

PROPOSED ADDITION FOR :

WESTMINSTER MILWAUKEE VALLEY EAST

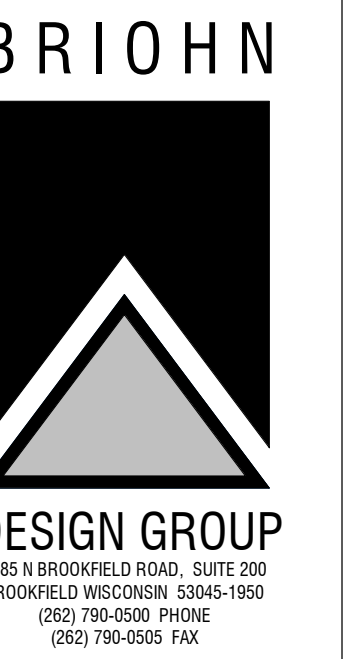
131 WEST CANAL STREET
MILWAUKEE, WISCONSIN



VIEW LOOKING SOUTHWEST

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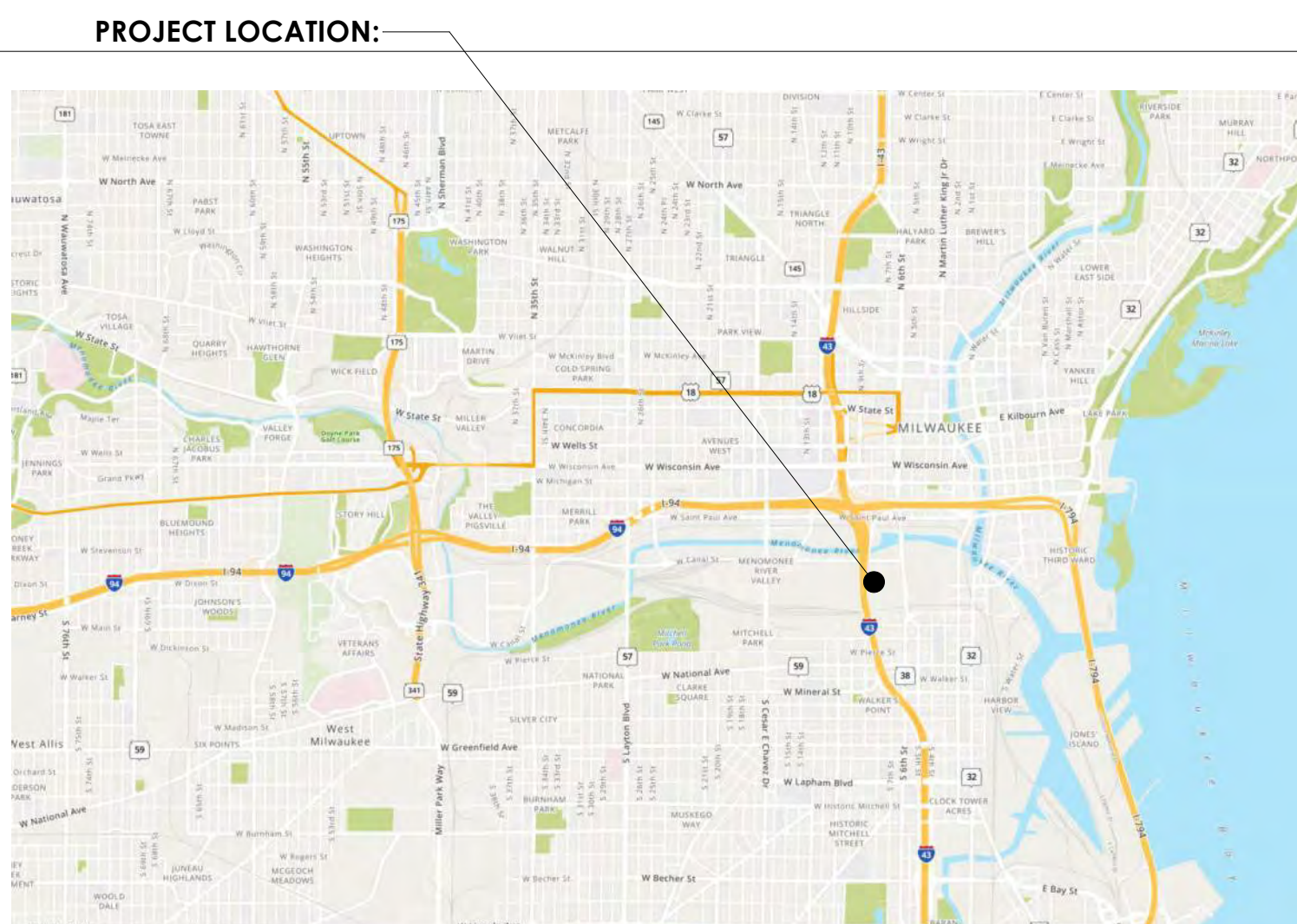
TITLE SHEET

SHEET TITLE

WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

DPD/DIZ SUBMITTAL
APRIL 25, 2022

OWNER :	GENERAL CONTRACTOR :	ARCHITECT :	STRUCTURAL ENGINEER:	CIVIL ENGINEER:	LANDSCAPE ARCHITECT:
WESTMINSTER CAPITAL MATT VAN WIE 270 WESTMINSTER, SUITE 300 LAKE FOREST, IL 60045 (847) 234-1123 PHONE	BRIOHN BUILDING CORPORATION MIKE MIKSICH 3885 N. BROOKFIELD RD., SUITE 200 BROOKFIELD, WISCONSIN 53045 (262) 790-0500 PHONE (262) 790-0505 FAX	BRIOHN DESIGN GROUP LLC CHRISTOPHER WENZLER, AIA 3885 N. BROOKFIELD RD., SUITE 200 BROOKFIELD, WISCONSIN 53045 (262) 790-0500 PHONE (262) 790-0505 FAX	BRIOHN DESIGN GROUP LLC KEVIN JANKOWSKI, PE 3885 N. BROOKFIELD RD., SUITE 200 BROOKFIELD, WISCONSIN 53045 (262) 790-0500 PHONE (262) 790-0505 FAX	THE SIGMA GROUP, INC. JAMES B. LEEDOM, P.E., LEED A.P. 1300 W. CANAL STREET MILWAUKEE, WISCONSIN 53233 (414) 643-4169 PHONE	THE SIGMA GROUP, INC. JORDAN TEICHEN 1300 W. CANAL STREET MILWAUKEE, WISCONSIN 53233 (414) 643-4169 PHONE



PROJECT BUILDING INFORMATION:

CODE:	SPS 360-366 WISCONSIN COMMERCIAL BUILDING CODE (IBC 2015, IECC 2015, IEBC 2015, IMC 2015 AND IFGC 2015) SPS 314 FIRE PREVENTION SPS 316 ELECTRICAL SPS 381-387 PLUMBING	
OCCUPANCY:	PRIMARY SECONDARY SECONDARY	F-2 (MODERATE HAZARD FACTORY INDUSTRIAL) S-1 (MODERATE HAZARD STORAGE) B (OFFICE/BUSINESS)
CLASS OF CONSTRUCTION:	TYPE 2B	
SPRINKLER SYSTEM:	FULL	
FLOOR LEVELS:	1	
NUMBER OF STORIES:	1	
BUILDING AREA:	180,459 SF	NOTE: ALL MECHANICAL, ELECTRICAL, PLUMBING AND FIRE SPRINKLER ENGINEERING BY DESIGN-BUILD CONTRACTORS
ZONING:	IL2 & PD LIGHT INDUSTRIAL & PLANNED DEVELOPMENT	
SETBACKS:	0' STREET 0' SIDE 0' REAR	
PARKING:	175 STANDARD STALLS 8 HC STALLS	
TOTAL PARKING (TOTAL ON-SITE):	183 TOTAL PARKING STALLS	

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

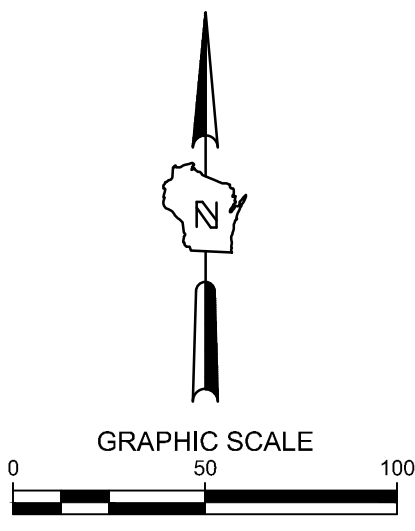
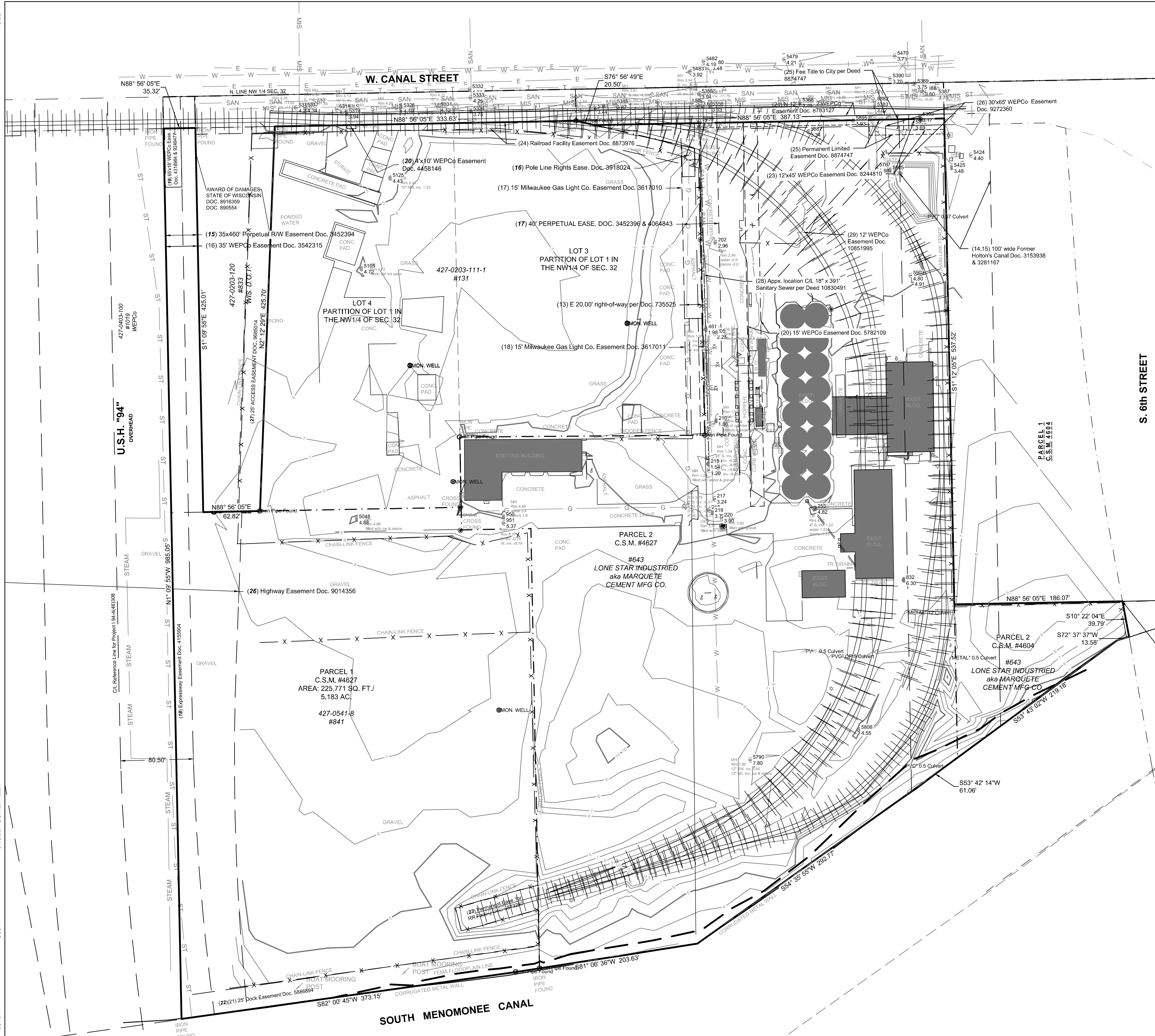
Date

JOB: 3361
DRAWN: CW/CJR
CHECKED: CW
DATE: 04-25-22

SHEET:

T1.0





- LEGEND:**
- SECTION 1/4 SECTION LINE
 - PROPERTY LINE
 - - - EASEMENT
 - x-x-x- CHAIN LINK FENCE
 - TREE LINE
 - OH OH OVERHEAD UTILITY LINE
 - E E ELECTRIC
 - T T TELEPHONE
 - FO FO FIBER OPTIC
 - CTV CTV CABLE TV
 - SAN SAN SANITARY SEWER
 - FM FM FORCE MAIN
 - ST ST STORM SEWER
 - W W WATER MAIN
 - G G GAS
 - EXISTING CONTOUR
 - MANHOLE
 - CATCH BASIN
 - CATCH BASIN (ROUND)
 - ROOF DRAIN
 - HYDRANT
 - WATER VALVE
 - GAS VALVE
 - UTILITY POLE
 - GUY WIRE
 - GAS METER
 - ELECTRIC METER
 - UTILITY PEDESTAL
 - TRAFFIC SIGNAL
 - LIGHT POLE
 - SOIL BORING
 - MONITORING WELL
 - IRON PIPE FOUND/SET
 - REBAR FOUND/SET
 - CHISELED CROSS FOUND/SET
 - PK NAIL FOUND/SET
 - SPIKE/NAIL
 - MONUMENT
 - BENCHMARK
 - SIGN
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - BUSH
 - POST

- GENERAL NOTES:**
1. THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS DRAWING IS BASED ON FIELD LOCATIONS AND/OR RECORDS FURNISHED BY MUNICIPALITIES AND UTILITY COMPANIES. THE LOCATION AND ACCURACY OF WHICH CANNOT BE GUARANTEED. THERE MAY BE ADDITIONAL UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
 2. VERIFY ACTUAL LOCATIONS AND INVERTS IN THE FIELD. ANY POTENTIAL ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
 3. DRAWING IS BASED ON FIELD SURVEY COMPLETED BY THE SIGMA GROUP ON 03/07/2022.
 4. DATUM FOR THE PROJECT SURVEY IS CITY OF MILWAUKEE DATUM. BENCHMARK FOR THE PROJECT SURVEY IS CONCRETE MONUMENT AT THE NW CORNER OF SECTION 32-7-22 WITH AN ELEVATION OF 4.21.
 5. CONTRACTOR TO VERIFY EXISTING CONDITIONS, CONTACT ENGINEER WITH DISCREPANCIES.

THE UNDERGROUND UTILITY INFORMATION SHOWN ON THIS MAP IS BASED ON FIELD MARKINGS AND INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED.

TO OBTAIN LOCATIONS OF ALL RECORDING FACILITIES BEFORE YOU DIG IN RECORDING

CALL DIGGERS HOTLINE
 1-800-242-8511
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WE STRIVE FOR 100% SATISFACTION. IF YOU ARE NOT COMPLETELY SATISFIED WITH OUR SERVICE, WE WILL REFUND YOUR MONEY. NO QUESTIONS ASKED.

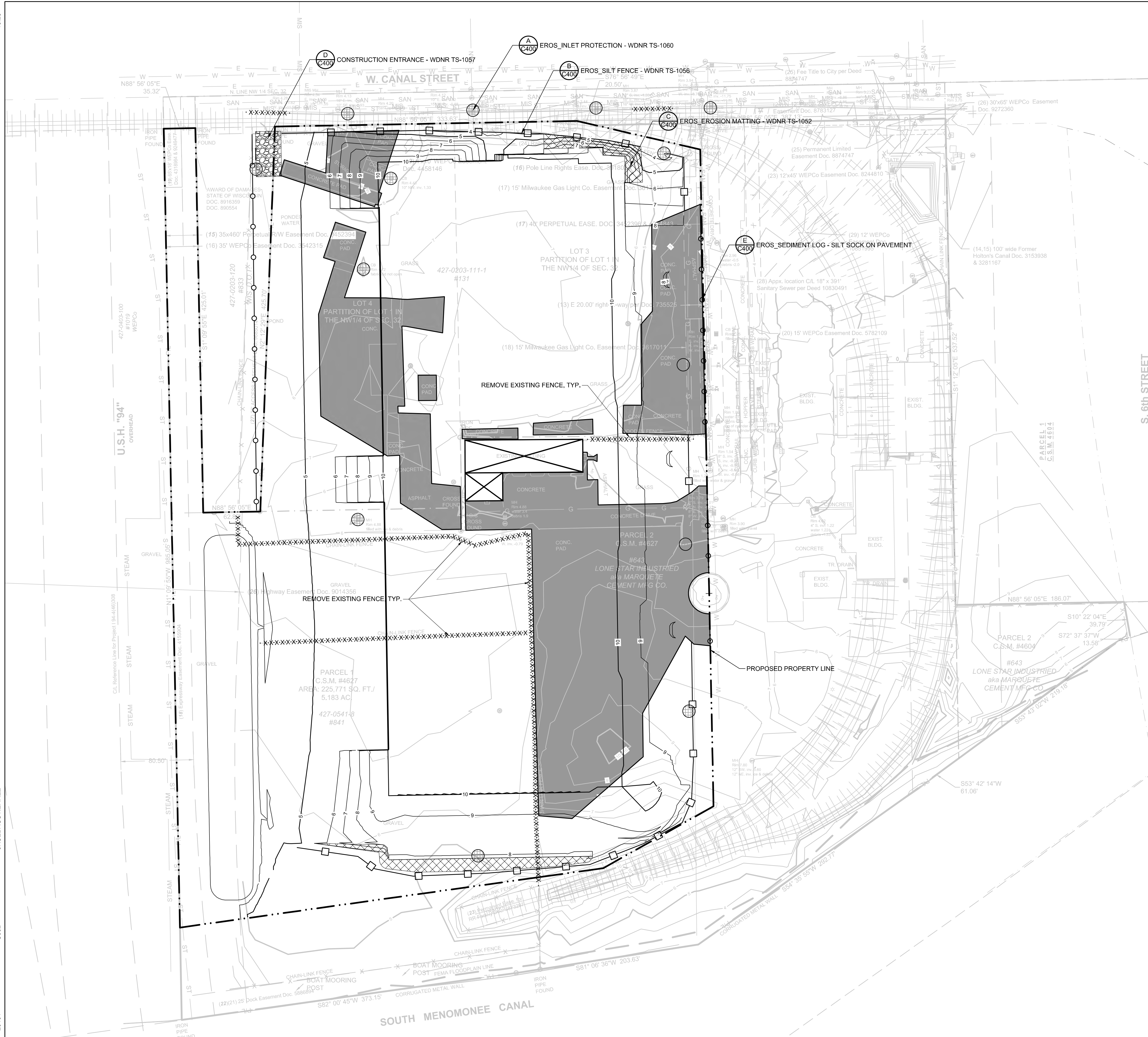
MILW. AREA 259-1181

WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI

SITE SURVEY

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

SCALE:	1"=50'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/22/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	C001



LEGEND:

- PROPOSED SILT FENCE
- PROPOSED SILT SOCK
- PROPOSED INLET PROTECTION
- PROPOSED TRACKING PAD
- PROPOSED EROSION MATTING WISDOT APPROVED CLASS 1 TYPE B
- EXISTING CONTOUR
- PROPOSED CONTOUR
- CURB/FENCE REMOVAL
- STRUCTURE REMOVAL
- PAVEMENT REMOVAL

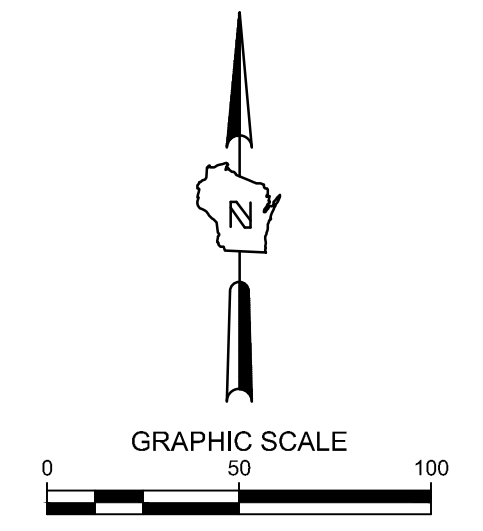
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 - WORK TO BE COMPLETED IS INDICATED IN BOLD TYPE LINES AND EXISTING CONDITIONS ARE INDICATED BY LIGHT TYPE LINES.
 - ELECTRONIC CIVIL FILES ARE AVAILABLE UPON WRITTEN REQUEST. DO NOT USE ELECTRONIC CIVIL FILES TO LAYOUT FOUNDATIONS, COLUMN LINES, LIGHT POLES, OR OTHER NON CIVIL SITE WORK. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS OF BUILDING AND ARCHITECTURAL FEATURES.
 - SEE SHEET C401 FOR A COMPLETE LIST OF EROSION CONTROL NOTES AND DETAILS. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO START OF LAND DISTURBING ACTIVITIES.
 - DO NOT BEGIN LAND DISTURBING ACTIVITIES UNTIL AN EROSION CONTROL PERMIT IS OBTAINED FROM LOCAL JURISDICTION.

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TO OBTAIN LOCATIONS OF PROPOSED MEASURING FACILITIES BEFORE YOU DIG IN RECORD

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TOLL FREE

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BEFORE YOU EXCAVATE
MILW. AREA 259-1181



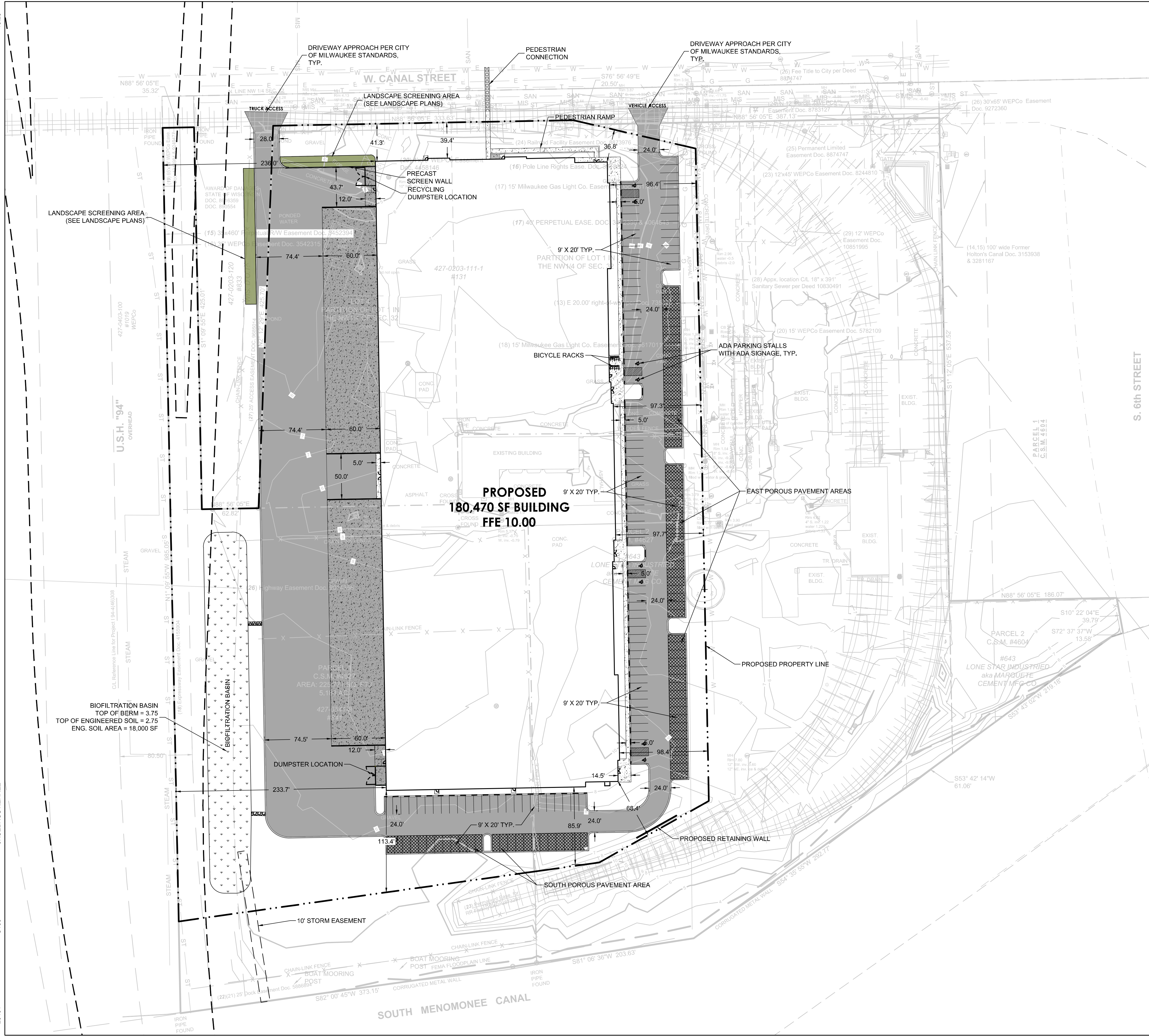
**WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI**

EROSION CONTROL PLAN

**PRELIMINARY
NOT FOR
CONSTRUCTION**

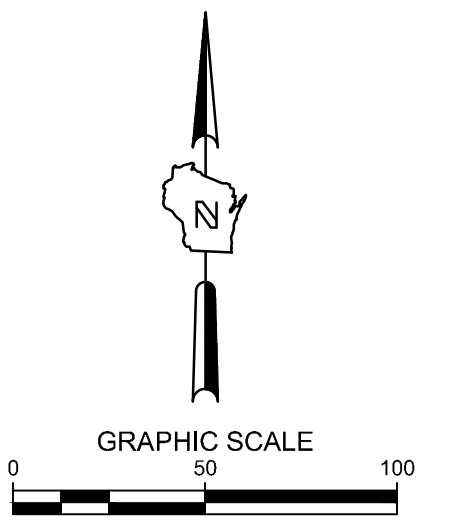
SCALE:	1"=50'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	2022.04.22
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	C002

10/23
20/01
C-100
JRUEDAGUTIERREZ



SITE INFORMATION		
SITE AREA	464096	10.654 AC
SITE DISTURBED AREA	408440	9.376 AC
EXISTING IMPERVIOUS AREA	189040	4.340 AC 46.3 %
PROPOSED IMPERVIOUS AREA	345779	7.938 AC 84.7 %
TOTAL PARKING SPACES	183	
ADA PARKING SPACES	8	

THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210



LEGEND:

	(D C401) 5' THICK CONCRETE WALK
	(E C401) CONCRETE PAVEMENT
	(F C401) ASPHALT SURFACE
	(C C401) POROUS PAVEMENT
	(A C401) CURB & GUTTER (ACCEPT)
	(A C401) CURB & GUTTER (REJECT)

- GENERAL NOTES:**
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 5. DIMENSIONS ARE FROM FACE OF CURB OR EDGE OF PAVEMENT.
 6. WORK WITHIN THE PUBLIC RIGHT OF WAY, INCLUDING BUT NOT LIMITED TO DRIVEWAY OPENINGS, SIDEWALK AND RAMPS, PAVING, AND CURB AND GUTTER SHALL BE COMPLETED PER MUNICIPAL AND/OR COUNTY REQUIREMENTS AND STANDARDS.
 7. EARTHWORK SHALL BE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.



CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE
WIS STATUTE 182.07(1)(b) REQUIRES MIN. 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE
MILW. AREA 259-1181

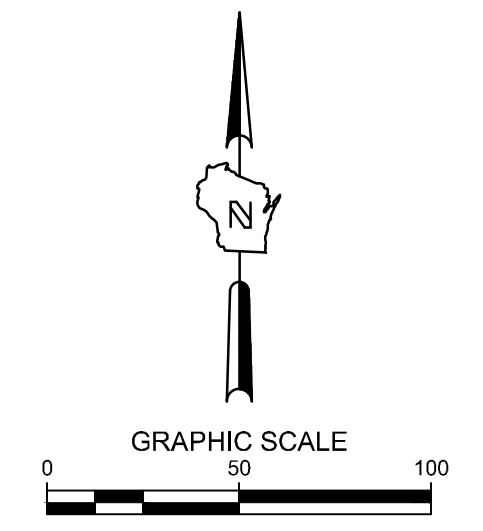
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WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI
SITE DIMENSION PLAN

PRELIMINARY
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CONSTRUCTION

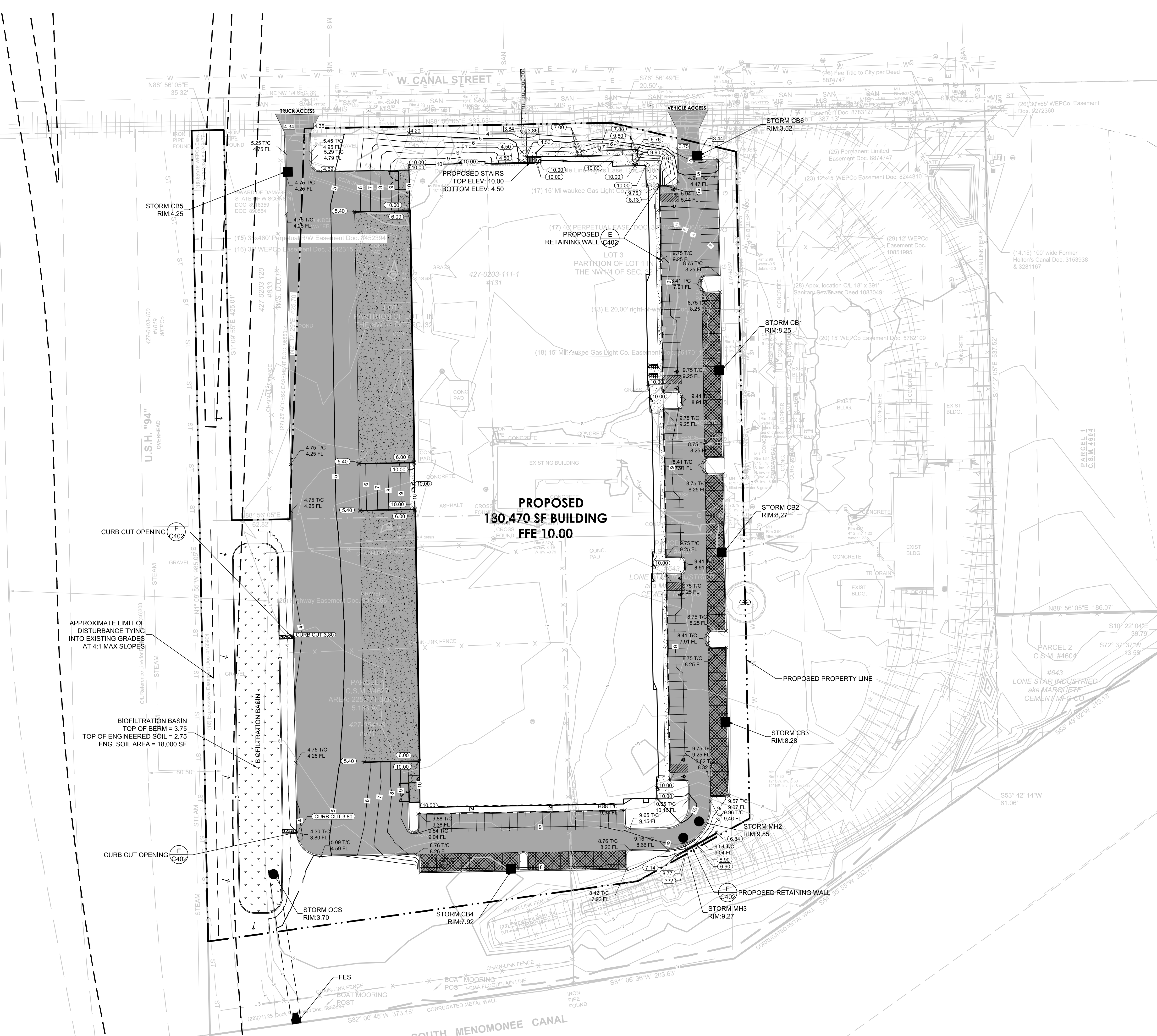
SCALE:	1"=50'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/22/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	C100

10.24
C200
20401



WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI
GRADING PLAN

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**



LEGEND:

- (D C401) 5' THICK CONCRETE WALK
- (E C401) CONCRETE PAVEMENT
- (F C401) ASPHALT SURFACE
- (C C401) POROUS PAVEMENT
- (A C401) CURB & GUTTER (ACCEPT)
- (A C401) CURB & GUTTER (REJECT)
- 5 EXISTING CONTOUR
- 5 PROPOSED CONTOUR
- PROPOSED CURB & GUTTER SPOT GRADE
- T/C TOP OF CURB GRADE
- FL FLOW LINE CURB GRADE
- PROPOSED ASPHALT SPOT GRADE
- EXISTING SURFACE SPOT GRADE (MATCH)

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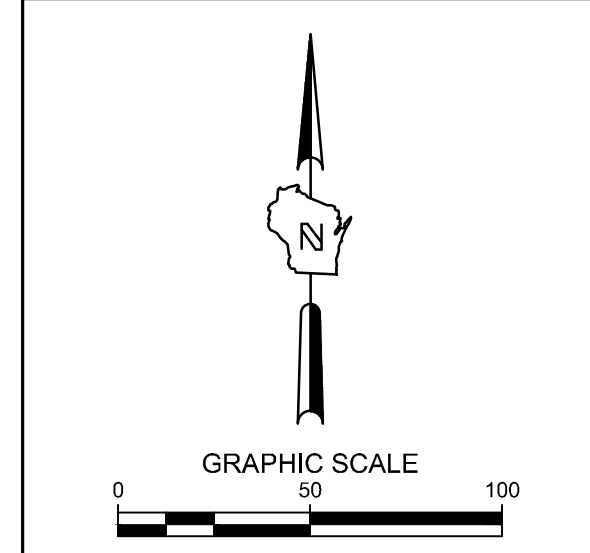
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 1-800-242-8511
 TOLL FREE
 WE STRIVE TO EXCEED YOUR EXPECTATIONS. PLEASE CALL US AT 414-643-4200 FOR MORE INFORMATION.
 MILW. AREA 259-1181

SCALE:	1"=50'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/22/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	C200

10.24
C300
20401



WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI

**PRELIMINARY
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CONSTRUCTION**

SCALE:	1"=50'
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CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	C300

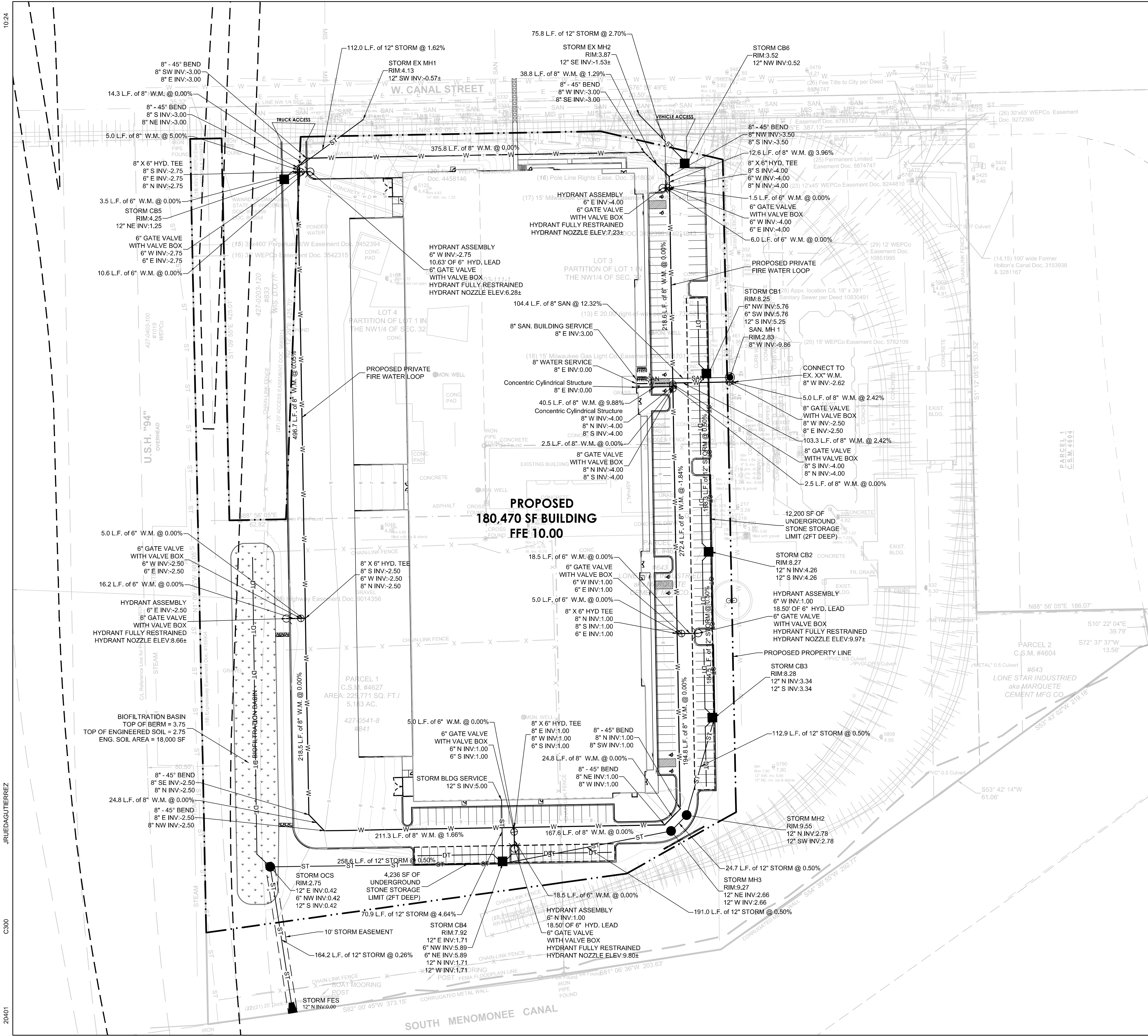
- LEGEND:**
- W --- PROPOSED WATER SERVICE
 - SAN --- PROPOSED SANITARY SERVICE
 - ST --- PROPOSED STORM SEWER
 - DT --- PROPOSED STORM SEWER
 - (H C401) PROPOSED STORM INLET
 - (I C401) PROPOSED STORM MANHOLE
 - (G C401) PROPOSED SANITARY MANHOLE

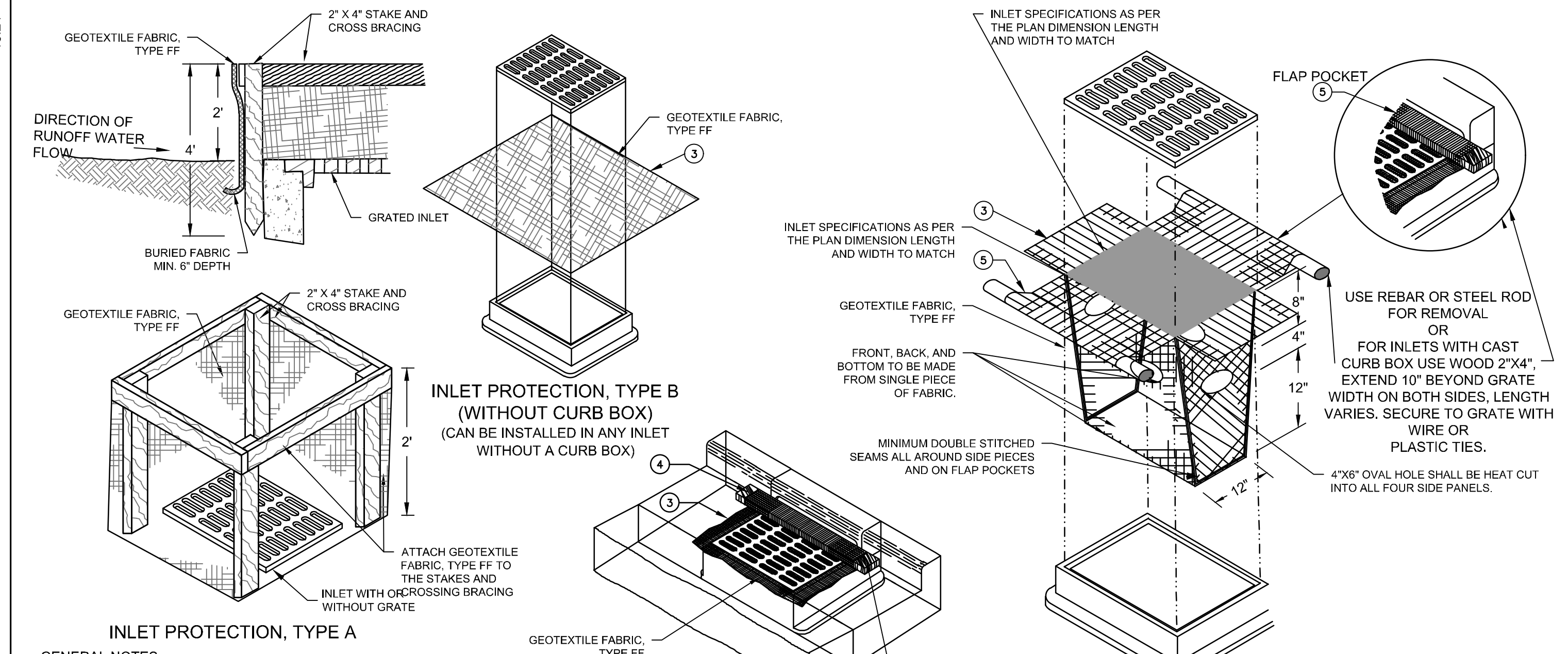
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 - ALL UTILITIES WITHIN 5 FEET OF PAVED AREAS SHALL REQUIRE GRANULAR BACKFILL. SLURRY BACKFILL IS REQUIRED FOR ALL WORK IN PUBLIC RIGHT OF WAY.
 - PRIVATE STORM INLETS IN PAVEMENT SHALL REQUIRE DRAIN TILE STUBS OF 10 FEET IN TWO DIRECTIONS FOR SUBDRAINAGE. RIM GRADE FOR STORM INLETS IN CURB AND GUTTER ARE FLOW LINE GRADES.
 - WORK IN PUBLIC RIGHT OF WAY SHALL FOLLOW MATERIAL AND INSTALLATION REQUIREMENTS PER MUNICIPAL AND/OR COUNTY.
 - PRIVATE STORM SEWER 12-INCH DIAMETER OR LARGER SHALL BE HDPE. BELOW 12-INCH DIAMETER SHALL BE PVC SDR-35 ASTM D3034. PRIVATE WATER MAIN SHALL BE CLASS 235 DR 18 PVC CONFORMING TO AWWA C-900. PRIVATE SANITARY SEWER SHALL BE PVC SDR-35 ASTM D3034.
 - COORDINATE FINAL LOCATION AND DESIGN OF PRIVATE UTILITY SERVICES (ELECTRIC, GAS, PHONE, CABLE) WITH UTILITY COMPANIES.
 - IF PROJECT IS DESIGN BUILD MEP, THE GENERAL CONTRACTOR IS REQUIRED TO PROVIDE FINAL SEWER AND WATER DESIGN SHOWING LOCATION, INVERTS AND SIZES TO THE ENGINEER FOR FINAL REVIEW AND VERIFICATION PRIOR TO STARTING UNDERGROUND UTILITY CONSTRUCTION.
 - WATER MAIN CONNECTION: TAP WATER MAIN WITH SIZE AND LOCATION INDICATED ON PLAN IN ACCORDANCE WITH LOCAL WATER UTILITY REQUIREMENTS. COORDINATE CONNECTION WITH LOCAL WATER UTILITY. ALL JOINTS SHALL BE RESTRAINED FROM CONNECTION OF WATER MAIN TO BUILDING WALL. SUBMIT JOINT RESTRAINT DETAILS FOR ALL JOINT TYPES INCLUDING PUSH-ON AND MECHANICAL CONNECTIONS. INSTALL MEGA-LUG OR APPROVED EQUAL TIGHT TO WALL FOR RESTRAINT FOR ALL BUILDING WALL PENETRATIONS AS APPROVED BY LOCAL PLUMBING INSPECTOR AND WATER UTILITY. INSTALL THRUST BLOCKING AND MEGA-LUG AT BEND BELOW FLOOR FOR ALL FLOOR PENETRATIONS.
 - INSTALL JOINT RESTRAINT AND CONCRETE THRUST BLOCKS AT ALL OFFSET FITTINGS (TEES, BENDS, DEAD ENDS, VALVES, REDUCERS) USING MEGA-LUG OR APPROVED EQUAL. CONCRETE THRUST BLOCKS SHALL BE INSTALLED PER FIG. 44.45.46 FROM THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN. SEE DETAIL FOR MINIMUM LENGTH OF RESTRAINED JOINT REQUIRED. SUBMIT JOINT RESTRAINT DETAILS FOR ALL JOINT TYPES INCLUDING PUSH-ON AND MECHANICAL CONNECTIONS.

