THE VILLAGE AT DISCOVERY PARK

LEGEND OF SYMBOLS:

PROPOSED TREELINE

EXISTING STRUCTURE

EXISTING TREELINE

EXISTING WATERLINE

PROPOSED WATERLINE

EXISTING GAS LINE

PROPOSED GAS LINE

EXISTING TELEPHONE

EXISTING FIBER OPTIC

EXISTING UNDERGROUND ELECTRIC

EXISTING OVERHEAD ELEC. & TV

EXISTING SANITARY SEWER

PROPOSED SANITARY SEWER

EXISTING MAJOR CONTOUR

PROPOSED MINOR CONTOUR

PROPOSED MAJOR CONTOUR

ORDINARY HIGH WATER MARK

PROPOSED CONCRETE PAVEMENT

PIPE EMBEDMENT UNDER PAVEMENT

100 YEAR FLOOD PLAIN

---- OUTER STREAM BUFFER

PROPOSED UNDERGROUND ELECTRIC

EXISTING OVERHEAD ELEC., TV & TELE.

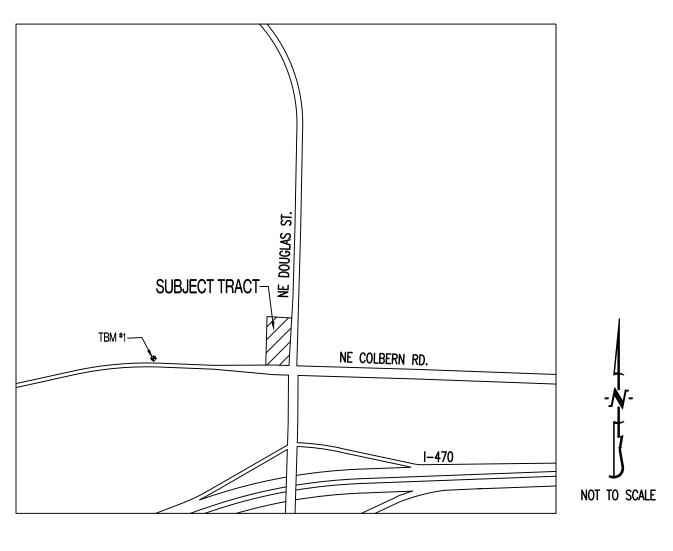
—— OE —— EXISTING OVERHEAD ELECTRIC

= = = = Existing curb

— G — —

_____ G ____

LOCATION MAP



TBM #1 - CONTROL POINT #50 SET BY OLSSON. 1/2" IMBEDDED CAP ON NORTH SIDE OF NW COLBERN RD. LOCATED AT 1ST FIELD ENTRANCE.

EASTING = 2822108.784

REFER TO "PRIVATE SITE DEVELOPMENT PLANS FOR THE VILLAGE AT DISCOVERY PARK ZONE 1" PLANS BY OLSSON DATED 10/18/2023 FOR MORE INFORMATION.

FLOOD PLAIN STATEMENT:

THIS LOT IS LOCATED IN ZONE X UNSHADED — AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOOD AS SHOWN ON THE FEMA F.I.R.M. PANEL #29095C0409G, DATED JANUARY 20, 2017.

LEGAL DESCRIPTION:

VILLAGE AT DISCOVERY PARK, LOT 1. A SUBDIVISION IN JACKSON COUNTY, LEE'S SUMMIT, MISSOURI.

UTILITY COMPANIES:

LOCATES:

MISSOURI ONE CALL INC. 1022 B NORTHEAST DRIVE JEFFERSON CITY, MO 65109 1-800-344-7483

TELEPHONE: 800-286-8313

NATURAL GAS:

314-342-0500

WATER UTILITIES DEPARTMENT 1200 S HAMBLEN RD LEE'S SUMMIT, MO 64081 816-969-1900

CITY OF LEE'S SUMMIT

WATER/SANITARY SEWER:

ELECTRIC:

816-524-3223

FIBER: **GOOGLE FIBER** 877-454-6959

CABLE TELEVISION: 877-772-2253

GENERAL NOTES:

ALL STREET, STORM DRAIN, AND SANITARY SEWER CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT "DESIGN AND CONSTRUCTION MANUAL" (CURRENT EDITION).

ANY CITY DETAILS SHOWN ON THIS SET OF PLANS ARE FOR REFERENCE ONLY. CONTRACTOR TO HAVE A COPY OF THE CITY'S LATEST EDITION OF SPECIFICATIONS AND STANDARDS FOR ALL STREET, STORM, AND SANITARY CONSTRUCTION ON SITE AT ALL TIMES DURING CONSTRUCTION. REFER TO https://cityofls.net/development-services/design/design-criteria/design-construction-manual-infrastructure

CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF TRAFFIC CONTROL DEVICES NECESSARY TO COMPLETE THEIR PORTION OF WORK. THE DEVICES AND METHODS EMPLOYED WILL COMPLY WITH THE CURRENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL CONCRETE MATERIALS SHALL CONFORM TO KCMMB STANDARDS AND SPECIFICATIONS.

THIS PLAT CONTAINS APPROXIMATELY 1.49 ACRES.

THIS TRACT IS ZONED PMIX.

THE STORM SEWER NETWORK DESIGN FOR THIS PROJECT IS BASED ON OPEN CHANNEL FLOW; THEREFORE THE HYDRAULIC GRADE LINE IS AT OR LESS THAN THE CROWN OF THE PIPE.

EXISTING UTILITIES SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL COORDINATE LOCATES (HORIZONTAL AND VERTICAL) PRIOR TO

ALL EXCAVATION TO BE IN ACCORDANCE WITH SECTIONS 319.010-319.050, REVISED STATUTES OF THE STATE OF MISSOURI. SUCH COMPLIANCE SHALL NOT. HOWEVER, EXCUSE ANY PERSON MAKING ANY EXCAVATION FROM DOING SO IN A CAREFUL AND PRUDENT MANNER, NOR SHALL IT EXCUSE SUCH PERSON FROM LIABILITY FOR ANY DAMAGE OR INJURY TO UNDERGROUND UTILITIES RESULTING FROM THE EXCAVATION.

A GEOTECHNICAL EVALUATION OF THE SUBSURFACE SOIL, GROUNDWATER CONDITIONS, AND A SLOPE STABILITY ANALYSIS HAS NOT BEEN PERFORMED BY THIS ENGINEER. THE OWNER SHALL SATISFY THEMSELVES OF ALL GEOTECHNICAL CONDITIONS PRIOR TO ANY CONSTRUCTION.

ALL LAND DISTURBANCE ACTIVITIES SHALL BE IN ACCORDANCE WITH THE CITY OF LEE'S SUMMIT CODE OF ORDINANCES. REFER TO STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR NARRATIVE REPORT AND BMP DESCRIPTIONS AND DETAILS.

ALL SLOPES ARE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

IT IS THE INTENT OF THESE PLANS TO COMPLY WITH THE REQUIREMENTS OF THE MoDNR CLEAN WATER COMMISSION.

ALL DISTURBED AREAS WITHIN THE "LIMITS OF DISTURBANCE" SHALL BE FINE GRADED, SEEDED, AND MULCHED.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES AND REMOVING THEM ONCE THE SITE IS

ALL HDPE PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. REFER TO DETAIL FOR PIPE BEDDING REQUIREMENTS.

IN ORDER TO TERMINATE A STATE OPERATING PERMIT THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) REQUIRES THAT THE PERMITTEE SUBMIT A COMPLETED FORM H (INCLUDED WITH THE APPROVAL PERMIT) TO THE MDNR. A PERMIT IS ELIGIBLE FOR FERMINATION WHEN EITHER PERENNIAL VEGETATION, PAVEMENT, BUILDINGS, OR STRUCTURES USING PERMANENT MATERIALS COVER ALL AREAS THAT HAVE BEEN DISTURBED. VEGETATIVE COVER SHALL BE AT LEAST 70% OF FULLY ESTABLISHED PLANT DENSITY OVER 100% OF THE DISTURBED AREA. A COPY OF FORM H SHOULD BE SUBMITTED TO THE CITY AT WHICH TIME THE CITY WILL REMOVE THE PROJECT FROM ITS INSPECTION SCHEDULE.

LAND DISTURBANCE SITES SHOULD BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 48 HOURS AFTER ANY STORM EVENT EQUAL TO OR GREATER THAN A 2-YEAR, 24-HOUR STORM HAS CEASED DURING A NORMAL WORK DAY OR WITHIN 72 HOURS IF THE RAIN EVENT CEASES DURING A NON-WORK DAY SUCH AS A WEEKEND OR HOLIDY. ANY DEFICIENCIES SHALL BE NOTED IN A WEEKLY REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE REPORT. CONTRACTORS ARE REQUIRED TO SUBMIT TO CITY INSPECTION STAFF COPIES OF THEIR INSPECTION REPORTS REQUIRED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ON A MONTHLY BASIS IF REQUESTED.

NO OIL AND GAS WELLS EXIST ON THIS TRACT ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES OIL AND GAS

THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

TOTAL DISTURBED AREA ON SITE = 1.82 AC.

MISSOURI DNR LAND DISTURBANCE PERMIT NUMBER MORA23630

DEVELOPER:

DISCOVERY PARK LEE'S SUMMIT, LLC 4220 PHILLIPS FARM RD. COLUMBIA, MO 65201 573-615-2252

	OUEET TITLE	ORIGINAL	REVISION 1	REVISION 2
SHEET NUMBER	SHEET IIILE	10/18/24	12/05/24	12/18/24
CE 1.0	COVER SHEET	X		
CE 1.1	CIVIL SPECIFICATIONS	X		
CE 2.1	EROSION CONTROL PLAN	X		
CE 2.2	EROSION CONTROL DETAILS	X		
CE 3.0	OVERALL GRADING	X		
CE 3.1	GRADING SHEET 1	X	X	
CE 3.2	GRADING SHEET 2	X	X	
CE 3.3	GRADING SHEET 3	X	X	
CE 3.4	GRADING SHEET 4	X	X	
CE 4.1	UTILITY PLAN	X		
CE 5.1	STORM PROFILE & DETAILS	X		
CE 5.2	STORM DETAILS CONT'D	X		
CE 5.3	25 YEAR STORM CALCS	X		X
CE 5.4	100 YEAR STORM CALCS	X		X
CE 6.1	SITE PLAN	Χ	X	
CE 7.1	DETAILS SHEET 1	Χ		
CE 7.2	DETAILS SHEET 2	X		
CE 7.3	LEE'S SUMMIT DETAILS SHEET 1	Х		
CE 7.4	LEE'S SUMMIT DETAILS SHEET 2	Х		
CE 8.1	LANDSCAPING PLAN		Х	

FINISHED FLOOR OF STRUCTURE

PROPOSED TOP OF WALL

STORM SEWER STRUCTURE LABEL

SANITARY SEWER STRUCTURE LABEL

LOT NUMBER

HIGH POINT

LOW POINT

EXISTING SIGNS

EXISTING POWER POLE

EXISTING WATER VALVE

EXISTING GAS METER

EXISTING WATER METER

EXISTING FIRE HYDRANT

EXISTING AIR CONDITIONER

EXISTING ELECTRIC METER

EXISTING LIGHT POLE

EXISTING GUY WIRE

EXISTING TELEPHONE PEDESTAL

EXISTING ELECTRICAL TRANSFORMER

PROPOSED BUILDING FOOTPRINT

PROPOSED HEAVY DUTY PAVEMENT

EXISTING SANITARY SEWER LATERAL

PROPOSED SANITARY SEWER LATERAL

PROPOSED TRACER WIRE TEST STATION BOX

MANHOLE

EXISTING GAS VALVE

(XXX.XX FG)

(XXX.XX TW)

XX

AC

PROPOSED TOP OF CURB ELEVATION

PROPOSED TOP OF PAVEMENT ELEVATION

PROPOSED FINISHED GRADE ELEVATION

SHEET LIST TABLE

SOIL FILL THICKNESS	9-INCHES OR LESS WHEN USING HEAVY SELF-PROPELLED COMPACTION EQUIPMENT 6-INCHES OR LESS WHEN USING HAND GUIDED OR LIGHT SELF-PROPELLED EQUIPMENT
COMPACTION MOISTURE CONTENT REQUIREMENTS • LEAN TO FAT CLAY AND FAT CLAY	2% BELOW STANDARD PROCTOR OPTIMUM MOISTURE CONTENT (OMC) TO 4% ABOVE THE
	STANDARD PROCTOR OPTIMUM MOISTURE CONTENT
• LEAN CLAY AND SILT	2% BELOW TO 3% ABOVE STANDARD PROCTOR OMC
• GRANULAR	WORKABLE MOISTURE CONTENT AND SHALL NOT PUMP WHEN PROOF—ROLLED 1
COMPACTION REQUIREMENTS 1 2	 95% OF STANDARD PROCTOR DRY DENSITY (ASTM D-698) WE RECOMMEND ENGINEERED FILL BE TESTED FOR MOISTURE CONTENT AND COMPACTION DURING PLACEMENT. SHOULD THE RESULTS OF THE IN-PLACE DENSITY TESTS INDICATE THE SPECIFIED MOISTURE OR COMPACTION LIMITS HAVE NOT BEEN MET, THE AREA REPRESENTED BY THE TEST SHOULD BE REWORKED AND RETESTED AS REQUIRED UNTIL THE SPECIFIED MOISTURE AND COMPACTION REQUIREMENTS ARE ACHIEVED. AS STATED WITHIN ASTM D698, THIS PROCEDURE IS INTENDED FOR SOILS WITH 30% OR LESS MATERIAL LARGER THAN 3/4". ACCORDINGLY, WE RECOMMEND FULL TIME PROOF—ROLL OBSERVATION BE PERFORMED INSTEAD OF MOISTURE DENSITY TESTING FOR MATERIALS CONTAINING MORE THAN 30% AGGREGATE RETAINED ON THE 3/4" SIEVE.

- EXTREMELY SUSCEPTIBLE TO DEGRADATION UPON WETTING WHICH CAN RESULT IN DEEP-SEATED PUMPING AND RUTTING.
- LIMESTONE SCREENINGS THAT PUMP AND RUT ARE NOT ACCEPTABLE FOR USE AS NEW STRUCTURAL FILL OR FOR LOW VOLUME

PRCOM20246060

DISC(STRUCTURAL FILL COMPACTION REQUIREMENTS \triangleleft SE SE \triangleleft

RELEASED FOR CONSTRUCTION As Noted on Plan Review

Development Services Department

Lee's Summit, Missouri

01/02/2025

1. IF LIMESTOME SCREENINGS ARE USED AS NEW STRUCTURAL FILL, THE CONTRACTOR SHOULD BE AWARE THIS MATERIAL IS

CHANGE MATERAIL AND WILL NEED TO BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.

DESIGNED: NTE DRAWN: NMD

COVER SHEET

PROJECT NO.: 230286

DRAWING INCLUDES:

||REVISIONS:

THIS SHEET HAS BEEN SIGNED, SEALED AND

DATED ELECTRONICALLY

NATHAN THOMAS ECKHOFF

MO LICENSE-2003014960

CE 1.0

CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS REGARDING MATERIALS, METHODS OF WORK, AND DISPOSAL OF EXCESS WASTE MATERIALS.

ERECT BARRIERS TO PROTECT PERSONNEL, STRUCTURES AND UTILITIES REMAINING INTACT.

PROTECT ALL EXISTING OBJECTS INTENDED TO REMAIN. IN CASE OF DAMAGE, MAKE REPAIRS OR REPLACEMENTS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

MINIMIZE INTERFERENCE WITH ROADS, STREETS, DRIVEWAYS, SIDEWALKS, AND ADJACENT FACILITIES.

DO NOT CLOSE OR OBSTRUCT STREETS, SIDEWALKS, ALLEYS OR PASSAGEWAYS WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.

IF CLOSURE IS PERMITTED, PROVIDE SIGNAGE INDICATING CLOSURE AND SIGNAGE TO DIRECT TRAFFIC TO ALTERNATE ROUTE.

MOISTEN SURFACES AS REQUIRED TO PREVENT DUST FROM BEING A NUISANCE TO THE PUBLIC, NEIGHBORS, AND CONCURRENT PERFORMANCE OF OTHER WORK ON THE SITE.

PROVIDE THE OWNER'S REPRESENTATIVE A MINIMUM OF TWO BUSINESS DAYS' NOTICE PRIOR TO COMMENCING WORK OF THIS SECTION.

THE CONTRACTOR SHALL LOCATE EXISTING UTILITY LINES AND SERVICES TRAVERSING THE SITE AND DETERMINE THE REQUIREMENTS FOR THEIR PROTECTION. THE CONTRACTOR SHALL PRESERVE ACTIVE UTILITIES ON THE SITE THAT ARE DESIGNATED TO REMAIN.

BEFORE STARTING SITE OPERATIONS. THE CONTRACTOR SHALL DISCONNECT OR ARRANGE FOR THE DISCONNECTION OF ALL UTILITY SERVICES DESIGNATED TO BE REMOVED. THE CONTRACTOR SHALL PERFORM ALL SUCH WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY

IN REMOVING PAVEMENT, CURB AND GUTTER, SIDEWALKS, ETC., WHERE A PORTION IS LEFT IN PLACE, REMOVAL SHALL BE TO AN EXISTING JOINT OR TO A JOINT SAWED TO A MINIMUM DEPTH OF 2" WITH A TRUE SAW LINE AND A VERTICAL FACE. REMOVE SUFFICIENT PAVEMENT TO PROVIDE FOR PROPER GRADE AND CONNECTIONS IN THE NEW WORK REGARDLESS OF ANY LIMITS INDICATED ON THE DRAWING.

EXISTING CASTINGS AND CULVERTS. IF SALVAGEABLE AND REMOVED INTACT. REMAIN THE PROPERTY OF THE CONTRACTOR.

ALL SEWERS AND DRAINAGE PIPES, WHICH HAVE BEEN OR ARE TO BE ABANDONED, SHALL BE PERMANENTLY SEALED AT THE ENDS WITH BULKHEADS CONSTRUCTED OF CONCRETE, HAVING A MINIMUM THICKNESS OF 8".

ABANDON STORM OR SANITARY SEWER STRUCTURES BY BREAKING THE CONCRETE BOTTOM OF THE STRUCTURE INTO PIECES NO LARGER THAN 12" IN ANY DIRECTION AND REMOVING THE TOP OF THE STRUCTURE TO 3" BELOW FINISHED GRADE. PLUG ALL PIPES WITH CONCRETE AND FILL STRUCTURE WITH 1" CLEAN GRAVEL.

ALL DEBRIS SHALL BE DISPOSED OF OFF-SITE

DO NOT STORE OR BURN MATERIALS ON-SITE UNLESS PERMITTED BY THE GOVERNING JURISDICTION.

ALL ASPHALT OR CONCRETE MATERIALS SHALL BE DISPOSED OF OFF-SITE.

MATERIAL ACQUIRED THROUGH DEMOLITION, OTHER THAN THOSE REQUIRED TO COMPLETE THE CONSTRUCTION PROJECT AND DESIGNATED FOR RETURN TO OWNER, WILL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED FROM THE SITE. THE MATERIAL WILL BE DISPOSED OF IN A

THE CONTRACTOR'S OPERATIONS SHALL BE RESTRICTED TO THOSE AREAS INSIDE THE CONSTRUCTION LIMITS INDICATED ON THE DRAWINGS. IF LIMITS ARE NOT INDICATED, RESTRICT WORK TO THE OWNER'S PROPERTY, EASEMENT, OR PUBLIC RIGHTS-OF-WAY.

COMPLETE WORK WITHIN PUBLIC RIGHTS-OF-WAY UNDER THE PERMISSION OF THE GOVERNING AGENCY.

IF ITEMS OUTSIDE THE LIMITS OF DISTURBANCE GET DAMAGED, OWNER COMPLETES THE REQUIRED REPAIRS AND CHARGES THE CONTRACTOR.

THE CONTRACTOR IS RESPONSIBLE FOR THE ADJUSTMENT OF ALL MANHOLES. CASTINGS. WATER VALVES IRRIGATION BOXES. CLEAN OUTS AND ETC. WITHIN THE GRADING LIMITS TO MATCH THE FINISHED SURFACE. ADJUSTMENTS SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO CONSTRUCTION UNLESS NOTED AS A BID ITEM. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO UTILITY STRUCTURES AND APPURTENANCES THAT OCCURS DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR TO SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED.

TEST REPORTS: SUBMIT FOR APPROVAL TEST REPORTS, LIST OF MATERIALS AND GRADATIONS PROPOSED FOR USE. OBTAIN SAMPLES OF ANY PROPOSED FILL MATERIAL AND CONTRACTOR TO PROVIDE STANDARD PROCTOR TEST REPORTS TO ENGINEER.

COMPACTION REQUIREMENTS ARE AS FOLLOWS:

UNDER STEPS, PAVEMENTS, AND WALKWAYS, 95 PERCENT STANDARD PROCTOR MINIMUM DENSITY, ASTM D 698.

2. UNDER LAWNS OR UNPAVED AREAS, 85 PERCENT, ASTM D 698. GRADING TOLERANCES OUTSIDE BUILDING LINES ARE AS FOLLOWS:

1. LAWNS, UNPAVED AREAS, AND WALKS, PLUS OR MINUS 1 INCH.

PAVEMENTS, PLUS OR MINUS 1/2 INCH. 3. ALL ADA ROUTES AND PARKING ARE TO MEET ADA REQUIREMENTS AT ALL TIMES.

ALL ACTIVITIES WILL BE CONTAINED WITHIN CONSTRUCTION BOUNDARIES INDICATED ON SITE PLAN. SPECIFIED EXCAVATION REQUIREMENTS, PRECAUTIONS, AND PROTECTIVE SYSTEMS WILL BE OBSERVED AT ALL TIMES.

MOVEMENT OF TRUCKS AND EQUIPMENT ON OWNER'S PROPERTY WILL BE IN ACCORDANCE WITH OWNER'S INSTRUCTIONS.

TOPSOIL WILL BE STRIPPED FROM THE CONSTRUCTION SITE AND WILL BE DISPOSED OF LEGALLY OFF SITE.

TRENCHES WILL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE COMPLETED AND THE UTILITY SYSTEMS, AS INSTALLED, CONFORM TO REQUIREMENTS SPECIFIED BY THE CONTRACT DOCUMENTS.

EXCAVATION IS UNCLASSIFIED AND INCLUDES EXCAVATION TO SUBGRADE REGARDLESS OF MATERIALS ENCOUNTERED. REPAIR EXCAVATIONS BEYOND

ELEVATIONS AND DIMENSIONS INDICATED AS FOLLOWS: AT STRUCTURE: CONCRETE OR COMPACTED STRUCTURAL FILL.

ELSEWHERE: BACKFILL AND COMPACT AS DIRECTED. MAINTAIN STABILITY OF EXCAVATIONS; CONTRACTOR TO BE RESPONSIBLE FOR DESIGN AND COORDINATION OF SHORING AND BRACING AS REQUIRED. PREVENT SURFACE AND SUBSURFACE WATER FROM ACCUMULATING IN EXCAVATIONS. STOCKPILE SATISFACTORY MATERIALS FOR REUSE, ALLOW FOR PROPER DRAINAGE AND DO NOT STOCKPILE MATERIALS WITHIN DRIP LINE OF TREES TO REMAIN.

COMPACT MATERIALS AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D 698 BY AERATION OR WETTING TO THE FOLLOWING

PERCENTAGES OF MAXIMUM DRY DENSITY: 1. STRUCTURE, PAVEMENT, WALKWAYS: SUBGRADE AND EACH FILL LAYER TO 95% (-2%+4%) OF STANDARD PROCTOR MAXIMUM DRY DENSITY TO SUITABLE DEPTH. COMPACTION TESTING SHALL BE PERFORMED IMMEDIATELY PRIOR TO THE PLACEMENT OF REINFORCING STEEL AND NEW PAVING MATERIALS. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING TESTING WITH OWNERS DESIGNATED TESTING AGENCY.

UNPAVED AREAS: TOP 6" OF SUBGRADE AND EACH FILL LAYER TO 90% MAXIMUM DRY DENSITY. A PROOF-ROLL SHALL BE REQUIRED OF THE SUBGRADE PRIOR TO PLACEMENT OF THE BASE COURSE. PROOF ROLLING SHALL CONSIST OF PASSING A LOADED, 20-TON, TANDEM DUMP TRUCK OVER THE PREPARED SUBGRADE SOIL WITH A MAXIMUM ALLOWABLE DISPLACEMENT OF 1". ANY AREAS THAT DISPLACE MORE THAN 1" SHALL BE COMPACTED UNTIL THIS CRITERION IS MET, OR THOSE AREAS MAY BE EXCAVATED AND BACKFILLED WITH COMPACTED TYPE 1 AGGREGATE USED FOR BASE MATERIAL. ALL PROOF ROLLING SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE.

4. CUT AREAS UNDER PROPOSED ASPHALT OR CONCRETE PAVEMENTS SHALL BE CUT AND COMPACTED. AFTER GRADING TO SUBGRADE ELEVATION, SCARIFY THE TOP SIX INCHES OF THE SUB-BASE AND COMPACT AS OUTLINED ABOVE.

PLACE ACCEPTABLE MATERIALS IN LAYERS NOT MORE THAN 8" LOOSE DEPTH FOR MATERIALS COMPACTED BY HEAVY EQUIPMENT AND NOT MORE THAN 4" LOOSE DEPTH FOR MATERIALS COMPACTED BY HAND EQUIPMENT TO SUBGRADES INDICATED AS FOLLOWS: STRUCTURAL FILL: USE UNDER FOUNDATIONS, SLABS ON GRADE IN LAYERS AS INDICATED.

DRAINAGE FILL: USE UNDER DESIGNATED BUILDING SLABS, AT FOUNDATION DRAINAGE AND ELSEWHERE AS INDICATED. LANDSCAPE AREA FILL:

3.1. ALL SUB-GRADE AREAS SHALL BE "RIPPED" TO A MINIMUM 6" DEEP AND A MAXIMUM OF 12" APART IN OPPOSITE DIRECTIONS WITH MINIMAL TIRE TRAFFIC TO FOLLOW.

CONTRACTOR TO LEAVE AREAS 6" OR 18" (PLANTER AREAS) BELOW FINISH GRADE. OWNER TO PLACE TOPSOIL AND ALL PLANTINGS. ANY FILL SOIL WITHIN 36" OF FINISHED GRADE IN LAWN AND PLANTER AREAS SHALL BE COHESIVE SOILS IN SOIL CLASSIFICATIONS GROUPS ML, CL, CH OR A COMBINATION THEREOF, FREE OF ROCK OR GRAVEL LARGER THAN 1" IN ANY DIMENSION, DEBRIS, WASTE, FROZEN MATERIAL, VEGETATION AND OTHER DELETERIOUS MATTER. 4. SUB-BASE MATERIAL: USE UNDER PAVEMENT, WALKS, STEPS, PIPING AND CONDUIT.

