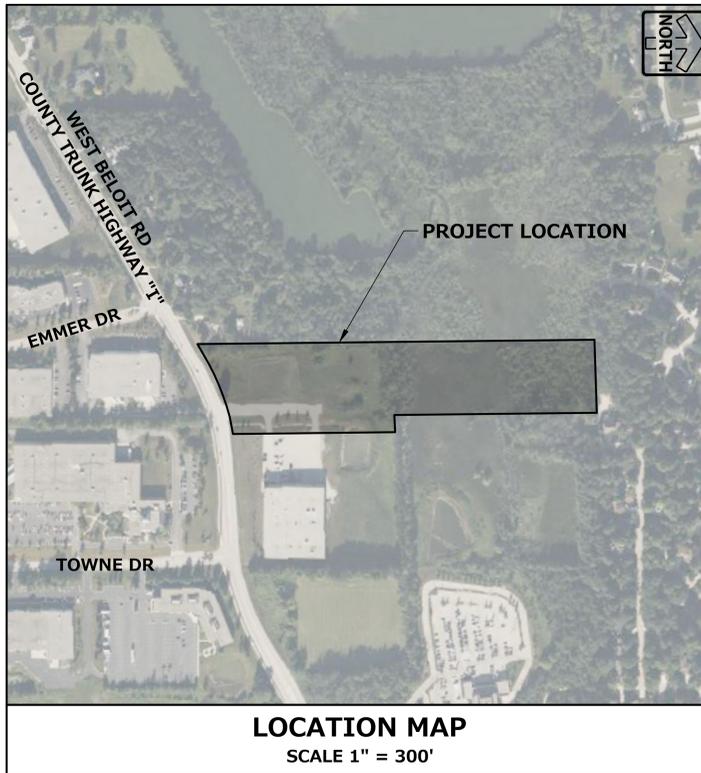


# ONSITE CIVIL ENGINEERING INFRASTRUCTURE PLANS FOR NEW BERLIN FABRICATION BUILDING

NEW BERLIN, WI  
PLANS PREPARED FOR  
**LUTHER GROUP**  
780 ELM GROVE ROAD, SUITE 120  
ELM GROVE, WISCONSIN 53122



LEGEND	
EXISTING	PROPOSED
SANITARY MANHOLE	⊙
STORM MANHOLE	⊙
CATCH BASIN	⊙
INLET	⊙
PRECAST FLARED END SECTION	⊙
CONCRETE HEADWALL	⊙
VALVE VAULT	⊙
VALVE BOX	⊙
FIRE HYDRANT	⊙
BUFFALO BOX	⊙
CLEANOUT	⊙
SANITARY SEWER	—
FORCE MAIN	—
STORM SEWER	—
WATER MAIN	—
UTILITY CROSSING	—
GRANULAR TRENCH BACKFILL	—
LIGHTING	—
ELECTRICAL CABLE	—
ELECTRICAL TRANSFORMER OR PEDESTAL	—
POWER POLE	—
POWER POLE WITH LIGHT	—
GUY WIRE	—
STREET SIGN	—
GAS MAIN	—
TELEPHONE LINE	—
CONTOUR	—
SPOT ELEVATION	—
WETLANDS	—
FLOODWAY	—
FLOODPLAIN	—
HIGH WATER LEVEL (HWL)	—
NORMAL WATER LEVEL (NWL)	—
DIRECTION OF SURFACE FLOW	—
DITCH OR SWALE	—
DIVERSION SWALE	—
OVERFLOW RELIEF ROUTING	—
TREE WITH TRUNK SIZE	—
SOIL BORING	—
TOPSOIL PROBE	—
FENCE LINE, TEMPORARY SILT	—
FENCE LINE, WIRE	—
FENCE LINE, CHAIN LINK OR IRON	—
FENCE LINE, WOOD OR PLASTIC	—
CONCRETE SIDEWALK	—
CURB AND GUTTER	—
DEPRESSED CURB	—
REVERSE PITCH CURB & GUTTER	—
EASEMENT LINE	—
PROPERTY LINE	—

ABBREVIATIONS	
BL	BASE LINE
C	LONG CHORD OF CURVE
C & G	CURB AND GUTTER
CB	CATCH BASIN
CL	CENTERLINE
D	DEGREE OF CURVE
EP	EDGE OF PAVEMENT
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
FP	FLOODPLAIN
FR	FRAME
FW	FLOODWAY
HWL	HIGH WATER LEVEL
INV	INVERT
L	LENGTH OF CURVE
MH	MANHOLE
NSI	NATIVE SOIL INTERFACE
NWL	NORMAL WATER LEVEL
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
ROW	RIGHT-OF-WAY
SAN	SANITARY SEWER
ST	STORM SEWER
T	TANGENCY OF CURVE
TB	TOP OF BANK
TC	TOP OF CURB
TF	TOP OF FOUNDATION
TS	TOP OF SIDEWALK
TW	TOP OF WALK
WM	WATER MAIN
Δ	INTERSECTION ANGLE

BENCHMARKS	
	<p><b>NOTE</b> NORTH AMERICAN VERTICAL DATUM OF 1988(12), (NAVD83)</p>
	<p><b>REFERENCE BENCHMARK</b> 1. CONCRETE MONUMENT WITH BRASS CAP AT NORTHEAST CORNER OF THE NE 1/4 S27, T6N, R20E, ELEV = 873.58</p>
	<p><b>SITE BENCHMARKS</b> 2. NW FLANGE BOLT ON HYDRANT, ELEV = 875.65</p>

GENERAL NOTES	
1. THE INTENTION OF THE PLANS AND SPECIFICATIONS IS TO SET FORTH PERFORMANCE AND CONSTRUCTION MATERIAL STANDARDS FOR THE PROPER EXECUTION OF WORK. ALL WORKS CONTAINED WITHIN THE PLANS AND SPECIFICATIONS SHALL BE COMPLETED IN ACCORDANCE WITH ALL REQUIREMENTS FROM LOCAL, STATE, FEDERAL OR OTHER GOVERNING AGENCY'S LAWS, REGULATIONS, JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., AND THE OWNER'S DIRECTION.	8. COMMENCEMENT OF CONSTRUCTION SHALL EXPLICITLY CONFIRM THAT THE CONTRACTOR HAS REVIEWED THE PLANS AND SPECIFICATIONS IN ENTIRETY AND CERTIFIES THAT THEIR SUBMITTED BID PROPOSAL CONTAINS PROVISIONS TO COMPLETE THE PROJECT, WITH THE EXCEPTION OF UNFORESEEN FIELD CONDITIONS; ALL APPLICABLE PERMITS HAVE BEEN OBTAINED; AND CONTRACTOR UNDERSTANDS ALL OF THE REQUIREMENTS OF THE PROJECT.
2. A GEOTECHNICAL REPORT FOR THIS SITE HAS NOT BEEN PREPARED AT THIS TIME. THE DATA ON SUB-SURFACE SOIL CONDITIONS IS NOT INTENDED AS A REPRESENTATION OR WARRANTY OF THE CONTINUITY OF SUCH CONDITIONS BETWEEN BORINGS OR INDICATED SAMPLING LOCATIONS. IT SHALL BE EXPRESSLY UNDERSTOOD THAT OWNER WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS DRAWN THERE FROM BY THE CONTRACTOR. DATA IS MADE AVAILABLE FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ANY ADDITIONAL SOILS INVESTIGATIONS THEY FEEL IS NECESSARY FOR THE PROPER EVALUATION OF THE SITE FOR PURPOSES OF PLANNING, BIDDING, OR CONSTRUCTING THE PROJECT AT NO ADDITIONAL COST TO THE OWNER.	9. SHOULD ANY DISCREPANCIES OR CONFLICTS IN THE PLANS OR SPECIFICATIONS BE DISCOVERED AFTER THE AWARD OF CONTRACT, ENGINEER SHALL BE NOTIFIED IN WRITING IMMEDIATELY AND CONSTRUCTION OF ITEMS AFFECTED BY THE DISCREPANCIES/CONFLICTS SHALL NOT COMMENCE, OR CONTINUE, UNTIL A WRITTEN RESPONSE FROM ENGINEER/OWNER IS DISTRIBUTED. IN THE EVENT OF A CONFLICT BETWEEN REFERENCED CODES, STANDARDS, SPECIFICATIONS AND PLANS, THE ONE ESTABLISHING THE MOST STRINGENT REQUIREMENTS SHALL BE FOLLOWED.
3. THE CONTRACTOR IS RESPONSIBLE TO REVIEW AND UNDERSTAND ALL COMPONENTS OF THE PLANS AND SPECIFICATIONS, INCLUDING FIELD VERIFYING SOIL CONDITIONS, PRIOR TO SUBMISSION OF A BID PROPOSAL.	10. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, OBTAIN ALL NECESSARY PERMITS AND LICENSES TO COMPLETE THE PROJECT. OBTAINING PERMITS, OR DELAYS, IS NOT CAUSE FOR DELAY OF THE CONTRACT OR SCHEDULE. CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS.
4. THE CONTRACTOR SHALL PROMPTLY REPORT ANY ERRORS OR AMBIGUITIES LEARNED AS PART OF THEIR REVIEW OF PLANS, SPECIFICATIONS, REPORTS AND FIELD INVESTIGATIONS.	11. THE CONTRACTOR SHALL NOTIFY ALL INTERESTED GOVERNING AGENCIES, UTILITY COMPANIES AFFECTED BY THIS CONSTRUCTION PROJECT, AND DIGGER'S HOTLINE IN ADVANCE OF CONSTRUCTION TO COMPLY WITH ALL JURISDICTIONAL ORDINANCES/CODES/RULES/ETC., PERMIT STIPULATIONS, AND OTHER APPLICABLE STANDARDS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COMPUTATION OF QUANTITIES AND WORK REQUIRED TO COMPLETE THIS PROJECT. THE CONTRACTOR'S BID SHALL BE BASED ON ITS OWN COMPUTATIONS AND IN NO SUCH INSTANCE RELY ON THE ENGINEER'S ESTIMATE.	12. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE TO INITIATE, INSTITUTE, ENFORCE, MAINTAIN, AND SUPERVISE ALL SAFETY PRECAUTIONS AND JOB SITE SAFETY PROGRAMS IN CONNECTION WITH THE WORK.
6. QUESTIONS/CLARIFICATIONS WILL BE INTERPRETED BY ENGINEER/OWNER PRIOR TO THE AWARD OF CONTRACT. ENGINEER/OWNER WILL SUBMIT OFFICIAL RESPONSES IN WRITING. INTERPRETATIONS PRESENTED IN OFFICIAL RESPONSES SHALL BE BINDING ON ALL PARTIES ASSOCIATED WITH THE CONTRACT. IN NO WAY SHALL WORD-OF-MOUTH DIALOG CONSTITUTE AN OFFICIAL RESPONSE.	13. THE CONTRACTOR SHALL KEEP THE JOBSITE CLEAN AND ORDERLY AT ALL TIMES. ALL LOCATIONS OF THE SITE SHALL BE KEPT IN A WORKING MANNER SUCH THAT DEBRIS IS REMOVED CONTINUOUSLY AND ALL RESPECTIVE CONTRACTORS OPERATE UNDER GENERAL "GOOD HOUSEKEEPING."
7. PRIOR TO START OF WORK, CONTRACTOR SHALL BE COMPLETELY FAMILIAR WITH ALL CONDITIONS OF THE SITE, AND SHALL ACCOUNT FOR CONDITIONS THAT AFFECT, OR MAY AFFECT CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, LIMITATIONS OF WORK ACCESS, SPACE LIMITATIONS, OVERHEAD OBSTRUCTIONS, TRAFFIC PATTERNS, LOCAL REQUIREMENTS, ADJACENT ACTIVITIES, ETC. FAILURE TO CONSIDER SITE CONDITIONS SHALL NOT BE CAUSE FOR CLAIM OF JOB EXTRAS.	14. THE CONTRACTOR SHALL INDEMNIFY THE VILLAGE, VILLAGE ENGINEER, VILLAGE BUILDING INSPECTOR, OWNER, ENGINEER, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, AND TESTING OF THE WORK ON THIS PROJECT.
	15. PRIOR TO CONSTRUCTION, A PRECONSTRUCTION MEETING MUST BE HELD AT THE VILLAGE OFFICES. THE PRECONSTRUCTION MEETING SHALL BE SCHEDULED AND MODERATED BY THE DESIGN ENGINEER OF RECORD.

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REQUIRED SUBMITTALS FOR APPROVAL	
1.	ASPHALT PAVEMENTS
2.	CONCRETE PAVEMENTS (EXTERIOR)
3.	STONE BASE COURSE
4.	TRENCH BACKFILL
5.	PIPE BEDDING
6.	TIE BARS
7.	DOWEL BARS
8.	DOWEL BAR BASKETS

REQUIRED SUBMITTALS FOR RECORDS	
1.	WATER MAIN PIPE FITTINGS
2.	SANITARY SEWER
3.	STORM SEWER
4.	SUBGRADE STABILIZATION (IF APPLICABLE)

PROJECT TEAM CONTACTS	
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EXPIRATION DATE: JULY 31, 2026

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FURTHERMORE, PINNACLE ENGINEERING GROUP, LLC IS NOT RESPONSIBLE FOR CONSTRUCTION SAFETY OR THE MEANS AND METHODS OF CONSTRUCTION.

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COVER SHEET

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**SITE AND DIMENSIONAL PLAN NOTES**

- ALL DIMENSIONS ARE EDGE OF PAVEMENT, FACE OF CURB, SHOULDER, OR CENTER OF LANE LINE UNLESS NOTED OTHERWISE. ALL UTILITY DIMENSIONS ARE TO OUTSIDE OF PIPE OR CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
- ALL PROPOSED CURB AND GUTTER SHALL BE 18" STANDARD CURB AND GUTTER (SEE DETAIL), UNLESS OTHERWISE NOTED. CURB AND GUTTER DRAINING AWAY FROM THE FACE OF CURB IS NOTED AS REVERSE CURB AND GUTTER.
- BUILDING DIMENSIONS AND ADJACENT PARKING AND UTILITY LAYOUT HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT DIGGERS HOTLINE (1-800-242-8511) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
- IMPROVEMENTS ADJACENT TO BUILDING IF SHOWN SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS, AND DETAILS.
- REFER TO ELECTRICAL PLANS FOR LIGHTING LOCATIONS, SPECIFICATIONS, AND DETAILS.
- SEE ADDITIONAL NOTES AND DETAILS ON CONSTRUCTION DETAILS.
- ALL PAVING SHALL CONFORM TO STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY & STRUCTURE CONSTRUCTION, LATEST EDITION AND APPLICABLE CITY OF NEW BERLIN ORDINANCES, AND SPECIFICATIONS CONTAINED WITHIN THIS PLAN SET.
- PAVEMENT DESIGN SHALL BE AS INDICATED ON TEMPLATE EXHIBIT DRAWINGS, TENANTS PAVEMENT DESIGN GUIDELINES, AND PROTOTYPICAL DETAILS PROVIDED CONTRACTOR SHALL USE WHITE EPOXY STRIPING ON ASPHALT AND YELLOW EPOXY STRIPING ON CONCRETE.
- PROVIDE CONTRACTOR GRADE ACRYLIC, STRIPING EPOXY FOR NEW ASPHALT OR COATED ASPHALT. APPLY MARKING EPOXY AT A RATE OF ONE (1) GALLON PER THREE TO FOUR HUNDRED (300-400) LINEAL FEET OF FOUR (4) INCH WIDE STRIPES OR TO MANUFACTURER'S SPECIFICATION, WHICHEVER IS GREATER.
- THOROUGHLY CLEAN SURFACES FREE OF DIRT, SAND, GRAVEL, OIL AND OTHER FOREIGN MATTER. CONTRACTOR RESPONSIBLE TO INSPECT EXISTING PAVEMENT SURFACES FOR CONDITIONS AND DEFECTS THAT WILL ADVERSELY AFFECT QUALITY OF WORK, AND WHICH CANNOT BE PUT INTO AN ACCEPTABLE CONDITION THROUGH NORMAL PREPARATORY WORK AS SPECIFIED.
- DO NOT PLACE MARKING OVER UNSOUND PAVEMENTS. IF THESE CONDITIONS EXIST, NOTIFY OWNER. STARTING INSTALLATION CONSTITUTES CONTRACTOR'S ACCEPTANCE OF SURFACE AS SUITABLE FOR INSTALLATION.
- LAYOUT MARKINGS USING GUIDE LINES, TEMPLATES AND FORMS. STENCILS AND TEMPLATES SHALL BE PROFESSIONALLY MADE TO INDUSTRY STANDARDS. "FREE HAND" PAINTING OF ARROWS, SYMBOLS, OR WORDING SHALL NOT BE ALLOWED. APPLY STRIPES STRAIGHT AND EVEN.
- PROTECT ADJACENT CURBS, WALKS, FENCES, AND OTHER ITEMS FROM RECEIVING PAINT.
- BARRICADE MARKED AREAS DURING INSTALLATION AND UNTIL THE MARKING PAINT IS DRIED AND READY FOR TRAFFIC.
- ASPHALTIC CONCRETE PAVING SPECIFICATIONS
  - CODES AND STANDARDS: THE PLACING, CONSTRUCTION AND COMPOSITION OF THE ASPHALTIC BASE COURSE AND ASPHALTIC CONCRETE SURFACING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 460, 465, 469 AND 485 OF THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, HEREAFTER, THIS PUBLICATION WILL BE REFERRED TO AS THE STATE HIGHWAY SPECIFICATIONS.
  - WEATHER LIMITATIONS: APPLY TACK COATS WHEN AMBIENT TEMPERATURE IS ABOVE 50° F (10° C) AND WHEN TEMPERATURE HAS NOT BEEN BELOW 35° F (1° C) FOR 12 HOURS IMMEDIATELY PRIOR TO APPLICATION. DO NOT APPLY WHEN BASE IS WET OR CONTAINS EXCESS OF MOISTURE. CONSTRUCT ASPHALTIC CONCRETE SURFACE COURSE WHEN ATMOSPHERIC TEMPERATURE IS ABOVE 40° (4° C) AND WHEN BASE IS DRY AND WHEN WEATHER IS NOT RAINY. BASE COURSE MAY BE PLACED WHEN AIR TEMPERATURE IS ABOVE 30° F (-1° C).
  - GRADE CONTROL: ESTABLISH AND MAINTAIN REQUIRED LINES AND ELEVATIONS FOR EACH COURSE DURING CONSTRUCTION.
  - CRUSHED AGGREGATE BASE COURSE: THE TOP LAYER OF BASE COURSE SHALL CONFORM TO SECTIONS 301 AND 305, STATE HIGHWAY SPECIFICATIONS.
  - BINDER COURSE AGGREGATE: THE AGGREGATE FOR THE BINDER COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 315, STATE HIGHWAY SPECIFICATIONS.
  - SURFACE COURSE AGGREGATE: THE AGGREGATE FOR THE SURFACE COURSE SHALL CONFORM TO SECTIONS 460.2.7 AND 465, STATE HIGHWAY SPECIFICATIONS.
  - ASPHALTIC MATERIALS: THE ASPHALTIC MATERIALS SHALL CONFORM TO SECTION 455 AND 460, STATE HIGHWAY SPECIFICATIONS.
  - SURFACE PREPARATION: NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBBASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
- TRAFFIC CONTROL SHALL BE PER M.U.T.C.D.
- PUBLIC CURB & GUTTER REPLACEMENT SHALL BE TIED TO EXISTING CURB & GUTTER WITH #4 TIE BARS. PUBLIC CURB & GUTTER SHALL BE A 6-BAG MIX.
- TIE BARS: PLACE AT ALL LONGITUDINAL JOINTS IN ENTRANCE AREAS/ROADS PER WISDOT 13C01. PLACE IN CURB AND GUTTER PER WISDOT 8D01.