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TOLL FREE





INLET PROTECTION, TYPE A
GENERAL NOTES:
 1. MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.
 2. WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.
 3. FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10' AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
 4. FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INLET PROTECTION, TYPE B (WITHOUT CURB BOX)
 (CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)

INLET PROTECTION, TYPE C (WITH CURB BOX)

INLET PROTECTION, TYPE D
 (CAN BE INSTALLED IN ANY INLET WITH OR WITHOUT A CURB BOX AS PER NOTE)

INSTALLATION NOTES
 TYPE B & C
 TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.
 TYPE D
 DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

GENERAL NOTE
 INLET PROTECTION SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1060

THIS DRAWING IS BASED ON
 WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 10-2

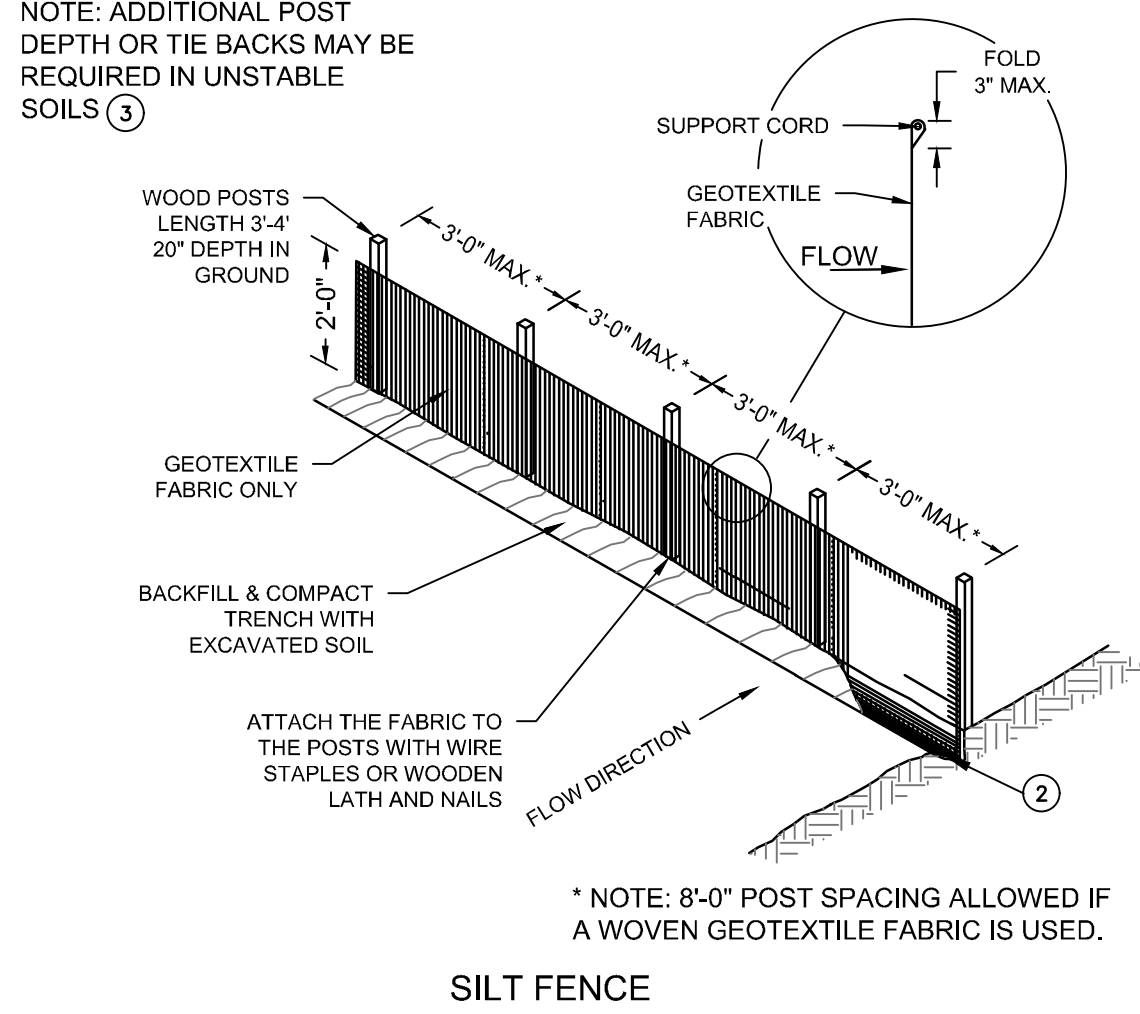
A EROS INLET PROTECTION - WDNR TS-1060
 SCALE: 1" = 1'

EROSION CONTROL NOTES:

- CONSTRUCTION SITE EROSION CONTROL AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL MUNICIPALITY AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
- ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED FOR STABILITY AND OPERATION AFTER A RAINFALL OF 0.5 INCHES OR MORE, BUT NO LESS THAN ONCE EVERY WEEK. MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT WHEN LEAVING PROPERTY. EROSION CONTROL MEASURES MUST BE IN WORKING CONDITION AT END OF EACH WORK DAY. DOCUMENT AND MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH WDNR NR216 REQUIREMENTS.
- SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE SILT FENCE WHEN DEPOSITS REACH A DEPTH OF 6 INCHES. THE SILT FENCE SHALL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN A BARRIER.
- FILTER FABRIC SHALL BE INSTALLED BENEATH INLET COVERS TO TRAP SEDIMENT PER INLET PROTECTION DETAIL IN THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
- PERIODIC STREET SWEEPING SHALL BE COMPLETED TO MAINTAIN ADJACENT STREETS FREE OF DUST AND DIRT.
- SILT FENCE SHALL BE INSTALLED IN HORSESHOE FASHION AROUND ANY TOPSOIL AND FILL STOCKPILES.
- SITE DEWATERING. WATER PUMPED FROM THE SITE SHALL BE TREATED BY SEDIMENT BASINS OR OTHER APPROPRIATE MEASURES SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. WATER MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE, ADJACENT SITES, OR RECEIVING CHANNELS.
- WASTE AND MATERIAL DISPOSAL. ALL WASTE AND UNUSED BUILDING MATERIALS (INCLUDING GARBAGE, DEBRIS, CLEANING WASTES, WASTEWATER, TOXIC MATERIALS, OR HAZARDOUS MATERIALS) SHALL BE PROPERLY DISPOSED AND NOT ALLOWED TO BE CARRIED OFF-SITE BY RUNOFF OR WIND.
- TRACKING. EACH SITE SHALL HAVE GRAVELED ROADS, ACCESS DRIVES AND PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY STREET CLEANING, TO THE SATISFACTION OF THE MUNICIPALITY, BEFORE THE END OF EACH WORKDAY. FLUSHING MAY NOT BE USED UNLESS SEDIMENT WILL BE CONTROLLED BY A SEDIMENT BASIN OR PRACTICE SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS. NOTIFY MUNICIPALITY OF ANY CHANGES IN STABILIZED CONSTRUCTION ENTRANCE LOCATION.
- SEDIMENT CLEANUP. ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF A STORM EVENT SHALL BE CLEANED UP BY THE END OF THE NEXT WORKDAY. ALL OTHER OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE CLEANED UP BY THE END OF THE WORKDAY.
- ALL DISTURBED GROUND LEFT INACTIVE FOR SEVEN OR MORE DAYS SHALL BE STABILIZED BY TEMPORARY OR PERMANENT SEEDING, MULCHING, SODDING, COVERING WITH TARPS, OR EQUIVALENT PRACTICE FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARD. IF TEMPORARY SEEDING IS USED, A PERMANENT COVER SHALL ALSO BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION. SEEDING OR SODDING SHALL BE REQUIRED AS PART OF THE FINAL SITE STABILIZATION.
- SOIL OR DIRT STORAGE PILES SHALL BE LOCATED A MINIMUM OF TWENTY-FIVE FEET FROM ANY DOWNSLOPE ROAD, LAKE, STREAM, WETLAND, OR DRAINAGE CHANNEL. STRAW BALE OR FILTER FABRIC FENCES SHALL BE PLACED ON THE DOWN SLOPE SIDE OF THE PILES. IF REMAINING FOR MORE THAN THIRTY DAYS, PILES SHALL BE STABILIZED BY MULCHING, VEGETATIVE COVER, TARPS OR OTHER MEANS.
- WHEN THE DISTURBED AREA HAS BEEN STABILIZED BY PERMANENT VEGETATION OR OTHER MEANS, TEMPORARY PRACTICES, SUCH AS FILTER FABRIC FENCES, STRAW BALES, SEDIMENT AND SEDIMENT TRAPS, FOUND IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS SHALL BE REMOVED.
- NOTIFY THE LOCAL MUNICIPALITY HAVING JURISDICTION WITHIN TWO WORKING DAYS OF COMMENCING ANY LAND DEVELOPMENT OR LAND DISTURBING ACTIVITY.
- OBTAIN PERMISSION FROM THE LOCAL MUNICIPALITY HAVING JURISDICTION PRIOR TO MODIFYING THE EROSION CONTROL PLAN.
- REPAIR ANY SILTATION OR EROSION DAMAGE TO ADJOINING SURFACES AND DRAINAGE WAYS RESULTING FROM LAND DEVELOPMENT OR LAND DISTURBING ACTIVITIES.
- KEEP A COPY OF THE EROSION CONTROL PLAN ON SITE.
- CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE DISTURBANCE OF EXISTING VEGETATION DURING CONSTRUCTION.
- CONTRACTOR SHALL, TO THE EXTENT POSSIBLE, MINIMIZE COMPACTION OF TOPSOIL AND PRESERVE TOPSOIL IN GREENSPACE AREAS.
- WASH WATER FROM VEHICLES AND WHEEL WASHING SHALL BE CONTAINED AND TREATED PRIOR TO DISCHARGE.
- CONTRACTOR SHALL MAINTAIN SPILL KITS ON-SITE.
- PERMANENT TURF SEEDING OF DISTURBED AREA MUST OCCUR PRIOR TO SEPTEMBER 15TH. IF ADEQUATE TIME IS NOT AVAILABLE TO APPLY PERMANENT SEEDING PRIOR TO SEPTEMBER 15TH, THEN DISTURBED AREAS SHALL BE TEMPORARILY SEEDED WITH AN ANNUAL RYE GRASS PER WDNR TECHNICAL STANDARD 1059, WHERE THE TEMPORARY SEEDING MUST OCCUR PRIOR TO OCTOBER 15TH.
- IF TEMPORARY SEEDING IS NOT COMPLETED BY OCTOBER 15TH, APPLY SOIL STABILIZERS AND DORMANT SEED TO DISTURBED AREA PER WDNR TECHNICAL STANDARD 1050. INSPECT ANIONIC PAM APPLICATION AT A MINIMUM FREQUENCY OF EVERY TWO MONTHS AND REAPPLY AS NECESSARY.

CONSTRUCTION SEQUENCE FOR EROSION CONTROL INCLUDES:

- INSTALL STABILIZED CONSTRUCTION ENTRANCE.
- INSTALL SILT FENCING/SILT SOCK AND INLET PROTECTION.
- INITIATE STOCKPILING OF IMPORTED MATERIAL. PLACE SILT FENCE AROUND STOCKPILE(S).
- STRIP TOPSOIL FROM STORM WATER BASIN LOCATION AND STOCKPILE. PLACE SILT FENCE AROUND STOCKPILE(S).
- CONSTRUCT STORM WATER BASIN AND INSTALL OUTLET AND EMERGENCY OVERFLOW AT BIOFILTRATION BASIN LOCATION. BASIN IS TO BE USED AS A SEDIMENTATION BASIN DURING THE COURSE OF CONSTRUCTION.
- CONSTRUCT DIVERSION SWALES, DIRECT RUNOFF TO STORM BASIN. INSTALL ASSOCIATED DITCH CHECKS.
- STRIP TOPSOIL FROM REMAINDER OF SITE IN A PROGRESSIVE MANNER, AND STOCKPILE.
- PERFORM ROUGH SITE GRADING. STABILIZE FINISHED AREAS AS THE WORK PROGRESSES. USE EROSION MATTING WHERE CALLED FOR ON THE PLANS. PER WDNR TECHNICAL STANDARD 1059. AREAS THAT RECEIVE TEMPORARY SEEDING SHALL HAVE A MINIMUM TOPSOIL DEPTH OF 2 INCHES. AREAS THAT RECEIVE PERMANENT SEEDING SHALL HAVE A MINIMAL TOPSOIL DEPTH OF 4 INCHES.
- PREPARE BUILDING PAD AND BEGIN FOUNDATIONS WORK FOR BUILDING.
- INSTALL UTILITIES. INSTALL ANY ADDITIONAL INLET PROTECTION ON NEW STORM SEWER AND INSTALL RIP-RAP AT NEW STORM SEWER OUTFALLS.
- PERFORM FINAL GRADING.
- INSTALL PAVEMENTS.
- STABILIZE AREAS REMAINING AREAS WITHIN 7 DAYS OF COMPLETION OF FINAL GRADING AND TOPSOILING.
- REMOVE EXCESS SEDIMENT FROM STORMWATER BASINS AND RETURN BASINS TO THEIR DESIGN DIMENSIONS AND VOLUMES. DO NOT PLACE ENGINEERED SOIL INTO BIOFILTRATION BASIN UNTIL SITE IS FULLY STABILIZED.
- REMOVE EROSION CONTROL MEASURES ONLY WHEN SITE IS FULLY STABILIZED.



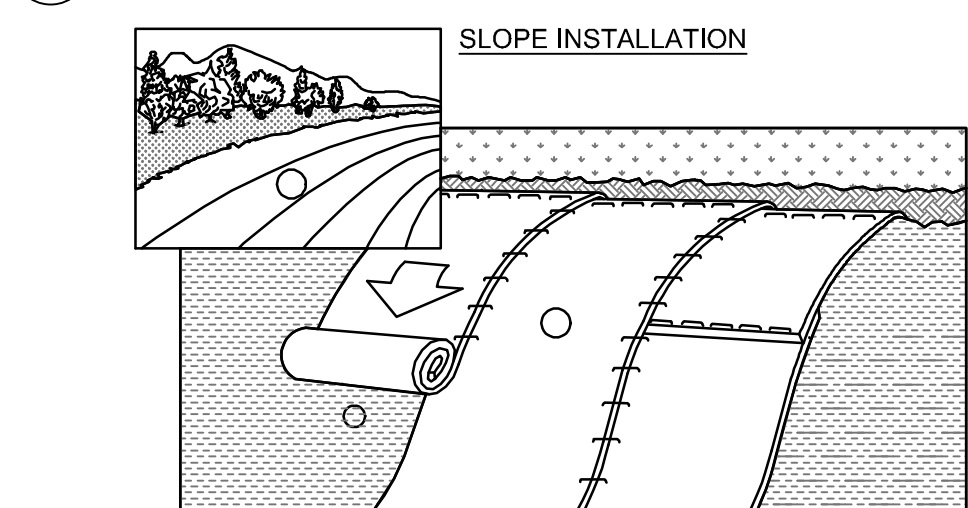
SILT FENCE TIE BACK
 (WHEN ADDITIONAL SUPPORT REQUIRED)

TRENCH DETAIL

GENERAL NOTES
 NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS (3)

NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

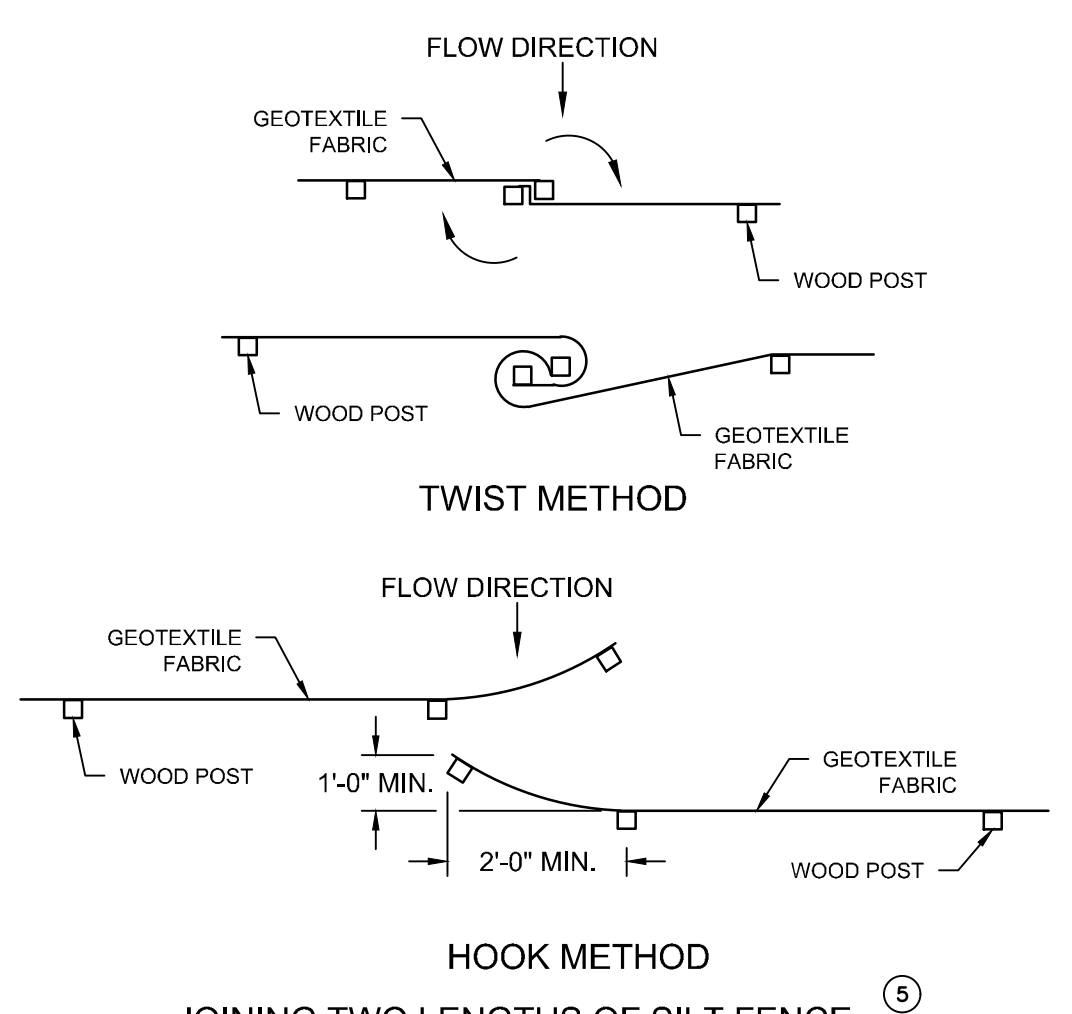
B EROS SILT FENCE - WDNR TS-1056
 SCALE: 1" = 1'



- ECRMs (EROSION CONTROL REVEGATIVE MATS) SHALL BE INSTALLED AFTER ALL TOPSOILING, FERTILIZING, LIMING, AND SEEDING IS COMPLETE.
- THE MAT SHALL BE IN FIRM AND INTIMATE CONTACT WITH THE SOIL. IT SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURER'S RECOMMENDATION.
- TRMs (TURF-REINFORCEMENT MAT) SHALL BE INSTALLED INCONJUNCTION WITH THE TOPSOILING OPERATION AND SHALL BE FOLLOWED BY ECRM INSTALLATION.
- AT TIME OF INSTALLATION, DOCUMENT THE MANUFACTURER AND MAT TYPE BY RETENTION OF MATERIAL LABELS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. RETAIN THIS DOCUMENTATION UNTIL THE SITE HAS BEEN STABILIZED.

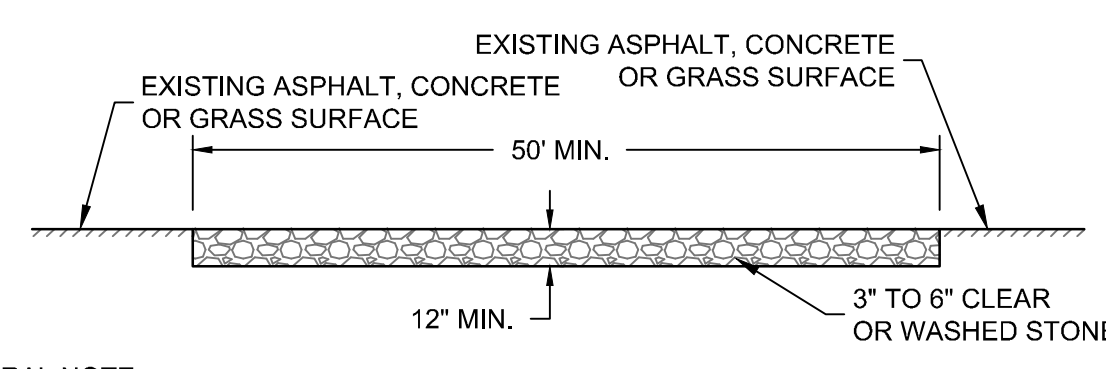
NOTES:
 1. EROSION MATTING SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1052.
 2. INSTALL PER MANUFACTURERS SPECIFICATIONS.

C EROS EROSION MATTING - WDNR TS-1052
 SCALE: 1" = 1'



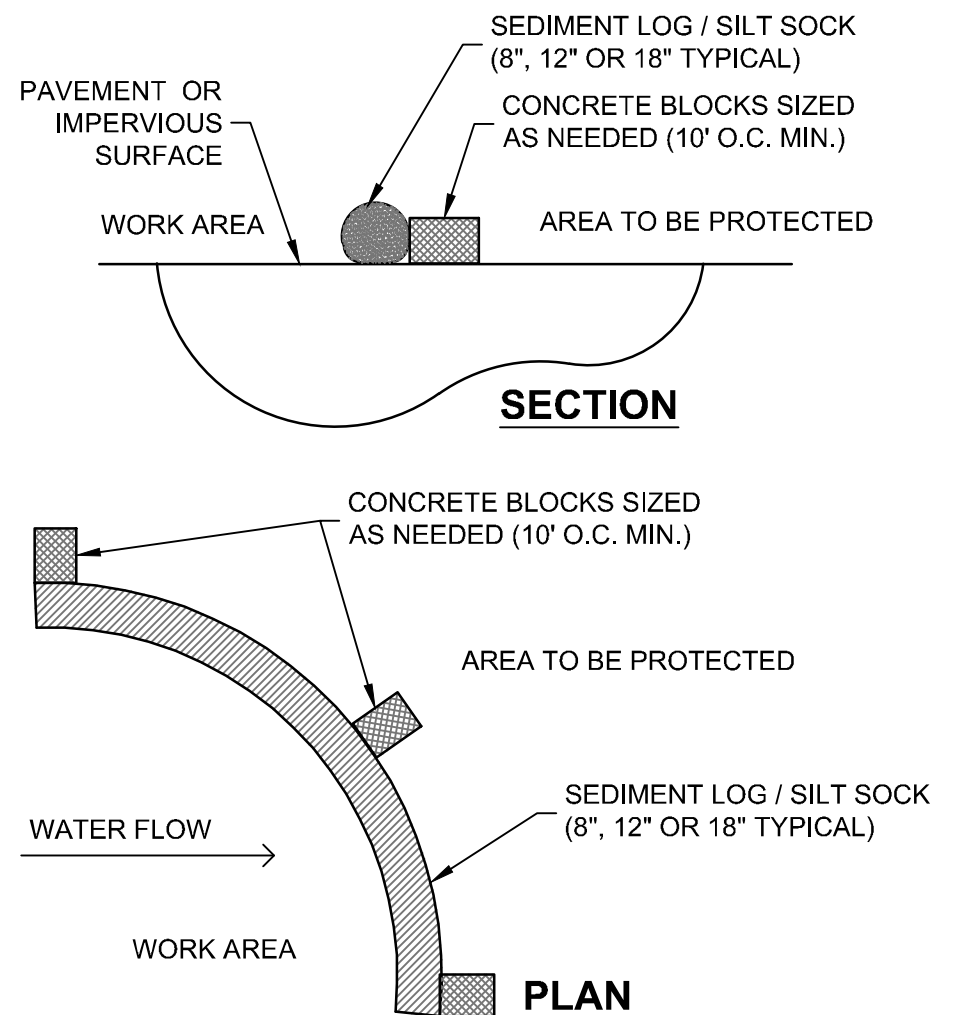
JOINING TWO LENGTHS OF SILT FENCE

GENERAL NOTES
 1. HORIZONTAL BRACE REQUIRED WITH 2"x4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
 2. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
 3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1-1/2" X 1-1/2" OF OAK OR HICKORY.
 4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
 5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ON THE FOLLOWING TWO METHODS: A) OVERLAP THE END POSTS AND TWIST OR ROTATE, AT LEAST 180 DEGREES. B) HOOK THE END OF EACH SILT FENCE LENGTHS.
 6. SILT FENCE SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1056
 7. THIS DRAWING IS BASED ON WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD DETAIL DRAWING 8 E 9-6



GENERAL NOTE:
 STONE TRACKING PAD SHALL CONFORM TO WDNR CONSERVATION PRACTICE STANDARD #1057

D CONSTRUCTION ENTRANCE - WDNR TS-1057
 SCALE: 1" = 1'

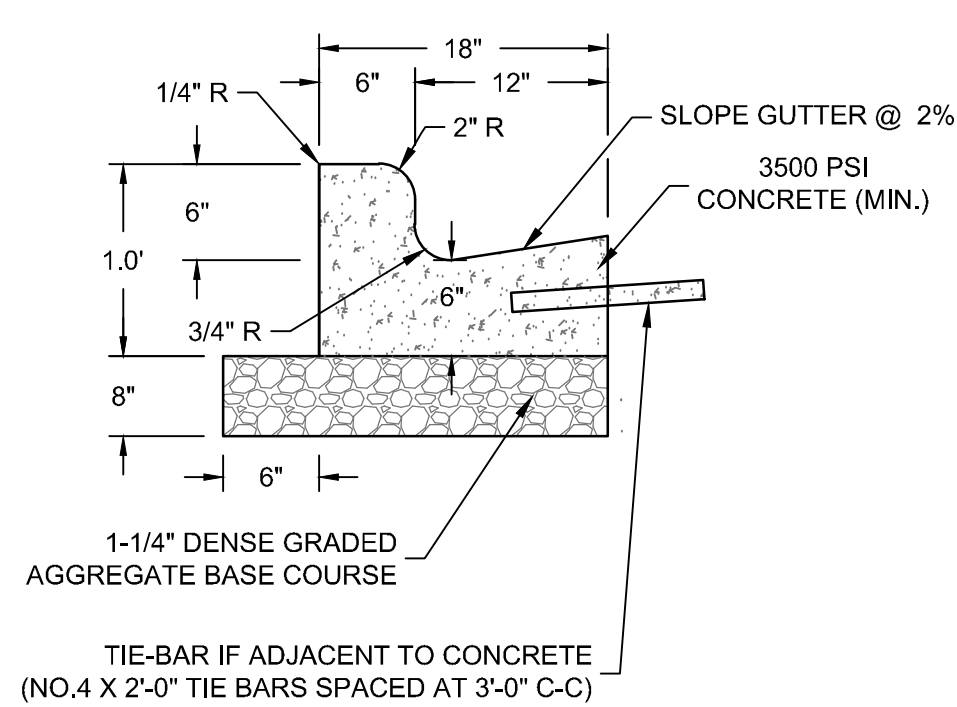


E EROS SEDIMENT LOG - SILT SOCK ON PAVEMENT
 SCALE: 1" = 1'

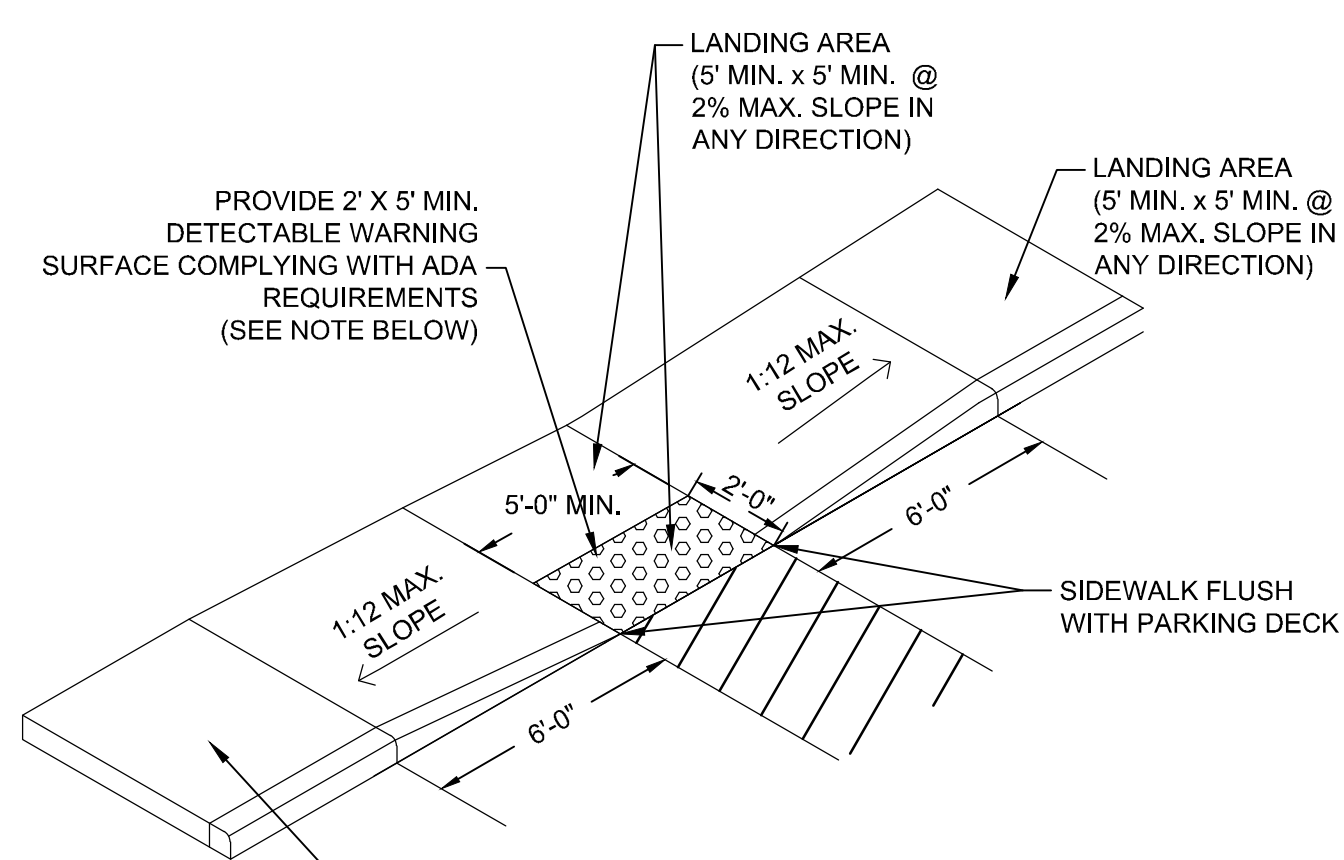
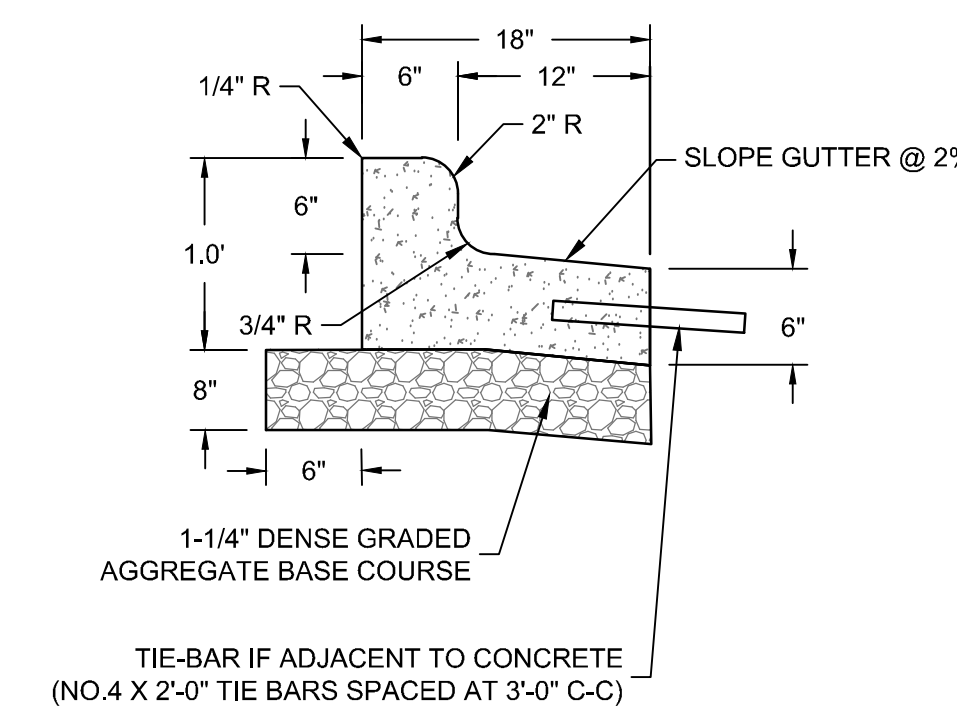
PRELIMINARY NOT FOR CONSTRUCTION

SCALE:	
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/22/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	

ACCEPT



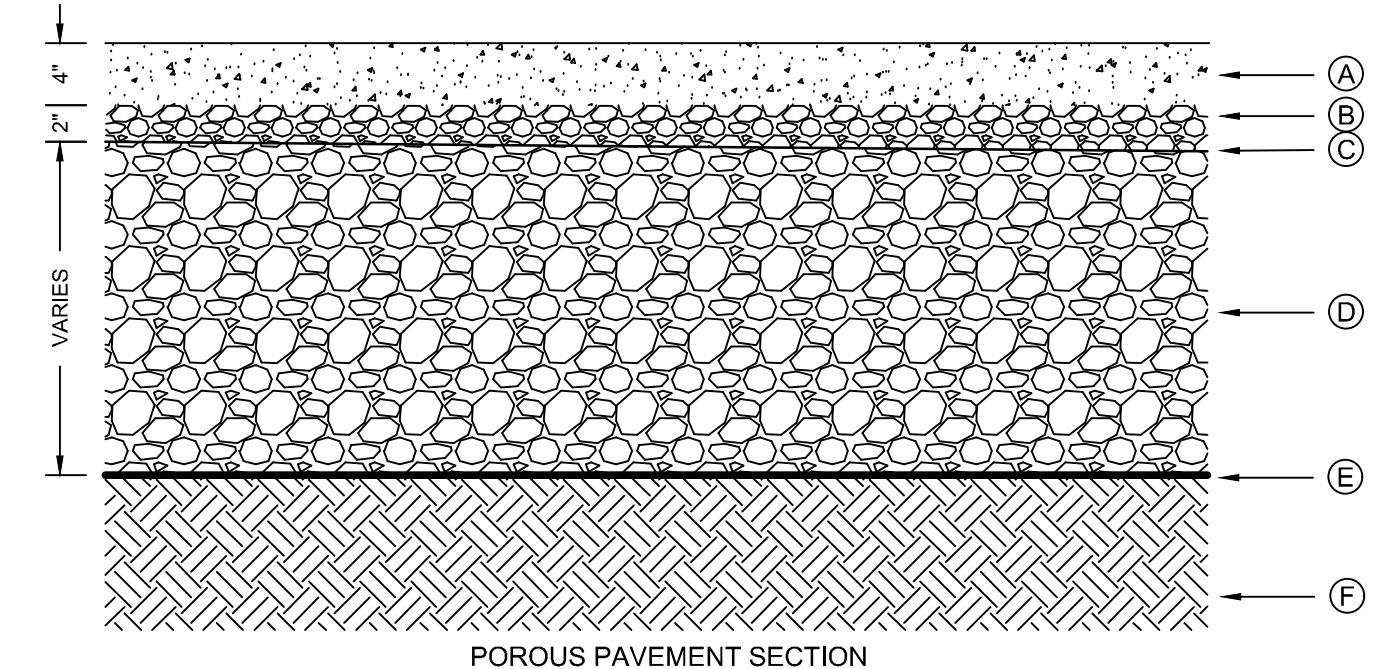
REJECT



- NOTES:
1. CONTRACTOR TO VERIFY ADA RAMP DETAIL WITH CITY AND ADJUST AS NEEDED.
 2. PROVIDE DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES OF SIZE, SPACING AND CONTRAST REQUIRED BY ADA GUIDELINES.
 3. DETECTABLE WARNINGS SHALL BE PER CITY STANDARDS.

