

Town of Brookfield
645 N. Janacek Road
Brookfield, WI 53045
(P) 262-796-3788
(F) 262-796-0339



MEETING NOTICE

Meeting will be held at the
Town of Brookfield Municipal Building, Eric Grant Room
645 N. Janacek Road, Brookfield, WI

Tuesday, May 28, 2024

PLAN COMMISSION

7:00 p.m

AGENDA

- 1) Call to Order.
- 2) Meeting Notices.
- 3) Approval of Agenda.
- 4) Approval of Minutes.
 - a. April 23, 2024 Plan Commission Minutes
- 5) Citizen Comments: Three-minute limit.
- 6) Old Business:
 - a. None.
- 7) New Business:
 - a. Keith Hueffner, representing Master Spa Warehouse, for review and recommendation of final approval for a new warehouse building for the property located at 21675 Doral Rd.
- 8) Communication and Announcements.
- 9) Adjourn.

Posted this 23rd day of May, 2024
Bryce Hembrook
Town Planner

TOWN OF BROOKFIELD
PLAN COMMISSION MINUTES
April 23, 2024

The regular meeting of the Plan Commission was held in the Erich Gnant Room of the Town Hall, 645 N Janacek Road, Brookfield, WI.

1) CALL TO ORDER.

Chairman Keith Henderson called the meeting to order at 7:00 p.m. with the following people present: Plan Commission members Gordon Gaeth, William Neville, and Len Smeltzer; and Town Planner Hembrook. Town Supervisor Ryan Stanelle, and Plan Commission members Kevin Riordan, and Jeremy Watson were absent and excused.

2) MEETING NOTICES.

Planner Hembrook confirmed the meeting was noticed in accordance with Open Meeting Law.

3) APPROVAL OF AGENDA

Motion by Gaeth to approve the agenda.

Seconded by Smeltzer.

Motion Passed Unanimously.

4) APPROVAL OF MINUTES.

a. Motion by Smeltzer to approve the March 26, 2024 Plan Commission Minutes as presented.

Seconded by Gaeth.

Motion Passed Unanimously.

5) CITIZEN COMMENTS: Three-minute limit.

None.

6) OLD BUSINESS:

a. None.

7) NEW BUSINESS:

a. Keith Hueffner, representing Master Spa Warehouse, for review and recommendation of preliminary approval for a new warehouse building for the property located at 21675 Doral Rd.

Planner Hembrook reviewed the location and site plan. The setbacks and building requirements meet code. Parking requirements as of now are not clear, because the third space in the building has not been leased. There are a total of 33 spaces. Lighting and landscaping will be submitted for the final approval. Hembrook noted that the east and west elevations are not correct on the rendering, but the applicant reported corrections have been made. There is a door planned for the east side. Hembrook further noted that digital signage/ Electronic Message Centers are not allowed in the manufacturing district. Mr. Hueffner stressed his desire for a digital sign; Chairman Henderson noted that a request would have to be made to the Zoning Board of Appeals. Hembrook reported that the Architectural Review Committee reviewed the request for the new warehouse and voted to recommend preliminary approval. Engineering recommendations were reviewed. Chairman recommended the heavy-duty door be moved further south. Bollards will be at the doors. Chairman Henderson stressed the importance of having all of the documents ready for final approval, including signage. Color samples were shown.

Motion by Smeltzer to grant preliminary approval for a new warehouse building for the property located at 21675 Doral Road, providing that landscaping details be provided.

Seconded by Neville.

Motion passed unanimously.

- b. Scott Bence (JBJ Develop, L.P.) is requesting a recommendation for preliminary and final approval of the continuation of the Eagles Nest Condominium Project with updated building plans, located at Eagle Drive and Aerie Circle, off of Brookfield Road (BKFT1124974016)

Planner Hembrook reviewed the details of the proposal. Drainage concerns raised by a neighboring property owner were addressed, and when building is completed that drainage issues will be remedied. Building 9 is proposed to be the first built, however the request is for approving the entire site. Chairman Henderson requested a building schedule in an effort to keep approval from expiring. Henderson suggested building #3 sooner to solve drainage problems. Hembrook reported that the Architectural Review Committee recommended preliminary and final approval. Smeltzer inquired whether the pond meets current requirements. Bence responded that the pond is now the HOA's responsibility; however, any construction damage that may occur will be fixed by the developer. The brick and the soffit used on the first two existing buildings are no longer available. The brick color is slightly different in color but the same product. The stone is exactly the same, as well as the shingles. Front doors are painted "Mayflower Red". The siding is the same hard-plank, painted the same as existing. Other elements such as railings, soffit and fascia, and shutters were reviewed.

Motion by Neville to grant preliminary, and **recommend** final approval of the continuation of the Eagles Nest Condominium Project with updated building plans, located at Eagle Drive and Aerie Circle, off of Brookfield Road (BKFT1124974016)

Seconded by Smeltzer.

Motion passed unanimously.

Chairman Henderson reminded that applicant to have a building schedule for the Town Board meeting.

8) COMMUNICATION AND ANNOUNCEMENTS.

Chairman Henderson asked the members about meeting packets, and whether they wished to continue to receive hard copies. Henderson, Smeltzer and Gaeth prefer a hard copy packet. Neville prefers PDF. Hembrook will check with Stanelle, Riordan, and Watson for their preference.

9) ADJOURN.

Motion by Smeltzer to adjourn at 7:42pm.

Seconded by Neville.

Motion Passed Unanimously.

Respectfully submitted,

Bryce Hembrook – Town Planner



Building a Better World
for All of Us®

TOWN OF BROOKFIELD PLAN COMMISSION ZONING REPORT

TO: Plan Commission

FROM: Bryce Hembrook, AICP
Town Planner

REPORT DATE: May 23, 2024
PC MEETING DATE: May 28, 2024

RE: **Master Spa Warehouse – Final Approval**
21675 Doral Road BKFT1126004

SEH No. 171421, TASK 52

Applicant: Keith Hueffner, representing Master Spa Warehouse

Application Type: Final Approval

Request

Applicant is requesting final approval of the construction of a warehouse building for the property located at 21675 Doral Road.

Summary of Request

- The subject property experienced a fire a few years ago that resulted in the western building being razed. The applicant is proposing to construct a new warehouse building in the same location and this building is intended to be used for Master Spa Warehouse. There is an existing building on the east side of the property.
- Proposed Size = 53,173 square feet including mezzanine.
- Zoning District = M-1 Limited Manufacturing District
- Lot size = 3.6 acres.
- Proposed Use = Warehousing.
- Proposed setbacks:
 - Street (Doral Rd) = 130'
 - Street (I-94) = 52'
 - Side (west) = 10'
 - Side (east) = 240'
 - Building separation from east building = 69'
 - All building setbacks will meet code requirements.
- Sum total of floor area
 - Proposed = 46.4% of lot area for both buildings.
 - Required = Sum total of the floor area of the principal building and all accessory buildings shall be not less than 8,000 square feet or 20% of the lot area, whichever is less. Also, sum total of

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 501 Maple Avenue, Delafield, WI 53018-9351
SEH is 100% employee-owned | sehinc.com | 262.646.6855 | 888.908.8166 fax

the floor area of the principal building and all accessory buildings shall not exceed 50% of the lot area.

- Requirement is met.
- Parking
 - Code requirement: 1 space per employee for the work shift with the largest number of employees, plus 1 space per 5,000 square feet of gross floor area.
 - Proposed: 29 new parking spaces, including 2 ADA stalls.
 - Sheet C 2.0 mentions that there will be approximately 15 employees.
- Architectural requirements for manufacturing districts
 - The facade of a manufacturing building which faces upon a street right-of-way shall be finished with an aesthetically pleasing material. Fifty percent of a facade facing a street shall be finished with brick, decorative masonry, glass panel, or other appropriate finished facade as may be approved by the Plan Commission. Such brick, masonry, glass, or other decorative facing shall extend for a distance of at least 20 feet along the sides of the structure. Manufacturing buildings on corner lots shall have the required masonry facade facing each street. Metal buildings may be constructed in any business, manufacturing, institutional, or park district, but only by a 3/4 affirmative vote of the Plan Commission.
- Number of Structures
 - The Plan Commission may permit more than one structure per lot in other districts where more than one structure is needed for the orderly development of the parcel. Where additional structures are permitted, the Plan Commission may impose additional yard requirements, landscaping requirements, or parking requirements, or require a minimum separation distance between principal structures.
- Garbage
 - One thing that was not identified in the plans is whether or not there will be exterior garbage or refuse containers. If an exterior garbage enclosure is proposed, that should be included on the final plans and should include a detail in the civil plans.
- Lighting
 - A detailed photometric plan was provided and the Town Engineer determined that the photometric plan met code requirements.
- Landscaping
 - Included in packet. The applicant has made changes from the previously submitted plan to the Architectural Review Committee based on their recommendation to increase the amount of landscaping to the south of the building. The Town Engineer has reviewed the landscaping plans and believes there is adequate landscaping proposed. The Plan Commission should determine if adequate landscaping is provided to the south of the building.

The development review team has reviewed the plans and any comments are mentioned in the Town Engineer's review letter.

Final Approval

The purpose of final project review shall be to determine that this chapter and other Town ordinances have been fully complied with, and to authorize the issuance of a building permit, subject to the developer receiving approval of the Wisconsin Department of Safety and Professional Services (SPS) of the building plans, if required, including architectural details and lighting plan. The Plan Commission may require appropriate sureties to guarantee the completion of grading, landscaping, and construction and paving of parking and loading areas within an approved time schedule. Final approval granted by the Town Board shall expire within 12 months unless necessary building permits have been applied for and issued.

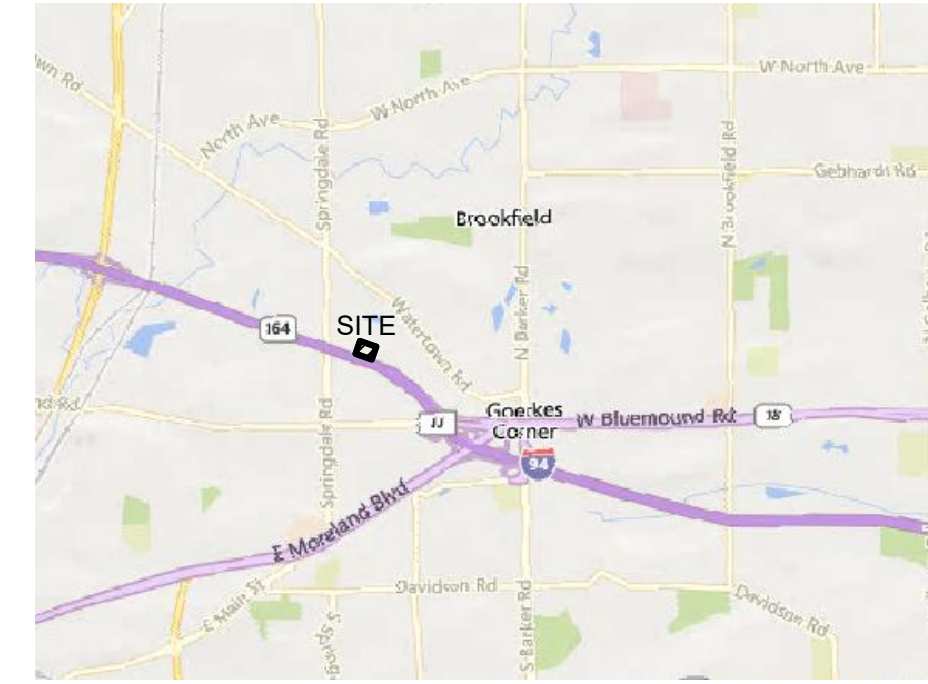
Architectural Review Committee

The Committee reviewed the request and recommended approval. The Committee also added the condition that the applicant add landscaping to the south of building. The applicant updated the landscaping plans accordingly.

COVER SHEET

LEGAL DESCRIPTION

LOT 4 & ELY 1/2 LOT 3 BLK A LILLIE INDUSTRIAL PARK PT NW 1/4 SEC 30 T7N R20E;
COM NE CRNR OF SAID LOT 3 BLK A AT A PNT ON S LINE DORAL ROAD; N69°47'W
ALN S LINE OF DORAL ROAD 150.00 FT; S20°13'W 350.00 FT; S69°47'E 150.00 FT;
N20°13'E ALNG E LINE OF SAID LOT 350.00 FT TO BGN.



LOCATION MAP

21675 DORAL ROAD
BROOKFIELD, WI 53186

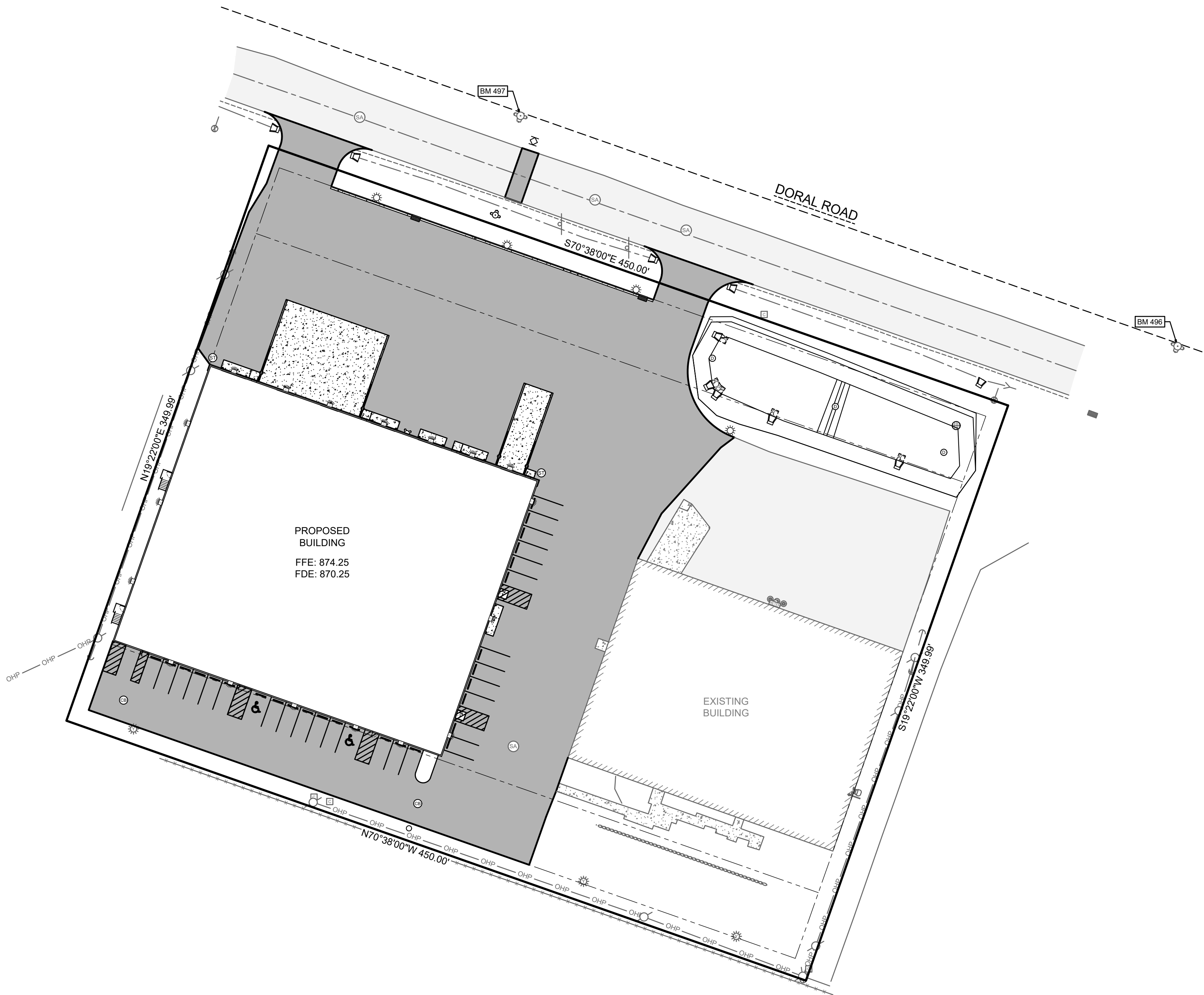
NOT TO SCALE

CIVIL SHEETS INDEX

- C0.1 COVER SHEET
- C1.0 DEMOLITION PLAN
- C2.0 SITE PLAN
- C3.0 UTILITY PLAN
- C4.0 GRADING PLAN
- C5.0 EROSION CONTROL PLAN
- C5.1 EROSION CONTROL DETAILS
- C6.0 SITE DETAILS
- C6.1 UTILITY & GRADING DETAILS
- L1.0 LANDSCAPE PLAN

CIVIL GENERAL NOTES:

1. SURVEY WAS PERFORMED BY MACH IV ENGINEERING & SURVEYING LLC JANUARY 11, 2024.
2. SURVEY VERTICAL DATUM IS NAVD88.
3. THIS SURVEY DOES NOT GUARANTEE THE EXISTENCE/ NON-EXISTENCE, SIZE, TYPE OR LOCATION OF UNDERGROUND UTILITIES. UTILITIES SHOWN ARE BASED ON ABOVEGROUND UTILITY STRUCTURES (I.E. VALVES, MANHOLES ETC.), AND AVAILABLE UTILITY MAPS AND PLANS.
4. UNLESS OTHERWISE INDICATED, ALL EXISTING STRUCTURES AND FACILITIES SHALL REMAIN.
5. PROVIDE TURF, AS SPECIFIED TO ALL DISTURBED AREAS NOT RECEIVING PAVEMENTS, CURBS, SIDEWALKS, BUILDINGS, OR LANDSCAPING, WITHIN THE LIMITS OF CONSTRUCTION.
6. NO LAND DISTURBING ACTIVITIES SHALL TAKE PLACE UNTIL ALL TEMPORARY SOIL EROSION DEVICES ARE INSTALLED.
7. ALL GRADE TRANSITIONS BETWEEN NEW AND EXISTING SHALL BE SMOOTH AND GRADUAL WITH NO SHARP OR ABRUPT CHANGES.
8. COORDINATE THE WORK OF ALL TRADES - VERIFY ALL FIELD CONDITIONS, QUANTITIES AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE ARCHITECT.
9. EXECUTE ALL WORK WITH CARE AS TO PROTECT FROM DAMAGE ADJACENT EXISTING FEATURES TO REMAIN. ANY SUCH DAMAGE SHALL BE REPAIRED OR REPLACED TO MATCH THE ORIGINAL CONDITION AS APPROVED BY THE ARCHITECT.
10. UNLESS REFERRED TO, OR INDICATED AS "EXISTING", ALL WORK SHOWN ON THESE DRAWINGS SHALL BE CONSIDERED AS NEW AND PROVIDED UNDER THIS CONTRACT.
11. FINISHED GRADE OF TOPSOIL (AFTER COMPACTION) SHALL BE 1/2" TO 1" BELOW TOP OF ABUTTING PAVEMENTS, SIDEWALKS, AND CURBING.
12. NO DISTURBANCE SHALL OCCUR OUTSIDE OF SITE LIMITS.
13. GENERAL CONTRACTOR SHALL OBTAIN APPROVAL FROM OWNER AND MUNICIPALITY PRIOR TO ANY LAND DISTURBANCE OUTSIDE THE CONSTRUCTION LIMITS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WORK IN RIGHT OF WAY PERMITS.
15. NO HAZARDOUS MATERIALS WILL BE STORED ON-SITE.
16. FOR LEGEND AND ABBREVIATIONS SEE SHEET C0.1.
17. FOR EROSION CONTROL PLAN AND NOTES SEE SHEET C5.0 AND C5.1.
18. FOR NOTES SHOWN THUS, "C", SEE SHEET KEY NOTES, ON SHEET THEY APPEAR.



CIVIL LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED
CABLE PEDESTAL		EVERGREEN SHRUB		STANDARD DUTY ASPHALT	
ELECTRIC METER		EVERGREEN TREE		HEAVY DUTY ASPHALT	
ELECTRIC PEDESTAL		TREE		BUILDING	
GUY WIRE		TREE SHRUB		ASPHALT	
LIGHT POLE		BUILDING OVERHANG		CONCRETE	
POWER POLE		UNDERGROUND CABLE		GRAVEL	
GAS METER		OVERHEAD WIRE		LANDSCAPE WOOD MULCH	
GAS VALVE		UNDERGROUND ELECTRIC		LANDSCAPE STONE MULCH	
BOLLARD		GAS			
HANDICAP PARKING		LANDSCAPE			
SANITARY CLEANOUT		FENCE			
SANITARY MANHOLE		GUARDRAIL			
CATCH BASIN		CENTERLINE			
CULVERT		CURB			
DOWNSPOUT		PARKING STRIPE			
INLET		SANITARY SEWER			
INLET 2' X 2'		CULVERT			
STORM CLEANOUT		STORM SEWER			
STORM MANHOLE		FIBER OPTIC			
FIBER OPTIC PEDESTAL		WOOD LINE			
SIGN		RETAINING WALL			
FIRE HYDRANT		WATERMAIN			
WATER SHUT OFF		CONTOUR MAJOR			
WATER VALVE		CONTOUR MINOR			

ABBREVIATIONS

Ø	DIAMETER	MIN	MINIMUM
AC	ACRE	mm	MILLIMETER
AEW	APRON END WALL	N	NORTH
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NE	NORTHEAST
BM	BENCHMARK	OC	ON CENTER
C	CABLE	OD	OUTSIDE DIAMETER
CB	CATCH BASIN	OHP	OVER HEAD POWER
CI	CURB INLET	OL	OUTLOT
CMP	CORRUGATED METAL PIPE	PSI	POUNDS PER SQUARE INCH
CO	CLEAN OUT	PVC	POLYVINYL CHLORIDE
CSM	CERTIFIED SURVEY MAP	R	RADIUS
C.T.H	COUNTY TRUNK HIGHWAY	RAD	RADIUS
DIA	DIAMETER	RCR	REINFORCED CONCRETE PIPE
DOT	DEPARTMENT OF TRANSPORTATION	REQ	REQUIRED
E	EAST	S	SOUTH
E	ELECTRIC (BURIED)	SA	SANITARY
EL	ELEVATION	SAN	SANITARY
FDM	FACILITIES DEVELOPMENT MANUAL	SCHD	SCHEDULE
FFE	FIRST FLOOR ELEVATION	S.D.	SUMP DEPTH
FL	FLOW LINE	SQ	SQUARE
FO	FIBER OPTIC	ST	STORM
FT	FEET	S.T.H.	STATE TRUNK HIGHWAY
G	GAS	STM	STORM
G.F.E.	GROUND FLOOR ELEVATION	T	TELEPHONE
GR	GRADE	T/C	TOP OF CURB
HDPE	HIGH DENSITY POLYETHYLENE	U.S.H.	UNITED STATES HIGHWAY
INL	INLET	V	VARIES
INV	INVERT	W	WEST
M	METER	WAT	WATER
MAX	MAXIMUM	WI	WISCONSIN
MH	MANHOLE	WisDOT	WISCONSIN DEPARTMENT OF TRANSPORTATION

SURVEY NOTE

AT TIME OF FIELD WORK THERE WAS APPROXIMATELY
10" - 12" OF SNOW ON THE GROUND

DIGGERS HOTLINE

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE

WISCONSIN STATUTE 182.0175 (1974) REQUIRES MIN. 3
WORK DAYS NOTICE BEFORE YOU EXCAVATE

THE LOCATIONS OF THE EXISTING UTILITY INSTALLATIONS
AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE
MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS
WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.



MACH IV
ENGINEERING • SURVEYING • ENVIRONMENTAL

2260 Salscheider Court Green Bay, WI 54313
PH: 920-569-5765; Fax: 920-569-5767
www.mach-iv.com
Project Number: 2148-01-23

ADDITION AND ALTERATIONS FOR,

21675 DORAL ROAD

TOWN OF BROOKFIELD, WISCONSIN

DATE: MAY 08, 2024

ARCH. _____

D. BY: RPH

JOB: 23-003

REV. _____

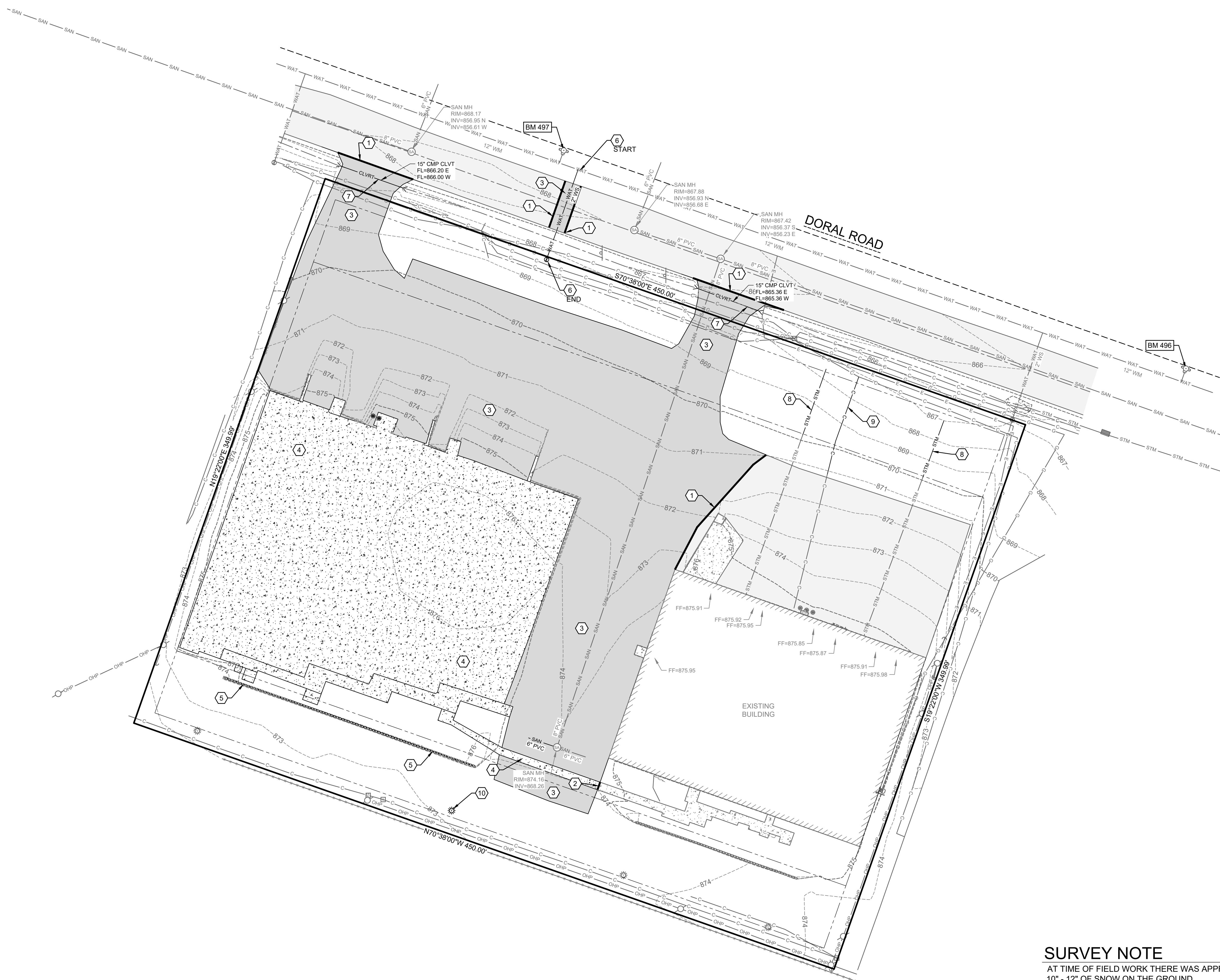
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DEMOLITION PLAN

Benchmarks		
Label	Elevation	Description
BM 496	866.74	HYDRANT FLAG BOLT
BM 497	870.25	HYDRANT FLAG BOLT

SHEET KEY NOTES:

- ① SAW CUT ASPHALT
- ② SAW CUT CONCRETE
- ③ REMOVE ASPHALT
- ④ REMOVE CONCRETE
- ⑤ REMOVE CONCRETE WALL AND FOUNDATION
- ⑥ REMOVE EX. 2" WATER SERVICE LINE AND SHUT OFF VALVE
- ⑦ REMOVE CULVERT
- ⑧ REMOVE STORM SEWER WITHIN THE BIOFILTER; REFER TO SHEET C4.0 FOR BIOFILTER
- ⑨ COORDINATE THE RELOCATION OF PRIVATE UTILITIES WITHIN BIOFILTER WITH UTILITY OWNER; REFER TO SHEET C4.0 FOR BIOFILTER
- ⑩ REMOVE AND RELOCATE EXISTING LIGHT; COORDINATE WITH ELECTRICAL DRAWINGS



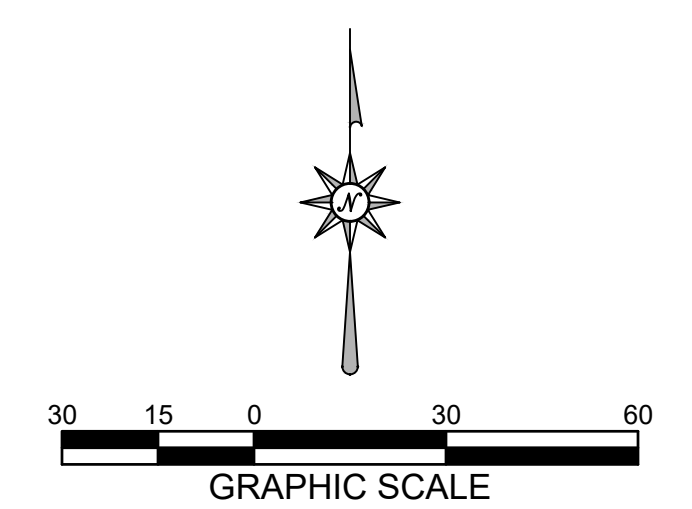
ACS
Construction &
Services, Inc.

