# LEE'S SUMMIT MEDICAL CENTER MEDICAL OFFICE BUILDING

## LEE'S SUMMIT, MISSOURI

S&ME PROJECT NO. 527116043 JANUARY 21, 2019

#### SITE DATA

PARCEL ID.: 60-420-99-09-00-0-00-000 SITE ADDRESS: 2100 SE BLUE PARKWAY LEE'S SUMMIT, MO, 64063 SITE ACREAGE: 28.39 AC. (1,239,168.70 FT<sup>2</sup>) **EXISTING ZONING** 

MEDICAL OFFICE BUILDING (MOB) LEE'S SUMMIT MEDICAL CENTER ADDRESS: 2100 SE BLUE PKWY LEE'S SUMMIT, MO, 64063

1615 EDGEWATER DRIVE

CONTACT NAME: **GEORGE HUDDLESTON CONTACT E-MAIL ADDRESS:** ghuddleston@smeinc.com

Impervious Surface Area			
	Acre	SF	Percentage
Total Existing Impervious Area	9.01	392,677.00	31.69
Removed	(1.78)	(77,673.53)	(6.27)
Proposed Building	0.44	18,962.00	1.53
Proposed Drives/Sidewalks	2.98	129,778.30	10.47
Total Proposed Impervious Area	10.65	463,743.77	37.42

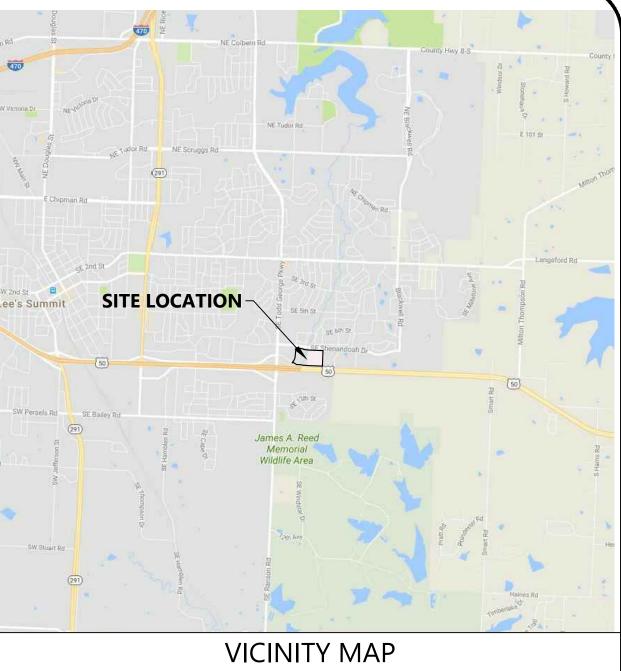
Required Parking			
	Description	Parking Metric	Required Parking
Existing Hospital	85 beds	1.8 spaces / bed	153
Existing MOB	66,296 SF	5 spaces / 1,000 SF	331
Proposed MOB	56,503 SF	5 spaces / 1,000 SF	283
			- 1000-00

#### **Provided Parking**

Standard	ADA	Total
567	23	590
(187)	(10)	(197)
372	12	385
752	25	778
	567 (187) 372	567 23 (187) (10) 372 12

Building Data							
	SF	FAR					
Existing Hospital	152,001	0.12					
Existing MOB	66,296	0.05					
Proposed MOB	56,503	0.05					





