUND FLOOR PLAN - TOWNHOUSE B

GROUND FLOOR PLAN - TOWNHOUSE A

RANGE VENTING: ABOVE RANGE MICROWAVE W/ VENTING DISHWASHER: STANDARD (36" COUNTERTOP) GARBAGE DISPOSAL: STANDARD

	FINISH LEGEND
ACT	ACOUSTICAL CEILING TILE
AWC	ACOUSTICAL WALL COVERING
СМ	CULTURED MARBLE
CPT	CARPET
СТ	CERAMIC TILE
СТВ	CERAMIC TILE BASE
EXP	EXPOSED CONCRETE
GL	GLASS
GT	GROUT
GYP	GYPSUM BOARD
Р	PAINT
PL	PLASTIC LAMINATE
QT	QUARRY TILE
RM	RECESSED MAT
SC	SEALED CONCRETE
SSF	SOLID SURFACE
STN	STONE
SV	SHEET VINYL
TR	TRANSITION STRIP
VB	VINYL BASE
VCT	VINYL COMPOSITE TILE
VWC	VINYL WALL COVERING
WC	WINDOW COVERING
WD	WOOD

UNIT FLOOR PLAN GENERAL NOTES

- A. ALL INTERIOR PARTITION DIMENSIONS ARE TO FACE OF STUD. ADA CLEARANCE CIRCLES AND BOXES SHOWN ON PLAN ARE FOR
- INFORMATIONAL PURPOSES ONLY. PROVIDE BLOCKING AS NECESSARY FOR MOUNTING THERMOSTATS, GRAB BARS, DOOR STOPS, FINISH CARPENTRY AND
- TRIM. D. DEMISING WALLS SHOWN AS 1/2 OF TOTAL WALL THICKNESS.
- SEE OVERALL PLAN FOR EXTERIOR WALL AND CORE ELEMENT
- WALL TYPES; EXTERIOR WINDOW AND PATIO DOOR TYPES. COORDINATE HVAC CLOSET SIZES WITH HVAC CONTRACTOR.
- COORDINATE INTERIOR PARTITION LAYOUT WITH SHOWER, TUB, APPLIANCE, CABINETRY AND VANITY DIMENSIONS.
- COORDINATE WALL THICKNESS AND FURRING BEHIND WASHERS/DRYERS WITH HVAC AND PLUMBING CONTRACTORS.
- LOCATE DOORS WITHIN WALLS CENTERED ON WALL, HALL, CLOSET OR 5" FROM ADJACENT WALL UNLESS DIMENSIONED OTHERWISE.
- PROVIDE AT LEAST ONE LAYER OF GYPSUM BOARD BEHIND ALL MODULAR TUBS AND SHOWERS, BUT NO FEWER LAYERS THAN REQUIRED BY DEMISING, BEARING AND RATED WALL TYPES. ADDITIONAL LAYER OF GYPSUM BOARD TO BE ADDED ABOVE AND ADJACENT TO MODULAR UNITS TO COVER MOUNTING FLANGES AND AS RECOMMENDED BY MANUFACTURER.

UNIT FLOOR PLAN KEYNOTES

- FIRE RATED ATTIC ACCESS DOOR
- F2 ALIGN FINISHES TO BE FLUSH
- F3 SEE STRUCTURAL DRAWINGS FOR POST AND CONCRETE SLAB SIZE AND LOCATION
- F4 MINIMUM 36" LANDING CLEAR, PROVIDING DIMENSION NOTED CLEAR

U	EDULE	
SYMBOL	ITEM DESCRIPTION	REFERENCE
SH-ADA	SHOWER 3' X 5' ROLL-IN - ADA	6 / G200
SH-B5	SHOWER 3' X 5' - TYPE-B	7 / G200
TLT-A	TOILET - TYPE-A	9 / G200
TLT-B	TOILET - SIDE WALL - TYPE-B	11 / G200
TLT-BSU	TOILET - SWING UP GRAB BARS - TYPE-B	10 / G200
TUB-B	TUB - TYPE-B UNIT	8 / G200
W/D	STACKED WASHER & DRYER	
D	FRONT LOAD DRYER	
W	FRONT LOAD WASHER	
WG	WALL GRILL AS REQUIRED BY W/D MFR	90" AFF
REF	REFRIGERATOR	
SCS	STANDARD CLOSET SHELVING	4 / G200
DCS	DOUBLE CLOSET SHELVING	4 / G200
OCS	OFFSET CLOSET SHELVING	4 / G200
5-SH	(5) SHELVES	14" ON CENTER
24TB	24" TOWEL BAR (PROVIDE BLOCKING)	48" AFF TYPICAL 60" AFF OVER TOILET
36TB	36" TOWEL BAR (PROVIDE BLOCKING)	60" AFF TYPICAL 48" AFF AT WHEDA

INTERIOR KEYNOTES

(1)	FINISHED END PANEL	

- 2. MICROWAVE WITH VENT HOOD
- IF SINGLE VANITY LIGHT, THEN CENTERED OVER BASE CABINET. IF TWO VANITY LIGHTS THEN CENTER OVER EACH SINK. 4. PROVIDE VENT HOOD SWITCH ON SIDE WALL
- REMOVABLE BASE CABINET AT WHEDA, TYPE A, AND UFAS M.I.
- UNITS ONLY, EXTEND FLOOR FINISH BENEATH AND WALL FINISH BEHIND.
- 6. COUNTERTOP MICROWAVE, PROVIDE OUTLET
- 7. RANGE VENT HOOD
- 8. SINK SKIRT FOR CLEAR FLOOR SPACE AND CLEAR FRONT APPROACH
- 9. CONTINUE COUNTERTOP SURFACE AND BACKSPLASH BEHIND RANGE
- 10. TOP OF LOWEST SHELF TO BE MAX 48"
- 11. 24" TOWEL BAR, MOUNT AT 60" AFF ABOVE TOILET AND 48" AFF AT SIDE WALL
- 12. 36" TOWEL BAR AT 48" AFF.
- 13. PROVIDE CABINETRY BASE PLATFORM FOR DROP IN RANGE.

TOWNHOME FINISHES

<u>CARPET:</u> BEDROOM CPT: SHAW CONTRACT - NOVICE 5A293, COLOR: APPRENTICE 00192 3/8" CARPET PAD W/ WOOD BASE EXCEPT IN ACCESSIBLE UNITS
*ALL ADA UNITS ARE DIRECT GLUE W/ WOOD BASE
SHAW CONTRACT - RESIDE 12 MIL, COLOR: CONTENTMENT 94564 INSTALL PATTERN: ASHLAR (BATHROOM, KITCHEN, LIVING ROOM)
FLOORING TRANSITIONS: CARPET TO LVT: ALUMINUM WITHIN UNITS
PAINT: P1: SHERWIN WILLIAMS: 7029 AGREEABLE GRAY * P1 TO BE USED FOR WALLS AND CEILINGS
DOORS & TRIM: UNIT BASE AND CASING TO BE WHITE PREFINISHED UNIT DOORS TO BE WHITE PREFINISHED - LYNDEN DOOR
COUNTERTOPS: GRANITE BALA WHITE (BATHROOM & KITCHEN)
<u>CABINETS:</u> LEEDO CABINETRY, CORSO THERMOFOIL DOOR STYLE, FULL OVERLAY, COLOR: LINEA BLACK (BATHROOM & KITCHEN)
HARDWARE: 5" OC STAINLESS STEEL PULLS

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Madison, Wisconsin 53719

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MSP - THE DRIFTLESS TOWNHOUSES

302 Kraft Street, 304 Kraft Street, 306 Kraft Street, 308 Kraft Street, 310 Kraft Street, 312 Kraft Street, 314 Kraft Street, 316 Kraft Street, 318 Kraft Street, 320 Kraft Street, 322 Kraft Street, 324 Kraft Street, 326 Kraft Street, 328 Kraft Street, 330 Kraft Street, 332 Kraft Street, 28 Milwaukee Street, 30 Milwaukee Street, 38 Milwaukee Street, 39 Steamboat Ct., La Crosse, WI

DATE OF ISSUE:

04/14/2023

REVISIONS:

PROJECT #

21136

2 FLAT B FLOOR PLAN 1/4" = 1'-0"

0' 1' 2' 4'

	FINISH LEGEND
ACT	ACOUSTICAL CEILING TILE
AWC	ACOUSTICAL WALL COVERING
СМ	CULTURED MARBLE
CPT	CARPET
СТ	CERAMIC TILE
СТВ	CERAMIC TILE BASE
EXP	EXPOSED CONCRETE
GL	GLASS
GT	GROUT
GYP	GYPSUM BOARD
Р	PAINT
PL	PLASTIC LAMINATE
QT	QUARRY TILE
RM	RECESSED MAT
SC	SEALED CONCRETE
SSF	SOLID SURFACE
STN	STONE
SV	SHEET VINYL
TR	TRANSITION STRIP
VB	VINYL BASE
VCT	VINYL COMPOSITE TILE
VWC	VINYL WALL COVERING
WC	WINDOW COVERING
WD	WOOD

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UNIT ACCESSORY SCHEDULE

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W/D	STACKED WASHER & DRYER	
D	FRONT LOAD DRYER	
W	FRONT LOAD WASHER	
WG	WALL GRILL AS REQUIRED BY W/D MFR	90" AFF
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INT	ERI) DR	KEY	'NO ⁻	TES

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L	
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TYPE 9 VERTICAL ASSEMBLIES - LIGHT GAUGE STEEL

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MSP - THE DRIFTLESS TOWNHOUSES

							UNIT D	DOOR SC	HEDULE - TO) WNHOUS	SES					
	Unit				DOC	OR				FRAME				FIRE		
NO.	Name	TYPE	W	Н	Т	ELEV	MATERIAL	ELEV	MATERIAL	HEAD	JAMB	SILL	GLAZE	RATING	SET	COMMENTS
T1	ENTRY	Single	3' - 0"	6' - 8"	2"	FG	ST-INS	A	WD	3 / A601	6 / A601	1 / A601	GLT-16T		40	1
T2	ENTRY	Single	3' - 0"	6' - 8"	2"	FG	ST-INS	C.1	WD	3 / A601	6 / A601	1 / A601	GLT-16T		40	20" SIDELIGHT, 1
Т3	ENTRY	Single	2' - 8"	6' - 8"	2"	Р	ST-INS	A	WD	3 / A601	6 / A601	1 / A601	-	20-MINUTE	45	1
T4	BEDROOM	Single	3' - 0"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	17B / A601	-	-	39	
T5	BEDROOM	Single	2' - 8"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	17B / A601	-	-	39	
T6	BATHROOM	Single	3' - 0"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	17B / A601	-	-	39	
T7	BATHROOM	Single	2' - 8"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	17B / A601	-	-	39	
T8	CLOSET	Single	3' - 0"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	-	-	-	38	
Т9	CLOSET	Single	2' - 8"	6' - 8"	1 3/8"	Р	WD-PR	A	WD	5 / A601	5 / A601	-	-	-	41	
T10	CLOSET	Single	2' - 6"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	-	-	-	38	
T11	CLOSET	Single	2' - 4"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	-	-	-	41	
T12	CLOSET	Single	1' - 8"	6' - 8"	1 3/8"	P	WD-PR	A	WD	5 / A601	5 / A601	-	-	-	38	-
T13	CLOSET	Double	5' - 0"	6' - 8"	1 3/8"	P	WD-PR	В	WD	5 / A601	5 / A601	-	-	-	43	3
T14	CLOSET	Double	4' - 0"	6' - 8"	1 3/8"	P	WD-PR	В	WD	5 / A601	5 / A601	-	-	-	42	3
115	CLOSEI	Bipass	5' - 0"	6' - 8"	1 3/8"	P	WD-PR	В	-	14 / A601	11 / A601	1/A / A601	-	-	2	2
116		3-Panel Sliding Patio	9' - 8"	6' - 10"	2"	IFG	VINYL	-	VINYL	4 / A601	5 / A601	2 / A601	GL1-161	-	3	2
11/		2-Panel Sliding Patio	6' - 8''	6' - 10"	2"	DFG	VINYL	-	VINYL	4 / A601	6 / A601	9/ A601	GLI-161	-	3	
118		2-Panel Sliding Patio	5' - 10"	6' - 10"	2"	DFG	VINYL	-	VINYL	4 / A601	6 / A601	9 / A601	GLI-161	-	3	
119		Single	3' - 0"	0' - 8"	2"	FG				3/ A601	3 / A601	8 / A601	GL1-161	-	36	18" SIDELIGHT, 1
120	PATIO	Single	3-0	0-0	Ζ	FG	VINYL	0.Z	VINTL	3/ A001	3 / A00 I	0 / A00 I	GL1-101	-	30	24 SIDELIGHT, I
							DOORC									
DOOR	ROOM									FRAME	· · · ·		FIRE	HARDW	ARE	
NO.	NAME	TYPE	W	H	T	ELEV	MATERIAL	ELEV	MATERIAL	HEAD	JAMB	SILL	RATING	SET	C	OMMENTS
C01	MECH	Single	3' - 0"	6' - 8"	2"	F	HM-INS	Α	НМ	2/A6.2	2/A6.2	1 / A601		16		
D01	MECH	Single	3' - 0"	6' - 8"	2"	F	HM-INS	A	HM	2/A6.2	2 /A6.2	1 / A601		16		
E01	MECH	Single	3' - 0"	6' - 8"	1 3/4"	F	HM-INS	A	HM	2/A6.2	2 /A6.2	1 / A601		16		
F01A		Overhead	9' - 0"	7' - 0"	2"	OH	ST-INS	-	-	-	-	-		5		
F01B	TRASH	Single	3' - 0"	6' - 8"	2"	F	HM-INS	A	НМ	2/A6.2	2 /A6.2	1 / A601		7		
F02	MECH	Single	3' - 0"	6' - 8"	2"	F	HM-INS	Α	НМ	2/A6.2	2 /A6.2	1 / A601		16		
G01		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G02		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G03		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G04		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G05		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G06		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G07		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G08		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G09		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G10		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G11		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	
G12		Overhead	9' - 0"	8' - 0"	2"	OH	ST-INS	-	-	-	-	-		5	5	

	DOOR SCHEDULE GENERAL NOTES
A.	WOOD DOORS TO BE PRE-FINISHED. PROVIDE FINISHED SAMPLES TO OWNER AND ARCHITECT FOR FINAL SELECTION.
В.	HOLLOW METAL FRAME HEADS TO BE 2", U.N.O.
C.	SPRAY APPLY PAINT AT ALL HOLLOW METAL FRAMES AND DOORS
D.	VERIFY ANY REQUIRED UNDERCUTS ON NON-RATED DOORS WITH HVAC DESIGN/BUILD CONTRACTOR.
E.	ALL SWING DOORS TO RECEIVE 1-1/2 PAIR OF HINGES (3 HINGES TOTAL), U.N.O.
F.	PROVIDE LEVER HANDLE LOCK/LATCH SETS AT ALL DOORS, U.N.O.
G.	ALL FIRE DOORS ARE TO BE RATED ASSEMBLIES (DOOR AND FRAME TOGETHER). PROVIDE ALL REQUIRED HARDWARE, SMOKE SEALS, AND ACCESSORIES.
H.	MEANS OF EGRESS DOORS: LATCHES DO NOT REQUIRE MORE THAN 15 Ibf TO RELEASE THE LATCH. LOCKS DO NOT REQUIRE USE OF A KEY, TOOL OR SPECIAL KNOWLEDGE FOR OPERATION.
J.	REFERENCED DOOR FRAME DETAILS ARE ON THIS SHEET, U.N.O.
K.	WOOD CASING AT TIMELY AND WOOD DOOR FRAMES AS FOLLOWS: 1. PAINTED AT RESIDENTIAL UNIT DOORS
L.	DOORS SHALL MEET OR EXCEED THERMAL PERFORMANCE VALUES AS FOLLOWS: EXTERIOR DOORS: U-FACTOR 0.10 BALCONY DOORS: U-FACTOR 0.29 SHGC 0.16
	OVERHEAD DOOK: U-FACTOR 0.10

SYMBOL	ITEM DESCRIPTION
FG	FULL GLASS
SC	SOLID CORE
PKT	POCKET
HC	HOLLOW CORE
WD	WOOD
HM	HOLLOW METAL
ALUM	ALUMINUM
INS	INSULATED
ST	STEEL
TMLY	"TIMELY" PREFINISHED METAL FRAMES
STINS	STEEL CLAD INSULATED

1.	PAINT DOOR AND JAMB

PROVIDE KEYED LOCK CYLINDER AT BUILDING D PATIO DOORS. COORDINATE KEY WAY WITH BUILDING STANDARD.

- 1" UNDERCUT
- HEAVY GAUGE HM FRAME OVERHEAD DOOR TRACK MOUNTED ON RESILIENT, SOUND ABSORBING PADS.

6 DOOR JAMB AT BRICK VENEER

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MSP - THE DRIFTLESS TOWNHOUSES

EE PLAN FOR WALL TYPE	 CORNER BEAD SOLID SURFACE STOOL BELOW SEAL ANT
	- VINYL WINDOW FRAME
	- SPRAY FOAM CAVITY & SHIM AS NEEDED

WRAP WEATHER RESISTIVE BARRIER INTO ROUGH OPENING PREFINISHED METAL

	WINDOW TYPE GENERAL NOTES
1.	PROVIDE VINYL FRAME WINDOWS WITH DOUBLE PANE LOW-E GLAZING TYPICAL IN ALL RESIDENTIAL UNITS. PROVIDE TEMPERED GLAZING AS REQUIRED BY CODE AND AS INDICATED ON DRAWINGS. MINIMUM WINDOW PERFORMANCE SHALL MEET OR EXCEED A U- VALUE OF 0.27 AND A SHGC OF 0.29.
2.	AT ACCESSIBLE AND TYPE A UNITS, WINDOW OPERATING HARDWARE SHALL COMPLY WITH ICC/ANSI A117.1 CH.309 OPERABLE PARTS SHALL BE WITHIN 15 - 44 INCHES ABOVE THE FINISHED FLOOR SURFACE, SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST AND SHALL NOT REQUIRE MORE THAN 5 POUNDS OF FORCE TO ACTIVATE.
3.	WINDOW UNITS SHALL BE FABRICATED TO THE SIZE INDICATED, MULLED BY SUPPLIER AND SHALL HAVE OPERABLE PARTS AS INDICATED ON THE DRAWINGS. OPERABLE SASHES SHALL BE PROVIDED WITH FULL-PERIMETER WEATHER STRIPING.
4.	CONTRACTOR TO COORDINATE HEAD, JAMB, AND SILL CONDITION WITH DETAILS ILLUSTRATED ON THIS SHEET.
5.	PROVIDE TEMPERED GLASS AS REQUIRED PER IBC SECTION 2406 AND AS INDICATED ON DRAWINGS. TEMPERED GLASS REQUIRED: WITH GLAZED PANELS AT SWING DOORS, AT GLAZING WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF A DOOR IN A CLOSED POSITION, ADJACENT TO STAIRS AND RAMPS WITHIN 36" OF WALKING SURFACE AND ANY OTHER HAZARDOUS LOCATION AS DEFINED IN IBC 2406.4.
6.	FOR OPERABLE WINDOWS ON THE FIRST FLOOR, PROVIDE SASH LOCKS.
7.	 WHERE THE TOP OF SILL OF AN OPERABLE WINDOW OPENING IS 36" ABOVE FINISHED FLOOR AND MORE THAN 72" ABOVE GRADE, PROVIDE OPERABLE WINDOWS WITH ONE OF THE FOLLOWING: A. OPENING WHICH WILL NOT ALLOW A 4" DIAMETER SPHERE TO PASS THROUGH WHEN IN LARGEST OPEN POSITION. B. FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F2090. C. WINDOW OPENING CONTROL DEVICES THAT COMPLY WITH ASTM F2090.
8.	WINDOWS TO BE FACTORY FINISHED. PROVIDE FINISH SAMPLES TO OWNER AND ARCHITECT FOR FINAL SELECTION

GLAZING TYPES LEGEND			
SYMBOL	ITEM DESCRIPTION		
GLT	GLASS TYPE; SEE SPECIFICATIONS		
GLT-1	1/4" CLEAR, FLOAT GLASS		
GLT-4	1/4" CLEAR, TEMPERED GLASS		
GLT-12	DOUBLE-PANE INSULATED GLASS WITH LOW E		
GLT-12T	DOUBLE-PANE INSULATED GLASS WITH LOW E, TEMPERED		
GLT-15	1" INSULATED GLASS WITH LOW E		
GLT-15T	1" INSULATED GLASS WITH LOW E, TEMPERED		
GLT-16	5/8" INSULATED GLASS WITH LOW E		
GLT-16T	5/8" INSULATED GLASS WITH LOW E, TEMPERED		
GLT-18	SPANDREL GLASS		
GLT-19	FIRE-RATED, TEMPERED CLEAR CERAMIC GLASS		
	GENERAL NOTES:		
1. PI AI FI M RI TI	ROVIDE GLT-19 FIRE-RESISTANCE-RATED GLAZING IN FIRE DOOR ND FIRE WINDOW ASSEMBLIES PER THE SCHEDULED REQUIRED RE-RATED TESTED IN ACCORDANCE WITH ASTM E119 OR UL 263. RE-RESISTANCE-RATED GLAZING SHALL BE PERMITTED IN THE AXIMUM SIZE TESTED. LABEL ALL FIRE RATED GLAZING PER IBC EQUIREMENTS. COORDINATE FIRE-RESISTANCE-RATED GLAZING HICKNESS WITH GLAZING STOPS AND FRAME KITS.		

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MSP - THE DRIFTLESS TOWNHOUSES

INTERIOR KEYNOTES

- 1 FINISHED END PANEL
- 2. MICROWAVE WITH VENT HOOD
- IF SINGLE VANITY LIGHT, THEN
- 3. IF SINGLE VANITY LIGHT, THEN CENTERED OVER BASE CABINET. IF TWO VANITY LIGHTS THEN CENTER OVER EACH SINK.
- 4. PROVIDE VENT HOOD SWITCH ON SIDE WALL
- 5. REMOVABLE BASE CABINET AT WHEDA, TYPE A, AND UFAS M.I. UNITS ONLY, EXTEND FLOOR FINISH BENEATH AND WALL FINISH
- BEHIND.6. COUNTERTOP MICROWAVE, PROVIDE OUTLET
- 7. RANGE VENT HOOD
- 8. SINK SKIRT FOR CLEAR FLOOR SPACE AND CLEAR FRONT APPROACH
- 9. CONTINUE COUNTERTOP SURFACE AND BACKSPLASH BEHIND RANGE
- 10. TOP OF LOWEST SHELF TO BE MAX 48"
- 11. 24" TOWEL BAR, MOUNT AT 60" AFF ABOVE TOILET AND 48" AFF AT
- SIDE WALL
- 36" TOWEL BAR AT 48" AFF.
 PROVIDE CABINETRY BASE PLATFORM FOR DROP IN RANGE.

CASEWORK & APPLIANCE ABBREVIATIONS

KITCHEN CASEWORK B BASE CABINET 1DTPB 1 DRAWER TRASH PULLOUT BASE CABINET 3DB 3 DRAWER BASE CABINET RB REMOVABLE BASE CABINET SSB SUPER SUSAN BASE CABINET SB SINK BASE CABINET RSB REMOVABLE SINK BASE CABINET PTRY PANTRY CABINET W WALL CABINET WBC WALL BLIND CORNER CABINET MWB MICROWAVE BASE CABINET VANITY CASEWORK V3DB V3DB VANITY 3 DRAWER BASE CABINET VSB VANITY REMOVABLE SINK BASE LN LINEN CABINET VRSB VANITY REMOVABLE SINK BASE LN LINEN CABINET VRSB VANITY REMOVABLE SINK BASE LN LINEN CABINET APPLIANCES DW DW DISHWASHER

MW COUNTERTOP MICROWAVE WMW WALL MOUNTED MICROWAVE

FCRNG FRONT CONTROL RANGE

REF REFRIGERATOR RNG RANGE

RH RANGE HOOD

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MSP - THE DRIFTLESS TOWNHOUSES

(1)-1 1/2" = 1'-0"

MSP - THE DRIFTLESS TOWNHOUSES

DATE OF ISSUE:	04/14/2023
REVISIONS:	
B ADDENDUM E	3 04/26/2023
PROJECT #	21136
	21100
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CONDITIONS OF THE CONTRACT

00 2000 - INFORMATION AVAILABLE TO BIDDERS

1.1 The Geotechnical Engineering Report. 1.2 These documents may be obtained by contacting Ben Shearer, MSP Construction, (P) 414-208-8745, email bshearer@msphousing.com

00 7000 – GENERAL CONDITIONS

1.1 The "General Conditions of the Contract for Construction" AIA Document A201, 2017 Edition, Articles 1-15, is hereby adopted by reference.

GENERAL REQUIREMENTS

01 1000 – SUMMARY OF THE WORK

- CONTRACT LIMITS: All work shall be confined within the property lines indicated on the Project Drawings. Do not infringe upon other 1.1 areas without the permission of the Owner.
- DESIGN COORDINATION: The General Contractor will arrange for the engineering and preparation of complete, certified, and final 1.2 plumbing, HVAC, fire protection and electrical construction documents and "supervising professional" duties in conformance with these construction documents.
- 1.3 CODES AND PERMITS: The Contractor will be responsible for providing all work and materials in strict accordance with all applicable codes, regulations and ordinances having jurisdiction. The Contractor will be responsible for obtaining all required building permits, approvals, inspections and sign-offs. The Contractor is responsible for all associated permitting and approval fees.
- 1.4 LAYOUT: The Contractor will be solely responsible for properly and accurately laying out the work and for all lines and measurements of the work including but not necessarily limited to, horizontal and vertical control and dimensional coordination as necessary to construct the Work in accordance with Contract Documents. Before ordering materials or doing work which is dependent on coordination with building conditions, the Contractor will verify all dimensions.
- PROTECTION: Reasonable precautions shall be taken to protect materials and work in place or stored at the job site from damage 1.5 or loss due to dampness or cold, vandalism, theft, collapse, or abuse. Where practical, easily transportable materials will be stored in locked, temporary structures or enclosures at the job site. The Contractor shall take adequate precautions to protect building materials, finishes and equipment throughout all phases of construction. Damaged materials, finishes or equipment shall be replaced or repaired. Remove all spills or smears on concrete floors immediately and sweep floors frequently. Cover all exposed concrete floors used as work areas. Contractor shall assume responsibility for the floors being in like new condition upon completion of the Project.
- COORDINATION: Coordinate construction operations to ensure efficient and orderly installation of each part of the Work. Coordinate 1.6 construction operations, included in different Specification Sections or installed by different trades that depend on each other for proper installation, connection, and operation. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation. Coordinate installation of different components to ensure maximum accessibility for required maintenance, service, and repair. Make adequate provisions to accommodate items scheduled for later installation.
- PROGRESS CLEANING: Keep premises free of accumulation of surplus materials and rubbish resulting from operations. Remove rubbish from premises weekly and additionally as required. Keep interior of building free of unattended combustible rubbish at all times. Remove all tools, equipment, scaffolding and temporary facilities immediately when no longer required for execution of the Work. Broom clean all floors as construction progresses as necessary to eliminate dirt and trash accumulation. Coordinate and direct the overall cleanliness of the premises.
- A. The General Contractor shall be responsible for supplying dumpsters, including required recycling dumpsters for waste like
- cardboard and shall maintain dumpsters throughout the project for the use of all Contractors. Disposal of all debris shall comply with all federal, state and local regulations. Fees and associated expenses are the
- responsibility of the Contractor.

01 2400 – WORK SCOPE CHANGES Change orders must be formally authorized in writing by the Owner prior to implementation. 1.1

01 3300 – SUBMITTALS

- 1.1 SHOP DRAWINGS AND COORDINATION DRAWINGS: Submit one copy of shop drawings to the Architect via email using PDF format. A/E will return one copy with review comments in PDF format via email to general contractor. A. Reviewing and conditional approval are only for conformance with the design concept of the project and compliance with the
 - information given in the contract documents. B. The Contractor is responsible for dimensions to be confirmed and correlated at the site; for information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction and for coordination of the work of all trades. Corrections or comments made on this shop drawing submittal do not relieve the

- Contractor from compliance with requirements of contract documents.
- 1.2 SAMPLES: Samples shall be of the precise article proposed to be furnished. Submit all samples in the quantity which is required to be returned, plus two which will be retained by the Architect. Submit accurate color and pattern charts to A/E for review and selection. 1.3 TIMING OF SUBMITTALS: Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals and for placing orders and securing delivery.

01 4000 – QUALITY REQUIREMENTS

- 1.1 See Also: The Geotechnical Engineering Report referenced in DIVISION 00 2000 INFORMATION AVAILABLE TO BIDDERS. 1.2 Reference Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirements. Refer conflicting requirements that are different, but apparently equal, to Architect before proceeding.
- 1.3 Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. 1.4 Quality Assurance:
 - A. Manufacturer Qualifications: Firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. B. Fabricator Qualifications: Firm experienced in producing products similar to those indicated for this Project and with a record
 - of successful in-service performance, as well as sufficient production capacity to produce required units. C. Installer Qualifications: Firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service
 - performance. D. Professional Engineer Qualifications: Professional engineer who is legally qualified to practice in jurisdiction where project is located and who is experienced in providing engineering services of the kind indicated.
 - E. Testing Agency Qualifications: An NRTL, and NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
 - Manufacturer's Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project
 - G. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
 - 1. Contractor responsibilities include:
 - Provide test specimens representative of proposed products and construction. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the
 - completed Work.
 - d. When testing is complete, remove test specimens, assemblies, mockups; do not reuse products on Project. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

1.5 Quality Control

- A. Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
- Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
- Where indicated, engage a manufacturer's representative to observe and inspect the Work. Manufacturer's representative's services include examination of substrates and conditions, verification of materials, inspection of completed portions of the Work, and submittal of written reports.
- D. Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents. Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary serves as requested. Provide access to the work, labor and facilities, adequate guantities of materials, security and protection for samples and testing and inspecting equipment.
- F. Coordinate sequence of activities to accommodate required quality-assurance and -control services with minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
- Prepare a record of tests and inspections. Include the following: 3.1 A. Date test or inspection was conducted.
- Description of the Work tested or inspected.
- C. Date test or inspection results were transmitted to Architect
- D. Identification of testing agency or special inspector conducting test or inspection.
- Maintain record of tests and inspections at Project site; post changes and revisions as they occur.
- 3.3 On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes. A. Protect construction exposed by or for quality-control service activities.
- Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services. 3.4

01 5000 – TEMPORARY FACILITIES

3.2

- 1.1 VEHICULAR ACCESS: Construct temporary access roads from public thoroughfares to serve construction areas, of width and load bearing capacity to accommodate unimpeded traffic for construction purposes. Provide unimpeded access for emergency vehicles, and maintain access to fire hydrants and control valves free of obstructions. Provide means of removing mud from vehicle wheels before entering streets.
- PARKING: Arrange for temporary surface parking areas to accommodate construction personnel. 1.2 WATER CONTROL: Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment. Protect 1.3
- site from puddling or running water. Provide water barriers as required to protect site from soil erosion. EROSION AND SEDIMENT CONTROL: Refer to Civil Drawings. Plan and execute construction by methods to control surface drainage 1.4
- from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation. Minimize surface area of bare soil exposed at one time. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures. NOISE CONTROL: Provide methods, means, and facilities to minimize noise produced by construction operations. 1.5
- 1.6 POLLUTION CONTROL: Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations. Comply with requirements of authorities having iurisdiction
- 1.7 DUST AND AIR CONTAMINANT CONTROL: Execute Work by methods to minimize raising dust from construction operations, and provide positive means to prevent air-borne dust from dispersing into atmosphere. Upon installation, seal all permanent ducts and vents to minimize contamination during construction. Remove any seals after all phases of construction are completed. The building will be smoke-free during construction.
- FIELD OFFICE: Prefabricated or mobile units. 1.8
- 1.9 STORAGE AND FABRICATION SHEDS: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations
- 1.10 WEATHER PROTECTION: Protect material, apparatus, fixtures and the work from damage by wind, freezing and precipitation while in shipment, storage and in place. Cover and otherwise protect each day's work susceptible to weather damage. 1.11 FIRE EXTINGUISHERS: Provide portable, UL rated; with class and extinguishing agent as required by locations and classes of fire
- exposures 1.12 HVAC EQUIPMENT: Provide temporary heating, cooling and ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Provide vented, self-contained, liquid-propane-
- gas or fuel-oil heaters with individual space thermostatic control. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited. Heating Units shall be listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use. If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return air grille in system and remove at end of construction. 1.13 SANITARY FACILITIES: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel.
- 1.14 TEMPORARY UTILITIES: Temporary utilities shall be provided as needed for construction equipment and tools used on the project and to support construction personnel working at the project site.
- 1.15 LIGHTING: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
- 1.16 STAIRS: Provide and maintain for the use at least one temporary stair between the basement and roof as soon as feasible. Cover finished, permanent stairs with protective covering of plywood or similar material so finishes will be undamaged at time of acceptance.
- 1.17 SECURITY ENCLOSURE AND LOCKUP: Install substantial temporary enclosure around partially completed areas of construction.
- Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- 1.18 BARRIERS, BARRICADES, WARNING SIGNS, AND LIGHTS: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- TEMPORARY ENCLOSURES: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, 1.19 foul weather, other construction operations, and similar activities. Provide temporary weather tight enclosure for building exterior. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures. 1.20 TEMPORARY PARTITIONS: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by
- Owner and tenants from fumes and noise. 1.21 TERMINATION AND REMOVAL: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or restore permanent construction that may have
- been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

01 7329 - CUTTING AND PATCHING

- 1.1 Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or loaddeflection ratio.
- 1.2 Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would reduce the building's aesthetic qualities.
- Provide temporary support of Work to be cut. 3.1
- Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for 3.2
- portions of Project that might be exposed during cutting and patching operations. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as 3.3
- required to restore surfaces to their original condition. 3.4 Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. Comply with original Installer's written recommendations.
- 3.5 In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use. 3.6 Cut or drill from the exposed or finished side into concealed surfaces.
- 3.8 Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining

Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill. 3.7

- portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
- 3.9 Proceed with patching after construction operations requiring cutting are complete. Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers. 3.10 Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with
- durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections. 3.11 Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a
- manner that will eliminate evidence of patching and refinishing. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- 3.12 Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

01 7700 – CONTRACT CLOSEOUT

- 1.1 FINAL CLEANING: Prior to requesting inspection for certification of Substantial Completion for the entire Project or for a portion of Project, clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - Clean all surfaces to condition acceptable for immediate occupancy by the Owner. Remove all marks, stains, fingerprints, paint droppings and other foreign matter from all finished surfaces.
 - Clean and polish all hardware.
 - D. Wash and polish all glass, including mirrors. Replace cracked, scratched or damaged glass items.
 - Vacuum all carpeting.
- 1.2 GUARANTEES: All work shall be guaranteed to be free from defects in workmanship and materials for a period of one (1) year following acceptance of the facility by the Owner. The Contractor, at no expense to the Owner, shall correct all such defects. Any extended warranties that are obtained from subcontractors and vendors to the project will be delivered to the Owner at project completion. Work shall be completed in a manner keeping with manufacturer guidelines to maintain all product warranties in full.
- 1.3 OPERATION AND MAINTENANCE: Prior to final occupancy, the Contractor shall provide instructions to the Owner's staff and representatives regarding proper operation and maintenance of the different systems and materials installed at the project. Provide a manual containing operation and maintenance schedules and reference information.
- 1.4 SUBSTANTIAL COMPLETION: Prior to substantial completion: A. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - Advise Owner of pending insurance changeover requirements.
 - Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents. С Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction
 - photographs, damage or settlement surveys, property surveys, and similar final record information.
 - Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable
 - G. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - Complete startup testing of systems.
 - Submit test/adjust/balance records
 - Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - Advise Owner of changeover in heat and other utilities. M. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 - Complete final cleaning requirements, including touchup painting. Touch up and otherwise repair and restore marred exposed N finishes to eliminate visual defects.
 - Submit written warranties, organized into an orderly sequence. Organize maintenance-and-operating manual information into three complete sets, each in manageable size, and bind into individual binders properly identified and indexed. Include emergency instructions, spare parts listing, copies of warranties, wiring diagrams, recommended "turn-around" cycles, inspection procedures, shop drawings, product data and similar applicable information.

