12-12-23

Deanna Schmidt, AICP
City Planner & Zoning Administrator
City of Fitchburg
5520 Lacy Road
Fitchburg, WI 53711

RE: Resubmittal of North Fish Hatchery Road HUB Phase 1

Dear Deanna,

On behalf of the City of Fitchburg, I am resubmitting information on the proposed North Fish Hatchery Road HUB project for both an Architectural Design Review and a Conditional Use Permit. The proposed community development will be located on Outlot 1 of CSM #15059 with a proposed address of 2220 Traceway Drive.

The proposed HUB project is one location out of the four neighborhoods designated in the City of Fitchburg's Healthy Neighborhood's Initiative (HNI) program. The HNI was designed to formulate and implement a strategic, collaborative and holistic approach to address specific issues in priority neighborhoods by creating a gathering place for residents to come together. The project aims to achieve this goal by providing a mixture of indoor and outdoor spaces:

- Indoor:
  3,889 sqft. community park building which provides space for learning, recreation, culture, resource, and sociable/rentable neighborhood-gathering spaces. The East side of the building contains one large meeting room that can be divided into two individual rooms with the ability to be be rented by the public for individual events. A roll up garage door on the North end of the meeting room can be opened to extend the space out into the park setting. Additional spaces include a warming kitchen that can be used for meeting room users or also provide concessions to park users and an office for use by City of Fitchburg employees and neighborhood patrons or organizations. Public restrooms within the building are also available for park patrons not utilizing the building.

- Outdoor:
  Public Park space housing a prominent outdoor recreational amenity for all residents of the City of Fitchburg and specifically for the Nine Springs Neighborhood which include:

  - A playground area to contain separate equipment for ages 2-5 and 5-12 years old
  - Asphalt court for basketball, pickleball games or other court games
  - Social gathering spaces with seating including a firepit
  - A bike park which will have formed tracks that have various skill levels ranging from novice to expert. An additional asphalt park of the park will allow for all-wheels experience.
  - 25 onsite parking stalls for park users. Additional parking is available on Traceway Drive.

As part of the current project, it was conditionally approved by the Common Council on November 28th, 2023 to design and install footings and foundations needed to support the future construction of a covered structure to be located in the area over the proposed asphalt court running parallel to Traceway drive. The purpose of installing the footings/foundations at this point is to reduce the amount of replacement work that would be needed if/when a covered structure is installed in the future. The exposed piers will be designed to match the architectural character of the overall design of the project. The intent of the covered structure is to provide shelter over a multi-use hardcourt surface. The size of the structure is large enough to support basketball games on a high school regulation court but the overall intent is to also use the space for other events such as staged performances, farmers markets, neighborhood gatherings and pickleball games. Proposed images of the future structure and piers can be seen in this submittal.

The project will be built on an existing open parcel which currently contains an asphalt surface parking lot and a portion of the neighboring property asphalt parking lot and storm inlet. The parcel previously contained driveway and parking easements for each of these areas on the site but the easements were recently terminated on August 15, 20023 in a recorded agreement R-157-23. The existing storm inlet will be replaced as part of this project in its current location and the water will be piped though the site to terminate in the main storm sewer along Traceway Drive.

The project will meet redevelopment stormwater standards for the existing impervious area on site and development stormwater standards for all additional impervious areas. There will be two bioretention facilities located on opposite ends of the site that will collect as much surface and roof runoff as possible. These facilities will also connect into the storm sewer system along Traceway Drive.

Due to the openness of the existing lot the project will be built at one time and will not require any phasing.

The property is currently zoned P-R and will maintain its current zoning, we are asking for a conditional use to reduce the front yard setback from 25’-0” down to 10’-0” off the South property line to the building per the revision to section 22-564 of the City of Fitchburg zoning code. The reduction of the front set back allows the building to have more of presence along Traceway Drive and to maintain a requested fire access lane around the building.

In this submittal we are raising the elevation of the building up 2’-4” +/- to allow for a reduction of the amount of grade will be required to hauled off the site to match up grades along the street. The elevation raise will require a set of stairs and an ADA ramp to be installed at the South entrance to the building to maintain accessible entrances to all sides of the building. The access to the front doors off Traceway Drive will be approached from the East off the main spine, we feel this will provide an additional benefit by separating the main entrance from the traffic on the 8’-0” sidewalk that is required to be installed.

Enclosed are the following materials for the submittal:

ADR Application
Conditional Use Permit Application
Design Development Drawing Package
Covered structure & piers renderings
Proposed Exterior Materials Exhibit
Proposed Exterior Lighting Cut sheets
Responses from previous submittal with updated comments

If you have a questions or concerns about the submitted materials, please feel free to give me a call to discuss at 608-250-7511

Sincerely,

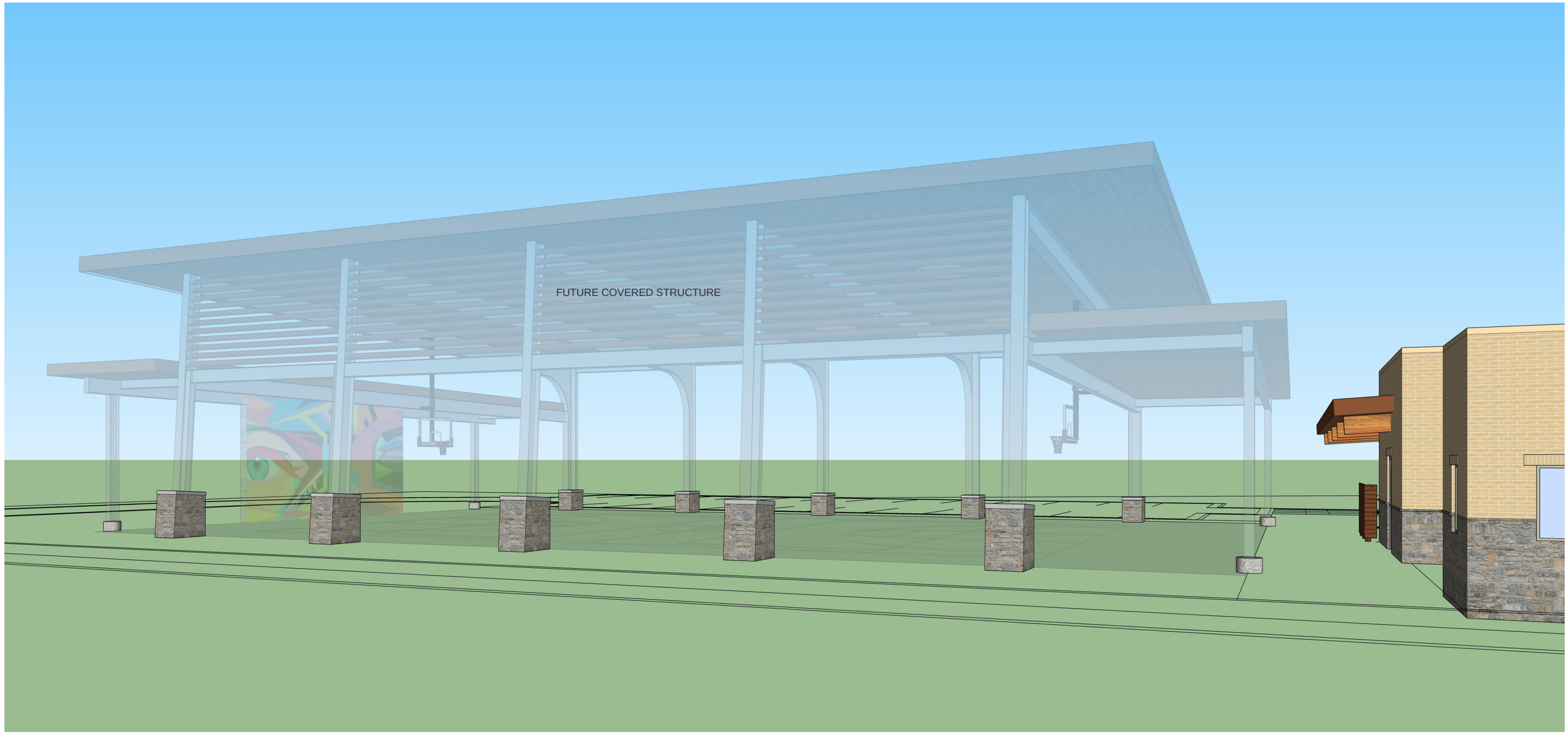
Mike Zuehlke, Architect
Senior Associate

Copied **Scott Endl**| City of Fitchburg Parks, Recreation & Forestry

Robert Stein| Emmons & Oliver Resources, Inc.

EA File Name: Y:\Madison Projects\2020 3139\203284 NFH Hub\1-Project Administration\6-Codes\AHJ Submittals\ADR CPU Resubmittal 12-12-23\NFH ADR Cover Letter - 2023.Docx

12-12-23



RENDERING OF COVERED STRUCTURE PIERS FROM TRACEWAY DRIVE

Engberg Anderson ARCHITECTS



RENDERING OF COVERED STRUCTURE PIERS FROM NORTH WEST

Engberg Anderson ARCHITECTS

12-12-23

PIERS:
3'-0"d x 2'-4"w x 3'-0"h
STONE CLAD

21'-0" typ.

APPROXIMATE FOOTING
SIZE @ EACH PIER
LOCATION - T.O. FOOTING
-4'-0" BELOW GRADE

7'-6"

10'-6"

BASKETBALL COURT 84' X 50'

FUTURE
HARDCOURT

15'-0"

PICKELBALL COURT

PICKELBALL COURT

15'-0"

7'-6"

10'-6"

PIERS:
3'-6"d x 2'-8"w x 4'-6"h
STONE CLAD

PIERS:
20" DIA.
CONCRETE

FUTURE HARDCOURT LAYOUT WITH PIERS

Engberg Anderson ARCHITECTS

NORTH FISH HATCHERY HUB

PHASE 1 - DESIGN DEVELOPMENT - SITE INFORMATION

Traceway Dr., Fitchburg

PROJECT

SEAL

CONSULTANTS

CIVIL

EMMONS & OLIVER RESOURCES, INC.
1334 DEWEY CT
MADISON, WI 53703
PH 608-839-4422

LANDSCAPE

EMMONS & OLIVER RESOURCES, INC.
1334 DEWEY CT
MADISON, WI 53703
PH 608-839-4422

ARCHITECTURAL

ENGBERG ANDERSON ARCHITECTS
305 W WASHINGTON AVE
MADISON, WI 53703
PH 608-250-0100

STRUCTURAL

ONEIDA TOTAL INTEGRATED ENTERPRISES
5100 EASTPARK BLVD, SUITE 300
MADISON, WI 53718
PH 608-243-6470

PLUMBING

HEIN ENGINEERING GROUP
17 APPLEGATE COURT, SUITE 200
MADISON, WI 53713
PH 608-288-9260

FIRE PROTECTION

HEIN ENGINEERING GROUP
17 APPLEGATE COURT, SUITE 200
MADISON, WI 53713
PH 608-288-9260

MECHANICAL

HEIN ENGINEERING GROUP
17 APPLEGATE COURT, SUITE 200
MADISON, WI 53713
PH 608-288-9260

ELECTRICAL

HEIN ENGINEERING GROUP
17 APPLEGATE COURT, SUITE 200
MADISON, WI 53713
PH 608-288-9260

DRAWINGS

C100	EXISTIN CONDITIONS
C110	DEMOLITION PLAN
C120	SITE PLAN
	SITE PHOTO METRICS
C121	DETAILED SITE PLAN
	PLAYGROUND LAYOUT PLAN
C122	DETAILED SITE PLAN
C130	OVER ALL GRADING PLAN
C131	DETAILED GRADING PLAN
C140	UTILITY PLAN
C500	EROSION CONTROL DETAILS
C501	CIVIL DETAILS
C502	CIVIL DETAILS
C503	STORMWATER DETAILS

L100	LANDSCAPE PLAN
L110	LANDSCAPE DETAILS

EXERIOR LIGHTING CUT SHEETS
EXTERIOR BUILDING LIGHTING CUT SHEET

G000	TITLE SHEET
A001	CODE CONFORMANCE
A101	FIRST FLOOR PLAN
A102	ROOF PLANS
A201	REFLECTED CEILING PLANS
A301	ENLARGED TOILET PLANS & ELEVATIONS
A401	EXTERIOR ELEVATIONS
A402	EXTERIOR ELEVATIONS
A403	BUILDING SECTIONS
A501	WALL SECTIONS
A502	WALL SECTIONS
A601	DOOR SCHEDULE, DETAILS & WALL TYPES
A701	FIRST FLOOR FINISH PLAN, SCHEDULE, & KEY
A801	INTERIOR ELEVATIONS

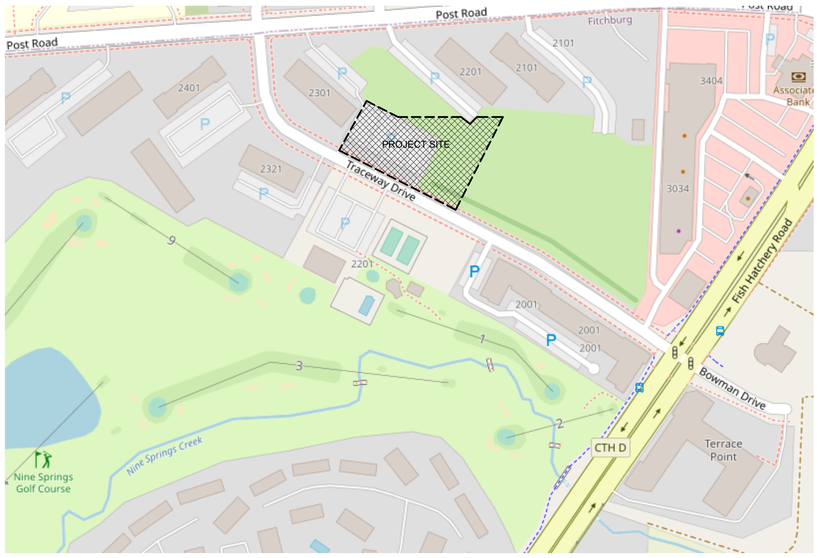
S001	STRUCTURAL NOTES
S002	STRUCTURAL SCHEDULES
S100	FOUNDATION PLAN
S101	LOW ROOF FRAMING PLAN
S102	HIGH ROOF FRAMING PLAN
S800	STRUCTURAL DETAILS

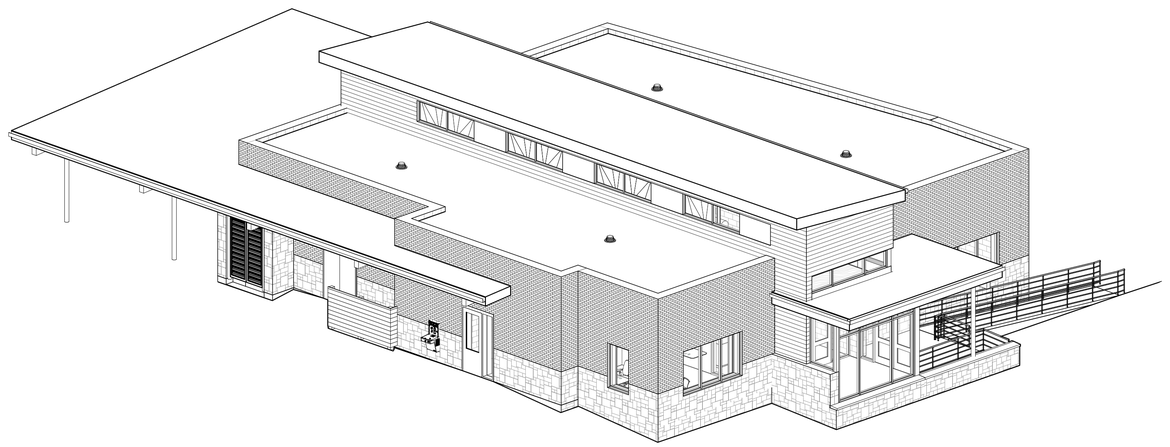
P100	FIRST FLOOR PLAN -PLUMBING UNDERGROUND
P101	FIRST FLOOR PLAN - PLUMBING

H100	FIRST FLOOR PLAN - HVAC
H101	FIRST FLOOR PLAN - HVAC RADIANT FLOOR PIPING

E100	FIRST FLOOR PLAN - ELECTRICAL LIGHTING
E101	FIRST FLOOR PLAN - ELECTRICAL POWER / LV
E102	FIRST FLOOR PLAN - SECURITY

SITE LOCATION MAP





NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

ISSUED FOR:

ADR / CUP Submittal	12-12-23

REVISION FOR:

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DRAWN BY Author

CHECKED BY Checker

TITLE SHEET

G000

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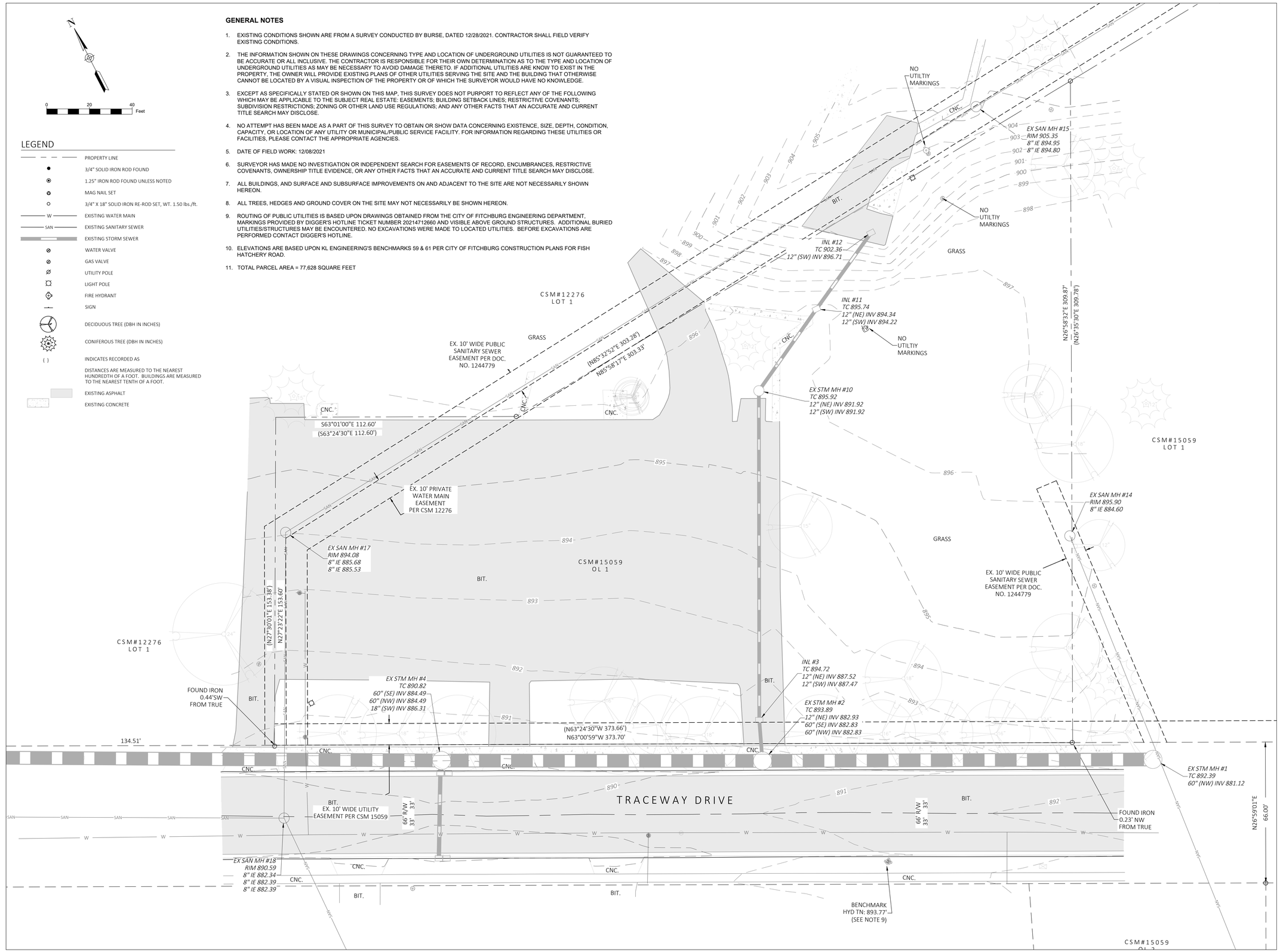
MILWAUKEE | MADISON | TUCSON | CHICAGO

LEGEND

- PROPERTY LINE
- 3/4" SOLID IRON ROD FOUND
- 1.25" IRON ROD FOUND UNLESS NOTED
- MAG NAIL SET
- 3/4" X 18" SOLID IRON RE-ROD SET, WT. 1.50 lbs./ft.
- W — EXISTING WATER MAIN
- SAN — EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- WATER VALVE
- GAS VALVE
- UTILITY POLE
- LIGHT POLE
- FIRE HYDRANT
- SIGN
- DECIDUOUS TREE (DBH IN INCHES)
- CONIFEROUS TREE (DBH IN INCHES)
- ( ) INDICATES RECORDED AS
- DISTANCES ARE MEASURED TO THE NEAREST HUNDREDTH OF A FOOT. BUILDINGS ARE MEASURED TO THE NEAREST TENTH OF A FOOT.
- EXISTING ASPHALT
- EXISTING CONCRETE

GENERAL NOTES

1. EXISTING CONDITIONS SHOWN ARE FROM A SURVEY CONDUCTED BY BURSE, DATED 12/28/2021. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
2. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOW TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL INSPECTION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS MAP, THIS SURVEY DOES NOT PURPORT TO REFLECT ANY OF THE FOLLOWING WHICH MAY BE APPLICABLE TO THE SUBJECT REAL ESTATE: EASEMENTS; BUILDING SETBACK LINES; RESTRICTIVE COVENANTS; SUBDIVISION RESTRICTIONS; ZONING OR OTHER LAND USE REGULATIONS; AND ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
4. NO ATTEMPT HAS BEEN MADE AS A PART OF THIS SURVEY TO OBTAIN OR SHOW DATA CONCERNING EXISTENCE, SIZE, DEPTH, CONDITION, CAPACITY, OR LOCATION OF ANY UTILITY OR MUNICIPAL/PUBLIC SERVICE FACILITY. FOR INFORMATION REGARDING THESE UTILITIES OR FACILITIES, PLEASE CONTACT THE APPROPRIATE AGENCIES.
5. DATE OF FIELD WORK: 12/08/2021
6. SURVEYOR HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE, OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
7. ALL BUILDINGS, AND SURFACE AND SUBSURFACE IMPROVEMENTS ON AND ADJACENT TO THE SITE ARE NOT NECESSARILY SHOWN HEREON.
8. ALL TREES, HEDGES AND GROUND COVER ON THE SITE MAY NOT NECESSARILY BE SHOWN HEREON.
9. ROUTING OF PUBLIC UTILITIES IS BASED UPON DRAWINGS OBTAINED FROM THE CITY OF FITCHBURG ENGINEERING DEPARTMENT, MARKINGS PROVIDED BY DIGGER'S HOTLINE TICKET NUMBER 20214712660 AND VISIBLE ABOVE GROUND STRUCTURES. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE TO LOCATED UTILITIES. BEFORE EXCAVATIONS ARE PERFORMED CONTACT DIGGER'S HOTLINE.
10. ELEVATIONS ARE BASED UPON KL ENGINEERING'S BENCHMARKS 59 & 61 PER CITY OF FITCHBURG CONSTRUCTION PLANS FOR FISH HATCHERY ROAD.
11. TOTAL PARCEL AREA = 77,628 SQUARE FEET



Engberg Anderson ARCHITECTS
MILWAUKEE | MADISON | TUCSON | CHICAGO

EOR water ecology community

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

ISSUED FOR:

ADR / CUP SUBMITTAL	12-12-23

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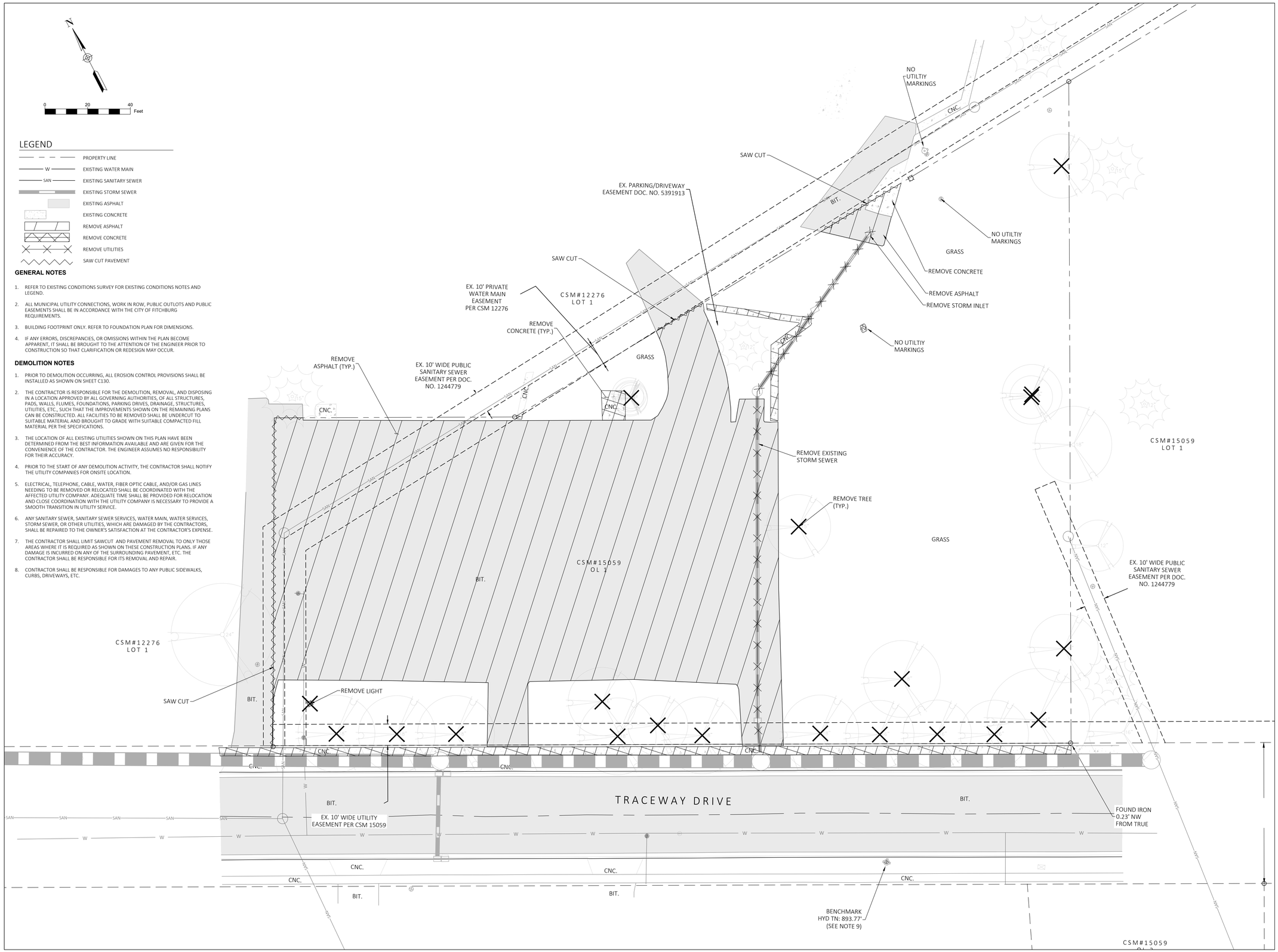
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EXISTING CONDITIONS

C100

P:\01052-0014 - FITCHBURG HUB\DRAWINGS\SHEETS PLAN\C100 EXISTING CONDITIONS.DWG

12 December 2023



GENERAL NOTES

1. REFER TO EXISTING CONDITIONS SURVEY FOR EXISTING CONDITIONS NOTES AND LEGEND.
2. ALL MUNICIPAL UTILITY CONNECTIONS, WORK IN ROW, PUBLIC OUTLOTS AND PUBLIC EASEMENTS SHALL BE IN ACCORDANCE WITH THE CITY OF FITCHBURG REQUIREMENTS.
3. BUILDING FOOTPRINT ONLY. REFER TO FOUNDATION PLAN FOR DIMENSIONS.
4. IF ANY ERRORS, DISCREPANCIES, OR OMISSIONS WITHIN THE PLAN BECOME APPARENT, IT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.

DEMOLITION NOTES

1. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL PROVISIONS SHALL BE INSTALLED AS SHOWN ON SHEET C130.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSING IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING DRIVES, DRAINAGE, STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
3. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.
4. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATION.
5. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE, AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
6. ANY SANITARY SEWER, SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
7. THE CONTRACTOR SHALL LIMIT SAWCUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS. IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO ANY PUBLIC SIDEWALKS, CURBS, DRIVEWAYS, ETC.

Engberg Anderson ARCHITECTS
MILWAUKEE | MADISON | TUCSON | CHICAGO

EOR water ecology community

NORTH FISH HATCHERY HUB

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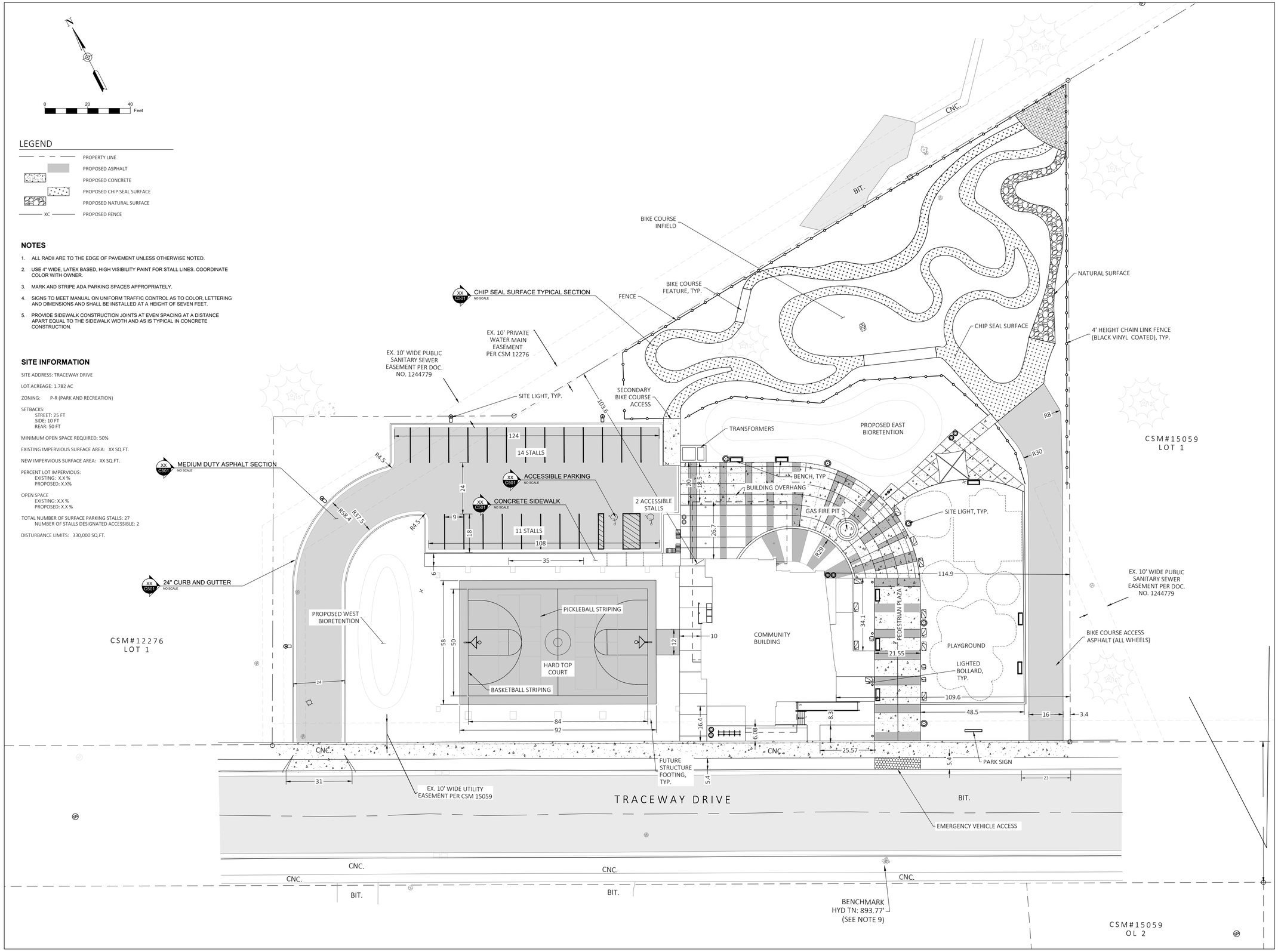
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DEMOLITION PLAN

C110

12 December 2023

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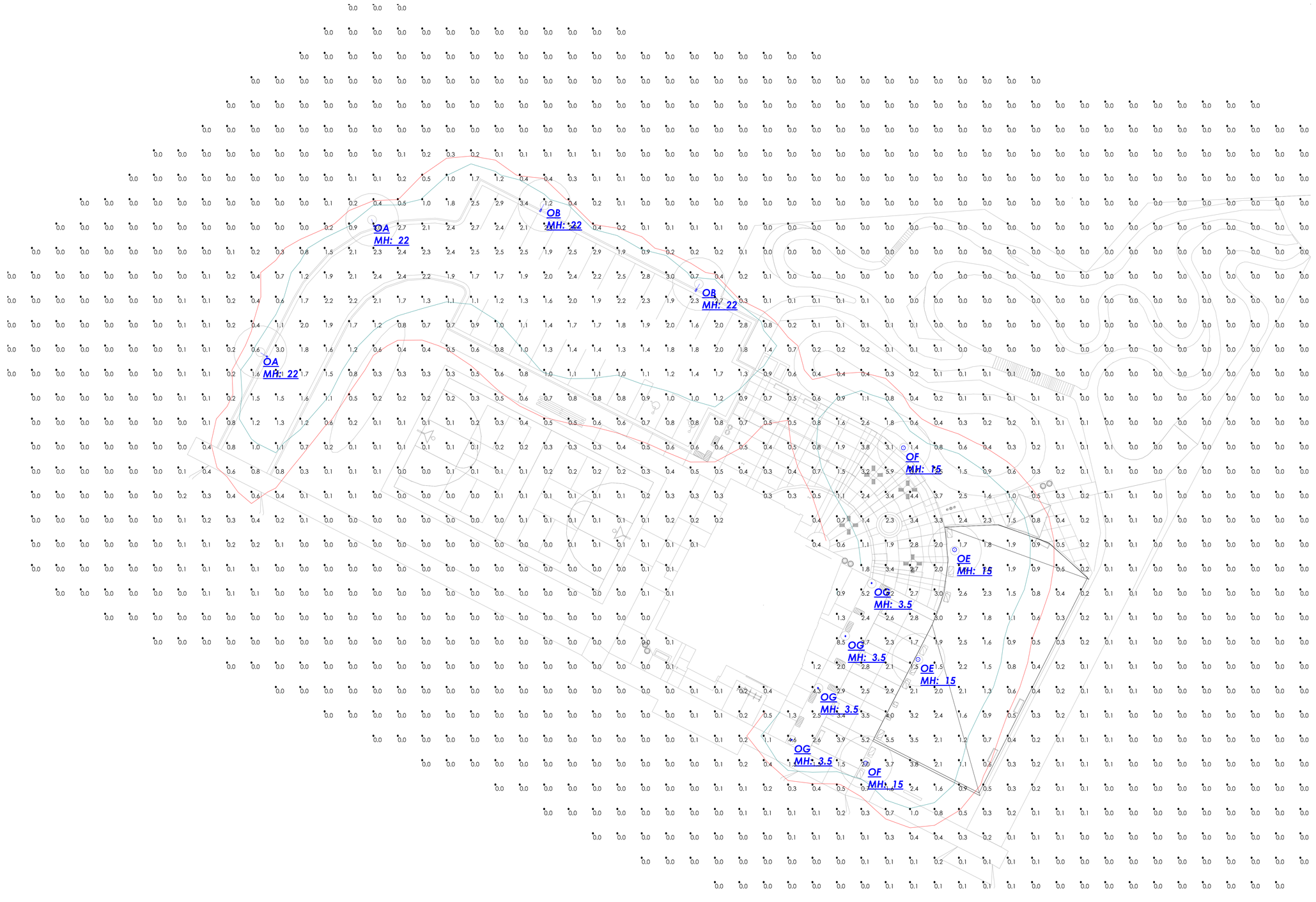
SITE PLAN

SCALE IN FEET

C120

12 December 2023

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Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CalcPts_1	Illuminance	Fc	0.35	8.5	0.0	N.A.	N.A.

Luminaire Schedule								
Symbol	Qty	Label	Manufacturer	Description	Arrangement	Lum. Lumens	Lum. Watts	LLF
	2	OA	MCGRAW	GLEON-SA1C-740-U-SL2-HSS	Single	6133	59	0.900
	2	OB	MCGRAW	GLEON-SA2C-740-U-T4FT-HSS	Single	10278	113	0.900
	2	OE	INVUE	ARB-B3-LED-D1-T5	Single	8511	86	0.900
	2	OF	INVUE	ARB-B3-LED-D1-T4	Single	8740	99	0.900
	4	OG	INVUE	ABB-B2-LED-D1-S	Single	1257	32	0.900

1. Standard Reflectance of 80/50/20 unless noted otherwise
2. Not a Construction Document, for Design purposes only
3. Standard indoor calc points @ 30" A.F.F. unless noted otherwise
4. Standard outdoor calc points @ Grade unless noted otherwise
5. Egress calc points @ 0" A.F.F.
6. Mlazgar Associates assumes no responsibility for installed light levels due to field conditions, etc.

MLAZGAR ASSOCIATES
16350 W. GLENDALE DR.
NEW BERLIN, WI 53151
(p) 414-943-1915
(f) 952-943-8088
www.mlazgar.com

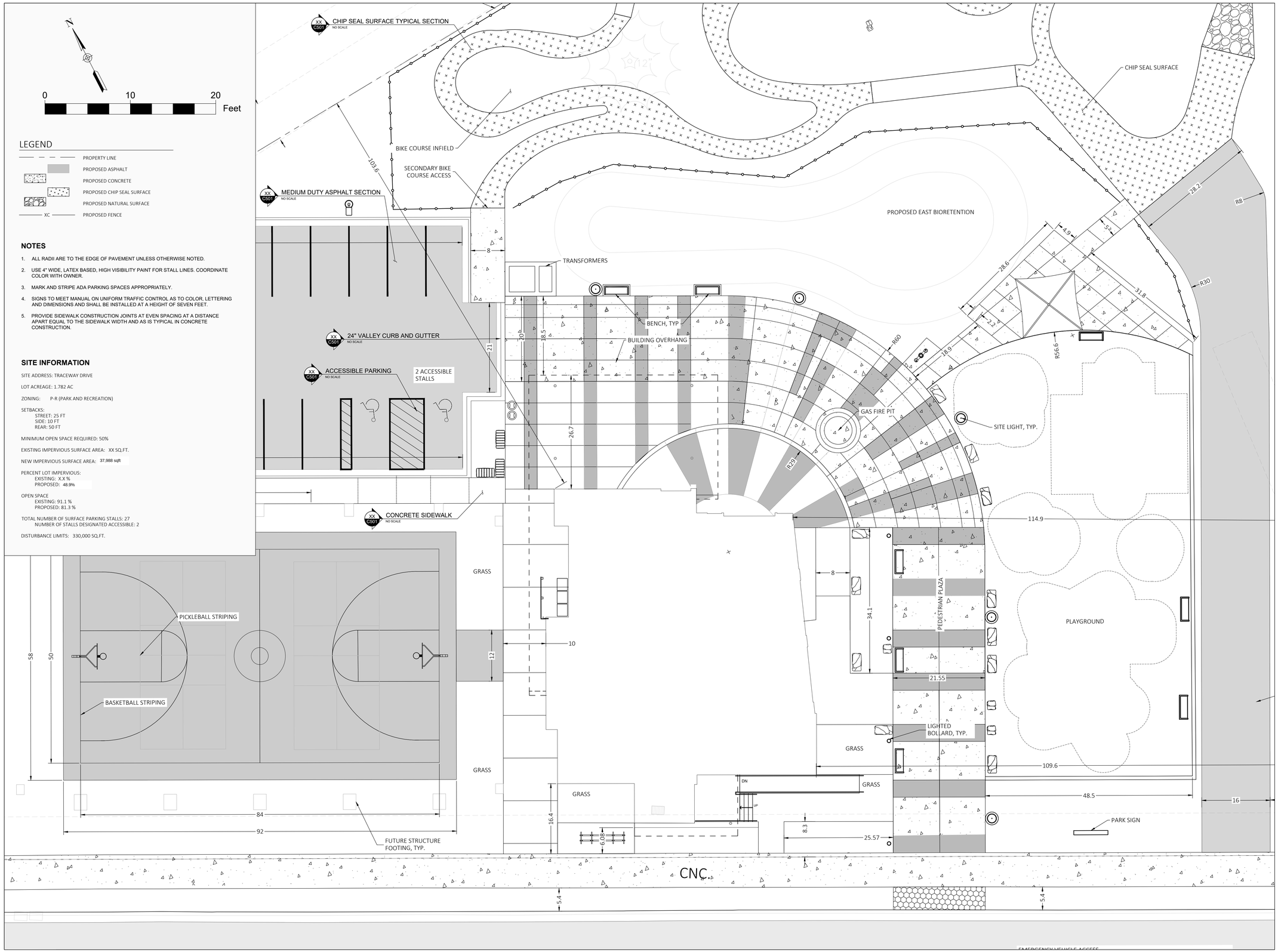
#	Date	Comments

Revisions

RLMA Project #:121989
Drawn By:MB
Date:10/20/2022
Scale:1"=15'-0"

PHOTOMETRIC SITE PLAN

FITCHBURG HUB
FITCHBURG, WI



LEGEND

- PROPERTY LINE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CHIP SEAL SURFACE
- PROPOSED NATURAL SURFACE
- XC — PROPOSED FENCE

NOTES

1. ALL RADII ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. USE 4" WIDE, LATEX BASED, HIGH VISIBILITY PAINT FOR STALL LINES. COORDINATE COLOR WITH OWNER.
3. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
4. SIGNS TO MEET MANUAL ON UNIFORM TRAFFIC CONTROL AS TO COLOR, LETTERING AND DIMENSIONS AND SHALL BE INSTALLED AT A HEIGHT OF SEVEN FEET.
5. PROVIDE SIDEWALK CONSTRUCTION JOINTS AT EVEN SPACING AT A DISTANCE APART EQUAL TO THE SIDEWALK WIDTH AND AS IS TYPICAL IN CONCRETE CONSTRUCTION.

SITE INFORMATION

SITE ADDRESS: TRACEWAY DRIVE

LOT ACREAGE: 1.782 AC

ZONING: P-R (PARK AND RECREATION)

SETBACKS:
- STREET: 25 FT
- SIDE: 10 FT
- REAR: 50 FT

MINIMUM OPEN SPACE REQUIRED: 50%

EXISTING IMPERVIOUS SURFACE AREA: XX SQ.FT.

NEW IMPERVIOUS SURFACE AREA: 37,988 sqft

PERCENT LOT IMPERVIOUS:
- EXISTING: X.X %
- PROPOSED: 48.9%

OPEN SPACE
- EXISTING: 91.1 %
- PROPOSED: 81.3 %

TOTAL NUMBER OF SURFACE PARKING STALLS: 27
- NUMBER OF STALLS DESIGNATED ACCESSIBLE: 2

DISTURBANCE LIMITS: 330,000 SQ.FT.

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

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NORTH FISH HATCHERY HUB

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DETAILED SITE PLAN

SCALE IN FEET
0 10 20 40

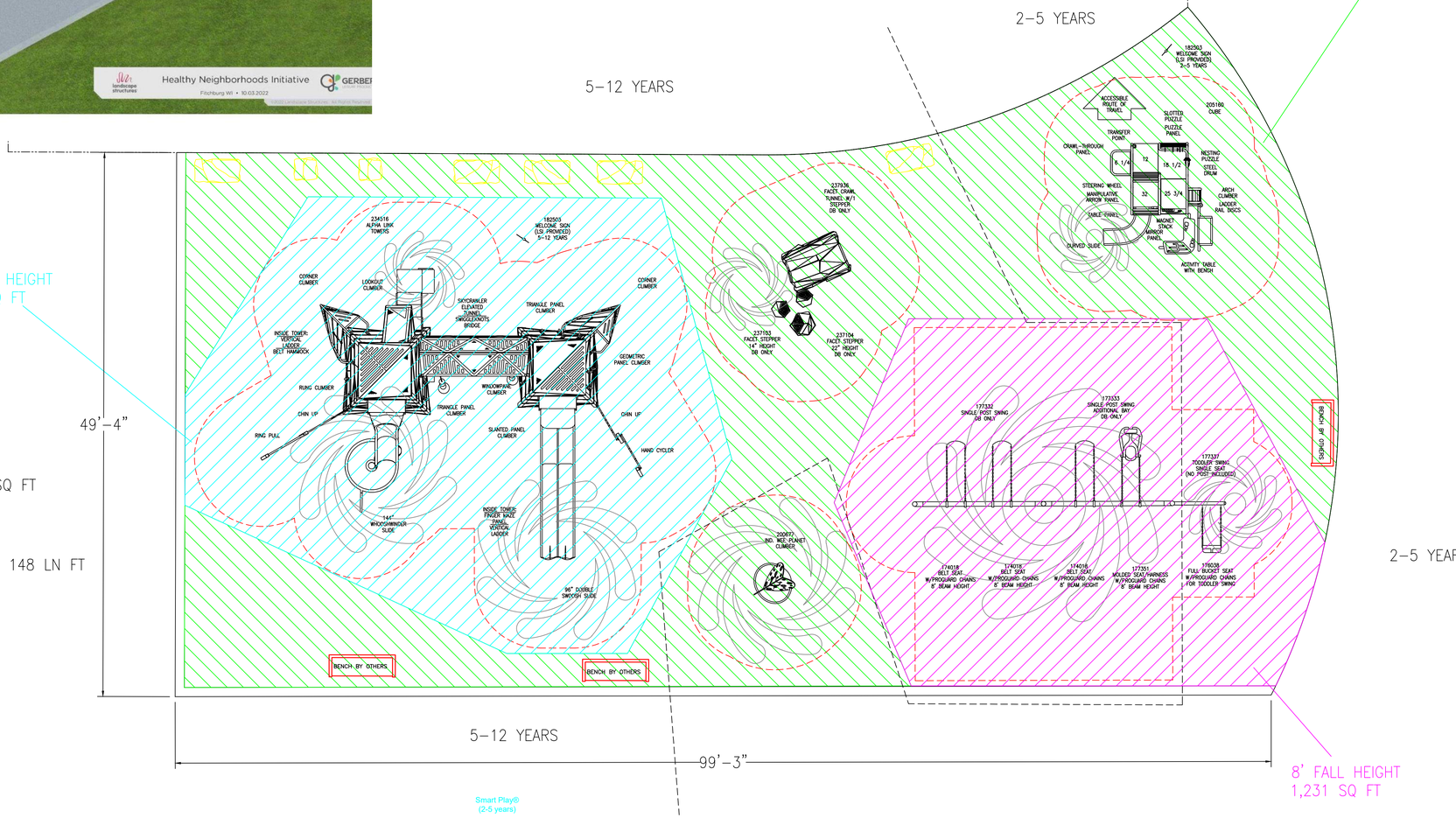
C121

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Playground Axon
10-6-22



SURFACING:
TOTAL PIP = 5,178 SQ FT
12' = 1,593 SQ FT
8' = 1,231 SQ FT
4' = 2,354 SQ FT
CONCRETE BORDER = 148 LN FT

Freestanding Play (5-12 years)

5-12 YEARS

TOTAL ELEVATED PLAY COMPONENTS	16		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	8	REQUIRED	8
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	10	REQUIRED	5
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	7	REQUIRED	7

Smart Play® (2-5 years)

2-5 YEARS

TOTAL ELEVATED PLAY COMPONENTS	9		
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	9	REQUIRED	5
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	6	REQUIRED	3
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	6	REQUIRED	6

landscape structures

IPEMA CERTIFIED to ASTM F1487

The play components identified on this plan are IPEMA certified. (Unless model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org

THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 2-12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURERS OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SUBSURFACE MUST BE WELL DRAINED. IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/8" TO 1/4" PER FOOT TO A STORM SEWER OR A "FRENCH DRAIN".

AREA OF ACCESSIBLE/PROTECTIVE SURFACING (POURED-IN-PLACE SUGGESTED) 5,178 SQ FT

IT IS THE MANUFACTURER'S OPINION AND INTENT THAT THE LAYOUT OF THESE COMPONENTS CONFORM WITH THE U.S. CONSUMER PRODUCT SAFETY COMMISSION'S (CPSC) "HANDBOOK FOR PUBLIC PLAYGROUND SAFETY".

DESIGNED BY:
KLP

COPYRIGHT: 10/2/22
LANDSCAPE STRUCTURES, INC.
601 7th STREET SOUTH - P.O. BOX 198
DELANO, MINNESOTA 55328
PH: 1-800-328-0035 FAX: 1-763-972-6091

Date	Previous Drawing #	Initials

PLAYGROUND LAYOUT PLAN

SCALE: IN FEET
0' 1' 5' 10'

Healthy Neighboorhoods Initiative
Fitchburg, WI

Gerber Leisure Products, Inc.
Kyla Reamon

SYSTEM TYPE:
Multi-System

DRAWING #:
22100301-01

ISO 14001:2015 CERTIFIED
ISO 9001:2015 Certified

LEGEND

- PROPERTY LINE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CHIP SEAL SURFACE
- PROPOSED NATURAL SURFACE
- XC — PROPOSED FENCE

NOTES

1. ALL RADII ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
2. USE 4" WIDE, LATEX BASED, HIGH VISIBILITY PAINT FOR STALL LINES. COORDINATE COLOR WITH OWNER.
3. MARK AND STRIPE ADA PARKING SPACES APPROPRIATELY.
4. SIGNS TO MEET MANUAL ON UNIFORM TRAFFIC CONTROL AS TO COLOR, LETTERING AND DIMENSIONS AND SHALL BE INSTALLED AT A HEIGHT OF SEVEN FEET.
5. PROVIDE SIDEWALK CONSTRUCTION JOINTS AT EVEN SPACING AT A DISTANCE APART EQUAL TO THE SIDEWALK WIDTH AND AS IS TYPICAL IN CONCRETE CONSTRUCTION.

SITE INFORMATION

SITE ADDRESS: TRACEWAY DRIVE

LOT ACREAGE: 1.782 AC

ZONING: P-R (PARK AND RECREATION)

SETBACKS:
- STREET: 25 FT
- SIDE: 10 FT
- REAR: 50 FT

MINIMUM OPEN SPACE REQUIRED: 50%

EXISTING IMPERVIOUS SURFACE AREA: XX SQ.FT.