**GRADING NOTES**

- CONTRACTOR SHALL VERIFY ALL GRADES. ENSURE ALL AREAS DRAIN PROPERLY AND REPORT ANY DISCREPANCIES TO PINNACLE ENGINEERING GROUP PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
- ALL EXISTING CONTOURS REPRESENT EXISTING SURFACE GRADES UNLESS OTHERWISE NOTED. ALL PROPOSED GRADES SHOWN ARE FINISH SURFACE GRADES UNLESS OTHERWISE NOTED.
- SPOT ELEVATIONS REPRESENT THE GRADE ALONG THE CURB AND GUTTER FLANGELINE UNLESS OTHERWISE NOTED.
- ALL EXCAVATIONS AND MATERIAL PLACEMENT SHALL BE COMPLETED TO DESIGN ELEVATIONS AS DEPICTED IN THE PLANS.
  - CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATION(S) OF ALL GRADING QUANTITIES. WHILE PEG ATTEMPTS TO PROVIDE A COST EFFECTIVE APPROACH TO BALANCE EARTHWORK, GRADING DESIGN IS BASED ON MANY FACTORS, INCLUDING SAFETY, AESTHETICS, AND COMMON ENGINEERING STANDARD OF CARE. THEREFORE NO GUARANTEE CAN BE MADE FOR A BALANCED SITE. THE CONTRACTOR MAY SOLICIT APPROVAL FROM ENGINEER/OWNER TO ADJUST FINAL GRADES FROM DESIGN GRADES TO PROVIDE AN OVERALL SITE BALANCE AS A RESULT OF FIELD CONDITIONS.
- GRADING ACTIVITIES SHALL BE IN A MANNER TO ALLOW POSITIVE DRAINAGE ACROSS DISTURBED SOILS, WHICH MAY INCLUDE EXCAVATION OF TEMPORARY DITCHES TO PREVENT PONDING, AND IF NECESSARY PUMPING TO ALLEVIATE PONDING. CONTRACTOR SHALL PREVENT SURFACE WATER FROM ENTERING INTO EXCAVATIONS. IN NO WAY SHALL OWNER BE RESPONSIBLE FOR REMEDIATION OF UNSUITABLE SOILS CREATED/ORIGINATED AS A RESULT OF IMPROPER SITE GRADING OR SEQUENCING. CONTRACTOR SHALL SEQUENCE GRADING ACTIVITIES TO LIMIT EXPOSURE OF DISTURBED SOILS DUE TO WEATHER.
- THE CONTRACTOR IS RESPONSIBLE FOR MEETING MINIMUM COMPACTION STANDARDS. THE CONTRACTOR SHALL NOTIFY ENGINEER/OWNER IF PROPER COMPACTION CANNOT BE OBTAINED. THE PROJECT'S GEOTECHNICAL CONSULTANT SHALL DETERMINE WHICH IN-SITU SOILS ARE TO BE CONSIDERED UNSUITABLE SOILS. THE ENGINEER/OWNER AND GEOTECHNICAL TESTING CONSULTANT WILL DETERMINE IF REMEDIAL MEASURES WILL BE NECESSARY.
- IN THE EVENT THAT ANY MOISTURE-DENSITY TEST(S) FAIL TO MEET SPECIFICATION REQUIREMENTS, THE CONTRACTOR SHALL PERFORM CORRECTIVE WORK AS NECESSARY TO BRING THE MATERIAL INTO COMPLIANCE AND RETEST THE FAILED AREA AT NO COST TO THE OWNER.
- WITH THE AUTHORIZATION OF THE ENGINEER/OWNER, MATERIAL THAT IS TOO WET TO PERMIT PROPER COMPACTION MAY BE SPREAD ON FILL AREAS IN AN EFFORT TO DRY. CONTRACTOR SHALL CLEARLY MARK THE EXTERIOR LIMITS OF SPREAD MATERIAL WITH PAINTED LATH AND SUBMIT A PLAN TO THE ENGINEER/OWNER THAT IDENTIFIES THE LIMITS. UNDER NO CONDITION SHALL THE SPREAD MATERIAL DEPTH EXCEED THE MOST RESTRICTIVE OF: THE EFFECTIVE TREATMENT DEPTH OF MACHINERY THAT WILL BE USED TO TURNOVER THE SPREAD MATERIAL; OR THE MAXIMUM COMPACTION LIFT DEPTH.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER/OWNER IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ADEQUATE AND SAFE TEMPORARY SHORING, BRACING, RETENTION STRUCTURES, AND EXCAVATIONS.
- THE SITE SHALL BE COMPLETED TO WITHIN 0.10-FT (+/-) OF THE PROPOSED GRADES AS INDICATED WITHIN THE PLANS PRIOR TO PLACEMENT OF TOPSOIL OR STONE. CONTRACTOR IS ENCOURAGED TO SEQUENCE CONSTRUCTION SUCH THAT THE SITE IS DIVIDED INTO SMALLER AREAS TO ALLOW STABILIZATION OF DISTURBED SOILS IMMEDIATELY UPON COMPLETION OF INDIVIDUAL SMALLER AREAS.
- CONTRACTOR SHALL CONTACT "DIGGERS HOTLINE" FOR LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES AND SHALL BE RESPONSIBLE FOR PROTECTING SAID UTILITIES FROM ANY DAMAGE DURING CONSTRUCTION.
- CONTRACTOR SHALL PROTECT INLETS AND ADJACENT PROPERTIES WITH SILT FENCING OR APPROVED EROSION CONTROL METHODS UNTIL CONSTRUCTION IS COMPLETED. CONTRACTOR SHALL PLACE SILT FENCING AT DOWN SLOPE SIDE OF GRADING LIMITS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ANY EXISTING FACILITIES OR UTILITIES. ANY DAMAGE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE EXPENSE OF THE CONTRACTOR.
- WORK WITHIN ANY ROADWAY RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPAL OFFICIAL PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FEES. GRADING WITHIN RIGHT-OF-WAY IS SUBJECT TO APPROVAL BY SAID OFFICIALS. RESTORATION OF RIGHT-OF-WAY IS CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE COST OF GRADING. RESTORATION SHALL INCLUDE ALL ITEMS NECESSARY TO RESTORE RIGHT-OF-WAY IN-KIND INCLUDING LANDSCAPING.
- CONTRACTOR SHALL COMPLY WITH ALL CITY OF NEW BERLIN AND WAKEUSA COUNTY CONSTRUCTION STANDARDS/ORDINANCES.
- LANDSCAPE AND TURF AREAS SHALL HAVE A MINIMUM OF 4-INCH TOPSOIL REPLACEMENT, UNLESS OTHERWISE SPECIFIED ON THE LANDSCAPE PLANS.
- TOPSOIL BERMING SHALL ACHIEVE 90% STANDARD PROCTOR DENSITY AT 3%(4) OPTIMUM MOISTURE CONTENT.
- SURVEY BENCHMARKS AND MAPPING HAS BEEN PROVIDED BY PINNACLE ENGINEERING GROUP. IN NO WAY DOES PEG WARRANT THE BASEMAP IS ALL INCLUSIVE OR REPRESENTATIVE OF ACTUAL CONDITIONS. CONTRACTOR SHALL PROVIDE CHECKS AS NECESSARY TO VERIFY THE BASEMAP CONTENT AND ACCURACY.

**GENERAL UTILITY NOTES**

- EXISTING UTILITIES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE TYPE, LOCATION, SIZE AND ELEVATION OF UNDERGROUND UTILITIES AS THEY DEEM NECESSARY FOR PROPOSED UTILITY CONNECTIONS AND/OR TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CALL "DIGGERS HOTLINE" PRIOR TO ANY CONSTRUCTION.
- ALL UTILITY WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN (LATEST EDITION AND ADDENDUM) AND ALL STATE AND LOCAL CODES AND SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHICH SPECIFICATIONS AND CODES APPLY, AND TO COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE LOCAL AND STATE AUTHORITIES.
- UTILITY CONSTRUCTION AND SPECIFICATIONS SHALL COMPLY WITH THE CITY OF NEW BERLIN STANDARDS AND SPECIFICATIONS AND WISCONSIN DEPARTMENT OF SAFETY AND PROFESSIONAL SERVICES SPS 382.
- LENGTHS OF PROPOSED UTILITIES ARE TO CENTER OF STRUCTURES OR FITTINGS AND MAY VARY SLIGHTLY FROM PLAN. LENGTHS ARE SHOWN FOR CONTRACTOR CONVENIENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPUTATIONS OF MATERIALS REQUIRED TO COMPLETE WORK. LENGTHS SHALL BE FIELD VERIFIED DURING CONSTRUCTION.
- CONTRACTOR SHALL ADJUST AND/OR RECONSTRUCT EXISTING UTILITY COVERS (SUCH AS MANHOLE COVERS, VALVE BOX COVERS, ETC.) TO MATCH FINISHED GRADES OF THE AREAS DISTURBED DURING CONSTRUCTION.
- CONTRACTOR SHALL FIELD VERIFY LOCATIONS, ELEVATIONS, AND SIZES OF PROPOSED UTILITIES AND CHECK ALL UTILITY CROSSINGS FOR CONFLICTS PRIOR TO ATTEMPTING CONNECTIONS AND BEGINNING UTILITY CONSTRUCTION AND NOTIFY THE OWNER OF ANY DISCREPANCIES OR CONFLICTS.
- ALL NEW ON-SITE SANITARY, STORM AND WATER UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED BY THE PROPERTY OWNER, EXCEPT FOR THOSE UTILITIES IDENTIFIED AS PUBLIC.
- THE CONTRACTOR SHALL CONTACT THE CITY OF NEW BERLIN PUBLIC WORKS DEPARTMENT 48-HOURS IN ADVANCE OF SANITARY, WATER AND STORM CONNECTIONS TO THE VILLAGE-OWNED SYSTEM TO SCHEDULE INSPECTIONS.
- ROUTING OF GAS, ELECTRIC AND TELEPHONE SERVICES ARE SHOWN ON THE ARCHITECTURAL PLANS AND SUBJECT TO CHANGE BASED UPON FINAL REVIEW AND APPROVAL BY RESPECTIVE UTILITY COMPANIES AND OWNER. CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY AND COORDINATE FINAL LOCATIONS FOR ALL UTILITY SERVICES PRIOR TO START OF CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROPER AUTHORITIES FOR ANY REQUIRED PERMITS, AUTHORIZATIONS, TRAFFIC CONTROL AND ANY PERMIT FEES REQUIRED.
- FIELD TILE CONNECTION - ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE(S) FOR STORM SEWER TILE LINES CROSSING BY THE TRENCH SHALL BE REPLACED WITH THE SAME MATERIAL AS THE STORM SEWER.
- THE CONTRACTOR IS RESPONSIBLE FOR THE SIZE, TYPE AND NUMBER OF WATER MAIN BENDS, HORIZONTAL AND VERTICAL, REQUIRED TO COMPLETE CONSTRUCTION. COST FOR BENDS, HORIZONTAL AND VERTICAL, SHALL BE INCIDENTAL AND INCLUDED IN THE OVERALL COST OF THE CONTRACT.
- TRACER WIRE: COPPERHEAD TRACER WIRE #10 SOLID CCS SUPERFLEX (BLUE). WIRE CONNECTORS SHALL BE SNAKEBITE (BLUE) MADE BY COPPERHEAD INDUSTRIES, LLC. THE TRACER WIRE FOR THE SANITARY SEWER LATERAL (GREEN) SHALL BE CONTINUOUS AND SHALL BE EXTENDED ABOVE GRADE VIA A 4-INCH PVC PIPE WITH SCREW-ON CAP ADJACENT TO THE PROPOSED TERMINATION POINT OF THE LATERAL FOR THE PROPOSED BUILDING. TRACER WIRE FOR WATER MAIN SHALL BE INSTALLED WITH #12-GAUGE TRACER WIRE AND SHALL TERMINATE IN TRACER WIRE ACCESS BOXES AT ALL FIRE HYDRANTS.
- WATER MAIN AND SANITARY SEWER SHALL BE INSULATED WHEREVER THE DEPTH OF COVER IS LESS THAN 6.5 FEET. INSULATION AND PLACING OF INSULATION SHALL CONFORM TO CHAPTER 4.17.0 "INSULATION" OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN 6TH EDITION UPDATED WITH ITS LATEST ADDENDUM (TYP.).
- SEE UTILITY PLANS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

**STORM SEWER NOTES**

- PIPE - REINFORCED CONCRETE PIPE (RCP) SHALL MEET THE REQUIREMENTS OF ASTM CLASS C-78 WITH RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. STRENGTH CLASSIFICATIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING  
HEIGHT OF COVER (FEET): 0-2 2-3 3-6 6-15 15-25 25+  
MINIMUM CONCRETE PIPE CLASSIFICATION: IV III II III IV ENGINEER TO SPECIFY
- HIGH DENSITY DUAL-WALL POLYETHYLENE N-12 CORRUGATED PIPE (HDPE) SHALL BE AS MANUFACTURED BY ADS OR EQUAL WITH WATER TIGHT JOINTS, AND SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-294 TYPE "S", OR POLYVINYL CHLORIDE (PVC) - CLASS PS46 MEETING AASHTO M278, AS NOTED. IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER.
- INLETS - INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NO. 25 OF THE "STANDARD SPECIFICATIONS" WITH A 1'-8" X 2'-6" MAXIMUM OPENING. SEE CONSTRUCTION DETAILS FOR FRAME AND GRATE TYPES. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.
- BACKFILL AND BEDDING - STORM SEWER SHALL BE CONSTRUCTED WITH GRAVEL BACKFILL AND CLASS "B" BEDDING IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL.
- LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS". MANHOLE FRAMES AND COVERS - SEE CONSTRUCTION DETAILS.
- IF HDPE PIPE IS USED FOR POND OUTFALLS, A MINIMUM OF THREE (3) SECTIONS (2 STRAPS) SHALL BE STRAPPED TOGETHER. 15. TRACER WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THESE CODE SECTIONS AS PER 182.0715(2R) OF THE STATUTES.

**WATER MAIN NOTES**

- PIPE - WATER MAIN SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA STANDARD C-900, CLASS 235, DR-18, WITH CAST IRON O.D. AND INTEGRAL ELASTOMERIC BELL AND SPIGOT JOINTS.
- VALVES AND VALVE BOXES - GATE VALVES SHALL BE AWWA GATE VALVES MEETING THE REQUIREMENTS OF AWWA C-500 AND CHAPTER 8.27.0 OF THE "STANDARD SPECIFICATIONS". GATE VALVES AND VALVE BOXES SHALL CONFORM TO LOCAL PLUMBING ORDINANCES.
- HYDRANTS - HYDRANTS SHALL CONFORM TO THE CITY OF NEW BERLIN STANDARDS AND SPECIFICATIONS AND IN ACCORDANCE WITH FILE NO. 38 OF THE "STANDARD SPECIFICATIONS." THE DISTANCE FROM THE GROUND LINE TO THE CENTERLINE OF THE LOWEST NOZZLE AND THE LOWEST CONNECTION OF THE FIRE DEPARTMENT SHALL BE NO LESS THAN 18-INCHES AND NO GREATER THAN 24-INCHES. HYDRANT MANUFACTURE: WATEROUS PACER WITH WATER SERIES 2500 VALVES.
- BEDDING AND COVER MATERIAL - PIPE BEDDING AND COVER MATERIAL SHALL BE SAND, CRUSHED STONE CHIPS OR CRUSHED STONE SCREENINGS CONFORMING TO CHAPTER 8.43.2 OF THE "STANDARD SPECIFICATIONS".
- ALL DUCTILE FITTINGS, VALVES, AND VALVE BOXES SHALL CONFORM WITH ALL CITY OF NEW BERLIN STANDARD SPECIFICATIONS FOR DEVELOPMENT AND SHALL BE TRIPLE WRAPPED AND SECURELY TAPED AROUND WITH POLYETHYLENE AS SPECIFIED IN CHAPTER 4.4.4 AND 8.21.0 OF THE "STANDARD SPECIFICATIONS".
- BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS".
- GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL.
- SLURRY BACK FILL UNDER PUBLIC ROAD PAVEMENT. SLURRY LIMITS: FROM TOP OF COVER STONE TO PAVEMENT. SLURRY TO BE 1-BAG PORTLAND MIX.
- LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS".

**SANITARY SEWER NOTES**

- PIPE - SANITARY SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) MEETING REQUIREMENTS OF ASTM D 3034, SDR-35 (UP TO 15' OF COVER) & SDR-26 (GREATER THAN 15'), WITH INTEGRAL BELL TYPE FLEXIBLE ELASTOMERIC JOINTS, MEETING THE REQUIREMENTS OF ASTM D-3212.
- BEDDING AND COVER MATERIAL - BEDDING AND COVER MATERIAL SHALL CONFORM TO THE APPROPRIATE SECTIONS OF THE "STANDARD SPECIFICATION" WITH THE FOLLOWING MODIFICATION: "COVER MATERIAL SHALL BE THE SAME AS USED FOR BEDDING AND SHALL CONFORM TO SECTION 8.43.2 (A).
- BEDDING AND COVER MATERIAL SHALL BE PLACED IN A MINIMUM OF THREE SEPARATE LIFTS, OR AS REQUIRED TO INSURE ADEQUATE COMPACTING OF THESE MATERIALS, WITH ONE LIFT OF BEDDING MATERIAL ENDING AT OR NEAR THE SPRINGLINE OF THE PIPE. THE CONTRACTOR SHALL TAKE CARE TO COMPLETELY WORK BEDDING MATERIAL UNDER THE MAUNCH OF THE PIPE TO PROVIDE ADEQUATE SIDE SUPPORT."
- BACKFILL - BACKFILL MATERIAL AND INSTALLATION SHALL BE IN ACCORDANCE CHAPTER 2.6.0 OF THE "STANDARD SPECIFICATIONS."
- SLURRY BACK FILL UNDER PUBLIC ROAD PAVEMENT. SLURRY LIMITS: FROM TOP OF COVER STONE TO PAVEMENT. SLURRY TO BE 1-BAG PORTLAND MIX.
- GRAVEL BACKFILL IS REQUIRED IN ALL PAVED AREAS AND TO A POINT 5 FEET BEYOND THE EDGE OF PAVEMENT. TRENCHES RUNNING PARALLEL TO AND LESS THAN 5 FEET FROM THE EDGE OF PAVEMENT SHALL ALSO REQUIRE GRAVEL BACKFILL.
- LANDSCAPED AREAS MAY BE BACKFILLED WITH EXCAVATED MATERIAL IN CONFORMANCE WITH SECTION 8.43.5 OF THE "STANDARD SPECIFICATIONS."
- MANHOLES - MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FILE NOS. 12, 13 AND 15 OF THE "STANDARD SPECIFICATIONS" AND ALL STANDARDS AND SPECIFICATIONS OF THE CITY OF NEW BERLIN. STRUCTURE SHOP DRAWINGS SHALL BE SUBMITTED TO PINNACLE ENGINEERING GROUP FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURING AND INSTALLATION.
- MANHOLE FRAMES AND COVERS - MANHOLE FRAMES AND COVERS SHALL BE NEENAH R-1661.

