PROPERTY DESCRIPTION:

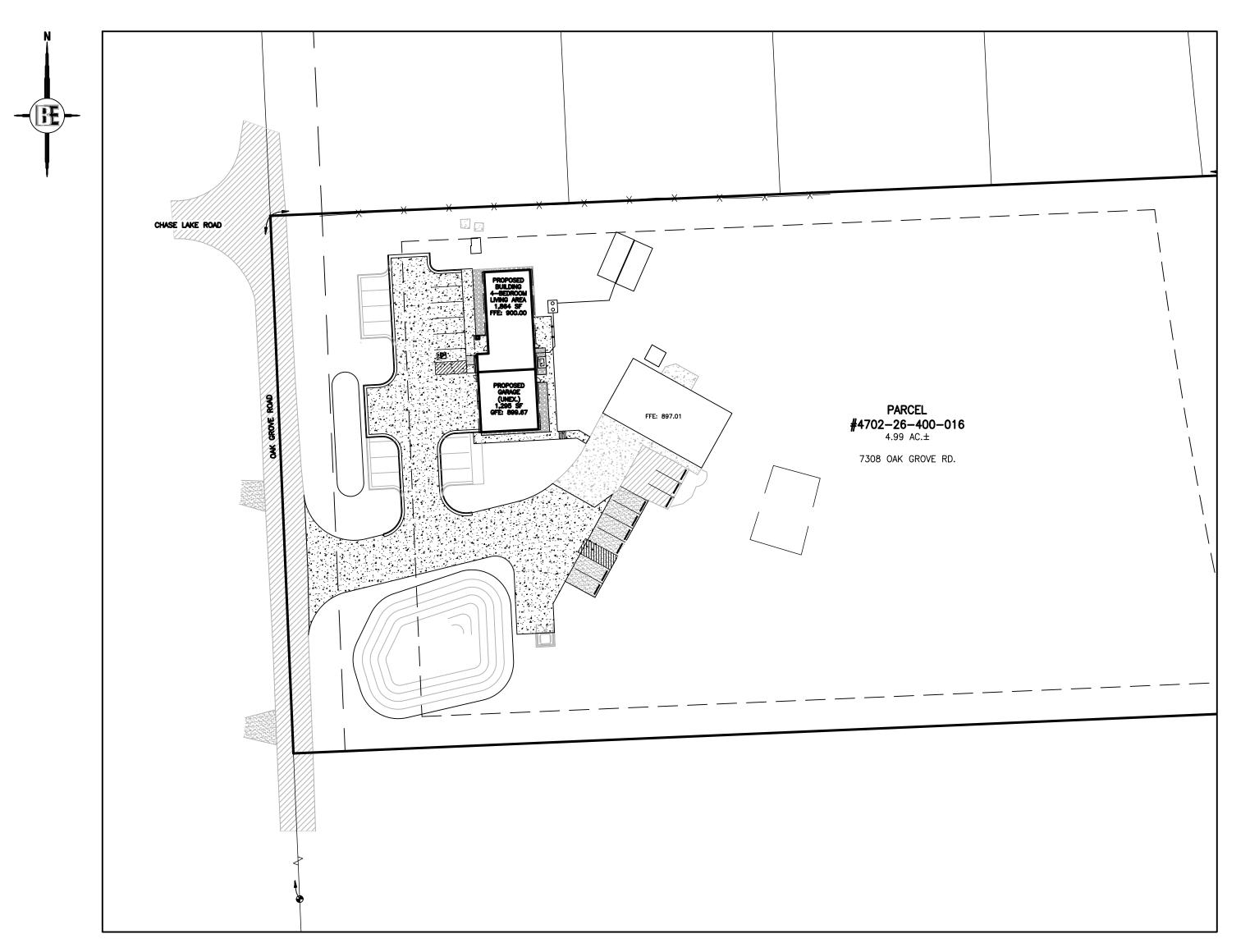
DESCRIPTION OF PARCEL PER LIVINGSTON COUNTY TAX ROLL:

SEC 26 T4N R4E N 5 AC OF N 1/2 C SE 1/4 OF SEC 26 WHICH IS LYING W OF ANN ARBOR RAILROAD ROW SPLIT

PRELIMINARY SITE PLAN FOR

LIVINGSTON COUNTY EMS - COHOCTAH SUBSTATION

PART OF SE QUARTER, SECTION 26 COHOCTAH TOWNSHIP, LIVINGSTON COUNTY, MI



OVERALL SITE MAP

NO SCALE

PERMITS & APPROVALS		
AGENCY	DATE SUBMITTED	DATE APPROVE
COHOCTAH TOWNSHIP	-	_
• LCDC - SESC	_	_
• LCRC	_	_



LOCATION MAP

NO SCALE

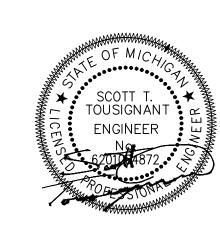
	SHEET INDEX
SHEET NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12	COVER GENERAL NOTES & LEGEND EXISTING CONDITIONS & DEMOLITION PLAN SITE PLAN GRADING & DRAINAGE PLAN SOIL EROSION & SEDIMENTATION CONTROL PLAN UTILITY PLAN BASIN DETAILS STORM PLAN & PROFILE LANDSCAPE PLAN NATURAL FEATURES PLAN CONSTRUCTION DETAILS
	PLANS BY OTHERS
1	LIGHTING PLAN (GASSER BUSH)
A1.0 A2.1 A2.2 A3.0	FLOOR PLAN (LINDHOUT ASSOCIATES) EXTERIOR ELEVATIONS (LINDHOUT ASSOCIATES) EXTERIOR ELEVATIONS (LINDHOUT ASSOCIATES) RENDERED VIEWS (LINDHOUT ASSOCIATES)

PREPARED FOR:

LINDHOUT ASSOCIATES ARCHETECTS
10465 CITATION DRIVE
BRIGHTON, MI 48116
CONTACT: BRAD ALVORD
PHONE: 810.227.5668
EMAIL: BMA@LINDHOUT.COM

LIGHTING BY:

GASSER BUSH ASSOCIATES
30984 INDUSTRIAL RD.
LIVINGSTON, MI 48150
CONTACT: BRAD ALVORD
PHONE: 810.227.5668
EMAIL: BMA@LINDHOUT.COM



PREPARED BY:



3121 E. GRAND RIVER AVE.

HOWELL, MI. 48843
517.546.4836 FAX 517.548.1670
CONTACT: SCOTT TOUSIGNANT
EMAIL: SCOTTT@BOSSENG.COM

INDEMNIFICATION STATEMENT THE CONTRACTOR SHALL HOLD HARMLESS THE DESIG

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

GENERAL NOTES

- 1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TOWNSHIP, COUNTY, AND STATE OF MICHIGAN PERMITS.
- 2. A GRADING PERMIT FOR SOIL EROSION-SEDIMENTATION CONTROL SHALL BE OBTAINED FROM THE GOVERNING AGENCY PRIOR TO THE START OF CONSTRUCTION.
- 3. IF DUST PROBLEM OCCURS DURING CONSTRUCTION, CONTROL WILL BE PROVIDED BY AN APPLICATION OF WATER, EITHER BY SPRINKLER OR TANK TRUCK.
- 4. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPAL STANDARDS AND
- SPECIFICATIONS. 5. PAVED SURFACES, WALKWAYS, SIGNS, LIGHTING AND OTHER STRUCTURES SHALL BE MAINTAINED IN A SAFE,
- ATTRACTIVE CONDITION AS ORIGINALLY DESIGNED AND CONSTRUCTED. 6. ALL BARRIER-FREE FEATURES SHALL BE CONSTRUCTED TO MEET ALL LOCAL, STATE AND A.D.A.
- REQUIREMENTS. WHERE EXISTING CONDITIONS AND/OR THE REQUIREMENTS OF THE PLANS WILL RESULT IN FINISHED CONDITIONS THAT DO NOT MEET ADA REQUIREMENTS, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER PRIOR TO WORK COMMENCING.
- 7. ANY DISCREPANCY IN THIS PLAN AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL SETBACKS, EASEMENTS AND DIMENSIONS SHOWN HEREON PRIOR TO BEGINNING CONSTRUCTION.
- 8. THE CONTRACTOR SHALL CONTACT ALL OWNERS OF EASEMENTS, UTILITIES AND RIGHT-OF-WAY, PUBLIC OR PRIVATE, PRIOR TO THE START OF CONSTRUCTION.
- 9. THE CONTRACTOR SHALL COORDINATE WITH ALL OWNERS TO DETERMINE THE LOCATION OF EXISTING LANDSCAPING, IRRIGATION LINES & PRIVATE UTILITY LINES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING LANDSCAPING, IRRIGATION LINES, AND PRIVATE UTILITY LINES.
- 10. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE UPON COMPLETION OF THE
- 11. THE CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT WORKMEN AND PUBLIC SHALL BE
- PROTECTED FROM INJURY, AND ADJOINING PROPERTY PROTECTED FROM DAMAGE. 12. THE CONTRACTOR SHALL KEEP THE AREA OUTSIDE THE "CONSTRUCTION LIMITS" BROOM CLEAN AT ALL TIMES.
- 13. THE CONTRACTOR SHALL CALL MISS DIG A MINIMUM OF 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- 14. ALL PAVEMENT REPLACEMENT AND OTHER WORKS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWNSHIP, INCLUDING THE LATEST MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- 15. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
- 16. NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO THE MATERIAL SHORTAGES OR RESPONSIBLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE SPECIFICATION OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OR EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
- 17. DURING THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT PERFORM WORK BY PRIVATE AGREEMENT WITH PROPERTY OWNERS ADJACENT TO THE PROJECT.
- 18. IF WORK EXTENDS BEYOND NOVEMBER 15, NO COMPENSATION WILL BE DUE TO THE CONTRACTOR FOR ANY WINTER PROTECTION MEASURES THAT MAY BE REQUIRED BY THE ENGINEER.
- 19. NO TREES ARE TO BE REMOVED UNTIL MARKED IN THE FIELD BY THE ENGINEER.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE CONSTRUCTION LIMITS INCLUDING BUT NOT LIMITED TO EXISTING FENCE, LAWN, TREES AND SHRUBBERY.
- 21. TRAFFIC SHALL BE MAINTAINED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SIGNS AND TRAFFIC CONTROL DEVICES. FLAG PERSONS SHALL BE PROVIDED BY THE CONTRACTOR IF DETERMINED NECESSARY BY THE ENGINEER. ALL SIGNS SHALL CONFORM TO THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AT NO COST TO THE TOWNSHIP. NO WORK SHALL BE DONE UNLESS THE APPROPRIATE TRAFFIC CONTROL DEVICES ARE IN PLACE.
- 22. ALL DEMOLISHED MATERIALS AND SOIL SPOILS SHALL BE REMOVED FROM THE SITE AT NO ADDITIONAL COST, AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- 23. ANY EXISTING APPURTENANCES SUCH AS MANHOLES, GATE VALVES, ETC. SHALL BE ADJUSTED TO THE PROPOSED GRADE AND SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 24. ALL PERMANENT SIGNS AND PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST REVISION OF THE MICHIGAN MUTCD MANUAL AND SHALL BE INCIDENTAL TO THE CONTRACT.
- 25. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL ITEMS REQUIRED FOR CONSTRUCTION OF THE PROJECT ARE INCLUDED IN THE CONTRACT. ANY ITEMS NOT SPECIFICALLY DESIGNATED IN THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 26. THE CONTRACTOR IS RESPONSIBLE FOR HAVING A SET OF APPROVED CONSTRUCTION PLANS, WITH THE LATEST REVISION DATE, ON SITE PRIOR TO THE START OF CONSTRUCTION. IN THE EVENT OF ANY QUESTIONS PERTAINING TO THE INTENT OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER FOR A FINAL DETERMINATION FROM THE DESIGN ENGINEER.
- 27. THE CONTRACTOR, NOT THE OWNER OR THE ENGINEER, ARE RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SAFE EXECUTION OF THE PROJECT SCOPE IN ACCORDANCE WITH THE APPROVED CONSTRUCTION PLANS.
- 28. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING CONSTRUCTION STAKING AS NECESSARY. CONTRACTOR TO NOTIFY CONSTRUCTION SURVEYOR OF REPLACEMENT STAKES NEEDED WHICH SHALL BE AT THE CONTRACTORS
- 29. THE OWNER AND/OR CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING FRANCHISE UTILITY SERVICES (CABLE, ELECTRIC, GAS, ETC.) OWNER AND/OR CONTRACTOR SHALL WORK WITH UTILITY COMPANIES ON FURNISHING SITE UTILITY LAYOUTS AND PROVIDING CONDUIT CROSSINGS AS REQUIRED.
- 30. DAMAGE TO ANY EXISTING UTILITIES OR INFRASTRUCTURE (INCLUDING PAVEMENT, CURB. SIDEWALK, ETC.) SHALL PROMPTLY BE REPLACED IN KIND AND SHALL BE AT THE CONTRACTORS EXPENSE.
- 31. COORDINATION OF TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PER ALL CITY/TOWNSHIP/COUNTY REQUIREMENTS. COPIES OF ALL TEST REPORTS SHALL BE FURNISHED TO THE DESIGN
- 32. PRIOR TO THE START OF CONSTRUCTION, PROTECTION FENCING SHALL BE ERECTED AROUND THE TREE DRIPLINE OF ANY TREES INDICATED TO BE SAVED WITHIN THE LIMITS OF DISTURBANCE.
- 33. THE CONTRACTOR SHALL MAINTAIN DRAINAGE OF THE PROJECT AREA AND ADJACENT AREAS. WHERE EXISTING DRAINAGE FACILITIES ARE IMPACTED/DISTURBED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ANY NECESSARY TEMPORARY DRAINAGE PROVISIONS.
- 34. SOIL BORING LOGS ARE REPRESENTATIVE OF SPECIFIC POINTS ON THE PROJECT SITE, AND IF PROVIDED TO THE CONTRACTOR ARE FOR INFORMATIONAL PURPOSES ONLY.
- 35. WHERE CITY/TOWNSHIP STANDARD CONSTRUCTION DETAILS/SPECIFICATIONS ARE PROVIDED AND ARE IN CONFLICT WITH NOTES AND SPECIFICATIONS HEREIN, THE CITY/TOWNSHIP STANDARD SHALL GOVERN.

INDEMNIFICATION STATEMENT

THE CONTRACTOR SHALL HOLD HARMLESS THE DESIGN PROFESSIONAL, MUNICIPALITY, COUNTY, STATE, AND ALL OF ITS SUB CONSULTANTS, PUBLIC AND PRIVATE UTILITY COMPANIES, AND LANDOWNERS FOR DAMAGES TO INDIVIDUALS AND PROPERTY, REAL OR OTHERWISE, DUE TO THE OPERATIONS OF THE CONTRACTOR AND/OR THEIR SUBCONTRACTORS.

CONTRACTOR TO FOLLOW MANUFACTURER

SPECS/RECOMMENDATIONS THAT SUPERCEDE PLANS

GENERAL GRADING & SESC NOTES

- 1. THE CONTRACTOR SHALL HAVE IN PLACE ALL REQUIRED EROSION CONTROL METHODS AS INDICATED ON THE CONSTRUCTION PLANS AND AS REQUIRED BY GENERAL PRACTICE. SPECIFIC MEANS, METHODS AND SEQUENCES OF CONSTRUCTION MAY DICTATE ADDITIONAL SOIL EROSION CONTROL MEASURES BE NEEDED. THE CONTRACTOR SHALL COORDINATE WITH THE DESIGN ENGINEER ON THESE ANTICIPATED METHODS. ADDITIONAL SOIL EROSION CONTROL METHODS SHALL BE INCIDENTAL TO THE SCOPE OF WORK.
- 2. ACTUAL FIELD CONDITIONS MAY DICTATE ADDITIONAL OR ALTERNATE SOIL EROSION CONTROL MEASURES BE UTILIZED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR FIELD CONDITIONS THAT WARRANT ADDITIONAL AND/OR ALTERNATIVE SESC MEASURES BE UTILIZED.
- 3. AT THE CLOSE OF EACH DAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL CONSTRUCTION OPERATIONS, MATERIALS, DEBRIS, ETC ARE CONTAINED ON-SITE.
- 4. AT THE CLOSE OF EACH WORKING DAY, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS AT THE FLOW LINE.
- 5. ALL SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE PER MDEGLE REGULATIONS AND
- BEST PRACTICES, ALL SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. THE SOIL EROSION CONTROL MEASURES SHALL BE KEPT IN PLACE UNTIL SUCH A TIME THAT THE SITE IS
- DETERMINED TO BE ESTABLISHED WITH ACCEPTABLE AMOUNT OF VEGETATIVE GROUND COVER. 7. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE NORMAL CONSTRUCTION LIMITS OF THE PROJECT
- 8. AFTER REMOVAL OF TOPSOIL, THE SUBGRADE SHALL BE COMPACTED TO 95% OF ITS UNIT WEIGHT.