#### NOT TO SCALE **Sheet Index**

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**ARCHITECT** 

## HEREFORD DOOLEY ARCHITECTS

1720 WEST END AVENUE, SUITE 300 NASHVILLE, TN, 37203 615.244.7399

PREPARED FOR

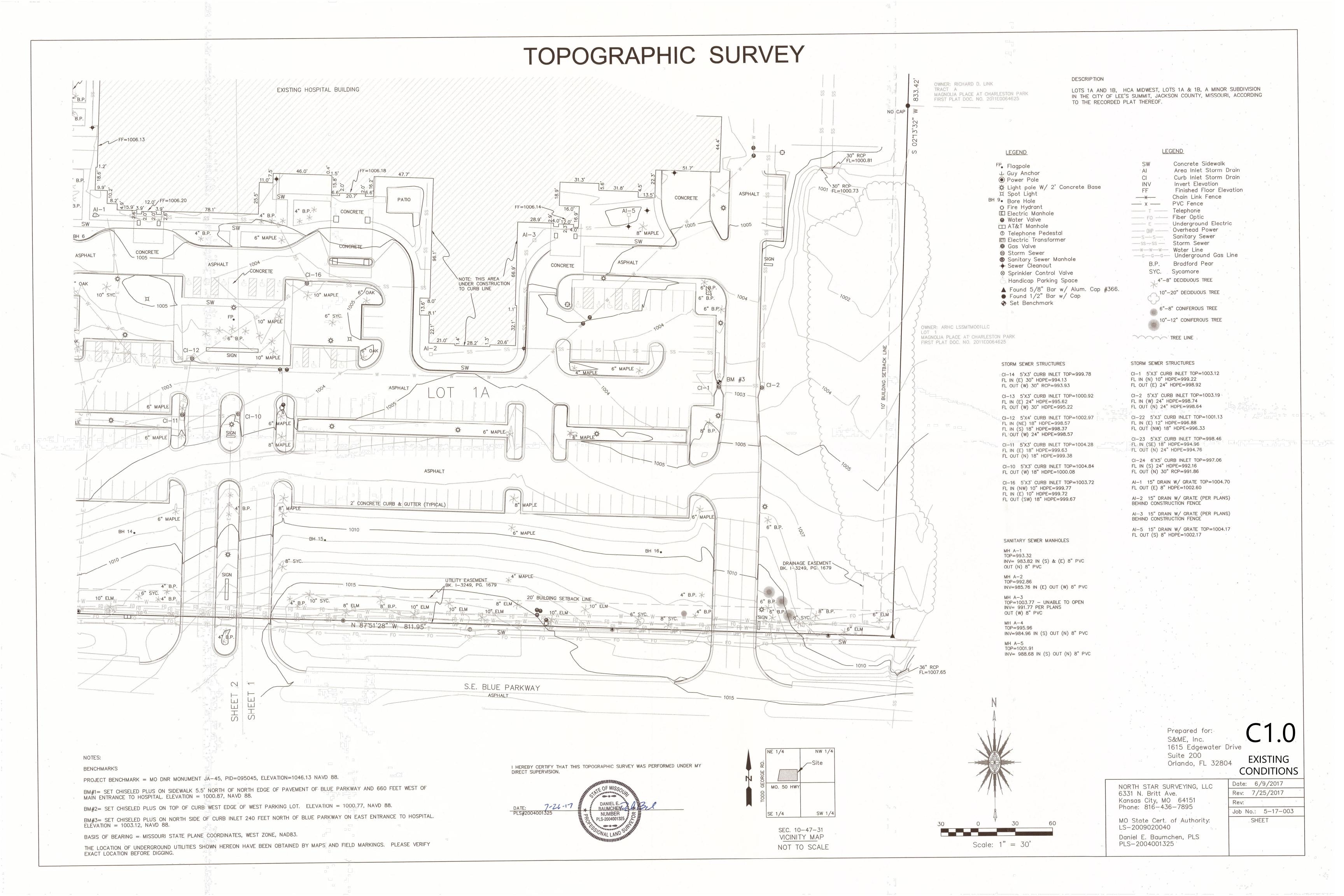
## LEE'S SUMMIT MEDICAL CENTER

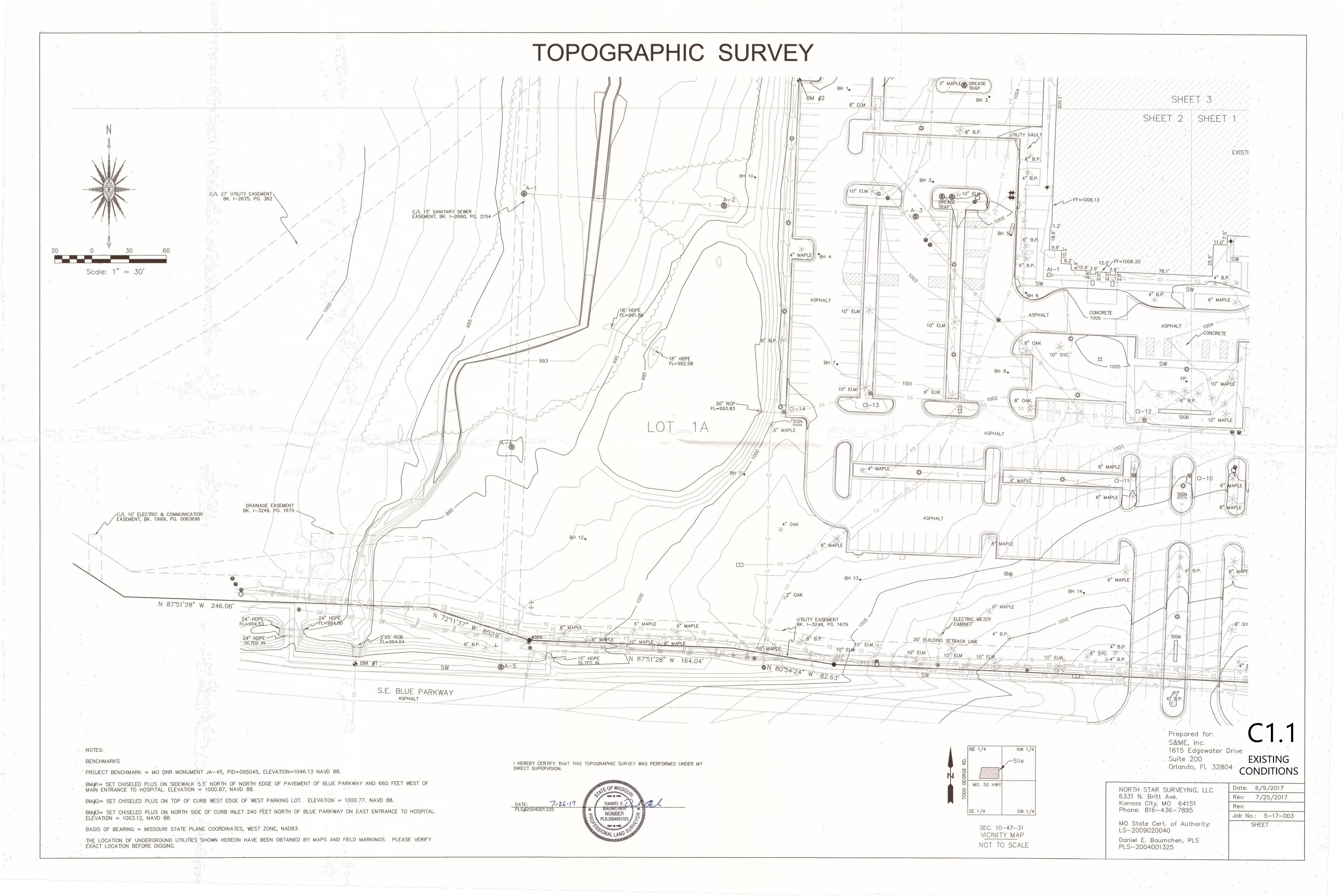
2100 SE BLUE PKWY LEE'S SUMMIT, MO, 64063 816.282.5000





**COVER SHEET** 





## TOPOGRAPHIC SURVEY L=83.37' \ R=1802.00' NO TITLE WORK PROVIDED - EASEMENTS SHOWN ARE PER PLAT OF "HCA MIDWEST, LOTS SHENANDOAH DRIVE L=163.76' R=1803.00' 2 20' ELECTRIC LINE EASEMENT BK. I-2295, PG. 306 \ C/L 30' UTILITY EASEMENT/ BK. I-2267, PG. 1741 C/L 27' UTILITY EASEMENT BK. I-2675, PG. 362 6" MAPLE C/L 15' WATER LINE EASEMENT PER PLAT SW **ASPHALT ASPHALT** MH NOT FOUND SHEET 3 Prepared for: NOTES: S&ME, Inc. **BENCHMARKS** , 1615 Edgewater Drive " Suite 200 PROJECT BENCHMARK = MO DNR MONUMENT JA-45, PID=095045, ELEVATION=1046.13 NAVD 88. Orlando, FL 32804 CONDITIONS I HEREBY CERTIFY THAT THIS TOPOGRAPHIC SURVEY WAS PERFORMED UNDER MY DIRECT SUPERVISION. BM#1= SET CHISELED PLUS ON SIDEWALK 5.5' NORTH OF NORTH EDGE OF PAVEMENT OF BLUE PARKWAY AND 660 FEET WEST OF MAIN ENTRANCE TO HOSPITAL. ELEVATION = 1000.87, NAVD 88. BM#2= SET CHISELED PLUS ON TOP OF CURB WEST EDGE OF WEST PARKING LOT. ELEVATION = 1000.77, NAVD 88. Date: 6/9/2017 NORTH STAR SURVEYING, LLC 6331 N. Britt Ave. Rev: 7/25/2017 BM#3= SET CHISELED PLUS ON NORTH SIDE OF CURB INLET 240 FEET NORTH OF BLUE PARKWAY ON EAST ENTRANCE TO HOSPITAL. ELEVATION = 1003.12, NAVD 88. Kansas City, MO 64151 Phone: 816-436-7895 BASIS OF BEARING = MISSOURI STATE PLANE COORDINATES, WEST ZONE, NAD83. SEC. 10-47-31 Job No.: 5-17-003 PLS-2004001325 VICINITY MAP MO State Cert. of Authority: SHEET THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON HAVE BEEN OBTAINED BY MAPS AND FIELD MARKINGS. PLEASE VERIFY EXACT LOCATION BEFORE DIGGING. LS-2009020040 NOT TO SCALE Daniel E. Baumchen, PLS Scale: 1" = 30'PLS-2004001325