**EROSION & SEDIMENT CONTROL NOTES**

- ALL CONSTRUCTION SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT ("WPDES" PERMIT NO. WI-S067831-4) FOR CONSTRUCTION SITE LAND DISTURBANCE ACTIVITIES. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL TECHNICAL STANDARDS AND PROVISIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PROCEDURES AND STANDARDS SHALL BE REFERRED TO AS BEST MANAGEMENT PRACTICES (BMPs). IT IS THE RESPONSIBILITY OF ALL CONTRACTORS ASSOCIATED WITH THE PROJECT TO OBTAIN A COPY OF, AND UNDERSTAND, THE BMPs PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
- THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROL MEASURES AS DIRECTED BY OWNER/ENGINEER OR GOVERNING AGENCIES SHALL BE INSTALLED WITHIN 24 HOURS OF REQUEST.
- MODIFICATIONS TO THE APPROVED SWPPP IN ORDER TO MEET UNFORESEEN FIELD CONDITIONS ARE ALLOWED IF MODIFICATIONS CONFORM TO BMPs. ALL MODIFICATIONS MUST BE APPROVED BY OWNER/ENGINEER/GOVERNING AGENCY PRIOR TO DEVIATION OF THE APPROVED PLAN.
- INSTALL PERIMETER EROSION CONTROL MEASURES (SUCH AS CONSTRUCTION ENTRANCES, SILT FENCE AND EXISTING INLET PROTECTION) PRIOR TO ANY SITE WORK, INCLUDING GRADING OR DISTURBANCE OF EXISTING SURFACE COVER, AS SHOWN ON PLAN IN ORDER TO PROTECT ADJACENT PROPERTIES/STORM SEWER SYSTEMS FROM SEDIMENT TRANSPORT.
- CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL LOCATIONS OF VEHICLE INGRESS/EGRESS POINTS. CONTRACTOR IS RESPONSIBLE TO COORDINATE LOCATION(S) WITH THE PROPER AUTHORITIES, PROVIDE NECESSARY FEES AND OBTAIN ALL REQUIRED APPROVALS OR PERMITS. ADDITIONAL CONSTRUCTION ENTRANCES OTHER THAN AS SHOWN ON THE PLANS MUST BE APPROVED BY THE APPLICABLE GOVERNING AGENCIES PRIOR TO INSTALLATION.
- PAVED SURFACES ADJACENT TO CONSTRUCTION ENTRANCES SHALL BE SWEEP AND/OR SCRAPPED TO REMOVE ACCUMULATED SOIL, DIRT AND/OR DUST IMMEDIATELY AND AS REQUESTED BY THE GOVERNING AGENCIES.
- ALL EXISTING STORM SEWER FACILITIES THAT WILL COLLECT RUNOFF FROM DISTURBED AREAS SHALL BE PROTECTED TO TO PREVENT SEDIMENT DEPOSITION WITHIN STORM SEWER SYSTEMS. INLET PROTECTION SHALL BE IMMEDIATELY FITTED AT THE INLET OF ALL INSTALLED STORM SEWER AND SILT FENCE SHALL BE IMMEDIATELY FITTED AT ALL INSTALLED CULVERT INLETS. ALL INLETS, STRUCTURES, PIPES, AND SWALES SHALL BE KEPT CLEAN AND FREE OF SEDIMENTATION AND DEBRIS.
- EROSION CONTROL FOR UTILITY CONSTRUCTION (STORM SEWER, WATER MAIN, ETC.) OUTSIDE OF THE PERIMETER CONTROLS SHALL INCORPORATE THE FOLLOWING:
  - PLACE EXCAVATED TRENCH MATERIAL ON THE HIGH SIDE OF THE TRENCH.
  - BACKFILL, COMPACT AND STABILIZE THE TRENCH IMMEDIATELY AFTER PIPE CONSTRUCTION.
  - DISCHARGE TRENCH WATER INTO A SEDIMENTATION BASIN OR FILTERING TANK IN ACCORDANCE WITH BMPs PRIOR TO RELEASE INTO STORM SEWER OR DITCHES.
- AT A MINIMUM, SEDIMENT BASINS AND NECESSARY TEMPORARY DRAINAGE PROVISIONS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE BEGINNING OF SIGNIFICANT MASS GRADING OPERATIONS TO PREVENT OFFSITE DISCHARGE OF UNTREATED RUNOFF.
- ALL WATERCOURSES AND WETLANDS SHALL BE PROTECTED WITH SILT FENCE TO PREVENT ANY DIRECT DISCHARGE FROM DISTURBED SOILS.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
- TOPSOIL STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE AND PERIMETER SILT FENCE TO CONTROL SILT. IF TOPSOIL STOCKPILE REMAINS UNDISTURBED FOR MORE THAN SEVEN (7) DAYS, TEMPORARY SEEDING AND STABILIZATION IS REQUIRED.
- EROSION CONTROL MEASURES TEMPORARILY REMOVED FOR UNAVOIDABLE CONSTRUCTION ACTIVITIES SHALL BE IN WORKING ORDER IMMEDIATELY FOLLOWING COMPLETION OF SUCH ACTIVITIES OR PRIOR TO THE COMPLETION OF EACH WORK DAY, WHICH EVER OCCURS FIRST.
- MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. DISTURBANCES ASSOCIATED WITH EROSION CONTROL REMOVAL SHALL BE IMMEDIATELY STABILIZED.
- PUMPS MAY BE USED AS BYPASS DEVICES. IN NO CASE SHALL PUMPED WATER BE DIVERTED OUTSIDE THE PROJECT LIMITS. PUMP DISCHARGE SHALL BE DIRECTED INTO AN APPROVED FILTER BAG OR APPROVED SETTLING DEVICE.
- GRADING EFFORTS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. EROSION AND SEDIMENT CONTROL MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES. ALL DISTURBED AREAS THAT WILL NOT BE WORKED FOR A PERIOD OF FOURTEEN (14) DAYS REQUIRE TEMPORARY SEEDING FOR EROSION CONTROL. SEEDING FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH TECHNICAL STANDARDS.
- ALL DISTURBED SLOPES 4:1 OR GREATER SHALL BE STABILIZED WITH NORTH AMERICAN GREEN S75BN EROSION MATTING (OR APPROVED EQUAL) AND ALL CHANNELS SHALL BE STABILIZED WITH NORTH AMERICAN GREEN C125BN (OR APPROVED EQUAL) OR APPLICATION OF AN APPROVED POLYMER SOIL STABILIZATION TREATMENT OR A COMBINATION THEREOF, AS REQUIRED. EROSION MATTING AND/OR NETTING USED ON SITE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES.
- DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON SITE FOR THE PURPOSE OF WATERING DOWN SOILS WHICH MAY OTHERWISE BE AIRBORNE. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING WIND EROSION (DUST) DURING CONSTRUCTION AT HIGHER EXPENSE.
- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE VISUALLY INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM ON A DAILY BASIS.
- QUALIFIED PERSONNEL, PROVIDED BY THE GENERAL/PRIME CONTRACTOR SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED AND EROSION AND SEDIMENT CONTROLS WITHIN 24 HOURS OF ALL 0.5-INCH, OR MORE, PRECIPITATION EVENTS WITH A MINIMUM INSPECTION INTERVAL OF ONCE EVERY SEVEN (7) CALENDAR DAYS IN THE ABSENCE OF A QUALIFYING RAIN OR SNOWFALL EVENT. REPORTING SHALL BE IN ACCORDANCE WITH OF THE GENERAL PERMIT. CONTRACTOR SHALL IMMEDIATELY ARRANGE TO HAVE ANY DEFICIENT ITEMS REVEALED DURING INSPECTIONS REPAIRED/REPLACED.
- SEE ADDITIONAL DETAILS AND NOTES ON SITE STABILIZATION AND CONSTRUCTION DETAILS.

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**NEW BERLIN FABRICATION BUILDING**  
16230 БЕЛОIT ROAD  
NEW BERLIN, WI

**GENERAL NOTES**

**REVISIONS**

NO.	DATE	DESCRIPTION

REG. JOB NO. 2557-00-WI  
REG. NO. 2557-00-WI  
TOM  
START DATE: 03/20/25  
SCALE: NTS  
SHEET  
C-2  
OF  
C-11

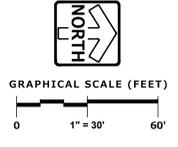
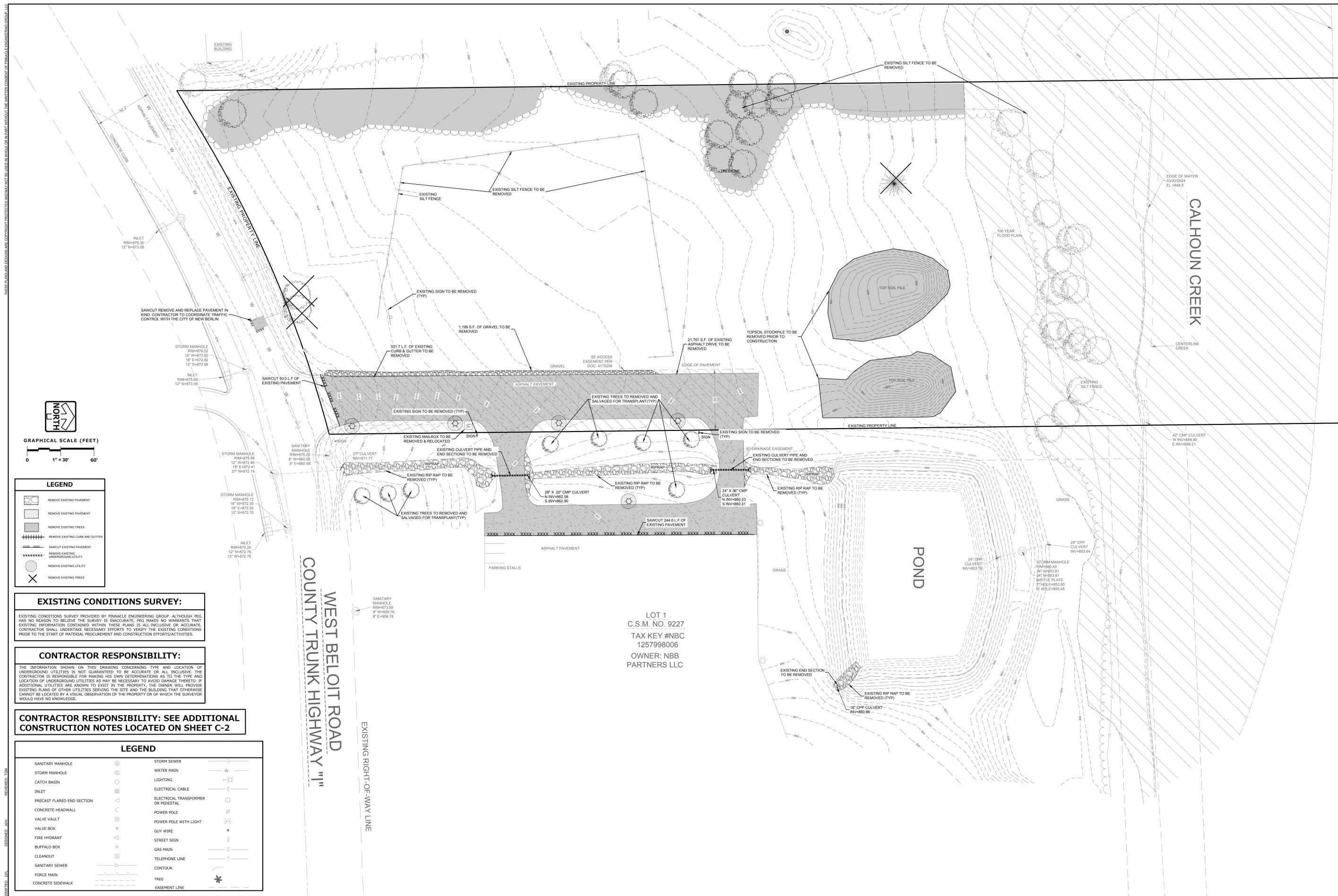
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GENERAL NOTES

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DRAWN: DWT  
DESIGNED: AMH  
REVIEWED: TOM

2:\PROJECTS\2021\2557-00-WI\CAD\2557.00 EXISTING CONDITIONS & DEMOLITION PLAN.DWG



**LEGEND**

[Symbol]	REMOVE EXISTING PAVEMENT
[Symbol]	REMOVE EXISTING PAVEMENT
[Symbol]	REMOVE EXISTING TREES
[Symbol]	REMOVE EXISTING CURB AND GUTTER
[Symbol]	SAWCUT EXISTING PAVEMENT
[Symbol]	REMOVE EXISTING UNDERGROUND UTILITY
[Symbol]	REMOVE EXISTING UTILITY
[Symbol]	REMOVE EXISTING TREES

**EXISTING CONDITIONS SURVEY:**  
EXISTING CONDITIONS SURVEY PROVIDED BY PINNACLE ENGINEERING GROUP. ALTHOUGH PEG HAS NO REASON TO BELIEVE THE SURVEY IS INACCURATE, PEG MAKES NO WARRANTIES THAT EXISTING INFORMATION CONTAINED WITHIN THESE PLANS IS ALL-INCLUSIVE OR ACCURATE. CONTRACTOR SHALL UNDERTAKE NECESSARY EFFORTS TO VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF MATERIAL PROCUREMENT AND CONSTRUCTION EFFORTS/ACTIVITIES.

**CONTRACTOR RESPONSIBILITY:**  
THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. IF ADDITIONAL UTILITIES ARE KNOWN TO EXIST IN THE PROPERTY, THE OWNER WILL PROVIDE EXISTING PLANS OF OTHER UTILITIES SERVING THE SITE AND THE BUILDING THAT OTHERWISE CANNOT BE LOCATED BY A VISUAL OBSERVATION OF THE PROPERTY OR OF WHICH THE SURVEYOR WOULD HAVE NO KNOWLEDGE.

**CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2**

**LEGEND**

[Symbol]	SANITARY MANHOLE	[Symbol]	STORM SEWER	[Symbol]	W	WATER MAIN
[Symbol]	STORM MANHOLE	[Symbol]	LIGHTING	[Symbol]	E	ELECTRICAL CABLE
[Symbol]	CATCH BASIN	[Symbol]	ELECTRICAL TRANSFORMER OR PEDESTAL	[Symbol]	P	POWER POLE
[Symbol]	INLET	[Symbol]	POWER POLE WITH LIGHT	[Symbol]	G	GUY WIRE
[Symbol]	PRECAST FLARED END SECTION	[Symbol]	STREET SIGN	[Symbol]	G	GAS MAIN
[Symbol]	CONCRETE HEADWALL	[Symbol]	TELEPHONE LINE	[Symbol]	T	TELEPHONE LINE
[Symbol]	VALVE VAULT	[Symbol]	CONTOUR	[Symbol]	*	TREE
[Symbol]	VALVE BOX	[Symbol]	EASEMENT LINE	[Symbol]	*	TREE
[Symbol]	FIRE HYDRANT	[Symbol]		[Symbol]		
[Symbol]	BUFFALO BOX	[Symbol]		[Symbol]		
[Symbol]	CLEANOUT	[Symbol]		[Symbol]		
[Symbol]	SANITARY SEWER	[Symbol]		[Symbol]		
[Symbol]	FORCE MAIN	[Symbol]		[Symbol]		
[Symbol]	CONCRETE SIDEWALK	[Symbol]		[Symbol]		

LOT 1  
C.S.M. NO. 9227  
TAX KEY #NBC  
1257998006  
OWNER: NBB  
PARTNERS LLC

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16230 BELOIT ROAD  
NEW BERLIN, WI

**EXISTING CONDITIONS & DEMOLITION PLAN**

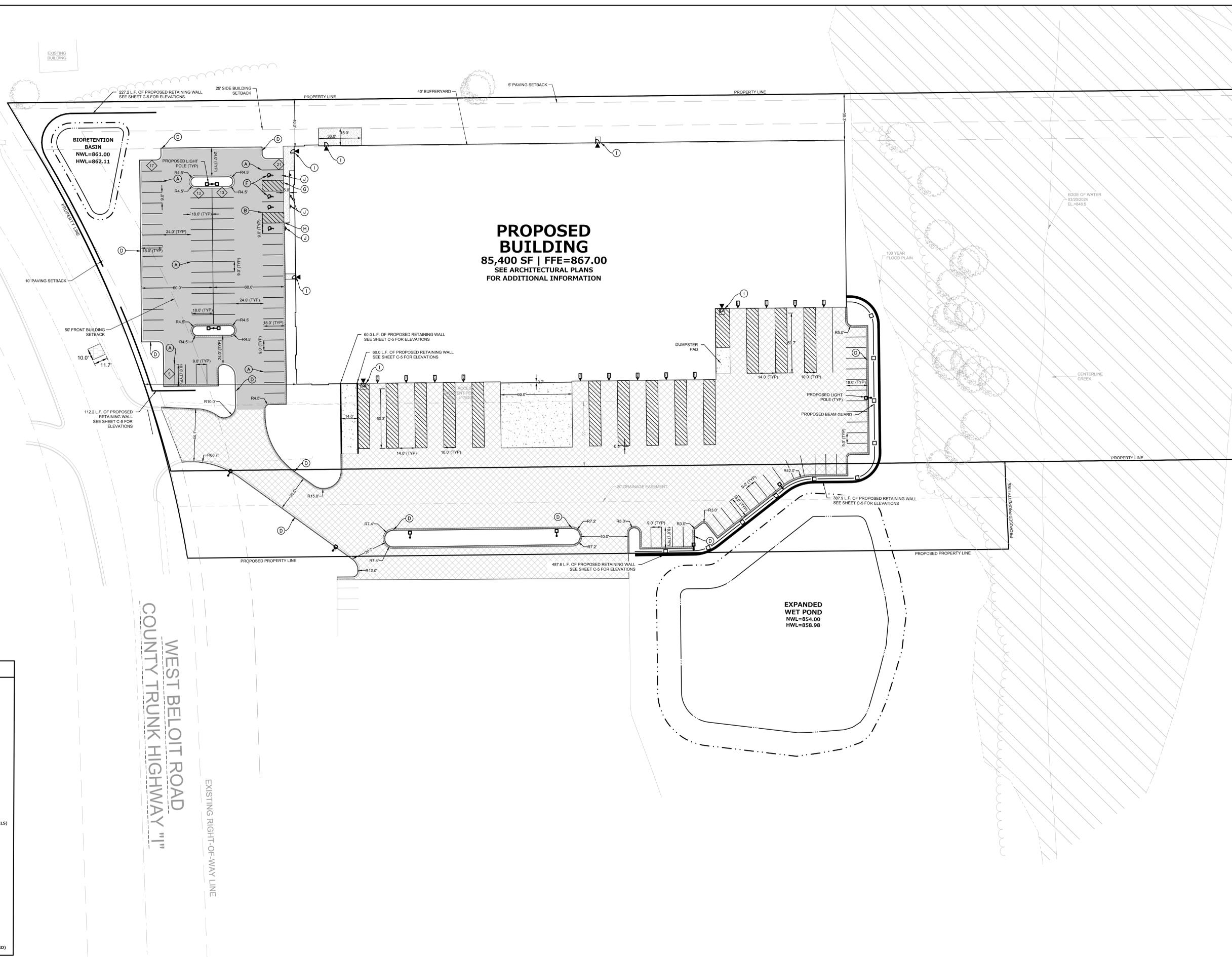
**REVISIONS**


REG. JOB NO. 2557-00-WI  
TOM  
START DATE: 03/20/25  
SCALE: 1" = 30'  
SHEET C-3 of C-11

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EXISTING CONDITIONS & DEMOLITION PLAN

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**PROPOSED BUILDING**  
85,400 SF | FFE=867.00  
SEE ARCHITECTURAL PLANS  
FOR ADDITIONAL INFORMATION

**EXPANDED WET POND**  
NWL=854.00  
HWL=858.98

WEST BELOIT ROAD  
COUNTY TRUNK HIGHWAY 111

**SITE DATA**

SITE AREA:	11.58 AC (504,860 S.F.)
DISTURBANCE LIMITS:	1.59 AC (69,412 S.F.)
PARKING STALLS:	100 STALLS (4 ADA)
BUILDING AREA:	1.96 AC (85,400 S.F.)
GRASS AREA:	8.28 AC (361,045 S.F.)
TOTAL IMPERVIOUS AREA:	3.30 AC (143,815 S.F.)
GREEN SPACE (%)	71.5%