GRADE TO WITHIN 1/2" ABOVE OR BELOW REQUIRED SUBGRADE AND WITHIN A TOLERANCE OF 1/2" IN 10'.

PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION. RECOMPACT AND REGRADE SETTLED, DISTURBED AND DAMAGED AREAS AS NECESSARY TO RESTORE QUALITY, APPEARANCE, AND CONDITION OF WORK

CONTROL EROSION TO PREVENT RUNOFF INTO SEWERS OR DAMAGE TO SLOPED OR SURFACED AREAS.

CONTROL DUST TO PREVENT HAZARDS TO ADJACENT PROPERTIES AND VEHICLES. IMMEDIATELY REPAIR OR REMEDY DAMAGE CAUSED BY DUST

INCLUDING AIR FILTERS IN EQUIPMENT AND VEHICLES. CLEAN SOILED SURFACES.

DISPOSAL OF EXCAVATION WASTE AND UNSUITABLE MATERIALS SHALL BE THE RESPONSIBILITY OF THE SITE WORK CONTRACTOR. NO SPECIFIC OR PRE-APPROVED LOCATION IS BEING PROVIDED BY THE OWNER.

CONCRETE:

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 305 SPECIFICATIONS FOR HOT WATER CONCRETE, AND ACI 306 SPECIFICATIONS FOR COLD WEATHER CONCRETE, WITH THE FOLLOWING ADDITIONAL REQUIREMENTS:

1. CONCRETE SHALL DEVELOP THE FOLLOWING 28-DAY MINIMUM COMPRESSIVE STRENGTH: CAST-IN-PLACE WALLS 3 500 PSI

FLOOR SLAB 4,000 PSI EXTERIOR SLABS, WALLS AND CURBS 4,000 PSI 2. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL.

3. CHLORIDE- BASED ADMIXTURES ARE PROHIBITED IN ALL CONCRETE. 4. REINFORCING STEEL SHALL CONFORM TO ASTM A615, A616, OR A617, GRADE 60.

5. ALL CONTINUOUS REINFORCING STEEL THAT MEETS AT A CORNER SHALL BE TIED TOGETHER WITH A CORNER BAR THAT HAS SUFFICIENT LAP DISTANCE IN EACH DIRECTION

6. CONTINUOUS REINFORCING BARS LAP LENGTH SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE 7. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C- 143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8 FOR WORKABILITY. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE UNLESS WATER IS WITHHELD AT THE BATCHING FACILITY. IF WATER IS WITHHELD AT THE BATCHING FACILITY IT SHOULD BE REFLECTED ON THE LOAD TICKET. THE TOTAL AMOUNT OF WATER IN THE MIX SHALL NOT EXCEED WHAT IS NOTED ON THE APPROVED MIXED. THIS SHALL BE NOTED IN

THE SPECIAL INSPECTOR'S RECORDS. 8. CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR-ENTRAINED WITH 6% (+/-) 1.5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR CONTENT OF TROWELED FINISHED FLOORS TO EXCEED 3%. 9. SUBMIT CONCRETE MIX PROPORTIONS PRIOR TO START OF WORK. DO NOT BEGIN CONCRETE PRODUCTION UNTIL MIXES HAVE BEEN REVIEWED

AND ARE ACCEPTABLE TO THE ENGINEER. 10. READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94.

11. CONCRETE WORK EXECUTION A. CONSTRUCT FORMS TO CORRECT SIZE, SHAPE, ALIGNMENT, ELEVATION AND POSITION; AND TO SUPPORT VERTICAL AND LATERAL LOADS. B. POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE,

UNLESS NOTED OTHERWISE ON THE DRAWINGS: CAST AGAINST AND EXPOSED TO EARTH.......3 INCHES EXPOSED TO EARTH OR WEATHER......2 INCHES

NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH....... 1 1/2 INCHES

C. PROVIDE CONTROL JOINTS IN SLABS-ON-GRADE AT NOT GREATER THAN 15 FEET ON CENTER IN EACH DIRECTION. SAW CUT CONTROL

JOINTS MINIMUM 1/4 OF SLAB DEPTH, AS SOON AFTER SLAB FINISHING WITHOUT DISLODGING AGGREGATE. D. STEEL TROWEL FINISH ALL INTERIOR CONCRETE SLABS, BROOM FINISH ALL EXTERIOR CONCRETE SLABS. E. CURE ALL CONCRETE IN COMPLIANCE WITH ACI 301, USING A LIQUID TYPE MEMBRANE, NON-RESIDUAL, CURING COMPOUND COMPLYING

WITH ASTM C309. ASSURE COMPATIBILITY WITH FINISH FLOOR COVERING. 12. FLINT AND CHERT WILL BE LIMITED TO 1% MAXIMUM, BY WEIGHT OF THE COURSE AGGREGATE, IN ALL EXPOSED CONCRETE (CAST-IN-PLACE OR PRECAST). LIGNITE WILL BE LIMITED TO 0.5%, BY WEIGHT OF THE FINE AGGREGATE IN ALL EXPOSED CONCRETE. SOME APPLICATIONS MAY BE REQUIRED TO BE LIGNITE FREE.

CONCRETE PAVING JOINT SEALANTS

DELIVER MATERIALS TO PROJECT SITE IN ORIGINAL UNOPENED CONTAINERS OR BUNDLES WITH LABELS INDICATING MANUFACTURER, PRODUCT NAME AND DESIGNATION, COLOR, EXPIRATION DATE, POT LIFE, CURING TIME, AND MIXING INSTRUCTIONS FOR MULTICOMPONENT MATERIALS.

STORE AND HANDLE MATERIALS TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS TO PREVENT THEIR DETERIORATION OR DAMAGE DUE TO MOISTURE, HIGH OR LOW TEMPERATURES, CONTAMINANTS, OR OTHER CAUSES.

DO NOT PROCEED WITH INSTALLATION OF JOINT SEALANTS UNDER THE FOLLOWING CONDITIONS:

1. WHEN AMBIENT AND SUBSTRATE TEMPERATURE CONDITIONS ARE OUTSIDE LIMITS PERMITTED BY JOINT SEALANT MANUFACTURER OR ARE BELOW 40 DEG F.

2. WHEN JOINT SUBSTRATES ARE WET OR COVERED WITH FROST.

3. WHERE JOINT WIDTHS ARE LESS THAN THOSE ALLOWED BY JOINT-SEALANT MANUFACTURER FOR APPLICATIONS INDICATED.

4. WHERE CONTAMINANTS CAPABLE OF INTERFERING WITH ADHESION HAVE NOT YET BEEN REMOVED FROM JOINT SUBSTRATES.

PROVIDE JOINT SEALANTS, BACKING MATERIALS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER CONDITIONS OF SERVICE AND APPLICATION. AS DEMONSTRATED BY JOINT-SEALANT MANUFACTURER BASED ON TESTING

COLD-APPLIED JOINT SEALANTS ARE TO BE TYPE NS SILICONE SEALANT FOR CONCRETE: SINGLE-COMPONENT. LOW-MODULUS. NEUTRAL-CURING, NONSAG SILICONE SEALANT COMPLYING WITH ASTM D 5893 FOR TYPE NS. PRODUCTS ALLOWED ARE: CRAFCO INC.: ROADSAVER SILICONE, DOW CORNING CORPORATION; 888, PECORA NS 301, OR APPROVED EQUAL

CONTRACTOR TO PROVIDE JOINT-SEALANT BACKER MATERIALS THAT ARE NONSTAINING; ARE COMPATIBLE WITH JOINT SUBSTRATES, SEALANTS, PRIMERS, AND OTHER JOINT FILLERS; AND ARE APPROVED FOR APPLICATIONS INDICATED BY JOINT-SEALANT MANUFACTURER BASED ON FIELD EXPERIENCE AND LABORATORY TESTING. ROUND BACKER RODS FOR COLD-APPLIED SEALANTS: ASTM D 5249, TYPE 3, OF DIAMETER AND DENSITY REQUIRED TO CONTROL SEALANT DEPTHAND PREVENT BOTTOM-SIDE ADHESION OF SEALANT.

PRIOR TO JOINT INSTALLATION, CONTRACTOR IS TO EXAMINE JOINTS INDICATED TO RECEIVE JOINT SEALANTS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR JOINT CONFIGURATION, INSTALLATION TOLERANCES, AND OTHER CONDITIONS AFFECTING JOINT- SEALANT PERFORMANCE. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

CLEAN OUT JOINTS IMMEDIATELY BEFORE INSTALLING JOINT SEALANTS TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS.

COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS FOR PRODUCTS AND APPLICATIONS INDICATED, UNLESS MORE STRINGENT REQUIREMENTS APPLY.

COMPLY WITH RECOMMENDATIONS IN ASTM C 1193 FOR USE OF JOINT SEALANTS AS APPLICABLE TO MATERIALS, APPLICATIONS, AND CONDITIONS INDICATED.

INSTALL BACKER MATERIALS OF TYPE INDICATED TO SUPPORT SEALANTS DURING APPLICATION AND AT POSITION REQUIRED TO PRODUCE CROSS-SECTIONAL SHAPES AND DEPTHS OF INSTALLED SEALANTS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT CAPABILITY. DO NOT LEAVE GAPS BETWEEN ENDS OF BACKER MATERIALS. DO NOT STRETCH, TWIST, PUNCTURE, OR TEAR BACKER MATERIALS. REMOVE ABSORBENT BACKER MATERIALS THAT HAVE BECOME WET BEFORE SEALANT APPLICATION AND REPLACE THEM WITH DRY MATERIALS.

NSTALL SEALANTS USING PROVEN TECHNIQUES THAT COMPLY WITH THE FOLLOWING AND AT THE SAME TIME BACKING ARE INSTALLED:

1. PLACE SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET JOINT SUBSTRATES.

2. COMPLETELY FILL RECESSES PROVIDED FOR EACH JOINT CONFIGURATION.

3. PRODUCE UNIFORM, CROSS-SECTIONAL SHAPES AND DEPTHS RELATIVE TO JOINT WIDTHS THAT ALLOW OPTIMUM SEALANT MOVEMENT

IMMEDIATELY AFTER SEALANT APPLICATION AND BEFORE SKINNING OR CURING BEGINS, TOOL SEALANTS ACCORDING TO REQUIREMENTS SPECIFIED BELOW TO FORM SMOOTH, UNIFORM BEADS OF CONFIGURATION INDICATED; TO ELIMINATE AIR POCKETS; AND TO ENSURE CONTACT AND ADHESION OF SEALANT WITH SIDES OF JOINT. REMOVE EXCESS SEALANTS FROM SURFACES ADJACENT TO JOINT.USE TOOLING AGENTS THAT ARE APPROVED IN WRITING BY JOINT-SEALANT MANUFACTURER AND THAT DO NOT DISCOLOR SEALANTS OR ADJACENT SURFACES.

PROVIDE JOINT CONFIGURATION TO COMPLY WITH JOINT-SEALANT MANUFACTURER'S WRITTEN INSTRUCTIONS, UNLESS OTHERWISE INDICATED.

PROVIDE RECESSED JOINT CONFIGURATION FOR SILICONE SEALANTS OF RECESS DEPTH AND AT LOCATIONS INDICATED.

CLEAN OFF EXCESS SEALANTS OR SEALANT SMEARS ADJACENT TO JOINTS AS THE WORK PROGRESSES BY METHODS AND WITH CLEANING MATERIALS APPROVED BY MANUFACTURERS OF JOINT SEALANTS AND OF PRODUCTS IN WHICH JOINTS OCCUR.

PROTECT JOINT SEALANTS DURING AND AFTER CURING PERIOD FROM CONTACT WITH CONTAMINATING SUBSTANCES AND FROM DAMAGE RESULTING FROM CONSTRUCTION OPERATIONS OR OTHER CAUSES SO SEALANTS ARE WITHOUT DETERIORATION OR DAMAGE AT TIME OF SUBSTANTIAL COMPLETION. IF, DESPITE SUCH PROTECTION, DAMAGE OR DETERIORATION OCCURS, CUT OUT AND REMOVE DAMAGED OR DETERIORATED JOINT SEALANTS IMMEDIATELY AND REPLACE WITH JOINT SEALANT SO INSTALLATIONS WITH REPAIRED AREAS ARE INDISTINGUISHABLE FROM THE ORIGINAL WORK.

PAVEMENT MARKING:

UNLESS NOTED OTHERWISE ON THE PLANS, PAINT SHALL BE WATERBORNE OR SOLVENT BORNE, COLORS AS SHOWN OR SPECIFIED HEREIN. WATERBORNE PAINT: PAINTS SHALL CONFORM TO FS TT-P-1952. SOLVENT BORNE PAINT: PAINT SHALL CONFORM TO FS A-A-2886 OR AASHTO M248. PAINT SHALL BE NON-BLEEDING, QUICK-DRYING AND ALKYD PETROLEUM BASE PAINT SUITABLE FOR TRAFFIC BEARING SURFACE AND BE MIXED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS BEFORE APPLICATION FOR COLORS WHITE, YELLOW, BLUE, AND RED. RETROFLECTIVE PAINT SHALL BE TYPE L GLASS BEADS PER SECTION 620 OF THE CURRENT MODOT STANDARD SPECIFICATIONS FOR HIGHWAY

PAINT SHALL BE APPLIED PER THE FOLLOWING COLOR CODE: WHITE FOR STANDARD PARKING SPACE LINES AND SIDEWALK CROSSINGS. BLUE FOR ACCESSIBLE PARKING STALL AND SYMBOLS AND ASSOCIATED CROSS—HATCHED AREAS

MATERIALS SHALL INCLUDE STANDARD COMMERCIAL GRADE MASKING MATERIALS, SCRAPERS, CLEANING SOLVENTS, AND OTHER MATERIALS REQUIRED FOR THE WORK. USE MATERIALS SPECIFIED BY MANUFACTURER'S DIRECTION LABEL ON CONTAINER.

DELIVER MATERIALS TO THE SITE IN ORIGINAL CONTAINERS WITH SEALS UNBROKEN AND LABELS INTACT. PROTECT ALL PAINT FROM FREEZING. DO NOT ALLOW PAINT TO SETTLE, CAKE, OR THICKEN IN THE CONTAINER. READILY STIR WITH A PADDLE TO A SMOOTH CONSISTENCY. PAINT SHALL ARRIVE ON THE JOB COLOR-MIXED EXCEPT FOR TINTING OF UNDERCOATS AND POSSIBLE THINNING.

PRIOR TO BEGINNING CLEANING OR PAINTING OPERATIONS. CONTRACTOR SHALL PROTECT ALL ITEMS OR SURFACES NOT INCLUDED IN AREA TO BE PAINTED. PROTECT VEHICLES, EQUIPMENT, STRUCTURES, OR OTHER ITEMS FROM PAINT SPATTERS, OVER SPRAY, OR DAMAGE.

CONTRACTOR SHALL PROVIDE BARRICADES AND ANY SIGNAGE NEEDED TO PROTECT ALL PAINTED AREAS FROM PEDESTRIAN AND VEHICULAR TRAFFIC UNTIL ACHIEVING SUFFICIENT DRYING TIME.

PERFORM PAINTING AS SOON AS FEASIBLE AND PRACTICAL AFTER THE FINISHING OF THE PAVEMENT OR AS DIRECTED BY THE OWNERS REPRESENTATIVE. ADEQUATE LIGHTING SHALL BE AVAILABLE AT THE TIME OF PAINTING. EXAMINE ALL SURFACES TO RECEIVE PAINT TO MAKE SURE THERE ARE NO DEFECTS IN THE SURFACE TO BE STRIPED. DO NOT PAINT OVER RUST, SCALE, GREASE, OIL, FUEL, DUST, WET PAVEMENT, OR OTHER CONDITIONS DETRIMENTAL TO PAINT ADHESION, REMOVE GREASE, OIL, OR FUEL ON ANY SURFACE BEFORE PAINTING. CORRECT ALL SURFACE DEFECTS BEFORE PAINTING. CONTRACTOR SHALL EXAMINE AREAS TO BE PAINTED. NOTIFY THE OWNERS REPRESENTATIVE IN WRITING OF CONDITIONS THAT MIGHT DELAY TIMELY COMPLETION OF THE WORK.

PAINTING SHALL NOT BE PERFORMED WHEN THE AMBIENT TEMPERATURE IS LESS THAN 55 DEGREES FAHRENHEIT AND NOT EXCEEDING 95 DEGREES FAHRENHEIT, OR WHILE THE SURFACE IS DAMP. THE SURFACE MUST BE FIVE DEGREES OR MORE ABOVE THE DEW POINT TEMPERATURE DURING PAINTING OPERATIONS AND WHILE PAINT IS DRYING.

AREAS TO BE PAINTED SHALL RECEIVE ONE COAT OF PAINT NOT LESS THAN 25 MILS THICKNESS WET PER MODOT 620.9 THROUGH 620.9.3.4.2. IN LOCATIONS REQUIRING MULTIPLE COATS, PRIOR COAT SHALL BE DRY TO MANUFACTURER'S RECOMMENDATIONS BEFORE APPLYING THE NEXT COAT. FINISHED WORK SHALL BE UNIFORM, OF APPROVED COLOR, FREE OF RUNS, DRIPS, DEFECTIVE BRUSHING, SPRAYING, AND CLOGGING. PARKING LINES AND SYMBOLS SHALL BE NEAT AND WELL DEFINED. ONLY SKILLED APPLICATORS SHALL APPLY PAINT. OWNERS REPRESENTATIVE SHALL APPROVE APPLICATION TECHNIQUES.

REMOVE PAINT SPLATTER FROM ADJACENT AREAS OR AREAS NOT DESIGNATED TO RECEIVE PAINT. CONTRACTOR SHALL REPAIR OR TOUCH UP ANY SURFACES IF EXPOSED TO VEHICULAR AND PEDESTRIAN TRAFFIC, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE OWNER. WHEN COLOR, DIRT, STAINS, EXISTING PAINT, ETC., SHOW THROUGH THE FINAL COAT, REPAINT THE SURFACE UNTIL THE FILM IS UNIFORM IN FINISH, COVERAGE, COLOR, AND APPEARANCE

RELEASED FOR CONSTRUCTION As Noted on Plan Review

Development Services Department Lee's Summit, Missouri 01/02/2025

DATED ELECTRONICALLY

REVISIONS:

THIS SHEET HAS BEEN SIGNED, SEALED AND NATHAN THOMAS ECKHOFF MO LICENSE-2003014960

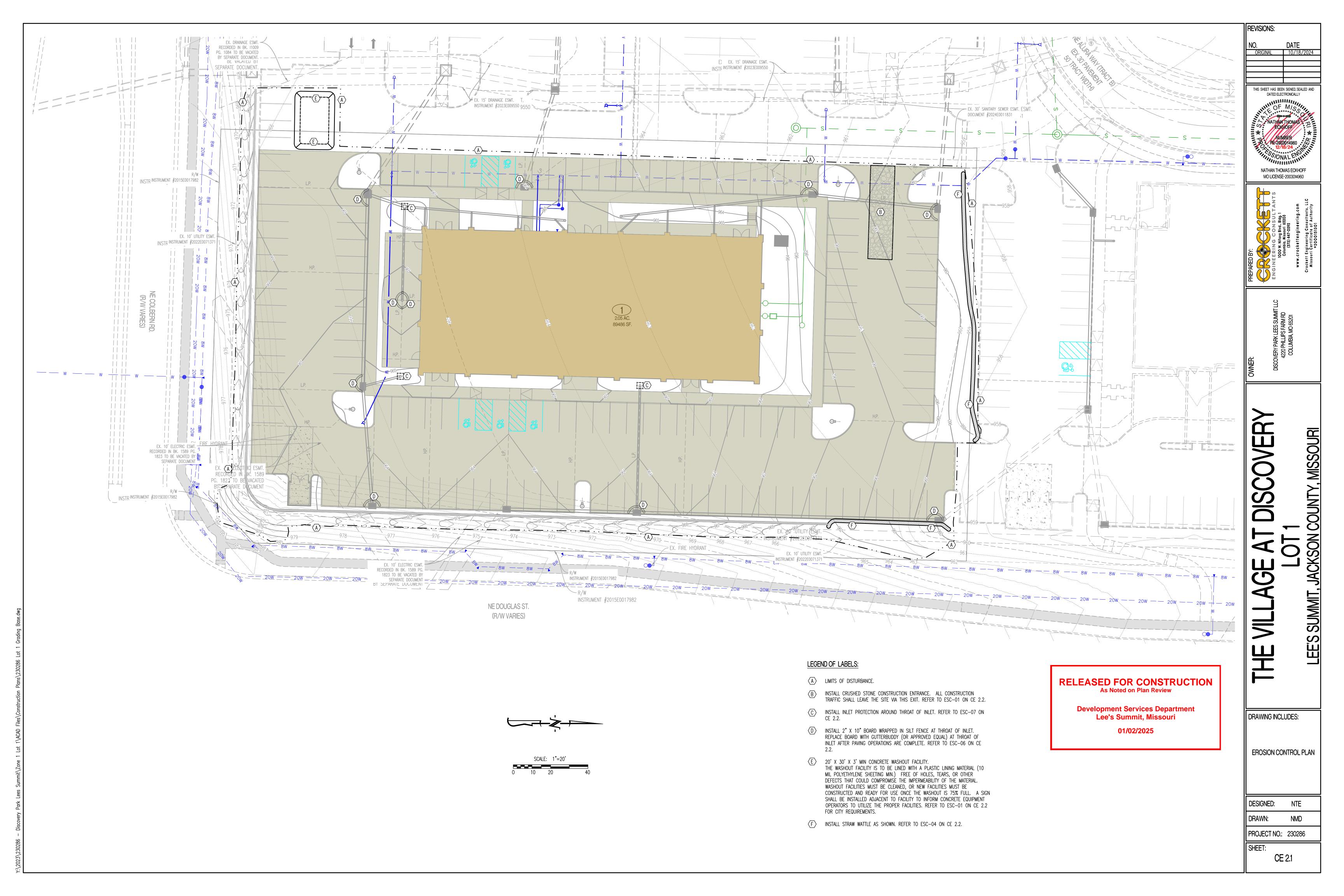
I DRAWING INCLUDES:

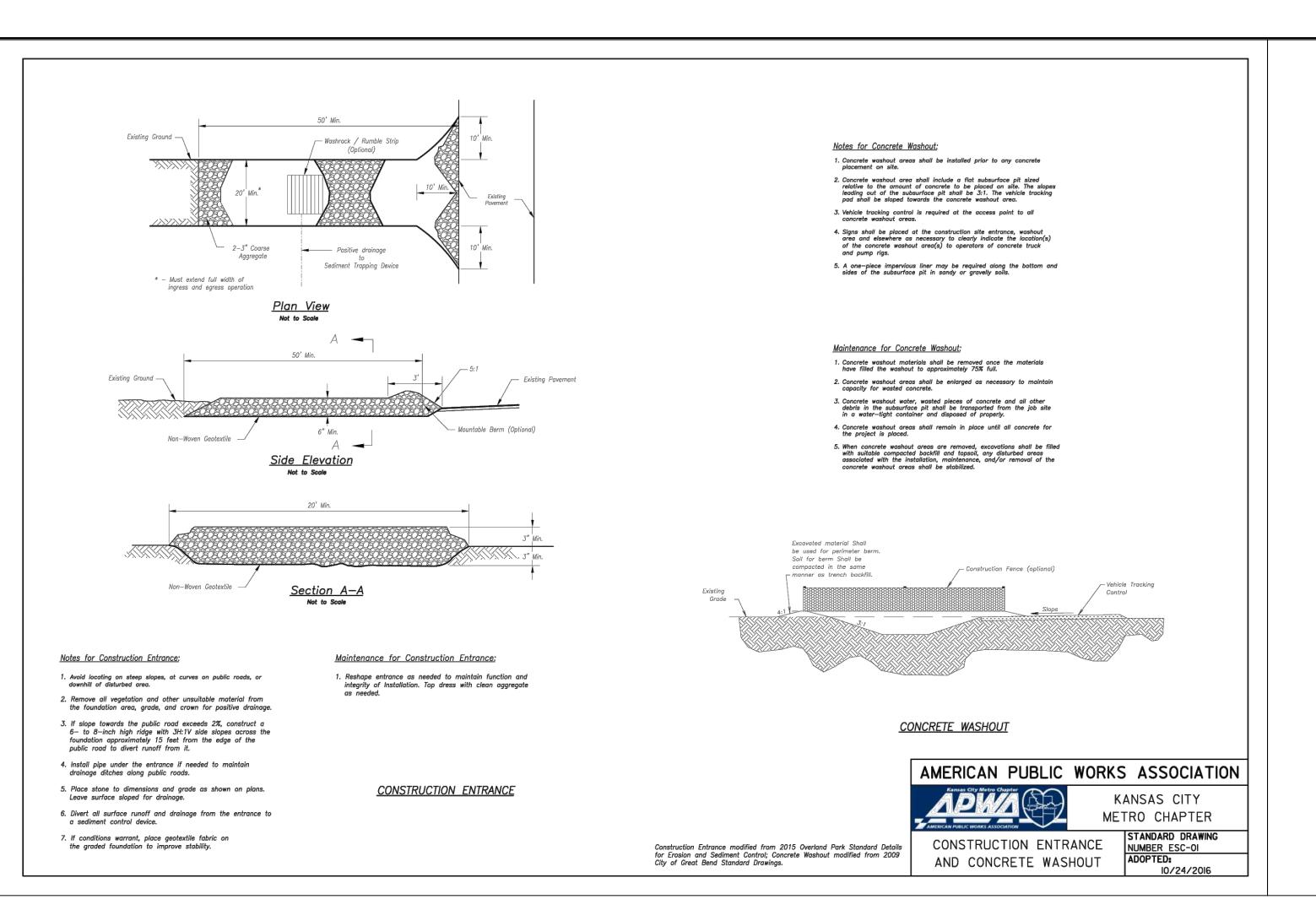
CIVIL SPECIFICATIONS

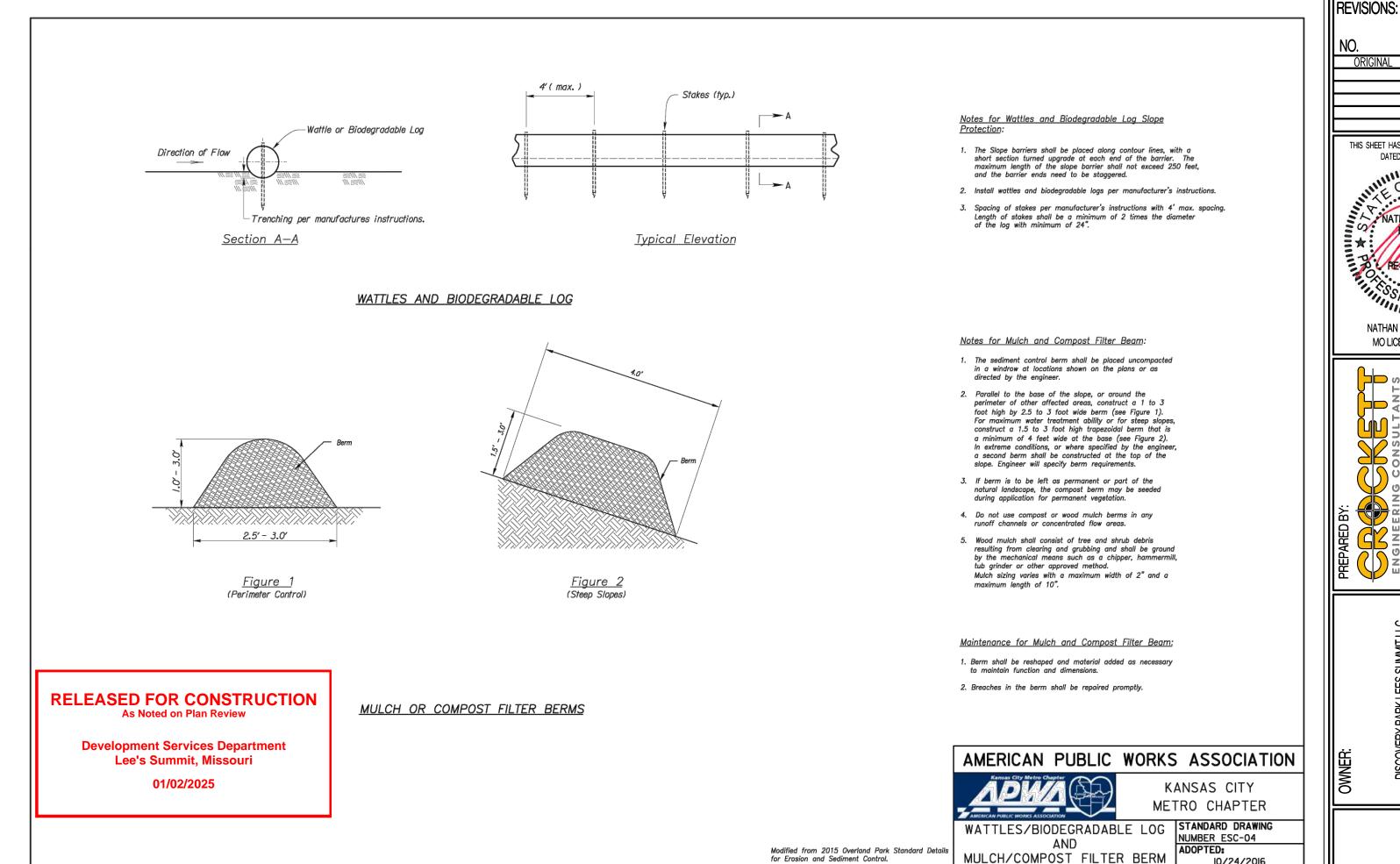
DESIGNED: NTE

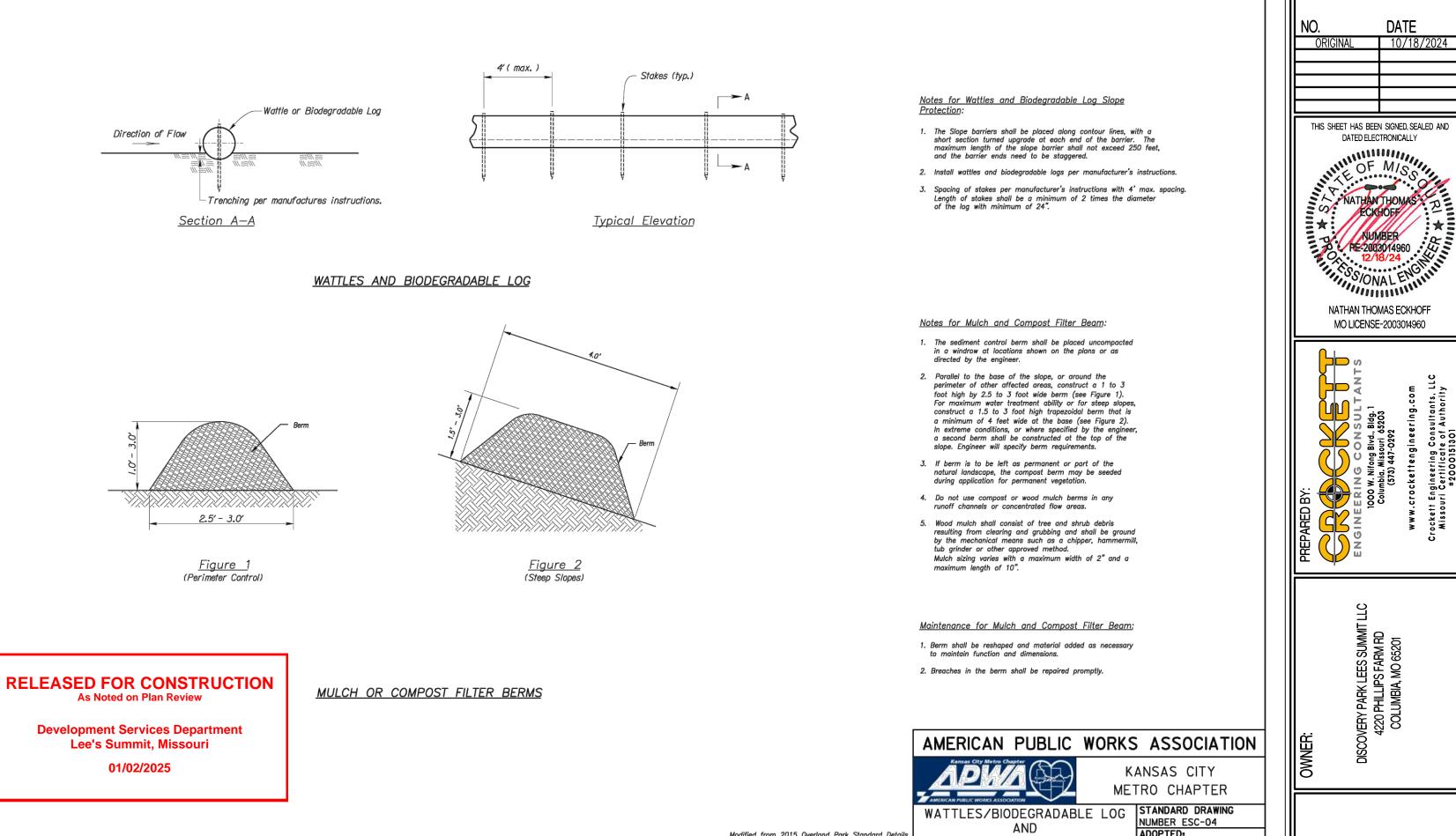
NMD

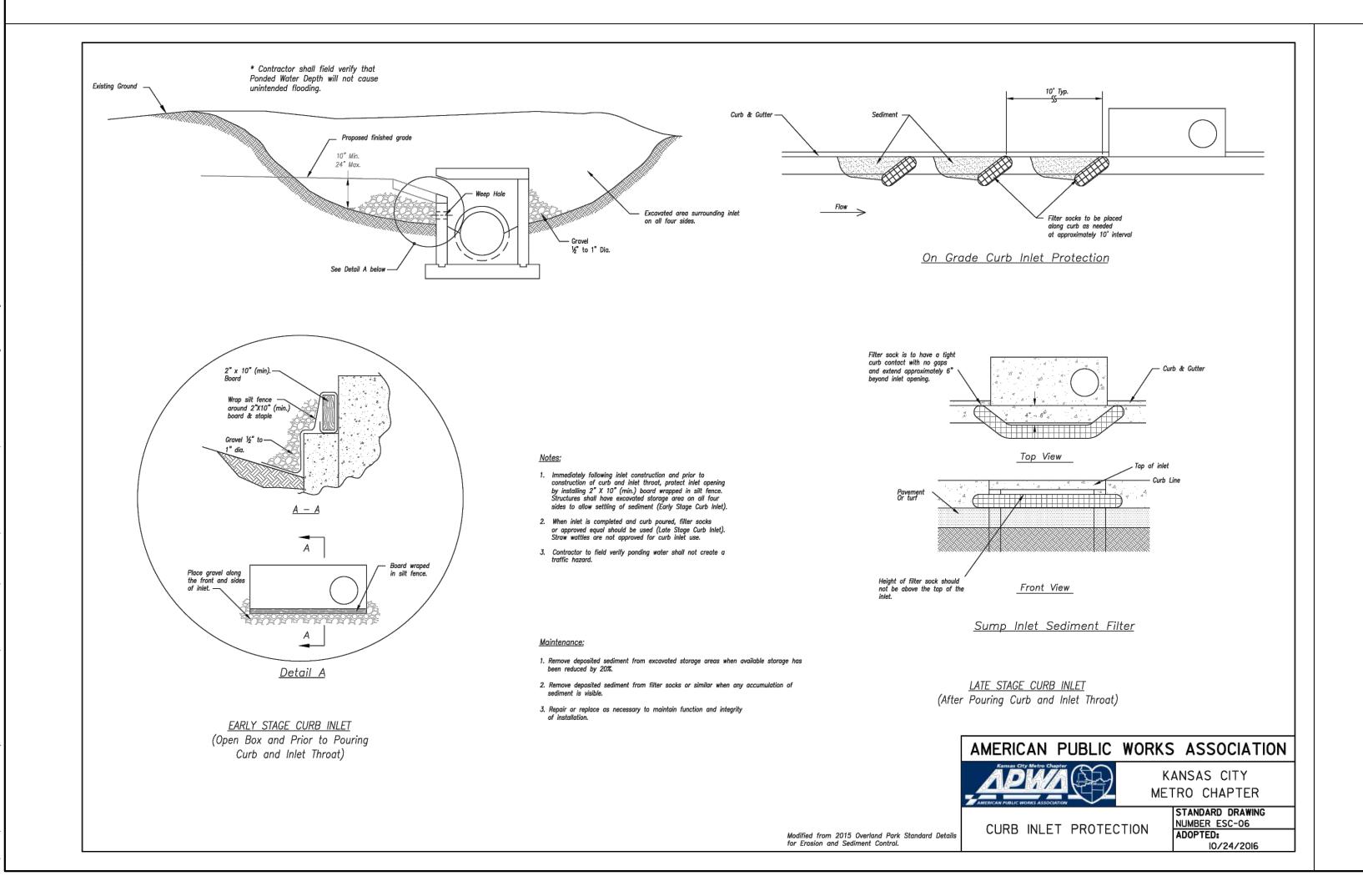
PROJECT NO.: 230286

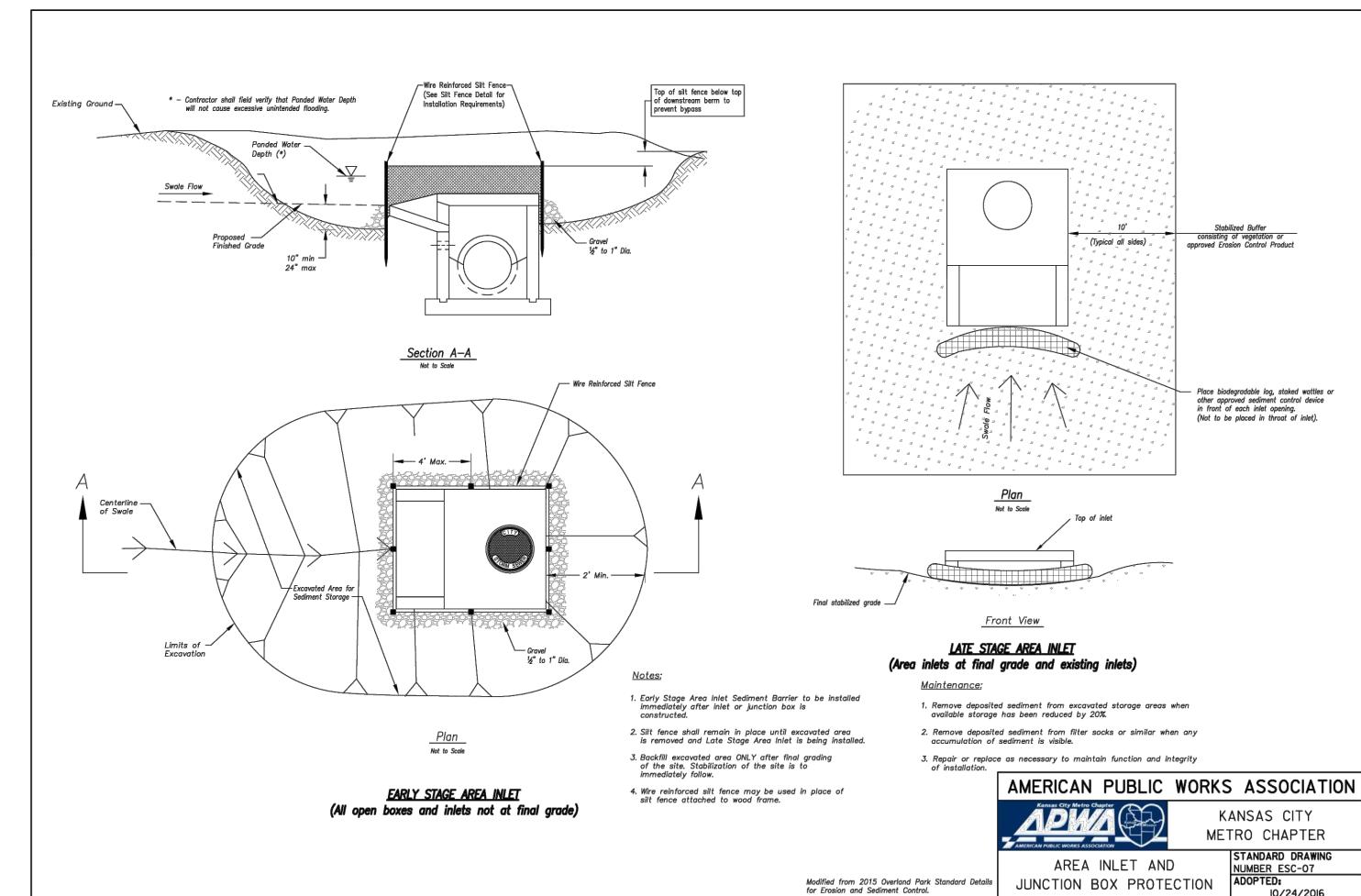


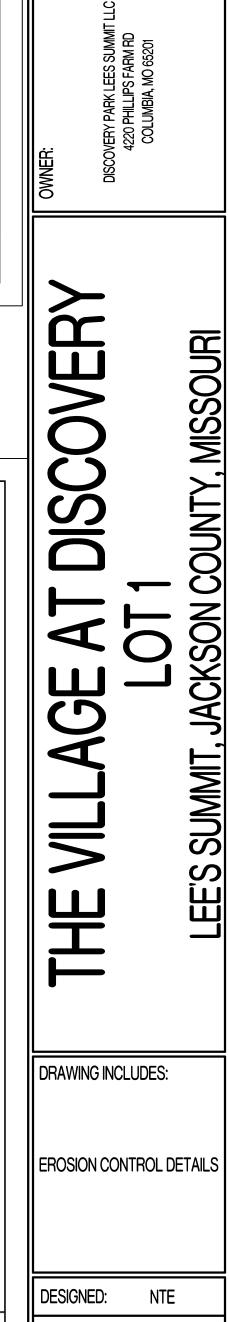












NMD

PROJECT NO.: 230286

SHEET:

THIS SHEET HAS BEEN SIGNED, SEALED AND

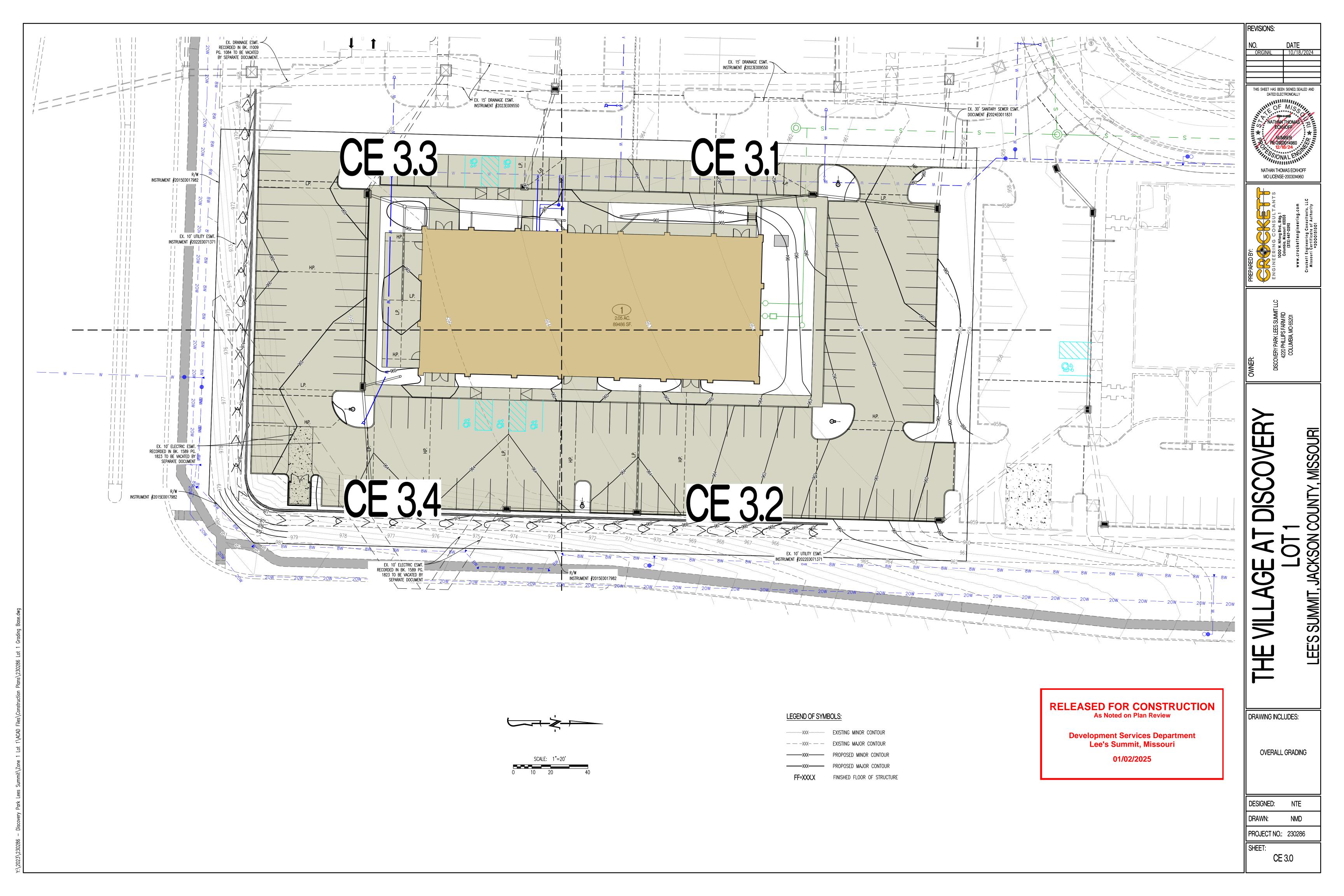
DATED ELECTRONICALLY

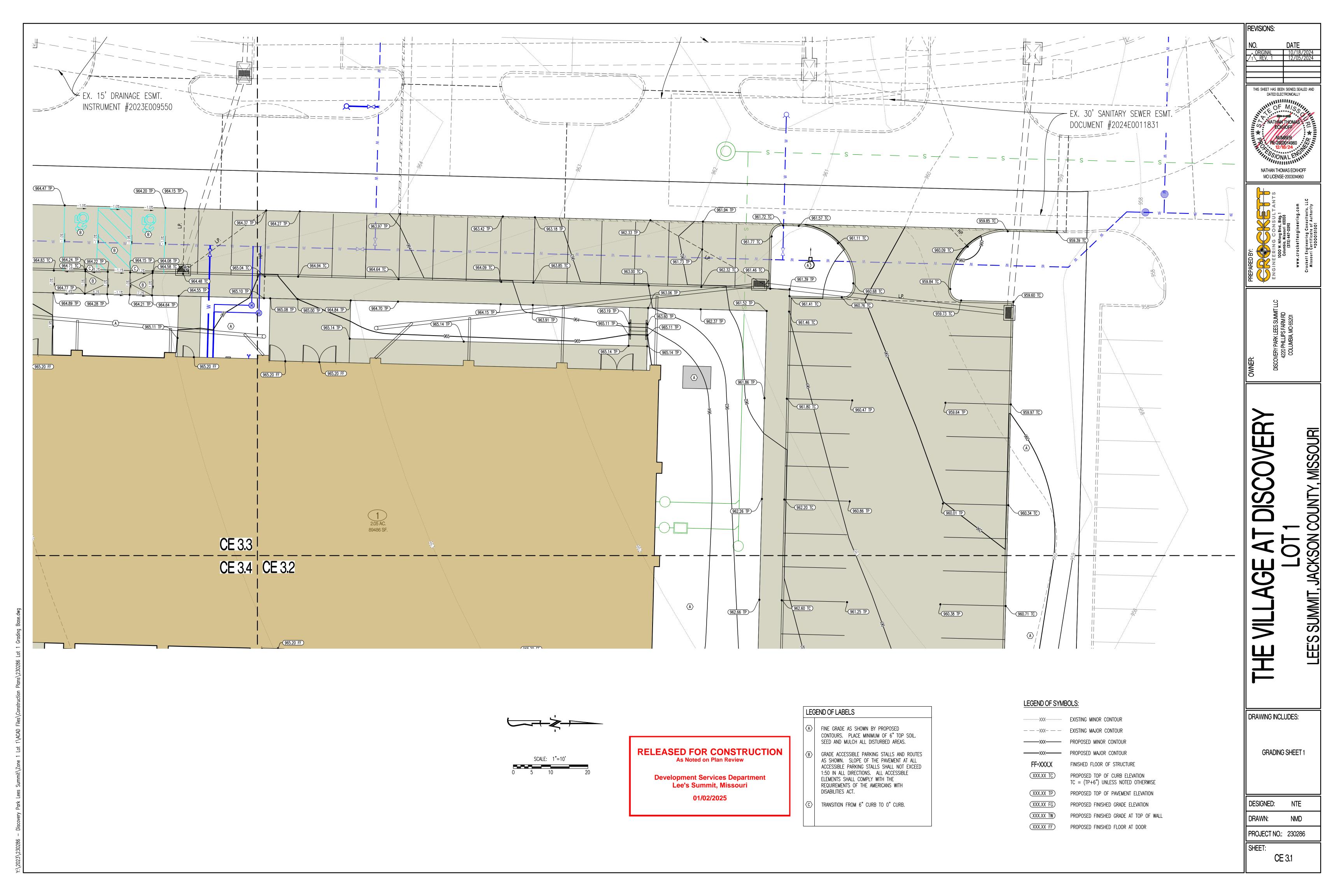
PE-2003014960

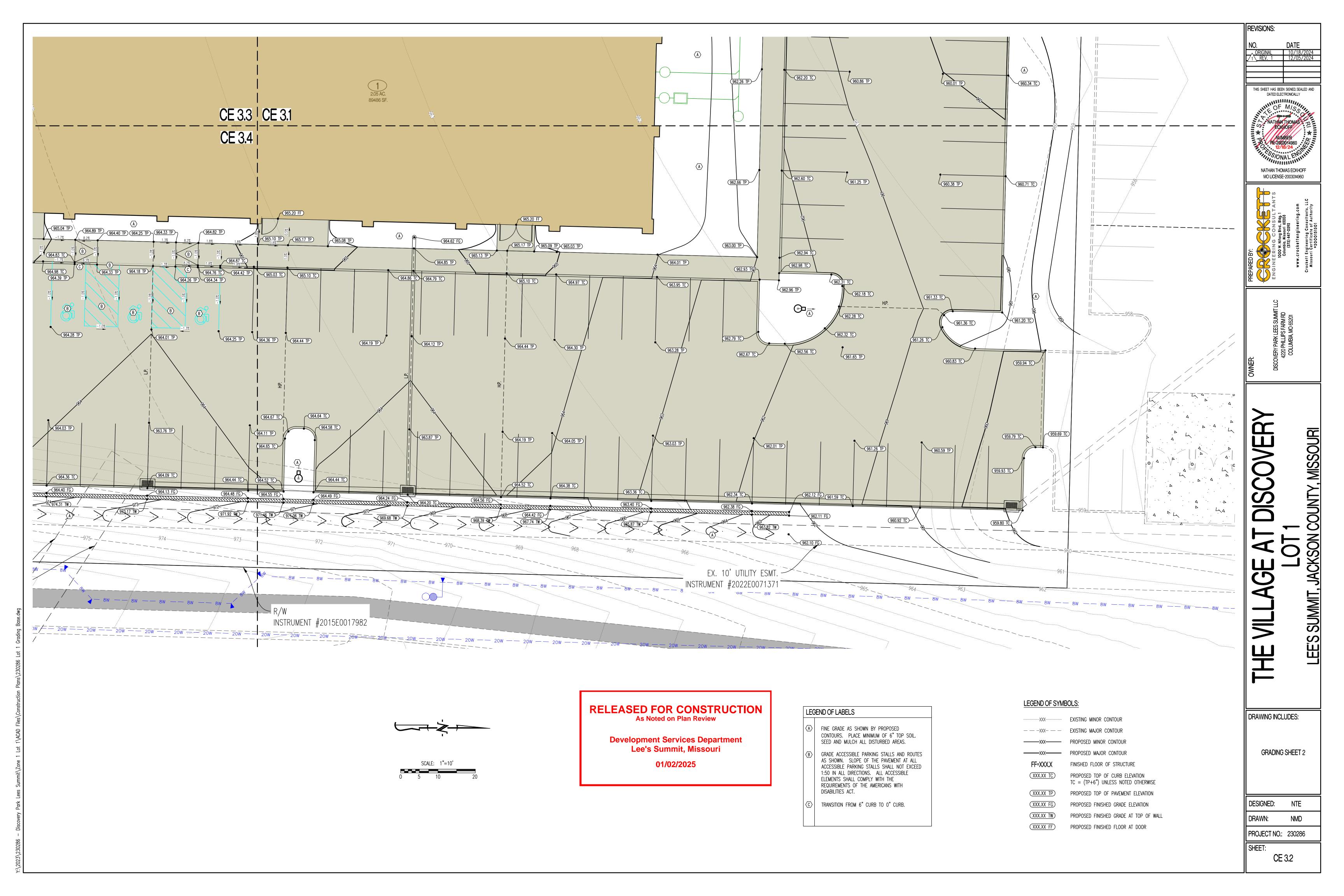
S/ONAL

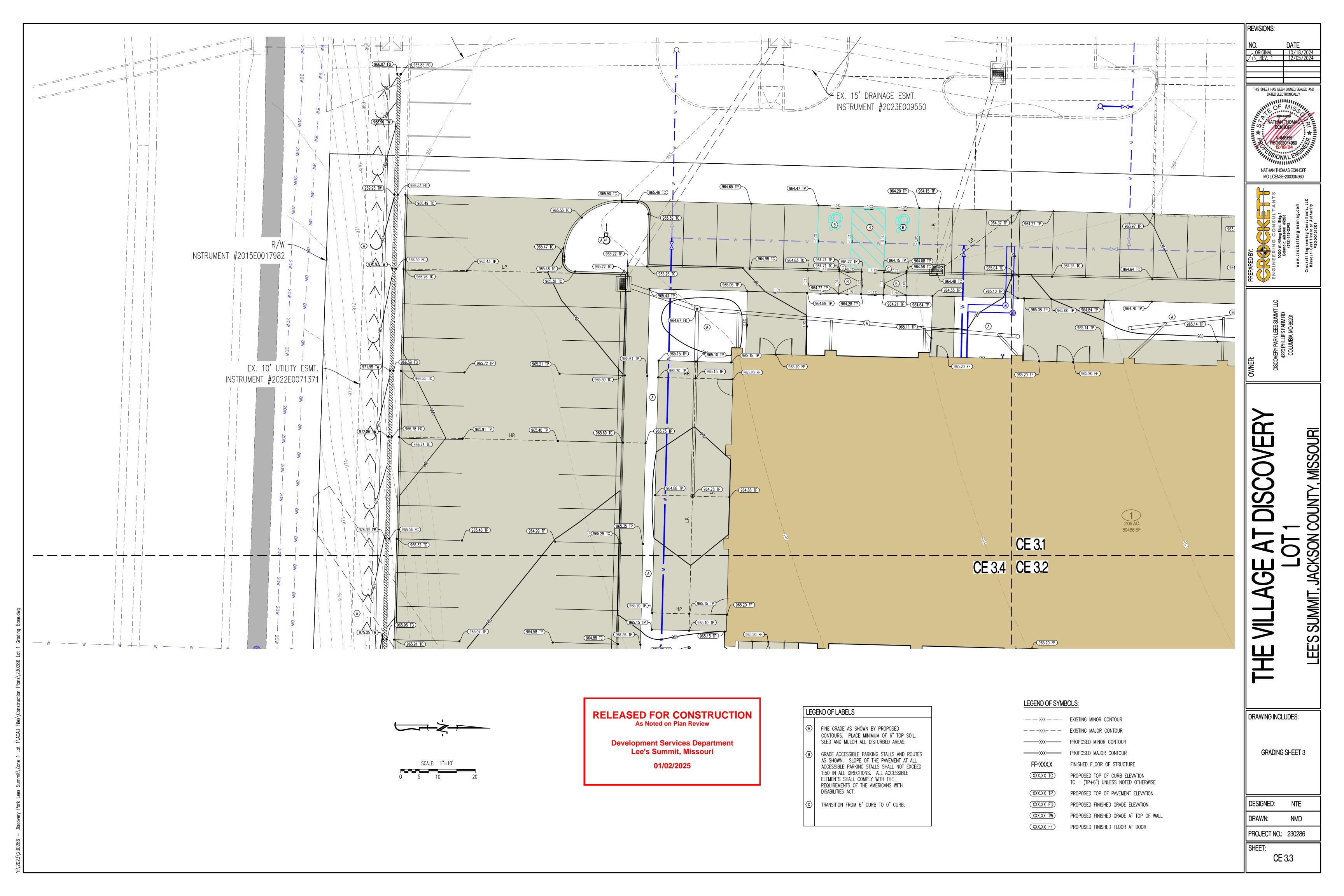
NATHAN THOMAS ECKHOFF

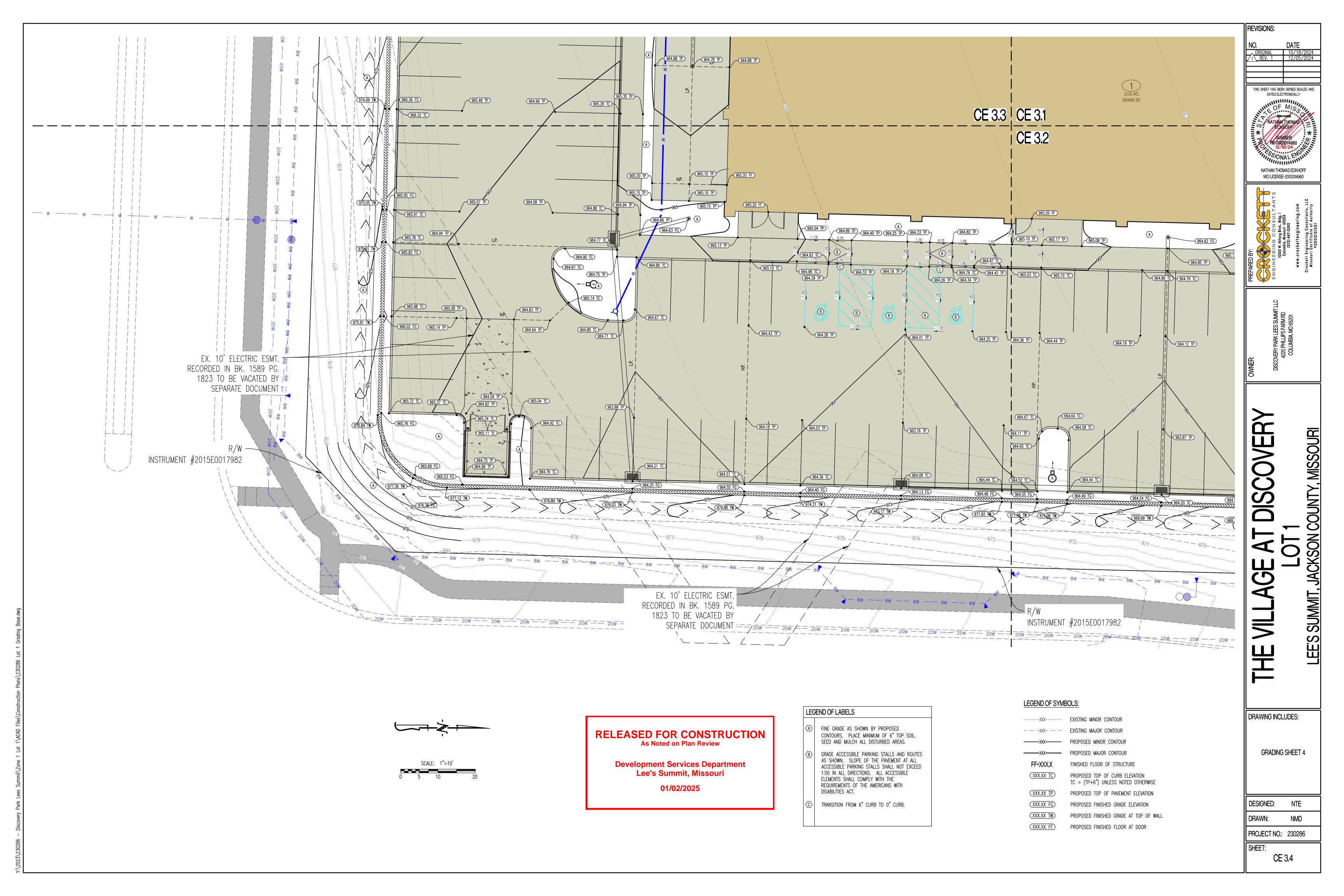
MO LICENSE-2003014960

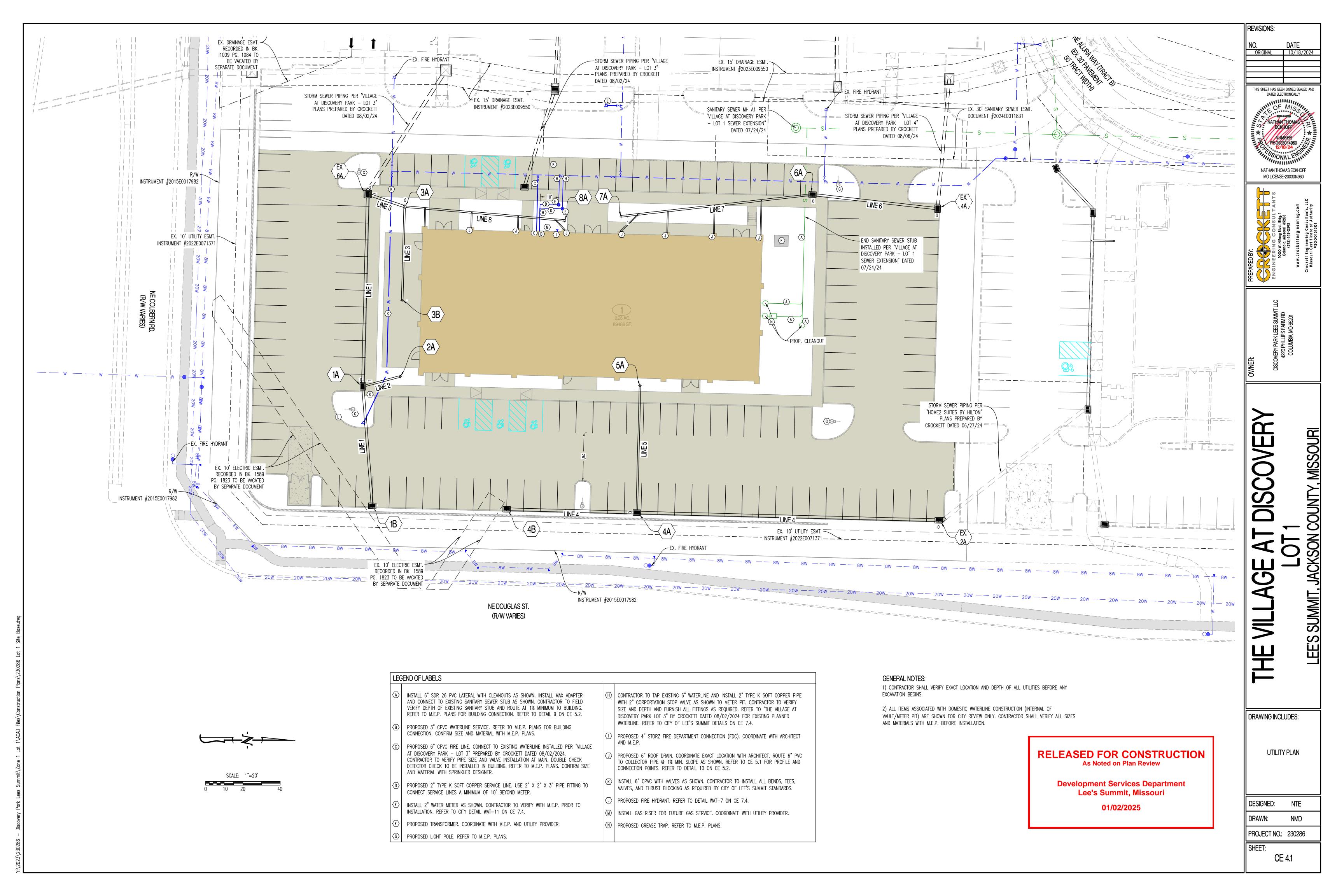


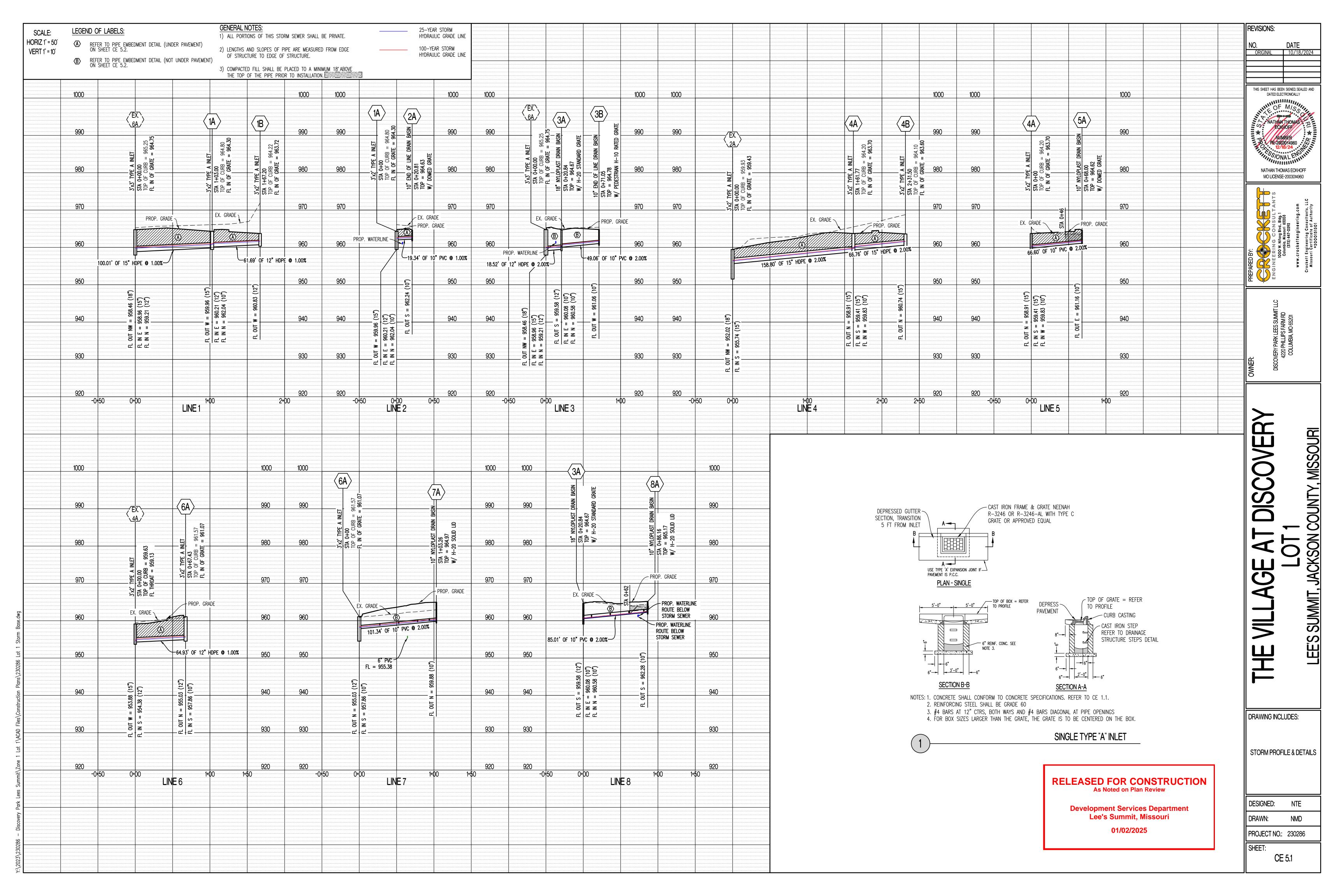












PROOF-ROLL OBSERVATION BE PERFORMED INSTEAD OF MOISTURE DENSITY TESTING FOR MATERIALS CONTAINING MORE THAN 30% AGGREGATE RETAINED ON THE 3/4" SIEVE.

1. IF LIMESTOME SCREENINGS ARE USED AS NEW STRUCTURAL FILL, THE CONTRACTOR SHOULD BE AWARE THIS MATERIAL IS EXTREMELY SUSCEPTIBLE TO DEGRADATION UPON WETTING WHICH CAN RESULT IN DEEP-SEATED PUMPING AND RUTTING.

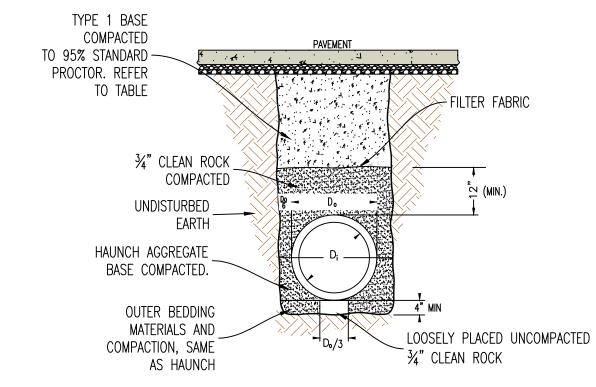
THE SPECIFIED MOISTURE AND COMPACTION REQUIREMENTS ARE ACHIEVED.

LESS MATERIAL LARGER THAN 3/4". ACCORDINGLY, WE RECOMMEND FULL TIME

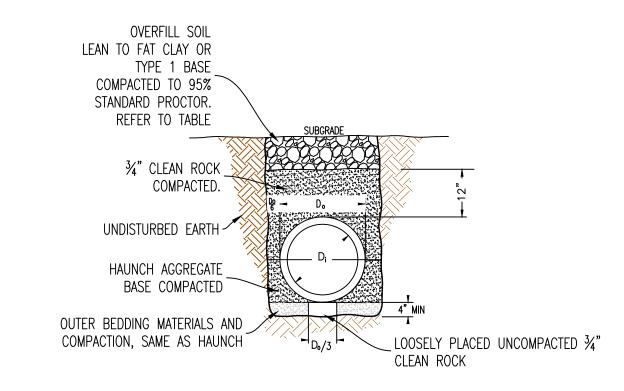
4. 7.

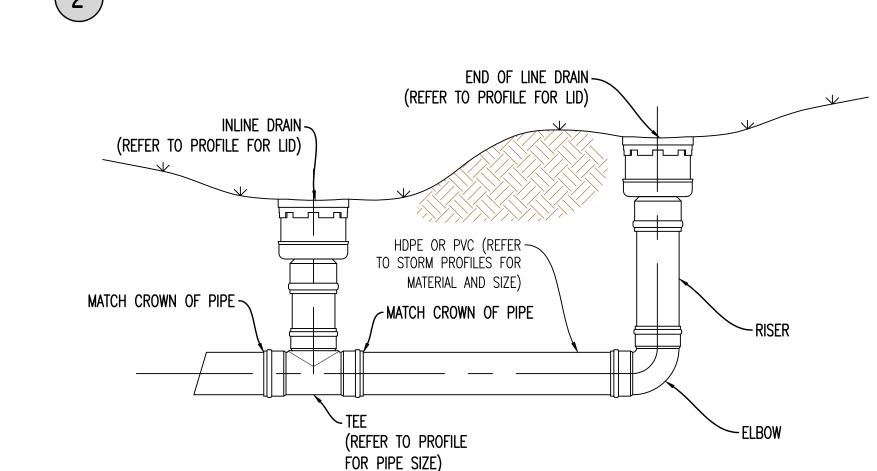
AS STATED WITHIN ASTM D698, THIS PROCEDURE IS INTENDED FOR SOILS WITH 30% OR

LIMESTONE SCREENINGS THAT PUMP AND RUT ARE NOT ACCEPTABLE FOR USE AS NEW STRUCTURAL FILL OR FOR LOW VOLUME CHANGE MATERAIL AND WILL NEED TO BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.



PIPE EMBEDMENT (UNDER PAVEMENT)





TYPICAL INSTALLATION OF INLINE DRAIN AND END OF LINE DRAIN

HDPE OR PVC (REFER ~

- WATERTIGHT ADAPTERS

PLASTIC PIPING SYSTEMS

AVAILABLE FOR MOST COMMON

TYPICAL INSTALLATION OF NYLOPLAST DRAIN BASIN

TO STORM PROFILES FOR MATERIAL AND SIZE)

DRAIN BASIN

(REFER TO PROFILE FOR LID)

RELEASED FOR CONSTRUCTION As Noted on Plan Review

Development Services Department Lee's Summit, Missouri 01/02/2025

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY NATHAN THOMAS ECKHOFF

ORIGINAL 10/18/2024

|| REVISIONS:

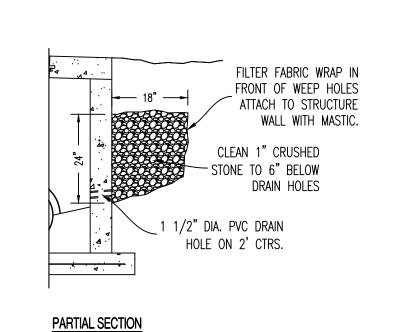
MO LICENSE-2003014960

DRAWING INCLUDES:

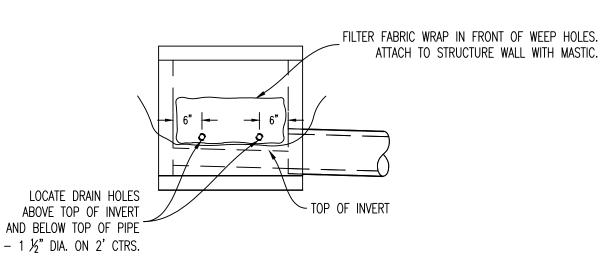
STORM DETAILS CONT'D

NTE

DRAWN: PROJECT NO.: 230286



PIPE EMBEDMENT (NOT UNDER PAVEMENT)



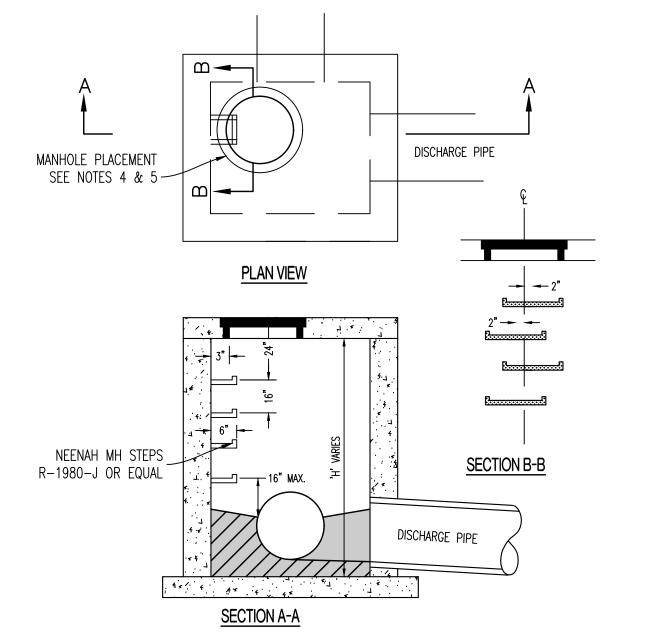
1. PLACE WEEP HOLES ON UPSTREAM FACE OF ALL STRUCTURES AND ALSO ON ROADWAY FACE OF CURB INLET STRUCTURES. 2. WEEP HOLE FILTER FABRIC SHALL CONSIST OF A NON-WOVEN, POLYPROPYLENE TYPE

DRAINAGE STRUCTURE WEEP HOLES

AND BELOW TOP OF PIPE - 1 ½" DIA. ON 2' CTRS. FRONT ELEVATION

FABRIC SUCH AS: AMOCO 4553 NON-WOVEN GEOTEXTILE FABRIC OR APPROVED EQUAL.

DRAINAGE STRUCTURE INVERT



1. STEPS NOT REQUIRED WHERE H IS LESS THAN 4'. 2. CAST IRON STEPS STEPS SHALL BE AMERICAN ML-10-NCR OR EQUAL 3. STEPS SHALL BE PLACED ON VACANT WALL WHEN POSSIBLE 4. MANHOLE RING SHALL BE OFFSET TOWARD WALL WITH STEPS. 5. MANHOLE RING SHALL BE CENTERED ON CENTERLINE OF STEPS

6. STAGGER STEPS 2" EACH WAY FROM CENTERLINE OF MANHOLE RING. 7. TOP STEP 24" BELOW TOP OF LID 8. STEP SPACING TO BE 16", BOTTOM STEP TO BE NO HIGHER THAN 16" FROM INVERT.

DRAINAGE STRUCTURE STEPS

1/2 PIPE DIA.

1. FORM ALL INVERTS FOR SMOOTH FLOW THROUGH STRUCTURE.

2. INVERT SHALL BE FORMED UP TO 1/2 THE PIPE DIAMETER

3. INVERT SHALL BE CLASS E CONCRETE.

PIPE (VARIABLE

DEPTH & SIZE)

REFER TO ARCH. PLANS — FOR DOWNSPOUT SIZE.