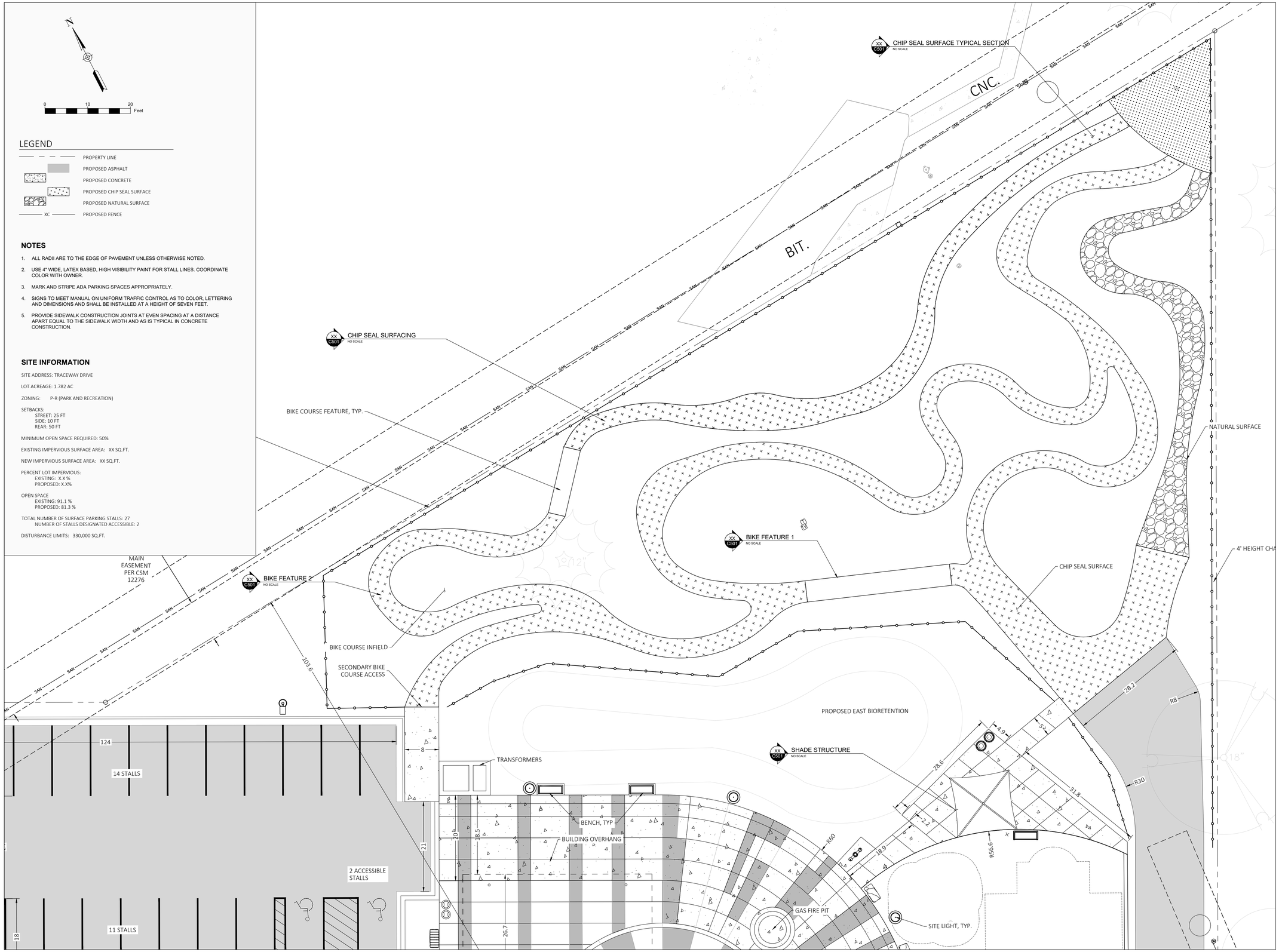
NEW IMPERVIOUS SURFACE AREA: XX SQ.FT.

PERCENT LOT IMPERVIOUS:
- EXISTING: X.X %
- PROPOSED: X.X%

OPEN SPACE
- EXISTING: 91.1 %
- PROPOSED: 81.3 %

TOTAL NUMBER OF SURFACE PARKING STALLS: 27
- NUMBER OF STALLS DESIGNATED ACCESSIBLE: 2

DISTURBANCE LIMITS: 330,000 SQ.FT.



Engberg Anderson ARCHITECTS
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NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
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Fitchburg, Wisconsin 53711-5318

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DETAILED SITE PLAN

SCALE IN FEET
0 5 10 20

C122

12 December 2023

P:\01052-0014 - FITCHBURG HUB\DRAWINGS\SHEETS PLAN\C120 SITE PLAN.DWG

LEGEND

- PROPERTY LINE
- W — EXISTING WATER MAIN
- SAN — EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- 895 — EXISTING MAJOR CONTOUR
- 896 — EXISTING MINOR CONTOUR
- 895 — PROPOSED MINOR CONTOUR
- 896 — PROPOSED MAJOR CONTOUR
- SILT FENCE
- CLASS I, TYPE A URBAN EROSION CONTROL MAT
- CLASS II, TYPE C EROSION CONTROL MAT
- CONSTRUCTION ENTRANCE
- DITCH CHECK
- STRUCTURE INLET PROTECTION
- LIMITS OF DISTURBANCE

GENERAL NOTES

1. EXISTING CONDITIONS SHOWN ARE FROM A SURVEY CONDUCTED BY BURSE ENGINEERING, INC., DATED 12/28/2022. EMMONS & OLIVIER RESOURCES (EOR) TAKES NO RESPONSIBILITY FOR ACCURACY OF ANY EXISTING CONDITIONS ELEVATIONS OR BENCHMARKS.
2. ALL WORK IN THE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH CITY OF FITCHBURG STANDARDS.
3. NO SITE GRADING SHALL BE PERFORMED OUTSIDE OF THE SILT FENCE / GRADING LIMITS / PROPERTY LINE / EASEMENTS EXCEPT AS NOTED.
4. THIS PROJECT HAS BEEN DESIGNED AND MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF FITCHBURG STANDARDS AND DEPARTMENT OF SAFETY AND PUBLIC SERVICES STANDARDS.

GRADING NOTES

1. ALL PROPOSED GRADES SHOWN ARE FINISHED GRADES. CONTRACTOR SHALL VERIFY ALL GRADES TO MAKE SURE ALL AREAS DRAIN PROPERLY AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SEEDING AND MULCHING.
3. ALL LANDSCAPE AREAS SHALL BE RESTORED WITH A MINIMUM OF 6" OF TOPSOIL.

CONSTRUCTION SCHEDULE

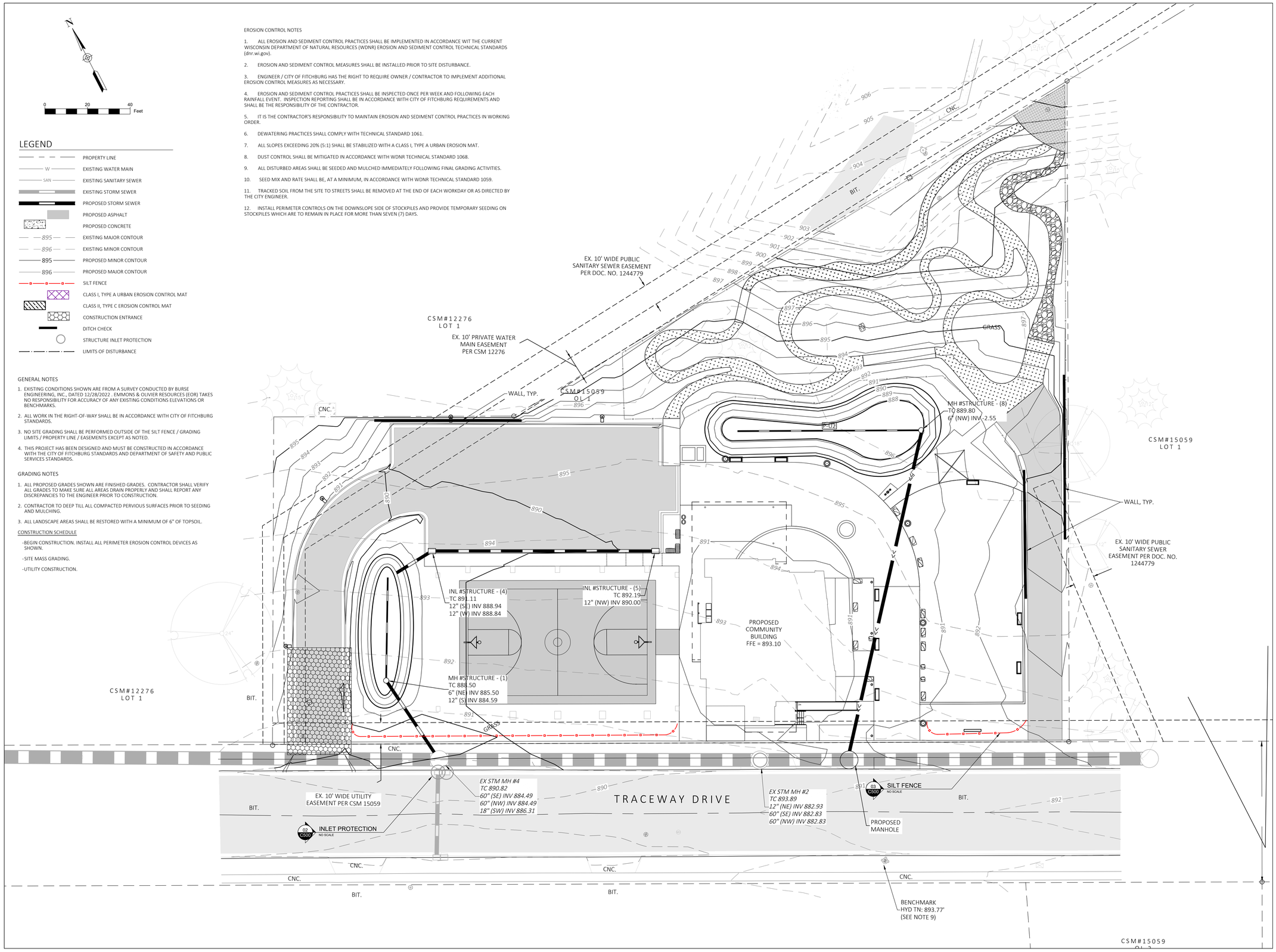
-BEGIN CONSTRUCTION. INSTALL ALL PERIMETER EROSION CONTROL DEVICES AS SHOWN.

-SITE MASS GRADING.

-UTILITY CONSTRUCTION.

EROSION CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IMPLEMENTED IN ACCORDANCE WIT THE CURRENT WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS (dnr.wi.gov).
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.
3. ENGINEER / CITY OF FITCHBURG HAS THE RIGHT TO REQUIRE OWNER / CONTRACTOR TO IMPLEMENT ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY.
4. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSPECTED ONCE PER WEEK AND FOLLOWING EACH RAINFALL EVENT. INSPECTION REPORTING SHALL BE IN ACCORDANCE WITH CITY OF FITCHBURG REQUIREMENTS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION AND SEDIMENT CONTROL PRACTICES IN WORKING ORDER.
6. DEWATERING PRACTICES SHALL COMPLY WITH TECHNICAL STANDARD 1061.
7. ALL SLOPES EXCEEDING 20% (5:1) SHALL BE STABILIZED WITH A CLASS I, TYPE A URBAN EROSION MAT.
8. DUST CONTROL SHALL BE MITIGATED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1068.
9. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING FINAL GRADING ACTIVITIES.
10. SEED MIX AND RATE SHALL BE, AT A MINIMUM, IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059.
11. TRACKED SOIL FROM THE SITE TO STREETS SHALL BE REMOVED AT THE END OF EACH WORKDAY OR AS DIRECTED BY THE CITY ENGINEER.
12. INSTALL PERIMETER CONTROLS ON THE DOWNSLOPE SIDE OF STOCKPILES AND PROVIDE TEMPORARY SEEDING ON STOCKPILES WHICH ARE TO REMAIN IN PLACE FOR MORE THAN SEVEN (7) DAYS.



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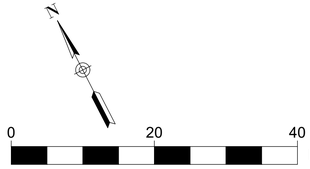
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CHECKED BY	RS

OVERALL GRADING PLAN

C130

12 December 2023

P:\01052-0014 - FITCHBURG HUB\DRAWINGS\SHEETS PLAN\C130 GRADING PLAN.DWG



LEGEND

- PROPERTY LINE
- W — EXISTING WATER MAIN
- SAN — EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED ASPHALT
- PROPOSED CONCRETE
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2. CONTRACTOR TO DEEP TILL ALL COMPACTED PERVIOUS SURFACES PRIOR TO SEEDING AND MULCHING.
3. ALL LANDSCAPE AREAS SHALL BE RESTORED WITH A MINIMUM OF 6" OF TOPSOIL.

CONSTRUCTION SCHEDULE

-BEGIN CONSTRUCTION. INSTALL ALL PERIMETER EROSION CONTROL DEVICES AS SHOWN.

-SITE MASS GRADING.

-UTILITY CONSTRUCTION.

EROSION CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IMPLEMENTED IN ACCORDANCE WIT THE CURRENT WISCONSIN DEPARTMENT OF NATURAL RESOURCES (WDNR) EROSION AND SEDIMENT CONTROL TECHNICAL STANDARDS (dnr.wi.gov).
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5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION AND SEDIMENT CONTROL PRACTICES IN WORKING ORDER.
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9. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING FINAL GRADING ACTIVITIES.
10. SEED MIX AND RATE SHALL BE, AT A MINIMUM, IN ACCORDANCE WITH WDNR TECHNICAL STANDARD 1059.
11. TRACKED SOIL FROM THE SITE TO STREETS SHALL BE REMOVED AT THE END OF EACH WORKDAY OR AS DIRECTED BY THE CITY ENGINEER.
12. INSTALL PERIMETER CONTROLS ON THE DOWNSLOPE SIDE OF STOCKPILES AND PROVIDE TEMPORARY SEEDING ON STOCKPILES WHICH ARE TO REMAIN IN PLACE FOR MORE THAN SEVEN (7) DAYS.

EX. 10' WIDE PUBLIC SANITARY SEWER EASEMENT PER DOC. NO. 1244779

EX. 10' PRIVATE WATER MAIN EASEMENT PER CSM 12276

WALL, TYP.

CSM#15059 OL 1

CNC.

BIT.

GRASS

MH STRUCTURE - (8)
TC 889.80
6" (NW) INV -2.55

P-U2

906 905 904 903 902 901 900 899 898 897 896 895 894 893 892 891 890 889 888

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DETAILED GRADING PLAN

C131

12 December 2023

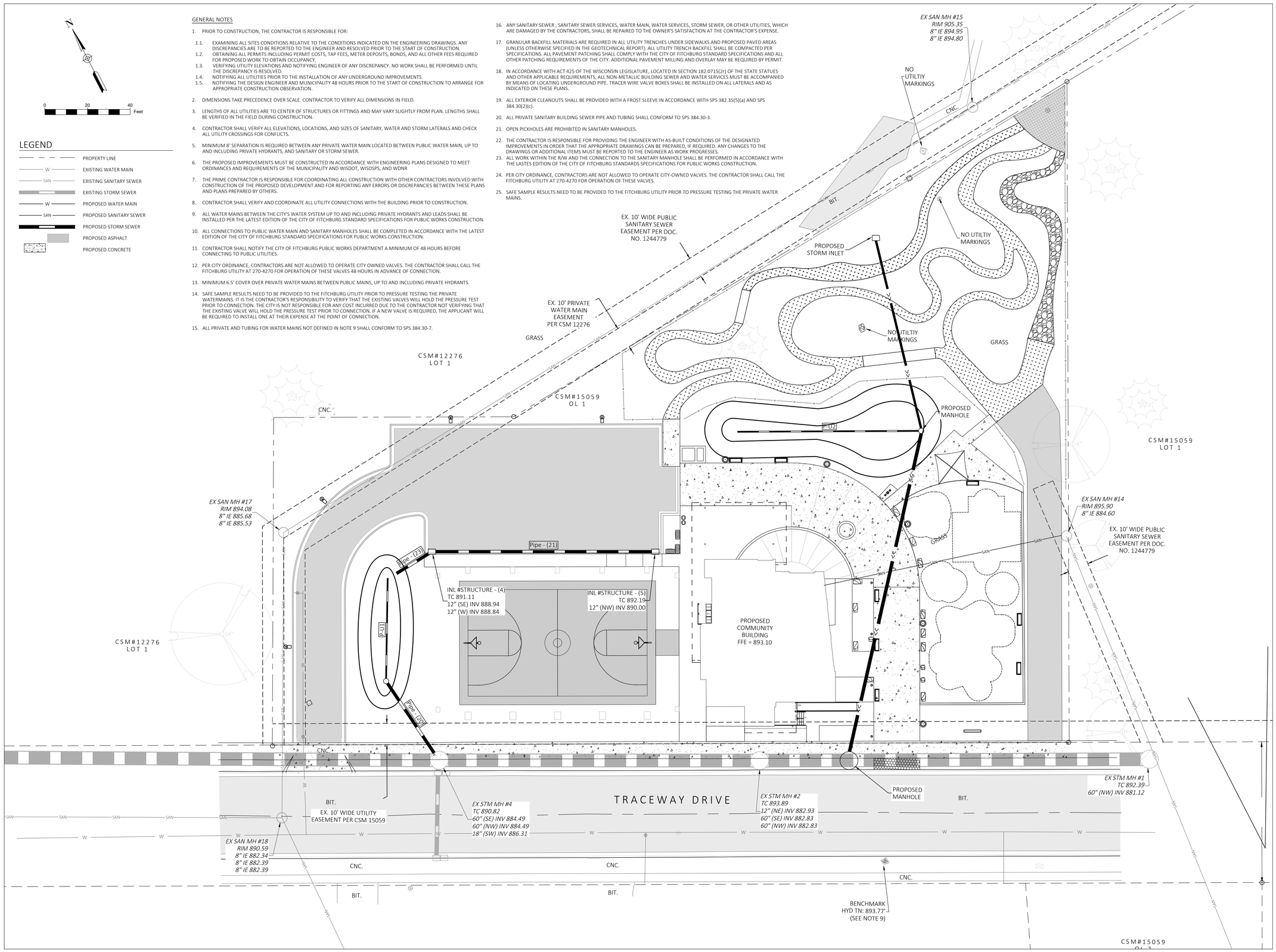
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LEGEND

- PROPERTY LINE
- W — EXISTING WATER MAIN
- SAN — EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- W — PROPOSED WATER MAIN
- SAN — PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED ASPHALT
- PROPOSED CONCRETE

GENERAL NOTES

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR:
   - 1.1. EXAMINING ALL SITES CONDITIONS RELATIVE TO THE CONDITIONS INDICATED ON THE ENGINEERING DRAWINGS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER AND RESOLVED PRIOR TO THE START OF CONSTRUCTION.
   - 1.2. OBTAINING ALL PERMITS INCLUDING PERMIT COSTS, TAP FEES, METER DEPOSITS, BONDS, AND ALL OTHER FEES REQUIRED FOR PROPOSED WORK TO OBTAIN OCCUPANCY.
   - 1.3. VERIFYING UTILITY ELEVATIONS AND NOTIFYING ENGINEER OF ANY DISCREPANCY. NO WORK SHALL BE PERFORMED UNTIL THE DISCREPANCY IS RESOLVED.
   - 1.4. NOTIFYING ALL UTILITIES PRIOR TO THE INSTALLATION OF ANY UNDERGROUND IMPROVEMENTS.
   - 1.5. NOTIFYING THE DESIGN ENGINEER AND MUNICIPALITY 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR APPROPRIATE CONSTRUCTION OBSERVATION.
2. DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
3. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS SHALL BE VERIFIED IN THE FIELD DURING CONSTRUCTION.
4. CONTRACTOR SHALL VERIFY ALL ELEVATIONS, LOCATIONS, AND SIZES OF SANITARY, WATER AND STORM LATERALS AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS.
5. MINIMUM 8' SEPARATION IS REQUIRED BETWEEN ANY PRIVATE WATER MAIN LOCATED BETWEEN PUBLIC WATER MAIN, UP TO AND INCLUDING PRIVATE HYDRANTS, AND SANITARY OR STORM SEWER.
6. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH ENGINEERING PLANS DESIGNED TO MEET ORDINANCES AND REQUIREMENTS OF THE MUNICIPALITY AND WISDOT, WISDSPS, AND WDNR
7. THE PRIME CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION WITH OTHER CONTRACTORS INVOLVED WITH CONSTRUCTION OF THE PROPOSED DEVELOPMENT AND FOR REPORTING ANY ERRORS OR DISCREPANCIES BETWEEN THESE PLANS AND PLANS PREPARED BY OTHERS.
8. CONTRACTOR SHALL VERIFY AND COORDINATE ALL UTILITY CONNECTIONS WITH THE BUILDING PRIOR TO CONSTRUCTION.
9. ALL WATER MAINS BETWEEN THE CITY'S WATER SYSTEM UP TO AND INCLUDING PRIVATE HYDRANTS AND LEADS SHALL BE INSTALLED PER THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
10. ALL CONNECTIONS TO PUBLIC WATER MAIN AND SANITARY MANHOLES SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF FITCHBURG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
11. CONTRACTOR SHALL NOTIFY THE CITY OF FITCHBURG PUBLIC WORKS DEPARTMENT A MINIMUM OF 48 HOURS BEFORE CONNECTING TO PUBLIC UTILITIES.
12. PER CITY ORDINANCE, CONTRACTORS ARE NOT ALLOWED TO OPERATE CITY OWNED VALVES. THE CONTRACTOR SHALL CALL THE FITCHBURG UTILITY AT 270-4270 FOR OPERATION OF THESE VALVES 48 HOURS IN ADVANCE OF CONNECTION.
13. MINIMUM 6.5' COVER OVER PRIVATE WATER MAINS BETWEEN PUBLIC MAINS, UP TO AND INCLUDING PRIVATE HYDRANTS.
14. SAFE SAMPLE RESULTS NEED TO BE PROVIDED TO THE FITCHBURG UTILITY PRIOR TO PRESSURE TESTING THE PRIVATE WATERMAINS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE EXISTING VALVES WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. THE CITY IS NOT RESPONSIBLE FOR ANY COST INCURRED DUE TO THE CONTRACTOR NOT VERIFYING THAT THE EXISTING VALVE WILL HOLD THE PRESSURE TEST PRIOR TO CONNECTION. IF A NEW VALVE IS REQUIRED, THE APPLICANT WILL BE REQUIRED TO INSTALL ONE AT THEIR EXPENSE AT THE POINT OF CONNECTION.
15. ALL PRIVATE AND TUBING FOR WATER MAINS NOT DEFINED IN NOTE 9 SHALL CONFORM TO SPS 384.30-7.
16. ANY SANITARY SEWER , SANITARY SEWER SERVICES, WATER MAIN, WATER SERVICES, STORM SEWER, OR OTHER UTILITIES, WHICH ARE DAMAGED BY THE CONTRACTORS, SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE.
17. GRANULAR BACKFILL MATERIALS ARE REQUIRED IN ALL UTILITY TRENCHES UNDER SIDEWALKS AND PROPOSED PAVED AREAS (UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL REPORT). ALL UTILITY TRENCH BACKFILL SHALL BE COMPACTED PER SPECIFICATIONS. ALL PAVEMENT PATCHING SHALL COMPLY WITH THE CITY OF FITCHBURG STANDARD SPECIFICATIONS AND ALL OTHER PATCHING REQUIREMENTS OF THE CITY. ADDITIONAL PAVEMENT MILLING AND OVERLAY MAY BE REQUIRED BY PERMIT.
18. IN ACCORDANCE WITH ACT 425 OF THE WISCONSIN LEGISLATURE, LOCATED IN SECTION 182.0715(2r) OF THE STATE STATUES AND OTHER APPLICABLE REQUIREMENTS, ALL NON-METALLIC BUILDING SEWER AND WATER SERVICES MUST BE ACCOMPANIED BY MEANS OF LOCATING UNDERGROUND PIPE. TRACER WIRE VALVE BOXES SHALL BE INSTALLED ON ALL LATERALS AND AS INDICATED ON THESE PLANS.
19. ALL EXTERIOR CLEANOUTS SHALL BE PROVIDED WITH A FROST SLEEVE IN ACCORDANCE WITH SPS 382.35(5)(a) AND SPS 384.30(2)(c).
20. ALL PRIVATE SANITARY BUILDING SEWER PIPE AND TUBING SHALL CONFORM TO SPS 384.30-3.
21. OPEN PICKHOLES ARE PROHIBITED IN SANITARY MANHOLES.
22. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ENGINEER WITH AS-BUILT CONDITIONS OF THE DESIGNATED IMPROVEMENTS IN ORDER THAT THE APPROPRIATE DRAWINGS CAN BE PREPARED, IF REQUIRED. ANY CHANGES TO THE DRAWINGS OR ADDITIONAL ITEMS MUST BE REPORTED TO THE ENGINEER AS WORK PROGRESSES.
23. ALL WORK WITHIN THE R/W AND THE CONNECTION TO THE SANITARY MANHOLE SHALL BE PERFORMED IN ACCORDANCE WITH THE LASTES EDITION OF THE CITY OF FITCHBURG STANDARDS SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
24. PER CITY ORDINANCE, CONTRACTORS ARE NOT ALLOWED TO OPERATE CITY-OWNED VALVES. THE CONTRACTOR SHALL CALL THE FITCHBURG UTILITY AT 270-4270 FOR OPERATION OF THESE VALVES.
25. SAFE SAMPLE RESULTS NEED TO BE PROVIDED TO THE FITCHBURG UTILITY PRIOR TO PRESSURE TESTING THE PRIVATE WATER MAINS.



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UTILITY PLAN

C140

12 December 2023

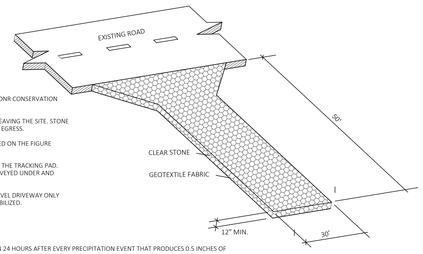
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MATERIAL NOTES

1. THE AGGREGATE FOR TRACKING PAD SHALL BE 3-6" CLEAR STONE.
2. THE TRACKING PAD SHALL BE UNDERLAIN WITH A WDOT TYPE HR GEOTEXTILE FABRIC.

INSTALLATION NOTES

1. INSTALLATION SHALL CONFORM WITH THE REQUIREMENTS OF WDNR CONSERVATION PRACTICE STANDARD 1057.
2. THE TRACKING PAD SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE SITE. STONE TRACKING PAD SHALL BE USED AT ALL POINTS OF CONSTRUCTION EGRESS.
3. DIMENSIONS OF THE TRACKING PAD SHALL BE MINIMUM AS NOTED ON THE FIGURE ABOVE.
4. SURFACE WATER SHALL BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY FROM TRACKING PADS OR CONVEYED UNDER AND AROUND THEM USING CULVERTS OR OTHER PRACTICES.
5. TRACKING PAD SHALL BE REMOVED OR INCORPORATED INTO GRAVEL DRIVEWAY ONLY AFTER CONSTRUCTION IS COMPLETE AND THE SITE HAS BEEN STABILIZED.



INSPECTION & MAINTENANCE NOTES

1. STONE TRACKING PADS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD.
2. ADDITIONAL AGGREGATE SHALL BE PLACED IF THE TRACKING PAD BECOMES BURIED OR IF SEDIMENT IS NOT BEING REMOVED EFFECTIVELY FROM THE VEHICLE TIRES.
3. A MINIMUM 30-FEET WIDE BY 50-FEET LONG BY 12-INCH THICK PAD SHALL BE MAINTAINED AT ALL TIMES.
4. THE TRACKING PAD PERFORMANCE SHALL BE MAINTAINED BY SCRAPING OR TOP-DRESSING WITH ADDITIONAL AGGREGATE.
5. ANY SEDIMENT TRACKED ONTO A PUBLIC OR PRIVATE ROAD SHOULD BE REMOVED BY STREET CLEANING AT THE END OF EACH WORKING DAY.
6. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION FOR SITE CONDITIONS.

01 C500 STONE TRACKING PAD

No Scale

INSTALLATION NOTES

1. REMOVE GRATE FROM THE DRAINAGE STRUCTURE.
2. CLEAN STONE AND DIRT FROM LEDGE (LIP) OF DRAINAGE STRUCTURE.
3. DROP THE INLET FILTER THROUGH THE CLEAN OPENING SUCH THAT THE HANGERS REST FIRMLY ON THE LIP OF THE STRUCTURE.
4. REPLACE THE GRATE AND CONFIRM IT IS NOT ELEVATED MORE THAN 1/8".

MAINTENANCE NOTES

1. EMPTY THE SEDIMENT BAG IF IT IS MORE THAN HALF FILLED WITH SEDIMENT AND DEBRIS.
2. REMOVE THE GRATE, ENGAGE THE LIFTING POINTS, AND LIFT FILTER FROM THE DRAINAGE STRUCTURE.
3. DISPOSE OF SEDIMENT AND DEBRIS AS DIRECTED BY THE ENGINEER OR MAINTENANCE CONTRACT.
4. ALTERNATIVELY, AN INDUSTRIAL VACUUM CAN BE USED TO COLLECT SEDIMENT FROM THE FILTER BAG.

(HB) HYBRID FILTER BAG SPECIFICATIONS:

Woven and Non-Woven Geotextile Fiber Bag Properties (Minimum Average Roll Values)			
PROPERTY	TEST METHOD	WOVEN (GS70B)	NON WOVEN (GN90)
TENSILE STRENGTH	ASTM D4632	350 x 225 lbs	180 lbs
ELONGATION	ASTM D4632	20% x 15%	50%
CBR PUNCTURE	ASTM D6241	1000 lbs	45 lbs
TRAPEZOIDAL TEAR	ASTM D4533	110 x 75 lbs	45 lbs
UV RESISTANCE	ASTM D4355	90%	70%
OPENING SIZE (AOS)	ASTM D4751	20 US STD SIEVE	40 US STD SIEVE
PERMITTIVITY	ASTM D4491	1.5 sec^{-1}	2.0 sec^{-1}
WATER FLOW RATE	ASTM D4491	200 gal/min/ft^2	140 gal/min/ft^2
MINIMUM FILTER BAG VOLUME		2 CUBIC FT	

CATCH-I-T INLET FILTER (Temporary Inlet Protection)

Neenah Casting	Inlet Type	Grate Size	Opening Size	Bag Cap (ft^3)	Flow Ratings (CFS)		ADS P/N
					HB (Hybrid Bag)	Bypass	
3067	Curb Box	35.25 x 17.75	33.0 x 15.0	4.4	2.0	5.8	62LCBEXTHB
3246A	Curb Box	35.75 x 23.875	33.5 x 21.0	4.2	1.1	3.3	62LCB3624HB
3030	Square/Rect (SQ)	23 x 16	20.5 x 13.5	1.6	0.7	2.2	62MCB2316HB
3067-C	Square/Rect (SQ)	35.25 x 17.75	33 x 15	3.2	1.0	5.2	62LSQ3618HB
R-2501	Round (RD)	~26	~24	2.3	0.8	5.2	62MRD26HB
R-1772/2560	Round (RD)	22.25-23.5	20.5-21	1.5	0.6	4.6	62MRD22HB

02 C500 INLET PROTECTION, FRAMED (FLEXSTORM CATCH-IT)

No Scale

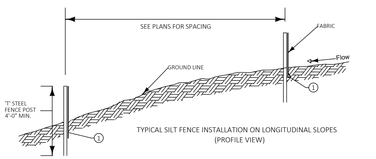
MATERIAL NOTES

1. GEOTEXTILE FABRIC SHALL BE WOVEN AND SHALL CONFORM TO THE MATERIAL REQUIREMENTS LISTED IN SECTION 628 OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, 2021 EDITION.

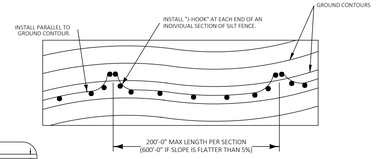
INSTALLATION NOTES

1. INSTALLATION SHALL CONFORM WITH THE REQUIREMENTS OF WDNR CONSERVATION PRACTICE STANDARD 1056.
2. CONSTRUCT THE SILT FENCE IN AN ARC WITH THE ENDS POINTING UPSLOPE TO AVOID EROSION AROUND THE ENDS OF THE FENCE.
3. FAILURE TO PROPERLY ANCHOR SILT FENCE COULD RESULT IN WATER AND SEDIMENT RELEASE BENEATH THE SILT FENCE.
4. CONSTRUCT THE FENCE FROM A CONTINUOUS ROLL OF GEOTEXTILE TO AVOID JOINTS. WHERE JOINTS ARE NECESSARY, OVERLAP TO THE NEXT POST OR WRAP ADJOINING FABRICS TOGETHER AROUND THE JOINT POST AND TIGHTLY FASTEN.
5. SILT FENCE SHALL NOT BE USED IN AREAS OF CONCENTRATED FLOW.
6. WHEN NOT USED IN CONJUNCTION WITH OTHER PRACTICES, INSTALL SILT FENCE PER THE SPACING REQUIREMENTS OF THE FOLLOWING TABLE:

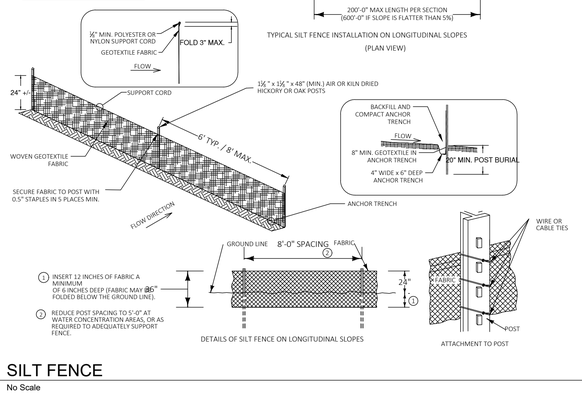
SLOPE	FENCE SPACING
<2%	100 FEET
2-5%	75 FEET
5-10%	50 FEET
10-33%	25 FEET
>33%	20 FEET



TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES (PROFILE VIEW)



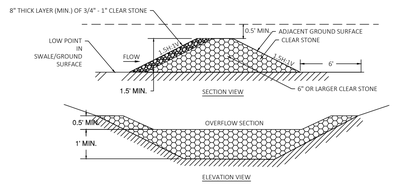
TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES (PLAN VIEW)



DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES

03 C500 SILT FENCE

No Scale



MATERIAL NOTES

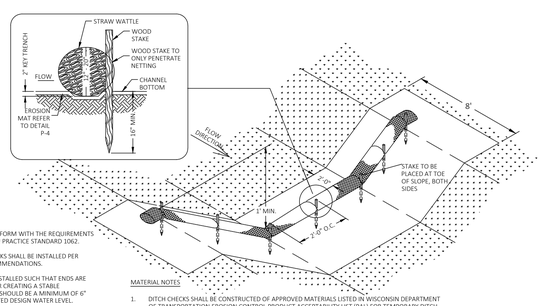
1. CHECKS DAM SHALL BE CONSTRUCTED USING 6" OR LARGER CLEAR STONE.

INSTALLATION NOTES

1. CHECK DAM SHALL BE INSTALLED SUCH THAT ENDS ARE HIGHER THAN THE CENTER CREATING A STABLE OVERFLOW POINT. ENDS SHOULD BE MINIMUM OF 6" HIGHER THAN THE EXPECTED DESIGN WATER LEVEL.
2. IF CHECK DAM IS USED ON A TEMPORARY SEDIMENT TRAP, A SUMP AREA WITH A MINIMUM DEPTH OF 3 FEET SHALL BE EXCAVATED UPSTREAM OF CHECK DAM.

05 C500 STONE WEEPER/ROCK CHECK DAM

No Scale



INSTALLATION NOTES

1. INSTALLATION SHALL CONFORM WITH THE REQUIREMENTS OF WDNR CONSERVATION PRACTICE STANDARD 1062.
2. PROPRIETARY DITCH CHECKS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3. DITCH CHECK SHALL BE INSTALLED SUCH THAT ENDS ARE HIGHER THAN THE CENTER CREATING A STABLE OVERFLOW POINT. ENDS SHOULD BE A MINIMUM OF 6" HIGHER THAN THE EXPECTED DESIGN WATER LEVEL.
4. DITCH CHECKS SHOULD BE INSTALLED SUCH THAT ADJOINING PROPERTY IS NOT NEGATIVELY IMPACTED.
5. DITCH CHECKS SHOULD BE USED IN CONJUNCTION WITH OTHER PERMANENT RESTORATION PRACTICES.

MATERIAL NOTES

1. DITCH CHECKS SHALL BE CONSTRUCTED OF APPROVED MATERIALS LISTED IN WISCONSIN DEPARTMENT OF TRANSPORTATION EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) FOR TEMPORARY DITCH CHECKS.
2. EROSION MAT SHALL BE SELECTED AND INSTALLED PER THE REQUIREMENTS LISTED IN DETAIL D-7.
3. WOOD STAKES SHALL MEET THE FOLLOWING REQUIREMENTS:
   FOR 12" SEDIMENT LOGS: 1½" X 1½" X 30" AIR OR KILN DRIED HICKORY OR OAK STAKES
   FOR 20" SEDIMENT LOGS: 1½" X 1½" X 48" AIR OR KILN DRIED HICKORY OR OAK STAKES

INSPECTION & MAINTENANCE NOTES

1. DITCH CHECKS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD.
2. WHEN OBSERVING CONDITIONS OF DITCH CHECKS, PAY SPECIAL CONSIDERATION TO THE PRESENCE OF INDICATORS THAT WATER IS ERODING AROUND THE ENDS, UNDERCUTTING THE DITCH CHECK, OR SIGNIFICANT EROSION IS OCCURRING DOWNSTREAM OF THE DITCH CHECK. THESE ITEMS MAY INDICATE THE NEED FOR CLOSER SPACING ON DITCH CHECKS OR USE OF A DIFFERENT EROSION MAT.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE DITCH CHECK WHEN IT REACHES ½ THE HEIGHT OF THE LOWEST ELEVATION OF THE DITCH CHECK.
4. DITCH CHECKS SHALL BE REMOVED ONCE CHANNEL IS STABILIZED WITH VEGETATION UNLESS PART OF A PERMANENT STORMWATER MANAGEMENT PLAN.
5. MAINTENANCE SHALL BE COMPLETED AS SOON AS POSSIBLE WITH CONSIDERATION FOR SITE CONDITIONS.

06 C500 DITCH CHECK

No Scale

INSPECTION & MAINTENANCE NOTES

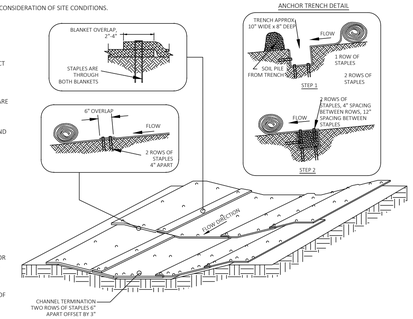
1. MAT SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24 HOUR PERIOD.
2. INSTALL ADDITIONAL ANCHORING IN AREAS OF OBSERVED RILLING AND CONCENTRATED FLOW BENEATH THE EROSION MAT. IF RILLING IS SEVERE ENOUGH TO PREVENT VEGETATION ESTABLISHMENT, REGRADE, COMPACT, RE-SEED, AND REPLACE THE SECTION OF MAT.
3. IF PRODUCTS WITH PLASTIC NETTING ARE USED, REMOVE NETTING OR REPLACE MAT IF SEPARATION OF THE NETTING FROM THE MAT IS OBSERVED.
4. ALL MAINTENANCE ACTIVITIES SHOULD OCCUR AS SOON AS POSSIBLE WITH CONSIDERATION OF SITE CONDITIONS.

MATERIAL NOTES

1. EROSION CONTROL REVEGETATIVE MATS (ECRM) SHALL BE WISDOT PRODUCT ACCEPTABLE LIST (PAL) APPROVED CLASS II TYPE C, UNLESS DIRECTED OTHERWISE.
2. ONLY PRODUCTS LISTED IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION EROSION CONTROL PRODUCT ACCEPTABILITY LIST (PAL) ARE ACCEPTABLE FOR USE.
3. STAPLES USED FOR CLASS I TYPES A & B MATS SHALL BE 1-2 INCH WIDE, U-SHAPED, MADE OF NO.11 (3.05mm) OR LARGER DIAMETER STEEL WIRE, AND NOT LESS THAN MA
4. 6 INCHES LONG FOR FIRM SOILS AND 12 INCHES LONG FOR LOOSE SOILS.

INSTALLATION NOTES

1. INSTALLATION OF ECRM SHOULD BE COORDINATED WITH PERMANENT RESTORATION PRACTICES.
2. INSTALLATION SHALL CONFORM WITH WDNR CONSERVATION PRACTICE STANDARD 1053.
3. ALL PRODUCTS SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. THIS STANDARD DETAIL IS AN EXAMPLE OF TYPICAL INSTALLATION GUIDANCE.
4. MATS SHALL EXTEND UPSLOPE 2-FT VERTICALLY FROM THE DITCH BOTTOM OR 6 INCHES HIGHER THAN THE DESIGN FLOW DEPTH, WHICHEVER IS GREATER.
5. MATS SHALL BE IN FIRM AND CONTINUOUS CONTACT WITH THE SOIL.
6. WHEN POSSIBLE, AVOID PLACING SIDE-BY-SIDE LAP JOINTS IN THE BOTTOM OF CHANNELS.



07 C500 EROSION CONTROL MAT (CHANNELS)

No Scale

MATERIAL NOTES

1. STAPLES USED FOR CLASS I TYPES B MATS SHALL BE 1-2 INCH WIDE, U-SHAPED, MADE OF NO.11 (3.05mm) OR LARGER DIAMETER STEEL WIRE, AND NOT LESS THAN 6 INCHES LONG FOR FIRM SOILS AND 12 INCHES LONG FOR LOOSE SOILS.
2. ANCHORING DEVICES FOR URBAN MATS SHALL BE SELECTED BASED UPON THE REQUIREMENTS OF THE WISDOT PAL.

INSTALLATION NOTES

1. INSTALLATION SHALL CONFORM WITH WDNR CONSERVATION PRACTICE STANDARD 1052.
2. EROSION MAT SHALL BE IN FIRM AND CONTINUOUS CONTACT WITH THE SOIL AND EXTEND UPSLOPE ONE-FOOT FROM LAND DISTURBANCE.
3. EROSION MAT SHALL BE ANCHORED, OVERLAPPED, STAKED AND ENTRENCHED PER THE MANUFACTURER'S RECOMMENDATIONS. THIS STANDARD DETAIL IS AN EXAMPLE OF TYPICAL INSTALLATION GUIDANCE.
4. WHERE POSSIBLE, USE A SINGLE ROLL OF EROSION CONTROL MAT TO SPAN THE DISTURBED AREA.

INSPECTION & MAINTENANCE NOTES

1. AT A MINIMUM, PERFORM INSPECTIONS WEEKLY AND WITHIN 24 HOURS OF PRECIPITATION EVENTS PRODUCING 0.5 INCHES OR MORE OF RAINFALL.
2. INSTALL ADDITIONAL ANCHORING IN AREAS OF OBSERVED RILLING AND CONCENTRATED FLOW BENEATH THE EROSION MAT. IF RILLING IS SEVERE ENOUGH TO PREVENT VEGETATION ESTABLISHMENT, REMOVE EROSION MAT, REGRADE, COMPACT, RE-SEED, AND REPLACE THE SECTION OF MAT.
3. IF PRODUCTS WITH PLASTIC NETTING ARE USED, REMOVE NETTING OR REPLACE MAT IF SEPARATION OF THE NETTING FROM THE MAT IS OBSERVED.
4. ALL MAINTENANCE ACTIVITIES SHOULD OCCUR AS SOON AS POSSIBLE WITH CONSIDERATION OF SITE CONDITIONS.

08 C500 EROSION CONTROL MAT (SLOPES)

No Scale

PLAN VIEW*

Pipe Diameter (in)	W_1 x L x W_2 (ft)
<8	1.5 x 3 x 4
12	3 x 4 x 4
15	3.75 x 6 x 5
18	4.5 x 6 x 5
21	5.25 x 6 x 6
24	6 x 7 x 6
30	7.5 x 7 x 7.5
36	9 x 9 x 9
42	10.5 x 9 x 10

*OUTLET PROTECTION RIPRAP PAD DIMENSIONS DENOTED ON PLAN SHEETS AS W_1 x L x W_2

CROSS SECTION B-B

CROSS SECTION A-A

SLOPED POND DISCHARGE

SLOPED/FLAT SWALE DISCHARGE AND FLAT POND DISCHARGE

09 C500 RIPRAP PAD

NO SCALE

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

EOR water ecology community

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

ISSUED FOR:

ADR / CUP SUBMITTAL	12-12-23

REVISION FOR:

NO.	DESCRIPTION	DATE

DD REVIEW SET - NOT FOR CONSTRUCTION

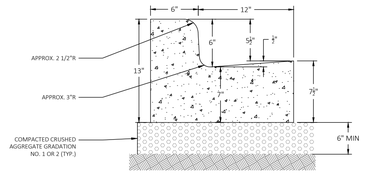
DRAWN BY	NM,CP
CHECKED BY	RS

EROSION CONTROL DETAILS

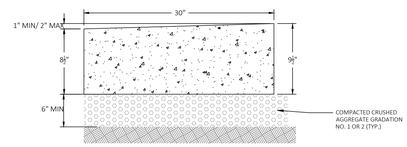
C500

12 December 2023

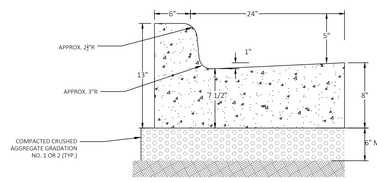
P:\01052-0014 - FITCHBURG HUB\DRAWINGS\SHEETS PLAN\C500 EROSION CONTROL DETAILS.DWG



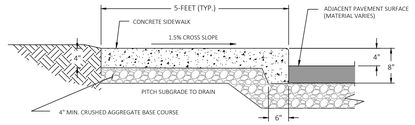
01 C501 18" STANDARD CURB AND GUTTER



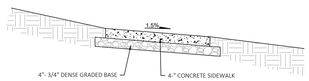
02 C501 30" REJECT RIBBON CURB



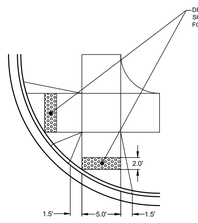
03 C501 30" STANDARD CURB AND GUTTER



04 C501 THICKENED EDGE CONCRETE SIDEWALK



05 C501 CONCRETE SIDEWALK

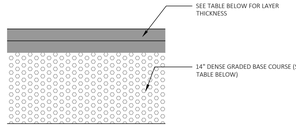


TYPE 1 RAMP
PLAN VIEW

GENERAL NOTES FOR ALL SIDEWALK RAMPS

1. INSTALL CURB CUTS AT SIDEWALK RAMPS WITH EITHER FULL REMOVAL AND REPLACEMENT OR BY "SAWCUTTING" THE CURB HEAD.
2. CURB TAPERS AT CURB CUTS SHALL BE 18" UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
3. THE WIDTH OF THE FLAT BOTTOM OF THE RAMP AT THE CURB SHALL BE 60" MINIMUM.
4. THE MAXIMUM SLOPE OF THE RAMP BETWEEN THE BACK OF THE CURB AND THE FRONT OF THE DETECTABLE WARNING FIELD SHALL NOT EXCEED 2%. THE MAXIMUM SLOPE OF THE RAMP BETWEEN THE FRONT OF THE DETECTABLE WARNING FIELD AND THE SIDEWALK SHALL NOT EXCEED ONE INCH PER FOOT.
5. ALL HANDICAP RAMPS SHALL INCLUDE DETECTABLE WARNING FIELDS WITH TRUNCATED DOMES.
6. DETECTABLE WARNING FIELD SHALL BE ORIENTED IN A MANNER THAT IT IS PARALLEL TO THE DIRECTION OF PEDESTRIAN TRAFFIC. WHEN CURB IS PERPENDICULAR TO DIRECTION OF PEDESTRIAN TRAFFIC, INSTALL DETECTABLE WARNING FIELD TIGHT TO BACK OF CURB.
7. FOR A SIDEWALK RAMP, DETECTABLE WARNINGS SHALL BE 24" X 60". FOR A BIKE PATH RAMP, DETECTABLE WARNINGS SHALL BE 24" X 120".
8. WHEN CONDITIONS REQUIRE MORE INFORMATION, REFER TO "UFAS" (UNIFORM FEDERAL ACCESSIBILITY STANDARDS).
9. CURB RAMPS TO MEET CITY OF FITCHBURG STANDARDS.

06 C501 SIDEWALK CURB RAMP

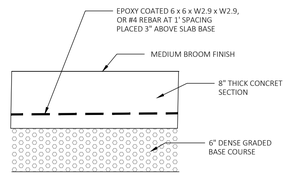


RECOMMENDED HEAVY-DUTY PAVEMENT SECTION		
MATERIAL	LAYER THICKNESS, IN.	WDOT SPECIFICATION
BITUMINOUS UPPER LAYER (SURFACE COURSE)	2	SECTION 460, TABLE 460-1, 9.5 mm
BITUMINOUS LOWER LAYER (BINDER COURSE)	2	SECTION 460, TABLE 460-1, 12.5 mm
DENSE GRADED BASE COURSE	10	SECTIONS 301 AND 305, 3 in AND 31.5 mm
GEOGRID REINFORCING	YES	TENSAR BX1200 (OR EQUIVALENT)
TOTAL THICKNESS	14	

NOTES:

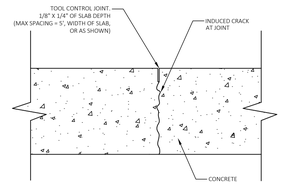
1. WISCONSIN DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, INCLUDING SUPPLEMENT SPECIFICATIONS, BUT EXCLUDING LIMITATIONS IN SECTION 460.3.2 RESTRICTING LAYER THICKNESS BY AGGREGATE SIZE.
2. COMPACTION REQUIREMENTS:
   -BITUMINOUS CONCRETE: REFER TO SECTION 460-3
   -BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION
3. MIXTURE TYPE LT (OR E-0.3) BITUMINOUS PAVEMENT IS RECOMMENDED; REFER TO SECTION 460 TABEL 460-2 OF THE STANDARD SPECIFICATIONS
4. THE UPPER 4 IN SHOULD CONSIST OF 1 ¼ IN DGB; THE BOTTOM PART OF THE LAYER CAN CONSIST OF 3 IN DGB.

07 C501 HEAVY DUTY PAVEMENT SECTION



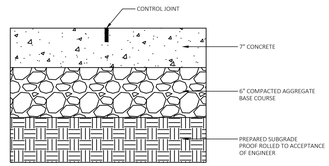
1. ALTERNATIVE TO WELDED MESH: PROPEX NOVOMESH 950 (OR EQUIVALENT APPROVED BY ENGINEER) APPLIED AT A RATE OF 7 LBS PER CUBIC YARD.
2. SOFT CUT SAW CONTROL JOINTS TO 1/4 PAVEMENT DEPTH AT 20' O.C.