SHALL BE SODDED OR SEEDED AS SPECIFIED OR DIRECTED BY THE ENGINEER.

- 9. ALL GRADING IN THE PLANS SHALL BE DONE AS PART OF THIS CONTRACT. ALL DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SUBGRADE PRIOR TO COMPACTING.
- 10. ALL ROOTS, STUMPS AND OTHER OBJECTIONABLE MATERIALS SHALL BE REMOVED AND THE HOLE BACKFILLED WITH SUITABLE MATERIAL. WHERE GRADE CORRECTION IS REQUIRED, THE SUBGRADE SHALL BE CUT TO CONFORM TO THE CROSS-SECTION AS SHOWN IN THE PLANS.
- 11. ALL EXCAVATION UNDER OR WITHIN 3 FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED SHALL BE BACKFILLED AND COMPACTED WITH SAND (MDOT CLASS II).

GENERAL LANDSCAPE NOTES

- 1. ALL PLANT MATERIAL SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE GOVERNING MUNICIPALITY. ALL STOCK SHALL BE NURSERY GROWN, CONFORMING TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK", AND IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. STOCK SHALL EXHIBIT NORMAL GROWTH HABIT AND BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, & DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS, OR DISFIGUREMENT. ALL PLANT MATERIAL SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- ALL PLANT MATERIALS SHALL BE BALLED AND BURLAPPED OR CONTAINER STOCK. NO BARE ROOT STOCK IS PERMITTED. ALL PLANT BALLS SHALL BE FIRM, INTACT, AND SECURELY WRAPPED AND BOUND.
- 3. ALL PLANT BED MATERIALS SHALL BE EXCAVATED OF ALL BUILDING MATERIALS, OTHER EXTRANEOUS OBJECTS, AND POOR SOILS TO A MINIMUM DEPTH OF 12-INCHES AND BACKFILLED TO GRADE WITH SPECIFIED PLANTING MIX (SEE BELOW).
- 4. PLANTING MIXTURE SHALL CONSIST OF 5 PARTS TOPSOIL FROM ON-SITE (AS APPROVED), 4 PARTS COARSE SAND, 1 PART SPHAGNUM PEAT MOSS (OR APPROVED COMPOST), AND 5 LBS OF SUPERPHOSPHATE FERTILIZER PER CU. YD. OF MIX. INGREDIENTS SHALL BE THOROUGHLY BLENDED FOR UNIFORM CONSISTENCY.
- ALL PLANT BEDS AND INDIVIDUAL PLANTS, NOT OTHERWISE NOTED SHALL BE MULCHED WITH A 4-INCH LAYER OF WASHED EGG ROCK. EDGE OF ROCK BEDS AS SHOWN. DECIDUOUS TREES IN LAWN AREAS SHALL RECEIVE A 5-FT DIAMETER CIRCLE OF EGG ROCK AND CONIFER TREES 8-FT (PLANTED CROWN OF TREE) UNLESS OTHERWISE NOTED.
- 6. LANDSCAPE STONE SHALL BE INSTALLED WHERE NOTED OR INDICATED (HATCHED). STONE SHALL BE 3/4"-1-1/4" WASHED RIVER GRAVEL OR AS SELECTED AND SHALL BE INSTALLED TO A MINIMUM DEPTH OF 3-INCHES.
- 7. ALL LANDSCAPE BEDS, UNLESS OTHERWISE NOTED SHALL BE INSTALLED OVER WEED BARRIER FABRIC WATER PERMEABLE FILTRATION FABRIC OF NON-WOVEN POLYPROPYLENE OR POLYESTER FABRIC. FABRIC SHALL BE OF SUITABLE THICKNESS FOR APPLICATION.
- 8. ALL PLANTS AND PLANT BEDS SHALL BE THOROUGHLY WATERED UPON COMPLETION OF PLANTING AND STAKING OPERATIONS.
- THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR A PERIOD OF 1 YEAR FROM THE DATE THE WORK IS ACCEPTED, IN WRITING, BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL REPLACE, WITHOUT COST TO THE OWNER, WITHIN A SPECIFIED PERIOD OF TIME, ALL DEAD PLANTS, AND ALL PLANTS NOT IN A VIGOROUS, THRIVING CONDITION, AS DETERMINED BY THE LANDSCAPE ARCHITECT, DURING AND AT THE END OF THE GUARANTEE PERIOD. REPLACEMENT STOCK SHALL CONFORM TO THE ORIGINAL SPECIFICATIONS.
- 10. EDGING SHALL BE PROVIDED FOR ALL LANDSCAPE BEDS NOT ADJACENT TO CONCRETE PAVEMENT. EDGING SHALL BE BLACK ALUMINUM EDGING, 3/16-INCH X 4-INCH. INSTALL PER MANUFACTURER'S INSTRUCTIONS, ALL EDGING SHALL BE INSTALLED IN STRAIGHT LINES OR SMOOTH CURVES WITHOUT IRREGULARITIES.
- 11. SOD SHALL BE DENSE, WELL ROOTED TURF, FREE OF WEEDS. IT SHALL BE COMPRISED OF A BLEND OF AT LEAST TWO KENTUCKY BLUE GRASSES AND ONE FESCUE. IT SHALL HAVE A UNIFORM THICKNESS OF 3/4-INCH AT TIME OF PLANTING, AND CUT IN UNIFORM STRIPS NOT LESS THAN 10-INCHES BY 18-INCHES. SOD SHALL BE KEPT MOIST AND LAID WITHIN 36-HOURS AFTER CUTTING.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ALL SODDED AREAS THAT BROWN-OUT OR HAVE NOT FIRMLY KNITTED TO THE SOIL BASE WITHIN A PERIOD OF 1 MONTH SHALL BE REPLACED BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- 12. ALL AREAS OF THE SITE THAT BECOME DISTURBED DURING CONSTRUCTION AND ARE NOT TO BE PAVED, STONED, LANDSCAPED, OR SODDED SHALL BE SEEDED AND MULCHED.

SEED MIXTURE SHALL BE AS FOLLOWS: KENTUCKY BLUEGRASS (CHOOSE 3 VARIETIES -30% ADELPHI, RUGBY, GLADE, OR PARADE) RUBY RED OR DAWSON RED FINE FESCUE 30% ATLANTA RED FESCUE 20% PENNFINE PERENNIAL RYE 20%

THE ABOVE SEED MIXTURE SHALL BE SOWN AT A RATE OF 250 LBS PER ACRE. PRIOR TO SEEDING, THE TOPSOIL SHALL BE FERTILIZED WITH A COMMERCIAL FERTILIZER WITH A 10-0-10 ANALYSIS:

10% NITROGEN - MIN 25% FROM A UREA FORMALDEHYDE SOURCE

0 % PHOSPHATE 10% POTASH - SOURCE POTASSIUM SULFATE OR POTASSIUM NITRATE

THE FIRST FERTILIZER APPLICATION SHALL BE AT A RATE OF 10 LBS PER 1000 SQ FT OF BULK FERTILIZER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A DENSE LAWN OF PERMANENT GRASSES, FREE OF LUMPS AND DEPRESSIONS. ANY PART OF THE AREA THAT FAILS TO SHOW A UNIFORM GERMINATION SHALL

BE RE-SEEDED AND SUCH RE-SEEDING SHALL CONTINUE UNTIL A DENSE LAWN IS ESTABLISHED. DAMAGE TO

SEEDED AREAS RESULTING FROM EROSION SHALL BE REPAIRED BY THE CONTRACTOR. 13. ALL AREAS OF THE SITE SCHEDULED FOR SEEDING OR SODDING SHALL FIRST RECEIVE A 6-INCH LAYER OF

CLEAN, FRIABLE TOPSOIL. THE SOIL SHALL BE DISCED AND SHALL BE GRADED IN CONFORMANCE WITH THE GRADING PLAN.

14. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES AND TO INFORM THE LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO COMMENCING LANDSCAPING.

GENERAL UTILITY NOTES

- BEDDING SHALL EXTEND A MINIMUM OF 4" BELOW THE PIPE, UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING SHALL BE OF UNIFORM GRADATION MDOT 6AA STONE OR MDOT CLASS II GRANULAR MATERIAL FOR SANITARY AND STORM PIPE AND MDOT CLASS II GRANULAR MATERIAL ONLY FOR WATERMAIN.
- 2. WHERE UNSTABLE GROUND CONDITIONS ARE ENCOUNTERED, STONE BEDDING SHALL BE USED AS DIRECTED BY THE ENGINEER.
- 3. BACKFILL SHALL BE OF A SUITABLE MATERIAL AND SHALL BE FREE OF ANY ORGANIC MATERIALS AND ROCKS.
- 4. BACKFILL ABOVE THE PIPE SHALL BE OF GRANULAR MATERIAL MDOT CLASS II TO A POINT 12" ABOVE THE TOP OF THE PIPE. WHERE THE TRENCH IS NOT WITHIN THE INFLUENCE OF THE ROAD, SUITABLE SITE MATERIAL MAY BE COMPACTED AND UTILIZED FROM A POINT 12" ABOVE THE PIPE TO GRADE, WHERE THE TRENCH IS WITHIN A 1:1 INFLUENCE OF THE ROAD, GRANULAR MATERIAL, MDOT CLASS II OR III, IS TO BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 12" IN THICKNESS. COMPACTION SHALL BE 95% AS DETERMINED BY AASHTO T99.
- 5. 18" MINIMUM VERTICAL SEPARATION AND 10' HORIZONTAL SEPARATION IS TO BE MAINTAINED BETWEEN WATERMAIN AND SANITARY/STORM SEWER TO THE MAXIMUM EXTENT POSSIBLE.

GENERAL STORM NOTES

- 1. ALL STORM PIPE LENGTHS ARE SHOWN FROM C/L TO C/L OF STRUCTURE OR FROM C/L OF STRUCTURE TO DISCHARGE END OF FLARED END SECTION.
- 2. STORM PIPE MATERIALS SHALL BE AS FOLLOWS:
- 2.1. RCP(REINFORCED CONCRETE PIPE): SHALL MEET THE REQUIREMENTS OF ASTM C76 WITH MODIFIED GROOVED TONGUE AND RUBBER GASKETS MEETING THE REQUIREMENTS OF ASTM C443. RCP TO BE EITHER CLASS IV OR V AS CALLED OUT ON THE PLANS.
- PVC(POLYVINYL CHLORIDE): SHALL MEET THE REQUIREMENTS OF ASTM D3034.
- STORM PIPE JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3212. HDPE AND PP PIPE GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.
- 4. ALL STORM PIPE TO HAVE WATERTIGHT PREMIUM JOINTS, UNLESS OTHERWISE NOTED ON THE PLANS.
- 5. STORM DRAINAGE STRUCTURES SHALL BE FURNISHED WITH STEPS WHICH SHALL BE STEEL ENCASED WITH POLYPROPYLENE PLASTIC OR EQUIVALENT. STEPS SHALL BE SET AT 16" CENTER TO CENTER.
- 6. ALL FLARED END SECTIONS 15" AND LARGER SHALL BE FURNISHED WITH AN ANIMAL GRATE.
- 7. FLARED END SECTIONS DISCHARGING STORM WATER SHALL RECEIVE A MINIMUM OF 10 SQ YDS OF PLAIN COBBLESTONE RIP RAP WITH A MINIMUM STONE SIZE OF 6" AND SHALL BE PLACED ON A GEOTEXTILE FABRIC
- 8. ALL CATCH BASINS WITHIN THE ROADWAY SHALL INCLUDE INSTALLATION OF 6" DIAMETER PERFORATED PIPE
- 9. STORM DRAINAGE STRUCTURE COVERS SHALL BE OF THE FOLLOWING (OR APPROVED EQUAL): COVER USE GRATE/BACK

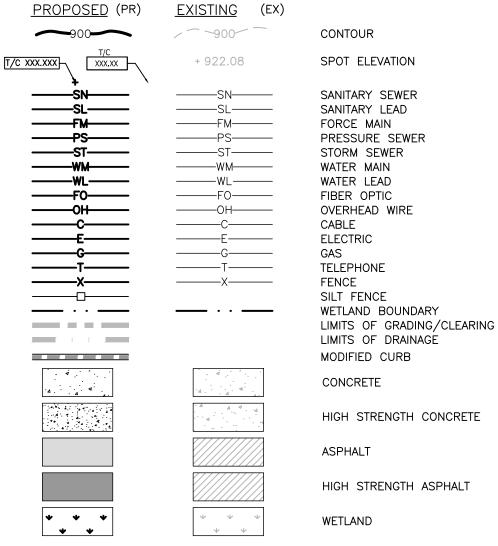
TYPE 'B' MANHOI F 1040 TYPE B2 CURB 7085 TYPE 'M1' VALLEY CURB 7065 7045 TYPE 'M1' GRATE/7060 TYPE 'T1' BACK 1040/5100 TYPE 'M1' GRATE OR 5105 TYPE 'M1' GRATE PARKING LOTS TYPE '02' GRATE

TYPE 'M1' GRATE/7050 TYPE 'T1' BACK

10. THE PROPOSED DRAINAGE SYSTEM IS TO BE OWNED AND PROPERLY MAINTAINED BY THE PROPERTY OWNER

TYPE C & F CURB 7045

LINES & HATCHES LEGEND



LIGHTING LEGEND

EXISTING (EX) <u>PROPOSED</u> (PR) \bigcirc

DOUBLE FIXTURE LIGHT POLE SINGLE FIXTURE LIGHT FIXTURE WALL MOUNTED LIGHT FIXTURE

SOIL EROSION CONTROL MEASURE

(P=PERMANENT, T=TEMPORARY)

SANITARY SEWER LABEL

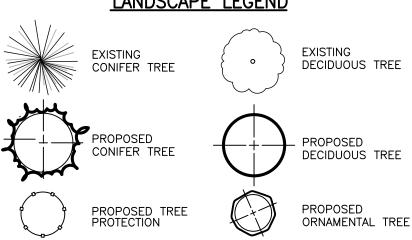
STORM SEWER LABEL

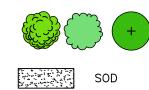
WATER MAIN LABEL

GROUND LIGHT FIXTURE FOOT CANDLES ON SITE FOOT CANDLES OFF SITE FOOT CANDLES CONTOURS

LANDSCAPE LEGEND

(54T)

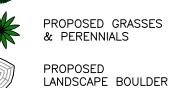




MULCH







<u>ABBREVIATIONS</u>

FINISHED FLOOR ELEVATION BASEMENT FLOOR FLEVATION GARAGE FLOOR ELEVATION FINISHED GRADE TOP OF ASPHAL TOP OF CURB TOP OF CONCRETE TOP OF WALK TOP OF PIPE BOTTOM OF PIPE FLOW LINE RIM ELEVATION (AT FLOW LINE) INVERT ELEVATION MANHOLE CATCH BASIN REAR YARD YARD DRAIN ROOF DRAIN FLARED END SECTION CORRUGATED METAL PIPE CORRUGATED PLASTIC PIPE REINFORCED CONCRETE PIPE HIGH DENSITY POLYETHYLENE POLYVINYL CHLORIDE DUCTILE IRON PIPE GATE VALVE GATE VALVE IN WELL GATE VALVE IN BOX FIRE DEPARTMENT CONNECTION UTILITY POLE NOT FIELD VERIFIED TO BE REMOVED LIVINGSTON COUNTY RECORDS MEASURED AND RECORD POINT OF BEGINNING

SYMBOL LEGEND

CANOPY MOUNTED LIGHT FIXTURE

STORM DRAINAGE FLOW ↓ GUY WIRE -∽ POWER POLE TRANSFORMER PAD E ELECTRICAL RISER E U.G. ELECTRIC MARKER ELECTRICAL METER AIR CONDITIONING UNIT

TELEPHONE RISER U.G. TELEPHONE MARKER G GAS RISER U.G. GAS MARKER

GAS METER CABLE TV RISER U.G. CABLE TV MARKER MB MAILBOX

WELL W WATER MANHOLE Ø GATE VALVE (EXISTING)

GATE VALVE (PROPOSED) -CX HYDRANT (EXISTING) → HYDRANT (PROPOSED)

☐ CATCH BASIN (EXISTING) CATCH BASIN (PROPOSED) O STORM MANHOLE (EXISTING)

STORM MANHOLE (PROPOSED) (END SECTION (EXISTING) ♠ END SECTION (PROPOSED)