#### **EROSION CONTROL NOTES:**

- EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATION BEGINS AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
- THE FOLLOWING RECORDS SHALL BE MAINTAINED ON OR NEAR SITE: THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR; THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; THE DATES WHEN STABILIZATION MEASURES ARE INITIATED; INSPECTION RECORDS AND RAINFALL RECORDS.
- THE CONTRACTOR SHALL MAINTAIN A RAIN GAUGE AND DAILY RAINFALL RECORDS AT THE SITE OR USE A REFERENCE SITE FOR A RECORD OF DAILY AMOUNT OF PRECIPITATION.
- 4. PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 10 DAYS PRIOR TO GRADING OR EARTH MOVING UNLESS THE AREA IS SEEDED AND/OR MULCHED OR OTHER TEMPORARY COVER IS INSTALLED.
- 5. CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED AREAS.
- SEDIMENT SHOULD BE REMOVED FROM SEDIMENT TRAPS, SILT FENCES, SEDIMENTATION PONDS AND OTHER SEDIMENT CONTROLS AS NECESSARY AND MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50% OR AS DIRECTED BY OWNERS REPRESENTATIVE.
- . THE CONTRACTOR SHALL REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES BEFORE ACCEPTANCE BY LOCAL GOVERNING AGENCY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- 8. THE CONTRACTOR SHALL REMOVE THE TEMPORARY EROSION AND WATER POLLUTION CONTROL DEVICES ONLY AFTER A SOLID STAND OF GRASS HAS BEEN ESTABLISHED ON GRADED AREAS AND WHEN IN THE OPINION OF THE OWNER'S REPRESENTATIVE, THEY ARE NO LONGER NEEDED.

#### TREE PROTECTION NOTES

- PRIOR TO CONSTRUCTION ACTIVITY, THE GENERAL CONTRACTOR SHALL STAKE THE LIMITS OF CLEARING, GRADING AND BUILDING FOOTPRINTS THAT AFFECT THE TREE PRESERVATION AREAS.
- THE LOCATION OF TREE PROTECTION MEASURES SHALL BE REVIEWED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION COMMENCING. TREE PROTECTION BARRICADES SHALL CONSIST OF ORANGE PLASTIC BARRIER CONSTRUCTION FENCING, AND SHALL BE INSTALLED IN LOCATIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- CONTRACTOR SHALL INSTALL ADEQUATE TREE PROTECTION MEASURES PRIOR TO ANY GRADING ACTIVITIES TO PREVENT CONSTRUCTION ACTIVITIES WITHIN PROXIMITY OF SPECIMEN TREES.
- 4. ALL GRADING WITHIN PROTECTED-ROOT-ZONE AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
- . ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE GROUND AND COVERED WITH BACKFILL AS SOON AS POSSIBLE. IF EXPOSED ROOTS ARE NOT COVERED WITHIN 24 HOURS, COVER THEM WITH MULCH AND THOROUGHLY WATER UNTIL COVERED WITH BACKFILL.
- 6. DO NOT OPERATE OR STORE HEAVY EQUIPMENT, NOR HANDLE OR STORE MATERIALS, WITHIN THE DRIP LINES OF TREES TO BE PRESERVED.
- WHENEVER GRADING OR EXCAVATION IS DIRECTED WITHIN THE CANOPY COVERAGE AREA OF A TREE TO BE PRESERVED, FIRST CUT ROOTS USING A "DITCH WITCH" OR SIMILAR DEVICE TO PROVIDE CLEAN CUT OF ROOTS AT LIMITS OF ACTIVITY (PRIOR TO USE OF BACKHOE OR BULLDOZER). DO NOT ALLOW HEAVY EQUIPMENT WITHIN THE AREA BETWEEN CUT LINE AND TRUNK OF TREE. TRENCHES TO BE BACKFILLED AND TAMPERED TO MINIMIZE SETTLEMENT.
- 3. BARRICADES SHALL ENCROACH ON AREAS TO BE PAVED UNTIL PAVING AND/OR GRADE ADJUSTMENT ACTIVITIES BEGIN. ONLY THEN SHALL BARRICADES BE MOVED TO THE MAXIMUM ALLOWABLE PROTECTED ROOT TREE SAVE ZONE THAT WILL NOT ENCROACH ON THE PLANNED CONSTRUCTION. REMOVAL OF BARRICADE SHALL OCCUR ONLY AFTER PAVING IS COMPLETED AND CURBING IS INSTALLED, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- 9. PROVIDE WATERING OF SPECIMEN TREES DURING CONSTRUCTION WHEN PERIODS OF DROUGHT EXCEED SEVEN DAYS. UTILIZE OSCILLATING TYPE SPRINKLERS TO COVER ENTIRE PROTECTED ROOT ZONE FOR FOUR
- 10. ROOT AREA OF TREES WHERE SOIL HAS BEEN COMPACTED DUE TO CONSTRUCTION ACTIVITY SHALL BE VERTICALLY MULCHED (AERATED) AT DIRECTION OF THE QUALIFIED PROFESSIONAL. THIS SHALL BE ACCOMPLISHED BY AUGURING THE SOIL IN A 2' GRID PATTERN TO WITHIN 3' OF TRUNK AND TO 10' BEYOND THE DRIP LINE. A 2" TO 3" HAND OPERATED AUGUR SHALL BE USED TO DRILL HOLES TO A MINIMUM DEPTH OF 12". TYPE OF BACKFILL WILL BE DETERMINED BY THE QUALIFIED PROFESSIONAL.
- 11. HEAVY ACCUMULATION OF DUST FROM CONSTRUCTION ACTIVITY MAY OCCUR ON THE SURFACE OF TREE FOLIAGE. TO CONTROL DUST, TREE FOLIAGE MAY BE HOSED DOWN UPON THE REQUEST OF THE QUALIFIED **PROFESSIONAL**
- 12. REMOVAL OF ALL TREE PROTECTION FENCING, SILT FENCING AND SIGNAGE WILL BE DONE BY THE GENERAL CONTRACTOR WHEN PERMITTED BY THE LOCAL CODE ENFORCEMENT OFFICIALS. RESTORATION OF ALL AREAS DISTURBED BY THE FENCING AND/OR SIGNAGE WILL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY.