08 C501 HEAVY DUTY CONCRETE SECTION



NOTE: SAWCUT, NOT TOOL, FOR LARGE CONCRETE AREAS (I.E. ROADWAYS)

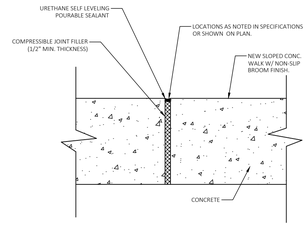
09 C501 CONTRACTION JOINT



GENERAL NOTES:

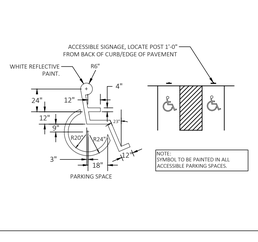
1. CONTROL JOINTS SHALL BE TOOLED ¼" PER 1" OF DEPTH OF THE CONCRETE SLAB.
2. CONTROL JOINTS SHALL BE PLACED SO THAT THE TOTAL SQUARE FOOTAGE OF THE SLAB DOES NOT EXCEED 80 SQUARE FEET TOTAL SURFACE AREA AND BE PLACED TO GIVE THE CONCRETE WORK SOME ARTISTIC CONTINUITY.

10 C501 CONTROL JOINT



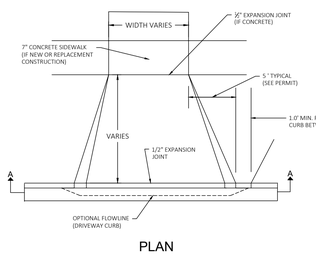
11 C501 EXPANSION JOINT



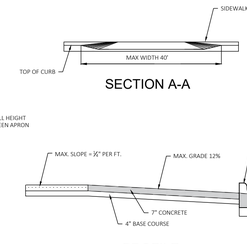




12 C501 ACCESSIBLE PARKING



PLAN



SECTION A-A

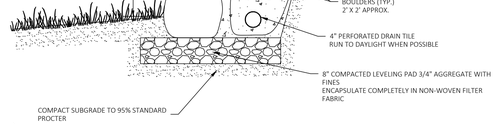
NOTES:

1. COMMERCIAL DRIVE ENTRANCE TO MEET CITY OF FITCHBURG STANDARDS

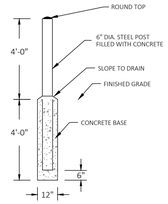


PROFILE

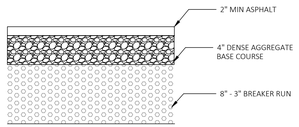
13 C501 COMMERCIAL DRIVE ENTRANCE



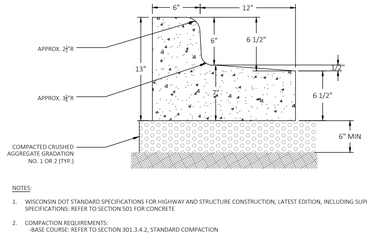
14 C501 BOULDER RETAINING WALL



15 C501 CONCRETE FILLED STEEL BOLLARD



16 C501 TEMPORARY PARKING SECTION



NOTES:

1. WISCONSIN DOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, INCLUDING SUPPLEMENT SPECIFICATIONS: REFER TO SECTION 501 FOR CONCRETE
2. COMPACTION REQUIREMENTS:
   -BASE COURSE: REFER TO SECTION 301.3.4.2, STANDARD COMPACTION
3. CONSTRUCTION SHALL CONFORM TO SECTION 601, CONCRETE CURB AND GUTTER
4. NOTES APPLY TO ALL CURB TYPES

17 C501 18" REJECT CURB AND GUTTER

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EOR water ecology community

NORTH FISH HATCHERY HUB

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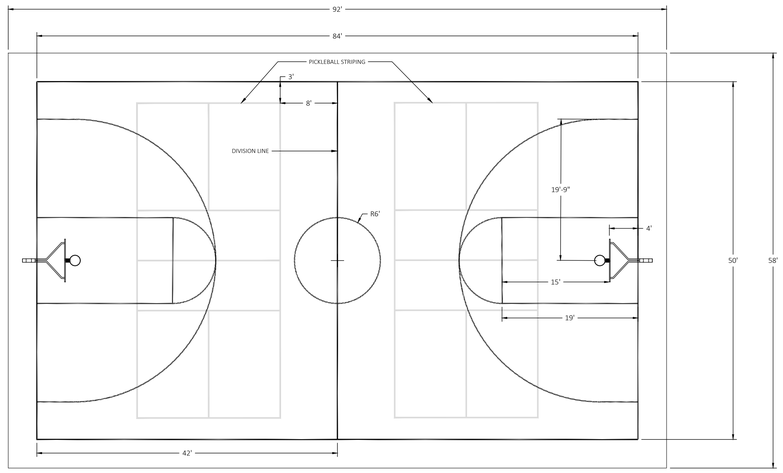
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CHECKED BY	RS

CIVIL DETAILS

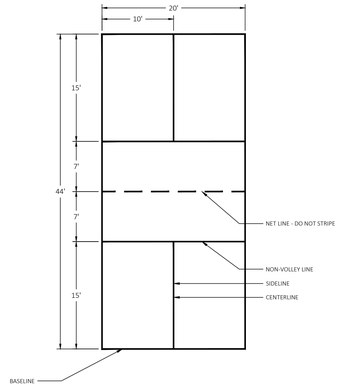
C501

12 December 2023

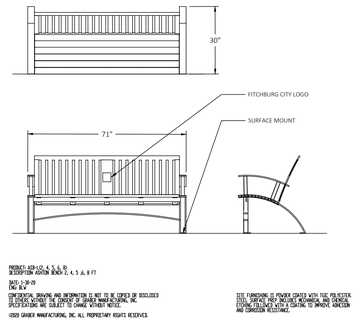
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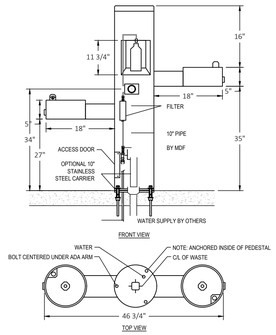
01 C502 BASKTEBALL COURT



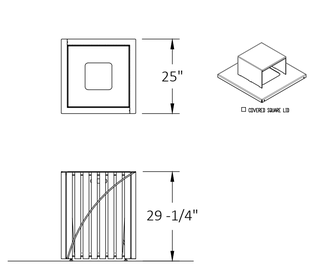
01 C502 PICKLEBALL STRIPING



01 C502 BENCH



01 C502 DRINKING FOUNTAIN



01 C502 TRASH/RECYCLING RECEPTACLE

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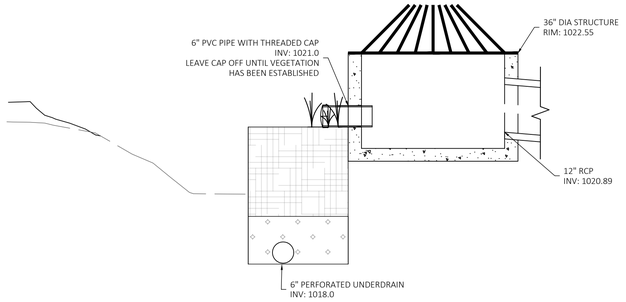
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CHECKED BY	RS

CIVIL DETAILS

C502

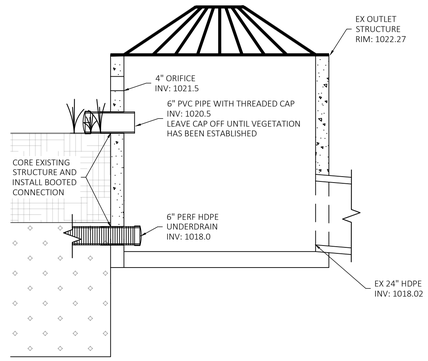
12 December 2023

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2 C503 EAST BIOFILTRATION FACILITY OUTLET STRUCTURE

NO SCALE



4 C503 WEST BIORETENTION FACILITY OUTLET STRUCTURE

NO SCALE

NOTES:

1. BIORETENTION FACILITIES MAY ACT AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION.
   - 1.1. GRADE FACILITY TO BOTTOM OF ENGINEERED SOIL MIX, PROVIDING A 3' DEEP SEDIMENT STORAGE SUMP DURING CONSTRUCTION.
   - 1.2. AFTER SITE GRADING IS COMPLETE AND RESTORED, REMOVE ACCUMULATED SEDIMENT AND EXCAVATE TO BOTTOM OF STORAGE LAYER.
   - 1.3. INSTALL STORAGE LAYER, UNDERDRAIN, ENGINEERED SOIL MIX, AND RESTORE W/ PLUGS
2. ENGINEERED SOIL SHALL CONSIST OF A MIXTURE OF 70 TO 85% SAND AND 15 TO 30% COMPOST. COMPOST SHALL BE CERTIFIED ACCORDING TO WDNR SPECIFICATION S100. GEOTECH SHALL FIELD VERIFY MATERIAL PRIOR TO INSTALLATION.
3. CONSTRUCTION METHODS SHALL FOLLOW WISCONSIN DNR TECHNICAL STANDARD 1004.
4. FILTER FABRIC SHALL BE INSTALLED OVER THE UNDERDRAIN PIPE AND SHALL NOT EXTEND MORE THAN TWO FEET FROM EITHER SIDE OF THE PIPE.
5. ENGINEERED SOIL SHALL BE PRE-MIXED PRIOR TO PLACEMENT AND THE MOISTURE CONTENT SHALL BE LOW TO AVOID COMPACTION AND CLUMPING. THE ENGINEERED SOIL SHALL BE PLACED IN MULTIPLE LIFTS, EACH APPROXIMATELY 12-INCHES IN DEPTH. ENGINEERED SOIL CAN BE CAREFULLY TAPPED WITH A BUCKET OR SIMILAR METHOD TO PROVIDE FIRM SURFACE FOR SEEDING BUT COMPACTION WITH HEAVY EQUIPMENT OR VIBRATING PLATE-STYLE COMPACTORS SHALL NOT BE USED.
6. STORAGE LAYER SHALL BE EITHER SAND OR GRAVEL, IN ACCORDANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1004, MEETING THE FOLLOWING REQUIREMENTS OR AS APPROVED BY A GEOTECHNICAL PROFESSIONAL:
   - 6.1. GRAVEL SHALL MEET THE COARSE AGGREGATE #2 AND OTHER SPECIFICATIONS OF WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5. GRAVEL SHALL BE DOUBLE WASHED.
   - 6.2. SAND MAY BE USED INSTEAD OF GRAVEL. SAND IS REQUIRED TO BE MEET USDA COURSE SAND (0.02 - 0.04 INCHES), ASTM C33 (FINE AGGREGATE CONCRETE SAND), OR WISCONSIN STANDARDS AND SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, SECTION 501.2.5.3.4 (FINE AGGREGATE CONCRETE SAND) 2005 EDITION.
7. SUB SOILS SHALL BE DEEP TURNED OVER WITH AN EXCAVATOR TO BREAK UP POTENTIAL SILT SEAMS. SOIL SHOULD BE OVER TURNED TO A DEPTH OF 5 FEET BELOW THE STORAGE LAYER.
8. INFILTRATION AREAS SHALL BE PROTECTED FROM COMPACTION AND SEDIMENTATION DURING CONSTRUCTION.
9. CONTRACTOR SHALL DEEP TILL ALL OPEN SPACE AND INFILTRATION AREAS.
10. FINISHED BIORETENTION SURFACE SHALL BE LEVEL WITHIN ±0.1 FEET.
11. CLASS II, TYPE B EROSION CONTROL MAT SHALL BE USED WHEN RESTORING THE FINISHED BIORETENTION DEVICES PER WISCONSIN DNR TECHNICAL STANDARD 1004. MAT SHALL BE OVERLAPPED AND ANCHORED WITH BIODEGRADABLE STAPLES (6 INCHES OR LONGER TO HOLD THE MAT TO THE MEDIA).
12. BIORETENTION AREAS ARE TO BE PLANTED WITH NATIVE PLUGS AT 1' SPACING. PLANTS SHALL BE CONSISTENT WITH AGRECOL'S RAINWATER RENEWAL MIX OR APPROVED SUBSTITUTE, APPLIED PER THE MANUFACTURE'S RECOMMENDED RATE.
13. IF AT ANY TIME DURING CONSTRUCTION OF THE BIORETENTION AREA, THE CONTRACTOR COMPACTS THE BIORETENTION AREA BEYOND THE ENGINEER'S SPECIFICATION, THE CONTRACTOR SHALL REWORK, REPLACE , AND/OR REPAIR THE INFILTRATION AREA TO THE ENGINEERS APPROVAL.

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STORMWATER DETAILS

C503

12 December 2023

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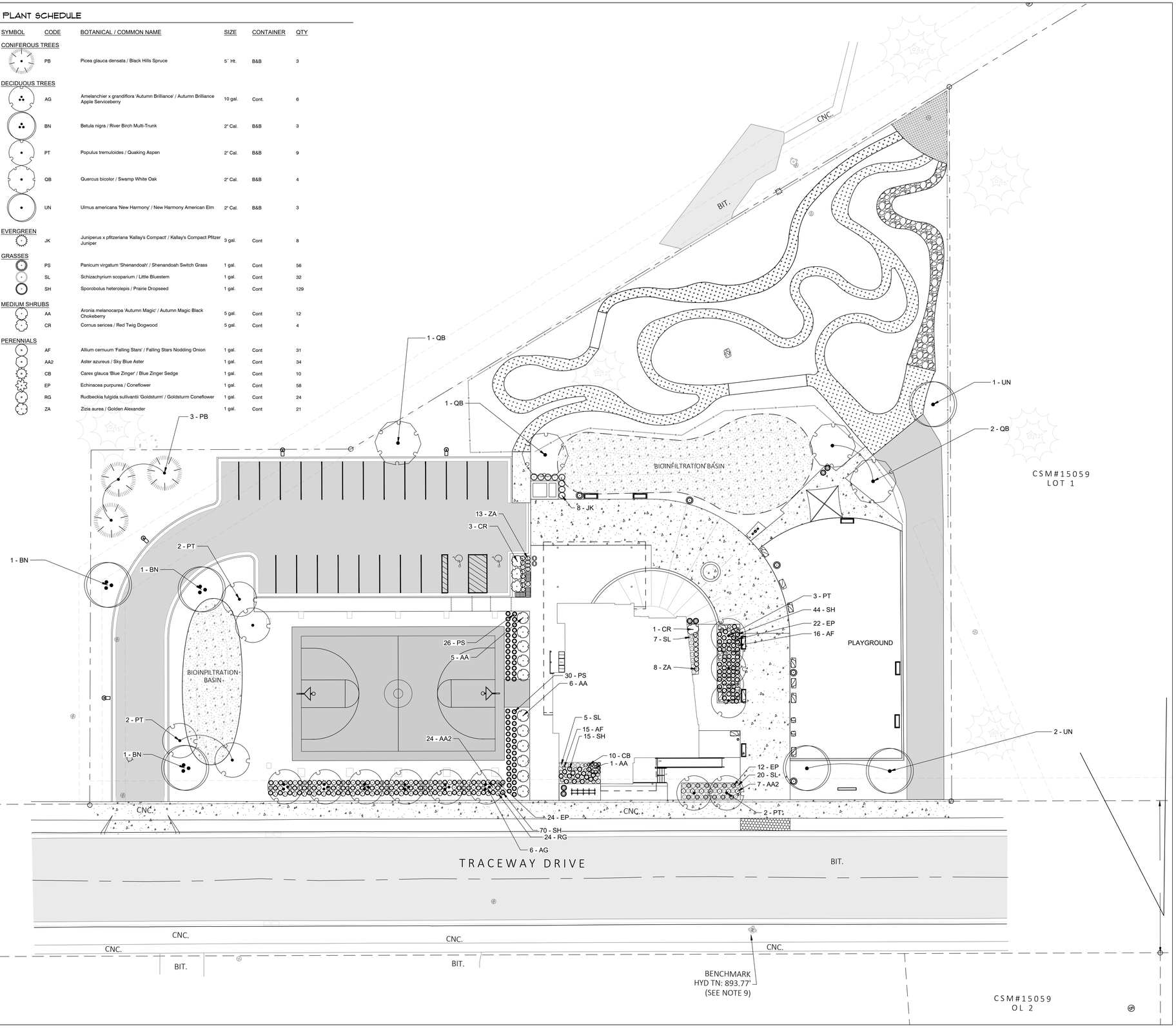
0 20 40 Feet

LEGEND

- PROPERTY LINE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CHIP SEAL SURFACE
- PROPOSED NATURAL SURFACE
- XC — PROPOSED FENCE

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
CONIFEROUS TREES					
	PB	Picea glauca densata / Black Hills Spruce	5` Ht.	B&B	3
DECIDUOUS TREES					
	AG	Amelanchier x grandiflora 'Autumn Brilliance' / Autumn Brilliance Apple Serviceberry	10 gal.	Cont.	6
	BN	Betula nigra / River Birch Multi-Trunk	2" Cal.	B&B	3
	PT	Populus tremuloides / Quaking Aspen	2" Cal.	B&B	9
	QB	Quercus bicolor / Swamp White Oak	2" Cal.	B&B	4
	UN	Ulmus americana 'New Harmony' / New Harmony American Elm	2" Cal.	B&B	3
EVERGREEN					
	JK	Juniperus x pfitzeriana 'Kallay's Compact' / Kallay's Compact Pfitzer Juniper	3 gal.	Cont	8
GRASSES					
	PS	Panicum virgatum 'Shenandoah' / Shenandoah Switch Grass	1 gal.	Cont	56
	SL	Schizachyrium scoparium / Little Bluestem	1 gal.	Cont	32
	SH	Sporobolus heterolepis / Prairie Dropseed	1 gal.	Cont	129
MEDIUM SHRUBS					
	AA	Aronia melanocarpa 'Autumn Magic' / Autumn Magic Black Chokeberry	5 gal.	Cont	12
	CR	Cornus sericea / Red Twig Dogwood	5 gal.	Cont	4
PERENNIALS					
	AF	Allium cernuum 'Falling Stars' / Falling Stars Nodding Onion	1 gal.	Cont	31
	AA2	Aster azureus / Sky Blue Aster	1 gal.	Cont	34
	CB	Carex glauca 'Blue Zinger' / Blue Zinger Sedge	1 gal.	Cont	10
	EP	Echinacea purpurea / Coneflower	1 gal.	Cont	58
	RG	Rudbeckia fulgida sullivantii 'Goldsturm' / Goldsturm Coneflower	1 gal.	Cont	24
	ZA	Zizia aurea / Golden Alexander	1 gal.	Cont	21



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LANDSCAPE PLAN

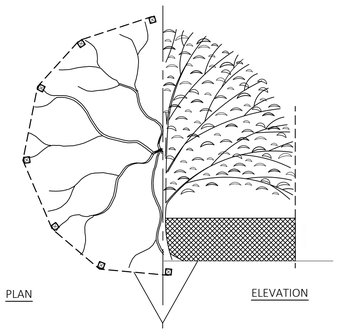
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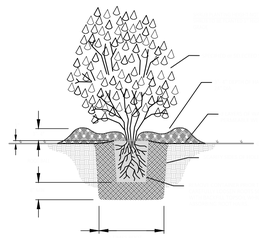
SCALE IN FEET

0 10 20 40

L100

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LANDSCAPE DETAILS

L110

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NORTH FISH HATCHERY HUB

PHASE 1 - DESIGN DEVELOPMENT - BUILDING INFORMATION

Traceway Dr., Fitchburg

PROJECT

SEAL

CONSULTANTS

CIVIL

EMMONS & OLIVER RESOURCES, INC.
1334 DEWEY CT
MADISON, WI 53703
PH 608-839-4422

LANDSCAPE

EMMONS & OLIVER RESOURCES, INC.
1334 DEWEY CT
MADISON, WI 53703
PH 608-839-4422

ARCHITECTURAL

ENGBERG ANDERSON ARCHITECTS
305 W WASHINGTON AVE
MADISON, WI 53703
PH 608-250-0100

STRUCTURAL

ONEIDA TOTAL INTEGRATED ENTERPRISES
5100 EASTPARK BLVD, SUITE 300
MADISON, WI 53718
PH 608-243-6470

PLUMBING

HEIN ENGINEERING GROUP
17 APPLEGATE COURT, SUITE 200
MADISON, WI 53713
PH 608-288-9260

FIRE PROTECTION

HEIN ENGINEERING GROUP
17 APPLEGATE COURT, SUITE 200
MADISON, WI 53713
PH 608-288-9260

MECHANICAL

HEIN ENGINEERING GROUP
17 APPLEGATE COURT, SUITE 200
MADISON, WI 53713
PH 608-288-9260

ELECTRICAL

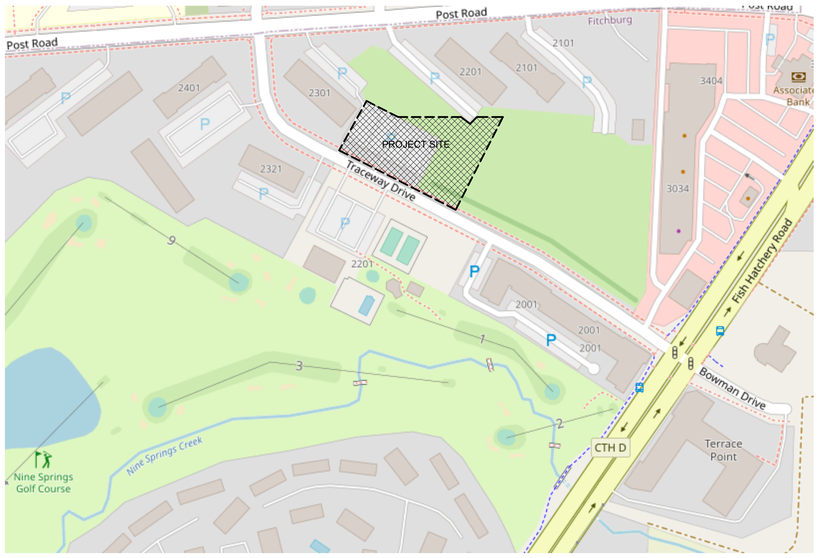
HEIN ENGINEERING GROUP
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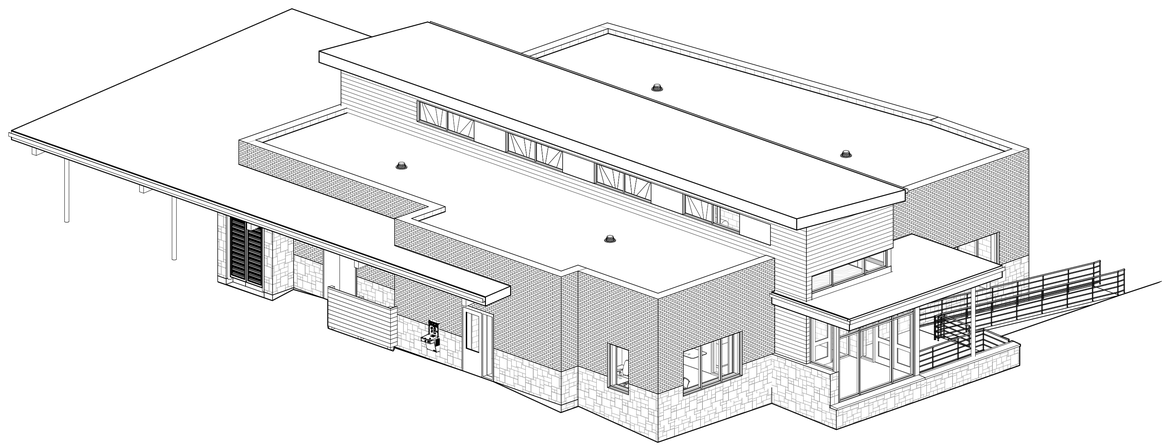
DRAWINGS

C100	EXISTIN CONDITIONS	L100	LANDSCAPE PLAN
C110	DEMOLITION PLAN	L110	LANDSCAPE DETAILS
C120	SITE PLAN		
C121	DETAILED SITE PLAN		
C122	DETAILED SITE PLAN		
C130	OVER ALL GRADING PLAN		
C131	DETAILED GRADING PLAN		
C140	UTILITY PLAN		
C500	EROSION CONTROL DETAILS		
C501	CIVIL DETAILS		
C502	CIVIL DETAILS		
C503	STORMWATER DETAILS		

G000	TITLE SHEET	S001	STRUCTURAL NOTES	P100	FIRST FLOOR PLAN -PLUMBING UNDERGROUND	H100	FIRST FLOOR PLAN - HVAC
		S002	STRUCTURAL SCHEDULES	P101	FIRST FLOOR PLAN - PLUMBING	H101	FIRST FLOOR PLAN - HVAC RADIANT FLOOR PIPING
A001	CODE CONFORMANCE	S100	FOUNDATION PLAN				
A101	FIRST FLOOR PLAN	S101	LOW ROOF FRAMING PLAN			E100	FIRST FLOOR PLAN - ELECTRICAL LIGHTING
A102	ROOF PLANS	S102	HIGH ROOF FRAMING PLAN			E101	FIRST FLOOR PLAN - ELECTRICAL POWER / LV
A201	REFLECTED CEILING PLANS	S800	STRUCTURAL DETAILS			E102	FIRST FLOOR PLAN - SECURITY
A301	ENLARGED TOILET PLANS & ELEVATIONS						
A401	EXTERIOR ELEVATIONS						
A402	EXTERIOR ELEVATIONS						
A403	BUILDING SECTIONS						
A501	WALL SECTIONS						
A502	WALL SECTIONS						
A601	DOOR SCHEDULE, DETAILS & WALL TYPES						
A701	FIRST FLOOR FINISH PLAN, SCHEDULE, & KEY						
A801	INTERIOR ELEVATIONS						
F101	FIRST FLOOR FURNITURE PLANS						

SITE LOCATION MAP





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TITLE SHEET

G000

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

APPLICABLE CODES

ZONING CODE	CODE OF ORDINANCES CITY OF FITCHBURG
BUILDING CODE	IEBC 2015 / IBC 2015
ACCESSIBILITY CODE	ICC A117.1 - 2009
FIRE SAFETY CODE	WISCONSIN SPS 314/NFPA 1 - 2012
PLUMBING CODE	WISONSIN SPS 381-387
ELECTRICAL CODE	WISCONSIN SPS 3616 / NEC 2011
MECHANICAL CODE	WISCONSIN SPS 364 / 2015 IMC
ENERGY CODE	WISCONSIN SPS 363 / 2015 IECC

ZONING

CLASSIFICATION	PARK AND RECREATION (P-R)
PERMITTED USE	RECREATION FACILITIES & AREAS, BIKE TRAILS SEC. 22-562
MINIMUM LOT SIZE	20,000 SQFT
MAXIMUM HEIGHT	ENTER HEIGHT AND STORIES ALLOWED HERE
SETBACKS REQUIRED	
FRONT YARD	25 FEET REQD. ACTUAL: 10 FEET **
	** CONDITIONAL USE APPLICATION PER ORDINANCE 2021-O-05
SIDE YARD	10 FEET
REAR YARD	50 FEET
PARKING	
# OF SPACES REQ'D	CONDITIONAL USE APPLICATION PER SEC. 22-563
# OF SPACES PROVIDED	25

BUILDING DATA

OCC. CLASSIFICATION	A3 - ASSEMBLY
CONSTRUCTION TYPE	5B
SPRINKLERED	SPRINKLERED
SEISMIC CATEGORY	
NUMBER OF STORIES	1
BUILDING TOTAL SIZE	
FIRST FLOOR	3,889 SQFT.

CONSTRUCTION REQUIREMENTS

OCC. SEPARATION	NA
EXT. WALLS-NON BEARING	0
OPENINGS	0
STRUCTURAL FRAME	0
PARTITIONS	0
SHAFT ENCLOSURES	0
FLOOR/CEILING	0
ROOF/CEILING	0
ROOFING CLASSIFICATION	C

ENERGY

CLIMATE ZONE	6			
ENVELOPE REQUIREMENTS	R-VALUE	U-VALUE		PROVIDED
ROOF	30	0.032		33
WALLS	13 + 13	0.052		.051
BELOW GRADE	7.5	0.119 (C-VALUE)		10 R
FLOORS	30	0.033		NA
SLAB ON GRADE	10 @ 25" BELOW	0.54 (F-VALUE)		10
DOORS	4.75	0.37		-
FENESTRATION REQUIREMENTS	U-VALUE	SHGC SEW	SHGC N	PROVIDED
FIXED	0.38	0.40	0.53	XX
OPERABLE	0.45	0.40	0.53	NA
DOORS	0.77	0.40	0.53	XX
SKYLIGHTS	0.50	0.40		NA

MEANS OF EGRESS

OCCUPANT LOAD	
FIRST FLOOR	1004.1.2 = 245 OCCUPANTS TOTAL - SEE PLAN
EXIT ACCESS TRAVEL DISTANCE	250 FEET MAX.
TOTAL STAIR WIDTH REQ'D	NA
TOTAL STAIR WIDTH PROVIDED	NA
CORRIDOR WIDTH REQ'D	PER SECTION 1005.3.2 - 49 INCHES REQD.
CORRIDOR WIDTH PROVIDED	84 INCHES
EXIT DOOR WIDTH REQ'D	PER SECTION 1005.3.2 - 49 INCHES REQD.
EXIT DOOR WIDTH PROVIDED	MIN. 34" PER EXIT / 170 OCCUPANTS PER EXIT
	5 PUBLIC EXITS - SEE PLAN

PLUMBING

INSERT APPLICABLE CODE AND OCCUPANCY CALCULATION METHOD

FIXTURES	OCCUPANT LOAD		REQUIREMENTS	REQUIRED	PROVIDED
WATER CLOSETS	MEN	123	1 PER 120 OCCUPANTS*	1	2
	WOMEN	123	1 PER 65 OCCUPANTS	2	3
				3	5
LAVATORIES	MEN	123	1 PER 200 OCCUPANTS	1	1
	WOMEN	123	1 PER 200 OCCUPANTS	1	2
				2	3
DRINKING FOUNTAINS	245 OCCUPANTS		1 PER 500 OCCUPANTS	1	2
SERVICE SINKS				1	1

NOTES

* = MENS WATER CLOSETS CAN BE DIVIDED EQUALLY INTO URINALS AND TOILETS.

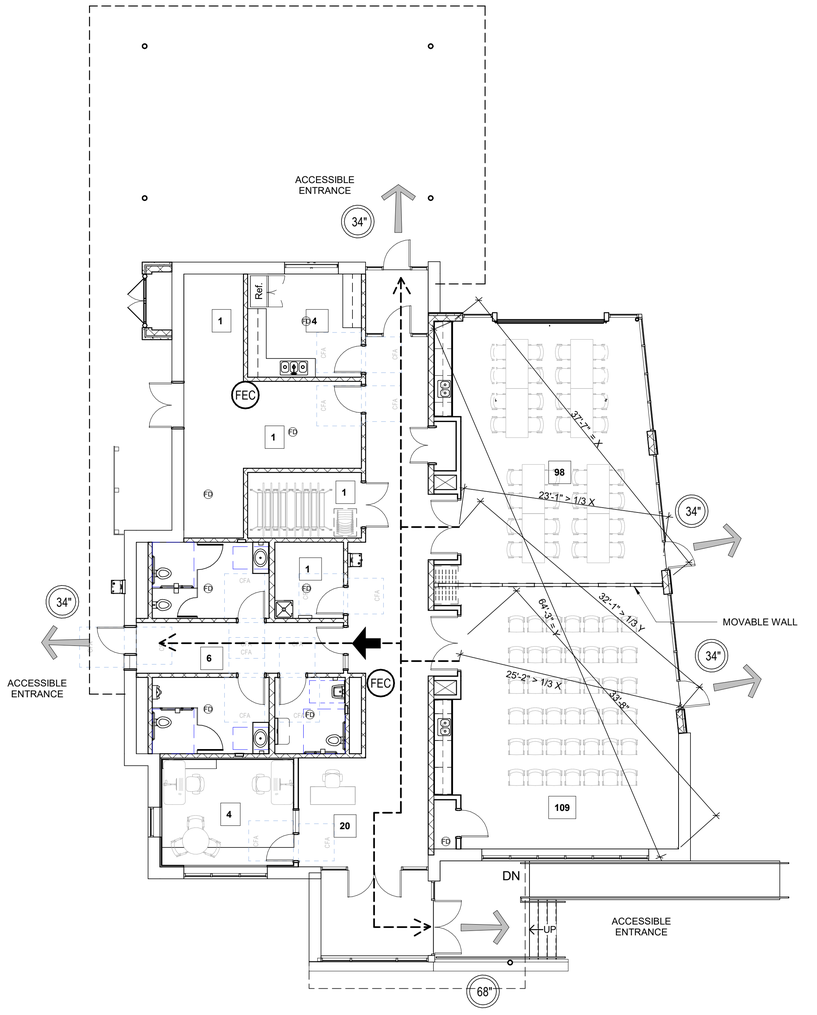
SECTION 890.810 MINIMUM NUMBER OF PLUMBING FIXTURES

1) BUILDINGS THAT INCORPORATE MORE THAN ONE TYPE OF BUILDING USE OF OCCUPANCY, AS CLASSIFIED BY THE DEPARTMENT, SHALL PROVIDE THE COMBINED NUMBERS OF FIXTURES REQUIRED FOR THE INDIVIDUAL USES.

2) OCCUPANT LOAD. FOR THOSE BUILDING TYPES WHERE THE MINIMUM NUMBER OF PLUMBING FIXTURES REQUIRED IN APPENDIX A, TABLE B, IS DEPENDENT UPON THE BUILDING'S OCCUPANT LOAD, SUCH OCCUPANT LOAD SHALL BE THE ESTIMATED TOTAL OCCUPANT LOAD.

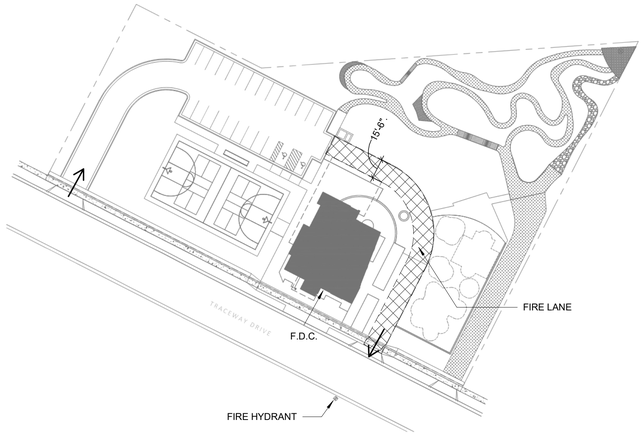
NOTES

-



1 FIRST FLOOR CODE CONFORMANCE PLAN
SCALE: 1/8" = 1'-0"

Plan North



FIRE ACCESS SITE PLAN - N.T.S.

True North

GRAPHIC SYMBOLS

----→	PATH OF EGRESS
	EXIT ACCESS
	EXIT TO GRADE
XX"	EGRESS COMPONENT WIDTH
FEC	FIRE EXTINGUISHER IN CABINET
##	AREA OCCUPANCY COUNT
	1 HOUR FIRE PARTITION

SEE ELECTRICAL DRAWINGS FOR EMERGENCY LIGHTING & EXIT SIGN LOCATIONS

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

ISSUED FOR:

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CODE CONFORMANCE

A001

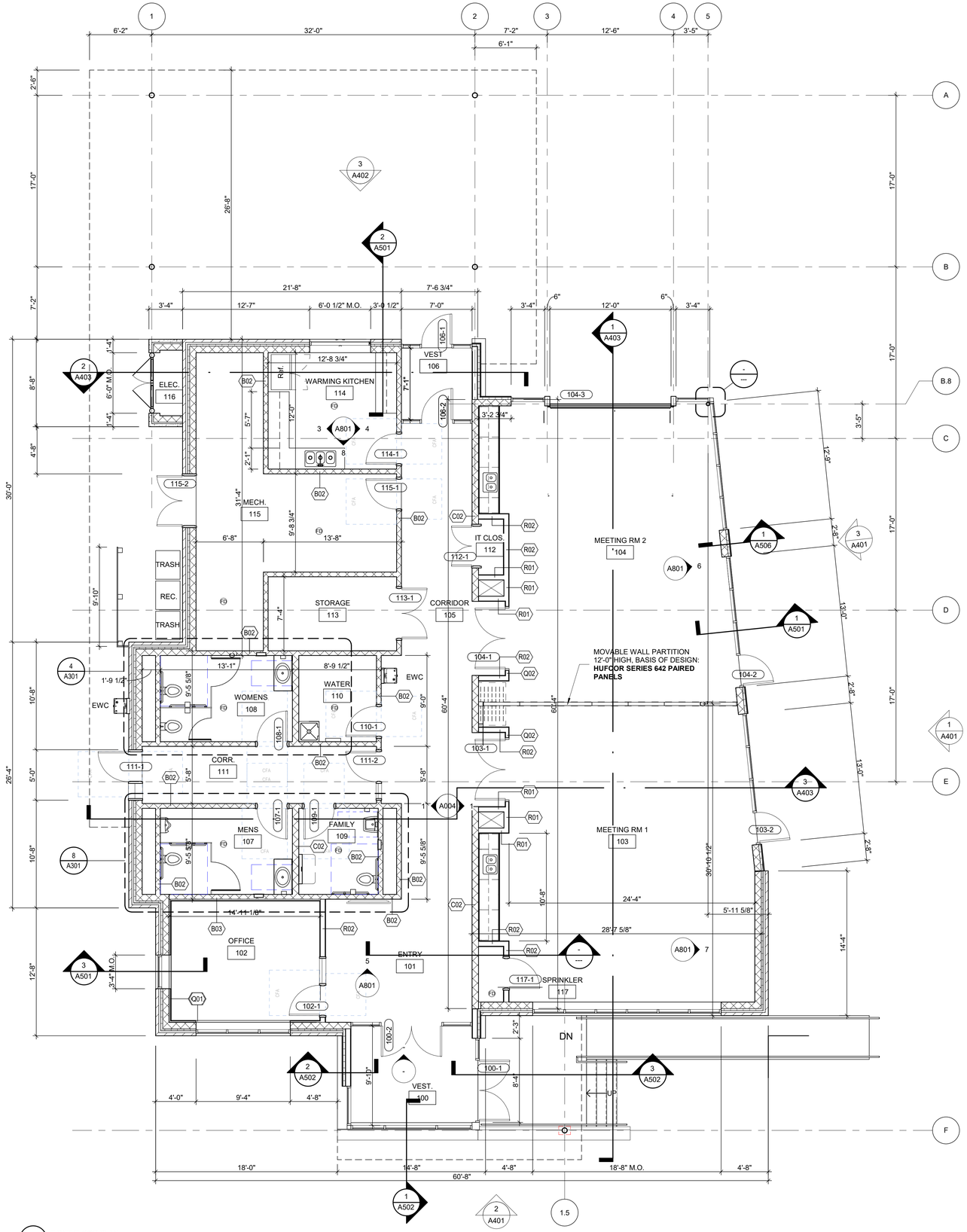
GENERAL NOTES

1. ALL EXTERIOR DIMENSIONS ARE TO FACE OF BRICK AT MASONRY WALLS OR FACE OF SHEATHING AT WOOD STUD WALLS U.N.O.
2. ALL DIMENSIONS OF INTERIOR WALLS ARE TO FACE OF CMU OR GYPSUM BOARD U.N.O.
3. INTERIOR DOOR JAMBS ARE 6" FROM FACE OF JAMB TO ADJACENT WALL U.N.O.
4. PROVIDE BLOCKING IN WALLS AS REQUIRED FOR ALL WALL MOUNTED EQUIPMENT & ACCESSORIES

ARCHITECTURAL LEDGED:

N.I.C.	NOT IN CONTRACT
U.N.O.	UNLESS NOTED OTHERWISE
F.V.	FIELD VERIFY
R.O.	ROUGH OPENING
M.O.	MASONRY OPENING

SEE SEPRATE DOCUMENT FOR PROPOSED COVERED STRUCTURE



1 FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"

Plan North

Engberg Anderson ARCHITECTS

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FIRST FLOOR PLAN

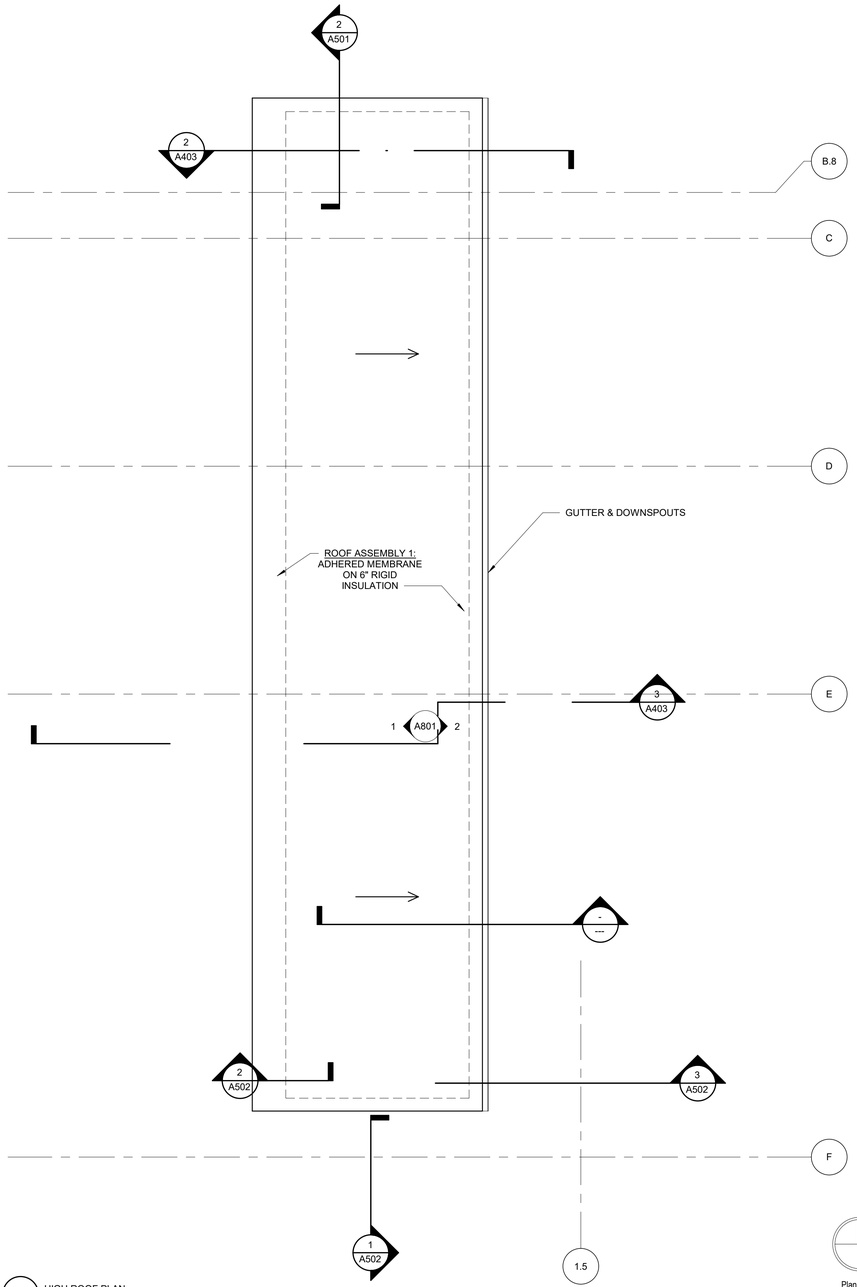
A101

GENERAL NOTES

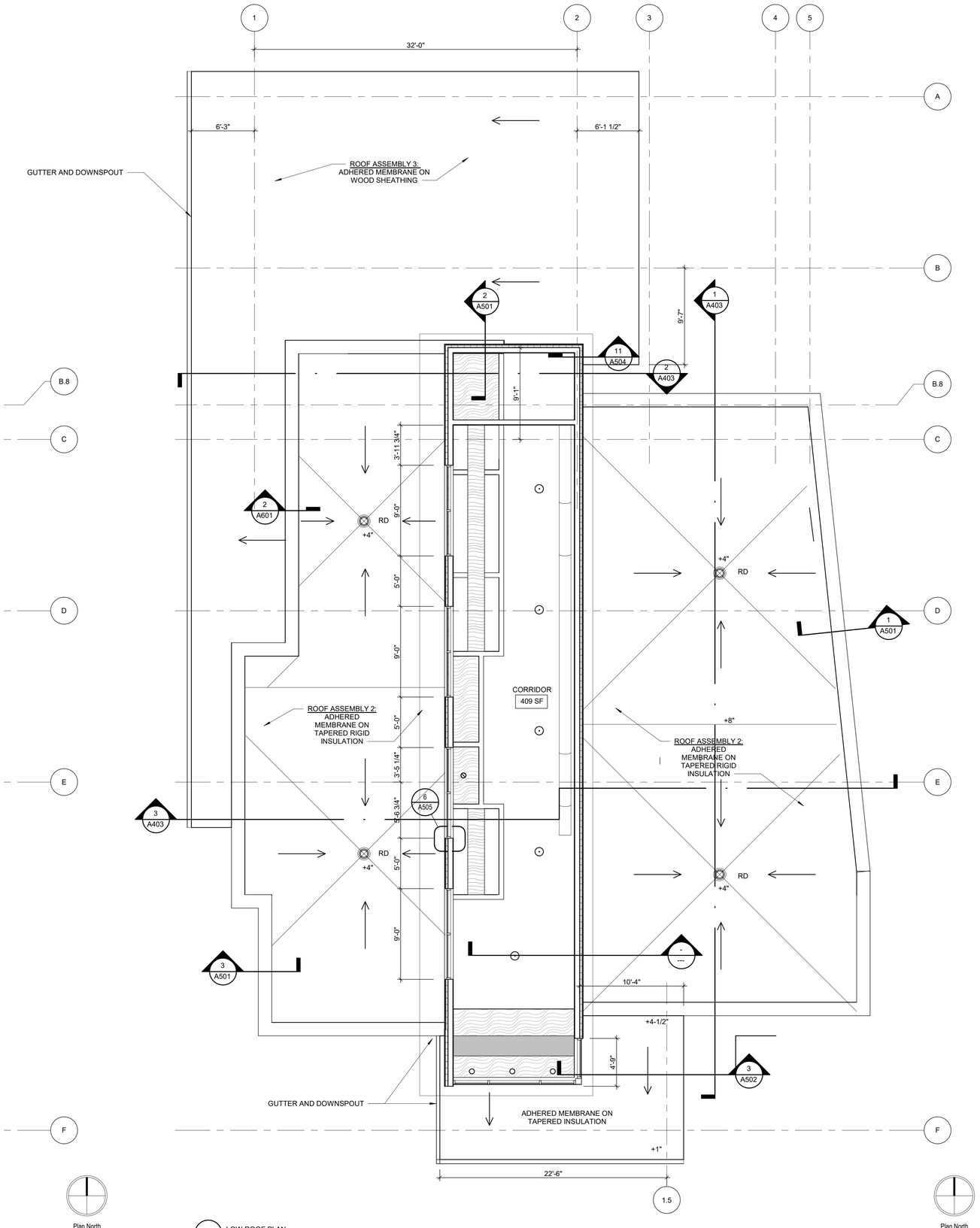
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N.I.C.	NOT IN CONTRACT
U.N.O.	UNLESS NOTED OTHERWISE
F.V.	FIELD VERIFY
R.O.	ROUGH OPENING
M.O.	MASONRY OPENING



2 HIGH ROOF PLAN
SCALE: 3/16" = 1'-0"



1 LOW ROOF PLAN
SCALE: 3/16" = 1'-0"

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

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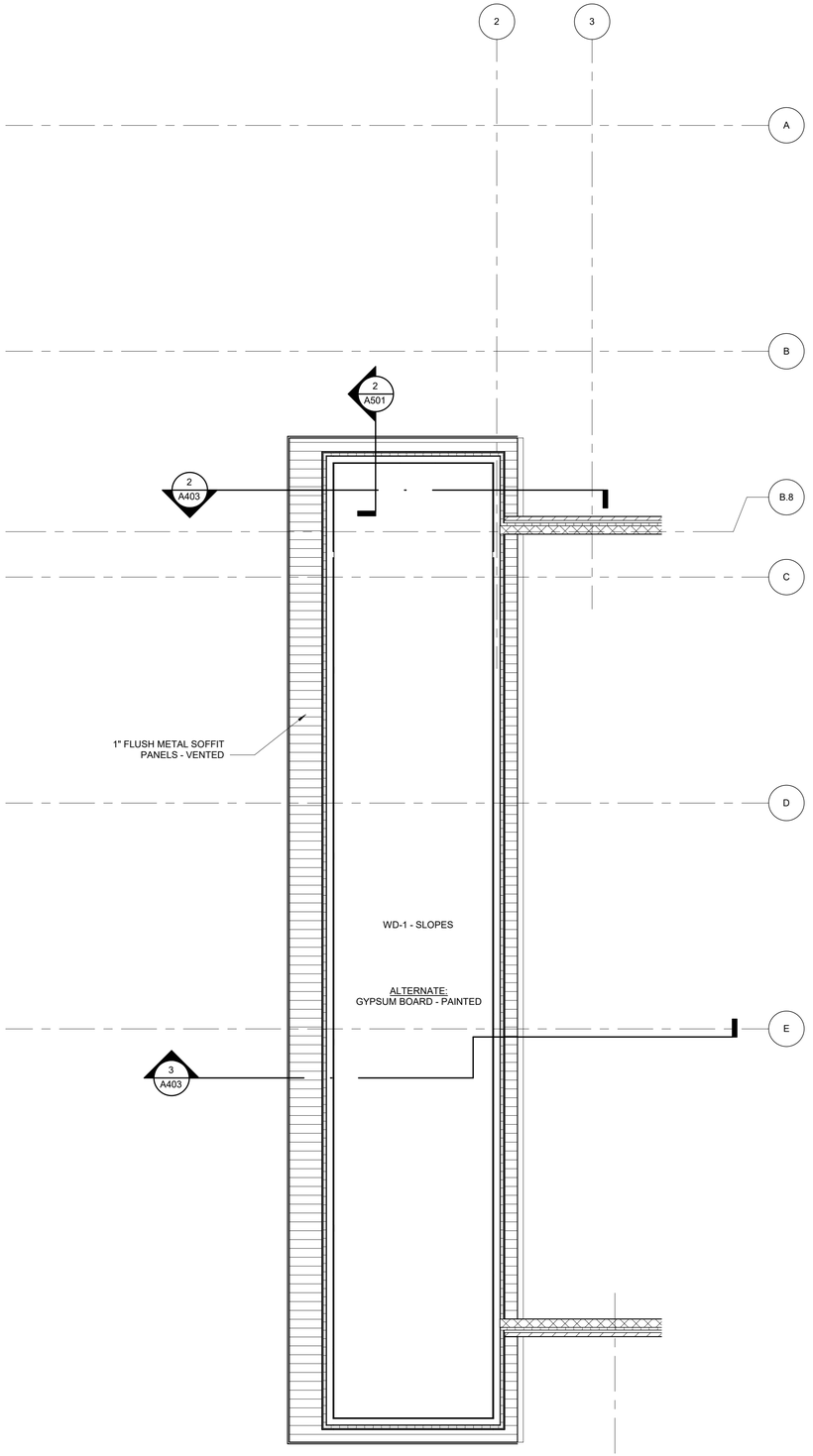
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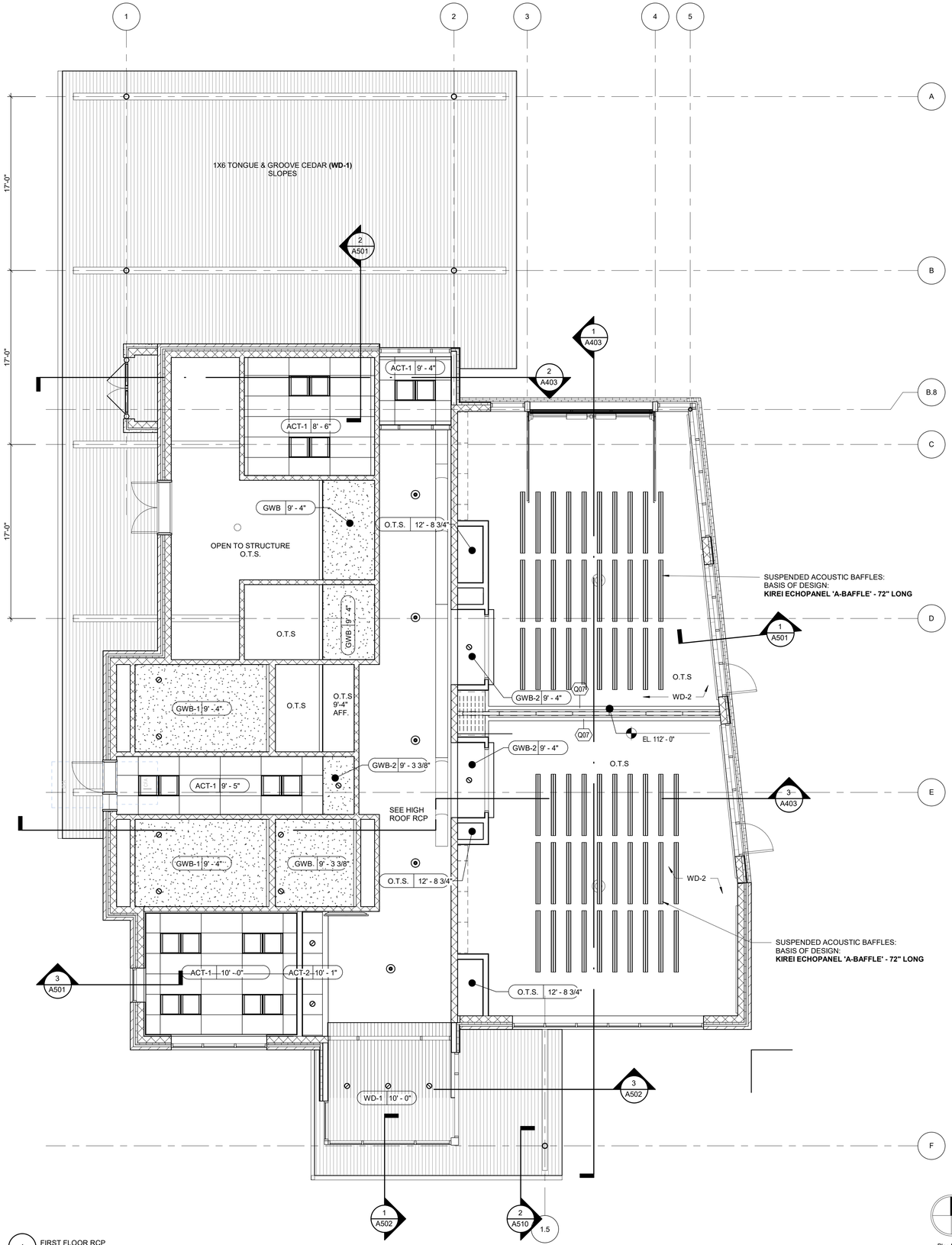
ROOF PLANS