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2

**LEGEND**

	<b>LIGHT DUTY ASPHALT PAVEMENT</b> - 9" - 1" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OR WISDOT STANDARD SPECIFICATIONS, SECTION 301 AND 305. - 4" HMA PAVEMENT (2 LIFTS) - 2" BINDER COURSE - 4 LT 58-28.5 - 2" SURFACE COURSE - 5 LT 58-28.5
	<b>HEAVY DUTY ASPHALT PAVEMENT</b> - 12" - 1" CRUSHED AGGREGATE BASE COURSE CONFORMING TO GRADATION REQUIREMENTS OR WISDOT STANDARD SPECIFICATIONS, SECTION 301 AND 305. - 4" HMA PAVEMENT (2 LIFTS) - 2" BINDER COURSE - 4 LT 58-28.5 - 2" SURFACE COURSE - 5 LT 58-28.5
	<b>CONCRETE BUILDING SIDEWALK</b> - 4" CRUSHED AGGREGATE BASE COURSE (1" DENSE GRADED Limestone) - 5" PCC
	<b>HEAVY DUTY CONCRETE PAVEMENT</b> - 4" CRUSHED AGGREGATE BASE COURSE (1 1/4" DENSE GRADED Limestone) - 6" AVERAGE THICKNESS PCC (4000 PSI)
	<b>PAVEMENT IN PUBLIC R.O.W.</b> - MATCH CITY OF NEW BERLIN SPECIFICATIONS
	<b>4" SOLID STRIPE (REFER TO C-9 FOR DETAILS)</b>
	<b>4" DIAGONAL AT 45" SPACED 2" O.C. (REFER TO C-9 FOR DETAILS)</b>
	<b>30" CURB &amp; GUTTER (REFER TO C-9 FOR DETAILS)</b>
	<b>18" CURB &amp; GUTTER (REFER TO C-9 FOR DETAILS)</b>
	<b>18" REVERSE CURB &amp; GUTTER (REFER TO C-9 FOR DETAILS)</b>
	<b>ADA STALL INSIGNIA (REFER TO C-9 FOR DETAILS)</b>
	<b>TAPER CURB HEAD (REFER TO C-9 FOR DETAILS)</b>
	<b>INTEGRAL CURB AND GUTTER REFER TO C-9 FOR DETAILS)</b>
	<b>BUILDING DOOR SLAB (2% MAX SLOPE WITHIN 5-FT OF DRIVE IN OR MAN DOOR)</b>
	<b>ADA PARKING STALL SIGNAGE WITH BOLLARD</b>
	<b>DRIVE IN DOOR</b>
	<b>MAN DOOR</b>
	<b>PARKING COUNT (FOR INFORMATION ONLY, NOT TO BE PAINTED)</b>

DRAWN: DTL  
DESIGNED: AMH  
REVIEWED: TOM

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16230 BELOIT ROAD  
NEW BERLIN, WI

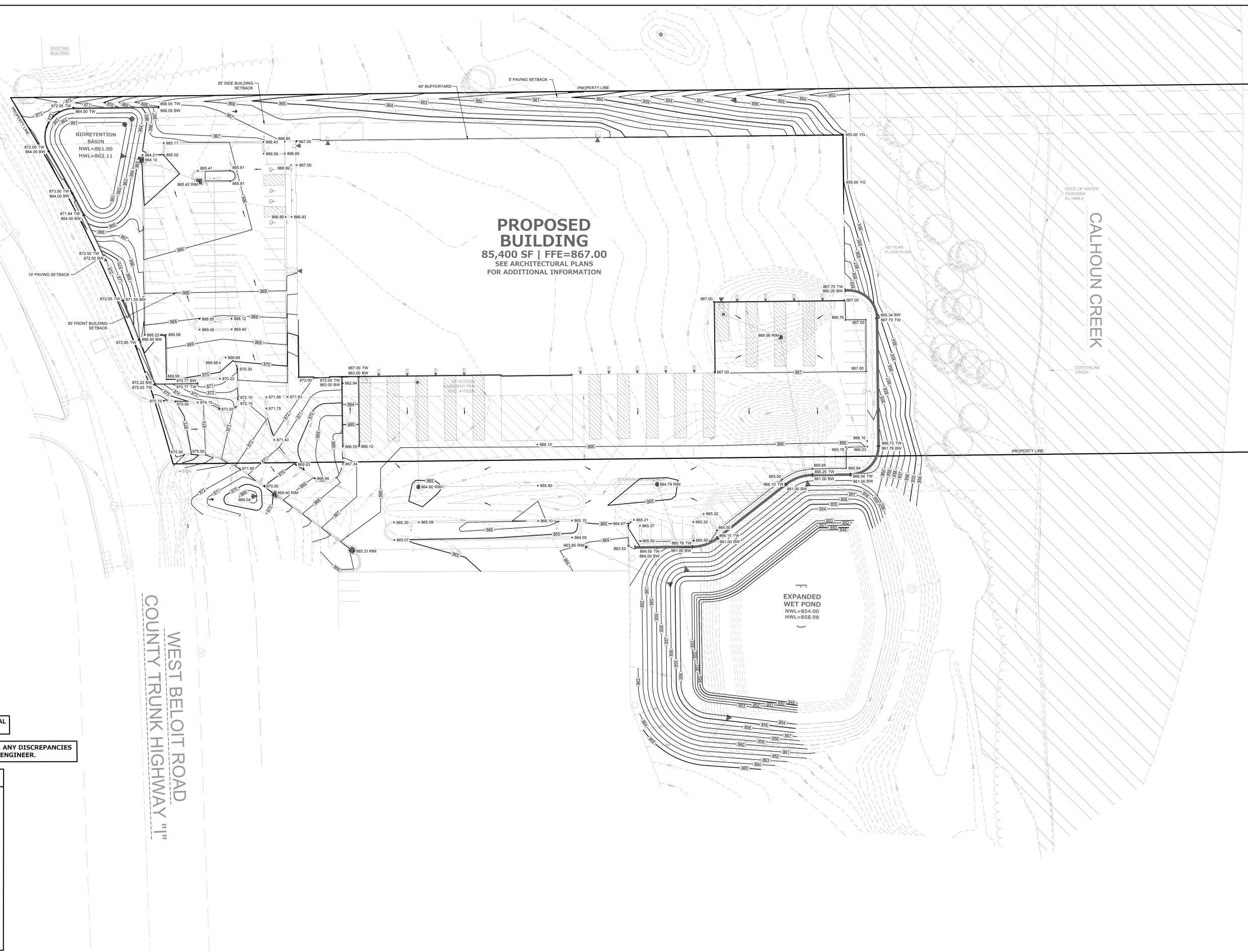
**SITE DIMENSIONAL & PAVING PLAN**

**REVISIONS**


REG JOB NO: 2557-00-WI  
TOM  
START DATE: 03/20/25  
SCALE: 1" = 30'  
SHEET C-4 of C-11

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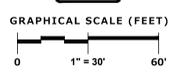
**PROPOSED BUILDING**  
 85,400 SF | FFE=867.00  
 SEE ARCHITECTURAL PLANS  
 FOR ADDITIONAL INFORMATION

**EXPANDED WET POND**  
 NWL=854.00  
 HWL=858.98

**BIORETENTION BASIN**  
 NWL=861.00  
 HWL=862.11

CALHOUN CREEK  
 CENTERLINE CREEK

WEST BELOIT ROAD  
 COUNTY TRUNK HIGHWAY "I"



CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2

ALL GRADING SHALL MEET ADA REQUIREMENTS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

LEGEND	
	SANITARY SEWER MANHOLE
	STORM SEWER MANHOLE
	STORM CATCH BASIN (ROUND CASTING)
	STORM CATCH BASIN (RECTANGULAR CASTING)
	PRECAST FLARED END SECTION
	CLEANOUT
	VALVE BOX
	FIRE HYDRANT
	PROPOSED CONTOUR
	PROPOSED SPOT ELEVATION
	WETLANDS
	FLOODPLAIN
	HIGH WATER LEVEL (HWL)
	DIRECTION OF SURFACE FLOW
	NORMAL WATER LEVEL (NWL)
	DITCH OR SWALE
	DIVERSION SWALE

DESIGNED: ATN  
REVIEWED: TOM  
DRAFTED: DTL

PLAN | DESIGN | DELIVER  
 www.pinnacle-engr.com

**PINNACLE ENGINEERING GROUP**  
 ENGINEERING | NATURAL RESOURCES | SURVEYING

WISCONSIN OFFICE:  
 20725 WATERTOWN ROAD, SUITE 100  
 BROOKFIELD, WI 53196  
 (262) 754-8888  
 CHICAGO | MILWAUKEE | NATIONWIDE

**NEW BERLIN FABRICATION BUILDING**  
 16230 BELOIT ROAD  
 NEW BERLIN, WI

**GRADING PLAN**

REVISIONS	

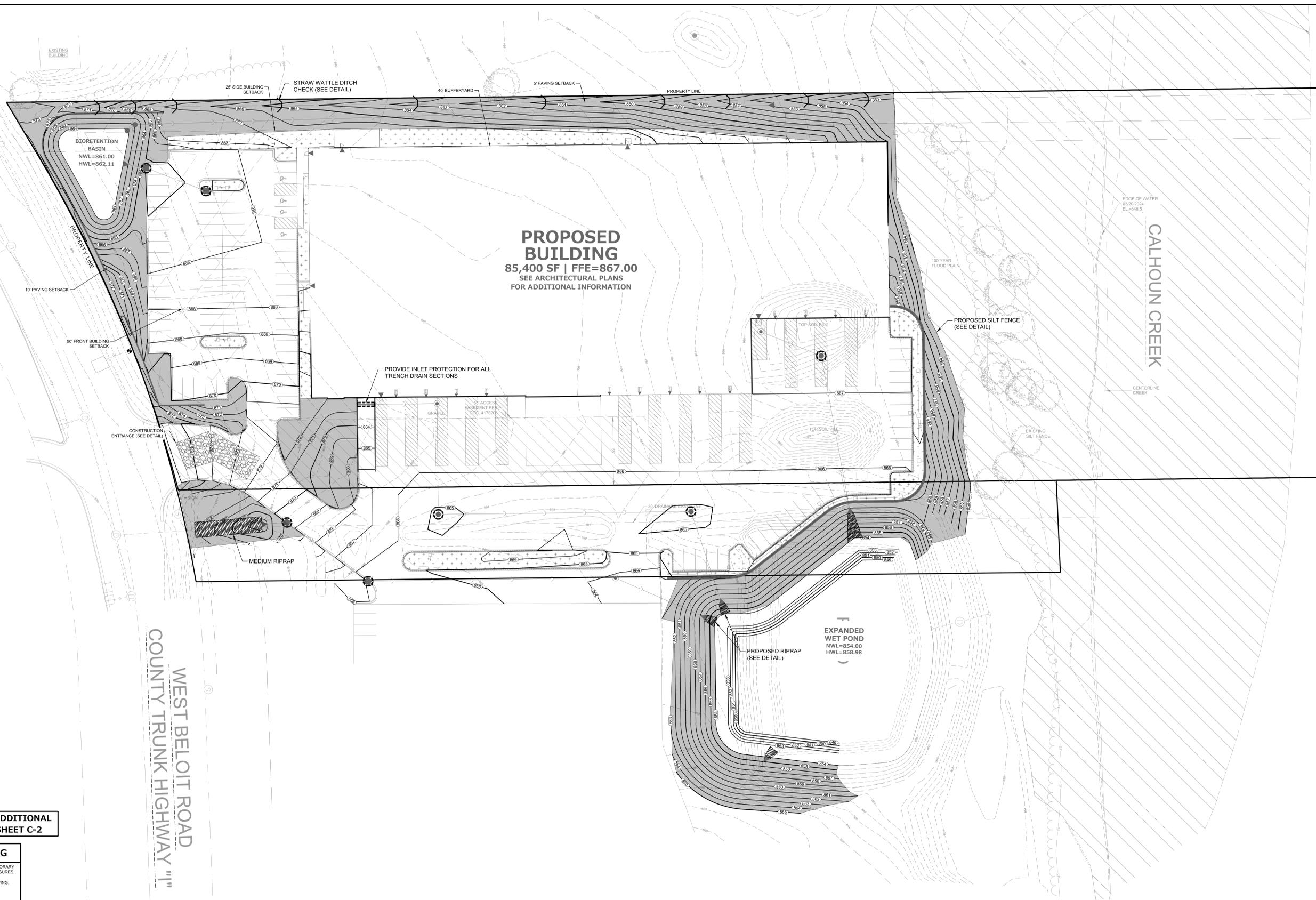
REG. JOB NO. 2557.00-WI	TOM
REG. P.N.	
START DATE: 03/20/25	
SCALE: 1" = 30'	

SHEET  
**C-5**  
 of  
**C-11**

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DESIGNED: DJL  
DRAFTED: DJL  
REVIEWED: ATM  
TOM

Z:\PROJECTS\2021\2557.00-WI\CAD\SHEETS\2557.00 EROSION CONTROL PLAN.DWG



**PROPOSED BUILDING**  
 85,400 SF | FFE=867.00  
 SEE ARCHITECTURAL PLANS  
 FOR ADDITIONAL INFORMATION

**EXPANDED WET POND**  
 NWL=854.00  
 HWL=858.98



GRAPHICAL SCALE (FEET)  
 0 1" = 30' 60'

LEGEND	
	SANITARY SEWER MANHOLE
	STORM SEWER MANHOLE
	STORM STORM CATCH BASIN (ROUND CASTING)
	STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
	PRECAST FLARED END SECTION
	CLEANOUT
	VALVE BOX
	FIRE HYDRANT
	PROPOSED CONTOUR
	PROPOSED SPOT ELEVATION
	WETLANDS
	FLOODPLAIN
	HIGH WATER LEVEL (HWL)
	DIRECTION OF SURFACE FLOW
	NORMAL WATER LEVEL (NWL)
	DITCH OR SWALE
	DIVERSION SWALE
	SILT FENCE
	TYPE INLET PROTECTION
	CONSTRUCTION ENTRANCE
	HYDROSEED
	EROSION CONTROL BLANKET
	STRAW WATTLE DITCH CHECK

**CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET C-2**

CONSTRUCTION SITE SEQCING	
1.	INSTALL PERIMETER SILT FENCE, INLET PROTECTION, TEMPORARY CONSTRUCTION ENTRANCE AND ANY OTHER EROSION CONTROL MEASURES.
2.	DEMOLITION AND REMOVALS OF BUILDING(S), PAVEMENTS, AND LANDSCAPING.
3.	CONDUCT ROUGH GRADING EFFORTS.
4.	CONSTRUCTION OF FOUNDATIONS AND BUILDING.
5.	INSTALL UTILITY PIPING & STRUCTURES.
6.	COMPLETE FINAL GRADING, INSTALLATION OF GRAVEL BASE COURSES, PLACEMENT OF CURBS, PAVEMENTS, WALKS, ETC.
7.	INSTALL TOPSOIL AND LANDSCAPING. IMMEDIATELY STABILIZE DISTURBED AREAS WITH EROSION CONTROL.
8.	EROSION CONTROL MEASURES SHALL BE REMOVED ONLY AFTER SITE CONSTRUCTION IS COMPLETE WITH ALL SOIL SURFACES HAVING AN ESTABLISHED VEGETATIVE COVER.

CONTRACTOR MAY MODIFY SEQCING AFTER ITEM 1 AS NEEDED TO COMPLETE CONSTRUCTION IF EROSION CONTROLS ARE MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION SITE EROSION CONTROL REQUIREMENTS.

PLAN | DESIGN | DELIVER  
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**NEW BERLIN FABRICATION BUILDING**  
 16230 BELOIT ROAD  
 NEW BERLIN, WI

**EROSION CONTROL PLAN**

REVISIONS

NO.	DATE	DESCRIPTION

REG. JOB NO. 2557.00-WI  
 REG. NO. 2557.00-WI  
 START DATE: 03/20/25  
 SCALE: 1" = 30'

SHEET  
 C-6  
 of  
 C-11

www.pinnacle-engr.com

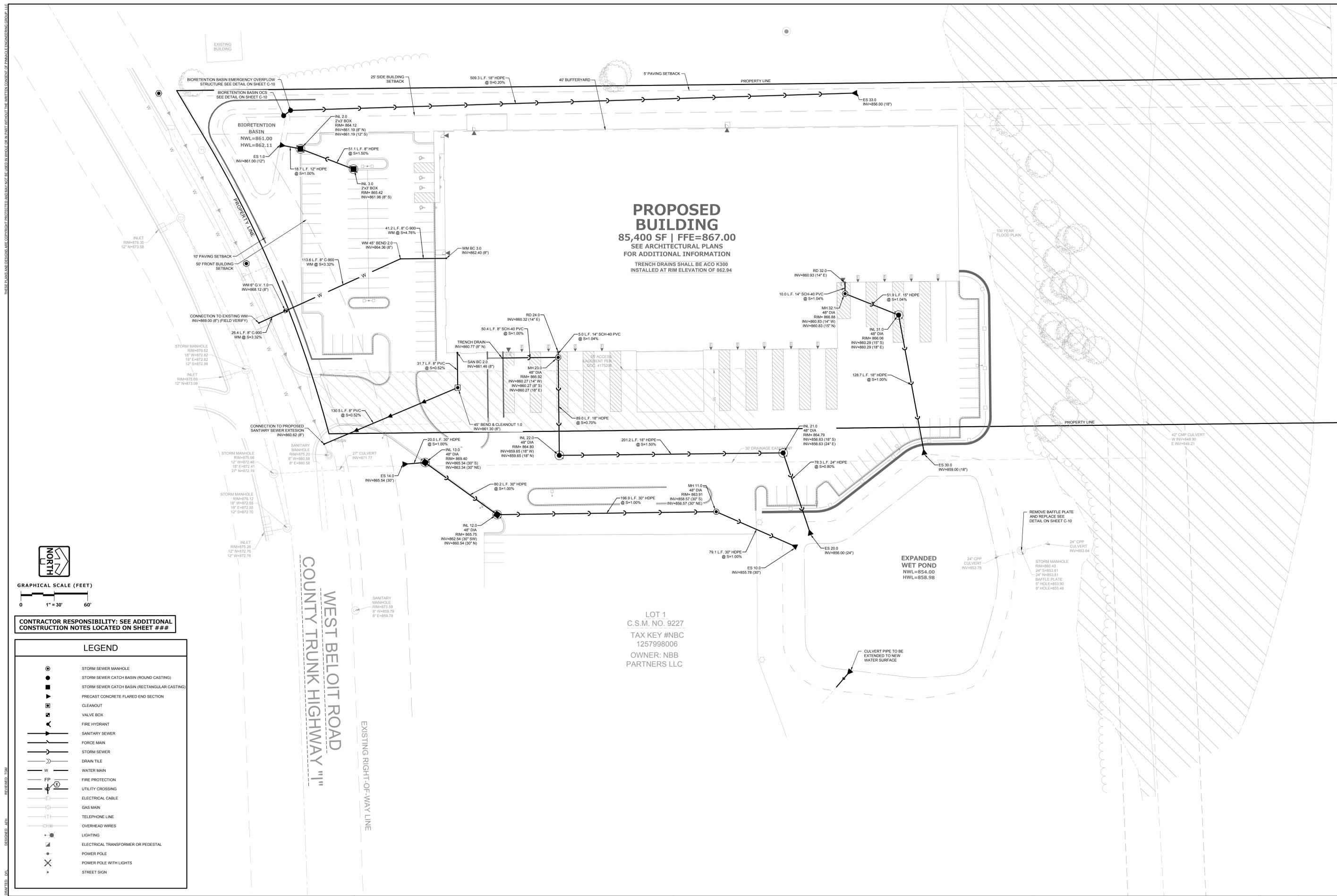
EROSION CONTROL PLAN

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www.pinnacle-engr.com

# PROPOSED BUILDING

85,400 SF | FFE=867.00  
SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION  
TRENCH DRAINS SHALL BE ACO K300  
INSTALLED AT RIM ELEVATION OF 862.94