#### **DEMOLITION NOTES**

- ALL MATERIALS BEING REMOVED AND NOT RELOCATED UNDER THE NEW CONSTRUCTION, INCLUDING TREES AND SHRUBS, SIGNS, UTILITY STRUCTURES, ETC., SHALL BE FIRST OFFERED TO THE OWNER'S REPRESENTATIVE AND IF NOT ACCEPTED SHALL THEN BE PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL CHARTED AND UNCHARTED UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
- . THE CONTRACTOR SHALL VERIFY THE LIMITS OF DEMOLITION WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.
- 4. IN AREAS WHERE EXISTING PAVEMENT, WALKS, OR CURBS ARE TO BE REMOVED, SAW CUT TO PROVIDE A CLEAN EDGE. COORDINATE EXTENT OF PAVEMENT DEMOLITION WITH THE LIMIT OF NEW IMPROVEMENTS ON THE SITE LAYOUT PLAN & UTILITY INSTALLATION.
- CONTRACTOR SHALL COORDINATE PHASING OF THE DEMOLITION WITH THE OWNER'S REPRESENTATIVE AND LOCAL GOVERNING AGENCY PRIOR TO BEGINNING WORK. DISRUPTION OF EXISTING UTILITY SERVICES AND TRAFFIC PATTERNS SHALL BE MINIMIZED TO THE EXTENT POSSIBLE AND INITIATED ONLY AFTER APPROVAL BY THE LOCAL GOVERNING AGENCY AND THE UTILITY COMPANIES.
- . CAVITIES LEFT BY STRUCTURE REMOVAL SHALL BE SUITABLY BACKFILLED AND COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
- 7. THE CONTRACTOR SHALL USE WATER SPRINKLING AND OTHER SUITABLE METHODS AS NECESSARY TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION WORK.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND REMOVAL NECESSARY TO ACCOMPLISH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- 9. THE CONTRACTOR SHALL PRESERVE AND PROTECT SURVEY CONTROL POINTS AND SHALL BE RESPONSIBLE
- FOR REPLACEMENT OF ANY DISTURBED CONTROL POINTS.
- 10. EXISTING LIGHT STANDARDS BEING REMOVED SHALL BE FIRST OFFERED TO THE OWNER PRIOR TO DISPOSING OF THEM. COORDINATE LIGHTING DEMOLITION AND LAYOUT WITH THE ELECTRICAL DRAWINGS.
- 11. RELOCATION OF EXISTING PLANT MATERIALS SHALL BE COORDINATED WITH THE OWNER AND RELOCATED TO A DESIGNATED AREA ON SITE.

#### **DEMOLITION NOTES (CONT.)**

- 12. EXISTING TRESS TO BE PRESERVED ARE TO BE BARRICADED BEFORE BEGINNING CONSTRUCTION IN ACCORDANCE WITH THE TREE PRESERVATION NOTES AND DETAIL ON THE EROSION CONTROL PLAN.
- 13. NO UTILITY OR STORM SEWER LINES SHALL BE DEMOLISHED UNTIL THE NEW LINES HAVE BEEN INSTALLED AND ARE PLACED INTO OPERATION.
- 14. THE CONTRACTOR SHALL INCORPORATE INTO HIS WORK ANY ISOLATION VALVES OR TEMPORARY PLUGS REQUIRED TO CONSTRUCT NEW UTILITY LINES AND DEMOLISH EXISTING UTILITY LINES.
- 15. WHERE EXISTING IRRIGATION LINES LIE WITHIN THE AREA AFFECTED BY THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL REWORK THE EXISTING IRRIGATION SYSTEMS IN ACCORDANCE WITH DIRECTIVES NOTED ON THE LANDSCAPE PLAN. SERVICE SHALL BE MAINTAINED DURING CONSTRUCTION TO THE LANDSCAPED AREAS CURRENTLY IRRIGATED.