SANITARY MANHOLE (EXISTING) SANITARY MANHOLE (PROPOSED)

PC PUMP CHAMBER -ф- TRAFFIC SIGN

SIGN (PROPOSED) SOIL BORING O STEEL ROD SET STEEL ROD OR PIPE FOUND □ WOOD LATH SET ☐ HUB SET

MONUMENT FOUND SECTION CORNER GP GAS PUMP ANTENNA SATELLITE DISH NEWSPAPER BOX

PM PARKING METER PHONE BOOTH HANDICAP SYMBOL BENCHMARK

LIGHT POLE

DRAWN BY: MJD HECKED BY: NO SCALE SCALE: JOB NO: **24-176** 9/10/2024

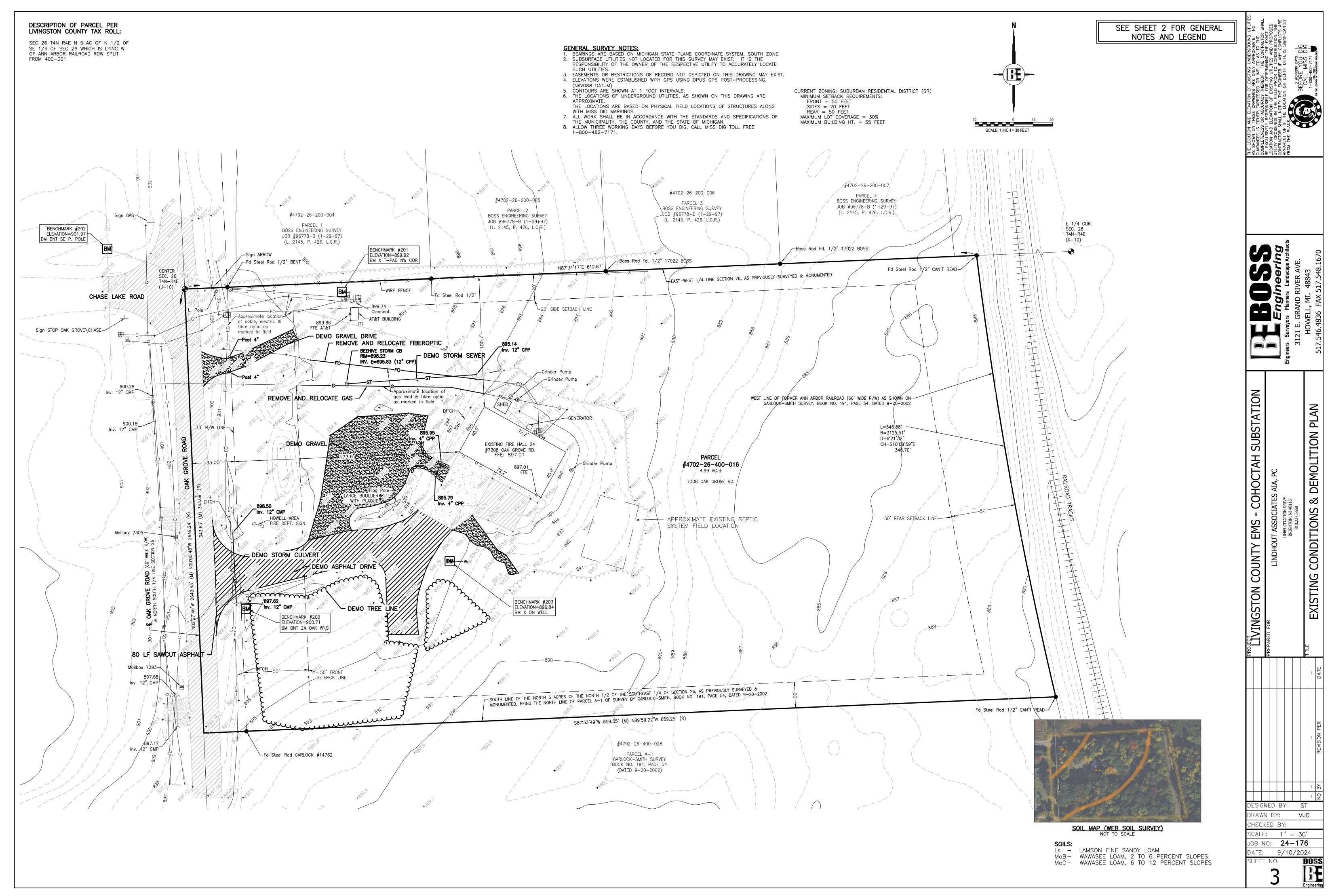
BOSS

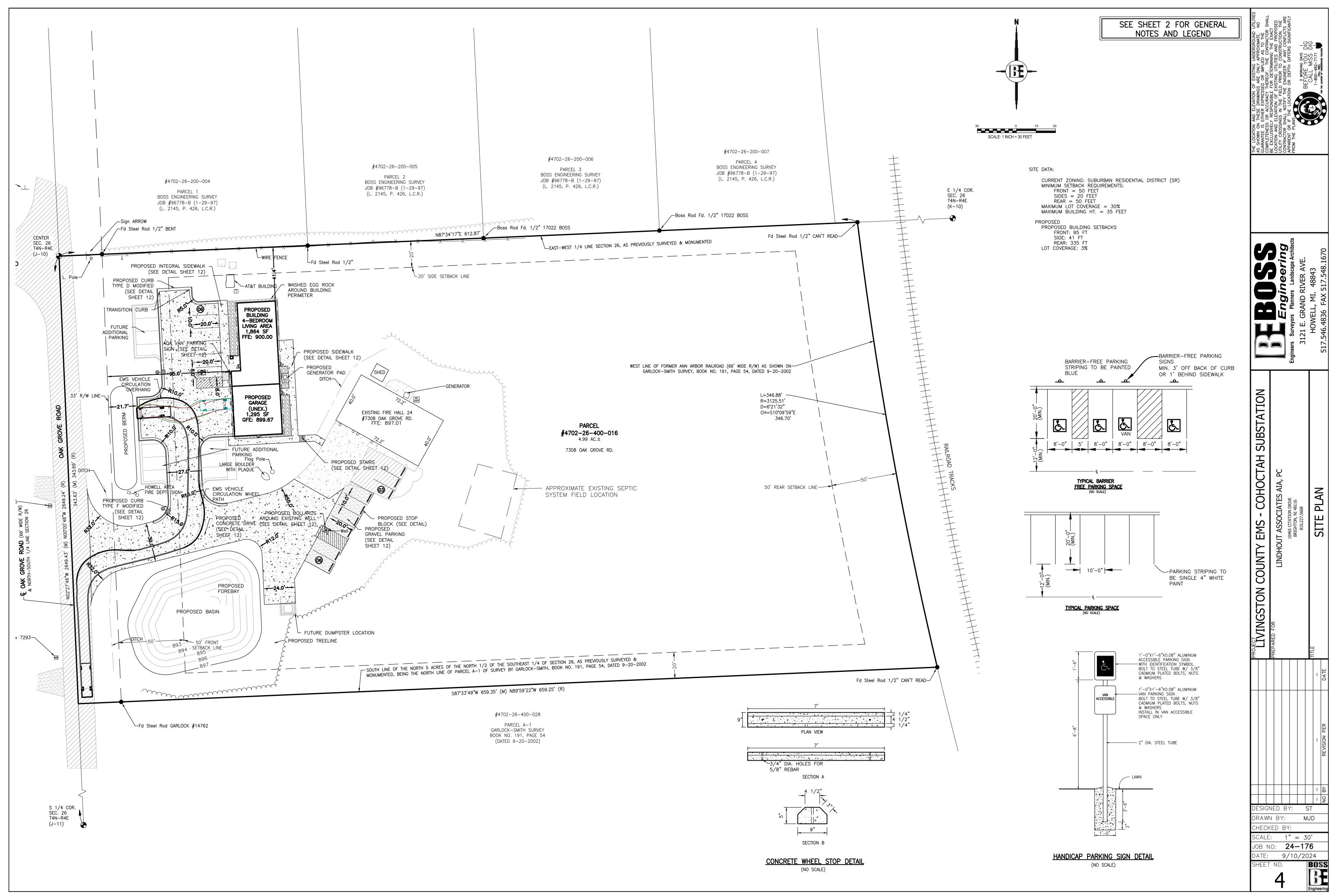
ESIGNED BY:

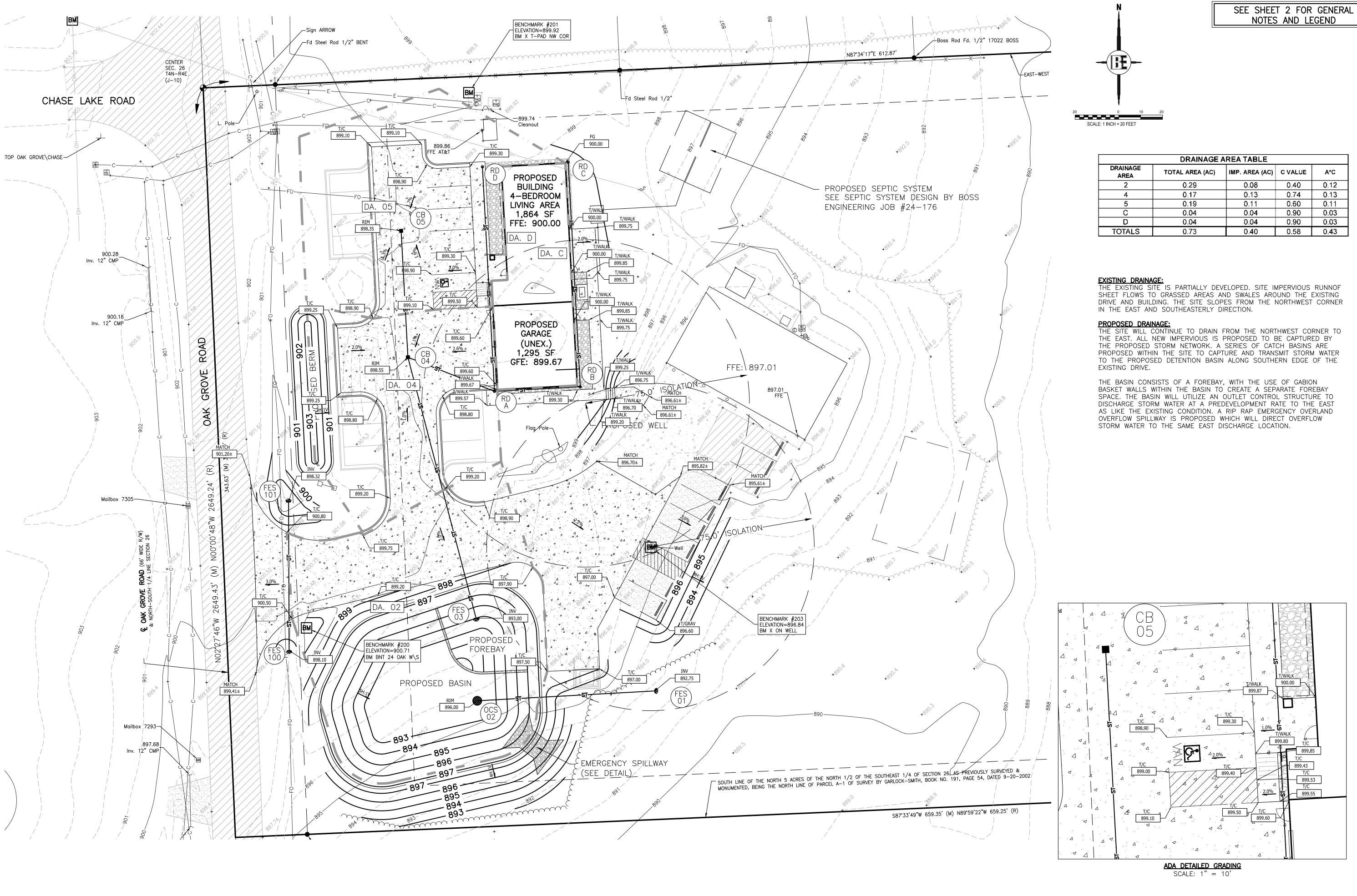
H

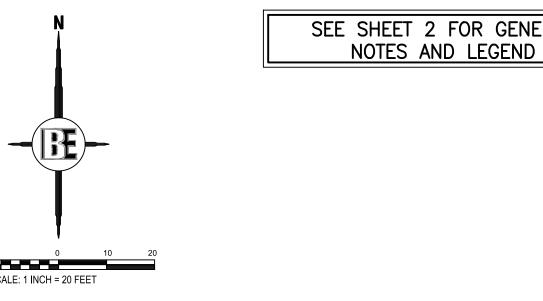
EN

G:\24-176\DWG\SP\24-176 SheetsSP.dwg, 9/10/2024 9:02:08 AM, scottt, AutoCAD PDF (General Documentation).pc3