CONSTRUCTION SPECIFICATIONS

03 3000 CAST-IN-PLACE CONCRETE

- 1.1 Submittals
 - Product data for each type of product indicated.
 - Design mixtures for each concrete mixture. B.
- Steel Reinforcement Shop Drawings. 1.2 Comply with the following unless modified by requirements in the Contract Documents:
- ACI 301, "Specification for Structural Concrete,"
- ACI 117, "Specifications for Tolerances for Concrete Construction and Materials." 1.3 Concrete Testing Service: Engage a gualified independent testing agency to perform material evaluation tests and to design concrete mixtures.
- 1.4 Steel Reinforcement
 - Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed. Α
 - Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.
- Accessories: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded C.
- wire reinforcement in place
- Epoxy-coated reinforcing bars ASTM A 775, with less than 2 percent damaged coating in each 12-inch bar length. 1.5 Reference the Geotechnical Engineering Report referenced in DIVISION 00 2000 - INFORMATION AVAILABLE TO BIDDERS.
- 1.6 Refer to drawings for additional specific requirements. 1.7 See also Section 05 3600 Composite Beams.
- 2.1 Smooth-Formed Finish Concrete: Form-facing panels that provide continuous, true, and smooth concrete surfaces. Furnish in largest
- practicable sizes to minimize number of joints. 2.2 Rough-Formed Finish Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.
- 2.3 Cementitious Material: Portland Cement ASTM C 150, Type I supplemented with fly ash (ASTM C 618, Class C).
- 2.4 Normal-Weight Aggregates: ASTM C 33, Class 3S free of materials with deleterious reactivity to alkali in cement. 2.5 Water: Potable.
- 2.6 Air-Entraining Admixture: ASTM C 260.
- 2.7 Provide chemical admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride. 2.8 Expansion- and Isolation-Joint Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork.
- 2.9 Vapor Barriers: ASTM E 1745, Class A 15 mil. Include manufacturer's recommended adhesive or pressure tape 2.10 Waterstops: Tremco Superstop Bentonite Waterstop material or equal. Composite waterstop containing expandable, granular bentonite with one edge layered with a pressure sensitive adhesive.
- 2.11 Curing Materials: Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C1315, Type 1, Class A, certified by curing compound manufacturer to not interfere with bonding of floor covering.

2.12 Concrete Mix Design Schedule

Concrete Mix De	sign Schedule						
Type of Construction	28 day strength (psi) ASTM C39	Max Slump +/- 1 inch ASTM C143 (D)	Maximum Aggregate Size (inch)	Percent of air entraining +/- 1.5/%	Maximum water/ cementitious material ratio	Minimum Cementitious Materials per cubic yard	Additional Comments
Footings/3000	3000	3	1-1/2	4.5	0.59		(A)
Foundation & Exposed Walls	4000	4	1	6	0.57		(A)
Exterior Slab-on-Grade	4500	3	.75	6	0.44	520	(B) (E)
Interior Slab- on-Grade	3500	3	1	not greater than 3	0.68	520	(B) (E)
Concrete Toppings	4000	3	1	not greater than 3	0.44		(A) (E)

Comments:

- Maximum replacement of cementitious materials by weight fly ash 25%, slag 50%, Limit total replacement of cementitious materials A)
- to 50% Maximum replacement of cementitious materials by weight fly ash 15%, slag 30%, Limit total replacement of cementitious materials B)

to 30%, Concrete supplier and finisher shall coordinate approximate set times of proposed mix design under various weather conditions and E) adjust mix design as necessary to assure set time is acceptable to complete placing and finishing of slab in a timely manner. 2.13 Foundation Drain Tile: Perforated, corrugated, black plastic piping, with a minimum diameter of four (4) inches. Provide as shown on

- Drawings.
- 2.14 EPS Foam Insulation: EPS 39 Type XIV. ASTM D6817 Compressive Strength: 25 psi minimum.
 - 5% deformation jumping down. Β.
 - Thickness and locations as indicated on drawings. C.
- 3.1 Formwork: Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within
- tolerance limits of ACI 117. Chamfer exterior corners and edges of permanently exposed concrete. Walls and columns in stairwells will not have a chamfer. C. 3.2 Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place
- concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded. 3.3 Comply with CRSI's "Manual of Standard Practice" for placing reinforcement. 3.4 Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D 3963. Use epoxy-coated steel wire ties to fasten
- epoxy-coated steel reinforcement. 3.5 Construct joints true to line with faces perpendicular to surface plane of concrete.
- 3.6 Construction Joints: Install so strength and appearance of concrete is not impaired, at locations indicated or as approved by Architect.
- 3.7 Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct
- contraction joints for a depth equal to at least one-fourth of concrete thickness. 3.8 Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

MSP - THE DRIFTLESS

- 3.9 Install waterstops in construction joints, between footings and foundation walls, and at other locations indicated, according to manufa written instructions.
- 3.10 Before placing concrete verify that installation of formwork, reinforcement, and embedded items is complete and that required inspect have been performed.
- 3.11 Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete t hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints. D concrete to avoid segregation.
- 3.12 Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
 3.13 Cold-Weather Placement: Comply with ACI 306.1. Protect concrete work from physical damage or reduced strength that could be c by frost, freezing actions, or low temperatures. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301. Do not use from materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators.
- 3.14 Hot-Weather Placement: Comply with ACI 301. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. F spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water spots, or dry areas.
- 3.15 Rough-Formed Finish on concrete surfaces not exposed to public view: As-cast concrete texture imparted by form-facing material w holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregulari
 3.16 Finishing slabs: Comply with ACI 302.1R recommendations for screeding, re-straightening, and finishing operations for concrete surface
- Broom finish on slab and stair surfaces. 3.17 Cure concrete according to ACI 308.1, by moisture curing: Keep surfaces continuously moist for not less than seven days.
- 3.17 Cure concrete according to ACI 308.1, by molsture curing. Reep surfaces continuously molst for not less than seven days.
 3.18 Repair and patch defective concrete areas when approved by A/E. Remove and replace concrete that cannot be repaired and patch A/E's approval.
- 3.19 Foundation Drain Tile Installation
 - A. Drain tile is to be placed at the footing level, not setting on the footing, and as indicated on Drawings.
 B. Coarse aggregate shall meet all of the following criteria (which encompass aggregate sizes #6 and #67 per ASTM standard C33):
 - 1. 100% of the aggregate shall pass a 1-inch sieve.
 - 90-100% of the aggregate shall pass a 3/4-inch sieve.
 - 3. 0-55% of the aggregate shall pass a 3/8-inch sieve.
- 4. 0-5% of the aggregate shall pass a #8 sieve. (A #8 sieve has square openings of 0.09 inch.)
 3.20 Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- 3.21 Install EPS foam installation according to manufacturer's written instructions.
- 3.22 Sealing Coat: Uniformly apply a continuous sealing coat of curing and sealing compound to hardened concrete by power spray or ro according to manufacturer's written instructions.

03 4100 PRECAST STRUCTURAL CONCRETE

- 1.1 Provide precast structural concrete units and connections capable of withstanding design loads and fire ratings within limits and unc conditions indicated.
- 1.2 Submittals:
 - A. Shop Drawings: Detail fabrication and installation of precast structural concrete units. Indicate member locations, plans, ele dimensions, shapes, cross sections, openings, and types of reinforcement, including special reinforcement. Indicate locations details of anchorage devices to be embedded in other construction.
 - B. Comprehensive engineering analysis signed and sealed by the qualified professional engineer responsible for its preparation
 C. Wisconsin Department of Safety and Professional Services (Safety and Buildings) Component Submittal: Provide all require engineering calculations, drawings, etc. Prepare all required State forms, pay all costs and required fees. Secure State component submittal approval prior to manufacturing.
- Installer Qualifications: An experienced installer who has completed precast structural concrete work similar in material, design, and to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- 1.4 Fabricator Qualifications: A firm that complies with the following requirements and is experienced in manufacturing precast structura concrete units similar to those indicated for this Project and with a record of successful in-service performance.
 1.5 See also Section 05 3600 Composite Beams.
- 2.1 Precast concrete plank: PCI MNL 116; see Structural Drawings.

03 4500 – PRECAST ARCHITECTURAL CONCRETE

- 1.1 Architectural Precast stone sills as indicated on Drawings
- 1.2 Submittals:A. Product Data: For each type of product indicated.
 - B. Shop Drawings: Detail fabrication and installation of architectural precast units. Indicate locations, plans, elevations, dimensions, shapes, and cross sections of each unit. Indicate joints, reveals, and extent and location of each surface finish.
- Indicate details at building corners.
 C. Samples: For each type of finish indicated on exposed surfaces of architectural precast units, illustrating full range of finish,
- color, and texture variations expected. 1.3 Design Standards: Comply with ACI 318 and design recommendations of PCI MNL 120 "PCI Design Handbook - Precast and Prestr
- Concrete," applicable to type of precast concrete units indicated.2.1 Manufacturer: Rockridge Cast Stone, LLC.
- 2.2 Product, Color, Size, Location: See Drawings.
- 3.1 Install clips, hangers, bearing pads, and other accessories required for connecting architectural precast units to supporting members backup materials.
 3.2 Erect architectural precast units level, plumb, square, true and in alignment without exceeding the noncumulative erection tolerances
- MNL 117, Appendix I.
- 3.3 Connect architectural precast units in position by bolting, welding, grouting, or as otherwise indicated on Shop Drawings.
 3.4 Repair damaged architectural precast units if permitted by Architect. Architect reserves the right to reject repaired units that do not c
- with requirements.
- 3.5 Remove and replace damaged architectural precast units when repairs do not comply with requirements.3.6 Clean surfaces of precast units exposed to view.

03 5320 GYPSUM CONCRETE FLOOR TOPPING

- 1.1 Submittals:A. Product Data: For each type of product indicated.
- B. Product test reports.
- 1.2 Coordination: Coordinate installation and performance requirements with in-floor radiant heat tube system where applicable.
- 2.1 Performance Requirements: Product to be in conformance with requirements of UL assemblies L523 System 2 and L563 System
 2.2 Products: Hacker FIRM-FILL, or approved equal.
- A. Gypsum-cement-based, self-leveling product that can be applied in minimum uniform thickness as required to accommodate camber, deflection; and as indicated on Drawings.
- B. 1/4" Sound-Mat to comply with STC and IIC levels indicated.
- 3.1 With manufacturer's technical representative present, examine insulation covering concrete to ensure it is securely and properly atta so that there will be no leakage beneath it. Do not proceed with installation until unsatisfactory conditions have been corrected.
- 3.2 Prepare and clean substrate according to manufacturer's written instructions. Treat nonmoving substrate cracks to prevent cracks
- telegraphing (reflecting) through. Fill substrate cracks and voids to prevent topping from leaking.3.3 After substrate preparation, test substrate for adhesion with topping.
- 3.4 Application:
 - A. Mix and apply according to manufacturer's written instructions. Close area to traffic during application and for time period after application recommended in writing by manufacturer.
 - B. Apply product to produce uniform, level surface.
 C. Construction Joints: Construct joints true to line with faces perpendicular to surface plane of concrete topping, at locations in or as approved by Architect.
 - D. Contraction Joints: Form weakened-plane contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete topping when cutting action will not tear, abrade, or otherwise demonstration surface and before render contraction are blades.
- damage surface and before random contraction cracks develop. E. Underlayment Thickness: As indicated on Drawings.
- 3.5 Protection, Curing, and Repair:
- Protect freshly placed topping from premature drying and excessive cold or hot temperatures. Prevent contamination during process.
- B. Begin curing immediately after finishing application.
 C. Remove and replace areas that evidence lack of bond with substrate, including areas that emit a "hollow" sound when tapped

04 2000 – UNIT MASONRY 1.1 Submittals:

- A. Product data for each type of product indicated.
- B. Shop Drawings: For reinforcing steel. Detail bending and placement of unit masonry reinforcing bars. Comply with ACI 315 "Details and Detailing of Concrete Reinforcement."
- 1.2 Comply with ACI 530.1/ASCE 6/TMS 602.
- 1.3 Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602. Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freez conditions.
 1.4 Comply with bot weather construction requirements contained in ACI 500.1/ASCE 6/TMS 602. Do not use frozen materials or materials or materials or contained or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freez conditions.
- 1.4 Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
- 2.1 Concrete Masonry Units: ASTM C90.
 A. Provide units that comply with requirements for fire-resistance ratings indicated as determined by testing according to ASTM
- or by equivalent masonry thickness. B. Provide shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
- C. Provide integral water repellent CMUs.
- 2.2 Face Brick: ASTM C 216.
- A. Manufacturer: Cloud Ceramics.
- B. Products: See Drawings.
- C. Sizes/Colors/Textures: See Drawings.
- 2.3 Provide ladder-type galvanized reinforcing in single-wythe CMU walls.
 2.4 Provide galvanized masonry veneer anchors to the stone veneer back to
- 2.4 Provide galvanized masonry veneer anchors to tie stone veneer back to wall framing and building structure as indicated.
 2.5 Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification. Type S for reinforced masonry. Type N for exterior, a mode and interior and building structure as indicated.
- grade, and interior non-load bearing applications.2.6 Masonry veneer accessories:
 - A. Metal Drip Edge: Fabricate from prefinished (painted) metal (see Drawings).
 - B. Rubberized-Asphalt Flashing: Composite flashing product consisting of a pliable, adhesive rubberized-asphalt compound, be

acturer's		a high-density, cross-laminated polyethylene film to produce an overall thickness of not less than 60 mil. Provide termination bar and
ctions		sealant. C. Weep hole/vent: Hohmann & Barnard, Inc.; #343 Louvered Weep Hole, or equal.
that has	3.1	D. Cavity Drainage Material: Free-draining mesh, made from polymer strands that will not degrade within the wall cavity, full width of cavity. Mortar Net or equal. Installation:
eposit	5.1	 A. Use full-size units without cutting if possible. If cutting is required, cut units with motor-driven saws; provide clean, sharp, unchipped edges_Install cut units with cut surfaces and where possible, cut edges concealed
aused		 B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. C. Comply with tolerances in ACI 530 1/ASCE 6/TMS 602 and with the following:
ozen		 For conspicuous vertical and horizontal lines do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2 inch maximum.
. Do not		D. Install masonry units per manufacturer's written instructions and per manufacturer's details required to achieve UL fire rated installation.
g water og-	3.2	Laying Masonry Walls: A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of
, soft		openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at all other locations.
rith tie ties.		B. Fill cores in hollow concrete masonry units with grout 24 inches under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.
faces.	3.3	Mortar Bedding and Jointing: Lay hollow and concrete masonry units as follows: A. With face shells fully bedded in mortar and with head joints of depth equal to bed joints.
ned to		 B. With webs fully bedded in mortar in all courses of piers, columns, and pilasters. C. With webs fully bedded in mortar in grouted masonry, including starting course on footings.
	3.4	Anchor masonry to structural members where masonry abuts or faces structural members.
	3.5 3.6	Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated _ Install years at shelf angles, ledges, and other obstructions to unward flow of air in cavities, and where indicated
	3.7	Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
	3.9	Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed. Remove excess clean masonry waste that cannot be used as fill, and other masonry waste, and
		legally dispose of off Owner's property.
oller	05 50	00 – METAL FABRICATIONS
	1.1	Submittals: A. Shop Drawings: Show fabrication and installation details for metal fabrications.
der		B. Provide templates for anchors and bolts specified for installation under other Sections. Comply with the following unless modified by requirements in the Contract Documents.
		C. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.
vations, s and	2.1	Coordinate installation of anchorages for metal fabrications. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver
).	2.2	such items to Project site in time for installation. Galvanized Steel Angles.
d ponent	2.3 2.4	Steel Plates, Shapes, and Bars: ASTM A 36/A 36M. Steel Tubing: ASTM A 500, cold-formed steel tubing.
d extent	2.5 2.6	Steel Pipe: ASTM A 53/A 53M, standard weight (Schedule 40), unless another weight is indicated or required by structural loads. Metal Ladders:
al		 A. Comply with ANSI A14.3 unless otherwise indicated. B. For elevator pit ladders, comply with ASME A17.1.
		 C. Support each ladder at top and bottom and not more than 60 inches o.c. with welded or bolted brackets. D. Provide nonslip abrasive surfaces on top of each rung.
		 F. Provide minimum 72-inch-high, hinged security door with padlock hasp at foot of roof access ladder to prevent unauthorized ladder
	2.7	use. Metal Bollards:
		 B. Fabricate bollards from 3/8-inch-thick steel baseplates for bolting to concrete slab. C. Eabricate sleeves for bollard apphorage from steel pin with 1/4-inch thick steel plate welded to bottom of sleeve. Make sleeves not
		I less than 8 inches deep and 3/4 inch larger than OD of bollard. D Prime bollard with zinc-rich primer Paint vellow
	2.8	Shop Assembly: Preassemble items in the shop to greatest extent possible. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.
ressed	2.6 3.1	Prime metal fabrications after assembly. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications
		accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
and	3.2	Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations.
s of PCI	3.3	Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag bolts, wood
h		screws, and other connectors.
ompiy	05 51	13 - METAL PAN STAIRS AND RAILINGS
	1.1	A. Preassembled stairs with concrete filled treads Shop Drawings:
	1.2	 A. Include plans, elevations, sections, details, and attachements to other work. B. Include design engineer's seal and signature on each sheet of shop drawings
	2.1	Performance Requirements: A. Structural Performance of Stairs: Provide metal stairs capable of withstanding the effects of gravity loads and the following loads and
		stresses within limits and under conditions indicated: 1. Uniform Load: 100 lbf/sg. ft.
ı 2.		 Concentrated Load: 200 Ibf applied on an area of 4 sq. in. Uniform and concentrated loads need not be assumed to act concurrently.
		 B. Structural Performance of Top Rails of Guards: 1. Uniform Load: 50 lbf/sq. ft.
ached		 Concentrated Load: 200 lbf applied in any direction. Uniform and concentrated loads need not be assumed to act concurrently.
from		 C. Structural Performance of Infill Guards: 1. Concentrated Load: 50 lbf applied horizontally on an area of 1 sq. ft.
		 Uniform Load: 25 lbf/sq. ft. applied horizontally. Infill load and other loads need not be assumed to act concurrently.
er		 D. Seismic Performance: Provide metal stairs capable of withstanding the effects of earthquake motions determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads."
	2.2 2.3	Provide materials with smooth, flat surfaces without blemishes. Metals:
dicated		 A. Steel Plates, Shapes, and Bars: ASTM A36/A36M. B. Uncoated, Cold-Rolled Steel Sheet: ASTM A1008/A1008M, structural steel, Grade 25, unless another grade is required by design
e		C. Expanded-Metal, Carbon Steel: ASTM F1267, Class 1 (uncoated).
		ASTM A510/A510M. C Cable Infill: 1/8" diameter 1 x 19. Type 316L stainless strand with Mill finish
curing	2.3	Miscellaneous Materials: A Universal Shop Primer: East-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible
d		with topcoat.
		 B. Concrete Materials and Properties: Comply with requirements per Section 03 3000 "Cast-in-Place Concrete" for normal-weight, air- entrained, ready-mix concrete with minimum 28-day compressive strength of 3000 psi and maximum aggregate size of 1/2 inch
		unless otherwise indicated. 1. Nonslip-Aggregate Concrete Finish: Factory-packaged abrasive aggregate made from fused, aluminum-oxide grits or crushed
,		emery; rustproof and nonglazing; unaffected by freezing, moisture, or cleaning materials. 2. Plain Steel Welded-Wire Reinforcement: ASTM A1064/A10645M. steel, 6 by 6 inches, W1.4 by W1.4, unless otherwise
	2.4	indicated on Drawings. Fabrication of Steel-Framed Stairs: NAAMM Stair Standard: Comply with NAAMM AMP 510. "Metal Stairs Manual." for Architectural Class.
erials ezing	2.5	Finishes: A. Comply with SSPC-SP 3 and SSPC-PA 1 for shop priming.
	3.1	B. Finish metal stairs after assembly. Installation of Metal Pan Stairs:
E 119		A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing metal stairs to in-place construction.
		B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal stairs. Set units accurately in location, alignment, and elevation, measured from established lines and levels and free of rack.
		 C. Install metal stairs by welding stair framing to steel structure or to weld plates cast into concrete unless otherwise indicated. D. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.
		 Fit exposed connections accurately together to form hairline joints. Place and finish concrete fill for treads and platforms to comply with Section 033000 "Cast-in-Place Concrete."
		 G. Attach handrails to guardrail per shop drawings. H. Attach handrails to wall with wall brackets. Use type of bracket with flange tapped for concealed anchorage to threaded hanger bolt.
bove	3.2	Iouchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with same material as used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.
onded to	U5 73 1.1	Provide exterior balcony railings capable of withstanding the effects of gravity loads and the following loads and stresses within limits and

under conditions indicated:

A. Top Rails of Guards: Uniform load of 50 lbf/ ft. applied in any direction. Concentrated load of 200 lbf applied in any direction. Uniform and concentrated loads need not be assumed to act concurrently.

- B. Infill of Guards: Concentrated load of 50 lbf applied horizontally on an area of 1 sq. ft. Uniform load of 25 lbf/sq. ft. applied horizontally. Infill load and other loads need not be assumed to act concurrently.
- 1.2 Submittals:
 A. Product Data: For railings assembled from standard components, grout, anchoring cement, and paint products.
 - B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other Work.
- C. Samples: For each exposed finish required.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.
- 1.3 Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with
- incompatible materials.
- 2.1 Aluminum: Provide alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.
 2.2 Tempered Glass Guardrails: Provide products that have been tested for surface and edge compression in accordance with ASTM C1048 and for impact strength in accordance with 16 CFR 1201 for Category II materials.

A. Glass Color: Glear. 2.3 Easteners: Provide Type 304 stainless-stee

- 2.3 Fasteners: Provide Type 304 stainless-steel fasteners concealed fasteners, unless exposed fasteners are unavoidable.
 2.4 Baked Enamel Finish: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603, medium gloss.
 A. Color: See Drawings.
- 3.1 Immediately after erection, clean abraded areas and paint exposed areas with same material as used for shop painting.
- 06 1000 ROUGH CARPENTRY & SHEATHING
- 1.1 Submittals
 A. Product Data: For each type of process and factory-fabricated product. Include data for wood-preservative and fire-retardant treatment and certification by treating plant that treated materials comply with requirements. Include component materials and
 - dimensions and include construction and application details for sheathing products. B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade
- selected for each use and design values approved by the American Lumber Standards Committee Board of Review.
 2.1 Engineered Wood Products General: Provide engineered wood products acceptable to authorities having jurisdiction and for which current model code research or evaluation reports exist that show compliance with building code in effect for Project. Provide engineered wood products with allowable design stresses that meet or exceed those indicated.
- 2.2 Preservative Treatment by Pressure Process: AWPA U1, Use categories as follows:
 - A. UC1: Interior construction not in contact with the ground or subject to moisture.1. Wood millwork.
 - 2. Wood floor plates that are installed over concrete slabs-on-grade.
 - B. UC2: Interior construction not in contact with the ground but may be subject to moisture.
 - Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
 Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
 - Wood floor plates that are installed over concrete slabs-on-grade.
 UC3B: Uncoated products excluding sawn products in exterior construction not in contact with ground, exposed to all weather cycles
 - including prolonged wetting. 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 - 2. Balconies and pergolas.
 - D. UC4A: Coated sawn products in contact with the ground.
- 2.3 Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested in accordance with ASTM E84.
- A. Exterior Type: Treated materials are to comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering in accordance with ASTM D2898. Use for exterior locations and where indicated.
- B. Interior Type A: Treated materials are to have a moisture content of 28 percent or less when tested in accordance with ASTM D3201/D3201M at 92 percent relative humidity. Use where exterior type is not indicated.
- 1. Use for enclosed roof framing, roof sheathing, framing in attic spaces, and where indicated.
- C. Kiln-dry plywood after treatment to a maximum moisture content of 19 percent.
 D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency and other information required by authorities having jurisdiction.
- 2.4 Dimension Lumber Framing: Kiln-dry lumber after treatment to a maximum moisture content of 19 percent.
- A. Non-Load-Bearing Interior Partitions: Construction or No. 2 grade of any species.
 B. Framing Other Than Non-Load-Bearing Interior Partitions: As indicated on the structural drawings.
- 2.5 Sheathing
 - A. Oriented-Strand-Board Wall Sheathing: Exposure 1, structural sheathing. Span Rating: Not less than 16/0.
 B. Glass-Mat Gypsum Wall Sheathing: ASTM C 1177/1177M. Type X. Use in locations indicated on Drawings as required for non-combustible exterior wall sheathing.
 - C. APA Rated Oriented-Strand-Board Roof Sheathing: Exposure 1, Structural I sheathing.
 - D. Plywood Roof Sheathing: Exterior, Structural I sheathing.
 - E. Plywood Subflooring: Exposure 1 single-floor panels or sheathing.F. Cement Board in areas indicated on Drawings.
- Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.
 Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity,
- 2.7 Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area or high relative number, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
 2.8 Sill-Sealer Gaskets: Glass-fiber-resilient insulation, fabricated in strip form, for use as a sill sealer; 1-inch (25-mm) nominal thickness,
- compressible to 1/32 inch (0.8 mm); selected from manufacturer's standard widths to suit width of sill members indicated.
- For carpentry in exterior locations and wall and roof sheathing panels, provide fasteners with corrosion-protective coating.
 Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other
- construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, and similar supports to comply with
- requirements for attaching other construction.
 3.2 Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.
 3.3 Framing with Engineered Wood Products: Install engineered wood products to comply with manufacturer's written instructions.
- SECTION 06 1533 PLASTIC DECKING
- 1.1 Submittals: Product Data for each product.

1.2 Store materials under cover and protected from weather and contact with damp or wet surfaces. Stack lumber flat with spacers between

- each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.
- A. Handle and store plastic lumber to comply with manufacturer's written instructions.
- Performance Requirements:
 A. Plastic Lumber, General: Products acceptable to authorities having jurisdiction with current model code evaluation reports that show compliance with building code in effect for Project for indicated type of construction.
 - B. Loading: Demonstrate compliance with ASTM D7032.
- C. Flame Spread Index: Less than 200 when tested in accordance with ASTM E84 or UL 723.
- D. Termite and Decay Resistance: Demonstrate compliance in accordance with ASTM D7032.
- 2.2 Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- A. Fiberon
- B. TimberTech, AZEK Building Products; The AZEK Company LLC
- C. Trex Company, Inc.
- C. I rex Company, I
- D. Approved equal. 2.3 Decking:
- A. Decking Size: 1-1/4 by 6 nominal, 1 by 5-1/2 inches actual.
- B. Configuration: Provide product with grooved edges designed for fastening with concealed decking fasteners.
- C. Surface Texture: Woodgrain.D. Color: As selected by Architect from manufacturer's full range.
- D. Color: A 2.4 Fasteners:
 - A. General: Provide fasteners of size and type indicated, acceptable to authorities having jurisdiction, and that comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less
- than 1-1/2 inches into wood substrate.
 B. Use stainless steel or fasteners with hot-dip zinc coating complying with ASTM A153/A153M or ASTM F2329] unless otherwise indicated.
- C. Power-Driven Fasteners: ICC-ES AC70.
- D. Wood Screws and Lag Screws: ASME B18.2.1, ASME B18.6.1, or ICC-ES AC233.
- 3.1 Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- 3.2 Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit work to other construction; scribe and cope as needed for accurate fit.
- 3.3 Framing Standard: Comply with AF&PA WCD1 unless otherwise indicated.
- 3.4 Install plastic lumber to comply with manufacturer's written instructions.
 3.5 For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced and with adjacent rows staggered.
- 06 1753 SHOP-FABRICATED WOOD TRUSSES
- 1.1 Provide metal-plate-connected wood trusses capable of withstanding design loads. Comply with requirements in TPI 1.
- 1.2 Submittals:
 - A. Shop Drawings: Show fabrication and installation details for trusses. Show location, pitch, span, camber, configuration, and spacing for each type of truss required. Indicate sizes, stress grades, and species of lumber. Indicate locations of permanent bracing and show splice details and bearing details. Indicate type, size, material, finish, design values, orientation, and location of metal connector plates.
 - B. Comprehensive engineering analysis signed and sealed by the qualified professional engineer responsible for its preparation.
 C. Wisconsin Department of Safety and Professional Services (Safety and Buildings) Component Submittal: Provide all required engineering calculations, drawings, etc. Prepare all required State forms, pay all costs and required fees. Secure State component submittal approval prior to manufacturing.
- 1.3 Coordinate truss layout with piping and duct locations.
- 1.4 Refer to drawings for additional specific requirements.
- 3.1 Install wood trusses only after supporting construction is in place and is braced and secured.
- 3.2 Hoist trusses in place by lifting equipment suited to sizes and types of trusses required, exercising care not to damage truss members or joints by out-of-plane bending or other causes.
- 3.3 Install and brace trusses according to TPI recommendations and as indicated.
- 3.4 Anchor trusses securely at bearing points; use metal truss tie-downs or floor truss hangers as applicable. Install fasteners through each

MSP - THE DRIFTLESS

- fastener hole in truss accessories according to manufacturer's fastening schedules and written instructions. 3.5 Do not cut or remove truss members.
- 3.6 Replace wood trusses that are damaged or do not meet requirements.

06 4023 – INTERIOR ARCHITECTURAL WOODWORK AND COMPOSITES

- 1.1 Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips unless concealed within other construction woodwork installation.
- 1.2 Submittals:
- Product Data: For manufactured items. Shop Drawings: Include connection details, anchorage spacing, layout, hardware locations, installation details, and coordina Β.
- with
- other work C. Samples
 - Lumber and panel products finished on one side and one edge.
 - Cultured marble materials.
- Granite materials for each type, color, pattern, and surface finish. 1.3 Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels.
- 1.4 Field Measurements: Where woodwork is indicated to fit other construction, verify dimensions of other construction by field measure before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avo delaying the Work. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before be enclosed.
- 1.5 Coordinate work with plumbing rough-in, electrical rough-in, and installation of associated and adjacent components. Ensure that frai supports, blocking, furring, reinforcements, and other related Work have been installed as necessary for the installation of work under Section
- 2.1 Provide wood materials that comply with requirements of AWI's Quality Standard, unless otherwise indicated. 2.2 Wood:
- Common Area and Corridor Wood Species: Maple.
- Residential Casing and Trim: Any closed-grain hardwood; prefinished, painted (white) wood trim. 2.3 Wood Handrails and Handrail Brackets:
- Uniform load of 50 lbf/ft. applied in any direction.
- Concentrated load of 200 lbf applied in any direction.
- Uniform and concentrated loads need not be assumed to act concurrently. Handrail Brackets: Cast from stainless steel with wall flange drilled for exposed anchor and with support arm for screwing to
- underside of rail. 2.4 Wire Shelving: Rubber Maid or equal. Ventilated. Include wire shelf support brackets, support poles, shelf clips, and clothes poles;
- finish in white. 2.5 Granite Countertops and Shelves: Comply with ASTM C615.
- Granite: As selected by Owner from manufacturer's full range.
 - Ogee bull nose edge.
- Colors: As selected by Owner from manufacturer's full range. 2.6 Cultured Marble Window Sills: One piece 3/4 inch. Granite look or cream color, as selected and approved by Owner.
- 2.7 Quartz Countertops & Backsplashes: As selected by Owner from manufacturer's full range.
- 2.8 Wainscotting: See Drawings for locations, dimensions and design.
- 2.9 Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content. 2.10 Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip
- galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance.
- 2.11 Wood Base: Prefinished. See Drawings for height. See Room Finish List for finish.
- 3.1 Verify adequacy of backing and support framing. Verify mechanical, electrical, and building items affecting work of this Section are pla and ready to receive this work.
- 3.2 Provide anchoring devices for installation and embedding. Provide templates and rough-in measurements.
- 3.3 Install woodwork level, plumb, true, and straight to a tolerance of 1/8 inch in 96 inches. Shim as required with concealed shims. 3.4 Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and nailing as required for complete installation.
- 3.5 Anchor paneling to supporting substrate with concealed panel-hanger clips. Do not use face fastening unless covered by trim. Insta paneling with no more than 1/16 inch in 96-inch vertical cup or bow and 1/8 inch in 96-inch horizontal variation from a true plane. 3.6 Anchor countertops securely by screwing through corner blocks of base cabinets or other supports into underside of countertop. Cat
- space between backslash and wall with approved sealant. 3.6 Install trim with minimum number of joints possible.
- 3.7 Anchor paneling to supporting substrate with concealed panel-hanger clips. Do not use face fastening unless covered by trim or othe indicated.
- 3.8 Set and secure shelving materials and components in place, plumb and level.
- 3.9 All finishes must be smooth, uniform in color and match approved samples. 3.10 Repair and replace damaged or defective work. Clean according to manufacturer's directions. Use no acids or harsh abrasives. Le

surfaces clean and without defects.