327 RANDOLPH DR. STE #C1
APPLETON, WI 54913
TELE: 920-707-4226 FAX: 920-240-8072

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21675 DORAL ROAD
TOWN OF BROOKFIELD, WISCONSIN

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ARCH:	
D. BY:	RPH
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C
1.0



SURVEY NOTE

AT TIME OF FIELD WORK THERE WAS APPROXIMATELY 10" - 12" OF SNOW ON THE GROUND

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SITE PLAN

OWNER

KH HOLDINGS DORAL, LLC
C/O KEITH HUEFFNER
2138 W. WISCONSIN AVENUE
APPLETON, WI 54914-3115

SHEET KEY NOTES:

- ① STANDARD DUTY ASPHALT; SEE DETAIL A SHEET C6.0
- ② HEAVY DUTY ASPHALT; SEE DETAIL B SHEET C6.0
- ③ CONCRETE PAVEMENT; SEE DETAIL C SHEET C6.0
- ④ CONCRETE CURB & GUTTER; SEE DETAIL D SHEET C6.0
- ⑤ STOOP LOCATION; REFER TO ARCHITECTURAL DRAWINGS
- ⑥ LOADING DOCK RETAINING WALL; REFER TO ARCHITECTURAL DRAWINGS
- ⑦ ADA HANDICAP STALL, SYMBOL; SEE DETAIL E SHEET C6.0
- ⑧ ADA HANDICAP SIGN; SEE DETAIL F SHEET C6.0
- ⑨ BOLLARD; SEE DETAIL G SHEET C6.0
- ⑩ 4" WIDE PAINT STRIPE; COLOR BY OWNER
- ⑪ BIOFILTER CELL; SEE SHEET C4.0
- ⑫ REPLACE ASPHALT IN-KIND
- ⑬ PARKING BLOCK
- ⑭ WALL LIGHT; REFER TO ARCHITECTURAL PLANS
- ⑮ FREESTANDING EMC SIGN
- ⑯ LOADING DOCK RAILING; REFER TO ARCHITECTURAL PLANS

SITE STATISTICS

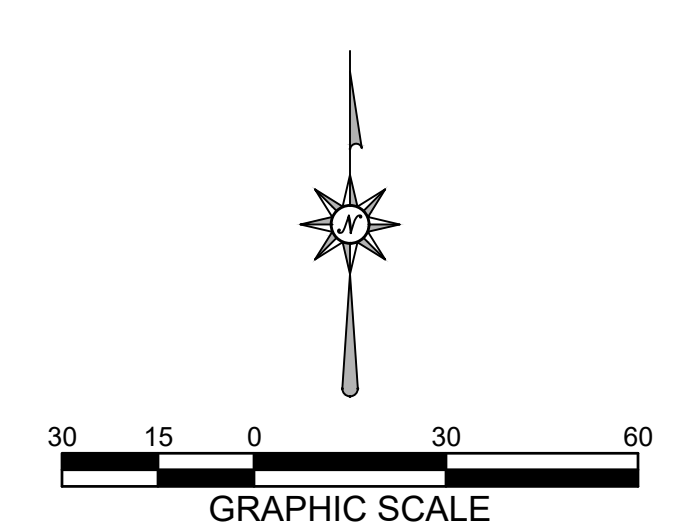
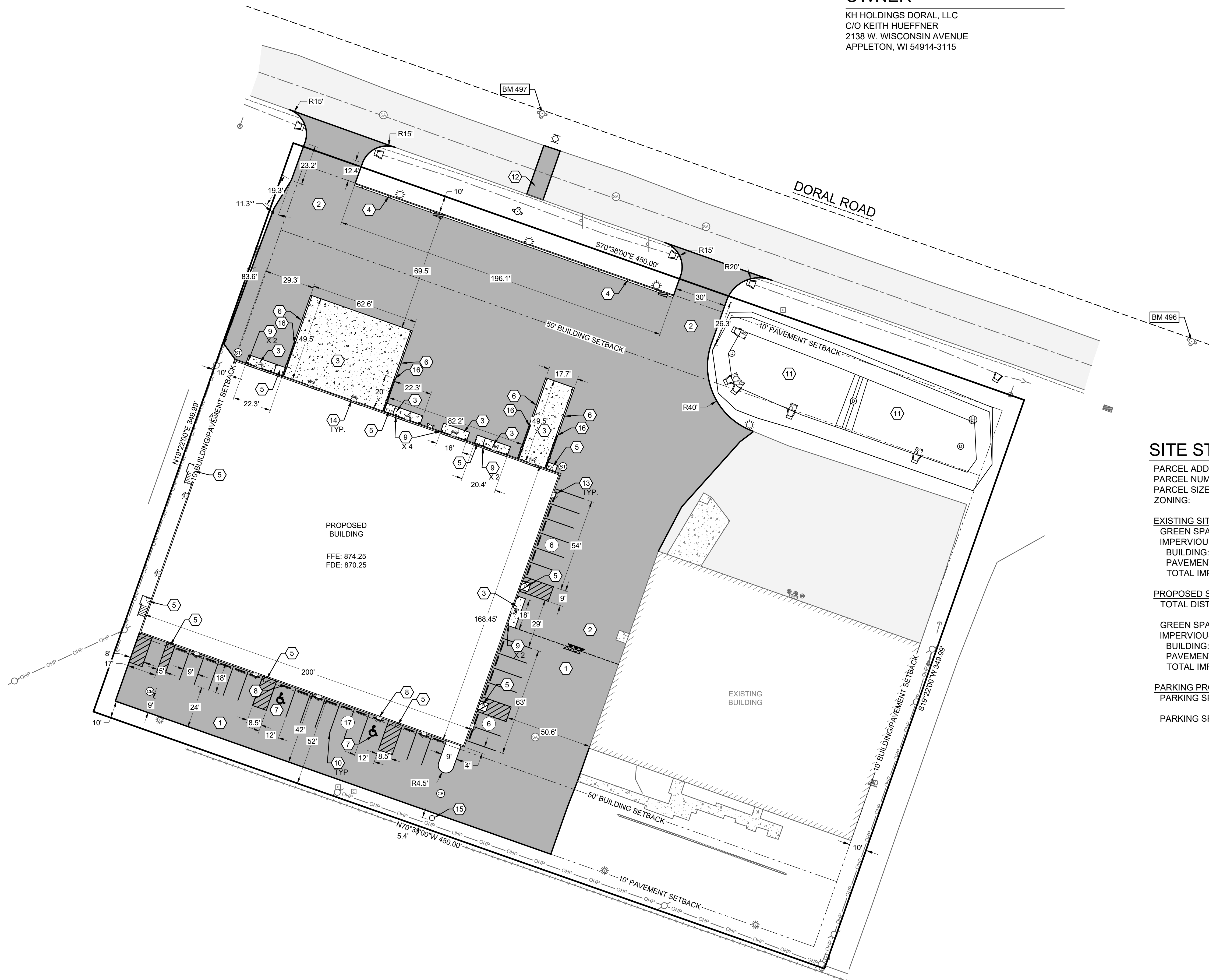
PARCEL ADDRESS: 21675 DORAL ROAD SUITE B
PARCEL NUMBER: BKFT1126004
PARCEL SIZE: 157,494 SF (3.62 AC)
ZONING: M-1: LIMITED MANUFACTURING DISTRICT

EXISTING SITE
GREEN SPACE: 49,813 SF (31.63%)
IMPERVIOUS AREA
BUILDING: 19,573 SF (12.43%)
PAVEMENT: 88,108 SF (55.94%)
TOTAL IMPERVIOUS: 107,681 SF (68.37%)

PROPOSED SITE
TOTAL DISTURBED AREA: 108,836 SF (2.499 AC)

GREEN SPACE PROVIDED: 34,045 SF (21.66%)
IMPERVIOUS AREA
BUILDING: 53,268 SF (33.82%)
PAVEMENT: 70,181 SF (44.56%)
TOTAL IMPERVIOUS: 123,449 SF (78.38%)

PARKING PROVIDED
PARKING SPACES REQ'D/CALCS: 1 PER EMPLOYEE + 1 PER 5,000 SF
15 EMPLOYEE + 53,268 SF / 5,000 SF = 15 + 11 STALLS = 26 STALLS
PARKING SPACES PROVIDED: 29 STALLS, INCLUDES 2 ADA HANDICAP STALLS



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UTILITY PLAN

Benchmarks		
Label	Elevation	Description
BM 496	866.74	HYDRANT FLAG BOLT
BM 497	870.25	HYDRANT FLAG BOLT

SHEET KEY NOTES:

- ① CONNECT TO EXISTING WATER MAIN WITH TAPPING SLEEVE AND VALVE; SEE DETAIL A SHEET C6.1
- ② COORDINATE CONNECTION TO BUILDING WITH PLUMBING AND ARCHITECTURAL PLANS
- ③ CONNECT SANITARY SEWER TO EXISTING MANHOLE
- ④ STORM INLET - 2'X3'; SEE DETAIL B SHEET C6.1
- ⑤ STORM INLET - 3' DIAMETER; SEE DETAIL C SHEET C6.1
- ⑥ STORM MANHOLE - 3' DIAMETER; SEE DETAIL D SHEET C6.1
- ⑦ STORM CLEANOUT; SEE DETAIL E SHEET C6.1. CLEANOUTS TO BE LOCATED NO MORE THAN 100 FEET APART
- ⑧ APRON END WALL
- ⑨ BIOFILTER OUTLET STRUCTURE; SEE DETAIL F SHEET C6.1
- ⑩ BIOFILTER CELL; SEE SHEET C4.0
- ⑪ ROOF DRAIN COLLECTOR LINE; COORDINATE WITH PLUMBING AND ARCHITECTURAL PLANS
- ⑫ WALL LIGHT; REFER TO ARCHITECTURAL PLANS
- ⑬ FIRE DEPARTMENT CONNECTION; COORDINATE WITH PLUMBING AND ARCHITECTURAL PLANS.
- ⑭ 8" x 6" ANCHORING TEE
- ⑮ FIRE HYDRANT ASSEMBLY; SEE DETAIL I SHEET C6.1
- ⑯ LIGHT POLE; REFER TO ARCHITECTURAL PLANS

UTILITY NOTES:

1. SANITARY LATERAL SHALL BE PVC SDR 35 (ASTM D-3034) OR SCH 40.
2. WATER SERVICE SHALL BE C900 PVC. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE ENCASED IN POLYETHYLENE WRAP.
3. ALL SERVICE LATERALS SHALL HAVE TRACER WIRE.
4. ALL WORK SHALL CONFORM TO THE MOST RECENT EDITION OF "STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN" AND THE MUNICIPALITY'S STANDARD SPECIFICATIONS.
5. WATER LINE THRUST RESTRAINTS (NOT SHOWN FOR CLARITY) SHALL BE PROVIDED AS SPECIFIED FOR CONCRETE THRUST BLOCKS.
6. STORM SEWER SHALL BE PVC SDR 35 (ASTMD-3034) OR SCH 40.
7. NOTIFY THE MUNICIPALITY THREE WORKING DAYS PRIOR TO WORK IN THE RIGHT OF WAY.
8. CONNECTIONS TO MUNICIPAL SYSTEMS SHALL BE IN ACCORDANCE WITH THE MUNICIPALITY'S RESPECTIVE STANDARD SPECIFICATIONS.



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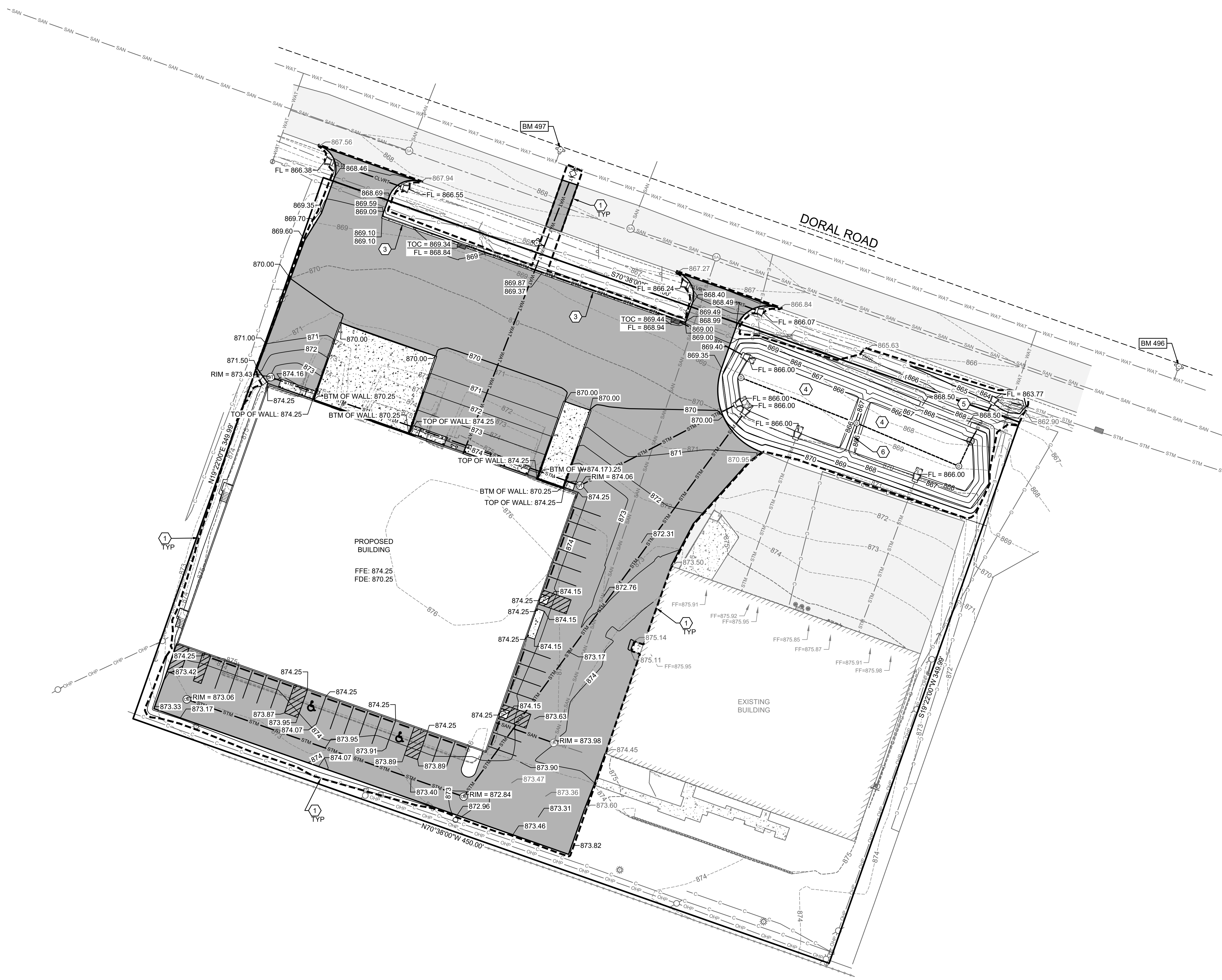
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GRADING PLAN

Benchmarks		
Label	Elevation	Description
BM 496	866.74	HYDRANT FLAG BOLT
BM 497	870.25	HYDRANT FLAG BOLT

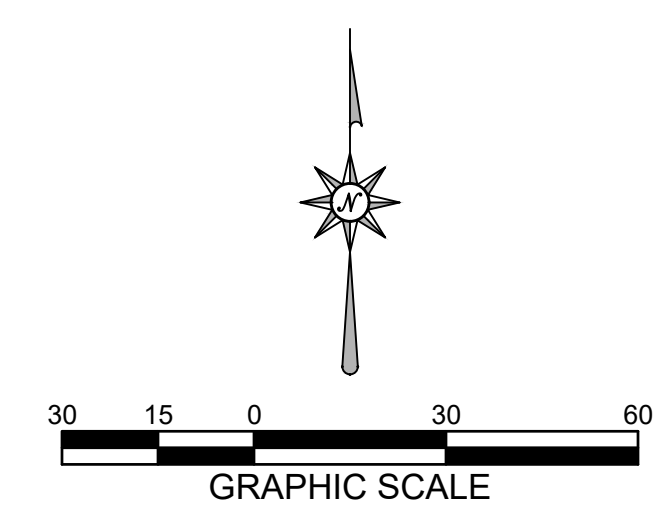
SHEET KEY NOTES:

- 1 CONSTRUCTION / GRADING LIMITS
- 2 SPOT GRADE; SEE DETAIL A THIS SHEET
- 3 STANDARD PAN CURB AND GUTTER; SEE DETAIL D SHEET C6.0
- 4 BIOFILTER CELL; SEE DETAIL G SHEET C6.1
- 5 BIOFILTER EMERGENCY OVERFLOW WEIR; SEE DETAIL H SHEET C6.1
- 6 BIOFILTER CELL SEPARATION WEIR BERM:
TOP ELEVATION: 897.00
TOP WIDTH: 2'
SLOPES: 3:1



596.87	TOP OF CURB/WALL
569.37	GUTTER/PAVEMENT
870.00	FINISHED GRADE
866.84	EXISTING GRADE

A SPOT GRADE KEY



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ADDITION AND ALTERATIONS FOR,
21675 DORAL ROAD
TOWN OF BROOKFIELD, WISCONSIN

DATE:	MAY 08, 2024
ARCH:	
D. BY:	RPH
JOB:	23-003
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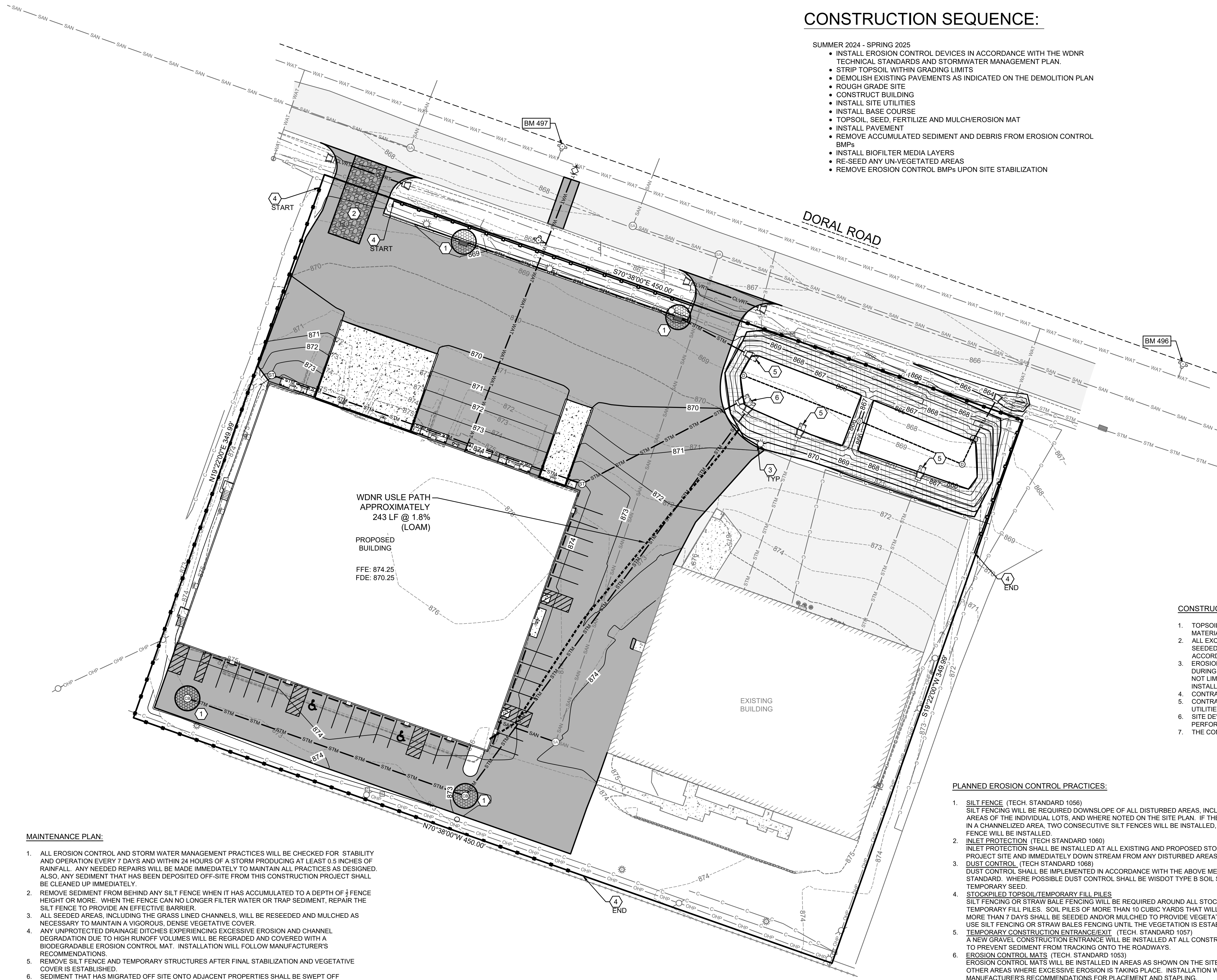
EROSION CONTROL PLAN

CONSTRUCTION SEQUENCE:

- SUMMER 2024 - SPRING 2025
- INSTALL EROSION CONTROL DEVICES IN ACCORDANCE WITH THE WDNR TECHNICAL STANDARDS AND STORMWATER MANAGEMENT PLAN.
 - STRIP TOPSOIL WITHIN GRADING LIMITS
 - DEMOLISH EXISTING PAVEMENTS AS INDICATED ON THE DEMOLITION PLAN
 - ROUGH GRADE SITE
 - CONSTRUCT BUILDING
 - INSTALL SITE UTILITIES
 - INSTALL BASE COURSE
 - TOPSOIL, SEED, FERTILIZE AND MULCH/EROSION MAT
 - INSTALL PAVEMENT
 - REMOVE ACCUMULATED SEDIMENT AND DEBRIS FROM EROSION CONTROL BMPs
 - INSTALL BIOFILTER MEDIA LAYERS
 - RE-SEED ANY UN-VEGETATED AREAS
 - REMOVE EROSION CONTROL BMPs UPON SITE STABILIZATION

SHEET KEY NOTES:

- ① INLET PROTECTION; SEE DETAIL A SHEET C5.1
- ② STONE TRACKING PAD; SEE DETAIL B SHEET C5.1
- ③ CLASS I URBAN, TYPE B WOOD EROSION CONTROL MAT WITH E-STAPLES; SEE DETAIL C SHEET C5.1
- ④ SILT FENCE; SEE DETAIL D SHEET C5.1
- ⑤ ENERGY DISSIPATOR; SEE DETAIL E SHEET C5.1
- ⑥ ENERGY DISSIPATOR, 41 SF; REFER TO DETAIL E SHEET C5.1
- ⑦ TEMPORARILY CONSTRUCT BIOFILTER AS SEDIMENT TRAP; REFER TO DETAIL F SHEET C5.1



CONSTRUCTION NOTES:

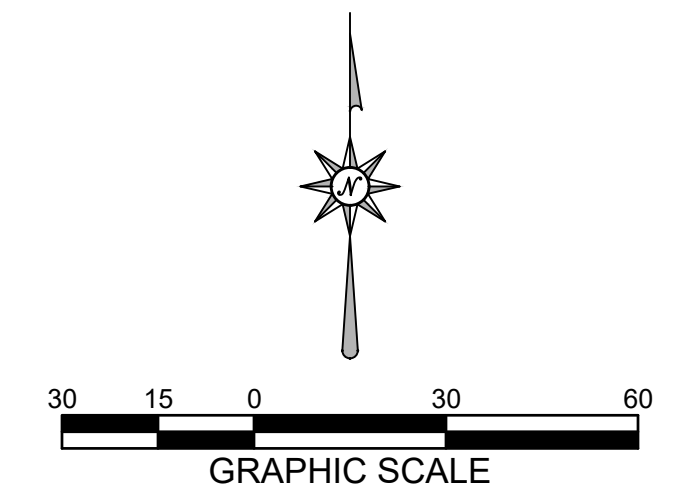
1. TOPSOIL TO BE REMOVED FROM THE PROJECT SITE PRIOR TO PLACEMENT OF FILL OR SUBGRADE MATERIAL. EXCESS TOPSOIL TO BE STOCKPILED ON THE SITE AS INDICATED.
2. ALL EXCAVATED AREAS NOT RECEIVING PAVEMENT TO BE COVERED WITH A MINIMUM OF 6" OF TOPSOIL, SEEDED AND MULCHED AS SOON AS FINAL GRADE HAS BEEN ACHIEVED. SEEDING SHALL BE IN ACCORDANCE WITH WDNR TECH. STANDARD (1059).
3. EROSION CONTROL METHODS SHALL BE IMPLEMENTED, AS DIRECTED BY THE ENGINEER, PRIOR TO AND DURING CONSTRUCTION, TO CONTROL WATER POLLUTION, EROSION AND SILTATION, INCLUDING, BUT NOT LIMITED TO HAY BALE DIKES AND SILT FENCES. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE WDNR TECHNICAL STANDARDS.
4. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
5. CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIGGERS HOTLINE FOR THE LOCATION OF THE UTILITIES.
6. SITE DEWATERING IS NOT ANTICIPATED, HOWEVER SHOULD DEWATERING BE NECESSARY, IT SHALL BE PERFORMED IN ACCORDANCE WITH WDNR TECHNICAL STANDARD (1061).
7. THE CONTRACTOR SHALL DISPOSE OF ALL WASTE AND EXCESS MATERIAL AT AN APPROVED LOCATION.

PLANNED EROSION CONTROL PRACTICES:

1. **SILT FENCE** (TECH. STANDARD 1056)
SILT FENCING WILL BE REQUIRED DOWNSLOPE OF ALL DISTURBED AREAS, INCLUDING ANY DISTURBED AREAS OF THE INDIVIDUAL LOTS, AND WHERE NOTED ON THE SITE PLAN. IF THE SILT FENCE IS LOCATED IN A CHANNELIZED AREA, TWO CONSECUTIVE SILT FENCES WILL BE INSTALLED, OR ONE STRAW BALE FENCE WILL BE INSTALLED.
2. **INLET PROTECTION** (TECH STANDARD 1060)
INLET PROTECTION SHALL BE INSTALLED AT ALL EXISTING AND PROPOSED STORM DRAIN INLETS ON THE PROJECT SITE AND IMMEDIATELY DOWN STREAM FROM ANY DISTURBED AREAS.
3. **DUST CONTROL** (TECH STANDARD 1068)
DUST CONTROL SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE ABOVE MENTIONED TECHNICAL STANDARD. WHERE POSSIBLE DUST CONTROL SHALL BE WISDOT TYPE B SOIL STABILIZER OR TEMPORARY SEED.
4. **STOCKPILED TOPSOIL/TEMPORARY FILL PILES**
SILT FENCING OR STRAW BALE FENCING WILL BE REQUIRED AROUND ALL STOCKPILED TOPSOIL OR TEMPORARY FILL PILES. SOIL PILES OF MORE THAN 10 CUBIC YARDS THAT WILL BE IN EXISTENCE FOR MORE THAN 7 DAYS SHALL BE SEEDED AND/OR MULCHED TO PROVIDE VEGETATIVE COVER AND SHALL USE SILT FENCING OR STRAW BALES FENCING UNTIL THE VEGETATION IS ESTABLISHED.
5. **TEMPORARY CONSTRUCTION ENTRANCE/EXIT** (TECH. STANDARD 1057)
A NEW GRAVEL CONSTRUCTION ENTRANCE WILL BE INSTALLED AT ALL CONSTRUCTION ACCESS POINTS TO PREVENT SEDIMENT FROM TRACKING ONTO THE ROADWAYS.
6. **EROSION CONTROL MATS** (TECH. STANDARD 1053)
EROSION CONTROL MATS WILL BE INSTALLED IN AREAS AS SHOWN ON THE SITE PLAN, AND IN ALL OTHER AREAS WHERE EXCESSIVE EROSION IS TAKING PLACE. INSTALLATION WILL FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PLACEMENT AND STAPLING.
7. **DEWATERING** (TECH STANDARD 1061)
SHOULD DEWATERING BE REQUIRED FOR INSTALLATION OF PLANNED IMPROVEMENTS, SEDIMENT SHALL BE REMOVED FROM WATER GENERATED DURING DEWATERING ACTIVITIES PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE.