A102



2 HIGH ROOF RCP
SCALE: 3/16" = 1'-0"

Plan North



1 FIRST FLOOR RCP
SCALE: 3/16" = 1'-0"

Plan North

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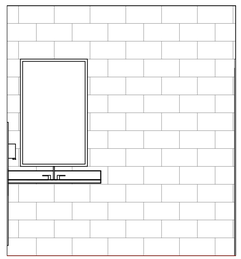
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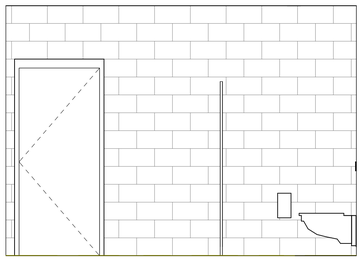
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REFLECTED CEILING PLANS

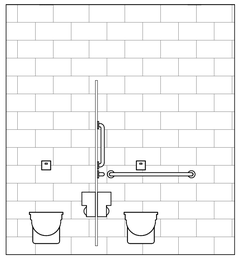
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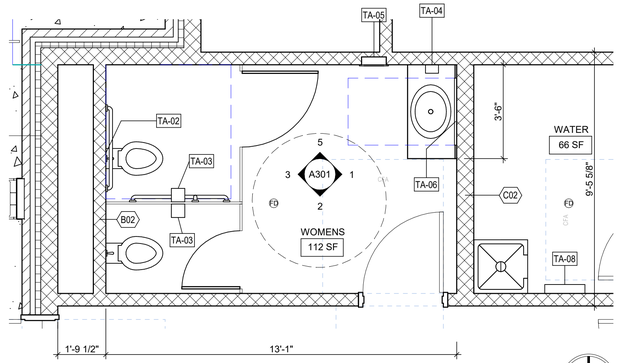
1 WOMENS - EAST ELEVATION
SCALE: 3/8" = 1'-0"



2 WOMENS - SOUTH ELEVATION
SCALE: 3/8" = 1'-0"

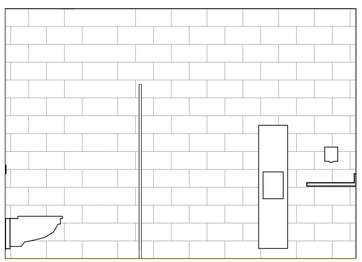


3 WOMENS - WEST ELEVATION
SCALE: 3/8" = 1'-0"

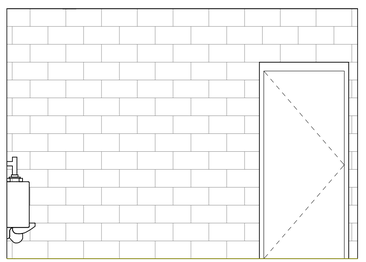


4 ENLARGED WOMENS RESTROOM PLAN
SCALE: 3/8" = 1'-0"

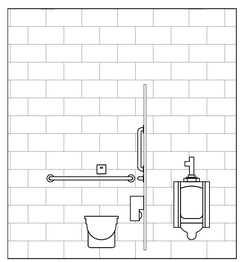
Plan North



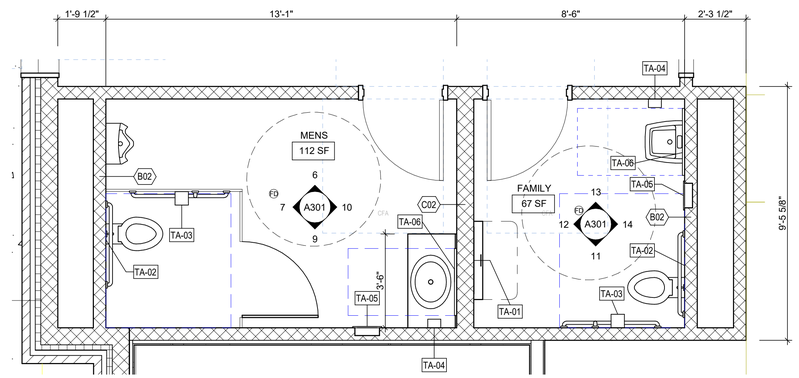
5 WOMENS - NORTH ELEVATION
SCALE: 3/8" = 1'-0"



6 MENS - NOTRH ELEVATION
SCALE: 3/8" = 1'-0"

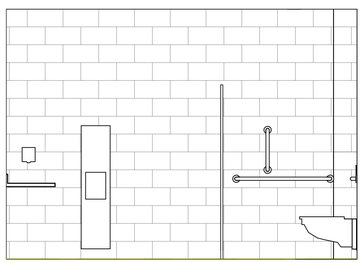


7 MENS - WEST ELEVATION
SCALE: 3/8" = 1'-0"

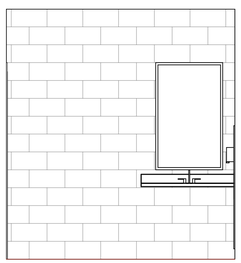


8 ENLARGED MENS - FAMILY RESTROOM PLAN
SCALE: 3/8" = 1'-0"

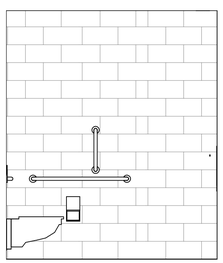
Plan North



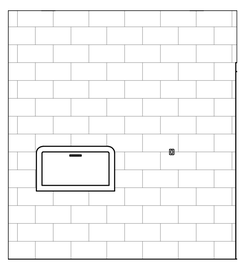
9 MENS - SOUTH ELEVATION
SCALE: 3/8" = 1'-0"



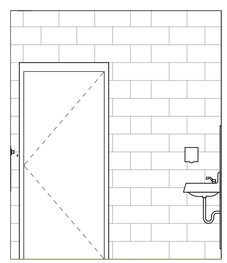
10 MENS -= EAST ELEVATION
SCALE: 3/8" = 1'-0"



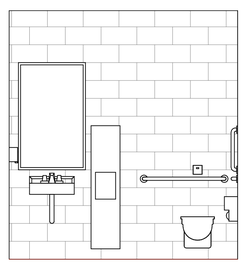
11 FAMILY - SOUTH ELEVATION
SCALE: 3/8" = 1'-0"



12 FAMILY - WEST ELEVATION
SCALE: 3/8" = 1'-0"

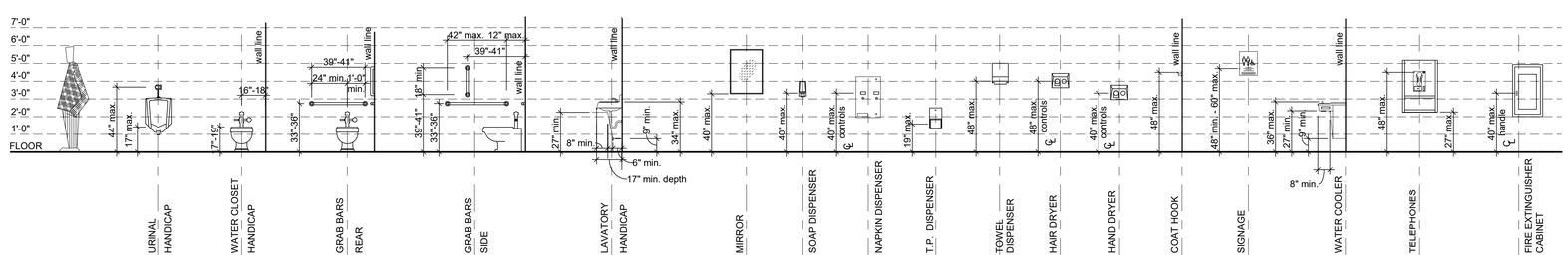


13 FAMILY - NORTH ELEVATION
SCALE: 3/8" = 1'-0"



14 FAMILY - EAST ELEVATION
SCALE: 3/8" = 1'-0"

TOILET ACCESSORY LEGEND	
TAG	Comments
TA-01	BABY CHANGING TABLE
TA-02	GRAB BARS
TA-03	TOILET TISSUE PAPER DISPENSER
TA-04	SOAP DISPENSER
TA-05	RECESSED PAPER TOWEL/ TRASH RECEPTACLE
TA-06	WALL MOUNTED FRAMED MIRROR
TA-07	WALL MOUNTED HOOK
TA-08	MOP HOOK
TA-09	
TA-10	



TYPICAL MOUNTING HEIGHTS LEGEND (ANSI)

Engberg Anderson ARCHITECTS

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NORTH FISH HATCHERY HUB

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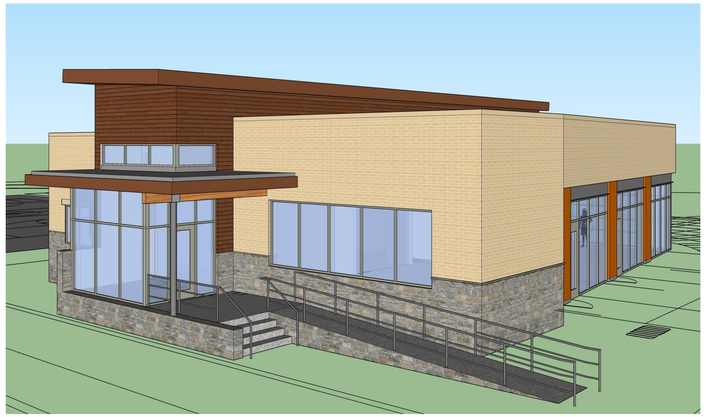
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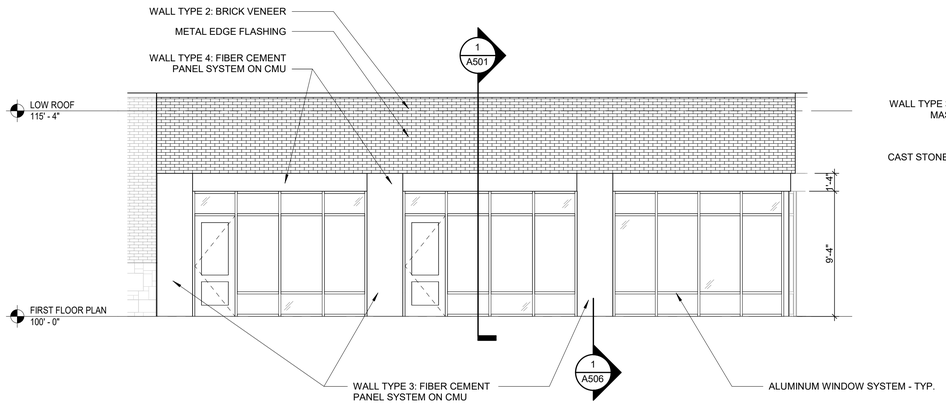
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ENLARGED TOILET PLANS & ELEVATIONS

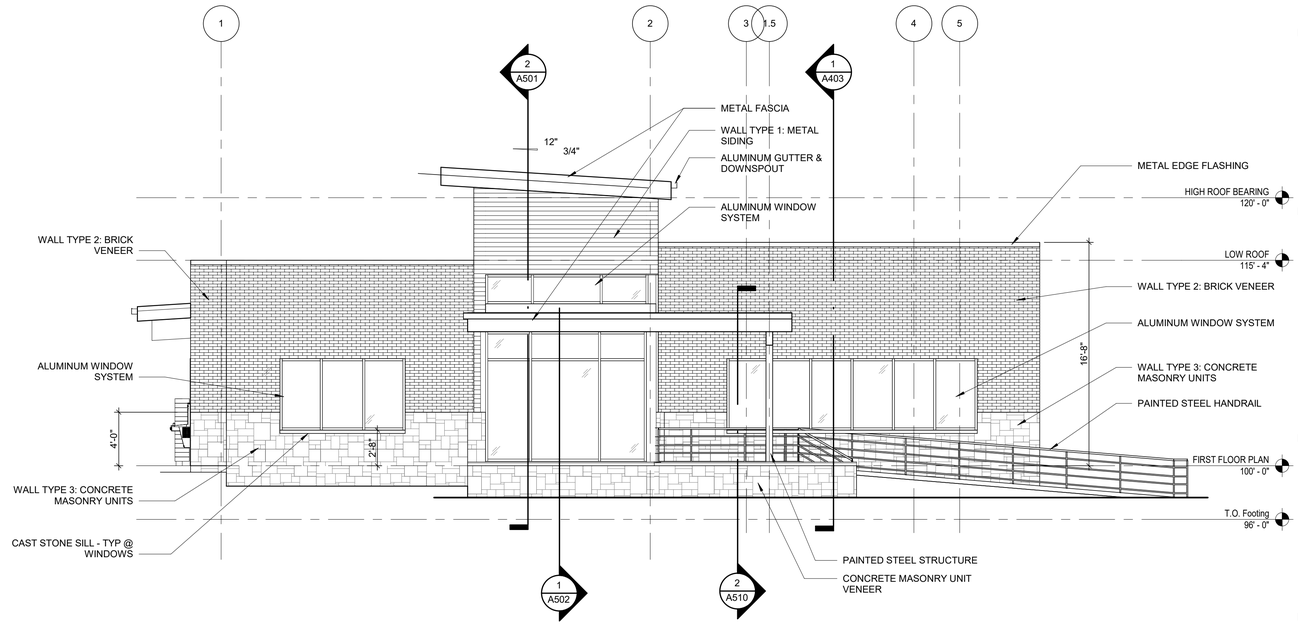
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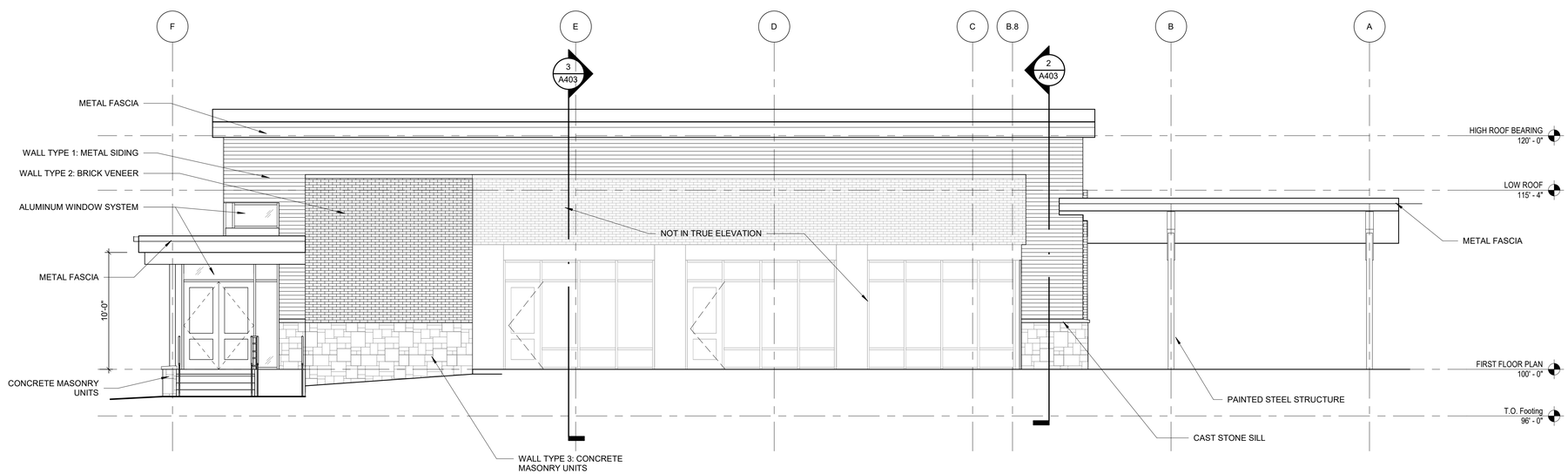
MAIN ENTRY RENDERING



3 PARTIAL EAST ELEVATION
SCALE: 3/16" = 1'-0"



2 SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



1 EAST ELEVATION
SCALE: 3/16" = 1'-0"

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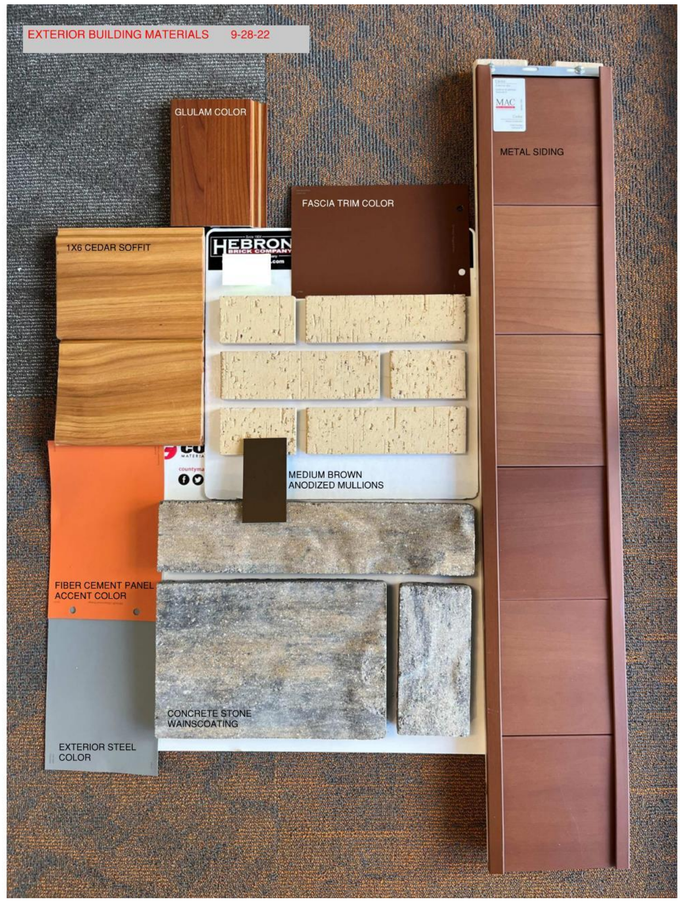
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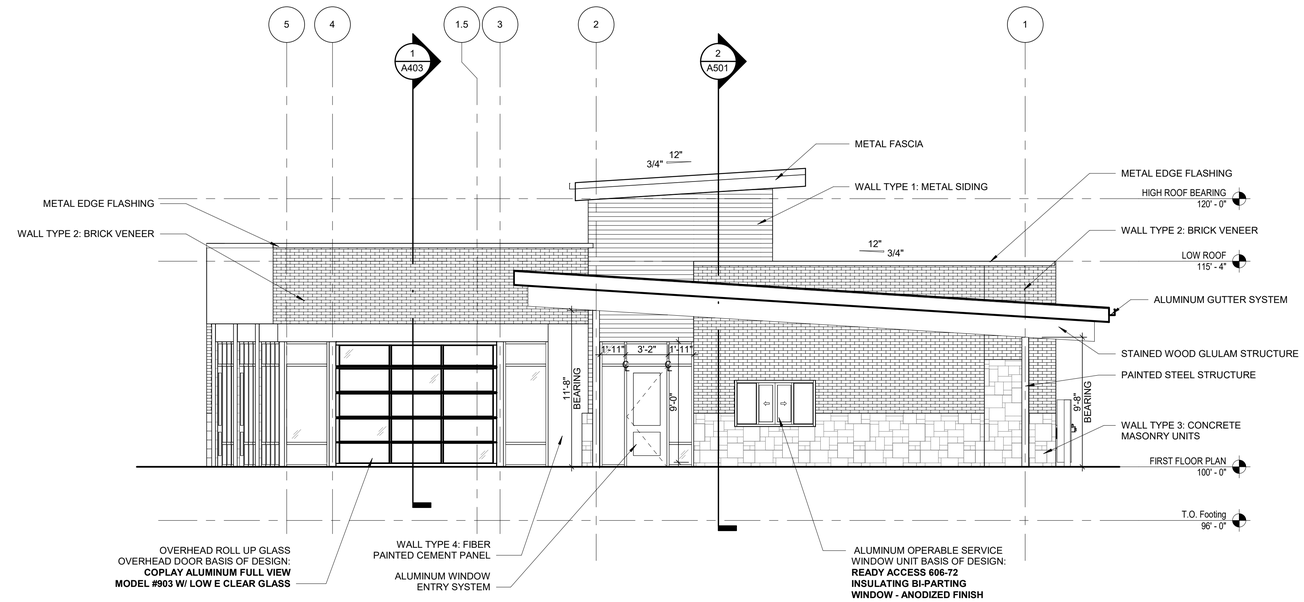
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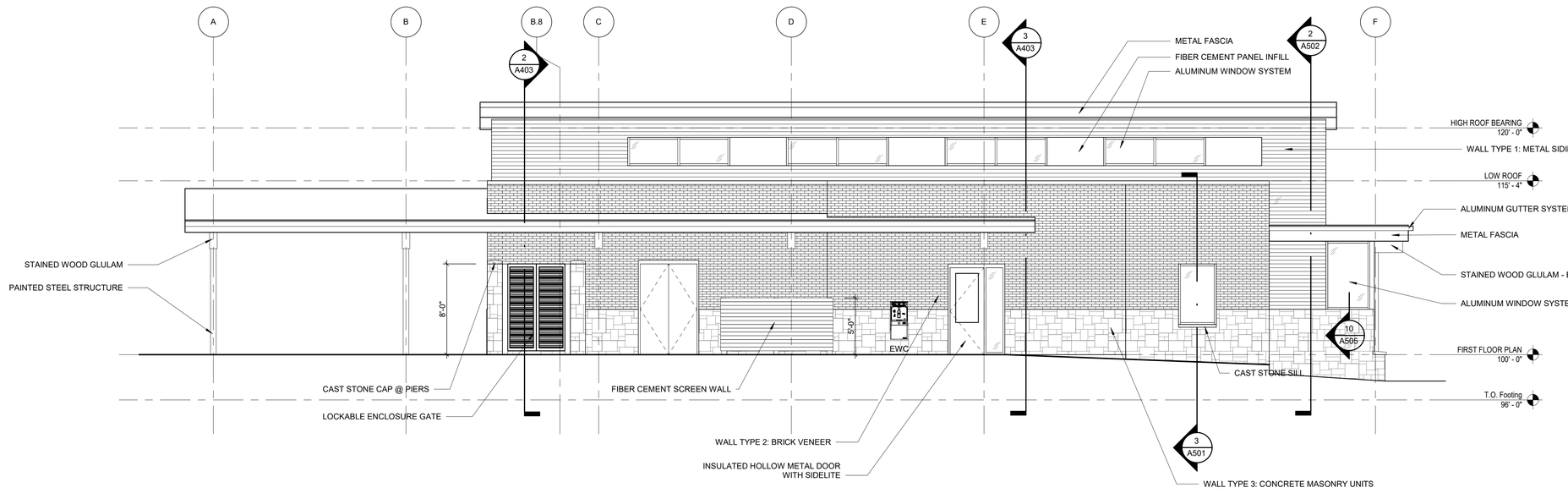
EXTERIOR ELEVATIONS

A401





3 NORTH ELEVATION
SCALE: 3/16" = 1'-0"



2 WEST ELEVATION
SCALE: 3/16" = 1'-0"

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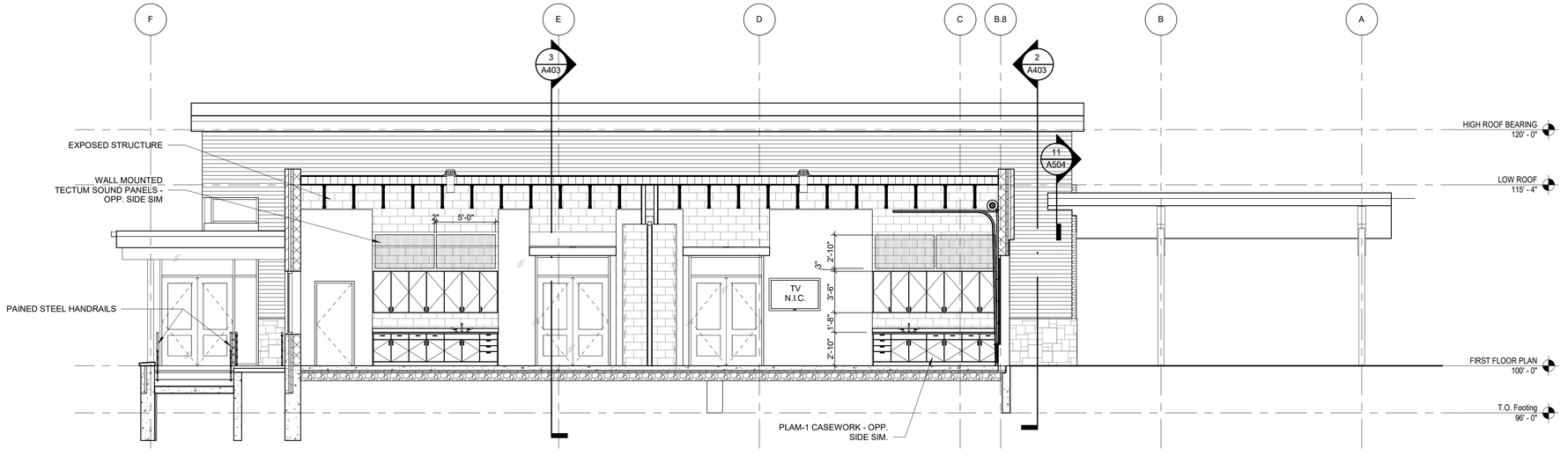
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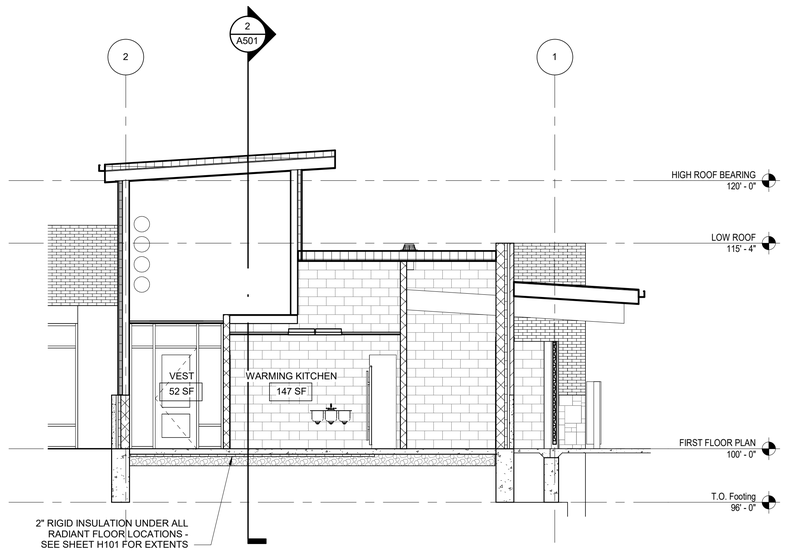
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EXTERIOR ELEVATIONS

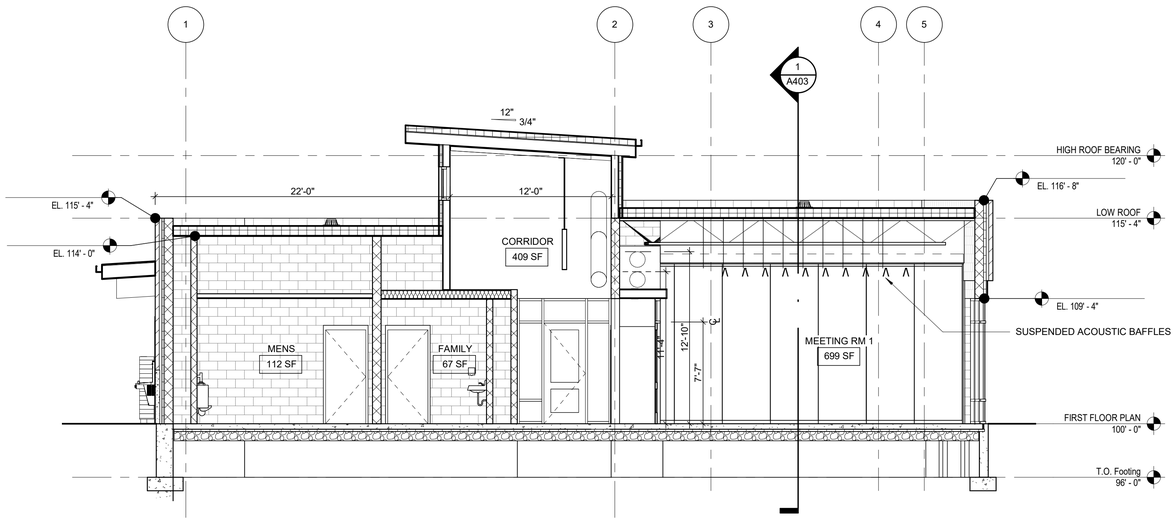
A402



1 N-S BUILDING SECTION
SCALE: 3/16" = 1'-0"



2 BUILDING SECTION @ VESTIBULE
SCALE: 3/16" = 1'-0"



3 W-E BUILDING SECTION
SCALE: 3/16" = 1'-0"

Engberg Anderson ARCHITECTS

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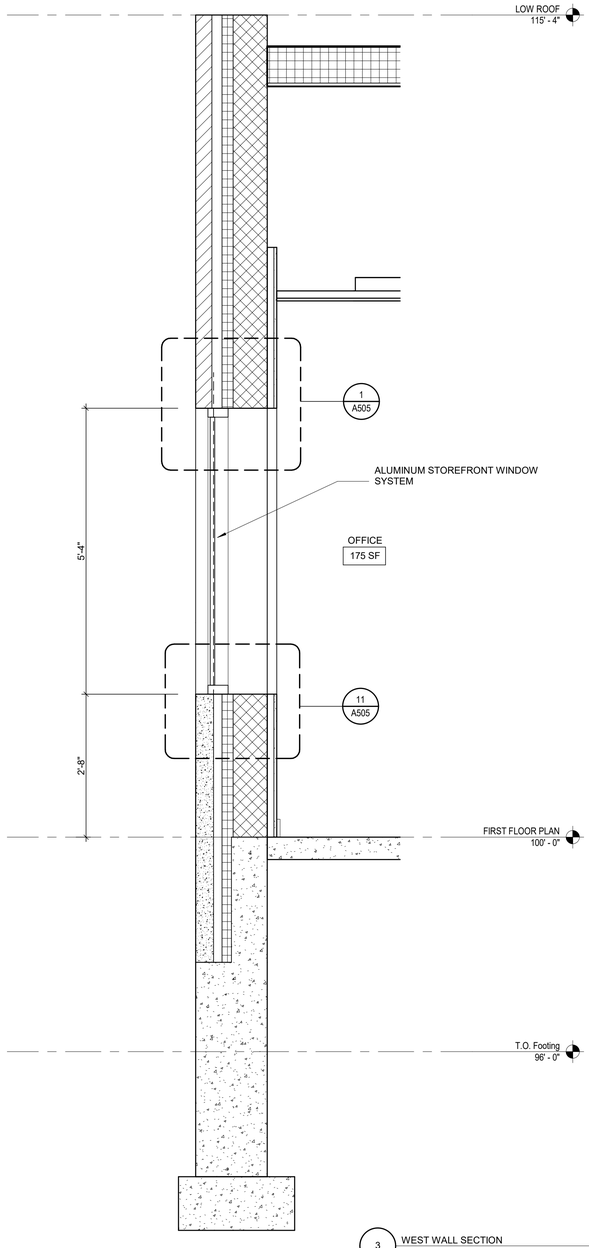
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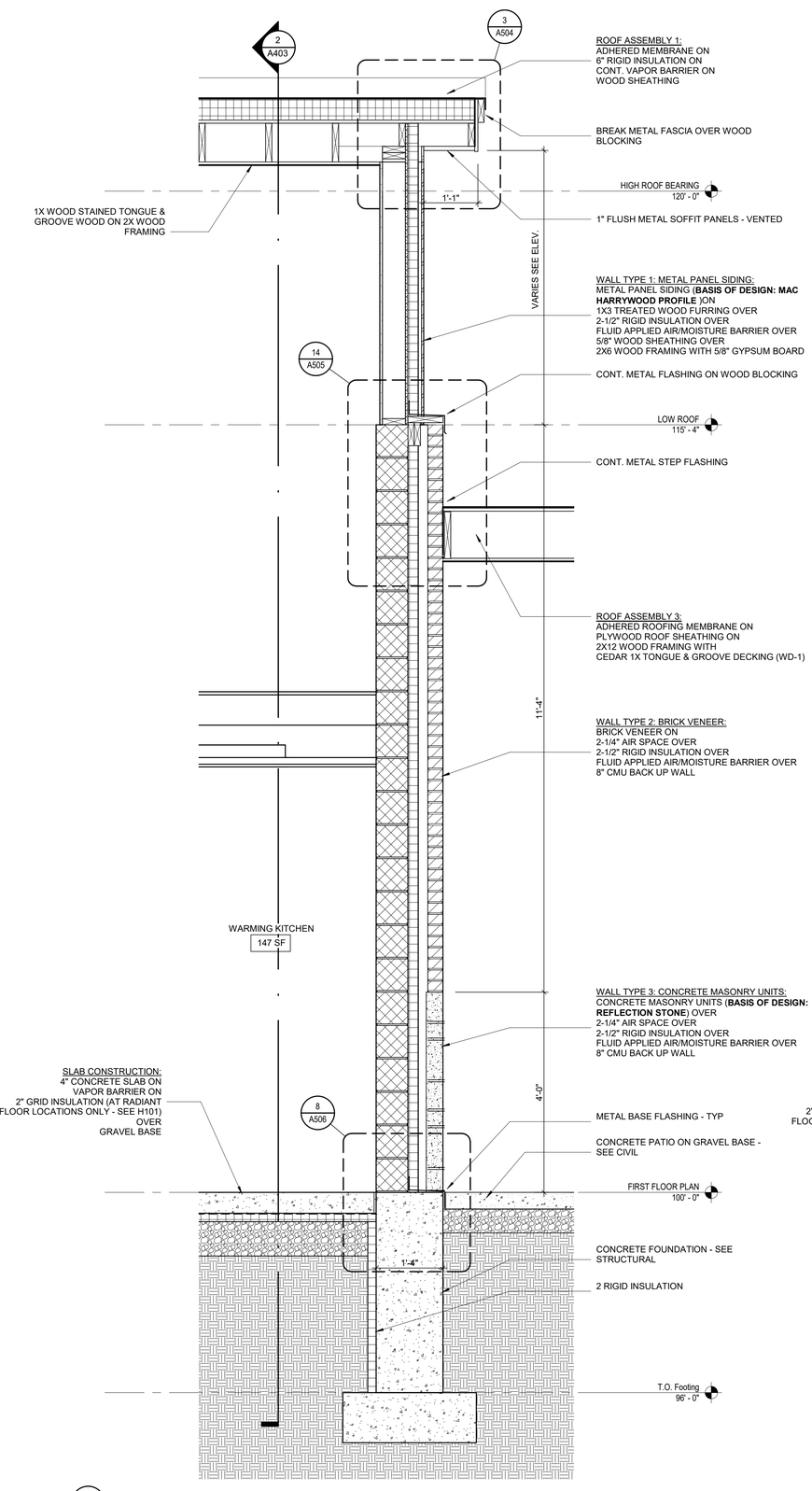
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BUILDING SECTIONS

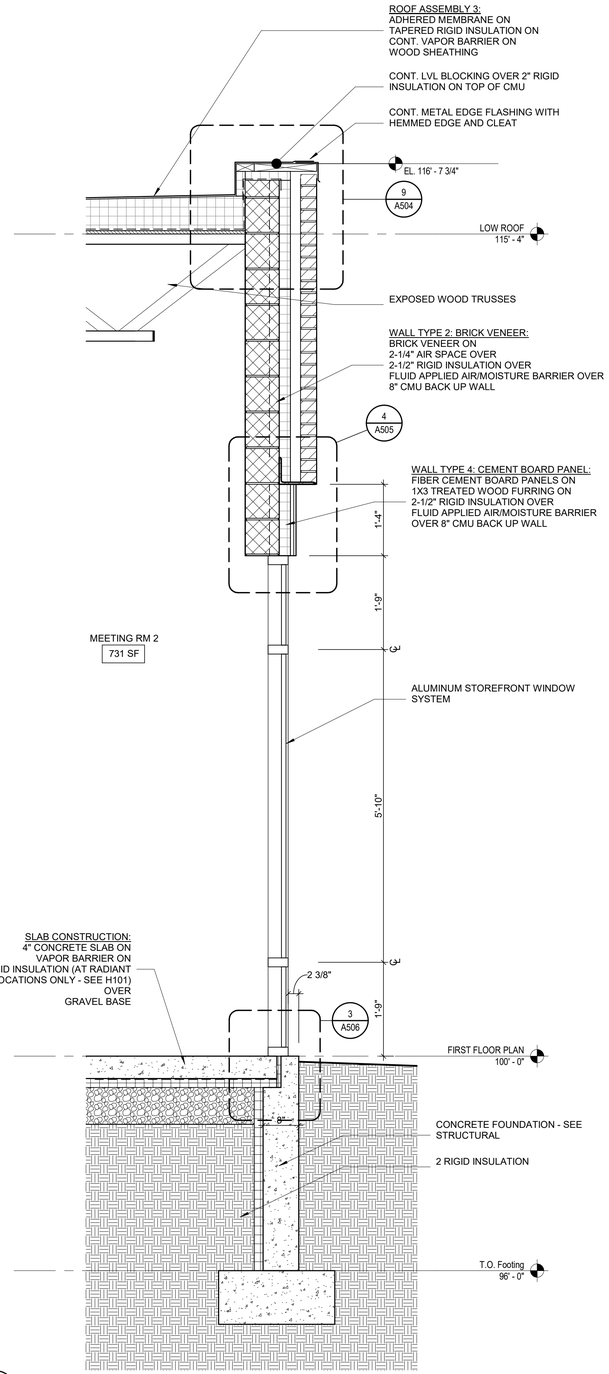
A403



3 WEST WALL SECTION
SCALE: 3/4" = 1'-0"



2 NORTH WALL SECTION
SCALE: 3/4" = 1'-0"



1 EAST WALL SECTION @ GLASS
SCALE: 3/4" = 1'-0"

Engberg Anderson ARCHITECTS
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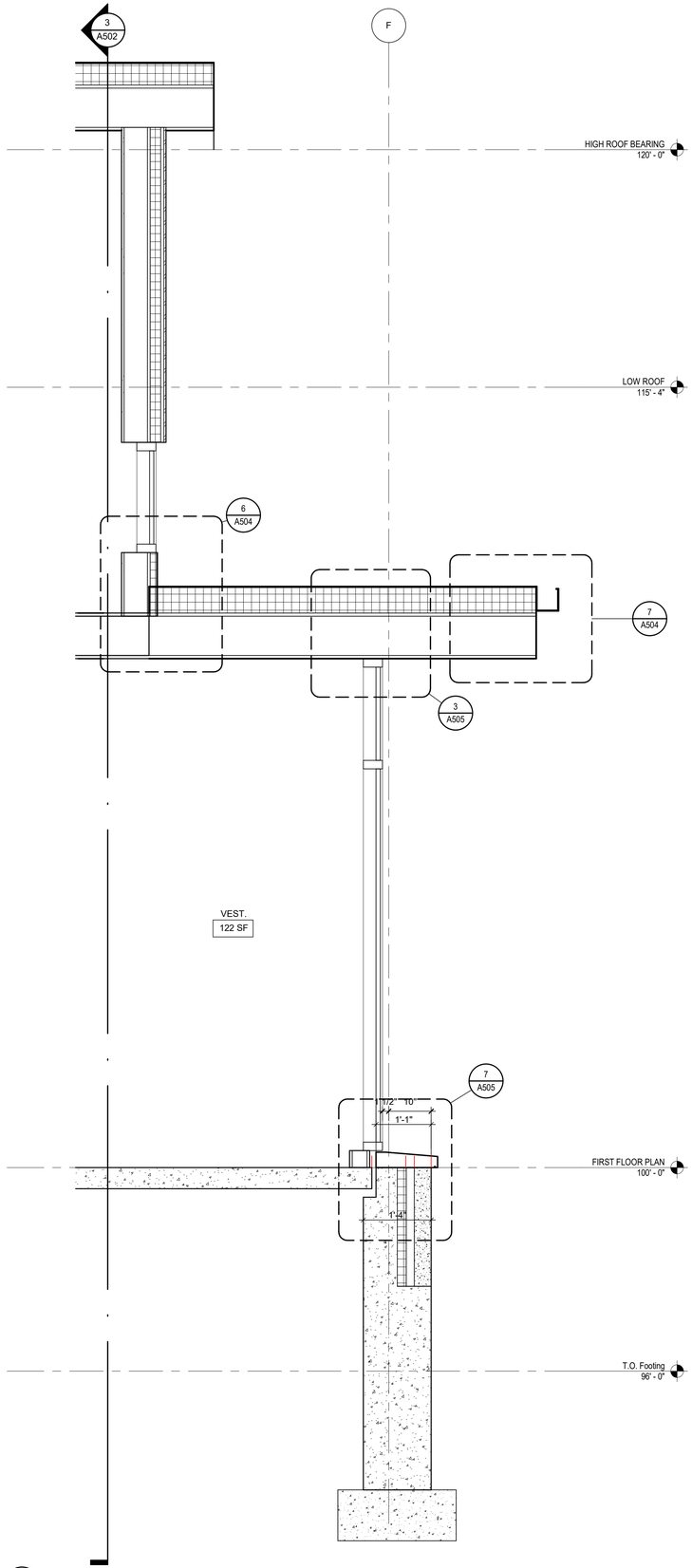
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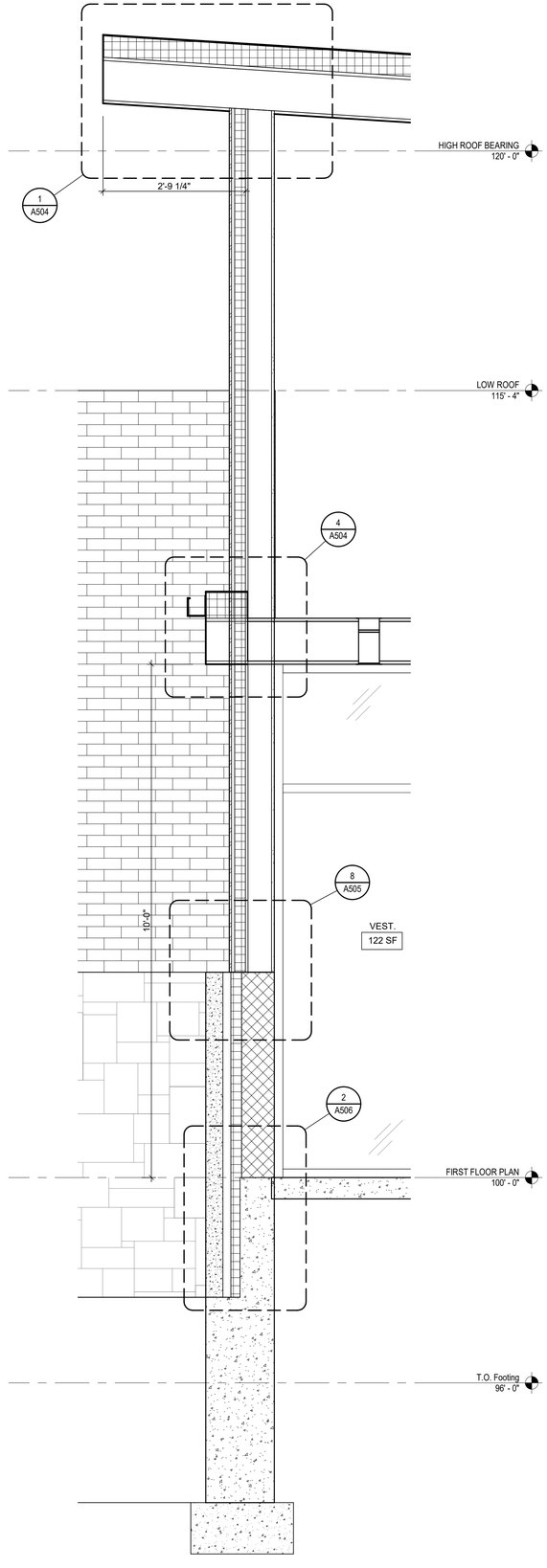
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WALL SECTIONS

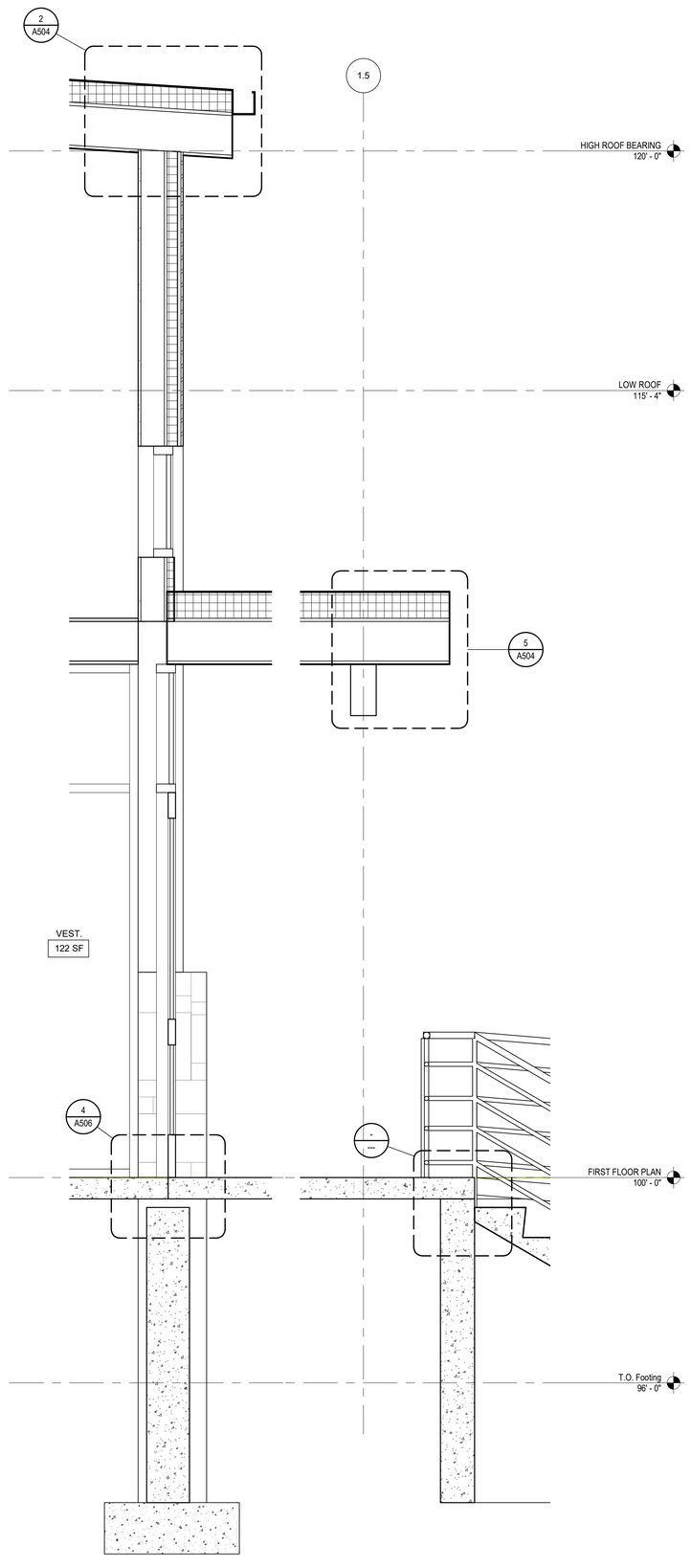
A501



1 SOUTH WALL SECTION AT VESTIBULE
SCALE: 3/4" = 1'-0"



2 WEST WALL SECTION @ VESTIBULE
SCALE: 3/4" = 1'-0"



3 EAST WALL SECTION @ VESTIBULE
SCALE: 3/4" = 1'-0"

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

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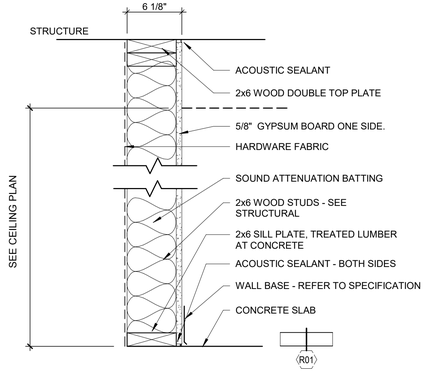
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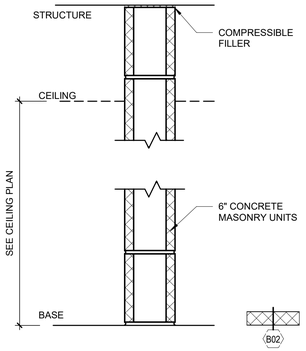
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WALL SECTIONS