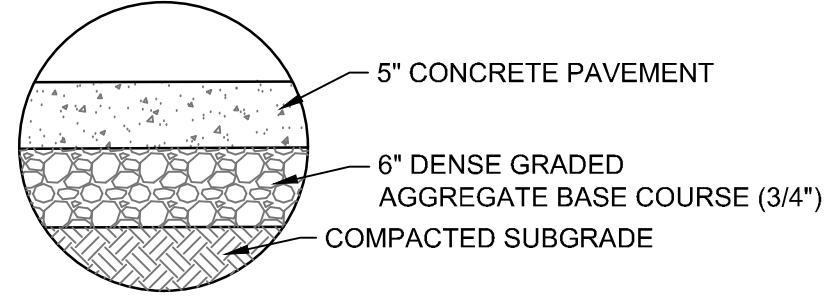
B PAVE ADA RAMP - TYPE 1 SCALE: 1" = 1'

A PAVE 18 INCH CONCRETE CURB AND GUTTER SCALE: 1" = 1'

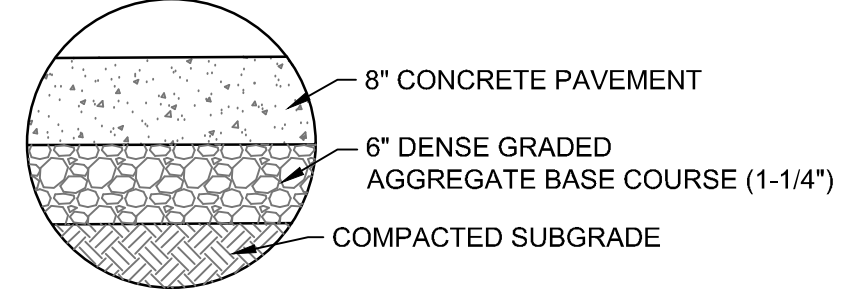


- LEGEND:
- A - POROUS ASPHALT PAVEMENT #4 HMA SINGLE LIFT
 - B - BASE LAYER ASTM NO. 57
 - C - GEOTEXTILE FABRIC TYPE SAS
 - D - AGGREGATE STORAGE ASTM NO. 2 ENSURE A 40% VOID SPACE
 - E - 45 MIL EPDM OR 30 MIL PVC LINER
 - F - SUBGRADE

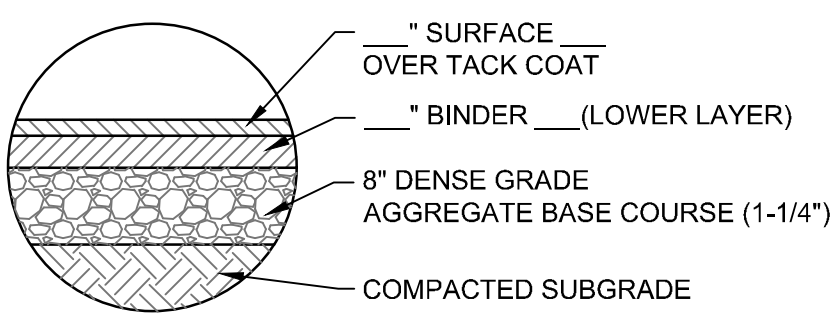
C PAVE POROUS PAVEMENT WITH LINER SCALE: 1" = 1'



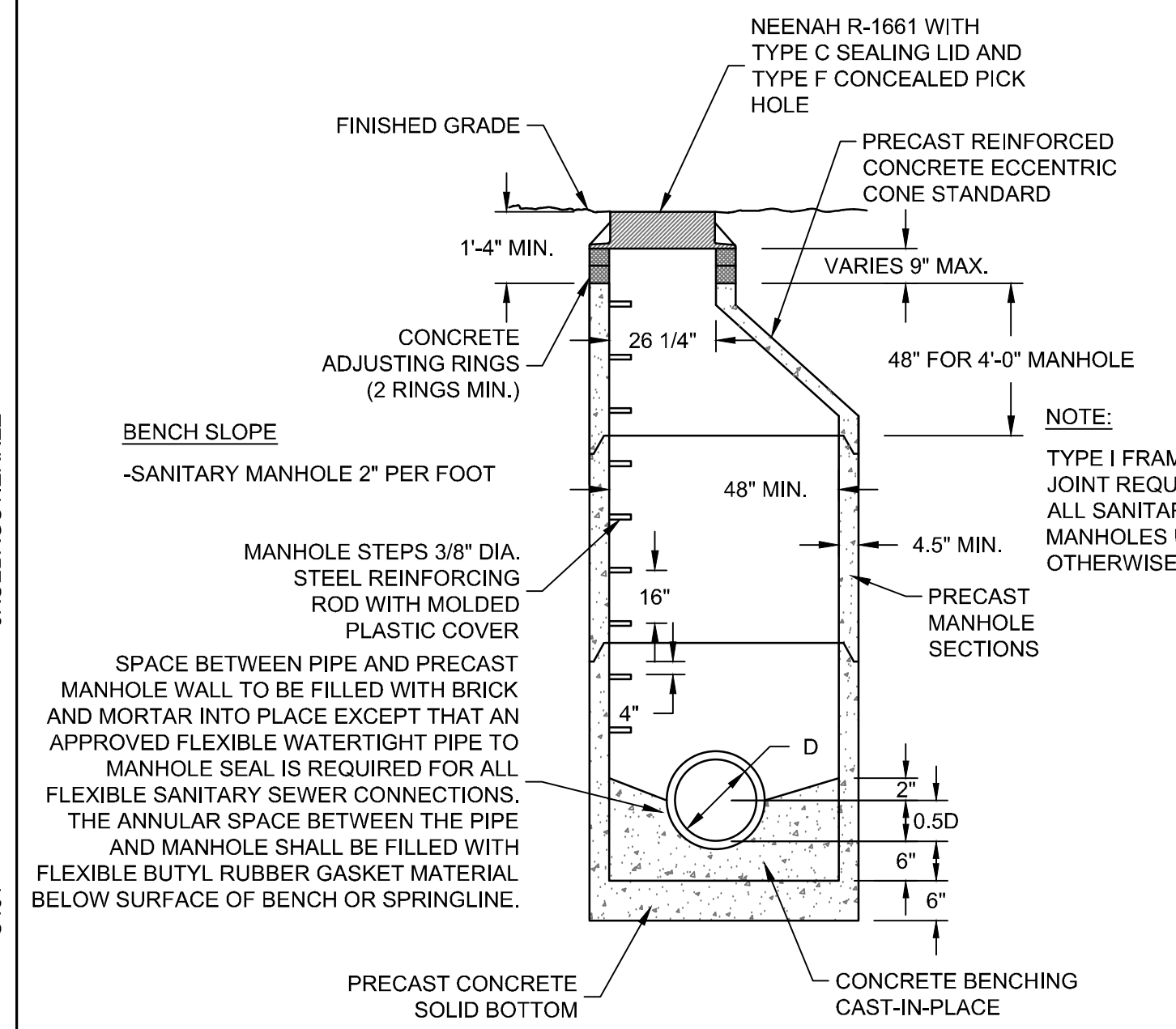
D PAVE CONCRETE SIDEWALK SECTION SCALE: 1" = 1'



E PAVE CONCRETE PAVEMENT SECTION SCALE: 1" = 1'

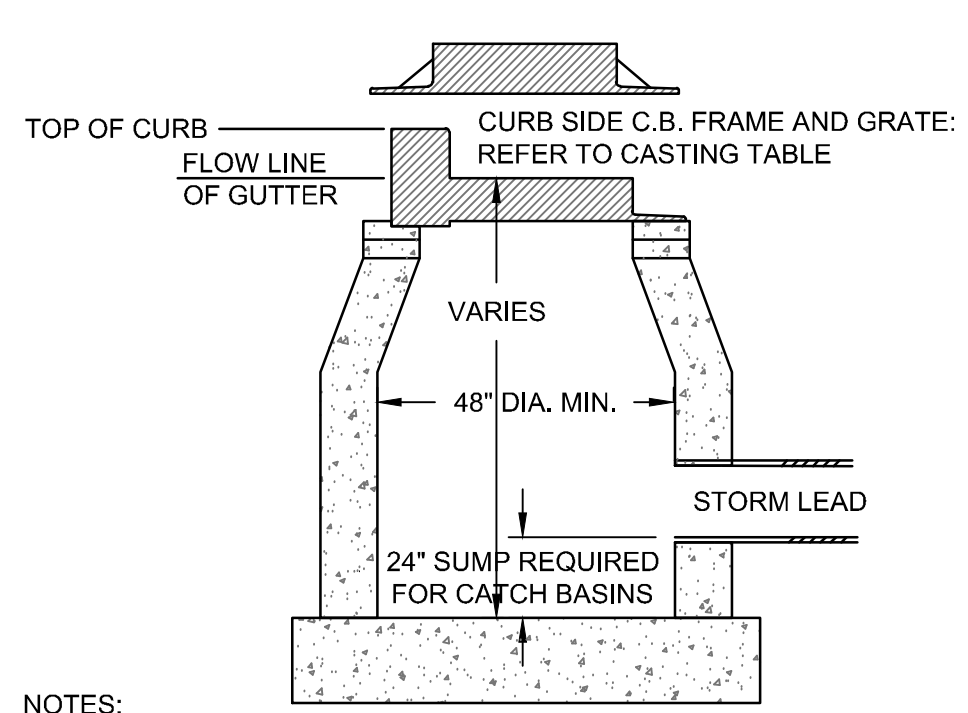
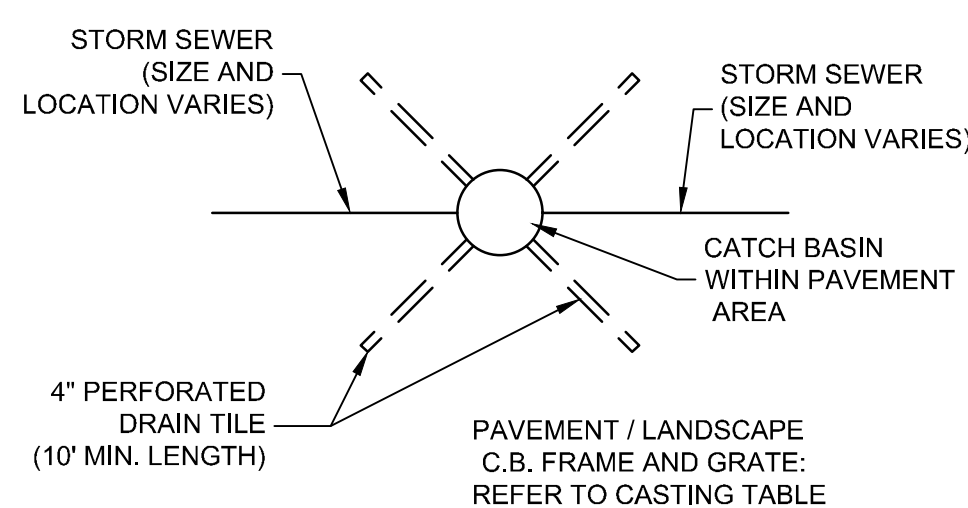


F PAVE ASPHALT PAVEMENT SECTION SCALE: 1" = 1'



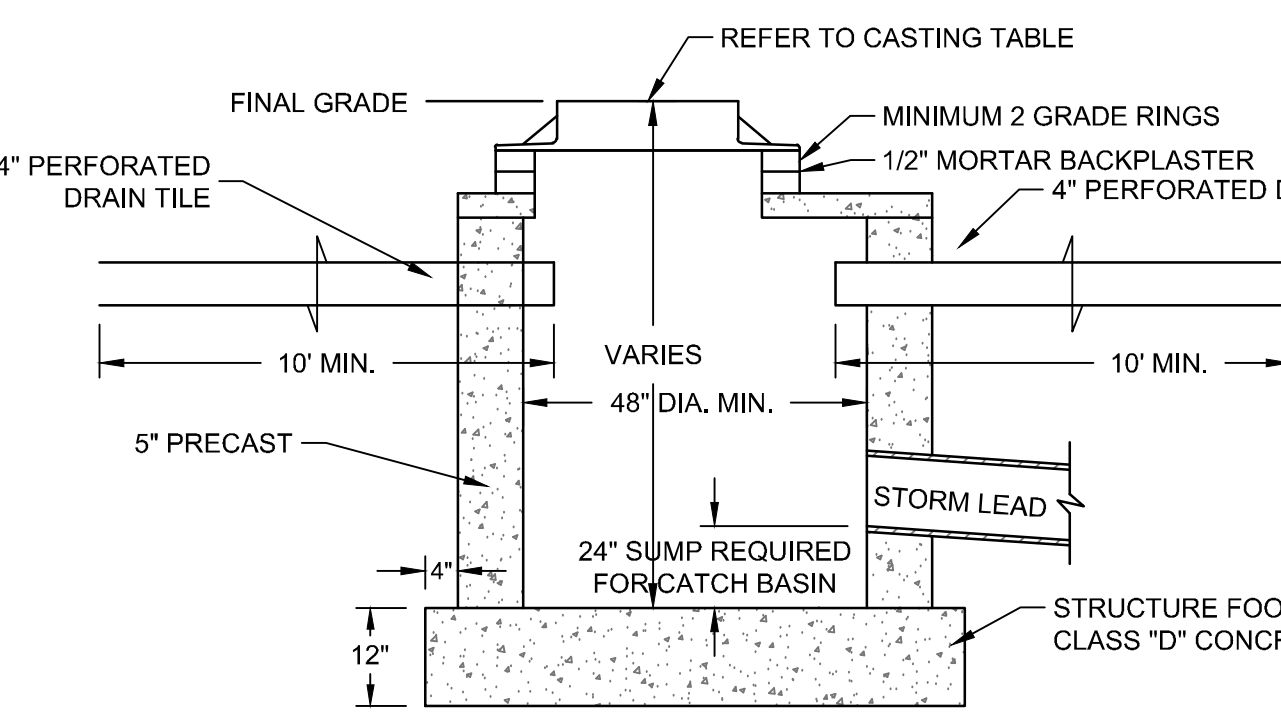
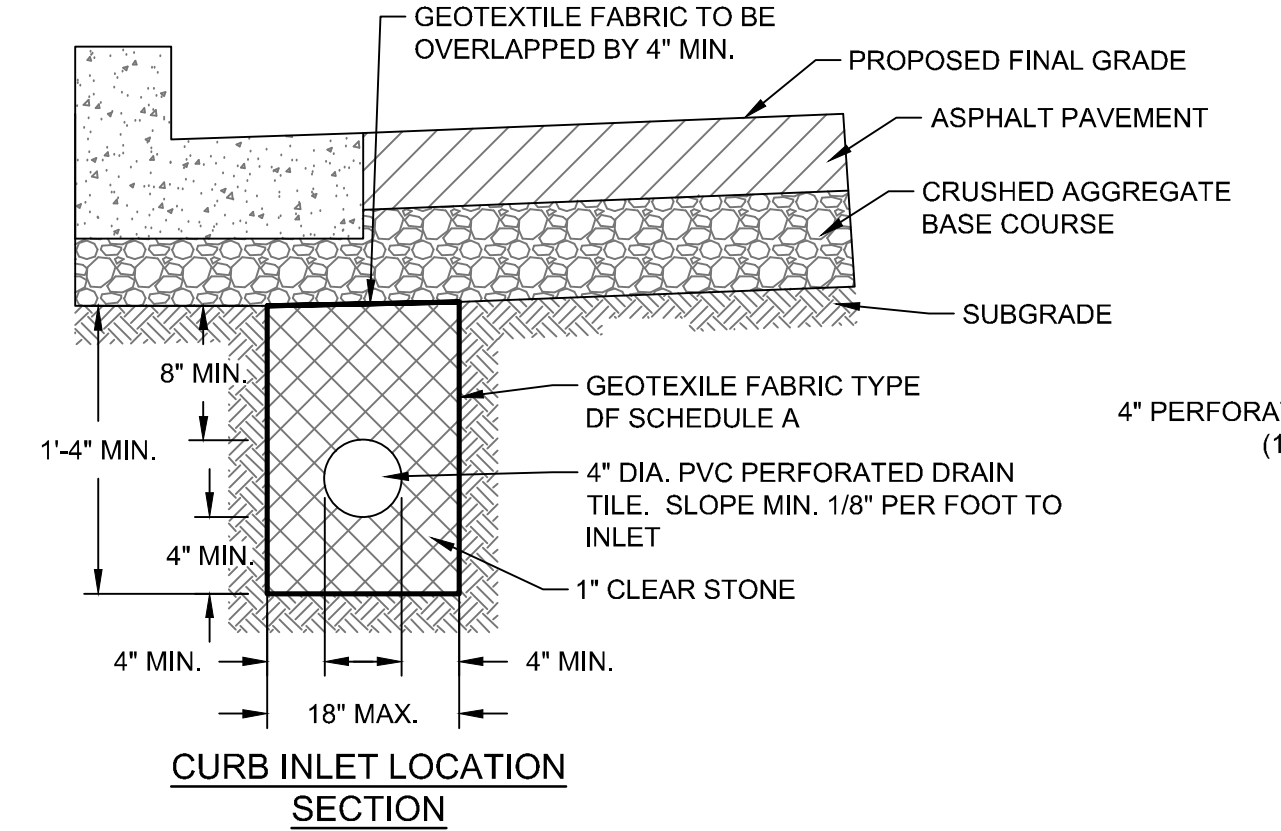
G SAN PRECAST SANITARY MANHOLE SCALE: 1" = 1'

CATCH BASIN WITHIN LOW POINT OF PAVEMENT AREA



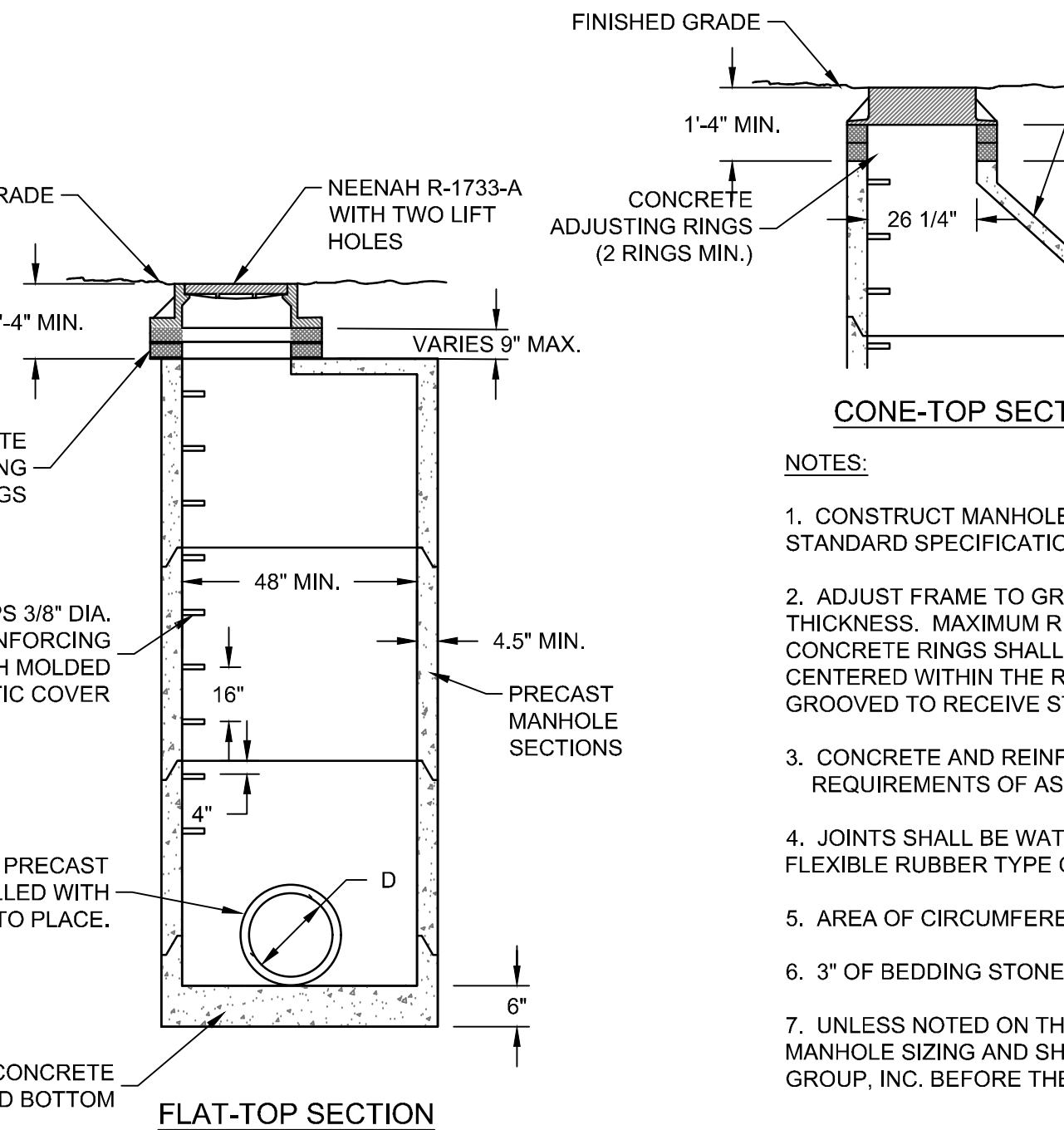
- NOTES:
1. ADJUST FRAME TO GRADE WITH CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT = 6". MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING.
 2. CONCRETE AND REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C-478.
 3. 3" BEDDING OF STONE UNDER BASE REQUIRED ON WET SUB-GRADE. UNLESS NOTED ON THE PLANS CONTRACTOR IS RESPONSIBLE FOR ALL CATCH BASIN SIZING AND SHALL PROVIDE A SHOP DRAWING TO THE SIGMA GROUP, INC. BEFORE THEY ARE RELEASED FOR PRODUCTION.
 - 4.

H STRM INLET AND CATCH BASIN SCALE: 1" = 1'

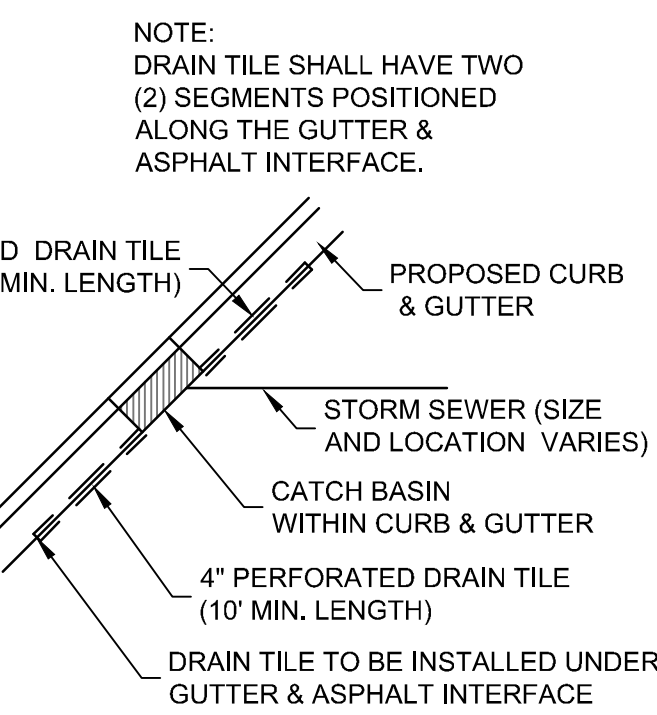


CATCH BASIN / INLET CASTING TABLE

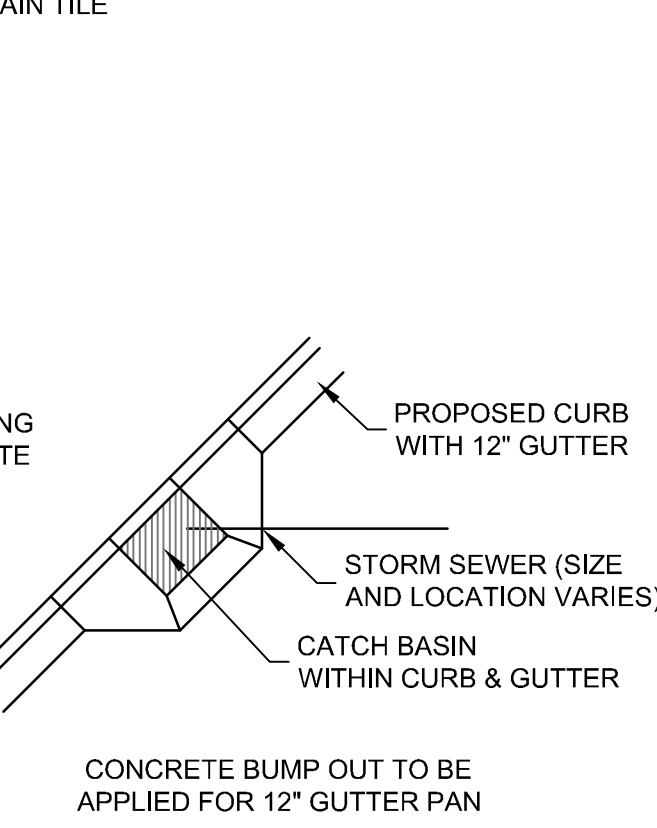
	IF 18" CURB & GUTTER		IF 24" CURB & GUTTER		IF 30" CURB & GUTTER	
	CASTING	GRATE	CASTING	GRATE	CASTING	GRATE
CURB INLET	NEENAH R-3067	A	NEENAH R-3067	A	NEENAH R-3228H	C
AREA INLET	NEENAH R-2050	C				



I STRM PRECAST STORM MANHOLE SCALE: 1" = 1'



CURB INLET WITHIN CURB & GUTTER PLAN



CONCRETE BUMP OUT TO BE APPLIED FOR 12" GUTTER PAN

- NOTES:
1. CONSTRUCT MANHOLE IN ACCORDANCE WITH FILE NO. 12 OF THE STATE STANDARD SPECIFICATIONS FOR SEWER AND WATER.
 2. ADJUST FRAME TO GRADE WITH CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT = 6". MINIMUM RING HEIGHT = 2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY RINGS SHALL BE GROOVED TO RECEIVE STEP.
 3. CONCRETE AND REINFORCEMENT STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION C-478.
 4. JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING MORTAR, OR FLEXIBLE RUBBER TYPE GASKETS FOR STORM MANHOLES.
 5. AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ. INCH PER LINEAL FOOT MIN.
 6. 3" OF BEDDING STONE UNDER BASE.
 7. UNLESS NOTED ON THE PLANS CONTRACTOR IS RESPONSIBLE FOR ALL MANHOLE SIZING AND SHALL PROVIDE A SHOP DRAWING TO THE SIGMA GROUP, INC. BEFORE THEY ARE RELEASED FOR PRODUCTION.

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

SCALE: ---

PROJECT NO: 20401

DESIGN DATE: ---

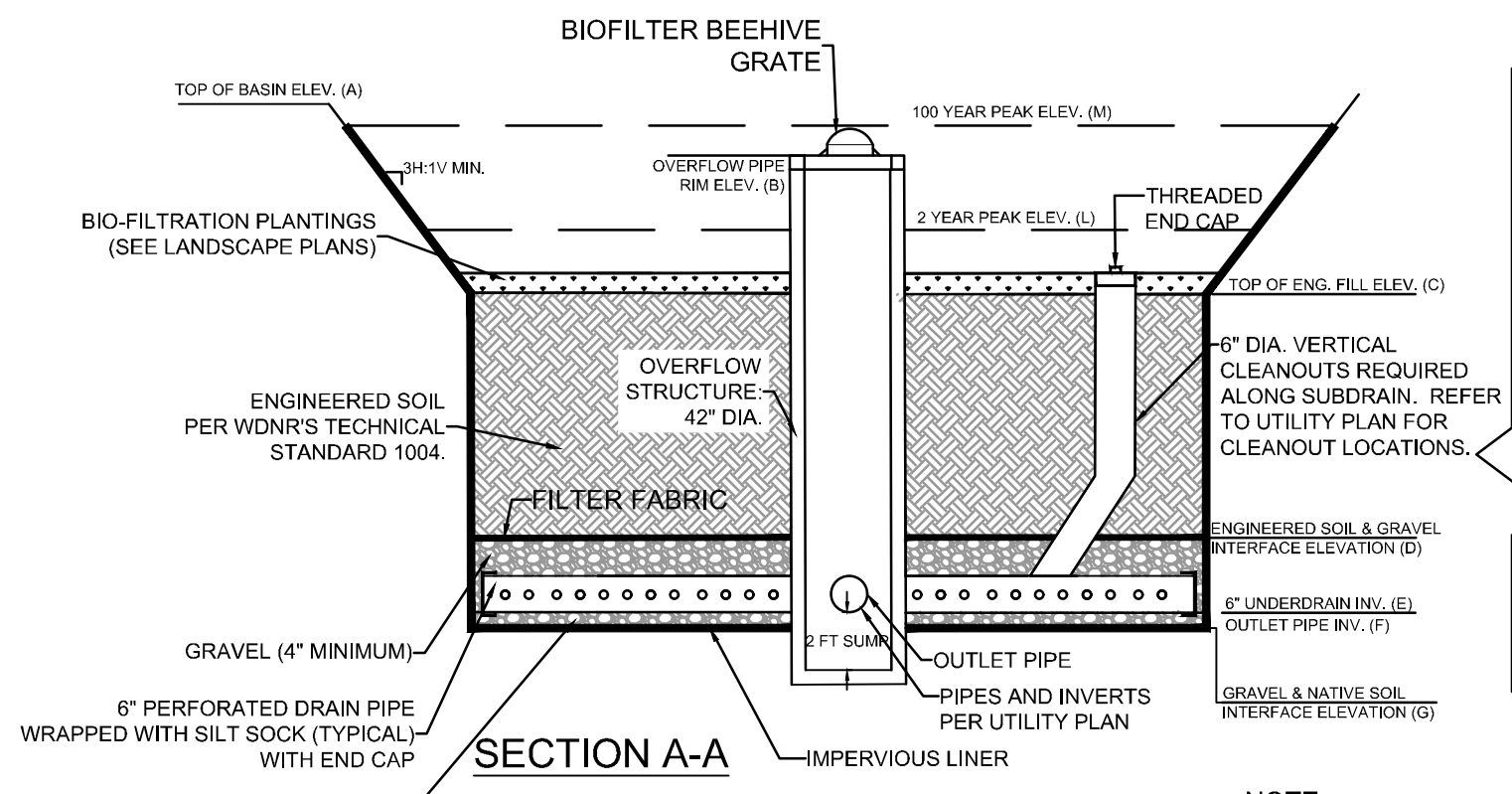
PLOT DATE: 4/22/2022

DRAWN BY: JRG

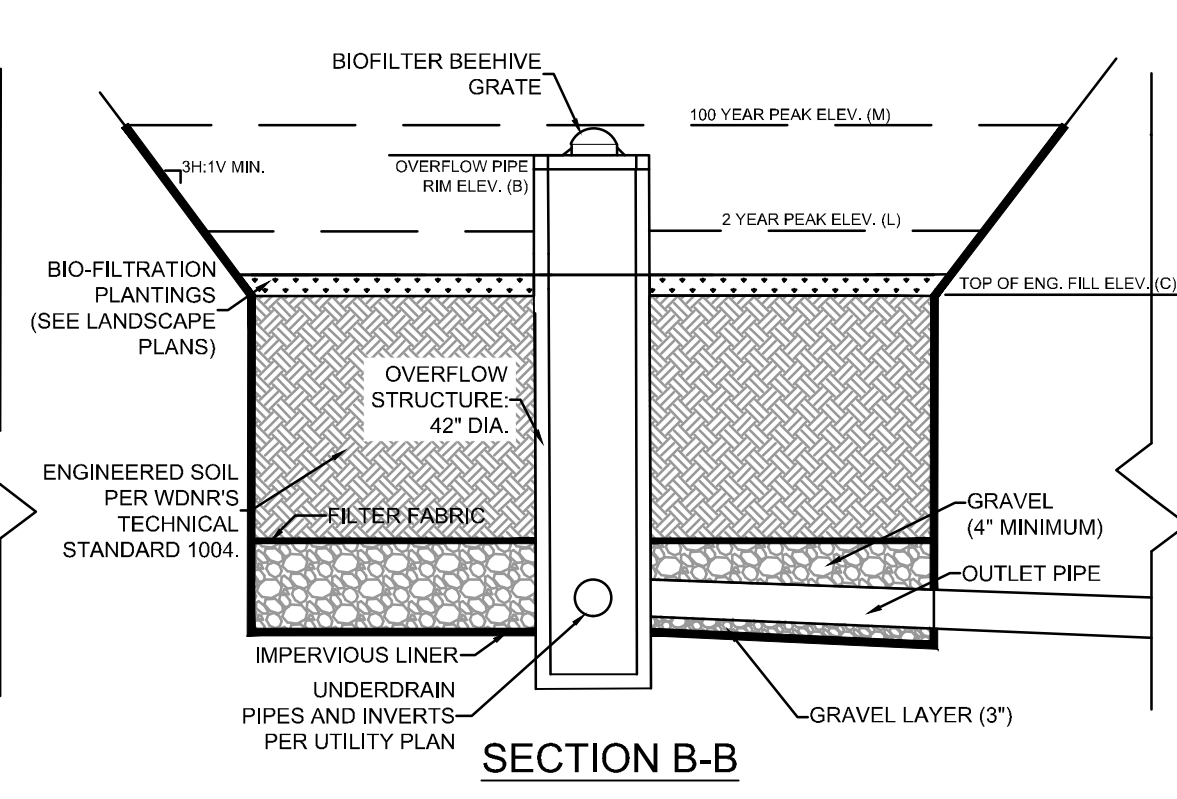
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SHEET NO: ---

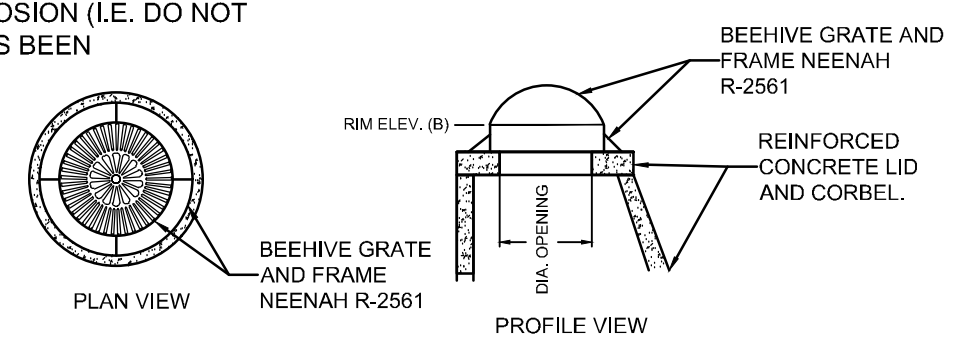


TYPICAL BIO-FILTRATION DETAILS (BIO-FILTRATION BASIN 1)



SECTION B-B

NOTE: BIO-INFILTRATION BASIN SHALL NOT BE BROUGHT ONLINE UNTIL AREA DRAINING TO THE BASIN HAS ACHIEVED 90% STABILIZATION FROM EROSION (I.E. DO NOT PLACE ENGINEERED SOIL UNTIL SITE HAS BEEN STABILIZED).

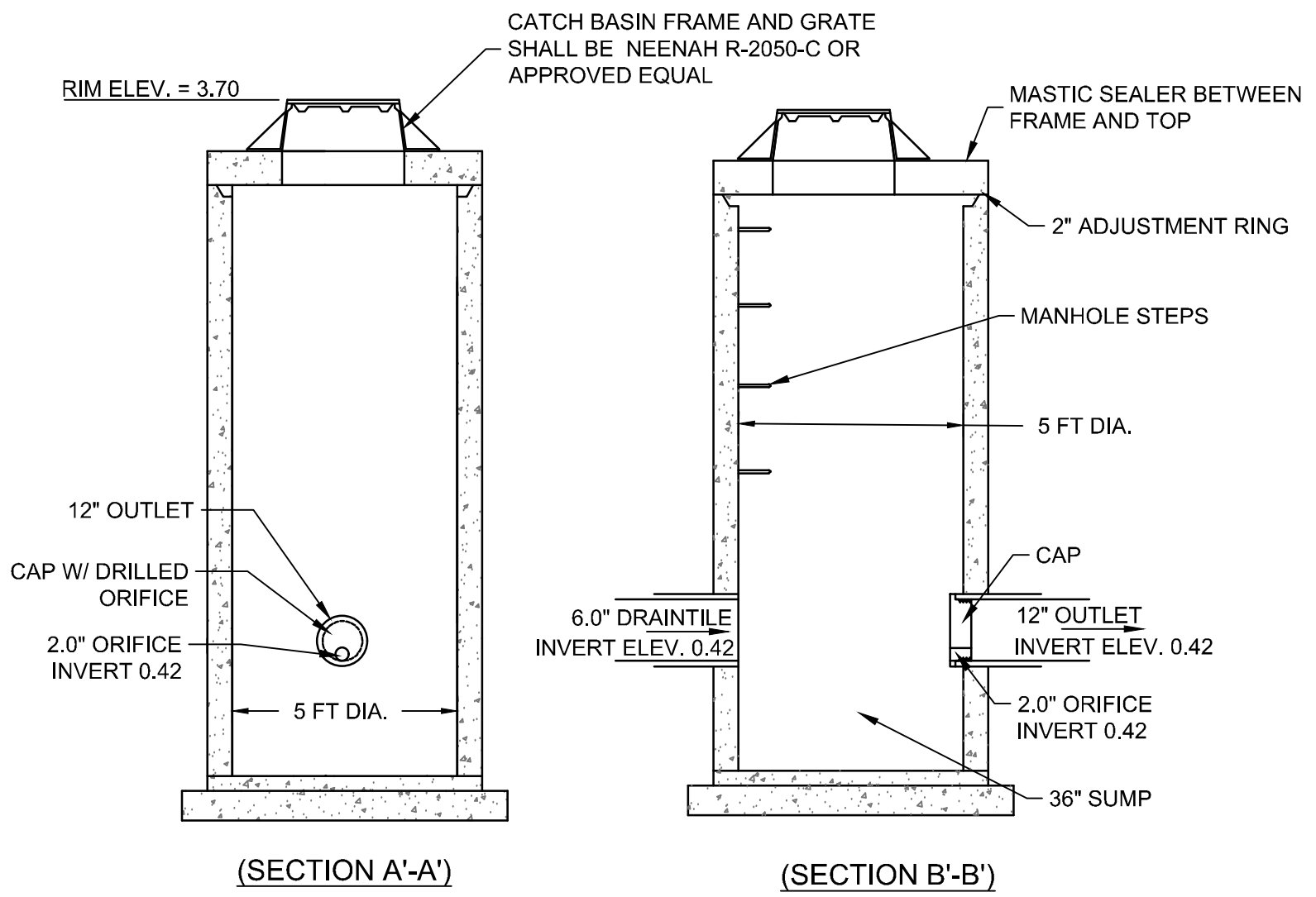


BIOFILTRATION AREA - GRATE DETAIL

BIO-FILTRATION AREA	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(K)	(L)	(M)	
	TOP OF POND	OVERFLOW RIM ELEVATION	TOP OF ENGINEERED FILL ELEVATION	ENGINEERED SOIL AND GRAVEL INTERFACE ELEVATION	6" DIAMETER UNDERDRAIN ELEVATION	OUTLET PIPE SIZE	OUTLET PIPE ELEVATION	GRAVEL AND NATIVE SOIL INTERFACE ELEVATION	SPILLWAY CREST ELEVATION	2 YR WATER ELEVATION	100 YR WATER ELEVATION
BIO 1	3.75	3.70	2.75	1.25	0.42	12	0.42	0.42	-	2.03	3.69

NOTE:
1. BIO-FILTRATION BASINS THAT HAVE MULTIPLE VERTICAL ORIFICES SHALL BE INSTALLED AT THE SAME ELEVATION AS IDENTIFIED IN THE TABLE.
2. MULTIPLE VERTICAL ORIFICES SHALL HAVE A MINIMUM OF 12 INCHES HORIZONTAL SEPARATION.

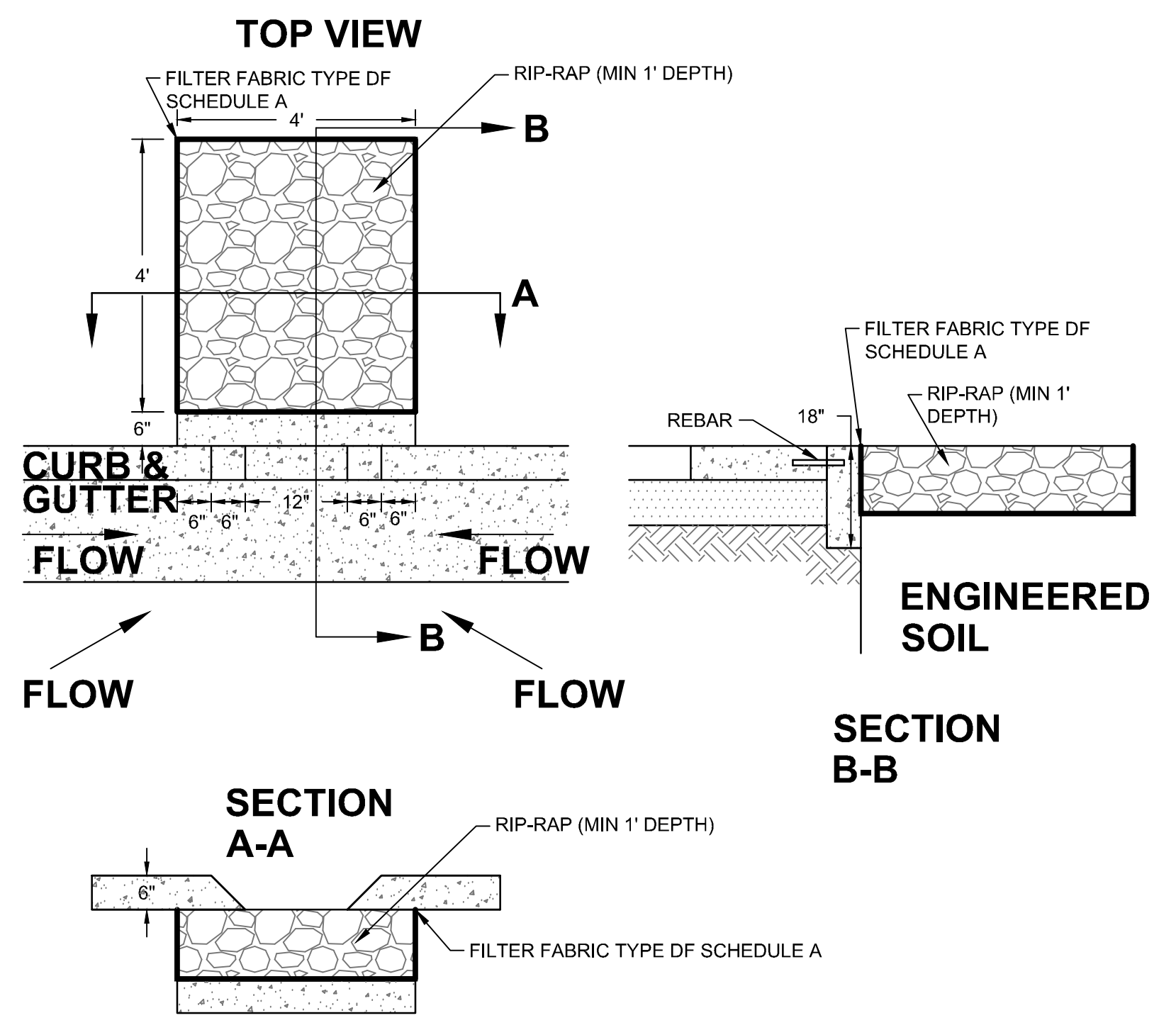
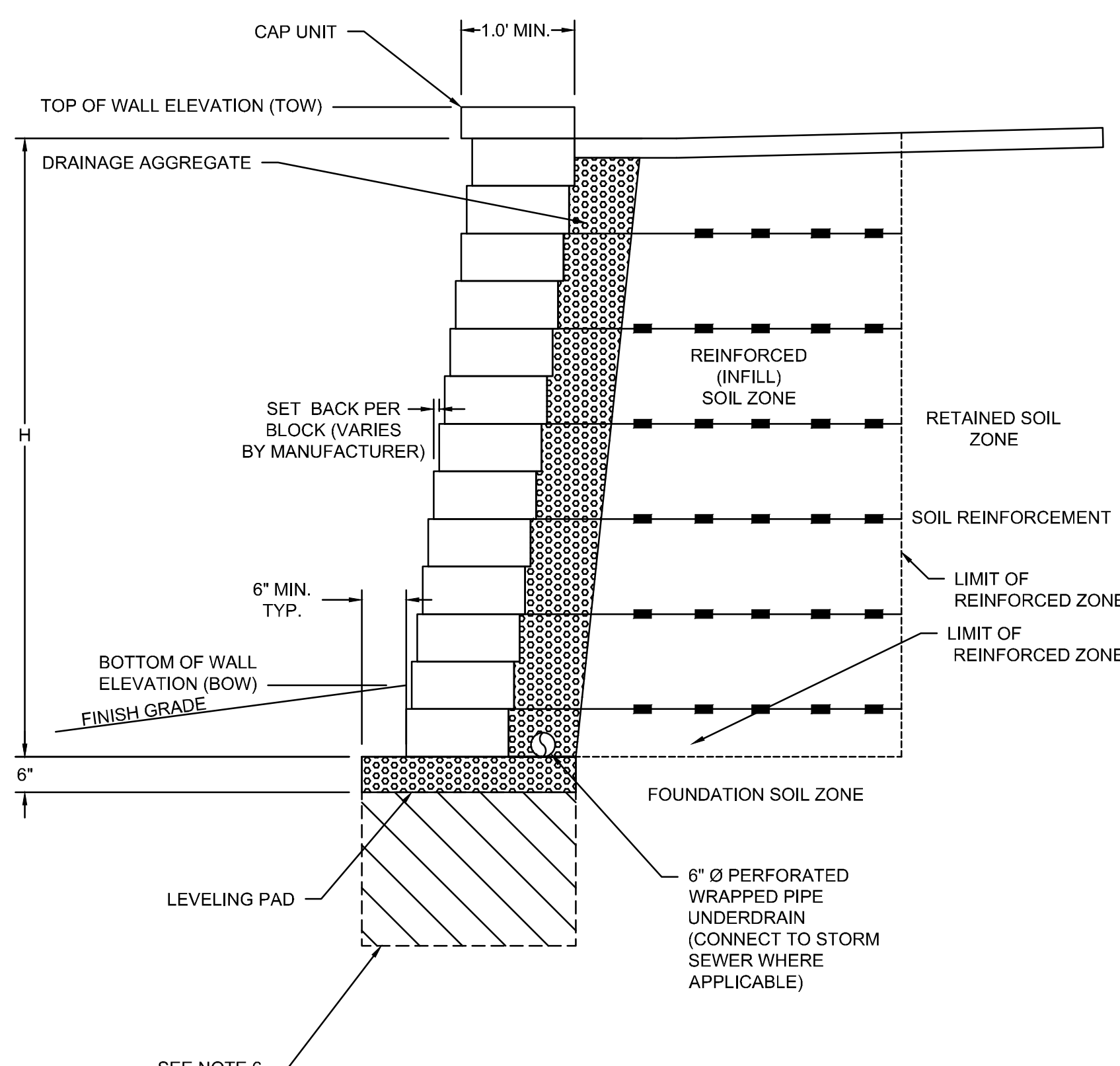
(A) BIOFILTRATION BASIN DETAIL SCALE: N.T.S.