MAINTENANCE PLAN:

1. ALL EROSION CONTROL AND STORM WATER MANAGEMENT PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM PRODUCING AT LEAST 0.5 INCHES OF RAINFALL. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED. ALSO, ANY SEDIMENT THAT HAS BEEN DEPOSITED OFF-SITE FROM THIS CONSTRUCTION PROJECT SHALL BE CLEANED UP IMMEDIATELY.
2. REMOVE SEDIMENT FROM BEHIND ANY SILT FENCE WHEN IT HAS ACCUMULATED TO A DEPTH OF 1/2 FENCE HEIGHT OR MORE. WHEN THE FENCE CAN NO LONGER FILTER WATER OR TRAP SEDIMENT, REPAIR THE SILT FENCE TO PROVIDE AN EFFECTIVE BARRIER.
3. ALL SEEDED AREAS, INCLUDING THE GRASS LINED CHANNELS, WILL BE RESEEDED AND MULCHED AS NECESSARY TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.
4. ANY UNPROTECTED DRAINAGE DITCHES EXPERIENCING EXCESSIVE EROSION AND CHANNEL DEGRADATION DUE TO HIGH RUNOFF VOLUMES WILL BE REGRADED AND COVERED WITH A BIODEGRADABLE EROSION CONTROL MAT. INSTALLATION WILL FOLLOW MANUFACTURER'S RECOMMENDATIONS.
5. REMOVE SILT FENCE AND TEMPORARY STRUCTURES AFTER FINAL STABILIZATION AND VEGETATIVE COVER IS ESTABLISHED.
6. SEDIMENT THAT HAS MIGRATED OFF SITE ONTO ADJACENT PROPERTIES SHALL BE SWEEPED OFF PAVEMENTS AND REMOVED FROM VEGETATED AREAS DAILY.
7. COPIES OF THE EROSION & SEDIMENT CONTROL PLAN SHALL BE KEPT ON SITE.
8. MAINTAIN EROSION AND SEDIMENT CONTROL PER THE PLAN AND AS NECESSARY TO MEET THE REQUIREMENTS OF THE ORDINANCE, UNTIL THE SITE HAS UNDERGONE FINAL STABILIZATION AND RECEIVED FINAL ACCEPTANCE FROM THE MUNICIPALITY.
9. AN EROSION AND SEDIMENT CONTROL PRACTICE INSPECTION LOG SHALL BE MAINTAINED. LOG SHALL NOTE THE TIME, DATE AND LOCATION OF INSPECTION, THE PHASE OF CONSTRUCTION AT THE SITE, PERSON DOING THE INSPECTION, ASSESSMENT OF CONTROL PRACTICES, AND DESCRIPTION OF EROSION AND SEDIMENT CONTROL MEASURES OR MAINTENANCE DONE IN RESPONSE TO INSPECTION.



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ADDITION AND ALTERATIONS FOR,

21675 DORAL ROAD

TOWN OF BROOKFIELD, WISCONSIN

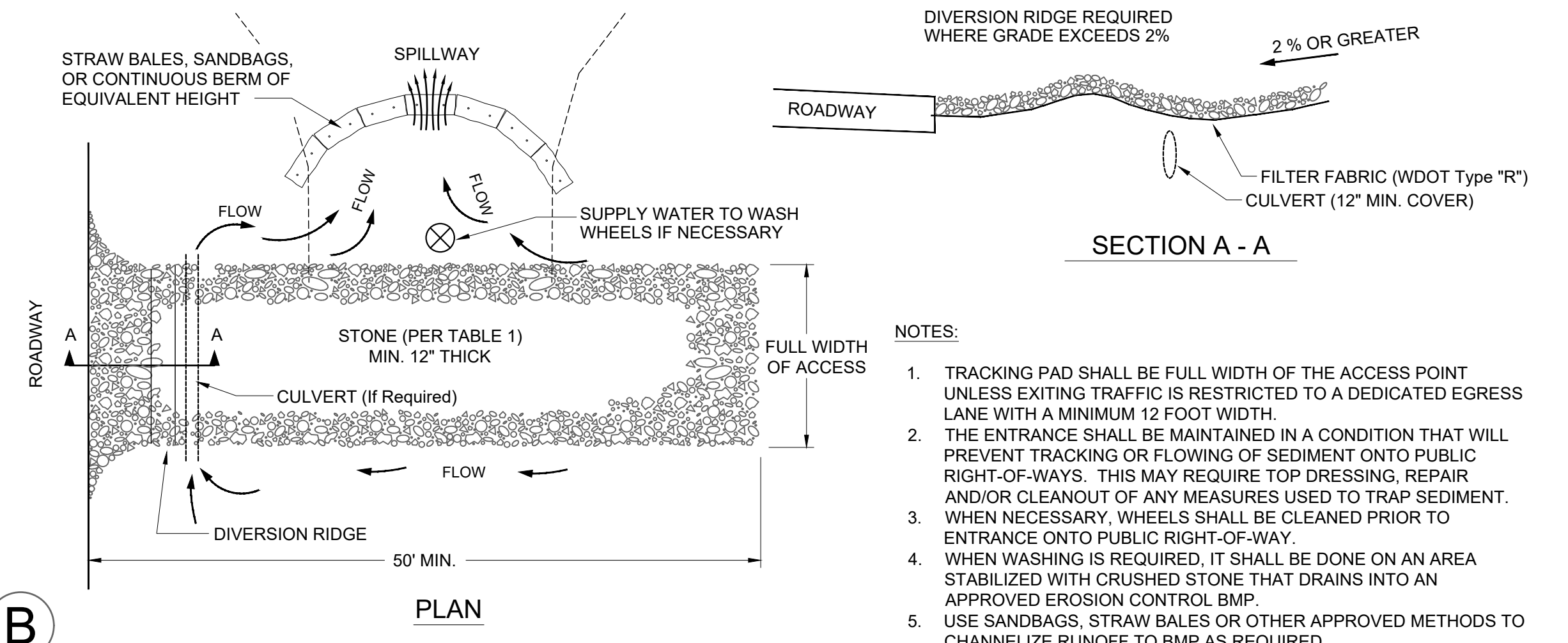
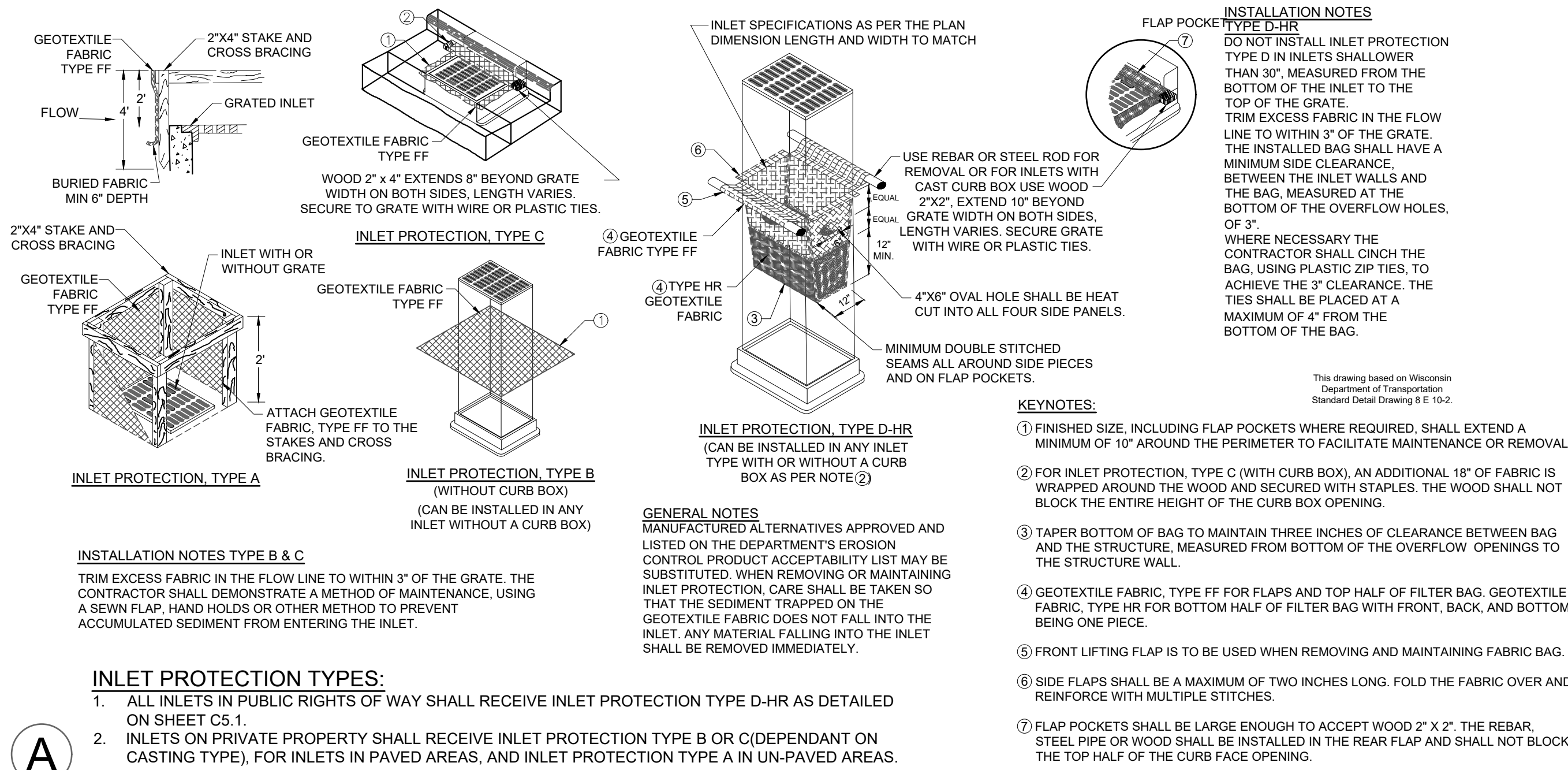


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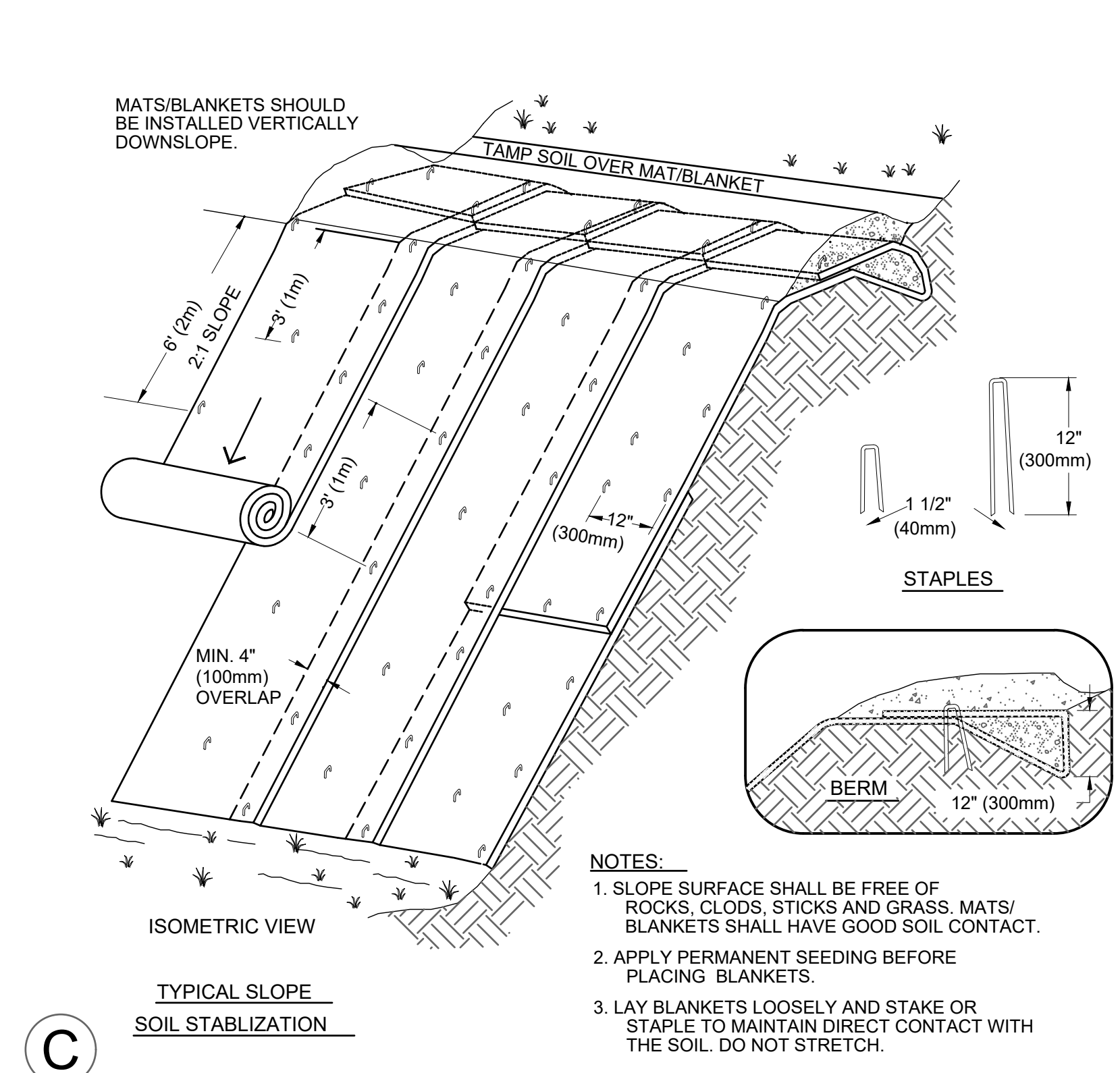
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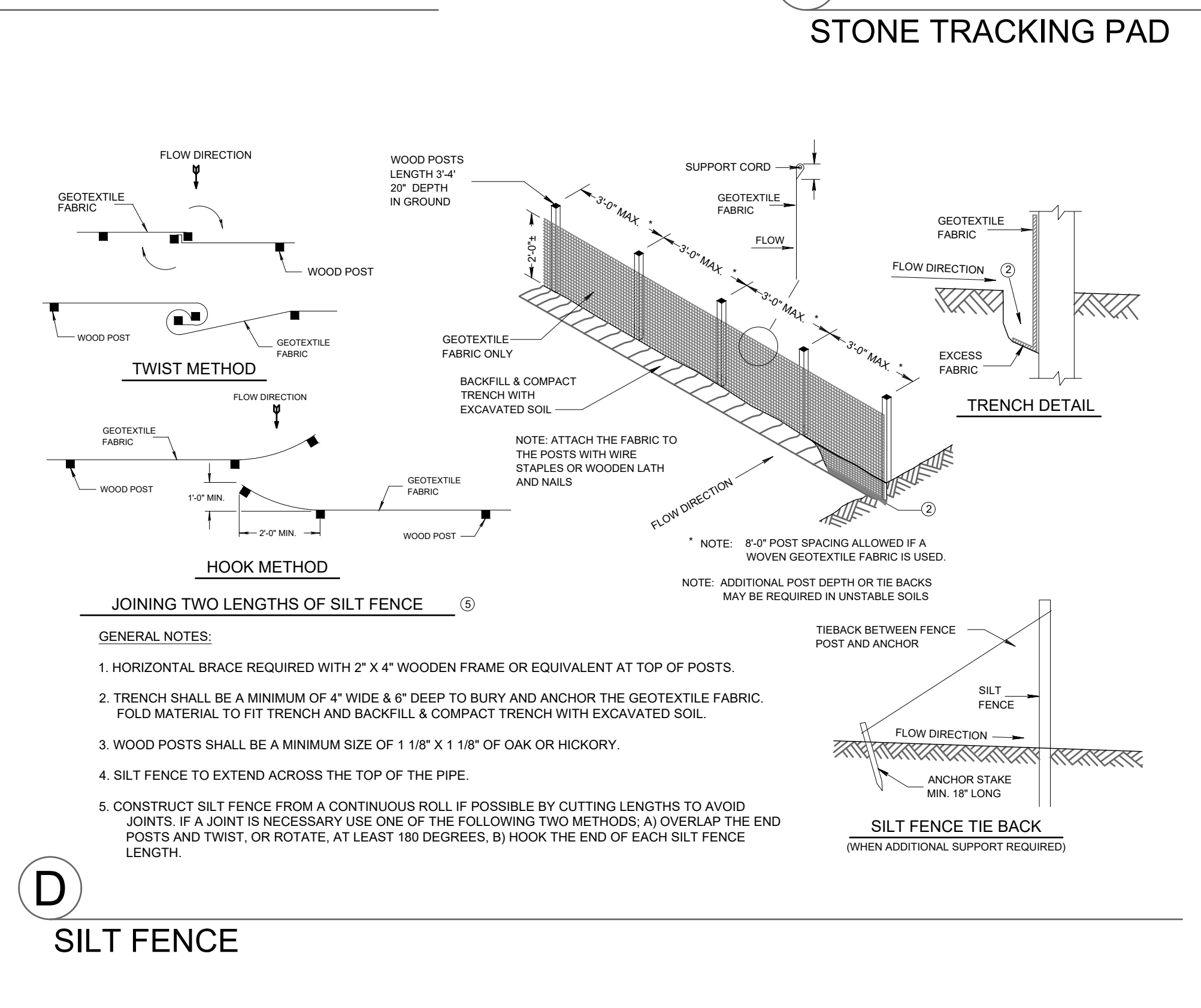
EROSION CONTROL DETAILS



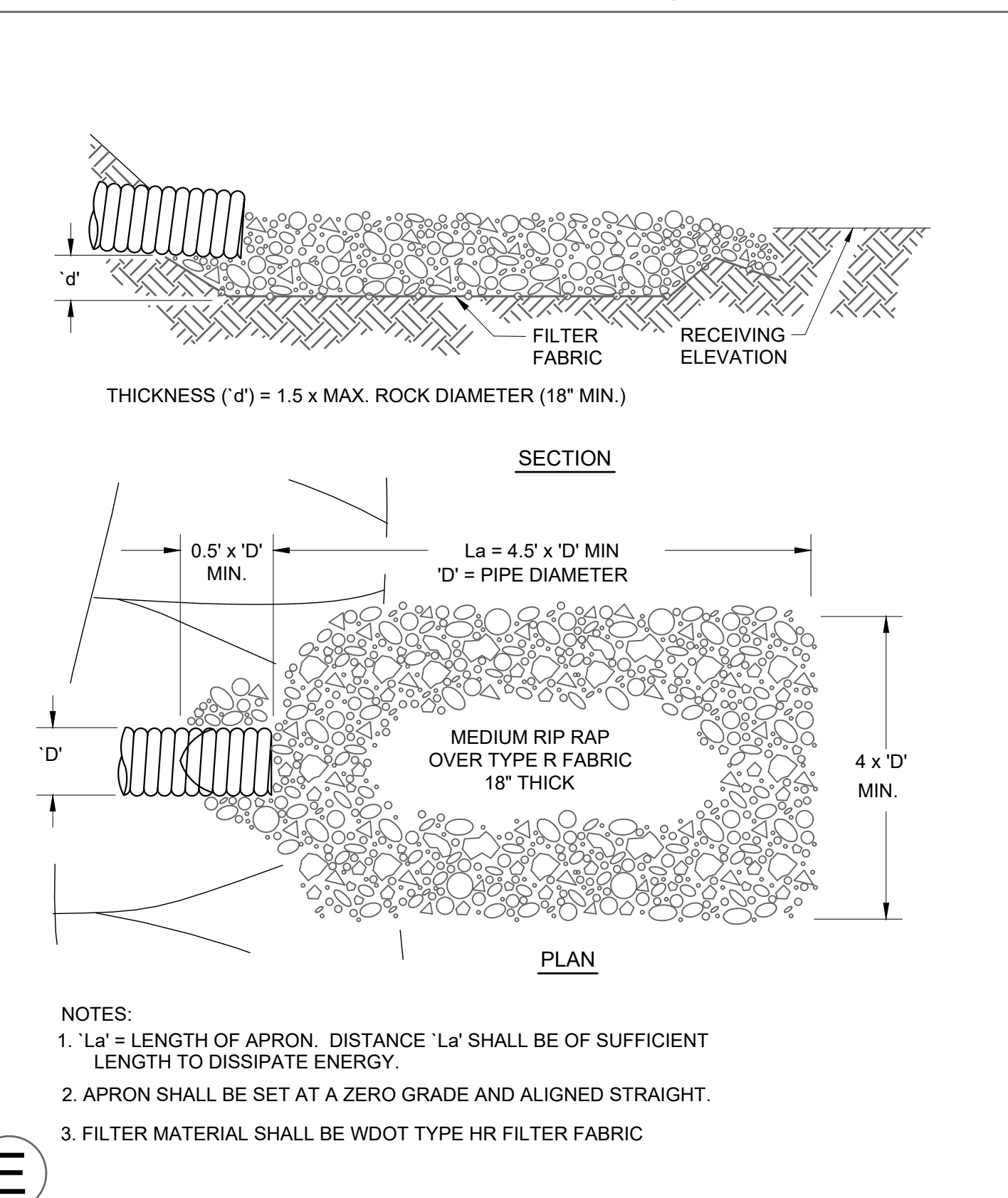
A INLET PROTECTION



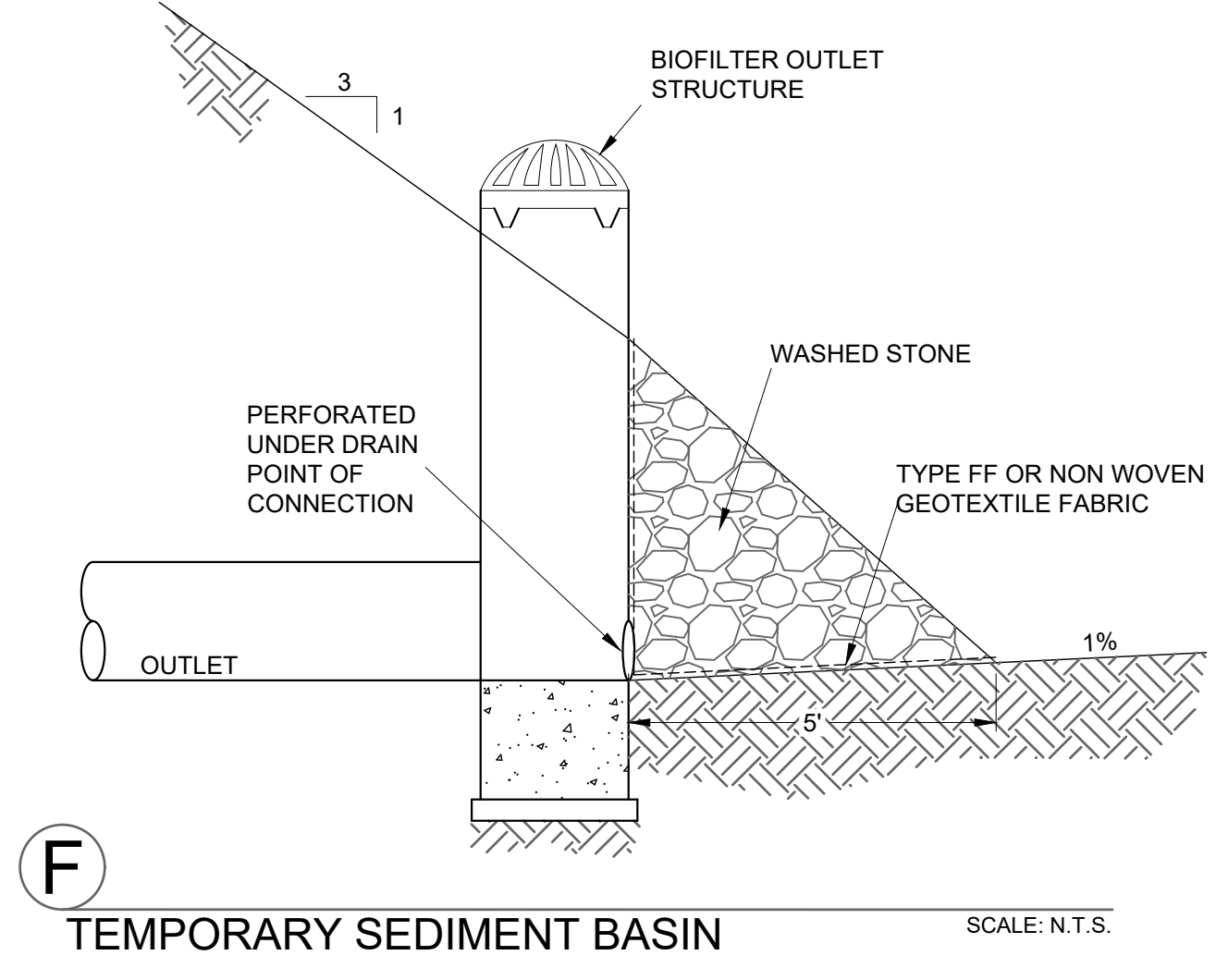
C EROSION CONTROL MAT FOR SLOPE INSTALLATION



D SILT FENCE

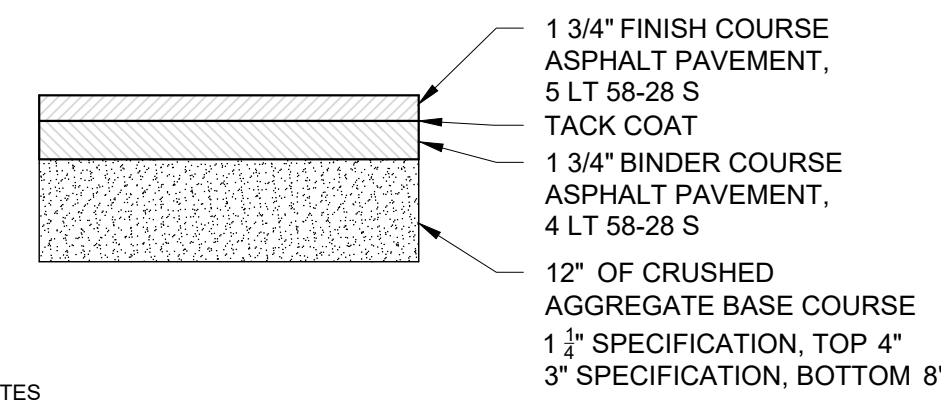


E ENERGY DISSIPATOR



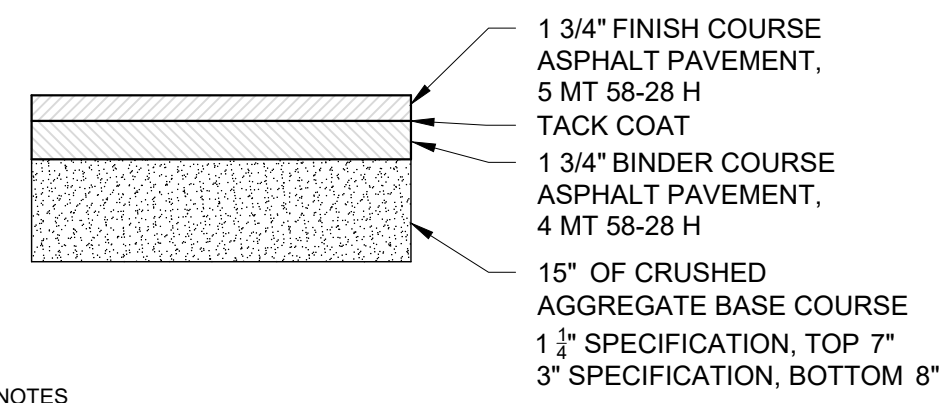
F TEMPORARY SEDIMENT BASIN

SITE DETAILS



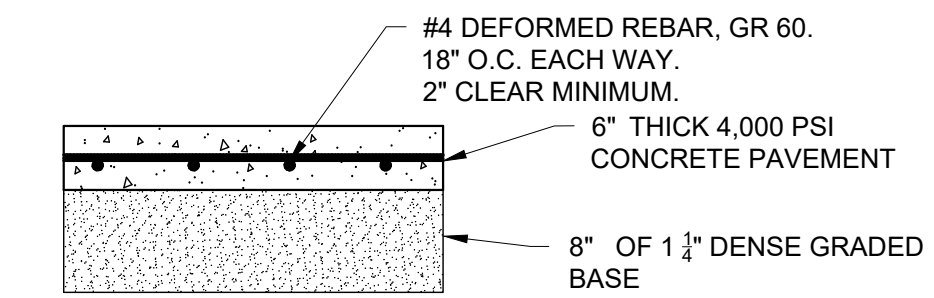
NOTES
1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.

A STANDARD DUTY ASPHALT PAVEMENT



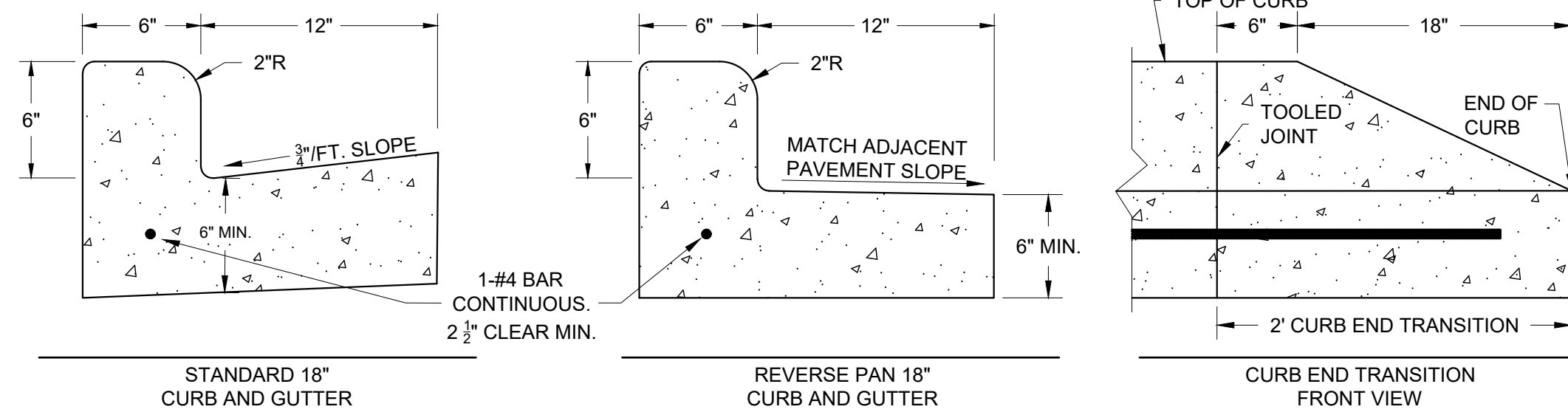
NOTES
1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.