07 0533 – FIRE AND SMOKE ASSEMBLY IDENTIFICATION

- 1.1 Interior identification markings for fire and smoke assemblies per IBC 703.7. 1.2 Submittals: Manufacturer's printed product literature for each type of marking, indicating font, foreground and background colors, an
- overall dimensions
- 2.1 Comply with "Marking and Identification" requirements of "Fire-Resistance Rating and Fire Tests" chapter of IBC.
- 2.2 IBC 703.7 Marking and Identification: Where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations such walls shall effectively and permanently identified with signs or stenciling in the concealed space. Such identification shall:
 - Be located within 15 feet of the end of each wall and at intervals not exceeding 30 feet measured horizontally along the wall or partition.
 - Include lettering not less than 3 inches in height with a minimum 3/8 inch stroke in a contrasting color incorporating
- the suggested wording, "FIRE AND/OR SMOKE BARRIER-PROTECT ALL OPENINGS" or other wording.
- 3.1 Locate markings as required by IBC. Install neatly with horizontal edges level.

07 1800 TRAFFIC COATINGS, PEDESTRIAN TRAFFIC

- 1.1 Section includes polyure thane traffic coatings for pedestrian traffic applications over concrete topping at balconies.
- 1.2 Submittals Product Data: For each type of traffic coating product specified.
- Shop Drawings: Show locations for traffic coating system components. Show details for each type of substrate, movement Β. joints, corners, and edge conditions, including penetrations, transitions, and terminations.
- 1.3 Store products in weather protected environment, clear of ground and moisture, within temperature ranges recommended by traffic c manufacturer.
- 1.4 Apply traffic coating within the range of ambient and substrate temperatures recommended by manufacturer.
- Protect substrates from environmental conditions that affect coating performance Schedule work so that traffic coating applications may be inspected prior to concealment.
- 1.5 Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace coating materials, installed according to manufacturer's written instructions, that exhibit material defects or otherwise fail to perform as specified under normal use within war perod specified. Manufacturer's obligation for repair or replacement shall be limited to the original installed cost of the work.
- Warranty Period: Five (5) years from date of Substantial Completion.
- 2.1 Traffic Coatings: Manufacturer's standard exterior exposure, pedestrian traffic-bearing, seamless, high-solids-content, cold liquid-appleter and the second standard exterior exposure and the second standard exterior exterior exposure and the second standard exterior elastomeric waterproofing membrane system meeting ASTM C 957 and SWRI validated.
 - Basis-of-Design Product: Sikalastic 710/715 Traffic System.
 - Primer: Liquid primer recommended for substrate and conditions by traffic coating manufacturer.
 - Base Coat: 710 Base one-component aromatic polyurethane. Top Coat: 715 Top one-component aromatic polyurethane.
 - Top Coat: 736 AL Lo-VOC aliphatic top coat.
 - Topcoat Aggregate: Manufacturer's standard aggregate for each use indicated.
- Accessory Materials as required to produce complete traffic coating system meeting performance requirements. 3.1 Examination: Before applying traffic coating materials, examine substrate and conditions to ensure substrates are fully cured and fre high spots, depressions, loose and foreign particles and other deterrents to adhesion, and that conditions comply with manufacturer'
- recommendations. 3.2 Clean, prepare, and treat substrates in accordance with ASTM C 1127 and traffic coating manufacturer's written instructions.
- 3.3 Protect adjacent finished surfaces. Protect weep holes and drains.
- 3.4 Prepare vertical and horizontal surfaces at horizontal to vertical transitions, terminations, joints, and penetrations through traffic coating accordance with ASTM C 1127 and manufacturer's written instructions.
- 3.5 Joint Sealant Installation: Comply with ASTM C 1193 and manufacturer's written instructions. Allow joint sealants to cure adequately coating with traffic coating.
- 3.6 Apply traffic coating according to ASTM C 1127 and manufacturer's written instructions.
- 3.7 Correct deficient applications and make necessary repairs.
- 3.8 Clean spills, stains, and overspray using cleaning agents recommended by manufacturers of affected construction. 3.9 Protect traffic coating from damage from subsequent work. Protect traffic coating materials from exposure to UV light; replace overes materials.

07 2100 – THERMAL INSULATION

- 1.1 Submittals: Product data for each type of product indicated.
- 2.1 Extruded-Polystyrene Board Insulation: ASTM C 578, Type IV, 1.60 lb/cu. ft., with maximum flame-spread and smoke-developed ind of 75 and 450. 2.2 Polyisocyanurate Board Insulation: ASTM C 1289, Type I, Class 1 or 2., with maximum flame-spread and smoke-developed indexes
- and 450. 2.3 Foil-Faced Polyisocyanurate Board Insulation (Interior Use): ASTM C 1289, Type I.
 - Flame Spread Index: ASTM E84, less than 25.
 - Smoke Development: ASTM E84, less than 250.
 - Meets the current continuous insulation standards of ASHRAE 90.1, IECC, and IBC Chapter 26.
- Complies with NFPA 286 Corner Burn Test for walls and ceilings.
- 2.4 Unfaced, Glass-Fiber Batt Insulation: ASTM C665, Type I (blankets without membrane facing): consisting of fibers; with maximum flam spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.
- 2.5 Blown Insulation: Fiber glass blowing wool, Conform to FS-HH-1-1030. Class A, Type 1. Dense packed with no settlement. 2.6 Closed-Cell Polyurethane Spray-Applied Foam Insulation: ASTM C 1029, Type II for pneumatic application, chemically treated for fla

		A. Permeance rating of <1 perm (<60 ng/Pa.s.m2) and qualifies as Class II vapor retarder
	2.7	Vapor Retarders: Polyamide (nylon) "Smart" vapor retarders.
		A. Thickness: 2 mils. B <1 perm per dry cup method
h of a re		C. >10 perm per wet cup method
Delore		 D. Manufacturers: Certain feed; Product MemBrane, or approved equal. E. Vapor Retarder Tape: Pressure-sensitive tape of type recommended by vapor-retarder manufacturer for sealing joints and
		penetrations in vapor retarder. E Sealant: See Section 07 9200 "Joint Sealants "
tion		G. Adhesive for Vapor Retarders: Product recommended by vapor-retarder manufacturer and with demonstrated capability to bond
	2.8	vapor retarders securely to substrates indicated. Provide all Auxiliary Insulating Materials for a complete installation, including, but not limited to: Vapor retarder tape, sealants, adhesives,
	3.1	impaling pins, and fasteners.
	3.1	A. Comply with insulation manufacturer's written instructions applicable to products and applications.
		B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time. C. Install insulation with manufacturer's R-value label exposed after insulation is installed.
		D. Extend insulation to envelop entire area to be insulated. Fit tightly around obstructions and fill voids with insulation. Remove
ments id		projections that interfere with placement. F Provide sizes to fit applications and selected from manufacturer's standard thicknesses widths and lengths Apply single layer of
eing	0.0	insulation units unless multiple layers are otherwise shown or required to make up total thickness or to achieve R-value.
iming	3.2	A. Polyamide (nylon) "Smart" vapor retarders: Extend vapor retarder to extremities of areas
r this		to be protected from vapor transmission, including between exterior wall framing and intersecting interior wells, stairs and other features. Secure in place with adhesives or other
		anchorage system as indicated. Extend vapor retarder to cover miscellaneous voids in
		insulated substrates, including those filled with loose-fiber insulation. 1 Seal vertical joints in vapor retarders over framing by lapping not less than two wall
		studs and sealing with vapor retarder tape. Fasten vapor retarders to wood framing at
		top, end, and bottom edges; at perimeter of wall openings; and at lap joints. Seal edges of vapor retarder to framing with compatible sealant capable of adhering to both vapor
		retarder and substrate.
		vapor retarders with vapor-retarder tape or compatible sealant to create an airtight seal
bonded		between penetrating objects and vapor retarder. 3 Repair tears or punctures in vapor retarders immediately before concealment by other
bonded		work. Cover with vapor-retarder tape or another layer of vapor retarder.
	07 2	500 – WEATHER BARRIERS
	1.1 2.1	Submittals: Product data for each product indicated. Evaluation reports for water-resistive barrier and flexible flashing from ICC-ES. Building Wrap: ASTM E 1677, Type I air barrier; with flame-spread and smoke-developed indexes of less than 25 and 450, respectively,
		when tested according to ASTM E84; UV stabilized; and acceptable to authorities having jurisdiction.
		(Procedure A).
ip	2.2	B. Drainability: 98 percent or greater when tested in accordance with ASTM E 2273. Pressure sensitive plastic tape recommended by building wrap manufacturer for sealing joints and penetrations in building wrap
	2.2	Flexible Flashing: Self-adhesive butyl rubber compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded
laced	3.1	polyolefin to produce an overall thickness of not less than 0.025 inch. Cover sheathing with water-resistive barrier as follows:
	0.1	 A. Cut back barrier 1/2 inch on each side of the break in supporting members at expansion or control joint locations.
d blind	3.2	B. Apply barrier to cover vertical flashing with a minimum 4-inch overlap unless otherwise indicated. Building Wrap Installation: Comply with manufacturer's written instructions. Seal seams, edges, fasteners, and penetrations with tape.
ll fluch	0.0	Extend into jambs of openings and seal corners with tape.
II IIUSN	3.3	at least 4 inches except that at flashing flanges of other construction, laps need not exceed flange width. Lap flashing over water-resistive
ulk		barrier at bottom and sides of openings. Lap water-resistive barrier over flashing at heads of openings.
erwise	07 2 1.1	726 – FLUID-APPLIED MEMBRANE AIR BARRIERS Submittals:
		A. Product data for each type of product indicated.
ave		B. Shop Drawings: For air/vapor barrier assemblies. Include details of substrate joints and cracks, counterflashing strips, penetrations, inside and outside corners, terminations, and tie-ins with adjoining construction.
	2.1	VOC Content: 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24) and complying with VOC content limits
	2.2	Air barrier shall be capable of performing as a continuous vapor-retarding air barrier. Air-barrier assemblies shall be capable of
		accommodating substrate movement and of sealing substrate expansion and control joints, construction material changes, penetrations, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits.
d	2.3	Liquid Air Vapor Barrier System: One-component, polymer-modified, cold-applied, liquid air/vapor barrier membrane.
		 A. Air Permeance: Maximum 0.004 cfm/sq. ft. of surface area at 1.57-lbf/sq. ft. pressure difference; ASTM E 2178. B. Vapor Permeance: Maximum 0.1 perm: ASTM E 96/E 96M
s, fire		C. Ultimate Elongation: Minimum 1500 percent; ASTM D 412.
ll be	2.4	D. Iensile Strength: 15 psi; ASTM D 412. Accessory Materials: As recommended by air-barrier manufacturer to produce a complete air-barrier assembly and compatible with primary
		air-barrier material.
		A. Spray Polyurethane Foam Sealant: One or two-component, roamed-in-place, polyurethane roam sealant, 1.5 to 2.0 b/cu. it. density; flame spread of 25 or less according to ASTM E 162; with primer and noncorrosive substrate cleaner recommended by foam sealant
		manufacturer. B Termination Mastic: Air-barrier manufacturer's standard cold-fluid-applied elastomeric liquid: trowel grade
	3.1	Install fluid-applied membrane air-barrier and accessory materials according to manufacturer's written instructions to form a seal with
	3.2	adjacent construction and maintain a continuous air barrier. Connect and seal exterior wall air-barrier material continuously to roofing-membrane air barrier, concrete below-grade structures, floor-to-
		floor construction, exterior glazing and window systems, glazed curtain-wall systems, storefront systems, exterior louvers, exterior door
	3.3	Wall Openings: Prime concealed perimeter frame surfaces of windows, curtain walls, storefronts and doors. Apply transitions and flashing
		so that a minimum of 3 inches of coverage is achieved over each substrate. Maintain 3 inches of full contact over firm bearing to perimeter frames with not less than 1 inch of full contact.
oating	3.4	Fill gaps in perimeter frame surfaces with foam sealant.
	3.5	Seal exposed edges, around masonry reinforcing ties and penetrations, top of throughwall flashing to air barrier. Repair punctures, voids, and deficient lapped seams. Extend patches 6 inches beyond repaired areas
	3.6	Correct deficiencies in or remove air barrier that does not comply with requirements; repair substrates and reapply air-barrier components.
ranty	07 3	113 – ASPHALT SHINGLES
	1.1	Submittals: A. Product Data: For each product indicated.
olied	1.0	B. Samples: For asphalt shingles and ridge vent. Exterior Fire Test Exposure: Class A: ASTM E 108 or LIL 700 for application and reaf slopes indicated
plied,	1.2	Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace asphalt shingles that fail in materials 30 years
	21	from date of Substantial Completion or not discolor 10 years from date of Substantial Completion. Laminated-Dimensional Asphalt Shingles: ASTM D 3462 Jaminated, multi-ply overlay construction, glass-fiber reinforced, mineral-grapule
	2.1	surfaced, and self-sealing. Class C, 30 year warranty.
		A. Manufacturers: 1. GAF Materials Corp.
		2. Royalty Remodelers.
e from		4. IKO Cambridge Collection.
s written		5. Approved Equal. B Provide 3% attic stock
	2.2	Hip and Ridge Shingles: Manufacturer's standard units to match asphalt shingles.
nas in	2.3	Underlayment Materials: A. Felts: No. 30 ASTM D226, asphalt-saturated organic felts, non-perforated.
/ hefore		B. Self-Adhering Sheet Underlayment (Ice and Water Shield), Polyethylene Faced: ASTM
		laminated to SBS-modified asphalt adhesive, with release paper backing; cold applied.
	2.4	Ridge Vents: Manufacturer's standard rigid section high-density polypropylene or other UV-stabilized plastic ridge vent with non-woven geotextile filter strips: for use under ridge shingles. Color to match asphalt shingles
	2.5	Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
xposed	2.6	Rooting Nails: ASTM F 1667; aluminum, stainless steel, copper, or hot-dip galvanized steel wire shingle nails, minimum 0.120-inch- diameter, smooth shank, sharp-pointed, minimum 3/8-inch-diameter flat head and of sufficient length to penetrate 3/4 inch into solid wood
		decking or extend at least 1/8 inch through OSB or plywood sheathing. Where nails are in contact with metal flashing, use nails made
	2.7	Felt Underlayment Nails: Aluminum, stainless steel, or hot-dip galvanized steel wire with low profile capped heads or dis caps. 1-inch
	0.0	minimum diameter. Sheet Metal Elashing & Trim: Comply with requirements in 07.6200
GUNUJ	∠.ŏ	A. Sheet Metal: Pre-painted, metallic-coated steel.
s of 75	3.1	Underlayment Installation: A. Comply with underlayment manufacturer's written installation instructions applicable to products and applications indicated uploas
		more stringent requirements apply.
		В. Single-Layer Felt Underlayment: Install single layer of felt underlayment on roof deck perpendicular to roof slope in parallel courses. Lap sides a minimum of 2 inches over underlying course. Lap ends a minimum of 4 inches. Stagger end laps between succeeding
		course at least 72 inches. Fasten with felt underlayment nails.
me-		o. Sen-Addening Sneet Underlayment: Install self-addering sneet underlayment wrinkle free on roof deck. Comply with low- temperature installation restrictions of underlayment manufacturer if applicable. Install at locations indicated, lapped in direction to shed
		water. Lap sides not less than 3-1/2 inches. Lap ends not less than 6 inches staggered 24 inches between courses. Roll laps with roller.
ame-	3.2	Metal Flashing Installation: Install metal flashings and other sheet metal to comply with requirements in 07 6200.

resistance, processing, and handling characteristics. Use zero-ozone depleting spray system

3.3 Install asphalt shingles according to manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual" and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual." A. Install starter strips along lowest roof edge, consisting of an asphalt shingle strip with tabs removed at least 7 inches wide with self-

sealing strip face up at roof edge. Extend asphalt shingles 1/2 inch over fascia at eaves and rakes. B. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended off-set pattern at succeeding courses, maintaining uniform exposure.

- C. Fasten asphalt shingle strips with a minimum of 5 roofing nails, located according to manufacturer's written instructions. D. Open Valleys: Cut and fit asphalt shingles at open valleys, trimming upper concealed corners of shingle strips. Maintain uniform
- width of exposed open valley from highest to lowest point. Ridge Vents: Install continuous ridge vents over asphalt shingles according to manufacturer's written instructions. Fasten with
- roofing nails of sufficient length to penetrate sheathing. Ridge and Hip Cap Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to
- shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetration sheathing. Fasten ridge cap asphalt shingles to cover ridge vent without obstructing air flow.

07 4113.16 - STANDING-SEAM METAL ROOF PANELS 1.1 Submittals:

A. Submit detailed drawings showing layout of panels, anchoring details, joint details, trim, flashing, and accessories. Show details of weatherproofing, terminations, and penetrations of metal work.

- 1.2 Warranty:
 - A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.
 - Warranty Period: Two years from date of Substantial Completion. B. Special Warranties on Panel Finishes, Flourocarbon Finish, and Watertightness.
 - 1. Warranty Period: 20 years from date of Substantial Completion.
- 2.1 Performance Requirements:
 - A. Structural Performance: Testing according to ASTM E 1592.
 - B. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E 1646 at the following testpressure difference: Test-Pressure Difference: 2.86 lbf/sq. ft.
 - C. Air Infiltration: Air leakage of not more than 0.06 cfm/sg. ft. when tested according to ASTM E 1680 at the following test-pressure difference:
 - Test-Pressure Difference: 1.57 lbf/sg. ft. D. Hydrostatic-Head Resistance: No water penetration when tested according to ASTM E 2140.
- E. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift-resistance class indicated. 2.2 Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- A. McElroy Metal
- ATAS International. C. Dimension Metals, Inc. (DMI).
- Petersen Aluminum Corporation (PAC-CLAD).
- Approved equal
- 2.3 Standing-Seam Metal Roof Panels:
 - A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for watertight installation.
 - 1. Steel Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1514.
 - Metallic-Coated Steel Sheet: Pre-finished, zinc-coated (galvanized) steel sheet complying with ASTM A 446, G90 coating designation; structural quality.
 - Thickness: 24 gauge.
 - Exterior Finish: Topside finish shall be Kynar 500 coating to meet AAMA 621. Bottom side shall be coated with a primer.
 - Color: As selected by Architect from manufacturer's full range. C. Standing seams shall contain factory injected non-curing sealant that runs continuously throughout the panel length as job conditions
 - D. Panel Clips: As recommended by the manufacturer to meet the performance criteria of this specification.
- 2.4 Miscellaneous Materials: A. Miscellaneous Metal Subframing and Furring: ASTM C 645; cold-formed, metallic-coated steel sheet, ASTM C 165/A 653 M, G90
 - coating designation or ASTM A 792/A 792 M, Class AZ50 coating designation unless otherwise indicated. Panel Accessories: Provide components required for a complete, weather tight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

2.5 Underlayment Materials:

- A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 30 mils thick, consisting of slip-resistant, polyethylene-file top surface laminated to a layer of butyl or SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.
- 1. Products: Subject to compliance with requirements, provide one of the following products:
- a. Grace Ice and Water Shield HT manufactured by Grace Construction Products; or approved equal.
- 3.1 Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations. 3.2 Comply with manufacturer's standard instructions and conform to standards set forth in the Architectural Sheet Metal Manual published by SMACNA in order to achieve a watertight installation.
- 3.3 Isolate dissimilar metals, masonry and concrete from metal roof system with bituminous coating.
- 3.4 Underlayment Installation: Install underlayment according to manufacturer's written recommendations.
- 3.5 Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.
- 3.6 Cleaning: A. Clean exposed surfaces of work promptly after completion of installation. To prevent rust from
 - staining the painted finish, immediately remove filings produced by drilling or cutting.
 - Clean roof in accordance with manufacturer's recommendations.
 - Touch up minor abrasions and scratches in finish with manufacturer-supplied touch up paint. D. Remove all scraps and construction debris from the site.

07 4600 – FIBER-CEMENT SIDING

- 1.1 Submittals: Product Data and installation instructions for each type of siding product indicated
 - Samples for Initial Selection and Verification: For each exposed product and for each finish specified.
- Warranties: Manufacturer's standard 30 year transferable limited warranty with 5 year 100 percent repair and replacement warranty.
- 1.2 Store siding products off the ground, on a flat surface, and under a roof or separate waterproof covering.
- 2.1 Fiber-Cement Siding General: ASTM C 1186, Type A, Grade II, fiber-cement board, noncombustible when tested according to ASTM E 136; with a
 - flame-spread index of 25 or less when tested according to ASTM E 84.
- Manufacturers: LP Smart Side, James Hardie, Allura. Pattern: Horizontal lap siding, panel siding, board and batten, and trim as shown on Exterior Elevations
- Texture and Color: See Exterior Elevations.
- Factory primed and finished.
- Sizes: See Drawings.
- 2.2 Trim: Manufacturer's standard, prefinished. Miratec exterior trim boards, prefinished; color and texture as selected by Owner from manufacturer's standard range.
- 2.3 Aluminum Reveals:
- Manufacturer: Easytrim Reveals.
- Product: Panel Trim System. Profiles: C.
 - Vertical Trim: EZ 7.
 - Horizontal Trim: EZ 4.
 - Outside Corner Trim: EZ 14
 - Inside Corner Trim: EZ 3.
 - Termination Trim: EZ 8.
- Coordinate trim depth with siding panel thickness. Finish: Factory finish. See Drawings.
- 2.4 Aluminum flashing: Comply with AAMA 1402, smooth finish, and 0.019 inch thickness. Manufacturer's standard primer and baked-on
- acrylic finish; color as selected to match adjacent siding. 3.1 Comply with siding manufacturer's written installation instructions applicable to products and applications indicated unless more stringent
- requirements apply. Do not install damaged components.
- 3.2 Seal all cut edges with paint to match face finish. 3.3 Install joint sealants as specified in Division 7 Section "Joint Sealants" and to produce weathertight installation.
- 3.4 Install aluminum flashing and accessories according to AAMA 1402
- 3.5 Touch up factory-finished surfaces in accordance with manufacturer's recommendations.
- 3.6 Adjusting and Cleaning
- Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.
- Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

07 5323 – EPDM MEMBRANE ROOFING SYSTEM

- 1.1 Submittals: Product Data: For each type of product indicated.
 - Shop Drawings:
- 1. For roofing system; include plans showing layout and thickness of insulation, elevations, sections, details, and attachments to other work
- Maintenance Data: For roofing system and pavers to include in maintenance manuals. D. Warranties:
- 1. For EPDM Membrane Roofing System: Manufacturer's standard or customized form, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period of 20 years from date of Substantial Completion.
- 2.1 EPDM Roofing Membrane: ASTM D 4637, Type I, non-reinforced, uniform, flexible EPDM sheet. 60 mil thickness. Grade 1 and Class U, unreinforced; black.
- 2.2 Accessories:
- Accessory materials recommended by roofing system manufacturer for intended use and compatible with other roofing components. Α.

MSP - THE DRIFTLESS

- Protection Sheet: Epichlorohydrin or neoprene nonreinforced flexible sheet, 55 to 60 mils thick, recommended by EPDM
- manufacturer for resistance to hydrocarbons, non-aromatic solvents, grease, and oil. 2.3 Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces. Pr factory-tapered insulation boards fabricated to slope as indicated. Coordinate insulation slope with slope of roof trusses. 2.4 Walkway Pads: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads, approximately 3/16-inch-thic
- acceptable to the membrane roofing manufacturer. Color: To contrast main roof membrane color for high visibility. 2.5 Provide manufacturer's standard and compatible accessories including: flashing, adhesive, seam materials, sealants, mastic, termin
- bars, fasteners, pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, insealants, termination reglets, cover strips, and other accessories required for a complete installation. 3.1 Adhere membrane roofing over area to receive roofing according to roofing system manufacturer's written instructions.
- 3.2 Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- 3.3 Correct deficiencies in or remove components of membrane roofing system that do not comply with requirements, repair substrates a repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and ac
- to warranty requirements. 3.4 Provide 6-inch clearance between adjoining walkway pads. Heat weld to substrate or adhere walkway products to substrate with cor adhesive according to roofing system manufacturer's written instructions.

07 5423 - THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

- 1.1 Section includes adhered TPO roofing system with thermoplastic roofing membrane; insulation, flat and tapered; vapor retarder; su boards: roofing system accessories (cant strips, stack boots, roofing expansion joints), and roof pavers.
- Related sections include plumbing and HVAC for roof penetrations. 1.2 1.3
- Provide roofing system with initial Solar Reflectance Index of not less than 78 when calculated according to ASTM E 1980, based of testing identical products by a qualified testing agency. Provide roofing system that is listed on the DOE's Energy Star "Roof Products Qualified Product List" for low-slope roof products. Provide roofing system with initial solar reflectance not less than 0.70 and emissivity not less than 0.75 when tested according to C 1.5
- 1.6 Submittals: Data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- Shop Drawings: For roofing system; include plans, elevations, sections, details, joint or termination detail conditions, condition
- interface with other materials, and attachments to other work.
- Evidence of compliance with performance requirements.
- D. Manufacturer's installation instructions. Indicate membrane seaming precautions and perimeter conditions requiring special attention 1.7
- Source Limitations: Obtain components, including roof insulation and fasteners for membrane roofing system from same manufact membrane roofing manufacturer or components approved by membrane roofing manufacturer.
- 1.8 Exterior Fire-Test Exposure: ASTM E 108, Class A; for application and roof slopes indicated, as determined by testing identical me roofing materials by a qualified testing agency. Materials shall be identified with appropriate markings of applicable testing agency Warranty: Provide manufacturer's system warranty, without monetary limitation, in which manufacturer agrees to repair or replace 1.9
- components of membrane roofing system that fail in materials or workmanship within 20 years from date of Substantial Completion Manufacturers: 2.1 Carlisle Syn Tec Incorporated
- Firestone Building Products Company.
- GenFlex Roofing Systems.
- Versico Vers/Weld Reinforced TPO Membrane.
- 2.2 Membrane
 - A. Material: Thermoplastic polyolefin (TPO) complying with ASTM C 6878.
 - Reinforcing: Internal fabric.
 - Thickness: .060 inch, minimum. Sheet Width: Factory fabricated into largest sheets possible.
- Color: White.
- 2.3 Associated Materials:
 - Seaming Materials and Membrane Fasteners: As recommended by membrane manufacturer. Vapor Retarder: Reinforced Kraft paper laminate complying with requirements of fire rating classification; compatible with roofing and insulation materials.
 - Flexible Flashing Material: Same material as membrane.
 - Separation Sheet: Sheet polyethylene; 2 mil thick.
 - Substrate Board: ASTM C 1177.C 1177M, glass-mat, water-resistant gypsum substrate, fire resistant type, 1/4 inch thick. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance
- provisions in FM Approvals 4470, designed for fastening substrate board to roof deck. 2.4 Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, with maximum flame-spread and smoke-developed indexes of 450 respectively, based on tests performed on unfaced core on thicknesses up to 4 inches.
 - A. Provide preformed saddles, crickets, tapered edge strips. and other insulation shapes where indicated for sloping to drain. F to slopes indicated.
 - Insulation Accessories: All accessory items that compose any material or component portion of the roofing system and are materially inherent to its successful installation and performance of the roofing system for the length of its designed life, and directly affect the guarantees provided by the roofing system manufacturer, the roofing system installer, the warranties and th extent of their coverage, shall only be materials and products that are recommended, required, and/or otherwise approved in writing by the roofing manufacturer and the installing roofing system contractor.
- 2.5 Roof Pavers: Concrete roof paver units:
- A. Size: 24 x 24 x 2 inches.
- B. Average Compressive Strength: 8000 psi, minimum.
- Flexural Strength: Passes ASTM C 293. Greater than 2000 lbs center load test.
- D. Freeze/Thaw Durability: Passes ASTM C 1262.
- Average Water Absorption (ASTM C 140): 5 percent with no unit greater than 7 percent. Include all accessories, including fixed and adjustable paver pedestals compatible for EPDM roofing membrane applications. Color and Textures: As selected by Architect from manufacturer's full range.
- Verify that all surfaces and site conditions are ready to receive work
- Verify that deck is supported and secure; clean and smooth; flat; free of depressions, waves, or projections; properly sloped; and s 3.2 for installation of roofing system.
- Verify that deck surfaces are dry and free of snow or ice; that roof openings, curbs, and penetrations through roof are solidly set; a 3.3 cant strips are in place.
- A. Do not apply roofing membrane during unsuitable weather.
- Perform work in accordance with NRCA Roof and Waterproofing Manual and manufacturer's written instructions. Install substrate board with long joints in continuous straight lines, perpendicular to roof slopes and with end joints staggered betwee
- rows. Tightly butt substrate boards together. Fasten substrate board to top flanges of steel deck to resist uplift pressure. 3.6 Installing Insulation
- A. Coordinate installing membrane roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- Comply with membrane roofing system and insulation manufacturer's written instructions for installing roof insulation. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6
- inches in each direction D. Mechanically Fastened and Adhered Insulation: Install each layer of insulation and secure first layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
- Install slip sheet over insulation and immediately beneath membrane roofing. 3.7 Vapor Retarder and Insulation - Under Membrane A. Apply vapor retarder to deck surface with adhesive according to manufacturer's written instructions. Extend vapor retarder
- under cant strips and blocking to deck edge. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane. 3.8 Membrane Roofing Installation: Adhere membrane roofing over area to receive roofing according to roofing system manufacturer's
- instructions. Unroll roof membrane and allow to relax before installing
- Install sheet flashings and preformed flashing accessories and adhere to substrates according to membrane roofing system 3.9 manufacturer's written instructions.
- 3.10 Field Quality Control
 - A. Engage a qualified testing agency to perform tests and inspections.
- Require site attendance of roofing and insulation material manufacturers daily during installation of the Work. C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion
- Repair or remove and replace components of membrane roofing system where inspections indicate that they do not
- comply with specified requirements.
- 3.11 Repair or replace defaced or damaged finishes. Touch-up, repair or replace damaged roof pavers before Substantial Completion 3.12 Protect installed roofing and flashings from construction operations.

07 6200 – SHEET METAL FLASHING AND TRIM

- 1.1 Install sheet metal flashing and trim to withstand wind loads, structural movement, thermally induced movement, and exposure to we without failing, rattling, leaking, and fastener disengagement. 1.2 Install in accordance with ANSI/SPRI ES-1; conform to ASCE 7-10 for jurisdictions requiring the 2015 IBC; conform to ASCE 7-16 for
- jurisdictions requiring the 2018 IBC. 1.3 Determine Risk Category as is applicable to this particular building and location, i.e. most buildings with less than 300 occupants are
- Category 2; most buildings with more than 300 occupants are Category 3; medical and essential facilities are Category 4; and confor those requirements. 1.4 Submittals:
 - Shop Drawings: Show installation layouts of sheet metal flashing and trim, including plans, elevations, and details.
 - Samples for Initial Selection and Verification: For each exposed product and for each finish specified. Warranty: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal
 - flashing and trim that show evidence of deterioration of factory-applied finishes within 20 years from date of
- Substantial Completion. 1.5 Coordinate installation of sheet metal flashing and trim with interfacing and adjoining construction to provide a leak proof, secure, and
- corrosive installation. 2.1 Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" th
- to design, dimensions, metal, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible. 2.2 Conceal fasteners and expansion provisions where possible on exposed-to-view sheet metal flashing and trim, unless otherwise indi
- Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, non-corrosive metal. 2.3 Fascia: Fabricate fascia panels and trim from sheet aluminum complying with ASTM B 208, AA 3000 Alloy. Color: As selected by Arc
- from manufacturer's full range. 2.4 Roof-Edge Flashing and Fascia Cap: Fabricate in minimum 96-inch-long, but not exceeding 10-foot- long, sections. Furnish with 6-i wide, joint cover plates. 26 gauge pre-painted: Galvanized steel.
- 2.5 Copings: Fabricate in minimum 96-inch-long, but not exceeding 10-foot-long, sections. Fabricate joint plates of same thickness as copings.