FINISHED GRADE -

6" SDR 35 PIPE @ 2% — MINIMUM SLOPE

6" SDR 35-

SADDLE WYE ~

45 BEND

DOWNSPOUT BOOT -

6" SDR 35 🦳

90 BEND

INSTALL CAST IRON CLEAN-OUT COVER AT

FINISH GRADE

- ALL CLEANOUT LOCATIONS. CASTING SHOULD READ -"SEWER" AT SEWER LINES AND "WATER" AT WATER

FINISH GRADE

CLEANOUT DETAIL

- BUILDING FACE

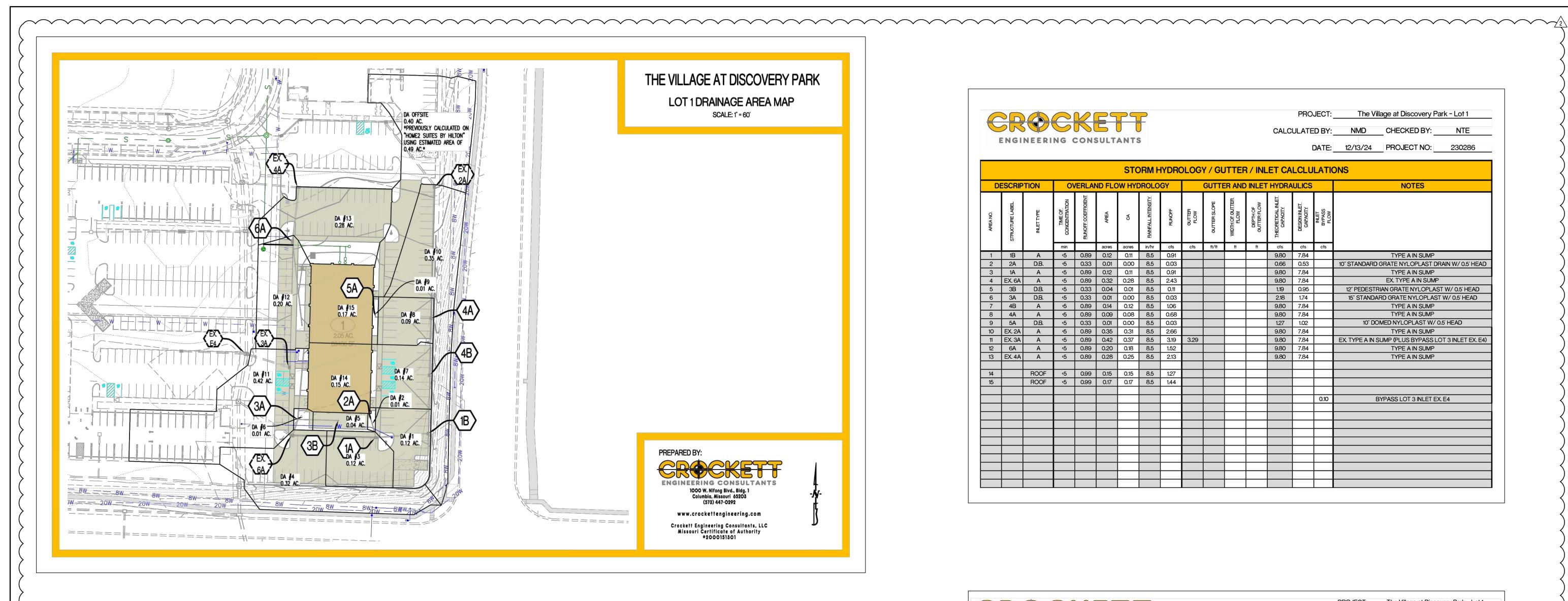
- TOP OF FOOTING

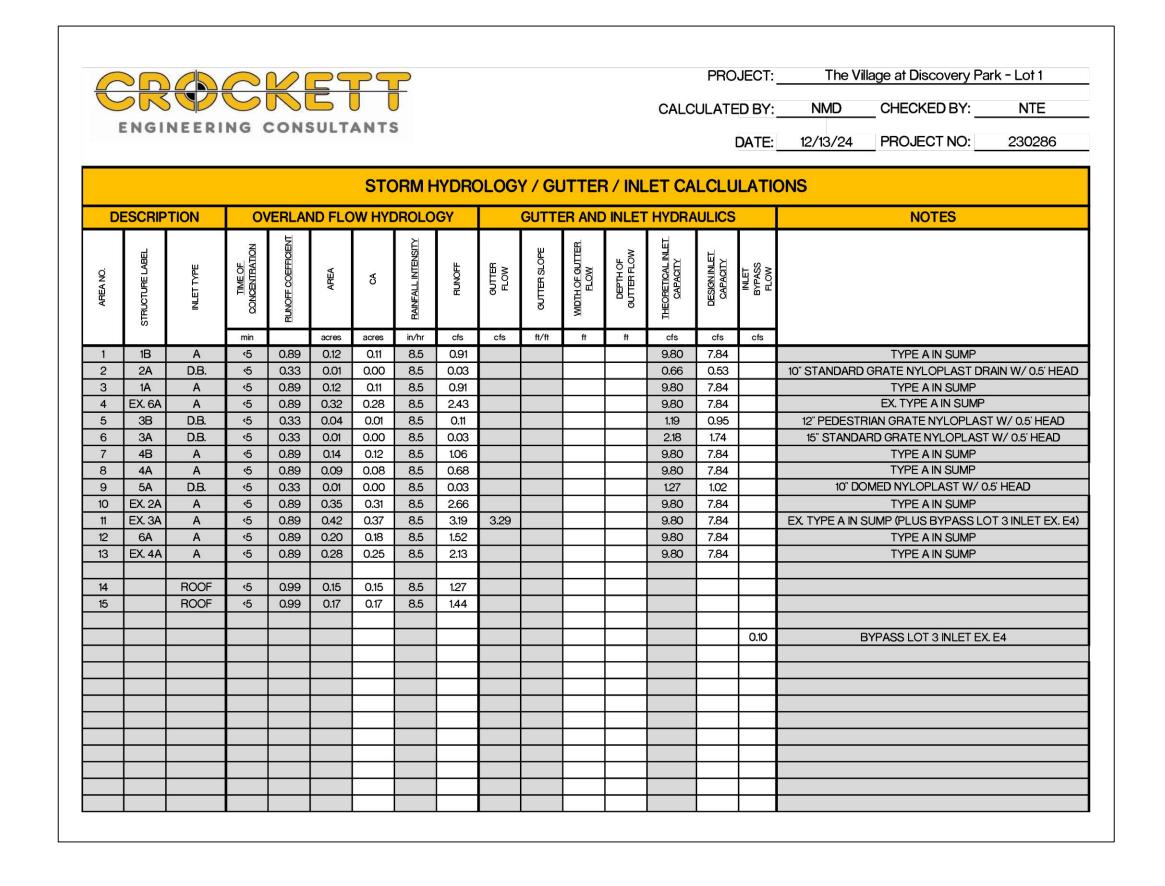
ROOF DRAIN DETAIL

DESIGNED:

NMD

SHEET: CE 5.2





ENGINEER	ING (E SULTA	NTS							PI	ROJECT: _ ATED BY: _ DATE: _	The Villa NMD 12/13/24	age at Discovery P CHECKED BY: PROJECT NO:	ark - Lot 1 NTE 230286
						5	STORM	DRAIN I	PIPE SIZ	E.					
DESCRIPTION					S	TORM DE	RAIN HYD	RAULICS						NOTES	
AREA NO.	JPSTREAM STRUCTURE LABEL	TIME OF CONCENTRATION	ADDED	CUMUL.	BAINFALL INTENSITY	RUNOFF	STORM DRAIN SLOPE	STORM DRAIN DIAMETER	의 중 관 공 STORM DRAIN. 국 당 구 가 MATERIAL	CAPACITY FLOWING FULL	VELOCITY FLOWING FULL				
	š	min	acres	acres	in/hr	cfs	ft/ft	in		cfs	fps				
1 LINE 2+3 LINE 3+4	1B 1A EX. 6A	<5 <5 <5	0.11 0.11 0.45	0.11 0.22 0.67	8.53 8.53 8.53	0.91 1.85 5.69	0.010 0.010 0.010	12 15 18	HDPE HDPE HDPE	3.86 6.99 11.37	4.91 5.70 6.44	EX. 1	8" PIPE FRO	M DISCOVERY PA	RK LOT 3
			•				•	LINE 2				•			
2	2A	4 5	0.00	0.00	8.53	0.03	0.010	10	PVC	2.59	4.75				
								LINE 3							
ROOF (14) + 5 6	3B 3A	ر5 ر5	0.16 0.00	0.16 0.17	8.53 8.53	1.38 1.41	0.010	10 12	PVC HDPE	2.59 3.86	4.75 4.91				
								LINE 4			_				
7 LINE 5 + 8 10	4B 4A EX. 2A	,5 ,5 ,5	0.12 0.09 0.31	0.12 0.22 0.53	8.53 8.53 8.53	1.06 1.86 4.52	0.020 0.020 0.020	15 15 18	HDPE HDPE HDPE	9.89 9.89 16.09	8.06 8.06 9.11	EX.	PIPE FROM I	HOME2 SUITES B	Y HILTON
								LINE 5							
ROOF (15) + 9	1C	< 5	0.00	0.00	8.53	0.03	0.010	10 LINE 6	PVC	2.59	4.75				
ROOF (15) + 12 13	6B EX. 4A	ر5 ر5	0.35 0.25	0.35 0.60	8.53 8.53	2.95 5.08	0.010	12	HDPE HDPE	3.86 6.99	4.91 5.70				
								X. STOF	RM						
11	EX. 3A	√ 5	0.37	0.40	8.53	3.39	0.010	15	HDPE	6.99	5.70	EX. STORM		VILLAGE AT DISCOV PLUS BYPASS	ERY PARK LOT 3

> **Development Services Department** Lee's Summit, Missouri 01/02/2025

REVISIONS:

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

NATHAN THOMAS ECKHOFF MO LICENSE-2003014960

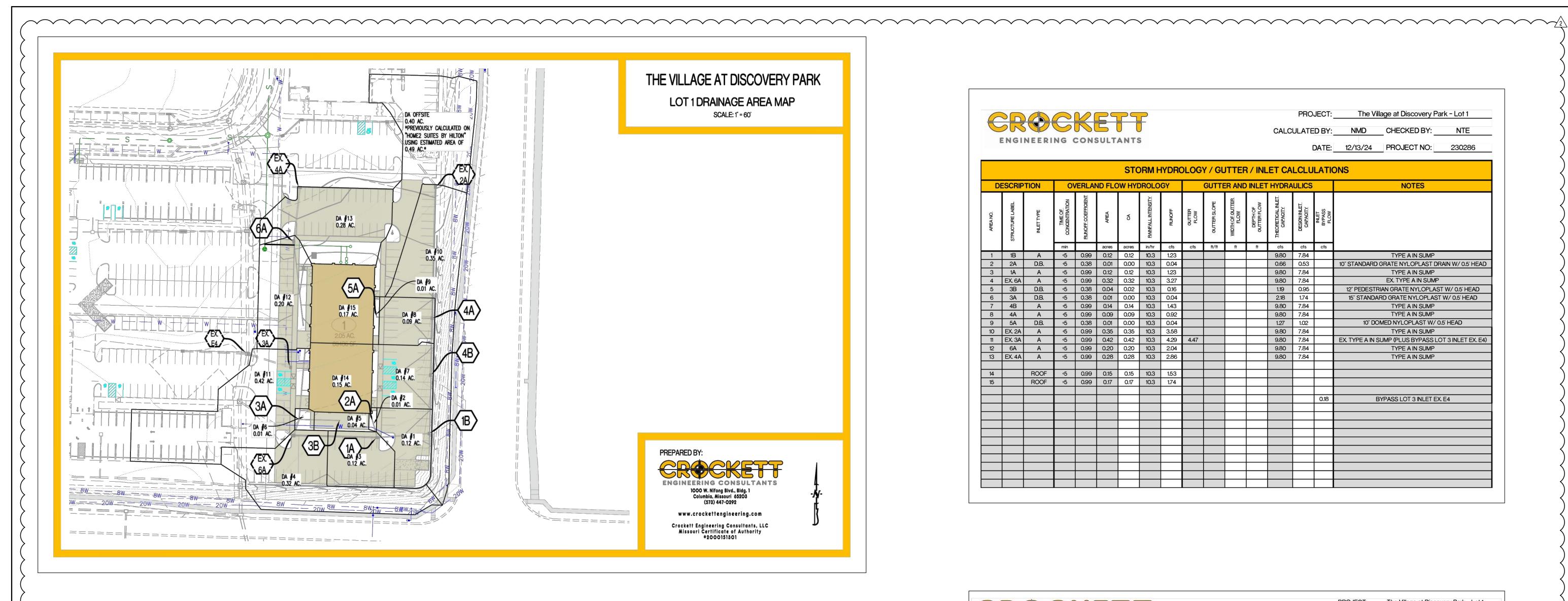
DRAWING INCLUDES:

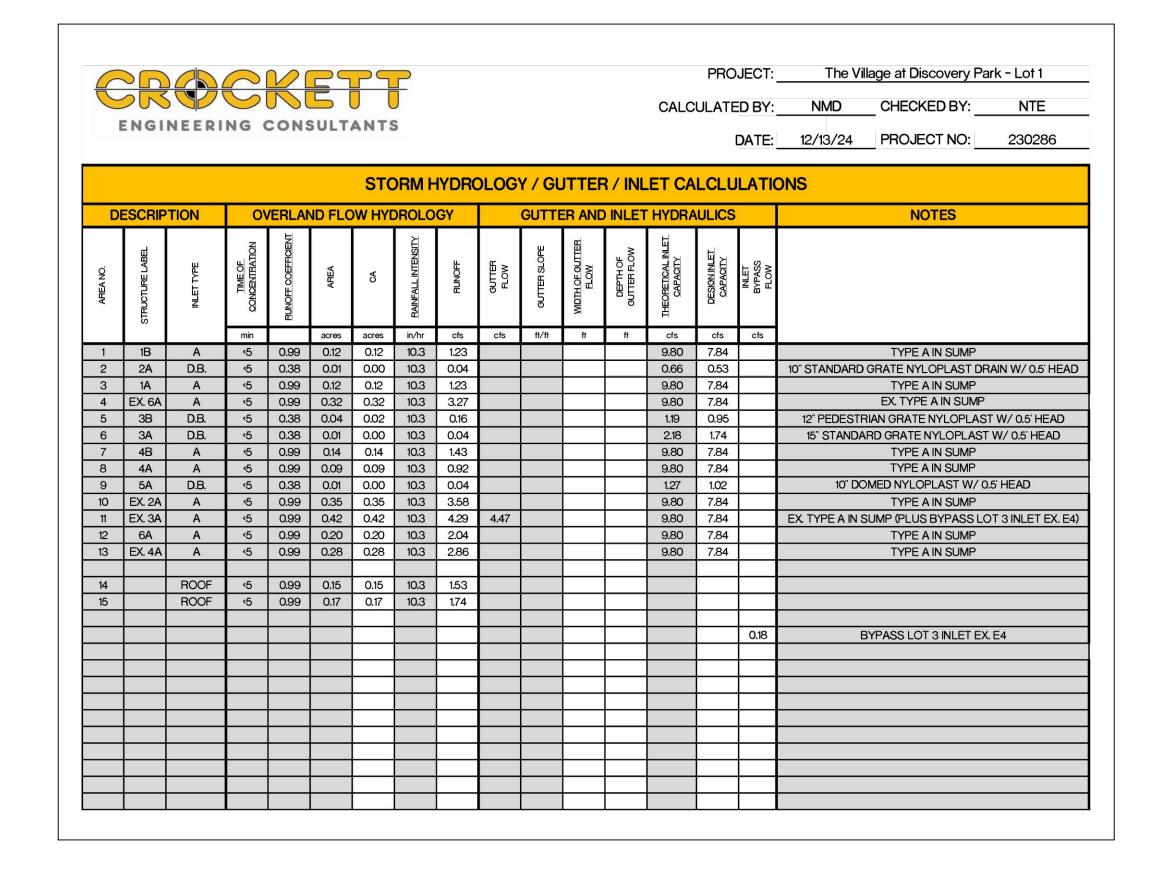
25 YEAR STORM CALCS

DESIGNED: DRAWN: NMD

PROJECT NO.: 230286 SHEET:

CE 5.3





ENGINEER	ING C	ONS	SULTA	NTS							CALCULA	ATED BY: NMD CHECKED BY: NT DATE: 12/13/24 PROJECT NO: 230:
						5	STORM	DRAIN	PIPE SIZ	E		
DESCRIPTION		STORM DRAIN HYDRAULICS							NOTES			
AREA.NO.	UPSTREAM STRUCTURE LABEL.	IME OF CONCENTRATION	ADDED	CUMUL	RAINFALL INTENSITY	RUNOFF	STORM DRAIN SLOPE	STORM DRAIN DIAMETER	STORM DRAIN. THE STORM DRAIN. THE STORM DRAIN. THE STORM DRAIN. THE STORM DRAIN.	CAPACITY FLOWING FULL	VELOCITY FLOWING FULL	
	.S _a n	min	acres	acres	in/hr	cfs	ft/ft	in	ONTIDEE	cfs	fps	
1	1B	,E	0.10	0.10	10.32	100	0.010	LINE 1	HDPE	206	1 404	
LINE 2+3	1A	-5 -5	0.12	0.12 0.24	10.32	1.23 2.49	0.010	12 15	HDPE	3.86 6.99	4.91 5.70	
LINE 3+4	EX. 6A	√ 5	0.48	0.73	10.32	7.49	0.010	18	HDPE	11.37	6.44	EX. 18" PIPE FROM DISCOVERY PARK LOT
								LINE				
2	2A	√ 5	0.00	0.00	10.32	0.04	0.010	LINE 2	PVC	2.59	4.75	
2	2A	<u>,,,</u>	0.00	0.00	10.32	0.04	0.010	10	FVC	2.09	4.75	
							•	LINE 3				
ROOF (14) + 5	3B	' 5	0.16	0.16	10.32	1.69	0.010	10	PVC	2.59	4.75	
6	3A	4 5	0.00	0.17	10.32	1.73	0.010	12	HDPE	3.86	4.91	
								LINE 4)			
7	4B	4 5	0.14	0.14	10.32	1.43	0.020	15	HDPE	9.89	8.06	
LINE 5+8	4A	45	0.09	0.23	10.32	2.40	0.020	15	HDPE	9.89	8.06	EV DIDE EDOM LOMES OF HITEO DAY IN TO
10	EX. 2A	4 5	0.35	0.58	10.32	5.97	0.020	18	HDPE	16.09	9.11	EX. PIPE FROM HOME2 SUITES BY HILTOI
								LINE 5			-	
9	1C	4 5	0.00	0.00	10.32	0.04	0.010	10	PVC	2.59	4.75	
								LINITA				
ROOF (15) + 12	6A	√ 5	0.37	0.37	10.32	3.78	0.010	LINE 6	HDPE	3.86	4.91	
13	EX. 4A	(5	0.37	0.64	10.32	6.64	0.010	15	HDPE	6.99	5.70	
							E	X. STOF	RM			
11	EX. 3A	. 5	0.42	0.43	10.32	4.47	0.010	15	HDPE	6.99	5.70	EX. STORM LINE 3A FROM VILLAGE AT DISCOVERY PARK PLUS BYPASS
											_	

> **Development Services Department** Lee's Summit, Missouri

01/02/2025

REVISIONS:

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY NATHAN THOMAS ECKHOFF MO LICENSE-2003014960

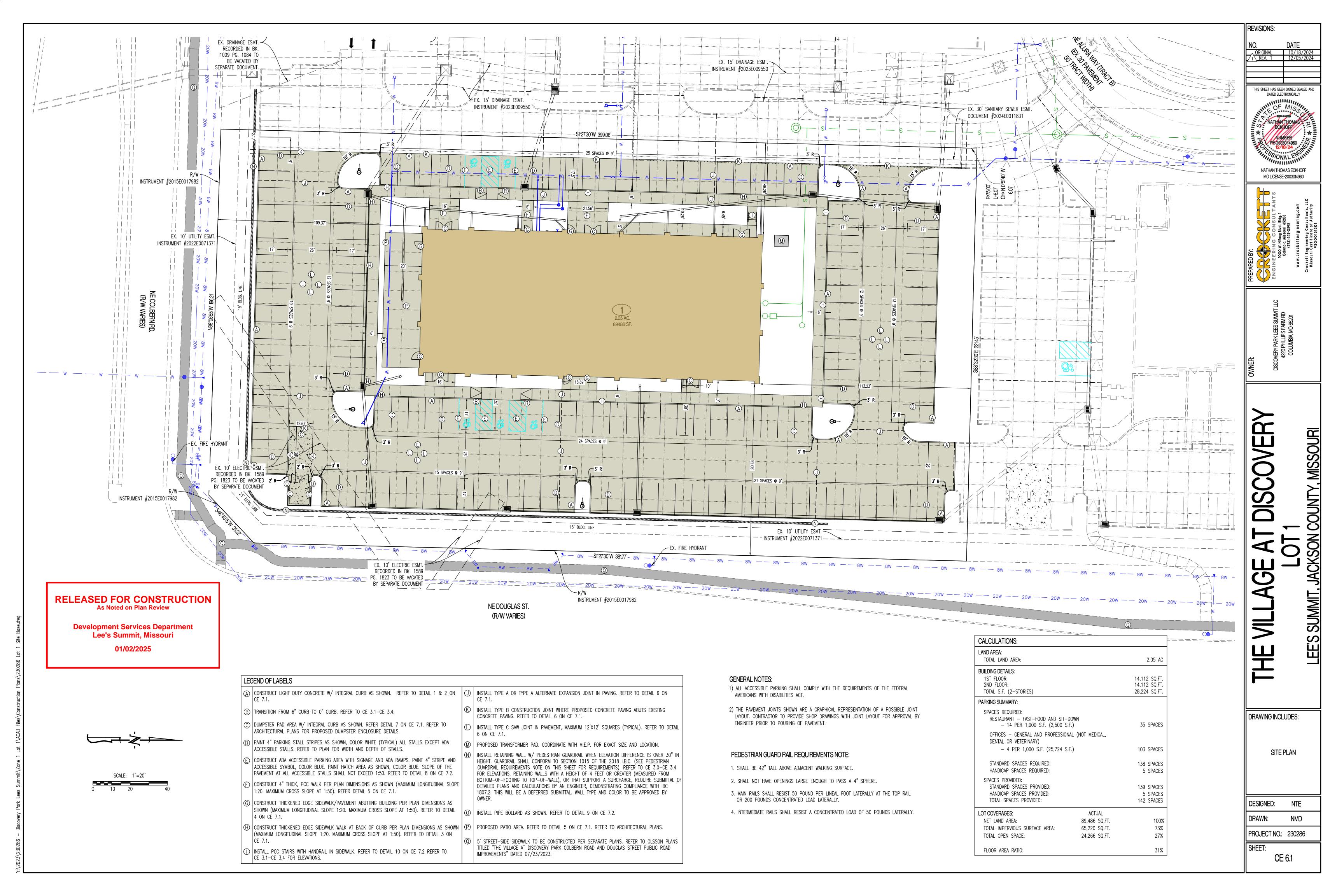
DRAWING INCLUDES:

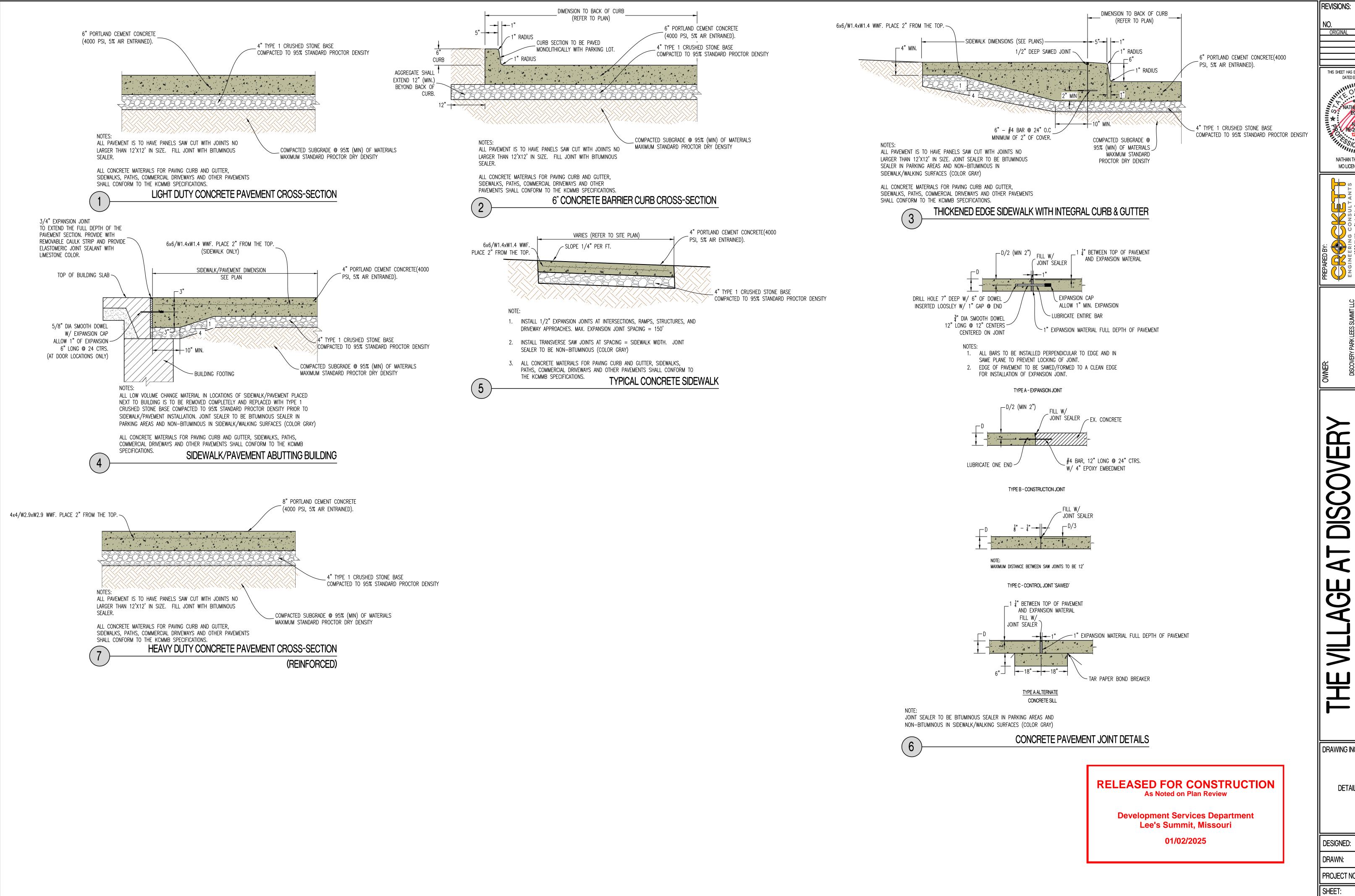
100 YEAR STORM CALCS

DESIGNED: DRAWN: NMD

PROJECT NO.: 230286 SHEET:

CE 5.4





REVISIONS: ORIGINAL 10/18/2024 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY SS/ONAL V NATHAN THOMAS ECKHOFF MO LICENSE-2003014960

DRAWING INCLUDES:

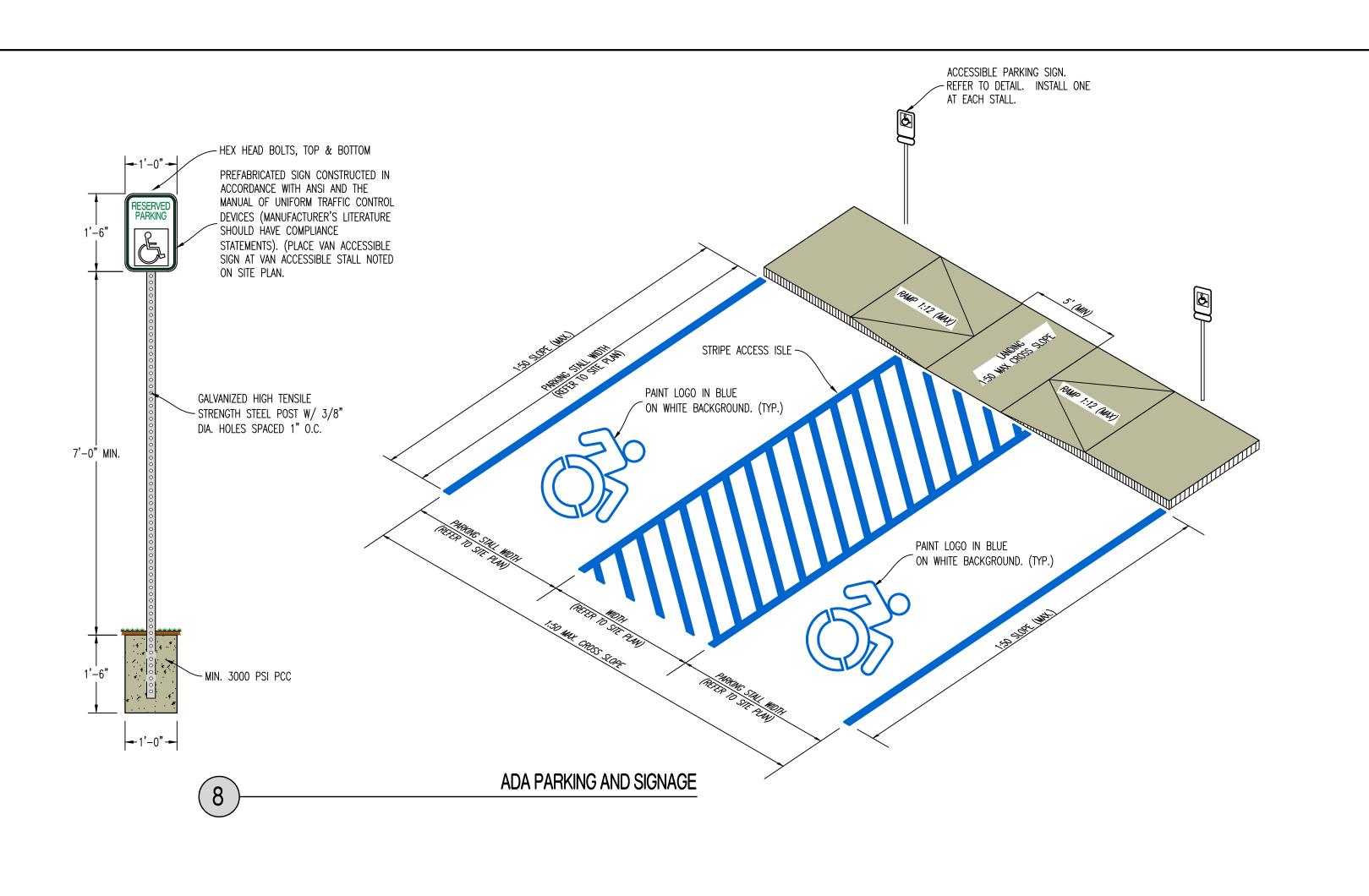
DETAILS SHEET 1

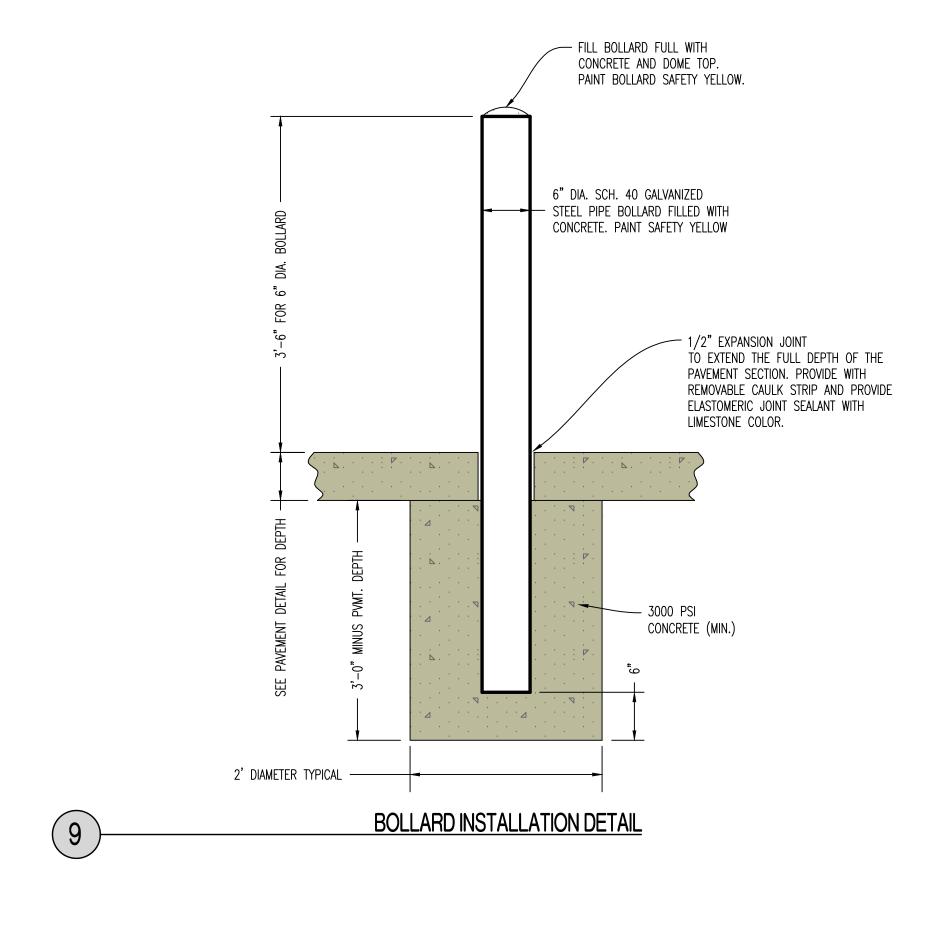
EES

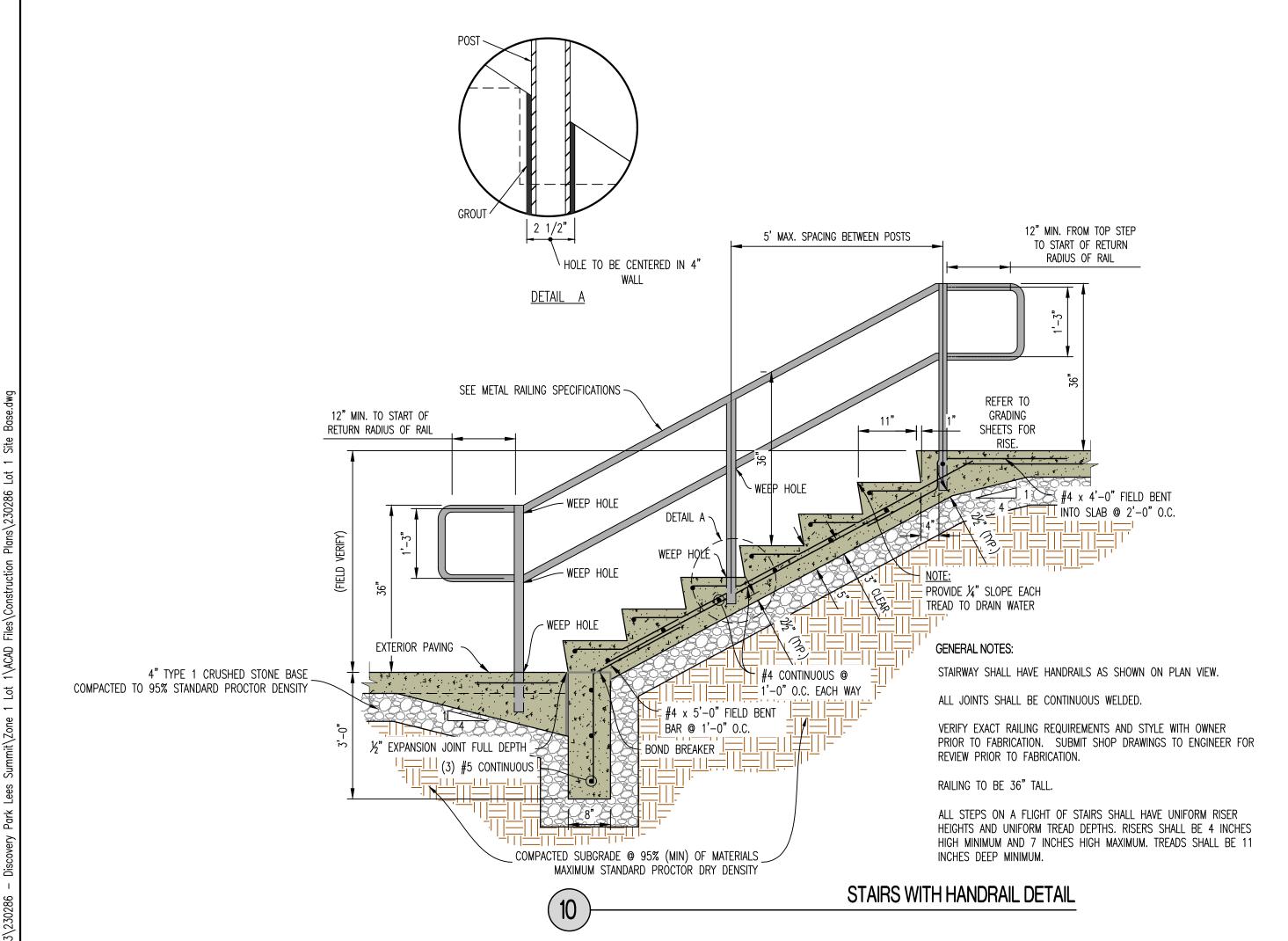
NTE NMD

PROJECT NO.: 230286

CE 7.1







METAL RAILING SPECIFICATIONS

- 1. PROVIDE SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO FABRICATION OR INSTALLATION.
- 2. RAILINGS AND POSTS SHALL BE 1-1/2" DIAMETER ROUND STEEL PIPING IN COMPLIANCE WITH ASTM A53, TYPE F OR TYPE S, GRADE A SCHEDULE 40 PIPING.
- 3. RAILINGS SHALL BE 34"-38" TALL FROM FINISH PAVEMENT GRADE (OR STAIR NOSING) TO THE TOP OF THE TOP
- 4. MAIN RAILS AND POSTS SHALL RESIST 50 POUNDS PER LINEAL FOOT LATERALLY AT THE TOP RAIL, AND 200 POUNDS OF CONCENTRATED LOAD LATERALLY.
- 5. INTERMEDIATE RAILS SHALL RESIST A CONCENTRATED LOAD OF 50 POUNDS LATERALLY.
- 6. CUT, DRILL, AND PUNCH METALS CLEANLY AND ACCURATELY. REMOVE BURRS AND EASE EDGES TO A MINIMUM RADIUS OF $\frac{1}{32}$ ", UNLESS OTHERWISE INDICATED. REMOVE SHARP OR ROUGH AREAS ON EXPOSED SURFACES.
- 7. COPE COMPONENTS AT CONNECTIONS TO PROVIDE CLOSE FIT, OR USE FITTINGS DESIGNED FOR THIS PURPOSE. WELD ALL AROUND AT CONNECTIONS, INCLUDING FITTINGS.
- 8. PROVIDE CHANGES IN RAILING DIRECTION BY USING PREFABRICATED ELBOW AND RADIUS FITTINGS.
- 9. PROVIDE WEEP HOLES AT THE BASE OF ALL POSTS AND ANYWHERE WATER OR CONDENSATION MAY ACCUMULATE INSIDE RAILING SECTIONS
- 10. PROVIDE SHOP PRIMER FORMULATED FOR GALVANIZED STEEL. PROVIDE HOT-DIP GALVANIZED FINISH IN COMPLIANCE WITH ASTM A123. FOR ALL COMPONENTS. POWDER COATED BLACK WITH HIGH GLOSS ENAMEL PAINT. VERIFY FINAL COLOR WITH OWNER PRIOR TO PAINTING.
- 11. CLEAN FIELD WELDS AND REPAIR GALVANIZING TO COMPLY WITH ASTM A780.
- 12. POSTS SHALL BE SET PLUMB WITH A TOLERANCE OF $\frac{1}{16}$ IN 3 FEET. ALIGN RAILS SO VARIATIONS FROM LEVEL FOR HORIZONTAL MEMBERS AND VARIATIONS FROM PARALLEL WITH RAKE OF STEPS AND RAMPS FOR SLOPING MEMBERS DO NOT EXCEED $\frac{1}{4}$ INCH IN 12 FEET.
- 13. PROVIDE 4" SLEEVES OR CORE DRILL CONCRETE. MINIMUM 4" RAIL EMBEDMENT BELOW PAVEMENT SECTIONS SHOWN TO RECEIVE POSTS. GROUT AROUND AROUND POSTS WITH NON-SHRINK GROUT. MIN 2" OF GROUT BELOW BOTTOM OF POST. SLOPE TOP OF GROUT OF DRAIN.
- 14. CAULK JOINT BETWEEN GROUT AND METAL POST WITH APPROVE JOINT SEALANT. COORDINATE COLOR WITH OWNER.

RELEASED FOR CONSTRUCTION As Noted on Plan Review

Development Services Department Lee's Summit, Missouri 01/02/2025

ORIGINAL 10/18/2024

|| REVISIONS:

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY NATHAN THOMAS ECKHOFF MO LICENSE-2003014960

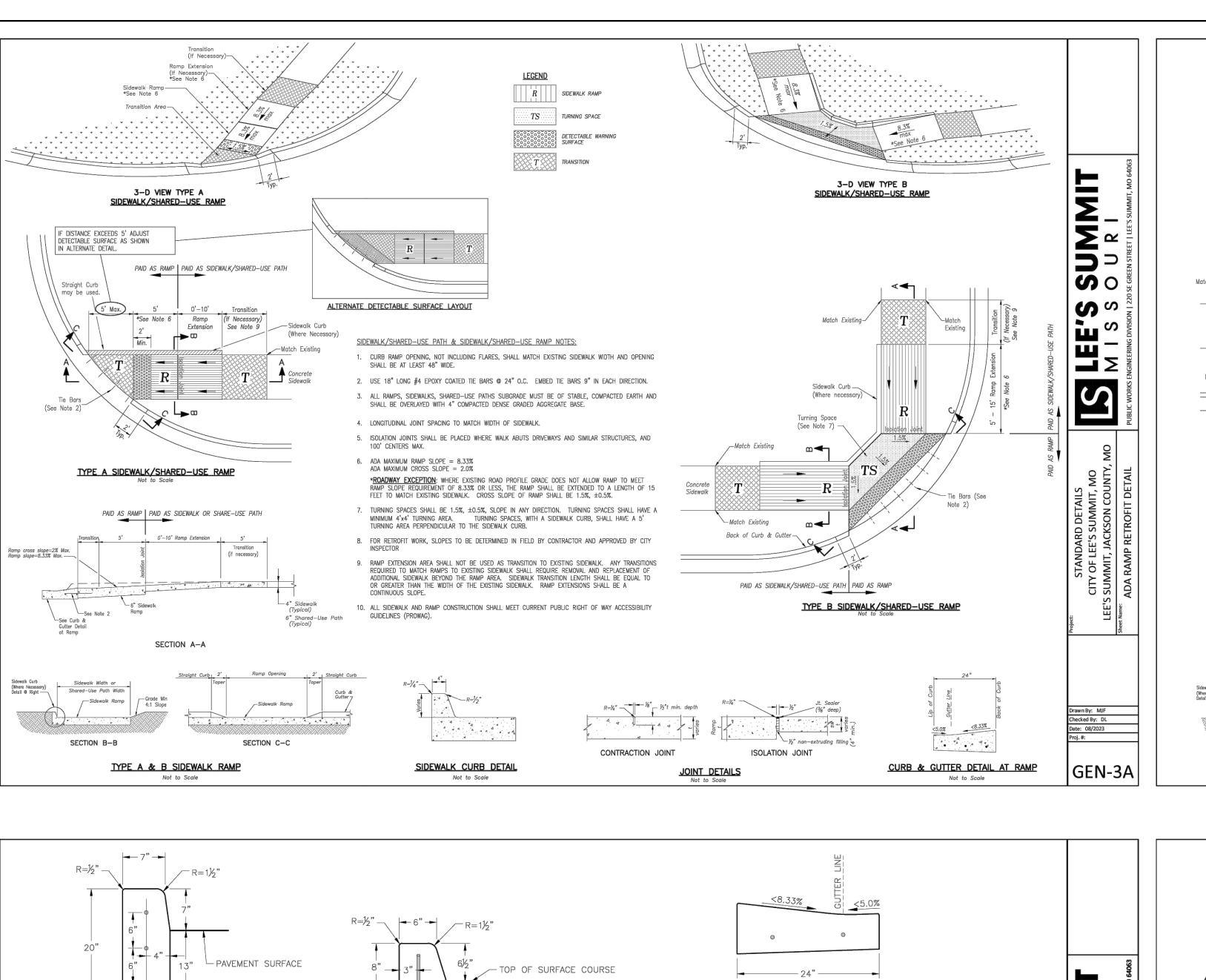
DRAWING INCLUDES:

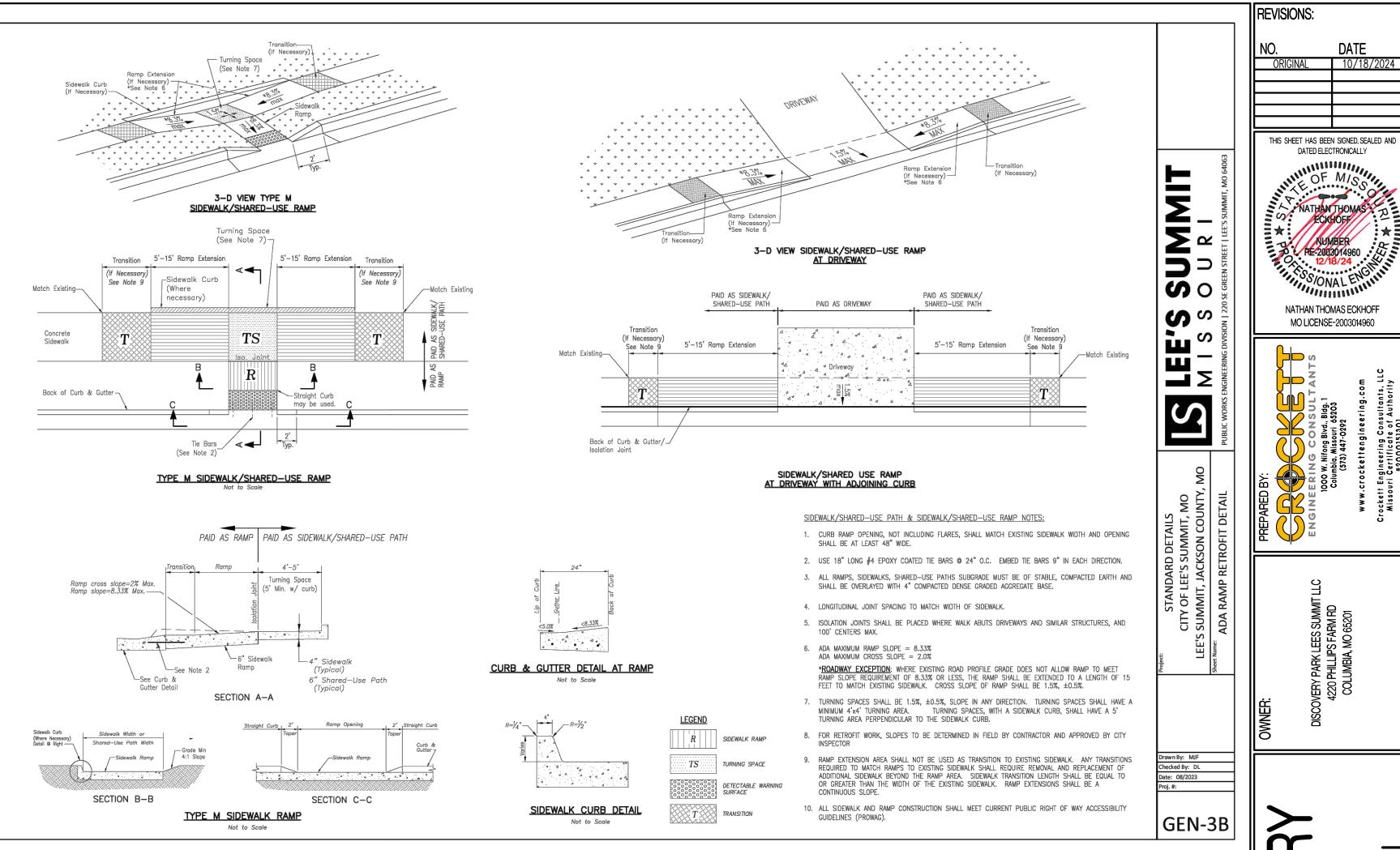
DETAILS SHEET 2

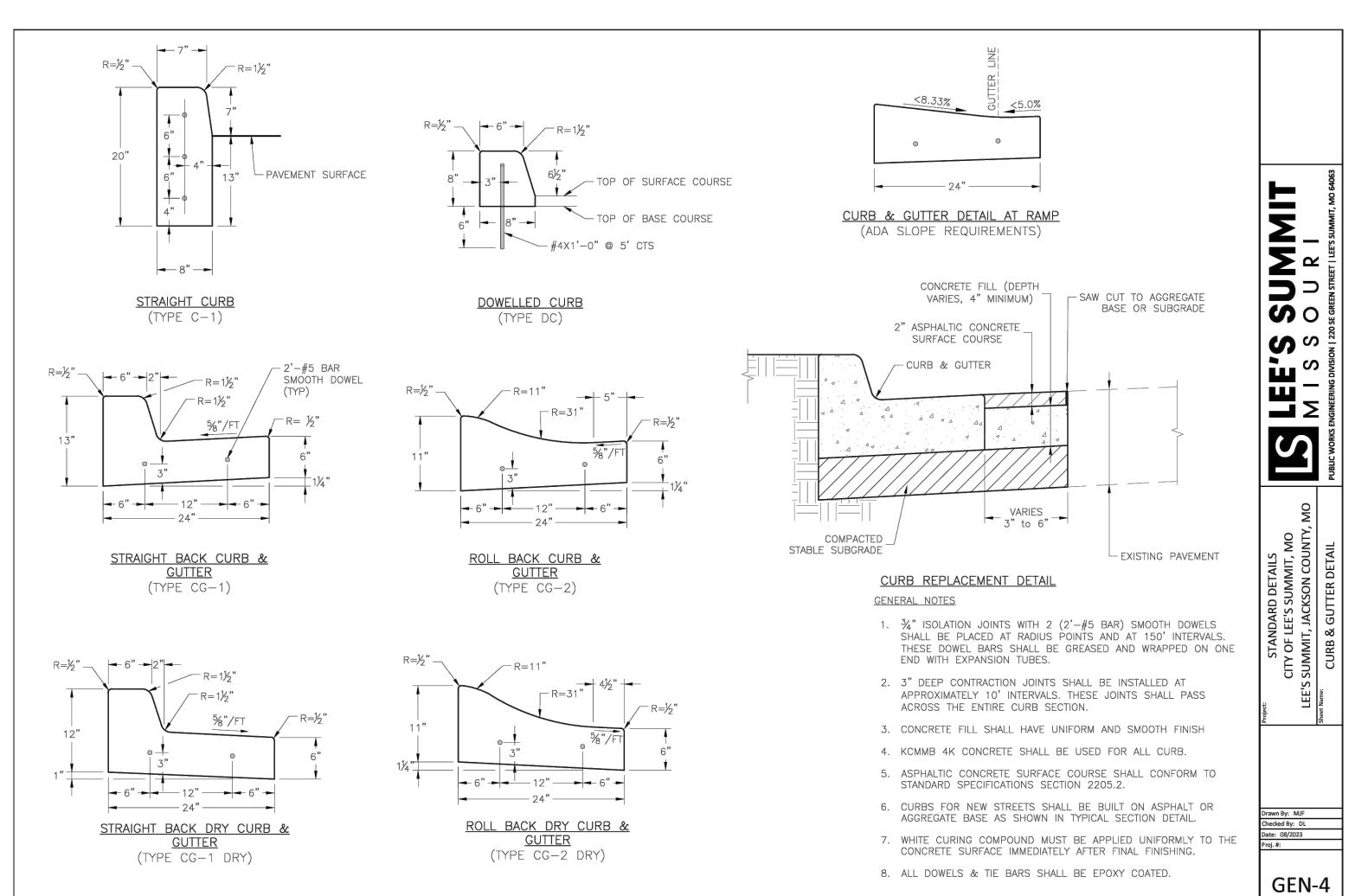
DESIGNED: NTE DRAWN: NMD

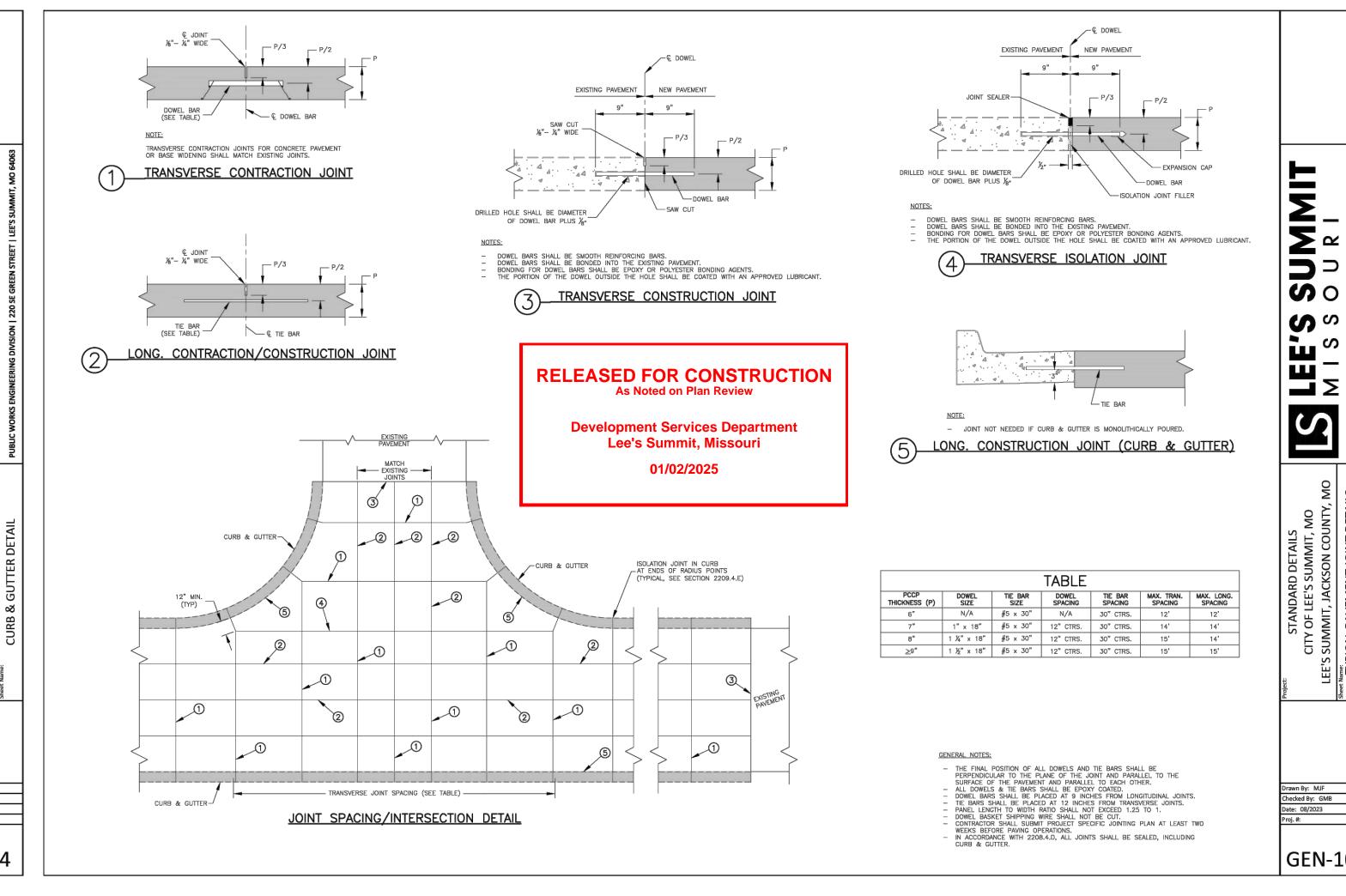
PROJECT NO.: 230286

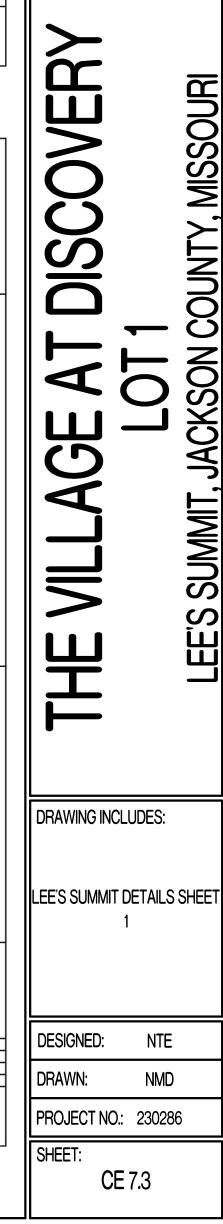
SHEET: CE 7.2







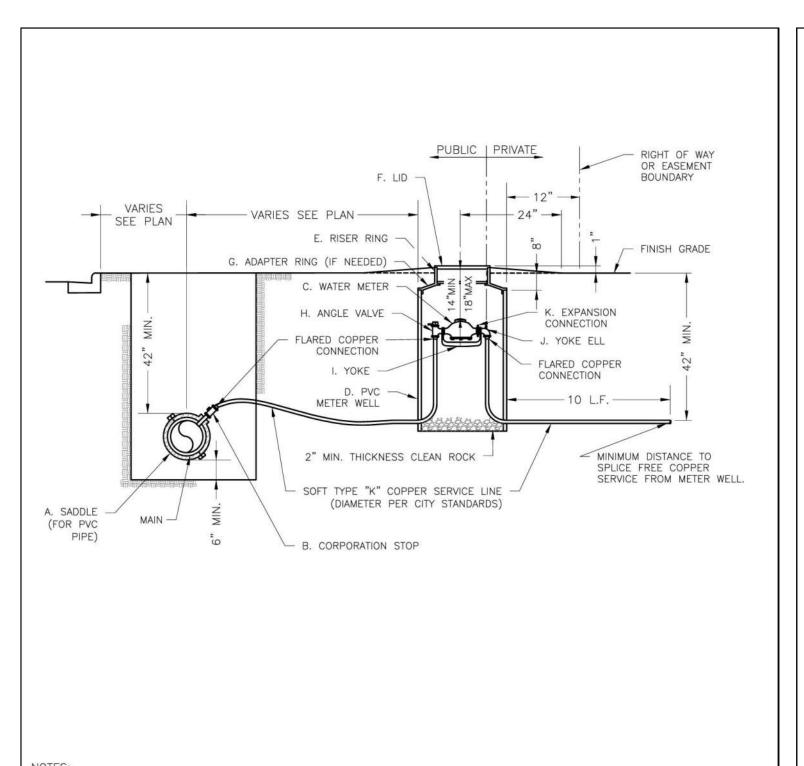




THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

NATHAN THOMAS ECKHOFF

MO LICENSE-2003014960



. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED. . CITY TO FURNISH ITEMS A-K. 4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.