B HEAVY DUTY ASPHALT PAVEMENT



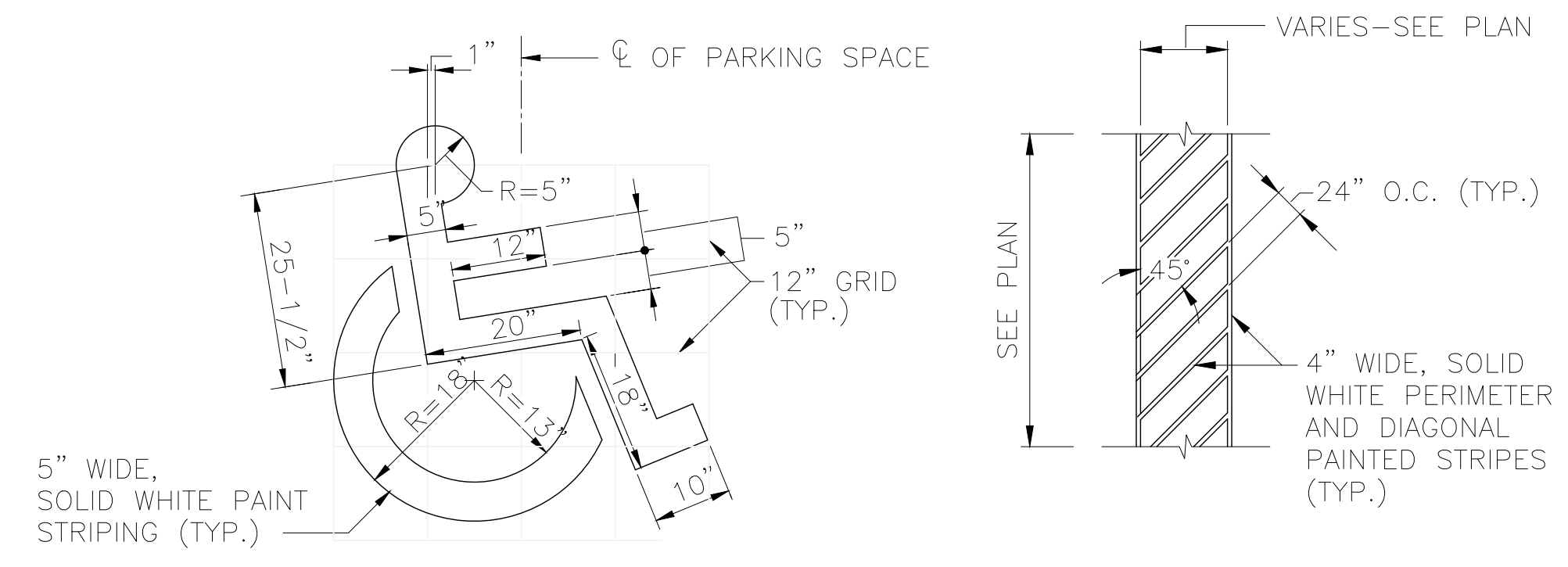
NOTES
1. CONCRETE PAVEMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH WISCONSIN DOT FDM.
2. CONCRETE SHALL RECEIVE A BROOMED FINISH.

C CONCRETE PAVEMENT/SLAB

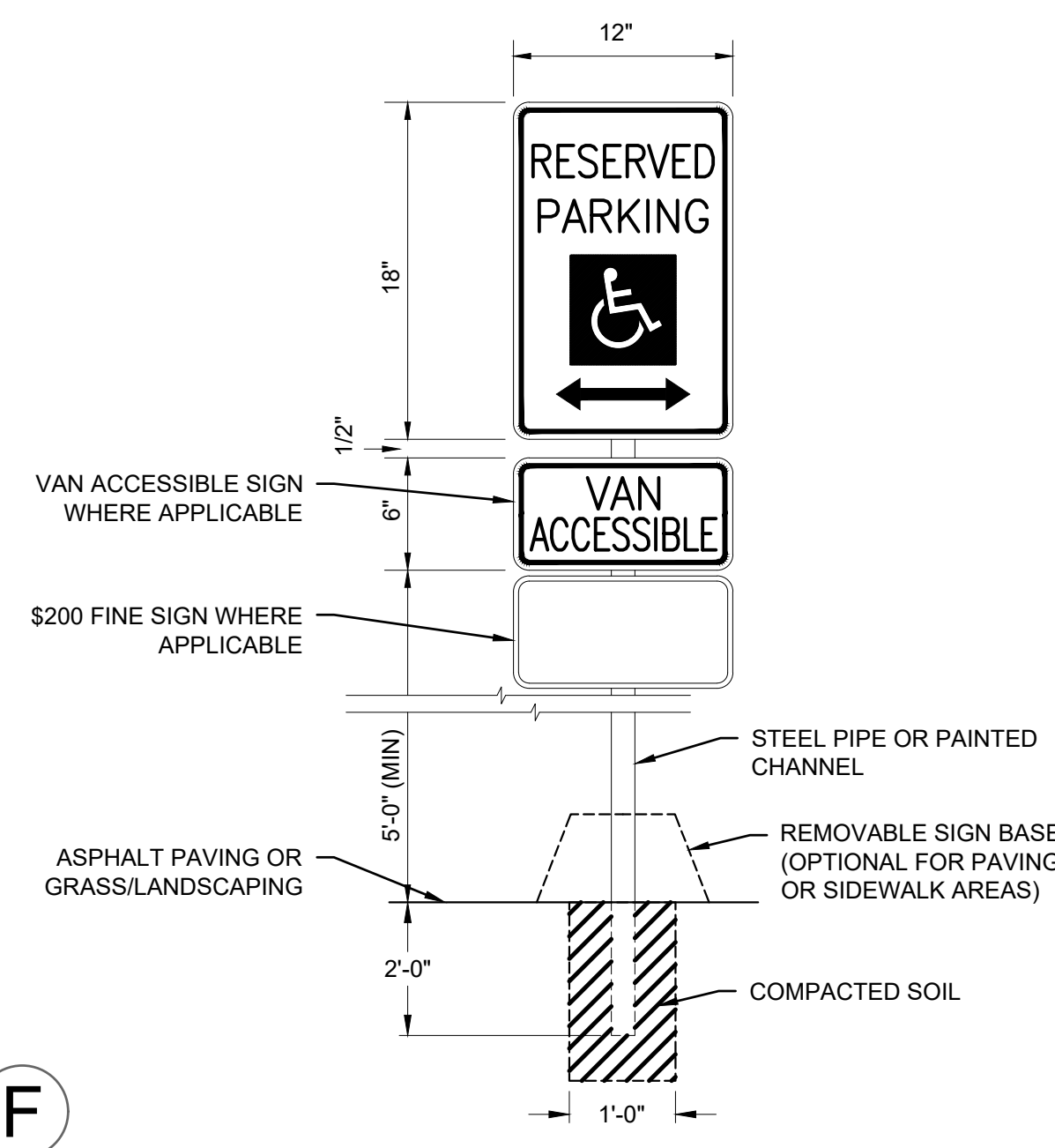


NOTES
1. THE BOTTOM OF THE CURB AND GUTTER MAY EITHER BE LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE.
2. LOCATION OF STANDARD AND REVERSE PAN CURB AND GUTTER IS INDICATED ON THE DRAWINGS.
3. CURB SHALL BE PLACED ON A MINIMUM OF 6" OF COMPACTED DENSE GRADED BASE.

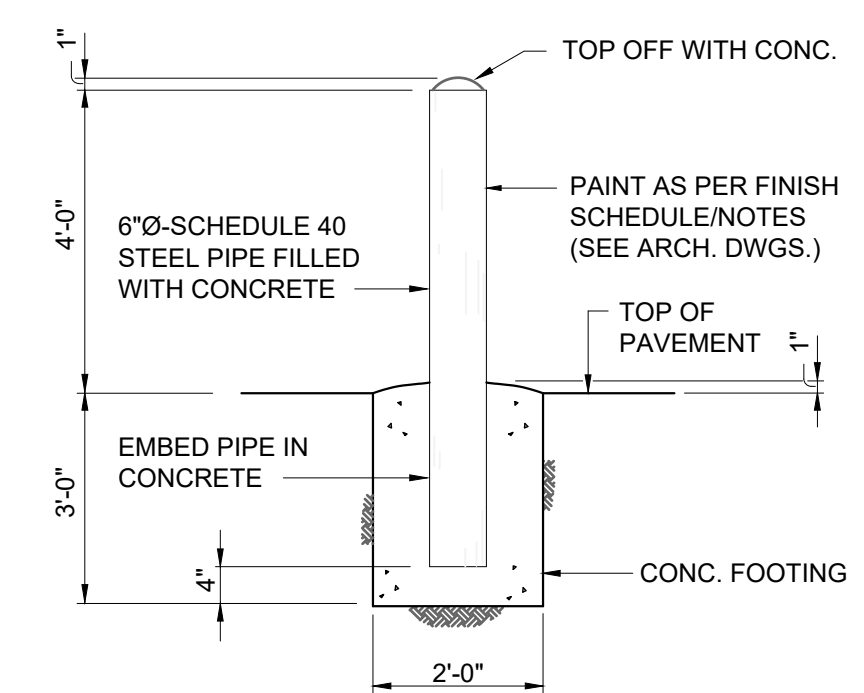
D 18" CONCRETE CURB AND GUTTER



E HANDICAP PAVEMENT MARKING DETAILS



F ADA HANDICAP SIGN



G PIPE BOLLARD - 6"

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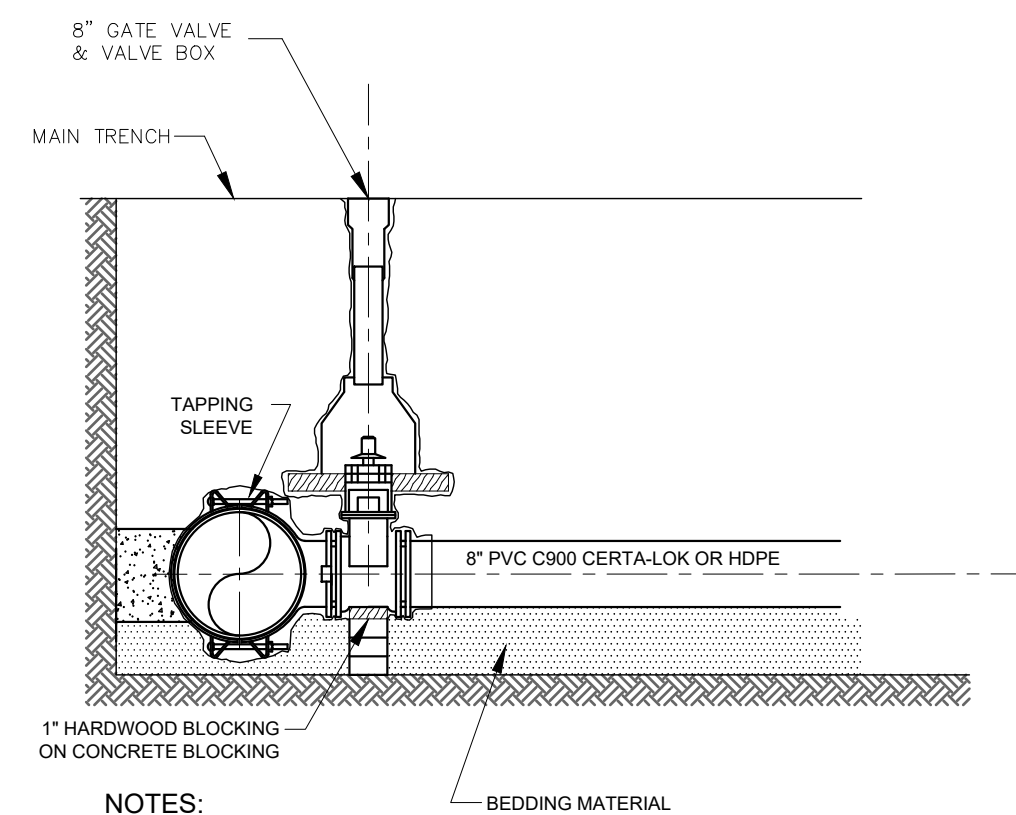
ADDITION AND ALTERATIONS FOR,
21675 DORAL ROAD
TOWN OF BROOKFIELD, WISCONSIN

DATE: MAY 08, 2024
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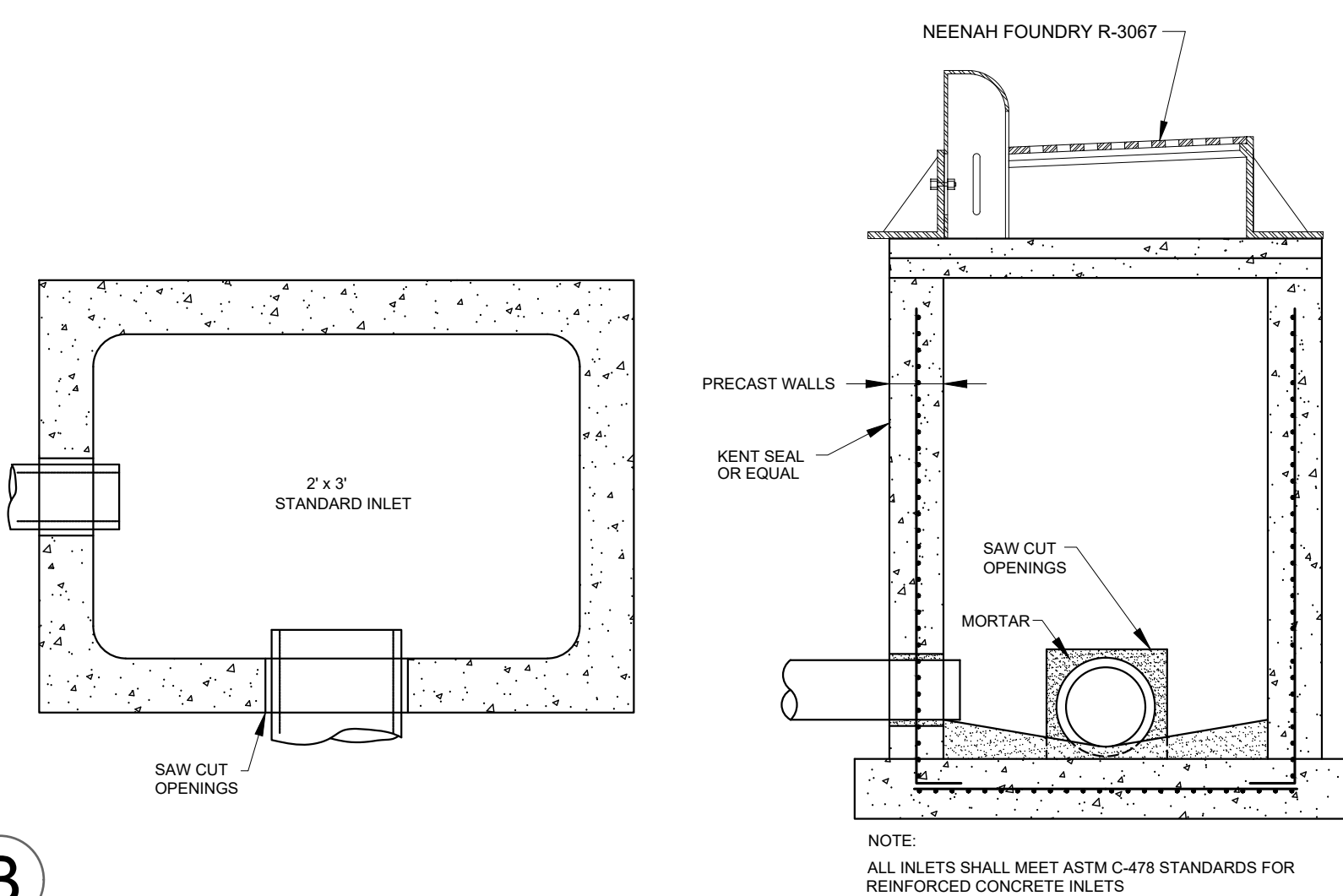
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UTILITY & GRADING DETAILS



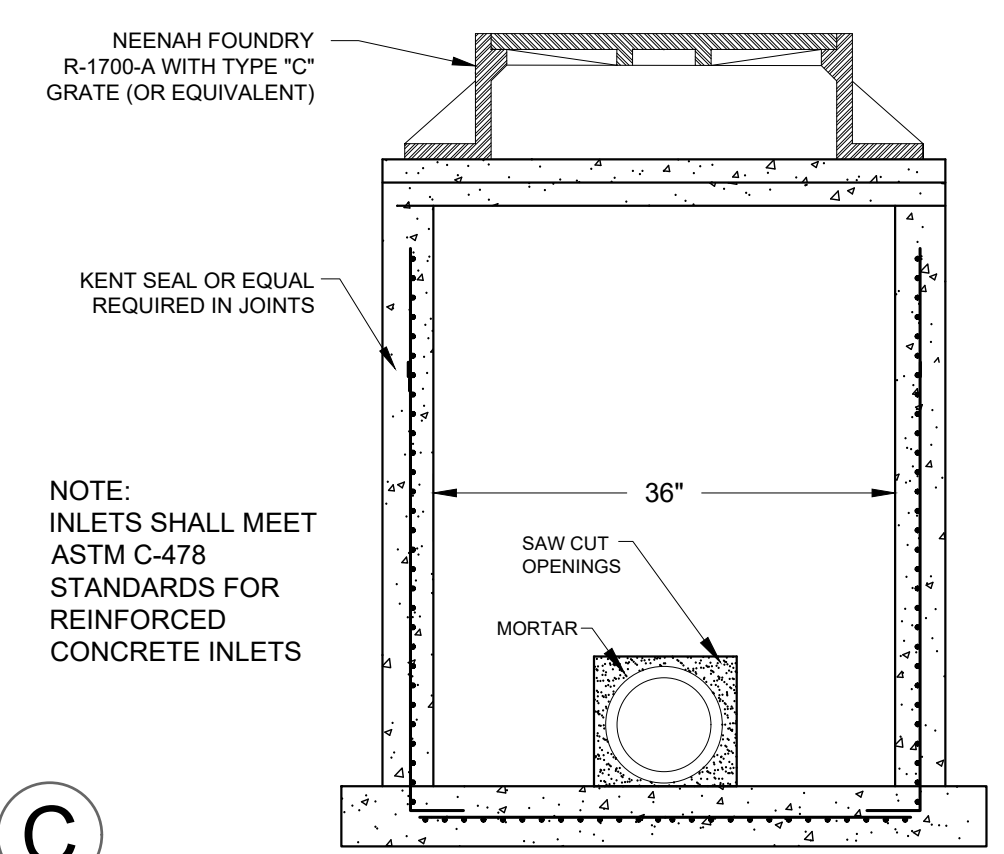
- NOTES:**
1. WATER SERVICE CONNECTION SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATION FOR SEWER & WATER CONSTRUCTION IN WISCONSIN.
 2. DISTANCE FROM CURB STOP TO RIGHT OF WAY LINE VARIES BY MUNICIPALITY. CONTRACTOR SHALL CONTACT LOCAL PUBLIC WORKS/WATER DEPARTMENT TO COORDINATE CURB STOP PROXIMITY TO RIGHT OF WAY LINE.
 3. PROVIDE FROST PROTECTION ON SERVICE BOX IN ACCORDANCE WITH STATE STANDARDS.
 4. PIPE MATERIAL SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARD.

A LARGE SERVICE CONNECTION WITH TAPPING SLEEVE



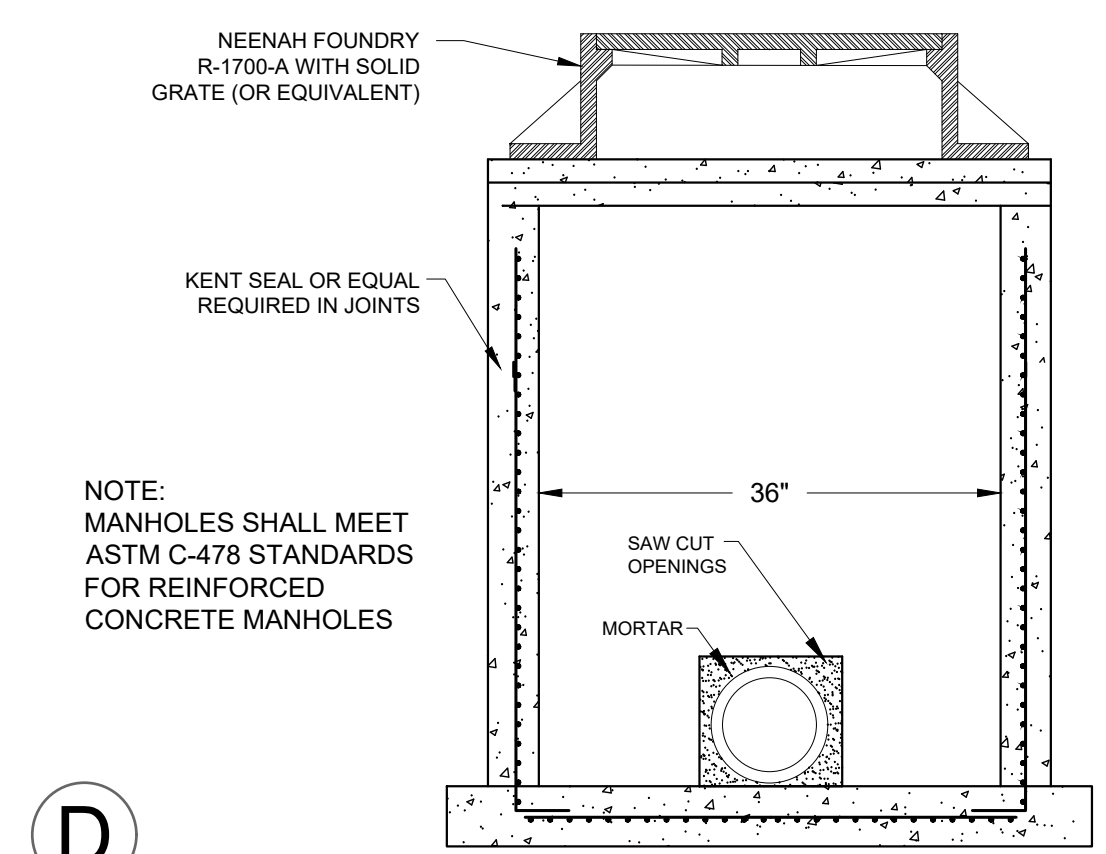
NOTE: ALL INLETS SHALL MEET ASTM C-478 STANDARDS FOR REINFORCED CONCRETE INLETS

B STORM SEWER INLET (24"x36")



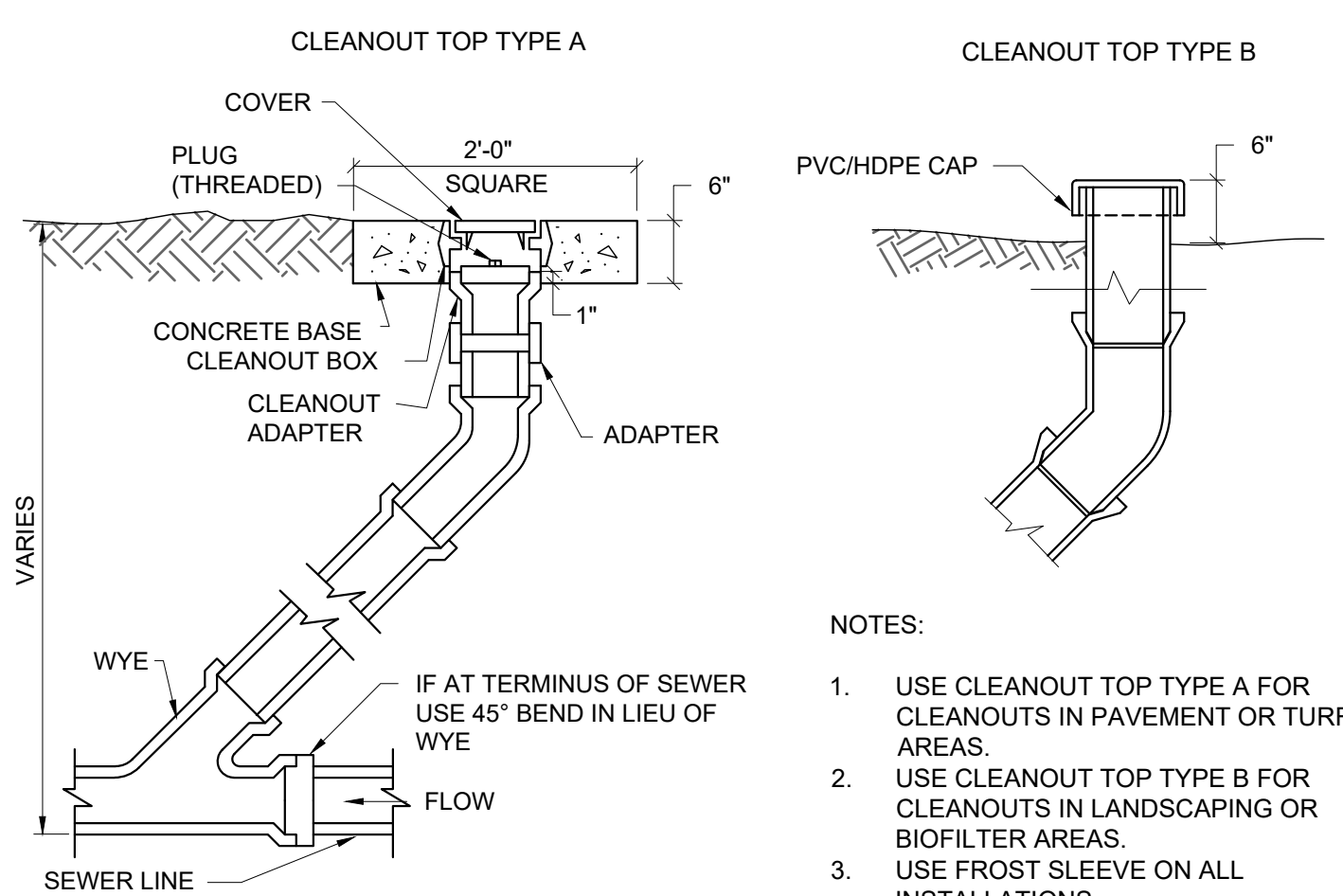
NOTE: INLETS SHALL MEET ASTM C-478 STANDARDS FOR REINFORCED CONCRETE INLETS

C STORM SEWER INLET (36" DIA.)



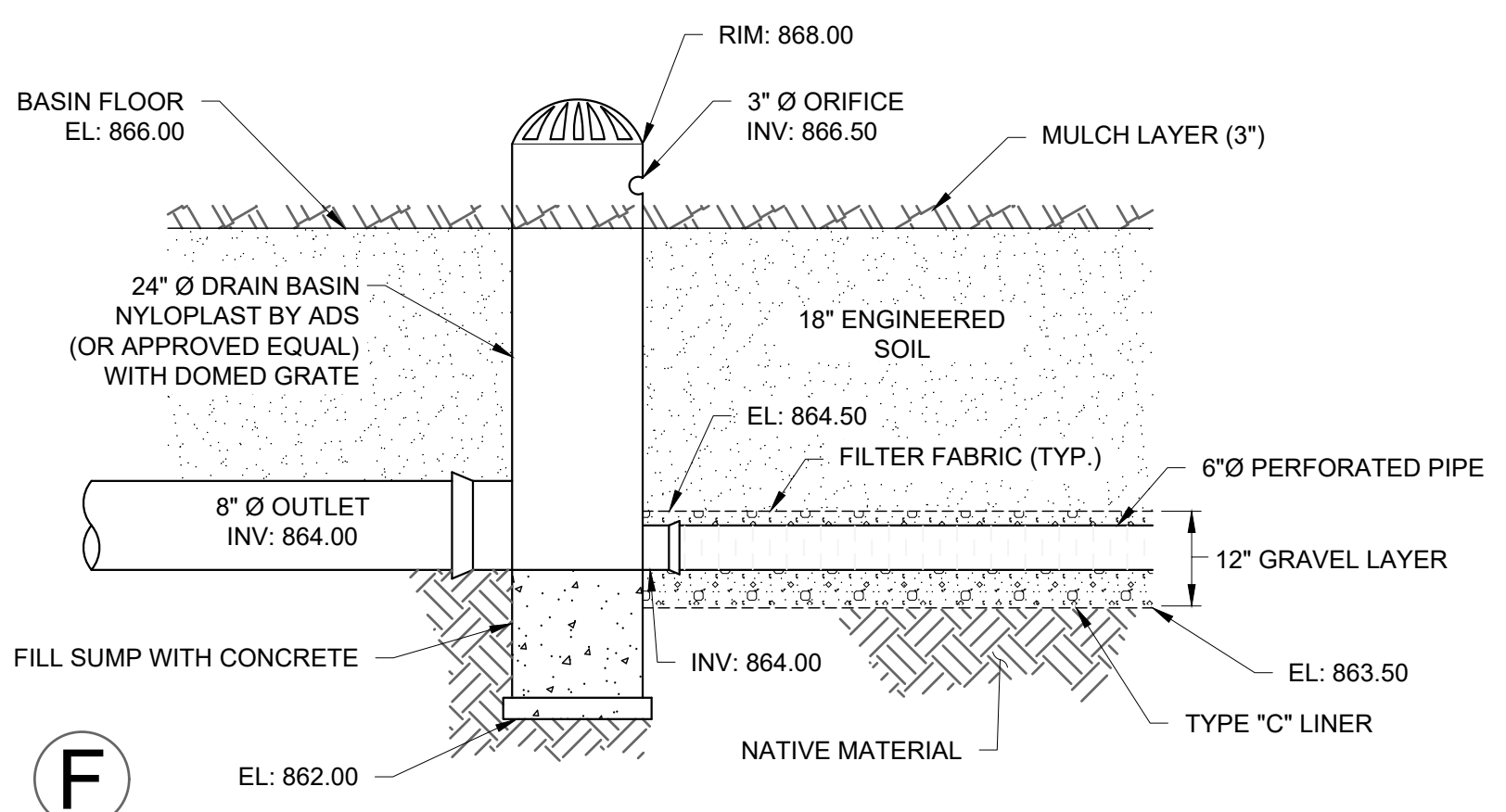
NOTE: MANHOLES SHALL MEET ASTM C-478 STANDARDS FOR REINFORCED CONCRETE MANHOLES

D STORM SEWER MANHOLE (36" DIA.)