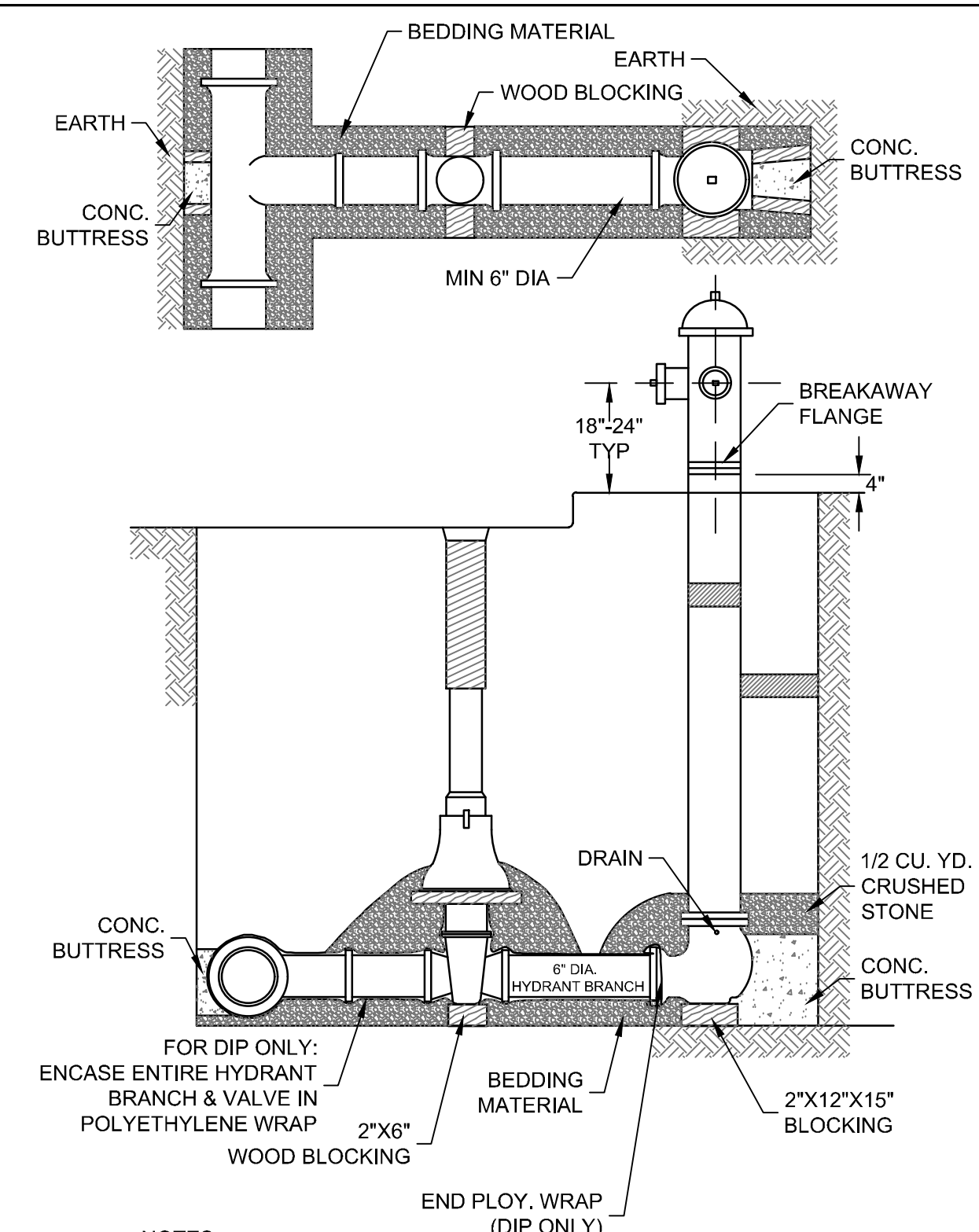
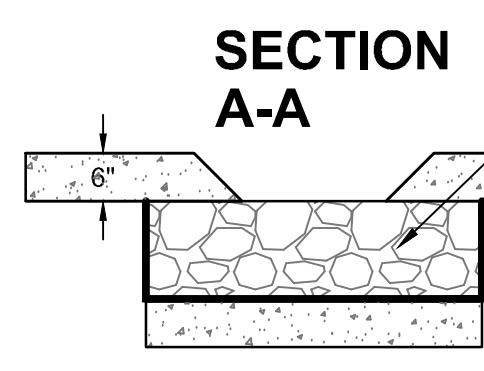
(B) STRM_OUTLET CONTROL - REDUCER CAP SCALE: 1" = 1'

- NOTES:
- RETAINING WALL SYSTEM SHALL BE KEYSTONE, ROCKWOOD, OR APPROVED EQUAL.
 - TYPICAL SECTION IS FOR CONCEPTUAL DESIGN ONLY. THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND STAMPED AND SEALED SHOP DRAWINGS AND STABILITY CALCULATIONS FOR THE RETAINING WALLS TO THE ENGINEER. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF THESE ITEMS SHALL BE INCLUDED.
 - GEOGRID REINFORCEMENT SPACING AND LENGTH PER MANUFACTURER'S ENGINEER RECOMMENDATIONS.
 - GEOTECHNICAL ENGINEER MAY REQUIRE THAT ADDITIONAL DRAIN PIPING IS NEEDED DEPENDENT UPON SOILS ENCOUNTERED DURING WALL CONSTRUCTION.
 - WALL STRUCTURE TO BE VERIFIED WITH GEOTECHNICAL ENGINEER.
 - ANY SPECIAL TREATMENT SOILS BELOW LEVELING PAD WHICH ARE SUBJECT TO FROST HEAVE SHALL BE DESIGNED BY STRUCTURAL ENGINEER OF RECORD.
 - PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.
 - THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS SHEET AND GRADING PLAN SHEETS.
 - STYLE AND COLOR OF THE MODULAR BLOCK SHALL BE SELECTED BY THE OWNER AND ARCHITECT
 - PROTECTIVE RAILINGS/GUARD RAILS REQUIRED FOR ALL RETAINING WALLS ADJACENT TO PEDESTRIAN PATHS TO BE VERIFIED BY WALL DESIGNER, ARCHITECT, AND LOCAL JURISDICTION.

(E) MODULAR BLOCK MSE WALL (TYP.) SCALE: N.T.S.



SECTION B-B



- NOTES:
1. ENTIRE HYDRANT LEAD SHALL BE RESTRAINED BY MEGA-LUG OR APPROVED EQUAL
2. CONTRACTOR SHALL USE ANCHOR TEE AND VALVE WHEN ALLOWED BY LOCAL INSPECTOR

(C) WAT_HYDRANT SETTING SCALE: 1" = 1'

FITTING TYPE	4" DIAMETER	6" DIAMETER	8" DIAMETER	12" DIAMETER	16" DIAMETER	20" DIAMETER
HORIZONTAL BEND - 11.25°	5	5	5	5	8	8
HORIZONTAL BEND - 22.5°	8	8	8	10	10	15
HORIZONTAL BEND - 45°	10	10	12	16	20	26
HORIZONTAL BEND - 90°	16	20	25	32	40	52
* RESTRAIN LARGER SIZED PIPE						
REDUCER - DIA. X 4"	-	25	50	60	80	130
REDUCER - DIA. X 6"	-	-	25	60	100	125
REDUCER - DIA. X 8"	-	-	-	50	80	120
REDUCER - DIA. X 12"	-	-	-	-	50	100
REDUCER - DIA. X 16"	-	-	-	-	-	50
DEAD END	40	40	60	90	120	150
TEE OR CROSS - RUN	10	10	10	20	30	40
TEE - 4" BRANCH	8	6	6	6	6	6
TEE - 6" BRANCH	-	8	6	6	6	6
TEE - 8" BRANCH	-	-	10	6	6	6
TEE - 12" BRANCH	-	-	-	12	6	6
TEE - 16" BRANCH	-	-	-	-	30	10
TEE - 20" BRANCH	-	-	-	-	-	50
VERTICAL BEND - 45° - UPPER	12	20	26	40	50	60
VERTICAL BEND - 45° - LOWER	5	5	6	10	12	14
VERTICAL BEND - 22.5° - UPPER	8	10	14	18	24	28
VERTICAL BEND - 22.5° - LOWER	4	5	5	8	8	8
VERTICAL BEND - 11.25° - UPPER	6	6	8	10	12	14
VERTICAL BEND - 11.25° - LOWER	4	4	4	4	4	6

* WHERE RESTRAINT LENGTHS ARE NOT IDENTIFIED ON THE PLANS, THE VALUES IN THIS TABLE SHALL BE PROVIDED AS A MINIMUM

(D) WAT_JOINT RESTRAINT TABLE SCALE: 1" = 1'

WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI

PRELIMINARY
NOT FOR
CONSTRUCTION

SCALE:	
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/22/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	C402

GENERAL:

- 1. EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY, AND NO RESPONSIBILITY IS ASSUMED BY THE OWNER OR ENGINEER FOR THEIR ACCURACY OR COMPLETENESS.
2. CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERE TO.
3. LENGTHS OF ALL UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLANS. LENGTHS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

SITE CLEARING:

- 1. EXCEPT FOR STRIPPED TOPSOIL OR OTHER MATERIALS INDICATED TO REMAIN ON OWNER'S PROPERTY, CLEARED MATERIALS SHALL BECOME CONTRACTOR'S PROPERTY AND SHALL BE REMOVED FROM PROJECT SITE.
2. MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS.
3. SALVABLE IMPROVEMENTS: CAREFULLY REMOVE ITEMS INDICATED TO BE SALVAGED AND STORE ON OWNER'S PREMISES WHERE INDICATED.
4. UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE SITE CLEARING.

SITE WATER SERVICE:

- 1. COMPLY WITH STANDARDS OF STATE PLUMBING CODE (SPS CH. 382, 384), LOCAL WATER UTILITY REQUIREMENTS AND STANDARDS OF AUTHORITIES HAVING JURISDICTION FOR FIRE-SUPPRESSION AND WATER SERVICE PIPING INCLUDING MATERIALS, FITTINGS, APURTENANCES, INSTALLATION, TESTING, SERVICE TAPS, ETC.
2. DO NOT INTERRUPT SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED BY OWNERS OF SUCH FACILITIES AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY WATER-DISTRIBUTION SERVICE.
3. WATER SERVICE PIPING MAY BE EITHER DUCTILE IRON WATER PIPE OR PVC WATER PIPE AS ALLOWED BY THE LOCAL WATER UTILITY.
4. DUCTILE IRON WATER PIPE CONFORMING TO THE REQUIREMENTS OF THE AMERICAN NATIONAL STANDARD FOR DUCTILE IRON PIPE, CENTRIFUGALLY CAST, AWWA C151/A21.51 - LATEST REVISION AND REQUIREMENTS OF CHAPTER 8.18.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

SITE WATER SERVICE CONT.:

- 21. CONDUCT HYDROSTATIC TESTS IN ACCORDANCE WITH CHAPTER 4.15.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
22. CLEAN AND DISINFECT WATER SERVICE PIPING IN ACCORDANCE WITH SPS CHAPTER 82.40(8)(J) AND AWWA C651.

SANITARY SEWERAGE:

- 1. ALL PRIVATE SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (DPS) PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL PUBLIC SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION (STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS.
3. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

STORM DRAINAGE:

- 1. ALL PRIVATE STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES (DPS) PLUMBING CODE - CHAPTERS SPS 382 AND SPS 384 AND LOCAL MUNICIPAL REQUIREMENTS.
2. ALL PUBLIC STORM SEWER WORK SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION (STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS.
3. PVC SEWER PIPE AND FITTINGS: ASTM D 3034, SDR 35, WITH BELL-AND-SPIGOT ENDS WITH RUBBER GASKETED JOINTS IN ACCORDANCE WITH CHAPTER 8.10.0 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.

EARTH MOVING CONT.:

- 9. ENGINEERED FILL: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND; ASTM D 2940; WITH AT LEAST 90 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND NOT MORE THAN 12 PERCENT PASSING A NO. 200 SIEVE OR ANY SOIL DEEMED ACCEPTABLE FOR ENGINEERED FILL BY THE PROJECT GEOTECHNICAL ENGINEER.
10. BEDDING COURSE FOR SEWERS AND WATER SERVICE: NATURALLY OR ARTIFICIALLY GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND CONFORMING TO THE REQUIREMENTS OF SECTION 8.43.2 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, LATEST EDITION.
11. DRAINAGE COURSE BENEATH BUILDING SLABS: NARROWLY GRADED MIXTURE OF WASHED, CRUSHED STONE, OR CRUSHED OR UNCRUSHED GRAVEL; ASTM D 448; COARSE-AGGREGATE GRADING SIZE 57; WITH 100 PERCENT PASSING A 1-1/2-INCH (37.5-MM) SIEVE AND 0 TO 5 PERCENT PASSING A NO. 8 SIEVE.

CONCRETE PAVING:

- 1. THE COMPOSITION, PLACING AND CONSTRUCTION OF CONCRETE PAVEMENTS SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTIONS 415, 416, 501, 601, AND 602 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS) AND LOCAL MUNICIPAL REQUIREMENTS AND SPECIFICATIONS.
2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES, JOB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS, AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER OF READY-MIXED CONCRETE PRODUCTS WHO COMPLIES WITH ASTM C 94/C 94M REQUIREMENTS FOR PRODUCTION FACILITIES AND EQUIPMENT AND APPROVED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI

SPECIFICATIONS

PRELIMINARY
NOT FOR
CONSTRUCTION

Table with project details: SCALE: NTS, PROJECT NO: 20401, DESIGN DATE: ---, PLOT DATE: 4/22/2022, DRAWN BY: JRG, CHECKED BY: ---, APPROVED BY: ---

SHEET NO: C500

CONCRETE PAVING CONT.:

- 15. CLEAN FORMS AFTER EACH USE AND COAT WITH FORM-RELEASE AGENT TO ENSURE SEPARATION FROM CONCRETE WITHOUT DAMAGE.
- 16. JOINTS GENERAL: FORM CONSTRUCTION, ISOLATION, AND CONTRACTION JOINTS AND TOOL EDGINGS TRUE TO LINE WITH FACES PERPENDICULAR TO SURFACE PLANE OF CONCRETE. CONSTRUCT TRANSVERSE JOINTS AT RIGHT ANGLES TO CENTERLINE, UNLESS OTHERWISE INDICATED. CONFORM TO SECTION 415 OF THE WISDOT STANDARD SPECIFICATIONS
- 17. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVEMENT AND AT LOCATIONS WHERE PAVEMENT OPERATIONS ARE STOPPED FOR MORE THAN ONE-HALF HOUR UNLESS PAVEMENT TERMINATES AT ISOLATION JOINTS.
- 18. ISOLATION JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT-FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, WALKS, OTHER FIXED OBJECTS, AND WHERE INDICATED.
- 19. CONTRACTION JOINTS: FORM WEAKENED-PLANE CONTRACTION JOINTS. SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS TO MATCH JOINTING OF EXISTING ADJACENT CONCRETE PAVEMENT.
- 20. EDGING: TOOL EDGES OF PAVEMENT, GUTTERS, CURBS, AND JOINTS IN CONCRETE AFTER INITIAL FLOATING WITH AN EDGING TOOL TO A 1/4-INCH RADIUS. REPEAT TOOLING OF EDGES AFTER APPLYING SURFACE FINISHES. ELIMINATE TOOL MARKS ON CONCRETE SURFACES.
- 21. CURBING: COMPLY WITH SECTION 601 OF THE WISDOT STANDARD SPECIFICATIONS.
- 22. SIDEWALKS: COMPLY WITH SECTION 602 OF THE WISDOT STANDARD SPECIFICATIONS.
- 23. MOISTEN AGGREGATE TO PROVIDE A UNIFORM DAMPENED CONDITION AT TIME CONCRETE IS PLACED.
- 24. FINISH CURBING IN ACCORDANCE WITH SECTION 601.3.5 OF THE WISDOT STANDARD SPECIFICATIONS.
- 25. FINISH SIDEWALK AND PATIO IN ACCORDANCE WITH SECTION 602.3.2.3 OF THE WISDOT STANDARD SPECIFICATIONS (LIGHT BROOM FINISH).
- 26. FINISH CONCRETE VEHICULAR PAVEMENTS AND PADS IN ACCORDANCE WITH SECTION 415.3.8 OF THE WISDOT STANDARD SPECIFICATIONS (ARTIFICIAL TURF DRAG FINISH).
- 27. PROTECT AND CURE SIDEWALK IN ACCORDANCE WITH SECTION 602.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
- 28. PROTECT AND CURE CURBING IN ACCORDANCE WITH SECTION 601.3.7 OF THE WISDOT STANDARD SPECIFICATIONS.
- 29. PROTECT AND CURE VEHICULAR CONCRETE PAVING IN ACCORDANCE WITH SECTION 415.3.12 OF THE WISDOT STANDARD SPECIFICATIONS.
- 30. REMOVE AND REPLACE CONCRETE PAVEMENT THAT IS BROKEN, DAMAGED, OR DEFECTIVE OR THAT DOES NOT COMPLY WITH REQUIREMENTS IN THIS SECTION.
- 31. PROTECT CONCRETE FROM DAMAGE. EXCLUDE TRAFFIC FROM PAVEMENT FOR AT LEAST 7 DAYS AFTER PLACEMENT.
- 32. MAINTAIN CONCRETE PAVEMENT FREE OF STAINS, DISCOLORATION, DIRT, AND OTHER FOREIGN MATERIAL. SWEEP CONCRETE PAVEMENT NOT MORE THAN TWO DAYS BEFORE DATE SCHEDULED FOR SUBSTANTIAL COMPLETION INSPECTIONS.

ASPHALTIC PAVING:

- 1. THE COMPOSITION, PLACING AND CONSTRUCTION OF ASPHALTIC PAVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460, 465, AND 475 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS).
- 2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES; JOB-MIX DESIGNS; CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS; AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
- 3. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE REGISTERED WITH AND APPROVED BY THE DOT OF THE STATE IN WHICH PROJECT IS LOCATED.
- 4. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF BASE COURSE IS WET OR EXCESSIVELY DAMP OR IF THE FOLLOWING CONDITIONS ARE NOT MET: APPLY TACK COAT WHEN AMBIENT TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES FAHRENHEIT FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION; PLACE ASPHALTIC CONCRETE SURFACE COURSE WHEN TEMPERATURE IS ABOVE 40 DEGREES FAHRENHEIT; BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30 DEGREES FAHRENHEIT AND RISING. PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. DO NOT APPLY BELOW THE MINIMUM PAVEMENT TEMPERATURE AS RECOMMENDED BY THE MANUFACTURER.
- 5. AGGREGATES SHALL BE IN ACCORDANCE WITH SECTION 460.2.2 OF THE WISDOT STANDARD SPECIFICATIONS.
- 6. ASPHALT MATERIALS SHALL BE IN ACCORDANCE WITH CHAPTER 455 OF THE WISDOT STANDARD SPECIFICATIONS.
- 7. PAVEMENT MARKING PAINT: PROVIDE PAINT FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCTS LIST. COLOR SHALL BE WHITE UNLESS INDICATED OTHERWISE ON PLANS.
- 8. HOT-MIX ASPHALT: ASPHALTIC BINDER COURSE AND SURFACE COURSE SHALL BE MIXTURE LT FOR REGULAR DUTY PAVEMENT AND LT FOR HEAVY DUTY PAVEMENT COMPLYING WITH THE WISDOT STANDARD SPECIFICATIONS. ASPHALTIC BINDER SHALL BE 58-28 S UNLESS NOTED.
- 9. AGGREGATE BASE COURSE BENEATH PAVEMENTS: SHALL BE 1-1/4" DENSE GRADED BASE COURSE CONFORMING TO SECTION 305 OF THE WISDOT STANDARD SPECIFICATIONS.
- 10. PAVEMENT PLACEMENT GENERAL: ASPHALT CONCRETE PAVING EQUIPMENT, WEATHER LIMITATIONS, JOB-MIX FORMULA, MIXING, CONSTRUCTION METHODS, COMPACTION, FINISHING, TOLERANCE AND PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS.
- 11. PREPARE AND PROOFROLL SUBGRADES AND AGGREGATE BASE COURSE AS OUTLINED IN EARTH MOVING SPECIFICATIONS PRIOR TO PLACEMENT OF ASPHALT PAVEMENTS.
- 12. SWEEP LOOSE GRANULAR PARTICLES FROM SURFACE OF AGGREGATE BASE COURSE PRIOR TO PAVEMENT PLACEMENT. DO NOT DISLodge OR DISTURB AGGREGATE EMBEDDED IN COMPACTED SURFACE OF BASE COURSE.
- 13. SPREAD AND FINISH ASPHALTIC MIXTURE IN ACCORDANCE WITH SECTION 450.3.2.5 OF THE WISDOT STANDARD SPECIFICATIONS. PAVEMENT THICKNESSES SHALL BE AS INDICATED ON THE PLANS.
- 14. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. USE SUITABLE HAND TOOLS TO REMOVE EXCESS MATERIAL FORMING HIGH SPOTS. FILL DEPRESSIONS WITH HOT-MIX ASPHALT TO PREVENT SEGREGATION OF MIX; USE SUITABLE HAND TOOLS TO SMOOTH SURFACE.
- 15. COMPACT ASPHALTIC PAVEMENT IN ACCORDANCE WITH SECTION 450.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS.
- 16. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.
- 17. THICKNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN PLUS/MINUS 1/4 INCH FOR BINDER COURSE AND PLUS 1/4 INCH FOR SURFACE COURSE, NO MINUS.
- 18. SURFACE SMOOTHNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS; BINDER COURSE: 1/4 INCH; SURFACE COURSE: 1/8 INCH. REMOVE AND REPLACE ALL HUMPS OR DEPRESSIONS EXCEEDING THE SPECIFIED TOLERANCES.
- 19. DO NOT APPLY PAVEMENT-MARKING PAINT UNTIL LAYOUT, COLORS, AND PLACEMENT HAVE BEEN VERIFIED WITH ENGINEER.
- 20. APPLY MARKINGS TO A DRY SURFACE FREE FROM FROST. REMOVE DUST, DIRT, OIL, GREASE, GRAVEL, DEBRIS OR OTHER MATERIAL THAT MAY PREVENT BONDING TO THE PAVEMENT.
- 21. APPLY PAINT AS THE MANUFACTURER SPECIFIES WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS, OF DIMENSIONS INDICATED, WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES AT A MINIMUM RATE OF 17.6 GALLONS/MILE FOR A CONTINUOUS 4" LINE.
- 22. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND TO PREPARE TEST REPORTS.

SEGMENTAL RETAINING WALL:

- 1. WORK SHALL CONSIST OF FURNISHING DETAILED DESIGN, MATERIALS, LABOR, EQUIPMENT AND SUPERVISION TO INSTALL A SEGMENTAL RETAINING WALL SYSTEM IN ACCORDANCE WITH PLANS AND SPECIFICATIONS AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN AND DIMENSIONS SHOWN ON PLANS.
- 2. MATERIALS SUBMITTALS: THE CONTRACTOR SHALL SUBMIT MANUFACTURERS' CERTIFICATIONS TWO WEEKS PRIOR TO START OF WORK STATING THAT THE SRW UNITS AND GEOSYNTHETIC REINFORCEMENT MEET THE REQUIREMENTS OF THE DESIGN.
- 3. DESIGN SUBMITTAL: THE CONTRACTOR SHALL SUBMIT TWO SETS OF DETAILED DESIGN CALCULATIONS AND FINAL RETAINING WALL PLANS FOR APPROVAL AT LEAST TWO WEEKS PRIOR TO THE BEGINNING OF WALL CONSTRUCTION. ALL CALCULATIONS AND DRAWINGS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL CIVIL ENGINEER (P.E.) - (WALL DESIGN ENGINEER) EXPERIENCED IN SRW DESIGN AND LICENSED IN THE STATE WHERE THE WALL IS TO BE BUILT.
- 4. SEGMENTAL RETAINING WALL (SRW) UNITS SHALL BE MACHINE FORMED, PORTLAND CEMENT CONCRETE BLOCKS SPECIFICALLY DESIGNED FOR RETAINING WALL APPLICATIONS. SRW UNITS SHALL BE VERSA-LOK STANDARD RETAINING WALL UNITS, KEYSTONE RETAINING WALL UNITS, ROCKWOOD RETAINING WALL UNITS OR APPROVED EQUAL.
- 5. COLOR AND STYLE OF SRW UNITS SHALL BE AS SELECTED BY ARCHITECT AND OWNER FROM MANUFACTURER'S FULL RANGE.
- 6. SRW UNITS SHALL BE CAPABLE OF BEING ERECTED WITH THE HORIZONTAL GAP BETWEEN ADJACENT UNITS NOT EXCEEDING 1/8 INCH.
- 7. SRW UNITS SHALL BE SOUND AND FREE OF CRACKS OR OTHER DEFECTS THAT WOULD INTERFERE WITH THE PROPER PLACING OF THE UNIT OR SIGNIFICANTLY IMPAIR THE STRENGTH OR PERMANENCE OF THE STRUCTURE. ANY CRACKS OR CHIPS OBSERVED DURING CONSTRUCTION SHALL FALL WITHIN THE GUIDELINES OUTLINED IN ASTM C 1372.
- 8. CONCRETE SRW UNITS SHALL CONFORM TO THE REQUIREMENTS OF ASTM 1372 AND HAVE A MINIMUM NET AVERAGE 28 DAYS COMPRESSIVE STRENGTH OF 3000 PSI. COMPRESSIVE STRENGTH TEST SPECIMENS SHALL CONFORM TO THE SAW-CUT COUPON PROVISIONS OF ASTM C140.
- 9. SRW UNITS' MOLDED DIMENSIONS SHALL NOT DIFFER MORE THAN +/- 1/8 INCH FROM THAT SPECIFIED, AS MEASURED IN ACCORDANCE WITH ASTM C 140. THIS TOLERANCE DOES NOT APPLY TO ARCHITECTURAL SURFACES, SUCH AS SPLIT FACES.
- 10. SRW UNITS SHALL BE INTERLOCKED WITH CONNECTION PINS. THE PINS SHALL CONSIST OF GLASS-REINFORCED NYLON MADE FOR THE EXPRESSED USE WITH THE SRW UNITS SUPPLIED.

SEGMENTAL RETAINING WALL CONT.:

- 11. GEOSYNTHETIC REINFORCEMENT SHALL CONSIST OF HIGH-TENACITY PET GEOGRIDS, HDPE GEOGRIDS, OR GEOTEXTILES MANUFACTURED FOR SOIL REINFORCEMENT APPLICATIONS. THE TYPE, STRENGTH AND PLACEMENT OF THE GEOSYNTHETIC REINFORCEMENT SHALL BE DETERMINED BY PROCEDURES OUTLINED IN THIS SPECIFICATION AND THE NCMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS (3RD EDITION 2009) AND MATERIALS SHALL BE SPECIFIED BY WALL DESIGN ENGINEER IN THEIR FINAL WALL PLANS AND SPECIFICATIONS. THE MANUFACTURERS/SUPPLIERS OF THE GEOSYNTHETIC REINFORCEMENT SHALL HAVE DEMONSTRATED CONSTRUCTION OF SIMILAR SIZE AND TYPES OF SEGMENTAL RETAINING WALLS ON PREVIOUS PROJECTS.
- 12. THE TYPE, STRENGTH AND PLACEMENT OF THE REINFORCING GEOSYNTHETIC SHALL BE AS DETERMINED BY THE WALL DESIGN ENGINEER, AS SHOWN ON THE FINAL, P.E.-STAMPED RETAINING WALL PLANS.
- 13. MATERIAL FOR LEVELING PAD SHALL CONSIST OF COMPACTED SAND, GRAVEL, OR COMBINATION THEREOF (USCS SOIL TYPES GP, GW, SP, & SW) AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH. LEAN CONCRETE WITH A STRENGTH OF 200-300 PSI AND 3 INCHES THICK MAXIMUM MAY ALSO BE USED AS A LEVELING PAD MATERIAL. THE LEVELING PAD SHOULD EXTEND LATERALLY AT LEAST A DISTANCE OF 6 INCHES FROM THE TOE AND HEEL OF THE LOWERMOST SRW UNIT.
- 14. DRAINAGE AGGREGATE SHALL BE ANGULAR, CLEAN STONE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D422:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
3/4 INCH	75-100
NO. 4	0-60
NO. 40	0-50
NO. 200	0-5

- 15. THE DRAINAGE COLLECTION PIPE SHALL BE A PERFORATED OR SLOTTED PVC, OR CORRUGATED HDPE PIPE. THE DRAINAGE PIPE MAY BE WRAPPED WITH A GEOTEXTILE TO FUNCTION AS A FILTER. DRAINAGE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM F 405 OR ASTM F 758.
- 16. THE REINFORCED SOIL MATERIAL SHALL BE FREE OF DEBRIS, UNLESS OTHERWISE NOTED ON THE FINAL, P.E.-SEALED, RETAINING WALL PLANS PREPARED BY THE WALL DESIGN ENGINEER. THE REINFORCED MATERIAL SHALL CONSIST OF THE INORGANIC USCS SOIL TYPES GP, GW, SW, SP, SM, MEETING THE FOLLOWING GRADATION, AS DETERMINED IN ACCORDANCE WITH ASTM D422:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
NO. 4	20-100
NO. 40	0-60
NO. 200	0-35

- 17. THE MAXIMUM PARTICLE SIZE OF POORLY-GRADED GRAVELS (GP) (NO FINES) SHOULD NOT EXCEED 3/4 INCH UNLESS EXPRESSLY APPROVED BY THE WALL DESIGN ENGINEER AND THE LONG-TERM DESIGN STRENGTH (LTDS) OF THE GEOSYNTHETIC IS REDUCED TO ACCOUNT FOR ADDITIONAL INSTALLATION DAMAGE FROM PARTICLES LARGER THAN THIS MAXIMUM.
- 18. THE PLASTICITY OF THE FINE FRACTION SHALL BE LESS THAN 20.
- 19. THE PH OF THE BACKFILL MATERIAL SHALL BE BETWEEN 3 AND 9 WHEN TESTED IN ACCORDANCE WITH ASTM G 51.
- 20. DRAINAGE GEOTEXTILE SHALL CONSIST OF GEOSYNTHETIC SPECIFICALLY MANUFACTURED FOR USE AS A PERMEABLE SOIL FILTER THAT RETAINS SOIL WHILE STILL ALLOWING WATER TO PASS THROUGHOUT THE LIFE OF THE STRUCTURE. THE TYPE AND PLACEMENT OF THE GEOTEXTILE FILTER MATERIAL SHALL BE AS REQUIRED BY THE WALL DESIGN ENGINEER IN THEIR FINAL WALL PLANS AND SPECIFICATIONS.
- 21. THE DESIGN ANALYSIS FOR THE FINAL, P.E.-STAMPED RETAINING WALL PLANS PREPARED BY THE WALL DESIGN ENGINEER SHALL CONSIDER THE EXTERNAL STABILITY AGAINST SLIDING AND OVERTURNING, INTERNAL STABILITY AND FACIAL STABILITY OF THE REINFORCED SOIL MASS, AND SHALL BE IN ACCORDANCE WITH ACCEPTABLE ENGINEERING PRACTICE AND THESE SPECIFICATIONS. THE INTERNAL AND EXTERNAL STABILITY ANALYSIS SHALL BE PERFORMED IN ACCORDANCE WITH THE "NCMA DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS, 3RD EDITION" USING THE RECOMMENDED MINIMUM FACTORS OF SAFETY IN THIS MANUAL.
- 22. EXTERNAL STABILITY ANALYSIS FOR BEARING CAPACITY, GLOBAL STABILITY, AND TOTAL AND DIFFERENTIAL SETTLEMENT SHALL BE THE RESPONSIBILITY OF THE OWNER AND THE OWNER'S GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL PERFORM BEARING CAPACITY, SETTLEMENT ESTIMATES, AND GLOBAL STABILITY ANALYSIS BASED ON THE FINAL WALL DESIGN PROVIDED BY THE WALL DESIGN ENGINEER AND COORDINATE ANY REQUIRED CHANGES WITH THE WALL DESIGN ENGINEER.
- 23. THE GEOSYNTHETIC PLACEMENT IN THE WALL DESIGN SHALL HAVE 100% CONTINUOUS COVERAGE PARALLEL TO THE WALL FACE. GAPPING BETWEEN HORIZONTALLY ADJACENT LAYERS OF GEOSYNTHETIC (PARTIAL COVERAGE) WILL NOT BE ALLOWED.
- 24. CONTRACTOR'S FIELD CONSTRUCTION SUPERVISOR SHALL HAVE DEMONSTRATED EXPERIENCE AND BE QUALIFIED TO DIRECT ALL WORK AT THE SITE.
- 25. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE PROJECT GRADING PLANS. CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE OVER-EXCAVATION. OVER-EXCAVATION SHALL BE FILLED WITH COMPACTED INFILL MATERIAL, OR AS DIRECTED BY THE WALL DESIGN ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- 26. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING STRUCTURES AND UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL ENSURE ALL SURROUNDING STRUCTURES ARE PROTECTED FROM THE EFFECTS OF WALL EXCAVATION. EXCAVATION SUPPORT, IF REQUIRED, IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 27. FOLLOWING THE EXCAVATION, THE FOUNDATION SOIL SHALL BE EXAMINED BY THE OWNER'S ENGINEER TO ASSURE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS THE ASSUMED DESIGN BEARING STRENGTH. SOILS NOT MEETING THE REQUIRED STRENGTH SHALL BE REMOVED AND REPLACED WITH INFILL SOILS, AS DIRECTED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER.
- 28. FOUNDATION SOIL SHALL BE PROOF-ROLLED AND COMPACTED TO 95% STANDARD PROCTOR DENSITY AND INSPECTED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF LEVELING PAD MATERIALS.
- 29. LEVELING PAD SHALL BE PLACED AS SHOWN ON THE FINAL, P.E.-SEALED RETAINING WALL PLANS WITH A MINIMUM THICKNESS OF 6 INCHES. THE LEVELING PAD SHOULD EXTEND LATERALLY AT LEAST A DISTANCE OF 6 INCHES FROM THE TOE AND HEEL OF THE LOWERMOST SRW UNIT.
- 30. GRANULAR LEVELING PAD MATERIAL SHALL BE COMPACTED TO PROVIDE A FIRM, LEVEL BEARING SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. WELL-GRADED SAND CAN BE USED TO SMOOTH THE TOP 1/4 INCH TO 1/2 INCH OF THE LEVELING PAD. COMPACTION WILL BE WITH MECHANICAL PLATE COMPACTORS TO ACHIEVE 95% OF MAXIMUM STANDARD PROCTOR DENSITY (ASTM D 698).
- 31. ALL SRW UNITS SHALL BE INSTALLED AT THE PROPER ELEVATION AND ORIENTATION AS SHOWN ON THE FINAL, P.E.-SEALED WALL PLANS AND DETAILS OR AS DIRECTED BY THE WALL DESIGN ENGINEER. THE SRW UNITS SHALL BE INSTALLED IN GENERAL ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE SPECIFICATIONS AND DRAWINGS SHALL GOVERN IN ANY CONFLICT BETWEEN THE TWO REQUIREMENTS.
- 32. FIRST COURSE OF SRW UNITS SHALL BE PLACED ON THE LEVELING PAD. THE UNITS SHALL BE LEVELED SIDE-TO-SIDE, FRONT-TO-REAR AND WITH ADJACENT UNITS, AND ALIGNED TO ENSURE INTIMATE CONTACT WITH THE LEVELING PAD. THE FIRST COURSE IS THE MOST IMPORTANT TO ENSURE ACCURATE AND ACCEPTABLE RESULTS. NO GAPS SHALL BE LEFT BETWEEN THE FRONT OF ADJACENT UNITS. ALIGNMENT MAY BE DONE BY MEANS OF A STRING LINE OR OFFSET FROM BASE LINE TO THE BACK OF THE UNITS.
- 33. ALL EXCESS DEBRIS SHALL BE CLEANED FROM TOP OF UNITS AND THE NEXT COURSE OF UNITS INSTALLED ON TOP OF THE UNITS BELOW.
- 34. CONNECTION PINS SHALL BE INSERTED THROUGH THE PIN HOLES OF EACH UPPER-COURSE UNIT INTO RECEIVING SLOTS IN LOWER-COURSE UNITS. PINS SHALL BE FULLY SEATED IN THE PIN SLOT BELOW. UNITS SHALL BE PUSHED FORWARD TO REMOVE ANY LOOSENESS IN THE UNIT-TO-UNIT CONNECTION.
- 35. PRIOR TO PLACEMENT OF NEXT COURSE, THE LEVEL AND ALIGNMENT OF THE UNITS SHALL BE CHECKED AND CORRECTED WHERE NEEDED.
- 36. LAYOUT OF CURVES AND CORNERS SHALL BE INSTALLED IN ACCORDANCE WITH THE WALL PLAN DETAILS OR IN GENERAL ACCORDANCE WITH SRW MANUFACTURER'S INSTALLATION GUIDELINES. WALLS MEETING AT CORNERS SHALL BE INTERLOCKED BY OVERLAPPING SUCCESSIVE COURSES.
- 37. PROCEDURES ABOVE SHALL BE REPEATED UNTIL REACHING TOP OF WALL UNITS, JUST BELOW THE HEIGHT OF THE CAP UNITS. GEOSYNTHETIC REINFORCEMENT, DRAINAGE MATERIALS, AND REINFORCED BACKFILL SHALL BE PLACED IN SEQUENCE WITH UNIT INSTALLATION.
- 38. ALL GEOSYNTHETIC REINFORCEMENT SHALL BE INSTALLED AT THE PROPER ELEVATION AND ORIENTATION AS SHOWN ON THE FINAL P.E.-SEALED RETAINING WALL PLAN PROFILES AND DETAILS, OR AS DIRECTED BY THE WALL DESIGN ENGINEER.
- 39. AT THE ELEVATIONS SHOWN ON THE FINAL PLANS, (AFTER THE UNITS, DRAINAGE MATERIAL AND BACKFILL HAVE BEEN PLACED TO THIS ELEVATION) THE GEOSYNTHETIC REINFORCEMENT SHALL BE LAID HORIZONTALLY ON COMPACTED INFILL AND ON TOP OF THE CONCRETE SRW UNITS, TO WITHIN 1 INCH OF THE FRONT FACE OF THE UNIT BELOW. EMBEDMENT OF THE GEOSYNTHETIC IN THE SRW UNITS SHALL BE CONSISTENT WITH SRW MANUFACTURER'S RECOMMENDATIONS. CORRECT ORIENTATION OF THE GEOSYNTHETIC REINFORCEMENT SHALL BE VERIFIED BY THE CONTRACTOR TO BE IN ACCORDANCE WITH THE GEOSYNTHETIC MANUFACTURER'S RECOMMENDATIONS. THE HIGHEST-STRENGTH DIRECTION OF THE GEOSYNTHETIC MUST BE PERPENDICULAR TO THE WALL FACE.
- 40. GEOSYNTHETIC REINFORCEMENT LAYERS SHALL BE ONE CONTINUOUS PIECE FOR THEIR ENTIRE EMBEDMENT LENGTH. SPLICING OF THE GEOSYNTHETIC IN THE DESIGN-STRENGTH DIRECTION (PERPENDICULAR TO THE WALL FACE) SHALL NOT BE PERMITTED. ALONG THE LENGTH OF THE WALL, HORIZONTALLY ADJACENT SECTIONS OF GEOSYNTHETIC REINFORCEMENT SHALL BE BUTTED IN A MANNER TO ASSURE 100% COVERAGE PARALLEL TO THE WALL FACE.
- 41. TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEOSYNTHETIC REINFORCEMENT. A MINIMUM OF 6 INCHES OF BACKFILL IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOSYNTHETIC. TURNING SHOULD BE KEPT TO A MINIMUM. RUBBER-TIRED EQUIPMENT MAY PASS OVER THE GEOSYNTHETIC REINFORCEMENT AT SLOW SPEEDS (LESS THAN 5 MPH).
- 42. THE GEOSYNTHETIC REINFORCEMENT SHALL BE FREE OF WRINKLES PRIOR TO PLACEMENT OF SOIL FILL. THE NOMINAL TENSION SHALL BE APPLIED TO THE REINFORCEMENT AND SECURED IN PLACE WITH STAPLES, STAKES OR BY HAND TENSIONING UNTIL REINFORCEMENT IS COVERED BY 6 INCHES OF FILL.

SEGMENTAL RETAINING WALL CONT.:

- 43. DRAINAGE AGGREGATE SHALL BE INSTALLED TO THE LINE. GRADES AND SECTIONS SHOWN ON THE FINAL P.E.-SEALED RETAINING WALL PLANS. DRAINAGE AGGREGATE SHALL BE PLACED TO THE MINIMUM THICKNESS SHOWN ON THE CONSTRUCTION PLANS BETWEEN AND BEHIND UNITS (A MINIMUM OF 1 CUBIC FOOT FOR EACH EXPOSED SQUARE FOOT OF WALL FACE UNLESS OTHERWISE NOTED ON THE FINAL WALL PLANS).
- 44. DRAINAGE COLLECTION PIPES SHALL BE INSTALLED TO MAINTAIN GRAVITY FLOW OF WATER OUTSIDE THE REINFORCED-SOIL ZONE. THE DRAINAGE COLLECTION PIPE SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE FINAL CONSTRUCTION DRAWINGS. THE DRAINAGE COLLECTION PIPE SHALL DAYLIGHT INTO A STORM SEWER OR ALONG A SLOPE, AT AN ELEVATION BELOW THE LOWEST POINT OF THE PIPE WITHIN THE AGGREGATE DRAIN. DRAINAGE LATERALS SHALL BE SPACED AT A MAXIMUM 50-FOOT SPACING ALONG THE WALL FACE.
- 45. THE REINFORCED BACKFILL SHALL BE PLACED AS SHOWN IN THE FINAL WALL PLANS IN THE MAXIMUM COMPACTED LIFT THICKNESS OF 8 INCHES AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D 698) AT A MOISTURE CONTENT WITHIN -1% POINT TO +3% POINTS OF OPTIMUM. THE BACKFILL SHALL BE PLACED AND SPREAD IN SUCH A MANNER AS TO ELIMINATE WRINKLES OR MOVEMENT OF THE GEOSYNTHETIC REINFORCEMENT AND THE SRW UNITS.
- 46. ONLY HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET OF THE BACK OF THE WALL UNITS. COMPACTION WITHIN THE 3 FEET BEHIND THE WALL UNITS SHALL BE ACHIEVED BY AT LEAST THREE PASSES OF A LIGHTWEIGHT MECHANICAL TAMPER, PLATE, OR ROLLER.
- 47. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LEVEL OF BACKFILL AWAY FROM THE WALL FACING AND REINFORCED BACKFILL TO DIRECT WATER RUNOFF AWAY FROM THE WALL FACE.
- 48. AT COMPLETION OF WALL CONSTRUCTION, BACKFILL SHALL BE PLACED LEVEL WITH FINAL TOP OF WALL ELEVATION. IF FINAL GRADING, PAVING, LANDSCAPING AND/OR STORM DRAINAGE INSTALLATION ADJACENT TO THE WALL IS NOT PLACED IMMEDIATELY AFTER WALL COMPLETION, TEMPORARY GRADING AND DRAINAGE SHALL BE PROVIDED TO ENSURE WATER RUNOFF IS NOT DIRECTED AT THE WALL NOR ALLOWED TO COLLECT OR POOL BEHIND THE WALL UNTIL FINAL CONSTRUCTION ADJACENT TO THE WALL IS COMPLETED.
- 49. SRW CAPS SHALL BE PROPERLY ALIGNED AND GLUED TO UNDERLYING UNITS WITH VERSA-LOK ADHESIVE, A FLEXIBLE, HIGH-STRENGTH CONCRETE ADHESIVE. RIGID ADHESIVE OR MORTAR ARE NOT ACCEPTABLE.
- 50. CAPS SHALL OVERHANG THE TOP COURSE OF UNITS BY 3/4 INCH TO 1 INCH. SLIGHT VARIATION IN OVERHANG IS ALLOWED TO CORRECT ALIGNMENT AT THE TOP OF THE WALL.
- 51. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT CONSTRUCTION BY OTHERS ADJACENT TO THE WALL DOES NOT DISTURB THE WALL OR PLACE TEMPORARY CONSTRUCTION LOADS ON THE WALL THAT EXCEED DESIGN LOADS, INCLUDING LOADS SUCH AS WATER PRESSURE, TEMPORARY GRADES, OR EQUIPMENT LOADING. HEAVY PAVING OR GRADING EQUIPMENT SHALL BE KEPT A MINIMUM OF 3 FEET BEHIND THE BACK OF THE WALL FACE. EQUIPMENT WITH WHEEL LOADS IN EXCESS OF 150 PSF LIVE LOAD SHALL NOT BE OPERATED WITHIN 10 FEET OF THE FACE OF THE RETAINING WALL DURING CONSTRUCTION ADJACENT TO THE WALL. CARE SHOULD BE TAKEN BY THE GENERAL CONTRACTOR TO ENSURE WATER RUNOFF IS DIRECTED AWAY FROM THE WALL STRUCTURE UNTIL FINAL GRADING AND SURFACE DRAINAGE COLLECTION SYSTEMS ARE COMPLETED.