#### **GENERAL NOTES**

- 1. THE PROJECT SITE IS SHOWN AS PARCEL 60-420-99-09-00-0-000.
- 2. BASE INFORMATION WAS TAKEN FROM A SURVEY PREPARED BY NORTH STAR SURVEYING, LLC. DATED JULY 26, 2017. S&ME INC. AND ANY OF THEIR CONSULTANTS SHALL NOT BE HELD RESPONSIBLE FOR THE ACCURACY AND/OR COMPLETENESS OF THAT INFORMATION SHOWN HEREON OR ANY ERRORS OR OMISSIONS RESULTING FROM SUCH.
- 3. THE SITE LAYOUT IS BASED ON REFERENCE POINTS AS NOTED.
- 4. THE CONTRACTOR SHALL CHECK ALL EXISTING CONDITIONS, (i.e. INVERTS, UTILITY ROUTINGS, UTILITY CROSSINGS, AND DIMENSIONS) IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE ENGINEER.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL CALL NATIONAL ONE CALL (811) 72 HOURS PRIOR TO PROCEEDING WITH ANY EXCAVATION.
- 6. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES AND RECEIVE APPROVAL WHERE NECESSARY BEFORE CONSTRUCTION.
- 7. EXISTING PAVEMENT OF PUBLIC ROADWAYS SHALL BE PATCHED IN ACCORDANCE WITH LOCAL AGENCY STANDARDS WHEREVER UTILITY INSTALLATION REQUIRES REMOVAL OF THE EXISTING PAVEMENT. COORDINATE PAVEMENT TRENCHING LOCATIONS WITH SITE CIVIL, PLUMBING AND ELECTRICAL PLANS.
- 8. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. SLIGHT FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY.
- DIMENSIONS ARE TO FACE OF CURB AND/OR EXTERIOR FACE OF BUILDING UNLESS OTHERWISE NOTED.
- 10. CONCRETE FOR CURBS SHALL BE 3500 PSI CONCRETE. CONCRETE FOR SIDEWALKS SHALL BE 4.000 PSI.
- 11. ANY WORK UNACCEPTABLE TO THE OWNER'S REPRESENTATIVE OR TO THE LOCAL GOVERNING AUTHORITY SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- 12. ACCESSIBLE RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12. GRADES WITHIN ACCESSIBLE SPACES SHALL BE MAXIMUM 2% IN ALL DIRECTIONS.
- 13. CURBS SHALL BE PARALLEL TO THE CENTERLINE OF DRIVES. THE CURB SHALL BE PLACED ONLY AFTER HAVING ALL BREAK POINTS (PC & PT OF CURVES) LOCATED AT THE FACE OF CURB OR AT A CONSISTENT OFFSET BY A REGISTERED LAND SURVEYOR.
- 14. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION ISSUED BY AGC OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
- 15. THE CONTRACTOR SHALL PAVE IN THE DIRECTION OF TRAFFIC.
- 16. THE CONTRACTOR SHALL COLD PLANE IN THE DIRECTION OF TRAFFIC.
- 17. THE CONTRACTOR WILL BE REQUIRED TO ADJUST GRADES OF INTERSECTING STREETS, ALLEYS, PUBLIC ENTRANCES AND PRIVATE DRIVES AS DIRECTED BY THE ENGINEER.
- 18. ALL ROADWAY AND SIDEWALK CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF LOCAL GOVERNING AGENCY.
- 19. ALL CONSTRUCTION MATERIALS AND INSTALLATION SHALL CONFORM TO LOCAL GOVERNING AGENCY AND STATE DOT REGULATIONS AND SPECIFICATIONS.
- 20. ALL CURBING WILL BE REQUIRED TO ADJUST TO THE GRADES OF INTERSECTING STREETS, ALLEYS, PUBLIC ENTRANCES, AND PRIVATE DRIVES AS DIRECTED BY THE ENGINEER.

#### SITE GRADING & EROSION CONTROL NOTES

- 1. THE DISTURBED AREA FOR THIS PROJECT IS APPROXIMATELY 5.69 ACRES.
- 2. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO COMMUNITY PANEL NO. 29095C0439G OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR JACKSON COUNTY, MISSOURI, WITH AN EFFECTIVE DATE OF JANUARY 20, 2017.
- 3. CONSTRUCT SILT BARRIERS BEFORE BEGINNING GRADING OPERATIONS.
- 4. SOD ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED, UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
- PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND DIRT.
- 7. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THE STORM DRAIN CONNECTIONS AT THE BUILDING WITH THE PLUMBING PLANS.
- 8. THE CONTRACTOR SHALL CHECK ALL EXISTING GRADES AND DIMENSIONS IN THE FIELD PRIOR TO BEGINNING WORK AND REPORT ANY DISCREPANCIES TO THE ENGINEER

#### SITE GRADING & EROSION CONTROL NOTES (CONT.)

BEFORE BEGINNING CONSTRUCTION.

- 9. THE CONTRACTOR SHALL ADJUST THE CASTINGS OF ALL NEW AND EXISTING STRUCTURES TO MATCH PROPOSED FINISH GRADES.
- 10. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION ISSUED BY AGC OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
- 11. PROPOSED CONTOUR LINES AND SPOT ELEVATIONS ARE THE RESULT OF AN ENGINEERED GRADING DESIGN AND REFLECT A PLANNED INTENT WITH REGARD TO DRAINAGE AND MOVEMENT OF MATERIALS.
- SHOULD THE CONTRACTOR HAVE ANY QUESTION OF THE INTENT OR ANY PROBLEM WITH THE CONTINUITY OF GRADES, THE ENGINEER SHALL BE CONTACTED IMMEDIATELY.
- 12. ALL CUT AND FILL SLOPES SHALL BE 3 HORIZONTAL TO 1 VERTICAL OR FLATTER UNLESS OTHERWISE INDICATED ON THE PLANS.

AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER, OR HIS REPRESENTATIVE.