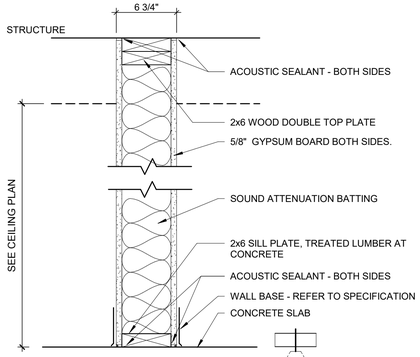
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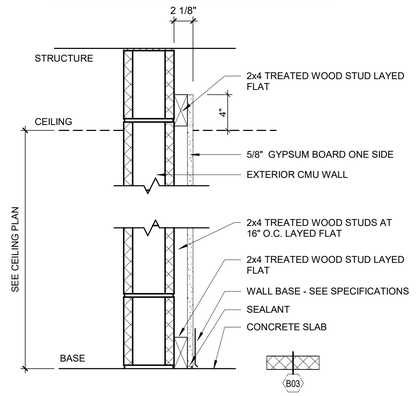
WALL TYPE R01



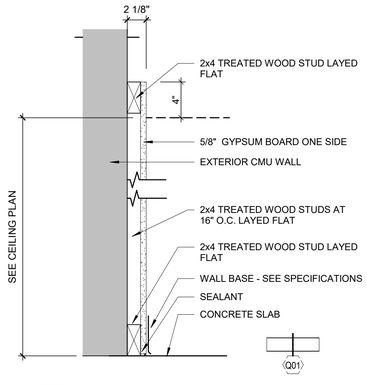
WALL TYPE B02



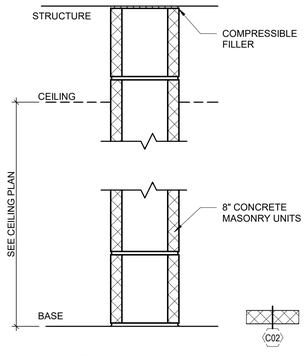
WALL TYPE R02



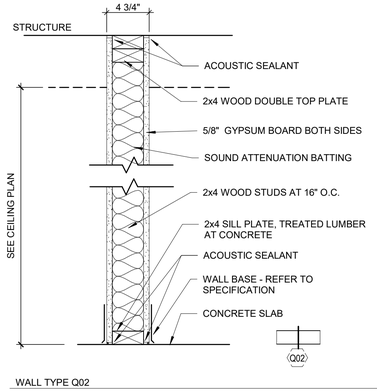
WALL TYPE B03



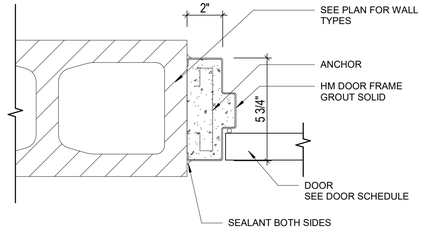
WALL TYPE Q01



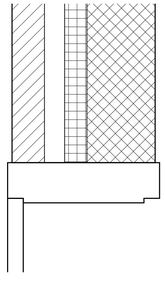
WALL TYPE C02



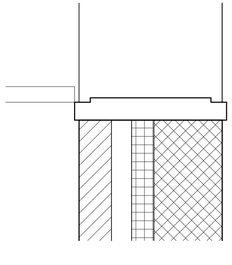
WALL TYPE Q02



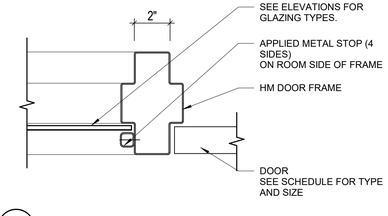
1 HM DOOR JAMB DETAIL CMU (HEAD SIM.)
SCALE: 3" = 1'-0"



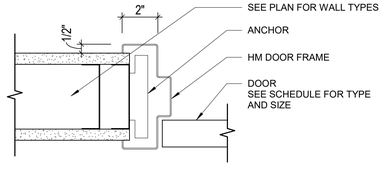
2 HOLLOW METAL HEAD DETAIL - EXTERIOR
SCALE: 1 1/2" = 1'-0"



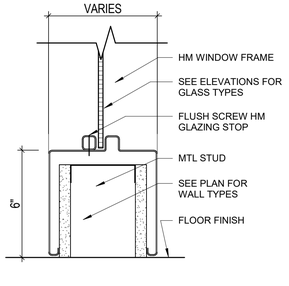
3 HOLLOW METAL JAMB DETAIL - EXTERIOR
SCALE: 1 1/2" = 1'-0"



4 HM DOOR W/ SIDELIGHT JAMB DETAIL
SCALE: 3" = 1'-0"



5 HM DOOR JAMB DETAIL (HEAD SIM.)
SCALE: 3" = 1'-0"



6 HM WINDOW SILL TO FLOOR DETAIL
SCALE: 3" = 1'-0"

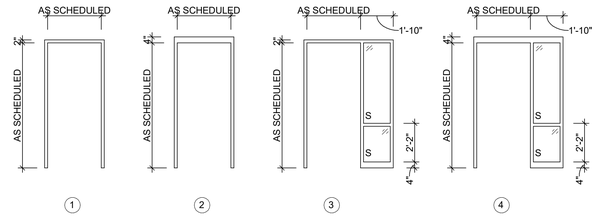
DOOR AND FRAME SCHEDULE

	DOOR						FRAME			DETAIL						
NUMBER	TYPE	MAT'L	FINISH		WIDTH	HEIGHT	TYPE	MAT'L	FINISH	THRESH	JAMB	HEAD	LABEL	HARDWARE	REMARKS	NUMBER
100-1	P			(2)	6' - 0"	7' - 6"								(none)		100-1
100-2	P			(2)	6' - 0"	7' - 6"								(none)	CARD READER - AUTO DOOR OPENER	100-2
102-1	E	WOOD			3' - 0"	7' - 0"	HM	HM						(none)	CARD READER	102-1
103-1	P	WOOD		(2)	6' - 0"	7' - 6"	HM	ALUM						(none)	CARD READER	103-1
103-2	P	ALUM			3' - 0"	7' - 6"	ALUM	ALUM						(none)	CARD READER	103-2
104-1	P	WOOD		(2)	6' - 0"	7' - 6"	HM	HM						(none)	CARD READER	104-1
104-2	P	ALUM			3' - 0"	7' - 6"	ALUM	ALUM						(none)	CARD READER	104-2
104-3					12' - 0"	9' - 4"								(none)	INSULATED OVERHEAD DOOR	104-3
106-1	P	ALUM			3' - 0"	7' - 6"	ALUM	ALUM						(none)	CARD READER	106-1
106-2	P	ALUM			3' - 1"	7' - 6"	ALUM	ALUM						(none)		106-2
107-1	A	WOOD			3' - 0"	7' - 0"	HM	HM						(none)		107-1
108-1	A	WOOD			3' - 0"	7' - 0"	HM	HM						(none)		108-1
109-1	A	WOOD			3' - 0"	7' - 0"	HM	HM						(none)		109-1
110-1	A	WOOD			3' - 0"	7' - 0"	HM	HM						(none)	CARD READER	110-1
111-1	D	METAL			3' - 0"	7' - 8"	HM	HM						(none)	CARD READER - INSULATED	111-1
111-2	D	WOOD			3' - 0"	7' - 0"	HM	HM						(none)	CARD READER	111-2
112-1	A	WOOD		(2)	2' - 0"	7' - 0"	HM	HM						(none)	CARD READER	112-1
113-1	A			(2)	2' - 6"	7' - 0"								(none)		113-1
114-1	D	WOOD			3' - 0"	7' - 0"	HM	HM						(none)	CARD READER	114-1
115-1	A				3' - 0"	7' - 0"								(none)		115-1
115-2	A	METAL		(2)	2' - 6"	8' - 0"	HM	HM						(none)	CARD READER - INSULATED	115-2
116-1					6' - 0"	8' - 0"								(none)	LOCKABLE GATE	116-1
117-1	A	WOOD			3' - 0"	7' - 0"	HM	HM						(none)		117-1

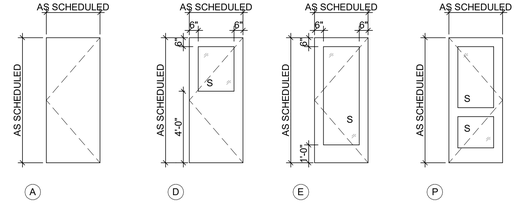
Grand total: 23

GENERAL NOTES

1. SUBSTITUTE 5/8" CEMENT BOARD IN ALL AREAS TO RECEIVE CERAMIC TILE.
2. SEE FINISH SCHEDULE FOR WALL BASE TYPE
3. PROVIDE BLOCKING IN WALLS AS REQUIRED FOR ALL WALL MOUNTED EQUIPMENT & ACCESSORIES
4. HARDWARE FABRIC: GALVANIZED STEEL MESH WITH 1/4" TO 1" SQUARE OPENINGS TO MAINTAIN BATTING IN PLACE.
5. FRAME: REFER TO DOOR DETAILS AND SCHEDULE
6. DIMENSIONS: DIMENSIONS ARE NOMINAL - MANUFACTURER PROVIDING THE DOORS TO DETERMINE THE ROUGH OPENINGS EXCEPT THE OPENINGS IN CONCRETE WALLS THAT HAVE BEEN ALREADY SPECIFIED.
7. HARDWARE: FOR HARDWARE GROUP SPECIFICATIONS REFER TO THE PROJECT MANUAL UNDER HARDWARE SPECS.
8. ELECTRICAL DEVICES SUCH AS MAG. LOCKS, CARD READERS AND ALARM SYSTEMS BEING PART OF THE DOOR FUNCTION ARE INCLUDED AS PART OF THE ELECTRICAL PLANS AND THE HARDWARE GROUPS.
9. GLAZING: GLAZING AS NOTED ON DOOR TYPE ELEVATIONS. **S** = SAFETY GLASS
10. FINISH: SEE DOOR SCHEDULE FOR DOOR AND FRAME FINISH



FRAME TYPES



DOOR TYPES

Engberg Anderson ARCHITECTS
MILWAUKEE | MADISON | TUCSON | CHICAGO

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

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DOOR SCHEDULE, DETAILS & WALL TYPES

A601

FINISH SCHEDULE

RM #	ROOM NAME	FLOORS FINISH	BASE FINISH	WALL FINISH NORTH FINISH	WALL FINISH EAST FINISH	WALL FINISH SOUTH FINISH	WALL FINISH WEST FINISH	CEILING FINISH	REMARKS
100	VEST.	WM-1/CONC-1	RB-1		PT-1			WD-1	
101	ENTRY	CONC-1	RB-1	BURNISHED CMU	BURNISHED CMU/PT-1	PT-1	PT-1/PT-3	WD-1	
102	OFFICE	CPT-1	RB-1	PT-4	PT-2	PT-2	PT-2	ACT-1	
103	MEETING RM 1	CONC-1	RB-1	PT-1	PT-5	PT-1	PT-1	WD-2	PL-1 CASEWORK, SS-1 COUNTERTOP
104	MEETING RM 2	CONC-1	RB-1	PT-1	PT-5	PT-1	PT-1	WD-2	PL-1 CASEWORK, SS-1 COUNTERTOP
105	CORRIDOR	CONC-1	RB-1		BURNISHED CMU/PT-1		BURNISHED CMU/PT-1/PT-3	WD-1	
106	VEST	WM-1/CONC-1	RB-1		PT-1		BURNISHED CMU	ACT-1	
107	MENS	CONC-1	RB-1	PT-1	PT-6	PT-1	PT-1	PT-2	
108	WOMENS	CONC-1	RB-1	PT-1	PT-6	PT-1	PT-1	PT-2	
109	FAMILY	CONC-1	RB-1	PT-1	PT-6	PT-1	PT-1	PT-2	
110	WATER	CONC-2	RB-1	PT-1	PT-1	PT-1	PT-1	OTS-2	
111	CORR.	CONC-1	RB-1	PT-1	PT-3	PT-1	PT-1	ACT-1/PT-2	
112	IT CLOS.	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	OTS-2	
113	STORAGE								
114	WARMING KITCHEN	CONC-1	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	
115	MECH.	CONC-2	RB-1	PT-1	PT-1	PT-1	PT-1	OTS-2	
116	ELEC.	CONC-2	NONE	PT-1	BRICK	PT-1	PT-1		
117	SPRINKLER	CONC-2	RB-1	PT-1	PT-1	PT-1	PT-1	OTS-2	

Grand total: 18

FINISH KEY

ACT-1 ACOUSTICAL CEILING PANEL
MANUFACTURER: ARMSTRONG CEILINGS
STYLE: ULTIMA BEVELED TEGULAR 9/16
COLOR: WHITE
SIZE: 24" X 48"

CPT-1 CARPET TILE
SPEC TBD, PROVIDE $25/SY MATERIAL ALLOWANCE
MANUFACTURER:
STYLE:
COLOR:
SIZE:
INSTALLATION:

PL-1 PLASTIC LAMINATE
SPEC TBD, PROVIDE $4/SF MATERIAL ALLOWANCE
SPEC TBD
MANUFACTURER:
COLOR:

PT-1 PAINT
SPEC TBD
MANUFACTURER:
COLOR:
FINISH:

PT-2 PAINT
SPEC TBD
MANUFACTURER:
COLOR:
FINISH:

PT-3 PAINT
SPEC TBD
MANUFACTURER:
COLOR:
FINISH:

PT-4 PAINT
SPEC TBD
MANUFACTURER:
COLOR:
FINISH:

PT-5 PAINT
SPEC TBD
MANUFACTURER:
COLOR:
FINISH:

PT-6 PAINT
SPEC TBD
MANUFACTURER:
COLOR:
FINISH

PT-7 PAINT
SPEC TBD
MANUFACTURER:
COLOR:
FINISH

WD-1 1X6 TONGUE & GROOVE CEDAR
SPEC TBD
MANUFACTURER:
COLOR:
FINISH: STAINED

WD-2 A/C PLYWOOD
FINISH: CLEAR COAT

RB-1 RUBBER BASE
MANUFACTURER: JOHNSONITE
STYLE: 4" COVE
COLOR: TBD

RB-2 RUBBER BASE
MANUFACTURER: JOHNSONITE
STYLE: 4" COVE
COLOR: TBD

SS-1 SOLID SURFACE
SPEC TBD, PROVIDE $25/SF MATERIAL ALLOWANCE
MANUFACTURER:
STYLE:

WT-1 WINDOW TREATMENTS
SPEC TBD
MANUFACTURER:
STYLE:
COLOR

WT-2 WINDOW TREATMENTS
SPEC TBD
MANUFACTURER:
STYLE:
COLOR

CONC-1 STAINED CONCRETE
SPEC TBD
MANUFACTURER:
STYLE:
COLOR

CONC-2 SEALED CONCRETE
SPEC TBD
MANUFACTURER:
STYLE:
COLOR

WM-1 RECESSED MAT FLOOR GRILLE
SPEC TBD
MANUFACTURER:
STYLE:
COLOR

- BURNISHED CMU - ONE SIDE & RETURNS

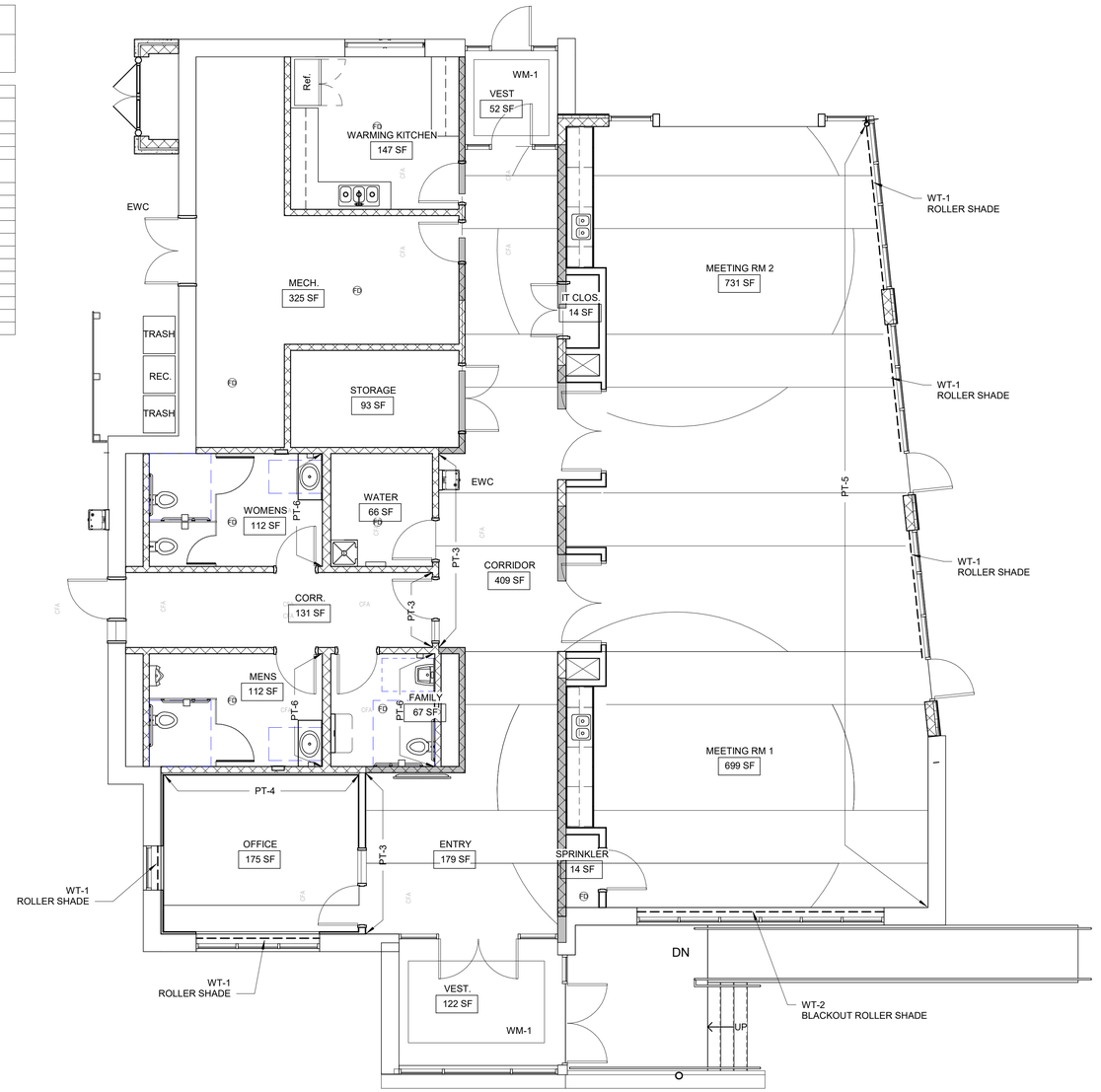
- NORMAL WEIGHT CMU - PAINTED WHERE EXPOSED

OTS-1 CLEAR COAT FINISHED EXPOSED PLYWOOD

OTS-2 EXPOSED FRAMING LUMBER

GENERAL FINISH NOTES

1. HM DOORS AND FRAMES ARE TO BE PAINTED PT-7.
2. PAINT FINISH TO BE EGGSHELL ON ALL WALLS EXCEPT RESTROOM WALLS.
3. RESTROOM WALL PAINT FINISH TO BE SEMI-GLOSS.
4. CEILING PAINT FINISH TO BE FLAT.



1 FIRST FLOOR FINISH PLAN
SCALE: 3/16" = 1'-0"

Plan North

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

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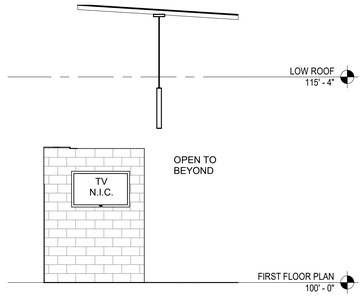
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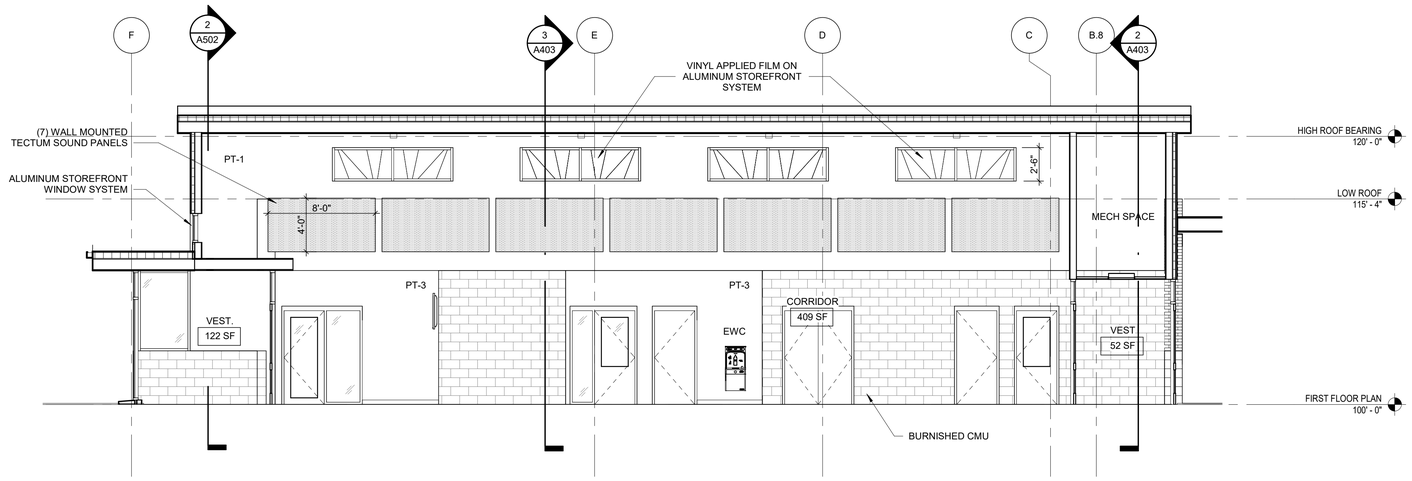
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FIRST FLOOR FINISH PLAN, SCHEDULE, & KEY

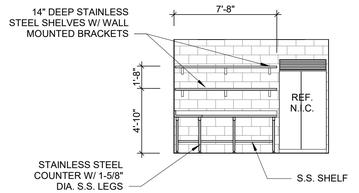
A701



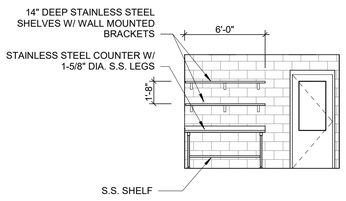
5 ENTRY NORTH ELEVATION
SCALE: 3/16" = 1'-0"



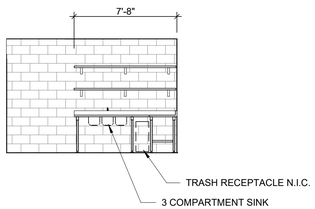
1 CORRIDOR WEST ELEVATION
SCALE: 3/16" = 1'-0"



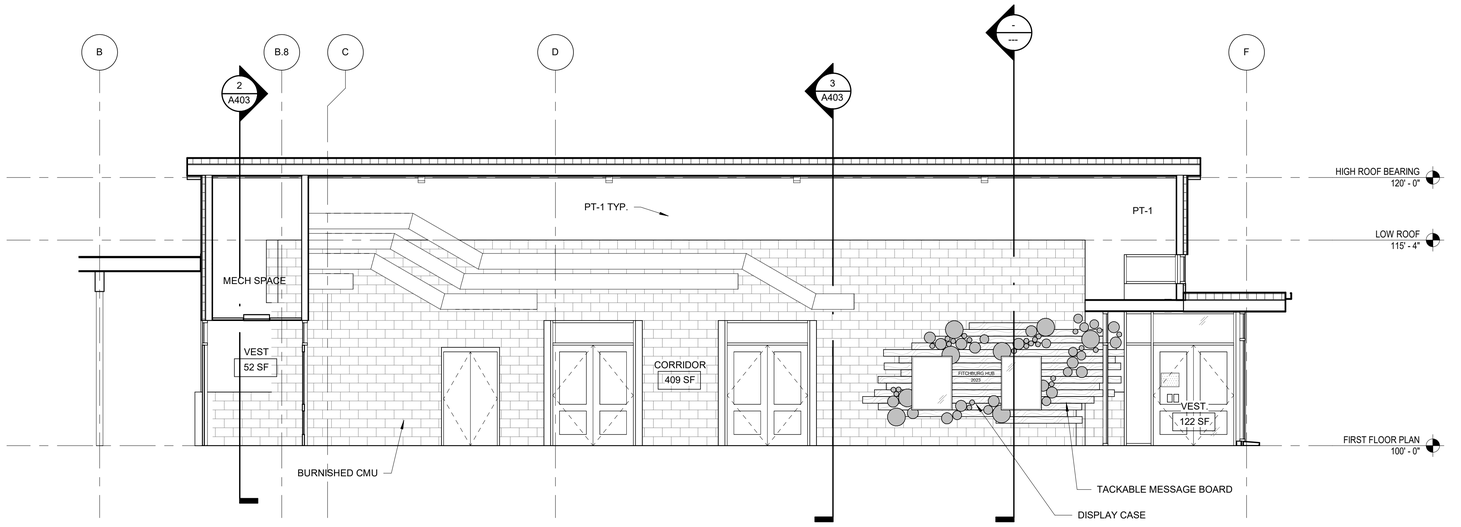
3 KITCHEN WEST ELEVATION
SCALE: 3/16" = 1'-0"



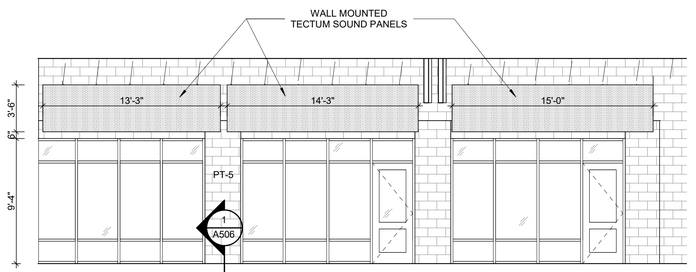
4 KITCHEN EAST ELEVATION
SCALE: 3/16" = 1'-0"



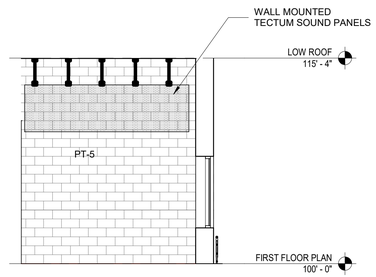
8 KITCHEN - SOUTH ELEVATION
SCALE: 3/16" = 1'-0"



2 CORRIDOR EAST ELEVATION
SCALE: 3/16" = 1'-0"



6 MEETING ROOM #1 & #2 EAST ELEVATION
SCALE: 3/16" = 1'-0"



7 MEETING ROOM #1 EAST ELEVATION
SCALE: 3/16" = 1'-0"

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

NORTH FISH HATCHERY HUB

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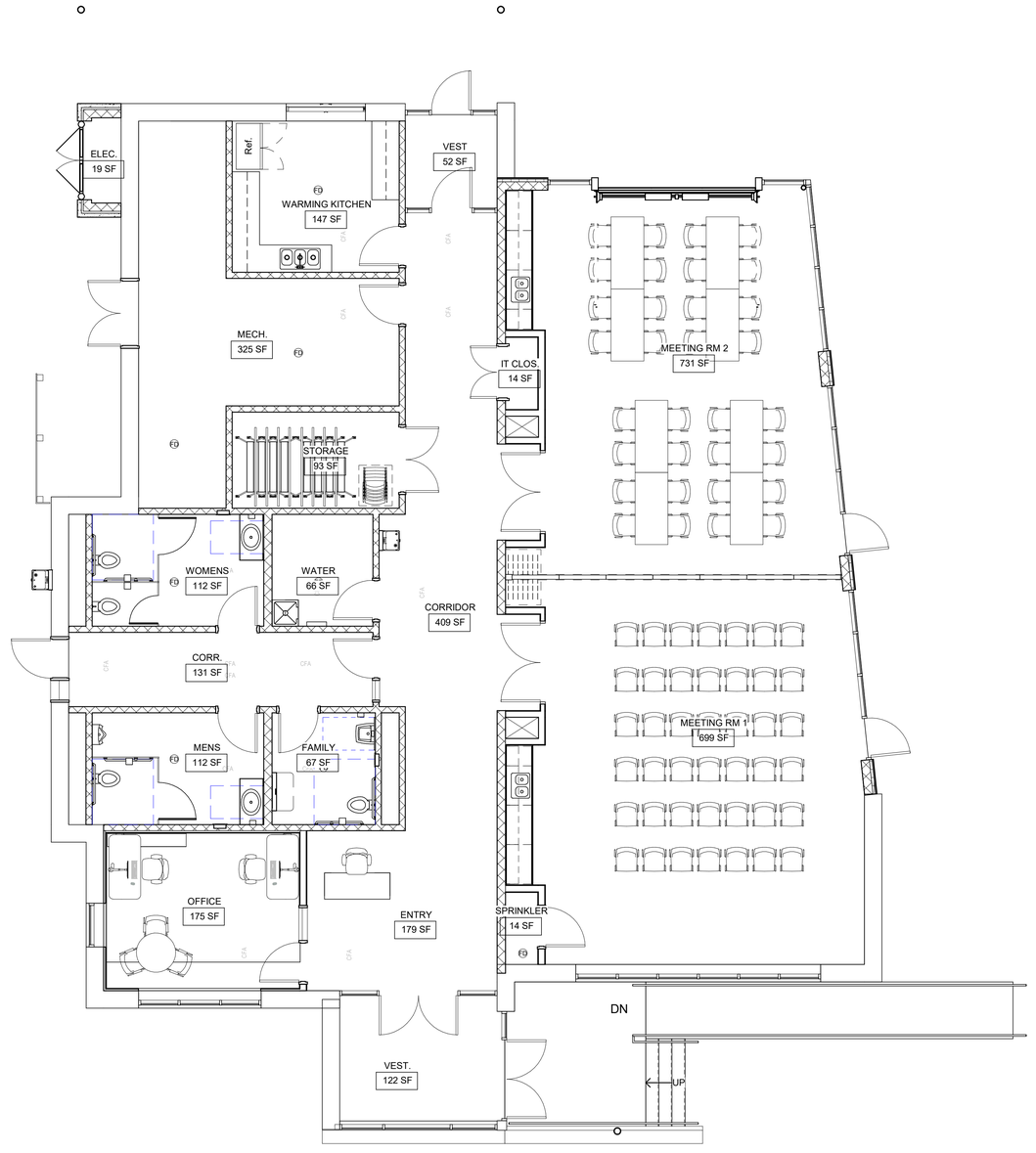
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INTERIOR ELEVATIONS

A801



1 FIRST FLOOR FURNITURE PLAN - FOR REFERENCE ONLY
SCALE: 3/16" = 1'-0"

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

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FIRST FLOOR FURNITURE PLAN - FOR REFERENCE ONLY

F101

STRUCTURAL DESIGN CRITERIA

1. THESE NOTES SUPPLEMENT THE SPECIFICATIONS. PROJECT SPECIFICATIONS SHALL BE REFERRED TO FOR CLARIFICATIONS AND ADDITIONAL INFORMATION. IN CASE OF CONFLICT BETWEEN PROJECT SPECIFICATIONS AND THESE NOTES, THESE NOTES SHALL GOVERN.

2. GOVERNING BUILDING CODE: 2015 IBC AS AMENDED BY THE STATE OF WISCONSIN.

3. DESIGN LOADS

   LIVE LOAD
   - TYPICAL SLAB ON GRADE ---- 100 psf
   - MEZZANINE ---- 100 psf

   ROOF
   - LIVE LOAD
     - SNOW ---- 50 psf+DRIFTING
   - SUPERIMPOSED DEAD LOAD
     - TOP CHORD ---- 10 psf
     - BOTTOM CHORD ---- 10 psf

   SNOW LOADS
   - GROUND SNOW (Pg) ---- 50 psf
   - SNOW LOAD IMPORTANCE FACTOR (Is) ---- 1.0
   - SNOW LOAD EXPOSURE FACTOR (Ce) ---- 1.0
   - ROOF THERMAL LOAD FACTOR (Ct) AT BUILDING ---- 1.1
   - BASE ROOF SNOW LOAD AT BUILDING ---- 46.2 psf

   WIND LOADS
   - BASIC WIND SPEED ---- 90 mph
   - BUILDING OCCUPANCY CATEGORY ---- II
   - WIND LOAD IMPORTANCE FACTOR (Iw) ---- 1.0
   - WIND EXPOSURE CATEGORY ---- C
   - INTERNAL PRESSURE COEFFICIENT ---- ±0.18

   COMPONENTS AND CLADDING:
   (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	10 ft²	10 ft²
ROOF (MONOSLOPE):			
ZONE 1 (NEGATIVE)	19.7 psf	17.3 psf	16.3 psf
ZONE 2 (NEGATIVE)	23.0 psf	20.7 psf	19.7 psf
ZONE 3 (NEGATIVE)	23.0 psf	20.7 psf	19.7 psf
WALLS:			
ZONE 4 (NEGATIVE)	21.3 psf	19.3 psf	18.4 psf
ZONE 5 (NEGATIVE)	26.3 psf	22.3 psf	20.4 psf
ZONE 4 & 5 (NEGATIVE)	19.7 psf	17.6 psf	16.7 psf

   SEISMIC LOADS
   - SEISMIC USE GROUP / OCCUPANCY CATEGORY ---- II
   - SEISMIC IMPORTANCE FACTOR (Ie) ---- 1.0
   - SEISMIC SITE CLASS ---- C
   - SPECTRAL RESPONSE COEFFICIENT (Sds) ---- 0.048
   - SPECTRAL RESPONSE COEFFICIENT (Sd1) ---- 0.032
   - SEISMIC DESIGN CATEGORY ---- A
   - BASIC SEISMIC FORCE RESISTING SYSTEM:
     BEARING WALL SYSTEM
     LIGHT FRAMED WALL SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE:
     R = 6.5 Ωo = 3.0 Cd = 4.0

   ANALYSIS PROCEDURE:
   EQUIVALENT LATERAL FORCE PROCEDURE

4. FOUNDATIONS AND EARTHWORK
   - ALLOWABLE SOIL BEARING PRESSURE FOR FOOTINGS ---- 4,000 psf

5. CONCRETE
   MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)
   - FOOTINGS ---- 4,000 psi
   - PIERS, WALLS ---- 4,000 psi
   - SLAB-ON-GRADE (INTERIOR) ---- 3,500 psi
   - SLAB-ON-GRADE (EXTERIOR) ---- 4,500 psi

   COVER ON MILD STEEL REINFORCEMENT
   - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ---- 3"
   - CONCRETE EXPOSED TO EARTH OR WEATHER
     - #5 BARS AND SMALLER ---- 1 1/2"
     - #6 BARS AND LARGER ---- 2"
   - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND ---- 1"

   CONCRETE REINFORCEMENT YIELD STRENGTH (Fy)
   - ALL DEFORMED MILD STEEL ---- 60,000 psi
   - WELDED WIRE FABRIC ---- 65,000 psi

6. CONCRETE MASONRY
   DESIGN STRESSES
   - MASONRY (NORMAL WEIGHT) MEETING ASTM C90 ---- f'm = 2,250 psi
   - GROUT: MIN COMPRESSIVE STRENGTH AT 28 DAYS MEETING ASTM C476 ---- 3,000 psi

7. STRUCTURAL STEEL
   STRUCTURAL STEEL YIELD STRENGTH (Fy)
   - TUBES ---- 46,000 psi
   - WF BEAMS ---- 50,000 psi
   - WF COLUMNS ---- 50,000 psi

   - BOLTS FOR STANDARD FRAME CONNECTIONS ---- 3/4" DIAMETER A325
   - BOLTS FOR SINGLE SHEAR TAB CONNECTIONS ---- 3/4" DIAMETER A325
   - ANCHOR RODS ---- F1554
   - WELDING ELECTRODES ---- E70

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.

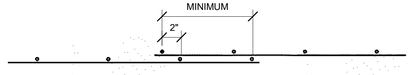
7. WHEN CONFLICTS ARE NOTED ON THE DRAWINGS, THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE A/E FOR RESOLUTION PRIOR TO FABRICATION OR INSTALLATION.

FOUNDATION NOTES

1. GEOTECHNICAL INFORMATION TAKEN FROM: _____.
2. THE OWNER SHALL RETAIN A SOILS ENGINEERING FIRM TO MONITOR PROPER SUBGRADE PREPARATIONS AND TO OVERSEE THE TESTING AND COMPACTION OF COMPACTED FILL MATERIAL.
3. CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND UTILITIES BEFORE FOUNDATION EXCAVATION IF UNDERGROUND UTILITY CONFLICTS ARE DISCOVERED BEFORE OR ENCOUNTERED DURING EXCAVATION, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
4. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ANY EXISTING FOUNDATIONS.
5. 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.
6. REINFORCE ALL FOUNDATION WALLS AND FOOTINGS AS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
7. 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).



MASONRY NOTES

1. ALL MASONRY WALLS ARE TO HAVE HORIZONTAL REINFORCEMENT WHICH DOES NOT EXCEED 16 INCHES ON CENTER VERTICALLY. SEE SPECIFICATIONS FOR INFORMATION RELATING TO CONCRETE BLOCK, BRICK, AND WALL REINFORCING.
2. ALL VERTICAL REINFORCING STEEL IN MASONRY WALLS ARE TO COMPLY WITH ASTM A615, GRADE 60. LAPS SHALL BE 48 BAR DIAMETERS (12" MINIMUM).
3. PROVIDE SPLICE BARS FOR ALL BOND BEAM REINFORCING AT ALL CORNERS. SPLICE BAR TO BE THE SAME SIZE AS BARS IN THE BOND BEAM. LAPS SHALL BE 50 BAR DIAMETER.
4. WHERE MASONRY IS APPLIED ADJACENT TO STEEL MEMBERS (BEAMS AND COLUMNS) PROVIDE ANCHORING DEVICES PER SPECIFICATIONS.
5. REFER TO ARCHITECTURAL PLANS FOR ROUGH OPENING LOCATIONS, SIZES, AND ELEVATIONS.
6. USE SIMPSON TITEN HD OR APPROVED EQUAL TYPE ANCHORS IN CMU WALL PARTITIONS.
7. ALL NON-STRUCTURAL CMU WALLS SHALL BE REINFORCED WITH A #3 VERTICAL BAR AT 48" OC WITH THAT CMU CORE GROUTED AND HORIZONTAL JOINT REINFORCEMENT AT 16" OC THE BOTTOM TWO COURSES SHALL BE GROUTED SOLID. PROVIDE CONTINUOUS BOND BEAM AT TOP OF WALL WITH 2 #4's CONTINUOUS GROUT BOND BEAM SOLID. PROVIDE #3 DOWEL AT 48" OC MATCH VERTICAL BAR, LAP 50 BAR DIAMETERS. PROVIDE LINTEL BLOCK AS BOND BEAM WITH (2) #5 x CONT, AND 8" BEARING EACH END. TYPICAL UNLESS NOTED OTHERWISE.
8. CONSTRUCTION BRACING FOR MASONRY WALLS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. MASONRY SUBMITTALS SHALL CONTAIN A LETTER SEALED BY THE ENGINEER AND SHALL BE ISSUED TO THE OWNER AFTER SUBMITTAL REVIEW AND PRIOR TO STARTING MASONRY CONSTRUCTION.

GENERAL NOTES APPLY TO ALL SHEETS

1. CONTRACTOR TO PROVIDE DRAFT STOPPING IN ATTIC. MAXIMUM AREA OF SUBDIVIDE ATTIC AREA IS 3000 SF CONTRACTOR TO COORDINATE LOCATION OF DRAFT STOPPING WITH ARCHITECT AND TRUSS SHOP DRAWINGS PRIOR TO START OF CONSTRUCTION. PROVIDE AN ATTIC ACCESS PANEL INTO EACH ATTIC COMPARTMENT. MINIMUM OPENING SIZE OF 20" x 30" COORDINATE LOCATION WITH ARCHITECT. DRAFT STOPPING TO EXTEND TO FASCIA AT OVERHANGS.
2. SECURE TRUSSES AT EACH BEARING WITH SIMPSON H2.5A MIN.
3. CONTRACTOR TO SUBMIT TRUSS SHOP DRAWINGS TO ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTION.

WOOD FRAMING NOTES

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 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 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 PRESSURE TREATED.
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.
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.
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 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 DETRIMENTAL DAMAGE BEFORE INSTALLATION, AND AVOID NATURAL DEFECTS AT CONNECTIONS. WHERE STEEL PLATES OCCUR, THEY SHALL BE USED AS THE TEMPLATE FOR BORING HOLES.
12. WHEREVER NECESSARY TO CUT OR DRILL TREATED LUMBER, TREAT THE CUT OR BORED SURFACES WITH TWO HEAVY COATS OF THE SAME PRESERVATIVE AS THE ORIGINAL TREATMENT.
13. PROVIDE SOLID BLOCKING AT MID-HEIGHT OF ALL WALLS.
14. PROVIDE SOLID BLOCKING AT MID-SPAN OF SAWN JOISTS EXCEEDING 10 FOOT SPAN AND AT 10 FOOT MAXIMUM ON CENTER.
15. MEMBERS BEARING ON CONCRETE OR MASONRY WALLS SHALL HAVE A 1/2" AIR SPACE AROUND SIDES AND END OF BEAM.
16. PROVIDE SOLID BLOCKING BETWEEN JOISTS AT ALL SUPPORTS.
17. SET ALL JOISTS WITH CROWN UP.
18. PLYWOOD PANEL EDGES SHALL BE NAILED NOT LESS THAN 3/8" IN FROM THE PANEL EDGE.
19. PROVIDE 1/4" GAP BETWEEN 4' x 8' PLYWOOD PANELS AT SIDES AND 1/8" GAP AT ENDS. USE PLYWOOD CLIP SPACERS TO MAINTAIN GAPS.
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 3/8" DIAMETER UNLESS OTHERWISE INDICATED.

STRUCTURAL STEEL NOTES

1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM WITH THE AISC (AMERICAN INSTITUTE OF STEEL CONSTRUCTION), "MANUAL OF STEEL CONSTRUCTION", LATEST EDITION.
2. ALL STEEL DETAILS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AISC "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN", LATEST EDITION.
3. ALL WELDING SHALL BE BY WELDERS HOLDING CURRENT VALID AWS CERTIFICATES IN THE TYPE OF WELD REQUIRED.
4. SHOP CONNECTIONS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE BOLTED OR WELDED. FIELD CONNECTIONS SHALL BE BOLTED UNLESS SPECIFICALLY DETAILED OTHERWISE.
5. DESIGN IN ACCORDANCE WITH GUIDE DETAILS AND REACTIONS.
6. USE A325N BOLTS UNLESS NOTED OTHERWISE.
7. OVERSIZED OR SLOTTED HOLES SHALL NOT BE USED FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER.
8. ALL BEAM COPES MUST BE MADE TO A RADIUS (1" MINIMUM). ALL BUTT AND FULL PENETRATION WELDS SHALL BE MADE USING RUN OFF TABS WHICH SHALL BE TRIMMED FLUSH AND GROUND SMOOTH AFTER WELD IS COMPLETED.
9. ALL WELDS INDICATED SHALL MEET THE MINIMUM WELD SIZE SPECIFIED BY THE CURRENT AISC MANUAL OF STEEL DESIGN. (SINGLE PASS AS REQUIRED).
10. CUTS, HOLES, COPING, ETC. REQUIRED FOR WORK OF OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS AND MADE IN THE SHOP. CUTS OR BURNING OF HOLES IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED.
11. PROVIDE ANY NECESSARY TEMPORARY BRACING OR GUYS TO PROVIDE LATERAL SUPPORT OF THE BUILDING UNTIL PERMANENT FRAME IS COMPLETELY INSTALLED.
12. INSTALL EXPANSION BOLTS IN ACCORDANCE WITH THE ICBO REPORT RECOMMENDATIONS.
13. ALL ELEVATOR GUIDE BEAMS SHALL BE S8x18.4 UNLESS NOTED OTHERWISE. SLOPE TO MATCH BEAM SLOPE.
14. STRUCTURAL STEEL FRAMING SHALL BE TRUE AND PLUMB BEFORE CONNECTIONS ARE FINALLY BOLTED OR WELDED.

Engberg Anderson ARCHITECTS
MILWAUKEE | MADISON | TUCSON | CHICAGO

ONEIDA Total Integrated Enterprises
www.oneida-tribe.com Job Number 2019xxx
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5100 Eastpark Blvd, Suite 300,
Madison, Wisconsin 53718

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.

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

ISSUED FOR:

DD PRICING 10-28-22

REVISION FOR:

NO.	DESCRIPTION	DATE

DD REVIEW SET - NOT FOR CONSTRUCTION

DRAWN BY Author

CHECKED BY Checker

STRUCTURAL NOTES

S001

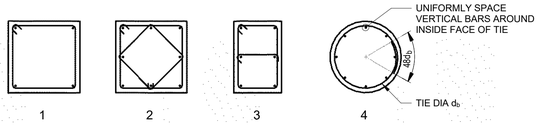
CONCRETE PIER SCHEDULE

MARK	PIER DIMENSIONS	PIER TYPE	REINFORCEMENT		REMARKS
			VERTICAL	TIES	
P1	18" x 18"	2	(8) #6	#3 AT 12" OC	.

PIER NOTES

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

PIER TYPES



SPREAD FOOTING SCHEDULE

MARK	FOOTING DIMENSIONS			FOOTING REINFORCEMENT	REMARKS
	LENGTH	WIDTH	THICKNESS		
F40	4' - 0"	4' - 0"	1' - 0"	(4) #5; B, EW	

WALL FOOTING SCHEDULE

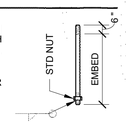
MARK	CONTINUOUS FOOTING DIMENSIONS		FOOTING REINFORCEMENT	REMARKS
	WIDTH	THICKNESS		
W20	2' - 0"	1' - 0"	(x) #X; B, CONT	
W30	3' - 0"	1' - 0"	(x) #X; B, CONT	

BASE PLATE SCHEDULE

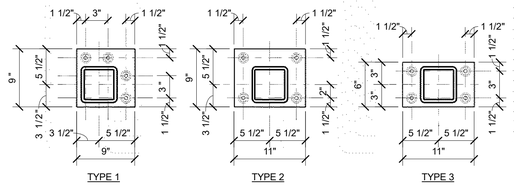
MARK	SIZE 'l' x 'w' x 't'	ANCHOR RODS	BASE PLATE TYPE	NOTES
BP1	3/4" x 9" x 0'-9"	(4) 3/4" DIA x	1	
BP2	3/4" x 9" x 0'-11"	(4) 3/4" DIA x	2	
BP3	3/4" x 6" x 0'-11"	(4) 3/4" DIA x	3	
BP1A	3/4" x 9" x 0'-9"	(4) 3/4" DIA x	1	
BP2A	3/4" x 9" x 0'-11"	(4) 3/4" DIA x	2	
BP3A	3/4" x 6" x 0'-11"	(4) 3/4" DIA x 10"	3	

BASE PLATE NOTES:

1. FASTEN STEEL COLUMN TO TOP OF CONCRETE USING (4) F1554 [36] [55] [105] ANCHOR RODS OF SIZE INDICATED WITH DOUBLE NUTS AT COLUMN BASE PLATE, AND 1 1/2" GROUT AT 3/4" DIAMETER ANCHOR RODS AND 2" GROUT AT 1" DIAMETER ANCHOR RODS, SET ANCHOR RODS WITH 6" PROJECTION



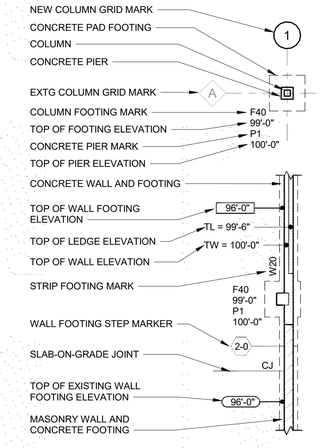
BASE PLATE TYPES:



ABBREVIATION LIST

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

FOUNDATION LEGEND



Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

ONEIDA Total Integrated Enterprises

www.otie.com Job Number 2019xxx

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Madison, Wisconsin 53718

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.