BIOFILTRATION BASIN:

- 1. BIOFILTRATION BASIN SHALL BE CONSTRUCTED IN GENERAL ACCORDANCE WITH WDNR TECHNICAL STANDARD 1004: BIORETENTION FOR INFILTRATION AND THESE SPECIFICATIONS.
- 2. ENGINEERED SOIL MIX SHALL CONSIST OF A MIX OF 70 TO 85% SAND AND 15 TO 30% COMPOST BASED ON VOLUME. SAND SHALL MEET THE REQUIREMENTS FOR FINE AGGREGATE SAND SPECIFIED SECTION 501.2.5.3.4 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION OR MEET ASTM C33 (FINE AGGREGATE CONCRETE SAND).
- 3. PRIOR TO PLACEMENT IN THE BIOFILTRATION BASIN, THE ENGINEERED SOIL SHALL BE PREMIXED AND THE MOISTURE CONTENT SHALL BE LOW ENOUGH TO PREVENT CLUMPING AND COMPACTION DURING PLACEMENT.
- 4. THE ENGINEERED SOIL SHALL BE PLACED IN MULTIPLE LIFTS, EACH APPROXIMATELY 12 INCHES IN DEPTH.
- 5. ENGINEERED SOIL MIX SHALL BE FREE OF ROCKS, STUMPS, ROOTS, BRUSH OR OTHER MATERIAL OVER ONE INCH IN DIAMETER. NO OTHER MATERIALS SHALL BE MIXED WITH THEE PLANTING SOIL THAT MAY BE HARMFUL TO PLANT GROWTH OR BE A HINDRANCE TO PLANTING OR MAINTENANCE.
- 6. ENGINEERED SOIL AND GRAVEL SHALL BE IN ACCORDANCE WITH THE LATEST WDNR TECHNICAL STANDARD 1004.
- 7. PEA GRAVEL SHALL BE GRADED SUCH THAT MINIMUM PARTICLE SIZE IS LARGE ENOUGH TO PREVENT FALLING THROUGH PERFORATIONS OF THE UNDERDRAIN PIPE.
- 8. BIOFILTRATION BASIN DRAIN PIPE: 6-INCH SCHEDULE 40 PVC PIPE MEETING PERFORMANCE REQUIREMENTS OF AASHTO M278 HIGHWAY UNDERDRAIN SPECIFICATIONS WITH 3/8" PERFORATIONS ON 6" CENTERS WITH 4 HOLES PER ROW.
- 9. BEEHIVE INLET: NEENAH R-256I, OR EQUAL
- 10. RISER STRUCTURE: 36" DIAMETER PRECAST CATCH BASIN STRUCTURE WITH 24" TOP OPENING TO ACCOMMODATE BEEHIVE INLET. IN GENERAL ACCORDANCE WITH FILE NO. 26 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN.
- 11. GRAVEL STORAGE LAYER (IF INDICATED ON PLANS): COURSE AGGREGATE #2 IN ACCORDANCE WITH SECTION 501.2.5.4.4 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- 12. FILTER FABRIC: GEOTEXTILE FABRIC IN ACCORDANCE WITH SECTION 645.2.2.4 OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION
- 13. EXCAVATE TO GRADES AS INDICATED ON PLANS.
- 14. CONSTRUCT TEMPORARY DIVERSION SWALES OR PROVIDE OTHER MEANS AS NECESSARY TO PREVENT CONSTRUCTION SITE RUNOFF FROM DISTURBED AREAS, AND RUNOFF FROM PERVIOUS AREAS WHICH HAVE NOT YET BEEN STABILIZED, FROM ENTERING THE BIORETENTION AREA.
- 15. 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.
- 16. COMPACTION AND SMEARING OF THE ENGINEERED SOIL AND TOP SOIL BENEATH THE FLOORS, IN THE SOIL PLANTING BED, AND THE SIDE SLOPES OF THE BASIN, AND COMPACTION OF THE ENGINEERED SOILS IN THE BASIN SHALL BE MINIMIZED. DURING SITE DEVELOPMENT, THE AREA DEDICATED TO THE BIOFILTRATION BASIN SHALL BE CORDONED OFF TO PREVENT ACCESS BY HEAVY EQUIPMENT. ACCEPTABLE EQUIPMENT FOR CONSTRUCTING THE BIOFILTRATION BASIN INCLUDES EXCAVATION HOES, LIGHT EQUIPMENT WITH TURF TYPE TIRES, MARSH EQUIPMENT OR WIDE-TRACK LOADERS.
- 17. IF COMPACTION OCCURS AT THE BASE OF THE BIOFILTRATION BASIN, THE SOIL SHALL BE REFRRACTURED 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.
- 18. 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 UTILIZED.
- 19. ANY SEDIMENT ACCUMULATED IN THE BASIN DUE TO CONSTRUCTION ACTIVITIES SHOULD BE REMOVED AND THE ENGINEERED SOIL SHALL BE DEEP TILLED PRIOR TO PLANTING.
- 20. IMPERVIOUS LINER SHALL BE 45 MIL FIRESTONE EPDM (GSI PRODUCTS), OR 30 MIL PVC (GSI PRODUCTS), OR EQUAL.



WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI
SPECIFICATIONS

PRELIMINARY
NOT FOR
CONSTRUCTION

SCALE:	NTS
PROJECT NO:	20401
DESIGN DATE:	---
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DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	

C501

POROUS PAVEMENT:

1. THE COMPOSITION, PLACING AND CONSTRUCTION OF ASPHALTIC PAVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 450, 455, 460, 465, AND 475 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION (WISDOT STANDARD SPECIFICATIONS) AND WISCONSIN ASPHALT PAVEMENT ASSOCIATION (WAPA) POROUS ASPHALT PAVEMENTS TECHNICAL BULLETIN.
2. CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED - INCLUDE TECHNICAL DATA AND TESTED PHYSICAL AND PERFORMANCE PROPERTIES; JOB-MIX DESIGNS: CERTIFICATION THAT MIX MEETS OR EXCEEDS WISDOT STANDARD SPECIFICATIONS; AND MATERIAL CERTIFICATES CERTIFYING COMPLIANCE WITH WISDOT STANDARD SPECIFICATIONS.
3. MANUFACTURER QUALIFICATIONS: MANUFACTURER SHALL BE REGISTERED WITH AND APPROVED BY THE DOT OF THE STATE IN WHICH PROJECT IS LOCATED.
4. ENVIRONMENTAL LIMITATIONS: DO NOT APPLY ASPHALT MATERIALS IF BASE COURSE IS WET OR EXCESSIVELY DAMP OR IF THE FOLLOWING CONDITIONS ARE NOT MET: APPLY TACK COAT WHEN AMBIENT TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35 DEGREES FAHRENHEIT FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION; PLACE ASPHALTIC CONCRETE SURFACE COURSE WHEN TEMPERATURE IS ABOVE 40 DEGREES FAHRENHEIT; BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30 DEGREES FAHRENHEIT AND RISING. PROCEED WITH PAVEMENT MARKING ONLY ON CLEAN, DRY SURFACES. DO NOT APPLY BELOW THE MINIMUM PAVEMENT TEMPERATURE AS RECOMMENDED BY THE MANUFACTURER.
5. AGGREGATES SHALL BE IN ACCORDANCE WITH SECTION 460.2.2 OF THE WISDOT STANDARD SPECIFICATIONS AS MODIFIED BY THE WAPA POROUS ASPHALT PAVEMENTS TECHNICAL BULLETIN.
6. ASPHALT MATERIALS SHALL BE IN ACCORDANCE WITH CHAPTER 455 OF THE WISDOT STANDARD SPECIFICATIONS AS MODIFIED BY THE WAPA POROUS ASPHALT PAVEMENTS TECHNICAL BULLETIN.
7. PAVEMENT MARKING PAINT: PROVIDE PAINT FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION'S APPROVED PRODUCTS LIST. COLOR SHALL BE WHITE UNLESS INDICATED OTHERWISE ON PLANS.
8. POROUS ASPHALT: POROUS ASPHALT MIXES SHALL BE COMPATIBLE WITH WISDOT-APPROVED WARM-MIX ASPHALT TECHNOLOGIES. ASPHALTIC BINDER SHALL BE GRADE 28 IN ACCORDANCE WITH WAPA POROUS ASPHALTIC TECHNICAL BULLETIN.
9. AGGREGATE STORAGE RESERVOIR: USE A WASHED OR OPEN-GRADED BASE CONSISTING OF CRUSHED STONE OR CRUSHED GRAVEL WITH NO GREATER THAN 50% PASSING THE NO. 200 SIEVE. PROVIDE A MINIMUM POROSITY OF 30% PER ASTM C29 STANDARD TEST METHOD FOR BULK DENSITY AND VOIDS IN AGGREGATE. COMPLY WITH SOUNDNESS, WEAR, AND FRACTURE REQUIREMENTS LISTED IN WISCONSIN DOT STANDARD SPECIFICATION SECTION 301.2.4.5 - AGGREGATE BASE PHYSICAL PROPERTIES.
10. PAVEMENT PLACEMENT GENERAL: ASPHALT CONCRETE PAVING EQUIPMENT, WEATHER LIMITATIONS, JOB-MIX FORMULA, MIXING, CONSTRUCTION METHODS, COMPACTION, FINISHING, TOLERANCE AND PROTECTION SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS AS MODIFIED BY THE WAPA POROUS ASPHALT PAVEMENTS TECHNICAL BULLETIN.
11. PREPARE AND PROOFROLL SUBGRADES AND AGGREGATE BASE COURSE AS OUTLINED IN EARTH MOVING SPECIFICATIONS PRIOR TO PLACEMENT OF ASPHALT PAVEMENTS. THE SLOPE OF THE SUBGRADE SHALL BE AS FLAT AS POSSIBLE BUT NO GREATER THAN 2%.
12. SWEEP LOOSE GRANULAR PARTICLES FROM SURFACE OF AGGREGATE BASE COURSE PRIOR TO PAVEMENT PLACEMENT. DO NOT DISLODGE OR DISTURB AGGREGATE EMBEDDED IN COMPACTED SURFACE OF BASE COURSE.
13. SPREAD AND FINISH ASPHALTIC MIXTURE IN ACCORDANCE WITH SECTION 450.3.2.5 OF THE WISDOT STANDARD SPECIFICATIONS AS MODIFIED BY THE WAPA POROUS PAVEMENTS TECHNICAL BULLETIN. PAVEMENT THICKNESSES SHALL BE AS INDICATED ON THE PLANS.
14. PROMPTLY CORRECT SURFACE IRREGULARITIES IN PAVING COURSE BEHIND PAVER. USE SUITABLE HAND TOOLS TO REMOVE EXCESS MATERIAL FORMING HIGH SPOTS. FILL DEPRESSIONS WITH POROUS ASPHALT TO PREVENT SEGREGATION OF MIX; USE SUITABLE HAND TOOLS TO SMOOTH SURFACE.
15. COMPACT ASPHALTIC PAVEMENT IN ACCORDANCE WITH SECTION 450.3.2.6 OF THE WISDOT STANDARD SPECIFICATIONS AS MODIFIED BY THE WAPA POROUS ASPHALT PAVEMENTS TECHNICAL BULLETIN. POROUS ASPHALT SHOULD BE COMPACTED WITH TWO TO FOUR PASSES OF A 10-TON ROLLER.
16. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT FOR AT LEAST 24 HOURS. ERECT BARRICADES TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.
17. THICKNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE THE THICKNESS INDICATED WITHIN PLUS/MINUS 1/4 INCH FOR BINDER COURSE AND PLUS 1/4 INCH FOR SURFACE COURSE, NO MINUS.
18. SURFACE SMOOTHNESS TOLERANCE: COMPACT EACH COURSE TO PRODUCE A SURFACE SMOOTHNESS WITHIN THE FOLLOWING TOLERANCES AS DETERMINED BY USING A 10-FOOT STRAIGHTEDGE APPLIED TRANSVERSELY OR LONGITUDINALLY TO PAVED AREAS: BINDER COURSE: 1/4 INCH; SURFACE COURSE: 1/8 INCH. REMOVE AND REPLACE ALL HUMPS OR DEPRESSIONS EXCEEDING THE SPECIFIED TOLERANCES.
19. DO NOT APPLY PAVEMENT-MARKING PAINT UNTIL LAYOUT, COLORS, AND PLACEMENT HAVE BEEN VERIFIED WITH ENGINEER.
20. APPLY MARKINGS TO A DRY SURFACE FREE FROM FROST. REMOVE DUST, DIRT, OIL, GREASE, GRAVEL, DEBRIS OR OTHER MATERIAL THAT MAY PREVENT BONDING TO THE PAVEMENT.
21. APPLY PAINT AS THE MANUFACTURER SPECIFIES WITH MECHANICAL EQUIPMENT TO PRODUCE PAVEMENT MARKINGS, OF DIMENSIONS INDICATED, WITH UNIFORM, STRAIGHT EDGES. APPLY AT MANUFACTURER'S RECOMMENDED RATES AT A MINIMUM RATE OF 17.6 GALLONS/MILE FOR A CONTINUOUS 4" LINE.
22. TESTING AGENCY: CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND TO PREPARE TEST REPORTS.



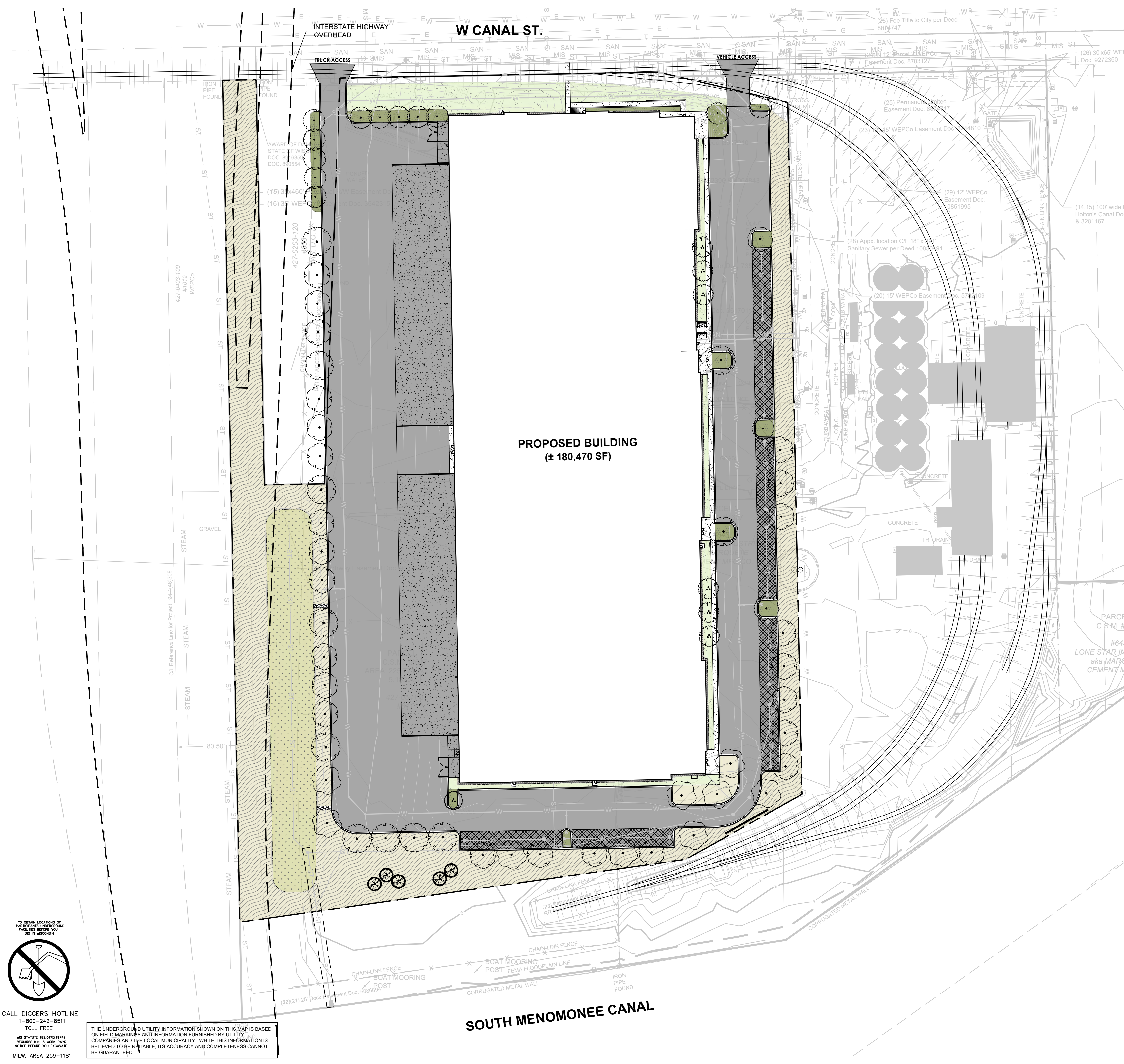
WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI

SPECIFICATIONS

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C502



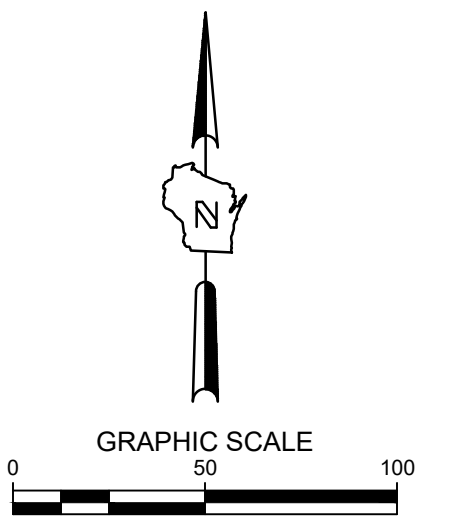
GENERAL NOTES:

1. VERIFY EXISTING AND PROPOSED CONDITIONS, UTILITIES, PIPES, AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION.
2. INSPECT THE SITE PRIOR TO COMMENCING WORK. DOCUMENT IN WRITING AND PHOTOGRAPH EXISTING CONDITIONS WITHIN, AND IN AREAS ADJACENT TO THE LIMITS OF CONSTRUCTION.
3. COORDINATE THE INSTALLATION OF PLANT MATERIAL WITH INSTALLATION OF ADJACENT PAVEMENTS, DRAINAGE, CURB RELATED STRUCTURES WITH OTHER TRADES.
4. RESTORE AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED. DAMAGE CAUSED DURING LANDSCAPE INSTALLATION TO EXISTING CONDITIONS AND IMPROVEMENTS IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
5. CONTRACTOR SHALL THOROUGHLY REVIEW ALL SPECIFICATIONS RELATED TO SOIL PREPARATION AND PLANTS. THESE SECTIONS PROVIDE ADDITIONAL INFORMATION ON MATERIALS AND SET STANDARDS FOR QUALITY AND INSTALLATION REQUIREMENTS.
6. PROVIDE 3" DOUBLE SHREDDED BARK MULCH FOR ALL PLANTED TREES, SHRUBS AND LANDSCAPE BEDS.
7. SEE L101 & L102 FOR DETAILED LANDSCAPE PLANS.
8. SEE L200 FOR LANDSCAPE DETAILS.
9. SEE L300 FOR LANDSCAPE SPECIFICATIONS, INCLUDING COMPOSITION OF SPECIFIED SEED MIXES.

LEGEND

- TURFGRASS LAWN SEED
- BARK MULCH PLANTING BED
- BIOFILTRATION SEED MIX
- SHORTGRASS PRAIRIE NATIVE SEED MIX
- STONE MULCH
- SHOVEL-CUT LANDSCAPE EDGE, SEE LANDSCAPE SPECIFICATIONS, L200
- ALUMINUM LANDSCAPE EDGE, SEE LANDSCAPE SPECIFICATIONS, L200
- ASPHALT SURFACE, SEE CIVIL
- CONCRETE PAVEMENT, SEE CIVIL
- POROUS PAVEMENT, SEE CIVIL

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WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI
LANDSCAPE PLAN

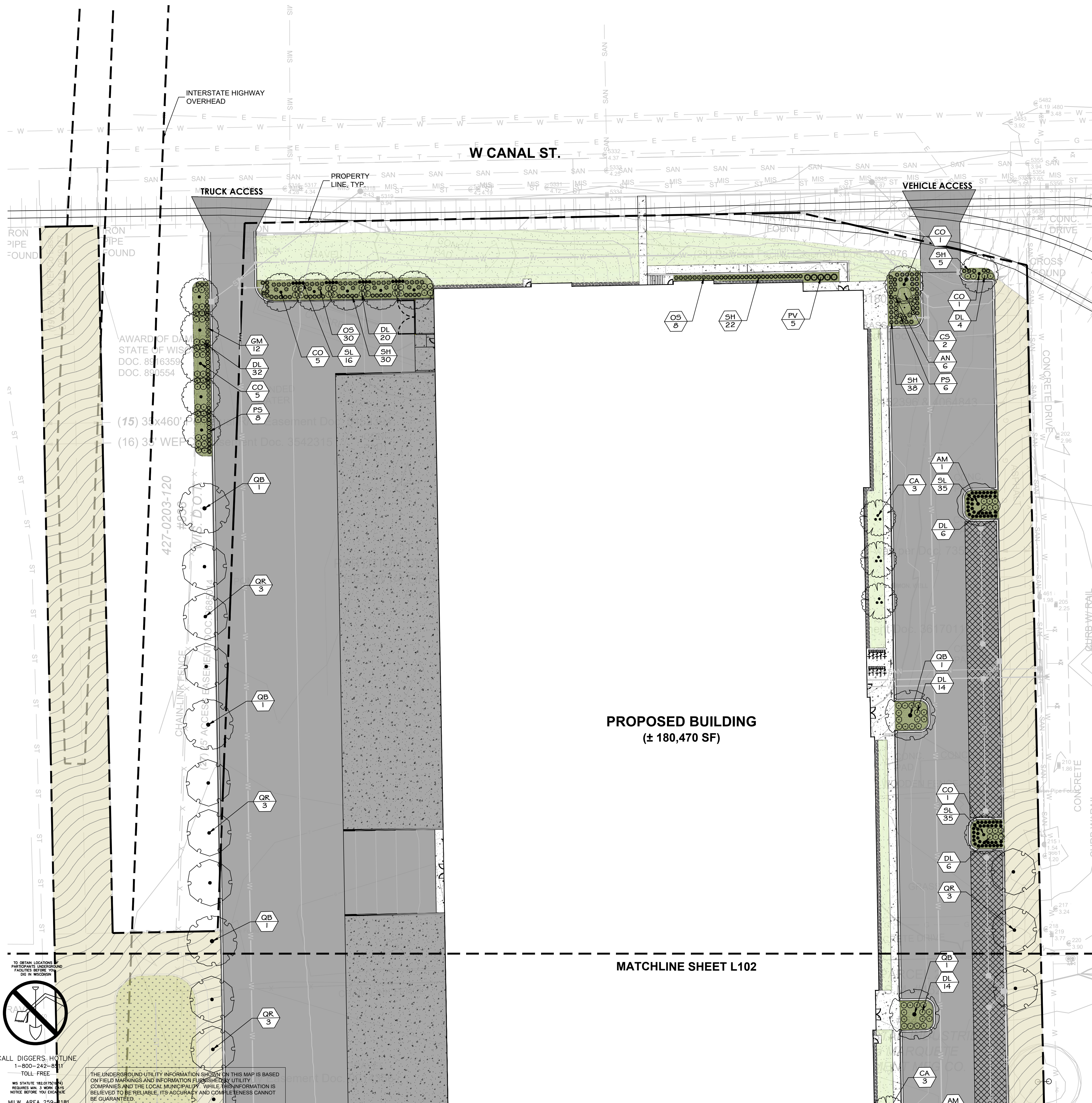
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SCALE:	1"=50'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/25/2022
DRAWN BY:	JCT
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	L100



GENERAL NOTES:

1. VERIFY EXISTING AND PROPOSED CONDITIONS, UTILITIES, PIPES, AND STRUCTURES, ETC. PRIOR TO BIDDING AND CONSTRUCTION.
2. INSPECT THE SITE PRIOR TO COMMENCING WORK. DOCUMENT IN WRITING AND PHOTOGRAPH EXISTING CONDITIONS WITHIN, AND IN AREAS ADJACENT TO THE LIMITS OF CONSTRUCTION.
3. COORDINATE THE INSTALLATION OF PLANT MATERIAL WITH INSTALLATION OF ADJACENT PAVEMENTS, DRAINAGE, CURB RELATED STRUCTURES WITH OTHER TRADES.
4. RESTORE AREAS OF THE SITE, OR ADJACENT AREAS, WHERE DISTURBED. DAMAGE CAUSED DURING LANDSCAPE INSTALLATION TO EXISTING CONDITIONS AND IMPROVEMENTS IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
5. CONTRACTOR SHALL THOROUGHLY REVIEW ALL SPECIFICATIONS RELATED TO SOIL PREPARATION AND PLANTS. THESE SECTIONS PROVIDE ADDITIONAL INFORMATION ON MATERIALS AND SET STANDARDS FOR QUALITY AND INSTALLATION REQUIREMENTS.
6. PROVIDE 3" DOUBLE SHREDDED BARK MULCH FOR ALL PLANTED TREES, SHRUBS AND LANDSCAPE BEDS.
7. SEE L200 FOR LANDSCAPE DETAILS
8. SEE L300 FOR LANDSCAPE SPECIFICATIONS, INCLUDING COMPOSITION OF SPECIFIED SEED MIXES.

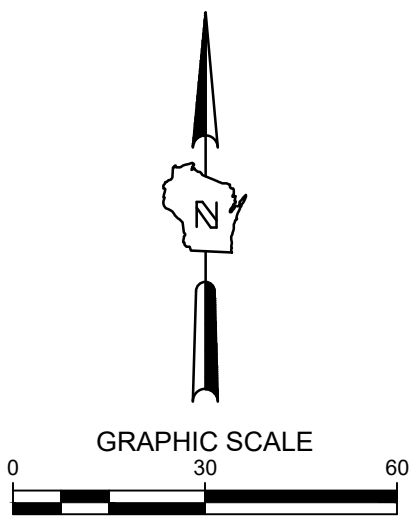
LEGEND:

- TURFGRASS LAWN SEED
- BARK MULCH PLANTING BED
- BIOFILTRATION SEED MIX
- SHORTGRASS PRAIRIE MIX
- STONE MULCH
- SHOVEL-CUT LANDSCAPE EDGE, SEE LANDSCAPE SPECIFICATIONS, L200
- ALUMINUM LANDSCAPE EDGE, SEE LANDSCAPE SPECIFICATIONS, L200
- ASPHALT SURFACE, SEE CIVIL
- CONCRETE PAVEMENT, SEE CIVIL
- POROUS PAVEMENT, SEE CIVIL

PLANT SCHEDULE (L101):

DECIDUOUS TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	AM	Acer miyabei 'Morton' TM / State Street Miyabe Maple	3" Cal.	B&B	1
	CO **	Celtis occidentalis / Common Hackberry	3" Cal.	B&B	13
	QB **	Quercus bicolor / Swamp White Oak	3" Cal.	B&B	4
	QR **	Quercus rubra / Red Oak	3" Cal.	B&B	8
ORNAMENTAL TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	CA **	Cornus alternifolia / Pagoda Dogwood	6' Ht. (Multi-Stem)	B&B	3
DECIDUOUS SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	CS	Cornus stolonifera / Red Twig Dogwood	3 gal.	Cont.	2
	DL **	Diervilla lonicera / Dwarf Bush Honeysuckle	3 gal.	Pot	82
	OS **	Onoclea sensibilis / Sensitive Fern	3 gal.	Cont.	38
ORNAMENTAL GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	PV **	Panicum virgatum / Switch Grass	1 gal.	Cont.	5
	SH **	Sporobolus heterolepis / Prairie Dropseed	1 gal.	Cont.	118
PERENNIALS	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	AN **	Aster novae-angliae / New England Aster	1 gal.	Cont.	6
	GM **	Geranium maculatum / Spotted Geranium	1 gal.	Cont.	12
	PS **	Penstemon digitalis / Beardtongue	1 gal.	Cont.	14
	SL **	Schizachyrium scoparium / Little Bluestem	1 gal.	Cont.	86

** species included in Menomonee Valley Species Palette



WESTMINSTER VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI

DETAILED LANDSCAPE PLAN

PRELIMINARY
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CONSTRUCTION

SCALE:	1"=30'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/25/2022
DRAWN BY:	JCT
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	L101



MATCHLINE SHEET L101

PROPOSED BUILDING
(± 180,470 SF)

SOUTH SOUTH MEMOONEE CANAL

GENERAL NOTES:

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LEGEND:

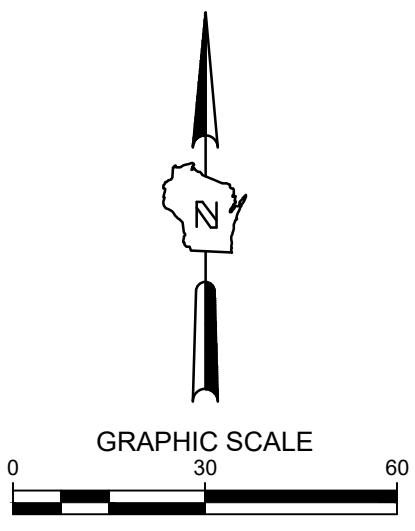
- TURFGRASS LAWN SEED
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- ALUMINUM LANDSCAPE EDGE, SEE LANDSCAPE SPECIFICATIONS, L200
- ASPHALT SURFACE, SEE CIVIL
- CONCRETE PAVEMENT, SEE CIVIL
- POROUS PAVEMENT, SEE CIVIL

PLANT SCHEDULE (L102):

DECIDUOUS TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	AM	Acer miyabei 'Morton' TM / State Street Miyabe Maple	3" Cal.	B&B	1
	AS **	Acer saccharum / Sugar Maple	3" Cal.	B&B	9
	QB **	Quercus bicolor / Swamp White Oak	3" Cal.	B&B	7
	QR **	Quercus rubra / Red Oak	3" Cal.	B&B	16
EVERGREEN TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	PD	Picea glauca 'Densata' / Black Hills White Spruce	6' Ht.	B&B	5
ORNAMENTAL TREES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	CC **	Carpinus caroliniana / American Hornbeam Multi-trunk	3" Cal.	B&B	1
	CA **	Cornus alternifolia / Pagoda Dogwood	6' Ht. (Multi-Stem)	B&B	3
DECIDUOUS SHRUBS	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	DL **	Diervilla lonicera / Dwarf Bush Honeysuckle	3 gal.	Pot	20
ORNAMENTAL GRASSES	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	PV **	Panicum virgatum / Switch Grass	1 gal.	Cont.	6
PERENNIALS	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY
	SL **	Schizachyrium scoparium / Little Bluestem	1 gal.	Cont.	57

** species included in Menomonee Valley Species Palette

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 131 S 7TH STREET & 841 W CANAL STREET
 MILWAUKEE, WI
 DETAILED LANDSCAPE PLAN

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SCALE:	1"=30'
PROJECT NO:	20401
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PLOT DATE:	4/25/2022
DRAWN BY:	JCT
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	L102

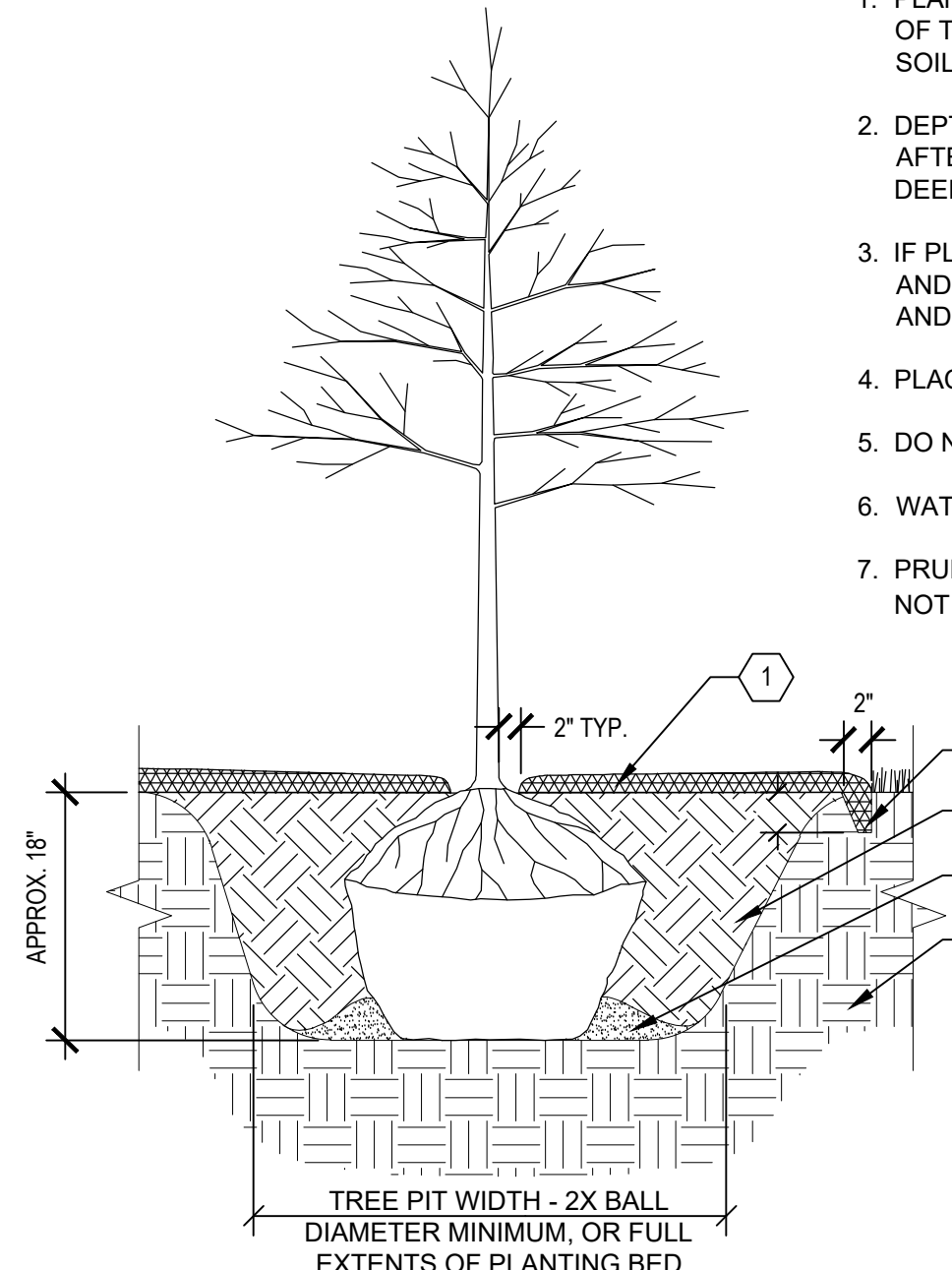
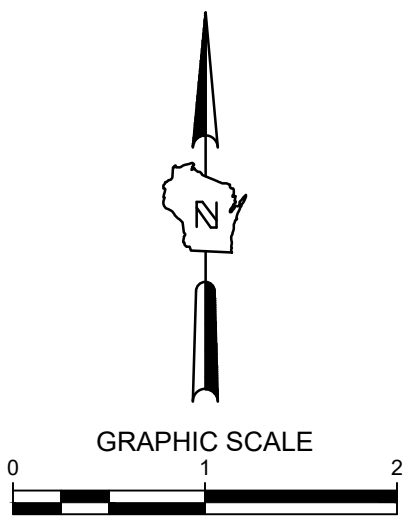
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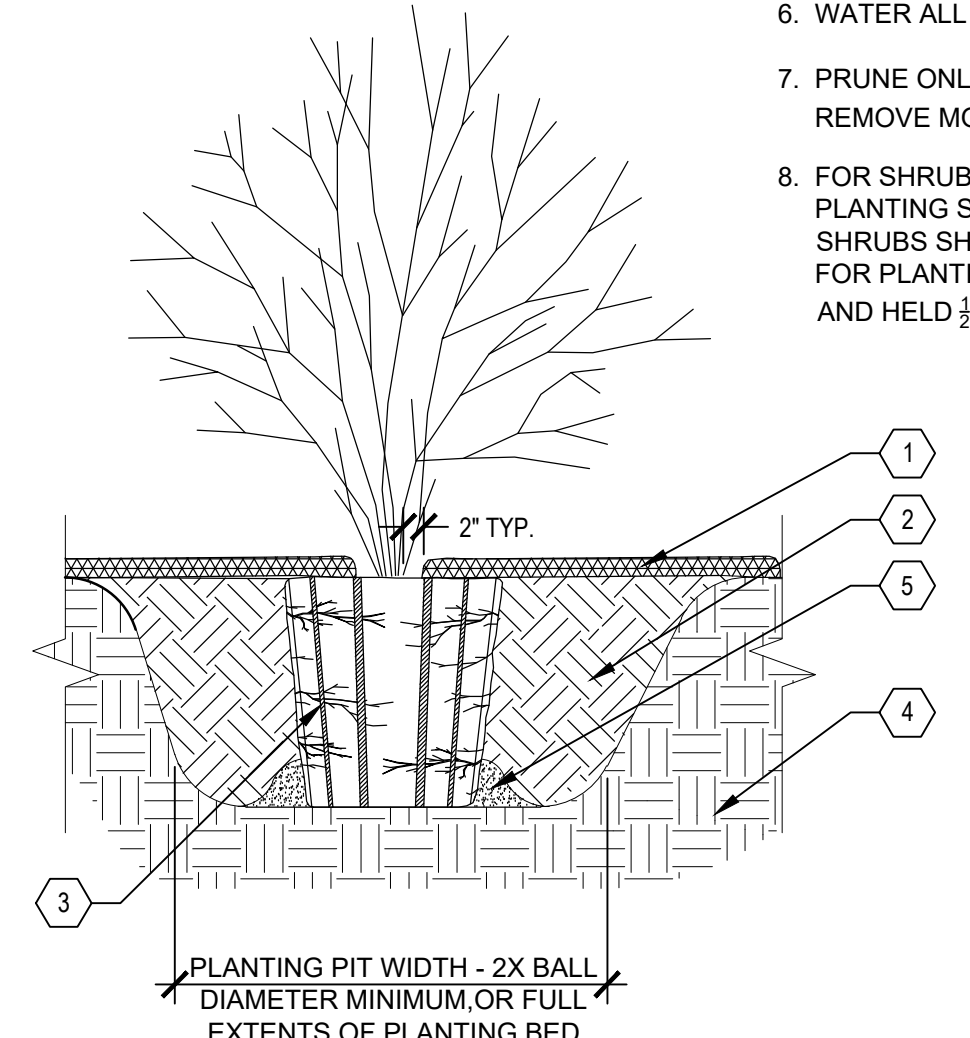
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- NOTES:**
1. PLANT EACH TREE SUCH THAT THE ROOT FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.
 2. DEPTH OF THE PLANTING HOLE SHOULD BE DETERMINED AND DUG AFTER THE ROOT FLARE IS LOCATED. PLANTING HOLE MUST BE NO DEEPER THAN THE HEIGHT OF THE ROOT BALL.
 3. IF PLANT IS SHIPPED WITH A WIRE BASKET AROUND THE ROOT BALL, CUT AND REMOVE THE WIRE BASKET ENTIRELY. REMOVE ALL TWINE, ROPE, AND BURLAP COMPLETELY FROM ALL ROOT BALLS.
 4. PLACE ROOT BALL ON UNEXCAVATED OR TAMPED SOIL.
 5. DO NOT PLACE MULCH IN CONTACT WITH STEMS.
 6. WATER ALL PLANTS WITHIN 2 HOURS OF INSTALLATION.
 7. PRUNE ONLY AS NECESSARY TO REMOVE UNHEALTHY BRANCHES. DO NOT REMOVE MORE THAN 1/2 OF THE ORIGINAL PLANT MASS.

- KEYED LEGEND**
- 1 3" DEPTH SHREDDED HARDWOOD BARK MULCH. PROVIDE SPADED EDGE, 2" WIDE, 6" DEEP FOR ENTIRE PERIMETER OF BARK MULCH RINGS AT BASE OF TREES PLANTED IN LAWNS
 - 2 PLANTING SOIL, PLANTING SOIL SHALL BE PLACED IN ONE CONTINUOUS VOLUME FOR THE ENTIRE AREA OF ANY GIVEN PLANT BED.
 - 3 SUBGRADE
 - 4 TAMP SOIL AROUND BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT BALL DOES NOT SHIFT

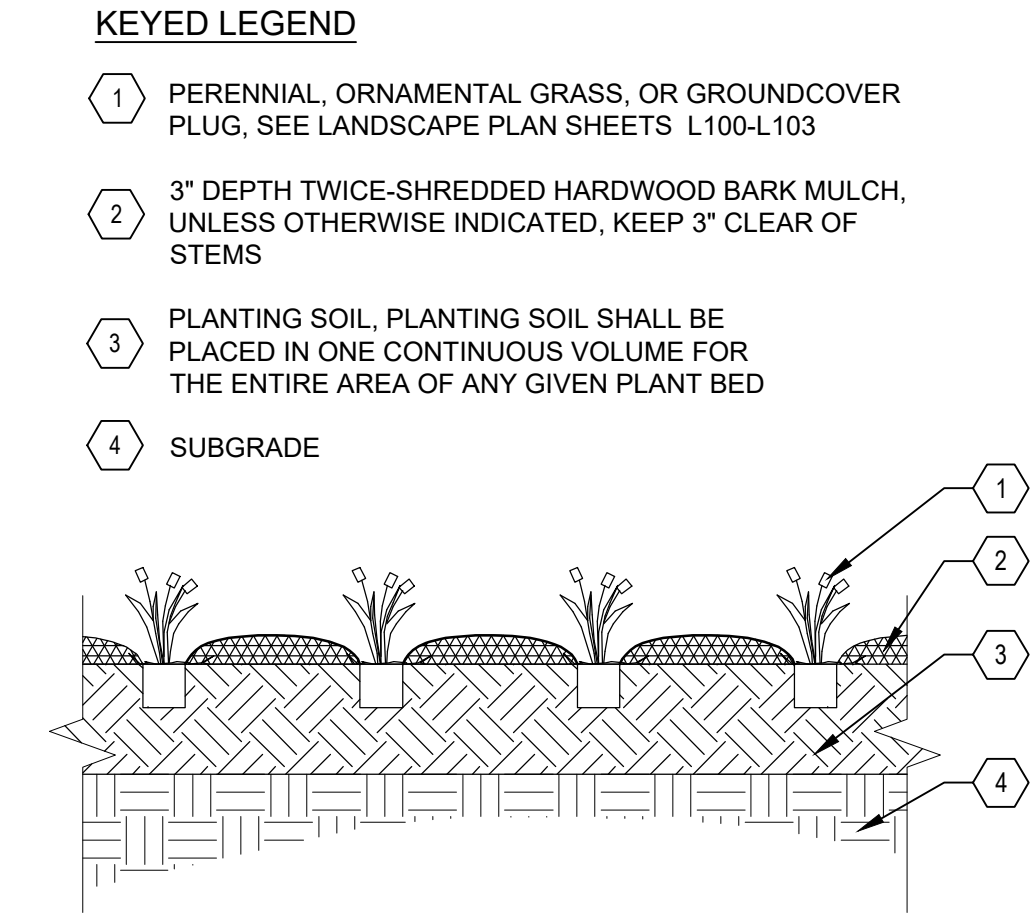
A TYPICAL TREE PLANTING
NOT TO SCALE



- NOTES:**
1. MAKE 1" TO 2" DEEP VERTICAL CUTS EVERY 6" AROUND THE CIRCUMFERENCE OF THE ROOT BALL BEFORE PLANTING TO LOOSEN POT-BOUND ROOTS.
 2. PLANT EACH SHRUB SUCH THAT THE ROOT FLARE IS VISIBLE AT THE TOP OF THE ROOT BALL. DO NOT COVER THE TOP OF THE ROOT BALL WITH SOIL.
 3. PLANTING HOLE MUST NOT BE DEEPER THAN THE HEIGHT OF THE ROOT BALL.
 4. DO NOT PLACE MULCH IN CONTACT WITH STEMS.
 5. PLACE ROOT BALL ON UNEXCAVATED OR TAMPED SOIL.
 6. WATER ALL PLANTS WITHIN 2 HOURS OF INSTALLATION.
 7. PRUNE ONLY AS NECESSARY TO REMOVE UNHEALTHY BRANCHES. DO NOT REMOVE MORE THAN 1/2 OF THE ORIGINAL PLANT MASS.
 8. FOR SHRUBS PLANTED WITHIN PLANTING BEDS, CONTRACTOR SHALL PROVIDE PLANTING SOIL CONTINUOUSLY FOR THE ENTIRE PLANTING BED AND INDIVIDUAL SHRUBS SHALL BE PLANTED INTO THE PREPARED PLANTING SOIL. MULCH SURFACE FOR PLANTING BEDS SHALL ALSO BE CONTINUOUS ACROSS THE ENTIRE SURFACE AND HELD 1/2" MIN. TO 1" MAX. BELOW ADJACENT PAVEMENTS.