GRAPHICAL SCALE (FEET)  
0 1" = 30' 60'

CONTRACTOR RESPONSIBILITY: SEE ADDITIONAL CONSTRUCTION NOTES LOCATED ON SHEET ###

LEGEND	
	STORM SEWER MANHOLE
	STORM SEWER CATCH BASIN (ROUND CASTING)
	STORM SEWER CATCH BASIN (RECTANGULAR CASTING)
	PRECAST CONCRETE FLARED END SECTION
	CLEANOUT
	VALVE BOX
	FIRE HYDRANT
	SANITARY SEWER
	FORCE MAIN
	STORM SEWER
	DRAIN TILE
	WATER MAIN
	FIRE PROTECTION
	UTILITY CROSSING
	ELECTRICAL CABLE
	GAS MAIN
	TELEPHONE LINE
	OVERHEAD WIRES
	LIGHTING
	ELECTRICAL TRANSFORMER OR PEDESTAL
	POWER POLE
	POWER POLE WITH LIGHTS
	STREET SIGN

WEST BELOIT ROAD  
COUNTY TRUNK HIGHWAY "I"

LOT 1  
C.S.M. NO. 9227  
TAX KEY #NBC  
1257998006  
OWNER: NBB  
PARTNERS LLC

EXPANDED WET POND  
NWL=854.00  
HWL=858.98

## NEW BERLIN FABRICATION BUILDING

16230 BELOIT ROAD  
NEW BERLIN, WI

## UTILITY PLAN

### REVISIONS

NO.	DESCRIPTION	DATE

PLAN | DESIGN | DELIVER  
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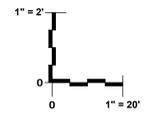
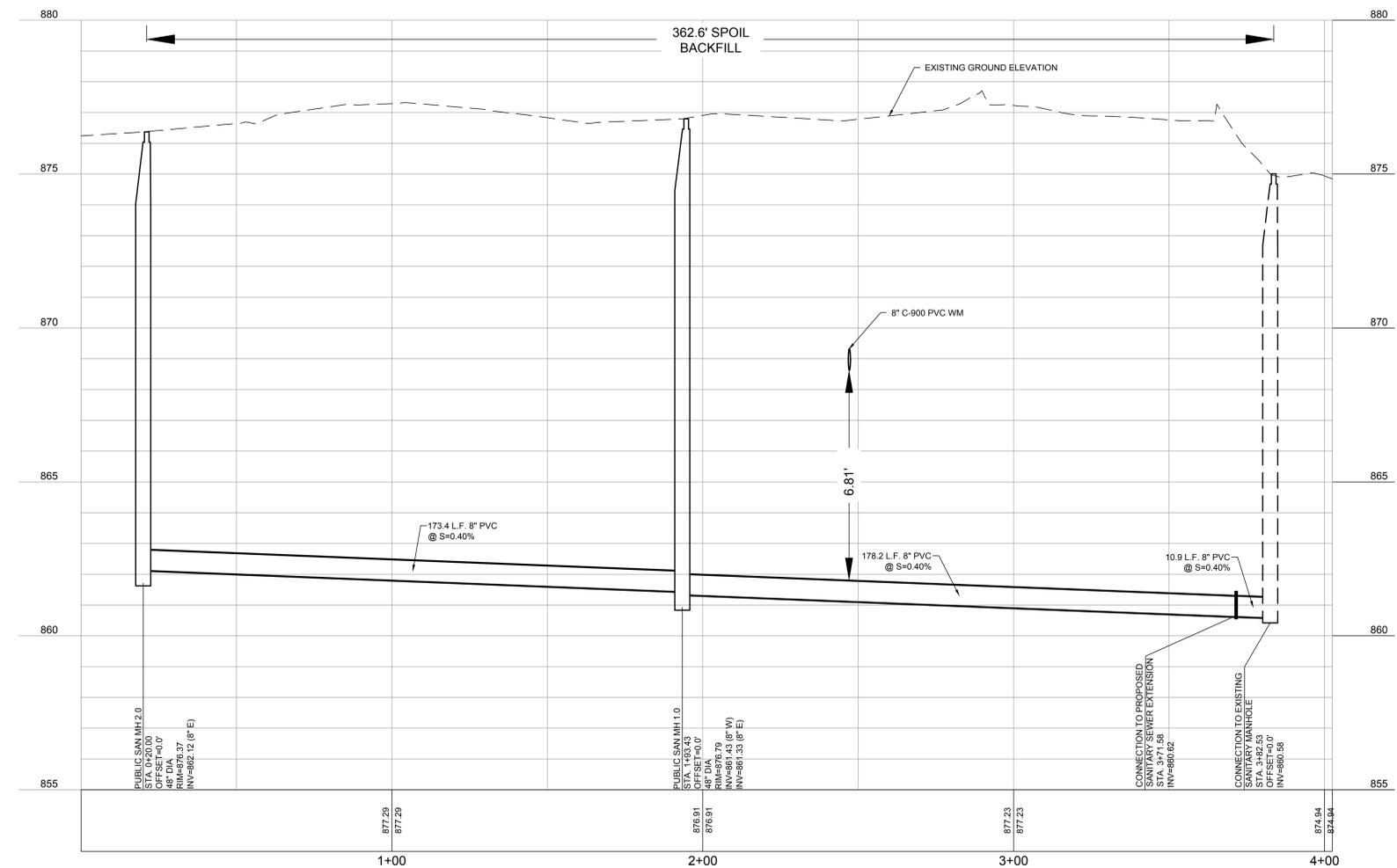
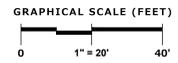
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DRAFTED: DJL  
DESIGNED: AJH  
REVIEWED: TOM

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PUBLIC UTILITY PLAN & PROFILE

# WEST BELOIT ROAD COUNTY TRUNK HIGHWAY



PLAN | DESIGN | DELIVER  
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## NEW BERLIN FABRICATION BUILDING

16230 BELOIT ROAD  
NEW BERLIN, WI

## PUBLIC UTILITY PLAN & PROFILE

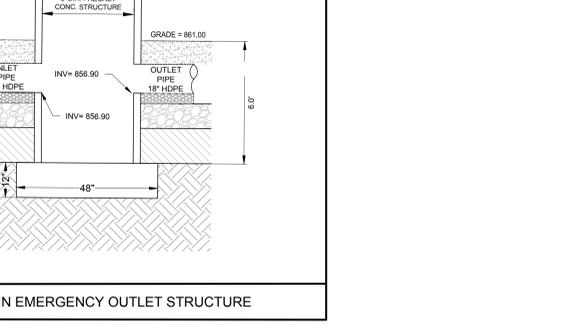
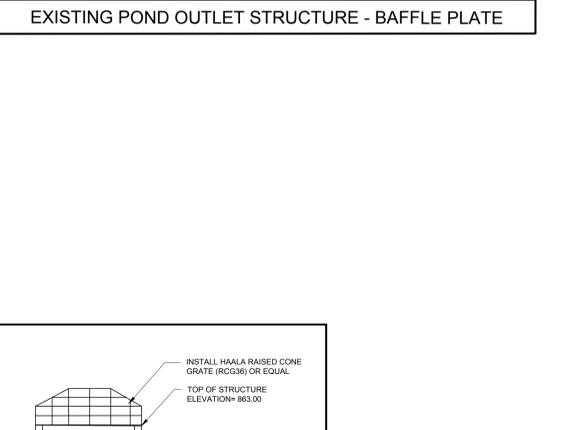
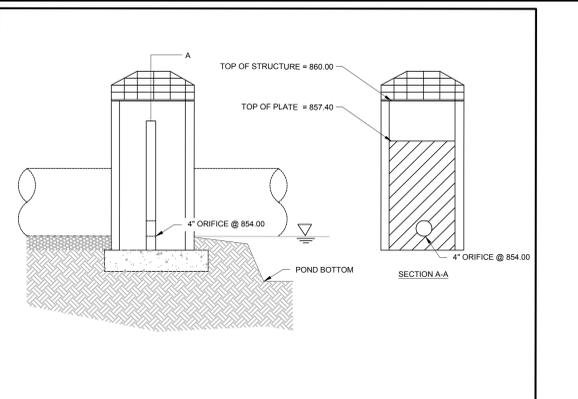
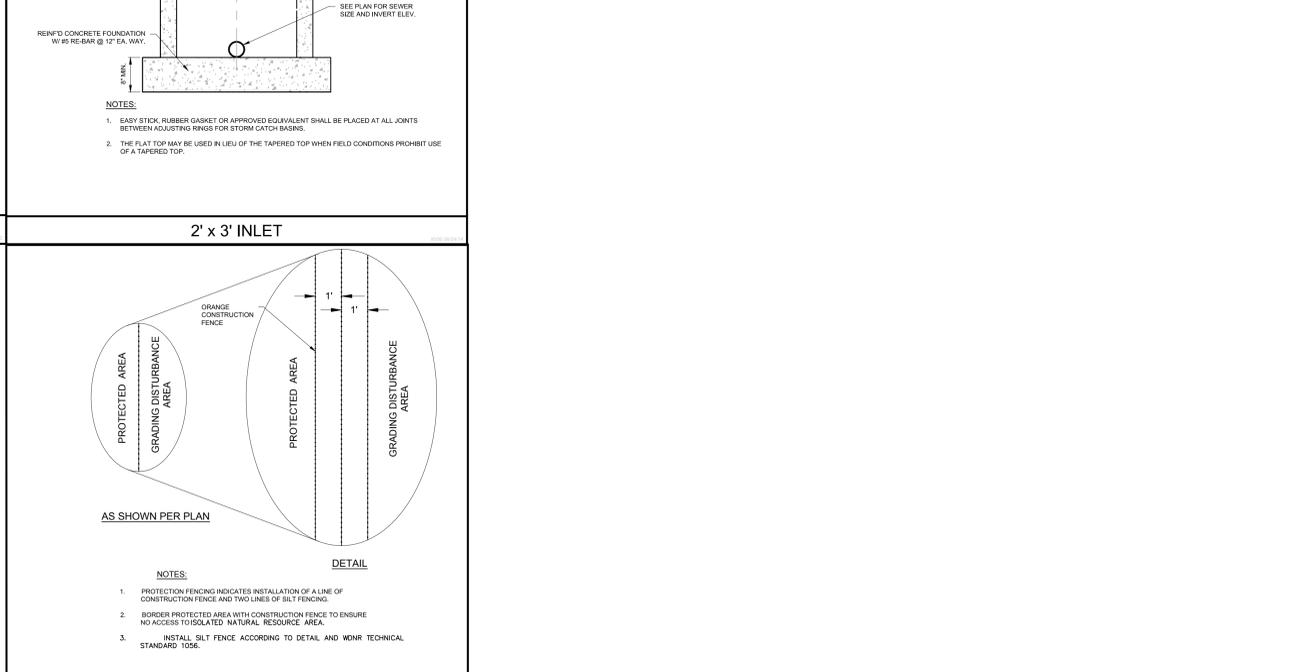
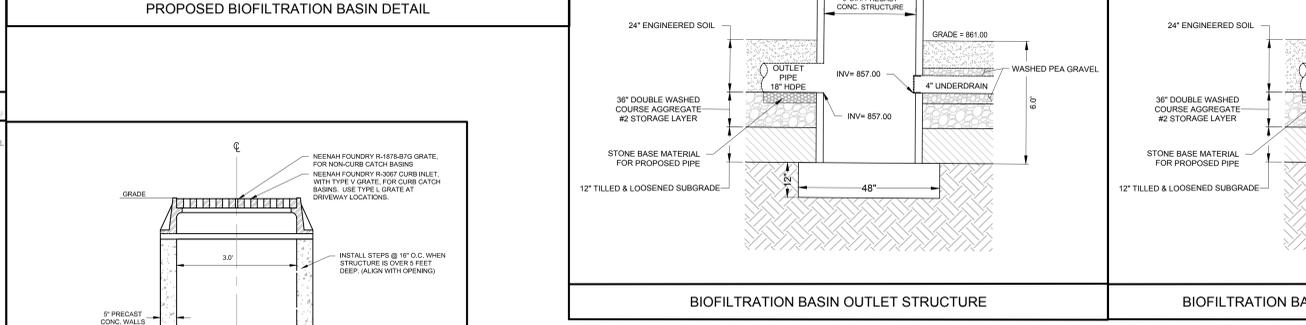
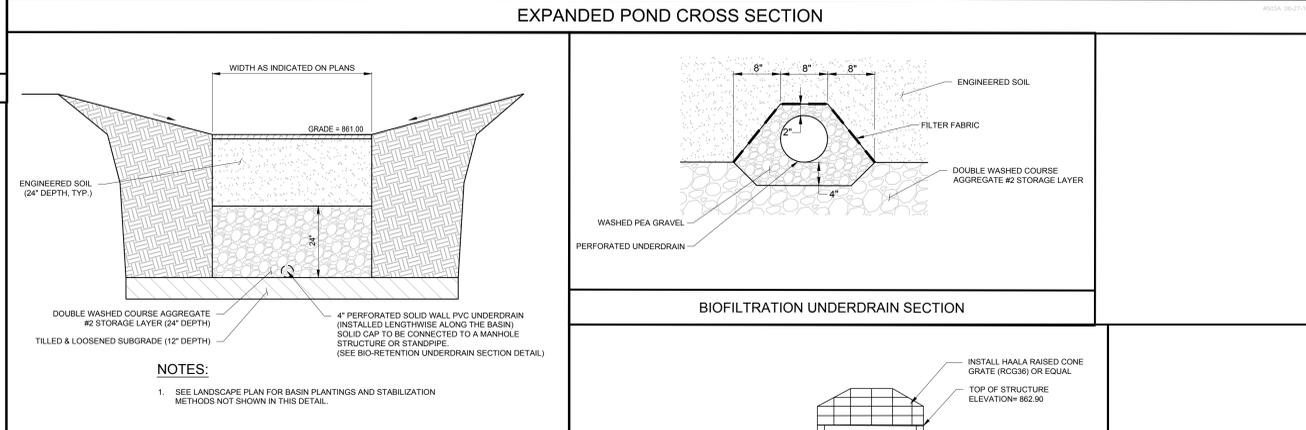
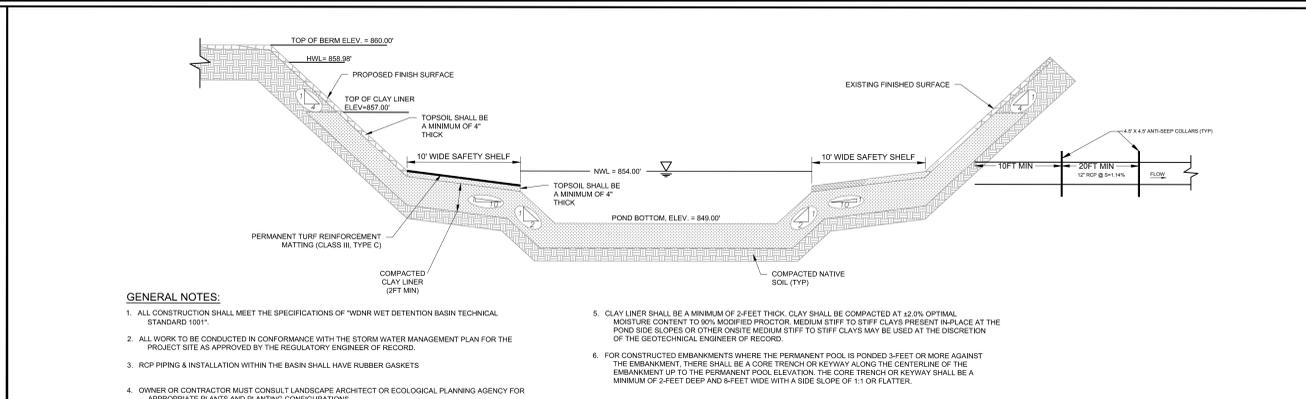
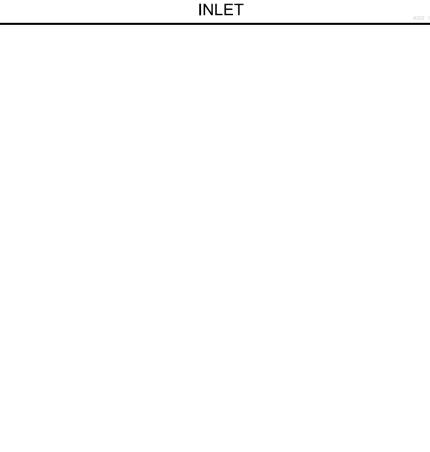
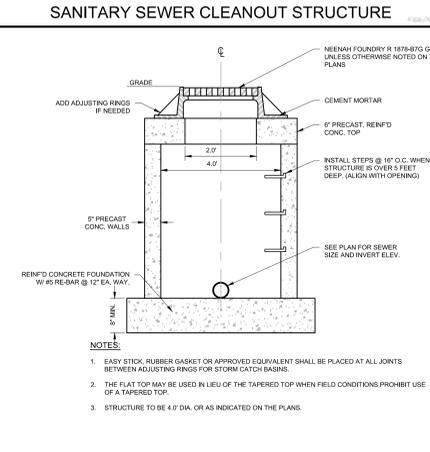
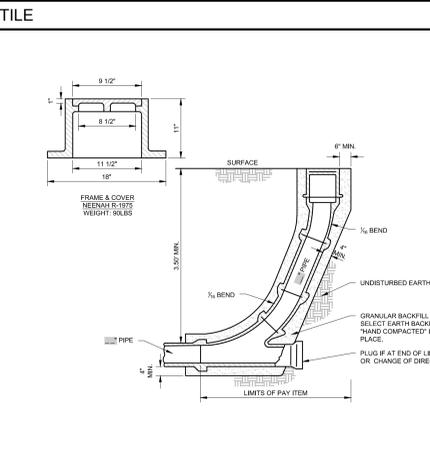
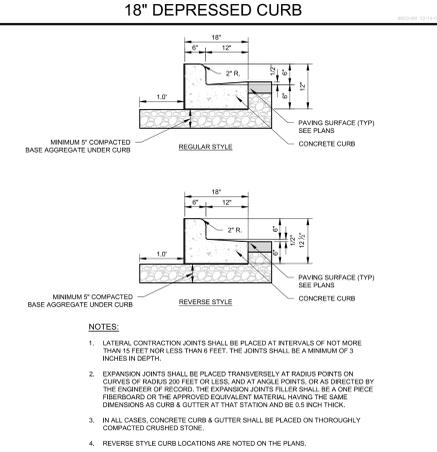
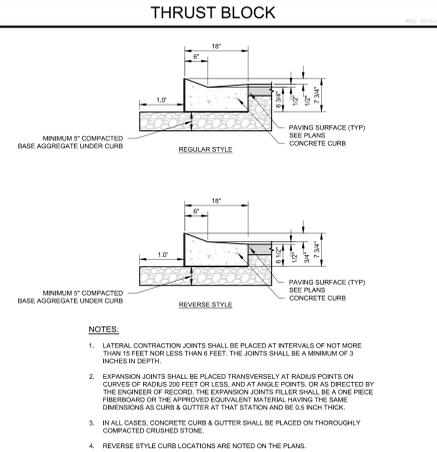
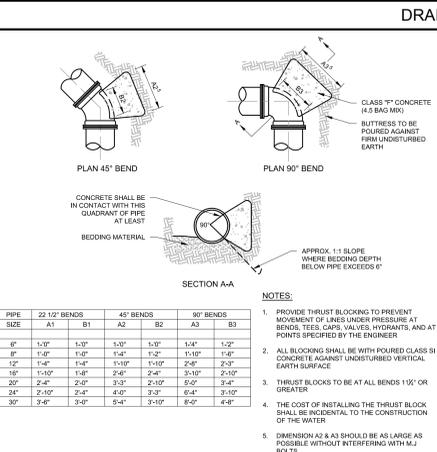
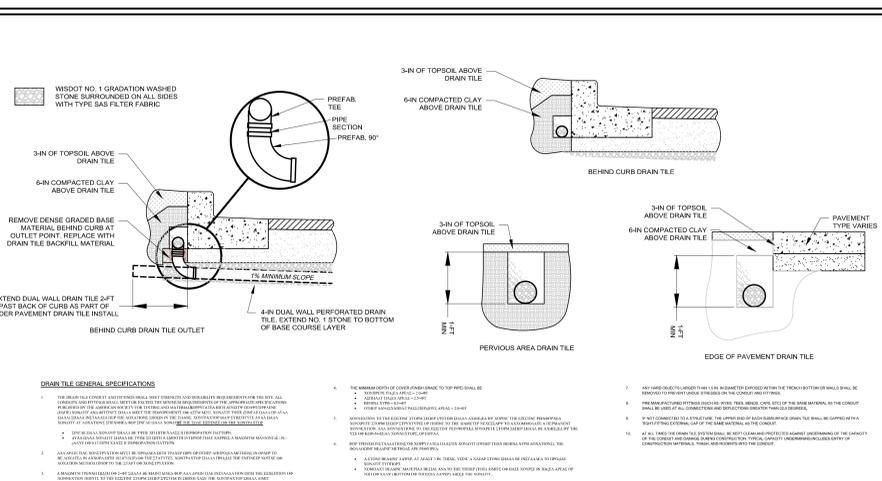
REVISIONS	