- 13. MINIMUM GRADE ON ASPHALT OR CONCRETE PAVING SHALL BE 1.0%. THE MAXIMUM GRADES WITHIN ACCESSIBLE SPACES SHALL BE 2% IN ANY DIRECTION.
- 14. CONTRACTOR SHALL CONFORM TO ALL APPLICABLE CODES AND OBTAIN APPROVAL AS NECESSARY
- 15. ALL EARTHWORK, INCLUDING THE EXCAVATED SUBGRADE AND EACH LAYER OF FILL, SHALL BE MONITORED
- 16. THIS GRADING & DRAINAGE PLAN IS NOT A DETERMINATION OR GUARANTEE OF THE SUITABILITY OF THE SUBSURFACE CONDITIONS FOR THE WORK INDICATED. A GEOTECHNICAL SOILS REPORT HAS BEEN PREPARED AND IS AVAILABLE FROM THE OWNER. DETERMINATION OF THE SUBSURFACE CONDITIONS FOR THE WORK INDICATED IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 17. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO COMPACT FILL SUFFICIENTLY AROUND AND OVER ALL PIPES, STRUCTURES, VALVE STEMS, ETC., INSIDE THE PROPOSED PAVED AREAS TO AVOID SETTLEMENT. ANY SETTLEMENT DURING THE WARRANTY PERIOD SHALL BE RESTORED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 18. IN NO CASE SHALL SLOPE, HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH, INCLUDING TRENCH CONSTRUCTION, EXCEED THOSE SPECIFIED IN LOCAL, STATE AND FEDERAL REGULATIONS, SPECIFICALLY THE CURRENT OSHA HEALTH AND SAFETY STANDARDS FOR EXCAVATIONS (29 CRF PART 1926) SHALL BE FOLLOWED.
- 19. DO NOT DISTURB VEGETATION OR REMOVE TREES EXCEPT WHEN NECESSARY FOR GRADING PURPOSES.
- 20. STRIP TOPSOIL FROM ALL CUT AND FILL AREAS AND STOCKPILE UPON COMPLETION OF GENERAL GRADING OVER ALL DISTURBED AREAS, TO A MINIMUM DEPTH OF 6". CONTRACTOR SHALL SUPPLY ADDITIONAL TOP SOIL IF INSUFFICIENT QUANTITIES EXIST ON SITE.
- 21. TOP OF GRATE ELEVATIONS AND LOCATION OF COORDINATES FOR DRAINAGE STRUCTURES SHALL BE AS SHOWN ON THE DETAIL, UNLESS NOTED OTHERWISE. THE GRATES SHALL SLOPE LONGITUDINALLY WITH THE PAVEMENT GRADES.
- 22. ALL DRAINAGE CONSTRUCTION MATERIALS AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL GOVERNING AGENCY.
- 23. POSITIVE DRAINAGE SHALL BE ESTABLISHED AS THE FIRST ORDER OF WORK AND SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. SOIL SOFTENED BY PERCHED WATER IN FOUNDATION AND PAVEMENT AREAS MUST BE UNDERCUT AND REPLACED WITH SUITABLE FILL MATERIALS APPROVED BY THE GEOTECHNICAL ENGINEER. GROUNDWATER INFILTRATION INTO EXCAVATIONS SHOULD BE EXPECTED, AND THE WATER SHALL BE REMOVED USING GRAVITY DRAINAGE OR PUMPING.
- 24. REINFORCED CONCRETE STORM DRAINAGE PIPE SHALL BE CLASS III, WALL "B". HDPE SHALL BE CORRUGATED, SMOOTH WALL N-12 PIPE WITH SOIL TIGHT JOINTS.
- 25. FILL SLOPES 3:1 AND GREATER SHALL BE PLACED AND COMPACTED 5' BEYOND PROPOSED LIMITS AND THEN EXCAVATED BACK TO THE PROPOSED LOCATION.
- 26. THE CONTRACTOR SHALL PROVIDE AN ASBUILT SURVEY STAMPED BY A LICENSED SURVEYOR IN THE STATE OF MISSOURI OF ALL STORM SYSTEMS, ONSITE DETENTION PONDS, AND WATER QUALITY MEASURES VERIFYING COMPLIANCE WITH DESIGN DOCUMENTS.
- 27. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO INSTALLATION OF THE WATER
- 28. ALL FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. THIS MATERIAL SHALL BE PLACED IN LIFTS DIRECTED BY THE GEOTECHNICAL ENGINEER AND COMPACTED AS SPECIFIED BY THE GEOTECHNICAL ENGINEER TO 95% STANDARD/MODIFIED PROCTOR.
- 29. THE LOCATION OF ALL DIVERSION SWALES AND DITCHES SHALL BE FIELD ADJUSTED TO AVOID TREES AS POSSIBLE. THE CONTRACTOR SHALL WALK THE ALIGNMENT OF THESE SWALES AND DITCHES IN THE FIELD TO VERIFY AVOIDANCE OF TREES.
- 30. SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES IS TO BE PLACED AT A SITE APPROVED BY THE ENGINEER. IT SHALL BE TREATED IN A MANNER SO THAT THE AREA AROUND THE DISPOSAL SITE WILL NOT BE CONTAMINATED OR DAMAGED BY THE SEDIMENT IN THE RUN-OFF. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR EARTHWORK. THE CONTRACTOR SHALL OBTAIN THE DISPOSAL SITE AS PART OF THIS WORK.
- 31. STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS.
- 32. ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL REQUIRED PERMITS ARE SECURED FOR EACH PROPERTY UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
- 33. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WASTE EXCESS EARTH MATERIAL OFF SITE AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL FIRST OFFER THE EXCESS MATERIAL TO THE OWNER. IF NOT ACCEPTED BY THE OWNER, THE CONTRACTOR SHALL DISPOSE OF EARTH MATERIAL OFF SITE. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT SUITABLE MATERIAL (AT NO ADDITIONAL COST TO THE OWNER) FOR EARTHWORK OPERATIONS IF SUFFICIENT AMOUNTS OF EARTH MATERIAL ARE NOT AVAILABLE ON SITE.