	F	urnish with continuous cleats to support edge of external leg and drill elongated holes for fasteners on interior leg. Miter corners, seal, and older or weld watertight. 26 gauge pre-painted: Galvanized steel.
rovide	2.6 B 2.7 C	ase Flashing: Fabricate from 0.040-inch-thick aluminum. ounterflashing and Flashing Receivers: Fabricate from 0.032-inch-thick aluminum.
k and	2.8 R 2.9 H	oof Penetration Flashing: Fabricate from Aluminum-Zinc Alloy-Coated Steel; 0.028-inch-thick. anging Gutters: Box style seamless, complete with end pieces, outlet tubes, and other accessories as required. Fabricate in minimum 96-
nation	in A	ch- long sections. Fabricate expansion joints, expansion-joint covers, and gutter accessories from same metal as gutters. . Material: Aluminum; 0.040-inch thick.
-seam	2.10 D sa	ownspouts: Fabricate rectangular downspouts to dimensions indicated, complete with mitered elbows. Furnish with metal hangers, from ame material as downspouts, and anchors.
	A 2.11 S	. Material: Aluminum; 0.040-inch-thick. plash Blocks: Manufacturer's standard precast concrete splash blocks. Obtain Architect's approval of splash block design and size before
and ccording	pı 2.12 S	roceeding with work. offits: Provide vented metal soffit panels designed to be installed by lapping and interconnecting side edges of adjacent panels and
mnatible	m	echanically attaching through panel to supports using concealed fasteners in side laps. Include accessories required for weathertight stallation
mpalible	A 2 13 V	. Material: Aluminum. alley Elashing: Galvanized steel
	2.10 V A	. Color: To match asphalt shingles.
ubstrate	2.14 Fa	nderlayment Materials:
	B	. Slip Sheet: Rosin-sized paper, minimum 3 lb/100 sq. ft.
on	2.16 Fi	inish: Color Anodic Finish, AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
CRRC-1.	A 3.1 A	. Color: See Drawings. nchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural
	m	ovement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to omplete sheet metal flashing and trim system.
ons of	3.2 In 3.3 In	istall exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks. Istall sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds,
	aı 3.4 S	nd elastomeric sealant. eal joints with elastomeric sealant as required for watertight construction.
turer as		
embrane	07 7200 1.1 S) – ROOF ACCESSORIES ubmittals:
<i>I</i> .	A	. Product Data: For each type of roof accessory indicated. Include construction details, material descriptions, dimensions of individual components and profiles and finishes.
n.	В	. Shop Drawings: Show fabrication and installation for roof accessories. Show layouts of roof accessories including plans and elevations. Indicate dimensions, weights, loadings, required clearances, method of field assembly, and components. Include plans,
	21 R	elevations, sections, details, and attachments to other work.
	fra	ame counterflashing. Fabricate with welded or mechanically fastened and sealed corner joints. Provide continuous weathertight perimeter
	A B	. Fabricate roof hatches to withstand 40-lbf/sq. ft. external and 20-lbf/sq. ft. internal loads.
	2.2 M	liscellaneous Materials:
	A B	. Polylsocyanurate Board Insulation: ASTM C 1289, 1-Inch-thick. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat. Provide inert-
	С	type non-corrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities. . Fasteners: Same metal as metals being fastened, or nonmagnetic stainless steel or other non-corrosive metal as recommended
		by roof accessory manufacturer. Match finish of exposed fasteners with finish of material being fastened. Provide non-removable fastener heads to exterior exposed fasteners.
	D	. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, or PVC; or flat design of foam rubber, sponge neoprene, or cork.
	E	. Elastomeric Sealant: ASTM C 920, polyurethane sealant of type, grade, class, and use classification required to seal joints in sheet metal flashing and trim and remain watertight.
	F.	Roofing Cement: ASTM D 4586, non-asbestos, fibrated asphalt cement designed for trowel application or other adhesive compatible with roofing system.
f 75 and	3.1 E	xamine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting erformance of the work.
abricate	3.2 In U	stall roof hatch according to manufacturer's written instructions. Anchor hatch securely in place and capable of resisting forces specified. se fasteners, separators, sealants, and other miscellaneous items as required for completing roof accessory installation. Install roof hatch
	to 3.3 R	o resist exposure to weather without failing, rattling, leaking, or fastener disengagement.
ne	3.4 C	heck roof hatch for proper operation. Adjust as required; clean and lubricate joints and hardware.
	рі	rocedures.
	07 8100) - APPLIED FIRE PROTECTION
	1.1 S	ubmittals: Product data.
	A	. Installer Qualifications: A firm or individual certified, licensed, or otherwise qualified by sprayed fire-resistive material manufacturer as experienced and with sufficient trained staff to install manufacturer's products in accordance with specified requirements.
	1.3 E	nvironmental Limitations:
suitable	A	provided to maintain temperature at or above this level for 24 hours before, during, and for 24 hours after product application.
ind that	В	. Ventilation: Ventilate building spaces during and after application of fire protection, providing complete air exchanges in accordance with manufacturer's written instructions. Use natural means or, if they are inadequate, forced-air circulation until fire protection dries
	2.1 P	thoroughly. erformance Requirements: Indicated on Drawings, tested in accordance with ASTM E119 or UL 263 testing by a qualified testing agency.
een	ld 2.2 M	lentify products with appropriate markings of applicable testing agency. Ianufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work
	in A	clude, but are not limited to, the following: . Carboline Company; a subsidiary of RPM International
ne	B C	. GCP Applied Technologies Inc. . Isolatek International
	D 2.3 T	. Southwest Fireproofing Products Co. hickness: As required for fire-resistance design indicated, measured in accordance with requirements of fire-resistance design or ASTM
6	E 2.4 A	605, whichever is thicker, but not less than 0.375 inch. uxiliary Materials: Provide auxiliary materials that are compatible with sprayed fire-resistive material and substrates and are approved by
	U	L or another testing and inspecting agency acceptable to authorities having jurisdiction for use in fire-resistance designs indicated. Substrate Primers: Primers approved by spraved fire-resistive material manufacture.
	В	. Bonding Agent: Product approved by sprayed fire-resistive material manufacturer and complying with requirements in UL's "Fire Resistance Directory" or in the listings of another qualified testing agency acceptable to authorities having jurisdiction
	С	. Metal Lath: Expanded metal lath fabricated from material of weight, configuration, and finish required, in accordance with fire-
o umitton		corner beads, and other anchorage devices required to attach lath to substrates and to receive sprayed fire-resistive material.
s willen	U -	approved and provided by sprayed fire-resistive material manufacturer.
	E	approved and provided by sprayed fire-resistive material manufacturer. Include pins and attachment.
	F.	iopcoat: Suitable for application over sprayed fire-resistive material; of type recommended in writing by sprayed fire-resistive materia manufacturer for each fire-resistance design.
	3.1 E	xamine substrates, areas, and conditions, with Installer present, for compliance with requirements for substrates and other conditions ffecting performance of the Work and in accordance with each fire-resistance design.
	A	. Conduct tests in accordance with sprayed fire-resistive material manufacturer's written instructions to verify that substrates are free of substances capable of interfering with bond.
	3.2 P u	rime substrates where included in fire-resistance design and where recommended in writing by sprayed fire-resistive material manufacturer nless compatible shop primer has been applied and is in satisfactory condition to receive fire protection.
	3.3 C by	onstruct fire protection assemblies that are identical to fire-resistance design indicated and products as specified, tested, and substantiated y test reports; for thickness, primers, sealers, topcoats, finishing, and other materials and procedures affecting fire protection Work.
	3.4 C	omply with sprayed fire-resistive material manufacturer's written instructions for mixing materials, application procedures, and types of puipment used to mix, convey, and apply fire protection; as applicable to particular conditions of installation and as required to achieve fire-
eather	re 3.5 P	erform the tests and inspections of completed Work in successive stages. Do not proceed with application of fire protection for the pert
r	al	rea until test results for previously completed applications of fire protection show compliance with requirements. Tested values must equal receed values as specified and as indicated and required for approved fire-resistance design
erm to	3.6 C	leaning: Immediately after completing spraying operations in each containable area of Project, remove material overspray and fallout from
	3.7 A	s installation of other construction proceeds, inspect fire protection and repair damaged areas and fire protection removed due to work of
	ol	
	07 8413	B – PENETRATION FIRESTOPPING
	1.1 Fo	or penetrations through fire-resistance-rated constructions, provide through-penetration firestop systems that are produced and installed resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance
id non-	ra 1.2 P	ating of construction penetrated. rovide through-penetration firestop systems that are compatible with one another; with the substrates forming openings; and with the items,
nat apply	if fir	any, penetrating through-penetration firestop systems, under conditions of service and application, as demonstrated by through-penetration estop system manufacturer based on testing and field experience.
icated.	1.3 P fir	rovide components for each through-penetration firestop system that are needed to install fill materials as specified by through-penetration restop system manufacturer and approved by qualified testing and inspecting agency for firestop systems indicated
chitect		
inch-	07 9200) – JOINT SEALANTS rovide joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint
	1.1 P	To the joint search that establish and maintain waterlight and all light continuous joint sears without staining of deteriorating joint

1.2 Submittals:

Α. Product Data: For each joint-sealant product indicated.

Samples for initial selection: For each type of sealant provide samples of full range of manufacturers available colors. 2.1 Silicone Sealants: Comply with ASTM C 920. Single component, non-sag for type, grade, class and uses related to exposure and joint substrates.

A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.

- B Joint Sealant Locations:
 - Construction joints in cast-in-place concrete Joints between plant-precast architectural concrete units.
 - Control and expansion joints in unit masonry.
 - Joints in exterior insulation and finish systems. Joints between metal panels where indicated.
 - Joints between different materials listed above.
 - Perimeter joints between materials listed above and frames of doors, windows and 7.
 - louvers. a. Control and expansion joints in soffits and other overhead surfaces.
 - b. Other joints as indicated.

2.2 Mildew-Resistant Silicone Joint Sealant: ASTM C 920. Single component, non-sag, class 100/50.

Joint-Sealant Application: Mildew-resistant interior joints in vertical surfaces and horizontal nontraffic surfaces. Joint Sealant Locations: Joints between plumbing fixtures (including toilets) and adjoining walls, floors, and counters; tile control and

- expansion joints; and as indicated.
- 2.3 Urethane Joint Sealant: ASTM C 920. Pourable, class 50, traffic exposure.
- Joint-Sealant Application: Exterior and interior joints in horizontal traffic surfaces.
- Joint Sealant Locations: Isolation and contraction joints in cast-in-place concrete slabs, control and expansion joints in tile flooring, and as indicated. 2.4 Latex Joint Sealant: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.
 - Joint-Sealant Application: Interior joints in vertical surfaces and horizontal nontraffic surfaces.
 - Joint Sealant Locations:
 - Control and expansion joints on exposed interior surfaces of exterior walls. Perimeter joints of exterior openings where indicated.
 - Tile control and expansion joints.
 - Vertical joints (non-fire-rated) on exposed surfaces of interior unit masonry and concrete walls and partitions. Perimeter joints between interior wall surfaces and frames of interior doors, windows and elevator entrances.
 - Other joints as indicated.
- 2.5 Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 834; application per ASTM C 919. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction as demonstrated by testing representative assemblies according to ASTM E 90.
 - A. Joint Locations: Where indicated.
- 2.6 Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing. 2.7 Color of Exposed Joint Sealants: Sealant, generally, shall be the color of the adjacent material which lies in the same plane as the sealant. Verify all colors with Architect prior to installation.
- 3.1 Clean out joints immediately before installing joint sealants.
- 3.2 Prime joint substrates, where recommended by joint-sealant manufacturer.
- 3.3 Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.
- 3.4 Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated. Install sealants using proven techniques that comply with the following and at the same time backings are installed: A. Place sealants so they directly contact and fully wet joint substrates.
 - Completely fill recesses in each joint configuration.
- Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability. 3.5 Tooling of Non-sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to
- requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
- 3.6 Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

08 1113 - HOLLOW METAL DOORS & FRAMES

1.1 Submittals:

- Product Data: Include construction details, material descriptions, core descriptions, label compliance, fire-resistance rating, and finishes for each type of steel door and frame specified.
- Shop Drawings including a schedule of standard steel doors and frames using the same reference numbers for details and openings as those on Drawings. Show elevations of each door design, door edge details, frame details, reinforcement, hardware preparation, anchorage, glazing frames and other applicable details.
- 1.2 Coordinate installation of anchorages for standard steel frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in masonry. Deliver such items to Project site in time for installation.
- 2.1 Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 257.
- 2.2 Smoke- and Draft-Control Door Assemblies: Provide an assembly with gaskets listed and labeled for smoke and draft control by a qualified testing agency acceptable to authorities having jurisdiction, based on testing according to UL 1784 and installed in compliance with NFPA
- 2.3 Interior Standard Steel Doors and Frames: ANSI/SDI A250.8, Level 1: ANSI/SDI A250.4, Level C. Face: Cold-rolled steel sheet, of minimum thickness of 0.032-inch.
- Edge Construction: Model 1, Full Flush.
- Core: Manufacturer's standard.
- Fire-Rated Core: As required to provide fire-protection ratings indicated.
- Frames: Fabricated from steel sheet, 0.042-inch thick.
- 2.4 Exterior Standard Steel Doors and Frames: ANSI/SDI A250.8, Level 3; ANSI/SDI A250.4, Level A. Face: Metallic-coated steel sheet, minimum thickness of 0.053-inch.
 - Edge Construction: Model 2, Seamless.
 - Core: Manufacturer's standard.
 - Where indicated, provide doors fabricated with thermal-resistance value (R-value) of not less than 4.17 when tested according
 - to ASTM C 1363.

Frames: Fabricated from metallic-coated steel sheet, 0.053 inch thick; welded. D 2.5 Fabricate doors and frames to include jamb anchors, door silencers, reinforcement and hardware preparation, stops, moldings, closures,

- and other accessories indicated.
- 2.6 Apply shop primer specified below immediately after surface preparation and pretreatment.
- 3.1 Install standard steel doors and frames plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.
- 3.2 Fire-Rated Doors: Install doors with clearances in accordance with NFPA 80.
- 3.3 Smoke-Control Doors: Install doors in accordance with NFPA 105.
- 3.4 Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including standard steel doors or frames that are warped, bowed, or otherwise unacceptable

08 1114 – PREFINISHED STEEL SITE-ASSEMBLED DOOR FRAMES

- 1.1 Submittals:
 - A. Product Data: Indicate frame material, gage, configuration and finishes. B. Shop Drawings: Indicate frame elevations, details of frame anchorage, reinforcements required, rough opening requirements,
- location of hardware, and finishes.
- 2.1 Basis of Design Product: Timely Industries knocked-down, site assembled pre-finished, cold-rolled steel door frames, or approved equal.
- 2.3 Prepare frames for hardware cutouts and provide reinforcements shipped loose to project site for hardware application.
- 2.4 Frame Units and casing to be pre-finished with factory applied impact resistant, polyester baked enamel finish.
- 3.1 Install and anchor frames in accordance with manufacturer's requirements. Installing casing.
- 3.2 Touch-up blemishes on finished frames with factory prepared touch up paint.
- 1.1 Section includes hollow and solid core flush wood doors.
- 1.2 Submittals: Product Data: For each type of door indicated.
- Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details; location and extent of hardware blocking; and other pertinent data. Indicate fire-protection ratings for fire-rated doors.
 - Samples for selection and verification of factory finishes applied to actual door face materials.
- 1.3 Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252.
- 1.4 Environmental Limitations: Do not deliver or install doors until building is enclosed, wet work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period. 1.5 Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that are defective in materials or
- workmanship, or have warped. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors
- Solid-Core Flush Wood Doors: Warranty shall be in effect for the life of installation for solid core interior doors. 2.1 Basis-of-Design Manufacturer: VT Industries.
- 2.2 Wood Doors:

CV

- Maple wood grain.
- Construction: Five plies with stiles and rails bonded to core, then entire unit abrasive planed before veneering. Particleboard Cores: ANSI A208.1, Grade LD-1. Provide wood blocking in particleboard-core doors as needed to eliminate throughbolting hardware.
- Provide doors with structural composite lumber cores instead of particleboard cores at locations where exit devices are indicated. 2.3 Fire-Rated Wood Door and Frame Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agen-

acceptable to authorities having jurisdiction, for fire-protection ratings indicated on Drawings, based on testing at positive pressure in

- 1.2 Fire-Rated Door Assemblies: Conform to ASTM E152, NFPA 252, UL 10B and 10C.
- 1.3 Installed Frame Assembly: Conform to NFPA 80.

- 2.2 Casing: Architectural wood woodwork installed over metal frames.

08 1416 – FLUSH WOOD DOORS

MSP - THE DRIFTLESS

- accordance with UL 10C or NFPA 252. 2.4 Smoke- and Draft-Control Door Assemblies: Provide an assembly with gaskets listed and labeled for smoke and draft control by a qua
- fied testing agency acceptable to authorities having jurisdiction, based on testing according to UL 1784 and installed in compliance with NFPA105.
- A. Construction and core specified above for type of face indicated or manufacturer's standard mineral-core construction as needed provide fire rating indicated. For mineral-core doors, provide composite blocking with improved screw-holding capability approv for use in doors of fire ratings indicated as needed to eliminate through-bolting hardware. Provide edge construction with intumescent seals concealed by outer stile matching face veneer, and laminated backing at hinge stiles for improved screw-hole
- capability and split resistance. 2.5 Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware to comply with DHI-WDHS-3.
- schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.
- 2.6 Cut and trim openings through doors and provide hardwood glazing moldings. 2.7 Pre-hung doors: Frames shall be solid wood with applied stop. Frame finish to be factory finished to match door veneer. Provide 1 ½ pairs
- of hinges, factory installed in pre-hung doors.
- 2.8 Finish doors at factory that are indicated to receive transparent finish. 3.1 Install door units to operate freely, but not loosely, and free from rattling when in latched position. Doors shall be free from hinge bound conditions, sticking or binding with hardware properly adjusted and in functioning order. Rehang or replace doors that do not swing or operate freely.
- 3.2 Install frames level, plumb, true, and straight.
 - Install fire-rated doors and frames in accordance with NFPA 80. Α B Install smoke- and draft-control doors in accordance with NFPA 105.

ware

- 08 3113 ACCESS DOORS AND FRAMES 1.1 Submittals: For each type of product.
- 1.2 Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- 1.3 Samples: For door face material. 1.4 Schedule: Types, locations, sizes, latching or locking provisions, and other data pertinent to installation.
- 1.5 Fire-Rated, Insulated Access Doors and Frames: Units complying with NFPA 80 that are identical to assemblies tested for fire-testresponse characteristics per the following test method and that are listed and labeled by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. NFPA 252 or UL 10B for fire-rated access door assemblies installed vertically. Α.
- NFPA 288 for fire-rated access door assemblies installed horizontally, including attic access panels in the townhomes.
- 1.6 Determine specific locations and sizes for door panels needed to gain access to concealed plumbing, mechanical, or other concealed 2.1 Obtain each type of access door and frame from single source from single manufacturer
- 2.2 Access doors and frames must be rated, at minimum, the same as the assembly that they penetrate.
- 2.3 Latching Mechanisms: Furnish number required to hold panels in flush, smooth plane when closed.
- A. For cylinder lock, furnish two keys per lock and key all locks alike. 3.1 Comply with manufacturer's written instructions for installing access doors and frames.
- 3.2 Install doors flush with adjacent finish surfaces or recessed to receive finish material.
- 3.3 Adjust doors and hardware after installation for proper operation.
- 3.4 Remove and replace all doors and frames that are warped, bowed, or otherwise damaged.

08 3343 – OVERHEAD COILING SMOKE CURTAIN

- 1.1 Submittals: Manufacturer's product information for each type of product specified. Α.
 - Shop Drawings: Submit Manufacturer's approved shop drawings detailing the section and elevation views of each product to be В. installed.
- С Submit confirmation and details of manufacturer's warranty, extended warranty, and replacement policies. 1.2 Coordination:
- Coordinate smoke curtain assemblies with power, signal, fire-alarm, and smoke-detection systems specified in Division 26 and Α. Division 28.
- Coordinate elevator smoke-protective curtain assemblies with elevator hoistway door frames specified in Division 14. Coordinate smoke-protective curtain assemblies with ceilings for operational clearances and maintenance access requirements Coordinate smoke-protective curtain assemblies with walls for support requirements, rating continuity above ceilings, and reces D. wall switches.
- Coordinate requirements for metal supports required for smoke-protective curtain assemblies.
- 1.3 Warranty: Manufacturer Warranty: Provide manufacturer's warranty covering parts and labor costs to repair or replace part that fail to per
- 2.1 Performance Requirements: Smoke-Protective Curtain Assemblies: Provide smoke-protective curtains listed and labeled with the letter "S" by a qualified tes Α.
 - agency for smoke- and draft-control based on testing in accordance with UL 1784 without an artificial bottom seal; with maximu air-leakage rate of 3.0 cfm/sq. ft. (0.01524 cu. m/s x sq. m) of opening at 0.10 inch wg (24.9 Pa) for both ambient and elevated temperature tests in accordance with ICC-ES AC77. Fire & Smoke Rated Assemblies: Provide all curtains with fire and smoke resistance rating required to comply with governing
 - regulations which are inspected, tested, listed and labeled by UL or Intertek and complying with NFPA 80 for class of opening. Provide units tested, approved and labeled under the UL 10B, UL 10C, UL 10D and UL 1784 standards. Provide testing laborate label permanently affixed to each fire curtain bottom bar assembly as evidence of product compliance in accordance with the requirements outlined under NFPA 80.
- 2.2 Basis of Design Manufacturer: McKEON.
- Smoke Curtain Product: Α
 - FireFighter® Series model D200. Basis-of-Design.
- Smoke Guard, A CSW Industrials Company.
- Approved equal. Fire Curtain Product:
- Auto-Set® System model FSFD-HK-G
- 2. Approved equal. 2.3 Fabric Smoke Curtain:

B

- Alarm-activated fabric smoke curtain assembly complying with NFPA 92.
- Curtain Materials: Provide manufacturer's standard multi-layer glass fiber fabric coated on one or both sides complying with each C. the following:
 - 1. Fire-Test-Response Characteristics: Provide products that pass NFPA 701, as
 - determined by testing of fabrics that were treated using treatment-application method intended for use for this Project by a testing and inspecting agency acceptable to
 - authorities having jurisdiction.
 - 2. Flame-Spread and Smoke-Developed Indexes: 25 and 50, respectively, when tested in
 - accordance with ASTM E84. 3. Screen Reinforcement: Provide film with reinforcement to limit deflection or tearing.
- D. Curtain Attachments: Curtain shall form a pressure-resisting seal with side guides formed from galvanized-steel sheet conformi ASTM A653/A653M with integral pressure-retaining tabs.
- 2.4 Metal Fire Curtain:
- A. Curtain: Shall be assembled of G90 galvanized steel interlocking slats. Slats shall have endlocks locking each end of alternate to act as a wearing surface and maintain slat alignment. Curtain shall be 22 gauge minimum or gauge required by UL, WH or F whichever is greater.
- Slats: Shall be of a cross section not less than 3" wide by 7/8" deep. Finish: After completion of fabrication, clean all metal surfaces to remove dirt and chemically treat to provide for paint adhesion.
- Curtain assembly is to receive a prime coat finish of .2 mils of epoxy primer and .8 mils of polyester paint in a McKEON Sterling Gray finish.
- 3.1 Examine surfaces and field conditions to which this work is to be performed and notify architect if conditions of surfaces exist which are detrimental to proper installation and timely completion of work.
- 3.2 Perform installation using only factory approved and certified representatives of the fire and smoke curtain manufacturer.
- 3.3 Install fire and smoke curtain assemblies at locations shown in perfect alignment and elevation, plumb, level, straight and true. 3.4 Adjust fire and smoke curtain installation to provide uniform clearances and smooth non-binding operation.
- 3.5 Install wiring in accordance with applicable local codes and the National Electrical Code Standard. Materials shall be UL listed. 3.6 Test fire and smoke curtain closing sequence when activated by the building's fire alarm system. Reset fire and smoke curtain after successful test.
- 3.7 Protect installed work using adequate and suitable means during and after installation until accepted by owner.
- 3.8 Clean surfaces of grime and dirt using acceptable and recommended means and methods.

08 3613 – SECTIONAL OVERHEAD DOORS 1.1 Submittals:

- Product Data: For each type and size of sectional door and accessory. Α.
- Shop Drawings: For each installation and for special components. Include plans, elevations,
- sections, details, and attachments to other work. 1.2 Thermal Performance: 0.10 U-factor or better.
- 2.1 Sectional, insulated flush panel overhead door: Prefinished, zinc-coated, cold-rolled steel sheet. Reinforce for hardware attachment. Color: As selected by Architect from manufacturer's standard range.
- 2.2 Manufacturer's standard, galvanized-steel track system of configuration indicated, sized for door size and weight, designed for lift type indicated and clearances shown on Drawings. Provide low headroom track to keep track as close to precast deck as possible. Provide sound isolation mounts on opener and track mounted to precast.
- 2.3 Weatherseals: Replaceable, adjustable, continuous, compressible weather-stripping gaskets of flexible vinyl, rubber, or neoprene fitted bottom and top of sectional door.
- 2.4 Provide heavy-duty, corrosion-resistant hardware, with corrosion-resistant fasteners. 2.5 Provide counterbalance mechanism consisting of adjustable-tension torsion springs mounted on torsion shaft with all necessary cables brackets, bumpers and safety devices for a complete, operational assembly.
- 2.6 Provide 100,000 high-cycle commercial spring.
- 2.7 Automatic Garage Door Openers: Apartment duty electric openers. Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door specified, with electric motor and factory-prewired motor controls, starter, gear-reduction u solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking door, and accessories required for proper operation.
- 2.8 Obstruction Detection Device: Equip motorized door with indicated external automatic safety sensor capable of protecting full width of opening. Activation of device immediately stops and reverses downward door travel.
- 2.9 Remote-Control Station: Momentary-contact, three-button control station with push-button controls labeled "Open," "Close," and "Stop." 2.10 Equip each electrically powered door with capability for emergency manual operation and emergency operation disconnect device.
- 2.11 Provide number of remotes equal to underground parking quantity plus 20.

ali-	3.2	according to manufacturer's written instructions and as specified. Tracks: Provide sway-bracing, diagonal bracing, and reinforcement as required for rigid installation; mount tracks to structure with isolators
	3.3	to minimize noise transfer. Repair galvanized coating on tracks according to ASTM A 780. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion. Adjust doors and seals
ed to ved		to provide weather tight fit around entire perimeter.
ldina	08 4 [,]	113 – ALUMINUM-FRAMED ENTRANCES & STOREFRONTS
rd-	1.1	Exterior and interior storefront framing, windows, and doors.
	1.2	1.2.1 Product Data: For each type of door, framing and hardware indicated.
/	0.4	1.2.3 Entrance Door Hardware Schedule, detailing fabrication and assembly of entrance door hardware.
2	2.1	Manufacturer: Kawheer or approved equal. Manufacturer's standard thermally-broken, extruded-aluminum framing members of thickness required and reinforced as required to support
	2.3	Imposed loads. Glazing System: Retained mechanically with gaskets on four sides.
d r	2.4 2.5	Reinforce doors and frames as required to support loads imposed by door operation and for installing entrance door hardware. Provide hardware, weather stripping, silencers, trim, finger guards, sealants, and accessory materials as required to provide a complete
	2.6	entrance/storefront system. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
	3 1	2.5.1 Color: As indicated on Drawings. Adjust clean and protect work for duration of construction period
	0.1	
	08 42	229 – AUTOMATIC ENTRANCES
	1.2	Opening Force Requirements:
		required to open door to minimum required width.
		 B. Breakaway Device: Not more than 50 lbf required for a breakaway door or panel to open. C. Accessible Interior Doors: Not more than 5 lbf to fully open door.
	1.3	Entrapment Force Requirements: A. Power-Operated Sliding Doors: Not more than 30 lbf required to prevent stopped door from closing.
work.	1.4	Submittals: A. Product Data: For each type of door, framing and hardware indicated.
		 B. Shop Drawings: Include plans, elevations, sections, details, hardware mounting heights, and attachments to other work. C. Sample: For each exposed product and for each color and texture specified.
	1.5	Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation and maintenance of units and who employs a certified inspector.
	1.6	Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application
	1.7	Power-Operated Door Standard: BHAM A156.10.
	1.0	required means of egress.
	1.9 1.10	Coordination: Coordinate with installation of the building entry intercom system. Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of automatic entrances that fail in
	1.11	materials or workmanship within specified warranty period: Two (2) years from date of Substantial Completion. Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components that show evidence of
e	2.1	deterioration of factory-applied finished within specified warranty period: 20 years from date of Substantial Completion. Sliding Automatic Entrances: Provide manufacturer's standard automatic entrances, including doors, sidelights, framing, headers, carrier
		assemblies, roller tracks, door operators, activation and safety devices, and accessories required for a complete installation. A. Configuration: single-slide doors, with sidelights.
		1. Traffic Pattern: Two way. 2. Emergency Breakaway Canability: Sliding leaf (leaves) only
6		3. Mounting: Between jambs.
ssed		1. Power opening and closing.
		 Drive System: Chain or beit. Adjustable opening and closing speeds.
rform.		 Adjustable hold-open time between 0 and 30 seconds. Obstruction recycle.
sting	2.2	 On-off/hold-open switch to control electric power to operator, key operated. Door Operators and Activation and Safety Devices
Im		A. Provide door operators of size recommended by manufacturer for door size, weight, and movement, for condition of exposure; and for long-term, maintenance-free operation under normal traffic load for type of occupancy indicated.
		B. Motion Sensors: Self-contained, K-band-frequency, microwave-scanner units with metal or plastic housing; adjustable to provide detection field sizes and functions required by BHM A156 10: with relay hold time of not less than 2 to 10 second
tory		 Presence Sensors: Self-contained, infrared-scanner units with metal or plastic housing; adjustable to provide detection field sizes and functions required by BHMA A156 10; with relay hold time of not less than 2 to 10 seconds
lory		 D. Photoelectric Beams: Pulsed infrared, sender-receiver assembly for recessed mounting. Beams shall not be active when dears are fully closed.
		E. Unless units are equipped with self-protecting devices or circuits, provide electrical interlocks to prevent activation of operator
	2.3	when door is locked, latched, or bolted. Guide Rails: Fabricated from anodized-aluminum, minimum 30 inches high; positioned and projecting from face of door jamb for distance as
	2.4	indicated, but not less than that required by BHMA A156.10 for type of door and direction of travel; with filler panel. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
	3.1	A. Color: Dark Bronze. General: Do not install damaged components. Fit frame joints to produce hairline joints free of burrs and distortion. Rigidly secure
	3.2	nonmovement joints; seal joints water tight. Install entrances plumb and true in alignment with established lines and grades without warp or rack of framing members and doors; anchor
ch of	3.3	securely in place.
	3.4	Engage Installer's certified inspector to test and inspect automatic entrances and prepare test and inspection reports.
	3.5	BHMA A156.10.
	3.6	Engage a certified inspector to train Owner's maintenance personnel to adjust, operate, and maintain automatic entrances.
	08 5	313 – VINYL WINDOWS & SLIDING PATIO DOORS
ing to	1.1	Provide vinyl windows capable of complying with performance requirements indicated, based on testing manufacturer's windows that are representative of those specified, and that are of test size required by AAMA/NWWDA 101/LS, 2-97, HS-LC35; exceeding grade
		requirements as follows:
slats M		 A. Water test pressure: 6.0 pounds per square root. B. Air infiltration: 0.08 cubic feet per minute per linear foot at 25 miles per hour.
	1.2	are representative of those specified, and that are of test size required by AAMA/NWWDA 101/I.S. 2-97, HS-LC35; exceeding grade
		requirements as follows: A. Water test pressure: 4.5 pounds per square foot.
J		 B. Air infiltration: 0.16 cubic feet per minute per linear foot at 25 miles per hour. C. Structural test pressure: 45.0 pounds per square foot.
9	1.3	Comply with ICC A117.1 for accessibility requirements of operable windows in Type A, UFAS, and WHEDA accessible units where indicated on drawings.
	1.4	Submittals: A Product Data: For each window and door product, accessory and hardware
		 B. Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other work, operational clearances, and installation details.
	4.5	C. Samples: For each exposed finish.
	1.5	within specified warranty period.
		 A. Windows: Three (3) years from date of Substantial Completion for the window; 10 years from date of Substantial Completion for the glazing; five (5) years from date of Substantial Completion for the vinyl finish.
		B. Patio Doors: Five (5) years from date of Substantial Completion for the door; 20 years from date of Substantial Completion for the glazing; five (5) years from date of Substantial Completion for the finish.
	2.1	Fixed, Operable Single Hung, and Operable Awning and Hopper Windows: Provide windows manufactured by Alliance Window Systems with warm edge spacer bars, or approved equal.
		 Glazing: Low-e sealed insulating glass unit, 3/4 inch unit thickness, argon gas fill, and "warm edge" spacer bars between glass lites
		 B. Sealed Insulating Glass Units: Conform to ASTM E 290. C. France, DVC extrusions, fusion would depend must be an entrustion with a dependence of the second second
		nailing fin four (4) sides.
		D. Sasn: PVC extrusions, tusion-welded narrow-line construction, mitered corners, lift-out operation of operable sash unit, with full-interlocking meeting rail, full sash capture at jamb, cam-type locks with keepers.
d to		 E. Provide security stop for partially open windows. F. Provide windows with ADA-compliant hardware at accessible locations.
	2.2	Sliding Patio Doors: A. Glazing: Clear, sealed insulating-glass units, argon gas filled, with low-e coating.
З,		 B. Glazing System: Manufacturer's standard factory-glazing system that produces weather tight seal. "Warm edge" spacer bars. C. Thresholds: Extruded aluminum one piece for each door opening. ADA compliant, thermally broken
ed		 D. Weather Stripping: Manufacturer's standard type to suit applications. E. Provide all required bardware components for complete operation of door units.
init, r	0.0	 F. Lever handles; manufacturer's standard type weather stripping to suit application.
door	2.3 2.4	Giazing performance specifications: See Drawings. Insect screening: Roll-formed or extruded aluminum channel frames, with 18 by 16 fiberglass mesh secured with continuous vinyl gasket,
"	2.5	removable for screen replacement. Window/Door Units: Assemble units completely in factory, including operating hardware and glazing.

3.1 Install sectional doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports;

2.6 Provide limit stops at windows and sliding patio/balcony doors as indicated on Drawings and as required by local ordinances. 3.1 Install products specified in this section square, plumb and level, in accordance with approved shop drawings and manufacturer's installation

instructions. 3.2 Adjust operating hardware for correct operation.