REG. JOB NO. 2557.00-WI  
TOM  
SCALE: 1" = 30'

SHEET  
C-8  
of  
C-11



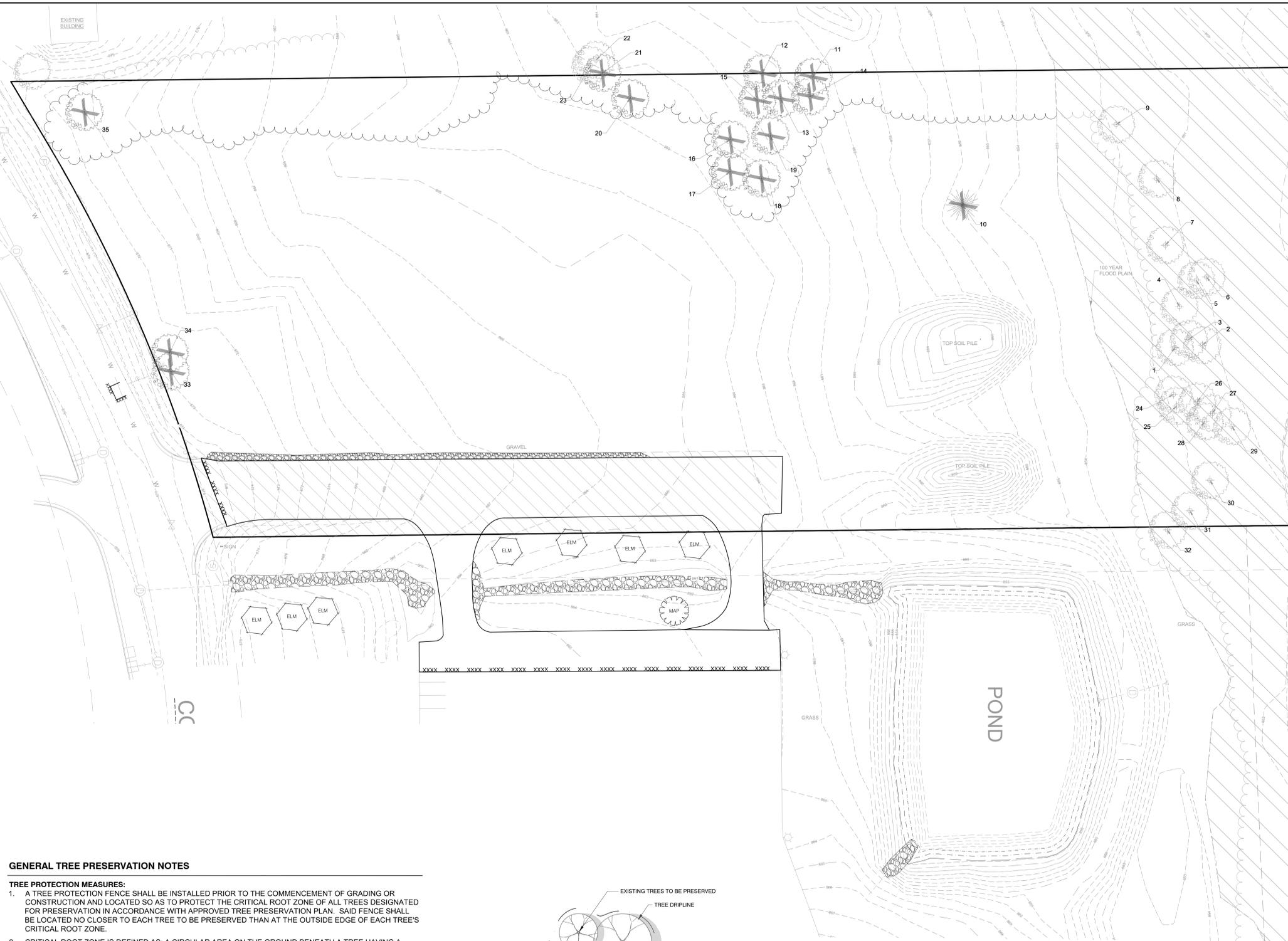
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DESIGNED: JBJ  
DRAWN: JBJ  
REVIEWED: DUB

Z:\PROJECTS\2021\2557-00-W\CAD\2557.00 LANDSCAPE PLAN.DWG



TREE INVENTORY KEY	
	DECIDUOUS TREES TO BE REMOVED
	EVERGREEN TREES TO BE REMOVED
	DECIDUOUS TREES
	EVERGREEN TREES

- NOTES**
- TREES NOT ON THE PROPERTY OR IN THE R.O.W. WERE NOT INVENTORIED
  - TREES THAT IN POOR CONDITION AND LARGE ARE SHOWN FOR REMOVAL PURPOSES.

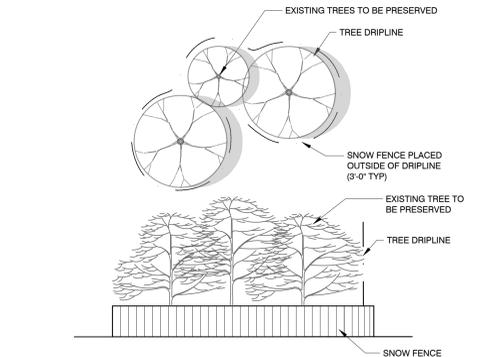
Tree Number	Diameter Inches	Tree Species	Tree Condition	Single/Multistem	Remove
1	5	Ulmus - Elm	Good	Single Stem	
2	12	Ulmus - Elm	Good	Single Stem	
3	7	Ulmus - Elm	Good	Single Stem	
4	5	Ulmus - Elm	Good	Single Stem	
5	7	Juglans - Black Walnut	Good	Single Stem	
6	6	Ulmus - Elm	Good	Single Stem	
7	6	Ulmus - Elm	Good	Single Stem	
8	5	Ulmus - Elm	Good	Single Stem	
9	6	Ulmus - Elm	Good	Single Stem	
10	19	Pinus - Pine	Good	Single Stem	Yes
11	15	Juglans - Black Walnut	Good	Single Stem	Yes
12	33	Acer - Maple	Poor	Single Stem	Yes
13	12	Juglans - Black Walnut	Good	Single Stem	Yes
14	11	Juglans - Black Walnut	Good	Single Stem	Yes
15	17	Juglans - Black Walnut	Good	Single Stem	Yes
16	9	Juglans - Black Walnut	Good	Single Stem	Yes
17	6	Juglans - Black Walnut	Good	Single Stem	Yes
18	17	Juglans - Black Walnut	Good	Single Stem	Yes
19	9	Juglans - Black Walnut	Good	Single Stem	Yes
20	10	Juglans - Black Walnut	Good	Single Stem	Yes
21	9	Ulmus - Elm	Good	Single Stem	Yes
22	13	Juglans - Black Walnut	Good	Single Stem	Yes
23	8	Ulmus - Elm	Fair	Single Stem	
24	6	Ulmus - Elm	Good	Single Stem	
25	9	Ulmus - Elm	Good	Single Stem	
26	9	Ulmus - Elm	Good	Single Stem	
27	7	Juglans - Black Walnut	Good	Single Stem	
28	5	Ulmus - Elm	Good	Single Stem	
29	9	Ulmus - Elm	Good	Single Stem	
30	25	Ulmus - Elm	Good	Multi-Stem	
31	9	Juglans - Black Walnut	Good	Single Stem	
32	24	Acer - Maple	Good	Multi-Stem	
33	36	Acer - Maple	Good	Single Stem	Yes
34	25	Acer - Maple	Good	Single Stem	Yes
35	20	Acer - Maple	Good	Single Stem	Yes

Required Tree replacement	Number of
Size of deciduous tree removed:	2.5" cal trees
5-7"	1
8-11"	45
12"+	8
2.5" deciduous tree replacement total	144
Size of evergreen tree removed:	8' conifers
10' ht	1
8' evergreen tree replacement total	3

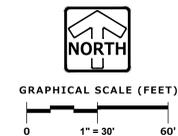
TREE TRANSPLANT KEY	
	5 TREES TO BE TRANSPLANTED WITH A TREE SPADE - SEE LANDSCAPE PLAN FOR LOCATIONS
	1 TREES TO BE TRANSPLANTED WITH A TREE SPADE - SEE LANDSCAPE PLAN FOR LOCATION

**GENERAL TREE PRESERVATION NOTES**

- TREE PROTECTION MEASURES:**
- A TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF GRADING OR CONSTRUCTION AND LOCATED SO AS TO PROTECT THE CRITICAL ROOT ZONE OF ALL TREES DESIGNATED FOR PRESERVATION IN ACCORDANCE WITH APPROVED TREE PRESERVATION PLAN. SAID FENCE SHALL BE LOCATED NO CLOSER TO EACH TREE TO BE PRESERVED THAN AT THE OUTSIDE EDGE OF EACH TREE'S CRITICAL ROOT ZONE.
  - CRITICAL ROOT ZONE IS DEFINED AS: A CIRCULAR AREA ON THE GROUND BENEATH A TREE HAVING A RADIUS EQUAL TO ONE FOOT (1') FOR EVERY ONE INCH (1") OF TREE DIAMETER AT BREAST HEIGHT. THE CIRCULAR AREA NEED NOT BE EXACTLY CENTERED AROUND THE TREE, BUT IT SHALL BE POSITIONED SO THAT NO DISTURBANCE OCCURS CLOSER TO THE TREE THAN ONE-HALF (1/2) THE RADIUS OF THE CIRCLE.
  - TREE PROTECTION FENCING SHALL CONSIST OF BRIGHTLY COLORED PLASTIC MESH OR SNOW FENCING A MINIMUM OF FORTY EIGHT INCHES (48") IN HEIGHT. IT SHALL BE SECURELY ATTACHED TO METAL FENCE POSTS THAT ARE DRIVEN INTO THE GROUND AND THAT ARE SPACED NO MORE THAN EIGHT FEET (8') APART.
  - NO ENCROACHMENT, GRADING, TRENCHING, FILLING, COMPACTION, WASTE DUMPING, CONCRETE WASHOUT, CHANGE IN SOIL CHEMISTRY, OR STORAGE OF MATERIALS, EQUIPMENT OR VEHICLES SHALL OCCUR WITHIN THE FENCED AREAS.
  - WHEN ROOTS TWO INCHES (2") IN DIAMETER AND GREATER MUST BE SEVERED, THE ENDS SHALL BE CUT CLEANLY WITH A SAW UNDER THE SUPERVISION OR DIRECTION OF AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE TO PREVENT THE ONSET OF DECAY. IF THEY ARE ACCIDENTALLY BROKEN OR CRUSHED, THE ROOT SHALL BE SAW CUT ABOVE THE RAGGED END. IN ALL CASES, THE CUT ROOTS SHALL BE IMMEDIATELY BURIED, MULCHED, OR OTHERWISE KEPT MOIST TO PRESERVE VIABILITY.
  - TREE PROTECTION FENCING SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF CONSTRUCTION, AS DETERMINED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT.
  - SUPPLEMENTAL WATERING OF PROTECTED TREES WILL BE NEEDED DURING SUMMER MONTHS OR DROUGHT CONDITIONS.



**1 TREE PROTECTION**  
1 1/2" = 1'-0"  
32 93-05



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WISCONSIN OFFICE:  
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BROOKFIELD, WI 53106  
(262) 754-8888  
CHICAGO | MILWAUKEE | NATIONWIDE

**NEW BERLIN FABRICATION BUILDING**  
16230 BELOIT ROAD  
NEW BERLIN, WI

**TREE INVENTORY**

**REVISIONS**

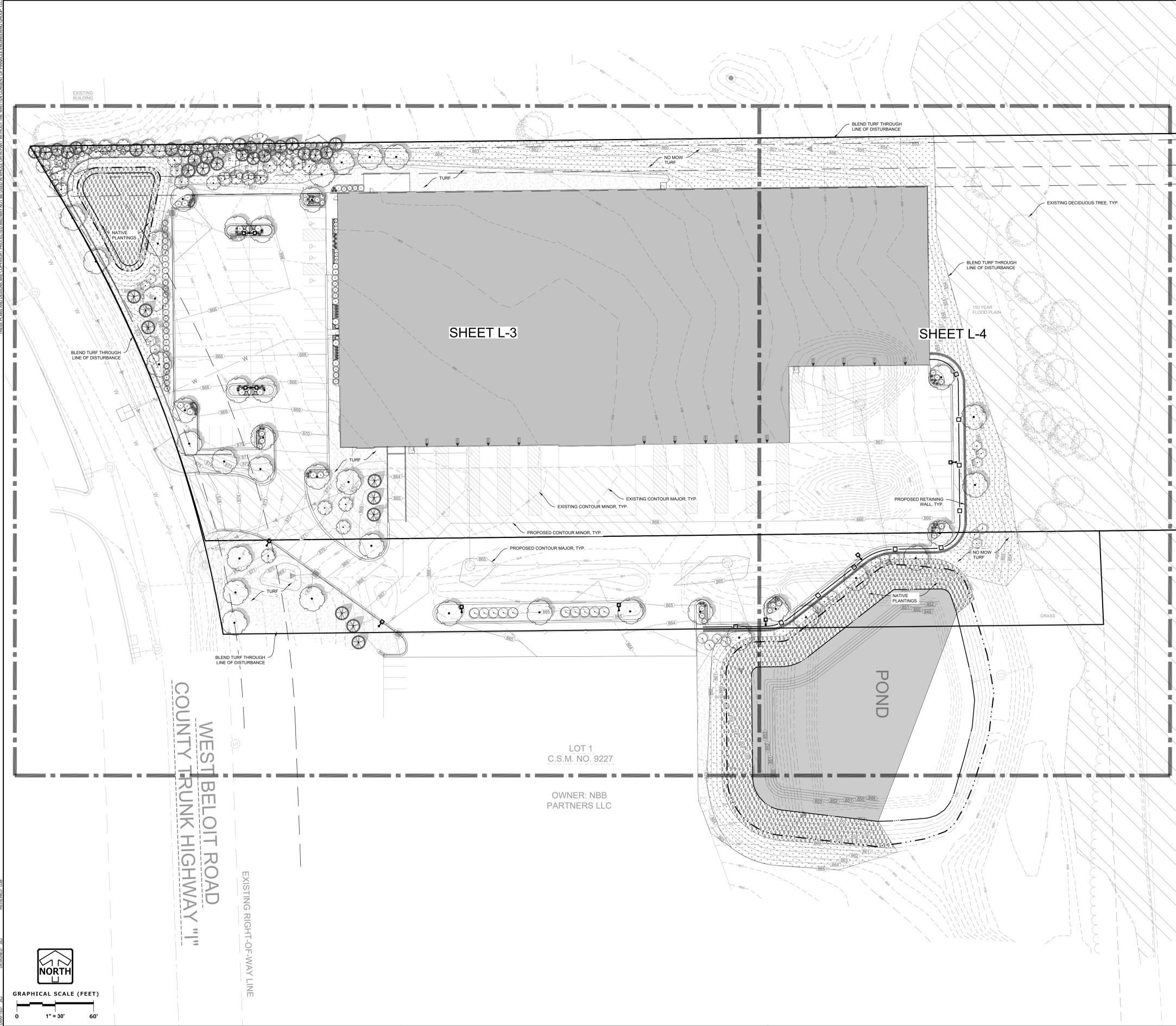
NO.	DATE	DESCRIPTION

REC'D ON 10/25/21 00:00  
TGM  
SCALE 1" = 30'  
START DATE 09/20/21  
SHEET 1-1 OF 1-5

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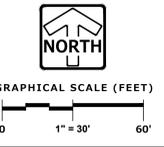
TREE INVENTORY

DESIGNED: JBJ  
DRAWN: JBJ  
CHECKED: JBJ  
REVIEWED: JBJ  
DATE: 09/20/23  
PROJECT: 20212557.00-WI-CAD-SHEETS\2557.00 LANDSCAPE PLAN.DWG