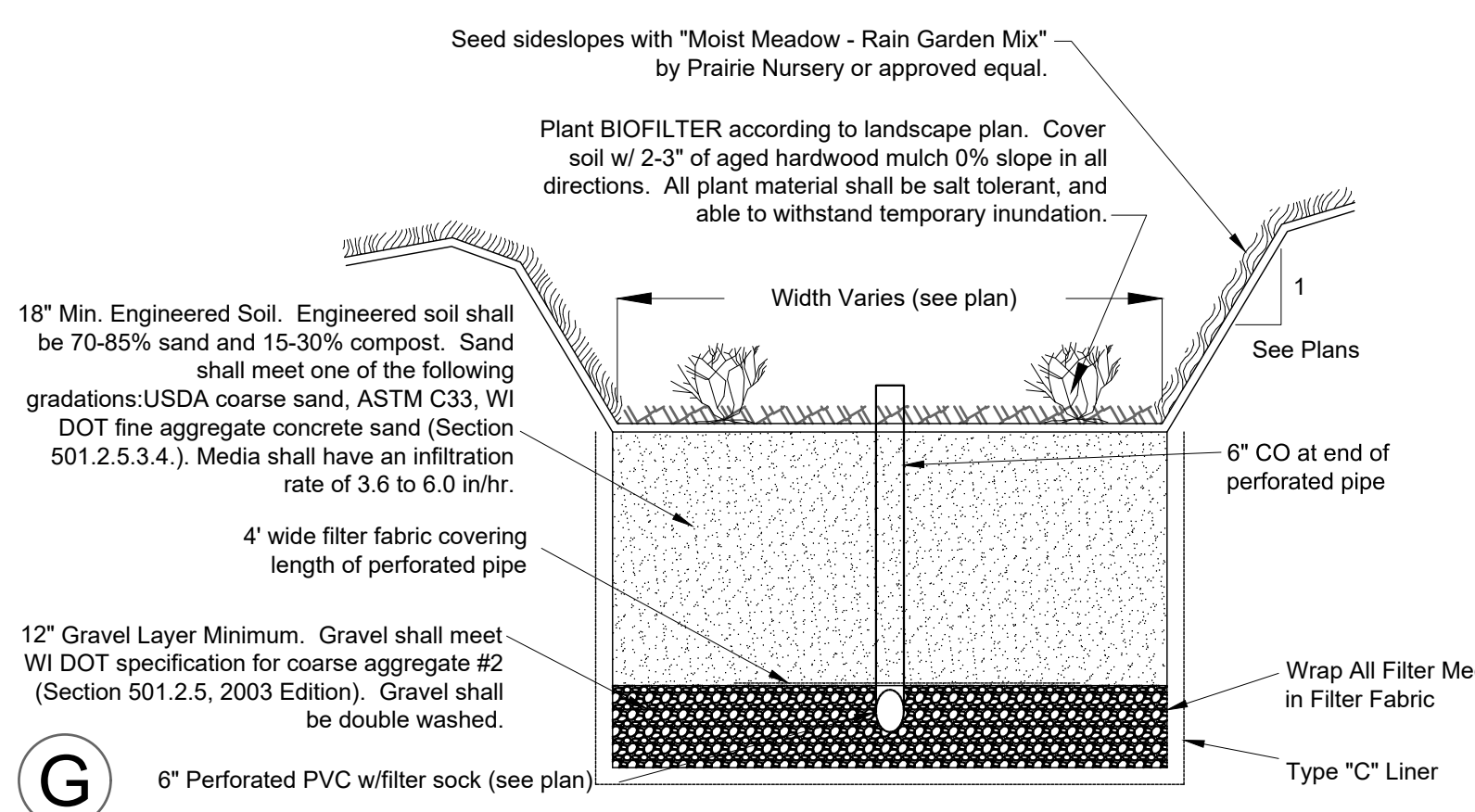
- NOTES:**
1. USE CLEANOUT TOP TYPE A FOR CLEANOUTS IN PAVEMENT OR TURF AREAS.
 2. USE CLEANOUT TOP TYPE B FOR CLEANOUTS IN LANDSCAPING OR BIOFILTER AREAS.
 3. USE FROST SLEEVE ON ALL INSTALLATIONS

E CLEANOUT



SCALE: N.T.S.

F BIOFILTER OUTLET STRUCTURE

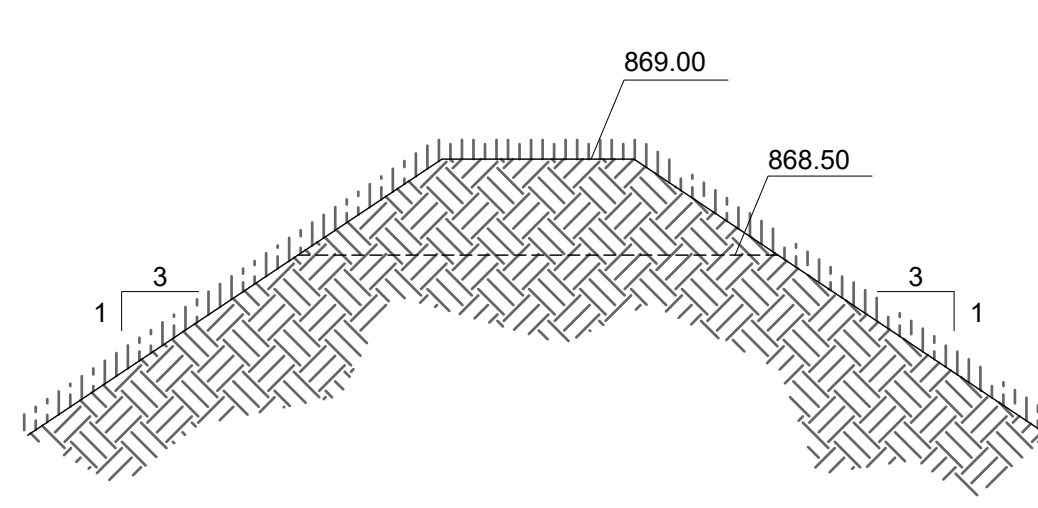
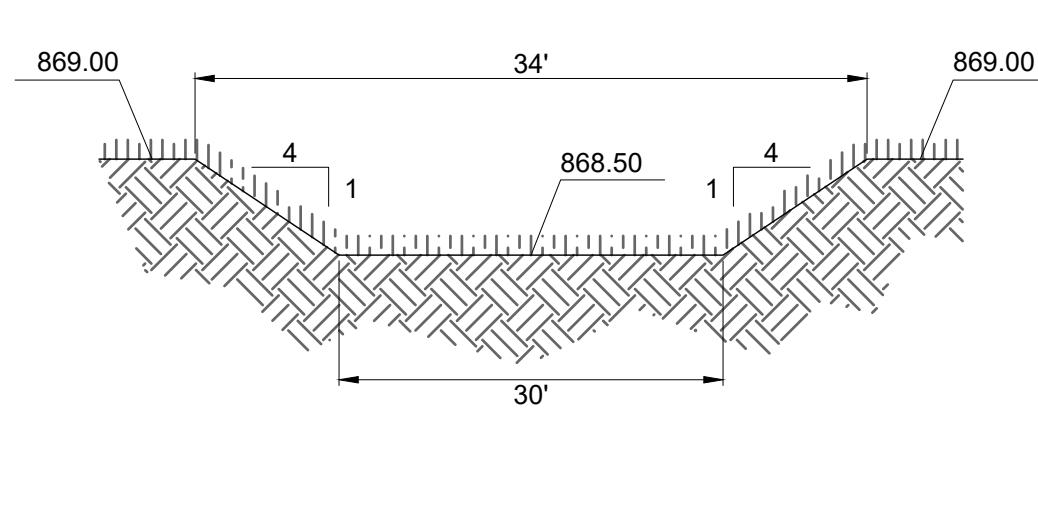


6" Perforated PVC wfilter sock (see plan)

G TYPICAL BIOFILTER CROSS SECTION

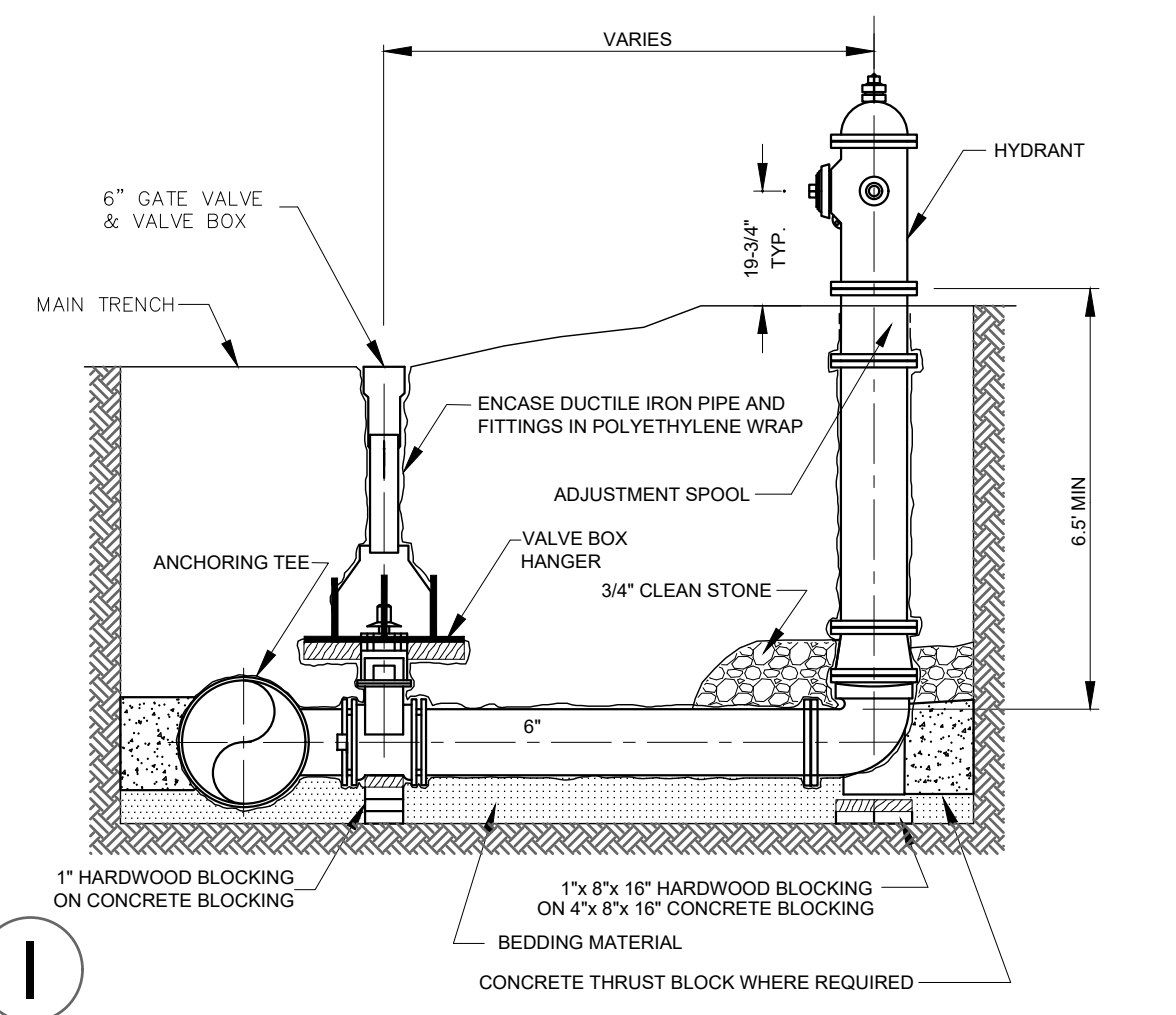
BIOFILTER CONSTRUCTION SEQUENCING AND OVERSIGHT

- A person trained and experienced in the construction, operation and maintenance of infiltration devices shall be responsible for construction of the device. The following apply:
 1. Construction Site Stabilization - Construction site runoff from disturbed areas shall not be allowed to enter the biofiltration device. Runoff from pervious areas shall be diverted from the device until the pervious areas have undergone final stabilization.
 2. Suitable Weather - Construction shall be suspended during periods of rainfall or snowmelt. Construction shall remain suspended if ponded water is present or if residual soil moisture contributes significantly to the potential for soil smearing, clumping or other forms of compaction.
 3. Compaction Avoidance - Compaction and smearing of the soils beneath the floor and side slopes of the biofiltration area, and compaction of the soils used for backfill in the soil planting bed, shall be minimized. During site development, the area dedicated to the biofiltration device shall be cordoned off to prevent access by heavy equipment. Acceptable equipment for constructing the biofiltration device includes excavation hoses, light equipment with turf type tires, marsh equipment or wide-track loaders.
 4. Compaction Remediation - If compaction occurs at the base of the biofiltration device, the soil shall be refracted to a depth of at least 12 inches. If smearing occurs, the smeared areas of the interface shall be corrected by raking or roto-tilling.
 5. Placement and Setting of Engineered Soil - The following apply:
 - a. Prior to placement in the biofiltration device, the engineered soil shall be remixed and the moisture content shall be low enough to prevent clumping and compaction during placement.
 - b. The engineered soil shall be placed in multiple lifts, each approximately 12 inches in depth.
 - c. Steps may be taken to induce mild settling of the engineered soil bed as needed to prepare a stable planting medium and to stabilize the ponding depth. Vibrating plate-style compactors shall not be used to induce settling.
 6. Planting - The entire soil planting bed shall be mulched prior to planting vegetation to help prevent compaction of the planting soil during the planting process. Mulch shall be pushed aside for the placement of each plant.



SCALE: N.T.S.

H BIOFILTER EMERGENCY OVERFLOW WEIR



I HYDRANT ASSEMBLY

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C
6.1

SHEET KEY NOTES:

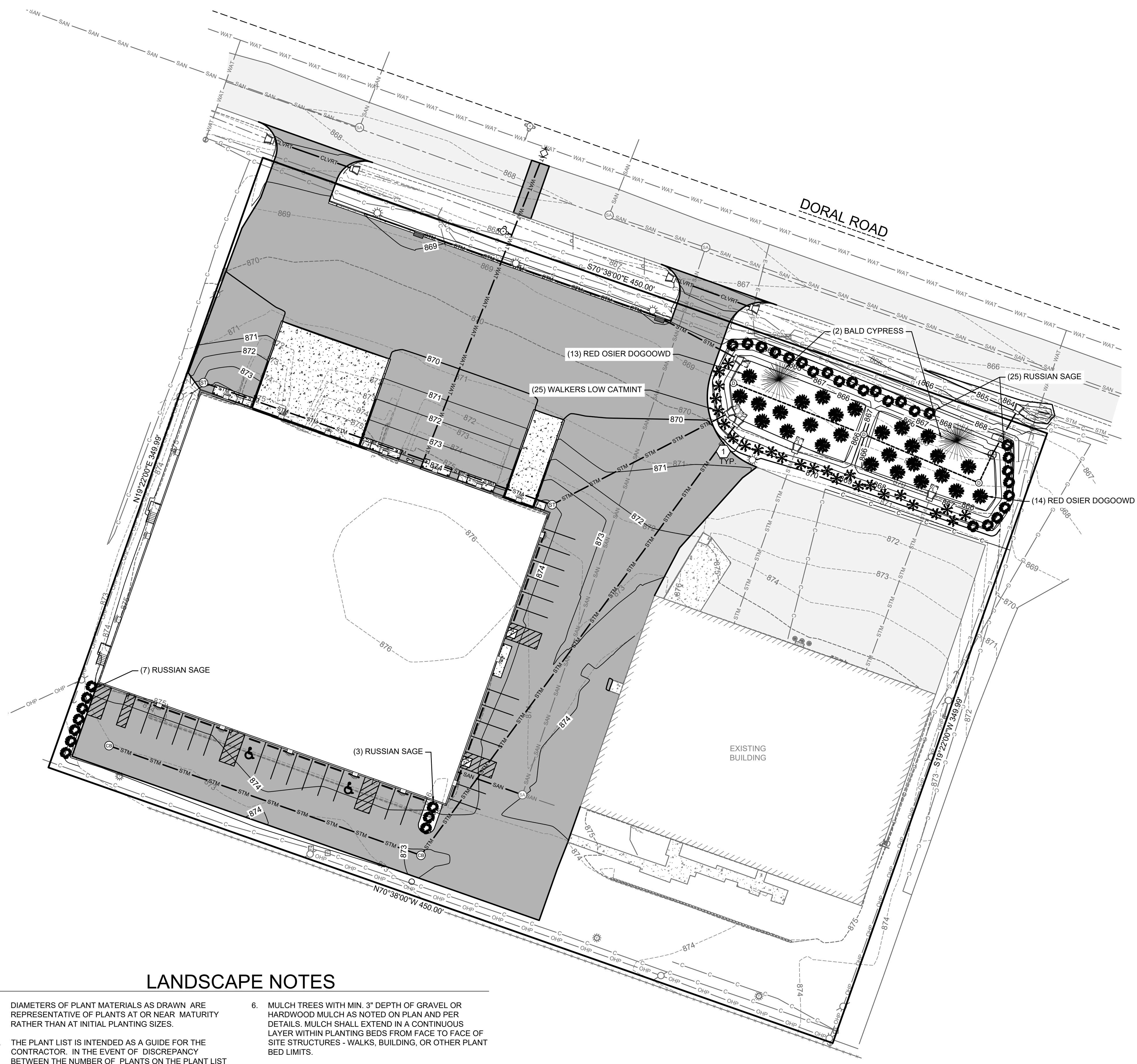
LANDSCAPE PLAN

PLANT TABLE

SYMBOL	COMMON NAME	SCIENTIFIC NAME	QUANTITY	SIZE
●	RED OSIER DOGWOOD	CORNUS SERICEA	27	18"
●	BALDCYPRESS	TAXODIUM DISTICHUM	2	6'
✱	WALKERS LOW CATMINT	NEPETA X FAASSENII 'WALKER'S LOW'	25	3 GAL.
⊙	RUSSIAN SAGE	PEROVSKIA ATRIPLICIFOLIA 'RUSSIAN SAGE'	35	3 GAL.

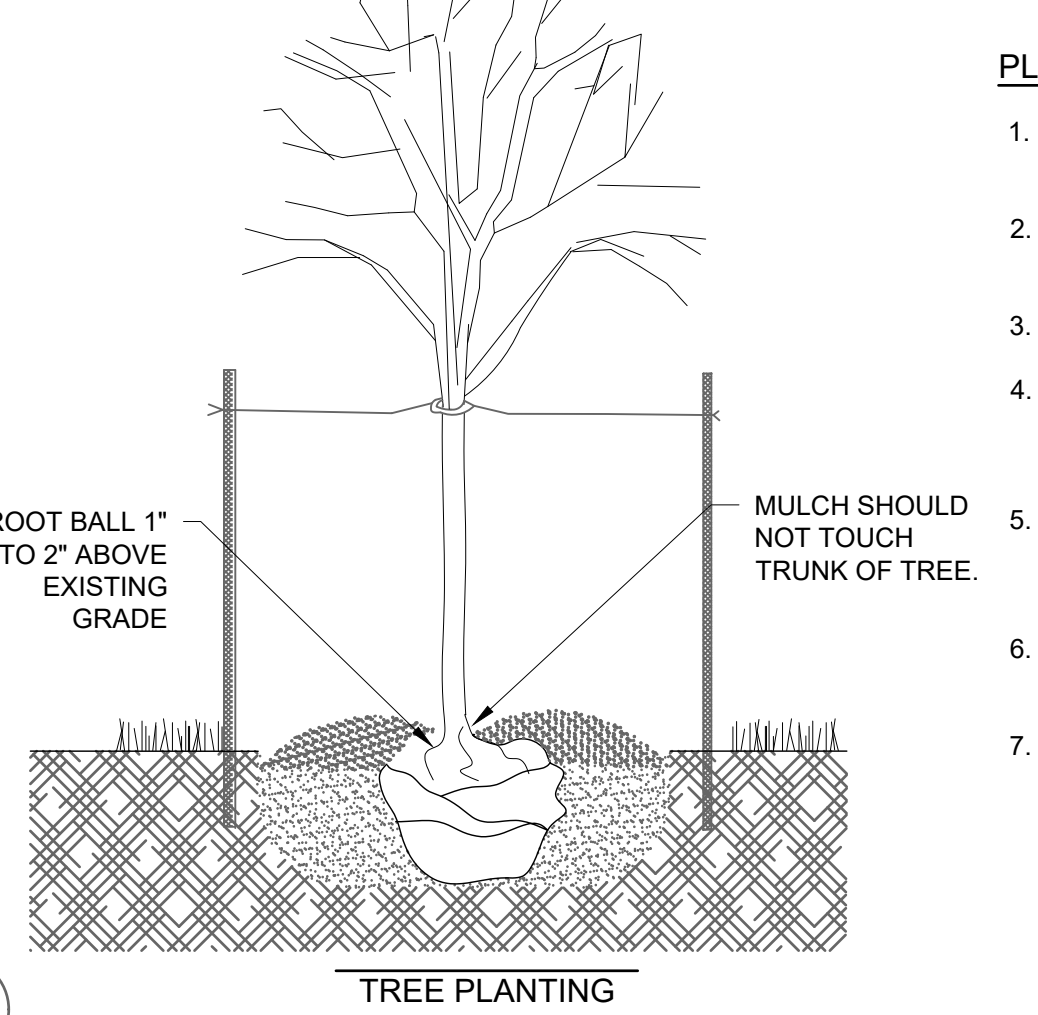
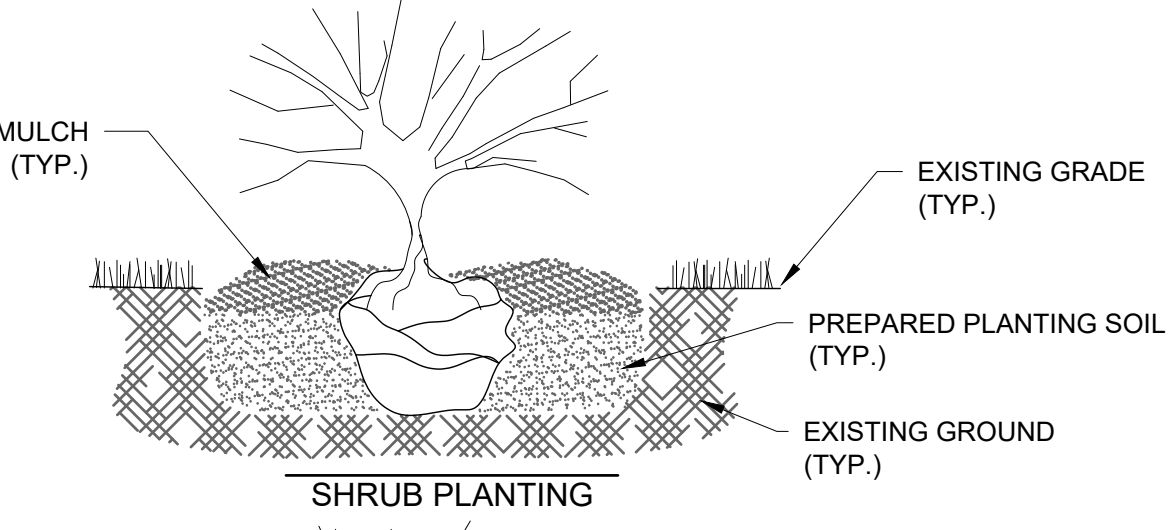
SHEET KEY NOTES:

① VEGETATE REMAINING BIOFILTER BASIN FLOOR AND SIDE SLOPE AREAS ACCORDING TO THE SPACING DESCRIBED IN WDNR TECHNICAL STANDARD 1004 "BIORETENTION FOR INFILTRATION" WITH THE SPECIES LISTED IN THE BIOFILTER PLANT SCHEDULE; SEE DETAIL A THIS SHEET



Common Name
FOX SEDGE
WHITE TURTLEHEAD
SWEET BLACK EYED SUSAN
IRONWEED
GOLDEN ALEXANDERS
BIG BLUESTEM
NEW ENGLAND ASTER
BOTTLE GENTIAN
BLUE FLAG IRIS
MARSH BLAZINGSTAR
GREAT BLUE LOBELIA

A BIOFILTER PLANT SCHEDULE



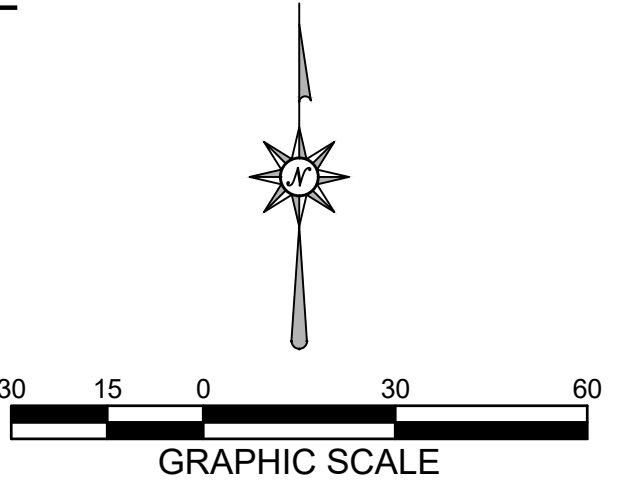
B PLANTING DETAIL

PLANTING NOTES:

1. PLANTING HOLE SHALL BE A MINIMUM OF TWO TIMES THE DIAMETER OF THE ROOT BALL, AND EQUAL TO THE DEPTH OF THE ROOT BALL.
2. EXCAVATED SOIL FROM PLANTING HOLE SHALL BE MIXED WITH 1 PART POTTING SOIL TO 2 PARTS EXCAVATED SOIL.
3. PLANT SO THAT THE ROOT COLLAR WILL BE 1" TO 2" ABOVE EXISTING GRADE.
4. IF BALLED AND BURLAPED, PLACE PLANT IN HOLE, CUT THE BURLAP TWINE, AND PEEL BACK THE TOP TWO THIRDS OF BURLAP. IF POTTED REMOVE POT, AND PLACE PLANT INTO HOLE.
5. BACKFILL HOLE WITH PREPARED SOIL, AND MOUND SOIL 2" TO 3" HIGH IN A RING AT THE PERIMETER OF THE EXCAVATED HOLE. WATER AND SMOOTH RING PRIOR TO MULCHING.
6. MULCH WITH 3" OF SHREDDED HARDWOOD MULCH OR LANDSCAPE STONE (RIVER ROCK, NOT CRUSHED STONE)
7. IF STAKING IS REQUIRED FOR TREES TWO STAKES SHALL BE USED ONE ON THE PREVAILING WIND SIDE OF THE TREE, AND THE OTHER STAKE ON THE OPPOSITE SIDE. STAKES SHALL BE FASTENED TO THE TREE USING RUBBER TUBING, OR NYLON STRAPPING.

LANDSCAPE NOTES

1. DIAMETERS OF PLANT MATERIALS AS DRAWN ARE REPRESENTATIVE OF PLANTS AT OR NEAR MATURITY RATHER THAN AT INITIAL PLANTING SIZES.
2. THE PLANT LIST IS INTENDED AS A GUIDE FOR THE CONTRACTOR. IN THE EVENT OF DISCREPANCY BETWEEN THE NUMBER OF PLANTS ON THE PLANT LIST AND ON THE DRAWING, THE GREATER NUMBER SHALL APPLY.
3. ADJUSTMENTS IN LOCATIONS OF PLANT MATERIALS MAY BE NECESSARY DUE TO NEW OR EXISTING UTILITIES OR SITE OBSTRUCTIONS. REVIEW WITH ARCHITECT BEFORE ADJUSTMENTS ARE MADE.
4. ALL SHRUBS OCCURRING IN CONTINUOUS ROW OR FORMAL ARRANGEMENT SHALL HAVE UNIFORM HEIGHT, SPREAD AND HABIT OF GROWTH. FOR GROUND COVER LOCATIONS, FILL AREA WITH QUANTITY OF PLANTS DESIGNATED; EVENLY SPACED.
5. A MINIMUM OF 12" DEPTH OF 50% TOPSOIL AND 50% COMPOST SHALL BE PLACED IN ALL BED AREAS BY THE CONTRACTOR PRIOR TO PLANT INSTALLATION.
6. MULCH TREES WITH MIN. 3" DEPTH OF GRAVEL OR HARDWOOD MULCH AS NOTED ON PLAN AND PER DETAILS. MULCH SHALL EXTEND IN A CONTINUOUS LAYER WITHIN PLANTING BEDS FROM FACE TO FACE OF SITE STRUCTURES - WALKS, BUILDING, OR OTHER PLANT BED LIMITS.
7. PROTECT EXISTING LAWN AREAS; REPAIR ANY CONTRACT RELATED DAMAGE TO LAWN AREAS.
8. THE CONTRACTOR SHALL MAINTAIN ALL PLANTS AND BEDS FOR A 90 DAY PERIOD AFTER ACCEPTANCE OF THE WORK BY THE ARCHITECT. THIS INCLUDES REGULAR WATERING, WEEDING AND MOWING.
9. THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE-YEAR FROM DATE OF ACCEPTANCE. BEFORE END OF WARRANTY PERIOD CONTRACTOR SHALL REPLACE ALL TREES, SHRUBS OR PLANTINGS NOT ALIVE OR IN A HEALTHY GROWING CONDITION.
10. SEED ALL DISTURBED AREAS WITH Wdot No. 40 GRASS MIX.