3.3 Replace units damaged by subsequent construction activities.

08 7100 – DOOR HARDWARE

Section	includes: 1.1.1	Mechanical and electrified door hardware for swinging doors.
12	1.1.2 Submittals:	Electronic access control system components, including electronic access control devices.
1.2	1.2.1	Product Data: For each type of product indicated.
	1.2.2	wiring diagrams for power, signal, and control wiring.
	1.2.3	Door Hardware Schedule: Submit schedule with hardware sets, include identification number, location, hand, fire rating and material of each door and frame; type, style, function, size, quantity, and finish of each door hardware item; description and
		function of each lockset and exit device; complete designations of every item required for each door or opening including name and manufacturer; and description of each electrified door hardware function, including location, sequence of
	124	operation, and interface with other building control systems.
1.3	Obtain each	type of door hardware from single manufacturer.
1.4	acceptable t	to authorities having jurisdiction, for fire ratings indicated, based on testing at positive pressure and according to NFPA 252 or
1.5	UL 10C. Smoke and	Draft Control Door Assemblies: Tested according to UL 1784 and installed in compliance with NFPA 105.
1.6	Electrified D jurisdiction.	oor Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having
1.7	Hardware sl Code Chap	nall be in strict accord with the applicable provisions of the ADA-ABA Accessibility Guidelines; the International Building ter 11 Accessibility: the Wisconsin Administrative Code, Chapter SPS 362, and local codes
1.8	Distribute do	bor hardware templates for doors, frames, and other work specified to be factory prepared for installing door hardware.
	indicated red	quirements. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring
1.9	Coordinate	concrete. layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
1.10 1.11	Coordinate Warranty: N	layout and installation of electrified door hardware with connections to power supplies and building security systems. /Ianufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in
	materials or 1.11.1	workmanship within specified warranty period, beginning from date of Substantial Completion. Schlage Key Blanks: Lifetime.
	1.11.2 1 11 3	Schlage ALX Series: 10-year mechanical. Schlage Electrified Lock: 1-year electrical
	1.11.4	Falcon SC Series: 10-year mechanical.
	1.11.6	Falcon Lock: 10-year mechanical.
2.1	1.11.7 Hinges: AN	Ives Continuous Hinges: Lifetime. SI/BHMA A156.1, door hinges to have non-removable pins.
	2.1.1	Provide three (3) hinges per door leaf for doors 90 inches or less in height, and one (1) additional hinge for each 30 inches of additional door height.
	2.1.2	Provide spring hinges where specified. Provide two (2) spring hinges and one (1) bearing hinge per door leaf for doors 90 inches or less in height. Provide one (1) additional bearing hinge for each 30 inches of additional door height.
2.2	Continuous 2 2 1	Hinges: Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1. Provide hinges capable of supporting door weight up to 450 pounds, and successfully tested for 1,500,000 cycles
	2.2.2	On fire-rated doors, provide aluminum geared continuous hinges that are classified for use on rated doors by a testing
	2.2.3	Provide aluminum geared continuous hinges with electrified options as scheduled in the hardware sets. Provide with
2.3	Electric Pow	sufficient number and wire gage to accommodate electric function of specified hardware. ver Transfer:
	A. Provid accom	e power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to imodate electric function of specified hardware.
	B. Locate hardwa	e electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other are items.
2.4	Flush Bolts: levers, and	Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass with wrought brass guides and strikes.
2.5	Coordinator	s: Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized
	length for ur	nit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device
2.6	Mortise Loci	ks: Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1, and UL Listed for 3-hour fire doors.
2.7	retraction of	ted Locks: Provide interlocked locksets conforming to ANSI/BHMA A156.12-2013, Series 5000, Grade 2 with simultaneous deadbolt and latch for single motion egress. Cylinders: Refer to ''KEYING'' article, herein. UL listed 3-hour fire door, A label.
2.8 2.9	Cylindrical L Tubular Loc	ocks: Provide locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 2, and UL listed for 3-hour fire doors. ks: Provide locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 2 and ANSI/BHMA A156.39 Residential Grade AAA,
2.10	and UL liste Deadbolts: F	d for 3-hour fire doors. Provide grade 2 deadbolt series conforming to ANSI/BHMA A156.
2.11 2.12	Padlocks: F Exit Devices	Provide padlocks with 1-inch shackle height, unless noted otherwise, as specified. s: Provide exit devices tested to ANSI/BHMA 156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2.13	Electronic A	ccess Control Wireless Cyclindrical Lock: Provide wireless bored-type electronic locksets conforming to ANSI/BHMA A156.2
2.14	Access Con	trol Reader:
	A. Provid contro	I devices. Card reader manufactured for non-access control applications are not acceptable.
2.15	B. Provid Offline Cont	e multi-technology contactless readers complying with ISO 14443. roller: Provide an offline single opening controller UL 294 listed and compatible with the Schlage Engage Application.
2.16	Access Con Provide a pl	trol Platform: Provide a cloud-based platform capable of managing users, credentials, access rights, schedules, and audits. atform that allows for mobile application.
2.17	Electric Strik voltage with	kes: Provide electric strikes UL listed as burglar-resistant. Provide transformers and rectifiers for each strike as required; verify electrical contractor.
2.18	Power Supp electrified lo	lies: Provide power supplies, recommended and approved by manufacturer of electrified locking component, for operation of cks_electrified exit devices_magnetic locks_electric strikes_and other components requiring power supply
2 10	A. Provid	e appropriate quantity of power supplies necessary for proper operation of electrified locking components.
2.19	Keying: Pro	by ide factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at
2.21	Key Control	erence. System: Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible
	card index, t capacity for	temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with 150% of number of locks required for Project.
2.22	Door Closer exterior doo	s: BHMA A156.4, Grade 1. Install closers on the room side of corridor doors, stair side of stairways, and interior side of rs.
2.23 2.24	Door Trim: Protection P	Provide push plates, push bars, pull plates, and pulls with diameter and length as scheduled. Plates: Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick, beveled four edges as
2 25	scheduled. I	Furnish with sheet metal or wood screws, finished to match plates.
0	A. Provid	e overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
2.26	Door Stops	and Holders: Provide door stops at each door leaf as scheduled.
2.27	seals, and a	stragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of
	other items. tested accor	Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies rding to UL 1784 and installed in compliance with NFPA 105. Provide non-corrosive fasteners for exterior applications and
2.28	elsewhere a Ball Catches	is indicated. Provide ADA compliant aluminum thresholds. s: Provide ball catches at single doors with strike to fit ANSI frame prep. If dummy levers are used in conjunction with ball
2 29	catch, moun Magnetic Ho	It ball catch at a height as to not interfere with proper mounting and height of dummy lever.
2.20	Coordinate	projection of holder and armature with other hardware and wall conditions to ensure that door sits parallel to wall when fully
2.30	Door Viewei	rs: Provide appropriate door viewer for door type and rating with minimum of 180-degree view area.
∠.31	by-Pass or l weight. Inclu	ום שטט המועשמופ: אוסטע ביז איז איז איז איז איז איז איז איז איז א
2.32	Aluminum D inch throw la	oor Locks - Widw Style: Provide as specified. Provide locks with necessary backset as required for door detail with full 5/8 atch bolt. Provide manufacturer's standard strikes unless extended lip strikes are necessary to protect trim.
2.33 2.34	Key Lock Bo Provide all t	ox: Provide recessed key lock (knox) box at exterior per local fire department regulations. rim, accessories, fasteners, strikes, plates and miscellaneous for a complete door hardware installation at each door
2 35	scheduled a	ind for UL compliance at fire-rated doors.
2.36	Hardware fi	nishes: As specified in hardware sets. door hardware item to comply with manufacturor's written instructions. Where suffice and fitting are required to include the set
J. I	hardware or	nto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of
	surface prot involved.	ective trim units with finishing work. Do not install surface-mounted items until finishes have been completed on substrates
3.2 3.3	Install hardv Adjust and c	vare on UL labeled openings in accordance with manufacturer's requirements to maintain the fire rating. check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units
	that cannot equipment a	be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating and to comply with referenced accessibility requirements.
3.4	Door Hardw	are Sets:
Hardwa Provide	are Group No e each BF do	o. 1 or(s) with the followina:

1	EA	BI-FOLD DOOR HARDWARE KIT	100FD/200FD AS REQUIRED	AL	JOH			
2	EA	WIRE PULL	RM710 X 3/8" X 4" CTC	626	ROC			
NO	NOTE: VALANCE DETAIL BY ARCHITECT.							
NO	TE: HAF	RDWARE SUPPLIER SHALL PROVIDE	ALL COMPONENTS REQUIRED FOR INSTALLATION	OF BI-FOLDING DOOR H	IARDWARE.			

FINISH

MFR

CATALOG NUMBER

QTY

DESCRIPTION

MSP - THE DRIFTLESS

INCLU FOR II NOTE: CON NOTE: CON	JDE TRACK, PIVOTS, BALL-BEARING H NSTALLATION. IFIRM ALL HARDWARE WITH DOOR M/ IFIRM TRACK CAN SUPPORT DOOR W	IANGERS, HINGES, FASTENERS, GUIDES AND ALL OTHER CO ANUFACTURER PRIOR TO SUBMITTALS. /EIGHT AND SIZE.	OMPONENTS	REQUIRED
Hardware G Provide eacl QTY 1 EA 2 EA NOTE: VALA NOTE: CON NOTE: CON NOTE: HAR DOOR	roup No. 2 h BP door(s) with the following: DESCRIPTION BYPASS DOOR HARDWARE WIRE PULL ANCE DETAIL BY ARCHITECT. IFIRM ALL HARDWARE WITH DOOR M/ IFIRM TRACK CAN SUPPORT DOOR W/ DWARE SUPPLIER SHALL PROVIDE A & HARDWARE. INCLUDE TRACK, PIVOT	CATALOG NUMBER 134F/138F AS REQ'D RM710 X 3/8" X 4" CTC ANUFACTURER PRIOR TO SUBMITTALS. /EIGHT AND SIZE. LL COMPONENTS REQUIRED FOR INSTALLATION OF BY-PAS TS, BALL-BEARING HANGERS, HINGES, FASTENERS, GUIDES	FINISH 626 626 SING/SLIDIN SAND ALL OT	MFR JOH ROC G
Hardware G Provide eacl QTY 1 EA	roup No. 3 h SGL door(s) with the following: DESCRIPTION NOTE: NO ALLEGION HARDWA	CATALOG NUMBER RE SET/ALL HARDWARE BY DOOR/FRAME SUPPLIER	FINISH	MFR
Hardware G Provide eacl QTY 1 EA	roup No. 4 h SL door(s) with the following: DESCRIPTION NOTE: ALL HARDWARE BY SLII	CATALOG NUMBER DING DOOR/FRAME MANUFACTURER	FINISH UNF	MFR BYO
Hardware G Provide eacl QTY 1 EA	roup No. 5 h RU door(s) with the following: DESCRIPTION NOTE: NO ALLEGION HARDWA	CATALOG NUMBER RE SET/ALL HARDWARE BY DOOR/FRAME SUPPLIER	FINISH	MFR
Hardware G For use on E 009A Provide eacl	roup No. 6 Door #(s): h SGL door(s) with the following:			
1 EA 1 EA 1 EA	CONT. HINGE STOREROOM LOCK NARROW STILE MORTISE LOCK BODY	112XY L9080L LATA LLL LLL LESS LOCK CASE STOREROOM FUNCTION 8859	628 626 626	IVE SCH ACC
1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA	MORTISE CYLINDER ELECTRIC STRIKE (FAIL-SECURE) OH STOP SURFACE CLOSER MOUNTING PLATE CONTROLLER DOOR CONTACT POWER SUPPLY NOTE: WEATHERSTRIPPING T	30-001 X L583-474 118 36-083 MDS100 12/24 VDC 100S 4050A RW/PA ST-5203 TBSRT 4050A-18 TBSRT CTE-MTB11/MTB15 (AS REQ'D)-485-B 12/24 VDC/POE 679-05HM PS902 FA900 120/240 VAC-FOR CTE HRESHOLD & SWEEP BY ALLIMINUM DOOR SUPPLIER	626 630 689 689 B BLK LGR	SCH LOC GLY LCN LCN SCE SCE SCE B/O
NOTE: PRO CYLIN OPERATION STRIK AVAIL	VIDE COMPLETE LATCHING ASSEMBI IDER CAM, BLOCKING RING AND ALL I NAL DESCRIPTION: PRESENTING VALI CE ALLOWING THE DOOR TO BE OPEN ABLE. ELECTRIC STRIKE REMAINS LO	LY INCLUDING LOCK BODY, STRIKE, SCALP, SPINDLE, LEVER REQUIRED FASTENERS. ID CREDENTIAL AT CREDENTIAL READER DEVICE IS TO RELE IED. KEYED INGRESS IS ALSO AVAILABLE. IMMEDIATE EGRES OCKED UPON ACTIVATION OF FIRE ALARM OR LOSS OF POW	S, ROSES, C EASE THE EL SS IS ALWAY ER (FAIL-SE(ECTRIC S CURE).
ITEMS TO E 1. CREDEN 2. REQUIRE A. CREDEN B. REQUIRE	BE PROVIDED BY THE DIVISION 28 SU TIAL READER DEVICE. ED POWER AND WIRING TO THE: TIAL READER DEVICE AND ELECTRIC ED WIRING FROM THE PS902 POWER	PPLIER: STRIKE.		
NOTE: -MANAGED -IT IS RECC -CREDENTI -CTE CAN M -CONSOLID -COORDINA	BY SCHLAGE'S CLOUD BASED "ENGA MMENDED THAT A WI-FI ACCESS POI AL READER MUST BE WIRED VIA RS-4 MOUNT UP TO 500 FEET FROM THE OF ATING CTE'S INTO AN ELECTRICAL C	AGE" ACCESS CONTROL SYSTEM. NT REACHES THE CTE LOCK TO ALLOW FOR DAILY AUTOMA 485 CONNECTION.	TIC DOWNLO	
	ATE ALL ELECTRIFIED HARDWARE RE	DENING. LOSET ALLOWS FOR REDUCED POWER SUPPLIES BEING OF QUIREMENTS WITH DIVISION 28 AS REQUIRED.	RDERED.	JADS.
Hardware G Provide eacl	ATE ALL ELECTRIFIED HARDWARE RE roup No. 7 h SGL door(s) with the following:	LOSET ALLOWS FOR REDUCED POWER SUPPLIES BEING OF QUIREMENTS WITH DIVISION 28 AS REQUIRED.	RDERED.	JADS.
Hardware G Provide eacl QTY 1 EA 1 EA	ATE ALL ELECTRIFIED HARDWARE RE roup No. 7 h SGL door(s) with the following: DESCRIPTION CONT. HINGE WIRELESS ELECTRONIC LOCK	CATALOG NUMBER 224XY NDEBPD LAT BATTERY OPERATED	RDERED. FINISH 628 626	MFR IVE SCE
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Hardware G Provide each QTY 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA	ATE ALL ELECTRIFIED HARDWARE RE roup No. 7 h SGL door(s) with the following: DESCRIPTION CONT. HINGE WIRELESS ELECTRONIC LOCK SURFACE CLOSER KICK PLATE RAIN DRIP GASKETING GASKETING DOOR SWEEP THRESHOLD JNT 429A HEAD SEAL PRIOR TO MOUN IAGED BY SCHLAGE'S CLOUD BASED RECOMMENDED THAT A WI-FI ACCES NLOADS. DRDINATE ALL ELECTRIFIED HARDWA VAL DESCRIPTION: LOCK NORMALLY CKS THE ELECTRIFIED LOCK ALLOWI ENTIAL MAY BE USED TO CHANGE TO EMENTED TO PUT THE LOCK IN A PASS roup No. 8 h SGL door(s) with the following: DESCRIPTION CONT. HINGE STOREROOM LOCK NARROW BACKSET MORTISE LOCK BODY MORTISE CYLINDER ELECTRIC STRIKE (FAIL-SECURE) OH STOP AUTO OPERATOR ACTUATOR, WALL/JAMB MOUNT CONTROLLER POWER SUPPLY	CATALOG NUMBER 224XY NDEBPD LAT BATTERY OPERATED SC71A SS 8400 10" X 2" LDW B-CS 142AA 328AA-S 429AA-S 39A 566A-V3-223 ITING CLOSER. 328AA IS TO BE USED AS JAMB SEALS. "ENGAGE" ACCESS CONTROL SYSTEM. SS POINT REACHES THE NDEB LOCK TO ALLOW FOR DAILY A RE REQUIREMENTS WITH DIVISION 28 AS REQUIRED. SECURE WITH OUTSIDE LEVER DISENGAGED. PRESENTING NG THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO AV 0 A PASSAGE OR SECURED STATE. LOCKING/UNLOCKING SC SAGE OR SECURE STATE.	RDERED. FINISH 628 626 689 630 AA AA AA AA A A A A A A A A A A A A A	MFR IVE SCE FAL IVE ZER ZER ZER ZER ZER ZER ZER ZER ZER ZE
Hardware G Provide eacl QTY 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA	ATE ALL ELECTRIFIED HARDWARE RE roup No. 7 h SGL door(s) with the following: DESCRIPTION CONT. HINGE WIRELESS ELECTRONIC LOCK SURFACE CLOSER KICK PLATE RAIN DRIP GASKETING GASKETING DOOR SWEEP THRESHOLD JNT 429A HEAD SEAL PRIOR TO MOUN IAGED BY SCHLAGE'S CLOUD BASED RECOMMENDED THAT A WI-FI ACCES NLOADS. DRDINATE ALL ELECTRIFIED HARDWA VAL DESCRIPTION: LOCK NORMALLY CKS THE ELECTRIFIED LOCK ALLOWI ENTIAL MAY BE USED TO CHANGE TO EMENTED TO PUT THE LOCK IN A PASS roup No. 8 h SGL door(s) with the following: DESCRIPTION CONT. HINGE STOREROOM LOCK NARROW BACKSET MORTISE LOCK BODY MORTISE CYLINDER ELECTRIC STRIKE (FAIL-SECURE) OH STOP AUTO OPERATOR ACTUATOR, WALL/JAMB MOUNT CONTROLLER POWER SUPPLY VIDE COMPLETE LATCHING ASSEMBI IDER CAM, BLOCKING RING AND ALL ID ORDINATE ACTUATOR MOUNTING LOCK	CATALOG NUMBER 224XY NDEBPD LAT BATTERY OPERATED SC71A SS 8400 10" X 2" LDW B-CS 142AA 328AA-S 429AA-S 39A 566A-V3-223 31TING CLOSER. 328AA IS TO BE USED AS JAMB SEALS. "ENGAGE" ACCESS CONTROL SYSTEM. SS POINT REACHES THE NDEB LOCK TO ALLOW FOR DAILY A RE REQUIREMENTS WITH DIVISION 28 AS REQUIRED. SECURE WITH OUTSIDE LEVER DISENGAGED. PRESENTING NG THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO AV. 0 A PASSAGE OR SECURED STATE. LOCKING/UNLOCKING SC SAGE OR SECURE STATE.	RDERED. FINISH 628 626 689 630 AA AA AA AA A A A A A A A A A A A A A	MFR IVE SCE FAL IVE ZER ZER ZER ZER ZER ZER ZER ZER ZER ZE
Hardware G Provide each QTY 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA 1 EA	ATE ALL ELECTRIFIED HARDWARE RE roup No. 7 h SGL door(s) with the following: DESCRIPTION CONT. HINGE WIRELESS ELECTRONIC LOCK SURFACE CLOSER KICK PLATE RAIN DRIP GASKETING GASKETING DOOR SWEEP THRESHOLD JNT 429A HEAD SEAL PRIOR TO MOUN IAGED BY SCHLAGE'S CLOUD BASED RECOMMENDED THAT A WI-FI ACCES VIOADS. ORDINATE ALL ELECTRIFIED HARDWA VAL DESCRIPTION: LOCK NORMALLY CKS THE ELECTRIFIED LOCK ALLOWI ENTIAL MAY BE USED TO CHANGE TO SMENTED TO PUT THE LOCK IN A PASE roup No. 8 h SGL door(s) with the following: DESCRIPTION CONT. HINGE STOREROOM LOCK NARROW BACKSET MORTISE LOCK BODY MORTISE CYLINDER ELECTRIC STRIKE (FAIL-SECURE) OH STOP AUTO OPERATOR ACTUATOR, WALL/JAMB MOUNT CONTROLLER POWER SUPPLY VIDE COMPLETE LATCHING ASSEMBIN IDER CAM, BLOCKING RING AND ALL ID RDINATE ACTUATOR MOUNTING LOCK VAL DESCRIPTION: PRESENTING VALLING CONTROLLER POWER SUPPLY VIDE COMPLETE LATCHING ASSEMBIN IDER CAM, BLOCKING RING AND ALL ID RDINATE ACTUATOR MOUNTING LOCK VAL DESCRIPTION: PRESENTING VALLING MORTINGE COMPLETE LATCHING ASSEMBING ACTUATOR, WALL/JAMB MOUNT CONTROLLER POWER SUPPLY VIDE COMPLETE LATCHING ASSEMBING IDER CAM, BLOCKING RING AND ALL ID RDINATE ACTUATOR MOUNTING LOCK VAL DESCRIPTION: PRESENTING VALLING ADDINATE ACTUATOR MOUNTING LOCK VAL DESCRIPTION: PRESENTING VALLING ADDINATE ACTUATOR MOUNTING LOCK ADDINATE ACT	CATALOG NUMBER 224XY NDEBPD LAT BATTERY OPERATED SC71A SS 8400 10" X 2" LDW B-CS 142AA 328AA-S 429AA-S 39A 566A-V3-223 VTING CLOSER. 328AA IS TO BE USED AS JAMB SEALS. "ENGAGE" ACCESS CONTROL SYSTEM. SS POINT REACHES THE NDEB LOCK TO ALLOW FOR DAILY A RE REQUIREMENTS WITH DIVISION 28 AS REQUIRED. SECURE WITH OUTSIDE LEVER DISENGAGED. PRESENTING NG THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO AW 0 A PASSAGE OR SECURED STATE. LOCKING/UNLOCKING SC SAGE OR SECURE STATE. CATALOG NUMBER 112XY L9080L LATA LLL LLL LESS LOCK CASE STOREROOM FUNCTION 8859 30-001 X L583-474 118 36-083 MDS100 12/24 VDC 100SE 8242 MS 120 VAC 8310-818T/8310-853T AS REQ'D CTE-MTB11/MTB15 (AS REQ'D)-485-B 12/24 VDC/POE PS902 FA900 L20240 VAC-FOR CTE 	RDERED. FINISH 628 626 689 630 AA AA AA A A A A A A A A A	MFR IVE SCE FAL IVE ZER ZER ZER ZER ZER ZER ZER ZER ZER ZE

1. CREDENTIAL READER DEVICE.

2. REQUIRED POWER AND WIRING TO THE: A. CREDENTIAL READER DEVICE AND ELECTRIC STRIKE.

B. REQUIRED WIRING FROM THE PS902 POWER SUPPLY TO THE CTE CONTROLLER.

POWER SUPPLY FOR THE AUTO-OPERATOR IS BY THE ELECTRICAL CONTRACTOR.

NOTE:

-MANAGED BY SCHLAGE'S CLOUD BASED "ENGAGE" ACCESS CONTROL SYSTEM.

-IT IS RECOMMENDED THAT A WI-FI ACCESS POINT REACHES THE CTE LOCK TO ALLOW FOR DAILY AUTOMATIC DOWNLOADS. -CREDENTIAL READER MUST BE WIRED VIA RS-485 CONNECTION.

-CTE CAN MOUNT UP TO 500 FEET FROM THE OPENING. -CONSOLIDATING CTE'S INTO AN ELECTRICAL CLOSET ALLOWS FOR REDUCED POWER SUPPLIES BEING ORDERED. -COORDINATE ALL ELECTRIFIED HARDWARE REQUIREMENTS WITH DIVISION 28 AS REQUIRED.

Hardware Group No. 9

Provide each SGL door(s) with the following:

QT	Y	DESCRIPTION
3	EA	HINGE
1	EA	WIRELESS ELE
1	EA	SURFACE CLOS

ECTRONIC LOCK SER

CATALOG NUMBER 5BB1 4.5 X 4.5 NDEBPD LAT BATTERY OPERATED SC81A RW/PA-MOUNT PULL SIDE

FINISH	
652	
626	
689	
000	

MFR

SCE

FAL

IVE

IRED	1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
	1 EA 1 EA	WALL STOP GASKETING	WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT	630 BK	IVE ZER
			NON-RATED OPENINGS)		
	NOTE: PRO NOTE: MAI	NAGED BY SCHLAGE'S CLOUD BASE	D "ENGAGE" ACCESS CONTROL SYSTEM.		
R	NOTE: IT IS DOW	S RECOMMENDED THAT A WI-FI ACCE /NLOADS.	ESS POINT REACHES THE NDEB LOCK TO ALLOW FOR DAILY	AUTOMATIC	
`	NOTE: CO	ORDINATE ALL ELECTRIFIED HARDW	ARE REQUIREMENTS WITH DIVISION 28 AS REQUIRED.		
,	OPERATIO	NAL DESCRIPTION: LOCK NORMALLY	SECURE WITH OUTSIDE LEVER DISENGAGED. PRESENTIN	IG VALID CREI	DENTIAL
	UNLO	DCKS THE ELECTRIFIED LOCK ALLOW DENTIAL MAY BE USED TO CHANGE T	VING THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO A TO A PASSAGE OR SECURED STATE. LOCKING/UNLOCKING S	AVAILABLE. VA SCHEDULE MA	LID \Y BE
	IMPL	EMENTED TO PUT THE LOCK IN A PAS	SSAGE OR SECURE STATE.		
	Hardware 0	Group No. 10			
	Provide eac QTY	ch SGL door(s) with the following: DESCRIPTION	CATALOG NUMBER	FINISH	MFR
5	3 EA	HINGE	5BB1 4.5 X 4.5	652	IVE
X .	1 EA	OH STOP	90S	630	GLY
	1 EA 1 EA	SURFACE CLOSER KICK PLATE	SC71A RW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS	689 630	FAL IVE
>	1 EA	GASKETING	488SBK PSA H & J (PROVIDE SILENCERS AT	BK	ZER
)	NOTE: PRO	OVIDE EXTENDED LIP STRIKE IF REQ	UIRED.		
	NOTE: MAI NOTE: IT IS	NAGED BY SCHLAGE'S CLOUD BASEI S RECOMMENDED THAT A WI-FI ACCE	D "ENGAGE" ACCESS CONTROL SYSTEM. ESS POINT REACHES THE NDEB LOCK TO ALLOW FOR DAILY	AUTOMATIC	
)		NLOADS. ORDINATE ALL ELECTRIEIED HARDW/	ARE REALIBEMENTS WITH DIVISION 28 AS REALIBED		
Ϋ́Υ.	NOTE. CO	ORDINATE ALL ELECTRIFIED HARDW	ARE REQUIREMENTS WITH DIVISION 20 AS REQUIRED.		
	OPERATIO UNLO	NAL DESCRIPTION: LOCK NORMALLY DCKS THE ELECTRIFIED LOCK ALLOW	' SECURE WITH OUTSIDE LEVER DISENGAGED. PRESENTIN VING THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO A	IG VALID CREI AVAILABLE. VA	JENTIAL LID
	CREI	DENTIAL MAY BE USED TO CHANGE T	O A PASSAGE OR SECURED STATE. LOCKING/UNLOCKING S	SCHEDULE MA	Y BE
	IMPL	EMENTED TO PUT THE LOCK IN A PAS	SSAGE OR SECURE STATE.		
R	Hardware (Provide eac	Group No. 11 ch SGL door(s) with the following:			
l	QTY	DESCRIPTION		FINISH	MFR
,	3 EA 1 EA	WIRELESS ELECTRONIC LOCK	NDEBPD LAT BATTERY OPERATED	626	SCE
	1 EA 1 EA	SURFACE CLOSER KICK PLATE	SC71A SS 8400 10" X 2" LDW B-CS	689 630	FAL IVE
L	1 EA	GASKETING	488SBK PSA H & J (PROVIDE SILENCERS AT	BK	ZER
	NOTE: PRO	OVIDE EXTENDED LIP STRIKE IF REQ	UIRED.		
	NOTE: MAI NOTE: IT IS	NAGED BY SCHLAGE'S CLOUD BASEI S RECOMMENDED THAT A WI-FI ACCE	D "ENGAGE" ACCESS CONTROL SYSTEM. ESS POINT REACHES THE NDEB LOCK TO ALLOW FOR DAILY	AUTOMATIC	
		NLOADS.			
ER,	NOTE: CO				
	OPERATIO UNLO	INAL DESCRIPTION: LOCK NORMALLY DCKS THE ELECTRIFIED LOCK ALLOW	' SECURE WITH OUTSIDE LEVER DISENGAGED. PRESENTIN VING THE DOOR TO BE OPENED. KEYED INGRESS IS ALSO A	IG VALID CREI AVAILABLE. VA	JENTIAL LID
С	CREI	DENTIAL MAY BE USED TO CHANGE T	O A PASSAGE OR SECURED STATE. LOCKING/UNLOCKING S	SCHEDULE MA	√Y BE
	IMPL	EMENTED TO PUT THE LOCK IN A PAG	SSAGE OR SECURE STATE.		
	Hardware (Provide ea	Group No. 12 ch SGL door(s) with the following:			
	QTY	DESCRIPTION		FINISH	MFR
	3 EA 1 EA	FIRE EXIT HARDWARE	F-25-R-L-NL-LAT	626	FAL
	1 EA 1 EA	MORTISE CYL. HOUSING FSIC CORE	26-094 23-030	626 626	SCH SCH
	1 EA	CONST. CORE	23-030 ICX	ORG	SCH
	1 EA	SURFACE CLOSER	SC71A HDPA	689	FAL
	1 EA 1 FA	KICK PLATE WALL STOP	8400 10" X 2" LDW B-CS WS406/407CVX	630 630	IVE IVE
	1 EA	GASKETING	488SBK PSA H & J (PROVIDE SILENCERS AT	BK	ZER
	1 EA	CONTROLLER	NON-RATED OPENINGS) CTE-MTB11/MTB15 (AS REQ'D)-485-B 12/24 VDC/POE	В	SCE
	1 EA OPERATIO	POWER SUPPLY NAL DESCRIPTION [,] PRESENTING VAL	PS902 FA900 120/240 VAC-FOR CTE	LGR I FASE THE FI	
R	STRI	KE ALLOWING THE DOOR TO BE OPE	NED. KEYED INGRESS IS ALSO AVAILABLE. IMMEDIATE EGR	ESS IS ALWAY	'S
	AVAII	LABLE. ELECTRIC STRIKE REMAINS L	OCKED UPON ACTIVATION OF FIRE ALARIVI OR LOSS OF PO	WER (FAIL-SE	CURE).
	ITEMS TO 1. CREDEN	BE PROVIDED BY THE DIVISION 28 SUNTIAL READER DEVICE.	JPPLIER:		
	2. REQUIR	ED POWER AND WIRING TO THE CRE	EDENTIAL READER DEVICE AND ELECTRIC STRIKE.		
	3. REQUIR	ED WIRING FROM THE PS902 POWER	SUPPLY TO THE CTE CONTROLLER.		
	NOTE: -MANAGEI	D BY SCHLAGE'S CLOUD BASED "ENG	GAGE" ACCESS CONTROL SYSTEM.		
	-IT IS REC	OMMENDED THAT A WI-FI ACCESS PO	DINT REACHES THE CTE LOCK TO ALLOW FOR DAILY AUTON	ATIC DOWNL	OADS.
	-CTE CAN	MOUNT UP TO 500 FEET FROM THE C	PENING.		
	-CONSOLI -COORDIN	DATING CTE'S INTO AN ELECTRICAL (IATE ALL ELECTRIFIED HARDWARE RI	CLOSET ALLOWS FOR REDUCED POWER SUPPLIES BEING (EQUIREMENTS WITH DIVISION 28 AS REQUIRED.	ORDERED.	
1	Llordware	Proup No. 12			
L	Provide eac	ch PR door(s) with the following:			
	QTY 2 EA	DESCRIPTION CONT. HINGE	CATALOG NUMBER 224XY EPT	FINISH 628	MFR IVE
	2 EA			689	VON
	1 EA	ELEC FIRE EXIT HARDWARE	MEL-FSE-F-25-C-WDC-L-LBR-LAT-SNB 24 VDC	o∠o 626	FAL
R	2 EA 2 FA	MORTISE CYL. HOUSING FSIC CORF	26-094 23-030	626 626	SCH
l	2 EA	CONST. CORE	23-030 ICX	ORG	SCH
,	1 EA 1 EA	SURFACE CLOSER AUTO OPERATOR	8242 MS 120 VAC	689 689	⊦AL FAL
1	2 EA 2 FA	ACTUATOR, WALL/JAMB MOUNT KICK PI ATF	8310-818T/8310-853T AS REQ'D 8400 10" X 1" I DW B-CS	630 630	LCN IVF
	2 EA	WALL STOP	WS406/407CVX	630	IVE
	1 SET 1 EA	GASKETING STILE	328AA-S (2 PCS - 1 SET) 488SBK PSA H & J (PROVIDE SILENCERS AT	AA BK	∠ER ZER
	1 FA	CONTROLLER	NON-RATED OPENINGS) CTE-MTB11/MTB15 (AS REQ'D)-485-B 12/24 VDC/POE	В	SCF
		·			

1 EA POWER SUPPLY PS902 900-2RS-FA 120/240 VAC-FOR CTE & MEL LGR SCE NOTE: COORDINATE ACTUATOR MOUNTING LOCATIONS WITH OWNER AND ARCHITECT PRIOR TO ORDERING MATERIAL.

OPERATIONAL DESCRIPTION: PRESENTING VALID CREDENTIAL AT CREDENTIAL READER DEVICE IS TO UNLOCK THE PULL SIDE ELECTRIC LEVER TRIM, MOMENTARILY RETRACT THE ELECTRIC LATCH BOLT (MEL) AT THE RHR LEAF AND ENABLE THE PULL SIDE ACTUATOR BUTTON ALLOWING MANUAL OR AUTOMATIC INGRESS. THE ELECTRIC LATH BOLT (MEL) SHALL BE SEQUENCED WITH THE AUTOMATIC OPERATOR AND RETRACT PRIOR TO THE AUTOMATIC OPERATOR OPENING THE DOOR. PUSH SIDE ACTUATOR BUTTON IS ALWAYS ACTIVE. KEYED INGRESS IS ALSO AVAILABLE. IMMEDIATE MANUAL OR AUTOMATIC EGRESS IS ALWAYS AVAILABLE. THE ELECTRIC LATCH BOLT IS TO REMAIN IN THE EXTENDED POSITION UPON ACTIVATION OF FIRE ALARM OR LOSS OF POWER (FAIL-SECURE). THE ELECTRIC LEVER TRIM REMAINS LOCKED UPON ACTIVATION OF FIRE ALARM OR LOSS OF POWER (FAIL-SECURE).

ITEMS TO BE PROVIDED BY THE DIVISION 28 SUPPLIER:

1. CREDENTIAL READER DEVICE.

2. REQUIRED POWER AND WIRING TO THE:

A. CREDENTIAL READER DEVICE AND ELECTRIC LEVER TRIM. B. REQUIRED WIRING FROM THE PS902 POWER SUPPLY TO THE CTE CONTROLLER.

C. REQUIRED WIRING FROM THE PS902 POWER SUPPLY TO THE "MEL" FEATURE INSIDE THE PANIC DEVICE.

POWER SUPPLY FOR THE AUTO-OPERATOR IS BY THE ELECTRICAL CONTRACTOR.