NOTE: CONCEPT PLAN TO BE FINALIZED

SYMBOL	QTY	BOTANICAL / COMMON NAME	SIZE	REMARKS
<b>TREES</b>				
38		DECIDUOUS TREE		
		Acer freemanii / Autumn Fantasy / Autumn Fantasy Maple	2' Cal.	50' T x 40' W
		Celtis occidentalis / Chicagoland / Chicagoland Hackberry	2' Cal.	50' T x 40' W
		Gleditsia triacanthos / Shademaster / Shademaster Locust	2' Cal.	55' T x 50' W
		Gymnocladus dioica / McKBranched / Decal Kentucky Coffee Tree	2' Cal.	50' T x 40' W
		Quercus x schuetti / Schuetti Oak	2' Cal.	70' T x 65' W
		Tilia tomentosa / Sterling / Sterling Silver Linden	2' Cal.	60' T x 35' W
		Ulmus x Morton Glossy / Triumph Elm	2' Cal.	55' T x 40' W
4		ORNAMENTAL TREE		
		Amelanchier x Autumn Brilliance / Autumn Brilliance Serviceberry	7' HL	20' T x 20' W
		Cercis canadensis / Eastern Redbud Multi-stem	7' HL	25' T x 25' W
		Malus x Prairie Maid / Prairie Maid Crabapple	1.5' Cal.	20' T x 25' W
		Malus x Zumi / Redbud Crab Apple	1.5' Cal.	18' T x 20' W
		Malus x Sugar Tyme / Sugar Tyme Crabapple	1.5' Cal.	25' T x 25' W
9		EVERGREEN TREE		
		Juniperus virginiana / Eastern Red Cedar	6' HL	35' T x 17' W
		Picea abies / Norway Spruce	6' HL	60' T x 28' W
		Picea glauca / Denzasi / Black Hills Spruce	6' HL	30' T x 15' W
		Pinus strobus / White Pine	6' HL	65' T x 30' W
<b>SHRUBS</b>				
14		LARGE EVERGREEN SHRUB		
		Juniperus chinensis 'lowa' / Iowa Juniper	4' HL	12' T x 5' W
		Juniperus chinensis 'Trautman' / Trautman Juniper	4' HL	12' T x 4' W
		Juniperus chinensis 'Mountbatten' / Chinese Juniper	4' HL	15' T x 7' W
		Thuja occidentalis 'Holmstrup' / Holmstrup Cedar	4' HL	14' T x 4' W
		Thuja occidentalis 'Smaragd' / Emerald Green Arborvitae	4' HL	10' T x 4' W
18		LARGE DECIDUOUS SHRUB		
		Aronia arbutifolia / Brilliantissima / Brilliant Red Chokeberry	3 gal.	7' T x 6' W
		Cornus sanguinea / Anna's Winter Orange / Anna's Winter Orange Dogwood	3 gal.	5' T x 5' W
		Hepacodium miconoides 'SMNHMF' / Temple of Bloom Seven Son Flower	6' HL	15' T x 10' W
		Physocarpus opulifolius 'Center Glow' / Center Glow Ninebark	3 gal.	9' T x 9' W
41		MEDIUM EVERGREEN SHRUB		
		Euonymus fortunei 'Vegetus Low' / Low Bigleaf Wintercreeper	3 gal.	4' T x 4' W
		Juniperus chinensis 'Sea Green' / Sea Green Juniper	3 gal.	5' T x 6' W
		Juniperus virginiana 'Grey Owl' / Grey Owl Redcedar	3 gal.	3' T x 5' W
		Pinus mugo 'Pumilio' / Dwarf Mugo Pine	3 gal.	5' T x 5' W
		Taxus x media 'Tauntoni' / Taunton Yew	3 gal.	4' T x 6' W
		Thuja occidentalis 'Little Giant' / Little Giant Arborvitae	3 gal.	5' T x 5' W
40		MEDIUM DECIDUOUS SHRUB		
		Hydrangea paniculata 'SMNHPH' / Little Lime Punch Hydrangea	3 gal.	5' T x 5' W
		Hydrangea quercifolia 'PIHG4' / Jetstream Oakleaf Hydrangea	3 gal.	5' T x 5' W
		Rosa rugosa 'Blanc de Coubert' / Blanc de Coubert Rugosa Rose	3 gal.	5' T x 5' W
		Syringa meyeri 'Palibin' / Dwarf Korean Lilac	3 gal.	5' T x 5' W
		Viburnum dentatum 'dearml' 'SMVDBL' / All That Glows Arrowwood Viburnum	3 gal.	5' T x 5' W
		Weigela florida 'Wine & Roses' / Wine & Roses Weigela	3 gal.	5' T x 5' W
3		SMALL EVERGREEN SHRUB		
		Juniperus horizontalis 'Blue Forest' / Blue Forest Creeping Juniper	2 gal.	1' T x 4' W
		Juniperus sabina 'Buffalo' / Buffalo Juniper	2 gal.	1' T x 6' W
		Pinus mugo 'Slowmound' / Slowmound Mugo Pine	3 gal.	3' T x 3' W
		Taxus x media 'SMNTHDB' / Stonehenge Dark Druid Yew	2 gal.	3' T x 3' W
		Taxus x media 'Everlow' / Everlow Yew	2 gal.	3' T x 5' W
		Thuja occidentalis 'Congabe' / Fire Chief Arborvitae	2 gal.	2' T x 3' W
10		SMALL DECIDUOUS SHRUB		
		Cornus stolonifera 'Arctic Fire' / Arctic Fire Dogwood	2 gal.	3' T x 3' W
		Hydrangea arborescens 'NCHA2' / Invisibelle Spirit II Hydrangea	2 gal.	3' T x 3' W
		Itea virginica 'SMNVDFO' / Scintillandii Sweetspire	2 gal.	3' T x 3' W
		Rosa x Coral Cove / Coral Cove Rose	2 gal.	3' T x 3' W
		Syringa x 'SMNJRPU' / Bloominger Dwarf Purple Lilac	2 gal.	3' T x 3' W
		Weigela florida 'Dark Horse' / Dark Horse Weigela	2 gal.	3' T x 3' W
63		TALL ORNAMENTAL GRASS		
		Andropogon gerardi 'Dancing Wind' / Dancing Wind Big Blue Stem	1 gal.	36" T x 30" W
		Deschampsia cespitosa 'Schottland' / Schottland Tufted Hair Grass	1 gal.	36" T x 30" W
		Miscanthus sinensis 'Oktoberfest' / Oktoberfest Miscanthus	1 gal.	48" T x 40" W
		Panicum virgatum 'Northwind' / Northwind Switch Grass	1 gal.	48" T x 30" W
		Pennisetum alopecuroides 'Cassian' / Cassian Fountain Grass	1 gal.	20" T x 30" W
6		SHORT ORNAMENTAL GRASS		
		Miscanthus sinensis 'Little Kitten' / Little Kitten Eulalia Grass	1 gal.	24" T x 24" W
		Pennisetum alopecuroides 'Burgundy Bunny' / Burgundy Bunny Dwarf Fountain Grass	1 gal.	12" T x 15" W
		Schizachyrium scoparium 'Blue Heaven' / Blue Heaven Little Bluestem	1 gal.	26" T x 26" W
		Sporobolus heterolepis 'Tara' / Tara Prairie Dropseed	1 gal.	18" T x 18" W
<b>SHRUB AREAS</b>				
70		PENNIALS / VARIOUS SPECIES	4.5" cont.	
<b>GROUND COVERS</b>				
	13,992 sf	Native Plantings / Agrecol Rainwater Renewal Seed Mix		
	28,296 sf	Turf Hydroseed / Reinders - Cadet 70/30 Fescue/Blue Mix		
	36,735 sf	Turf Hydroseed Low Grow / Reinders No Mow/Low Grow Mix		



WEST BELOIT ROAD  
COUNTY TRUNK HIGHWAY "I"

EXISTING RIGHT-OF-WAY LINE

LOT 1  
C.S.M. NO. 9227  
OWNER: NBB PARTNERS LLC

PLAN | DESIGN | DELIVER  
www.pinnacle-engr.com

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**PINNACLE ENGINEERING GROUP**

**NEW BERLIN FABRICATION BUILDING**  
16230 BELOIT ROAD  
NEW BERLIN, WI

**LANDSCAPE OVERVIEW**

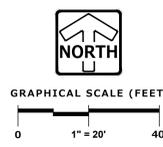
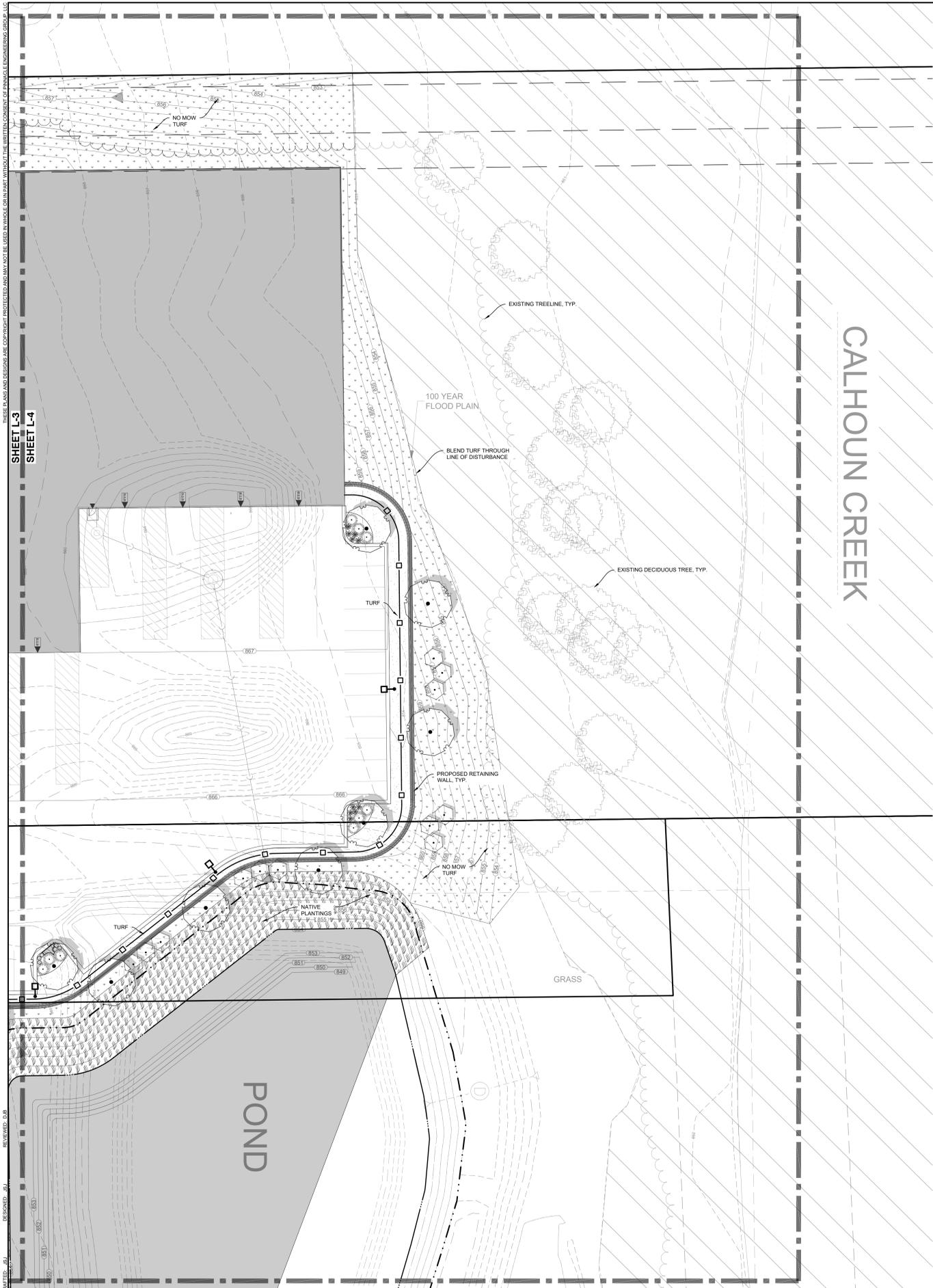
**REVISIONS**


REG. NO. 2557.00-WI  
TCH  
START DATE: 09/20/23  
SCALE: 1" = 30'

SHEET  
L-2  
OF  
L-5

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LANDSCAPE OVERVIEW





PLANT KEY	
SYMBOL	BOTANICAL / COMMON NAME
<b>TREES</b>	
<b>DECIDUOUS TREE: POSSIBLE SPECIES</b>	
	Acer freemanii 'Autumn Fantasy' / Autumn Fantasy Maple
	Celtis occidentalis 'Chicagoland' / Chicagoland Hackberry
	Gleditsia triacanthos 'Shademaster' / Shademaster Locust
	Gymnocladus dioica 'McKBranded' / Decal Kentucky Coffee Tree
	Quercus x schuetti 'Schuetti Oak'
	Tilia tomentosa 'Sterling' / Sterling Silver Linden
	Ulmus x 'Morton Glossy' / Triumph Elm
	<b>ORNAMENTAL TREE: POSSIBLE SPECIES</b>
	Amelanchier x 'Autumn Brilliance' / Autumn Brilliance Serviceberry
	Cercis canadensis / Eastern Redbud Multi-stem
	Malus x 'Prairie Maid' / Prairie Maid Crabapple
	Malus x 'Zuni' / Redbud Crab Apple
	Malus x 'Sugar Tyme' / Sugar Tyme Crabapple
	<b>EVERGREEN TREE: POSSIBLE SPECIES</b>
	Juniperus virginiana / Eastern Red Cedar
	Picea abies / Norway Spruce
	Picea glauca 'Densata' / Black Hills Spruce
	Pinus strobus / White Pine
<b>SHRUBS</b>	
	<b>LARGE EVERGREEN SHRUB: POSSIBLE SPECIES</b>
	Juniperus chinensis 'Iowa' / Iowa Juniper
	Juniperus chinensis 'Trautman' / Trautman Juniper
	Juniperus chinensis 'Mountbatten' / Chinese Juniper
	Thuja occidentalis 'Holmstrup' / Holmstrup Cedar
	Thuja occidentalis 'Smaragd' / Emerald Green Arborvitae
	<b>LARGE DECIDUOUS SHRUB: POSSIBLE SPECIES</b>
	Aronia arbutifolia 'Brilliantissima' / Brilliant Red Chokeberry
	Cornus sanguinea 'Anny's Winter Orange' / Anny's Winter Orange Dogwood
	Heptacodium miconioides 'SMNHMRP' / Temple of Bloom Seven Son Flower
	Physocarpus opulifolius 'Center Glow' / Center Glow Ninebark
	<b>MEDIUM EVERGREEN SHRUB: POSSIBLE SPECIES</b>
	Euonymus fortunei 'Vegetus Low' / Low Bigleaf Wintercreeper
	Juniperus chinensis 'Sea Green' / Sea Green Juniper
	Juniperus virginiana 'Grey Owl' / Grey Owl Redcedar
	Pinus mugo 'Pumilio' / Dwarf Mugo Pine
	Taxus x media 'Tautonii' / Tauton Yew
	Thuja occidentalis 'Little Giant' / Little Giant Arborvitae
	<b>MEDIUM DECIDUOUS SHRUB: POSSIBLE SPECIES</b>
	Hydrangea paniculata 'SMNHPH' / Little Lime Punch Hydrangea
	Hydrangea quercifolia 'PIHQ-I' / Jetstream Oakleaf Hydrangea
	Rosa rugosa 'Blanc de Coubert' / Blanc de Coubert Rose
	Syringa meyeri 'Patii' / Dwarf Korean Lilac
	Viburnum dentatum 'deamii' 'SMVDBL' / All That Glows Arrowwood Viburnum
	Weigela florida 'Wine & Roses' / Wine & Roses Weigela
	<b>SMALL EVERGREEN SHRUB: POSSIBLE SPECIES</b>
	Juniperus horizontalis 'Blue Forest' / Blue Forest Creeping Juniper
	Juniperus sabina 'Buffalo' / Buffalo Juniper
	Pinus mugo 'Slowmound' / Slowmound Mugo Pine
	Taxus x media 'SMNTHDB' / Stonehenge Dark Druid Yew
	Taxus x media 'Everlow' / Everlow Yew
	Thuja occidentalis 'Congabe' / Fire Chief Arborvitae
	<b>SMALL DECIDUOUS SHRUB: POSSIBLE SPECIES</b>
	Cornus stolonifera 'Arctic Fire' / Arctic Fire Dogwood
	Hydrangea arborescens 'NCHA2' / Invincibile Spirit II Hydrangea
	Itea virginica 'SMNIVDFC' / Scintandia® Sweetspire
	Rosa x 'Coral Cove' / Coral Cove Rose
	Syringa x 'SMNJRPU' / Bloomerang Dwarf Purple Lilac
	Weigela florida 'Dark Horse' / Dark Horse Weigela
	<b>TALL ORNAMENTAL GRASS: POSSIBLE SPECIES</b>
	Andropogon gerardii 'Dancing Wind' / Dancing Wind Big Blue Stem
	Deschampsia cespitosa 'Schottland' / Schottland Tufted Hair Grass
	Miscanthus sinensis 'Oktoberfest' / Oktoberfest Miscanthus
	Panicum virgatum 'Northwind' / Northwind Switch Grass
	Pennisetum alopecuroides 'Cassian' / Cassian Fountain Grass
	<b>SHORT ORNAMENTAL GRASS: POSSIBLE SPECIES</b>
	Miscanthus sinensis 'Little Kitten' / Little Kitten Eulalia Grass
	Pennisetum alopecuroides 'Burgundy Bunny' / Burgundy Bunny Dwarf Fountain Grass
	Schizachyrium scoparium 'Blue Heaven' / Blue Heaven Little Bluestem
	Sporobolus heterolepis 'Tara' / Tara Prairie Dropseed
<b>SHRUB AREAS</b>	
	<b>PENNIALS / VARIOUS SPECIES</b>
	<b>NATIVE</b>
	Native Plantings / Agrecol Rainwater Renewal Seed Mix
	<b>TURF</b>
	Turf Hydroseed / Reinders - Cadet 70/30 Fescue/Blue Mix
	Turf Hydroseed Low Grow / Reinders No Mow/Low Grow Mix

REVISIONS	

DESIGNED: \_RSJ\_ REVISIONS: \_RSJ\_ CHECKED: \_RSJ\_ DRAWN: \_RSJ\_ THESE PLANS AND DESIGN ARE COPYRIGHT UNREGISTERED AND MAY NOT BE USED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF PINNACLE ENGINEERING GROUP, LLC