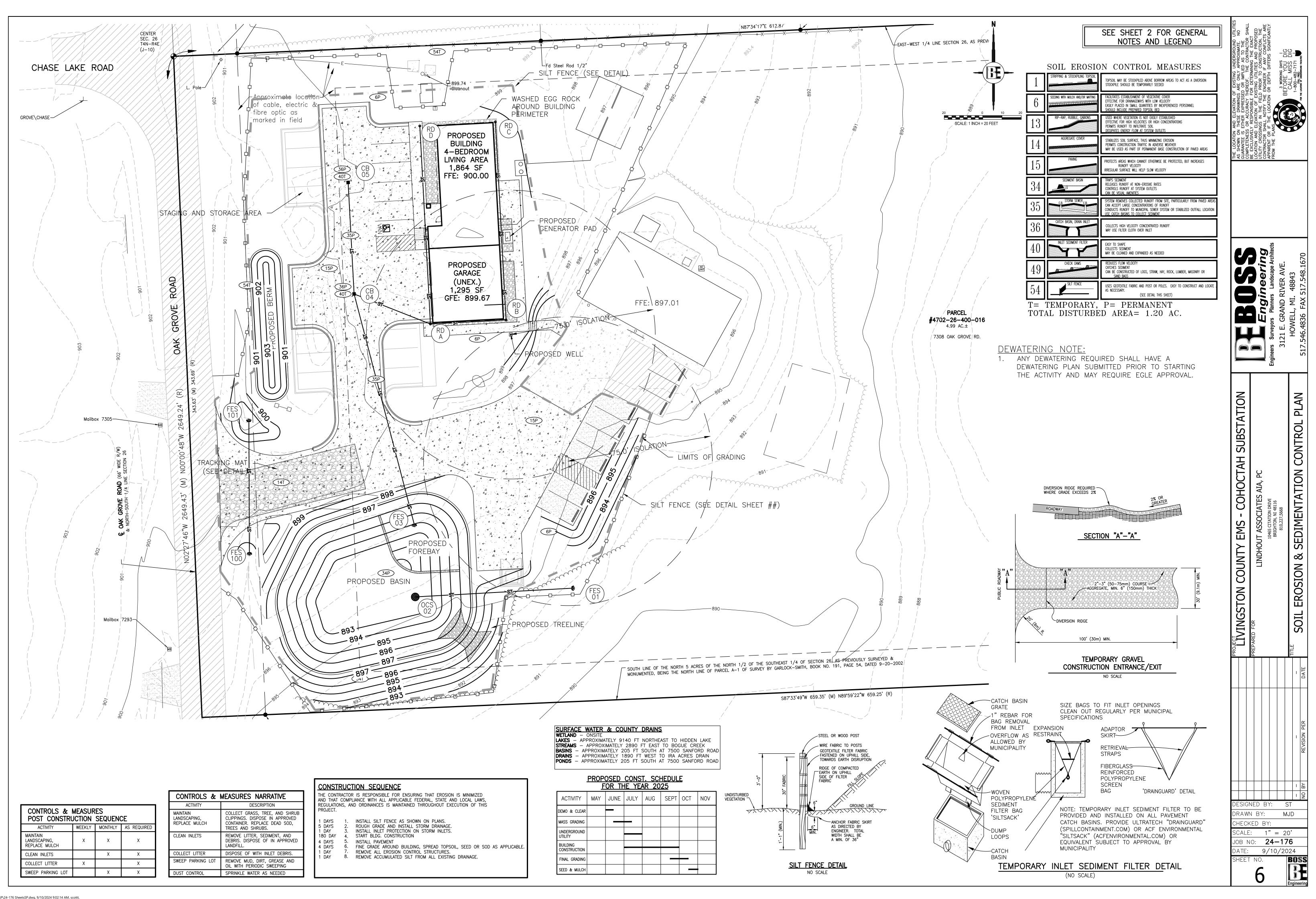


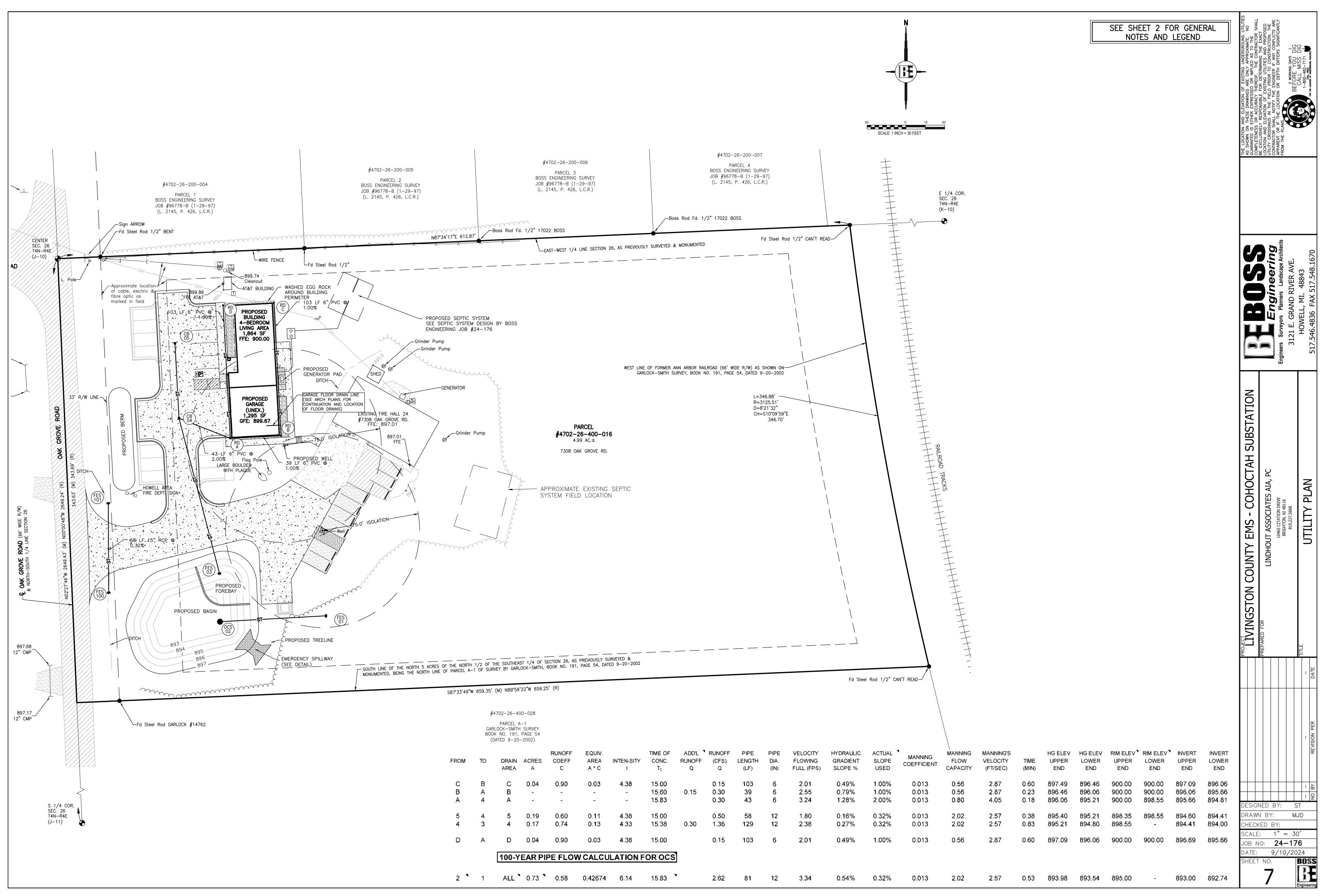
EMS GRADING LIVINGSTON

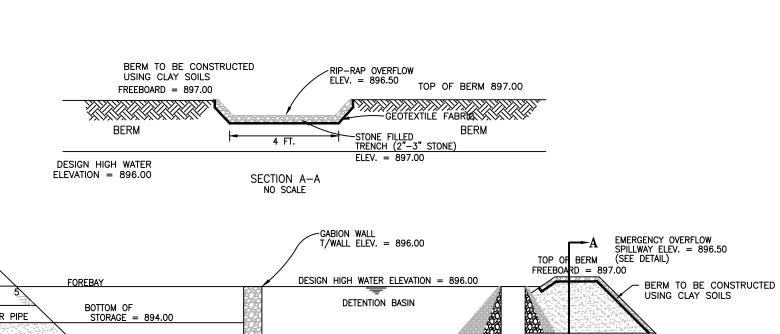
ಶ

THE LO AS SHO GUARAN COMPLE BE EXC LOCATIC UTILITY CONTRA APPARE FROM 1

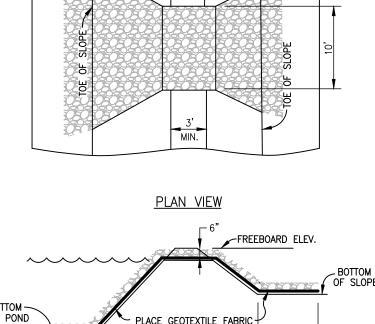
DRAWN BY: CHECKED BY: 1" = 20'JOB NO: **24-176**



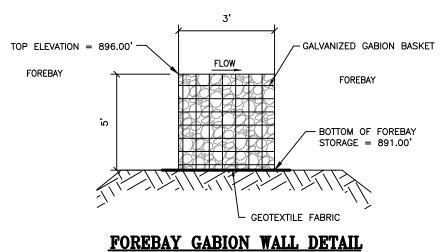




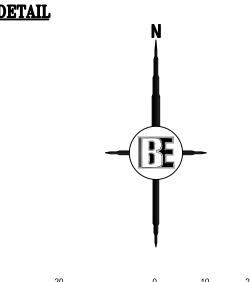




EMERGENCY SPILLWAY DETAIL NO SCALE



NOT TO SCALE



SCALE: 1 INCH = 20 FEET COUNTY IVINGSTON

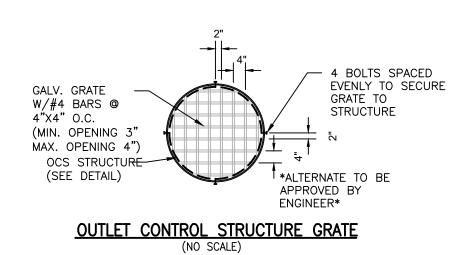
SUBSTATION

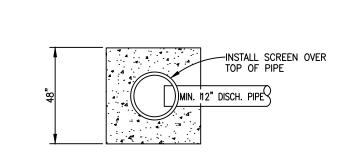
AH H

EMS

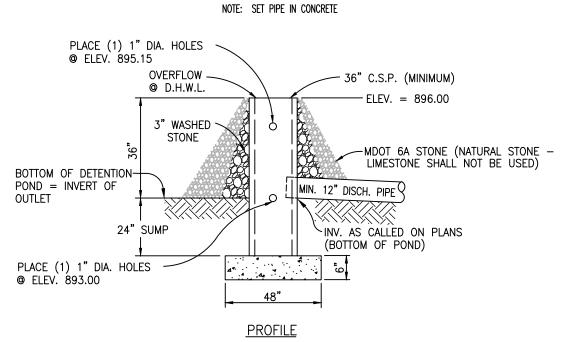
1" = 20'

DETENTION BASIN CROSS SECTION





<u>PLAN</u>



NOTE: UPON COMPLETION OF CONSTRUCTION STONE AROUND THE STRUCTURE SHALL BE REFRESHED WITH CLEAN STONE. LCDC DETENTION/SEDIMENTATION POND

OUTLET CONTROL STRUCTURE (NO SCALE)

AREA (ACRES) IMPERVIOUS FACTOR IMPERVIOUS 0.36 0.9 0.00 0.7 0.00 0.33 0.07 0.2 0.58 COMPOUND C: TOTAL DRAINAGE AREA: 0.73 ACRES WATER QUALITY VOLUME Vwo. 3,630(C)(A) = Are upstream infiltration BMP's provided? [■] 0.15(V_{WQ}) = WATER QUALITY RATE FOR MECHANICAL STRUCTURE T_C = MAX TIME OF CONCENTRATION = $(C)(A)30.2/(T_C+9.17)^{81} =$ 0.94 CFS CHANNEL PROTECTION VOLUME CONTROL - REQUIRED **4**,719(C)(A) = CHANNEL PROTECTION VOLUME CONTROL - PROVIDED In-Situ Infiltration rate = Are upstream infiltration BMP's provided? Basin Footrpint Infiltration Area Required = 0^7 FT 3 V_{CP-P} = CHANNEL PROTECTION RATE CONTROL (EXTENDED DETENTION VOLUME) 6,897(C)(A) = 2920 FT^3 EXTENDED DETENTION OUTLET RATE 0.017 CFS $V_{ED}/(48hr) =$ $V_{ED}/4,800 (H)^{1/2} =$ 1.0 1" HOLES 3.00 FT ELEV_{ED} = 895.15 FT 100-YEAR ALLOWABLE OUTLET RATE 0.1 CFS/ACRE CONTACT LIVINGSTON Restricted Drain Rate = Q_{DRAIN} = COUNTY DRAIN 1.1055 - 0.206LN(A) = 1.000 CFS/ACRE $Q_{VRR} =$ COMMISSION FOR (LESSER OF $Q_{DRAIN} \& Q_{VRR}$)*A = 0.073 CFS ALLOWABLE RELEASE Q_{100P} = RATE 100-YEAR DETENTION VOLUME 18985 (C)(A) = 8038 FT³ $^{\text{T}}$ (C)(A)83.3/(T_{c} +9.17)^{0.81} = 2.60 CFS $0.206 - .15(ln(Q_{100P}/Q_{100IN}) =$ 0.7420 V_{100R} *R- V_{CP-P} = 5964 FT³ Is V_{100D} ≥ V_{ED} ? YES FOREBAY STORAGE VOLUME PROVIDED: VOLUME TOTALVOLUME ELEVATION 972 896 1130 2,105 DHWL 1,133 1,133 BOTTOM OF STORAGE SUMP SUMP BASIN STORAGE PROVIDED ELEVATION VOLUME TOTAL VOLUME (FT^2) (FT) (FT³) 6467 11,767 5,254 FREEBOARD 3,797 6,513 3553 2,717 2,717 1,332 1,332 BOTTOM OF STORAGE 1880 FT² PROVIDED FOOTPRINT OF BASIN BOTTOM AREA OUTLET CONTROL STRUCTURE (1" HOLES) FT^2 0.0055 $Q_{ED-ACTUAL} = (A_{ED})(0.62 \times (2 \times 32.2 \times h)^{0.5}) =$ 0.047 CFS Q_{100ALL} OUTLET Q_{100-ACTUAL} = Q_{100P} - Q_{ED-ACTUAL} = 0.026 CFS $A_{100} = Q_{100-ACTUAL} / (0.62 * (2 *32.2 * (ELEV_{DHWL} - ELEV_{ED}))^{0.6}) =$ AREA OF INCH DIAMETER ORIFICE = 0.005 FT² # ORIFICES = A100 / 0.005 = 1.0 ORIFICES

LIVINGSTON COUNTY DETENTION BASIN CALCULATIONS

BASIN DESIGN S	<u>UMMARY</u>				
FOREBAY SIZE R	EQUIRED =	1537	FT ³		
FOREBAY SIZE P	ROVIDED =	2105	FT ³		
BASIN SIZE REQUIRED = 5964 FT ³					
BASIN SIZE PROV	/IDED =	6,513	FT ³		
ORIFICE DESIGN	SUMMARY				
ELEVATION	# OF HOLES	DIAMETER	OF HOLES		
893.00	1.0	1	-INCH		
895.15	1.0	1	-INCH		
OVERFLOW SPIL	LWAY SUMMARY	•			
WIDTH OF OVERI	FLOW SPILLWAY =	3	FT		

Q_{100IN} = 2.60 CFS

D_{SPILL} = 6 INCHES

2.2 FT

OVERFLOW SPILLWAY DESIGN

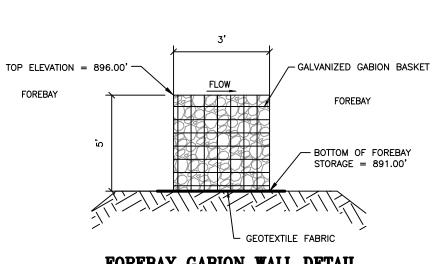
Design Flow Rate:

Depth of Spillway:

G:\24-176\DWG\SP\24-176 SheetsSP.dwg, 9/10/2024 9:02:17 AM, scottt, AutoCAD PDF (General Documentation).pc3

-6" HEAVY RIP-RAP (TYP.)