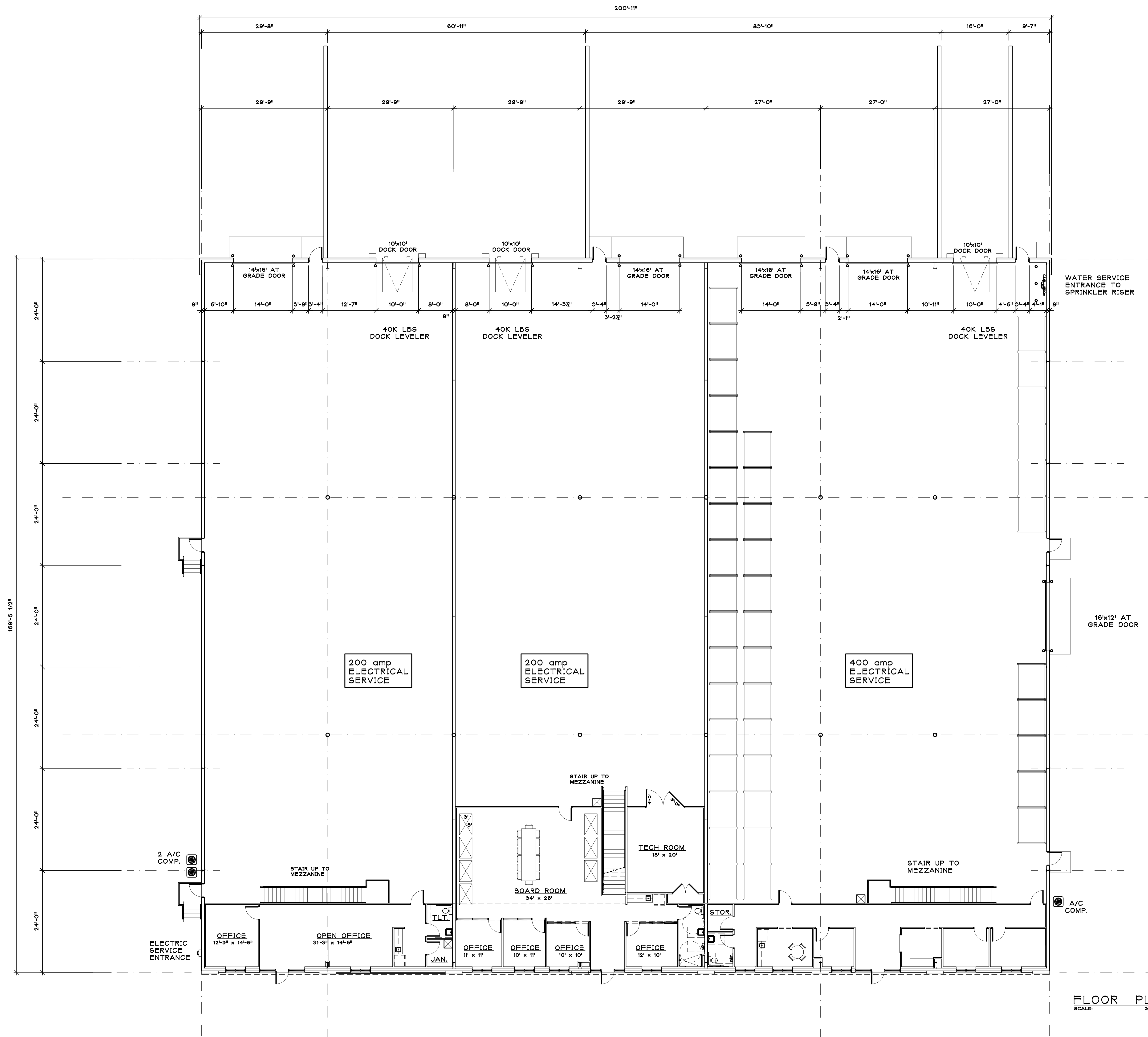
2260 Salscheider Court Green Bay, WI 54313
 PH: 920-569-5765; Fax: 920-569-5767
 www.mach-iv.com
 Project Number: 2148-01-23

ACS
 Construction & Services, Inc.
 327 RANDOLPH DR. STE #C1
 APPLETON, WI 54913
 TELE: 920-707-4226 FAX: 920-240-8072

ADDITION AND ALTERATIONS FOR,
21675 DORAL ROAD
 TOWN OF BROOKFIELD, WISCONSIN

DATE:	MAY 08, 2024
ARCH:	
D. BY:	RPH
JOB:	23-003
REV:	

L
 1.0



FLOOR PLAN
SCALE: 3/32"=1'-0"

ACS
Construction & Services, Inc.

327 RANDOLPH DRIVE - SUITE C
APPLETON, WI 54913
TELE: 920-574-2657 FAX: 920-574-2660

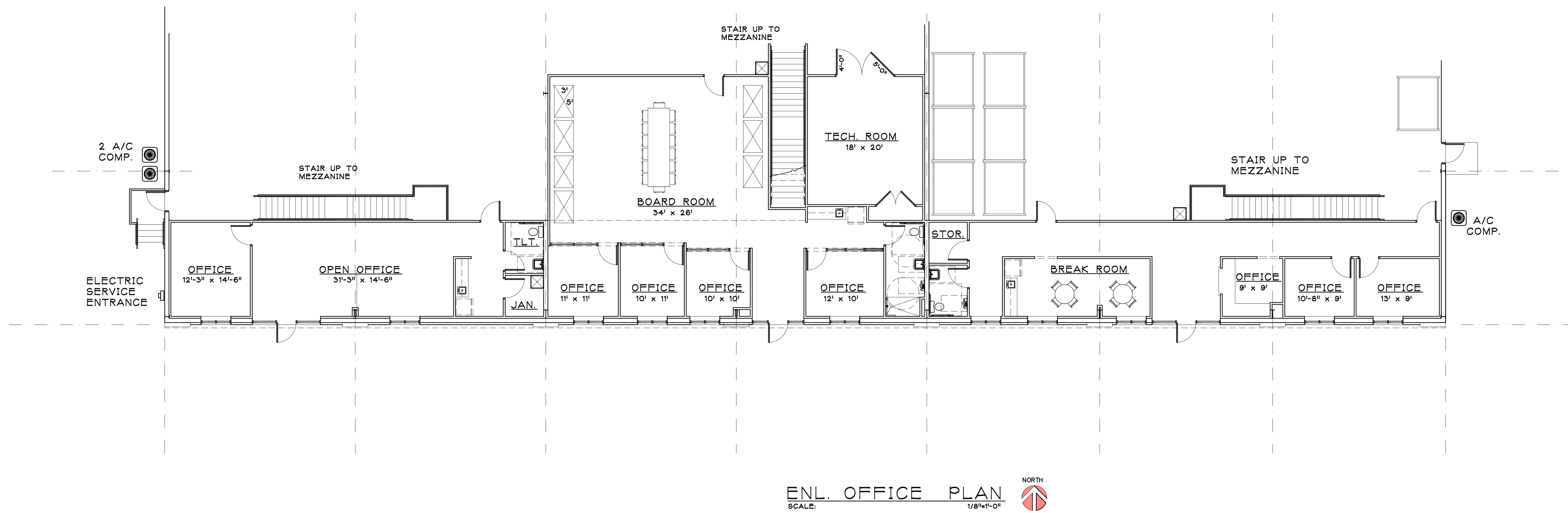
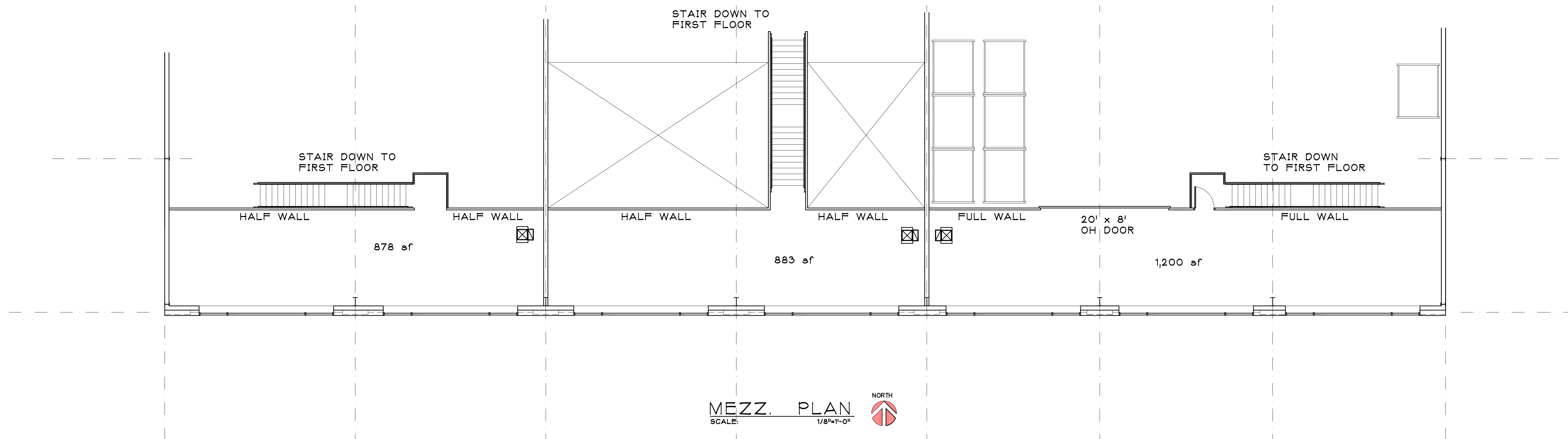
A PROPOSED NEW WAREHOUSE FACILITY FOR

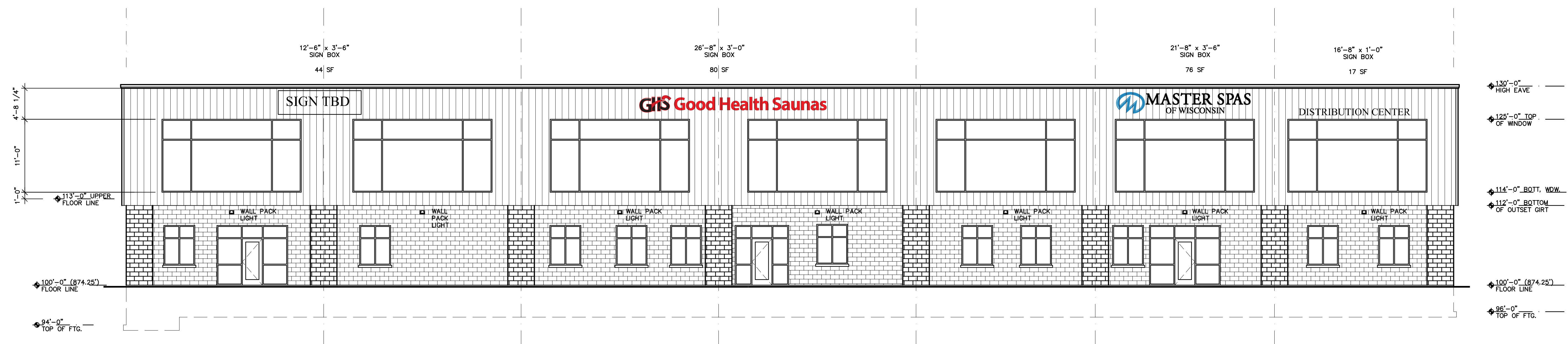
MASTER SPAS

TOWN OF BROOKFIELD, WISCONSIN

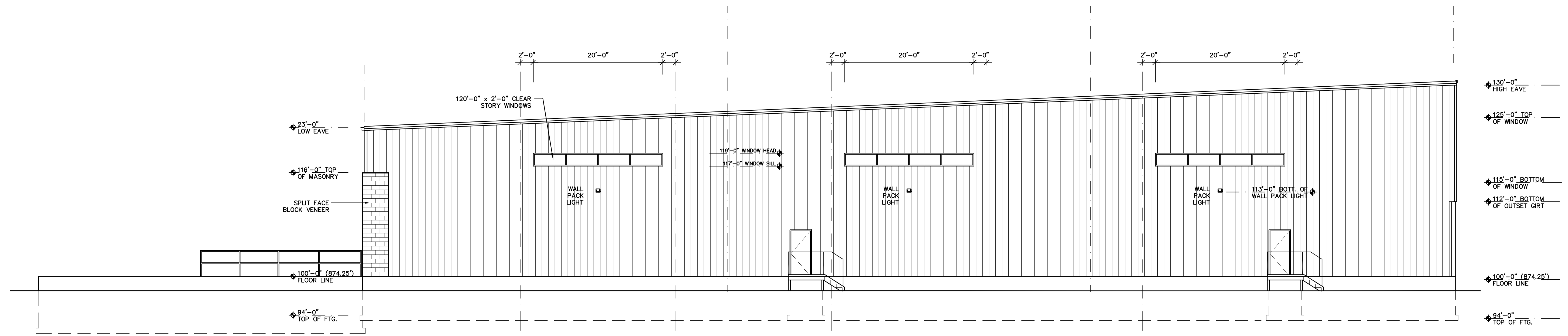
DATE: APRIL 24, 2024
 ARCH. K. SPERL
 D. BY: _____
 JOB: 23-087
 REV. _____

A
1.0

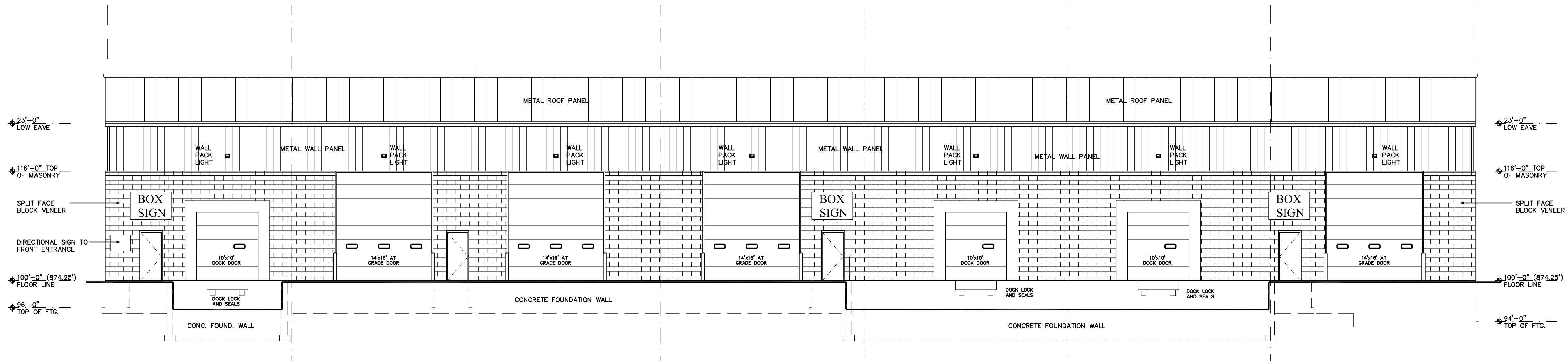




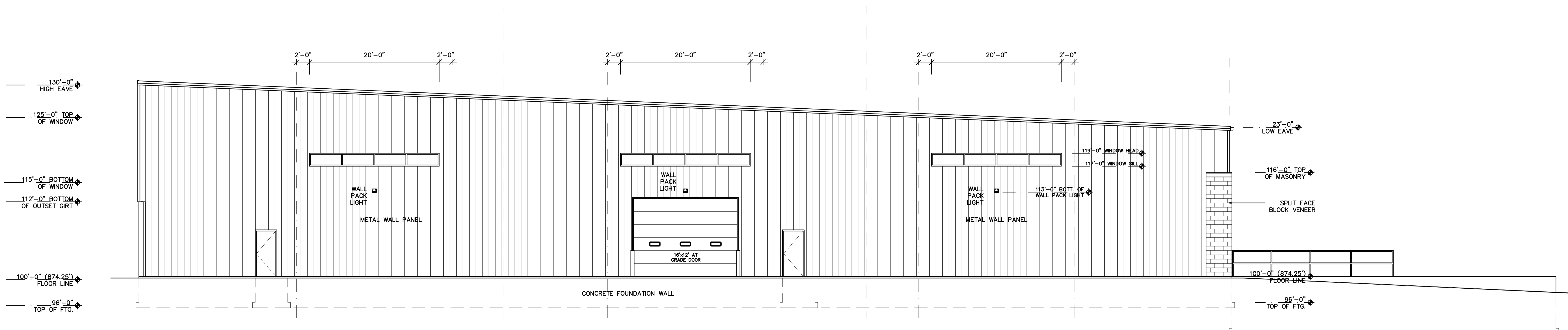
SOUTH ELEVATION
 SCALE: 1/8"=1'-0"



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



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



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



Proposed Building For:

Master Spas Waukesha Warehouse Building

 Waukesha, Wisconsin

DATE: 03/06/24

 ARCH: K. SPERL

 D. BY: J. MILLER

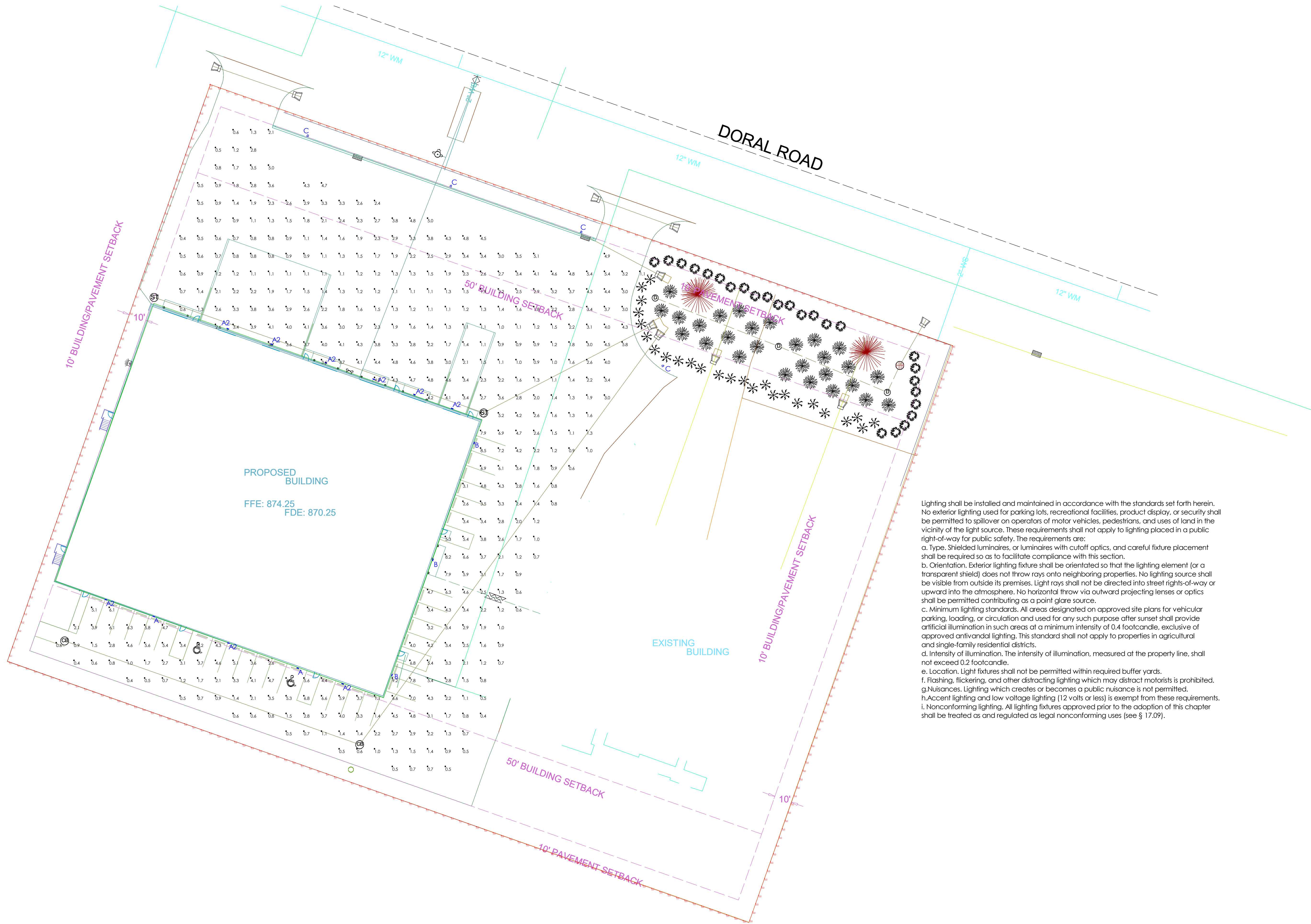
 JOB: 22-025

 REV.

Scale: 1 inch= 26 Ft.

Symbol	Qty	Label	Description	Luminaire Watts	Total Watts
	2	A	LED FULL CUTOFF WALL PACK	47	94
	9	A2	LED FULL CUTOFF WALL PACK	47	423
	3	B	LED FULL CUTOFF WALL PACK	122	366
	4	C	LED AREA LIGHT ON 20' SSS POLE	196	784

Calculation Summary					
Label	Units	Avg	Max/Min	Min	Max
LOT CALCS	Fc	2.6	23.0	0.4	9.2
PROPERTY LINE	Fc	0.1	N.A.	0.0	0.2



Lighting shall be installed and maintained in accordance with the standards set forth herein. No exterior lighting used for parking lots, recreational facilities, product display, or security shall be permitted to spillover on operators of motor vehicles, pedestrians, and uses of land in the vicinity of the light source. These requirements shall not apply to lighting placed in a public right-of-way for public safety. The requirements are:

- a. Type. Shielded luminaires, or luminaires with cutoff optics, and careful fixture placement shall be required so as to facilitate compliance with this section.
- b. Orientation. Exterior lighting fixture shall be orientated so that the lighting element (or a transparent shield) does not throw rays onto neighboring properties. No lighting source shall be visible from outside its premises. Light rays shall not be directed into street rights-of-way or upward into the atmosphere. No horizontal throw via outward projecting lenses or optics shall be permitted contributing as a point glare source.
- c. Minimum lighting standards. All areas designated on approved site plans for vehicular parking, loading, or circulation and used for any such purpose after sunset shall provide artificial illumination in such areas at a minimum intensity of 0.4 footcandle, exclusive of approved anti-vandal lighting. This standard shall not apply to properties in agricultural and single-family residential districts.
- d. Intensity of illumination. The intensity of illumination, measured at the property line, shall not exceed 0.2 footcandle.
- e. Location. Light fixtures shall not be permitted within required buffer yards.
- f. Flashing, flickering, and other distracting lighting which may distract motorists is prohibited.
- g. Nuisances. Lighting which creates or becomes a public nuisance is not permitted.
- h. Accent lighting and low voltage lighting (12 volts or less) is exempt from these requirements.
- i. Nonconforming lighting. All lighting fixtures approved prior to the adoption of this chapter shall be treated as and regulated as legal nonconforming uses (see § 17.09).

These plans, schedules, calculations, and lighting concepts are the property of Lighting Design Solutions (LDS) and are not to be shared, reproduced, viewed, or used in any manner without the explicit written permission of LDS. All luminaires and accessories purchased for this project are to be supplied by LDS unless other arrangements that include additional reimbursement for design costs are codified in a pre-approved written agreement with LDS.

These plans are not approved for construction unless specifically noted. They have not been reviewed or approved by any local or state agency, nor has the building owner confirmed final acceptance of the design or materials. Once approved, the final weeks after release unless specifically noted as "in-stock" or "quick ship" on the LDS Project Quotation.

Lighting performance and energy calculations are based on photometric data provided by the specified manufacturers, expected site finishes, anticipated energy costs, current rebate programs, and the projected operational use of the facility. Lighting Design Solutions, Inc. accepts no responsibility for variances resulting from inaccurate or changed data files, drawings, reflectance values, or rebate programs, and guarantees no alternate funding or rebate payment.



PROJECT INFORMATION:		DRAWN BY: A. THOMER		REVIEWED BY: A. THOMER		DATE
NEW CONSTRUCTION WAREHOUSE BUILDING TOWN OF BROOKFIELD, WI		CONTRACTOR: MEYERS ELECTRIC		APPROVED BY:		
		Lighting Design Solutions, Inc. Milwaukee Office: 955A Walnut Ridge Drive Harland, WI 53029 Design@LightingDesignSolutions.com www.LightingDesignSolutions.com		Schofield Office: PO Box 375 Schofield, WI 54476 Office: 888.357.7070 Fax: 715.693.2594		
						DATE: 05/07/2024

To request the Project Quotation for these materials or to place the order, please contact:
Sales@LightingDesignSolutions.com or call us at 1-888-357-7070



Mirada Medium Wall Sconce (XWM)

Outdoor Wall Sconce



OVERVIEW

Lumen Package	3,000 - 21,000
Wattage Range	23 - 175
Efficacy Range (LPW)	125 - 158
Weight lbs(kg)	27 (12.2)
Control Options	IMSBT, ALB, ALS, PCI

QUICK LINKS

[Ordering Guide](#)
[Performance](#)
[Photometrics](#)
[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Hinged die-cast aluminum wiring access door located underneath.
- Galvanized-steel universal wall mount bracket comes standard with hinging mechanism to easily access the junction box wire connections without removing the luminaire.
- Optional pole-mounting bracket (XPKA) permits mounting to standard poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Max shipping weight: 30lbs in carton

Optical System

- State-of-the-Art one piece silicone optic provides industry leading optical control while also acting as an integrated gasket reducing system complexity and improving fixture reliability.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in Types 2, 3, 4, and FT distributions.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93-95%.
- Zero uplight.
- Available in 5000K, 4000K and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.

- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours
- Total harmonic distortion (THD): <20%
- 3L to 12L operating temperature: -40°C to +50°C (-40°F to +122°F)
- 15L operating temperature: -40°C to +45°C (-40°F to +113°F).
- 18L operating temperature: -40°C to +40°C (-40°F to +104°F).
- 21L operating temperature: -40°C to +35°C (-40°F to + 95°F).
- Power factor (PF): >.90
- Input power stays constant over life.
- Optional 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed via hinged door.
- Optional integral emergency battery pack provides 90-minutes of constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance. The fixture delivers 1500 lumens during emergency mode.

Controls

- Integral passive infrared Bluetooth™ motion sensor options. Fixtures operate independently and can be commissioned via an iOS or Android configuration app. Updates and modifications to the control strategy are easily implemented via an intuitive app.

- LSI's AirLink™ Blue lighting control system is a simple feature rich wireless Bluetooth mesh network. The integrated fixture sensor module provides wireless control of grouped fixtures based on motion sensors, daylight or a fully customizable schedule.

Installation

- Universal wall mounting plate easily mounts directly to 4" octagonal or square junction box.
- 2 fasteners secure the hinged door underneath the housing and provide quick & easy access to the electrical compartment for installing/servicing.
- Optional terminal block accepts up to 12 ga wire.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.
- 1 Year warranty on Battery Back-up option.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K or lower color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP65 rated luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications when pole mounted (using optional XPKA bracket) or wall mounted.
- IK08 rated luminaire per IEC 66262 mechanical impact code
- DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type : _____

 **Have questions?** Call us at (800) 436-7800

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: XWM 2 LED 03L 30 UE BRZ ALSC				
Family	Distribution	Light Source	Lumen Package	Color Temperature
XWM - Mirada Medium Wall Sconce	2 - Type 2 3 - Type 3 4 - Type 4 FT - Type 4 Forward Throw	LED	3L - 3,000 4L - 4,000 6L - 6,000 8L - 8,000 12L - 12,000 15L - 15,000 18L - 18,000 21L - 21,000 Custom Lumen Packages ¹	30 - 3000K 40 - 4000K 50 - 5000K AMB - Phosphor Converted Amber ²
Voltage	Finish	Controls		Options
UE - Universal Voltage (120-277V) HV - High Voltage (347-480V)	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	Blank - None Wireless Controls ALSC - AirLink Synapse Control System ALSCS01 - AirLink Synapse Control System with 8-12' Motion Sensor ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' MH) ³ ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' MH) ³ Standalone Controls DIM - 0-10v Dimming leads extended to housing exterior IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH) ^{3,4} IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH) ^{3,4} Button Type Photocells PCI120 - 120V PCI208-277 - 208 -277V PCI347 - 347V		Blank - None BB - Battery Back-up (0°C) ⁵ CWBB - Cold Weather Battery Backup (-20°C) ⁵ XPMA - Pole Mounting Bracket SP1 - 10kV Surge Protection TB - Terminal Block



Need more information?
Click here for our glossary

Have additional questions?
Call us at (800) 436-7800



FUSING ACCESSORY ORDERING INFORMATION⁶

Part Number	Description
FK120 ⁷	FK120 - Single Fusing
FK277 ⁷	FK277 - Single Fusing
FK347 ⁷	FK347 - Single Fusing
DFK208 ⁷	DFK - Double Fusing
DFK240 ⁷	DFK - Double Fusing (240V)
DFK480 ⁷	DFK - Double Fusing (480V)

MOUNTING ACCESSORY ORDERING INFORMATION⁶

Part Number ⁸	Description
809374CLR	XWM Wet Location Surface Conduit/Wiring Box
751632	10' Linear Bird Spike Kit (2' Recommended per Luminaire)

¹ Custom lumen and wattage packages available consult factory. Values are within industry standard tolerances but not DLC listed.
² Only available in 6L Lumen Package. Consult factory for lead time and availability.
³ IMSBT and ALBCS control options are not available in 3L or 4L lumen packages when high voltage (HV) is specified.
⁴ IMSBTxL is field configurable via the Leviton app that can be downloaded from your smartphone's app store.