#### SITE UTILITY NOTES

- 1. THE PROJECT SITE IS SHOWN AS PARCEL 0-420-99-09-00-0-000.
- 2. THE SANITARY SEWER SHALL BE OF THE MATERIAL INDICATED ON THE PLAN. POLYVINYLCHLORIDE (PVC) SHALL BE (SDR35). DUCTILE IRON PIPE (D.I.P.) SHALL BE CLASS 52.
- 3. ALL WATER LINES, SEWER LINES, AND APPURTENANCES SHALL BE OF MATERIALS AND CONSTRUCTION THAT CONFORM TO THE LOCAL AGENCY STANDARDS AND SPECIFICATIONS.
- 4. PROVIDE A MINIMUM 42" OF COVER OVER ALL WATER LINES.
- 5. THE CONTRACTOR SHALL MAINTAIN 10 FEET HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER LINES. WHERE THESE CRITERIA CANNOT BE MET, THE CONTRACTOR SHALL MAINTAIN 18" VERTICAL SEPARATION BETWEEN WATER AND SEWER LINES.
- 6. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF EXISTING MANHOLES OR SANITARY SEWER LINES AT THE POINT OF CONNECTION PRIOR TO THE COMMENCEMENT OF ORDERING OF MATERIALS, CONSTRUCTION OR REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES DO NOT CONFLICT WITH SANITARY SEWERS, SANITARY SEWER SERVICES, STORM SEWERS, OR ANY OTHER UTILITY OR STRUCTURE, EXISTING OR PROPOSED.
- 8. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
- 9. BEFORE CONNECTIONS ARE MADE INTO EXISTING UTILITIES, THE NEW LINES ARE TO BE FLUSHED AND TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE LOCAL WATER AND SEWER DEPARTMENT SPECIFICATIONS.
- 10. ALL TRENCHES CUT IN EXISTING ROADS OR DRIVES SHALL UTILIZE A CLEAN SAW CUT AND SHALL BE BACKFIELD (100%) TO FINAL SUBGRADE WITH #57 STONE. REPAIR ROADS PER LOCAL AGENCY REQUIREMENTS.
- 11. REPAIR ALL DAMAGE TO EXISTING FEATURES (i.e. DRIVES, ROADS, YARDS, LANDSCAPING, ETC...) TO PRE-CONSTRUCTION CONDITION.
- 12. THE CONTRACTOR SHALL PROVIDE ALL HORIZONTAL AND VERTICAL BENDS TO ATTAIN THE ALIGNMENT INDICATED ON THE PLANS. PROVIDE VERTICAL BENDS WHERE NECESSARY TO ALLOW WATER LINES TO PASSUNDER OR OVER OTHER UTILITY LINES. (ALL BENDS AND BRACES NEEDED MAY NOT BE ACTUALLY SHOWN). PROVIDE BRACING AND/OR RODDING AT ALL BENDS AND TEES AS REQUIRED BY WATER DEPARTMENT.
- 13. REDUCED PRESSURE BACKFLOW PREVENTER (RPBP) OR DUAL CHECK WILL BE REQUIRED ON ALL TESTS AND FILL LINES (JUMPER) NEEDED FOR WATER MAIN CONSTRUCTION AND MUST BE APPROVED BY THE WATER DEPARTMENT.
- 14. COORDINATE THE EXACT LOCATION OF ALL UTILITIES ENTERING THE BUILDING WITH THE PLUMBING PLANS.
- 15. THE CONTRACTOR SHALL VERIFY REQUIRED PIPE LENGTHS. EXISTING PIPE MATERIAL AND SIZES AS SHOWN ON PLANS.
- 16. REPAIR EXISTING PAVEMENT, CURBS, WALKS, LANDSCAPING, ETC. THAT ARE DAMAGED BY CONSTRUCTION ACTIVITIES TO A LIKE NEW CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- 17. THE PROPOSED GAS LINE CONSTRUCTION AND INSTALLATION SHALL BE COORDINATED WITH THE LOCAL GAS COMPANY BY THE CONTRACTOR.
- 18. THE PROPOSED ELECTRIC LINE CONSTRUCTION AND INSTALLATION SHALL BE COORDINATED WITH THE LOCAL ELECTRIC COMPANY BY THE CONTRACTOR.
- 19. THE PROPOSED TELEPHONE LINE CONSTRUCTION AND INSTALLATION SHALL BE COORDINATED WITH THE LOCAL TELEPHONE COMPANY BY THE CONTRACTOR.
- 20 WHERE DRAINAGE OR UTILITY LINES OCCUR IN PROPOSED FILL AREAS. THE FILL MATERIAL IS TO BE PLACED. AND COMPACTED TO 95% STANDARD/MODIFIED PROCTOR OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D1557 PRIOR TO INSTALLATION OF DRAINAGE OR UTILITY LINES. FILL IS TO BE INSPECTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER TESTING FIRM EMPLOYED BY THE OWNER. RESULTS OF THE TEST SHALL BE FURNISHED TO THE OWNER'S REPRESENTATIVE. CONTRACTOR TO PAY FOR ANY RETESTING.
- 21. THE CONTRACTOR SHALL ADJUST THE ALIGNMENT OF THE WATER LINES (HORIZONTALLY AND/OR VERTICALLY) TO ALLOW THE REQUIRED BRACING AT BENDS AND TEES.
- 22. EXISTING CASTINGS LOCATED IN FILL/CUT AREAS SHALL BE ADJUSTED TO ENSURE THAT THE TOP OF CASTING IS FLUSH WITH THE FINISHED GRADE.
- 23. THE OUTSIDE OF ALL MANHOLES SHALL BE COATED WITH BITUMINOUS PAINT.
- 24. THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
- 25. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY THE CORING AND RESILIENT SEAL METHOD.
- 26. FIRE HYDRANT ASSEMBLIES INCLUDE THE APPROPRIATE SIZED TEE (WITH KICKER), 6" LINE TO HYDRANT, 6" GATE VALVE (WITH VALVE BOX), AND FIRE HYDRANT (WITH KICKER). HYDRANTS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS.
- 27. SIAMESE STAND PIPE TO BE GALVANIZED STEEL.
- 28. ALL FIRE LINES SHALL BE INSTALLED BY A SPRINKLER CONTRACTOR LICENSED IN THE STATE OF THE PROJECT.



1615 EDGEWATER DRIVE, STE 200 ORLANDO, FLORIDA 32804 T 407.975.1273 F 407.975.1278 www.smeinc.com

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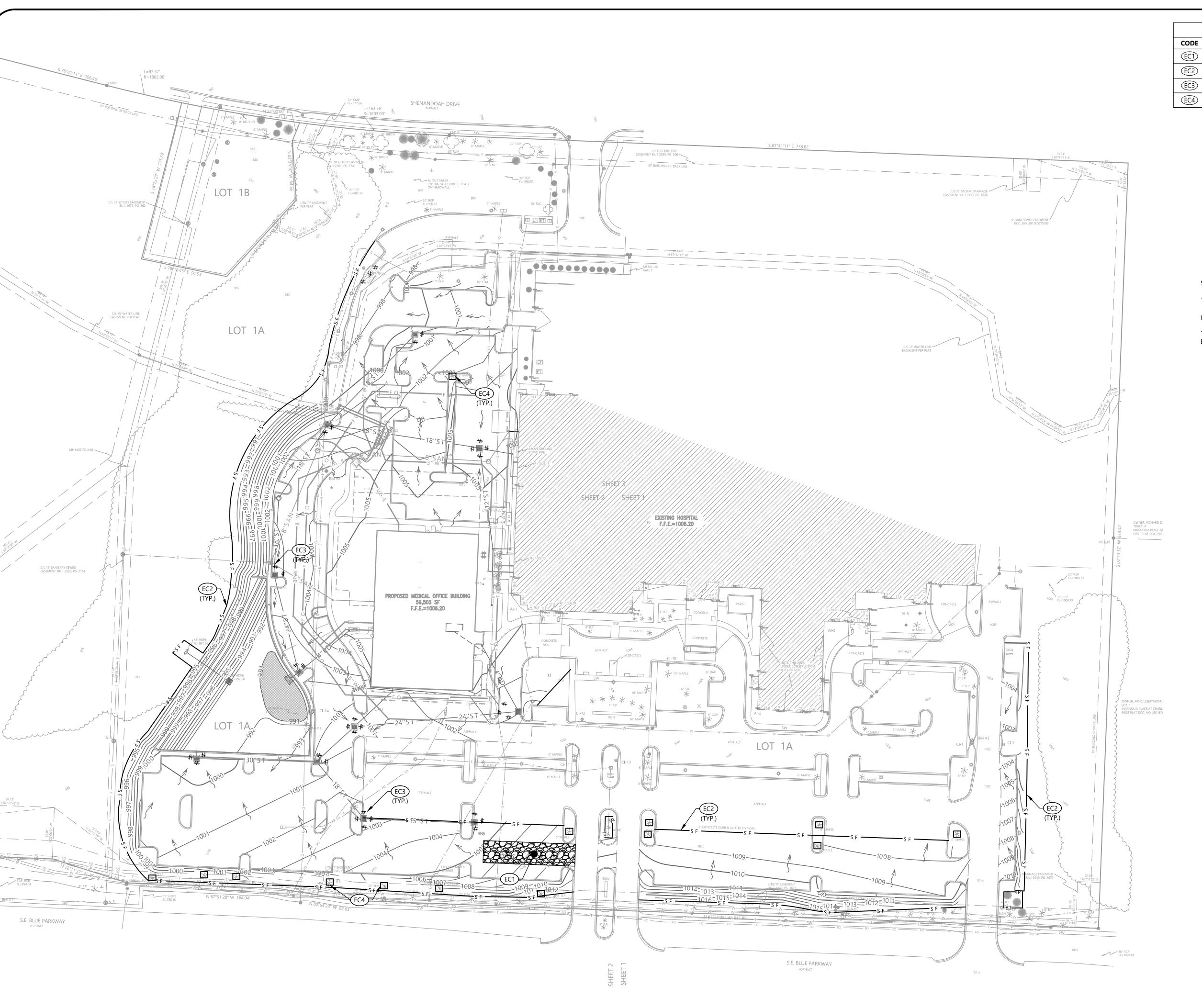
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527116043 DRAWING NUMBER