PLACE GEOTEXTILE FABRIC-PROFILE VIEW



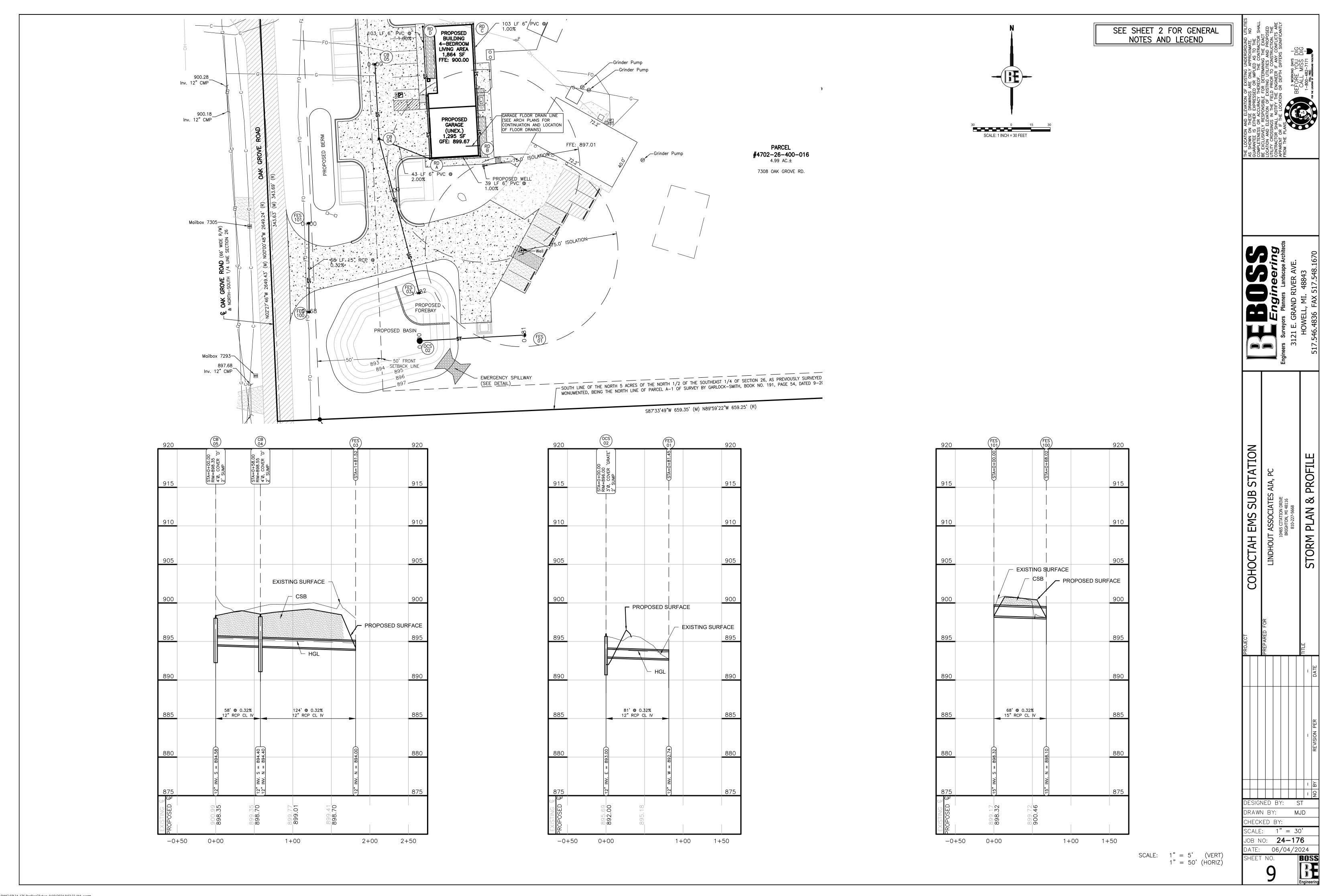
PROPOSED FOREBAY PROPOSED BASIN

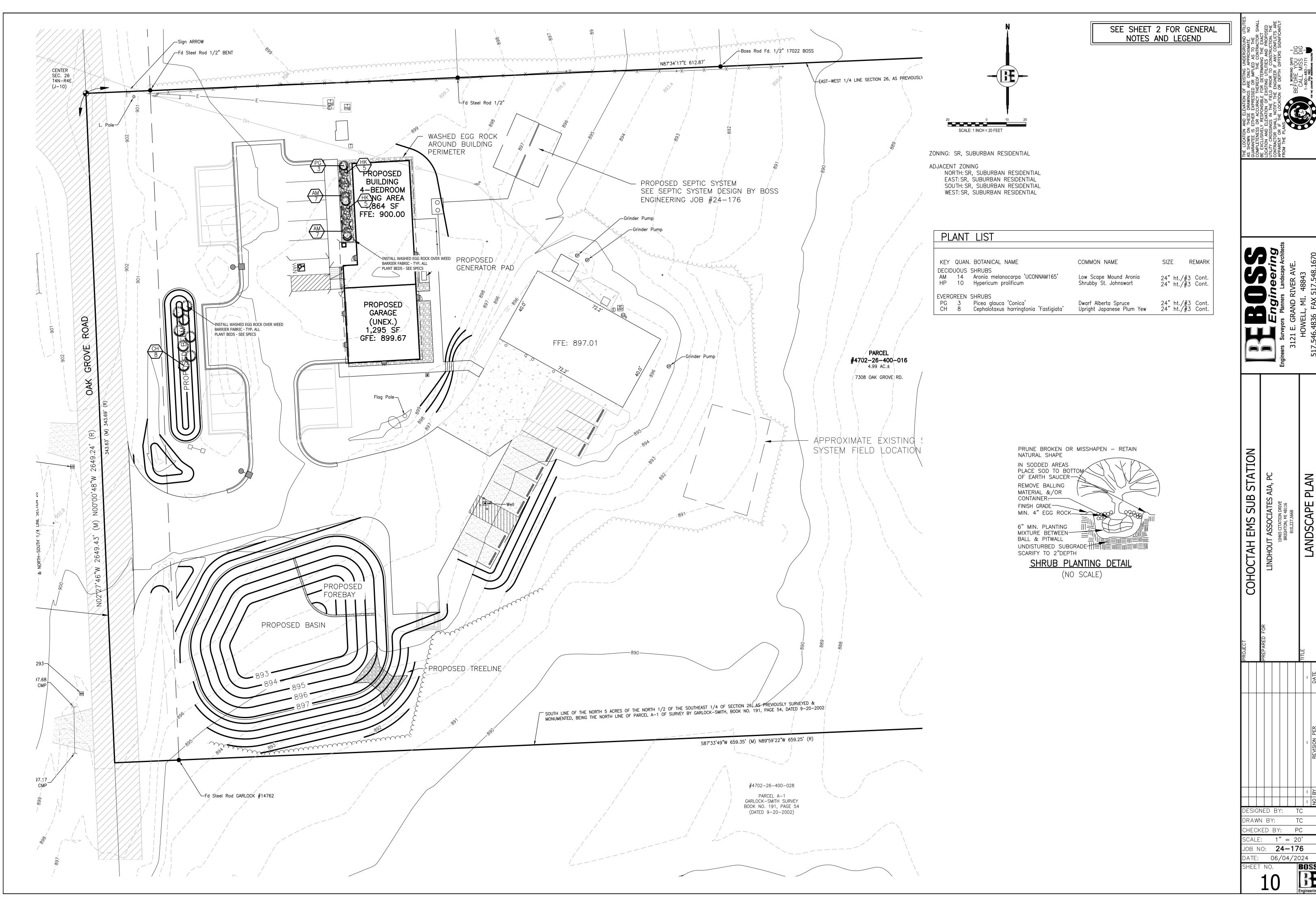
EMERGENCY SPILLWAY

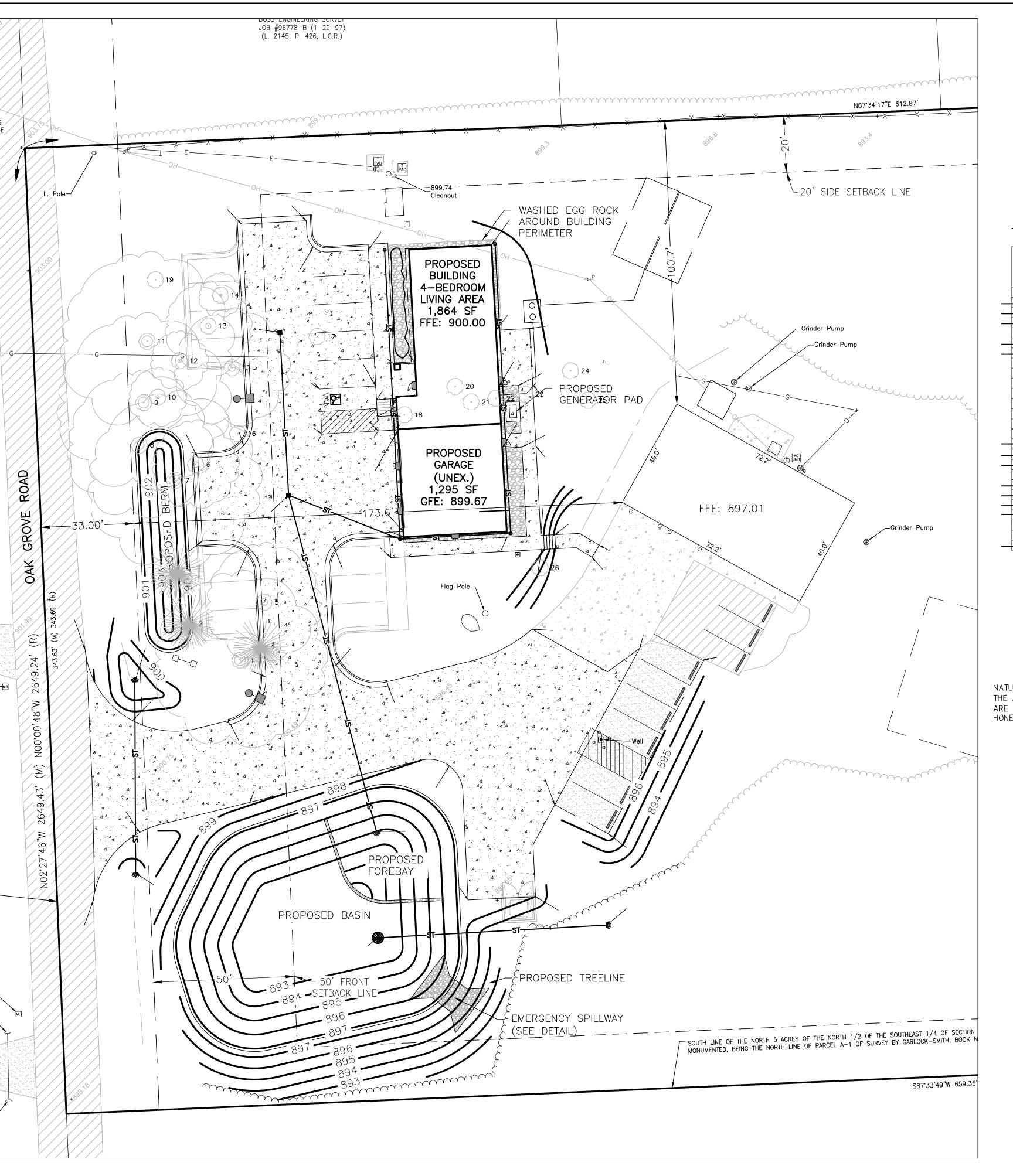
(SEE DETAIL)

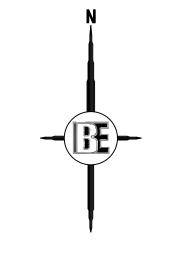
DESIGNED BY: DRAWN BY: CHECKED BY: SCALE:

JOB NO: **24-176** DATE: 9/10/2024









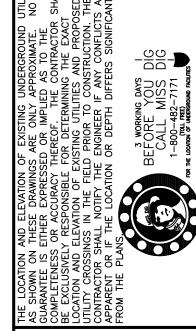
SCALE: 1 INCH = 20 FEET

TREE INVENTORY

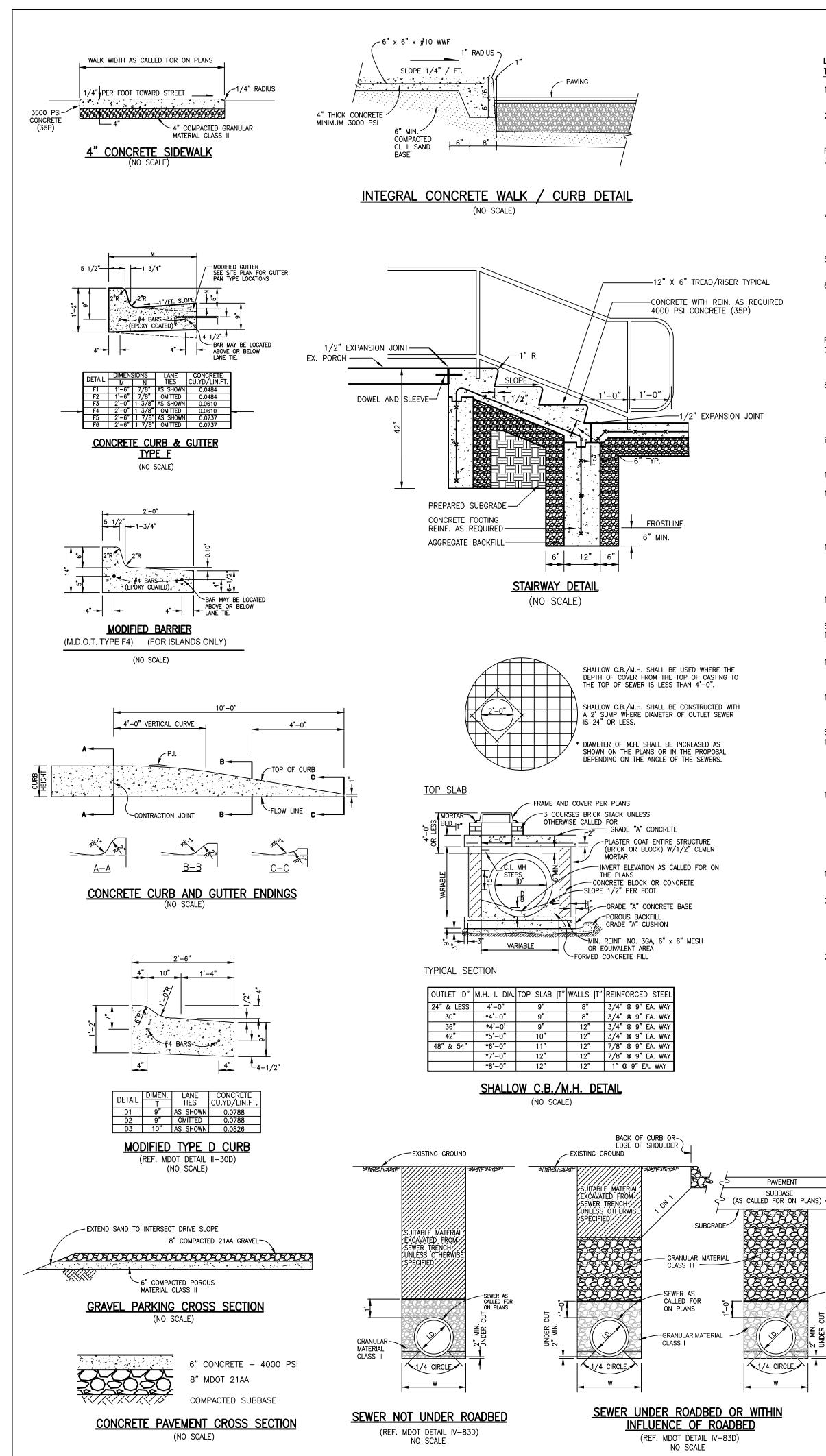
Tree #	Botanical Name	Common Name	Dia.	Type	Other Dia.	Condition	
1	Quercus alba	White Oak	30	Deciduous		Good	
2	Pinus sylvestris	Scotch Pine	10	Coniferous		Good	
3	Pinus sylvestris	Scotch Pine	8	Coniferous		Good	_
4	Pinus sylvestris	Scotch Pine	10	Coniferous		Good	
5	Prunus serotina	Black Cherry	17	Deciduous		Good	
6	Carya cordiformis	Bitternut Hickory	13	Deciduous	11	Good	
7	Quercus alba	White Oak	28	Deciduous		Good	<u> </u>
8	Quercus alba	White Oak	16	Deciduous		Good	
9	Quercus alba	White Oak	26	Deciduous		Good	
10	Carya ovata	Shagbark Hickory	13	Deciduous		Good	
11	Quercus rubra	Red Oak	24	Deciduous		Good	
12	Quercus rubra	Red Oak	11	Deciduous		Good	
13	Prunus serotina	Black Cherry	16	Deciduous		Good	
14	Prunus serotina	Black Cherry	13	Deciduous		Good	
15	Quercus alba	White Oak	13	Deciduous		Good	
16	Quercus rubra	Red Oak	26	Deciduous		Good	
17	Cornus florida	Flowering Dogwood	12	Deciduous		Good	
18	Quercus rubra	Red Oak	19	Deciduous		Good	
19	Carya ovata	Shagbark Hickory	14	Deciduous		Good	
20	Quercus alba	White Oak	12	Deciduous		Good	
21	Carya cordiformis	Bitternut Hickory	8	Deciduous		Good	_
22	Carya ovata	Shagbark Hickory	9	Deciduous		Good	
23	Ulmus americana	American Elm	16	Deciduous		Good	
24	Carya ovata	Shagbark Hickory	10	Deciduous		Good	
25	Prunus serotina	Black Cherry	12	Deciduous		Good	
26	Cornus florida	Flowering Dogwood	9	Deciduous		Good	- 1

NATURAL FEATURES NARRATIVE

THE AREA BETWEEN THE ROAD AND THE EXISTING FIRE HALL CONSISTS OF BERMS CROSSING BETWEEN DECIDUOUS CANOPY TREES (OAKS, HICKORIES, AND SOME BLACK CHERRY.) FORBS ARE LIMITED (A FEW GOLDENROD, HEART-LEAVED ASTER) WITH THE UNDERSTORY ON THE BERMS MAINLY BEING MOSS AND TURF. SHRUBS CONSISTED OF GOOSEBERRY, AUTUMN OLIVE, AND



DRAWN BY: 1" = 20'JOB NO: **24-176** DATE: 06/04/2024



LIVINGSTON COUNTY SOIL EROSION PERMIT TEMPLATE TEMPORARY CONTROLS AND SEQUENCE

PROJECT SITE.