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg

5520 Lacy Rd.

Fitchburg, Wisconsin 53711-5318

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DD PRICING	10-28-22

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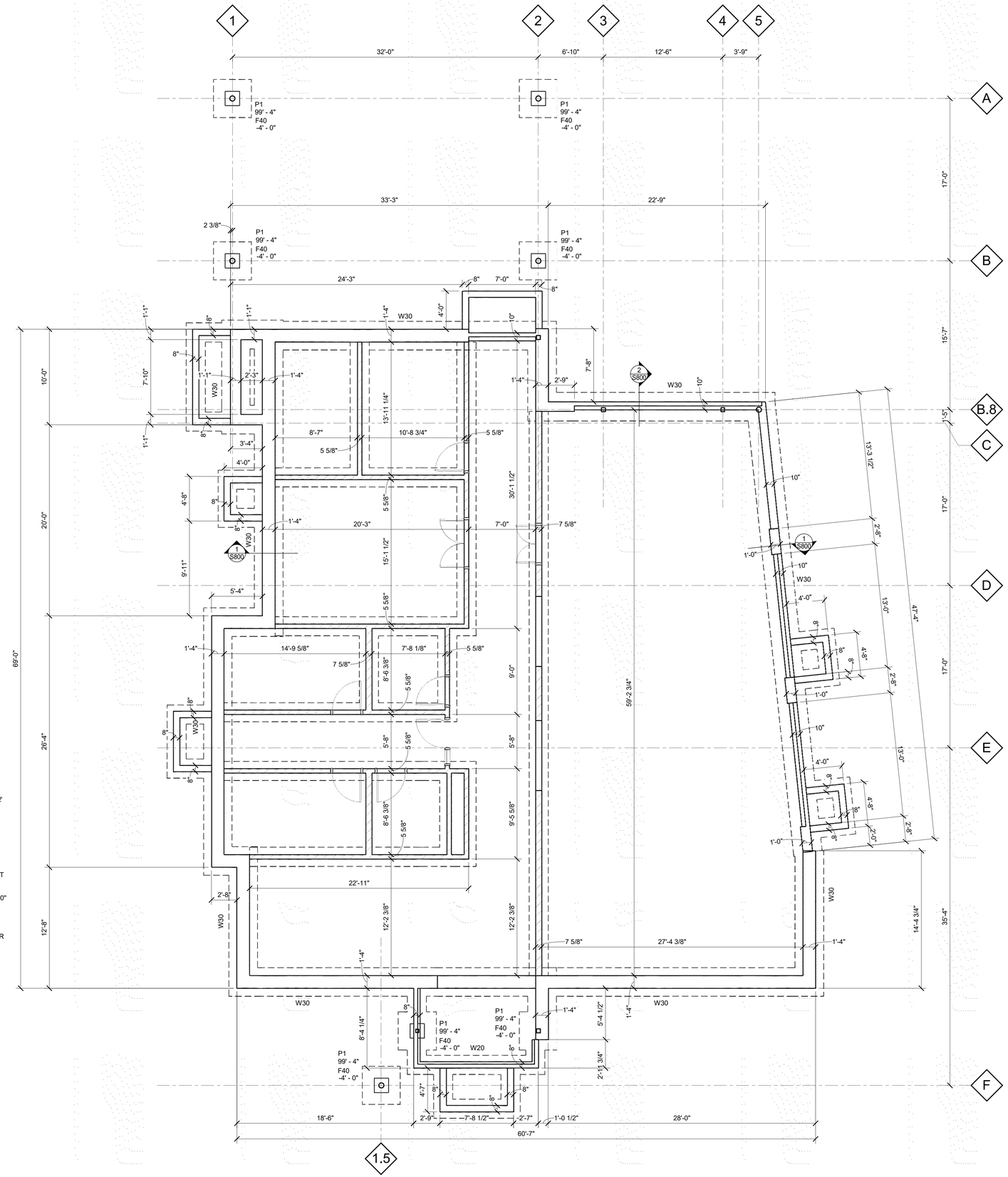
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STRUCTURAL SCHEDULES

S002



1 FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

0 2' 4' 8' 12'

NOTES:

1. SEE S800 FOR TYPICAL DETAILS AND S001 FOR DESIGN CRITERIA.
2. TYPICAL WHERE SLAB ABUTS COLUMN OR WALL, PROVIDE 1/2" x SLAB WIDTH ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISHED SLAB ELEVATION.
3. 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 NOT PREVENT IT.
4. AT RE-ENTRANT CORNERS THAT DO NOT HAVE CONTROL JOINTS (E.G. STAIRS, ELEVATORS, LOADING DOCKS, ETC.) (2) #4 x 5'-0" LONG BARS CENTERED IN SLAB, DIAGONAL TO CORNER PROVIDED.
5. REQUIRED MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF AT SLAB-ON-GRADE.
6. SLAB-ON-GRADE TO BE 4" THICK WITH SYNTHETIC MACRO-FIBERS AT A DOSAGERATE OF 4 LB/CY ON 15 MIL. VAPOR RETARDER ON 6" COMPACTED GRANULAR BASE.

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

ONEIDA Total Integrated Enterprises

www.otie.com Job Number 2019xxx

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5100 Eastpark Blvd, Suite 300,
Madison, Wisconsin 53718

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NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

ISSUED FOR:

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FOUNDATION PLAN

S100



1 LOW ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"

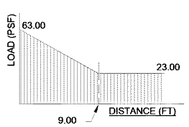
0 2' 4' 8' 12'

BEAM & HEADER SCHEDULE

MARK	SIZE	MATERIAL	BEARING (EA. END) MATCH BEARING WALL GRADE UNO
S1	8.75" x 18"	GLB - BEAM	(4) 2x6 SPF #2
S2	5.5"x11.25"	GLB - BEAM	5.5"x11.25" / (3) 2x6
~~S3~~	~~5.5"x9.25"~~	~~GLB - BEAM~~	5.5"x9.25" / (3) 2x6
S4	(2) 1 3/4" x 9 1/4"	LVL - HEADER	4K / 1S
S5	(4) 2 X 12		
ML1	8"x16" BOND BEAM W/ (2) #5 CONT	MASONRY	
ML2	W16x26 WITH 3/8" CONT BOTTOM PL	STEEL	
ML3	6"x16" BOND BEAM W/ (1) #6 CONT	MASONRY	

NOTES:

1. GENERAL NOTES APPLY TO ALL SHEETS. SEE SHEET S001.
2. SECURE ROOF TRUSSES AT EACH BEARING WITH SIMPSON H2.5T MIN.
3. TRUSS SUPPLIER SHALL DESIGN AND SUPPLY ALL TRUSS TO TRUSS AND TRUSS TO BEARING CONDITIONS FOR BOTH GRAVITY AND UPLIFT CONDITIONS.
4. ROOF TRUSSES ARE DESIGNED BY OTHERS VERIFY ROOF TRUSS SPACING WITH TRUSS DESIGNER



SNOW DRIFTING SD2



FLAT ROOF SNOW LOAD

ROOF FRAMING PLAN NOTES

ROOF LIVE LOAD	20.0 psf	
GROUND SNOW LOAD	30.0 psf	
SLOPED ROOF SNOW LOAD	23.10 psf	
FLAT ROOF SNOW LOAD	23.1	
SNOW EXPOSURE FACTOR	1.0	
SNOW LOAD IMPORTANCE FACTOR	1.0	
THERMAL FACTOR	1.1	
DEFLECTION CRITERIA:	DL+LL = L/240	LL = L/360

STRUCTURAL ROOF PANELS

SPAN RATING:	24/16
NOMINAL THICKNESS:	5/8
EXPOSURE RATING:	EXP 1
GRADE:	OSB SHEATHING
NAILING:	8D AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS.

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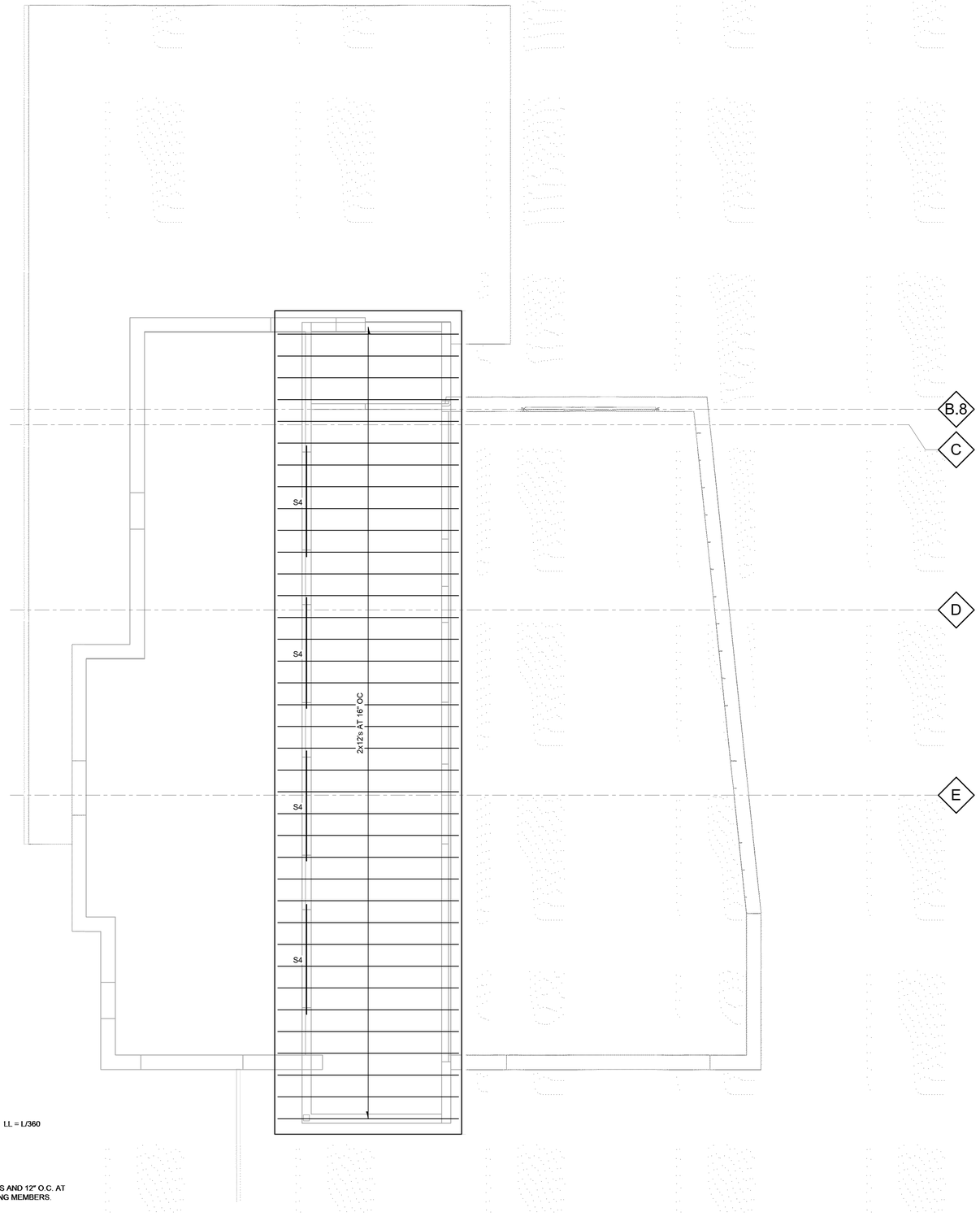
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LOW ROOF FRAMING PLAN

S101



1 HIGH ROOF PLAN

SCALE: 3/16" = 1'-0"

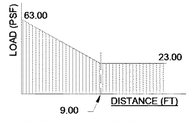
0 2' 4' 8' 12'

BEAM & HEADER SCHEDULE

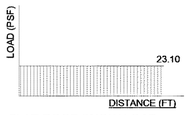
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ML1	8"x16" BOND BEAM W/ (2) #5 CONT	MASONRY	
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ML3	6"x16" BOND BEAM W/ (1) #6 CONT	MASONRY	

NOTES:

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2. SECURE ROOF TRUSSES AT EACH BEARING WITH SIMPSON H2.5T MIN.
3. TRUSS SUPPLIER SHALL DESIGN AND SUPPLY ALL TRUSS TO TRUSS AND TRUSS TO BEARING CONDITIONS FOR BOTH GRAVITY AND UPLIFT CONDITIONS.
4. ROOF TRUSSES ARE DESIGNED BY OTHERS VERIFY ROOF TRUSS SPACING WITH TRUSS DESIGNER



SNOW DRIFTING SD2



FLAT ROOF SNOW LOAD

ROOF FRAMING PLAN NOTES

ROOF LIVE LOAD	20.0 psf	
GROUND SNOW LOAD	30.0 psf	
SLOPED ROOF SNOW LOAD	23.10 psf	
FLAT ROOF SNOW LOAD	23.1	
SNOW EXPOSURE FACTOR	1.0	
SNOW LOAD IMPORTANCE FACTOR	1.0	
THERMAL FACTOR	1.1	
DEFLECTION CRITERIA:	DL+LL = L/240	LL = L/360

STRUCTURAL ROOF PANELS

SPAN RATING:	24/16
NOMINAL THICKNESS:	5/8
EXPOSURE RATING:	EXP 1
GRADE:	OSB SHEATHING
NAILING:	8D AT 6" O.C. AT EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS.

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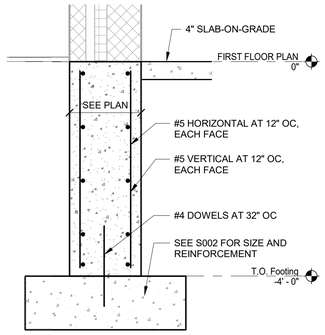
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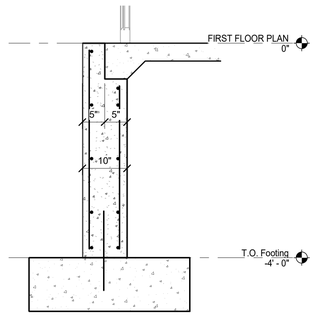
HIGH ROOF FRAMING PLAN

S102



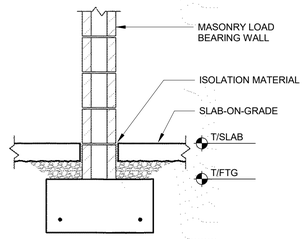
1 TYP EXTERIOR FDN WALL

SCALE: 3/4" = 1'-0"



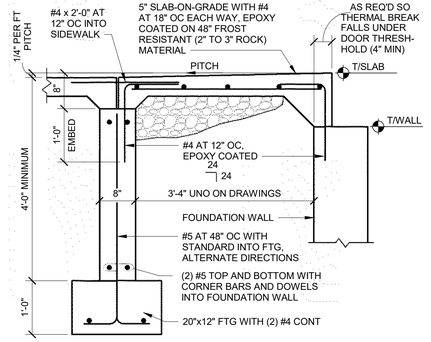
2 FOUNDATION WALL

SCALE: 3/4" = 1'-0"



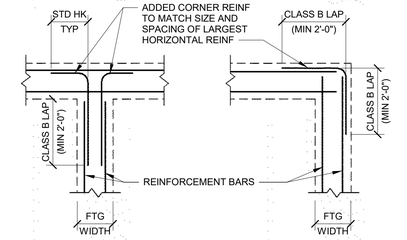
3 FOOTING AT INTERIOR BEARING CMU WALLS

SCALE: 3/4" = 1'-0"



4 TYPICAL STOOP

SCALE: 3/4" = 1'-0"

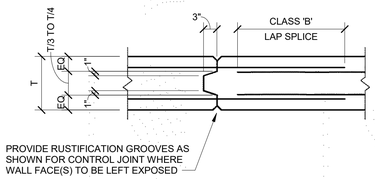


FTG INTERSECTION FTG CORNER

5 TYPICAL FOOTING CORNER REINFORCEMENT

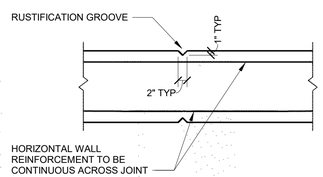
SCALE: 3/4" = 1'-0"

NOTE:
MAXIMUM LENGTH OF WALL POUR BETWEEN CONSTRUCTION JOINTS LIMITED TO 60'-0"



CONSTRUCTION JOINT

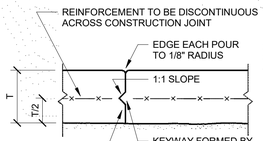
NOTE:
CONTROL JOINT DETAIL APPLIES AT 20'-0" OC (MAXIMUM) AT ALL WALL FACES THAT ARE TO BE LEFT EXPOSED TO VIEW



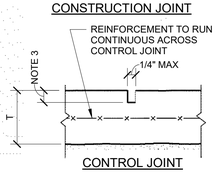
CONTROL JOINT

6 CONCRETE WALL JOINTS

SCALE: 3/4" = 1'-0"



CONSTRUCTION JOINT



CONTROL JOINT

GENERAL NOTES

1. SLAB-ON-GRADE CONSTRUCTION SHOULD CONFORM WITH THE RECOMMENDATIONS AND REQUIREMENTS SET FORTH IN THE LATEST RELEASE OF ACI 302 GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION.
2. SEE PLANS FOR THE SLAB THICKNESS (T) AND REINFORCEMENT.
3. THE SLAB REINFORCEMENT, IF OTHER THAN WWF, SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
4. REFER TO THE GENERAL NOTES, THE SPECIFICATIONS, AND THE DRAWINGS FOR SUB-FLOOR DRAINAGE SYSTEM, SUBGRADE PREPARATION, AND/OR MUD SLAB AND VAPOR RETARDER REQUIREMENTS.
5. THE SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.

CONSTRUCTION JOINT NOTES

1. BREAK THE BOND BETWEEN NEW AND PREVIOUSLY PLACED SLABS BY SPRAYING OR BY PAINTING THE EXPOSED SIDE OF THE JOINT WITH A CURING COMPOUND, ASPHALTIC EMULSION, OR FORM OIL.

JOINT SPACING NOTES

1. UNLESS SHOWN OTHERWISE ON THE DRAWINGS, PROVIDE CONTROL AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN LINE AND IN BETWEEN THE COLUMNS SUCH THAT THE JOINT SPACING DOES NOT EXCEED 36 * (SLAB THICKNESS) UNLESS SHOWN OTHERWISE. THE RESULTING PANELS SHOULD BE APPROXIMATELY SQUARE.

CONTROL JOINT NOTES

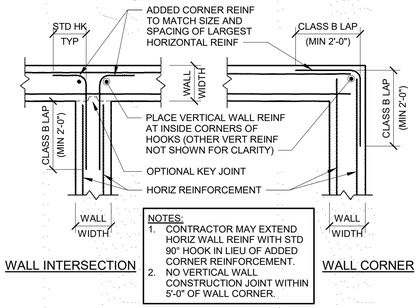
1. FOR SAW CUT CONTROL JOINTS, MAKE THE SAW CUT AS SOON AS THE SLAB IS ABLE TO SUPPORT THE WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO THE FINISHED SURFACE OF THE SLAB, BUT WITHIN 24 HOURS.
2. REFER TO SPECIFICATIONS REGARDING EPOXY RESIN OR ELASTOMERIC SEALANT REQUIREMENTS TO FILL CTRL JOINTS.
3. DEPTH OF SAWCUT SHOULD BE 1 1/4" IF PRODUCED USING EARLY ENTRY DRY-CUT PROCESS AND T/4 (1" MINIMUM) IF PRODUCED USING THE CONVENTIONAL WET-CUT PROCESS.

FORMED CONTROL JOINT OPTION NOTES

1. FORM CONTROL JOINTS BY INSERTING A PRE-MOLDED STRIP INTO THE FRESH CONCRETE UNTIL THE TOP SURFACE OF THE STRIP IS FLUSH WITH THE TOP SURFACE OF THE SLAB.
2. TOOL THE SLAB EDGES ROUND ON EACH SIDE OF THE INSERT, 1/8" MAXIMUM RADIUS.
3. AFTER THE CONCRETE HAS CURED, REMOVE THE INSERTS AND CLEAN THE GROOVE OF LOOSE DEBRIS.

7 TYPICAL CONSTRUCTION AND CONTROL JOINTS IN SOG

SCALE: 3/4" = 1'-0"



NOTES:
1. CONTRACTOR MAY EXTEND HORIZ WALL REINF WITH STD 90° HOOK IN LIEU OF ADDED CORNER REINFORCEMENT.
2. NO VERTICAL WALL CONSTRUCTION JOINT WITHIN 5'-0" OF WALL CORNER.

WALL INTERSECTION WALL CORNER

8 TYPICAL WALL CORNER REINFORCEMENT

SCALE: 3/4" = 1'-0"

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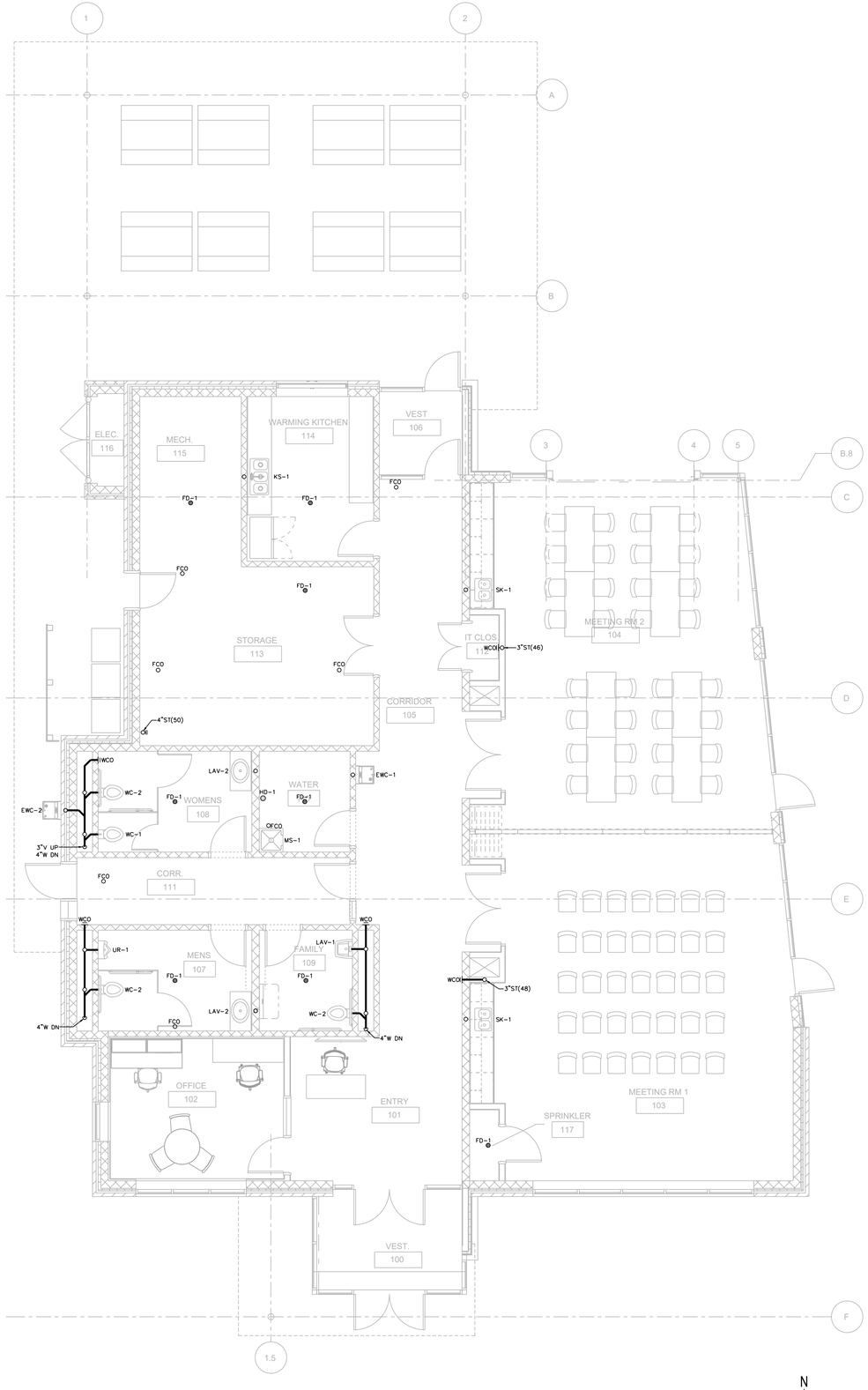
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STRUCTURAL DETAILS

S800

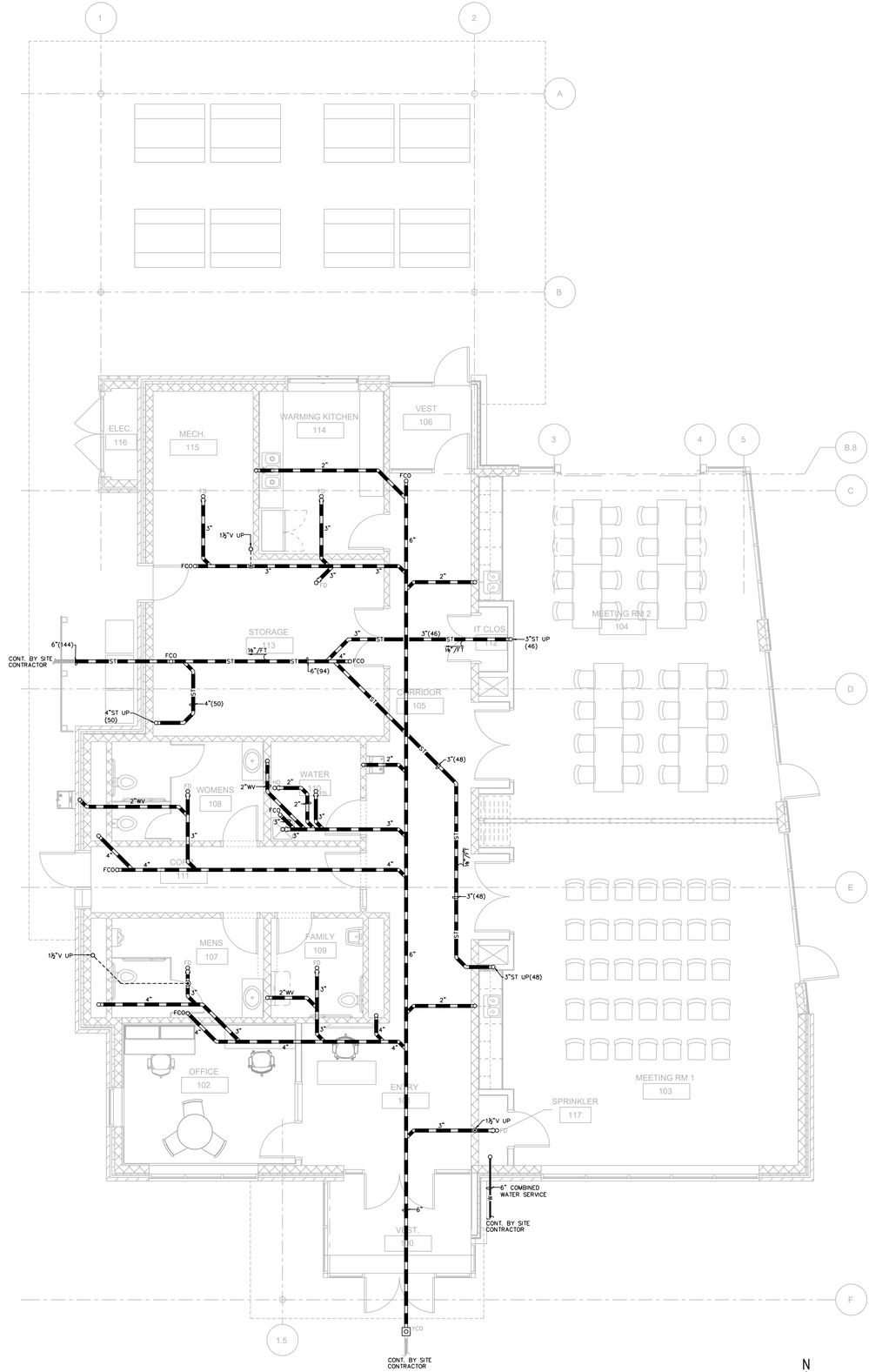


2 FIRST FLOOR PLAN - PLUMBING ABOVE FLOOR WASTE & STORM PIPING

3/16" = 1'-0"

0' 1' 2' 4'

N



1 FIRST FLOOR PLAN - UNDERGROUND PLUMBING

3/16" = 1'-0"

0' 1' 2' 4'

N

Engberg Anderson ARCHITECTS

MILWAUKEE | MADISON | TUCSON | CHICAGO

HEIN Engineering Group

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Phone: (608) 288-9260
email: hein@heinengrp.com
Project No. H2104

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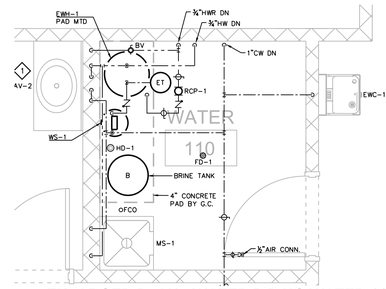
NO.	DESCRIPTION	DATE

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CHECKED BY	MH

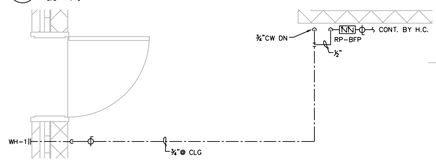
FIRST FLOOR PLAN - PLUMBING

P100



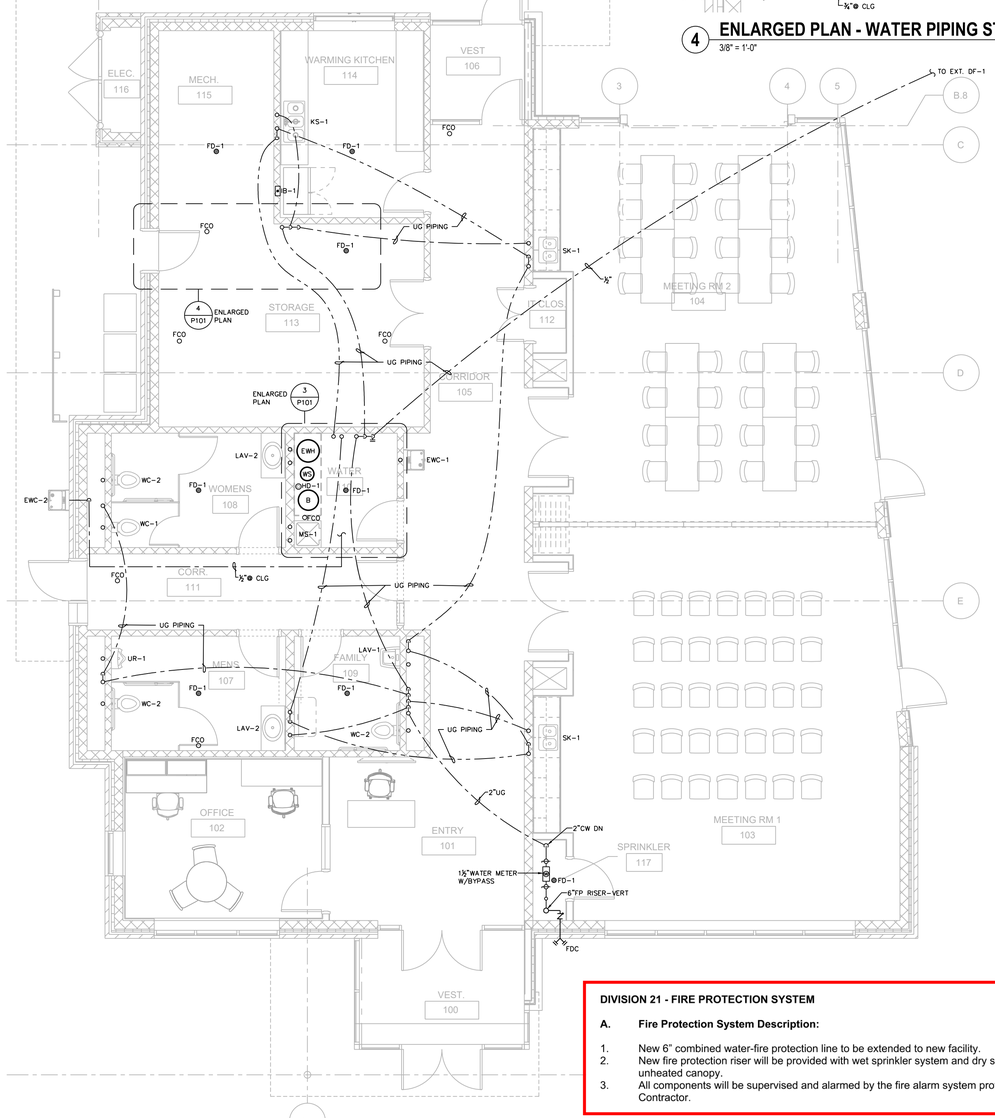
3 ENLARGED PLAN - WATER PIPING WATER 110

3/8" = 1'-0"



4 ENLARGED PLAN - WATER PIPING STORAGE 113

3/8" = 1'-0"



2 FIRST FLOOR PLAN - PLUMBING WATER PIPING

3/16" = 1'-0"

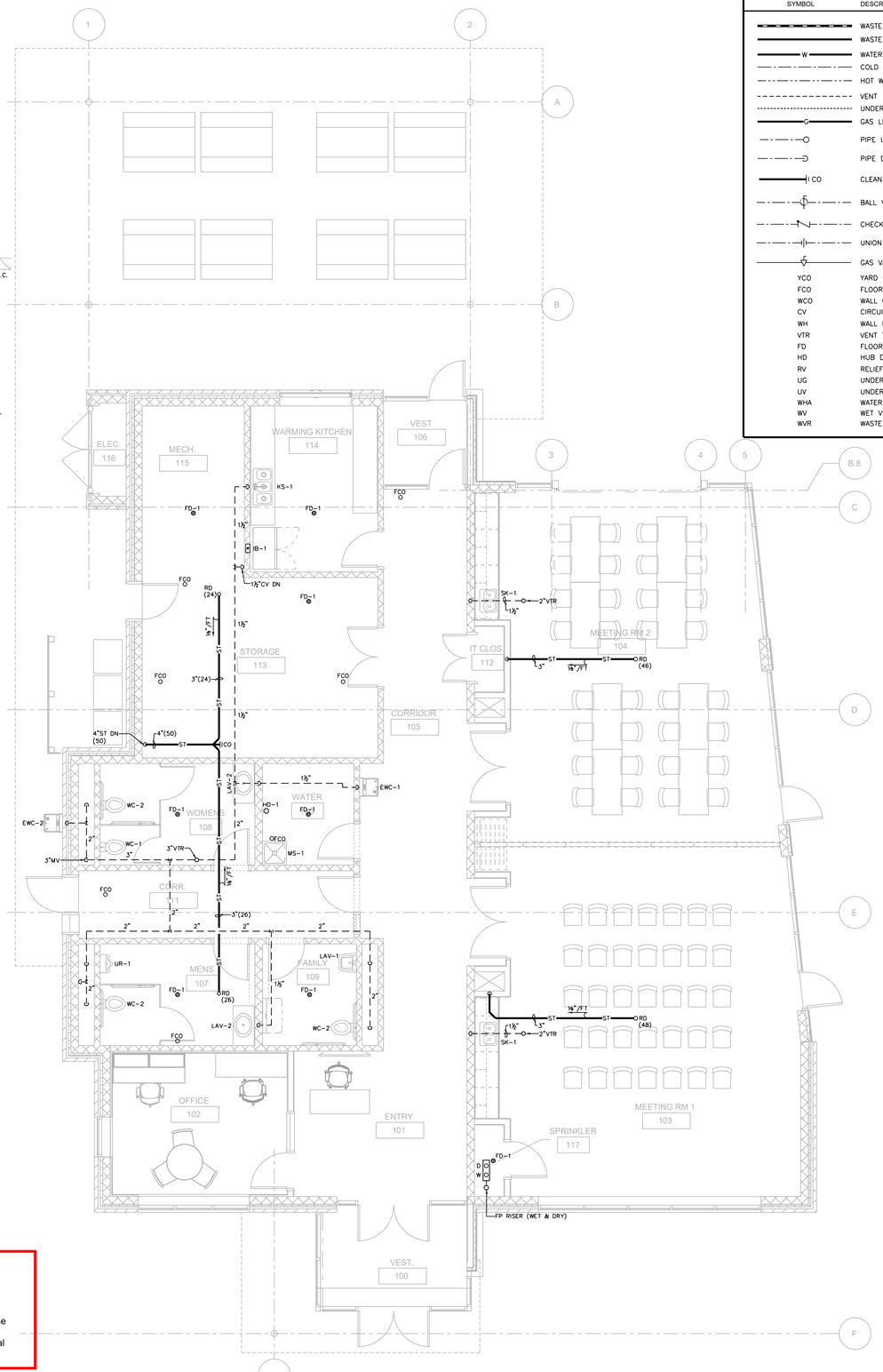
0' 1' 2' 4'

N

DIVISION 21 - FIRE PROTECTION SYSTEM

A. Fire Protection System Description:

1. New 6" combined water-fire protection line to be extended to new facility.
2. New fire protection riser will be provided with wet sprinkler system and dry sprinkler system for the unheated canopy.
3. All components will be supervised and alarmed by the fire alarm system provided by the Electrical Contractor.



1 FIRST FLOOR PLAN - PLUMBING ABOVE FLOOR VENTING & STORM PIPING

3/16" = 1'-0"

0' 1' 2' 4'

N

PLUMBING SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
	WASTE BELOW GROUND
	WASTE ABOVE GROUND
W	WATER SERVICE
	COLD WATER
	HOT WATER
	VENT
	UNDERGROUND VENT
G	GAS LINE
	PIPE UP
	PIPE DOWN
CO	CLEAN OUT
	BALL VALVE
	CHECK VALVE
	UNION
	GAS VALVE
YCO	YARD CLEAN OUT
FCO	FLOOR CLEAN OUT
WCO	WALL CLEAN OUT
CV	CIRCUIT VENT
WH	WALL HYDRANT
VTR	VENT THROUGH ROOF
FD	FLOOR DRAIN
HD	HUB DRAIN
RV	RELIEF VENT
UG	UNDERGROUND
UV	UNDERGROUND VENT
WHA	WATER HAMMER ARRESTOR
WV	WET VENT
WVR	WASTE & VENT RISER

Engberg Anderson ARCHITECTS

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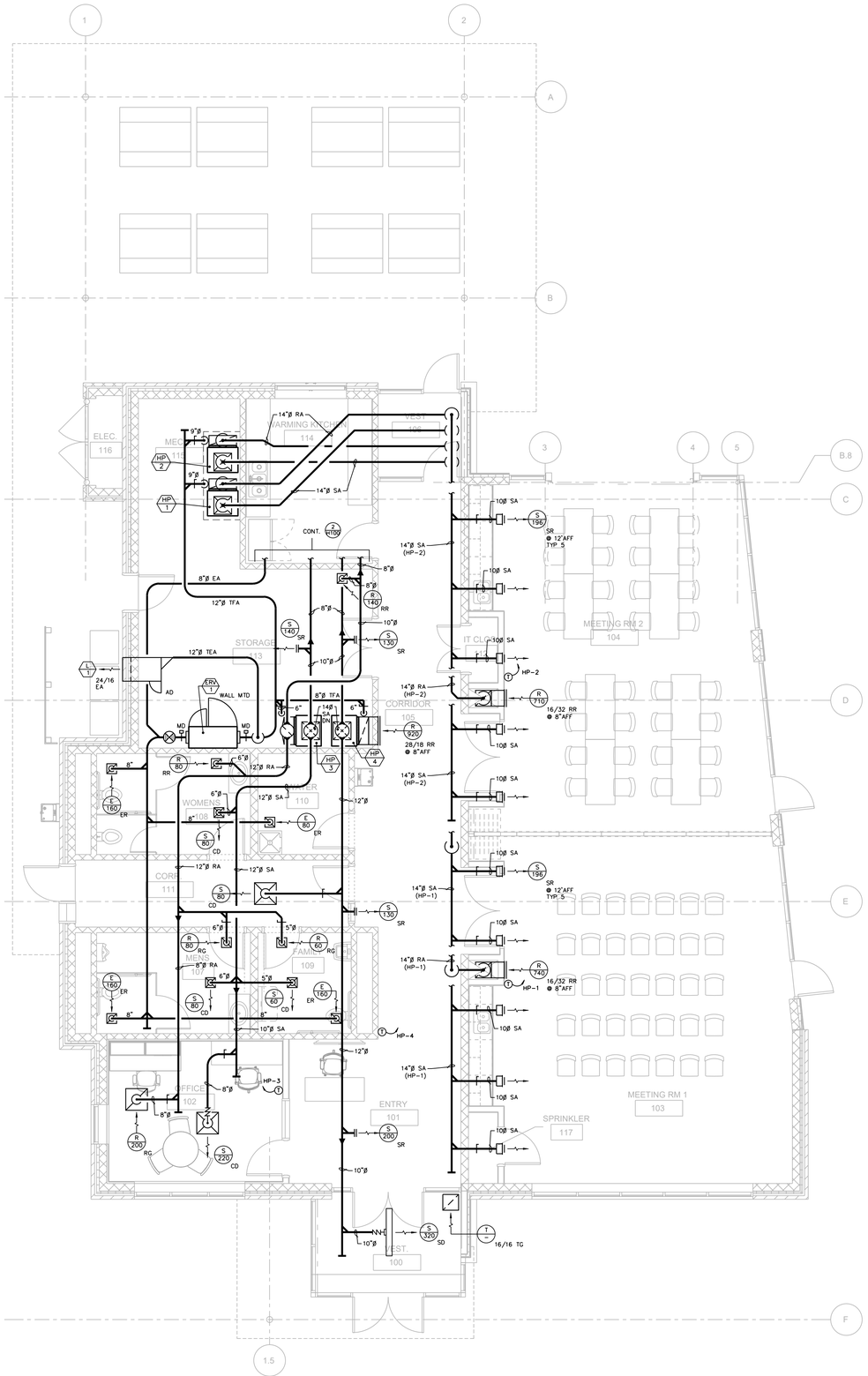
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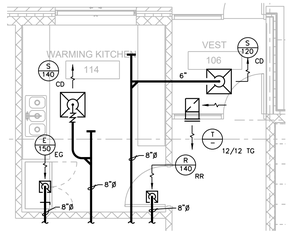
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FIRST FLOOR PLAN - PLUMBING

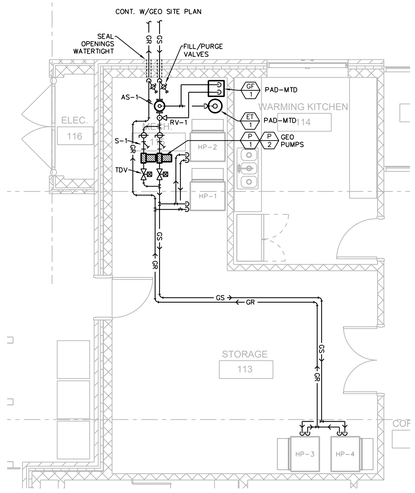
P101



1 **FIRST FLOOR PLAN - HVAC**
3/16" = 1'-0"



2 **FIRST FLOOR PLAN - LOWER DUCTWORK**
3/16" = 1'-0"



3 **GEOTHERMAL PIPING - HVAC**
3/16" = 1'-0"

HVAC SYMBOL SCHEDULE

SYMBOL	DESCRIPTION
	PIPING
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
GS	GEOTHERMAL SUPPLY
GR	GEOTHERMAL RETURN
C	CONDENSATE PIPING
R	REFRIGERANT PIPING
RS	REFRIGERANT SUCTION
RL	REFRIGERANT LIQUID
	PIPE UP
	PIPE DOWN
	GATE VALVE
	GLOBE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	PRESSURE RELIEF VALVE
	DRAIN VALVE
	SWING OR LIFT CHECK VALVE
	BALANCE VALVE
	CALIBRATED BALANCING VALVE
	GAUGE VALVE
	INLINE STRAINER
	UNION
	END CAP OR BLIND FLANGE
	THERMOMETER
	PRESSURE GAUGE w/VALVE
	FLEXIBLE CONNECTION
	ANCHOR
	T & P TEST WELL
	AIR VENT A = AUTOMATIC M = MANUAL
	VACUUM BREAKER
	REDUCER, CONCENTRIC
	REDUCER, ECCENTRIC
	IMMERSION WELL

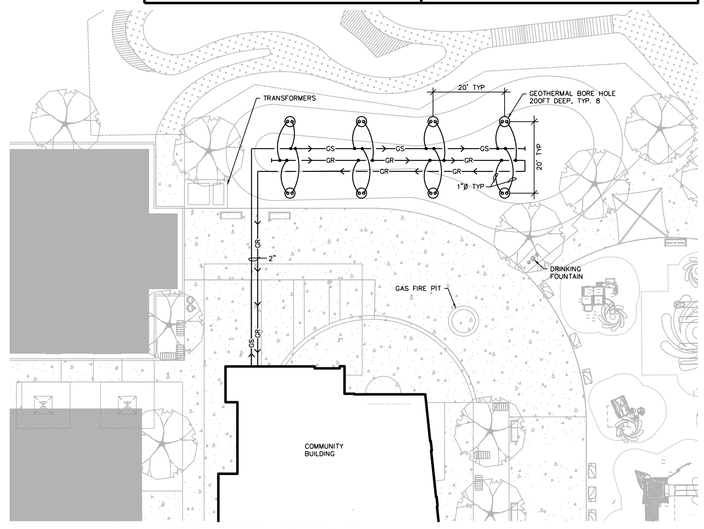
SYMBOL	DESCRIPTION
	SQUARE/RECTANGULAR SUPPLY DIFFUSER, GRILLE OR REGISTER–HORIZONTAL MOUNT
	SQUARE/RECTANGULAR RETURN/EXHAUST REGISTER OR GRILLE–HORIZONTAL MOUNT
	SUPPLY REGISTER OR GRILLE VERT. MOUNT
	RETURN/EXHAUST REGISTER OR GRILLE VERT. MOUNT
	SLOT SUPPLY DIFFUSER
	VERTICAL SUPPLY DUCT UP
	VERTICAL RETURN/EXHAUST DUCT UP
	VERTICAL SUPPLY DUCT DOWN
	VERTICAL RETURN/EXHAUST DUCT DOWN
VD	**VOLUME DAMPER**
FD	**FIRE DAMPER W/ACCESS PANEL**
MD	**MOTORIZED BACKDRAFT DAMPER**
BD	**GRAVITY BACKDRAFT DAMPER**
ACD	**AUTOMATIC CONTROL DAMPER**
	FLEXIBLE CONNECTION
	ROUND/FLEXIBLE DUCT
	ROUND RIGID DUCT
	SQUARE ELBOW W/TURNING VANES
	RADIUS ELBOW,R/D = 1.5
	RADIUS TAKEOFF R/D = 1.5 "X"=TAKE–OFF WIDTH
	DUCT RISE(R) OR DROP(D)
A / 100	**DIFFUSER/REGISTER/GRILLE TYPE CFM**
100	**EXHAUST CFM**
E	**EQUIPMENT SYMBOL NO.**
T	**THERMOSTAT SENSOR**
S CO	**CARBON MONOXIDE SENSOR**
T	**TEMPERATURE SENSOR**

ABBREVIATIONS

Ø	DIAMETER
ACD	AUTOMATIC CONTROL DAMPER
AD	ACCESS DOOR (DUCT)
AFF	ABOVE FINISHED FLOOR
BOD	BOTTOM OF DUCT
EA	EXHAUST AIR
ER	EXHAUST REGISTER
FA	FRESH AIR
OED	OEN ENDED DUCT
RA	RETURN AIR
RR	RETURN REGISTER
SA	SUPPLY AIR
SR	SUPPLY REGISTER
TEA	TEMPERED EXHAUST AIR
TFA	TEMPERED FRESH AIR
TG	TRANSFER GRILLE
TD	TRANSFER DUCT
UC	UNDERCUT DOOR

EQUIPMENT SYMBOLS

AS	AIR SEPARATOR
BT	BUFFER TANK
EH	ELECTRIC HEAT
EF	EXHAUST FAN
ET	EXPANSION TANK
ERV	ENERGY RECOVERY VENTILATOR
FC	FAN COIL
HP	HEAT PUMP
L	LOUVER
P	PUMP
PRV	PRESSURE REDUCING VALVE
RV	SAFETY RELIEF VALVE
SF	SUPPLY FAN



4 **GEOTHERMAL SITE PLAN**
1" = 20'-0"

0' 1' 2' 4'

N

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Project No. H2104

NORTH FISH HATCHERY HUB

Traceway Dr., Fitchburg

City of Fitchburg
5520 Lacy Rd.
Fitchburg, Wisconsin 53711-5318

PROJECT NUMBER 203283.00

ISSUED FOR:

DD PRICING	10-28-22

REVISION FOR:

NO.	DESCRIPTION	DATE

DD REVIEW SET - NOT FOR CONSTRUCTION

DRAWN BY BC

CHECKED BY MH

FIRST FLOOR PLAN - HVAC

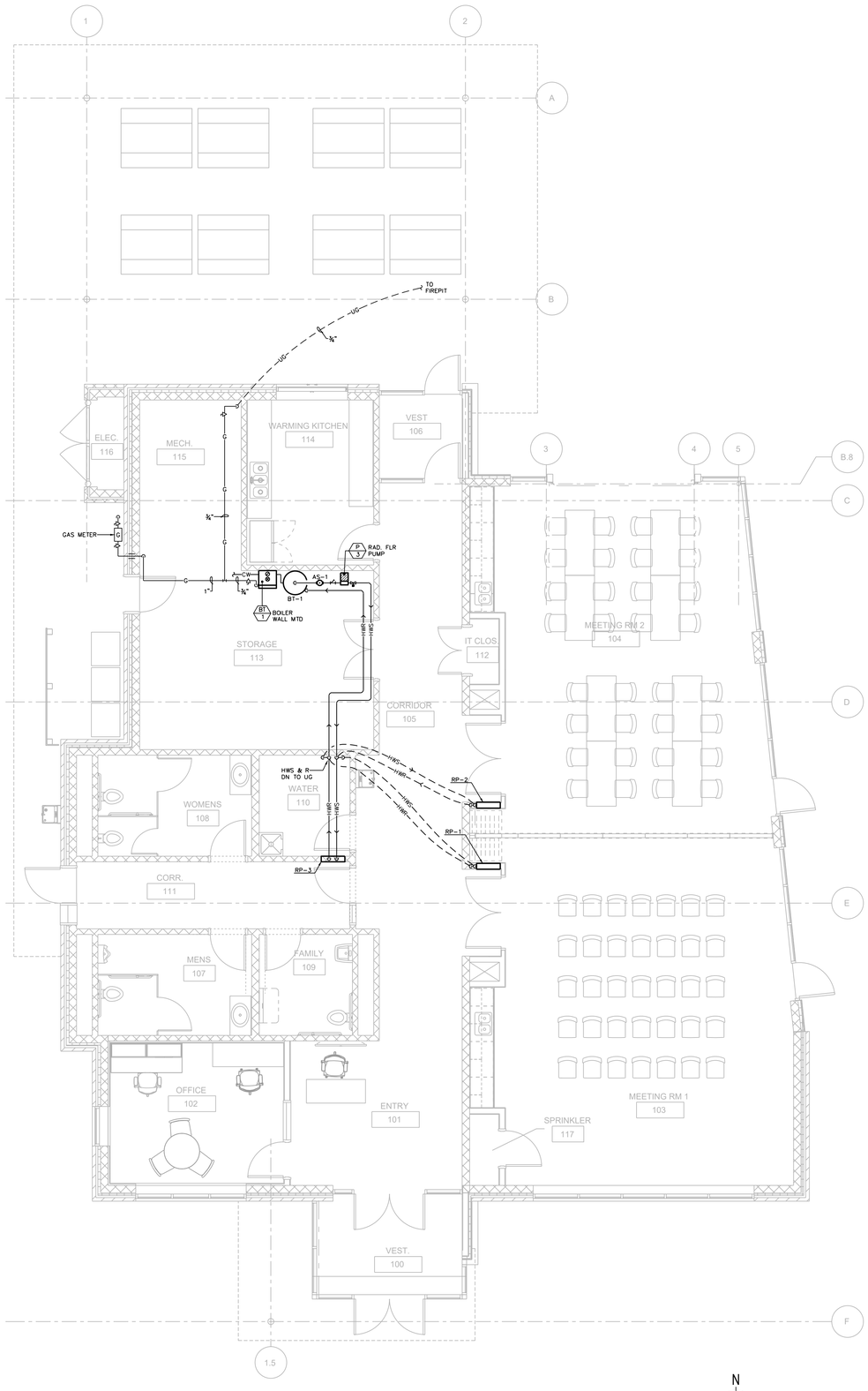
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HVAC GENERAL NOTES:

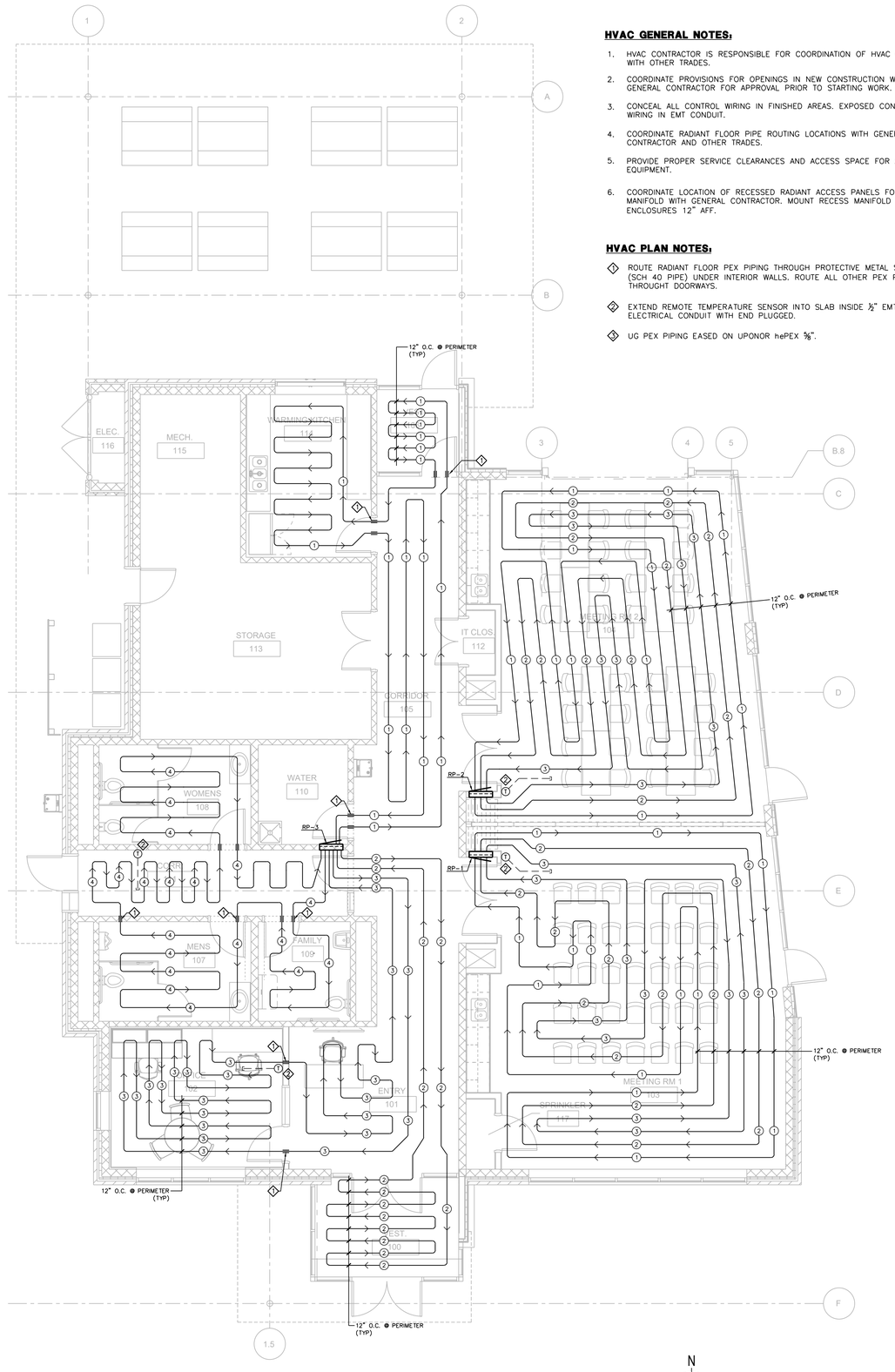
1. HVAC CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF HVAC WORK WITH OTHER TRADES.
2. COORDINATE PROVISIONS FOR OPENINGS IN NEW CONSTRUCTION WITH THE GENERAL CONTRACTOR FOR APPROVAL PRIOR TO STARTING WORK.
3. CONCEAL ALL CONTROL WIRING IN FINISHED AREAS. EXPOSED CONTROL WIRING IN EMT CONDUIT.
4. COORDINATE RADIANT FLOOR PIPE ROUTING LOCATIONS WITH GENERAL CONTRACTOR AND OTHER TRADES.
5. PROVIDE PROPER SERVICE CLEARANCES AND ACCESS SPACE FOR ALL NEW EQUIPMENT.
6. COORDINATE LOCATION OF RECESSED RADIANT ACCESS PANELS FOR MANIFOLD WITH GENERAL CONTRACTOR. MOUNT RECESS MANIFOLD ENCLOSURES 12" AFF.