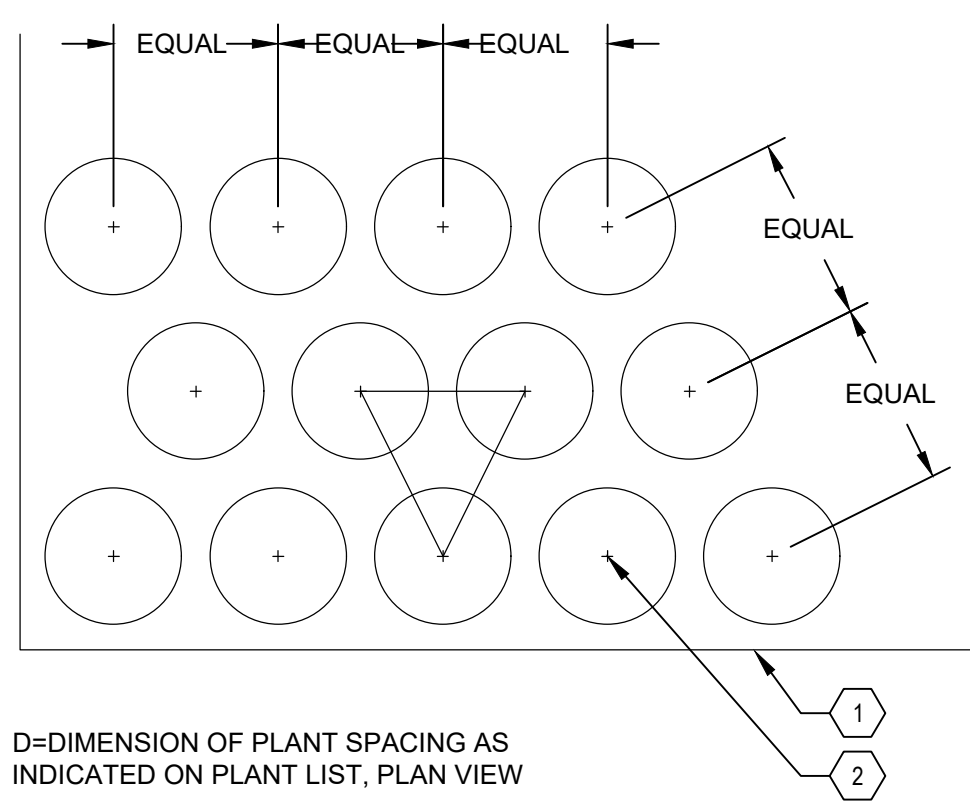
- KEYED LEGEND**
- 1 3" DEPTH TWICE-SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE INDICATED, KEEP 2" CLEAR OF STEMS
 - 2 PLANTING SOIL AS SPECIFIED, PLANTING SOIL SHALL BE PLACED IN ONE CONTINUOUS VOLUME FOR THE ENTIRE AREA OF ANY GIVEN PLANT BED
 - 3 1" TO 2" DEEP VERTICAL CUTS EVERY 6" AROUND PERIMETER
 - 4 SUBGRADE
 - 5 TAMP SOIL AROUND BALL BASE FIRMLY WITH FOOT PRESSURE SO THAT BALL DOES NOT SHIFT

B TYPICAL SHRUB PLANTING
NOT TO SCALE



- KEYED LEGEND**
- 1 PERENNIAL, ORNAMENTAL GRASS, OR GROUNDCOVER PLUG, SEE LANDSCAPE PLAN SHEETS L100-L103
 - 2 3" DEPTH TWICE-SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE INDICATED, KEEP 3" CLEAR OF STEMS
 - 3 PLANTING SOIL, PLANTING SOIL SHALL BE PLACED IN ONE CONTINUOUS VOLUME FOR THE ENTIRE AREA OF ANY GIVEN PLANT BED
 - 4 SUBGRADE

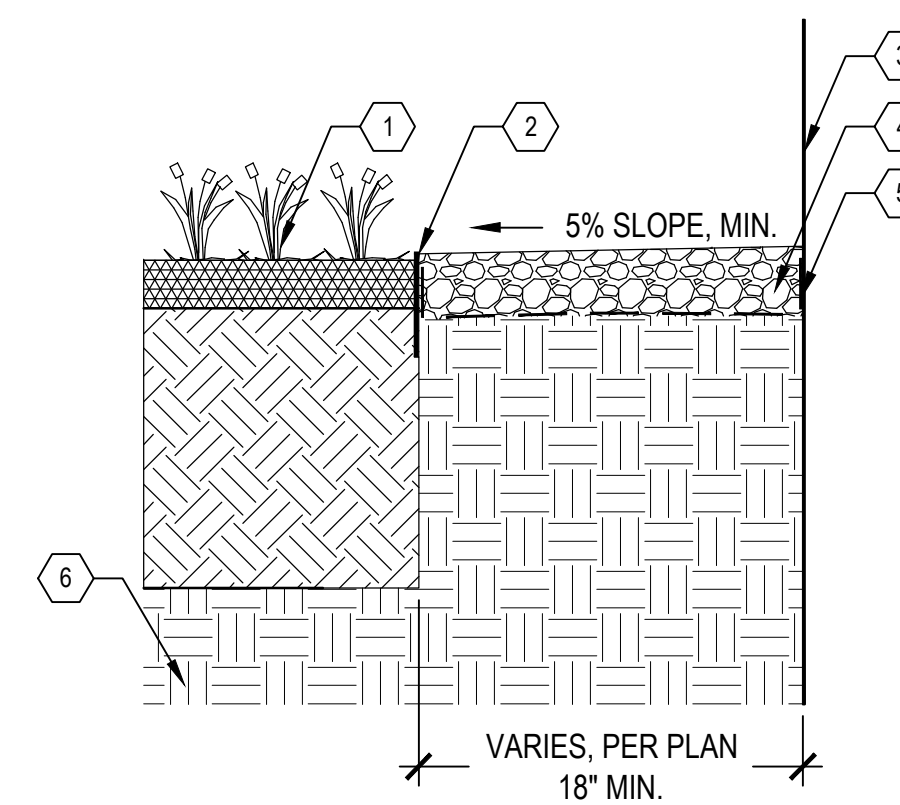
C TYPICAL ORNAMENTAL GRASS & PERENNIAL PLANTING
NOT TO SCALE



- NOTES:**
- SET FINISH GRADE OF PLANTING AREA 2" BELOW FINISH SURFACE OF PAVING, CURB, OR HEADER
 - SEE PLANTING SCHEDULE FOR SPACING OF ALL SHRUBS AND GROUNDCOVERS
 - ALL SHRUBS / GROUNDCOVER TO BE PLANTED AT EQUAL SPACING (TRIANGULAR) UNLESS OTHERWISE INDICATED ON PLANS.
 - TO DETERMINE APPROPRIATE PLANT QUANTITIES REFER TO THE PLANTING SCHEDULE OR PLAN.

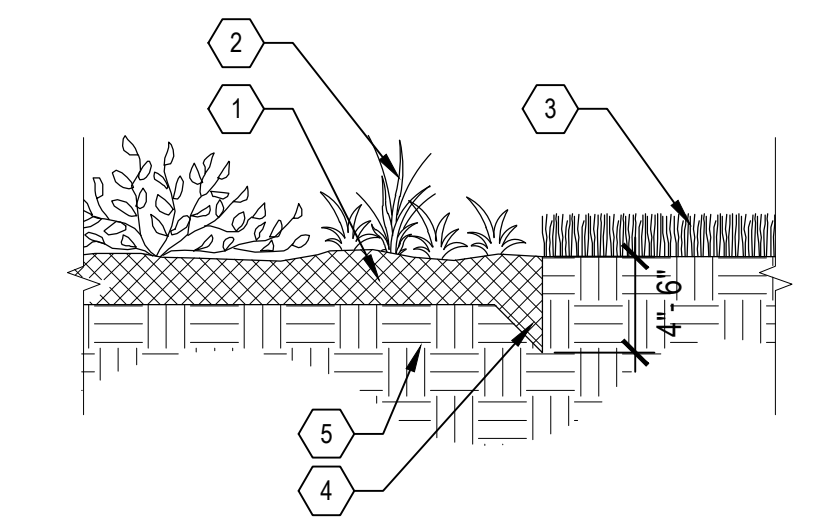
- KEYED LEGEND**
- 1 EDGE OF ADJACENT PAVEMENT
 - 2 SHRUB, PERENNIAL OR ORNAMENTAL GRASS PLANT CENTER LOCATION

D TYPICAL ORNAMENTAL GRASS & PERENNIAL SPACING
NOT TO SCALE



- KEYED LEGEND**
- 1 ADJACENT PLANTING BED
 - 2 BLACK ANODIZED ALUMINUM EDGING
 - 3 BUILDING FACE
 - 4 4" DEPTH STONE MULCH
 - 5 FILTER FABRIC, WRAP UP SIDES OF BUILDING AND EDGING
 - 6 PREPARED SUBGRADE

E TYPICAL STONE MULCH MAINTENANCE EDGE AND METAL EDGING
NOT TO SCALE



- KEYED LEGEND**
- 1 3" DEPTH OF MULCH LAYER
 - 2 SHRUB PLANTING BED
 - 3 LAWN ADJACENT TO PLANTING BED
 - 4 45 DEGREE ANGLE SHOVEL CUT EDGE TOWARD PLANTING BED
 - 5 COMPACTED SUBGRADE

F TYPICAL SHOVEL-CUT EDGE

WESTMINSTER VALLEY EAST END DEVELOPMENT
 131 S 7TH STREET & 841 W CANAL STREET
 MILWAUKEE, WI
 LANDSCAPE DETAILS

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SCALE:	1:1_1
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/25/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	L200



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SOIL

- Contractor shall provide high-quality topsoil for all new planting bed areas in the following depths:
 - For planting beds: 12-inches
 - For tree pits and/or trees planted in planting beds: 24-inches or the depth of the rootball, whichever is greater.
 - No topsoil is required under any areas that are exclusively stone cobbles/stone materials.

Topsoil shall be loam to sandy loam and free of rocks, gravel, wood, debris, litter, and of noxious weeds and their seeds. It shall be cleaned, salvaged or imported material capable of passing the 1" sieve and meeting the requirements of Section 625.2(1) of the Standard Specifications for Highway Construction.

- Additional Properties of Imported Topsoil or Manufactured Topsoil: Screened and free of stones ½ inch or larger in any dimension; free of roots, plants, sod, clods, clay lumps, pockets of coarse sand, paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials harmful to plant growth; free of obnoxious weeds and invasive plants including quackgrass, Johnsongrass, poison ivy, nutsedge, nimblewill, Canada thistle, bindweed, bentgrass, wild garlic, ground ivy, perennial sorrel, and bromegrass; not infested with nematodes; grubs; or other pests, pest eggs, or other undesirable organisms and disease-causing plant pathogens; friable and with sufficient structure to give good tilth and aeration. Continuous, air-filled pore space content on a volume/volume basis shall be at least 15 percent when moisture is present at field capacity. Soil shall have a field capacity of at least 15 percent on a dry weight basis.

- Sand: Provide sand for sand/topsoil blend meeting the gradation requirements of USDA Coarse Sand (0.02-0.04 inches) or ASTM C33 (Fine Aggregate Concrete Sand) or WisDOT SSHSC Section 501.2.5.3.4 (Fine Aggregate Sand). Pre-blend sand and topsoil uniformly off-site prior to delivery and installation on-site and only install where specifically indicated in the drawings.

- All topsoil shall be verified by field review at the location of the topsoil stockpile prior to delivery or spreading on the site. Field review may consist of visual inspection, hand test for clay, etc. Each different soil source (stockpiled from existing site, imported, stockpiled off-site, etc) is subject to a separate inspection and approval.

- Refer to Civil plans for subterranean bioretention island materials and constructions.

- Till or disc the exposed subsoils/subgrades to a depth of 2"-4" to allow aeration before placing topsoil. An Owner's Project Representative shall examine all subgrades prior to the delivery or installation of topsoil for any and all detrimental conditions including compaction, contamination by deleterious materials, presence of large construction debris, and/or any other negative conditions. Soil materials shall not be placed until all subgrade deficiencies have been corrected. Contractor will be held responsible for negative results from improper subgrade preparation if soil materials are placed with disregard to inadequately prepared subgrades.

- Place an initial lift of topsoil to a 4-inch depth and gently till into the top layer of decompacted subgrades. Place subsequent layers of topsoil also in 4-inch lifts and lightly tamp to account for settling. Topsoil depths listed in these sheet notes are final depths, **taking into account settling**; Contractor shall account for a slight overage of topsoil volumes ordered and delivered to the site to account for material settling.

- Do not apply topsoil to saturated or frozen subgrades.

- Finish grade topsoil surfaces to the following tolerances where topsoiled area(s) meets adjacent pavements:
 - For seeded lawns: Hold topsoil ½-inch below top surface of adjacent pavement.
 - For planting beds: Hold topsoil 2-inches below top surface of adjacent pavement and taper bark mulch down so that top surface of bark mulch is held even or slightly below top surface of adjacent pavement.

PLANTS

- Protect all existing trees to remain on or near the construction boundaries. If any existing trees to remain are damaged or need to be removed to accommodate construction, the appraised value of the tree(s) will need to be paid to the Owner.

- All plant material shall conform to the American Standards of Nursery Stock and be true to the species and variety/hybrid/cultivar specified, and nursery-grown in accordance with good horticultural practices, and under climatic conditions similar to those of the site location. All material shall be well-rooted into its specified container size. Nursery-dug material shall be freshly dug and properly prepared for planting. Contact Landscape Architect [Jordan Teichen, jteichen@thesigmagroup.com], in writing, to request any plant material substitutions due to availability issues.

- If discrepancies occur between the written Plant Schedule and the actual plant count from the planting symbols placed on the plans, the quantities in the plans shall govern over the quantities indicated in the Plant Schedule. Plants shall conform to the measurements specified within the contract documents.

- Trees and shrubs shall have superior form, compactness, and symmetry. Damaged trees and shrubs, by weather, insects, fungus, knots, abrasions, or cut limbs or leaders and trees with multiple leaders, unless specified otherwise, will be rejected.

- Trees and shrubs shall have healthy, well-developed root systems, free from physical damage.

- Planting Restrictions: Plant between April 15 and October 1 and after ground has completely thawed. Any planting proposed outside of this planting window shall receive written approval from an Owner's Project Representative.

- Do not fertilize newly planted material in the first year of planting.

- During transportation, no plant shall be bound with rope or wire in a manner that damages trunks or breaks branches. Plants are not to be dragged, lifted, or pulled by the trunk, branches or foliage. Plants are not to be thrown off of a truck or loader.

- Prior to installation, plants must be protected from sun and drying winds, kept in shaded areas, and kept well-watered. Install all plants within one day of delivery to site.

- An Owner's Project Representative must inspect all plant material delivered to the site to verify health, form and conformance to the size and species requirements prior to planting. Plants deemed non-conforming will be rejected.

- All plants shall be guaranteed to be in healthy and flourishing condition during the growing season. The guarantee does not cover damage from vandalism, animals, freezing rain, or winds over 60 mph. During any time of the guarantee period, the Contractor shall remove or replace, without cost to the owner, all plants not in a healthy and flourishing condition as determined by the Landscape Architect. All plant material shall be guaranteed for one (1) year from time of installation. Only one replacement per plant shall need to be made.

PLANTS, CONTINUED...

- Set plants plumb into the center of plant holes or excavated plant bed area, **making sure that the root flare is 1-inch above adjacent finished grades**; plants set too low will require re-planting at no additional cost to the Owner. **Remove wire basket, burlap, twine, pots, and/or any other material completely from the rootball.** Gently scarify rootballs of shrubs and/or perennials that have pot-bound roots. Trees with girdling roots will be rejected. Remove all twine and labels and prune any dead or broken branches.

- Backfill around rootballs in 6-inch to 8-inch lifts, tamping gently to settle soil and eliminate voids and air pockets. Fine grade all planting bed surfaces after installation and prior to mulching to re-distribute topsoil from plant hole excavations in an even, smooth surface level with adjacent grades. Provide a granular pre-emergent herbicide [Basis of Design: Preen Garden Weed Preventor by Preen] across the surface of all planting beds and/or tree pit areas in accordance with manufacturer's written instructions. Thoroughly water plants and planting bed surfaces (exposed soil areas that will be covered with bark mulch) immediately after planting and before mulching.

- Organic Mulch is to be shredded hardwood or cedar bark, free of material detrimental to healthy plant growth. Recycled bark, shredded pallets or other non-virgin material will be rejected. Individual pieces of shredded bark mulch shall not exceed 2-1/2" in size. Color shall be natural. Basis of Design: "Single Cut Hardwood" by Kissar Stone, or approved equal. Submit sample to Landscape Architect prior to placing purchase order.
 - Provide a 3-inch depth, continuous layer of shredded hardwood bark mulch for all planting beds indicated.
 - Provide a shredded hardwood bark mulch ring at the base of all trees planted in lawn areas. Size (diameter) of the ring varies based on tree species and locations. Refer to plans for diameter of tree rings.

- Provide a 6" deep x 2" wide spaded edge, backfilled with shredded hardwood bark mulch around the perimeter of all mulch rings for trees planted in lawn areas.

- Provide a 6" deep x 6" wide shovel cut edge (trenched edge), backfilled with shredded hardwood bark mulch, for all planting beds adjacent to lawn areas that are indicated to be edged with Shovel Cut Edge in the drawings.

- Maintenance for plant material shall be 90 days. Contractor will be responsible for beginning initial maintenance for all plants and landscape materials as soon as the material is installed. Actual maintenance period will start at the end of installation on the date considered substantial completion by an Owner's Representative. Any days of maintenance period after October 15 of any given year will roll into the spring of the next year, Starting May 1. For example, a project completed on September 15 would be responsible for maintenance from September 15 to October 15 (30 days) and then from May 1 to July 1 (60 days) the following season.

- During the maintenance period, the Contractor will be responsible for (at a minimum), watering with Contractor-supplied supplemental water, staking leaning trees, re-settling plant material/topsoil areas/seeded areas that settle, pruning, dead-heading, weeding, and removing trash and debris from planting and landscape areas, re-setting stone materials and/or edging, repairing areas of washout, and ensuring all landscape construction is on the path to successful short and long-term establishment. Whenever possible, utilize integrated pest management practices; hand-weeding will be required. Apply pesticides and chemical products only as required to prevent widespread outbreaks of a particular weed species and only after receiving written approval from the Owner. Contractor shall plan to make weekly maintenance visits to the site during the maintenance period and shall provide documentation to the Owner of the maintenance activities performed and observations of any deleterious nature for each maintenance visit.

- Stake any trees planted on slopes of 3:1 or greater, in areas of high winds, and/or as determined by the Contractor or Owner's Representative to be in the best interest of the tree's immediate and long-term health and survivability.

SEEDING

- Provide the following seed types:
 - For Turfgrass -Lawn Areas: Provide "Green Resistor" turf-type tall fescue blend by LaCrosse Seed Company (www.laxseed.com; Bryan Decker 608-386-1195), or approved equal. Sow at a rate of 10 lbs. / 1,000 square feet total with 5 lbs. / 1,000 seeded in one direction and 5 lbs. / 1,000 square feet in the opposite direction in 2 separate passes to ensure even distribution.
 - For Shortgrass Prairie Native Seed Mix Areas: Provide "Shortgrass Prairie for Dry Soils" blend by Agrecol Native Seed & Plant Nursery. (https://www.agrecol.com); or approved equal. Sow at a rate of 10.5 lbs. / acre per manufacturer recommendations.
 - For Biofiltration Seed Mix Areas: Provide "Rainwater Renewal Mix" blend by Agrecol Native Seed & Plant Nursery. (https://www.agrecol.com); or approved equal. Sow at a rate of 8 lbs. / acre per manufacturer recommendations.

- Provide erosion control mat in **all** seeded areas; refer to Civil plans for locations and extents. In general, provide Curlex Net Free for seeded areas with slopes of 4:1 or less and Curlex II erosion control mat in all other seeded areas. Provide manufacturer's standard biodegradable anchoring stakes (or alternative source for biodegradable stakes, if approved in writing by Owner's Representative). Install per manufacturer's written installation instructions.

- Anchored straw mulch may only be used for seeding small areas of repair unless approved by the Owner.

- Seed shall be delivered to the site in its original, unopened container, labeled as to weight, analysis, and manufacturer. Store any seed delivered prior to use in a manner safe from damage from heat, moisture, rodents, or other causes.

- The Contractor shall guarantee the germination of seed installed during the regular seeding season. Seeding windows for the project are April 1 - June 15 and/or September 1 to October 15. Seeding outside of these windows requires written approval from Owner and may require additional material and/or maintenance costs.

- Grass seed shall meet the requirements of Section 630.2.1 of Standard Specifications for Highway Construction (SSHSC). Install seed utilizing Method A or B of the SSHSC or other method as approved in writing by an Owner's Project Representative.

- Fertilizer + Preemergent: Provide 21-22-4 Fertilizer-Mesotrione Herbicide blend by The Andersons, or approved equal, for application over bare soils before seeding or sodding for all seeded areas. Apply at 40 lbs. / 11,000 square feet.

- Starter Fertilizer: In addition to fertilizer+preemergent blend, provide a granular, non-burning fertilizer of 18-12-6 composition by Spring Valley, or approved equal, for all seeded areas. Apply at manufacturer's recommended rate(s).

SEEDING, CONTINUED...

- Contractor will be responsible for beginning initial maintenance for all lawns and erosion control materials as soon as the material is seeded/installed. Actual maintenance period will start at the end of installation on the date considered substantial completion by an Owner's Representative. Any days of maintenance period after October 15 of any given year will roll into the spring of the next year, Starting May 1. For example, a project completed on September 15 would be responsible for maintenance from September 15 to October 15 (30 days) and then from May 1 to July 1 (60 days) the following season.

- During maintenance period, seeded areas shall be watered daily to maintain adequate surface soil moisture for proper seed germination. Watering shall continue for not less than 90 days following installation. Thereafter, apply 1/2" of water twice weekly until final acceptance.

- Maintain and establish lawn areas by watering, fertilizing, weeding, mowing, trimming, replanting, and any other operations to ensure all lawns are on a path to short-term establishment and vigorous, long-term health. Roll, regrade, and replant bare or eroded areas and repair displaced erosion control materials to produce a uniformly smooth lawn. Contractor shall plan to make weekly maintenance visits to the site during the maintenance period and shall provide documentation to the Owner of the maintenance activities performed and observations of any deleterious nature for each maintenance visit.

- At the end of the maintenance period, a healthy, well-rooted, even-colored, viable lawn will have been established, free of weeds, bare areas larger than 1 square foot, and surface irregularities for all types of seed/sod.

STONE, EDGING & MISCELLANEOUS MATERIALS

- STONE MULCH: Provide washed, rounded, durable stone mulch materials with creamy white color and splashes of pink, grey and black Basis of Design: "Rainbow, ¾ Inch" by Kissar Stone, or approved equal. Submit a photographic and physical sample to Owner to ensure conformance of materials with the design intent.

- EDGING:
 - Edging, Type 1: Aluminum Edge Provide 3/8" x 5-1/2" (depth) commercial grade Series 3000 aluminum edging by Curv-rite. Natural mill finish. Include all stakes, spicers, ends, corners, etc. Install per manufacturer's written instructions.
 - Edging Type 2: Shovel Cut & Spaded Edge Provide shovel cut edging in areas indicated in the drawings; provide spaded edge (see information under "Plants" at the edge of tree bark mulch rings in seeded/sodded lawns.)

- MISCELLANEOUS MATERIALS: Geotextile Fabric: Provide non-woven geotextile polypropylene or polyester geotextile filter fabric, 3 oz./sq.yd., minimum. Fabric shall be inert to biological degradation and resist naturally-encountered chemicals, alkalis, and acids. Provide filter fabric as indicated in the landscape details under stone mulch areas.

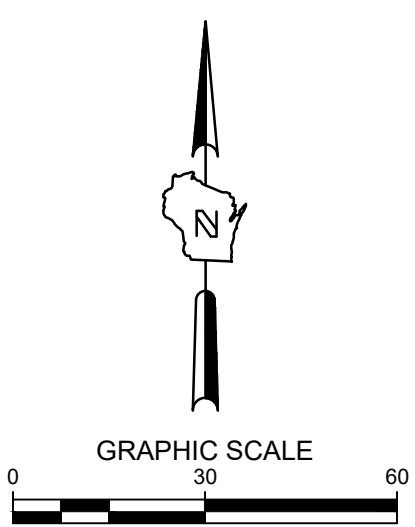
BIOFILTRATION SEED MIX COMPOSITION:

Wildflowers		Oz/Acre
Asclepias incarnata	Marsh (Red) Milkweed	3.00
Aster ericoides	Heath Aster	0.10
Aster novae-angliae	New England Aster	1.50
Baptisia leucantha (alba)	White Wild Indigo	4.00
Eupatorium maculatum	Spotted Joe Pye Weed	0.80
Eupatorium perfoliatum	Boneset	0.50
Liatris pycnostachya	Prairie Blazing Star	2.50
Liatris spicata	Marsh Blazing Star	5.00
Lobelia cardinalis	Cardinal Flower	0.25
Lobelia siphilitica	Great Blue Lobelia	0.50
Monarda fistulosa	Wild Bergamot	1.50
Physostegia virginiana	Obedient Plant	1.50
Pycnanthemum virginianum	Mountain Mint	0.30
Ratibida pinnata	Yellow Coneflower	2.25
Rudbeckia hirta	Black-Eyed Susan	2.00
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	2.00
Solidago ohioensis	Ohio Goldenrod	0.50
Tradescantia ohioensis	Ohio Spiderwort	1.25
Verbena hastata	Blue Vervain	1.00
Vernonia fasciculata	Ironweed	1.00
Grasses, Sedges, & Rushes		Oz/Acre
Bromus ciliatus	Fringed Brome	20.00
Calamagrostis canadensis	Blue Joint Grass	1.00
Carex bebbii	Bebb's Oval Sedge	2.00
Carex crawfordii	Crawford's Sedge	1.00
Carex crinita	Fringed Sedge	0.75
Carex stipata	Common Fox Sedge	1.50
Carex vulpinoidea	Brown Fox Sedge	1.00
Elymus canadensis	Canada Wild Rye	24.00
Elymus virginicus	Virginia Wild Rye	32.00
Glyceria grandis	Reed Manna Grass	1.00
Panicum virgatum	Switchgrass	3.50
Scirpus atrovirens	Dark-Green Bulrush	0.50
Scirpus cyperinus	Wool Grass	0.30
Sorghastrum nutans	Indian Grass	5.00
Spartina pectinata	Prairie Cordgrass	3.00

SHORTGRASS PRAIRIE NATIVE SEED MIX COMPOSITION:

Wildflowers		Oz/Ac
Agastache foeniculum	Lavender Hyssop	1.00
Allium cernuum	Nodding Onion	4.00
Amorpha canescens	Leadplant	2.00
Asclepias tuberosa	Butterfly Weed	2.00
Aster azureus	Sky Blue Aster	1.25
Aster ericoides	Heath Aster	0.10
Aster laevis	Smooth Blue Aster	1.25
Chamaecrista fasciculata	Partridge Pea	8.00
Coreopsis lanceolata	Lance-Leaf (Sand) Coreopsis	2.50
Coreopsis palmata	Prairie Coreopsis	2.00
Dalea candida	White Prairie Clover	3.00
Dalea purpurea	Purple Prairie Clover	2.50
Echinacea pallida	Pale Purple Coneflower	8.00
Eryngium yuccifolium	Rattlesnake Master	3.00
Heliopsis helianthoides	Early Sunflower	6.00
Liatris aspera	Rough Blazing Star	1.00
Liatris cylindracea	Dwarf Blazing Star	1.00
Lupinus perennis	Wild Lupine	6.00
Monarda fistulosa	Wild Bergamot	2.00
Monarda punctata	Dotted Mint	0.25
Potentilla arguta	Prairie Cinquefoil	0.50
Ratibida pinnata	Yellow Coneflower	3.00
Rudbeckia hirta	Black-Eyed Susan	4.00
Solidago rigida	Stiff Goldenrod	0.70
Solidago speciosa	Showy Goldenrod	0.70
Tradescantia ohioensis	Ohio Spiderwort	0.75
Verbena stricta	Hoary Vervain	2.00
Grasses, Sedges, & Rushes		Oz/Ac
Bouteloua curtipendula	Side Oats Grama	16.00
Bromus kalmii	Prairie Brome	8.00
Carex bicknellii	Copper-Shouldered Oval Sedge	1.50
Elymus canadensis	Canada Wild Rye	48.00
Koeleria cristata (macrantha)	June Grass	2.00
Schizachyrium scoparium	Little Bluestem	20.00
Sporobolus heterolepis	Prairie Dropseed	4.00

THE SIGMA GROUP
 Single Source. Sound Solutions.
 www.thesigmagroup.com
 1300 West Canal Street
 Milwaukee, WI 53233
 Phone: 414-643-4200
 Fax: 414-643-4210



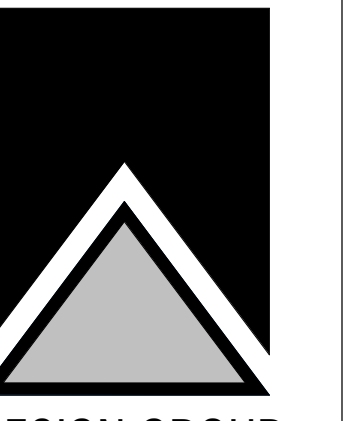
WESTMINSTER VALLEY EAST END DEVELOPMENT
 131 S 7TH STREET & 841 W CANAL STREET
 MILWAUKEE, WI

LANDSCAPE SPECIFICATIONS

PRELIMINARY
 NOT FOR
 CONSTRUCTION

SCALE:	#####
PROJECT NO:	20401
DESIGN DATE:	----
PLOT DATE:	4/25/2022
DRAWN BY:	JCT
CHECKED BY:	----
APPROVED BY:	----
SHEET NO:	

L300



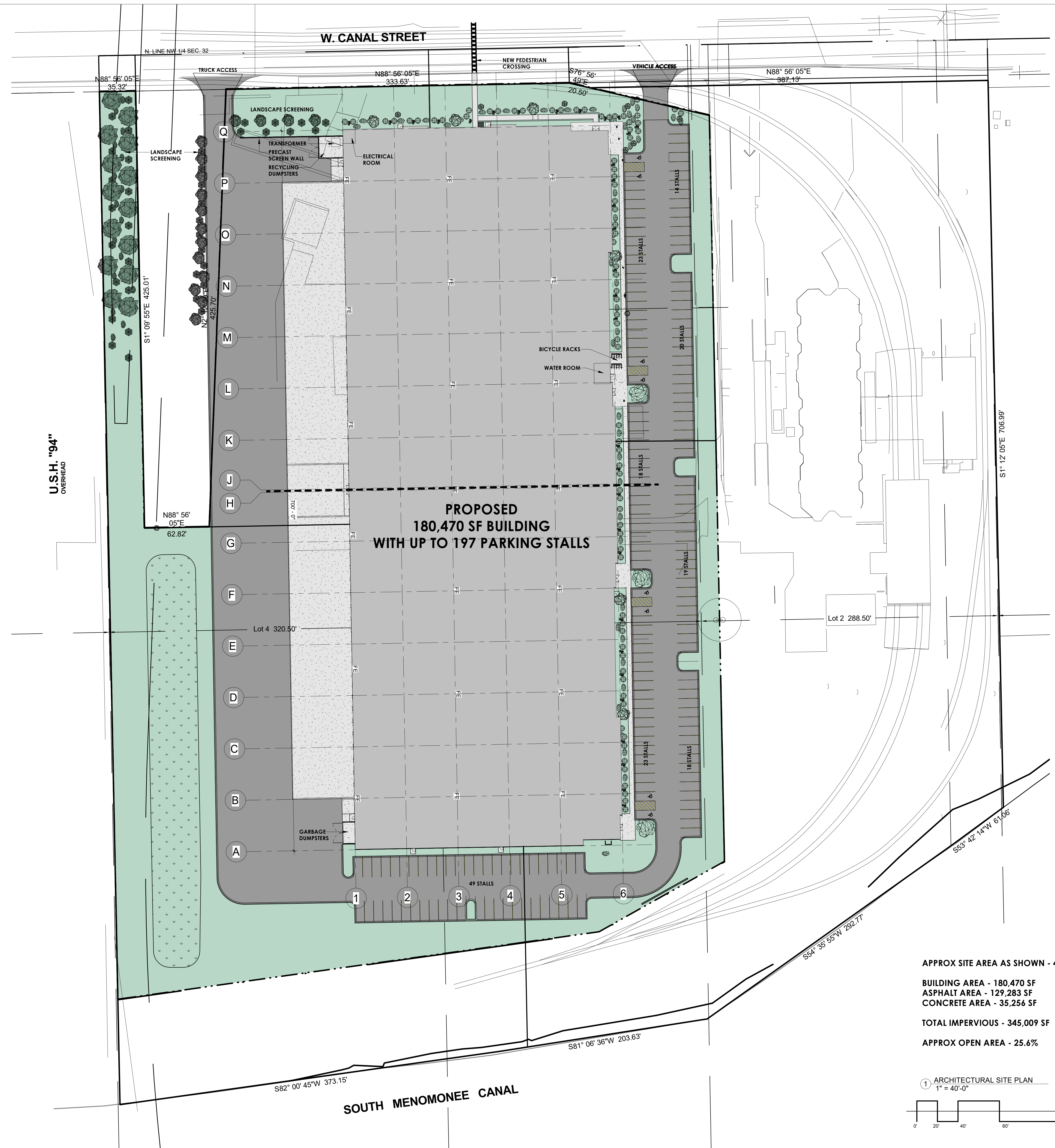
ARCHITECTURAL SITE PLAN

WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

PROGRESS SET
NOT FOR CONSTRUCTION

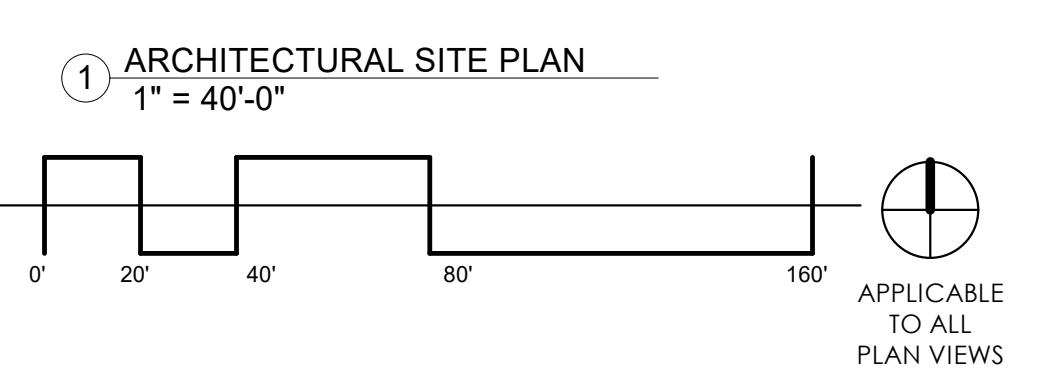
JOB: 3361
DRAWN: CW
CHECKED: CW
DATE: 04-25-22
SHEET:

AS1.0

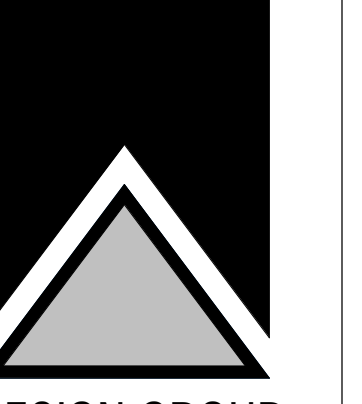


PROPOSED
180,470 SF BUILDING
WITH UP TO 197 PARKING STALLS

APPROX SITE AREA AS SHOWN - 464,095 SF
BUILDING AREA - 180,470 SF
ASPHALT AREA - 129,283 SF
CONCRETE AREA - 35,256 SF
TOTAL IMPERVIOUS - 345,009 SF
APPROX OPEN AREA - 25.6%



Revision
Date



PROGRESS SET
NOT FOR CONSTRUCTION

Revision	Date

JOB: 3361
 DRAWN: CW
 CHECKED: CW
 DATE: 04-25-22
 SHEET:

A1.0

FLOOR PLAN LEGEND

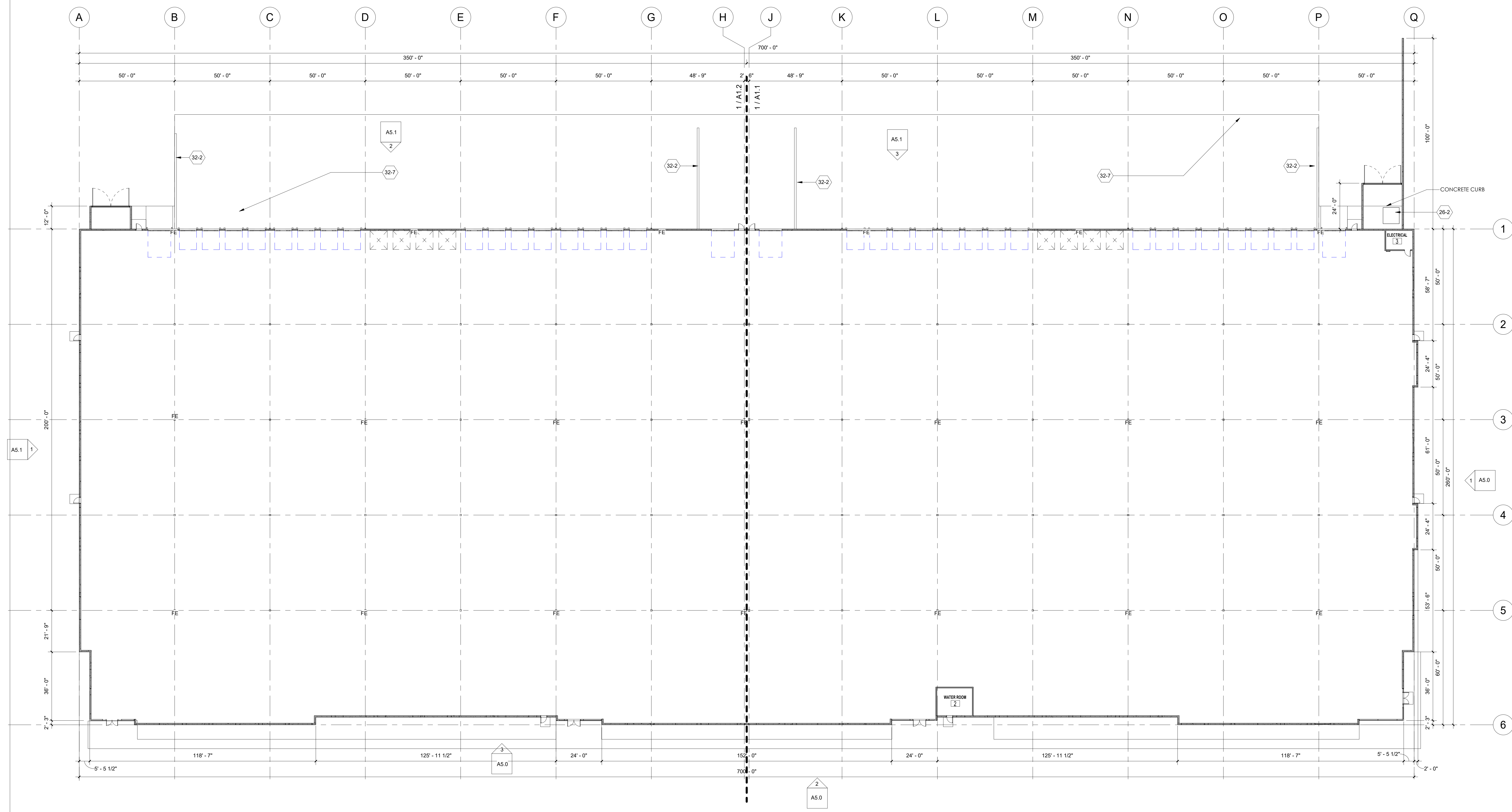
ROOM	ROOM NAME	---	PARTITION TO BE DEMOLISHED
100	ROOM NUMBER	---	PARTITION TO BE DEMOLISHED
100	DOOR NUMBER	---	PARTITION TO BE DEMOLISHED
◇	PARTITION TYPE	---	DOOR AND FRAME TO BE REMOVED
①	KEYNOTES	---	DOOR AND FRAME TO BE REMOVED
⊕	SURFACE MOUNTED FIRE EXTINGUISHER	---	EXISTING PARTITION TO REMAIN
F.E.	FIRE EXTINGUISHER	---	EXISTING PARTITION TO REMAIN
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER	---	EXISTING DOOR TO REMAIN
⊕	EXIT LIGHT	---	NEW CONSTRUCTION
⊕	EXIT LIGHT (DIRECTIONAL)	---	NEW CONSTRUCTION
BL-1	BORROWED LIGHT TAG	---	NEW DOOR & FRAME
TP-1	TOILET ACCESSORY TAG	---	NEW DOOR & FRAME
		---	MATCHLINE

GENERAL NOTES - NEW FLOOR PLAN

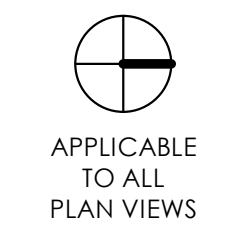
- 1 VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIORN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
- 2 VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
- 3 AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
- 4 SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
- 5 SEE SHEET AD.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS.
- 6 SEE SHEET A1.2 FOR PARTITION TYPE.
- 7 EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
- 8 FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
- 9 ALL WALLS TO BE PAINTED PROVIDING FRP WANSOT WHERE CALLED FOR.
- 10 ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
- 11 EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
- 12 LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.