- PRIOR TO START OF GRADE WORK.
- 2. IN ACCORDANCE WITH PUBLIC ACT NO. 53, OF 1974 THE PERMIT HOLDER 23. ALL STORM DRAIN OUTLETS THAT DO NOT EMPTY INTO THE SHALL CALL MISS DIG FOR STAKING AND LOCATING OF UTILITIES, AT LEAST 72 HOURS IN ADVANCE OF THE START OF ANY WORK.
- PERMITTING STANDARDS 3. (IMPORTANT NOTICE) RETENTION/DETENTION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. INGRESS/EGRESS MUST HAVE LARGE
- CRUSHED ROCK TO REDUCE THE TRACKING OF SOIL ONTO THE PUBLIC TRAFFIC AREAS. SEE DETAIL ITEMS BELOW.
- 5. ALL TEMPORARY EROSION CONTROL DEVICES AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO THE START OF MASSIVE EARTH DISTRIBUTION.
- 6. PLAN DOES DENOTE A DETAILED EROSION CONTROL DEVICE TO RESTRICT TRACKING OF MATERIAL ONTO THE HIGHWAY. STONE DIAPERS SHALL BE INSTALLED AT ALL INGRESS/EGRESS AREAS OF THE SITE PRIOR TO THE START OF MASSIVE EARTH DISRUPTION. DIAPERS SHALL BE OF CRUSHED STONE AND SHALL HAVE A MINIMUM LENGTH OF 100' LINEAL FEET.
- RETENTION PONDS 7. RETENTION/DETENTION/SEDIMENTATION PONDS SHALL BE EXCAVATED, TOPSOILED, SEEDED, MULCHED AND TACKED PRIOR TO THE START OF MASSIVE EARTH DISRUPTION.
- 8. DETENTION POND OUTLETS SHALL BE OF THE STANDPIPE AND STONE FILTERSTABILIZATION SYSTEM, WITH TRASH SCREEN. OUTLET FLOW SHALL NOT EXCEED 0.20 29. ALL UNIMPROVED DISTURBED AREAS SHALL BE RE-TOP SOILED, WITH A CUBIC FEET OF WATER PER SECOND/PER ACRE. POND DIKES SHALL HAVE A MINIMUM OF ONE (1) FOOT OF FREEBOARD. AN EMERGENCY SPILLWAY SHALL BE CONSTRUCTED WITHIN THE FREEBOARD LEVEL.
- 9. THE EMERGENCY SPILLWAY FROM THE DETENTION POND SHALL BE SODDED AND PEGGED, OR RIP RAPPED, 15 FEET PAST THE TOE OF THE SLOPE OF THE BERM.
- 10. DIKES AND BERMS SHALL BE FREE OF ALL ORGANIC MATTER.
- 11. RETENTION/DETENTION PONDS SHALL BE FENCED WITH A 4' CHAIN LINK FENCE, INCLUDING A 12' ACCESS GATE FOR MAINTENANCE UNLESS MINIMUM, 5 FT. HORIZONTAL TO 1 FT. VERTICAL SIDE SLOPES ARE PROVIDED. THE FENCE SHALL BE INSTALLED AT THE OUTER PORTION OF THE BERM, TO ALLOW FOR MAINTENANCE WORK TO BE DONE INSIDE THE FENCE.
- 12. ALL UNIMPROVED DISTURBED AREAS SHALL BE STRIPPED OF TOPSOIL WHICH. WILL BE STORED ONSITE DURING THE EXCAVATING STAGE. TOPSOIL PILES SHALL BE SEEDED AND MULCHED, OR MATTED WITH STRAW IN THE NON-GROWING SEASON, IMMEDIATELY AFTER THE STRIPPING PROCESS IS COMPLETED, TO PREVENT WIND AND WATER EROSION.
- 13. SOIL EROSION CONTROLS SHALL BE MONITORED DAILY BY THE ON-SITE ENGINEER, OR CONTRACTOR, WHICHEVER CASE APPLIES.
- SLOPES AND DITCHES 14. ON SITE DITCHES SHALL BE OF THE FLAT BOTTOM TYPE MINIMUM WIDTH OF 2' WITH A MINIMUM OF 3 HORIZONTAL TO 1 VERTICAL SIDE SLOPES, 3:1.
- 15. DITCHES WITH STEEP SLOPES WILL NEED FLOW CHECKS TO PREVENT SCOURING OF THE DITCH BOTTOM. THESE SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR INSPECTOR.
- 16. SLOPES IN EXCESS OF 3 HORIZONTAL TO 1 VERTICAL SHALL NOT BE USED EXCEPT WITH A MECHANICAL DEVICE SUCH AS A RETAINING WALL, TERRACING, OR OTHER PRIOR APPROVED DEVICE.
- STORM DRAINS 17. ALL STORM WATER STRUCTURES, CATCH BASINS AND/OR MANHOLES, IF BLOCK, SHALL BE PLASTERED ON BOTH THE INSIDE AND OUTSIDE OF THE STRUCTURES. GROUTING AND POINTING WILL BE NECESSARY AT THE CASTING AND STRUCTURE JOINT TO PREVENT LEAKAGE AND THE RESULTING 2 SOIL MOVEMENT, AROUND THE STRUCTURE.
- 18. STORM WATER INLETS SHALL HAVE AS A TEMPORARY CONTROL A STRAW BALE BARRIER AND STONE FILTER INSTALLED AROUND THE INLET DURING CONSTRUCTION. AS AN ALTERNATIVE TO THE STRAW BALE BARRIER, A BURLAP AND PEA STONE FILTER MAY BE USED. THREE LAYERS OF BURLAP PERMANENT BASIS. MAINTENANCE SHALL INCLUDE SEDIMENT REMOVAL, FIBER AND A FILTER OF PEA STONE MINIMUM 1 FT. IN DEPTH CAN BE USED. DUE TO THE POROSITY OF THE BURLAP FILTER THE MINIMUM OF 1 FT. OF STONE IS VERY IMPORTANT. THE CONTROL SHALL BE INSTALLED AS EMBANKMENT. SOON AS THE STRUCTURE IS BUILT AND INSPECTED DAILY.
- 19. BURLAP AND PEA STONE FILTERS WILL NEED TO BE CHANGED AFTER EACH RAINFALL.
- 20. COUNTY CODE REQUIRES A MINIMUM PIPE SIZE OF 12" IN DIAMETER. IF 5. COMMON AREAS SHALL BE STABILIZED NO LATER THAN 15 DAYS AFTER SMALLER PIPE IS NEEDED FOR OUTLET PURPOSES THE 12" CAN BE BAFFLED TO THE CORRECT SIZE. ALL PIPE SHALL MEET THE 12" DIAMETER

INSTALL WYE & CAP-

ROOF DRAIN CLEANOUT DETAIL

FINISH GRADE

ROOF DRAIN MANIFOLD PIP

21. ALL STORM DRAIN OUTLETS 15" IN DIAMETER OR LARGER SHALL HAVE ANIMAL GUARDS INSTALLED TO PREVENT ENTRANCE TO THE SYSTEM.

- 1. NOTIFY LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE 24 HOURS 22. ALL STORM DRAINAGE PIPE 30" IN DIAMETER OR LARGER SHALL BE POINTED, AT THE JOINTS ON THE INSIDE WITH MORTAR, AFTER BACKFILLING.
 - RETENTION / DETENTION POND SHALL HAVE A TEMPORARY 5'X10'X3' SUMP INSTALLED AT THE TERMINATION OF THE STORM SEWER. UPON COMPLETION OF THE STABILIZATION WORK THE SUMP AREA SHALL BE FILLED AND RIP RAPPED WITH STONE. SILT TRAPS SHALL BE INSPECTED AFTER EACH
 - 24. STORM WATER OUTLETS DO DENOTE RIP RAP. ALL OUTLETS SHALL BE RIP RAPPED OVER KEYED FILTER FABRIC WITH A MINIMUM OF 15 SQ. YARDS OF 6" OR LARGER STONE.
- 4. 36" M.D.O.T SPECIFICATION TYPE SILT FABRIC FENCE AS SHOWN ON PLANS 25. RIP RAP AS NOTED ON THE PLAN SHALL BE OF A FUNNEL SHAPE CONSTRUCTION, WIDTH SHALL INCREASE AS DISTANCE FROM THE OUTLET SHALL BE PLACED AND MAINTAINED ALONG PERIMETER ON ALL LOW LYING POINT INCREASES AT A 3:1 RATIO. AREAS OF THE CONSTRUCTION SITE TO FILTER RUNOFF BEFORE LEAVING
 - 26. RIP RAP SHALL BE 6" IN DIAMETER OR LARGER. GROUTING MAY BE NECESSARY, AND SHALL BE A MINIMUM OF 6" IN DEPTH WITH THE STONE SET IN THE CEMENT SLURRY.
 - 27. STORM WATER OUTLET IS IN NEED OF A SPLASH BLOCK WHICH IS NOT NOTED ON THE PLAN. INSTALL SPLASH BLOCK IF SLOPE OF THE PIPE IS 4% OR GREATER.
 - 28. IT WILL BE NECESSARY FOR THE DEVELOPER TO HAVE THE STORM DRAINAGE LINES CLEANED PRIOR TO FINAL INSPECTION BY THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE. IF REQUIRED, THIS WORK SHALL BE DONE BY A PROFESSIONAL SEWER CLEANING FIRM AND CERTIFIED IN WRITING BY THE PROJECT ENGINEER. ALL SUMPS AND TEMPORARY SILT TRAPS SHALL ALSO BE CLEANED AT THIS TIME.
 - MINIMUM OF 3" OF MATERIAL, SEEDED, MULCHED AND TACKED WITHIN 15 DAYS OF THE COMPLETION OF THE MASSIVE EARTH DISRUPTION. IN THE NON-GROWING SEASON STRAW MATTING WILL SUFFICE. HYDROSEEDING WILL BE AN ACCEPTABLE ALTERNATE FOR MULCHING. EXTREME CARE SHOULD BE EXERCISED IN SPRING AND FALL PERIODS AS A FROST WILL BREAK THE BIND OF THE HYDROSEEDING, WHICH WILL AFFECT THE EFFECTIVENESS OF
 - 30. IN THE NON-GROWING SEASON, TEMPORARY STABILIZATION OF MASSIVELY EXPOSED AREAS FOR WINTER STABILIZATION SHALL BE DONE WITH STRAW

THIS PROCEDURE.

BUILDING

TO PVC

ADAPTOR

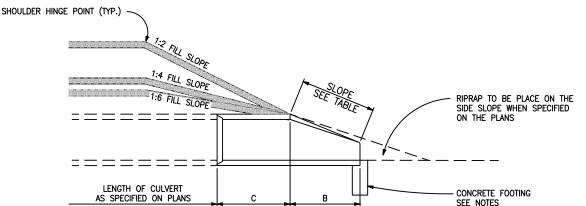
INSTALL WYE-

- 31. PERIODIC INSPECTIONS WILL BE MADE THROUGHOUT THE COURSE OF THE PROJECT. IT WILL BE THE RESPONSIBILITY OF THE MANAGERS OF THE PROJECT TO CONTACT THIS OFFICE FOR THE FINAL INSPECTION AT THE END OF THE PROJECT.
- . THE ISSUING BUILDING DEPARTMENT SHALL NOT ISSUE THE CERTIFICATE OF OCCUPANCY UNTIL THE FINAL INSPECTION LETTER FROM THE LIVINGSTON COUNTY DRAIN COMMISSIONER'S OFFICE HAS BEEN OBTAINED.
- 33. PER THE LIVINGSTON COUNTY DRAIN COMMISSIONER THE SEEDING FERTILIZER AND MULCH MINIMUM QUANTITIES SHALL BE AS FOLLOWS: TOP-SOIL
- GRASS SEED 218 LBS. PER ACRE FERTILIZER 150 LBS. PER ACRE 3" IN DEPTH 1.5 TO 2 TONS PER ACRE (ALL STRAW MULCH MULCHING MUST HAVE A TIE DOWN, SUCH TACKIFIER, NET BINDING, ETC.) HYDRO-SEEDING
- HYDRO-SEEDING IS NOT ACCEPTABLE FOR SLOPES EXCEEDING 1%, IN SUCH CASES STABILIZATION SHALL BE DONE WITH STRAW MULCH WITH A TACKIFIER.
- MAINTENANCE SCHEDULE FOR SOIL EROSION CONTROLS

 1. SILT FENCE SHALL BE INSPECTED WEEKLY AND AFTER EACH MAJOR STORM EVENT. MAINTENANCE SHALL INCLUDE REMOVAL OF ACCUMULATED SILT AND REPLACEMENT OF TORN SECTIONS. SILT FENCE SHALL BE REMOVED WHEN ALL CONTRIBUTING AREAS HAVE BEEN STABILIZED.
- TRACKING PAD SHALL BE INSPECTED MONTHLY FOR ACCUMULATED DIRT. TRACKING PAD SHALL BE REPLACED WHEN THE STONES ARE CHOKED WITH DIRT. TRACKING PAD SHALL BE REMOVED IMMEDIATELY PRIOR TO THE FIRST COURSE OF ASPHALT BEING LAID.
- 3. DETENTION/RETENTION POND SHALL BE INSPECTED QUARTERLY ON A EMBANKMENT STABILIZATION AND MAINTAINING THE OUTLET STRUCTURE IN GOOD CONDITION. NO TREES SHALL BE ALLOWED TO GROW ON THE
- 4. CATCH BASINS SHALL BE INSPECTED ANNUALLY FOR ACCUMULATION OF SEDIMENT. ALL SEDIMENT MUST BE REMOVED AND DISPOSED OF PROPERLY WHEN THE SUMP IS FULL.
- GRADE WORK, PURSUANT TO RULE 1709 (5).

STORM SEWER CLEANOUT

NO SCALE



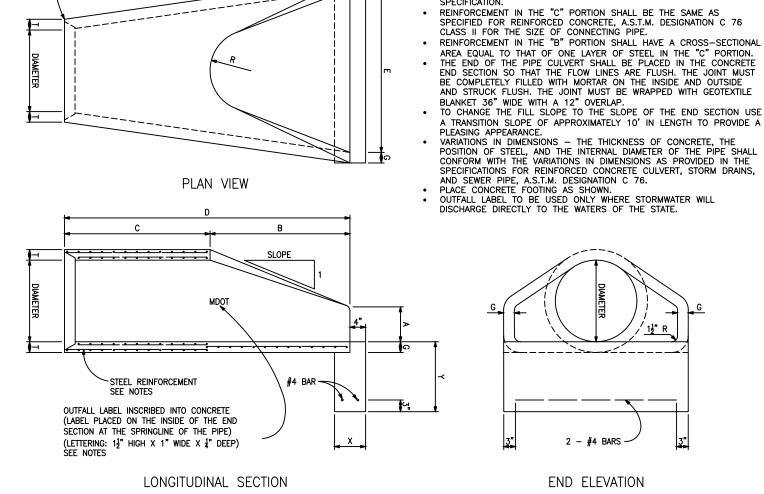
				TABI	LE OF	DIMENSI	ONS				
PIPE DIAMETER (INCHES)	APPROX. SLOPE	T (INCHES)	A (INCHES)	B (INCHES)	C (INCHES)	D (INCHES)	E (INCHES)	G (INCHES)	R (INCHES)	X (INCHES)	Y (INCHES)
12	2.4 TO 1	2	4	24	49	73	24	2	9	8	18
15	2.4 TO 1	2-1/4	6	27	46	73	30	2-1/4	11	8	18
18	2.3 TO 1	2-1/2	9	27	46	73	36	2-1/2	12	8	18
21	2.4 TO 1	2-3/4	9	36	37-1/2	73-1/2	42	2-3/4	13	8	18
24	2.5 TO 1	3	9-1/2	43-1/4	30-1/2	73-3/4	48	3	14	8	18
27	2.5 TO 1	3-1/4	10-1/2	49-1/4	24-1/2	73–3/4	54	3-1/4	14-1/2	8	18
30	2.5 TO 1	3-1/2	12	54	19-3/4	73-3/4	60	3-1/2	15	8	18
36	2.5 TO 1	4	15	63	34-3/4	97-3/4	72	4	20	8	18
42	2.5 TO 1	4-1/2	21	63	35	98	78	4-1/2	22	10	24
48	2.5 TO 1	5	24	72	26	98	84	5	22	10	24
54	2.0 TO 1	5-1/2	27	65	33-1/4	98-1/4	90	5-1/2	24	10	24
60	1.9 TO 1	6	35	60	39	99	96	5	*	12	24
66	1.7 TO 1	6-1/2	30	72	27	99	102	5-1/2	*	12	24
72	1.8 TO 1	7	36	78	21	99	108	6	*	12	24
78	1.8 TO 1	7-1/2	36	90	21	111	114	6-1/2	*	12	24
84	1.6 TO 1	8	36	90-1/2	21	111-1/2	120	6-1/2	*	12	24

GROOVED END ON OUTLET END SECTION

TONGUE END ON INLET END SECTION GROOVE OR TONGUE TO BE THE SAME AS ON STANDARD REINFORCED CONCRETE

PIPE A.S.T.M. DESIGNATION C 76.

SLOPE DETAIL



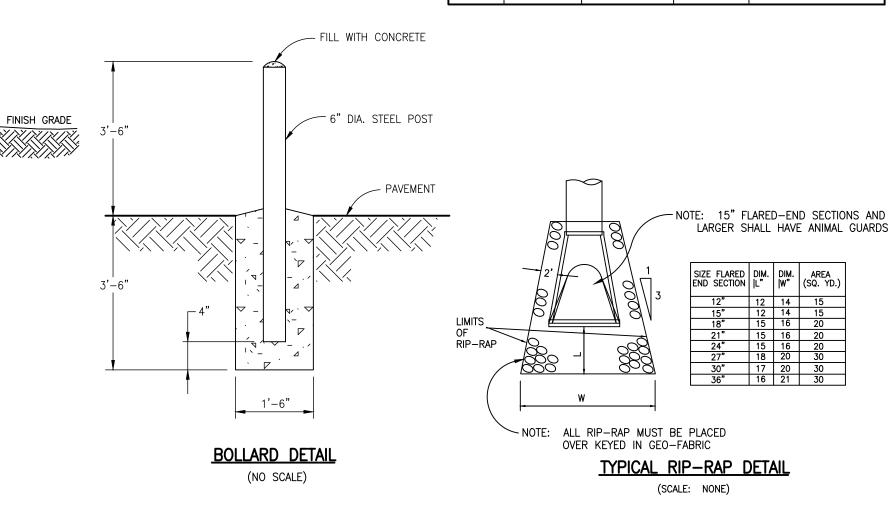
PRECAST CONCRETE END SECTION FOR PIPE CULVERT (REF. MDOT DETAIL R-86-F)

	STF	RUCTURE FRAM	ES & COVE	RS
COVER	TYPE	USE	EAST JORDAN (OR EQUAL)	TYPE OF COVER OR GRATE
Α	МН	ALL	1040	TYPE 'B'
В	CB & INLET	TYPE B2 CURB	7085	TYPE 'M1'
К	CB & INLET	TYPE C & F CURB	7045	TYPE 'M1' GRATE 7050 TYPE 'T1' BACK
С	CB & INLET	VALLEY CURB	7065	7045 TYPE 'M1' GRATE 7060 TYPE 'T1' BACK
D	CB & INLET	PARKING LOTS	1040 5100	TYPE 'M1' GRATE 5105 TYPE 'M1' GRATE
Е	CB & INLET	LAWN AREA OR DITCH	1040	TYPE '02'

* AS FURNISHED BY THE MANUFACTURER

CONCRETE IN THESE END SECTIONS SHALL BE THE SAME GRADE AND STRENGTH AS SPECIFIED FOR REINFORCED CONCRETE PIPE, A.S.T.M.