HVAC PLAN NOTES:

1. ROUTE RADIANT FLOOR PEX PIPING THROUGH PROTECTIVE METAL SLEEVE (SCH 40 PIPE) UNDER INTERIOR WALLS. ROUTE ALL OTHER PEX PIPING THROUGHT DOORWAYS.
2. EXTEND REMOTE TEMPERATURE SENSOR INTO SLAB INSIDE ½" EMT ELECTRICAL CONDUIT WITH END PLUGGED.
3. UG PEX PIPING EASED ON UPONOR hePEX ⅝".



2 **FIRST FLOOR PLAN - HVAC RADIANT FLOOR UNDERGROUND PIPING**
3/16" = 1'-0"



1 **FIRST FLOOR PLAN - HVAC RADIANT FLOOR PIPING**
3/16" = 1'-0"

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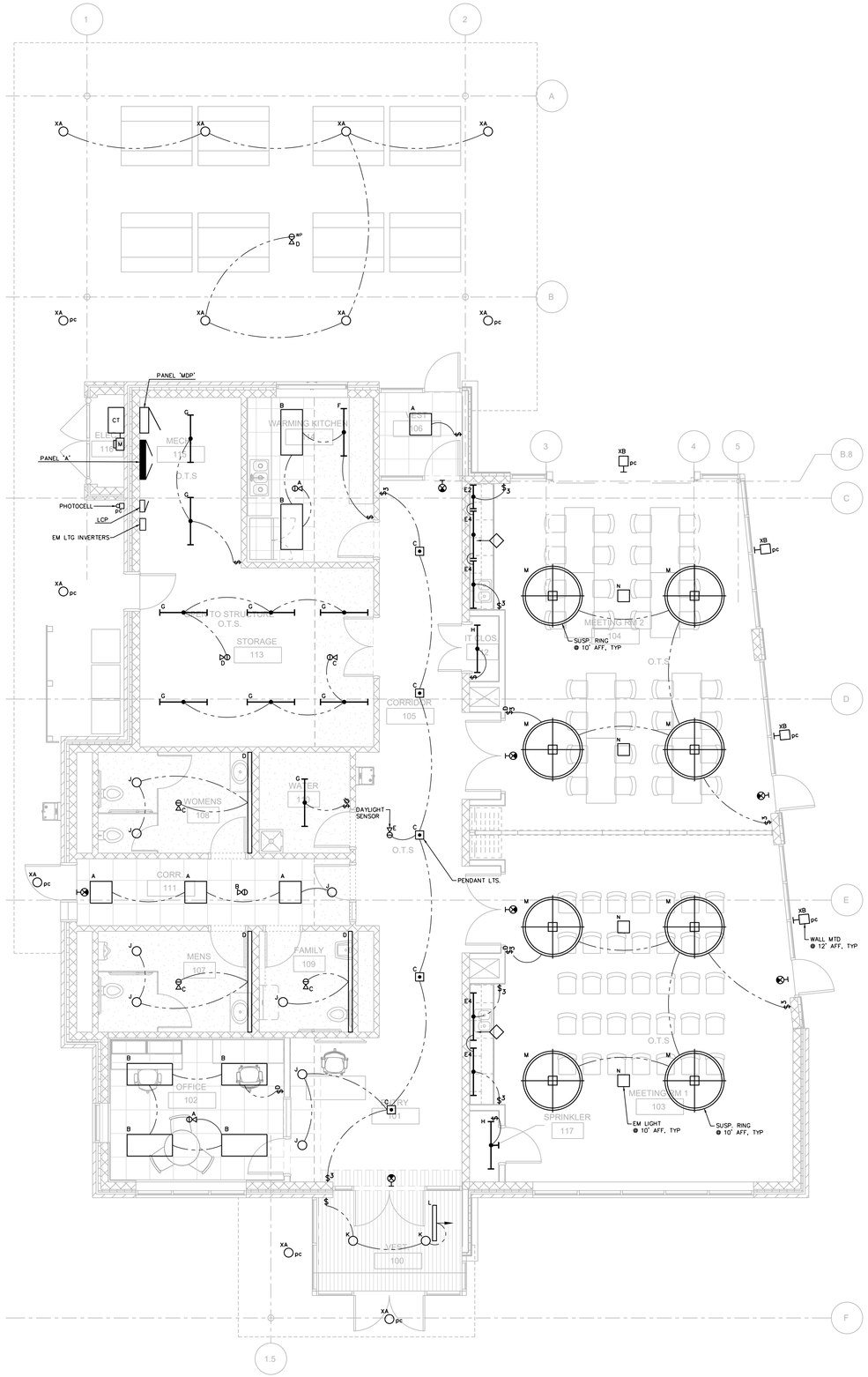
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FIRST FLOOR PLAN - HVAC RADIANT FLOOR PIPING

H101



1 FIRST FLOOR PLAN - ELECTRICAL LIGHTING

3/16" = 1'-0"

0' 1' 2' 4'

N

ELECTRICAL SYMBOL SCHEDULE

MOUNTING	SYMBOL	DESCRIPTION
		EQUIPMENT AND WIRING
		DIRECT EQUIPMENT CONNECTION
		MOTOR CONNECTION–SEE EQUIP. SCHEDULE FOR TYPE, WIRING, ETC.
	J	JUNCTION BOX–CONCEALED IN FINISHED AREAS, SURFACE IN UNFINISHED AREAS
	$F	FUSE HOLDER W/FUSESTAT AND TOGGLE SWITCH (1/2 HP MOTORS AND UNDER)
		SAFETY DISCONNECT SWITCH WITH COVER INTERLOCK–W.P. INDICATES WATERPROOF (NON–FUSED UNLESS INDICATED BY 'F'–FUSED)
		MANUAL STARTER
		MOTOR STARTER–MAGNETIC UNLESS NOTED OTHERWISE
		COMB. MOTOR STARTER/ FUSED DISCONNECT
		ELECTRICAL POWER PANEL
		DOUBLE TUB ELECTRICAL POWER PANEL
	TS	TIME SWITCH
	PC	PHOTOCELL
	T	LINE VOLTAGE T–STAT BY H.C. (CONN. BY E.C.)
		FIRE ALARM SYSTEMS
48"	F	FIRE ALARM BREAK GLASS STATION
90"	F	FIRE ALARM HORN WITH VISUAL STROBE LIGHT CANDELA–ILLUMINATION LEVEL
	F C	FIRE ALARM HORN W/VISUAL STROBE LIGHT – CLG MTD CANDELA–ILLUMINATION LEVEL
90"	F	FIRE ALARM HORN
90"	F	FIRE ALARM STROBE CANDELA–ILLUMINATION LEVEL
	F_S	FIRE ALARM SMOKE DETECTOR–CLG. MTD.
	F_H	FIRE ALARM HEAT DETECTOR (THERMAL FIXED TEMP.: 135°F OR 190°F)–CLG. MTD.
	F	FIRE ALARM SPRINKLER AUDIO/VISUAL HORN
	F_{FS}	FIRE ALARM SPRINKLER FLOW SWITCH
	F_{AP}	FIRE ALARM SPRINKLER AIR PRESSURE SWITCH
	F_{TS}	FIRE ALARM TAMPER SWITCH
	F_{DH}	AUTOMATIC DOOR HOLDER RELEASE CONNECTION
	F_{DS}	FIRE ALARM SMOKE DETECTOR – DUCT MTD.
	F_{SD}	DUCT SMOKE DAMPER CONNECTION
	F_{MM}	FIRE ALARM – MONITOR MODULE
	F_{CM}	FIRE ALARM – CONTROL MODULE
	FAAP	FIRE ALARM ANNUNCIATOR PANEL–FLUSH MOUNT
	FACP	FIRE ALARM CONTROL PANEL
	FAPP	FIRE ALARM POWER PANEL
	FANP	FIRE ALARM NOTIFICATION ALARM CIRCUIT POWER PANEL
		SECURITY SYSTEM
		SECURITY CAMERA (CCTV)
	CR	CARD READER (PROXIMITY)
		REQUEST–TO–EXIT MOTION DETECTOR
	DP	DOOR POSITION SWITCH
	DR	ELECTRIC DOOR RELEASE
	DACP	DOOR ACCESS CONTROL PANEL
	DAPP	DOOR ACCESS POWER PANEL
	CCPP	CLOSED CIRCUIT TV (CCTV) CAMERA POWER PANEL

MOUNTING HGT.	SYMBOL	DESCRIPTION
PANEL/CIRC.# TYPE SWITCHING		LIGHTING FIXTURES
		LED: SURFACE/ PENDANT
		LED: RECESSED
		LED: RECESSED WALL WASHER W/BATTERY BACK–UP
		LED: SURFACE WALL–MTD
		LED: SURFACE WALL–MTD W/BATTERY BACK–UP
		LED: RECESSED WALL–MTD
		LED: RECESSED
		LED: SURFACE, CEILING MOUNTED
		LED: SURFACE, WALL MOUNTED
		EXIT LIGHT: ARROWS, FACES & MOUNTING AS SHOWN ON DRAWINGS
		EMERGENCY LIGHT W/ BATTERY PACK: WALL MOUNTED
		TRACK LIGHTING
		SWITCHES
48"	$	SINGLE POLE
48"	$3	THREE WAY
48"	$4	FOUR WAY
48"	$P	SWITCH AND DUPLEX RECEPTACLE IN TWO GANG BOX
48"	$SC	SPEED CONTROLLER SWITCH SUPPLIED BY H.C. INSTALLED BY E.C.
48"	$P	PILOT SWITCH WITH LIGHT
48"	$D	DIMMING SWITCH
48"	$OS	OCCUPANCY SENSOR CONTROLLED WALL SWITCH
48"	T	ELECTRICAL TIMER SWITCH (5–10–15–30 MIN)
		OCCUPANCY SENSOR: WALL OR CEILING MOUNTED TAG
		RECEPTACLES
18"		DUPLEX: RECESSED – W.P. INDICATES WATERPROOF
18"		DUPLEX: RECESSED WITH DUAL PORTS
18"		DUPLEX: SURFACE MTD
18"		DUPLEX: TOP HALF SWITCHED
18"		DUPLEX: SWITCHED
18"		TWO DUPLEX RECEPTS. IN TWO GANG BOX
18"		TWO DUPLEX RECEPTS. SURFACE MTD IN TWO GANG BOX
18"	GFI	DUPLEX: W/GROUND FAULT INTERRUPTION PROTECTION
18"		125V, 2P, 2W SINGLE RECEPTACLE
18"		250V, 2P, 3W SINGLE RECPT.– AMPS AS SHOWN ON DRAWINGS
		DUPLEX RECEPT. MOUNTED ABOVE CASEWORK BACKSPLASH
		DUPLEX RECEPT. MOUNTED IN SPLASH BLOCK
		COMMUNICATION SYSTEMS
18"	(#V)	TELEPHONE OUTLET IN WALL QTY VOICE
18"	(#D)	DATA OUTLET QTY DATA
18"	(#V,#D)	VOICE/DATA OUTLET QTY VOICE, DATA
	(#V,#D)	VOICE/DATA OUTLET, MOUNTED ABOVE CASEWORK BACKSPLASH QTY VOICE, DATA
18" or 84"	TV (#)	CABLE TV OUTLET QTY CATV
18"	H (#)	HDMI OUTLET WALL–MTD QTY
	WB (#)	RECESSED WALL BOX DEVICE QTY
	WAP	WIRELESS ACCESS POINT SURFACE MTD (DATA OUTLET)
	FB (#)	RECESSED ACTIVATED FLUSH FLOOR BOX TYPE AS SCHEDULED
	I	INTERCOM STATION
	I_M	INTERCOM MASTER STATION
		EQUIPMENT
		AH=AIR HANDLING UNIT
		EF=EXHAUST FAN
		EWC=ELECT. WATER COOLER
		EWH=ELECT. WALL HEATER
		RF=RELIEF FAN
		UH=UNIT HEATER
		CH=CABINET HEATER
		P=PUMP
		B=BOILER

ABBREVIATIONS

SUBSCRIPTS

AFF=ABOVE FINISH FLOOR
GFI=GROUND FAULT INTERRUPTER
NL=NIGHT LIGHT–24 HOURS
PC=PHOTOCELL CONTROLLED
PC/TC=PHOTOCELL ON/ TIMECLOCK OFF

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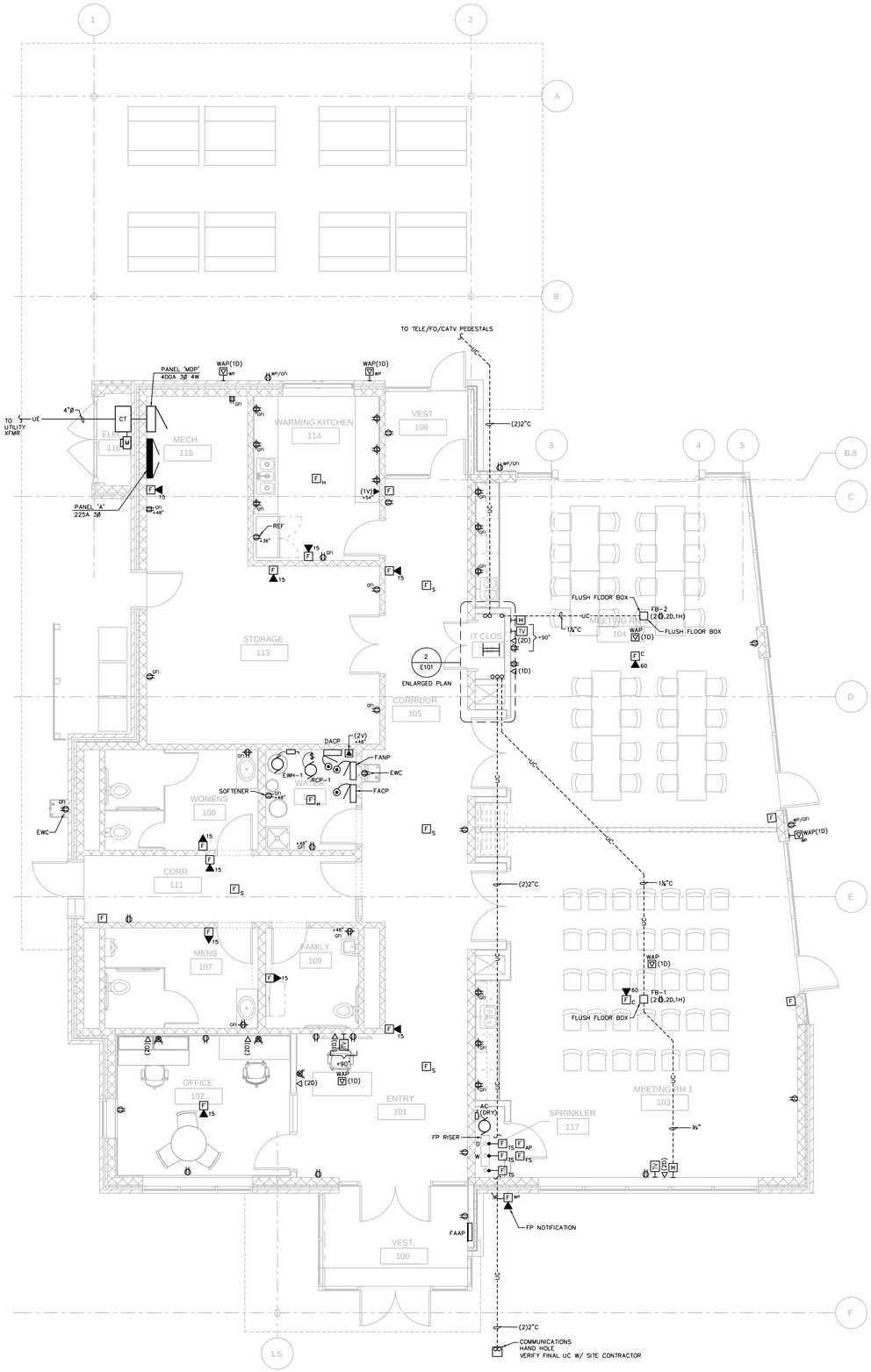
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FIRST FLOOR PLAN - ELECTRICAL LIGHTING

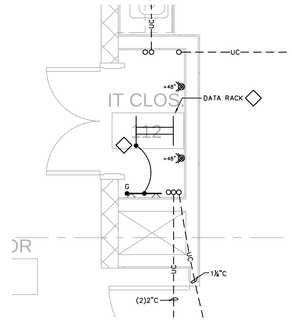
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1 FIRST FLOOR PLAN - ELECTRICAL POWER/LV
3/16" = 1'-0"

0' 1' 2' 4'

N



2 ENLARGED PLAN - IT CLOSET 112
3/8" = 1'-0"

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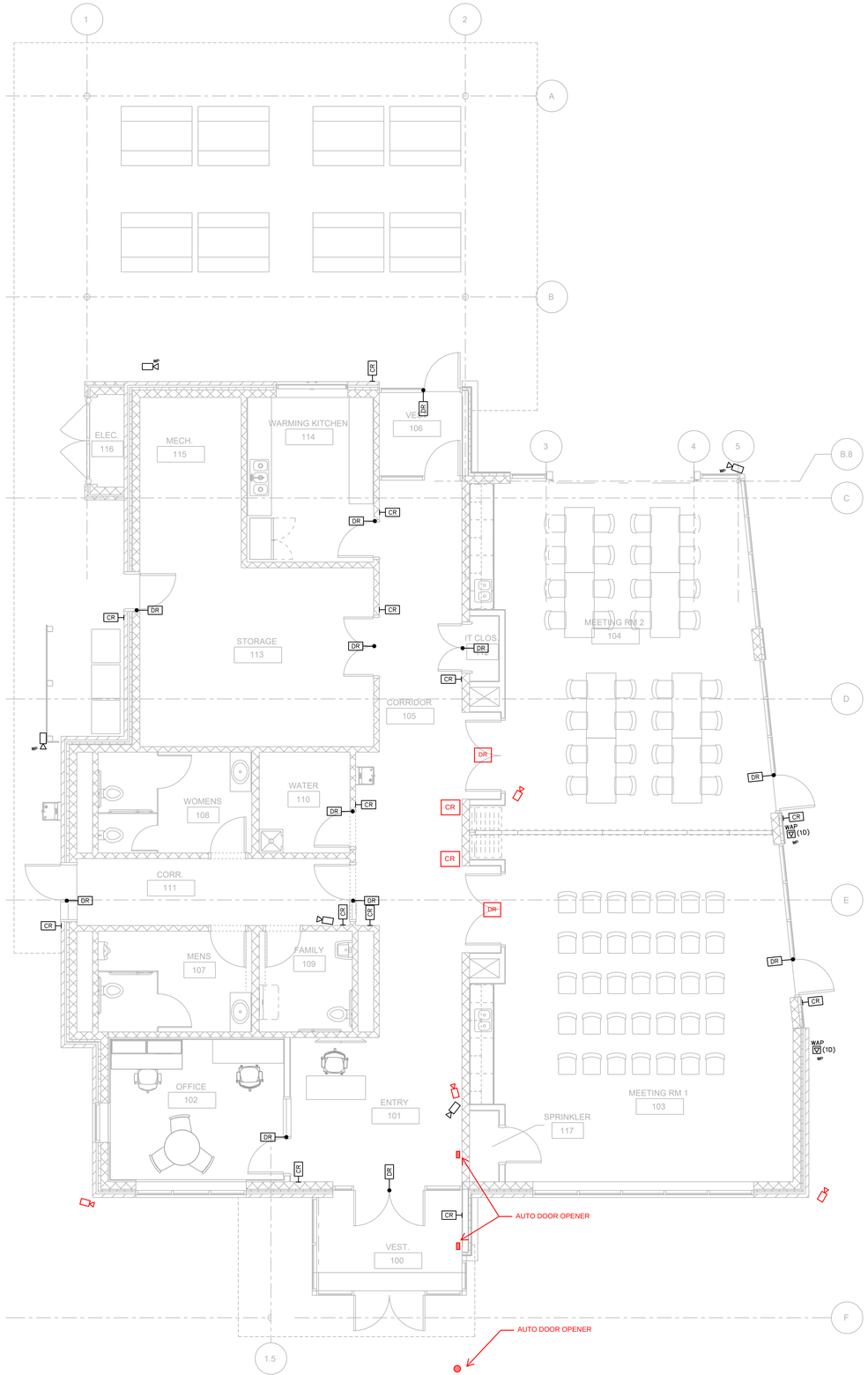
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FIRST FLOOR PLAN - ELECTRICAL POWER/LV

E101



1 **FIRST FLOOR PLAN - ELECTRICAL POWER/LV**
3/16" = 1'-0"

0' 1' 2' 4'

N

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FIRST FLOOR PLAN - SECURITY

E102

Project	HUB FACILITY	Catalog #		Type	OA & OB
Prepared by		Notes		Date	



McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Product Features

LumenSafe Technology

Light ARchitect™

Product Certifications

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

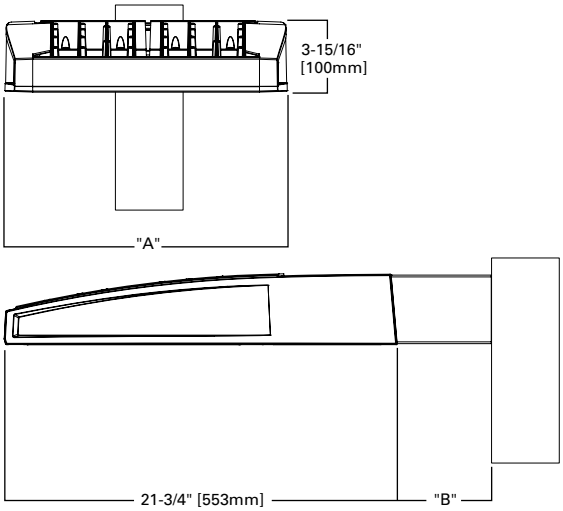
Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt
- Options to meet Buy American and other domestic preference requirements

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details



Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

NOTES:
1. Visit https://www.designlights.org/search/ to confirm qualification. Not all product variations are DLC qualified.
2. IDA Certified for 3000K CCT and warmer only.

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

Product Family [1, 2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GLEON=Galleon **BAA-GLEON**=Galleon, Buy American Act Compliant [35] **TAA-GLEON**=Galleon, Trade Agreements Act Compliant [35]	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares [4] **SA6**=6 Squares **SA7**=7 Squares [5] **SA8**=8 Squares [5] **SA9**=9 Squares [6] **SA0**=10 Squares [6]	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [16]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [14, 16]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7, 8] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [9] **MA**=Mast Arm Adapter [10] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [11] **QML**=Quick Mount Arm (Standard Length, Large) [37] **QMEA**=Quick Mount Arm (Extended Length) [12]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **RALXX**=Custom Color

Options (Add as Suffix)

DIM=External 0-10V Dimming Leads [19, 20]
F=Single Fuse (120, 277 or 347V Specify Voltage)
FF=Double Fuse (208, 240 or 480V Specify Voltage)
20K=Series 20kV UL 1449 Surge Protective Device
2L=Two Circuits [17, 18]
HA=50°C High Ambient
HSS=Installed House Side Shield [28]
GRSBK=Glare Reducing Shield, Black [23]
GRSWH=Glare Reducing Shield, White [23]
LCF=Light Square Trim Painted to Match Housing [27]
MT=Installed Mesh Top
TH=Tool-less Door Hardware
CC=Coastal Construction finish [3]
L90=Optics Rotated 90° Left
R90=Optics Rotated 90° Right
CE=CE Marking [29]
AHD145=After Hours Dim, 5 Hours [22]
AHD245=After Hours Dim, 6 Hours [22]
AHD255=After Hours Dim, 7 Hours [22]
AHD355=After Hours Dim, 8 Hours [22]
DALI=DALI Drivers

Controls and Systems Options (Add as Suffix)

BPC=Button Type Photocontrol
PR=NEMA 3-PIN Photocontrol Receptacle
PR7=NEMA 7-PIN Photocontrol Receptacle [21]
SPB2=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [34]
SPB4=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [34]
MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [24]
MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [24]
MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height [24, 25]
MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height [24, 25]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [24]
MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [24]
ZW=WaveLinx Module and 4-PIN Receptacle
ZD=WaveLinx Module with DALI driver and 4-PIN Receptacle
SWPD4XX=WaveLinx Sensor Only, 7'-15' [13, 32, 33]
SWPD5XX=WaveLinx Sensor Only, 15'-40' [13, 32, 33]
WOBXX=WaveLinx Sensor with Bluetooth, 7'-15' [13, 32]
WOFXX=WaveLinx Sensor with Bluetooth, 15'-40' [13, 32]
LWR-LW=Enlighted Sensor, 8'–16' Mounting Height [26]
LWR-LN=Enlighted Sensor, 16'–40' Mounting Height [26]
DIM10-MS/DIM-L08=Synapse Occupancy Sensor (<8' Mounting) [19]
DIM10-MS/DIM-L20=Synapse Occupancy Sensor (9'-20' Mounting) [19]
DIM10-MS/DIM-L40=Synapse Occupancy Sensor (21'-40' Mounting) [19]

Accessories (Order Separately) [35]

OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V
OA/RA1027=NEMA Photocontrol - 480V
OA/RA1201=NEMA Photocontrol - 347V
OA/RA1013=Photocontrol Shorting Cap
OA/RA1014=120V Photocontrol
MA1252=10kV Surge Module Replacement
MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon
MA1037-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon
MA1197-XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1188-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1189-XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1190-XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon
MA1191-XX=2@120° Tenon Adapter for 2-3/8" O.D. Tenon
MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon
MA1039-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon
MA1192-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon
MA1193-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1194-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon
MA1195-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon
FSIR-100=Wireless Configuration Tool for Occupancy Sensor [24]
GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares
GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares
GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares
GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares
GLEON-QM=Quick Mount Arm Kit [11]
GLEON-QMEA=Quick Mount Extended Arm Kit [12]
LS/HSS=Field Installed House Side Shield [28, 30]
LS/GRSBK=Glare Reducing Shield, Black [23, 30]
LS/GRSWH=Glare Reducing Shield, White [23, 30]
LS/PFS=Perimeter Shield, Black [15]
WOLC-7P-10A=WaveLinx Outdoor Control Module [19, 31]
SWPD4-XX=Wavelinx Wireless Sensor, 7'–15' Mounting Height [13, 19, 32, 33]
SWPD5-XX=Wavelinx Wireless Sensor, 15'–40' Mounting Height [13, 19, 32, 33]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Not compatible with MS/4-LXX or MS/1-LXX sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
9. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Maximum 8 light squares.
12. Maximum 6 light squares.
13. Requires ZW or ZD receptacle.
14. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with HA option.
17. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in SA2 through SA4 requires a larger housing, normally used for SA5 or SA6. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18" outside fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Enlighted wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
30. One required for each Light Square.
31. Requires PR7.
32. Replace XX with sensor color (WH, BZ or BK.)
33. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.
35. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
36. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
37. Available for 7-10 squares.

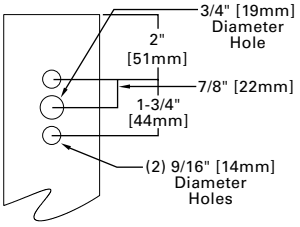
LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

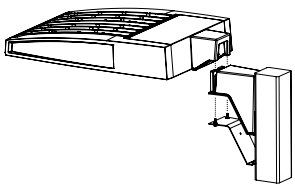
Mounting Details

Standard Arm (Drilling Pattern)

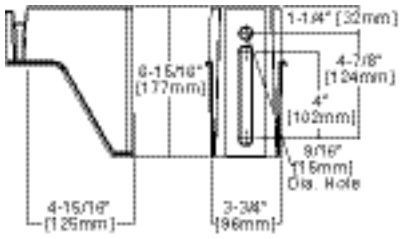
TYPE "N"



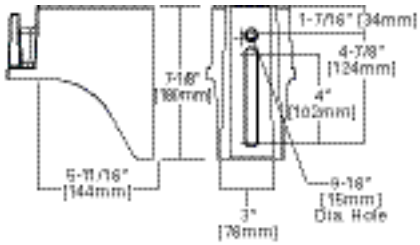
Quick Mount Arm (Includes fixture adapter)



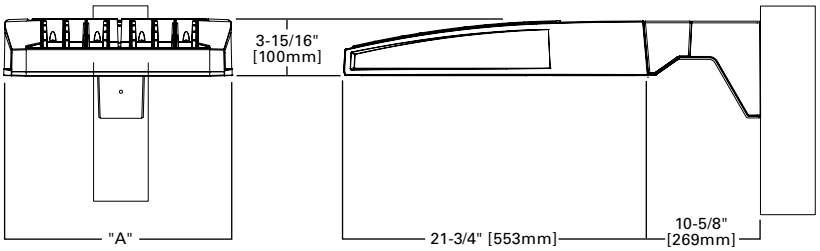
QM and QMEA Pole Mount



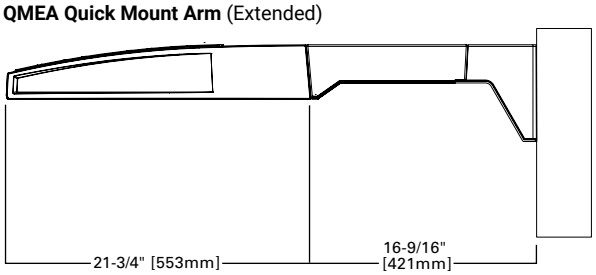
QML Pole Mount



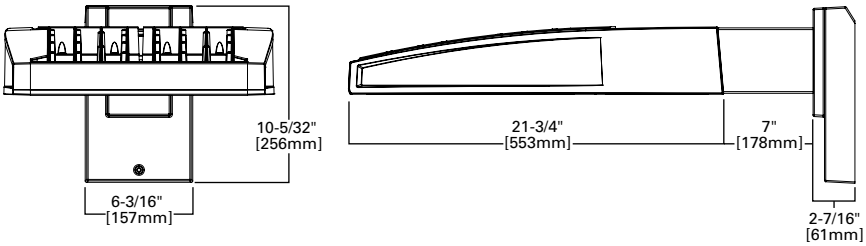
QM Quick Mount Arm (Standard)



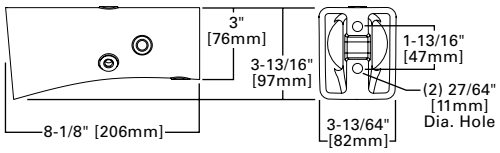
QMEA Quick Mount Arm (Extended)



Standard Wall Mount

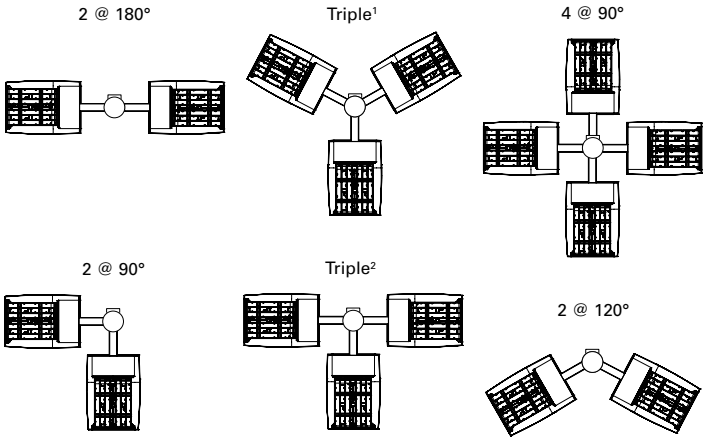


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Standard Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Standard	QM Extended	Quick Mount
6	Extended	Standard	QM Extended	Quick Mount
7	Extended	Extended	--	Quick Mount
8	Extended	Extended	--	Quick Mount
9	Extended	Extended	--	--
10	Extended	Extended	--	--



NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°. **3** Shown with 4 square configurations.

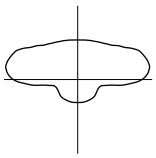
Fixture Weights and EPAs

Number of Light Squares	Weight with Standard and Extended Arm (lbs.)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with QM Arm (lbs.)	EPA with QM Arm (Sq. Ft.)	Weight with QML (lbs.)	EPA with QML (Sq. Ft.)	Weight with QMEA (lbs.)	EPA with QMEA (Sq. Ft.)
1-4	33	0.96	35	1.11	--	--	38	1.11
5-6	44	1.00	46	1.11	--	--	49	1.11
7-8	54	1.07	56	1.11	58	1.11	--	--
9-10	63	1.12	--	--	67	1.11	--	--

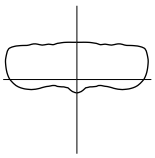
Optical Distributions

Asymmetric Area Distributions

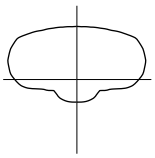
T2 (Type II)



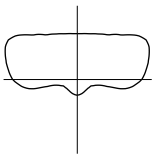
SL2 (Type II with Spill Control)



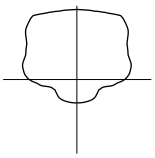
T3 (Type III)



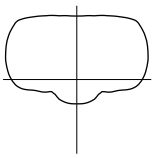
SL3 (Type III with Spill Control)



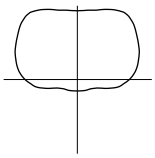
T4FT (Type IV Forward Throw)



T4W (Type IV Wide)

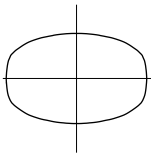


SL4 (Type IV with Spill Control)

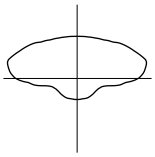


Asymmetric Roadway Distributions

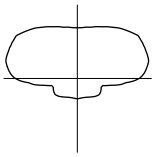
RW (Rectangular Wide Type I)



T2R (Type II Roadway)

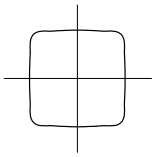


T3R (Type III Roadway)

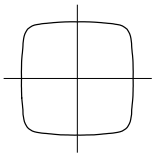


Symmetric Distributions

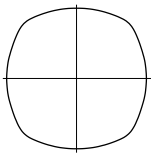
5NQ (Type V Square Narrow)



5MQ (Type V Square Medium)

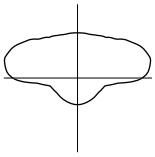


5WQ (Type V Square Wide)

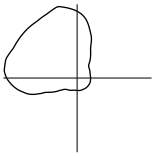


Specialized Distributions

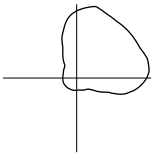
AFL (Automotive Frontline)



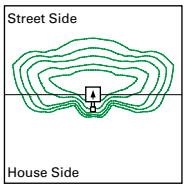
SLL (90° Spill Light Eliminator Left)



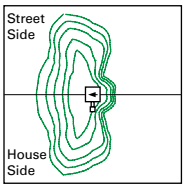
SLR (90° Spill Light Eliminator Right)



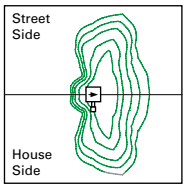
Rotated Optics



Standard



Optics Rotated Left @ 90° [L90]



Optics Rotated Right @ 90° [R90]

Product Specifications

Construction

- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics

- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GRS and PFS
- IDA Certified (3000K CCT and warmer only)

Electrical

- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting

- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish

- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty

- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

View GLEON IES files

Nominal Power Lumens (1.2A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,580	23,245	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,539	24,680	32,609	40,401	48,348	57,176	64,783	72,266	80,010
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,879	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,220	32,001	39,651	47,447	56,114	63,580	70,924	78,523
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,522	31,080	38,510	46,082	54,499	61,751	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,552	23,206	30,662	37,989	45,462	53,763	60,920	67,952	75,235
	BUG Rating	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,124	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,372	76,805
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	121	123	122	121	120
SL4	4000K Lumens	7,719	15,085	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	115	116	116	115	114
5NQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	125	126	126	124	124
5MQ	4000K Lumens	8,534	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
5WQ	4000K Lumens	8,556	16,723	24,951	32,968	40,847	48,881	57,808	65,499	73,063	80,894
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	128	130	131	128	128	128	129	128	127	126
SLL/ SLR	4000K Lumens	7,140	13,951	20,817	27,506	34,081	40,783	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
RW	4000K Lumens	8,304	16,228	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
AFL	4000K Lumens	8,335	16,287	24,302	32,110	39,784	47,610	56,303	63,796	71,163	78,790
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

*** Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.**

Nominal Power Lumens (1A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,201	21,190	28,000	34,692	41,515	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	126	128	124	124	125	126	125	124	123
T2R	4000K Lumens	7,715	15,077	22,497	29,725	36,829	44,073	52,122	59,056	65,876	72,937
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	133	136	132	132	132	133	133	131	131
T3	4000K Lumens	7,408	14,475	21,598	28,539	35,358	42,313	50,039	56,698	63,246	70,024
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
T3R	4000K Lumens	7,571	14,798	22,078	29,172	36,145	43,253	51,153	57,959	64,653	71,581
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
T4FT	4000K Lumens	7,451	14,559	21,725	28,703	35,564	42,558	50,330	57,027	63,613	70,430
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	129	131	128	127	128	129	128	127	126
T4W	4000K Lumens	7,354	14,371	21,442	28,333	35,105	42,007	49,681	56,291	62,792	69,521
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	127	129	126	126	126	127	126	125	125
SL2	4000K Lumens	7,254	14,178	21,155	27,951	34,631	41,443	49,011	55,533	61,944	68,584
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	125	127	124	124	124	125	125	124	123
SL3	4000K Lumens	7,406	14,474	21,596	28,534	35,355	42,307	50,033	56,690	63,237	70,014
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
SL4	4000K Lumens	7,037	13,751	20,519	27,112	33,592	40,198	47,538	53,864	60,087	66,524
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	119	122	124	120	120	121	122	121	120	119
5NQ	4000K Lumens	7,640	14,928	22,275	29,431	36,465	43,637	51,606	58,472	65,226	72,218
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	132	134	131	131	131	132	131	130	129
5MQ	4000K Lumens	7,779	15,203	22,684	29,973	37,137	44,441	52,555	59,549	66,427	73,545
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	133	133	133	134	134	133	132
5WQ	4000K Lumens	7,800	15,243	22,744	30,052	37,236	44,560	52,697	59,708	66,603	73,742
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	134	133	134	135	134	133	132
SLL/ SLR	4000K Lumens	6,510	12,719	18,977	25,075	31,067	37,176	43,967	49,817	55,569	61,525
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	110	113	114	111	111	112	112	112	111	110
RW	4000K Lumens	7,570	14,793	22,073	29,165	36,137	43,243	51,140	57,945	64,637	71,564
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
AFL	4000K Lumens	7,598	14,847	22,154	29,272	36,267	43,400	51,326	58,156	64,872	71,824
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	129	131	133	130	130	130	131	131	129	129

*** Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.**

Nominal Power Lumens (800mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K Lumens	5,871	11,474	17,121	22,622	28,029	33,542	39,667	44,944	50,134	55,508
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	135	134	135	134	132
T2R	4000K Lumens	6,233	12,181	18,176	24,016	29,756	35,608	42,111	47,714	53,224	58,929
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	142	143	147	140	142	143	143	143	142	141
T3	4000K Lumens	5,986	11,695	17,450	23,057	28,568	34,186	40,430	45,809	51,099	56,576
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
T3R	4000K Lumens	6,117	11,955	17,838	23,569	29,203	34,946	41,328	46,827	52,235	57,832
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
T4FT	4000K Lumens	6,019	11,763	17,551	23,190	28,734	34,384	40,663	46,074	51,396	56,904
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	137	138	142	136	137	138	138	138	137	136
T4W	4000K Lumens	5,942	11,610	17,324	22,891	28,363	33,940	40,138	45,480	50,732	56,169
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	135	137	140	134	135	136	136	136	136	134
SL2	4000K Lumens	5,862	11,454	17,091	22,583	27,980	33,484	39,598	44,867	50,048	55,411
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	134	134	134	134	132
SL3	4000K Lumens	5,985	11,694	17,447	23,053	28,565	34,182	40,424	45,804	51,092	56,568
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
SL4	4000K Lumens	5,685	11,111	16,577	21,905	27,140	32,478	38,409	43,520	48,546	53,748
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	129	131	134	128	129	130	130	130	130	128
5NQ	4000K Lumens	6,172	12,061	17,997	23,778	29,462	35,256	41,694	47,242	52,699	58,347
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	140	142	145	139	140	142	141	141	141	139
5MQ	4000K Lumens	6,285	12,283	18,328	24,217	30,004	35,907	42,462	48,112	53,669	59,421
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	144	144	144	144	142
5WQ	4000K Lumens	6,303	12,317	18,377	24,281	30,085	36,001	42,575	48,241	53,812	59,579
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	145	144	144	144	142
SLL/ SLR	4000K Lumens	5,260	10,276	15,332	20,259	25,101	30,037	35,522	40,249	44,898	49,708
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	120	121	124	118	120	121	120	121	120	119
RW	4000K Lumens	6,116	11,952	17,834	23,563	29,196	34,938	41,317	46,817	52,224	57,819
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
AFL	4000K Lumens	6,139	11,996	17,899	23,650	29,302	35,064	41,468	46,987	52,412	58,030
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	141	144	138	140	141	141	141	140	138

*** Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.**

Nominal Power Lumens (600mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	96	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K Lumens	4,787	9,357	13,961	18,448	22,856	27,353	32,347	36,651	40,884	45,265
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	142	145	143	141	142	143	143	141	140
T2R	4000K Lumens	5,083	9,934	14,822	19,585	24,266	29,038	34,341	38,911	43,404	48,055
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	150	151	154	152	150	150	152	151	150	149
T3	4000K Lumens	4,880	9,537	14,231	18,803	23,296	27,878	32,970	37,358	41,671	46,137
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	148	146	144	144	146	145	144	143
T3R	4000K Lumens	4,988	9,749	14,547	19,220	23,814	28,497	33,703	38,188	42,598	47,162
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	147	148	152	149	147	148	149	149	147	146
T4FT	4000K Lumens	4,909	9,591	14,312	18,911	23,432	28,040	33,161	37,574	41,913	46,404
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	149	147	145	145	147	146	145	144
T4W	4000K Lumens	4,845	9,468	14,128	18,668	23,130	27,678	32,732	37,088	41,371	45,805
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	143	143	147	145	143	143	145	144	143	142
SL2	4000K Lumens	4,779	9,341	13,937	18,416	22,818	27,305	32,292	36,589	40,813	45,188
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	141	142	145	143	141	141	143	142	141	140
SL3	4000K Lumens	4,879	9,536	14,229	18,800	23,294	27,874	32,965	37,351	41,666	46,130
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	144	144	148	146	144	144	146	145	144	143
SL4	4000K Lumens	4,637	9,059	13,519	17,863	22,132	26,486	31,322	35,490	39,589	43,831
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	136	137	141	138	137	137	139	138	137	136
5NQ	4000K Lumens	5,033	9,835	14,676	19,392	24,026	28,751	34,002	38,526	42,975	47,581
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	148	149	153	150	148	149	150	150	148	147
5MQ	4000K Lumens	5,126	10,015	14,946	19,747	24,468	29,281	34,628	39,236	43,766	48,457
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	151	152	156	153	151	152	153	153	151	150
5WQ	4000K Lumens	5,139	10,043	14,985	19,801	24,533	29,359	34,721	39,339	43,883	48,586
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	151	152	156	153	151	152	154	153	151	150
SLL/ SLR	4000K Lumens	4,289	8,380	12,502	16,520	20,469	24,494	28,967	32,823	36,613	40,537
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	126	127	130	128	126	127	128	128	126	126
RW	4000K Lumens	4,987	9,746	14,543	19,215	23,808	28,491	33,695	38,178	42,587	47,151
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	148	151	149	147	148	149	149	147	146
AFL	4000K Lumens	5,007	9,782	14,597	19,285	23,896	28,594	33,817	38,317	42,742	47,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	147	148	152	149	148	148	150	149	147	147

*** Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.**

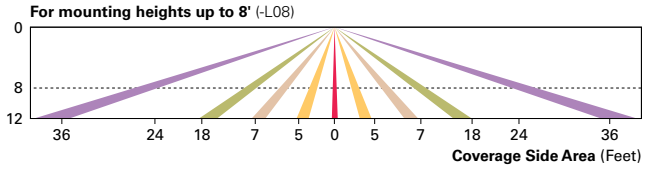
Control Options

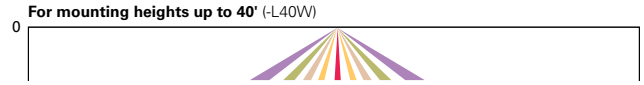
0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

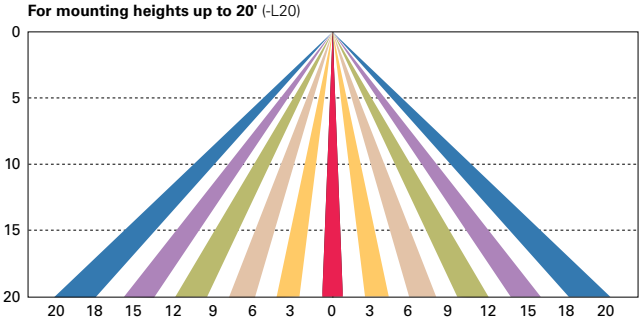
Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

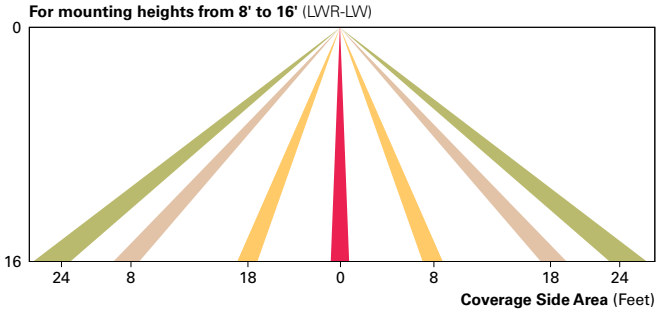
Dimming Occupancy Sensor (SPB, MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

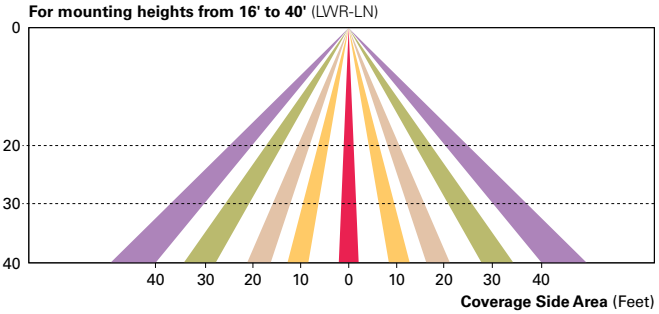






Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.





WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

Cooper Lighting Solutions
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Peachtree City, GA 30269
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www.cooperlighting.com

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Specifications and dimensions
subject to change without notice.

Invue

DESCRIPTION

The Invue Arbor post top brings architectural style to area/site and pedestrian scale applications. Its dayform appearance brings a desired organic look into the urban environment. WaveStream LED Optics provide a uniform pixelation free image, managing glare while providing high levels of visibility.