NOTE:

-MANAGED BY SCHLAGE'S CLOUD BASED "ENGAGE" ACCESS CONTROL SYSTEM. -IT IS RECOMMENDED THAT A WI-FI ACCESS POINT REACHES THE CTE LOCK TO ALLOW FOR DAILY AUTOMATIC DOWNLOADS. -CREDENTIAL READER MUST BE WIRED VIA RS-485 CONNECTION.

-CTE CAN MOUNT UP TO 500 FEET FROM THE OPENING.

-CONSOLIDATING CTE'S INTO AN ELECTRICAL CLOSET ALLOWS FOR REDUCED POWER SUPPLIES BEING ORDERED.

-COORDINATE ALL ELECTRIFIED HARDWARE REQUIREMENTS WITH DIVISION 28 AS REQUIRED.

Hardware Group No. 14

Provide each SGL door(s) with the following: QTY DESCRIPTION

FINISH MFR

1 1	EA EA	CONT. HINGE NARROW STILE MORTISE	112XY CLASSROOM FUNCTION 8845	628 626	IVE ACC
1	EA	CLASSROOM LOCK	L9070L LATA LLL LLL LESS LOCK CASE	626	SCH
1 1	EA EA	SURFACE CLOSER	30-001 X L583-474 118 36-083 SC71A RW/PA-MOUNT PULL SIDE	626 689	SCH FAL
1 1	EA EA	MOUNTING PLATE WALL STOP	SC70A-18 WS406/407CVX	689 630	FAL IVE
1 NOTI	EA E· KEY I	NOTE: WEATHERSTRIPPING, T	THRESHOLD & SWEEP BY ALUMINUM DOOR SUPPLIER		B/O
NOT	E: PRO CYLINI	/IDE COMPLETE LATCHING ASSEMB DER CAM, BLOCKING RING AND ALL	LY INCLUDING LOCK BODY, STRIKE, SCALP, SPINDLE, LEVERS REQUIRED FASTENERS.	, ROSES, CY	LINDER,
Hard	ware Gr	oup No. 15			
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1 1	EA EA	NARROW STILE MORTISE	112XY CLASSROOM FUNCTION 8845	628 626	ACC
1	EA	LOCK BODY CLASSROOM LOCK	L9070L LATA LLL LLESS LOCK CASE	626	SCH
1 1	EA FA	MORTISE CYLINDER OH STOP	30-001 X L583-474 118 36-083 100S	626 630	SCH GLY
1	EA	SURFACE CLOSER	4050A RW/PA ST-5203 TBSRT	689 689	
1 1		NOTE: WEATHERSTRIPPING, T	THRESHOLD & SWEEP BY ALUMINUM DOOR SUPPLIER	000	B/O
NOT	E: PRO CYLINI	/IDE COMPLETE LATCHING ASSEMB DER CAM, BLOCKING RING AND ALL	LY INCLUDING LOCK BODY, STRIKE, SCALP, SPINDLE, LEVERS REQUIRED FASTENERS.	, ROSES, CY	LINDER,
Hard	ware Gr	oup No. 16			
Provi QTY	de each	SGL door(s) with the following: DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1 1	EA EA	CONT. HINGE STOREROOM LOCK	224XY ALX80P LAT	628 626	IVE SCH
1 1	EA EA	SURFACE CLOSER KICK PLATE	SC71A SS 8400 10" X 2" LDW B-CS	689 630	FAL IVE
1	EA	RAIN DRIP	142AA 328AA S	AA AA	ZER
1	SET	GASKETING	429AA-S	AA	ZER
1 1 NOTI	EA EA F: MOU	THRESHOLD NT 429A HEAD SEAL PRIOR TO MOUI	39A 566A-V3-223 NTING CLOSER, 328AA IS TO BE LISED AS JAMB SEALS	A A	ZER ZER
Hard	ware Gr	oup No. 17			
Provi QTY	de each	SGL door(s) with the following: DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1 1	EA FA	CONT. HINGE FIRE EXIT HARDWARE	224XY F-25-R-I -NI -I AT	628 626	IVE FAI
1	EA	MORTISE CYL. HOUSING	26-094 23.030	626 626	SCH
1	EA	CONST. CORE	23-030 ICX	ORG	SCH
1 1	EA EA	KICK PLATE	8400 10" X 2" LDW B-CS	689 630	FAL IVE
1 1	EA SET	RAIN DRIP GASKETING	142AA 328AA-S	AA AA	ZER ZER
1 1	SET EA	GASKETING DOOR SWEEP	429AA-S 39A	AA A	ZER ZER
1 NOT	EA E: MOU	THRESHOLD NT 429A HEAD SEAL PRIOR TO MOUI	566A-V3-223 NTING CLOSER. 328AA IS TO BE USED AS JAMB SEALS.	A	ZER
Hard	ware Gr	oup No. 18			
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1 1	EA EA	LONG DOOR PULL PR	112XY 9266F 36" 20" N	628 630-316	IVE IVE
1 1	EA EA	SURFACE CLOSER MOUNTING PLATE	SC71A RW/PA-MOUNT PULL SIDE SC70A-18	689 689	FAL FAL
1 1	EA EA	WALL STOP NOTE: WEATHERSTRIPPING, T	WS406/407CVX THRESHOLD & SWEEP BY ALUMINUM DOOR SUPPLIER	630	IVE B/O
Hard	ware Gr	oup No. 19 PR door(s) with the following:			
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA EA	AUTO FLUSH BOLT	FB31T/FB41T AS REQ'D (USE FB32/FB42 AT RATED DOORS)	628 630	IVE IVE
1 1	EA EA	PASSAGE SET COORDINATOR	ALX10 LAT COR X FL X MBF X HW PREPS X LENGTH AS REQ'D	626 628	SCH IVE
2 2	EA EA	SURFACE CLOSER KICK PLATE	SC71A RW/PA-MOUNT PULL SIDE 8400 10" X 1" LDW B-CS	689 630	FAL IVE
2	EA EA	FIRE/LIFE WALL MAG	SEM7800 SERIES AS REQ'D (12/24/120V AC/DC TRI-VOLT)	689 A	LCN ZER
1 1	EA	GASKETING 488SBK PSA H & J (PRO	VIDE SILENCERS AT NON-RATED OPENINGS)	BK	ZER
NOTI NOTI	E: 9800 E: 322A E: SECL	IS TO BE USED AS AN OVERLAPPING JRE APPROVAL OF WIRING AND INST	G ASTRAGAL. FALLATION DETAILING OF MAGNETIC HOLDERS FROM OWNER		TECT
	PRIOR	TO CONSTRUCTION. PROVIDE MAG	HOLDER EXTENSIONS IF REQUIRED.		
OPEI	TO BU	AL DESCRIPTION: DOORS NORMALL ILDING'S FIRE/SMOKE ALARM SYSTE IM ALLOWING DOORS TO SELF-CLOS	LY HELD OPEN BY MAGNETIC HOLDERS. MAGNETIC HOLDERS EM TO RELEASE IMMEDIATELY UPON ACTIVATION OF BUILDING SE AND LATCH	SHALL BE C G'S FIRE/SMO	ONNECTED OKE ALARM
Hard	ware Gr	oup No. 20			
Provi QTY	de each	SGL door(s) with the following: DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 1	EA EA	HINGE PASSAGE SET	5BB1HW 4.5 X 4.5 ALX10 LAT	652 626	IVE SCH
1 1	EA EA	SURFACE CLOSER KICK PLATE	SC71A DEL RW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS	689 630	FAL IVE
1 1	EA EA	WALL STOP GASKETING	WS406/407CVX 488SBK PSA H & L(PROVIDE SILENCERS AT	630 BK	IVE ZER
' NOTI	E: PRO	/IDE EXTENDED LIP STRIKE IF REQU	NON-RATED OPENINGS) JIRED.	DIX	
Hard	ware Gr	oup No. 21			
Provi QTY	de each	SGL door(s) with the following: DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 1	EA EA	HINGE PASSAGE SET	5BB1 4.5 X 4.5 ALX10 LAT	652 626	IVE SCH
1	EA	SURFACE CLOSER	SC71A RW/PA-MOUNT PULL SIDE	689 630	FAL
1	EA	WALL STOP		630 DI	IVE
' NOTI	E: PR∩\		NON-RATED OPENINGS)	DN	LEK
Hard	ware Gr	oup No. 22			
Provi QTY	de each	SGL door(s) with the following: DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA F∆	HINGE PASSAGE SET	5BB1 4.5 X 4.5 ALX10 LAT	652 626	IVE SCH
1 1	EA	OH STOP	90S SC71A DW/DA MOUNT DUUL ODE	630	GLY
1	EA EA	SURFACE GLOSER KICK PLATE	SC/TA KW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS	о89 630	FAL IVE
1 אסדי			4885BK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) JIRED	ВК	∠ER
Hard	∟. ⊬KO\ ware Gr	oup No. 23			
Provi	de each	SGL door(s) with the following:		FINISH	MFR
3 1	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1 1	EA EA	OH STOP	90S SOZIA DEL DIAUDA MOLINIT DULL CIDE	630	GLY
1 1	EA EA	KICK PLATE	8400 10" X 2" LDW B-CS	009 630	IVE
1	ЕA	GASKETING	4885BK PSA H & J (PROVIDE SILENCERS AT	ВК	ZER

NOTE: PROVIDE EXTENDED LIP STRIKE IF REQUIRED.

Hardware Group No. 24

MSP - THE DRIFTLESS

3 1 1		DESCRIPTION		FINISH	MFF
1	EA EA	PASSAGE SET	ALX10 LAT	652 626	SCF
1	EA EA	SURFACE CLOSER KICK PLATE	SC71A DEL HDPA 8400 10" X 2" LDW B-CS	689 630	FAL IVE
1	EA	WALL STOP		630 BK	IVE
	EA	GASKETING	488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS)	ВК	ZEF
IOT	E: PRO	VIDE EXTENDED LIP STRIKE IF RE	EQUIRED.		
lard [.] Provi	ware G ide eacl	roup No. 25 h SGL door(s) with the following:			
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFI
	EA EA	HINGE FIRE EXIT HARDWARE	5BB1 4.5 X 4.5 F-25-R-L-BE-LAT-SNB	652 626	IVE FAL
	EA	SURFACE CLOSER	SC71A RW/PA-MOUNT PULL SIDE	689 620	FAL
	EA EA	WALL STOP	WS406/407CVX	630 630	IVE
	EA	GASKETING	488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS)	BK	ZEF
lard	ware G	roup No. 26			
rovi	ide eacl	h SGL door(s) with the following:			
ΩTΥ ;	EA	DESCRIPTION HINGE	CATALOG NUMBER 5BB1 4.5 X 4.5	FINISH 652	MFI IVE
	EA	FIRE EXIT HARDWARE	F-25-R-L-BE-LAT-SNB	626	FAL
	EA EA	SURFACE CLOSER	SC71A RW/PA-MOUNT PULL SIDE	689	FAL
	EA EA	KICK PLATE GASKETING	8400 10" X 2" LDW B-CS 488SBK PSA H & J (PROVIDE SILENCERS AT	630 BK	IVE ZEI
			NON-RATED OPENINGS)		
lard [.] Provi	ware G ide eacl	roup No. 27 h SGL door(s) with the following:			
		DESCRIPTION	CATALOG NUMBER	FINISH	MFI
1	EA EA	HINGE PRIVACY LOCK	5BB1 4.5 X 4.5 MA321 OCCUPIED/VACANT LTGM	652 626	IVE FAI
	EA		SC71A RW/PA-MOUNT PULL SIDE	689	FAL
	EA EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
	EA ⊨∆	WALL STOP GASKETING	WS406/407CCV 488SBK PSA H & T (PROVIDE SILENCEDS AT	630 RK	IVE 751
10 - -			NON-RATED OPENINGS)		ZCT
UÍ	⊏: PRO	VIDE EXTENDED LIP STRIKE IF RE			
ard ^y rovi	ware G ide eacl	roup No. 28 h SGL door(s) with the following			
ŧΤΥ		DESCRIPTION		FINISH	MFI
	EA EA	HINGE CLASSROOM LOCK	SBB1 4.5 X 4.5 NKP ALX70P LAT	652 626	IVE SCI
	EA F∆	WALL STOP GASKETING	WS406/407CVX 488SBK PSA H & T (PROVIDE SILENCERS AT	630 BK	IVE 751
			NON-RATED OPENINGS)		
i UTI	⊑: PRO	VIDE EXTENDED LIP STRIKE IF RE			
lard [.] 'rovi	ware G ide eacl	roup No. 29 h SGL door(s) with the following			
λL		DESCRIPTION		FINISH	MFI
	ЕА EA	HINGE CLASSROOM LOCK	SBBT 4.5 X 4.5 NKP ALX70P LAT	652 626	IVE SCI
	EA F∆	OH STOP & HOLDER	450F 488SBK PSA H & T (PROVIDE SILENCERS AT	630 RK	GLY
			NON-RATED OPENINGS)		ζĒΓ
NOT	E: PRO	VIDE EXTENDED LIP STRIKE IF RE	EQUIKED.		
Hard	ware G	roup No. 30 h PR door(s) with the following:			
21001 QTY	ide eaci	DESCRIPTION	CATALOG NUMBER	FINISH	MFF
j	EA FA	HINGE AUTO FLUSH BOLT	5BB1HW 4.5 X 4.5 NRP FB31T/FB41T AS REA'D (LISE FB32/FB42 AT DATED DOODS)	652 630	
	EA	STOREROOM LOCK	ALX80P LAT	626	SCł
<u>,</u>	EA EA	COORDINATOR SURFACE CLOSER	COR X FL X MBF X HW PREPS X LENGTH AS REQ'D SC71A DEL SS	628 689	IVE FAI
2	EA ⊨^	ARMOR PLATE	8402 34" X 1" LDW B-CS 322A-S	630 A	IVE
		GASKETING	488SBK PSA H & J (PROVIDE SILENCERS AT		,
	EA			BK	ZEF
ΙΟΤ	EA E: 322A	A IS TO BE USED AS AN OVERLAPP	PING ASTRAGAL.	ВК	ZEF
IOT lard	EA E: 322 <i>A</i> ware G	A IS TO BE USED AS AN OVERLAPF Froup No. 31	PING ASTRAGAL.	ВК	ZEF
IOT lard [:] roviر	EA E: 322 <i>A</i> ware G ide eacl	A IS TO BE USED AS AN OVERLAPF Froup No. 31 h SGL door(s) with the following:	CATAL OG NUMBER	ЕІЛІСП	ZEF
NOT Hard יrovi גדץ	EA E: 322A ware G ide eacl EA	A IS TO BE USED AS AN OVERLAPF froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE	CATALOG NUMBER 5BB1 4.5 X 4.5	BK FINISH 652	ZEF ZEF MFF IVE
NOT lard 'rovi ک۲۲	EA E: 322A ware G ide eacl EA EA EA	A IS TO BE USED AS AN OVERLAPF froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX	ВК FINISH 652 626 630	MFF IVE SCH
NOT Iard יrovi גדץ	EA E: 322A ware G ide eacl EA EA EA EA	A IS TO BE USED AS AN OVERLAPF froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT	ВК FINISH 652 626 630 ВК	MFF IVE SCH IVE ZEF
IOT Iard Provi TTY	EA E: 322A ware G ide eacl EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPF froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	БК FINISH 652 626 630 ВК	MFF IVE SCH IVE ZEF
IOT Iard Provi QTY	EA E: 322A ware G ide eacl EA EA EA EA E: PRO ware G	A IS TO BE USED AS AN OVERLAPF froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	БК FINISH 652 626 630 ВК	MFI IVE SCI IVE ZEF
IOT Iard Provi ITY	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following:	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	EINIICH	ZEF ZEF IVE SCH IVE ZEF
IOT lard provi TY IOT lard ?rovi TY	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5	FINISH 652 626 630 BK FINISH 652	ZEF ZEF IVE SCF IVE ZEF MFI IVE
IOT Iard Provi TY IOT Iard Provi	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA FA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J	БК FINISH 652 626 630 ВК FINISH 652 626 630	MFI IVE SCI IVE ZEF MFI IVE SCI
IOT Iard Provi TY IOT Iard Provi	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON PATER OPENINGS)	БК FINISH 652 626 630 ВК FINISH 652 626 630 ВК	MFI IVE SCH IVE ZEF MFI IVE SCH GLY ZEF
IOT lard Provi QTY lard Provi QTY	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	БК FINISH 652 626 630 ВК FINISH 652 626 630 ВК	MFI IVE SCH IVE ZEF MFI IVE SCH GLN ZEF
IOT lard Provi TY lard Provi TY	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	БК FINISH 652 626 630 ВК FINISH 652 626 630 ВК	MFI IVE SCF IVE ZEF MFI IVE SCF GLY ZEF
IOT lard Provi TY loT lard Provi TY	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA EA EA EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 33 h SGL door(s) with the following:	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	БК FINISH 652 626 630 ВК FINISH 652 626 630 ВК	MFI IVE SCI IVE ZEF
IOT lard Provi TY lard Provi TY lard Provi	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA E: PRO ware G ide eacl cal EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 33 h SGL door(s) with the following: DESCRIPTION HINGE	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 4885BK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 4885BK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	ВК FINISH 652 626 630 ВК FINISH 652 626 630 ВК	ZEF ZEF MFI IVE SCF IVE ZEF MFI IVE SCF GLN ZEF
IOT lard Provi TY IOT lard Provi TY	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA EA EA EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 33 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK STOREROOM LOCK	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT SOSIA DWMEA MOUNTED IN LODE	БК FINISH 652 626 630 ВК FINISH 652 626 630 ВК FINISH 652 626	ZEF ZEF MFI IVE SCI ZEF MFI IVE SCI ZEF
IOT lard Provi TY IOT lard Provi TY	EA E: 322A ware G ide eacl EA EA EA EA EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP roup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE roup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE roup No. 33 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK SURFACE CLOSER KICK PLATE	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT SC81A RW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS	БК FINISH 652 626 630 ВК FINISH 652 626 630 ВК FINISH 652 626 630 ВК	ZEF ZEF MFI IVE SCF IVE ZEF MFI IVE SCF GLN ZEF MFI IVE SCF IVE
IOT lard Provi TY loT lard Provi TY	EA E: 322A ware G ide eacl EA EA EA EA EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 33 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK SURFACE CLOSER KICK PLATE WALL STOP GASKETING	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT SC81A RW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT	ВК FINISH 652 626 630 BK FINISH 652 626 630 BK FINISH 652 626 630 BK	ZEF ZEF MFI IVE SCI IVE ZEF MFI IVE SCI GLY ZEF MFI IVE SCI IVE SCI IV
IOT lard Provi TY IOT lard Provi TY	EA E: 322A ware G ide eacl EA EA EA E: PRO ware G ide eacl EA EA EA EA EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING DVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING DVIDE EXTENDED LIP STRIKE IF RE froup No. 33 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK SURFACE CLOSER KICK PLATE WALL STOP GASKETING	CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER 5BB1 4.5 X 4.5 ALX80P LAT SC81A RW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	БК FINISH 652 626 630 ВК FINISH 652 626 630 ВК FINISH 652 626 630 ВК BK	ZEF ZEF MFI IVE SCF ZEF MFI IVE SCF ZEF MFF IVE SCF IVE ZEF
IOT lard Provi TY IOT lard Provi TY	EA E: 322A ware G ide eacl EA EA EA EA EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 33 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK SURFACE CLOSER KICK PLATE WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE	CATALOG NUMBER SBB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER SBB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER SBB1 4.5 X 4.5 ALX80P LAT SC81A RW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED.	ВК FINISH 652 626 630 BK FINISH 652 626 630 BK FINISH 652 626 630 BK	ZEF ZEF MFI IVE SCI IVE ZEF MFI IVE SCI ZEF MFI IVE SCI IVE ZEF
IOT lard Provi TY IOT lard Provi TY IOT lard Provi	EA E: 322A ware G ide eacl EA EA EA EA E: PRO ware G ide eacl EA EA EA EA EA EA EA EA EA EA EA EA EA	A IS TO BE USED AS AN OVERLAPP froup No. 31 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 32 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK OH STOP & HOLDER GASKETING OVIDE EXTENDED LIP STRIKE IF RE froup No. 33 h SGL door(s) with the following: DESCRIPTION HINGE STOREROOM LOCK SURFACE CLOSER KICK PLATE WALL STOP GASKETING OVIDE EXTENDED LIP STRIKE IF RE	CATALOG NUMBER SB1 4.5 X 4.5 ALX80P LAT WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER SB1 4.5 X 4.5 ALX80P LAT 90F J 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. CATALOG NUMBER SB1 4.5 X 4.5 ALX80P LAT SC81A RW/PA-MOUNT PULL SIDE 8400 10" X 2" LDW B-CS WS406/407CVX 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) EQUIRED. EQUIRED.	ВК FINISH 652 626 630 BK FINISH 652 626 630 BK FINISH 652 626 630 BK	ZEF ZEF MFF IVE SCH IVE ZEF MFF IVE SCH IVE SCH IVE ZEF
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 $\mathbf{D}_{\mathbf{n}}$

OPERATIONAL DESCRIPTION: DOORS NORMALLY HELD OPEN BY MAGNETIC HOLDERS. MAGNETIC HOLDERS SHALL BE CONNECTED TO BUILDING'S FIRE/SMOKE ALARM SYSTEM TO RELEASE IMMEDIATELY UPON ACTIVATION OF BUILDING'S FIRE/

PRIOR TO CONSTRUCTION. PROVIDE MAG HOLDER EXTENSIONS IF REQUIRED.

SMOKE ALARM SYSTEM ALLOWING DOORS TO SELF-CLOSE AND LATCH.

IVE SCH FAL IVE IVE ZER	 Hardware Group No. 36 Provide each SGL door(s) with the following: QTY DESCRIPTION 3 EA HINGE(S) 1 EA PASSAGE SET 1 EA SGL CYL DEADBOLT NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: STOP, SEALS, THRESHOLD & SWEEP B 	CATALOG NUMBER BY PREHUNG DOOR MANUFACTURER F10 LAT B560P QUIRED. BY PREHUNG DOOR MANUFACTURER.	FINISH 630 626 626	MFR BYO SCH SCH
MFR IVE FAL FAL IVE IVE	Hardware Group No. 37 Provide each SGL door(s) with the following: QTY DESCRIPTION 3 EA HINGE 1 EA PADLOCK 1 EA HASP Hardware Group No. 38	CATALOG NUMBER 5BB1 4.5 X 4.5 NRP AS REQUIRED AS REQ'D	FINISH 652 606 626	MFR IVE SCH BYO
ZER MFR	Provide each SGL door(s) with the following:QTYDESCRIPTION3EAHINGE(S)1EAPASSAGE SET1EABASE/HINGE STOP AS REQ'D	CATALOG NUMBER BY PREHUNG DOOR MANUFACTURER F10 LAT 2 EA. DON JO 1512 OR 1513 HINGE PIN STOPS OR 1 EA. IVES 63 BASE STOP AS REQ'D	FINISH 652 626 626	MFR BYO SCH IVE
IVE FAL GLY FAL IVE ZER	1 EA ROLLER BUMPER NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: PROVIDE HINGE PIN STOP IF BASE STO NOTE: PROVIDE "IVES ROLLER BUMPER" (IVE NOTE: IF APPLICABLE, COORDINATE WITH TH WITH THE HINGES SUPPLIED BY THE PF	RB470 SERIES AS REQ'D-OMIT IF NOT REQ'D QUIRED. OP WILL NOT SWING 90 DEGREES AGAINST THE WALL. S 470 SERIES) AS REQUIRED TO SUIT DOOR SWING CONDIT IE PRE-HUNG DOOR MANUFACTURER TO PROVIDE A HINGE RE-HUNG DOOR MANUFACTURER.	626 IONS. PIN STOP COM	IVE PATIBLE
MFR IVE FAL FAL IVE IVE IVE ZER	 Hardware Group No. 39 Provide each SGL door(s) with the following: QTY DESCRIPTION 3 EA HINGE(S) 1 EA PRIVACY LOCK 1 EA BASE/HINGE STOP AS REQ'D 1 EA ROLLER BUMPER NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: PROVIDE HINGE PIN STOP IF BASE STO NOTE: PROVIDE "IVES ROLLER BUMPER" (IVE 	CATALOG NUMBER BY PREHUNG DOOR MANUFACTURER F40 LAT 2 EA. DON JO 1512 OR 1513 HINGE PIN STOPS OR 1 EA. IVES 63 BASE STOP AS REQ'D RB470 SERIES AS REQ'D-OMIT IF NOT REQ'D QUIRED. OP WILL NOT SWING 90 DEGREES AGAINST THE WALL. S 470 SERIES) AS REQUIRED TO SUIT DOOR SWING CONDIT	FINISH 652 626 626 626 626	MFR BYO SCH IVE IVE
MFR IVE	NOTE: IF APPLICABLE, COORDINATE WITH TH WITH THE HINGES SUPPLIED BY THE PF Hardware Group No. 40 Provide each SGL door(s) with the following: QTY DESCRIPTION	IE PRE-HUNG DOOR MANUFACTURER TO PROVIDE A HINGE RE-HUNG DOOR MANUFACTURER.	PIN STOP COM	PATIBLE
IVE ZER	 3 EA HINGE(S) 1 EA ENTRANCE LOCK 1 EA OH STOP & HOLDER 1 EA VIEWER NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: STOP, SEALS, THRESHOLD & SWEEP B NOTE: AT ADA UNITS PROVIDE TWO VIEWERS 	BY PREHUNG DOOR MANUFACTURER H2101P LAT 90F-PROVIDE 90F J AT IN-SWING DOORS U698 QUIRED. BY PREHUNG DOOR MANUFACTURER. BY PREHUNG DOOR MANUFACTURER. S (ONE AT STANDARD HEIGHT AND ONE AT ADA HEIGHT).	630 626 630 626	BYO FAL GLY IVE
MFR IVE SCH GLY ZER	Hardware Group No. 41Provide each SGL door(s) with the following:QTYDESCRIPTION2EASPRING HINGE1EAHINGE1EAPASSAGE SET1EABASE/HINGE STOP AS REQ'D1EAGASKETING	CATALOG NUMBER 3SP1 4.5 X 4.5 5BB1 4.5 X 4.5 F10CF LAT 16-204 2 EA. DON JO 1512 OR 1513 HINGE PIN STOPS OR 1 EA. IVES 63 BASE STOP AS REQ'D 488SBK PSA H & J (PROVIDE SILENCERS AT	FINISH 652 652 626 626 BK	MFR IVE IVE SCH IVE ZER
MFR IVE IVE SCH IVE FAL IVE ZER ZER	1 EA ROLLER BUMPER NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: PROVIDE HINGE PIN STOP IF BASE STO NOTE: PROVIDE "IVES ROLLER BUMPER" (IVE Hardware Group No. 42 Provide each PR door(s) with the following: QTY DESCRIPTION 6 EA HINGE(S)	NON-RATED OPENINGS) RB470 SERIES AS REQ'D-OMIT IF NOT REQ'D QUIRED. OP WILL NOT SWING 90 DEGREES AGAINST THE WALL. S 470 SERIES) AS REQUIRED TO SUIT DOOR SWING CONDIT CATALOG NUMBER BY PREHUNG DOOR MANUFACTURER	626 TIONS. FINISH 652	IVE MFR BYO
MFR IVE SCH IVE ZER	 2 EA SONTACE BOLT 1 EA SGL CYL DEADBOLT 2 EA BASE/HINGE PIN STOP 2 EA ROLLER BUMPER NOTE: PROVIDE HINGE PIN STOP IF BASE STONOTE: PROVIDE "IVES ROLLER BUMPER" (IVE NOTE: IF APPLICABLE, COORDINATE WITH THE HINGES SUPPLIED BY THE PROVIDE THE PROVIDE MITH THE HINGES SUPPLIED BY THE PROVIDE WITH THE HINGES SUPPLIED BY THE PROVIDE WITH THE HINGES SUPPLIED BY THE PROVIDE MITH THE HINGES SUPPLIED BY THE PROVIDE MITH THE PROVIDE MITH THE HINGES SUPPLIED BY THE PROVIDE MITH THE HINGES SUPPLIED BY THE PROVIDE MITH THE HINGES SUPPLIED BY THE PROVIDE MITH THE PROVIDE MITH THE HINGES SUPPLIED BY THE PROVIDE MITH T	B560P 2 EA. DON JO 1500 SERIES HINGE PIN STOPS OR 2 EA. IVES 63 BASE STOP AS REQ'D RB470 SERIES AS REQ'D-OMIT IF NOT REQ'D OP WILL NOT SWING 90 DEGREES AGAINST THE WALL. S 470 SERIES) AS REQUIRED TO SUIT DOOR SWING CONDIT IE PRE-HUNG DOOR MANUFACTURER TO PROVIDE A HINGE RE-HUNG DOOR MANUFACTURER.	626 F26D 626 IONS. PIN STOP COM	IVE IVE IVE
MFR IVE SCH GLY ZER	Hardware Group No. 43 Provide each PR door(s) with the following: QTY DESCRIPTION 6 EA HINGE(S) 2 EA BALL CATCH 2 EA SINGLE DUMMY TRIM 2 EA BASE/HINGE PIN STOP 2 EA ROLLER BUMPER NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: PROVIDE HINGE PIN STOP IF BASE STO NOTE: PROVIDE "IVES ROLLER BUMPER" (IVE NOTE: IE APPLICABLE	CATALOG NUMBER BY PREHUNG DOOR MANUFACTURER 347/349 AS REQ'D F170 LAT 2 EA. DON JO 1500 SERIES HINGE PIN STOPS OR 2 EA. IVES 63 BASE STOP AS REQ'D RB470 SERIES AS REQ'D-OMIT IF NOT REQ'D QUIRED. OP WILL NOT SWING 90 DEGREES AGAINST THE WALL. ES 470 SERIES) AS REQUIRED TO SUIT DOOR SWING CONDIT	FINISH 652 626 626 F26D 626 TIONS. PIN STOP COM	MFR BYO IVE SCH IVE IVE
MFR IVE SCH FAL IVE IVE ZER	WITH THE HINGES SUPPLIED BY THE PF Hardware Group No. 44 Provide each SGL door(s) with the following: QTY DESCRIPTION 2 EA SPRING HINGE 1 EA HINGE 1 EA EA ENTRANCE LOCK 1 EA BASE/HINGE STOP AS REQ'D	CATALOG NUMBER 3SP1 4.5 X 4.5 5BB1 4.5 X 4.5 H2101P LAT 8400 10" X 2" LDW B-CS 2 EA. DON JO 1512 OR 1513 HINGE PIN STOPS OR	FINISH 652 652 626 630 626	MFR IVE IVE FAL IVE IVE IVE
MFR IVE SCH FAL IVE ZER	1 EA GASKETING 1 EA DOOR BOTTOM 1 EA ROLLER BUMPER 1 EA VIEWER 1 EA VIEWER 1 EA NOTE: NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: AT ADA UNITS PROVIDE TWO VIEWERS NOTE: PROVIDE "IVES ROLLER BUMPER" (IVE NOTE: PROVIDE HINGE PIN STOP IF BASE STO NOTE: IF APPLICABLE, COORDINATE WITH TH	1 EA. IVES 63 BASE STOP AS REQ'D 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) 367AA RB470 SERIES AS REQ'D-OMIT IF NOT REQ'D U698 THRESHOLD BY ARCH. DETAIL QUIRED. S (ONE AT STANDARD HEIGHT AND ONE AT ADA HEIGHT). S 470 SERIES) AS REQUIRED TO SUIT DOOR SWING CONDIT OP WILL NOT SWING 90 DEGREES AGAINST THE WALL. IE PRE-HUNG DOOR MANUFACTURER TO PROVIDE A HINGE	BK AA 626 626 UNF TIONS. PIN STOP COM	ZER ZER IVE IVE BYO
MFR IVE FAL FAL FAL IVE LCN ZER ZER ZER	 WITH THE HINGES SUPPLIED BY THE PF Hardware Group No. 45 Provide each SGL door(s) with the following: QTY DESCRIPTION 2 EA SPRING HINGE 1 EA HINGE 1 EA ENTRANCE LOCK 1 EA BASE/HINGE STOP AS REQ'D 1 EA GASKETING NOTE: PROVIDE EXTENDED LIP STRIKE IF RE NOTE: PROVIDE HINGE PIN STOP IF BASE STO NOTE: IF APPLICABLE, COORDINATE WITH TH 	CATALOG NUMBER 3SP1 4.5 X 4.5 5BB1 4.5 X 4.5 H2101P LAT 2 EA. DON JO 1512 OR 1513 HINGE PIN STOPS OR 1 EA. IVES 63 BASE STOP AS REQ'D 488SBK PSA H & J (PROVIDE SILENCERS AT NON-RATED OPENINGS) QUIRED. OP WILL NOT SWING 90 DEGREES AGAINST THE WALL. IE PRE-HUNG DOOR MANUFACTURER TO PROVIDE A HINGE	FINISH 652 652 626 626 BK PIN STOP COM	MFR IVE IVE FAL IVE ZER PATIBLE

Hardware Group No. 46

1011								
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR			
1	EA	MULTITECH READER	MT20W USB	BLK	SCE			
25	EA	CONST. CREDENTIAL	9651 (CT8X4248)	BLK	SCE			
250	EA	CREDENTIAL	9691T	BLK	SCE			
1	EA	TRAINING-SETUP	SEE OPERATIONAL DESCRIPTION	UNF	SCE			
1	EA	SOFTWARE	ENGAGE APPLICATION	UNF	SCE			
NOT	E: SCHI	LAGE ENGAGE SOFTWARE APPLICAT	ION SET UP AND TRAINING, INCLUDING ALL ENGAGE ENABLEI	D PRODUCTS	3 (BE467,			

FE410, CTE, NDE/B, LE/B), REQUIRES THE FOLLOWING RESPONSIBILITIES LISTED BELOW: - IF CTE CONTROLLERS ARE SPECIFIED:

1) DETERMINE CTE AND POWER SUPPLY INSTALLATION LOCATIONS.