DESIGNATION C 76 CLASS II, EXCEPT AS MODIFIED BY THE STANDARD





SEE SHEET 2 FOR GENERAL

NOTES AND LEGEND

H

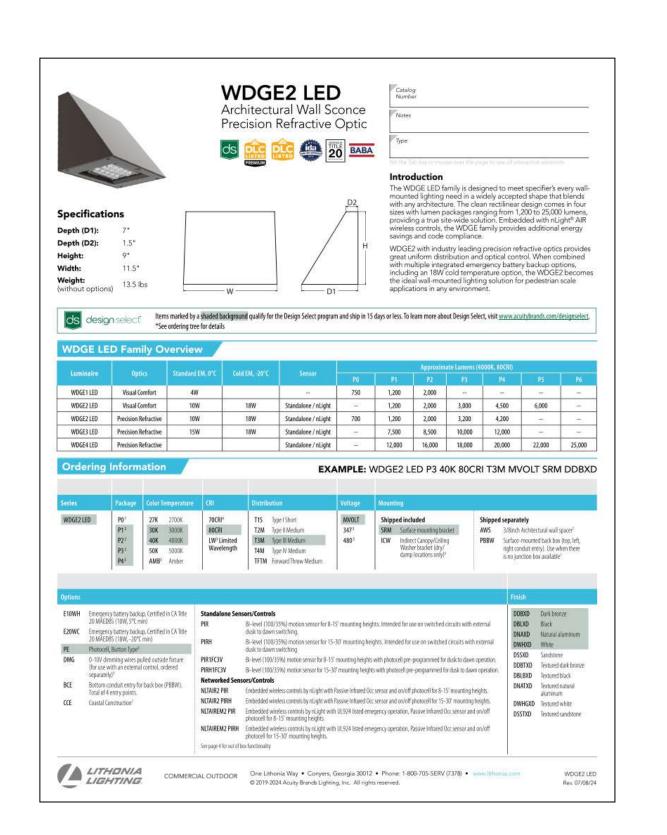
8

SIGNED BY: DRAWN BY: MJD HECKED BY: NO SCALE OB NO: **24-176**

9/10/2024

COHOCTAH EMS SUB STATION PHOTOMETRIC LAYOUT GASSER BUSH ASSOCIATES WWW.GASSERBUSH.COM

	STATE OF THE PARTY		RSX1	LED	Catalog Number		
			Area Lur		Notes		
1	1	- The	₩ ≅	a. 🙃 🟤	Туре		
1	7		PREMILEY C	US PREMIUM	ARE THE THEOLOGY OF STREETS (MARK THE SPECIF TO MAKE AN EXTREME	the vieners.	
Specific EPA (ft²@0°): Length: Width: Height: Weight: (SPA mou	3.0° (7.6 7.2°	.57 ft² (0.05 m²) 21.8" (55.4 cm) (SPA mount) 13.3" (33.8 cm) cm) Main Body (18.4 cm) Arm	BAA	BABA GS	Introduction The new RSX LED Area value by providing signilife and outstanding phaffordable price. The RSI lumens allowing it to reluminaires. The RSX features an introduction provides signification provides signification provides signification for wiring without compartment. A mast a integral slipfitter and ot are available.	ficant er otometri SX1 deliv place 70 egral uni the lumi ble patte cant lab e bottom t openin rm adap	nergy savings, long ic performance at an ic performance at an icers 7,000 to 17,000 W to 400W HID inversal mounting maire to be mounted rns. This "no-drill" or savings. An in of mounting arm ig the electrical itor, adjustable
Orderi RSX1 LED	ing Inform		Distribution		XAMPLE: RSX1 LED P4 4	10K R3 N	MVOLT SPA DDBXD
					Manustate		
RSX1 LED	Package P1	Temperature 30K 3000K	R2 Type 2 Wide	Voltage MVOLT (120V-277V) ²	Mounting SPA Square pole mounting (3.0" min. SC) pole for 1 at 90	7°, 3.5° min. 5Q pole for 2, 3, 4 at 90°)
Control Control	P1 P2 P3	10000 000000	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short	MVOLT (120V-277V) ¹ HVOLT (347V-480V) ¹ XVOLT (277V-480V) ⁴	SPA Square pole mounting (3.0" min. 50 RPA Round pole mounting (3.2" min. dia for 1 at 90", 2 at 180", 3 at 120")	. RND pole for 2	9°, 3.5° min. SQ pole for 2, 3, 4 at 90°) 1, 1, 4 at 90°, 3.0° min. dia. RND pole
Control Control	P1 P2	30K 3000K 40K 4000K	R2 Type 2 Wide R3 Type 3 Wide R3 Type 3 Short R4 Type 4 Wide R4S Type 4 Short	MVOLT (120V-277V) ² HVOLT (347V-480V) ³ XVOLT (277V-480V) ⁴ (use specific voltage for options as noted)	SPA Square pole mounting (3.0" min. SE RPA Round pole mounting (3.2" min. sli for 1 at 90°, 2 at 180°, 3 at 120° MA Mast arm adaptor (fix 2-3/8° CO to IS Adjustable slightter (fixs 2-3/8° CO to	. RNO pole for 2 orizontal tenon)	9°, 3.5° min. 50 pole for 2, 3, 4 ± 90°) 1, 1, 4 at 90°, 3.0° min. dia. RND pole
Control Control	P1 P2 P3	30K 3000K 40K 4000K	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short R4 Type 4 Wide R4S Type 4 Short R5 Type 5 Wide T R5S Type 5 Short T	MVOLT (120V-277V) ¹ HVOLT (347V-480V) ³ XVOLT (277V-480V) ⁴ (use specific voltage for options as noted) 120 ³ 277 ³ 208 ³ 347 ³	SPA Square pole mounting (3.0" min. St. for 1 at 90°, 2 at 180°, 3 at 120°). MA Mast arm adaptor (fits 2-3/8" 00°) to Mall stocket 1 was 10°. Adjustable slightner (fits 2-3/8" 00°) was 10°. Wall bracket with surface conduit but	a. RND pole for 2 orizontal tenon) tenon) *	9°, 3.5° min. 50 pole for 2, 3, 4 ± 90°) 1, 3, 4 ± 190°, 3.0° min. dia. RND pole
Control Control	P1 P2 P3	30K 3000K 40K 4000K	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short R4 Type 4 Wide R4S Type 4 Short R5 Type 5 Wide Type 5	MVOLT (120V-277V) ² HVOLT (347V-480V) ³ XVOLT (277V-480V) ⁴ (use specific voltage for options as noted) 120 ³ 277 ³	SPA Square pole mounting (3.0" min. 50 for 1 at 90°, 2 at 180°, 3 at 120°) MA Mast arm adaptor (firs. 2-3/8" OD to 5 Adjustable shipfirer (firs. 2-3/8" OD to WBA. Wait bracket	a. RND pole for 2 prizontal tenon) senon) * xx nting * iting *	, 1,4 at 90°, 3.0° min. dia. RND pole
Control Control	P1 P2 P3	30K 3000K 40K 4000K	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short R4 Type 4 Short R5 Type 4 Short R5 Type 5 Wide R5 Type 5 Wide R5 Type 5 Short R6 Automotive Front Row AFRR9O Automotive Front Row R6gin R6ztate AFR19O Automotive Front Row	MVOLT (120V-277V) ¹ HVOLT (347V-480V) ³ XVOLT (277V-480V) ⁴ (use specific voltage for options as noted) 120 ³ 277 ³ 208 ³ 347 ³	SPA Square pole mounting (3.0" min. St for 1 at 90°, 2 at 180°, 3 at 120°) MA Mast arm adaptor (fits 2-3.78° OD to 15 Mg). Wast with surface conduit to Wast Wast Wast Wast Wast Wast Wast Wast	a. RND pole for 2 prizontal tenon) senon) * xx nting * iting *	, 1,4 at 90°, 3.0° min. dia. RND pole
Control Control	P1 P2 P3	30K 3000K 40K 4000K	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short R4 Type 4 Short R5 Type 4 Short R5 Type 5 Wide R5 Type 5 Wide R5 Type 5 Short R6 Automotive Front Row AFRR9O Automotive Front Row R6gin R6ztate AFR19O Automotive Front Row	MVOLT (120V-277V) ¹ HVOLT (347V-480V) ³ XVOLT (277V-480V) ⁴ (use specific voltage for options as noted) 120 ³ 277 ³ 208 ³ 347 ³	SPA Square pole mounting (3.0" min. St for 1 at 90°, 2 at 180°, 3 at 120°) MA Mast arm adaptor (fits 2-3.78° OD to 15 Mg). Wast with surface conduit to Wast Wast Wast Wast Wast Wast Wast Wast	a. RND pole for 2 prizontal tenon) senon) * xx nting * iting *	, 1,4 at 90°, 3.0° min. dia. RND pole
Options Shipped Ins. PE PER7	P1 P2 P3 P4 Stalled House-side shield Photocontrol, button Seven-wire twist-lor	30K 300CK 40K 4000K 50K 5000K	R2 Type 2 Wide R3 Type 3 Wide R3 Type 3 Wide R3 Type 3 Short R4 Type 4 Wide R4 Type 4 Short R5 Type 4 Short R5 Type 5 Wide R5 Type 5 Short AFR Automotive Front Row AFRR90 Automotive Front Row R5 Type 5 Short AFR Automotive Front Row R6 Type 5 Short AFR P0 Automotive Front Row R6 Type 5 Short AFR P0 Automotive Front Row R6 Type 5 Short AFR P0 Automotive Front Row R6 Type 8 Type 5 Short AFR P0 Automotive Front Row R6 Type 8 Type 8 Type 9 Typ	MVOLT (120V-277V) ¹ HVOLT (347V-480V) ¹ XVOLT (277V-480V) ¹ (use specific voltage for options as noted) 120 ³ 277 ³ 208 ³ 347 ³ 240 ³ 480 ⁴ tworked Sensors/Controls (fact ART generation Z. with Networked, Blenica(n) Act and/or Sulfd America B	SPA Square pole mounting (3.0" min. St. for 1 at 90°, 2 at 180°, 3 at 120°) MA Mast arm adaptor (fits 2-3.98° OD to 15 at 120°) WBA Wall broket vitil surface conduit to Mal broket vitil surface conduit to AASP Adjustable tilt arm square pole mou AAWB Adjustable tilt arm with wall bracket AAWSC Adjustable tilt arm with wall bracket and AAWSC Adjustable tilt arm will bracket and AAWSC Adjustable solt arm will bracket and AAWSC A	RND pole for 2 periontal tenoral senoral sen	Dark Bronze Back Natural Aluminum White
Options Shipped Ins	P1 P2 P3 P4 P4 stalled House-side shield Photocontrol, button	30K 3000K 40K 4000K 50K 5000K style 40 k receptacle only (no con 3,347) h 0,480) i	R2 Type 2 Wide R3 Type 3 Mide R3 Type 3 Mide R3 Type 3 Mide R4 Type 4 Short R5 Type 4 Short R5 Type 4 Short R5 Type 5 Short AFR Automotive Front Row AFRR90 Automotive Front Row AFRR90 Automotive Front Row Left Rocated Shipped Installed "Standalone and Ne MIARIZERHIN nlight BAA Buy An CCE Tooks With	MVOLT (120V-277V) ¹ HVOLT (347V-480V) ³ XVOLT (277V-480V) ⁴ (use specific voltage for options as noted) 120 ² 277 ³ 208 ³ 347 ³ 240 ³ 480 ⁴ tworked Sensors/Controls (fact AIR generation 2, with Networked, Billerica) At and/or Bull America Bi Construction ¹¹	SPA Square pole mounting (3.0" min. St. for 1 at 90°, 2 at 180°, 3 at 120°) MA Mast arm adaptor (fits 2-3.98° OD to 15 at 120°) WBA Wall broket vitil surface conduit to Mal broket vitil surface conduit to AASP Adjustable tilt arm square pole mou AAWB Adjustable tilt arm with wall bracket AAWSC Adjustable tilt arm with wall bracket and AAWSC Adjustable tilt arm will bracket and AAWSC Adjustable solt arm will bracket and AAWSC A	RND pole for 2 orizontal tenon) senon) * ix initing * surface conduit Finish DDBXD DBXD DNXXD	, 3, 4 at 90°, 3.0° min. dia. RND pole box* Dark Bronze Back Natural Aluminum



 $^{+}0.0$ $^{+}0.0$ $^{+}0.0$ $^{+}0.0$ $^{+}0.1$ $^{+}0.1$ $^{+}0.2$ $^{+}0.3$ $^{+}0.3$ $^{+}0.4$ $^{-}0.5$ $^{+}0.5$ $^{*}0.5$ $^{*}0.5$ $^{*}0.5$ $^{*}0.5$ $^{*}0.5$ $^{*}0.4$ $^{*}0.4$ $^{*}0.3$ $^{+}0.2$

 $^{+}0.0$ $^{+}0.1$ $^{+}0.9$ $^{+}0.2$ $^{+}0.2$ $^{+}0.3$ $^{+}0.5$ $^{+}0.6$ $^{+}0.5$ $^{+}0.8$ $^{*}0.9$ $^{*}0.9$ $^{*}0.9$ $^{*}0.8$ *

+0.0 +0.0 +0.1 +0.5 +0.2 +0.3 +0.4 +0.5 +0.7 +0.8 +1.0 *1.1 *1 2 *1.2 *1.1 *1.0 *0.9 *0.9 *0.9 +0.9

 $^{+}0.0 \, ^{+}0.1 \, ^{+}0.1 \, ^{+}0.1 \, ^{+}0.2 \, ^{+}0.2 \, ^{+}0.3 \, ^{+}0.4 \, ^{+}0.6 \, ^{+}0.8 \, ^{+}1.0 \, ^{+}1.2 \, ^{*}1.4 \, ^{*}1.6 \, ^{*}1.6 \, ^{*}1.5 \, ^{*}1.3 \, ^{*}1.2 \, ^{*}1.3 \, ^{*}1.5 \, ^{+}1.8 \, ^{+}1.3 \, ^{*}1.3 \, ^{*}1.2 \, ^{*}1.3 \, ^{*}$

+0.0 +0.1 +0.1 +0.1 +0.2 +0.3 +0.5 +0.7 +0.9 +1.1 +1.4 +1.7 +1.8 *1.8 *1.8 *1.6 *1.4 *1.6 *2.2 +2.8 +2.7

 $^{+}0.0$ $^{+}0.1$ $^{+}0.1$ $^{+}0.1$ $^{+}0.2$ $^{+}0.3$ $^{+}0.5$ $^{+}0.7$ $^{+}0.9$ $^{+}1.1$ $^{+}1.5$ $^{+}1.8$ $^{+}1.9$ $^{*}1.9$ $^{*}1.9$ $^{*}1.8$ $^{*}1.7$ $^{*}1.9$ $^{*}2.6$ $^{+}3.7$ $^{-}4.7$

3.5 +3.0 +1.9 +1.0 +0.4 +0.1 +0.0

[†]2.[†] [†]2.[†] [†]1.7 [†]1.0 [†]0.4 [†]0.2 [†]0.0

1.0 +0.9 +0.6 +0.4 +0.2

 $^{+}0.6 \stackrel{+}{-}0.6 \stackrel{+}{-}0.4 \stackrel{+}{-}0.2 \stackrel{+}{-}0.1 \stackrel{+}{-}0.1$