Catalog #		Type
Project	HUB FACILITY	OE & OF
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Two-piece IP66 rated housing is cast from low copper content corrosion resistant aluminum, maintaining strength and precision to sustain long term dayform appearance. ANSI C136.31 testing compliance prevents damage from installation generated vibration. External hardware and casting seams are minimized to enhance appearance.

Optics
Specifically designed for pedestrian applications, WaveStream LED optical waveguide technology produces both symmetric NEMA type V and asymmetric NEMA II, III, IV distributions. The waveguide is manufactured from precision injection molded acrylic resulting in a pixelation free optical image for improved glare control and visual comfort. Luminaire efficacy's measure up to 100 lm/w for 4000K (+/- 275K) CCT at 70 CRI (min), optional 3000K CCT at 80 CRI is also available.

Electrical
LED driver(s) are directly mounted to upper housing thermal pad for optimal thermal performance. Standard 0-10V dimming drivers and Cooper Lighting Solutions' proprietary surge protection module are designed to withstand 10kV of transient line surge. Drivers operate at 120-277V 50/60Hz with 347V/60Hz or 480V/60Hz operation optional. Suitable for ambient temperature applications as low as -40°C (40°F) to 40°C (104°F). Limited high ambient options allow for 50°C operation.

Controls
The Arbor LED luminaire control options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. The ANSI C136.41 compliant NEMA 7-PIN receptacle enables wireless dimming when used with compatible photocontrol. See control options page for more details.

Mounting
Fitter assembly mounts over 2-3/8" O.D. tenon and is secured via six concealed stainless steel set screws. Design of fitter provides seamless transition to 3" O.D. round pole top. Additional mounting accessories include a single fixture arm mount, twin fixture arm mount and wall mount arm. Additional pole mount accessories mount to a 3" x 4" long tenon for 4" - 5" O.D. poles tops. For existing 2-3/8" tenons an adapter is shipped standard.

Finish
Cooper Lighting Solutions ("CLS") utilizes premium ultra-weatherable TGIC based polyester powder coatings that are specifically formulated to withstand extended outdoor exposure. The powders are formulated exclusively for CLS to serve functionally as well as decorative. Good film appearance combinded with excellent mechanical an exterior exposure qualities display greater than twice as much gloss retention. RAL and custom color matches available. Finish is compliant with ASTM B117 3000hr salt spray standard. Options to meet Buy American Act requirements.

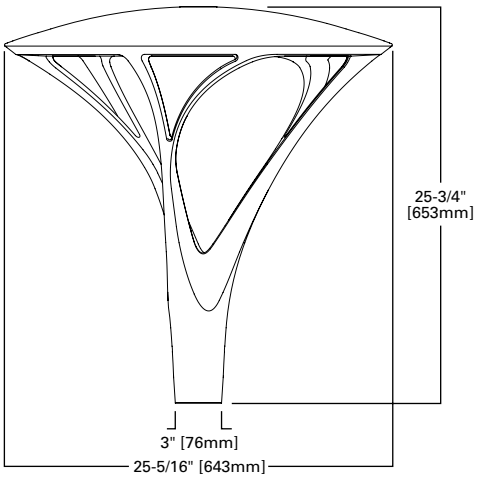
Warranty
Five-year warranty.



ARB ARBOR POST TOP

DECORATIVE LUMINAIRE

DIMENSIONS



CERTIFICATION DATA

UL/cUL Listed
IEC 60529 IP66 Housing
ASTM B117 SaH Spray Tested
ASTM A3560 Low Cooper Alloy
ISO 9001
Dark Sky Approved (3000K CCT and warmer only)
ANSI C136.31 3G Vibration Tested (Post Top)
ANSI C136.31 1.5G Vibration Tested (Twin Mount / Accessory Arm Mount)

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz, 480V/60Hz
40°C Ambient Temperature Rating
As low as -40°C (-40°F) minimum temperature
*See MINIMUM TEMPERATURE table

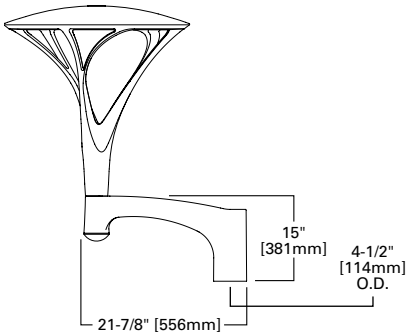
EPA

Effective Projected Area: (Sq. Ft.) 0.9

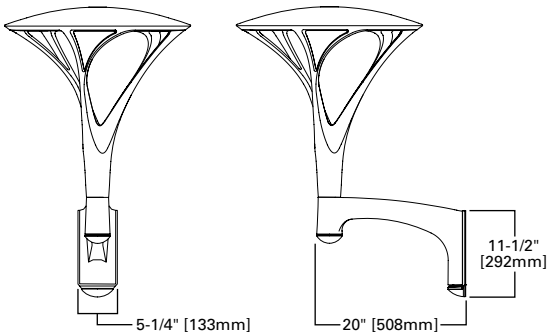
Approximate Net Weight:
37 lbs. [16.8 kgs.]

MOUNTING CONFIGURATIONS (WEIGHT AND EPAS INCLUDES FIXTURE)

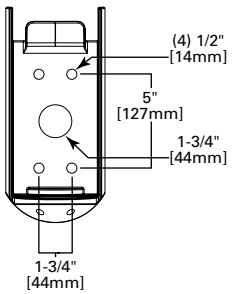
Single Arm Mount (ARSA-XX)
Weight: 56 lbs. [25.45 kgs.]
EPA: 1.7 Sq. Ft.



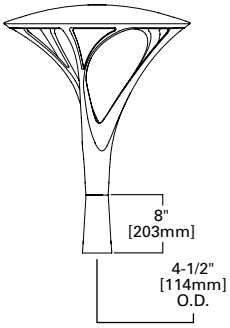
Wall Mount Arm (ARWM-XX)
Weight: 57 lbs. [25.91 kgs.]
EPA: 1.8 Sq. Ft.



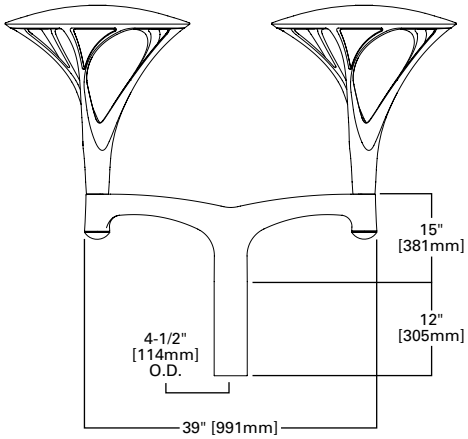
Wall Mount Arm Drill Pattern



Post Top Adapter (ARPA4-XX)
Weight: 41 lbs. [18.63 kgs.]
EPA: 1.2 Sq. Ft.



Twin Arm Mount (ARTA15-XX)
Weight: 114 lbs. [51.81 kgs.]
EPA: 3.45 Sq. Ft.

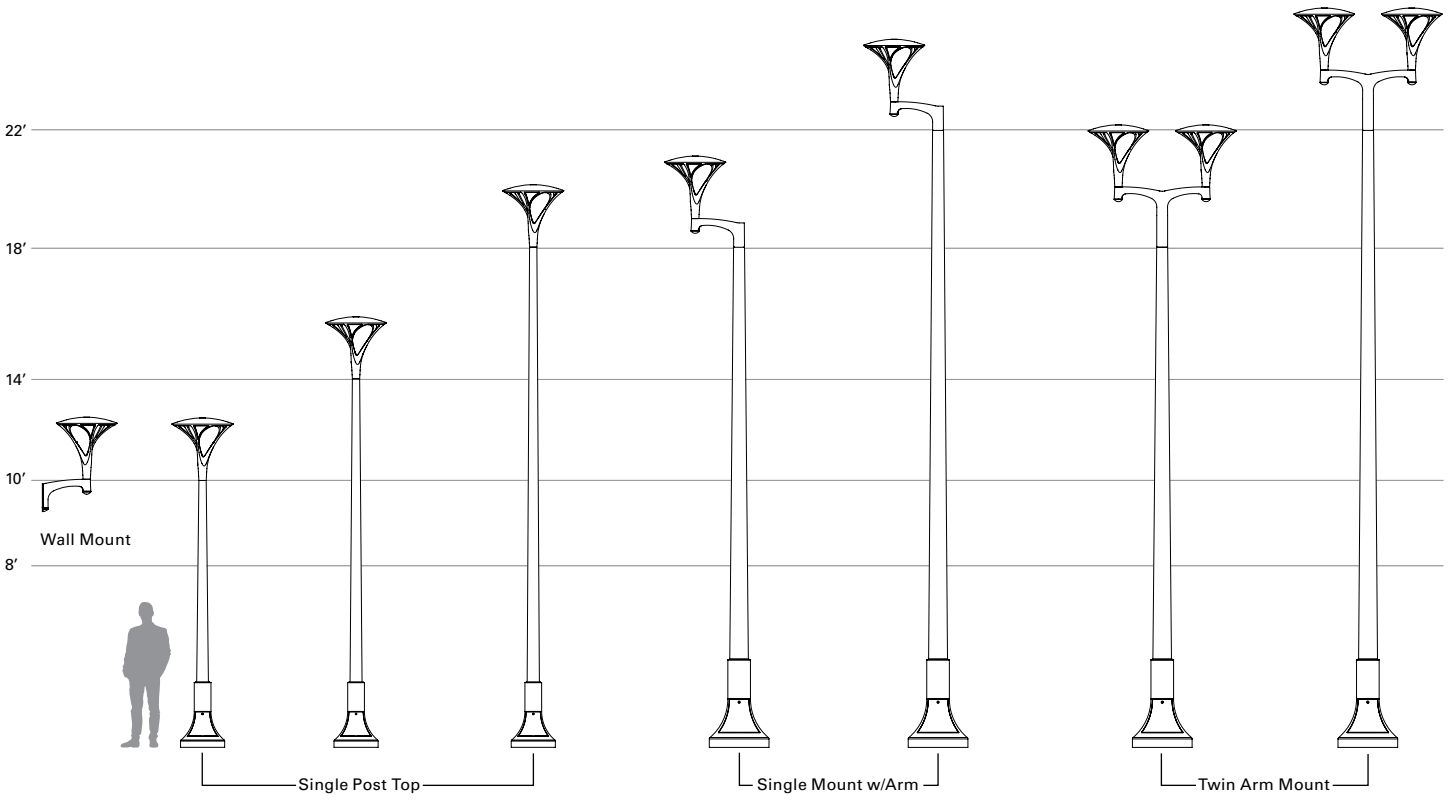


MOUNTING REQUIREMENTS CHART

Tenon O.D. (Inches)	**2-3/8" Tenon**		
Pole Top O.D. (Inches)	**3"**	**4"**	**5"**
Post Top	Standard	Spacer (Provided) & ARPA4-XX (Order Separately)	Spacer (Provided) & ARPA4-XX (Order Separately)
Single Arm Mount	Spacer (Provided)	Spacer (Provided)	Spacer (Provided)

Tenon O.D. (Inches)	**3" Tenon**		
Pole Top O.D. (Inches)		**4"**	**5"**
Post Top		ARPA4-XX (Order Separately)	ARPA4-XX (Order Separately)
Single Arm Mount		Standard	Standard
Twin Mount		Standard	Standard

POLE CONFIGURATIONS (ARP DECORATIVE POLE SHOWN)



ORDERING INFORMATION

Sample Number: ARB-B2-LED-D1-T2-GM

Product Family [1,2]	Lumens [3]	Lamp Type	Voltage	Distribution	Color [7]
ARB=Arbor Post Top **BAA-ARB**=Arbor Post Top Buy American Act Compliant [25]	**B1**=Nominal 2,300 Lumens **B2**=Nominal 4,500 Lumens **B3**=Nominal 8,500 Lumens **B4**=Nominal 9,500 Lumens [4]	**LED**=Solid State Light Emitting Diodes	**D1**=Dimming Driver (120-277V) **347**=347V [5] **480**=480V [5,6]	**T2**=Type II **T3**=Type III **T4**=Type IV **T5**=Type V	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	**Accessories** (Order Separately) [19,26]
7030=70 CRI / 3000K CCT [8] **7035**=70 CRI / 3500K CCT [8] **8030**=80 CRI / 3000K CCT [8] **8035**=80 CRI / 3500K CCT [8] **AMB**=Amber 590nm [11,27] **20MSP**=20kV MOV Surge Protective Device **20K**=20kV UL 1449 Fused Surge Protective Device **PC**=Button Type Photocontrol **PER**=NEMA 3-PIN Twistlock Photocontrol Receptacle **PER7**=NEMA 7-PIN Twistlock Photocontrol Receptacle **HA**=50°C High Ambient Temperature [9] **SPB1**=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting [23] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting [23] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting [23] **MS-L08**=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height [10,11] **MS-L20**=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [10,11] **MS-L40W**=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [10,11] **MS/DIM-L08**=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [10,11] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [10,11] **MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [10,11] **ZD**=DALI-enabled 4-PIN Twistlock Receptacle [10,11,12,13,14] **ZW**=Wavelinx-enabled 4-PIN Twistlock Receptacle [10,11,12,13] **SWPD4WH**=Wavelinx Wireless Sensor, 7' - 15' Mounting Height, White [10,11,12,13,15] **SWPD5WH**=Wavelinx Wireless Sensor, 15' - 40' Mounting Height, White [10,11,12,13,15] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [10,16] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [10,16] **5LTD**=Fifth Light Dali Driver [10,17] **DIM**=0-10V External Dimming Leads [10,18] **VS**=Tempered Glass Vandal Shield **CC**=Coastal Construction [24] **SPBL2**=FDP-301-L2 (Wattstopper DALI sensor) **SPBL4**=FDP-301-L7 (Wattstopper DALI sensor) **TH**= toolless hardware **F**=Fuse	**ARSA-XX**=Single Pole Mount Arm [20] **ARWM-XX**=Wall Mount Arm **ARTA15-XX**=Twin Mount Bracket [21] **ARPA4-XX**=Pole Adapter 4" O.D. Pole **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [21] **SWPD4-WH**=Wavelinx Wireless Sensor, 7' - 15' Mounting Height, White [13,15] **SWPD5-WH**=Wavelinx Wireless Sensor, 16' - 40' Mounting Height, White [13,15] **WOLC-7P-10A**=Wavelinx Outdoor Control Module (7-PIN) [10,22]

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional information.
2. Fixture slipfits over standard 2-3/8" tenon. 3" O.D. tenon when used with a ARPA4-XX 4" O.D. pole adapter.
3. Standard 4000K CCT, nominal 70CRI.
4. B4 only available with Type V distribution.
5. Requires the use of a step down transformer.
6. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
7. Custom and RAL color matching available upon request. Consult your lighting representative for more information.
8. Extended lead times apply. Use dedicated IES files when performing layouts.
9. Not available with B3 lumen package in Type II, III, or IV distributions.
10. Controls system is not available with photocontrol (PC), photocontrol receptacle (PER or PER7), or other controls systems (MS, ZD, ZW, LWR, 5LTD, or DIM).
11. Not available with HA option.
12. Sensor passive infrared (PIR) may be overly sensitive below -20°C (-4°F).
13. For device to be field-configurable, requires WAC Gateway components WAC-POE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more WaveLinx application information.
14. Not available on B1 or B5 lumen packages.
15. Requires 4-PIN twistlock receptacle (ZD or ZW) option.
16. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for application information.
17. Not available in B4 lumen package.
18. Low voltage control leads brought 18" outside fixture.
19. Replace XX with paint color.
20. Fits on 3" O.D. x 4" long tenon for nominal 4-1/2" O.D. pole top.
21. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
22. Requires 7-PIN NEMA twistlock photocontrol receptacle (PER7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS, ZW, ZD or LWR). Operates on 120-347V input voltages.
23. Smart device with mobile application required to change system defaults. See controls section for details.
24. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
25. Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
26. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
27. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose Lumen Package B1. See IES files for photometric performance.

POWER AND LUMENS

Lumen Package		**B1**	**B2**	**B3**	**B4**
Drive Current					
Power Wattage (Watts)		24W	48W	96W	99W
Input Current (mA) @ 120V		200	400	800	830
Input Current (mA) @ 208V		120	240	470	480
Input Current (mA) @ 240V		100	200	400	420
Input Current (mA) @ 277V		90	180	350	360
Power Wattage (Watts)		26W	53W	107W	108W
Input Current (mA) @ 347V		79	161	325	328
Input Current (mA) @ 480V		58	117	235	237
Optics					
Type II	Lumens	2,045	3,994	7,362	--
	BUG Rating	B1-U1-G1	B1-U2-G2	B3-U2-G3	--
Type III	Lumens	2,324	4,534	8,451	--
	BUG Rating	B1-U1-G1	B1-U2-G2	B2-U2-G3	--
Type IV	Lumens	2,408	4,691	8,740	--
	BUG Rating	B1-U1-G1	B1-U2-G2	B2-U2-G3	--
Type V	Lumens	2,311	4,529	8,511	9,464
	BUG Rating	B2-U1-G1	B3-U2-G2	B3-U2-G3	B3-U2-G3

LUMEN MULTIPLIER

Ambient Temperature	**Lumen Multiplier**
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	**TM-21 Lumen Maintenance** (60,000 Hours)	**Calculated L70** (Hours)
25°C	>91%	>230,000
40°C	>88%	>172,000
50°C	>86%	>142,000

NOTE: Maintenance data applies to the highest drive current and represents the worst case at the highest wattage.

COLOR TEMPERATURE

Color Temperature (CCT)	**CRI** (Nominal)	**Multiplier**
4000	70	1.00
3000	80	0.91

MINIMUM AMBIENT TEMPERATURE

Lumen Package	**Temperature**
B1	-40°C
B2	-35°C
B3	-35°C
B4	-40°C
All DALI powered lumen packages	-20°C

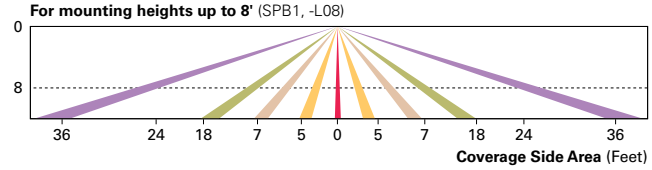
CONTROL OPTIONS

0-10V (D) The dimming option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

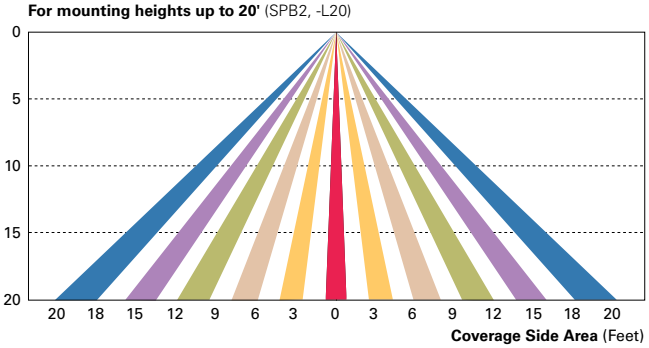
Photocontrol (PER and PER7) Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

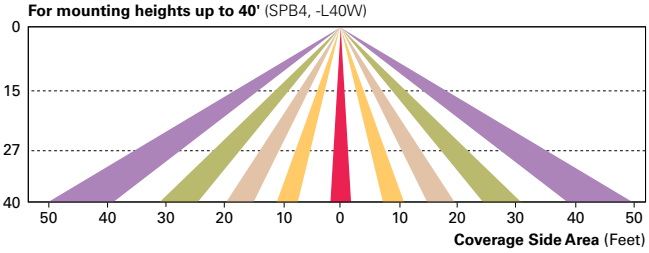
For mounting heights up to 8' (SPB1, -L08)



For mounting heights up to 20' (SPB2, -L20)



For mounting heights up to 40' (SPB4, -L40W)

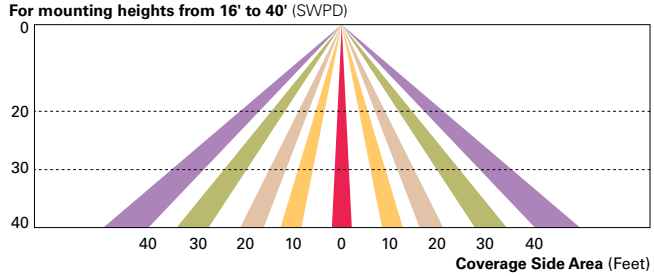


WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. Use the WaveLinx Mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

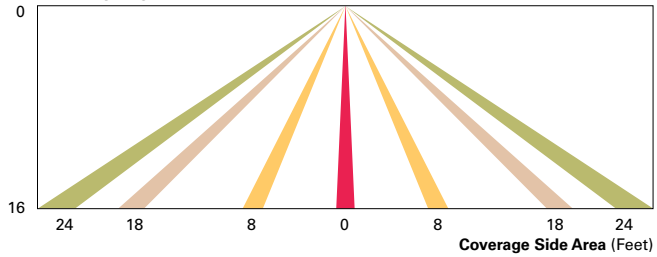
WaveLinx Wireless Sensor (SWPD4 and SWPD5) These outdoor sensors offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. These sensors can be factory installed or field-installed via simple, tool-less integration into luminaires equipped with the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW). These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or daylight harvesting that is factory-enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.

For mounting heights from 16' to 40' (SWPD)

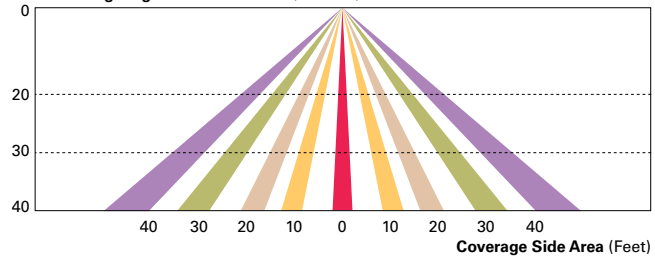


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted System is a connected lighting solution that combines LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of other resources beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



Invue

DESCRIPTION

The Arbor Bollard from Invue brings architectural style to the pedestrian level. The Arbor Bollard can be used along with Arbor post top luminaires to provide a coordinated look sure to enhance any architectural setting. WaveStream™ LED optics present a pixilation free image replacing visible glare, while providing high levels of pavement illumination.

Catalog #		Type
Project	HUB FACILITY	OG
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Top Housing: Low copper, cast aluminum top maintains strength and precision while providing for: rapid heat dissipation, vandal resistance and superior dayform. Lower Housing: Heavy 0.188" wall seamless extruded aluminum 4" O.D. shaft attaches to base via stainless steel fasteners. BASE: Rugged corrosion resistant extruded aluminum base mounts to foundation with three anchor bolts. Base features a pliable 1/2" thick neoprene leveling pad fitted to the bottom of base allows for sealing against water and dirt ingress regardless of minor deviations in grade of concrete pad.

Optics
General purpose symmetric distribution is available using WaveStream LED optical technology. The optical waveguide is manufactured using precision injection molded acrylic for the ultimate level of glare control and visual comfort. Offered standard in 4000K (+/- 275K) CCT, optional 3000K minimum 80 CRI.

Electrical
LED driver(s) are mounted to electrical tray for easy installation and maintenance for 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Offered standard with 0-10V dimming driver and Cooper Lighting Solutions' proprietary circuit module designed to withstand 10kV of transient line surge. Luminaire is suitable for ambient temperature applications from -30°C (-22°F) to 40°C (104°F) and IP66 rated against the ingress of dust and water.

Controls
The Arbor Bollard options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. An integrated dimming and occupancy sensor is a standalone control option available in on/off (MSP) and bi-level dimming (MSP/DIM) operation. An optional handheld remote (ISHH) allows custom programming to suit all needs.

Mounting
Luminaire is mounted to 3 x 1/2" anchor bolts on a 2-3/8" bolt circle to with stand a 600 pound overturn moment. Order anchor bolts and installation template separately (ABAnchor).

Finish
Cooper Lighting Solutions utilizes premium ultra-weatherable TGIC based polyester powder coatings that are specifically formulated to withstand extended outdoor exposure. The powders are formulated exclusively for Cooper Lighting Solutions to serve functionally as well as decorative. Good film appearance combinded with excellent mechanical an exterior exposure qualities display greater than twice as much gloss retention. RAL and custom color matches available. Finish is compliant with ASTM B117 3000hr salt spray standard. Options to meet Buy American Act requirements

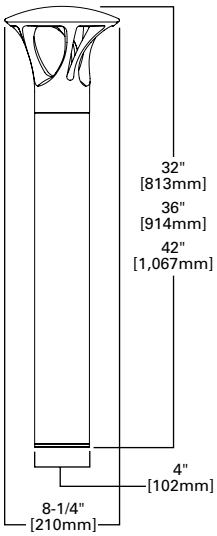
Warranty
Five-year warranty.



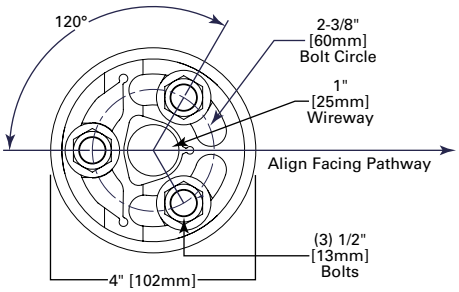
ABB ARBOR BOLLARD

PATHWAY LUMINAIRE

DIMENSIONS



BOLT CIRCLE ORIENTATION



CERTIFICATION DATA

UL/cUL Listed
IP66 Housing
ISO 9001
RoHS
Dark Sky Approved (3000K CCT and warmer only)

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz
347V 60Hz, 480V 60Hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

Approximate Net Weight:
19.25 lbs. [8.75 kgs.]

COOPER Lighting Solutions

POWER AND LUMENS

Lumen/Distribution	B1 Symmetric	B2 Symmetric	B1 Asymmetric	B2 Asymmetric
Drive Current				
Power Wattage (Watts)	16W	32W	11W	23W
Input Current (mA) @ 120V	140	270	100	200
Input Current (mA) @ 208V	80	160	60	120
Input Current (mA) @ 240V	70	140	50	100
Input Current (mA) @ 277V	60	120	40	90
Power Wattage (Watts)	19W	37W	13W	27W
Input Current (mA) @ 347V	60	110	40	80
Input Current (mA) @ 480V	180	320	120	240
Optics				
Lumens	717	1,276	472	848
BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Calculated L70 (Hours)
25°C	>94%	>350,000
40°C	>93%	>250,000
50°C	>90%	>170,000

NOTE: Maintenance data applies to the highest drive current and represents the worst case at the highest wattage.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
50°C	0.97

COLOR TEMPERATURE

Color Temperature (CCT)	CRI (Nominal)	Multiplier (Hours)
4000	70	1.00
3000	80	0.87

ORDERING INFORMATION

Sample Number: ABB-B2-LED-42-D1-A-GM

Product Family	Lumen Output [1]	CRI / CCT	Source	Nominal Height	Voltage	Distribution	Color
ABB=Arbor Bollard **BAA-ABB**=Arbor Bollard Buy American Act Compliant [10]	**B1**=Mid Lumen Output **B2**=High Lumen Output	**727**=70 CRI / 2700K **8030**=80 CRI / 3000K CCT [6]	**LED**	**30**=32" **36**=36" **42**=42"	**D1**=Dimming Driver (120-277V) [2] **347**=347V [3] **480**=480V [3,4]	**A**=Asymmetric **S**=Symmetric	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White **CC**=Custom Color [5]

Options (Add as Suffix)	**Accessories** (Order Separately) [11]
8030=80 CRI / 3000K CCT [6] **HA**=High Ambient [7] **MS/DIM-H8**=Motion Sensor for Dimming or Bi-Level Operation (Horizontal Detection) [8] **MS/DIM-2H8**=Twin Motion Sensors for 360° Dimming or Bi-Level Operation (Horizontal Detection) [8] **DIM**=0-10V Dimming Driver Leads Brought Out from Fixture	**ABAnchor**=Anchor Bolt Kit and Template [9] **ISHH**=Wireless Configuration Tool for Integrated Sensor (Occupancy Sensor Settings)

NOTES:
1. Standard 4000K CCT nominal 70 CRI.
2. Dimming driver standard.
3. Requires the use of a step down transformer.
4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
5. RAL and custom color matching available. Consult your lighting representative at Cooper Lighting Solutions for more information.
6. Extended lead times apply. Use dedicated IES files when performing layouts.
7. 50°C ambient rating.
8. The ISHH configuration tool is required to adjust parameters including high and low dimming levels, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
9. Contact your customer service representative at Cooper Lighting Solutions for advance shipping.
10. Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
11. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.



D-Series Size 1
LED Wall Luminaire

Buy American

d-series

Catalog Number	120
Notes	ZACVH M100
Type	SMR

Hit the Tab key or mouse over the page to see all interactive elements.

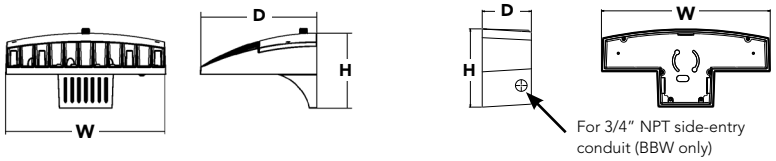
Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, E20WC)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**E20WC Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



For 3/4" NPT side-entry conduit (BBW only)

Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED	10C	700	40K	F	Surface Wra	120		PIR
Series	**LEDs**	**Drive Current**	**Color temperature**	**Distribution**		**Voltage**	**Mounting**	**Control Options**
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines) [1]	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A) [1]	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium		MVOLT [2] 120 [3] 208 [3] 240 [3] 277 [3] 347 [3,4] 480 [3,4]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [5]	**Shipped installed** PE Photoelectric cell, button type [6] DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) PIR 180° motion/ambient light sensor, <15' mtg ht [1,7] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [1,7] PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [1,7] PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [1,7] E20WC Emergency battery backup (includes external component enclosure), CA Title 20 compliant [8,9]

	DBLXD
Other Options	**Finish** *(required)*

Shipped installed
- SF Single fuse (120, 277 or 347V) [3,10]
- DF Double fuse (208, 240 or 480V) [3,10]
- HS House-side shield [11]
- SPD Separate surge protection [12]

Shipped separately [11]
- BSW Bird-deterrent spikes
- VG Vandal guard
- DDL Diffused drop lens

Finish *(required)*
- DDBXD Dark bronze
- DBLXD Black
- DNAXD Natural aluminum
- DWHXD White
- DSSXD Sandstone
- DDBTXD Textured dark bronze
- DBLBXD Textured black
- DNATXD Textured natural aluminum
- DWHGXD Textured white
- DSSTXD Textured sandstone

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1VG U	Vandal guard accessory

NOTES

1 20C 1000 is not available with PIR, PIRH, PIR1FC3V or PIRH1FC3V.
2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
4 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
5 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
7 Reference Motion Sensor table on page 3.
8 Same as old ELCW. Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
9 Not available with SPD.
10 Not available with E20WC.
11 Also available as a separate accessory; see Accessories information.
12 Not available with E20WC.

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 70CRI)					40K (4000 K, 70CRI)					50K (5000 K, 70CRI)					AMBPC (Amber Phosphor Converted)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	350mA	13W	T2S	1,415	0	0	1	109	1,520	0	0	1	117	1,530	0	0	1	118	894	0	0	1	69
			T2M	1,349	0	0	1	104	1,448	0	0	1	111	1,458	0	0	1	112	852	0	0	1	66
			T3S	1,399	0	0	1	108	1,503	0	0	1	116	1,512	0	0	1	116	884	0	0	1	68
			T3M	1,385	0	0	1	107	1,488	0	0	1	114	1,497	0	0	1	115	876	0	0	1	67
			T4M	1,357	0	0	1	104	1,458	0	0	1	112	1,467	0	0	1	113	858	0	0	1	66
			TFTM	1,411	0	0	1	109	1,515	0	0	1	117	1,525	0	0	1	117	892	0	0	1	69
	530 mA	19W	T2S	2,053	1	0	1	108	2,205	1	0	1	116	2,220	1	0	1	117	1,264	0	0	1	67
			T2M	1,957	1	0	1	103	2,102	1	0	1	111	2,115	1	0	1	111	1,205	0	0	1	63
			T3S	2,031	1	0	1	107	2,181	1	0	1	115	2,194	1	0	1	115	1,250	0	0	1	66
			T3M	2,010	1	0	1	106	2,159	1	0	1	114	2,172	1	0	1	114	1,237	0	0	1	65
			T4M	1,970	1	0	1	104	2,115	1	0	1	111	2,129	1	0	1	112	1,212	0	0	1	64
			TFTM	2,047	0	0	1	108	2,198	1	0	1	116	2,212	1	0	1	116	1,260	0	0	1	66
	700 mA	26W	T2S	2,623	1	0	1	101	2,816	1	0	1	108	2,834	1	0	1	109	1,544	0	0	1	59
			T2M	2,499	1	0	1	96	2,684	1	0	1	103	2,701	1	0	1	104	1,472	0	0	1	57
			T3S	2,593	1	0	1	100	2,785	1	0	1	107	2,802	1	0	1	108	1,527	0	0	1	59
			T3M	2,567	1	0	1	99	2,757	1	0	1	106	2,774	1	0	1	107	1,512	0	0	1	58
			T4M	2,515	1	0	1	97	2,701	1	0	1	104	2,718	1	0	1	105	1,481	0	0	1	57
			TFTM	2,614	1	0	1	101	2,808	1	0	1	108	2,825	1	0	1	109	1,539	0	0	1	59
	1000 mA	39W	T2S	3,685	1	0	1	94	3,957	1	0	1	101	3,982	1	0	1	102	2,235	1	0	1	57
			T2M	3,512	1	0	1	90	3,771	1	0	1	97	3,794	1	0	1	97	2,130	1	0	1	55
			T3S	3,644	1	0	1	93	3,913	1	0	1	100	3,938	1	0	1	101	2,210	1	0	1	57
			T3M	3,607	1	0	1	92	3,873	1	0	1	99	3,898	1	0	1	100	2,187	1	0	1	56
			T4M	3,534	1	0	2	91	3,796	1	0	2	97	3,819	1	0	2	98	2,143	1	0	1	55
			TFTM	3,673	1	0	1	94	3,945	1	0	1	101	3,969	1	0	1	102	2,228	1	0	1	57
20C (20 LEDs)	350mA	23W	T2S	2,820	1	0	1	123	3,028	1	0	1	132	3,047	1	0	1	132	1,777	1	0	1	77
			T2M	2,688	1	0	1	117	2,886	1	0	1	125	2,904	1	0	1	126	1,693	1	0	1	74
			T3S	2,789	1	0	1	121	2,994	1	0	1	130	3,014	1	0	1	131	1,757	0	0	1	76
			T3M	2,760	1	0	1	120	2,965	1	0	1	129	2,983	1	0	1	130	1,739	1	0	1	76
			T4M	2,704	1	0	1	118	2,905	1	0	1	126	2,922	1	0	1	127	1,704	1	0	1	74
			TFTM	2,811	1	0	1	122	3,019	1	0	1	131	3,038	1	0	1	132	1,771	0	0	1	77
	530 mA	35W	T2S	4,079	1	0	1	117	4,380	1	0	1	125	4,407	1	0	1	126	2,504	1	0	1	72
			T2M	3,887	1	0	1	111	4,174	1	0	1	119	4,201	1	0	1	120	2,387	1	0	1	68
			T3S	4,033	1	0	1	115	4,331	1	0	1	124	4,359	1	0	1	125	2,477	1	0	1	71
			T3M	3,993	1	0	2	114	4,288	1	0	2	123	4,315	1	0	2	123	2,451	1	0	1	70
			T4M	3,912	1	0	2	112	4,201	1	0	2	120	4,227	1	0	2	121	2,402	1	0	1	69
			TFTM	4,066	1	0	2	116	4,366	1	0	2	125	4,394	1	0	2	126	2,496	1	0	1	71
	700 mA	46W	T2S	5,188	1	0	1	113	5,572	1	0	1	121	5,607	1	0	1	122	3,065	1	0	1	67
			T2M	4,945	1	0	2	108	5,309	1	0	2	115	5,343	1	0	2	116	2,921	1	0	1	64
			T3S	5,131	1	0	2	112	5,510	1	0	2	120	5,544	1	0	2	121	3,031	1	0	1	66
			T3M	5,078	1	0	2	110	5,454	1	0	2	119	5,487	1	0	2	119	3,000	1	0	1	65
			T4M	4,975	1	0	2	108	5,343	1	0	2	116	5,376	1	0	2	117	2,939	1	0	1	64
			TFTM	5,172	1	0	2	112	5,554	1	0	2	121	5,589	1	0	2	122	3,055	1	0	1	66
	1000 mA	73W	T2S	7,204	1	0	2	99	7,736	2	0	2	106	7,784	2	0	2	107	4,429	1	0	1	61
			T2M	6,865	1	0	2	94	7,373	2	0	2	101	7,419	2	0	2	102	4,221	1	0	1	58
			T3S	7,125	1	0	2	98	7,651	1	0	2	105	7,698	1	0	2	105	4,380	1	0	1	60
			T3M	7,052	1	0	2	97	7,573	2	0	2	104	7,620	2	0	2	104	4,335	1	0	2	59
			T4M	6,909	1	0	2	95	7,420	1	0	2	102	7,466	1	0	2	102	4,248	1	0	2	58
			TFTM	7,182	1	0	2	98	7,712	1	0	2	106	7,761	1	0	2	106	4,415	1	0	2	60

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Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A) 120V	208V	240V	277V	347V	480V
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	24 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	74 W	0.69	0.40	0.35	0.30	0.23	0.17

Motion Sensor Default Settings

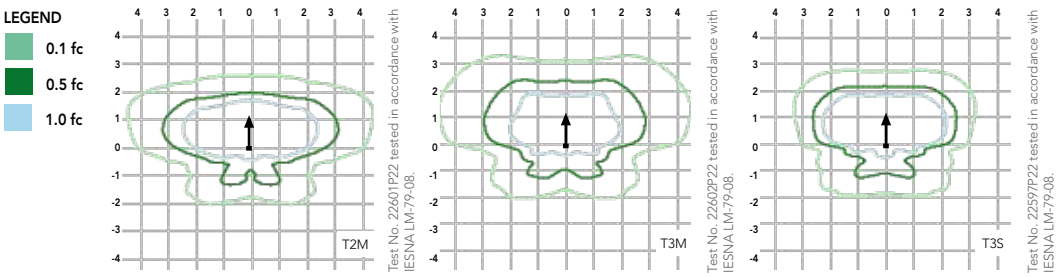
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*For use when motion sensor is used as dusk to dawn control

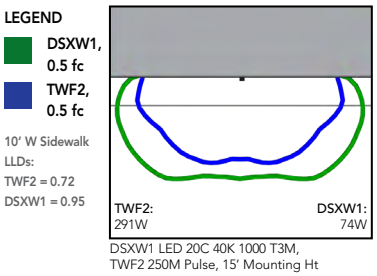
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

Options and Accessories



T3M (left)



HS - House-side shields



BSW - Bird-deterrent spikes



VG - Vandal guard



DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

BUY AMERICAN

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

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December 8, 2022

City of Fitchburg Public Works
5520 Lacy Road
Fitchburg, WI 53711

RE: Conditional Use Application (CU-2488-22) submitted by Mike Zuehlke, Agent for Engberg Anderson for 2220 Traceway Drive. BB 11-30-22; TB 11-29-22; BS 12-1-22; TF 12-01-22; PW 12-1-22.

We have reviewed the comments you provided and the following outlines our response to each outstanding item noted. We have attempted to address every item to the best of our ability at this time.

1. The City prefers the alternate where the building is raised and the path remains a constant distance from the back of curb.

   This option is the direction that the design team is moving forward with for final design.
   Changes to the building elevation and constant path included in this submittal
2. There is an existing driveway within an easement that appears to remain. Removal of the storm sewer and structure is indicated within this paved area. No restoration of the pavement is indicated on the improvement plans after storm is removed from the area.

   This easement is intended to be released and the stormwater line to be demolished. The design team is working with city staff to resolve stormwater from adjacent site. Upon final design solution, plans will reflect changes. All paved areas within the property lines will be removed. All disturbed areas intended as greenspace will be restored per the design.
   Easements terminated on August 15, 2023, pavement will be removed and storm structure to be replaced
3. Do the pickle ballcourts require a net? Provide detail for a sealable sleeve to insert posts. Also consider coloring the court to accentuate the different use areas.

   The pickleball nets will be removable via an in-ground sleeve system or a free-standing nets. Upon final system selection, details will be provided. Court striping and color scheme will be evaluated to provide clarity and usability.

4. The east most drive to the pump track is very wide and may be considered a connection to the parking lot. Consider adding elements within the drive that will reduce the appearance it is a driveway or parking area for vehicles. Additional signage for “no motorized vehicles” should be posted at the entrance.

   This area is a part of the bike park and will be an all-wheels portion (bike, scooter, and other non-motorized recreation). Regulatory signage will accompany final design. Furthermore, the removal the driveway apron, per Transportation comment #1, will limit motorized access to this area of the site.

5. The parking lot easement will need to be released prior to construction on this site.

   The City of Fitchburg is in negotiation with previous property owners to release the parking lot easement.
   Easements terminated on August 15, 2023
6. Need more detail on grading plan. Some cross slopes on the pump track are pretty severe.

   This area is currently in detailed design. The current grading plan does not reflect the final design. A grading plan reflecting the final design will be provided for review upon completion.

7. What is the cut/fill balance?

   Currently there is 3000 cubic yards of cut, additional reductions will be sought upon final grading of the plan.

Transportation Comments

1. Remove concrete driveway apron at the 16' wide bike course access.

   This driveway apron will be removed. Apron removed at bike course entrance

2. Remove concrete driveway apron at the 21.5' pedestrian plaza. The curb should still be depressed and grass paver blocks should be added between the path and depressed curb to provide emergency vehicle access.
   Revisions made to the plans
   This area is part of the requested fire lane and will require vehicular access. The design team has maintenance and aesthetic concerns with using grass paver blocks. A mountable curb may work to still allow emergency access, while deterring unwanted vehicular access.

3. Provide a grading plan.

   A final grading plan will be provided for review upon completion.

4. There is a streetlight ~45' from the property line so ~70' from the center of the driveway. Is this enough light for the entrance?

   With the existing street lighting and the proposed driveway light fixture near the entrance as shown on the site photometrics drawing we feel there is adequate lighting at the entrance. Please note that the photometrics currently do not take into consideration the street lighting fixtures.

5. What is the purpose of the 2 sidewalks that come out to the street with the preferred option?

   These leads are intended to provide pedestrian access and drop-off locations for vehicles.

6. Consider lengthening one of the western carriageway if needed for drop off.

The design team will look at this to see if it is feasible to lengthen this area while maintain accessible grades connecting to the 8' concrete walk paralleling Traceway Dr.

7. If the pedestrian way is to double as fire lane, are the proposed tables portable? If so, what will keep them from relocating off site? Ensure minimum fire lane access is provided between any amenities and building (benches to overhang, bench to bench, etc.)

   Proposed tables, similar to all other City of Fitchburg Park facilities, will be movable to ensure access for Public Safety vehicles as needed. Per the City of Fitchburg Fire Chief if there is a path in the fire lane that allows the fire truck to complete its turning radius free of any obstacles, he has no issues with a reduction of width in select areas.

8. Provide details for 24-inch valley curb and mountable curb.

   A detail will be provided as final design advanced.

Water Main and Sanitary Sewer Comments

1. The City is strongly encouraging property owners to find ways to reduce chloride levels in their wastewater. Costly wastewater treatment plant upgrades will be required if the peak chloride levels are not reduced. MMSD has a grant program available for water softening. For more information in regards to this grant program please visit https://www.madsewer.org/Programs-Initiatives/Chloride-Reduction.

   Acknowledged.

2. Label water lateral size and material (DI) on the plans. Label water connection as a live tap (Smith Blair 622 tapping sleeve is required). Show valve at connection to public main.

   All water lateral sizes will be labelled as designs are finalized. Smith Blair tapping sleeves will be specified for connections.

3. Label sanitary lateral size and material (SDR 26) on the plans. Label sanitary connection to manhole to be cored. Core shall extend through existing bench to create flow line. A kor-n-seal boot shall be provided. Connection shall be mortared on the inside of the manhole at the boot. Invert of lateral shall be 0.2' above downstream invert in manhole.

   All sanitary lateral sizes and materials will be labelled. Final designs will specify coring to extend through existing bench to create flow lines. Internal mortar at the boot will be specified as plans are finalized. Final plans will reflect invert laterals to be .2' above downstream inverts in manholes.

4. Provide the following notes on the plans:
   - All work within the r/w and the connection to the sanitary manhole shall be performed in accordance with the latest edition of the City of Fitchburg Standard Specifications for Public Works Construction.
   - Per City Ordinance, Contractors are not allowed to operate City owned valves. The Contractor shall call the Fitchburg Utility at 270-4270 for operation of these valves.
   - Safe sample results need to be provided to the Fitchburg Utility prior to pressure testing the private water mains.

Notes added to Utility Plan C140

Notes will be added to all applicable plans.

Erosion Control and Stormwater Management (ECSWM) Comments

1. Provide Top of curb elevations for storm system.

   TOC elevations will be added as designs are finalized.

2. Bio retention details (elevations) do not match the proposed grading plans.

   Final design plans will reflect accurate elevations and grading.

3. Does the northern bioretention pond drain to the storm sewer somehow?

   Yes. Future plans will have a connecting line to the western parking lot area storm sewer.

4. There is a private storm sewer serving 2201 Post Road through this property that is not within an easement. Prior to removing this storm sewer, coordinate new route and installation with 2201 Post Road property owner (TMF).

   The City of Fitchburg is in negotiation with property owner to find appropriate rerouting of storm pipe and establish all required easements. New route shown on C140

5. A stormwater management plan is required.

   A stormwater management plan will be developed and provided for review upon final design.

Sincerely,

Mike Zuehlke
Architect
Engberg Anderson Architects

Copied **Scott Endl, City of Fitchburg Parks, Recreation & Forestry**
Robert Stein, EOR

EA File Name: Y:\Madison Projects\2020 3139\203284 NFH Hub\1-Project Administration\6-Codes\Zoning\ADR - CU Submittal\Responses\City Of Fitchburg Public Works Plan Comments - Response Letter.Docx

December 8, 2022

City of Fitchburg Planning Department
5520 Lacy Road
Fitchburg, WI 53711

RE: Application: CU-2488-22/ADR – The Hub

Property Location: 2220 Traceway Drive

We have reviewed the plan review comments you provided and the following outlines our response to each outstanding item noted. We have attempted to address every item to the best of our ability at this time.

1. Be prepared to provide an overview of your request to the Plan Commission and to be available for questions. In-person or virtual attendance for applicants is permitted. Be sure to contact Deanna Schmidt or Zack Jones in the Planning office for virtual attendance registration in advance of the meeting.

   Members of the design team will be in attendance for comments and questions

2. Please provide additional information, if available, to the written narrative of the request proposed, including intentions for the project, phasing, and general scope. This should also include intentions for the various uses proposed.

   See revised narrative with expanded project description

3. Is the intention for the proposed chain link fence to surround the entirety of the trails proposed or just the eastern boundary? If the latter, please be prepared to provide that justification to Plan Commission.

   The proposed fence is intended to surround the majority of the bike park with specified open entrances to the park. There are 3 levels of difficulties for the bike trails where some riders can experience increased speed along the paths, additional prefabricated bike features provide technical skill tests for the riders. The purpose of the fence is to contain the bike park and act as a safety feature to help prevent any accidents occurring between bike patrons and pedestrians from neighboring properties.

4. Please note Public Works requirements, as those will be required in revisions and/or a condition of approval for your ADR request.

   Comments are addressed in a separate document

5. Public Works noted the existing parking lot and driveway easement #5391913 that will need to be released. What is the status of this?

The City of Fitchburg is in negotiation with previous property owners to release the parking lot easement. Easements terminated on August 15, 2023

6. It seems that the stie lighting is limited for evening use. Is there exterior lighting on the building? Building entrance? Parking lot to main entrance? Please confirm that there is adequate, safe lighting for evening use.

There are an abundant number of light fixtures on the exterior face of the building that are located at all entrances to the building to maintain code compliance, see sheet E100. There are an additional 8 light fixtures on the back canopy, half of the fixtures will remain on to provide an safe path in the direction towards the parking lot area.

7. Describe how trash will be managed. Location of trash cans? Note: the site is not designed for a dumpster.

Trash will be managed similar to how it is managed at other City of Fitchburg Park facilities. Individual recycle/refuse cans will be placed in strategic locations around the site and will be monitored on a regular basis. Full cans will be swapped out for empty ones and located in the screened enclosure located on the western portion of the building as shown on sheet A101

Full cans will be taken from enclosure – replaced with empty containers – and deposited in a regional dumpster – In this case the regional dumpster located in McKee Farms Park.

8. I would prefer the transformers to be screened with shrubs or evergreens than grasses.

Grasses will be replaced with evergreen plant materials to provide transformer screening.

9. Please clarify for Plan Commission if you will be proceeding with the alternate plan to raise the building. What are the advantages and disadvantages of raising the building?
Changes to the Front entry included in this submittal.
The design team will be moving forward with the option that raises the building. While the design team was working on the grading of the site it was discovered that to maintain an on-grade entrance off Traceway Drive and due to the gradual slope of the site to the South, it would require us to cut and haul away 7000 cubic yards of earth. The remedy was to raise the building to eliminate over half of the anticipated cut. We are raising the building only 2'-4" from the initial design so that we could maintain accessible entrances on each side of the building and provide a slope greater than 1:20 so that it would not require ramps from the sidewalk on Traceway drive.

With raising the elevation, we also found additional advantages that come along with including:

- **Directing building occupants to the East towards the public spine.**
- **Raised stoop provides a safety buffer between the 8'-0" sidewalk and the building and lends a more prominent front Façade on Traceway drive.**

- **Allowing enough room to have a straight path for the 8’-0” sidewalk which will connect directly to the future project to the East.**

- **A more natural grading from the North end of the site down to Traceway Drive, with the elimination of most site retaining walls.**

Disadvantages include:

- **The need for an accessible ramp and stairs off Traceway adds cost and requires extra space**

Sincerely,

Mike Zuehlke
Architect
Engberg Anderson Architects

Copied **Scott Endl, City of Fitchburg Parks, Recreation & Forestry**
Robert Stein, PLA EOR

EA File Name: Y:\Madison Projects\2020 3139\203284 NFH Hub\1-Project Administration\6-Codes\Zoning\ADR - CU Submittal\Responses\City Of Fitchburg Plan Review Comments - Response Letter.Docx

THE CITY OF Fitchburg
PLANNING & ZONING

Conditional Use -

Owner or Authorized Agent Acknowledgement

** It is highly recommended that an applicant hold at least one neighborhood meeting prior to submitting a CUP application to identify any concerns or issues of surrounding residents.

PLEASE NOTE - Applicants shall be responsible for legal or outside consultant costs incurred by the City. Submissions shall be made at least four (4) weeks prior to desired plan commission meeting.

By signing below, I certify that the information included with this Conditional Use application is true and correct, to the best of my knowledge. Any agent signing below verifies that he/she has the consent of the owner to file the application.

Owner's or Authorized Agent's Signature

12/12/23

Date (DD/MM/YYYY)