**GENERAL PLANTING NOTES**

- THE LAYOUT OF ALL PLANTING BEDS AND INDIVIDUAL TREES AND SHRUBS SHALL BE STAKED BY THE CONTRACTOR IN ADVANCE OF INSTALLATION. FLAGGING, STAKES, OR PAINT MAY BE USED TO DELINEATE LOCATIONS AS SCALED FROM THE PLANS. AN APPROVED REPRESENTATIVE WILL REVIEW THESE LOCATIONS WITH THE CONTRACTOR AND MAKE MINOR ADJUSTMENTS AS NECESSARY. BED LAYOUT SHALL ALSO INCLUDE PERENNIAL GROUPINGS BY SPECIES.
- THE CONTRACTOR IS RESPONSIBLE FOR INDEPENDENTLY DETERMINING THE PLANT MATERIAL QUANTITIES REQUIRED BY THE LANDSCAPE PLANS. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT.
- NO PLANT MATERIAL OR PLANT SIZE SUBSTITUTIONS WILL BE ACCEPTED WITHOUT APPROVAL BY THE LANDSCAPE ARCHITECT. ANY CHANGES SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO INSTALLATION.
- ALL BNB STOCK SHALL BE NURSERY GROWN IN A CLAY LOAM SOIL FOR A MINIMUM OF THREE GROWING SEASONS WITHIN 200 MILES OF PROJECT LOCATION, IN A ZONE COMPATIBLE WITH USDA HARDINESS ZONE 5A. SEED SHALL BE PROVIDED FROM A NURSERY (WITHIN 200 MILES) WITH A SIMILAR PLANT HARDINESS ZONE AS PROJECT LOCATION. EXISTING SOIL SHALL BE AMENDED PER SOIL ANALYSIS REPORT TO ENSURE A PROPER GROWING MEDIUM IS ACHIEVED.
- ALL PLANT MATERIAL SHALL COMPLY WITH STANDARDS DESCRIBED IN AMERICAN STANDARD OF NURSERY STOCK - Z60.1 ANSI. LANDSCAPE ARCHITECT OR OWNERS AUTHORIZED REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND POTENTIALLY REJECT ANY PLANT MATERIAL DEEMED TO NOT MEET THE REQUIRED STANDARDS.
- ALL STOCK SHALL BE FREE OF DISEASES AND HARMFUL INSECTS, DAMAGE, DISORDERS AND DEFORMITIES.
- TREES SHALL HAVE SINGLE, STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. MULTI-STEM TREES SHALL HAVE 3-4 STRAIGHT TRUNKS AND WELL BALANCED BRANCH SYSTEMS. HEIGHT-TO-CALIPER RATIOS SHALL BE CONSISTENT WITH THE LATEST EDITION OF ANSI Z60.1.
- ROOT SYSTEMS SHALL BE LARGE ENOUGH TO ALLOW FOR FULL RECOVERY OF THE TREE, AND SHALL CONFORM TO STANDARDS AS THEY APPEAR IN THE MOST CURRENT REVISION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S AMERICAN STANDARD OF NURSERY STOCK ANSI Z60.1.
- BNB TREES SHALL BE DUG WITH A BALL OF SOIL, NOT SOFT BALLED OR POTTED AND SHALL BE FIRM IN THEIR ROOTBALL. ROOT BALL SHALL BE WRAPPED (WITH BIODEGRADABLE MATERIAL). THE TREE ROOT FLARE, OR COLLAR, SHALL BE AT OR WITHIN THE TOP THREE INCHES OF GRADE.
- ALL SPRING TREES MUST BE FRESHLY DUG IN THE MOST RECENT SPRING.
- ALL AUTUMN TREES MUST BE FRESHLY DUG IN THE MOST RECENT AUTUMN.
- TREES SHALL BE ALIVE, HEALTHY AND APPROPRIATELY MOIST, AT TIME OF DELIVERY. TREES SHALL BE SUBJECT TO INSPECTION FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AND APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY TREES THAT DO NOT MEET THE SPECIFICATIONS OR THAT HAVE BEEN DAMAGED DURING SHIPMENT. THE LANDSCAPE INSTALLER MUST RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT FOR ANY SUBSTITUTIONS OR ALTERATIONS.
- ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH PLANTING DETAILS.
- ALL PLANTING BEDS SHALL HAVE A MINIMUM 10" DEPTH OF PREPARED SOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 10" OF SOIL. REFER TO SOIL PLACEMENT NOTES.
- WHILE PLANTING TREES AND SHRUBS, BACKFILL 2/3 OF PLANTING HOLE AND WATER TREE THOROUGHLY BEFORE INSTALLING THE REMAINDER OF SOIL MIXTURE. AFTER ALL SOIL HAS BEEN PLACED INTO THE PLANTING HOLE WATER THOROUGHLY AGAIN.
- THE CONTRACTOR MUST LABEL ALL TREES WITH THE COMMON AND BOTANICAL NAMES PRIOR TO FINAL INSPECTION.
- OAK TREES SHALL BE TREATED FOR TWO-LINE CHESTNUT BORER BOTH AT THE TIME OF INSTALLATION AND DURING THE SECOND GROWING SEASON.
- ALL PLANTING BEDS SHALL BE MULCHED WITH 3" DEEP SHREDDED HARDWOOD MULCH, AND ALL TREES PLANTED IN TURF AREAS SHALL RECEIVE A 3" DEEP SHREDDED HARDWOOD MULCHED RING AS SHOWN IN PLANTING DETAILS.
- ALL PLANTING BEDS AND TREE RINGS SHALL HAVE A 4" DEEP TRENCHED BED EDGE CREATED BY EITHER A FLAT LANDSCAPE SPADE OR MECHANICAL EDGER. BED EDGES ARE TO BE CUT CLEAN AND SMOOTH AS SHOWN ON LANDSCAPE PLANS WITH A CLEAN DEFINITION BETWEEN TURF AND PLANTING AREAS.
- ALL TURF SEED AREAS SHALL RECEIVE A MINIMUM OF 6" DEPTH OF TOPSOIL. WITH APPROVAL, EXISTING SOIL MAY BE UTILIZED PROVIDED THE PROPER SOIL AMENDMENTS ARE TILLED THOROUGHLY INTO THE TOP 6" OF SOIL AS INDICATED IN THE SOIL PLACEMENT NOTES. REQUIRED AMENDMENTS SHALL BE DETERMINED BASED ON A SOIL ANALYSIS TO BE PERFORMED. ALL TOPSOIL AMENDMENT SHALL BE AGED WEED FREE MANURE OR CLASS 1 ORGANIC MATTER.
- FOR LAWN SEEDING, APPLY A STARTER FERTILIZER AND SEED UNIFORMLY AT THE RATE RECOMMENDED BY MANUFACTURER, AND PROVIDE A MULCH COVERING THAT IS SUITABLE TO PROMOTE SEED GERMINATION AND TURF ESTABLISHMENT. CONTRACTOR TO PROVIDE FERTILIZER, SEED, AND MULCH SPECIFICATIONS TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. EROSION CONTROL MEASURES ARE TO BE INSTALLED IN THOSE AREAS REQUIRING STABILIZATION (SWALES, SLOPES EXCEEDING 1:3, AND THOSE LOCATIONS INDICATED IN CIVIL DRAWINGS).
- THE CONTRACTOR TO ENSURE A SMOOTH, UNIFORM QUALITY TURF IS ACHIEVED WITH NO BARE SPOTS LARGER THAN 6" X 6". ANY BARE SPOTS LARGER THAN 6" X 6" AT THE END OF ESTABLISHMENT PERIOD SHALL BE RESEED AT THE CONTRACTORS EXPENSE TO OBTAIN A DENSE, UNIFORM LAWN.
- ALL FINISH GRADING AND LAWN AREAS TO BE INSTALLED BY LANDSCAPE CONTRACTOR.
- ALL DISTURBED AREAS WITHIN THE PROJECT SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
- ALL DISTURBED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INCLUDING ANY IRRIGATION LINES, PRIOR TO DIGGING. CONSULT DIGGERS HOTLINE.
- TREES SHALL BE INSTALLED NO CLOSER THAN:
  - 10 FEET FROM ANY FIRE HYDRANT
  - 7 FEET FROM STORM SEWER, SANITARY SEWER LATERALS, DRIVEWAYS, AND WATER SERVICE
- THE CONTRACTOR SHALL ENSURE THAT SOIL CONDITIONS AND COMPACTION ARE ADEQUATE TO ALLOW FOR PROPER DRAINAGE AROUND THE CONSTRUCTION SITE. UNDESIRABLE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING OF WORK. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER SURFACE AND SUBSURFACE DRAINAGE IN ALL AREAS
- THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, FEES, AND LICENSES NECESSARY FOR THE INSTALLATION OF THIS PLAN.
- THE CONTRACTOR IS TO REVIEW ALL SITE ENGINEERING DOCUMENTS PRIOR TO INSTALLATION. ANY CONFLICTS MUST BE REPORTED TO THE LANDSCAPE ARCHITECT. THESE LANDSCAPE DRAWINGS ARE FOR THE INSTALLATION OF PLANT MATERIALS ONLY UNLESS OTHERWISE STATED.
- THE CONTRACTOR SHALL PROVIDE WATERING AND MAINTENANCE SERVICES FOR A PERIOD OF 60 DAYS TO ENSURE VEGETATIVE ESTABLISHMENT. UPON COMPLETION OF THE PROJECT, CONTRACTOR SHALL SUPPLY THE OWNER IN WRITING WITH ONGOING WATERING AND MAINTENANCE INSTRUCTIONS.
- PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM TIME OF OWNER ACCEPTANCE. ONLY ONE REPLACEMENT PER PLANT WILL BE REQUIRED DURING THE WARRANTY PERIOD EXCEPT IN THE EVENT OF FAILURE TO COMPLY WITH THE SPECIFIED REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO CONDUCT A FINAL WALK THROUGH WITH THE LANDSCAPE ARCHITECT AND OR OWNERS REPRESENTATIVE TO ANSWER QUESTIONS, PROVIDE INSTRUCTIONS, AND ENSURE THAT PROJECT REQUIREMENTS HAVE BEEN MET.

**SOIL PLACEMENT NOTES**

- LOOSEN SUBGRADE TO A MINIMUM DEPTH INDICATED IN PLANTING NOTES USING A CULTI-MULCHER OR SIMILAR EQUIPMENT, AND REMOVE STONES MEASURING OVER 1-1/2 INCHES IN ANY DIMENSION, STICKS, RUBBISH AND OTHER EXTRANEOUS MATTER. AREAS ADJACENT TO WALKS AND PAVEMENT SHALL BE FREE OF EXCESS STONE AND PAVING MATERIALS SO AS TO PROVIDE AN UNINTERRUPTED CROSS SECTION OF SOIL. INTERNAL PARKING ISLANDS SHALL BE LOOSENE TO A DEPTH OF 30".
- THOROUGHLY BLEND PLANTING SOIL MIX FOR PLANTING BED AREAS. (1 PART EXISTING SOIL, 1 PART TOPSOIL, 1 PART ORGANIC SOIL AMENDMENT, 2.9 POUNDS PER CUBIC YARD OF 4-4-4 ANALYSIS SLOW-RELEASE FERTILIZER)
- TREE AND SHRUB HOLES SHALL BE FILLED WITH A PREPARED PLANTING MIXTURE OF 1 PART TOPSOIL, 2 PARTS PLANTING SOIL MIX.
- SPREAD SOIL AND SOIL AMENDMENTS TO DEPTH INDICATED ON DRAWINGS, BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. (FINISH GRADE OF PLANTING BEDS SHALL BE 3" BELOW ALL ADJACENT SURFACES. FINISH GRADE OF TURF SEEDING AREAS SHALL BE 1" BELOW ALL ADJACENT HARD SURFACES, WALKS, AND CURBS.)
- PLACE APPROXIMATELY 1/2 OF TOTAL AMOUNT OF SOIL REQUIRED. WORK INTO TOP OF LOOSENEED SUBGRADE TO CREATE A TRANSITION LAYER, THEN PLACE REMAINDER OF THE SOIL. SOIL TRANSITION LAYER SHALL BE TILLED TO A MINIMUM DEPTH OF 6" BELOW THE DEPTH OF NEWLY PLACED SOIL. PARKING LOT ISLANDS SHALL BE CROWNED TO A HEIGHT OF 6" TO PROVIDE PROPER DRAINAGE UNLESS OTHERWISE NOTED.
- DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
- FINISH GRADING: GRADE SOIL TO A SMOOTH, UNIFORM SURFACE PLANE WITH A LOOSE, UNIFORMLY FINE TEXTURE.
- ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
- RESTORE PLANTING BEDS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING AND BEFORE PLANTING.

**NATIVE SEEDING**

ESTABLISHMENT OF A VIABLE VEGETATION COMMUNITY WILL BE COMPLETED BY HAND-BROADCASTING OF PRE-DESIGNED SEED MIXES TO CREATE A DYNAMIC PLANTING.

**PRIOR TO SEEDING:**

- ALL WEEDS AND EXISTING VEGETATION SHALL BE REMOVED. EXISTING VEGETATION SHALL BE TREATED WITH GLYPHOSATE OR SIMILAR HERBICIDE BY A LICENSED PROFESSIONAL. TREATMENT SHALL OCCUR A MINIMUM OF 10 DAYS PRIOR TO SEEDING/PLANTING. VEGETATION STILL ALIVE AFTER INITIAL HERBICIDE TREATMENT SHALL BE TREATED A SECOND TIME PRIOR TO TILLING INTO THE SOIL. TREATED VEGETATION SHALL BE TILLED INTO THE SOIL NO EARLIER THAN 1 DAY PRIOR TO SEEDING.
- PREPARATION OF SOIL PRIOR TO SEEDING
  - REFER TO CIVIL PLANS FOR SOIL MIXTURE.
  - ALL FOREIGN MATERIALS LARGER THAN 1-INCH SHALL BE REMOVED FROM THE SOIL PRIOR TO SEEDING OR PLANTING.
  - AREA SHOULD BE FREE FROM UNSIGHTLY VARIATIONS, RIDGES, AND DEPRESSIONS.
  - AVOID DRIVING OVER THE SPECIFIED AREA WITH MACHINERY.

**SPECIFICATIONS FOR HAND BROADCASTING:**

SEEDING SHALL BE CONDUCTED IN LATE FALL (SEPTEMBER 1- SOIL FREEZE) SO THAT SEEDS MAY LIE DORMANT DURING THE WINTER, ALLOWING FOR STRATIFICATION, OR SPRING (MARCH 1-JUNE 1) TO ALLOW A COMPLETE GROWING SEASON TO BECOME ESTABLISHED.

**A. COVER CROP**

- ANNUAL RYE SHALL BE SPREAD AT A DENSITY OF 20 POUNDS PER ACRE DURING THE PLANTING OR SEEDING OF THE NATIVE PLANT SPECIES TO STABILIZE THE SOIL AND REDUCE THE GROWTH OF UNWANTED VEGETATION. THIS ANNUAL GRASS GROWS RAPIDLY WITHOUT COMPETING WITH THE WILDFLOWERS AND GRASSES THAT ARE PLANTED IN THE TARGET AREAS.
- WINTER WHEAT OR PERENNIAL RYE SHALL NOT BE USED AS A COVER CROP. THESE GRASSES MAY OUT COMPETE PRAIRIE SEEDLINGS, LEADING TO A REDUCTION IN THE SUCCESS OF THE PLANTINGS.

**B. SEED MIX:**

- MIX ALL NATIVE SEED WITH VERMICULITE ACCORDING TO AGRECOL RECOMMENDATIONS AND INSTALLATION GUIDELINES.
- BROADCAST HALF THE SEED OVER THE ENTIRE SITE OR TARGET AREA.
- BROADCAST THE OTHER HALF OF SEED PERPENDICULAR TO THE DIRECTION THAT THE FIRST HALF OF THE SEED WAS BROADCAST.
- COVER SEED WITH 1/4-INCH TO 1/2-INCH OF SOIL (USE ANY EXCESS SOIL FROM THE SITE) WITH RAKE OR DRAG.
- ROLL SITE TO ENSURE FIRM SEED-TO-GROUND CONTACT.
- KEEP SEED CONSTANTLY WET THROUGH GERMINATION PERIOD. GENERALLY 3 WEEKS.

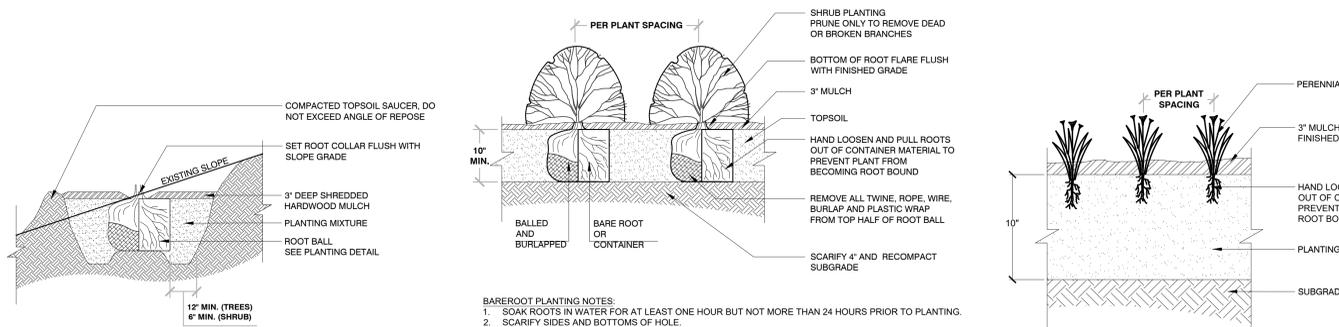
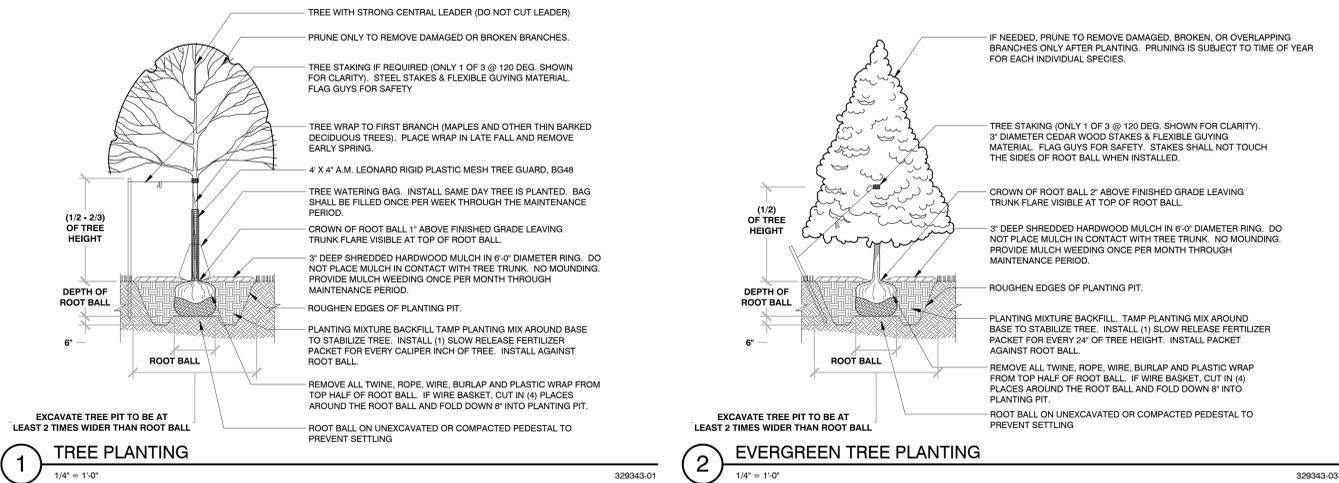
ALL SEEDING SHALL BE COVERED WITH 1-INCH OF CLEAN, NON-INVASIVE STRAW (NO MARSH HAY, OR RED CANARY GRASS) WITHOUT SEEDS, WITHIN SEVEN DAYS. WHEAT, RYE, OATS, OR BARLEY ARE ACCEPTABLE FORMS OF STRAW. THOSE AREAS OF SLOPES STEEPER THAN 8:1 (EIGHT FEET HORIZONTAL TO ONE FOOT VERTICAL) SHALL BE PLANTED NO LATER THAN OCTOBER 1 AND STAKED WITH AN EROSION CONTROL BLANKET TO PREVENT EROSION.

**NATIVE PLANTINGS:**

**WEED SUPPRESSION MEASURES:**

- 1st YEAR** - PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS. THIS SHOULD OCCUR APPROXIMATELY EVERY MONTH OF THE GROWING SEASON AFTER NATIVE PLANTINGS HAVE BEEN ROUGH GRADED.
- 2nd YEAR** - IN MAY/JUNE MOW NATIVE PLANTINGS AT 6" HEIGHT TO SUPPRESS THE WEEDS. PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS. HAVE PROFESSIONAL ASSESS PLANTINGS. REPEAT MOWING NATIVE PLANTINGS AND SPOT-SPRAY IN EARLY JULY.
- 3rd YEAR** - IN MAY/JUNE MOW NATIVE PLANTINGS AT 8" HEIGHT TO SUPPRESS THE WEEDS. PERFORM SPOT SPRAY WITH HERBICIDE TO SUPPRESS WEEDS.
- 4th YEAR** - IN MAY PERFORM A PRESCRIBED BURN. IN JUNE HAVE A QUALIFIED PROFESSIONAL ASSESS PLANTINGS. IF A PRESCRIBED BURN CAN NOT BE UTILIZED, NATIVE PLANTINGS SHALL BE CUT TO THE GROUND AND ALL CUT MATERIAL SHALL BE REMOVED AND DISPOSED OF OFF SITE.

LANDSCAPE IMPROVEMENT TABLE	REQUIRED	PROVIDED
OPEN SPACE 71,630 SQ FT		
• TREE 1:3600 SQ FT	20	40
• SHRUBS 3:3600 SQ FT	40	76
* NOTE: PARKING LOT PERIMETER TREES & SHRUBS NOT INCLUDED IN THIS SECTION		
PLANTINGS SIZES: FOR FINAL PLAN WILL BE:		
• TREE TOTAL 42	4" 50%	21
	2" 50%	21
	6" 50%	6
	8" 50%	4
• EVERGREEN TREE TOTAL 9		
BUFFERS 240 FT OF TYPE D		
• TREES	36	36
• EVERGREEN TREES	29	29
• SHRUBS	58	58
PARKING INTERIOR 12 ISLANDS		
• TREES 1/ISLAND	12	12
• SHRUBS 3/ISLAND	36	40



**BAREROOT PLANTING NOTES:**

- SOAK ROOTS IN WATER FOR AT LEAST ONE HOUR BUT NOT MORE THAN 24 HOURS PRIOR TO PLANTING.
- SCARIFY SIDES AND BOTTOMS OF HOLE.
- PROCEED WITH CORRECTIVE PRUNING OF THE TOP AND BOTTOM ROOTS.
- TRANSFER PLANT DIRECTLY FROM WATER TO HOLE. SET PLANT SO THE ROOT FLARE IS APPROXIMATELY AT THE FINISHED SOIL ELEVATION. SPREAD ROOTS OUT EVENLY. PLUMB AND IMMEDIATELY BACKFILL WITH PLANTING SOIL MIX.
- WATER THOROUGHLY WITHIN 2 HOURS TO SETTLE PLANTS AND FILL VOIDS.
- BACKFILL VOIDS AND WATER SECOND TIME.
- PLACE MULCH WITHIN 48 HOURS OF THE SECOND WATERING UNLESS SOIL MOISTURE IS EXCESSIVE.