⁵ Not available in HV.
⁶ Accessories are shipped separately and field installed.
⁷ Fusing must be located in a hand hole for pole or in the junction box.
⁸ "CLR" to be replaced by paint finish selection. See Finish options for paint color selections.

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type : _____

 Have questions? Call us at (800) 436-7800

PERFORMANCE

[Back to Quick Links](#)

Delivered Lumens ¹												
Lumen Package	Distribution	CRI	3000K			4000K			5000K			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
3L	2	70	3,178	138	B1-U0-G1	3,368	146	B1-U0-G1	9,853	159	B1-U0-G1	23
	3		3,224	140	B1-U0-G1	3,416	148	B1-U0-G1	3,361	145	B1-U0-G1	
	4		3,210	140	B1-U0-G2	3,364	146	B1-U0-G2	3,294	143	B1-U0-G2	
	FT		3,160	137	B1-U0-G1	3,349	145	B1-U0-G1	3,294	143	B1-U0-G1	
4L	2	70	4,230	139	B1-U0-G1	4,483	147	B1-U0-G1	4,410	145	B1-U0-G1	30
	3		4,291	141	B1-U0-G1	4,547	150	B1-U0-G1	4,473	147	B1-U0-G1	
	4		4,234	141	B1-U0-G2	4,437	148	B1-U0-G2	4,344	145	B1-U0-G2	
	FT		4,206	138	B1-U0-G1	4,458	147	B1-U0-G1	4,385	144	B1-U0-G1	
6L	2	70	6,326	134	B2-U0-G1	6,704	142	B2-U0-G2	6,595	140	B2-U0-G2	47
	3		6,417	136	B1-U0-G2	6,800	144	B2-U0-G2	6,689	142	B2-U0-G2	
	4		6,336	135	B1-U0-G3	6,640	141	B1-U0-G3	6,500	138	B1-U0-G3	
	FT		6,290	134	B2-U0-G2	6,666	142	B2-U0-G2	6,557	139	B2-U0-G2	
8L	2	70	8,166	128	B2-U0-G2	8,654	135	B2-U0-G2	8,513	133	B2-U0-G2	64
	3		8,283	129	B2-U0-G2	8,778	137	B2-U0-G2	8,635	134	B2-U0-G2	
	4		8,362	131	B1-U0-G3	8,763	137	B2-U0-G3	8,579	134	B1-U0-G3	
	FT		8,120	126	B2-U0-G2	8,605	134	B2-U0-G2	8,465	132	B2-U0-G2	
12L	2	70	11,492	149	B2-U0-G2	12,033	156	B3-U0-G2	11,927	155	B3-U0-G2	77
	3		11,757	153	B2-U0-G2	12,311	160	B2-U0-G2	12,203	158	B2-U0-G2	
	4		11,486	149	B2-U0-G3	12,058	157	B2-U0-G3	11,716	152	B2-U0-G3	
	FT		11,721	152	B2-U0-G2	12,274	159	B2-U0-G3	12,166	158	B2-U0-G3	
15L	2	70	14,221	145	B3-U0-G2	14,891	152	B3-U0-G2	14,760	151	B3-U0-G2	98
	3		14,549	148	B2-U0-G2	15,235	155	B2-U0-G2	15,101	154	B2-U0-G2	
	4		14,099	144	B2-U0-G3	14,801	151	B2-U0-G3	14,382	147	B2-U0-G3	
	FT		14,505	148	B2-U0-G3	15,189	155	B2-U0-G3	15,055	154	B2-U0-G3	
18L	2	70	16,894	138	B3-U0-G3	17,690	145	B3-U0-G3	17,534	144	B3-U0-G3	122
	3		17,285	142	B3-U0-G3	18,099	148	B3-U0-G3	17,940	147	B3-U0-G3	
	4		16,951	139	B2-U0-G3	17,795	146	B3-U0-G3	17,291	142	B3-U0-G3	
	FT		17,231	141	B3-U0-G3	18,044	148	B3-U0-G3	17,885	147	B3-U0-G3	
21L	2	70	19,961	133	B3-U0-G3	20,902	139	B3-U0-G3	20,718	138	B3-U0-G3	150
	3		20,422	136	B3-U0-G3	21,385	143	B3-U0-G3	21,197	141	B3-U0-G3	
	4		19,768	132	B3-U0-G4	20,753	138	B3-U0-G5	20,165	134	B3-U0-G4	
	FT		20,360	136	B3-U0-G3	21,320	142	B3-U0-G3	21,132	141	B3-U0-G3	

Electrical Data (Amps) - 3000K/4000K/5000K ²						
Lumen Package	120V	208V	240V	277V	347V	480V
3L	0.19	0.11	0.10	0.08	0.07	0.05
4L	0.25	0.14	0.13	0.11	0.09	0.06
6L	0.39	0.23	0.20	0.17	0.14	0.10
9L	0.53	0.31	0.27	0.23	0.18	0.13
12L	0.64	0.37	0.32	0.28	0.22	0.16
15L	0.82	0.47	0.41	0.35	0.28	0.20
18L	1.02	0.59	0.51	0.44	0.35	0.25
21L	1.25	0.72	0.63	0.54	0.43	0.31

Delivered Lumens (Phosphor Converted Amber)					
Lumen Package	Distribution	Amber			Wattage
		Delivered Lumens	Efficacy	BUG Rating	
6L	2	3,325	76	B1-U0-G1	44
	3	3,385	78	B1-U0-G1	
	4	3,310	75	B1-U0-G1	
	FT	3,343	77	B1-U0-G1	

Recommended Lumen Maintenance - XWM ³					
Ambient Temperature C°	Initial ⁴	25K hrs. ⁴	50K hrs. ⁴	75K hrs. ⁵	100K hrs. ⁵
35	99%	97%	95%	93%	91%
50	100%	98%	95%	93%	90%

¹ LEDs are frequently updated therefore values are nominal

² Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

³ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.

⁴ In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

⁵ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type : _____

 Have questions? Call us at (800) 436-7800

PHOTOMETRICS

[Back to Quick Links](#)

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

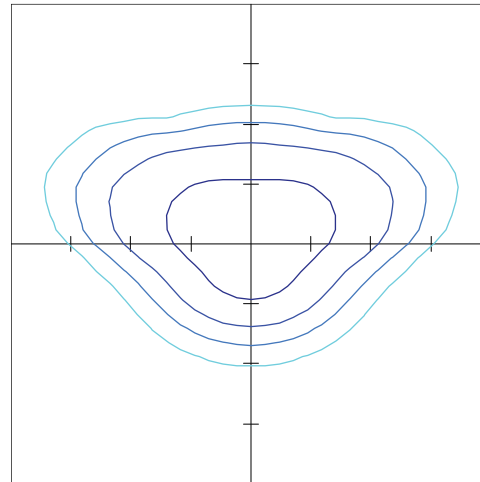
See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

XWM-2-LED-12L-40

Luminaire Data	
Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,033
Watts	77
Efficacy	156
IES Type	Type II - Short
BUG Rating	B3-U0-G2

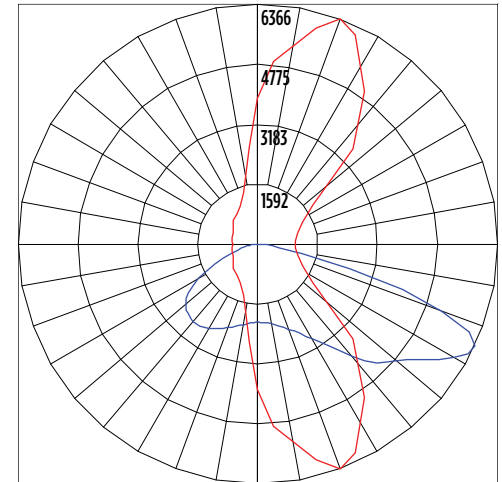
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,961	16%
Medium (30-60°)	6,874	57%
High (60-80°)	3,014	25%
Very High (80-90°)	184	2%
Uplight (90-180°)	0	0%
Total Flux	12,033	100%

ISO Footcandle



15' Mounting Height / 15' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



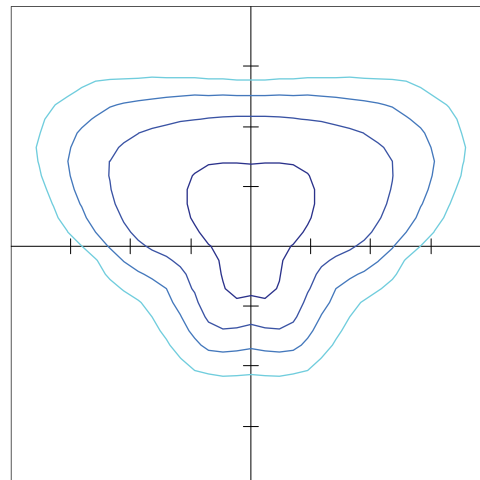
Vertical Plane Horizontal Cone

XWM-3-LED-12L-40

Luminaire Data	
Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,311
Watts	77
Efficacy	160
IES Type	Type III - Short
BUG Rating	B2-U0-G2

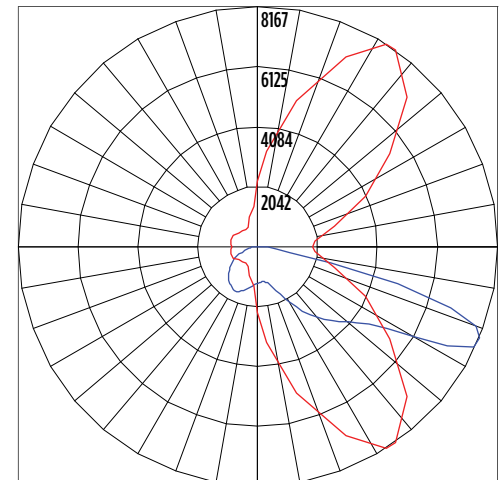
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,340	11%
Medium (30-60°)	6,164	50%
High (60-80°)	4,549	37%
Very High (80-90°)	258	2%
Uplight (90-180°)	0	0%
Total Flux	12,311	100%

ISO Footcandle



15' Mounting Height / 15' Grid Spacing
 10 FC 5 FC 2 FC 1 FC

Polar Curve



Vertical Plane Horizontal Cone

Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type : _____

 Have questions? Call us at (800) 436-7800

PHOTOMETRICS

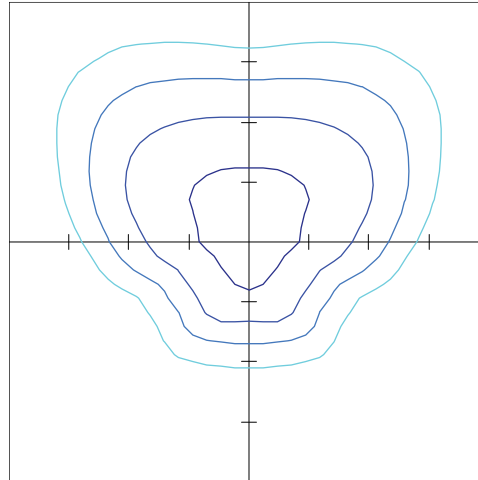
[Back to Quick Links](#)

XWM-FT-LED-12L-40

Luminaire Data	
Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,274
Watts	77
Efficacy	159
IES Type	Type IV - Short
BUG Rating	B2-U0-G3

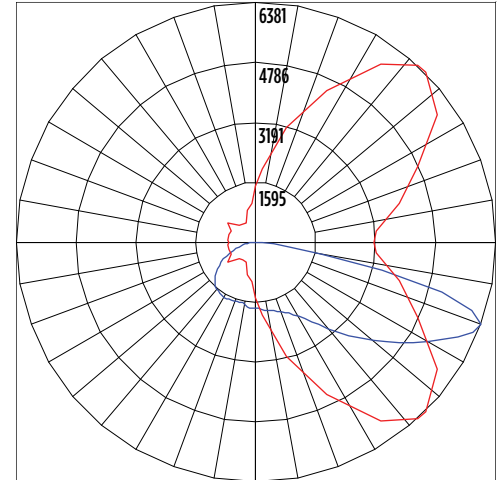
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,578	13%
Medium (30-60°)	5,798	47%
High (60-80°)	4,576	37%
Very High (80-90°)	322	3%
Uplight (90-180°)	0	0%
Total Flux	12,274	100%

ISO Footcandle



15' Mounting Height / 15' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



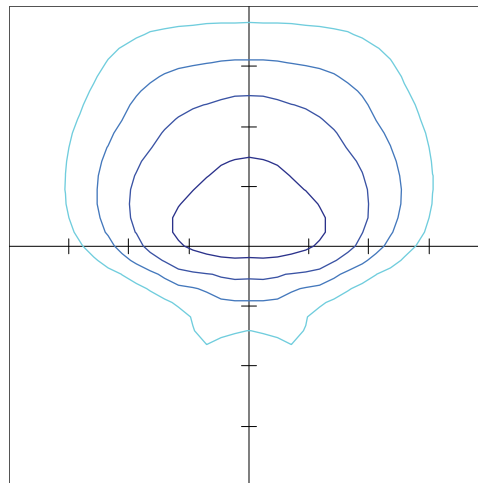
Vertical Plane Horizontal Cone

XWM-4-LED-12L-40

Luminaire Data	
Type 4 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	12,058
Watts	77
Efficacy	157
IES Type	Type IV - Very Short
BUG Rating	B2-U0-G3

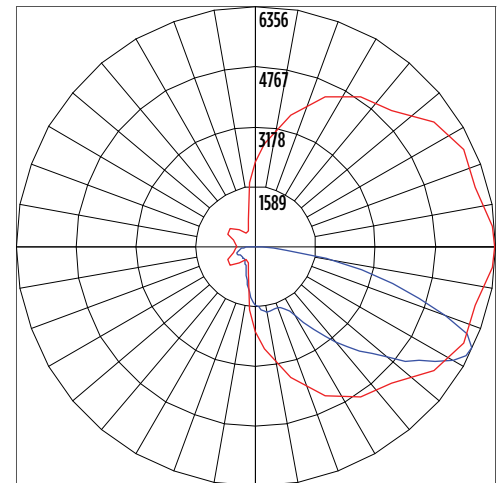
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	1,345	11%
Medium (30-60°)	5,394	45%
High (60-80°)	4,855	40%
Very High (80-90°)	464	4%
Uplight (90-180°)	0	0%
Total Flux	12,058	100%

ISO Footcandle



15' Mounting Height / 15' Grid Spacing
 5 FC 2 FC 1 FC 0.5 FC

Polar Curve



Vertical Plane Horizontal Cone

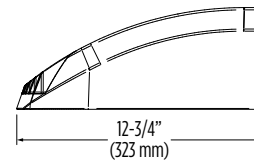
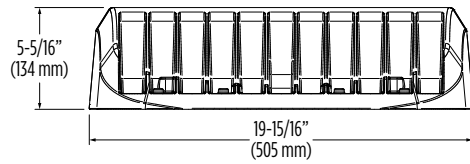
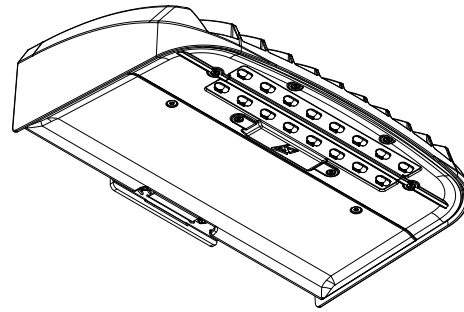
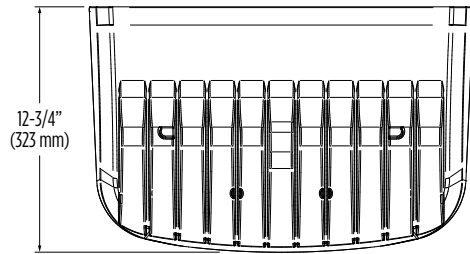
Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type : _____

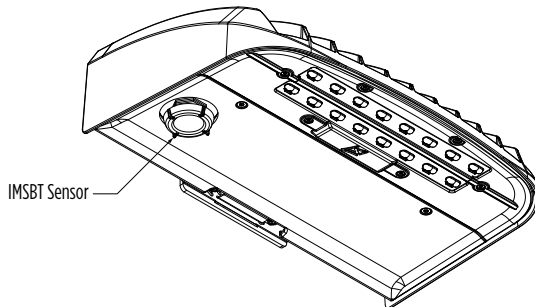
 **Have questions?** Call us at (800) 436-7800

PRODUCT DIMENSIONS

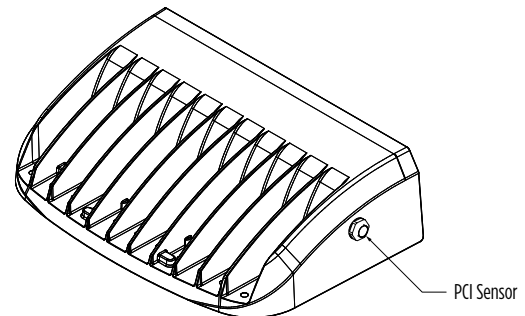
[Back to Quick Links](#)



**Mirada Medium Wall Sconce with
Integral Bluetooth™ Motion and Photocell Sensor**
(XWM IMSBTxL)

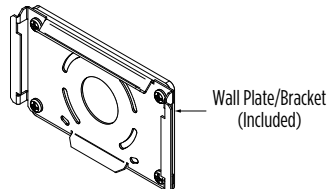
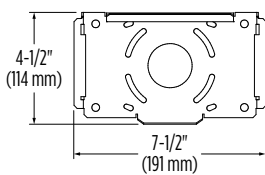


**Mirada Medium Wall Sconce with
Button Type Photocell**
(XWM PCI)

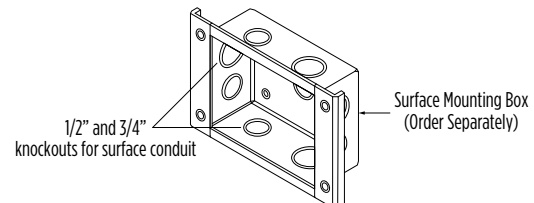


Mounting Options

Mounting Over Junction Box
(Standard/Included)



XWM Wet Location Surface Conduit/Wiring Box
(809374CLR)



Mirada Medium Wall Sconce (XWM) Outdoor Wall Sconce

Type : _____

 **Have questions?** Call us at (800) 436-7800

CONTROLS

[Back to Quick Links](#)

Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

[Click here to learn more details about IMSBT](#)



LEVITON App



Apple



Android

AirLink Wireless Lighting Controller (ALSC, ALSCS)

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

[Click here to learn more details about AirLink](#)

AirLink Blue (ALBCSx)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/ Site, Wall Mounted, Parking Garage and Canopy luminaires.

[Click here to learn more details about AirLink Blue](#)



AirLink Blue App



Apple

Sensor Sequence of Operations

Standard Programming	On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay To Off	Sensitivity
IMSBTxL	Motion	No Motion	100%	N/A	On; Auto Calibration	20 minutes	High

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.



Catalog #: _____

Project: _____

Prepared By: _____

Date: _____

Mirada Small Area (MRS)

Outdoor LED Area Light



OVERVIEW	
Lumen Package	6,000 - 30,000
Wattage Range	39 - 209
Efficacy Range (LPW)	112 - 163
Weight lbs(kg)	20 (9.1)
Control Options	IMSBT, ALB, ALS, 7-Pin, PCI

QUICK LINKS

[Ordering Guide](#)
[Performance](#)
[Photometrics](#)
[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 27 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated seal.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in distribution types 2, 3, 4, 5W, FT, and LC/RC.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93-95%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377
- Minimum CRI of 70.
- Integral louver (IL) and integral half louver (IH) options available for enhanced backlight control.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.

- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 VAC) Input 50/60 Hz or optional High Voltage (347-480 VAC).
- L70 Calculated Life: >60k Hours
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 30L lumen packages rated to +40°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Driver is fully encased in potting material for moisture resistance and complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app.
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7.

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door,

- underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional B3 drill pattern.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- RoHS compliant
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598-1.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- IK08 rated luminaire per IEC 66262 mechanical impact code
- 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.

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: MRS LED 18L SIL FT UNV DIM 40 70CRI ALBCS1 BLK IH

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation ²	Voltage	Driver
MRS - Mirada Small Area Light	LED	6L - 6,000 lms, 39W 9L - 9,000 lms, 63W 12L - 12,000 lms, 86W 15L - 15,000 lms, 111W 18L - 18,000 lms, 135W 21L - 21,000 lms, 165W 24L - 24,000 lms, 196W 30L - 30,000 lms, 209W ⁶ Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 4 - Type 4 5W - Type 5 Wide FT - Forward Throw LC - Left Corner RC - Right Corner	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)

Color Temp	Color Rendering	Controls (Choose One)	Finish	Options
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT	70CRI - 70 CRI	(Blank) - None Wireless Controls System ALSC - AirLink Synapse Control System ALSCS2 - AirLink Synapse Control System with 12-20' MH Motion Sensor ALSCS4 - AirLink Synapse Control System with 20-40' MH Motion Sensor ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' MH) ⁴ ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' MH) ⁴ Stand-Alone Controls EXT - 0-10V Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41 ³ IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH) ⁴ IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH) ⁴	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	(Blank) - None IH - Integral Half Louver (Moderate Spill Light Cutoff) ² IL - Integral Louver (Sharp Spill Light Cutoff) ²


Need more information?
[Click here for our glossary](#)
Have additional questions?

Call us at (800) 436-7800



Accessory Ordering Information⁵

CONTROLS ACCESSORIES	
Description	Order Number
Twist Lock Photocell (120V) for use with CR7P	122514
Twist Lock Photocell (208-277) for use with CR7P	122515
Twist Lock Photocell (347V) for use with CR7P	122516
Twist Lock Photocell (480V) for use with CR7P	1225180
AirLink 5 Pin Twist Lock Controller	661409
AirLink 7 Pin Twist Lock Controller	661410
Shorting Cap for use with CR7P	149328

FUSING OPTIONS ⁷	
Description	Order Number
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

SHIELDING OPTIONS	
Description	Order Number
Mirada Small	See Shielding Guide
Mirada Medium	
Mirada Large	
Zone Medium	
Zone Large	
Slice Medium	

- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- Not available on "Type 5W" distribution.
- Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
- Motion sensors are field configurable via the LSI app that can be downloaded from your smartphone's native app store.
- Accessories are shipped separately and field installed.
- "CLR" denotes finish. See Finish options.
- Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.
- ALSC, ALB, and IMSBT not available with 30L HV.

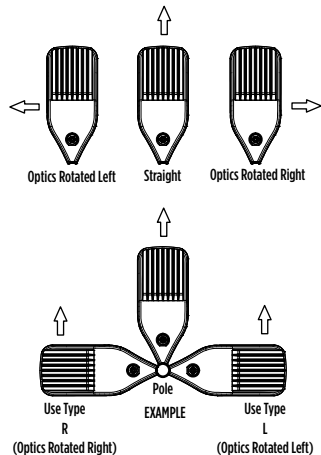
ACCESSORIES

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MOUNTING ACCESSORIES		SHIELDING, POLES & MISC. ACCESSORIES		
Side Arm	Universal Mounting Bracket Mounts to $\geq 3"$ square or round (tapered/straight) poles with (2) mounting hole spaces between 3.5" to 5" Part Number: BKA UMB CLR		Shielding Integral Louver Field Install Integral Louver provides maximum backlight control by shielding each individual row of LEDs Part Number: 763445 Integral Half Louver Field Install Integral Half Louver provides great backlight control without impacting front side distribution. Part Number: 763446 External Shield External shield blocks view of light source from any side of luminaire, additional shielding configurations available Part Number: 783607BLK (3") / 776538BLK (6")	
	Quick Mount Plate True one person installation to existing/new construction poles with hole spaces between 2.4 to 4.6" Part Number: BKS PQM B3B5 XX CLR			
	15° Tilt Quick Mount Plate True one person installation to existing/new construction poles with hole spaces between 2.4 to 4.6" Part Number: BKS PQ15 B3B5 XX CLR			
Tenon / Slipfitter	Adjustable Slipfitter Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and provides 180° of tilt (max 45° above horizontal) Part Number: BKA ASF CLR		Poles Square Poles 14 - 39' steel and aluminum poles in 4", 5" and 6" sizes for retrofit and new construction Part Number: 4SQ/5SQ/6SQ Round Poles 10 - 30' steel and aluminum poles in 4" and 5" sizes for retrofit and new construction Part Number: 4RP/SRP Tapered Poles 20' - 39' steel and aluminum poles for retrofit and new construction Part Number: RTP	
	Square Tenon Top Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and allows for mounting up to 4 luminaires Part Number: BKA XNM *			
	Square Internal Slipfitter Mounts inside 4" or 5" square pole and allows for mounting up to 4 luminaires Part Number: BKA X_ISF * CLR			
Wall Mount/ Wood Pole	Wall Mount Bracket Mounts onto vertical wall surface (hardware/anchors not included) Part Number: BKS XBO WM CLR		Misc. Bird Spikes 10' linear bird spike (X' recommended per luminaire), silicone adhesive (covers approximately 25' linear feet of bird spike) and application tool. Spike Part Number: 751631 Adhesive Part Number: 751632 Caulk Gun Part Number: 751636	
	Wood Pole Bracket Mounts onto wooden poles (6" minimum OD, hardware/anchors not included) Part Number: BKS XBO WP CLR			Replace CLR with paint finish description Replace X with: Z Replace XX with SQ for square pole or RD for round pole ($\geq 3"$ OD) Replace * with S (Single), D180 (Double @180°), D90 (Double @90°), T90 (Triple), Q90 (Quad) Replace _ with 4 (4" square pole) or 5 (5" square pole)

OPTICS ROTATION

Top View



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Integral Louver (IL) and half louver (IH) accessory shields available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (IL) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with Integral Louver (IL)



Luminaire Shown with IMSBT Option



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).



Mirada Small Area Light (MRS)

Type: _____

 Have questions? Call us at (800) 436-7800

PERFORMANCE

[Back to Quick Links](#)

DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
6L	2	70	5918	149	B2-U0-G1	6136	155	B2-U0-G1	6122	155	B2-U0-G1	39
	3		6016	152	B1-U0-G2	6238	158	B1-U0-G2	6224	157	B1-U0-G2	
	4		5967	153	B1-U0-G2	6333	162	B1-U0-G3	6136	157	B1-U0-G2	
	5W		5690	144	B3-U0-G1	5899	149	B3-U0-G1	5886	1479	B3-U0-G1	
	FT		5822	147	B1-U0-G1	6037	152	B1-U0-G1	6023	152	B1-U0-G1	
	LC		6003	154	B1-U0-G2	6371	163	B1-U0-G2	6173	158	B1-U0-G2	
	RC		5964	153	B1-U0-G2	6329	162	B1-U0-G2	6132	157	B1-U0-G2	
9L	2	70	9091	145	B2-U0-G2	9484	152	B2-U0-G2	9462	151	B2-U0-G2	63
	3		9241	148	B2-U0-G2	9641	154	B2-U0-G2	9619	154	B2-U0-G2	
	4		9214	146	B2-U0-G3	9778	155	B2-U0-G3	9474	150	B2-U0-G3	
	5W		8740	140	B3-U0-G2	9118	146	B3-U0-G2	9097	144	B3-U0-G2	
	FT		8943	143	B2-U0-G2	9330	149	B2-U0-G2	9308	149	B2-U0-G2	
	LC		9269	147	B2-U0-G3	9837	156	B2-U0-G3	9531	151	B2-U0-G3	
	RC		9208	146	B2-U0-G2	9772	155	B2-U0-G3	9468	150	B2-U0-G3	
12L	2	70	12132	141	B3-U0-G2	12685	148	B3-U0-G2	12514	146	B3-U0-G2	86
	3		12333	143	B2-U0-G2	12894	150	B2-U0-G2	12721	148	B2-U0-G2	
	4		12277	143	B2-U0-G3	13029	152	B2-U0-G3	12623	147	B2-U0-G3	
	5W		11664	136	B4-U0-G2	12195	142	B4-U0-G2	12031	140	B4-U0-G2	
	FT		11935	139	B2-U0-G2	12479	145	B2-U0-G2	12311	143	B2-U0-G2	
	LC		12351	144	B2-U0-G3	13108	152	B2-U0-G3	12700	148	B2-U0-G3	
	RC		12271	143	B2-U0-G3	13022	151	B2-U0-G3	12617	147	B2-U0-G3	
15L	2	70	14220	128	B3-U0-G2	15167	137	B3-U0-G2	14488	131	B3-U0-G2	111
	3		14938	135	B2-U0-G2	15933	144	B2-U0-G2	15219	137	B2-U0-G2	
	4		14792	133	B2-U0-G4	15698	141	B2-U0-G4	15209	137	B2-U0-G4	
	5W		14304	129	B4-U0-G2	15257	137	B4-U0-G2	14574	131	B4-U0-G2	
	FT		14342	129	B2-U0-G2	15297	138	B2-U0-G2	14612	132	B2-U0-G2	
	LC		14881	134	B2-U0-G3	15793	142	B2-U0-G3	15301	138	B2-U0-G3	
	RC		14784	133	B2-U0-G3	15689	141	B2-U0-G3	15201	137	B2-U0-G3	
18L	2	70	16438	122	B3-U0-G2	17532	130	B3-U0-G3	16747	124	B3-U0-G2	135
	3		17267	128	B3-U0-G3	18417	137	B3-U0-G3	17592	131	B3-U0-G3	
	4		17101	127	B3-U-G4	18149	134	B3-U-G4	17584	130	B3-U-G4	
	5W		16535	123	B4-U0-G2	17636	133	B5-U0-G2	16846	125	B4-U0-G2	
	FT		16578	123	B3-U0-G2	17682	131	B3-U0-G2	16890	125	B3-U0-G2	
	LC		17204	127	B3-U0-G3	18258	135	B3-U0-G3	17689	131	B3-U0-G3	
	RC		17091	127	B2-U0-G3	18138	134	B2-U0-G3	17574	130	B2-U0-G3	
21L	2	70	19488	118	B3-U0-G3	20786	126	B3-U0-G3	19885	120	B3-U0-G3	165
	3		20472	124	B3-U0-G3	21835	132	B3-U0-G3	20857	126	B3-U0-G3	
	4		20279	123	B3-U0-G4	21521	130	B3-U0-G5	20851	126	B3-U0-G5	
	5W		19604	119	B5-U0-G3	20909	126	B5-U0-G3	19973	121	B5-U0-G3	
	FT		19655	119	B3-U0-G3	20964	127	B3-U0-G3	20025	121	B3-U0-G3	
	LC		20401	124	B3-U0-G4	21651	131	B3-U0-G4	20977	127	B3-U0-G4	
	RC		20268	123	B3-U0-G3	21509	130	B3-U0-G4	20840	126	B3-U0-G3	

*LEDs are frequently updated therefore values are nominal.