1.4 1.4 1.3 0.9 0.4 0.2/

 $^{+}0.0 \, ^{+}0.1 \, ^{+}0.1 \, ^{+}0.1 \, ^{+}0.2 \, ^{+}0.3 \, ^{+}0.5 \, ^{+}0.7 \, ^{+}0.9 \, ^{+}1.1 \, ^{+}1.4 \, ^{+}1.7 \, ^{+}1.8 \, ^{*}1.8 \, ^{*}1.8 \, ^{*}1.9 \, ^{*}2.0 \, ^{*}2.2 \, ^{*}2.6 \, ^{*}2.7 \, ^{*}$

 $^{+}0.0$ $^{+}0.1$ $^{+}0.1$ $^{+}0.2$ $^{+}0.2$ $^{+}0.3$ $^{+}0.5$ $^{+}0.6$ $^{+}0.8$ $^{+}1.0$ $^{+}1.4$ $^{*}1.6$ $^{*}1.6$ $^{*}1.6$ $^{*}1.7$ $^{*}1.8$ $^{*}2.2$ $^{*}2.9$ $^{*}3.8$ $^{*}3$ $^{*}9$

 $^{+}0.0$ $^{+}0.1$ $^{+}0.1$ $^{+}0.0$ $^{+}0.2$ $^{+}0.3$ $^{+}0.4$ $^{+}0.6$ $^{+}0.8$ $^{+}0.9$ $^{+}1.0$ $^{*}1.2$ $^{*}1.3$ $^{*}1.3$ $^{*}1.4$ $^{*}1.6$ $^{*}2.2$ $^{*}3.2$ $^{*}4.1$ $^{*}4.2$

 $^{+}0.0$ $^{+}0.0$ $^{+}0.1$ $^{+}0.1$ $^{+}0.0$ $^{+}0.2$ $^{+}0.3$ $^{+}0.4$ $^{+}0.5$ $^{+}0.6$ $\stackrel{1}{\text{4}}0.8$ $\stackrel{1}{\text{4}}0.9$ $^{*}1.0$ $^{*}1.1$ $^{*}1.1$ $^{*}1.2$ $^{*}1.4$ $^{*}1.9$ $^{*}2.6$ $\stackrel{*}{\text{3}}.5$ $\stackrel{*}{\text{3}}.6$ $\stackrel{4}{\text{A}}$

 $^{+}0.0$ $^{+}0.0$ $^{+}0.1$ $^{-}0.2$ $^{+}0.2$ $^{+}0.2$ $^{+}0.3$ $^{+}0.4$ $^{+}0.6$ $^{-}0.7$ $^{+}0.8$ $^{+}0.9$ $^{+}1.0$ $^{+}1.0$ $^{+}1.0$ $^{+}1.0$ $^{+}2.4$ $^{+}3.0$ $^{+}3.2$ $^{+}1.3$ $^{+}2.0$ $^{+}2.6$ $^{+}1.8$ $^{+}1.1$ $^{+}1.0$ $^{+}0.7$ $^{+}0.4$ $^{+}0.2$ $^{+}0.1$ $^{+}0.1$ $^{+}0.0$ $^{+}0.0$

 $^{+}0.0 \, ^{+}0.0 \, ^{+}0.1 \, ^{+}0.1 \, ^{+}0.1 \, ^{+}0.2 \, ^{+}0.3 \, ^{+}0.4 \, ^{+}0.5 \, ^{+}0.7 \, \stackrel{+}{\geqslant}0.8 \, ^{+}1.0 \, ^{*}1.1 \, ^{*}1.1 \, ^{*}1.2 \, ^{*}1.3 \, ^{*}1.5 \, ^{*}2.1 \, ^{*}3.1 \, ^{*}4.0 \, ^{*}4.1 \, ^{*}4.0 \, ^{*}4.1 \, ^$

+0.0 +0.1 +0.1 +0.2 +0.3 +0.4 +0.5 +0.5 | *0.6 *0.7 *0.7 *0.7 *0.7 *0.7 *0.6 *0.5 *0.4 +0.3 | BUILDING

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Overall	+	0.1 fc	4.7 fc	0.0 fc	N/A	N/A
Proposed Parking	Ж	1.5 fc	4.2 fc	0.3 fc	14.0:1	5.0:1
Boundary	+	0.0 fc	0.1 fc	0.0 fc	N/A	N/A

 $^{+}0.0$ $^{+}$

+0.0 + 0.0

+0.0 + 0.0

Schedul	e								
Symbol	Label	QTY	Manufacturer	Catalog	Description	Lamp Output	LLF	Input Power	Mounting Height
	A	4	Lithonia Lighting	WDGE2 LED P3 40K 70CRI T4M	WDGE2 LED WITH P3 - PERFORMANCE PACKAGE, 4000K, 70CRI, TYPE 4 MEDIUM OPTIC	3552	0.9	32.137 5	12'
	В	2	Lithonia Lighting	WDGE2 LED P2 40K 70CRI T4M	WDGE2 LED WITH P2 - PERFORMANCE PACKAGE, 4000K, 70CRI, TYPE 4 MEDIUM OPTIC	2278	0.9	18.981 5	8'
	С	2	Lithonia Lighting	RSX1 LED P3 40K R5	RSX Area Fixture Size 1 P3 Lumen Package 4000K CCT Type R5 Distribution	14396	0.9	109.44	20'

General Note

- 1. SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
- 2. SEE LUMINAIRE SCHEDULE FOR LIGHT LOSS FACTOR 3. CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0" & 5' - 0"

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIRMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

Alternates Note

THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

Ordering Note

FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-

Drawing Note

THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

Mounting Height Note

MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

09/03/2024 Scale Not to Scale Drawing No. #24-33299_V1

Associates

aia pc

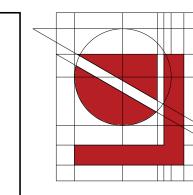
Michigan 48116-9510
5668 fax: (810) 227-5855

COHOCTAH TWP. SUBSTATION FOR:

LIVINGSTON COUNTY EMS
7304 OAK GROVE RD., HOWELL, MI 48855

FLOOR PLAN

24063



ciates

a pc

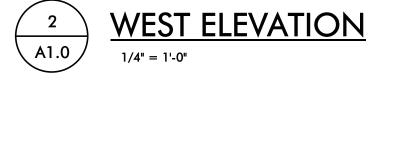
n 48116-9510

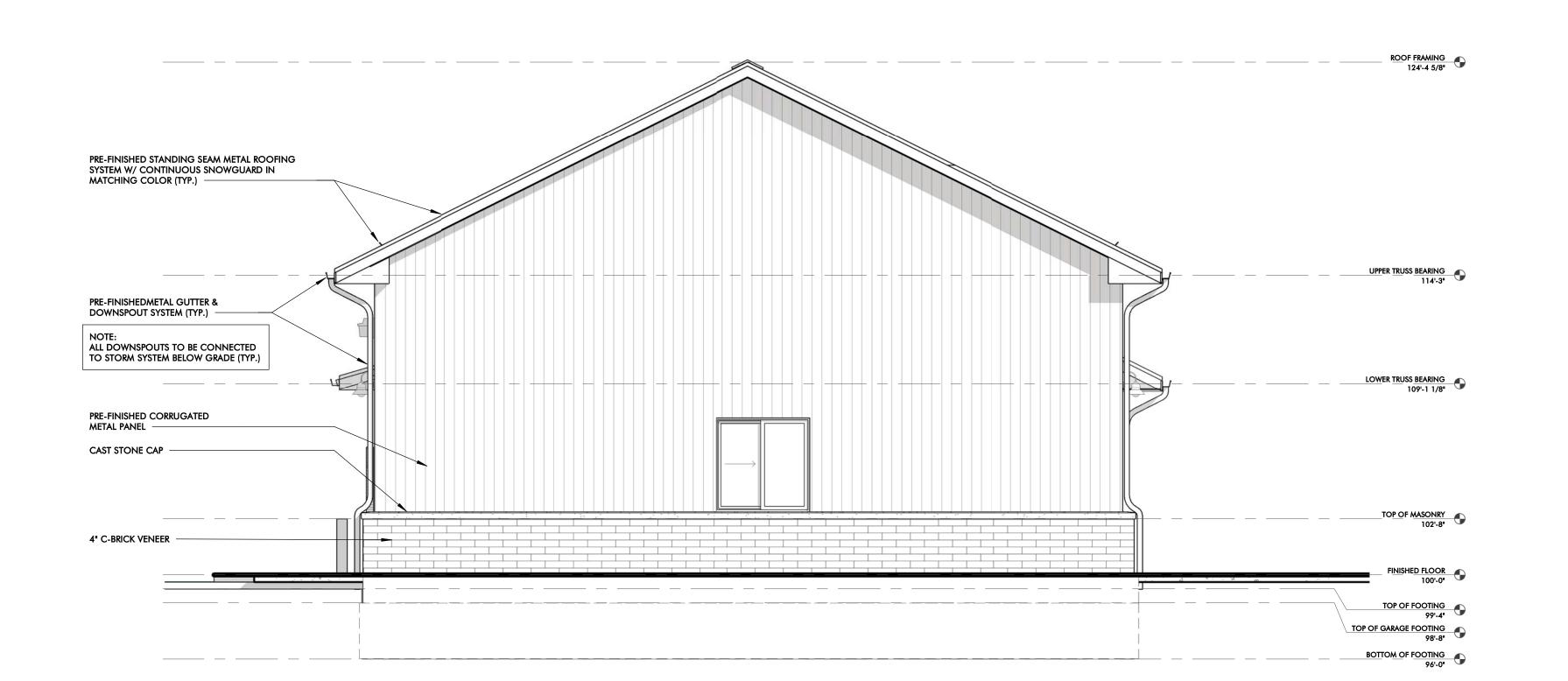
ax: (810) 227-5855

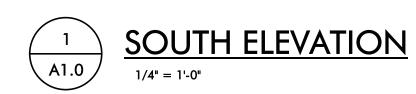
COHOCTAH TWP. SUBSTATION FOR:
LIVINGSTON COUNTY
7304 OAK GROVE RD., HOWELL, MI 48855 EXTERIOR ELEVATIONS

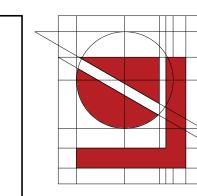
24063











Inout Associates
Thitects aid pc
on Drive, Brighton, Michigan 48116-9510
out.com (810) 227-5668 fax: (810) 227-5855

CONSULTANT

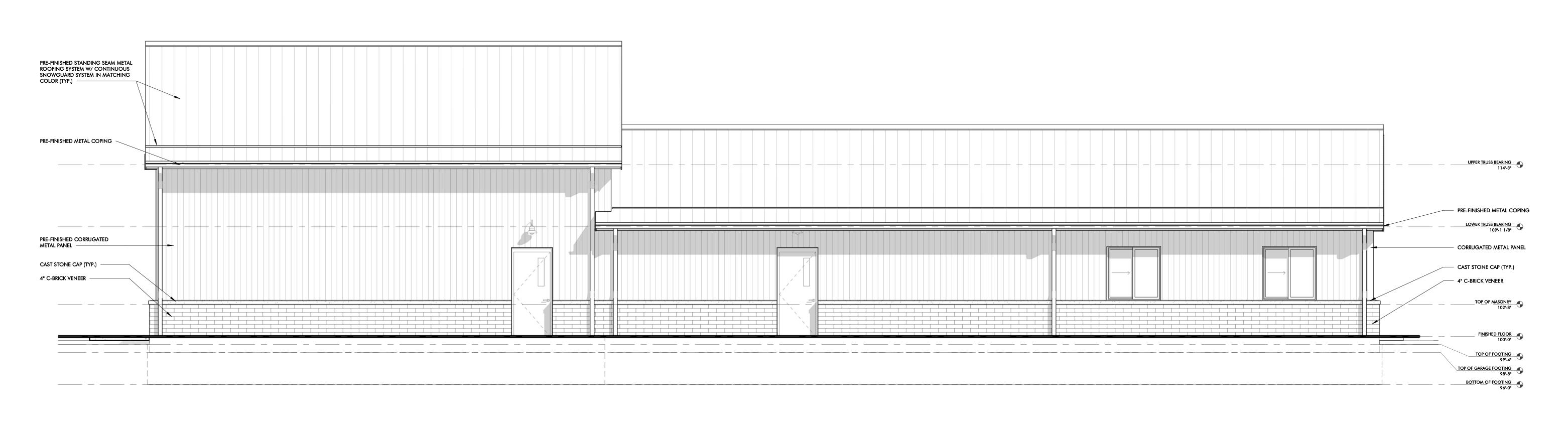
PA 9-10-2024 SITE PLAN SUBMISSION DATE: ISSUED FOR

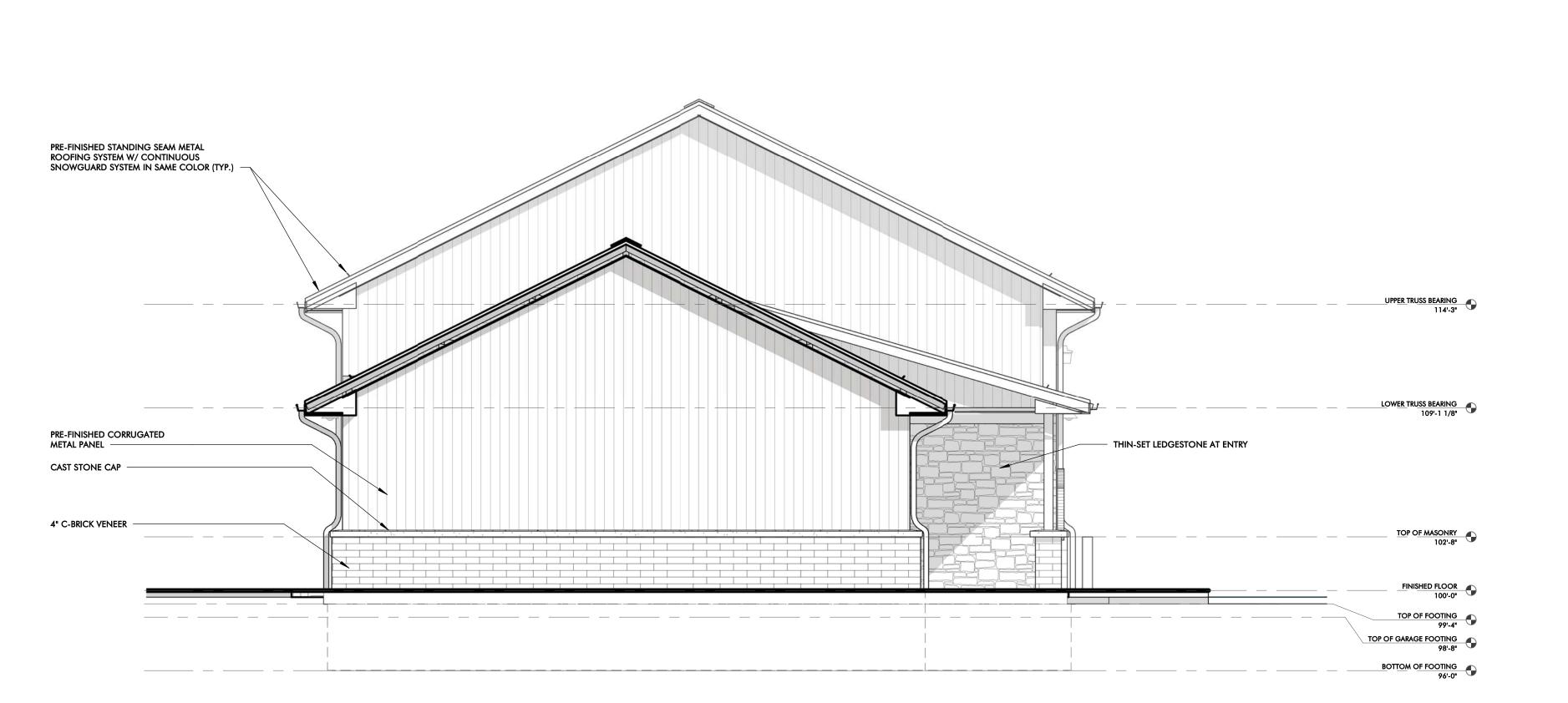
CHECKED: BIMA
APPD:

COHOCTAH TWP. SUBSTATION FOR:
LIVINGSTON COUNTY EMS
7304 OAK GROVE RD., HOWELL, MI 48855
EXTERIOR ELEVATIONS

ĕ≧ ½ | ₹ A2.1

A2.1 24063







3 A1.0 EAST ELEVATION





VIEW LOOKING NORTHWEST

NOT TO SCALE

BIRDSEYE VIEW LOOKING SOUTHEAST

NOT TO SCALE

24063

A3.0