2) ESTABLISH POWER SUPPLY SIZE AND OPTIONS REQUIRED FOR CTE CONTROLLERS.
3) COORDINATE AND PERFORM ALL WIRING REQUIRED FOR THE CTE CONTROLLER TO WORK WITH ALL ELECTRICAL COMPONENTS AT EACH OPENING. THOSE COMPONENTS COULD INCLUDE, BUT ARE NOT LIMITED TO: CREDENTIAL READERS, ELECTRIC STRIKES, ELECTRIC LOCKS, ELECTRIFIED PANIC DEVICES/FIRE EXIT HARDWARE DEVICES, AUTOMATIC OPERATORS,

4) SET UP ENGAGE SITE, COMMISSION & UPDATE FIRMWARE FOR MT20W, ESTABLISH GLOBAL SETTINGS, SET UP SCHEDULES,

ETC. 5) CONFIRM ALL BATTERY-OPERATED LOCKS (NDE/NDEB/LE/LEB SERIES) AT COMMON AREAS ARE INSTALLED CORRECTLY AND ARE

WORKING PROPERLY. 6) COMMISSION ALL COMMON AREA AND PERIMETER ELECTRONIC LOCKS (CTE/NDE/LE SERIES) INTO ENGAGE DATABASE AND CONNECT TO THE BUILDING'S WI-FI.

7) ESTABLISH DOOR GROUPS AS REQUIRED.

8) TRAIN MANAGEMENT STAFF ON COMMISSIONING PROCESS OF UNIT ENTRY ELECTRONIC LOCKS (FE410/BE467).

9) TRAIN STAFF ON DAY TO DAY TASKS WITHIN ENGAGE.10) REVIEW USER MANUAL WITH OWNER AND LEAVE HARD COPY BEHIND.

11) PROVIDE 90 DAYS FREE TECH SUPPORT.

08 8000 – GLAZING

- Section includes glazing for doors, windows, sidelights, storefront framing, glazed entrances, and interior borrowed lights.
 Provide glazing systems capable of withstanding normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to the following: defective manufacture, fabrication, and installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.
- 1.3 Submittals:
 A. Product Data: For each glass product and glazing material indicated.
- B. Samples: 12-inch-square, for each type of insulated glass product indicated.
- 1.4 Manufacturer's Special Warranty on Insulating Glass: Manufacturer's standard form, to replace insulating-glass units that deteriorate, within 10 years from date of Substantial Completion.
- 1.5 Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer's standard form in which coated-glass manufacturer agrees to replace coated-glass units that deteriorate within 10 years from date of Substantial Completion. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.
 2.1 Tempered Elect Class: ASTM C1048 Kind ET (fully tempered). Condition A (uncoated) unless otherwise indicated. Type I, Class 1 (clear) or the coated for the class is a contrary to the class indicated.
- 2.1 Tempered Float Glass: ASTM C1048, Kind FT (fully tempered), Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.
 2.2 Heat-Strengthened Float Glass: ASTM C1048, Kind HS (heat strengthened), Type I, Condition A (uncoated) unless otherwise indicated,
- 2.2 Heat-Strengthened Float Glass: ASTM C1048, Kind HS (neat strengthened), Type I, Condition A (uncoated) unless otherwise indicated, Type I, Class 1 (clear) or Class 2 (tinted) as indicated, Quality-Q3.
 2.3 Ceramic-Coated Spandrel Glass: ASTM C1048, Condition B, Type 1, Quality Q3, and complying with other requirements as specified.
- 2.4 Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, and complying with ASTM E 774 for Class CBA units. Provide Kind HS (heat-strengthened) float glass in place of annealed glass where needed to resist thermal stresses induced by differential shading of individual glass lites.
 - A. Low-E-Coated, Solar Control Clear Insulating-Glass Units, Nominally 1" thick (5/8" at door lights); argon gas filled, with
 - manufacturer's standard "warm edge" spacer bar between glass lites. Low-E Coating: Pryrolytic or sputtered on third surface.
 - C. Performance Requirements: See Drawings.
- 2.5 Fire-Protection-Rated Glazing: Listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 252 for door assemblies and NFPA 257 for window assemblies.
 A. Film-Faced Ceramic Glazing: Clear, ceramic flat glass; 3/16 –inch nominal thickness; faced on one surface with a clear glazing film; complying with testing requirements in 16 CFR 1201 for Category II materials.
 - B. Provide film-faced ceramic glazing that meets fire-protection ratings required (see Drawings). Coordinate maximum fire-rated glazing sizes with door and frame manufacturers.
 C. Provide safety glazing labeling.
- 2.6 Provide glazing gaskets, sealants, tapes, cleaners, primers, setting blocks, spacers and other miscellaneous accessories required for a complete glass installation for each condition indicated. Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- 2.7 Fabricate glazing units in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system
- performance requirements. 3.1 Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials.
- 3.2 Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Remove nonpermanent labels and clean surfaces.

08 8300 - MIRRORS

- 2.1 Silvered Flat Clear Glass Mirrors: ASTM C 1503, Mirror Glazing Quality, 4.0 mm nominal thickness. Flat polished edge. Stainless steel frames.
- 2.2 Anchors and Inserts: Provide devices as required for mirror hardware installation. Provide toothed or lead-shield expansion-bolt devices for drilled-in-place anchors

08 9000 – LOUVERS AND VENTS

- 1.1 Submittals:A. Product data for each type of product indicated.
 - B. Shop Drawings for louvers and accessories. Include plans, elevations, sections, details, and attachments to other work. Show frame and blade profiles, angles, and spacing. Show weep paths, gaskets, flashing, sealant, and other means of preventing water intrusion.
- 1.2 Louvers shall withstand the effects of gravity loads and wind loads, determined based on pressures as indicated on structural drawings,
- without permanent deformation. 1.3 Comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" for fabrication, construction details, and installation
- procedures.
- 1.4 Verify actual dimensions of openings by field measurements before fabrication.
- 2.1 Horizontal Metal LouversA. Galvanized Steel Sheet: ASTM A 653/A 653 M, zinc coated, mill phosphatized.
- B. Horizontal drainable-blade louvers.
- 2.2 Provide louver screens at each exterior louver.
- 2.3 Finish: Baked-enamel or powder-coat finish. Color and gloss as selected by Architect from manufacturer's full range.
 2.4 Fabrication
- A. Assemble louvers in factory. Disassemble units as necessary for shipping.
- B. Include supports, anchorages, and accessories required for complete assembly.
- 3.1 Install louvers and vents level, plumb, at indicated alignment with adjacent work and as per approved Shop Drawings.
- 3.2 Test operation of adjustable louvers and adjust s needed to produce fully functioning units.3.3 Clean exposed surfaces of louvers and vents.
- 3.4 Restore louvers and vents damaged during installation and construction so no evidence remains of corrective work. If results are unsuccessful, as determined by Architect, remove damaged units and replace with new units.

09 2900 – GYPSUM BOARD AND SHAFTWALL ASSEMBLIES

- 1.1 Submittals: Product Data for each type of product indicated.
- 1.2 For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- 1.3 For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 90 and classified according to ASTM E 413 by an independent testing agency.
- 2.1 Gypsum Board: Complying with ASTM C 36/C 36M or ASTM C 1396/C 1396M, as applicable to type of gypsum board indicated and whichever is more stringent. Type X with Type C as required by specific LLL, assemblies
- whichever is more stringent. Type X with Type C as required by specific U.L. assemblies.2.2 Ceiling Type Gypsum Board: Manufactured to have more sag resistance than regular-type gypsum board.

2.3 Resilient Furring Channels: 1/2-inch-deep, steel sheet members designed to reduce sound transmission; asymmetrical or hat shaped.

- 2.4 Moisture- and Mold-Resistant Type: With moisture- and mold-resistant core and surfaces.
 2.5 Glass-Mat Gypsum Sheathing Board for exterior ceilings and soffits: Basis-of-Design Product: "Dens-Glass Gold" by G-P Gypsum complying with ASTM C 1177/C 1177M. Exterior gypsum soffit board complying with ASTM C 1396/C 1396 M. Fire rated Type C Gypsum soffit board.
- 2.6 Tile Backing Water-Resistant Gypsum Backing Board: ASTM C 630/C 630M or ASTM C 1396/C 1396M.
 2.7 Gypsum Liner Panels for Shaftwall Assemblies: Comply with ASTM C 442/C 442M. Type X, one inch thick, Manufacturer's proprietary liner panels with moisture-resistant paper faces. Provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly manufacturer's provide auxiliary materials complying with gypsum board shaft-wall assembly materials complying with gypsum boa
- written recommendations. Provide panels in maximum lengths available to eliminate or minimize end-to-end butt joints.
 Unfaced, Glass-Fiber Sound Attenuation Batt Insulation: ASTM C 665, Type 1, with maximum flame spread and smoke developed indexes of 10, when tested in accordance with ASTM E 84, passing ASTM E 136.
- 2.9 Acoustical Sealant at partitions with STC rating indicated:A. See Section 07 9200 "Joint Sealants" for material requirements.
- B. Maintain minimum 3/8" wide perimeter joints where acoustic sealant is to be applied.
- 2.10 Provide metal trim, corner beds, joint treatment compound and tape, adhesives, screws, and other accessories for a complete, finished gypsum board installation.
- 2.11 Provide light orange peel texture at all occupied room walls and ceilings except as noted or at wall noted for wallcoverings.
- 2.12 Joint Treatment Materials: Comply with ASTM C 475/C 475M.
- 2.13 Steel framing members:
 A. Steel Sheet Components: ASTM C 645, with manufacturer's standard corrosion-resistant zinc coating. Unless indicated otherwise, use 25 gage for partitions up to 12'-0" high. Partitions over 12'-0" high increase stud gage to 20 gage. Unless indicated otherwise, use 20 gage studs at door jambs and heads.
 B. Resilient Furring Channels: 0.0538 inch thick, 3/4 inch deep.
 - C. Shaftwall Assembly Metal Framing: Comply with ASTM C 754 for conditions indicated. Manufacturer's standard profile for repetitive

MSP - THE DRIFTLESS

323 RIVER BEND ROAD LA CROSSE, WI 54603

members, corner and end members, and fire-resistance-rated assembly indicated. Top runner manufactured to allow partition heads

- to expand and contract with movement of structure while maintaining continuity of fire-resistance-rated assembly indicated; i thickness not less than indicated for studs and in width to accommodate depth of studs. D.
 - Suspended Ceiling Framing:
 - Suspended Grid Suspension System for Interior Ceilings: Interlocking, direct-hung system. Tie Wire: ASTM A 641/A 641 M, Class 1 zinc coating, soft temper, 0.0625-inch diameter, or double strand of 0.0475-in
- diameter wire. Wire Hangers: ASTM A 641/A 641 M, Class 1 zinc coating, soft temper, 0.162-inch diameter.
 - Carrying Channels: Cold-rolled steel, 0.0538 inch thick, 1-1/2 inches deep.
- Furring Channels: 3/4-inch deep, cold-rolled channels, 0.0538 inch thick. 3.1 Install steel framing to comply with ASTM C 754 and with ASTM C 840 requirements that apply to framing installation and with United States Gypsum's "Gypsum Construction Handbook."
- 3.2 Install gypsum board panels: Comply with ASTM C 840.
- 3.3 Install gypsum board shaft-wall assemblies to comply with requirements of fire-resistance-rated assemblies indicated and manufactu written installation instructions.
- 3.4 Control Joints: Install control joints according to ASTM C 840 and in specific locations approved by Architect for visual effect. 3.5 Finish Gypsum Board to Level 4 at surfaces exposed to view unless noted otherwise. Ceiling plenum and concealed areas gypsum finish can be Level 1. Provide drying-type, all-purpose compound, final skim coat where Level 5 finish is required. See Drawings for locations.

09 3000 – TILING

1.1

- Submittals A. For each type of product indicated.
- B. Shop Drawings: Show locations of each type of tile and tile pattern. Show widths, details, and locations of expansion, contra control, and isolation joints in tile substrates and finished tile surfaces.
- C. Samples: Assembled samples, with grouted joints, for each type and composition of tile and for each color and finish require Source Limitations 1.2 A. Tile: Obtain all tile of same type and color or finish from one source or producer. Obtain tile from same production run and o
 - consistent quality in appearance and physical properties for each contiguous area. Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and group component from single manufacturer and each aggregate from one source or producer.
- C. Joint Sealants: Obtain from one source from a single manufacturer.
- Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with 1.3 requirements in ANSI A137.1 for labeling sealed tile packages. Store tile and cementitious materials on elevated platforms, under and in a dry location.
- 1.4 Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the le indicated in referenced standards and manufacturer's written instructions. Extra Materials: Furnish extra materials that match products installed and that are packaged with protective covering for storage a 1.5
- identified with labels describing contents: A. Tile and Trim Unit: Furnish quantity of full-size units equal to 3 percent of amount installed, for each type, composition, color, pattern,
- and size.
- Factory Blending: For tile exhibiting color variations within ranges selected during Sample submittals, blend tile in factory and pack 2.1 tile units taken from one package show same range of colors as those taken from other packages and match approved Samples. 2.2 Floor, Wall, and Base Tile:
- A. Locations: See Drawings.
- B. Tile Products: See Drawings. 2.3 Cementitious Backer Units: ANSI A118.9 and ASTM C 1288 or 1325, with manufacturer's standard edges.
 - A. Acceptable Products:
 - Custom Building Products; Wonderboard. FinPan, Inc.; Util-A-Crete Concrete Backer Board.
 - 3. USG Corporation; DUROCK Cement Board.
- 2.4 Waterproofing and Uncoupling Mat:
 - A. Manufacturer's standard product that complies with ANSI A118.10.
- B. Basis-of-Design Product: Schluter DITRA Waterproofing Membrane: Schluter KERDI-BAND
- Thresholds: Fabricate to provide transition between adjacent floor finishes. Bevel edges at 1:2 slope, limit height of bevel to 1/2 in 2.5 less, and finish bevel to match face of threshold.
- Setting and Grouting Materials 2.6
 - A. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4.
 - Glass Tiles: White Thin-Set Mortar and epoxy grout. C. Polymer-Modified Tile Grout: ANSI A118.7.
 - D. Epoxy Grout, Water-Cleanable: ANSI A118.3.
- 2.7 Expansion Joints
 - A. Sealant: Two-component sealant shall comply with Federal Specification TT-S-227e; use Type II (non-sag) for joints in vertic surfaces and Type I (self-leveling) for joints in horizontal surfaces. B. Floors: Shore A hardness greater than 35.
- Back-Up Strips: Flexible and compressible type of closed-cell foam polyethylene or butyl rubber, rounded at surface to conta sealant and as recommended by sealant manufacturer.
- 2.8 Edge Protection for Walls: Schluter Systems, L.P.
- A. Product: See Drawings.

Provide all other materials not specifically described but required for a complete and proper installation. 2.9

- ANSI Tile Installation Standards: Comply with parts of ANSI A108 Series "Specifications for Installation of Ceramic Tile" that apply 31 types of setting and grouting materials and to methods indicated in ceramic tile installation schedules. TCNA Installation Guidelines: TCNA's "Handbook for Ceramic, Glass and Stone Tile Installation." Comply with TCNA installation 3.2
- methods indicated in ceramic and glass tile installation schedules. Extend tile work into recessed and under or behind equipment and fixtures to form complete covering without interruptions, unless 3.3 otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disruption pattern or joint alignment.
- Joint Widths: See Room Finish Schedule. 3.4 Install metal edge strips where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with or below 3.5
- Protect installed tile work with kraft paper or other heavy covering during construction to period to prevent staining, damage, and w 3.6 Prohibit foot and wheel traffic from tiles floors for at least seven (7) days after grouting is completed. 3.7

3.8 Tiled vertical outside corners shall be protected with board corner strips in areas used as passageways

09 6513 – RESILIENT BASE AND ACCESSORIES

- 1.1 Submit product data for each product indicated. 1.2 Submit samples for each type of product indicated, in manufacturer's standard-size samples, but not less than 12 inches long, of e resilient product color, texture, and pattern required.
- 1.3 Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E648 or NFPA 253 by a qualif testing agency. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
- Maintain ambient temperatures with range recommended by manufacturer in spaces to receive resilient products. Maintain ambie temperatures until Substantial Completion. Install resilient products after other finishing operations, including painting, have been
- completed.
- Products and Locations: See Drawings. 2.1 Resilient Wall Base Standard: ASTM F 1861, Type TV (vinyl, thermoplastic). 2.2
- A. Group: I (solid, homogeneous).
- Flexibility: Will not crack, break, or show any signs of fatigue when bent around a 1/4 inch diameter cylinder.
- 2.3 Outside and Inside Corners: Job Formed.
- 2.4 Installation Materials: A. Trowelable Leveling and Patching Compounds: Latex-modified, Portland cement based or blended hydraulic-cement-based
- formulation provided or approved by manufacturer for applications indicated. 3. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated. Prepare substrates according to manufacturer's written recommendations to ensure adhesion of resilient products. 3.1
- 3.2 Installation
 - A. Comply with manufacturer's written instructions for installing resilient base. Installation work should not begin until the work other trades, especially overhead trades, has been completed. Areas to receive wall base shall be maintained at a uniform temperature of at least 65°F for 24 hours during and for 24 hours
 - the installation is completed. The wall base and adhesives shall be conditioned in the same manner.
 - C. Install wall base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned. D. Job-Formed Corners:
 - Outside Corners: Use straight pieces of maximum lengths possible. Form without
 - producing discoloration (whitening) at bends. Shave back of base at points where
 - bends occur and remove strips perpendicular to length of base that are only deep
 - enough to produce a snug fit without removing more than half the wall base thickness Inside Corners: Use straight pieces of maximum lengths possible. Form by cutting an
 - inverted V-shaped notch in toe of wall base at the point where corner is formed. Shave
- back of base where necessary to produce a snug fit to substrate. 3.3 Comply with manufacturer's written instructions for cleaning and protection. Cover resilient products until Substantial Completion.

09 6516 – RESILIENT FLOORING

- 1.1 Submittals:
 - A. Product Data: For each product indicated. B. Samples in duplicate for each tile specified.
- 1.2 Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a quali testing agency.
- Static Control Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq.cm. 1.3
- 1.4 Project Conditions Maintain ambient temperatures within range recommended by manufacturer in spaces to receive flooring prior to installation Substantial Completion.
- Close spaces to traffic during installation and for 48 hours after installation. 1.5 Extra Materials: Furnish extra materials described below that match products installed and that are packaged with protective cove
- storage and identified with labels describing contents. A. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, in roll form and in full roll width for each color, and type of sheet floor covering installed.

	2.1	Vinyl Sheet Flooring: Manufacturer and products see Drawings.
n	2.2 2.3	Vinyl Composition Floor Tile: Manufacturer and products see Drawings. Luxury Vinyl Tile/Luxury Vinyl Plank: Manufacturers and products see Drawings.
	2.4	Trowelable Leveling and Patching Compounds: Latex-modified, Portland Cement based or blended hydraulic-cement-based formulation
nch	3.1	provided or approved by manufacturer for applications indicated. Prepare substrate to ensure adhesion of resilient products. Remove substrate coatings and other substances that are incompatible with
		adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do no use solvent.
	3.2	Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth surface.
-1	3.3	Comply with manufacturer's written instructions for installing resilient products.
u	3.4	A. Maintain uniformity of floor covering direction.
Irer's		B. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches away from parallel joints in floor covering substrates
		C. Match edges of floor coverings for color shading at seams; avoid cross seams.
board	3.5	Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
Joand	3.6	Match floor tiles for color and pattern. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures,
		including built-in furniture, cabinets, pipes, outlets, and door frames. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
	3.7	Adhere floor coverings and floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed
		installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
C.	3.8	Cover flooring and floor tile until Substantial Completion.
action,		
⊧d.	09 6	800 – CARPETING Section includes carnet, carnet had, and walk off carnet tile
of	1.1	Submittals: Product Data for each type of product indicated. Include manufacturer's written data on physical characteristics, durability, fad
no	1.3	resistance, and installation recommendations for each type of substrate. Samples: For each of the following products and for each color and texture required
li a	1.0.	A. Carpet: 12-inch-square Sample.
	1.4	B. Exposed Edge, Transition, and other Accessory Stripping: 24-inch-long samples. Maintenance Data for carpet to include in maintenance manuals.
cover,	1.5	Fire-Test-Response Ratings: Where indicated, provide carpet tile identical to those of assemblies tested for fire response according to
evels	1.6	NFPA 253 by a qualified testing agency. Comply with CRI 104.
	1.7	Warranty Period: 10 years from date of Substantial Completion.
ind	1.8	Extra Materials: All usable pieces of carpet remaining after completion of the Work shall be left with the Owner at the Project Site. In addition, provide 3% attic stock.
3	2.1	Manufacturers and Products:
		 A. Public Space Carpet: See Room Finish List. 1. Direct glue down, no pad; manufacturer's standard antimicrobial treatment.
kage so		B. Type-B Unit Carpet: See Room Finish List.
		C. Type-A/WHEDA/UFAS Mobile Impaired Unit Carpet: See Room Finish List.
		1. Direct glue down, no pad.
		D. Carpet Pad: See Room Finish List.
	2.2	Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet
	2.3	Adhesives: Water-resistant, mildew-resistant, non-staining type to suit products and subfloor conditions indicated, that complies with
	2.4	flammability requirements for installed carpet and is recommended or provided by carpet and carpet cushion manufacturers. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of beight required to protect exposed edge of carpet, and of
	2.4	maximum lengths to minimize running joints.
	3.1 3.2	Comply with CRI 104 and carpet tile manufacturer's written recommendations for installation.
nch or	3.3	Protect carpet against damage from construction operations and placement of equipment and fixtures during remainder of construction
		period.
	09 7. 1.1	Submittals
		A. Product Data: For each type of product indicated. Include data on physical characteristics, durability, fade resistance, and
cal		B. Samples for Verification for each type of wall covering indicated.
	1.0	C. Maintenance Data.
act	1.2	according to test method indicated below by a qualified testing agency. Identify products with appropriate markings of applicable testing
		agency. A Elame-Spread Index: 25 or less per ASTM E 84
		B. Smoke-Developed Index: 450 or less, per ASTM E 84.
to	1.3	Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation. Approved mockups may become part of the completed Work if undisturbed at time of Substantial
10		Completion.
	1.4	Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. For each type of wallcovering, full-size units equal to three (3) percent of amount installed
	2.1	Vinyl Wall-Covering: Provide mildew-resistant products complying with the following:
		 A. Provide rolls of each type of wall covering from same print run or dye lot. B. Total Weight Excluding Coatings: 21 oz
top of		C. Backing: Scrim fabric.
vear.	2.2	D. Products, Colors, Texture, and Patterns: Refer to Room Finish List. Adhesive: Mildew-resistant, nonstaining, strippable adhesive, for use with specific wall covering and substrate application; as
	0.0	recommended in writing by wall-covering manufacturer.
	2.3	covering manufacturer for intended substrate.
	3.1	Comply with manufacturer's written instructions for surface preparation. Clean substrates of substances that could impair bond of wall
	3.2	Prepare substrates to achieve a smooth, dry, clean, structurally sound surface free of flaking, unsound coatings, cracks, and defects.
ach		A. Gypsum Board: Prime with primer as recommended in writing by primer/sealer manufacturer and wall-covering manufacturer.
fied		C. Remove hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.
nt	3.3	Comply with wall-covering manufacturer's written installation instructions applicable to products and applications.
THC .		 B. Match pattern 72 inches above the finish floor.
		C. Install seams vertical and plumb at least 6 inches from outside corners and 6 inches from inside corners unless a change of pattern or color exists at corner. No horizontal seams are permitted
		D. Fully bond wall covering to substrate. Remove air bubbles, wrinkles, blisters, and other defects.
		E. Trim edges and seams for color uniformity, pattern match, and tight closure. Butt seams without any overlay or spacing between strips.
	3.4	Remove excess adhesive at finished seams, perimeter edges, and adjacent surfaces.
	3.5 3.6	Use cleaning methods recommended in writing by wall-covering manufacturer. Reinstall hardware and hardware accessories, electrical plates and covers, light fixture trims, and similar items.
	-	
	09 9	125 – PAINTING
of oll	1.1	This Section includes interior and exterior painting.
Jian	1.2	If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color
after		of finish is not indicated, Architect will select from standard colors and finishes available. Painting includes field painting of exposed bare
		steel and iron supports, and surfaces of mechanical and electrical equipment that do not have a factory-applied final finish.
	1.3 1 4	Do not paint pre-finished items, concealed surfaces, finished metal surfaces, operating parts, and labels. Submit Samples for Verification: For each color and material to be applied, with texture to simulate actual conditions, on representative
		Samples of the actual substrate.
	1.5	MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
	1.5	MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting as that contaminants from cleaning and painting the sector of the secto
	1.5 1.6 1.7	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied.
	1.5 1.6 1.7 2.1	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A Sherwin-Williams Company
	1.5 1.6 1.7 2.1	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co.
	1.5 1.6 1.7 2.1	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D PPG Industries Inc. (Pittsburg Paints)
	1.5 1.6 1.7 2.1	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal.
ified	1.5 1.6 1.7 2.1 2.2	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer based on testing and field experience.
ified	1.5 1.6 1.7 2.1 2.2 2.3	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
ified	 1.5 1.6 1.7 2.1 2.2 2.3 	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application, as demonstrated by manufacturer based on testing and field experience. Metal Primers A. Waterborne Galvanized-Metal Primer: MPI #134. 1. VOC Content: E Range of E1.
ified through	 1.5 1.6 1.7 2.1 2.2 2.3 	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application, as demonstrated by manufacturer based on testing and field experience. Metal Primers A. Waterborne Galvanized-Metal Primer: MPI #134. VOC Content: E Range of E1. Environmental Performance Rating: EPR 1.
ified through	 1.5 1.6 1.7 2.1 2.2 2.3 2.4 	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application, as demonstrated by manufacturer based on testing and field experience. Metal Primers A. Waterborne Galvanized-Metal Primer: MPI #134. 1. VOC Content: E Range of E1. 2. Environmental Performance Rating: EPR 1. Exterior Latex Paints A. VOC Content: E Range of E1.
ified through ring for	 1.5 1.6 1.7 2.1 2.2 2.3 2.4 2.5 	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B. Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application, as demonstrated by manufacturer based on testing and field experience. Metal Primers A. Waterborne Galvanized-Metal Primer: MPI #134. VOC Content: E Range of E1. Environmental Performance Rating: EPR 1. Exterior Latex Paints A. VOC Content: E Range of E1. Interior Paints
ified through ring for pattern,	 1.5 1.6 1.7 2.1 2.2 2.3 2.4 2.5 2.6 	 MPI Standards A. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List." B Comply with requirements in "MPI Architectural Painting Specification Manual." Schedule cleaning and painting so that contaminants from cleaning process will not fall onto newly painted surfaces. Deliver extra materials equal to a minimum of one gallon of each type/color of paint supplied. Manufacturers: A. Sherwin-Williams Company. B Benjamin Moore & Co. C. Hallman Lindsay. D. PPG Industries, Inc. (Pittsburg Paints). E. Approved equal. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application, as demonstrated by manufacturer based on testing and field experience. Metal Primers A. Waterborne Galvanized-Metal Primer: MPI #134. VOC Content: E Range of E1. Environmental Performance Rating: EPR 1. Exterior Latex Paints A. VOC Content: E Range of E1. Interior Paints A. Type and Color: See Room Finish List. Block Fillers

B. Furnish one (1) box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

2.7 Primers/Sealers

Bonding Primer (Water Based): MPI #17. VOC content E Range of E1. Α. 2.8 Equipment

- Provide all brushes, rollers, ladders, scaffolding and other equipment of any kind to properly execute each type of work.
- 3.1 Maximum moisture content of substrates: Α
 - Concrete: 12 percent. Gypsum Board: 12 percent.
 - C. Wood: 15 percent.
 - Masonry (Clay & CMU): 12 percent.
- 3.2 Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers. 3.3 Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition.
- 3.4 Apply paint according to requirements in "MPI Architectural Painting Specification Manual" and manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied. Interior hollow metal frame paint to be spray applied.
- 3.5 Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.
- 3.6 All paint systems use Sherwin Williams (SW) as basis of design.

3.7 Exterior Paint Schedule Α Material:

- Ferrous Metal (i.e. hollow metal, exposed angles, steel guard posts, bollards, metal grille work/grating and other exposed structural steel and steel fabrications).
 - a. Primed Ferrous Metal: One coat 2-component acrylic polyurethane. Unprimed Ferrous Metal: One coat rust-inhibitive waterborne self cross-linking acrylic primer; and one coat SW
- 2-component acrylic polyurethane.
 - 2. Galvanized Metal: a. One coat SW "Metalatex B42."
 - b. Two coats SW 2-component acrylic polyurethane.
 - 3. Exterior Metal Piping (except components with factory-applied paint or protective coating): a. Alkdy System: MPI EXT 5.1D.
 - Prime Coat: Alkyd anticorrosive metal primer.
 - Intermediate Coat: Exterior alkyd enamel matching topcoat.
 - Topcoat: Exterior alkyd enamel (semi-gloss). 4) Color: Grey.
 - Concrete Unit Masonry: Provide the following finish systems over exterior concrete masonry: 4.
 - a. Concrete Unit Masonry Block Filler: SW Heavy Duty Block Filler, B42W46. Primer: SW 3579 Standard Primer/Sealer.
 - Topcoat: SW Pro Industrial HB /Waterbased Epoxy, B71W111/B71V100 Series.
 - 5. Stained Woodwork
 - Solid-Color Latex Stain System: MPI EXT 6.3K. Two stain coats exterior stain.
 - 6 Siding
 - a. Seal all cuts; touchup paint as required per siding manufacturer's written requirements.

3.8 Interior Paint Schedule Α. Walls and Ceilings

- Paint all rooms indicated to receive paint. In unscheduled areas, use paint type to match existing. Paint patched walls from 1. 90 degree corner and patched ceilings complete.
- Do not apply next coast until previous is thoroughly dry.
- Provide final coat which is solid and even in color, free from runs, laps, sags, brush marks, air bubbles and
- excessive roller stipple and worked into crevices, joints and similar areas. Electrical Panel Box Covers and Doors: Remove, paint and reinstall after paint is dry.
- Other New Unfinished and Primed Surfaces: Provide specified finish on exposed surfaces. This includes prime coated
- mechanical units, piping, pipe covering, conduit, and interior duct surfaces visible behind grilles.
- Concrete Unit Masonry: Provide the following finish systems over interior concrete masonry.
- Concrete Unit Masonry Block Filler: SW Heavy Duty Block Filler, B42W46. Primer: SW 3579 Standard Primer/Sealer.
- Topcoat: SW Pro Industrial HB /Waterbased Epoxy, B71W111/B71V100 Series.
- Gypsum Board: See Room Finish List for finish systems over interior gypsum board surfaces. In general provide: Institutional Low-Odor/VOC Latex System: MPI INT 9.2M.
 - a. Prime Coat: Interior latex primer/sealer.
 - Intermediate Coat: Institutional low-odor/VOC interior latex matching topcoat.
- Topcoat: Institutional low-odor/VOC interior latex.
- Steel Substrates: Latex over Alkyd Primer System: MPI INT 5.1Q. Prime Coat: Alkyd anticorrosive metal primer
- Intermediate Coat: Interior latex matching topcoat.
- Topcoat: PROMAR 400 interior latex enamel (semigloss).
- G. Concrete Substrates, Traffic Surfaces: Water-Based Clear Sealer System: MPI INT 3.2G. First Coat: Interior/exterior clear concrete floor sealer (water based).
- Topcoat: Interior/exterior clear concrete floor sealer (water based)
- Wood Substrates. Including wood trim, architectural woodwork, windows. Low-Odor/VOC Latex System: H.
- Prime Coat: Primer, bonding, water based.
- Prime Coat: Primer, bonding, solvent based.
- Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat Topcoat: Latex, interior, institutional low odor/VOC, low-luster.
- Interior Metal Piping (except components with factory-applied paint or protective coating): Alkyd System: MPI INT 5.1E
- Prime Coat: Alkyd anticorrosive metal primer.
- Intermediate Coat: Interior alkyd matching topcoat.
- Topcoat: Interior alkyd (semi-gloss)
- Color: OSHA Safety Yellow Stained Finish Woodwork Schedule J.
- Waterborne Acrylic Clear Over Stain System: MPI INT 6.3W. Two finish coats of waterborne clear acrylic
- varnish over a sealer coat and interior wood stain. Wipe wood before applying stain. K. Natural-Finish Woodwork
- 1. Waterborne Acrylic Clear Over Stain System: MPI INT 6.3Q. Two finish coats of waterborne clear acrylic varnish over
- a sanding sealer. Provide wood filler on open-grain wood before applying fir varnish coat.
- 3.9 Protect work of other trades against damage from painting. Provide "wet paint" signs to protect newly painted finishes.

10 1400 – SIGNAGE

- 1.1 Submittals
- Product data for each type of product indicated.
- Samples: For each sign type and for each color and texture required. 2.1 Comply with applicable provisions of the ADA-ABA Accessibility Guidelines; the International Building Code, Chapter 11 "Accessibility"
- ICC/ANSI A117.1, and the Wisconsin Administrative Code Chapter SPS 362. 2.2 Room Identification Sign: Sign system with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
 - A. Manufacturers:
 - Inpro Corporation
 - Schwaab, Inc.
 - Approved equal
 - B. Material: As selected by Owner. C. Text and Typeface: Accessible raised characters and Braille.
 - D. Location: At each building entry door, each public restroom, each room location, and where indicated on Drawings.
- 2.3 Anchors and Inserts: A. Provide nonferrous-metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere as required for corrosion
 - resistance. Use toothed steel or lead expansion-bolt devices for drilled-in-place anchors.
 - 1. Furnish inserts, as required, to be set into concrete or masonry work.
 - C. Use concealed fasteners and anchors unless indicated to be exposed.
- 3.1 Install signs level, plumb, and at heights indicated, with sign surfaces free of distortion and other defects in appearance.
- 3.2 Accessible Signage Installation: Install in locations on walls as indicated on Drawings and according to ANSI A117.1. 3.3 Wall-Mounted Signs:
 - Mechanical Fasteners: Use nonremovable mechanical fasteners placed through predrilled holes. Attach signs with fasteners and anchors suitable for secure attachment to substrate as recommended in writing by sign manufacturer
 - Signs Mounted on Glass: Provide matching opague plate on opposite side of glass to conceal mounting materials.
 - C. Projected Mounting: Mount characters at projection distance from wall surface indicated
- 10 2600 WALL PROTECTION
- 1.1 Submittals: A. Product data for each type of product indicated.
 - B. Shop Drawings: Include sections, details, and attachments to other work.
 - Samples: For each type of unit and for each color and texture required.
- 1.2 Fire-Test-Response Characteristics: Provide impact-resistant, plastic wall-protection units with surface-burning characteristics as determined by testing identical products per ASTM E 84, NFPA 255, or UL 723 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.
- 1.3 Warranty Period: Five years from date of Substantial Completion 2.1 Materials:
 - A. PVC Plastic; ASTM D 1784, Class 1, textured, chemical- and stain-resistant, high-impact resistant PVC or acrylic-modified
 - vinyl plastic with integral color throughout. Polycarbonate Plastic Sheet: ASTM D 6098, S-PC01, Class 1 or 2, abrasion resistant; with a minimum impact-resistance
- rating of 15 ft-lbf/in. of notch when tested according to ASTM D 256, Test Method A. 2.2 Manufacturers:
 - A. ARDEN Architectural Specialties.
 - B. Balco, Inc. C. InPro Corporation.
 - D. IPC Door and Wall Protection Systems.
 - Korogard Wall Protection Systems.
- Approved Equal. 2.3 Corner Guards: Surface-Mounted, Plastic Corner Guards. Assembly consisting of snap-on plastic cover installed over continuous

MSP - THE DRIFTLESS

- retainer; including mounting hardware; fabricated with a 90- or 135-degree turn to match wall condition.
- Install all units level, plumb, and true to line without distortions. Do not use materials with chips, cracks, voids, stains, or other defects that might be visible in the finished Work. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.
 Install all units according to manufacturer's written instructions/recommendations.
- 3.3 Immediately after completion of installation, clean surfaces in accordance with manufacturer's instructions. Remove excess adhesive using methods and materials recommended in writing by manufacturer.