Mirada Small Area Light (MRS)

Type: _____

 Have questions? Call us at (800) 436-7800

PERFORMANCE

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DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
24L	2	70	21976	112	B3-U0-G3	23439	120	B3-U0-G3	22390	114	B3-U0-G3	196
	3		23085	118	B3-U0-G3	24622	126	B3-U0-G3	23519	120	B3-U0-G3	
	4		23190	117	B3-U0-G5	24758	124	B3-U0-G5	23888	120	B3-U0-G5	
	5W		22105	113	B5-U0-G3	23578	120	B5-U0-G3	22522	115	B5-U0-G3	
	FT		22164	113	B3-U0-G3	23640	121	B3-U0-G3	22581	115	B3-U0-G3	
	LC		23330	117	B3-U0-G4	24907	125	B3-U0-G4	24032	121	B3-U0-G4	
	RC		23117	117	B3-U0-G4	24744	124	B3-U0-G4	23874	120	B3-U0-G4	
30L	2	70	30078	144	B4-U0-G3	29485	143	B4-U0-G4	30697	147	B4-U0-G3	209
	3		31711	154	B3-U0-G3	31086	151	B3-U0-G3	32364	157	B3-U0-G3	
	4		30459	148	B4-U0-G5	29858	145	B4-U0-G5	31085	151	B4-U0-G5	
	5W		30588	149	B5-U0-G3	29985	146	B5-U0-G3	31218	152	B5-U0-G3	
	FT		31585	153	B3-U0-G4	30962	150	B3-U0-G4	32235	156	B4-U0-G4	
	LC		32303	155	B3-U0-G5	31666	152	B3-U0-G5	32968	158	B3-U0-G5	
	RC		31943	153	B3-U0-G4	31313	150	B3-U0-G4	32600	156	B3-U0-G5	

*LEDs are frequently updated therefore values are nominal.

ELECTRICAL DATA (AMPS)*						
Lumens	120V	208V	240V	277V	347V	480V
6L	0.34	0.20	0.17	0.15	0.12	0.09
9L	0.52	0.30	0.26	0.23	0.18	0.13
12L	0.72	0.41	0.36	0.31	0.25	0.18
15L	0.93	0.53	0.46	0.40	0.32	0.23
18L	1.12	0.65	0.56	0.49	0.39	0.28
21L	1.38	0.80	0.69	0.60	0.48	0.34
24L	1.63	0.94	0.82	0.71	0.56	0.41
30L	1.74	1.00	0.87	0.75	0.60	0.43

*Electrical data at 25°C (77°F). Actual wattage may differ by +/-10%

RECOMMENDED LUMEN MAINTENANCE ¹					
Ambient Temp	Lumen Multiplier				
	0 hrs. ²	25K hrs. ²	50K hrs. ²	75K hrs. ³	100K hrs. ³
0 C - 25 C	100%	95%	89%	84%	79%
40 C	100%	94%	87%	80%	74%

- Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.
- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).
- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times NA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip).

Mirada Small Area Light (MRS)

Type: _____

 Have questions? Call us at (800) 436-7800

PHOTOMETRICS

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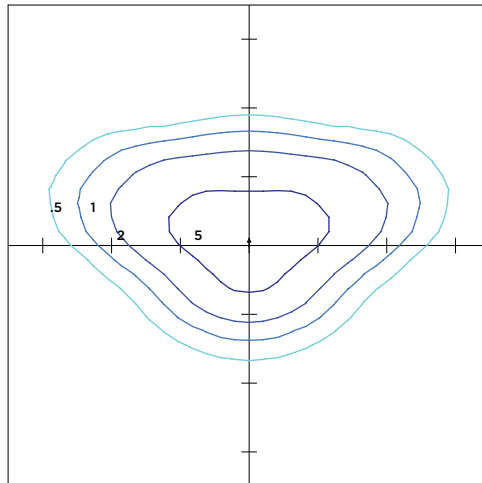
Luminaire photometry has been conducted by an accredited laboratory in accordance with IESNA LM-79. As specified by IESNA LM-79 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

MRS-LED-18L-SIL-2-40-70CRI

Luminaire Data	
Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	17,532
Watts	135
Efficacy	130
IES Type	Type II - Short
BUG Rating	B3-U0-G3

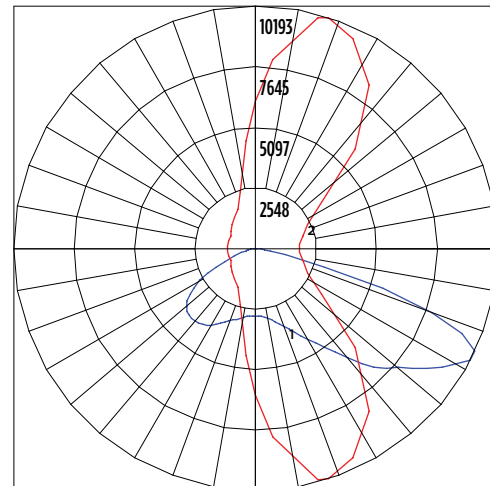
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30)°	2831	16%
Medium (30-60)°	10310	59%
High (60-80)°	4208	24%
Very High (80-90)°	184	1%
Uplight (90-180)°	0	0%
Total Flux	17532	100%

ISO Footcandle



20' Mounting Height / 20' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



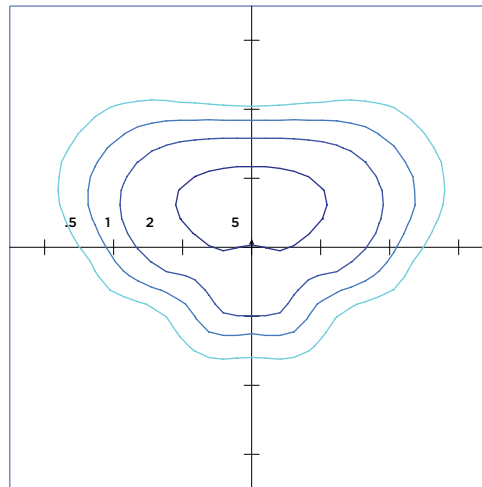
■ Vertical Plane ■ Horizontal Cone

MRS-LED-18L-SIL-3-40-70CRI

Luminaire Data	
Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	18,417
Watts	135
Efficacy	137
IES Type	Type III - Short
BUG Rating	B3-U0-G3

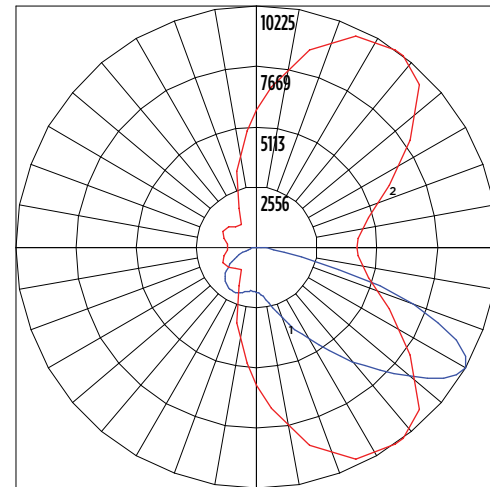
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30)°	2329	13%
Medium (30-60)°	10634	61%
High (60-80)°	5246	30%
Very High (80-90)°	208	1%
Uplight (90-180)°	0	0%
Total Flux	18417	100%

ISO Footcandle



20' Mounting Height / 20' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



■ Vertical Plane ■ Horizontal Cone

Mirada Small Area Light (MRS)

Type: _____

 Have questions? Call us at (800) 436-7800

PHOTOMETRICS (CONT)

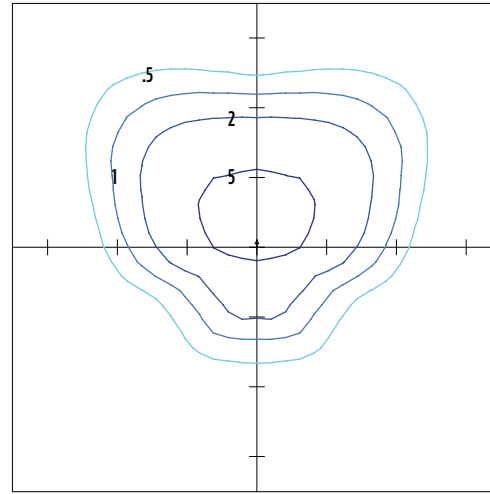
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MRS-LED-18L-SIL-FT-40-70CRI

Luminaire Data	
Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	17,682
Watts	135
Efficacy	131
IES Type	Type III - Short
BUG Rating	B3-U0-G2

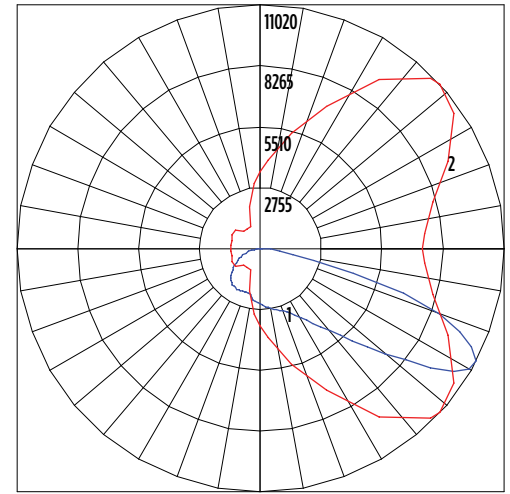
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30)°	2255	13%
Medium (30-60)°	9463	54%
High (60-80)°	5696	32%
Very High (80-90)°	268	2%
Uplight (90-180)°	0	0%
Total Flux	17682	100%

ISO Footcandle



20' Mounting Height / 20' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



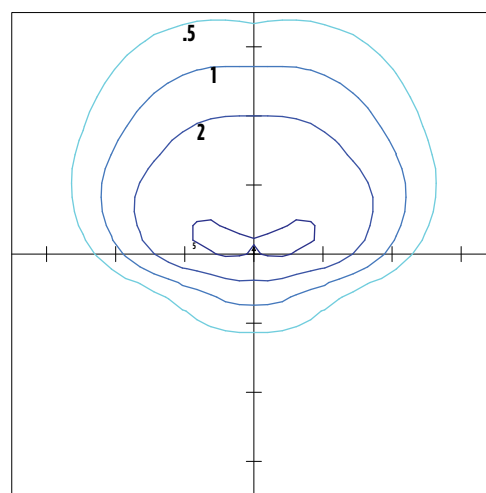
■ Vertical Plane ■ Horizontal Cone

MRS-LED-18L-SIL-4-40-70CRI

Luminaire Data	
Type 4 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	18,149
Watts	135
Efficacy	134
IES Type	Type IV - Very Short
BUG Rating	B3-U0-G4

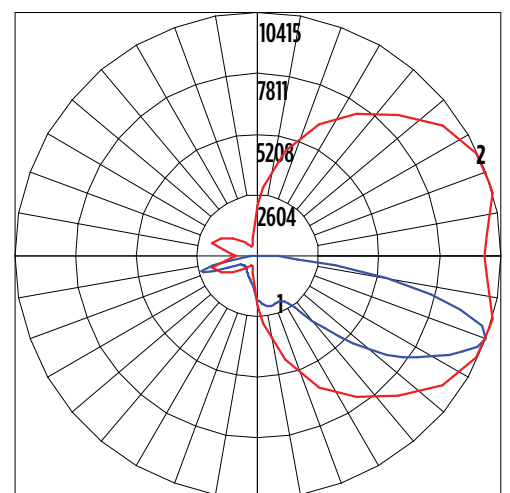
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30)°	1671	9%
Medium (30-60)°	7615	42%
High (60-80)°	8074	44%
Very High (80-90)°	790	4%
Uplight (90-180)°	0	0%
Total Flux	18149	100%

ISO Footcandle



20' Mounting Height / 20' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



■ Vertical Plane ■ Horizontal Cone

Mirada Small Area Light (MRS)

Type: _____

 Have questions? Call us at (800) 436-7800

PHOTOMETRICS (CONT)

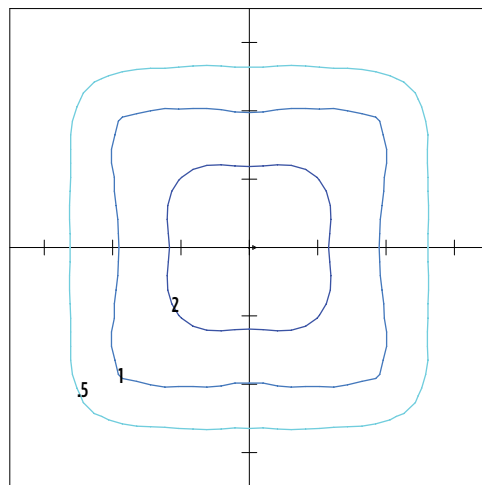
[Back to Quick Links](#)

MRM-LED-30L-SIL-5W-40-70CRI

Luminaire Data	
Type 5W Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	17,636
Watts	135
Efficacy	131
IES Type	Type VS - Short
BUG Rating	B4-U0-G2

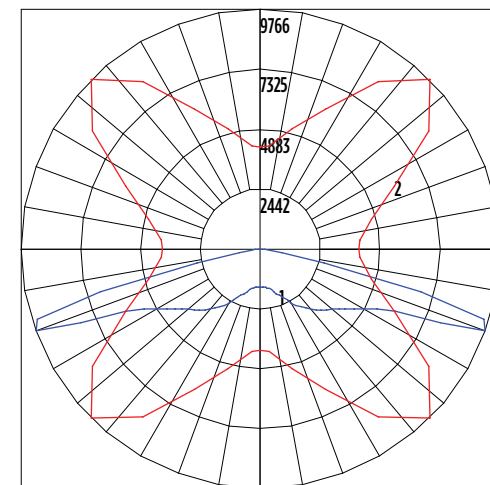
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30)°	1646	9%
Medium (30-60)°	7453	43%
High (60-80)°	8405	48%
Very High (80-90)°	132	1%
Uplight (90-180)°	0	0%
Total Flux	17636	100%

ISO Footcandle



20' Mounting Height / 20' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



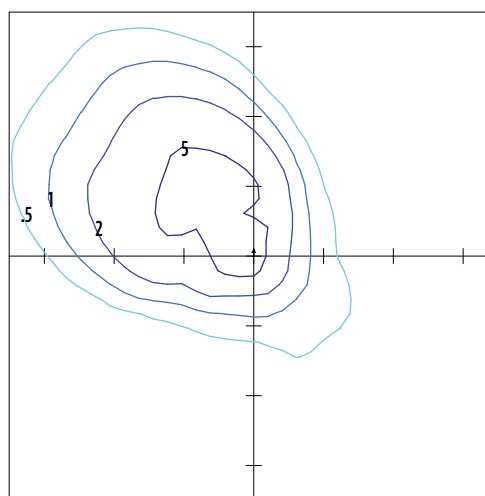
■ Vertical Plane ■ Horizontal Cone

MRS-LED-18L-SIL-LC-40-70CRI

Luminaire Data	
Left Corner Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	18,258
Watts	135
Efficacy	135
IES Type	N/A
BUG Rating	B3-U0-G3

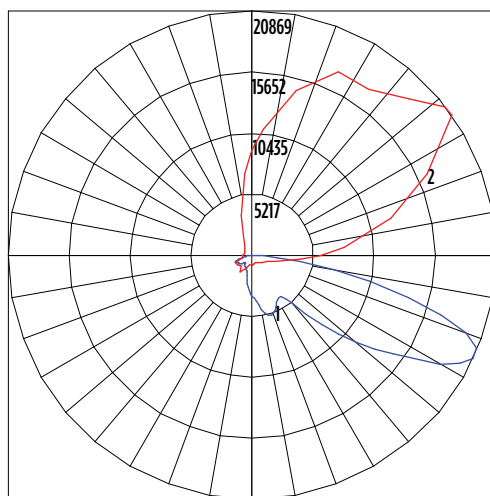
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30)°	2412	13%
Medium (30-60)°	7504	41%
High (60-80)°	7698	42%
Very High (80-90)°	644	4%
Uplight (90-180)°	0	0%
Total Flux	18258	100%

ISO Footcandle



20' Mounting Height / 20' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Polar Curve



■ Vertical Plane ■ Horizontal Cone

Mirada Small Area Light (MRS)

Type: _____

Have questions? Call us at (800) 436-7800

PHOTOMETRICS (CONT)

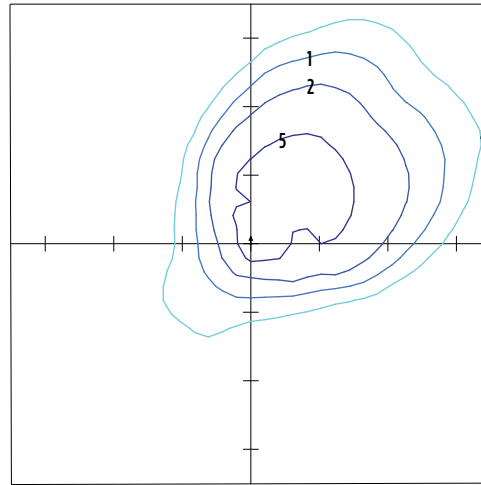
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MRM-LED-30L-SIL-5W-40-70CRI

Luminaire Data	
Right Corner Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	18,138
Watts	135
Efficacy	134
IES Type	N/A
BUG Rating	B3-U0-G3

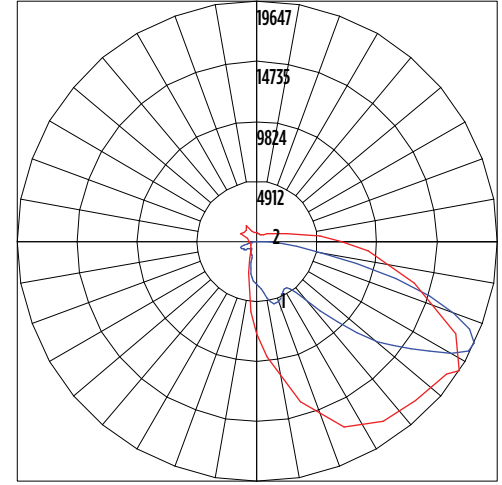
Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30)°	2317	13%
Medium (30-60)°	8066	44%
High (60-80)°	7214	40%
Very High (80-90)°	541	3%
Uplight (90-180)°	0	0%
Total Flux	18138	100%

ISO Footcandle



20' Mounting Height / 20' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

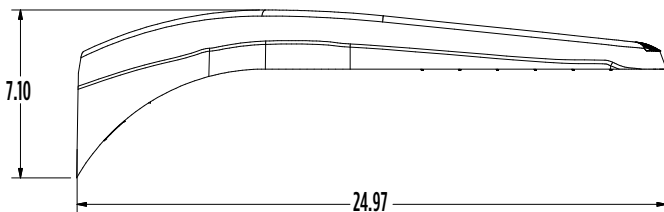
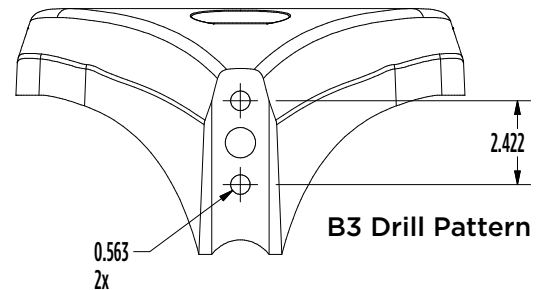
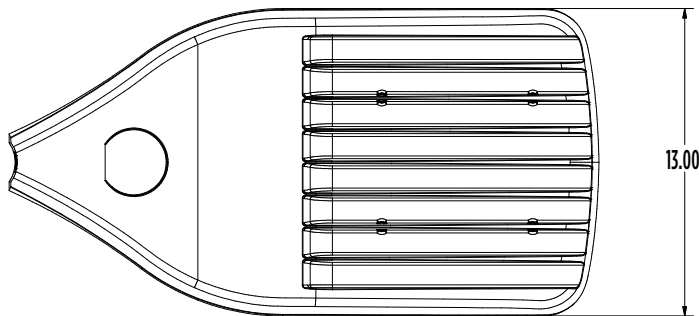
Polar Curve



■ Vertical Plane ■ Horizontal Cone

PRODUCT DIMENSIONS

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Luminaire EPA Chart					
Tilt Degree		0°	15°	30°	45°
	Single	0.5	0.8	1.3	1.8
	D180°	0.9	1.1	1.3	1.8
	D90°	0.9	1.3	1.8	2.2
	T90°	1.4	1.9	2.3	2.6
	TN120°	1.4	2.1	1.9	2.3
	O90°	1.4	1.9	2.3	2.6

CONTROLS

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Integral Bluetooth™ Motion and Photocell Sensor (IMSBTxL)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is IP66 rated for cold and wet locations (-40°F to 167°F). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

[Click here to learn more details about IMSBT](#)



LEVITON App



Apple



Android

AirLink Blue (ALBCSx)

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/ Site, Wall Mounted, Parking Garage and Canopy luminaires.

[Click here to learn more details about AirLink Blue](#)



AirLink Blue App



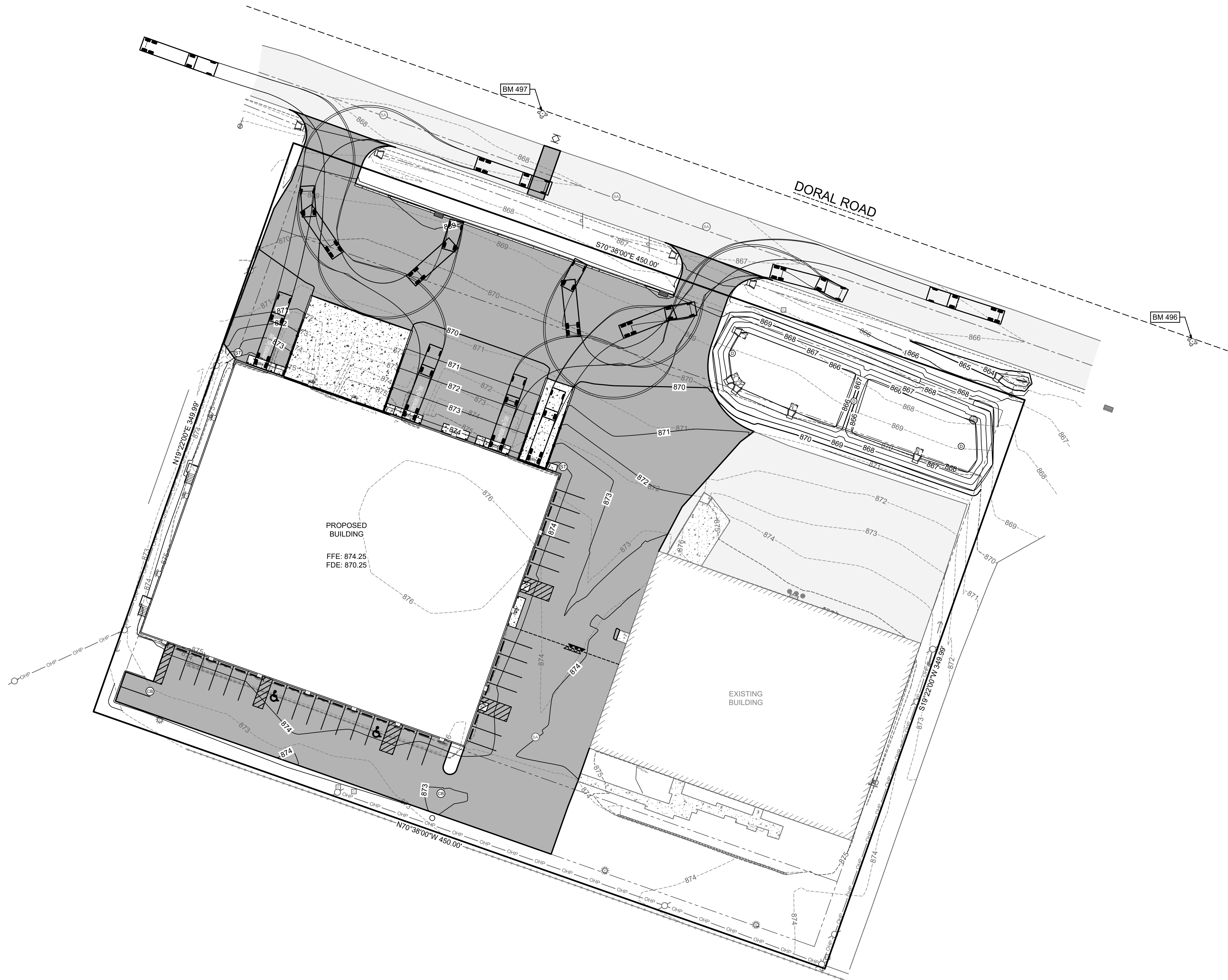
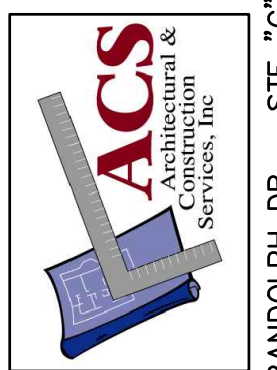
Apple

Sensor Sequence of Operations

Standard Programming	On Event	Off Event	On Light Level	Dim Light Level	Daylight Harvesting	Delay To Off	Sensitivity
IMSBTxL	Motion	No Motion	100%	N/A	On; Auto Calibration	20 minutes	High

Operation	Description
On Event	Trigger that activates lights to turn on; either automatic via motion detected or manually activated via push of button.
Off Event	Trigger that activates lights to turn off; either automatic via no motion detected or manually activated via push of button.
On Light Level	The light level that the fixtures will turn on to when ON EVENT occurs.
Dim Light Level	The light level that the fixtures will dim down to when no motion is detected.
Delay to Dim	The amount of time after which no motion is detected that the fixtures will be triggered to dim down. This sequence is optional, and sensor can be programmed to only trigger the fixture to turn off by entering 100% in this field.
Delay to Off	The amount of time after which no motion is detected that the fixtures will be triggered to turn off. If delay to dim is part of the programmed functionality, this is the amount of time after which no motion is detected after the fixture have already dimmed down.
Sensitivity	The sensitivity can be set to high, medium, low, or auto where applicable. High will detect smaller, simple motions. Low will only detect larger more complex motions. Auto temperature calibration adjusts the PIR sensitivity as ambient temperature rises to increase detection of heat movement through the field of view.

VEHICLE TURN EXHIBIT (WB-40 SEMI)

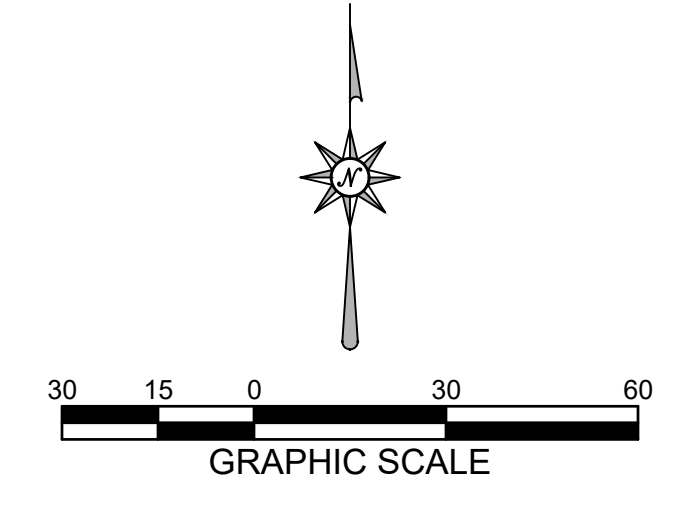



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APPLETON, WI 54913
TELE: 920-707-4226 FAX: 920-240-8072

ADDITION AND ALTERATIONS FOR,
21675 DORAL ROAD
TOWN OF BROOKFIELD, WISCONSIN

DATE:	MAY 07, 2024
ARCH:	
D. BY:	RPH
JOB:	23-003
REV:	



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