KEYNOTE LEGEND

- | | |
|------|--|
| 26-2 | TRANSFORMER (SEE ELECTRICAL DWGS) ON RAISED CONCRETE CURB |
| 32-2 | CONCRETE LOADING DOCK RETAINING WALL. |
| 32-7 | CONCRETE LOADING DOCK / TRUCK APRON - REFER TO CIVIL AND STRUCTURAL DRAWINGS |



1 OVERALL FIRST FLOOR
3/64" = 1'-0"

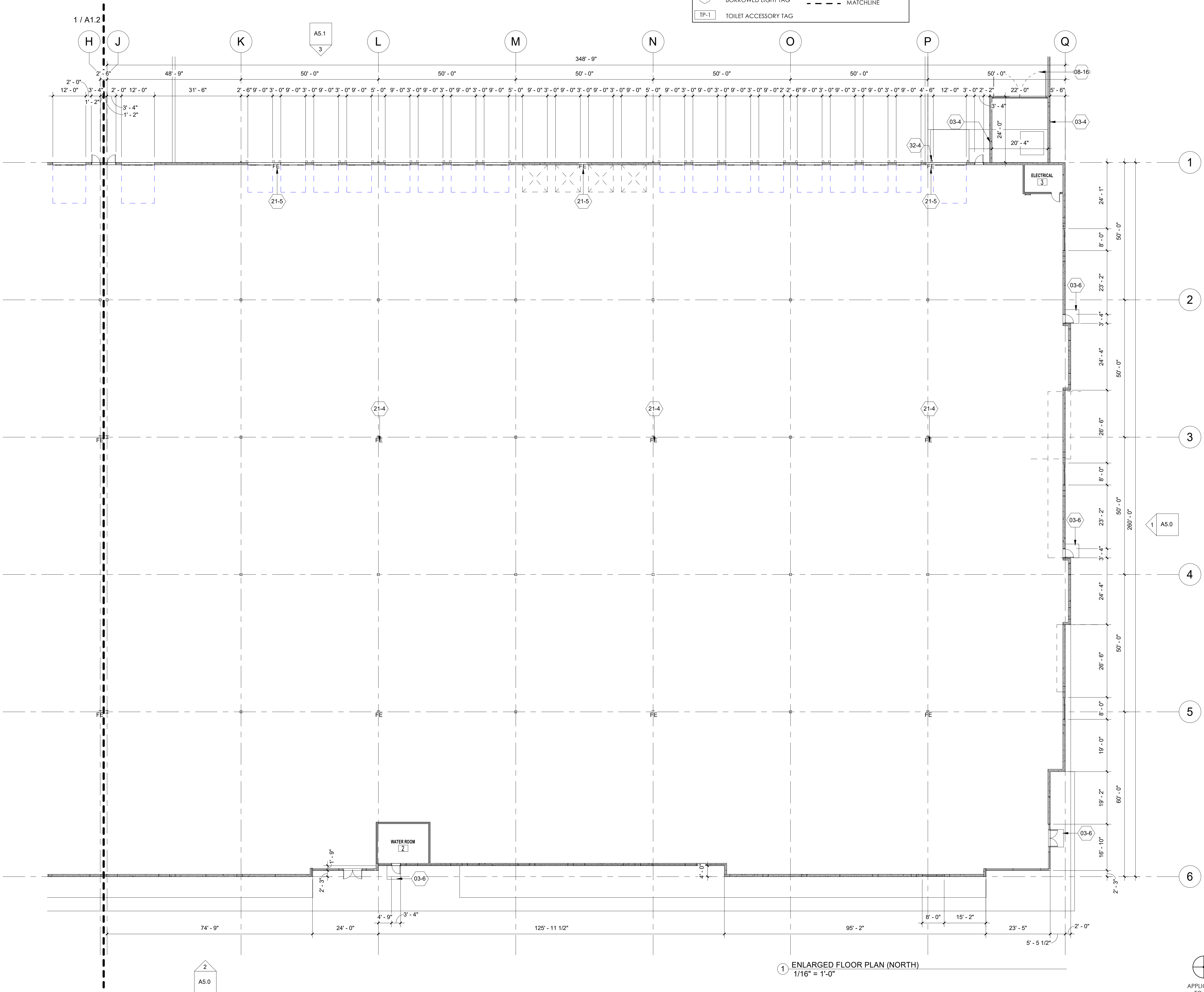


APPLICABLE TO ALL PLAN VIEWS

KEYNOTE LEGEND	
03-4	EXTERIOR NON-INSULATED PRECAST SCREENING/ DUMPSTER ENCLOSURE
03-6	CONCRETE STOOP
08-16	PRE-FINISHED METAL PANEL (PAIR OF EQUAL PANELS) MOUNTED TO GALVANIZED STEEL FRAME PAINTED. HINGE POSTS TO BE CONCRETE FILLED TUBE STILL WITH CONCRETE CROWNED TOP, PAINTED. HEIGHT TO MATCH DOOR HEIGHT PLUS 6".
21-4	PROVIDE COLUMN-MOUNTED FIRE EXTINGUISHERS. PROVIDE SAFETY STRIPING ON ALL COLUMNS WITH EXTINGUISHERS. COORDINATE FINAL QUANTITY AND LOCATIONS WITH FIRE MARSHAL.
21-5	PROVIDE WALL-MOUNTED FIRE EXTINGUISHERS. COORDINATE FINAL QUANTITY AND LOCATIONS WITH FIRE MARSHAL.
32-4	6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S), PAINTED SAFETY YELLOW

FLOOR PLAN LEGEND			
ROOM	ROOM NAME	---	PARTITION TO BE DEMOLISHED
100	ROOM NUMBER		
100	DOOR NUMBER		
◇	PARTITION TYPE		DOOR AND FRAME TO BE REMOVED
◇	KEYNOTES		
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER	---	EXISTING PARTITION TO REMAIN
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER		EXISTING DOOR TO REMAIN
⊕	EXIT LIGHT		NEW CONSTRUCTION
⊕	EXIT LIGHT (DIRECTIONAL)		NEW DOOR & FRAME
BL	BORROWED LIGHT TAG	---	MATCHLINE
TP-1	TOILET ACCESSORY TAG		

- GENERAL NOTES - NEW FLOOR PLAN**
- VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIOHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
 - VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
 - AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
 - SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
 - SEE SHEET A0.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS.
 - SEE SHEET A1.2 FOR PARTITION TYPE.
 - EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
 - FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
 - ALL WALLS TO BE PAINTED PROVIDING FRP WAINSCOT WHERE CALLED FOR.
 - ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
 - EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
 - LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.



1 ENLARGED FLOOR PLAN (NORTH)
1/16" = 1'-0"



SHEET TITLE
ENLARGED FLOOR PLAN (NORTH)

WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

PROGRESS SET
NOT FOR CONSTRUCTION

Revision	Date

JOB: 3361
DRAWN: CJR
CHECKED: CWI
DATE: 04-25-22
SHEET:

APPLICABLE TO ALL PLAN VIEWS
A1.1

KEYNOTE LEGEND

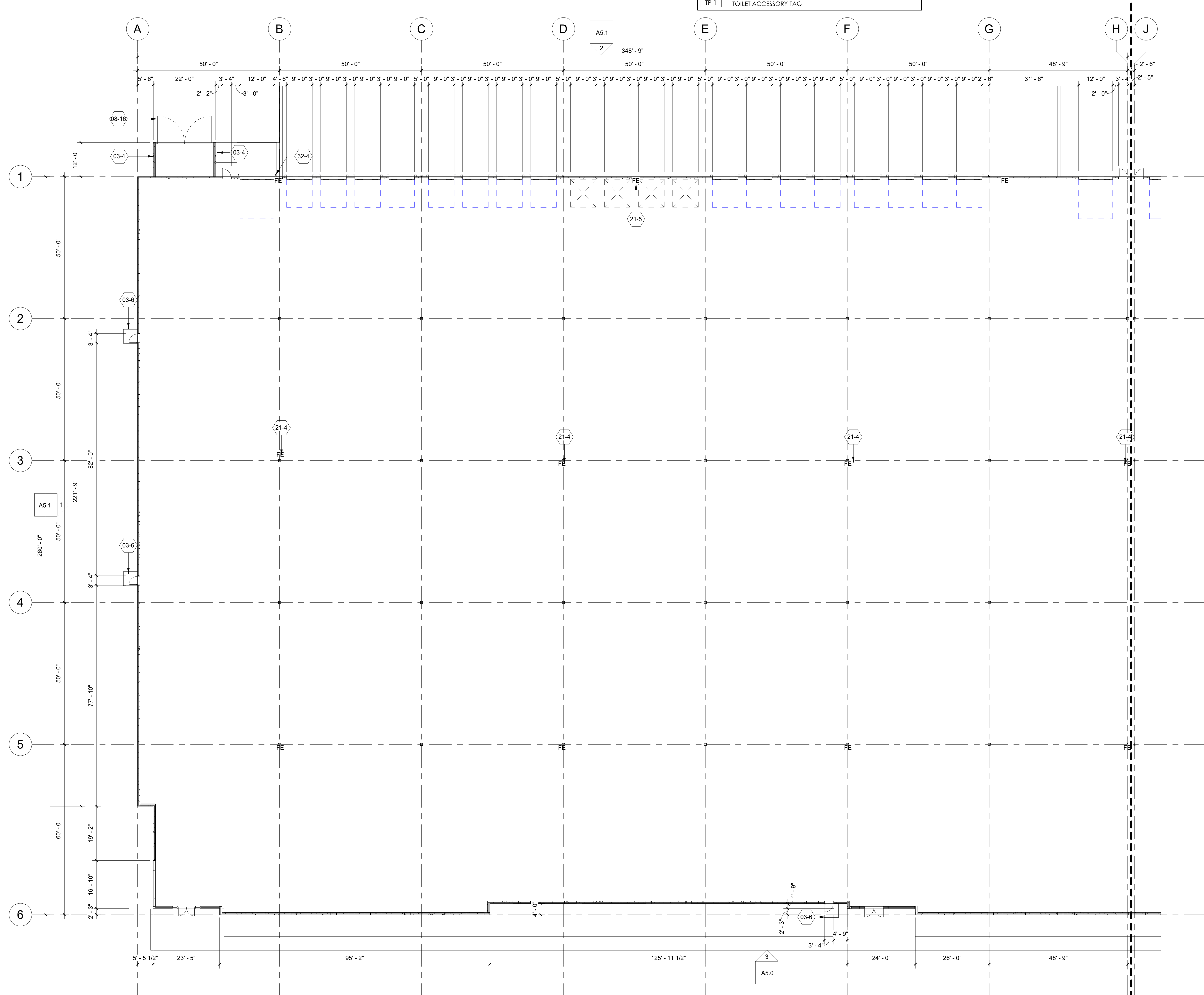
03-4	EXTERIOR NON-INSULATED PRECAST SCREENING/ DUMPSTER ENCLOSURE
03-4	CONCRETE STOOP
08-16	PRE-FINISHED METAL PANEL (PAIR OF EQUAL PANELS) MOUNTED TO GALVANIZED STEEL FRAME, PAINTED. HINGE POSTS TO BE CONCRETE FILLED TUBE STILL WITH CONCRETE CROWNED TOP. PAINTED. HEIGHT TO MATCH DOOR HEIGHT PLUS 6".
21-4	PROVIDE COLUMN-MOUNTED FIRE EXTINGUISHERS. PROVIDE SAFETY STRIPING ON ALL COLUMNS WITH EXTINGUISHERS. COORDINATE FINAL QUANTITY AND LOCATIONS WITH FIRE MARSHAL.
21-5	PROVIDE WALL-MOUNTED FIRE EXTINGUISHERS. COORDINATE FINAL QUANTITY AND LOCATIONS WITH FIRE MARSHAL.
32-4	6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S), PAINTED SAFETY YELLOW

FLOOR PLAN LEGEND

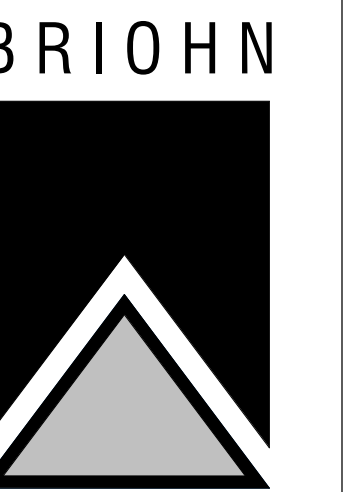
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100	ROOM NUMBER	---	PARTITION TO BE DEMOLISHED
100	DOOR NUMBER	---	PARTITION TO BE DEMOLISHED
100	PARTITION TYPE	---	PARTITION TO BE DEMOLISHED
1	KEYNOTES	---	PARTITION TO BE DEMOLISHED
+	SURFACE MOUNTED FIRE EXTINGUISHER	---	PARTITION TO BE DEMOLISHED
F.E.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER	---	PARTITION TO BE DEMOLISHED
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER	---	PARTITION TO BE DEMOLISHED
+	EXIT LIGHT	---	PARTITION TO BE DEMOLISHED
+	EXIT LIGHT (DIRECTIONAL)	---	PARTITION TO BE DEMOLISHED
BL-1	BORROWED LIGHT TAG	---	PARTITION TO BE DEMOLISHED
TP-1	TOILET ACCESSORY TAG	---	PARTITION TO BE DEMOLISHED
---	EXISTING PARTITION TO REMAIN	---	PARTITION TO BE DEMOLISHED
---	EXISTING DOOR TO REMAIN	---	PARTITION TO BE DEMOLISHED
---	NEW CONSTRUCTION	---	PARTITION TO BE DEMOLISHED
---	NEW DOOR & FRAME	---	PARTITION TO BE DEMOLISHED
---	MATCHLINE	---	PARTITION TO BE DEMOLISHED

GENERAL NOTES - NEW FLOOR PLAN

- 1 VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIGHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
- 2 VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
- 3 AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
- 4 SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
- 5 SEE SHEET A0.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS.
- 6 SEE SHEET A1.2 FOR PARTITION TYPE.
- 7 EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
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- 9 ALL WALLS TO BE PAINTED PROVIDING FRP WAANSOT WHERE CALLED FOR.
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- 12 LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.



1 ENLARGED FLOOR PLAN (SOUTH)
1/16" = 1'-0"



DESIGN GROUP
3800 N BRIDGEMOOR ROAD, SUITE 200
BROOKFIELD, WISCONSIN 53005-1950
(262) 780-6000 PHONE
(262) 780-6005 FAX

SHEET TITLE
ENLARGED FLOOR PLAN (SOUTH)

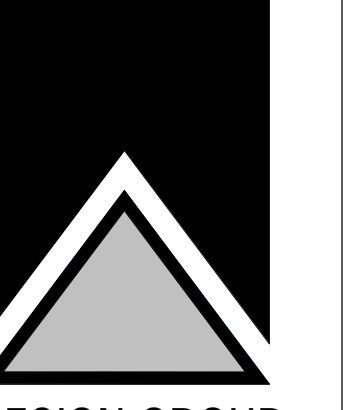
WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

PROGRESS SET
NOT FOR CONSTRUCTION

Revision	Date

JOB: 3361
DRAWN: CJR
CHECKED: CWI
DATE: 04-25-22
SHEET:

A1.2



SHEET TITLE
**OVERALL CLERESTORY
PLAN**

WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB: 3361
DRAWN: CJR
CHECKED: CWJ
DATE: 04-25-22

SHEET:

A1.3

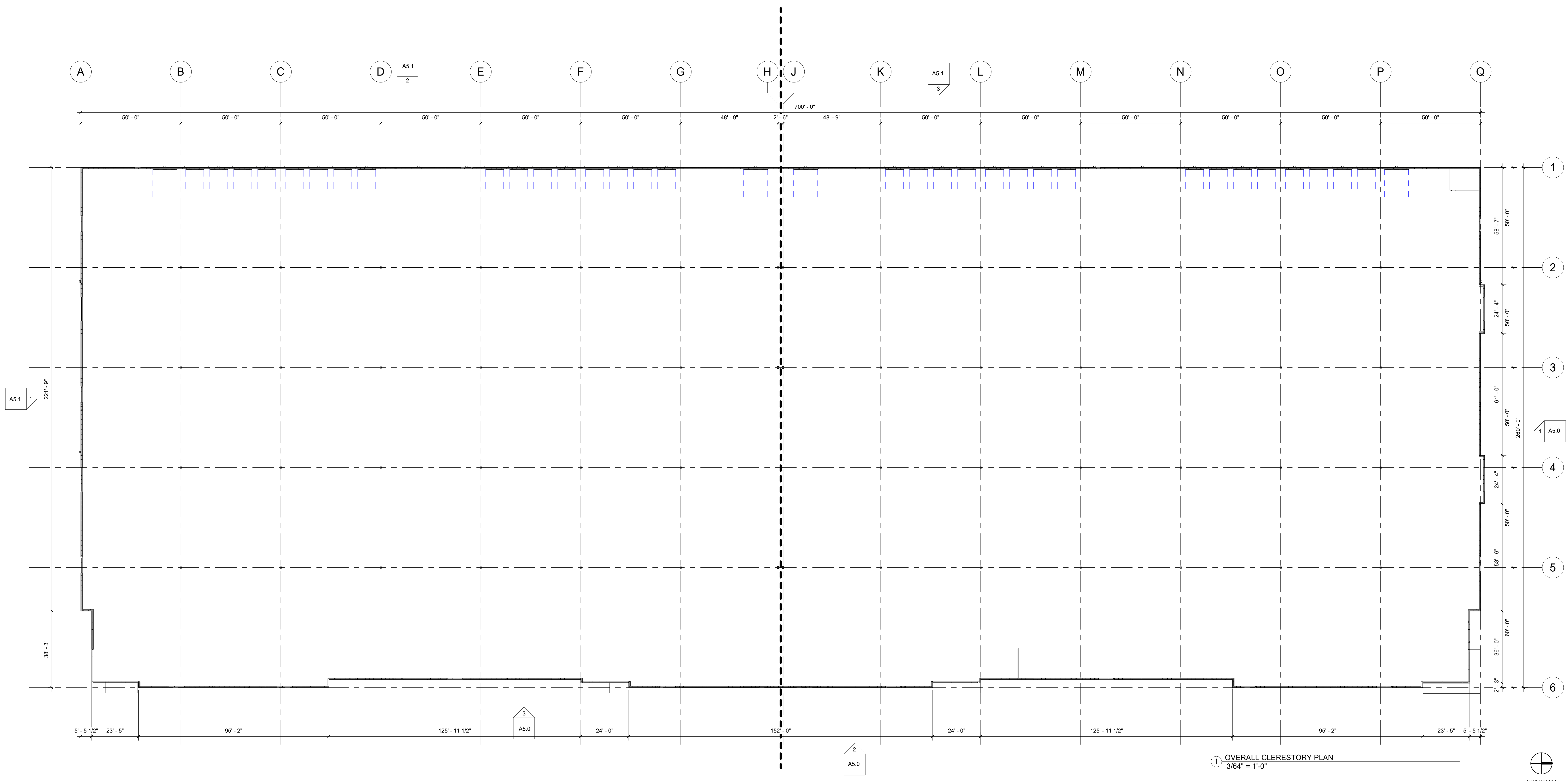
FLOOR PLAN LEGEND

ROOM	ROOM NAME	---	PARTITION TO BE DEMOLISHED
100	ROOM NUMBER	---	
100	DOOR NUMBER	---	
◇	PARTITION TYPE	---	DOOR AND FRAME TO BE REMOVED
①	KEYNOTES	---	
⊕	SURFACE MOUNTED FIRE EXTINGUISHER	---	EXISTING PARTITION TO REMAIN
F.E.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER	---	EXISTING DOOR TO REMAIN
+	EXIT LIGHT	---	NEW CONSTRUCTION
⊙	EXIT LIGHT (DIRECTIONAL)	---	NEW DOOR & FRAME
BL-1	BORROWED LIGHT TAG	---	MATCHLINE
TP-1	TOILET ACCESSORY TAG	---	

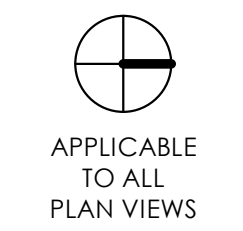
GENERAL NOTES - NEW FLOOR PLAN

- 1 VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIORN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
- 2 VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
- 3 AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
- 4 SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
- 5 SEE SHEET AD.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS.
- 6 SEE SHEET AD.2 FOR PARTITION TYPE.
- 7 EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
- 8 FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
- 9 ALL WALLS TO BE PAINTED PROVIDING FRP WAINSCOT WHERE CALLED FOR.
- 10 ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
- 11 EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
- 12 LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.

KEYNOTE LEGEND



① OVERALL CLERESTORY PLAN
3/64" = 1'-0"



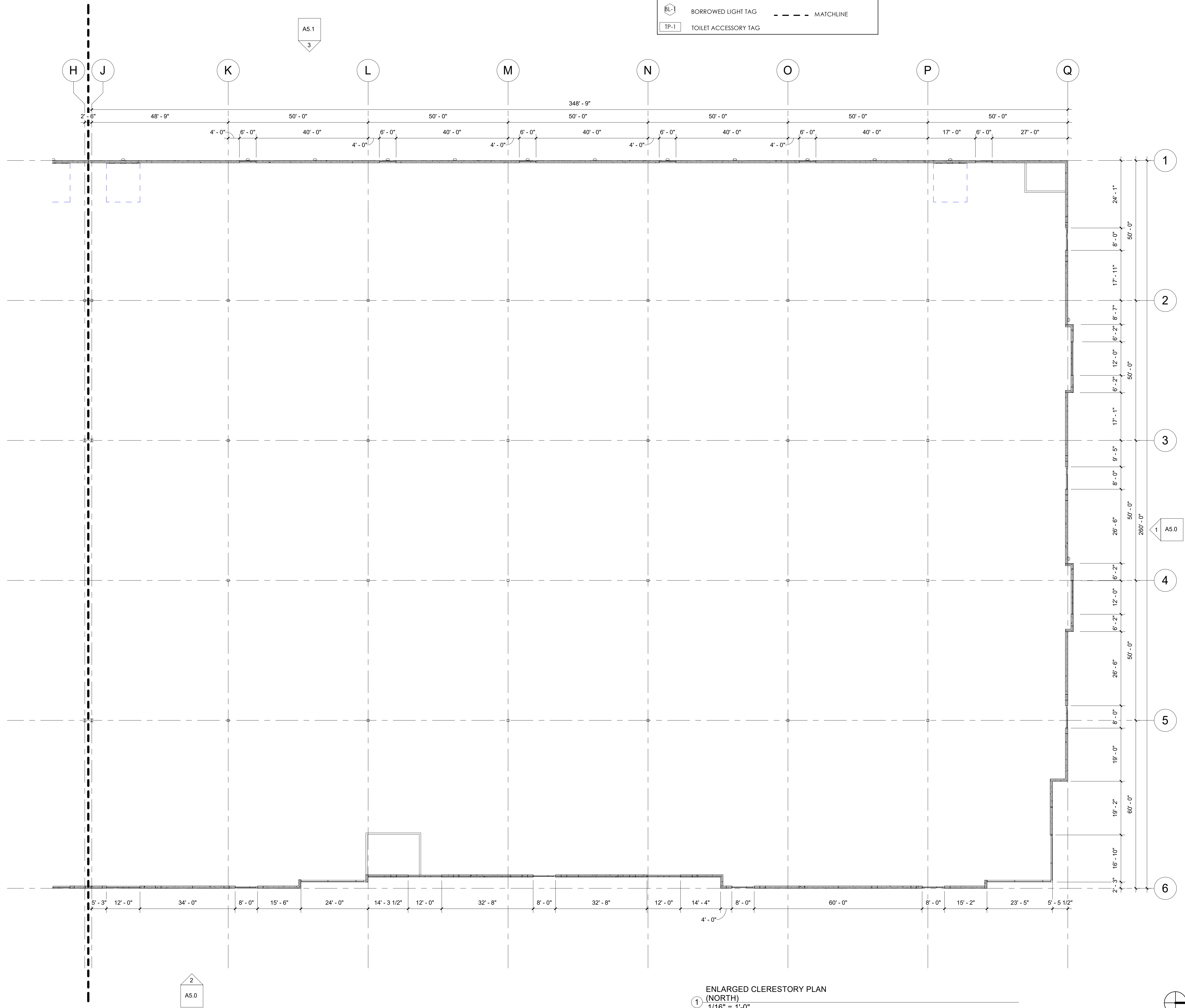
KEYNOTE LEGEND

FLOOR PLAN LEGEND

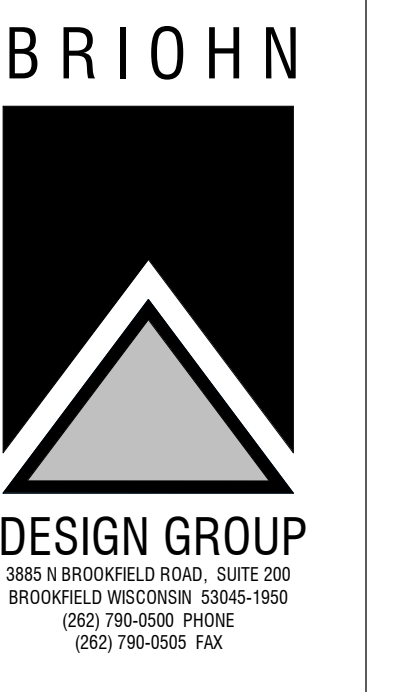
GENERAL NOTES - NEW FLOOR PLAN

ROOM	ROOM NAME	---	PARTITION TO BE DEMOLISHED
100	ROOM NUMBER	---	PARTITION TO BE DEMOLISHED
100	DOOR NUMBER	---	PARTITION TO BE DEMOLISHED
1	PARTITION TYPE	---	PARTITION TO BE DEMOLISHED
1	KEYNOTES	---	PARTITION TO BE DEMOLISHED
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER	---	PARTITION TO BE DEMOLISHED
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER	---	PARTITION TO BE DEMOLISHED
+	EXIT LIGHT	---	PARTITION TO BE DEMOLISHED
+	EXIT LIGHT (DIRECTIONAL)	---	PARTITION TO BE DEMOLISHED
BL-1	BORROWED LIGHT TAG	---	PARTITION TO BE DEMOLISHED
TP-1	TOILET ACCESSORY TAG	---	PARTITION TO BE DEMOLISHED
---	DOOR AND FRAME TO BE REMOVED	---	PARTITION TO BE DEMOLISHED
---	EXISTING PARTITION TO REMAIN	---	PARTITION TO BE DEMOLISHED
---	EXISTING DOOR TO REMAIN	---	PARTITION TO BE DEMOLISHED
---	NEW CONSTRUCTION	---	PARTITION TO BE DEMOLISHED
---	NEW DOOR & FRAME	---	PARTITION TO BE DEMOLISHED
---	MATCHLINE	---	PARTITION TO BE DEMOLISHED

- 1 VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIGHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
- 2 VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
- 3 AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
- 4 SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
- 5 SEE SHEET A0.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS.
- 6 SEE SHEET A1.2 FOR PARTITION TYPE.
- 7 EXTERIOR WALLS IN OFFICE AREA TO BE FIRRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
- 8 FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
- 9 ALL WALLS TO BE PAINTED PROVIDING FRP WAHNSCOT WHERE CALLED FOR.
- 10 ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
- 11 EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
- 12 LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.



ENLARGED CLERESTORY PLAN
(NORTH)
1/16" = 1'-0"



ENLARGED CLERESTORY
PLAN (NORTH)

WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

PROGRESS SET
NOT FOR CONSTRUCTION

Revision	
Date	

JOB: 3361
DRAWN: Author
CHECKED: Checker
DATE: 04-25-22

SHEET:
A1.4



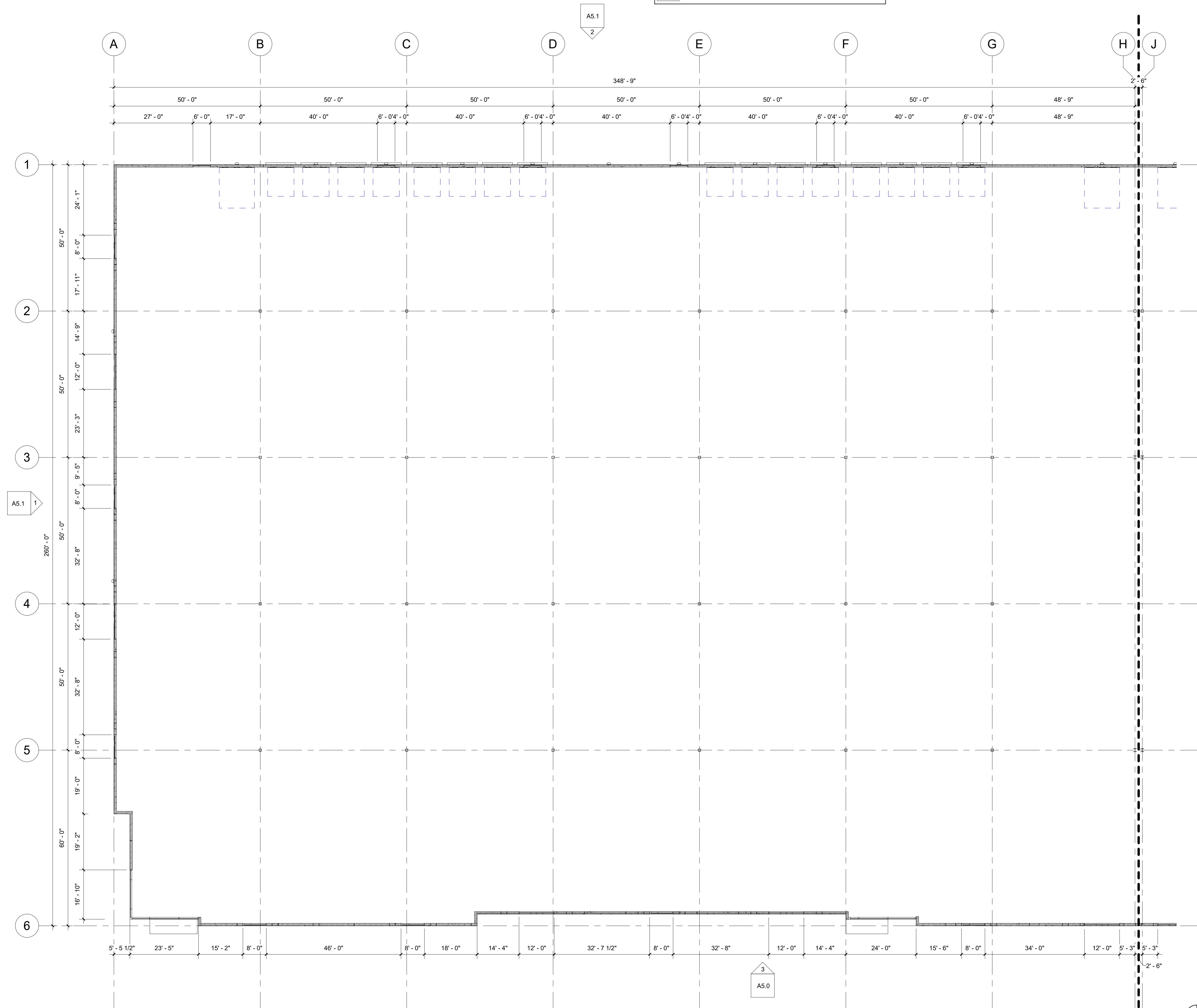
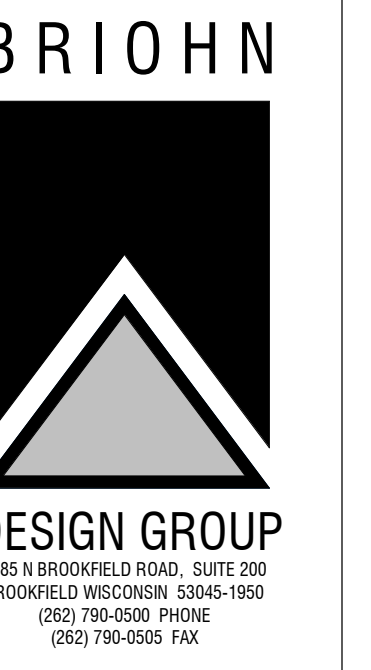
KEYNOTE LEGEND

FLOOR PLAN LEGEND

GENERAL NOTES - NEW FLOOR PLAN

ROOM	ROOM NAME	---	PARTITION TO BE DEMOLISHED
100	ROOM NUMBER	---	
100	DOOR NUMBER	---	
1	PARTITION TYPE	---	DOOR AND FRAME TO BE REMOVED
1	KEYNOTES	---	
F.E.	SURFACE MOUNTED FIRE EXTINGUISHER	---	EXISTING PARTITION TO REMAIN
F.E.C.	RECESSED EXTINGUISHER CABINET & FIRE EXTINGUISHER	---	EXISTING DOOR TO REMAIN
+	EXIT LIGHT	---	NEW CONSTRUCTION
+	EXIT LIGHT (DIRECTIONAL)	---	NEW DOOR & FRAME
BL-1	BORROWED LIGHT TAG	---	MATCHLINE
TP-1	TOILET ACCESSORY TAG	---	

- 1 VERIFY ALL CONDITIONS, DIMENSIONS AND ALIGNMENT OF WALLS. BRING ANY DISCREPANCIES TO BRIGHN'S ATTENTION PRIOR TO FABRICATION/CONSTRUCTION BEGINS.
- 2 VERIFY LOCATION OF ACCESS PANELS WITH MECHANICAL AND ELECTRICAL DRAWINGS.
- 3 AREA SHALL BE KEPT BROOM CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
- 4 SEE EXTERIOR ELEVATIONS FOR WINDOW TYPES.
- 5 SEE SHEET A5.1 FOR ADA REQUIREMENTS AND MOUNTING HEIGHTS.
- 6 SEE SHEET A1.2 FOR PARTITION TYPE.
- 7 EXTERIOR WALLS IN OFFICE AREA TO BE FURRED OUT WITH STUD HELD 1" OFF FACE OF EXTERIOR WALL. CAVITY FILLED WITH BATT INSULATION. SEE FLOOR PLAN FOR PARTITION TYPE.
- 8 FURNITURE AND APPLIANCES PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.
- 9 ALL WALLS TO BE PAINTED PROVIDING FRP WAINSCOT WHERE CALLED FOR.
- 10 ALL FLOORS THROUGH OUT ARE TO BE SEALED CONCRETE WITH CAULKED CONTROL JOINTS.
- 11 EXPOSED STEEL DECK, JOISTS, GIRDERS AND COLUMNS ARE TO BE PRIME GREY.
- 12 LOCKERS AND BENCHES IN LOCKER ROOMS ARE PROVIDED BY OWNER AND ARE SHOWN FOR REFERENCE ONLY.



ENLARGED CLERESTORY PLAN (SOUTH)
1/16" = 1'-0"



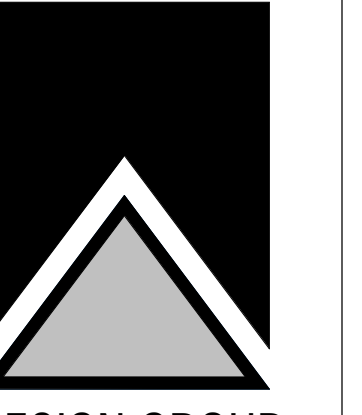
ENLARGED CLERESTORY PLAN (SOUTH)

WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

PROGRESS SET
NOT FOR CONSTRUCTION

JOB: 3361
DRAWN: CJR
CHECKED: CW
DATE: 04-25-22
SHEET:

A1.5



PROGRESS SET
NOT FOR CONSTRUCTION

KEYNOTE LEGEND

03-1	EXTERIOR INSULATED PRE-CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - LIGHT (SW XXXXX).
03-2	EXTERIOR INSULATED PRE-CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - MEDIUM (SW XXXXX).
03-3	EXTERIOR INSULATED PRE-CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - DARK (SW XXXXX).
03-7	8" X 1/2" DEEP HORIZONTAL REVEAL (LIGHT GREY SW XXXXX).
03-8	8" X 1/2" DEEP HORIZONTAL REVEAL (DARK SW XXXXX).
03-9	2" X 1/2" DEEP HORIZONTAL REVEAL (LIGHT SW XXXXX).
03-10	8" X 1/2" DEEP HORIZONTAL REVEAL (LIGHT SW XXXXX).
05-2	PRE-FINISHED METAL TRIM FINISHED ON STEEL FRAMING WRAP AROUND CANOPY WITH DOWNLIGHTING.
07-3	PRE-FINISHED EXTERIOR INSULATED METAL WALL PANEL SYSTEM - COLOR XXXXX.
07-7	PRE-FINISHED METAL 24 GA. GRAVEL STOP COLOR SHALL BE "CLEAR ANODIZED FINISH".
08-1	ALUMINUM CURTAIN WALL ENTRY SYSTEM.
08-2	ALUMINUM STOREFRONT WINDOW SYSTEM.
08-3	ALUMINUM CURTAIN WALL SYSTEM.
08-16	PRE-FINISHED METAL PANEL (PAIR OF EQUAL PANELS) MOUNTED TO GALVANIZED STEEL FRAME, PAINTED. HINGE POISTS TO BE CONCRETE FILLED TUBE STILL WITH CONCRETE CROWNED TOP, PAINTED. HEIGHT TO MATCH DOOR HEIGHT PLUS 6".
26-1	EXTERIOR LIGHT FIXTURE - CUT-OFF LED WALLPACK - SEE LIGHTING PLAN FOR FIXTURE TYPE AND MOUNTING HEIGHT.

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

- ACRYLIC CONCRETE STAIN (BASE COLOR):**
 - (2) COATS OF HALLMAN LINDSAY #167 GRIP CRETE ACRYLIC STAIN OR
 - (2) COATS SHERWIN WILLIAMS LOKON VERTICAL STAIN OR
 - (2) COATS BENJAMIN MOORE TUFFCRETE WB CONCRETE STAIN.
- ACCENT COLOR:**
 - (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
 - (2) COATS SHERWIN WILLIAMS SUPER PAINT SATIN HOUSE PAINT OR
 - (2) COATS BENJAMIN AURA SATIN 100% ACRYLIC HOUSE PAINT.

EXTERIOR BLDG SYSTEMS

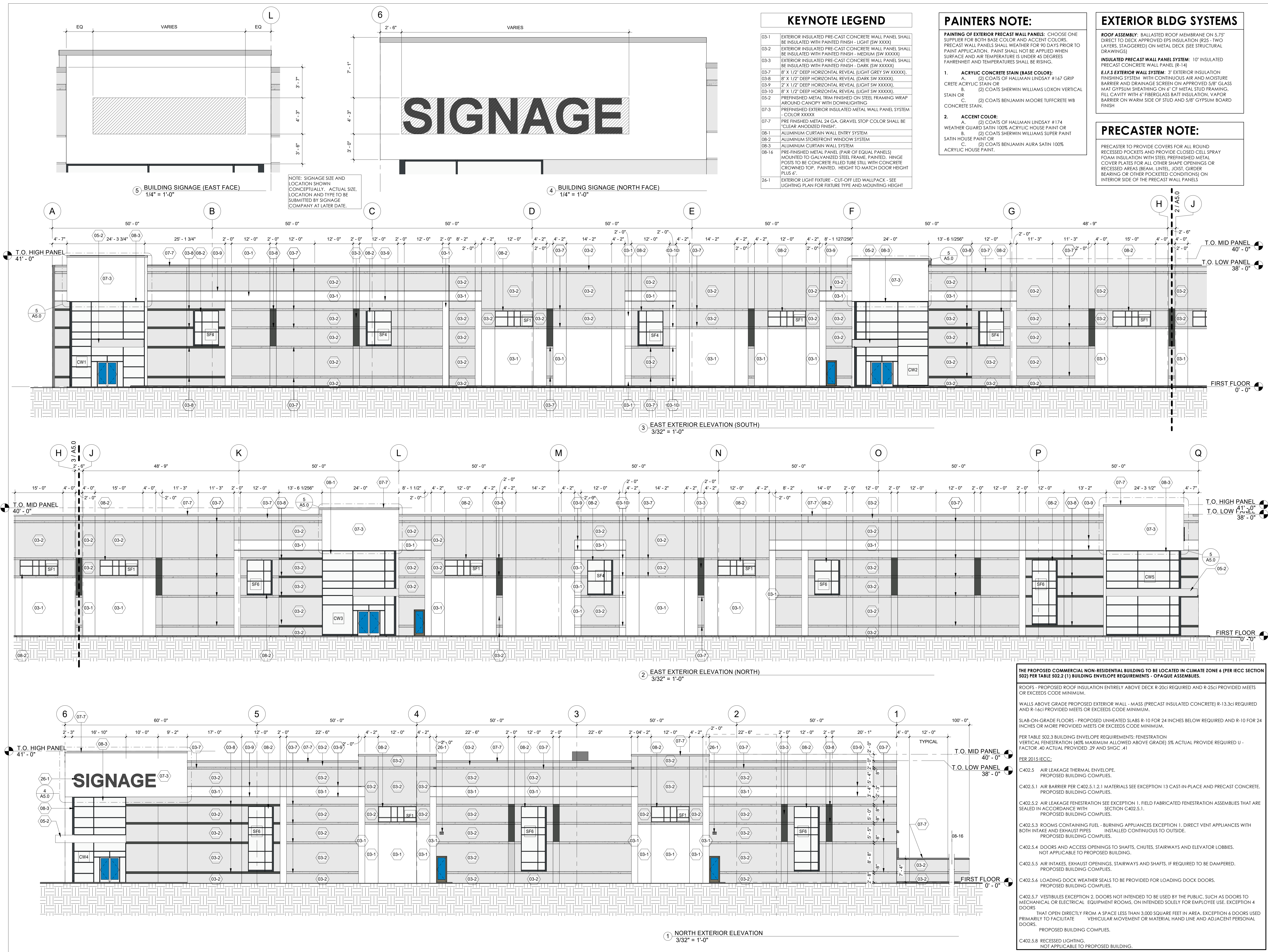
ROOF ASSEMBLY: BALLASTED ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

EIFS EXTERIOR WALL SYSTEM: 3" EXTERIOR INSULATION FINISHING SYSTEM WITH CONTINUOUS AIR AND MOISTURE BARRIER AND DRAINAGE SCREEN ON APPROVED 5/8" GLASS MAT GYPSUM SHEATHING ON 6" CF METAL STUD FRAMING. FILL CAVITY WITH 6" FIBERGLASS BATT INSULATION, VAPOR BARRIER ON WARM SIDE OF STUD AND 5/8" GYPSUM BOARD FINISH

PRECASTER NOTE:

PRECASTER TO PROVIDE COVERS FOR ALL ROUND RECESSED POCKETS AND PROVIDE CLOSED CELL SPRAY FOAM INSULATION WITH STEEL PRE-FINISHED METAL COVER PLATES FOR ALL OTHER SHAPE OPENINGS OR RECESSED AREAS (BEAM, LINTEL, JOIST, GIRDER BEARING OR OTHER POCKETED CONDITIONS) ON INTERIOR SIDE OF THE PRECAST WALL PANELS



THE PROPOSED COMMERCIAL NON-RESIDENTIAL BUILDING TO BE LOCATED IN CLIMATE ZONE 6 (PER IECC SECTION 502) PER TABLE 502.2 (1) BUILDING ENVELOPE REQUIREMENTS - OPAQUE ASSEMBLIES.