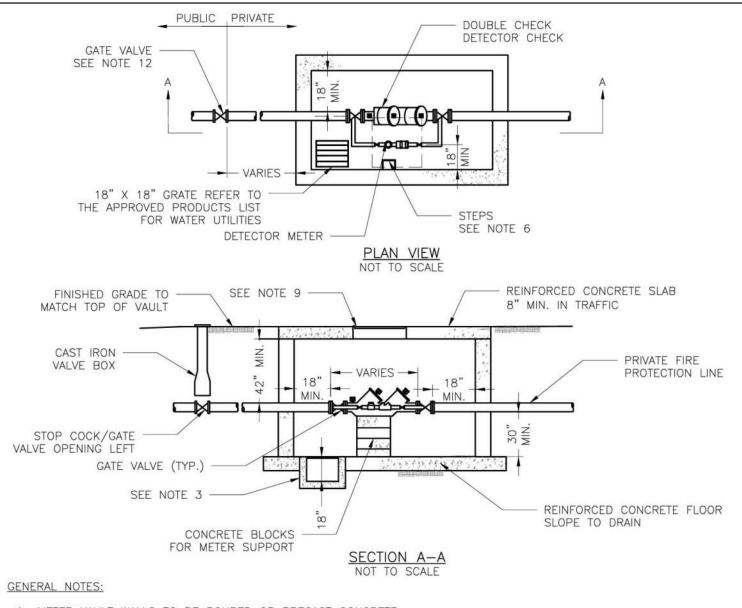
1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE

. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.

PAVEMENT WITHOUT CITY APPROVAL.

- EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
- NO SPLICES ALLOWED BETWEEN METER AND MAIN. 8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
- 9 LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL. 10. CONTACT WATER UTILITIES, 816-969-1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

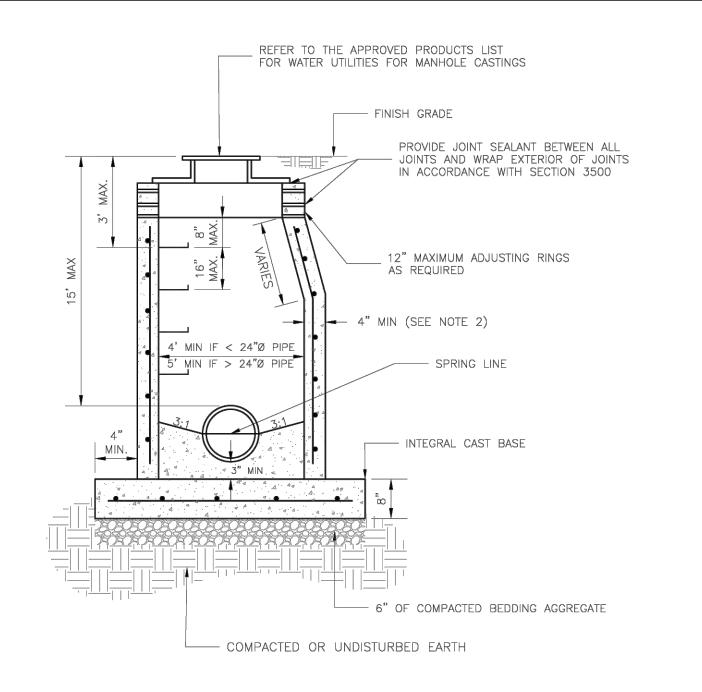




- METER VAULT WALLS TO BE POURED OR PRECAST CONCRETE. METER VAULT ROOF TO BE REINFORCED CONCRETE OPENING CENTERED OVER DETECTOR METER. METER VAULT TO BE LOCATED, WHEN POSSIBLE, OUTSIDE TRAFFIC AREA WHERE SURFACE WATER WILL NOT DRAIN INTO IT. VAULT MUST BE KEPT FREE OF WATER. PROVIDE CONCRETE SUMP AS A MINIMUM. WHERE PRACTICAL. PROVIDE A 2" PIPE DRAIN WITH AN ABOVE-GROUND DISCHARGE POINT. PROJECT OWNER MAY DESIRE A PERMANENTLY
- INSTALLED SUMP PUMP. . ALL PIPE SHALL BE DUCTILE IRON CLASS 50. ALL PIPE FITTINGS FROM THE CITY WATER MAIN THROUGH THE VAULT SHALL BE PROVIDED WITH RESTRAINED JOINT FITTINGS.
- 5. ALL FITTINGS TO BE BRASS. . STEPS SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST FOR WATER UTILITIES AND SHALL BE ON 16"
- 7. A DEPARTMENT OF NATURAL RESOURCES APPROVED DOUBLE CHECK DETECTOR CHECK BACKFLOW PREVENTER MUST BE USED. FOR A COPY OF THE MISSOURI DEPARTMENT OF NATURAL RESOURCES APPROVED BACKFLOW PREVENTION ASSEMBLIES, CONTACT THE WATER UTILITIES OPERATIONS DIVISION AT 816-969-1940. AS OF JANUARY 1, 1987, THE DNR REQUIRES FIRE SPRINKLER SYSTEMS USING CHEMICALS TO HAVE A DNR APPROVED PRESSURE BACKFLOW
- . ALL VALVES SHALL HAVE RISING STEMS. 9. FOR MANHOLE COVERS, SELECT A MANHOLE FOUND ON THE APPROVED PRODUCTS LIST FOR WATER UTILITIES SUITABLE FOR EITHER TRAFFIC OR NON-TRAFFIC CONDITIONS.
- A MINIMUM OF 18" CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING, VALVES, APPURTENANCES, ETC. METER SHALL BE OWNED AND MAINTAINED BY THE WATER UTILITIES DEPARTMENT.
- IF PUBLIC WATER IS LOCATED ON THE OPPOSITE SIDE OF THE STREET, THEN THE PUBLIC WATER MAIN RESPONSIBILITY OF THE WATER UTILITIES DEPARTMENT ENDS AT THE GATE VALVE NEAREST THE VAULT.

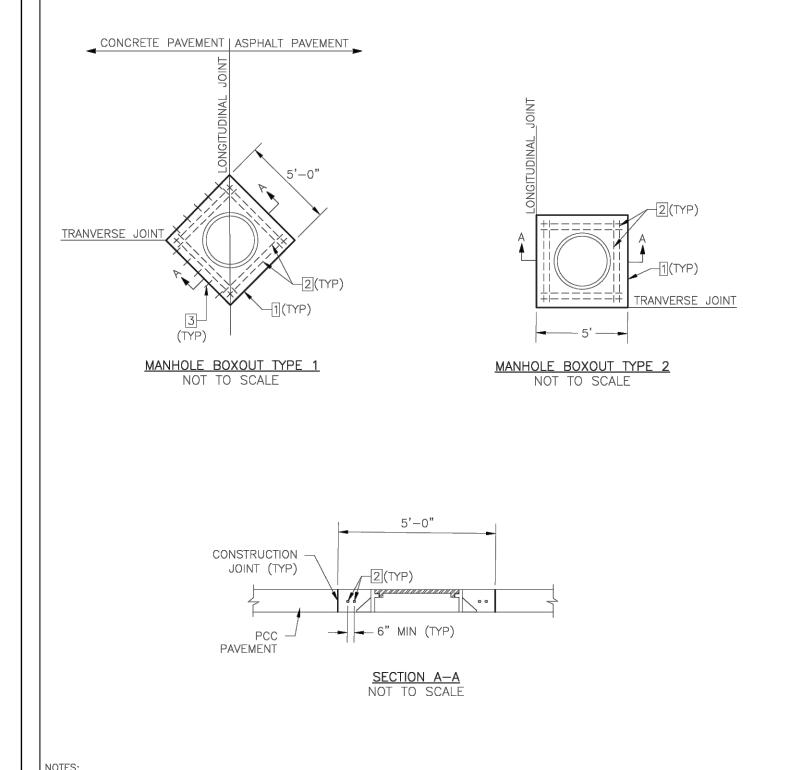
PREVENTER INSTALLED, PRIOR TO THE MIXING POINT.

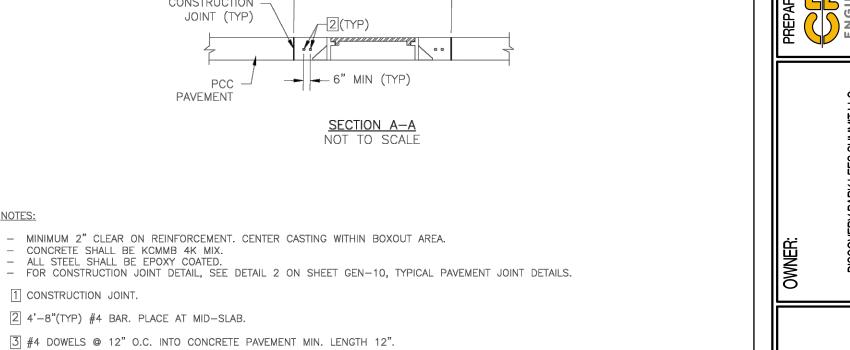
 LEE'C CLIMMIT	Date: 08/2023
LEE'S SUMMIT	Drawn By: MJF
M I S S O U R I PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	Checked By: KLY
VAULT FOR DOUBLE CHECK DETECTOR CHECK	WAT-12



- . PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS. . A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/2) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS
- GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THEN 15'. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
- 4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. 5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION
- . REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS. . REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

LEE'S SUMMIT	Date: 08/2023
LEE 9 90 IVIIVII I	Drawn By: MF
MISSOURI	Checked By: AB
PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	
STANDARD SANITARY PRECAST MANHOLE	SAN-2





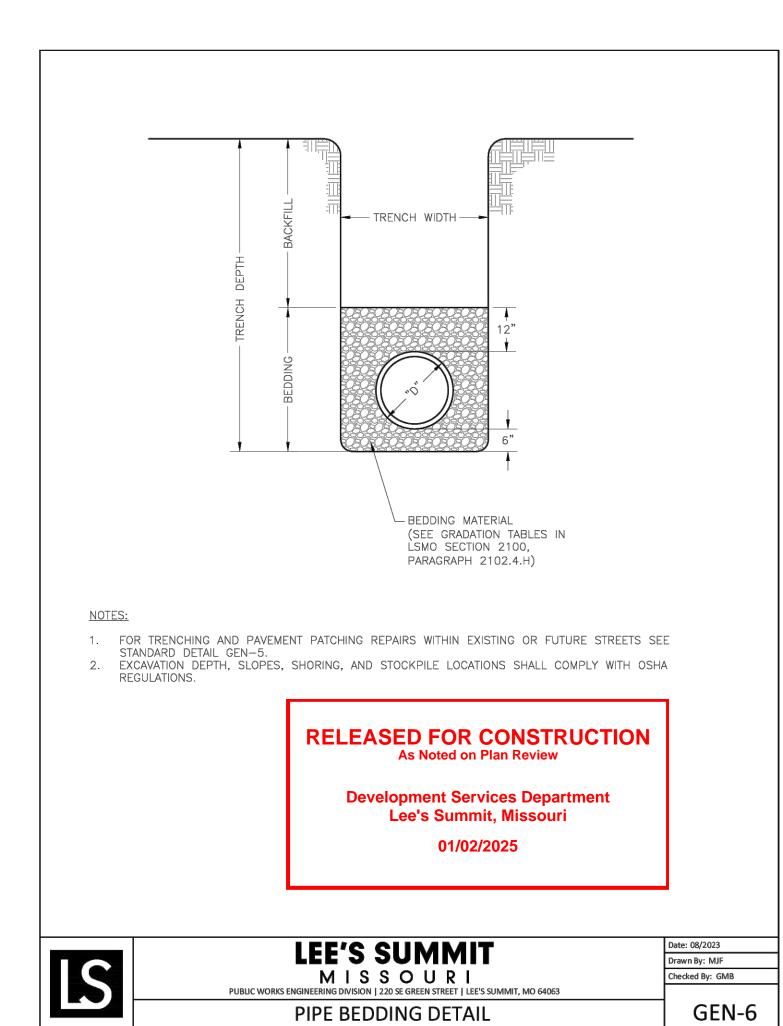
3 #4 DOWELS @ 12" O.C. INTO CONCRETE PAVEMENT MIN. LENGTH 12". Date: 08/2023 **LEE'S SUMMIT** Drawn By: MJF MISSOURI hecked By: AB

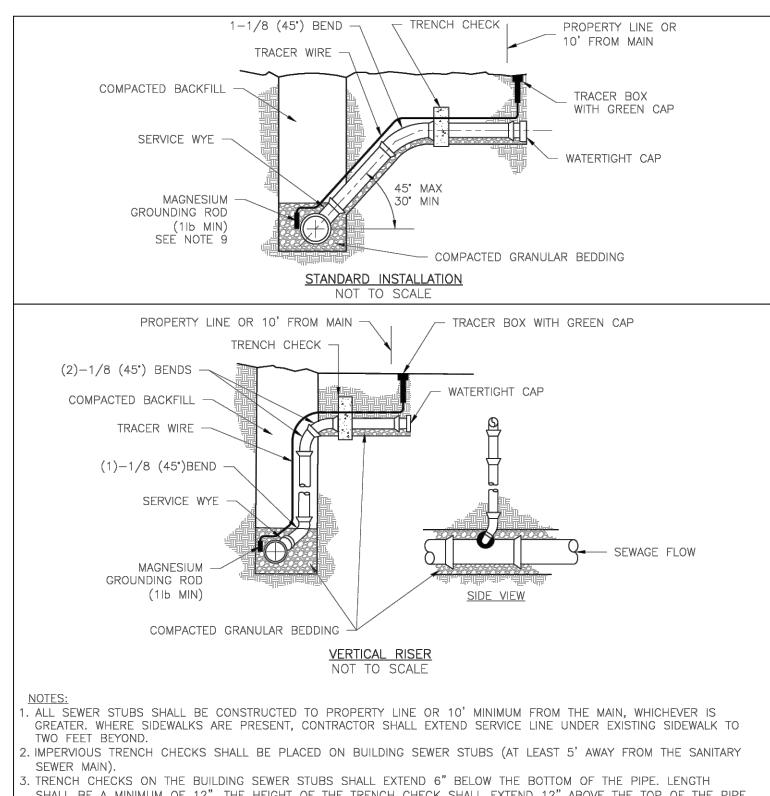
MANHOLE BOXOUT IN PAVEMENT DETAIL

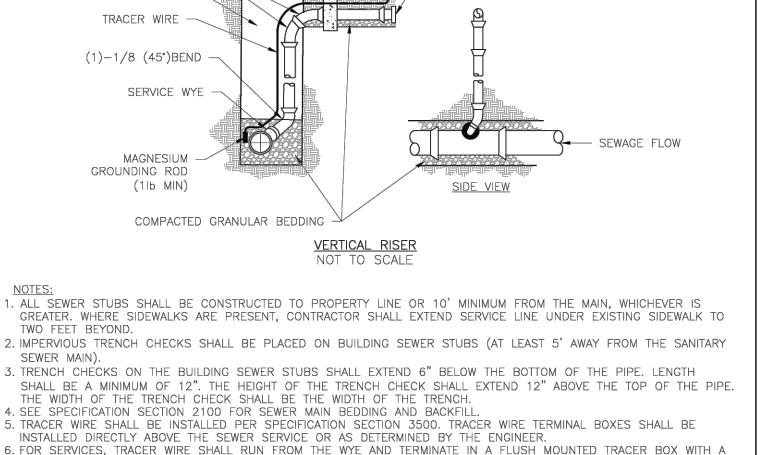
CONCRETE SHALL BE KCMMB 4K MIX.

ALL STEEL SHALL BE EPOXY COATED

1 CONSTRUCTION JOINT.



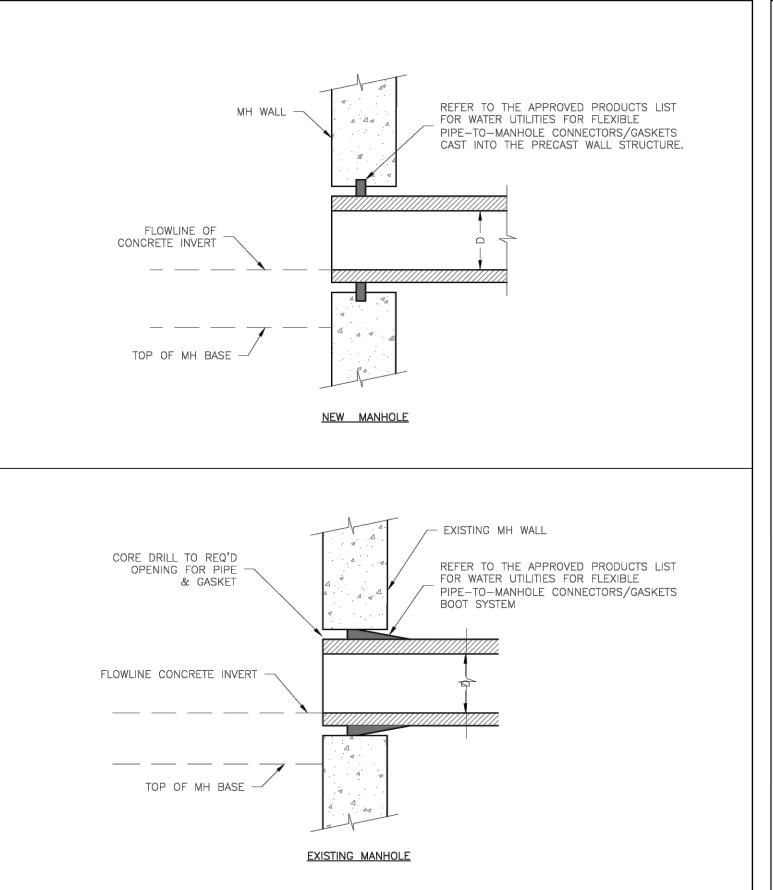




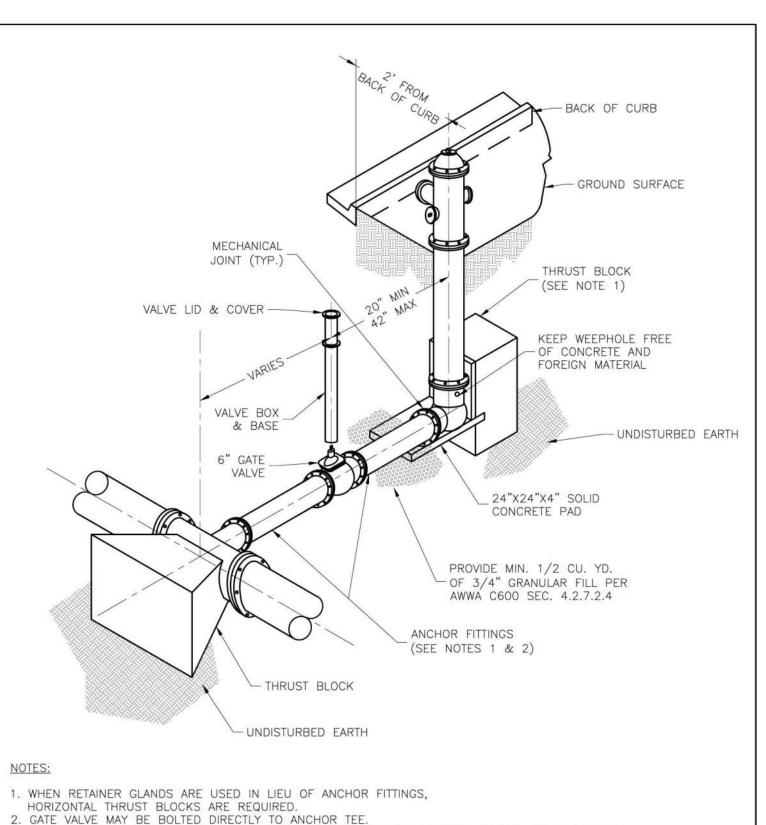


GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.

. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.







BOTTOM OF 6. HYDRANT S	DITCH. HALL BE ROTATED AS DIRECTED BY INSPECTOR.	
	LEE'S SUMMIT	Date: 08/2023
	LEE 3 30 MINIT	Drawn By: MJF
	MISSOURI	Checked By: KLY
	PUBLIC WORKS ENGINEERING DIVISION 220 SE GREEN STREET LEE'S SUMMIT, MO 64063	
	HYDRANT - STRAIGHT SET	WAT-7

. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID,

5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE,

BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN

4. BOTTOM HYDRANT FLANGE SHALL BE 2" TO 6" ABOVE FINISHED GRADE.

|| REVISIONS:

THIS SHEET HAS BEEN SIGNED, SEALED AND

DATED ELECTRONICALLY

HE-2003014960

NATHAN THOMAS ECKHOFF

MO LICENSE-2003014960

DRAWING INCLUDES:

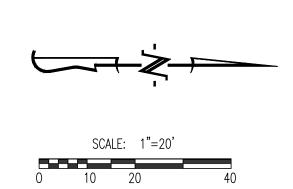
LEE'S SUMMIT DETAILS SHEE

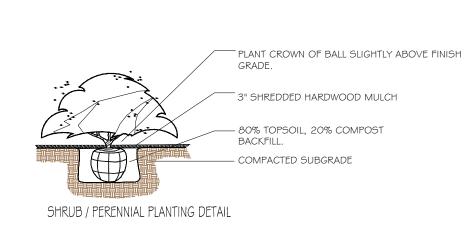
DESIGNED: NTE

DRAWN: NMD PROJECT NO.: 230286

SHEET: CE 7.4







PRUNE OUT DEAD OR DAMAGED BRANCHES PRIOR TO PLANTING.

ROOTBALL TO BE PLANTED SLIGHTLY ABOVE FINISH GRADE. REMOVE ALL TWINE FROM TOP OF ROOTBALL AND PULL BURLAP AWAY FROM TRUNK.

3" SHREDDED HARDWOOD MULCH.

WATER RING 80% TOPSOIL, 20% COMPOST BACKFILL.

SUBGRADE.

DECIDUOUS TREE PLANTING DETAIL

Not To Scale

Not To Scale

RELEASED FOR CONSTRUCTION As Noted on Plan Review

Development Services Department Lee's Summit, Missouri 01/02/2025

- THE PLANT LIST IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL PLANT COUNTS
- AND IF A DISCREPANCY EXISTS THE PLAN SHALL GOVERN.

 LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING AWARE

 OF ALL UNDERGROUND UTILITIES, PIPES, AND STRUCTURES. THE LANDSCAPE

 CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING ALL UTILITY

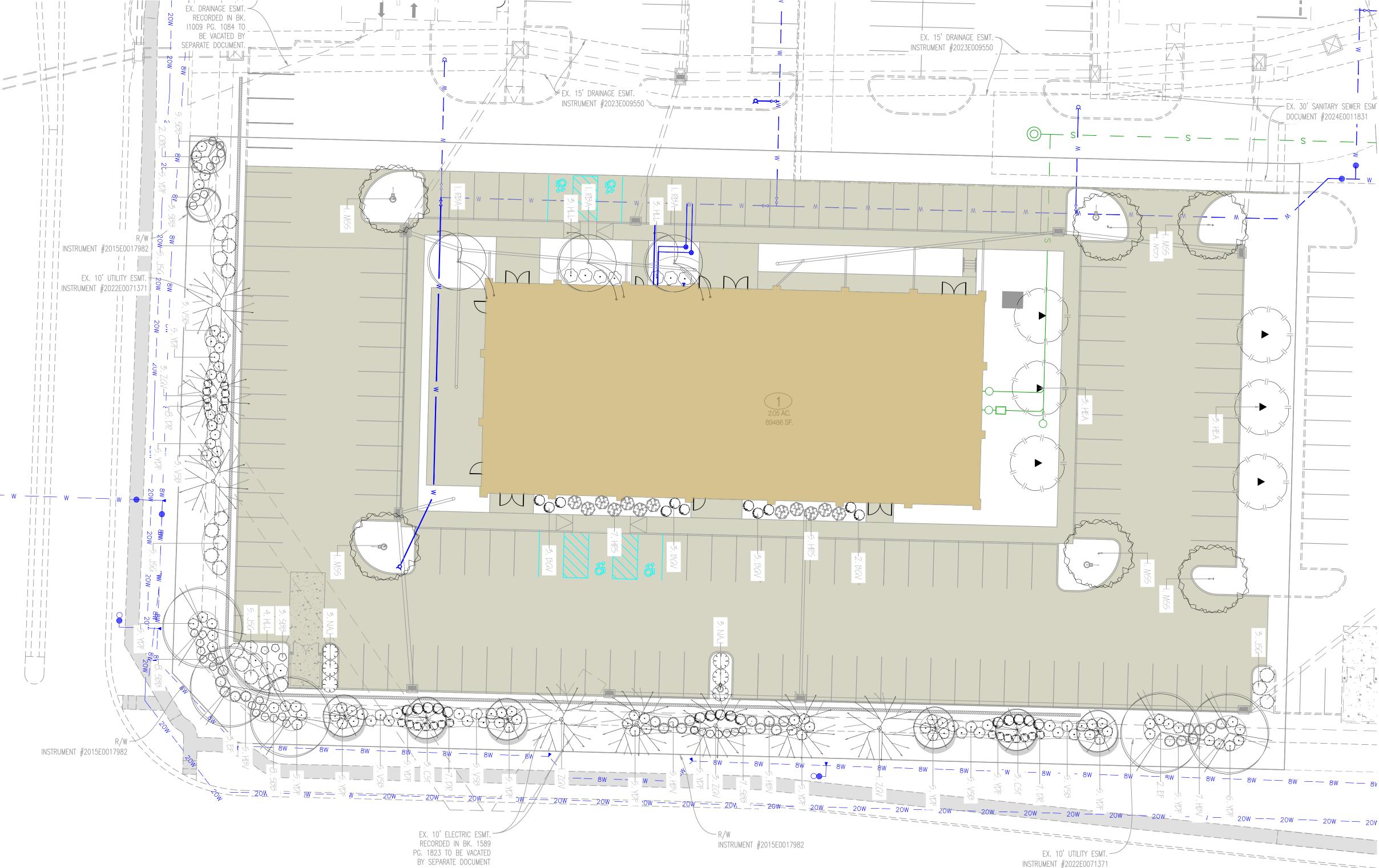
 COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR

 TO ANY EXCAVATION.
- LANDSCAPE CONTRACTOR TO RECEIVE SITE GRADED TO +/-0.10 FOOT OF FINISHED GRADE.

 PLANTING BACK FILL MIX IS TO CONSIST OF 80% NATIVE TOPSOIL, AND 20% ORGANIC
- MATTER. Shrub beds, berms, and tree wells are to be mulched with 3-4" dyed hardwood mulch.
- ALL BED AND LAWN AREAS SHALL BE IRRIGATED. ALL LAWN AREAS TO BE SODDED WITH TALL FESCUE SOD.
- LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF TWELVE MONTHS.
- ALL PLANTING BEDS AND TREE RINGS TO BE SEPERATED FROM TURF AREAS BY 'V'
 TRENCHING.
 ALL PLANT MATERIAL MUST MEET THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF
- NURSERYMEN. PLANT LOCATIONS MAY BE ADJUSTED ONSITE TO AVOID UTILITIES, SITE FEATURES, ETC. ONLY ORNAMENTAL TREES AND SHRUBS MAY BE PLANTED IN ANY EASEMENTS.

PLANTING S	SCHEDULE:			
QUANTITY	SYMBOL	PLANT NAME F	PLANT TYPE	SIZ
5	EF	ELM 'FRONTIER' MEDIUM	/ LARGE TREE	3'
8	ZGV	ZELKOVA 'GREEN VASE' MEDIUN	/ LARGE TREE	3'
6	MSS	MIYABI MAPLE 'STATE STREET' MEDIUN	/ LARGE TREE	3'
6	HEA	HORNBEAM 'EMERALD AVENUE' MEDIUN	/ LARGE TREE	3
6	CST	CRABAPPLE 'SUGARTYME' ORN	AMENTAL TREE	2.5
2	CRR	CRABAPPLE 'ROYAL RAINDROPS ORN	AMENTAL TREE	2.5
3	RBA	REDBUD 'APPALACHIAN' ORN	AMENTAL TREE	2.5
6	NAJ	NINEBARK 'AMBER JUBILEE' DECI	DUOUS SHRUB	#:
11	HLL	HYDRANGEA 'LITTLE LIME' DECI	DUOUS SHRUB	#:
12	HRS	HYDRANGEA 'RUBY SLIPPERS' DECI	DUOUS SHRUB	#:
34	SBB	SPIREA 'BIG BANG' DECI	DUOUS SHRUB	#:
26	BGV	BOXWOOD 'GREEN VELVET' EVER	RGREEN SHRUB	#:
18	JSG	JUNIPER 'SEA GREEN' EVER	RGREEN SHRUB	#:
66	YDF	YEW ' DENSIFORMIS' EVER	RGREEN SHRUB	#:
26	VSB	VIBURNUM 'SPICE BABY' DECI	DUOUS SHRUB	#:
23	DR	DRIFT ROSE DECI	DUOUS SHRUB	#:
22	HBV	HYPERICUM 'BLUE VELVET' DECI	DUOUS SHRUB	#5

LEE'S SUMMIT, MISSOURI		
CODE OF ORDINANCES: DIVISION III — LANDSCAPING, BUFFERS, AND TREE PROTECTION		
SITE ZONED: PMIX, PROPOSED: PMIX		
STREET FRONTAGE TREES		
1 TREE PER 30 FEET OF STREET FRONTAGE		
DOUGLAS AVE - 398 LF STREET FRONTAGE	14 TREES REQUIRED	14 TREES PROPOSED
NE COLBURN RD - 214 LF STREET FRONTAGE	7 TREES REQUIRED	7 TREES PROPOSED
OPEN YARD TREES		
1 TREE PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT		
TOTAL LOT AREA = 75,287 SF	15 TREES REQUIRED	15 TREES PROPOSED
STREET FRONTAGE SHRUBS		
1 SHRUB PER 20 FEET OF STREET FRONTAGE		
DOUGLAS AVE - 398 LF STREET FRONTAGE	20 SHRUBS REQUIRED	20 SHRUBS PROPOSED
NE COLBURN RD — 214 LF STREET FRONTAGE	11 SHRUBS REQUIRED	11 SHRUBS PROPOSED
OPEN YARD SHRUBS		
2 SHRUBS PER 5,000 SF OF TOTAL LOT AREA, EXCLUDING BUILDING FOOTPRINT		
TOTAL LOT AREA = 75,287 SF	30 SHRUBS REQUIRED	30 SHRUBS PROPOSED
PARKING LOT SCREENING		
12 SHRUBS PER 40 LINEAR FT OF PARKING LOT VISIBLE FROM RIGHT OF WAY		
TOTAL LINEAR FEET - 600 LF	180 SHRUBS REQUIRED	183 SHRUBS PROPOSED



DRAWING INCLUDES:

|| REVISIONS:

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY

NATHAN THOMAS ECKHOFF

MO LICENSE-2003014960

LANDSCAPING PLAN

JACKSON

SUMMIT,

EES

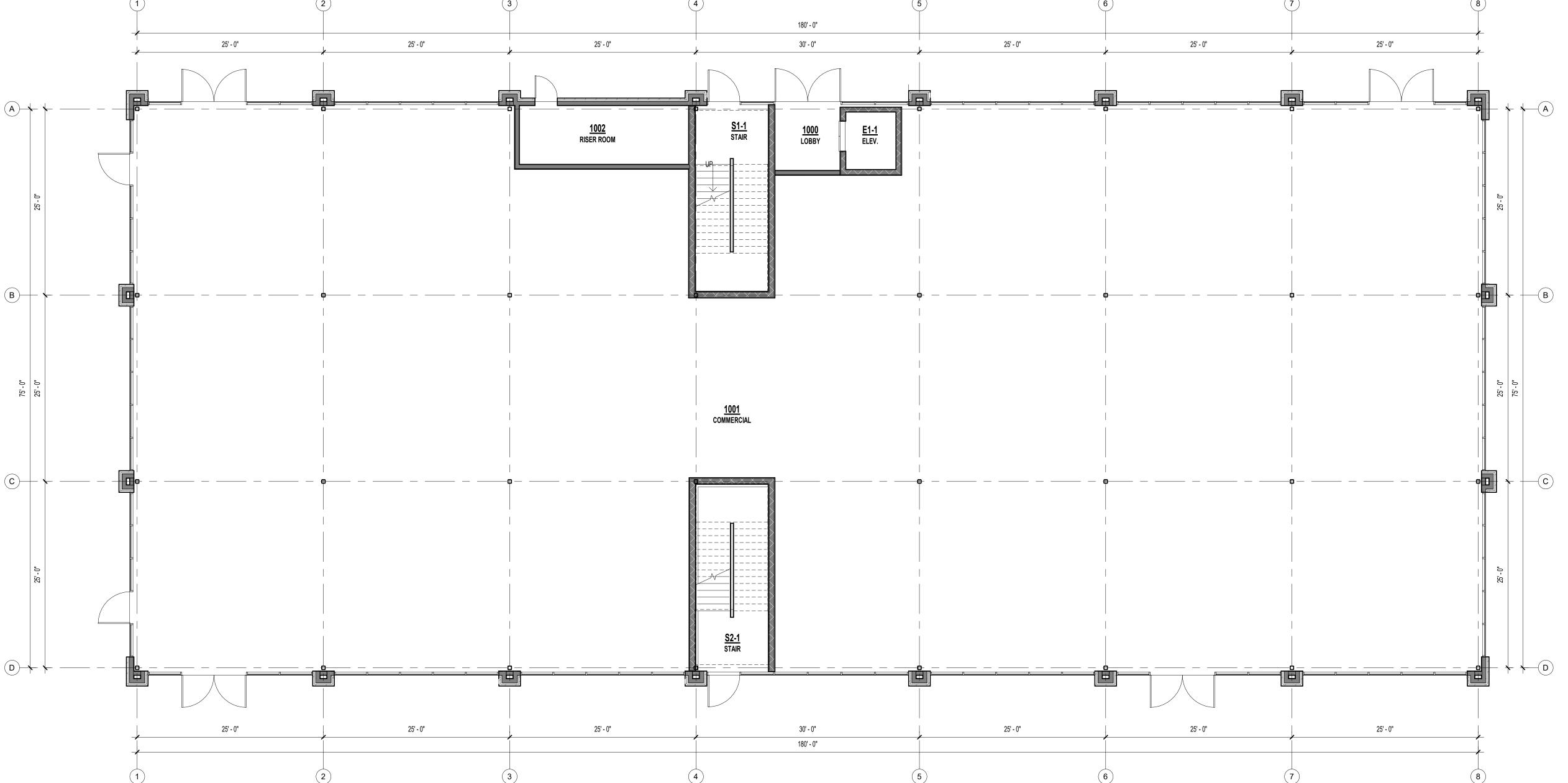
DESIGNED: NTE

DRAWN: NMD

PROJECT NO.: 230286

PROJECT NO.: 230
SHEET:
CE 8.1

286 — Discovery Park Lees Summit\Zone 1 Lot 1\ACAD



PRINTS ISSUED 10/14/2024 - FDP

SHEET TITLE FLOOR PLANS

PROJECT NUMBER: 23096 SHEET NUMBER:

PRINTS ISSUED

10/14/2024 - FDP

REVISIONS:

RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Development Services Department Lee's Summit, Missouri

01/02/2025

A2



PARAPET 2
141' - 6"
PARAPET 1
139' - 0" TRUSS BEARING
134' - 0" T.O. CONCRETE SLAB
118' - 0" T.O. 2nd BEARING 116' - 0" T.O. 1st FLOOR SLAB

NORTH ELEVATION - COLOR



EAST ELEVATION - COLOR

1/8" = 1'-0"



WEST ELEVATION - COLOR
1/8" = 1'-0"

MATERIAL LEGEND KING SIZE BRICK - COLOR 1 - ALLENDALE HILL KING SIZE BRICK - COLOR 2 - GLEN GERY SADDLE BROWN STONE - ROUGH ASHLAR EIFS BANDING - ROUGH ASHLAR GLASS

SPANDREL

RELEASED FOR CONSTRUCTION As Noted on Plan Review

Development Services Department Lee's Summit, Missouri 01/02/2025

PRINTS ISSUED

12/04/24

REVISIONS:

OSemann & ASSOCI,

DAVID EUGENE
HENDRIKSE
NUMBER
A 305

LEE'S SUMMIT

DISCOVERY

SHEET TITLE **EXTERIOR ELEVATIONS - COLOR**

PROJECT NUMBER: 23096

SHEET NUMBER:

FROM NE DOUGLAS

FROM ALURA



FROM NE COLBERN

3/A4 ALURA

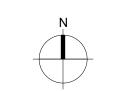
2/A4 DOUGLAS

PRINTS ISSUED 12/04/24 REVISIONS:

LOT 1 BLDG

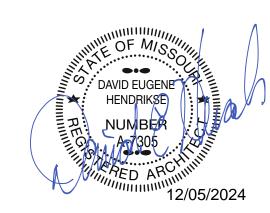
1/A4 COLBERN

1" = 50'-0"



RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Development Services Department Lee's Summit, Missouri 01/02/2025



OSemanr & ASSOC

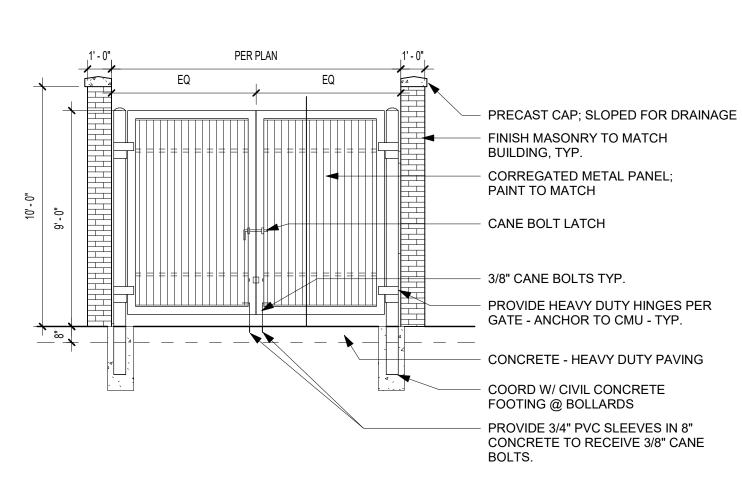
LEE'S SUMMIT

SHEET TITLE PERSPECTIVES

SHEET NUMBER:

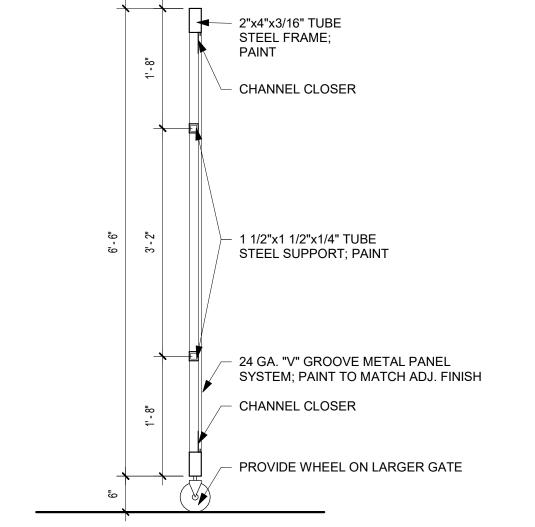
PROJECT NUMBER: 23096

A-202



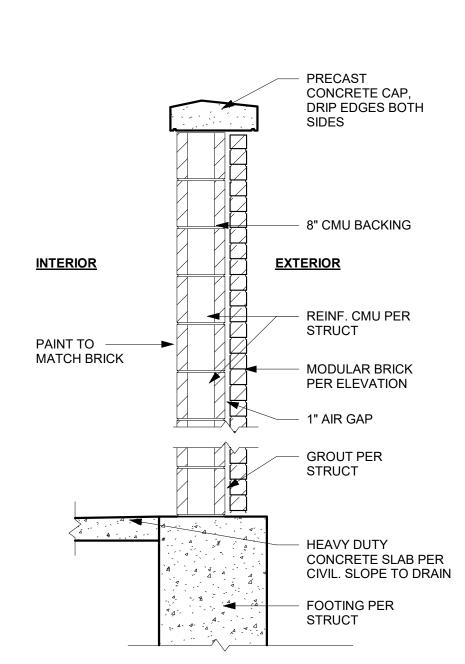
ENCLOSURE FRONT ELEVATION

SITE - BOLLARD - STEEL



TRASH GATE SECTION

3/4" = 1'-0"



SITE - ENCLOSURE - CMU - WALL SECTION

PROFILE CANE BOLT

RELEASED FOR CONSTRUCTION As Noted on Plan Review

PRINTS ISSUED

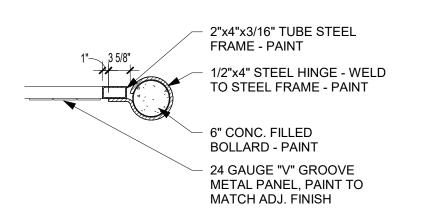
REVISIONS:

10/14/2024 - FDP

OSemanr & ASSOC

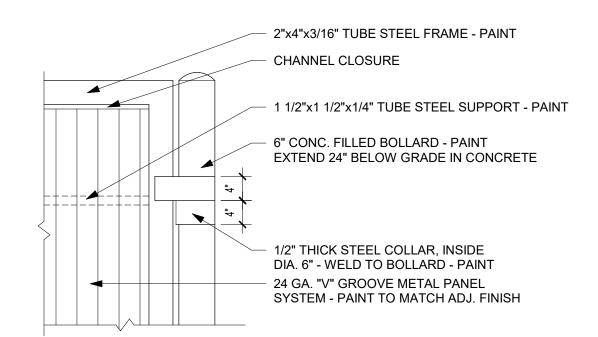
Development Services Department Lee's Summit, Missouri 01/02/2025

SITE - CANE BOLT DETAIL

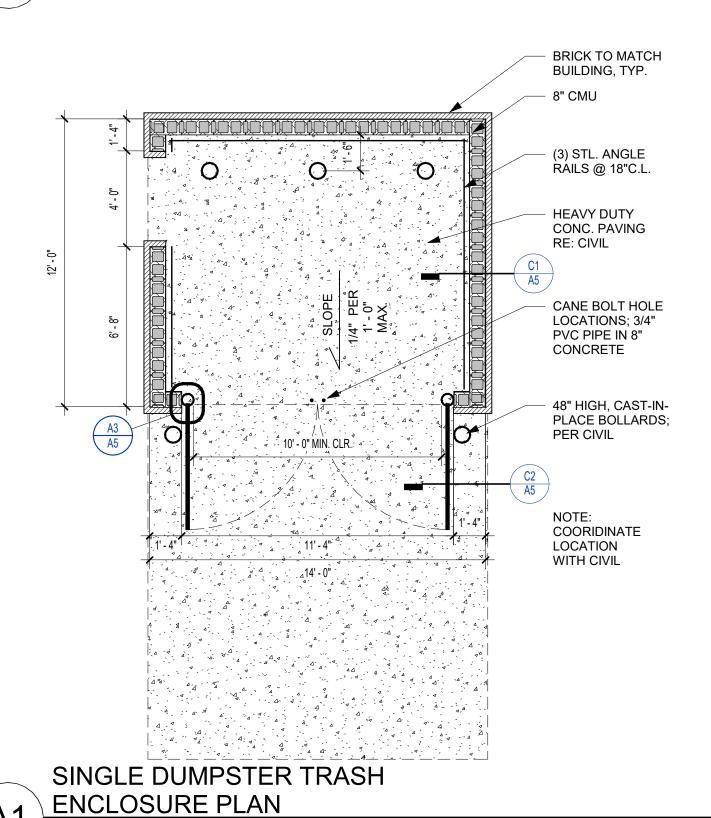


NOTE:
PROVIDE BOLT SLEEVE EMBEDDED IN
CONCRETE TO RECEIVE CANE BOLT.

TRASH GATE CROSS SECTION



TRASH GATE DETAIL



SHEET TITLE ARCHITECTURAL SITE AMENITIES

PROJECT NUMBER: 23096

SHEET NUMBER:

Development Services Department Lee's Summit, Missouri

SITE LIGHTING PLAN SYMBOL LEGEND

TYPICAL LIGHT POLE DETAIL

CIRCUIT WIRING

→ PX-XX CIRCUIT TAG

As Noted on Plan Review

01/02/2025

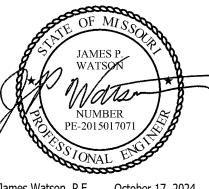
	SITE LIGHTING FIXTURE SCHEDULE										
TAG	MA NUFA CTURER (OR EQUAL)	MODEL NUMBER (OR EQUAL)	DESCRIPTION	MOUNTING	LUMEN OUTPUT	сст (°К)	CRI	VOLTS	WATTS	NOTES	
PL1	MCGRAW-EDISON	PRV-XL-PA3B-740-U-T4W-HSS	LED POLE LIGHT	20' #SSS POLE ON 30" BASE	30,161	4000	70	208	234	WITH #MS/DIM-L40W MOTION SENSING DIMMING	
PL2	MCGRAW-EDISON	PRV-XL-PA3B-740-U-5WQ	LED POLE LIGHT	20' #SSS POLE ON 30" BASE	31,559	4000	70	208	234	WITH #MS/DIM-L40W MOTION SENSING DIMMING	
NOTES:	Y LIGHT FIXTURE FINISHES	WITH OWNER / ARCHITECT PRIOR TO ORDERING	D. S.								

AREA / LABEL	CALC TYPE	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKING / DRIVE AISLES	ILLUMINANCE	FC	1.71	4.4	0.4	4.3	11.0

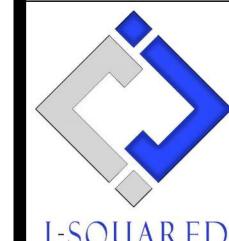
"X1" INDICATES FIXTURE TYPE (REFER TO SCHEDULE) POLE LIGHT ARROW INDICATES FORWARD AIMING DIRECTION 1.3 1.2 PHOTOMETRIC CALCULATIONS (IN FOOT-CANDLES) **SITE LIGHTING PLAN GENERAL NOTES:** 1. SITE PHOTOMETRIC VALUES SHOWN HAVE BEEN CALCULATED PER SPECIFIED LIGHT FIXTURES AT INDICATED 2.8 2.3 1.6 1.0 0.7 0.5 0.5 0.4 0.4 MOUNTING HEIGHTS. ANY CHANGES OR ALTERATIONS TO LIGHTING LAYOUT SHOWN WILL REQUIRE RECALCULATING SITE PHOTOMETRICS AND WILL THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR / F===== EQUIPMENT SUPPLIER. 2. PHOTOMETRIC CALCULATIONS SHOWN DO NOT INCLUDE EXISTING LIGHT FIXTURE(S), ONLY NEW POLE LIGHT 0.9 1.5 1.9 2.2 2.6 2.7 2.3 1.6 FIXTURE(S) SHOWN. 3. BUILDING-MOUNTED EXTERIOR LIGHTING IS NOT YET DESIGNED FOR PROPOSED BUILDING. ALL BUILDING-MOUNTED LIGHTING WILL BE INTENDED AS ACCENT LIGHTING AND NOT INTENDED TO PROVIDE GENERAL AREA LIGHTING. ALL BUILDING-MOUNTED LIGHTING SHALL COMPLY WITH CITY OF LEE'S SUMMIT UDO SECTIONS 8.220, 8.260, & 8.270. 2.0 2.0 1.8 1.5 POLE HEIGHT "X" DEPTH 1.4 1.3 1.1 0.8 1.0 1.2 1.3 10ft - 14ft 4'-6" **PROPOSED** 6'-0" **NEW BUILDING** 21ft - 25ft 7'-0" 1.0 1.2 1.3 1.4 1.3 1.2 'LOT 1' 26ft - 30ft 8'-0" POLE MUST MEET EPA RATING FOR 80MPH WIND (ASCE 7-93) WITH 1.4 1.3 1.1 1.3 1.7 1.8 1.9 SPECIFIED HEAD CONFIGURATION -HANDHOLE @ COVER PLATE - POLE ANCHOR BOLTS PER PVC CONDUIT STUBBED UP ADJACENT TO HANDHOLE MANUFACTURER RECOMMENDATIONS 2.0 2.0 1.8 1.3 (NUMBER & SIZE REQUIRED) -/ ½" CHAMFER ALL EDGES 1.6 2.4 24" MIN. TO CURB / PAVING FINISH GRADE CIRCUIT CONDUIT & CONDUCTORS TO POWER SOURCE / NEXT POLE 2.3 1.5 ATTACH COPPER EQUIPMENT GROUND CONDUCTOR TO INTERNAL LUG WELDED TO INTERIOR OF POLE TYP. POLE BASE REINFORCING: #3 HORIZONTAL TIES (20") AT 12" O.C. w/ #4 VERTICAL BARS AT PERIMETER AT 6" O.C. CONCRETE TO BE MIN. 3000psi 24"Ø

NE DOUGLAS ST.





James Watson, P.E. October 17, 2024 PE-2015017071 MO Certificate of Authority # 2018029680



2400 Bluff Creek Drive, Suite 101 Columbia, Missouri 65201 573.234.4492 www.j-squaredeng.com

ENGINEERING

J2 PROJECT No:	J21003
J2 DESIGN:	ACW
ISSUE TITLE	DATE
FDP SUBMITTAL	10 - 17 - 2024

/INGS FOR:
-**k Lot 1**

Village at Discovery Parl SITE LIGHTING

AHJ APPROVAL STAMP

SHEET TITLE

SITE LIGHTING PLAN

SHEET NUMBER

SL1