10 2800 – TOILET AND BATH ACCESSORIES

- 1.1 Submittals:A. Product Data: For each type of product indicated.
- 2.1 Finishes: Stainless steel/satin chrome.2.2 Manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- A. A & J Washroom Accessories, Inc.
- B. American Bathroom Accessories.C. Bobrick Washroom Equipment.
- D. Franklin Brass Manufacturing Co.
- E. General Accessory Manufacturing Co. (GAMCO)
- F. McKinney. G. Traymoor Industries.
- 2.3 Public-Use Bathroom Accessories
- A. Double toilet tissue (roll) dispenser.B. Combination Paper Towel (Folded) Dispenser with Removable Waste Receptacle; semi-recessed.
- C. Vanity-mounted liquid soap dispenser.D. Grab bars: Surface mounted where indicated on Drawings.
- E. Sanitary napkin disposal unit; semi-recessed.
- 2.4 Private-Use Bathroom Accessories
- A. Toilet paper holder.B. Shower curtain rod.
- C. Robe hook.
- D. Towel bars.E. Grab Bars: Surface mounted, swing down where indicated on Drawings.
- 2.5 Custodial AccessoriesA. Shelf with mop and broom holder. Mop/broom holders: four, spring loaded, rubber hat, cam type.
- 2.6 Keys: Provide universal keys for internal access to accessories for servicing and re-supplying.
- 3.1 Install accessories according to manufacturers' written instructions, using fasteners appropriate to substrate indicated and recommended by unit manufacturer.
- 3.2 Install units level, plumb, and firmly anchored in locations and at heights indicated.

10 4415 – FIRE EXTINGUISHERS AND CABINETS 1.1 Submittals: Product Data: For each type of product indicated.

- 2.1 Fire Extinguishers: Type, size, and capacity for each fire protection cabinet and mounting bracket indicated.
- 2.2 Fire Extinguisher Cabinets:A. Basis-of-Design Product: AL2409-R3
 - 1. Semi-recessed
 - 2. Full glass door.
- Finish: As selected by Architect.
 Identify fire extinguishers with the words "FIRE EXTINGUISHER" in red letters.

10 5500 – POSTAL SPECIALTIES

1.1 Submittals: A. Product Data: Provide manufacturer's standard catalog data for specified products.

- B. Shop Drawings: Prepared specifically for this project; show dimensions of mail boxes, wall cuts, and interface with other products.
 1.2 Obtain approval from USPS local postmaster for postal specialties to be served by USPS.
- Manufacturer's standard warranty to repair or replace components of postal specialties that fail in materials or workmanship within five (5) years from date of Substantial Completion.
- 2.1 Front-Loading Parcel Lockers, Recessed:
- A. Comply with USPS-STD-4C.
- B. Provide two (2) keys for each, individual mail receptacle.
- C. Finish: As selected by Architect from manufacturer's standard finish selections.
- 3.1 Install postal specialties level and plumb, according to manufacturer's written instructions.
- Final acceptance of postal specialties served by the USPS depends on compliance with USPS requirements.
 A. Arrange for USPS personnel to examine and test postal specialties served by the USPS after they have been installed according to USPS regulations.

11 3100 - RESIDENTIAL APPLIANCES

- 1.1 Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
 1.2 Complexity NAECA standards
- Comply with NAECA standards.
 All appliances to be selected by Owner.
- 2.2 Provide appliances that qualify for the EPA/DOE Energy Star product labeling program, where applicable.
- 2.3 Basis-of-Design Appliances: Frigidaire.
- 2.4 Cooking Appliances
- A. Ranges: Electric; freestanding, self-cleaning.
- B. Microwaves:1. Over-the-range microwave at typical units.
 - 2. Countertop microwave in accessible units and common/community area.
- C. Range Hood: For accessible units provide range hood with wall control.
- 2.5 Cleaning AppliancesA. Dishwashers, Built-In: Energy Star compliant. Accessible units to have accessible controls.
- B. Washers and Dryers: Side-by-side washers and electric dryers and stacked washer/dryer units.
- 2.6 Refrigerators: Energy Star listed. Top freezer refrigerator, frost-free. Accessible units to have ADA compliant models.
- 2.7 Garbage Disposals: 1/2 horse power Insinkerator, Badger or equal. No garbage disposals in accessible units.
- 2.8 Finishes: Stainless steel.
- 3.1 Built-In Equipment: Securely anchor units to supporting cabinets or countertops with concealed fasteners. Verify that clearances are adequate for proper functioning and rough openings are completely concealed.
 3.2 Freestanding Equipment: Place units in final locations after finishes have been completed in each area. Verify that clearances are
- adequate to properly operate equipment.3.3 Refer to Divisions 22 and 26 for plumbing and electrical requirements.
- 12 2113 HORIZONTAL LOUVER BLINDS
- 1.1 Submittals:A. Product Data: For each type of product indicated.
- B. Shop Drawings: Show fabrication and installation details.
- C. Samples: For each exposed finish.
- 1.2 Product Safety Standard: WCMA A100.1
- 2.1 Manufacturers:
- A. Bali by Springs Window Fashions Division, Inc.
- B. Levolor Contract; a Newel Rubbermaid company.C. Hunter Douglas.
- D. Approved Equal.
- 2.2 Aluminum Slats: Will not crack or yellow; antistatic, dust-repellent treated; with manufacturer's standard profile.
- A. Width: One (1) inch.
- 2.3 Wood Slats at Common Area Windows: Hardwood.A. Width: Two (2) inches.
 - B. Profile: Flat.
 - C. Corners: Square.
- D. Flame-Resistance Rating: Comply with NFPA 701; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 2.4 Headrail: Formed steel or extruded aluminum; long edges returned or rolled; fully enclosing operating mechanisms on three sides and
- ends. A Manual Lift Mechanism: Lift-Cord Lock; variable; stops lift cord at user-selected position within blind full operating range.
- 2.5 Bottom Rail: Matching slats.
- 2.6 Ladders: Braided cord; manufacturer's standard-width cloth tapes.2.7 Fabrication:
- A. Noncorrodible or corrosion-resistant-coated concealed components. Lift and tilt mechanisms with permanently lubricated moving parts.
- B. Obtain units fabricated in sizes to fill windows.
- C. Installation Brackets: Designed for easy removal and reinstallation of blind, for supporting headrail and operating hardware, and for hardware position and blind mounting. No fewer than two fasteners per bracket, fabricated from noncorrosive metal.
 D. Component Color: Provide rails, cords, ladders, and exposed -to-view metal and plastic matching or coordinating with slat color, unless otherwise indicated.
- Installation:
 A. Install horizontal louver blinds level and plumb and aligned with adjacent units according to manufacturer's written instructions, and located so exterior slat edges in any position are not closer than one (1) inch to interior face of glass.
 - Install intermediate support as required to prevent deflection in headrail. Allow clearances between adjacent blinds and for operating glazed opening's operation hardware, if any. Adjust blinds to operate smoothly, easily, safely, and free of binding or malfunction throughout entire operational range.
- C. Trim cords to length after installation.3.2 Clean blind surfaces after installation, according to manufacturer's written instructions.
-
- 12 3530 RESIDENTIAL CASEWORK
 1.1 Includes kitchen and vanity cabinets.
- 1.2 Submittals:

	A. B	Product Data: For cabinets and cabinet hardware. Shop Drawings for Cabinets: Include plans, elevations, details, and attachments to other work	
	D.	Show materials, finishes, filler panels, hardware.	
.3	Qualit	y Standard: KCMA A161.1.	
.4	 Provide cabinets with KCMA's "Certified Cabinet" seal affixed in a semi-exposed location. Field Conditions: Where casework is indicated to fit to other construction, establish dimensions for areas where casework is to fit. Coordinate construction to ensure that actual dimensions correspond to established dimensions. Provide fillers and scribes to allow for 		
5	Warra	ing and fitting. anty: 25 years from date of Substantial Completion	
1	Basis A.	-of-Design: Leedo Cabinetry, or approved equal. Door and Drawer Fronts: Solid-wood stiles and rails, 3/4-inch thick, solid-wood center panels.	
	В. С.	Model and Style: As selected by Owner from manufacturer's full range. Finish: As selected by Owner. Sink base and venity achieves are fully HC roll under style: (valance at front, angled papel at side), where indicated	
2	D. Hardv	Sink base and vanity cabinets are fully HC foil under style, (valance at front, angled panel at side), where indicated.	
_	A. B.	Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 100 degrees of opening, self-closing. Pull Handles on Cabinet Doors and Drawers: Four (4) inch easily graspable pull handles, no knobs; no pulls on nonfunctioning fronts	
	C.	 Drawer Slides: BHMA 156.9, B05091. 1. Heavy-Duty Grade (Grade 1HD-100 and Grade 1HD-200): Side mounted; full extension type; zinc-plated steel ball-bearing slides 	
	D. E.	Exposed Hardware Finish: As selected by Owner from manufacturer's full range. Door and Drawer Bumpers: Self-adhering, clear silicone rubber.	
1 ว	Instal and c	cabinets with no variations in flushness of adjoining surfaces; use concealed shims. Where cabinets abut other finished work, scrib ut for accurate fit. Provide filler strips, scribe strips, and moldings in finish to match cabinet face. I cabinets without distortion so doors and drawers fit openings and are aligned. Complete installation of bardware and accessories a	
2	indica	Ited.	
3 4	Faste Adjus opera	n cabinets to adjacent units and to backing. t cabinets and hardware so doors and drawers are centered in openings and operate smoothly without warp or bind. Lubricate ting hardware as recommended by manufacturer.	
i 21 1	00 – E Subm	LECTRIC TRACTION MACHINE-ROOM-LESS ELEVATORS nittals: The work required under this section consists of all labor, materials, and services required for the complete installation	
2	Subm	any operational vernication, or all the equipment required for the elevator as herein specified. ittals	
	A. B.	Product Data: Include capacities, sizes, performances, operations, safety features, finishes, and similar information. Shop Drawings: Submit manufacturer/installer's shop drawings, including plans, elevations, sections, and large-scale details indicating service at each landing, coordination with building structure, relationships with other construction, location of equipment and signals. Indicate loads imposed on building structure at points of support, and maximum and average power	
	C.	demands. Manufacturer's Certificates: Signed by elevator manufacturer certifying that hoistway and pit, as shown on Drawings, and	
	D.	electrical service, as shown and specified, are adequate for elevator system being provided. Operation and Maintenance Manual: Submit manufacturer/installer's operation and maintenance manual; including	
	E.	wiring diagrams. Inspection and Acceptance Certificates and Operating Permits: As required by authorities having jurisdiction for normal,	
S	Morro	unrestricted elevator use.	
5 1	Warranty: 24 months from date of Substantial Completion. Maintenance Service: Beginning at Substantial Completion, provide two (2) year's full maintenance service by skilled employees of elevator installer. Include monthly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning,		
1	and a Basis A.	djusting as required for proper elevator operation at rated speed and capacity. -of-Design Elevator: Schindler 3300 machine-room-less, low-rise traction elevator; or approved equal. Elevator shall comply with IBC 3002.4/SPS 362.3002 and accommodate a 24" x 84" ambulance stretcher in the horizontal, open position. Elevator shall be identified by the international symbol for emergency medical services (star of life), minimum	
2	Coord	3 Inches high and placed on both sides of the door frame. Jinate shaft dimensions with final elevator selection	
- 3 4	Eleva Syste	tor shall be installed by elevator manufacturer. m Description	
	A. B.	Provide manufacturer's standard elevator systems, including standard components published by manufacturer as included in standard preengineered elevator systems and as required for complete system. Quantity of Elevators: One (1).	
	C. D.	Elevator Stop Designations: Five (5). Speed: 150 fpm.	
	⊏. F.	Finishes: See Room Finish List.	
	G. H.	Provide handrails on side and rear walls. Door: 2 speed, side opening to accommodate stretcher. Provide "Star of Life" symbol on elevator door jamb at ground floor	
	I.	Emergency Communication System: Complying with ASME A17.1 and the U. S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines (ADAAG)." On activation, system dials preprogrammed number of monitoring station and identifies elevator location to monitoring system. System provides two-	
		and when monitoring station has responded. System is contained in flush-mounted cabinet, with identification, instructions for use, and battery backup power supply.	
	J.	Fire Department Communication System: Provide flush-mounted cabinet telephone jack in each car and required conductors to traveling cable for firefighters' two-way telephone communication service.	
	K.	Battery-Powered Lowering: If power fails and car is at a floor, it remains at that floor, opens its doors, and shuts down. If car is between floors, it is lowered to the next floor below, opens its doors, and shuts down. System includes rechargeable battery and automatic recharging system.	
	L	Help Button: Activation of help button will initiate two-way communication between car and a location inside the building, switching over to alternate location if call is unanswered, where personnel are available to take the appropriate action. Visual indicators are provided for call initiation and call acknowledgement.	
	M.	 Door Reopening Devices. Infrared Array: Provide door reopening devices with uniform array of 36 or more microprocessor-controlled, infrared light beams projecting across car entrance. Interruption of one or more of the light beams shall cause doors to stop and reopen. 	
	N.	2. Nudging Feature: After car doors are prevented from closing for predetermined adjustable time, a loud buzzer shall sound and doors shall begin to close at reduced kinetic energy. Provide elevator pads with an impact-resistant core. Coordinate hanging method with selected cab wall panels.	
1	Verify	hoistway, pit, overhead, and openings are of correct size, within tolerances, and are ready for work of this section.	
2 3	Accep tests Make	Diance Testing: On completion of elevator installation and before permitting use (either temporary or permanent), perform acceptance as required and recommended by ANSI/ASME A17.1 and by governing codes, regulations and agencies. a final check of each elevator operation with the Owner or Owner's representative present prior to turning each elevator over for use	
1	Deter replac	mine that control systems and operating devices are functioning properly. Anything found to be defective shall be repaired or ced. ct Owner's personnel in proper use, operations, and daily maintenance of elevators. Review emergency provisions, including	
Ŧ	emero proce eleva	jency access and procedures to be followed at time of operational failure and other building emergencies. Train Owner's personnel in dures to follow in identifying sources of operational failures or malfunctions. Confer with Owner on requirements for a complete tor maintenance program.	
91	82 – T	RASH CHUTES	
- 1	Subm A.	littals: Product data.	
	В.	Shop Drawings: Detail chute assemblies and indicate dimensions, weights, required clearances, method of field assembly,	

- components, and location and size of each field connection. C. Product Certificates: For each type of chute, signed by product manufacturer, that chute materials meet or exceed the standards of NFPA 82.
- D. Operation and maintenance data for chutes, including emergency, operation, and maintenance manuals.
- 1.2 Provide chutes complying with NFPA 82.
- 1.3 Fire-Rated Door Assemblies: Assemblies complying with NFPA 252 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated
- testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated. A. Test at atmospheric (neutral) pressure according to NFPA 252 or UL 10B.
- B. Intake Door: Labeled; 1-hour fire-resistance rated with 30-minute temperature rise of 250 deg F.
- C. Discharge Door: Labeled; 1-hour fire-resistance rated according to NFPA 252 or UL 10B requirements for fire-rated door assemblies.
- D. Access Door: Labeled; 1-hour fire-resistance rated with 30-minute temperature rise of 250 deg F.
- 1.4 Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.
- 2.1 Manufacturers:
 - A. American Chute, LLCB. Century Chute, LLC.
 - C. U.S. Chutes; U.S.C. Group.
- D. Wilkinson Hi-Rise, LLC.
- 2.2 24" diameter chute: Aluminum-coated, cold-rolled, commercial steel sheet; ASTM A 463/A 463M, Type 1 with not less than T1-40 (T1M-120) coating. Provide Manufacturer's standard exterior mastic sound deadening coating on chute.
- 2.3 Intake Door Assemblies: ASTM A 240/A 240M, Type 304 stainless-steel, self-closing units with positive latch and latch handle; as required to provide fire-protection and temperature-rise ratings indicated; and with frame suitable for enclosing chase construction. Bottom hinged, limited access, 180-degree swing, square; equipped with keyed lock. Provide rubber door baffles. Door handle to be ADA compliant lever-type.
- 2.4 Discharge-Door Assemblies: Aluminum-coated-steel doors as required to provide fire-protection and temperature-rise ratings indicated; equipped with fusible links that cause doors to close in the event of fire. Direct Vertical Discharge: Provide inclined, horizontally rolling, shutter-type unit. Outlet door to be fireproof, self-closing and equipped with a fusible link.
- 2.5 Chute Vent: Full diameter aluminum vent extending 4 feet above the roof consisting of a flashing, vent body, solid top cap with bird screen (curb by others).
 2.6 Heat-and Smoke-Detector System: Interlock system with temperature-rise elements that locks chute doors when temperature in chute
- reaches a predetermined, adjustable temperature.
 2.7 Fire Sprinklers: NPS 1/2 fire sprinklers ready for piping connections.
- 2.8 Flushing Spray Unit: NPS 3/4 spray head unit located in chute above highest intake door, ready for hot-water piping connection, and with access for head and piping maintenance.

- 2.9 Sanitizing Unit: NPS 3/4 disinfecting and sanitizing spray head unit located in chute above highest intake door, including 1-gal. tank and adjustable proportioning valve with bypass for manual control of sanitizing and flushing operation, ready for hot-water piping connection, and with access for head and piping maintenance.
- 2.10 Provide steel angle support bracket with sound and vibration isolator pads.3.1 Install chute according to NFPA 82 and manufacturer's written instructions.
- 3.2 Install and test chutes before installing enclosing chase construction.
- 3.3 Demonstrate use of chute and equipment to Owner's personnel.

21 – FIRE SUPPRESSION Design/Build by Others

22 – PLUMBING Design/Build by Others

23 – HVAC Design/Build by Others

26 – ELECTRICAL Design/Build by Others

31 – EARTHWORK See Civil Drawings

31 6330 – INTERMEDIATE FOUNDATION SYSTEMS

- 1.1 Work shall consist of designing, furnishing and installing Intermediate Foundation elements to the lines and grades designated on the project foundation plan and as specified herein. The Intermediate Foundation elements shall be constructed by either augering a cavity or driving a hollow mandrel to the design depth and vertically ramming lifts of aggregate using the specially designed tamper head and high-energy impact densification equipment to create the compacted Intermediate Foundation element. The Intermediate Foundation elements shall be in a columnar-type configuration and shall be used to produce an intermediate foundation system for support of foundations and floor slabs.
- 1.2 Related Sections:
- A. See 00 2000 Information Available to Bidders, for Geotechnical Engineering Report.
- Work includes provision of all equipment, material, labor, and supervision to design and install Intermediate Foundation elements. Design shall rely on subsurface information presented in the project geotechnical report. Layout of Intermediate Foundation elements, spoil removal (as required), footing excavations, and subgrade preparation following Intermediate Foundation installation is not included.
 A. The Intermediate Foundation design and installation shall adhere to all methods and standards described in this Specification.
 The Intermediate Foundation Installer (the Installer) shall be approved by the Owner's Engineer in writing two (2) weeks prior to bid
- opening. Without exception, no alternate installer will be accepted unless approved by the Owner's Engineer. A. Installers of Intermediate Foundation systems shall have a minimum of 5 years of experience with the installation of
 - Intermediate Foundation systems and shall have completed at least 50 projects.
 - B. Installers licensed by the Geopier Foundation Company, Inc. (www.geopier.com) will be accepted as approved installers.C. Without exception, no alternate installer will be accepted unless approved by Owner's Engineer.
- 1.5 Modulus Testing
 - A. ASTM D 1143 Pile Load Test Procedures
 - B. ASTM D 1194 Spread Footing Load Test
- 1.6 Materials and Inspection A. ASTM D 1241 – Aggregate Quality
- B. ASTM D 422 Gradation of Soils
- 1.7 Where specifications and reference documents conflict, the Intermediate Foundation Designer shall make the final determination of the applicable document
- 1.8 Certifications and Submittals:
 - A. Design Calculations The Installer shall submit detailed design calculations and construction drawings prepared by the Intermediate Foundation Designer (the Designer) for review and approval by the Owner or Owner's Engineer. All plans shall be sealed by a Professional Engineer in the State in which the project is constructed.
 - B. Professional Liability Insurance The Intermediate Foundation Designer shall have Errors and Omissions design insurance for the work. The insurance policy should provide a minimum coverage of \$3 million per occurrence.
 C. Modulus Test Reports A modulus test(s) is performed on a non-production Intermediate Foundation element as required by
 - the Intermediate Foundation Designer to verify the design assumptions. The Installer shall furnish the General Contractor a description of the installation equipment, installation records, complete test data, analysis of the test data and verification of the design parameter values based on the modulus test results. The report shall be prepared under direction of a Registered Professional Engineer.
 - Daily Intermediate Foundation Progress Reports The Installer shall furnish a complete and accurate record of Intermediate Foundation installation to the General Contractor. The record shall indicate the element location, length, volume of aggregate used or number of lifts, densification forces during installation, and final elevations or depths of the base and top of elements. The record shall also indicate the type and size of the installation equipment used, and the type of aggregate used. The Installer shall immediately report any unusual conditions encountered during installation to the General Contractor, to the Designer and to the Testing Agency.

1.9 Quality Control

- A. Control Technician: The Installer shall have a full-time, on-site Control Technician to verify and report all installation procedures. The Installer shall immediately report any unusual conditions encountered during installation to the Intermediate Foundation Designer, the General Contractor, and to the Testing Agency.
- B. Intermediate Foundation Modulus Test: If required by the RAP designer, an Intermediate Foundation Modulus Test(s) will be performed at locations agreed upon by the Intermediate Foundation Designer and the Testing Agency to verify or modify Intermediate Foundation designs. Modulus Test Procedures shall utilize appropriate portions of ASTM D 1143 and ASTM D
- 1194, as outlined in the Intermediate Foundation design submittal.
 C. Bottom Stabilization Testing (BSTs) / Crowd Stabilization Testing (CSTs): Bottom stabilization testing (BSTs) or Crowd stabilization testing (CSTs) shall be performed by the Control Technician during the installation of the modulus test element. Additional testing as required by the Intermediate Foundation Designer shall be performed on selected production Intermediate Foundation elements to compare results with the modulus test element.

1.10 Quality Assurance

- A. Independent Engineering Testing Agency (Owner's Quality Assurance): The Intermediate Foundation Installer shall provide full-time Quality Control monitoring of Intermediate Foundation construction activities. The Owner or General Contractor is responsible for retaining an independent engineering testing firm to provide Quality Assurance services.
- Responsibilities of Independent Engineering Testing Agency
 1. The Testing Agency shall monitor the modulus test element installation and testing. The Installer shall provide and install all
- dial indicators and other measuring devices.
 The Testing Agency shall monitor the installation of Intermediate Foundation elements to verify that the production installation practices are similar to those used during the installation of the modulus test elements.
- The Testing Agency shall report any discrepancies to the Installer and General Contractor immediately.
- 4. The Testing Agency shall observe the excavation, compaction and placement of the foundations as described in Section Utility Excavations under Responsibilities of the General Contractor. Dynamic Cone Penetration testing may be performed to evaluate the footing bottom condition as determined by the Testing Agency.

1.11 Design Requirements

A. Intermediate Foundation Design: The design of the Intermediate Foundation system shall be based on the service load bearing pressure and the allowable total and differential settlement criteria of all footings indicated by the design team for support by the Intermediate Foundation system. The Intermediate Foundation system shall be designed in accordance with generally-accepted engineering practice. The design life of the structure shall be 50 years.
 P. The design shall most the following criteria.

- The design shall meet the following criteria. 1. Maximum Allowable Bearing Pressure for Footings supported by Intermediate Foundation Reinforced Soils: 4,000 psf
- In a simulation Allowable Bearing Pressure for Poolings supported by
 Estimated Total Long-Term Settlement for Footings: ≤ 1-inch
- 3. Estimated Long-Term Differential Settlement of Adjacent Footings: $\leq \frac{1}{2}$ -inch
- C. The Intermediate Foundation elements shall be designed using a stiffness modulus to be verified by the results of the modulus test described in Section 5.02 of these specifications.
- Design Submittal: The Installer shall submit detailed design calculations, construction drawings, and shop drawings, (the Design Submittal), for approval at 1 week prior to the beginning of construction. A detailed explanation of the design parameters for settlement calculations shall be included in the Design Submittal. Additionally, the quality control test program for Intermediate Foundation system, meeting these design requirements, shall be submitted. All computer-generated calculations and drawings shall be prepared and sealed by a Professional Engineer, licensed in the State or Province where the elements are to be built. Submittals will be submitted electronically only unless otherwise required by specific submittal instructions.

2.1 Aggregate

- A. Aggregate used by the Intermediate Foundation Installer for element construction shall be pre-approved by the Designer and shall demonstrate suitable performance during modulus testing. Typical aggregate consists of Type 1 Grade B in accordance with ASTM D-1241-68, No. 57 stone, recycled concrete or other graded aggregate approved by the Designer.
 B. Potable water or other suitable source shall be used to increase aggregate moisture content where required. The General
- Contractor shall provide such water to the Installer. 3.1 Approved Installation Procedures: The following sections provide general criteria for the construction of the Intermediate Foundation elements. Unless otherwise approved by the Designer, the installation method used for Intermediate Foundation construction shall be that as used in the construction of the successful modulus test.
 - A. Augured Intermediate Foundation Systems:
 1. Augered Intermediate Foundation system shall be pre-augered using mechanical drilling or excavation equipment.
 2. If cave-ins exceeding 10% of the lift volume occur during excavation such that the sidewalls of the hole are deemed to
 - be unstable, steel casing shall be used to stabilize the cavity or a displacement Intermediate Foundation system may be used.
 3. Aggregate shall be placed in the augered cavity in lift thicknesses as determined by the Intermediate Foundation
 - Designer.
 - A specially-designed beveled tamper and high-energy impact densification apparatus shall be employed to densify lifts of aggregate during installation. The apparatus shall apply direct downward impact energy to each lift of aggregate. Compaction equipment that induces horizontal vibratory energy (such as Vibroflot equipment) is not permitted. Displacement Intermediate Foundation Systems:
 - Displacement Intermediate Foundation systems shall be constructed by advancing a specially designed mandrel with a minimum 15 ton static force augmented by dynamic vertical ramming energy to the full design depth. The hollowshaft mandrel, filled with aggregate, is incrementally raised, permitting the aggregate to be released into the cavity, and then lowered by vertically advancing and/or ramming to densify the aggregate and force it laterally into the

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adjacent soil. The cycle of raising and lowering the mandrel is repeated to the top of element elevation. The cycle distance shall be determined by the Intermediate Foundation designer.

- 2. Special high-energy impact densification apparatus shall be employed to vertically densify the Intermediate Foundation elements during installation of each constructed lift of aggregate.
 - Downward crowd pressure shall be applied to the mandrel during installation. 3.
- 3.2 The as-built center of each element shall be within 6 inches of the locations indicated on the plans. Elements installed outside of the above tolerances and deemed not acceptable shall be rebuilt at no additional expense to the Owner. 3.3 Intermediate Foundation elements installed beyond the maximum allowable tolerances shall be abandoned and replaced with new
- elements, unless the Designer approves the condition or provides other remedial measures. All material and labor required to replace rejected elements shall be provided at no additional cost to the Owner, unless the cause of rejection is due to an obstruction or mislocation. 3.4 Site Preparation and Protection
- A. The General Contractor shall locate and protect underground and above ground utilities and other structures from damage during installation of the Intermediate Foundation elements.
- Site grades for Intermediate Foundation installation shall be within 1 foot of the top of footing elevation or finished grade Β. elevation to minimize Intermediate Foundation element installation depths. Ground elevations and bottom of footing elevations shall be provided to the Intermediate Foundation Installer in sufficient detail to estimate installation depth elevations to within 3 inches.
- C. The General Contractor will provide site access to the Installer, after earthwork in the area has been completed. A working surface shall be established and maintained by the General Contractor to provide wet weather protection of the subgrade and to provide access for efficient operation of the Intermediate Foundation installation.
- D. Prior to, during and following Intermediate Foundation installation, the General Contractor shall provide positive drainage to protect the site from wet weather and surface ponding of water. E. If spoils are generated by Intermediate Foundation installation, spoil removal from the Intermediate Foundation work area
- in a timely manner to prevent interruption of Intermediate Foundation installation is required. Intermediate Foundation Layout: The location of Intermediate Foundation-supported foundations for this project, including layout of 3.5
- individual Intermediate Foundation elements, shall be marked in the field using survey stakes or similar means at locations shown on the drawings. General Contractor is responsible for acquiring an Independent Testing Agency (Quality Assurance) as required. Testing Agency roles are 3.6 as described in Part 6 of this specification. The Intermediate Foundation Installer will provide Quality Control services as described herein.
- Should any obstruction be encountered during Intermediate Foundation installation, the General Contractor shall be responsible for 3.7 promptly removing such obstruction, or the element shall be relocated or abandoned. Obstructions include, but are not limited to, boulders, timbers, concrete, bricks, utility lines, etc., which shall prevent placing the elements to the required depth, or shall cause the element to drift from the required location.
- A. Dense natural rock or weathered rock layers shall not be deemed obstructions, and elements may be terminated short of design lengths on such materials. 3.8 The General Contractor shall coordinate all excavations made subsequent to Intermediate Foundation installations so that excavations
- do not encroach on the elements as shown in the Intermediate Foundation construction drawings. Protection of completed Intermediate Foundation elements is the responsibility of the General Contractor. In the event that utility excavations are required in close proximity to the installed Intermediate Foundation elements, the General Contractor shall contact the Intermediate Foundation Designer immediately to develop construction solutions to minimize impacts on the installed Intermediate Foundation elements. 3.9 Excavation and surface compaction of all footings shall be the responsibility of the General Contractor.
- 3.10 Foundation excavations to expose the tops of Intermediate Foundation elements shall be made in a workman-like manner, and shall be protected until concrete placement, with procedures and equipment best suited to (1) avoid exposure to water, (2) prevent softening of the matrix soil between and around the Intermediate Foundation elements before pouring structural concrete, and (3) achieve direct and firm contact between the dense, undisturbed Intermediate Foundation elements and the concrete footing. 3.11 All excavations for footing bottoms supported by Intermediate Foundation foundations shall be prepared in the following manner by the
- General Contractor. Recommended procedures for achieving these goals are to: A. Limit over-excavation below the bottom of the footing to 3-inches (including disturbance from the teeth of the excavation
 - equipment). Compaction of surface soil and top of Intermediate Foundation elements shall be prepared using a motorized impact compactor ("Wacker Packer," "Jumping Jack," or similar). Sled-type tamping devices shall only be used in granular soils and when approved by the designer. Loose or soft surface soil over the entire footing bottom shall be recompacted or removed, respectively. The surface of the Intermediate Foundation elements shall be recompacted prior to completing footing bottom preparation.
- C. Place footing concrete immediately after footing excavation is made and approved, preferably the same day as the excavation. Footing concrete must be placed on the same day if the footing is bearing on moisture-sensitive soils. If same day placement of footing concrete is not possible, open excavations shall be protected from surface water accumulation. A
- lean concrete mud-mat may be used to accomplish this. Other methods must be pre-approved by the Designer. 3.12 The following criteria shall apply, and a written inspection report sealed by the project Testing Agency shall be furnished to the Installer to confirm:
 - A. That water (which may soften the unconfined matrix soil between and around the Intermediate Foundation elements, and may have detrimental effects on the supporting capability of the Intermediate Foundation reinforced subgrade) has not been allowed to pond in the footing excavation at any time.
 - That all Intermediate Foundation elements designed for each footing have been exposed in the footing excavation. B
 - C. That immediately before footing construction, the tops of Intermediate Foundation elements exposed in each footing excavation have been inspected and recompacted as necessary with mechanical compaction equipment.
 - D. That no excavations or drilled shafts (elevator, etc) have been made after installation of Intermediate Foundation elements within the excavation limits described in the Intermediate Foundation construction drawings, without the written approval of the Installer or Designer.
- 3.13 Failure to provide the above inspection and certification by the Testing Agency, which is beyond the responsibility of the Intermediate Foundation Installer, may void any written or implied warranty on the performance of the Intermediate Foundation system.

32 1723 – PAVEMENT MARKINGS

- 2.1 Pavement Marking Paint MPI #32, alkyd traffic-marking paint; color yellow. Α.
- MPI #97, latex traffic-marking paint; color yellow.
- 2.2 Glass Beads: AASHTO M 247, Type 1 made of 100 percent recycled glass.
- 3.1 Allow pavement to age for minimum of 30 days before starting pavement marking. 3.2 Accessible and directional symbols shall conform to WisDOT standard templates.
- 3.3 Produce pavement markings with uniform, straight edges. Provide a minimum wet film thickness of 15 mils. Apply multiple coats so no substrate is visible.

32 – EXTERIOR IMPROVEMENTS - SEE CIVIL AND LANDSCAPE DRAWINGS

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