ROOFS - PROPOSED ROOF INSULATION ENTIRELY ABOVE DECK R-20ci REQUIRED AND R-25ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

WALLS ABOVE GRADE PROPOSED EXTERIOR WALL - MASS (PRECAST INSULATED CONCRETE) R-13.3ci REQUIRED AND R-16ci PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

SLAB-ON-GRADE FLOORS - PROPOSED UNHEATED SLABS R-10 FOR 24 INCHES BELOW REQUIRED AND R-10 FOR 24 INCHES OR MORE PROVIDED MEETS OR EXCEEDS CODE MINIMUM.

PER TABLE 502.3 BUILDING ENVELOPE REQUIREMENTS: FENESTRATION
VERTICAL FENESTRATION (40% MAXIMUM ALLOWED ABOVE GRADE) 5% ACTUAL PROVIDED REQUIRED U-FACTOR .40 ACTUAL PROVIDED .29 AND SHGC .41

PER 2015 IECC:

C402.5 AIR LEAKAGE THERMAL ENVELOPE. PROPOSED BUILDING COMPLIES.

C402.5.1 AIR BARRIER PER C402.5.1.2.1 MATERIALS SEE EXCEPTION 13 CAST-IN-PLACE AND PRECAST CONCRETE. PROPOSED BUILDING COMPLIES.

C402.5.2 AIR LEAKAGE FENESTRATION SEE EXCEPTION 1. FIELD FABRICATED FENESTRATION ASSEMBLIES THAT ARE SEALED IN ACCORDANCE WITH SECTION C402.5.1. PROPOSED BUILDING COMPLIES.

C402.5.3 ROOMS CONTAINING FUEL-BURNING APPLIANCES EXCEPTION 1. DIRECT VENT APPLIANCES WITH BOTH INTAKE AND EXHAUST PIPES. INSTALLED CONTINUOUS TO OUTSIDE. PROPOSED BUILDING COMPLIES.

C402.5.4 DOORS AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS AND ELEVATOR LOBBIES. NOT APPLICABLE TO PROPOSED BUILDING.

C402.5.5 AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS, IF REQUIRED TO BE DAMPERED. PROPOSED BUILDING COMPLIES.

C402.5.6 LOADING DOCK WEATHER SEALS TO BE PROVIDED FOR LOADING DOCK DOORS. PROPOSED BUILDING COMPLIES.

C402.5.7 VESTIBULES EXCEPTION 2. DOORS NOT INTENDED TO BE USED BY THE PUBLIC, SUCH AS DOORS TO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, ON INTENDED SOLELY FOR EMPLOYEE USE. EXCEPTION 4 DOORS THAT OPEN DIRECTLY FROM A SPACE LESS THAN 3,000 SQUARE FEET IN AREA. EXCEPTION 6 DOORS USED PRIMARILY TO FACILITATE VEHICULAR MOVEMENT OR MATERIAL HAND LINE AND ADJACENT PERSONAL DOORS. PROPOSED BUILDING COMPLIES.

C402.5.8 RECESSED LIGHTING. NOT APPLICABLE TO PROPOSED BUILDING.

KEYNOTE LEGEND

03-1	EXTERIOR INSULATED PRE-CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - LIGHT (SW XXXX)
03-2	EXTERIOR INSULATED PRE-CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - MEDIUM (SW XXXXX)
03-3	EXTERIOR INSULATED PRE-CAST CONCRETE WALL PANEL SHALL BE INSULATED WITH PAINTED FINISH - DARK (SW XXXXXX)
03-7	8" X 1/2" DEEP HORIZONTAL REVEAL (LIGHT GREY SW XXXXX)
03-8	8" X 1/2" DEEP HORIZONTAL REVEAL (DARK SW XXXXX)
03-9	2" X 1/2" DEEP HORIZONTAL REVEAL (LIGHT SW XXXXX)
05-2	PRE-FINISHED METAL TRIM FINISHED ON STEEL FRAMING WRAP AROUND CANOPY WITH DOWNLIGHTING
07-3	PRE-FINISHED EXTERIOR INSULATED METAL WALL PANEL SYSTEM - COLOR XXXX
07-7	PRE-FINISHED METAL 24 GA. GRAVEL STOP COLOR SHALL BE "CLEAR ANODIZED FINISH"
08-1	ALUMINUM CURTAIN WALL ENTRY SYSTEM
08-2	ALUMINUM STOREFRONT WINDOW SYSTEM
08-5	INSULATED OH DOOR WITH FACTORY FINISH. PROVIDE 4" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S), PAINTED SAFETY YELLOW AT EXTERIOR EACH SIDE. PROVIDED 2" BOLLARDS PAINTED SAFETY YELLOW EACH SIDE AT INTERIOR. SEE DOOR SCHEDULE FOR FURTHER INFORMATION.

KEYNOTE LEGEND

08-4	INSULATED OH DOOR WITH FACTORY FINISHED AND VISION PORTALS. DOCK SEALS, DOCK LEVELERS AND BUMPERS. PROVIDE 2" BOLLARDS PAINTED SAFETY YELLOW EACH SIDE AT INTERIOR.
08-13	FUTURE OVERHEAD DOCK DOOR OPENING.
08-16	PRE-FINISHED METAL PANEL (PAIR OF EQUAL PANELS) (MOUNTED TO GALVANIZED STEEL FRAME, PAINTED. HINGE POSIX TO BE CONCRETE FILLED TUBE STILL WITH CONCRETE CROWNED TOP. PAINTED. HEIGHT TO MATCH DOOR HEIGHT PLUS 6".
22-3	LAMBS-TONGUE ROOF DRAIN OVERFLOW NOZZLE. SEE ROOF PLAN FOR ADDITIONAL NOTES. COORDINATE WALL PENETRATION WITH PRECAST SUPPLIER.
26-1	EXTERIOR LIGHT FIXTURE - CUT-OFF LED WALLPACK - SEE LIGHTING PLAN FOR FIXTURE TYPE AND MOUNTING HEIGHT
32-4	6" DIAMETER X 4'-0" TALL CONCRETE FILLED STEEL PIPE BOLLARD(S), PAINTED SAFETY YELLOW

PAINTERS NOTE:

PAINTING OF EXTERIOR PRECAST WALL PANELS: CHOOSE ONE SUPPLIER FOR BOTH BASE COLOR AND ACCENT COLORS. PRECAST WALL PANELS SHALL WEATHER FOR 90 DAYS PRIOR TO PAINT APPLICATION. PAINT SHALL NOT BE APPLIED WHEN SURFACE AND AIR TEMPERATURE IS UNDER 45 DEGREES FAHRENHEIT AND TEMPERATURES SHALL BE RISING.

1. ACRYLIC CONCRETE STAIN (BASE COLOR):
 A. (2) COATS OF HALLMAN LINDSAY #167 GRIP CRETE ACRYLIC STAIN OR
 B. (2) COATS SHERWIN WILLIAMS LOXON VERTICAL STAIN OR
 C. (2) COATS BENJAMIN MOORE TUFFCRETE WB CONCRETE STAIN.

2. ACCENT COLOR:
 A. (2) COATS OF HALLMAN LINDSAY #174 WEATHER GUARD SATIN 100% ACRYLIC HOUSE PAINT OR
 B. (2) COATS SHERWIN WILLIAMS SUPER PAINT SATIN HOUSE PAINT OR
 C. (2) COATS BENJAMIN AURA SATIN 100% ACRYLIC HOUSE PAINT.

EXTERIOR BLDG SYSTEMS

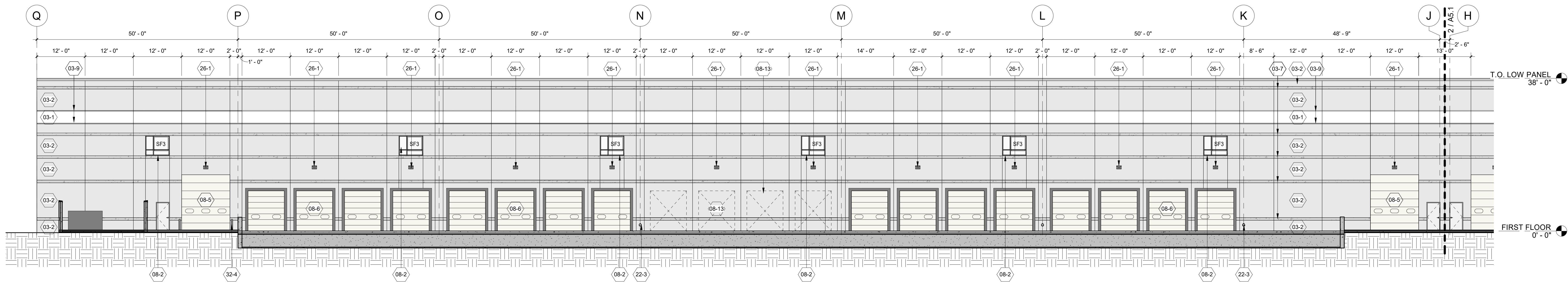
ROOF ASSEMBLY: BALLASTED ROOF MEMBRANE ON 5.75" DIRECT TO DECK APPROVED EPS INSULATION (R25 - TWO LAYERS, STAGGERED) ON METAL DECK (SEE STRUCTURAL DRAWINGS)

INSULATED PRECAST WALL PANEL SYSTEM: 10" INSULATED PRECAST CONCRETE WALL PANEL (R-14)

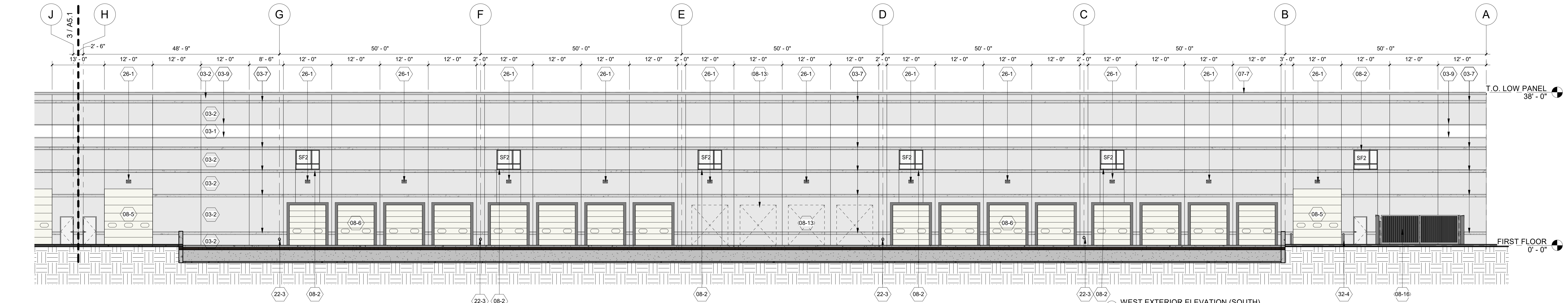
E.I.F.S EXTERIOR WALL SYSTEM: 3" EXTERIOR INSULATION FINISHING SYSTEM WITH CONTINUOUS AIR AND MOISTURE BARRIER AND DRAINAGE SCREEN ON APPROVED 5/8" GLASS MAT GYPSUM SHEATHING ON 6" CF METAL STUD FRAMING. FILL CAVITY WITH 6" FIBERGLASS BATT INSULATION, VAPOR BARRIER ON WARM SIDE OF STUD AND 5/8" GYPSUM BOARD FINISH

PRECASTER NOTE:

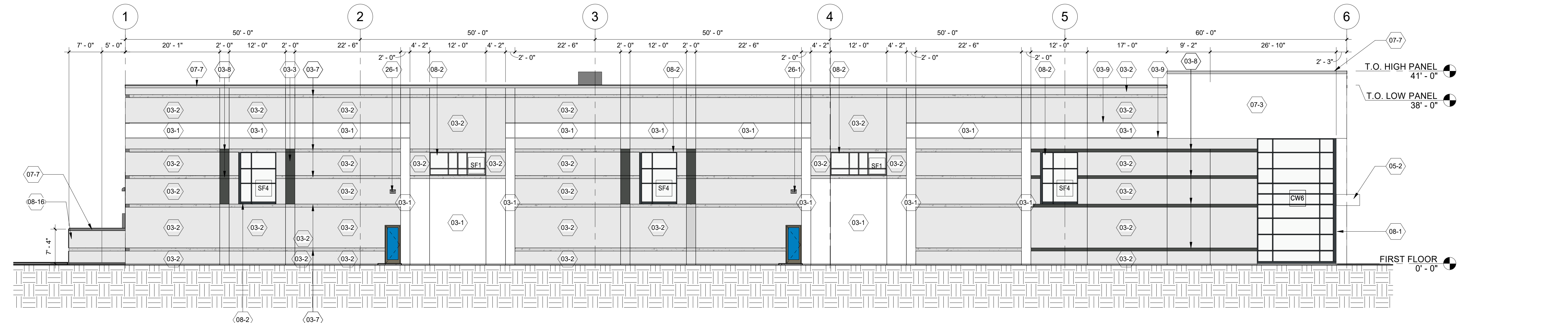
PRECASTER TO PROVIDE COVERS FOR ALL ROUND RECESSED POCKETS AND PROVIDE CLOSED CELL SPRAY FOAM INSULATION WITH STEEL PRE-FINISHED METAL COVER PLATES FOR ALL OTHER SHAPE OPENINGS OR RECESSED AREAS (BEAM, LINTEL, JOIST, GIRDER BEARING OR OTHER POCKETED CONDITIONS) ON INTERIOR SIDE OF THE PRECAST WALL PANELS



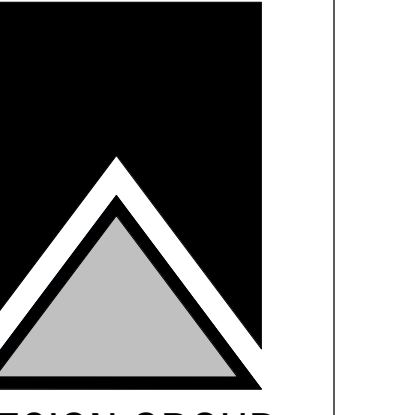
3 WEST EXTERIOR ELEVATION (NORTH)
3/32" = 1'-0"



2 WEST EXTERIOR ELEVATION (SOUTH)
3/32" = 1'-0"



1 SOUTH EXTERIOR ELEVATION
3/32" = 1'-0"



SHEET TITLE
EXTERIOR RENDERINGS

WESTMINSTER
MILWAUKEE
VALLEY EAST PROJECT

PROGRESS SET
NOT FOR CONSTRUCTION

Revision

Date

JOB: 3361
DRAWN: CW
CHECKED: CW
DATE: 04-25-22
SHEET:

A5.3



VIEW FROM NORTHWEST LOOKING EAST



VIEW FROM NORTHEAST LOOKING SW



VIEW FROM NORTHEAST LOOKING SW



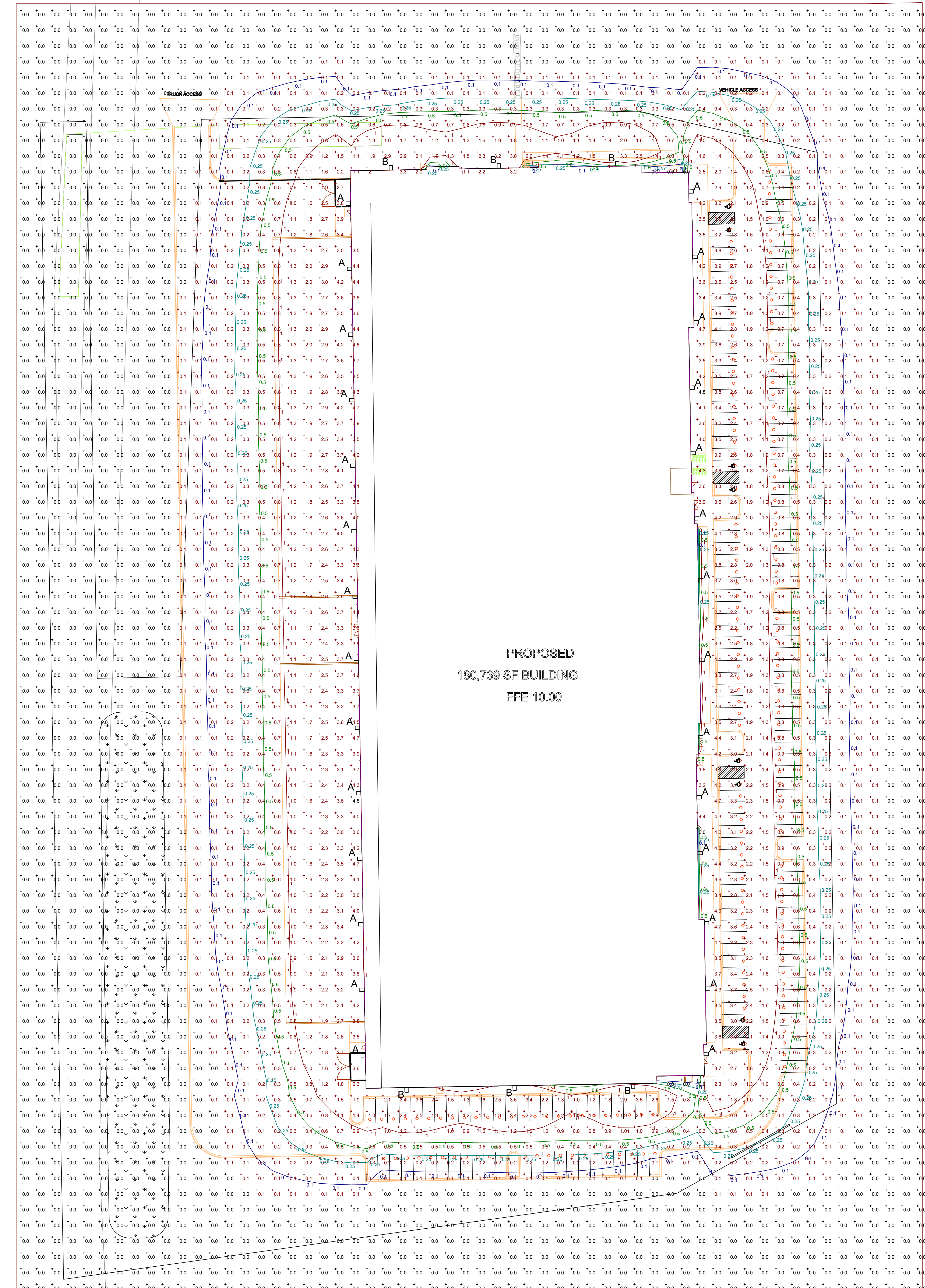
VIEW FROM NORTHEAST CORNER LOOKING SOUTHWEST



VIEW FROM NORTHEAST CORNER LOOKING SOUTHWEST



VIEW FROM NORTHEAST CORNER LOOKING SOUTH



Symbol	Label	QTY	Manufacturer	Catalog Number	Lumens per Lamp	Wattage
□	A	28	RAB Lighting Inc.	A17-4T100 Wall Mount Fixture at 27' 4000K color temperature	13928	97.56
□	B	6	RAB Lighting Inc.	A17-3T70 Wall Mount Fixture at 27' 4000K color temperature	10234	69.84

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	0.5 fc	4.8 fc	0.0 fc	N/A	N/A

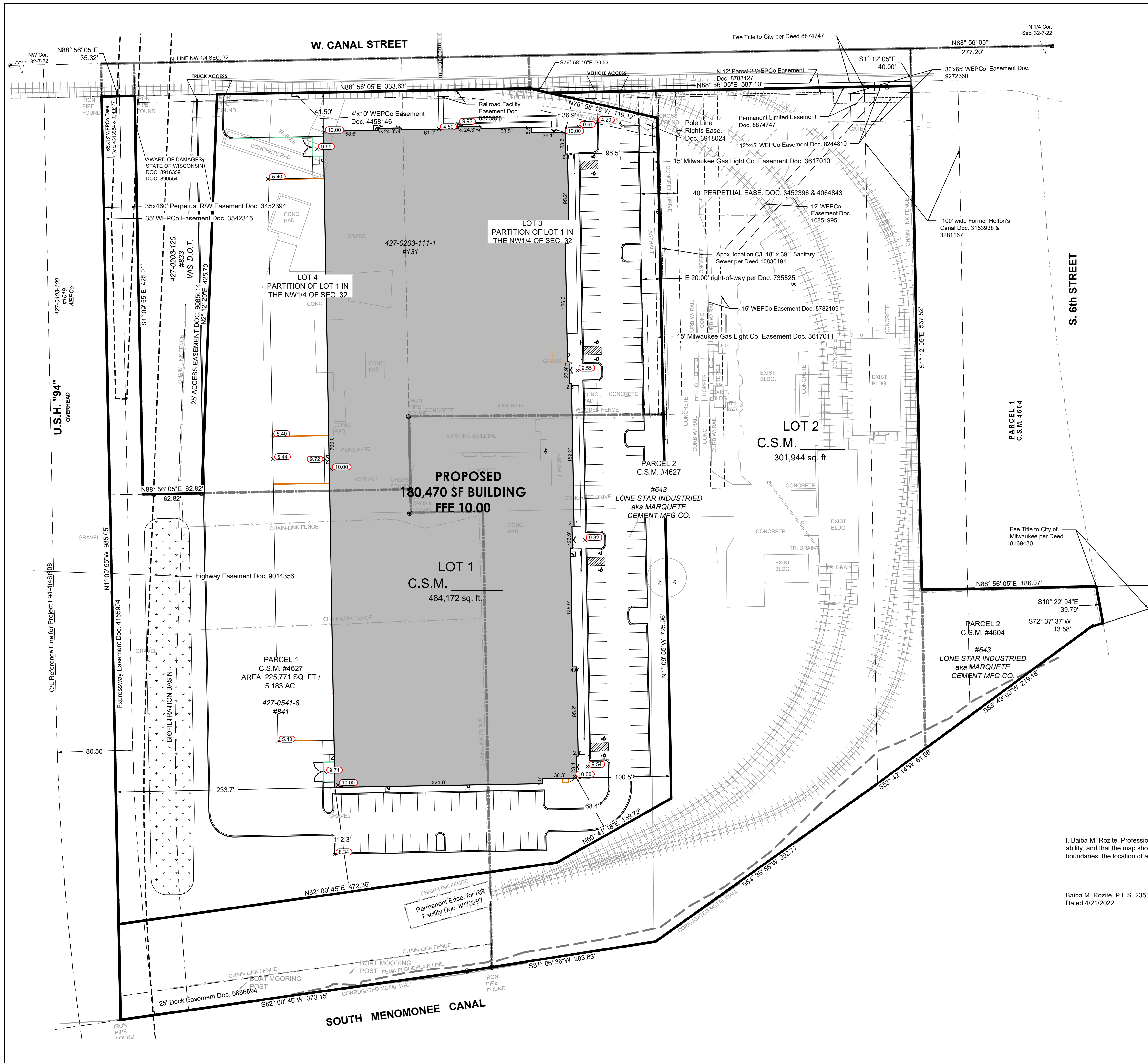
HFA electric
ELECTRICAL CONTRACTOR
RESIDENTIAL-COMMERCIAL-INDUSTRIAL
262-644-6940

Westminster Valley East

Milwaukee

Exterior Photometric Lighting Plan
DATE: 4-22-2022
REVISIONS:

E-1.0



THE SIGMA GROUP
 Single Source. Sound Solutions.
 www.thesigmagroup.com
 1300 West Canal Street
 Milwaukee, WI 53233
 Phone: 414-643-4200
 Fax: 414-643-4210

VICINITY MAP:

LEGEND:

- SECTION 1/4 SECTION LINE
- PROPERTY LINE
- EASEMENT
- CHAIN LINK FENCE
- GUARD RAIL
- METAL FENCE
- WOOD FENCE
- TREE LINE
- OVERHEAD UTILITY LINE
- ELECTRIC TELEPHONE
- FIBER OPTIC
- CABLE TV
- SANITARY SEWER
- FORCE MAIN
- STORM SEWER
- WATER MAIN
- GAS
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR

SCALE: 1" = 1000'

Legal descriptions per Chicago Title Insurance Company Commitment No. CO-12117, Revision A, with an effective date of November 29, 2021 and Chicago Title Insurance Company Commitment No. CO-11934, with an effective date of October 29, 2021:

Parcel 2 of Certified Survey Map No. 4627, recorded on July 12, 1985, on Reel 1772, Images 240 to 242 inclusive, as Document No. 5826399, being a Re-division of a part of Lots 2, 3 and 4 in partition of Lot 1, in the Northwest 1/4 of Section 32, in Town 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

AND Parcel II of Certified Survey Map No. 4604, recorded on May 17, 1985, Reel 1754, Images 186 to 189 inclusive, as Document No. 5811092, being a re-division of part of Lot 1 in Partition of Lot 1 in the Northwest 1/4 of Section 32, Township 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

EXCEPTING THEREFROM those lands conveyed in Deed by Corporation recorded as Document No. 8169430.

Tax Key No. 427054211
 Address: 643 W. Canal Street

Parcel A:
 Parcel 1 of Certified Survey Map No. 4627, recorded on July 12, 1985, on Reel 1772, Images 240 to 242 inclusive, as Document No. 5826399, being a Re-division of a part of Lots 2, 3 and 4 in partition of Lot 1, in the Northwest 1/4 of Section 32, in Town 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

Tax Key No. 427054100
 Address: 841 W. Canal Street

Parcel B:
 Part of Lots 2, 3, 4, Partition of Lot 1, in Partition of the Northwest 1/4 of Section 32, Town 7 North, Range 22 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin, being more particularly described as follows: Commencing at an aluminum monument at the North Quarter Corner of said Section 32; thence N89°38'06"W along the North line of said Section 32, 684.50 feet; thence S00°15'52"W, 35.00 feet to a found 1" diameter iron pipe at the point of beginning; Thence S74°48'54"E, 139.69 feet to a set "X" in the concrete pavement; Thence S01°00'47"W, 316.25 feet to a set PK nail in the pavement; Thence N88°17'22"W, 271.36 feet to a found 1" iron pipe; Thence S01°03'16"W, 77.58 feet to a set "X" in the concrete pavement; Thence N88°53'54"W, 285.39 feet to a found RR spike; Thence N00°59'52"E, 425.06 feet to a set "X" in the concrete pavement; Thence S88°52'55"E, 421.46 feet to a found 1" iron pipe at the point of beginning. EXCEPT that part taken in Award of Damages recorded as Document No. 8916359.

Tax Key No. 427020311
 Address: 131 S. 7th Street

TO BE KNOWN AS:

Lots 1 and 2 of Certified Survey Map No. _____, recorded on _____, as Document No. _____, being Parcels 1 and 2 of Certified Survey Map No. 4627, recorded as Document No. 5826399, part of Parcel 2 of Certified Survey Map No. 4604, recorded as Document No. 5811092, and part of Lots 2, 3, 4, Partition of Lot 1, in Partition of the Northwest 1/4 of Section 32, Town 7 North, Range 22 East, in the City of Milwaukee, Milwaukee County, Wisconsin

GENERAL NOTES:

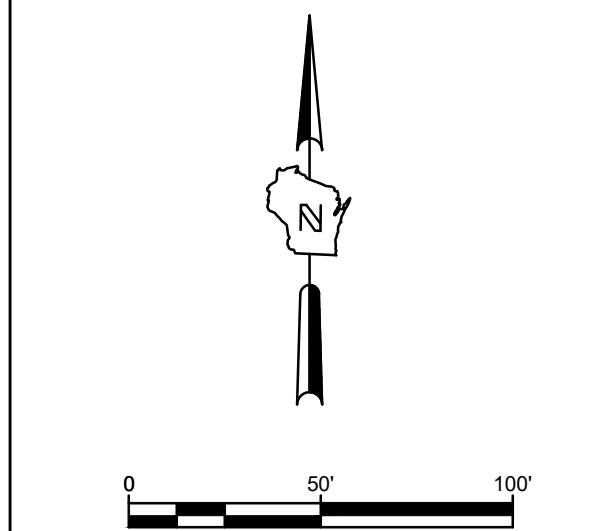
- Drawing is based on field survey completed by The Sigma Group on 3/07/2022.
- Bearings are referenced to the Wisconsin State Plane Coordinate System, South Zone, NAD 1983.
- Vertical datum for the project survey is City of Milwaukee Datum, using a benchmark of concrete monument at the NW corner of Section 32-7-22 with an elevation of 4.21.
- Site is located in Zone X, per FEMA FIRM Community Panel 55079C0093E, dated September 26, 2008, except that part along the South Menomonee Canal in Zone AE, with a base flood elevation of 3.67 (City Datum). Floodplain line depicted by scaled map location and graphic plotting only.
- Property owners: WISCONSIN ELECTRIC POWER COMPANY, A WISCONSIN CORPORATION, dba WE ENERGIES & LONE STAR INDUSTRIES AKA MARQUETTE CEMENT MFG CO

I, Baiba M. Rozite, Professional Land Surveyor, certify that I have surveyed the above described property, to the best of my knowledge and ability, and that the map shown hereon is a true representation thereof and shows the size and location of the property, it's exterior boundaries, the location of all visible structures thereon, boundary fences, apparent easements, roadways and encroachments, if any.

Baiba M. Rozite, P.L.S. 2351
 Dated 4/21/2022

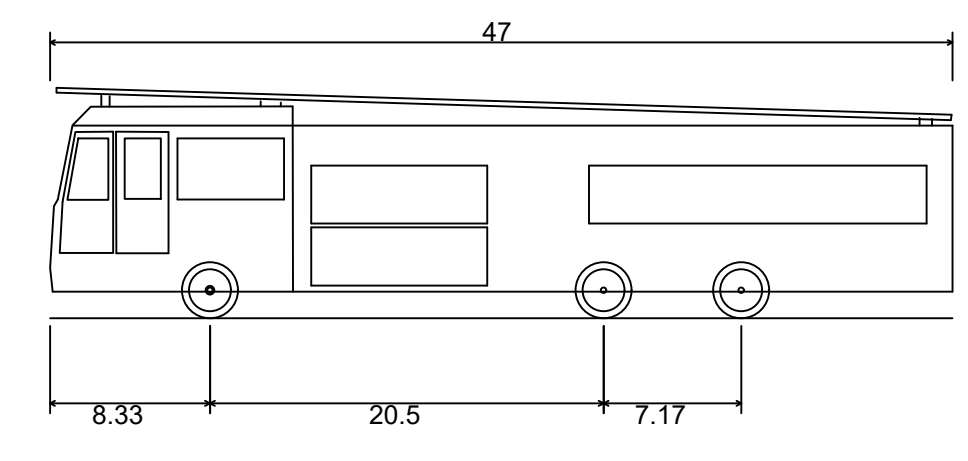
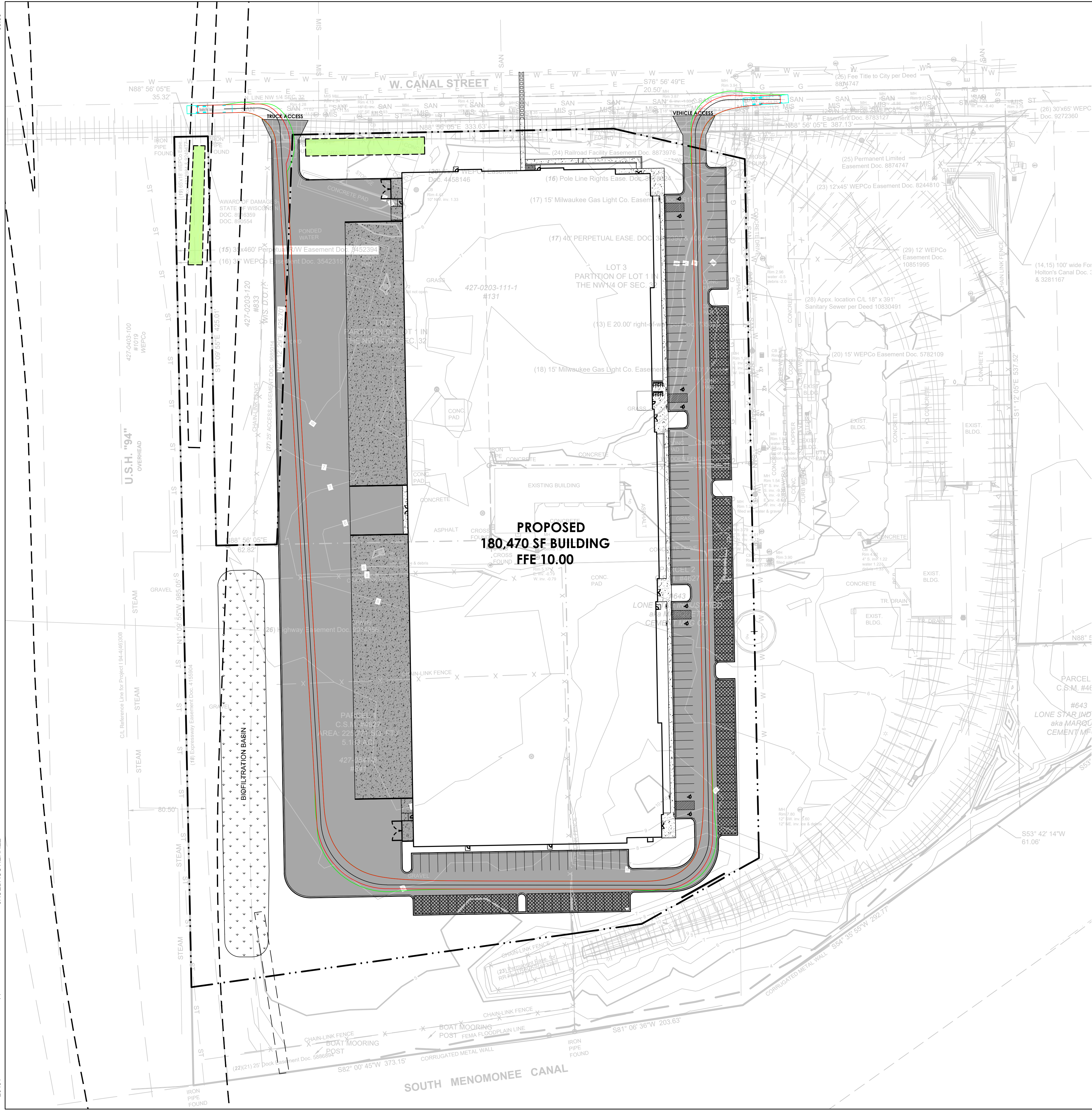


MENOMONEE VALLEY EAST END DEVELOPMENT
 131 S. 7TH ST, 643 & 841 W. CANAL ST.
 MILWAUKEE, WISCONSIN
PLAT OF SURVEY



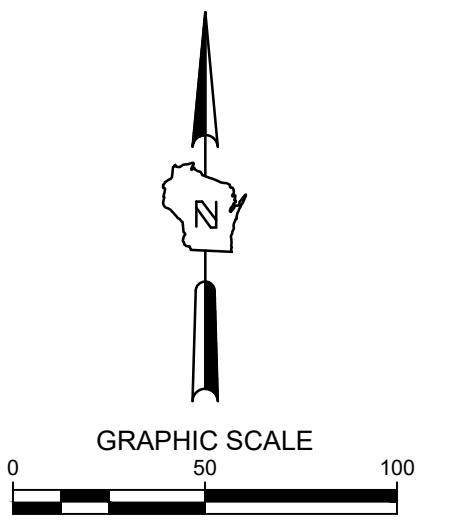
NO. REVISION	DATE	BY
DRAWING NO.	20401	PLAT OF SURVEY.dwg
DRAWN BY:	BMR	
DATE:	4/21/2022	
PROJECT NO.:	#20401	
CHECKED BY:	JBL	
APPROVED BY:	KAS	
SHEET NO.:		

0933
20401
TT
JRUEDAGUTIERREZ



- Fire Truck
- Overall Length 47.000ft
- Overall Width 8.333ft
- Overall Body Height 12.000ft
- Min Body Ground Clearance 1.393ft
- Track Width 8.333ft
- Lock-to-lock time 6.00s
- Wall to Wall Turning Radius 53.000ft

THE SIGMA GROUP
Single Source. Sound Solutions.
www.thesigmagroup.com
1300 West Canal Street
Milwaukee, WI 53233
Phone: 414-643-4200
Fax: 414-643-4210

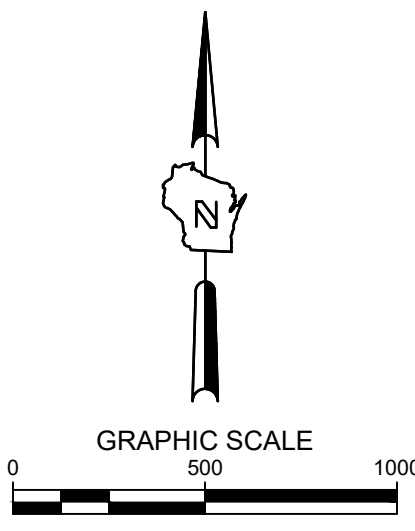


MENOMONEE VALLEY EAST END DEVELOPMENT
131 S 7TH STREET & 841 W CANAL STREET
MILWAUKEE, WI

TRUCK TURNING EXHIBIT

PRELIMINARY
NOT FOR
CONSTRUCTION

SCALE:	1"=50'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/21/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	TT



MENOMONEE VALLEY EAST END DEVELOPMENT
 131 S 7TH STREET & 841 W CANAL STREET
 MILWAUKEE, WI

VICINITY MAP

**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

SCALE:	1"=50'
PROJECT NO:	20401
DESIGN DATE:	---
PLOT DATE:	4/21/2022
DRAWN BY:	JRG
CHECKED BY:	---
APPROVED BY:	---
SHEET NO:	---

MAP EX



RESIDENTIAL • COMMERCIAL • INDUSTRIAL

227 Weil Drive • Slinger, WI 53086

Phone(262)644-6940 • Fax(262)644-7647

Westminster Valley East

Exterior Lighting Submittal 4-22-2022



Color: Bronze



Weight: 11.2 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	1.0A
208V	0.60A
240V	0.50A
277V	0.40A
Input Watts	97.56W

LED Info

Watts	100W
Color Temp	5000K (Cool)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	13927.9
Efficacy	142.8 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: PLT122DDPWDU

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.50A, 208V: 0.70A, 240V: 0.70A, 277V: 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.5% at 120V, 10.8% at 277V

Power Factor:

99.9 % at 120V, 94.1 % at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type IV distribution (also known as a Forward Throw) is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

- 1 Fixture: 0.46
- 2 Fixtures at 90°: 0.60
- 2 Fixtures at 180°: 0.93
- 3 Fixtures at 90°: 0.93
- 4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)

- 1 Fixture: 0.66
- 2 Fixtures at 90°: 0.80
- 2 Fixtures at 180°: 1.32
- 3 Fixtures at 90°: 1.32
- 4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Technical Specifications (continued)

Construction

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

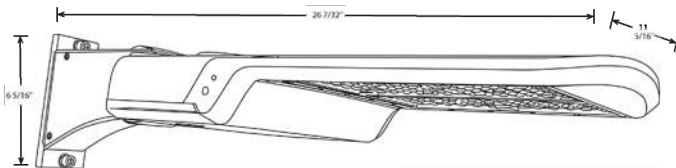
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions: A17-4T100



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

Ordering Matrix

Family	Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	-	4T 100				
	3T = Type III 4T = Type IV 5T = Type V	70 = 70W/10,000LM 100 = 100W/15,000LM 150 = 150W/22,500LM 200 = 200W/30,000LM 240 = 240W/36,000LM 300 = 300W/45,000LM 375 = 375W/51,800LM	Blank = Universal Pole Mount SF = Slipfitter (Factory installed SF available in 150W)	Blank = 5000K Cool N = 4000K Neutral	Blank = 120-277V, 0-10V Dimming /480 = 480V, 0-10V Dimming	Blank = No Option /3PRS = 3-pin Receptacle and Shorting Cap /7PRS = 7-pin Receptacle and Shorting Cap /MVS = Microwave Motion Sensor /LC = Lightcloud® Controller



Color: Bronze

Weight: 10.8 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type	Constant Current	Watts	70W
120V	0.70A	Color Temp	5000K (Cool)
208V	0.40A	Color Accuracy	72 CRI
240V	0.35A	L70 Lifespan	100,000 Hours
277V	0.30A	Lumens	10234.2
Input Watts	69.84W	Efficacy	146.5 lm/W

Technical Specifications

Compliance

UL Listed:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.

DLC Product Code: PLDHBT6T92Z4

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 0.70A, 208V: 0.40A, 240V: 0.35A, 277V: 0.30A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

3.24% at 120V, 13.52% at 277V

Power Factor:

99.6% at 120V, 91.7% at 277V

Surge Protection:

10kV

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Construction

IES Classification:

The Type III distribution is ideal for roadway, general parking and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in up to 40°C (104°F)

Lens:

Polycarbonate lens

Housing:

Die-cast aluminum housing, lens frame and mounting arm

IP Rating:

Ingress protection rating of IP65 for dust and water

Vibration Rating:

3G vibration rating per ANSI C136.31

EPA:

- 1 Fixture: 0.46
- 2 Fixtures at 90°: 0.60
- 2 Fixtures at 180°: 0.93
- 3 Fixtures at 90°: 0.93
- 4 Fixtures at 90°: 0.93

EPA with Slipfitter & Adjustable Arm Mounting Accessories (Sold Separately)

- 1 Fixture: 0.66
- 2 Fixtures at 90°: 0.80
- 2 Fixtures at 180°: 1.32
- 3 Fixtures at 90°: 1.32
- 4 Fixtures at 90°: 1.32

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease. Round pole diameter must be >4" to mount fixtures at 90° orientation.

Finish:

Formulated for high durability and long-lasting color

Technical Specifications (continued)

Construction

Green Technology:

Mercury and UV free. RoHS-compliant components.

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

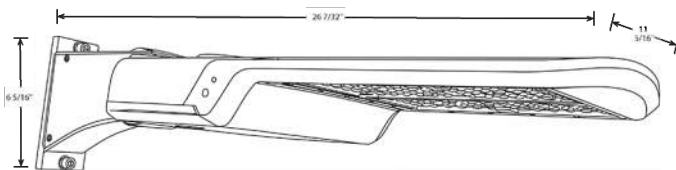
5 Yr Limited Warranty:

The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions: A17-3T70



Features

- 0-10V Dimming, standard
- 100,000-hour LED lifespan
- 5-Year, Limited Warranty

Ordering Matrix

Family	Distribution	Wattage/Lumens	Mounting	Color Temp	Driver	Options
A17	-	3T 70				
	3T = Type III 4T = Type IV 5T = Type V	70 = 70W/10,000LM 100 = 100W/15,000LM 150 = 150W/22,500LM 200 = 200W/30,000LM 240 = 240W/36,000LM 300 = 300W/45,000LM 375 = 375W/51,800LM	Blank = Universal Pole Mount SF = Slipfitter (Factory installed SF available in 150W)	Blank = 5000K Cool N = 4000K Neutral	Blank = 120-277V, 0-10V Dimming /480 = 480V, 0-10V Dimming	Blank = No Option /3PRS = 3-pin Receptacle and Shorting Cap /7PRS = 7-pin Receptacle and Shorting Cap /MVS = Microwave Motion Sensor /LC = Lightcloud® Controller