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**NOTES** 



EROSION CONTROL KEYNOTES							
CODE	DESCRIPTION	DET #/SHT #					
EC1	TEMPORARY CONSTRUCTION ENTRANCE	1 / C3.1					
EC2	SILT FENCE	3 / C3.1					
EC3	INLET PROTECTION	4 / C3.1					
(EC4)	TREE PROTECTION	2 / C3.1					



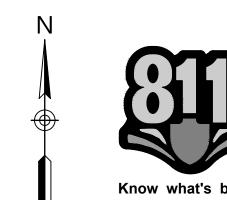
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PROPOSED FEATURES LEGEND

SILT FENCE TREE PROTECTION INLET PROTECTION TEMPORARY CONSTRUCTION ENTRANCE

**NOTES** 

1. SEE SHEET C2.0 FOR EROSION CONTROL NOTES.







DRAWING NAME CONTROL PLAN



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**EROSION** 

#### SCHEDULE OF INSPECTIONS AND MAINTENANCE NOTES

- 1. INSPECTIONS DESCRIBED IN PARAGRAPHS 2, 3 AND 4 BELOW, SHALL BE PERFORMED AT LEAST TWICE EVERY CALENDAR WEEK INSPECTIONS SHALL BE PERFORMED AT LEAST 72 HOURS APART. WHERE SITES OR PORTION(S) OF CONSTRUCTION SITES HAVE BEEN TEMPORARILY STABILIZED, OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS (E.G., SITE COVERED WITH SNOW OR ICE) OR DUE TO EXTREME DROUGHT, SUCH INSPECTION ONLY HAS TO BE CONDUCTED ONCE PER MONTH UNTIL THAWING OR PRECIPITATION RESULTS IN RUNOFF OR CONSTRUCTION ACTIVITY RESUMES. INSPECTION REQUIREMENTS DO NOT APPLY TO DEFINABLE AREAS THAT HAVE BEEN FINALLY STABILIZED. WRITTEN NOTIFICATION OF THE INTENT TO CHANGE THE INSPECTION FREQUENCY AND THE JUSTIFICATION FOR SUCH REQUEST MUST BE SUBMITTED TO THE LOCAL ENVIRONMENTAL FIELD OFFICE.
- 2. QUALIFIED PERSONNEL (PROVIDED BY THE PERMITTEE OR COOPERATIVELY BY MULTIPLE PERMITTEES) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION, STRUCTURAL CONTROL MEASURES, LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE, AND EACH OUTFALL.
- 3. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE SITE'S DRAINAGE SYSTEM. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY.
- 4. OUTFALL POINTS (WHERE DISCHARGES LEAVE THE SITE AND/OR ENTER WATERS OF THE STATE) SHALL BE INSPECTED TO DETERMINE WHETHER EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING.
- 5. BASED ON THE RESULTS OF THE INSPECTION, ANY INADEQUATE CONTROL MEASURES OR CONTROL MEASURES IN DISREPAIR SHALL BE REPLACED OR MODIFIED, OR REPAIRED AS NECESSARY, BEFORE THE NEXT RAIN EVENT, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE NEED IS IDENTIFIED.
- 6. BASED ON THE RESULTS OF THE INSPECTION, THE SITE DESCRIPTION AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THIS SWPPP SHALL BE REVISED AS APPROPRIATE, BUT IN NO CASE LATER THAN 7 DAYS FOLLOWING THE INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE SWPPP, BUT IN NO CASE LATER THAN 14 DAYS FOLLOWING THE INSPECTION.
- 7. ALL INSPECTIONS SHALL BE DOCUMENTED ON THE CONSTRUCTION STORMWATER INSPECTION CERTIFICATION FORM PROVIDED IN APPENDIX D OF THE SWPPP REPORT FOR ALL CONSTRUCTION SITES. INSPECTION DOCUMENTATION WILL BE MAINTAINED ON SITE AND MADE AVAILABLE UPON REQUEST. INSPECTION REPORTS MUST BE SUBMITTED WITHIN 10 DAYS OF THE REQUEST.
- 8. TRAINED CERTIFIED INSPECTORS SHALL COMPLETE INSPECTION DOCUMENTATION TO THE BEST OF THEIR ABILITY. FALSIFYING INSPECTION RECORDS OR OTHER DOCUMENTATION OR FAILURE TO COMPLETE INSPECTION DOCUMENTATION SHALL RESULT IN A VIOLATION OF THIS PERMIT AND ANY OTHER APPLICABLE ACTS OR RULES.
- 9. SUBSEQUENT OPERATOR(S) (PRIMARY PERMITTEES) WHO HAVE OBTAINED COVERAGE UNDER THE NPDES GENERAL PERMIT SHOULD CONDUCT TWICE WEEKLY INSPECTIONS, UNLESS THEIR PORTION(S) OF THE SITE HAS BEEN TEMPORARILY STABILIZED, OR RUNOFF IS UNLIKELY DUE TO WINTER CONDITIONS OR DUE TO EXTREME DROUGHT AS STATED IN PARAGRAPH A) ABOVE. THE PRIMARY PERMITTEE (SUCH AS A DEVELOPER) IS NO LONGER REQUIRED TO CONDUCT INSPECTIONS OF PORTIONS OF THE SITE THAT ARE COVERED BY A SUBSEQUENT PRIMARY PERMITTEE .

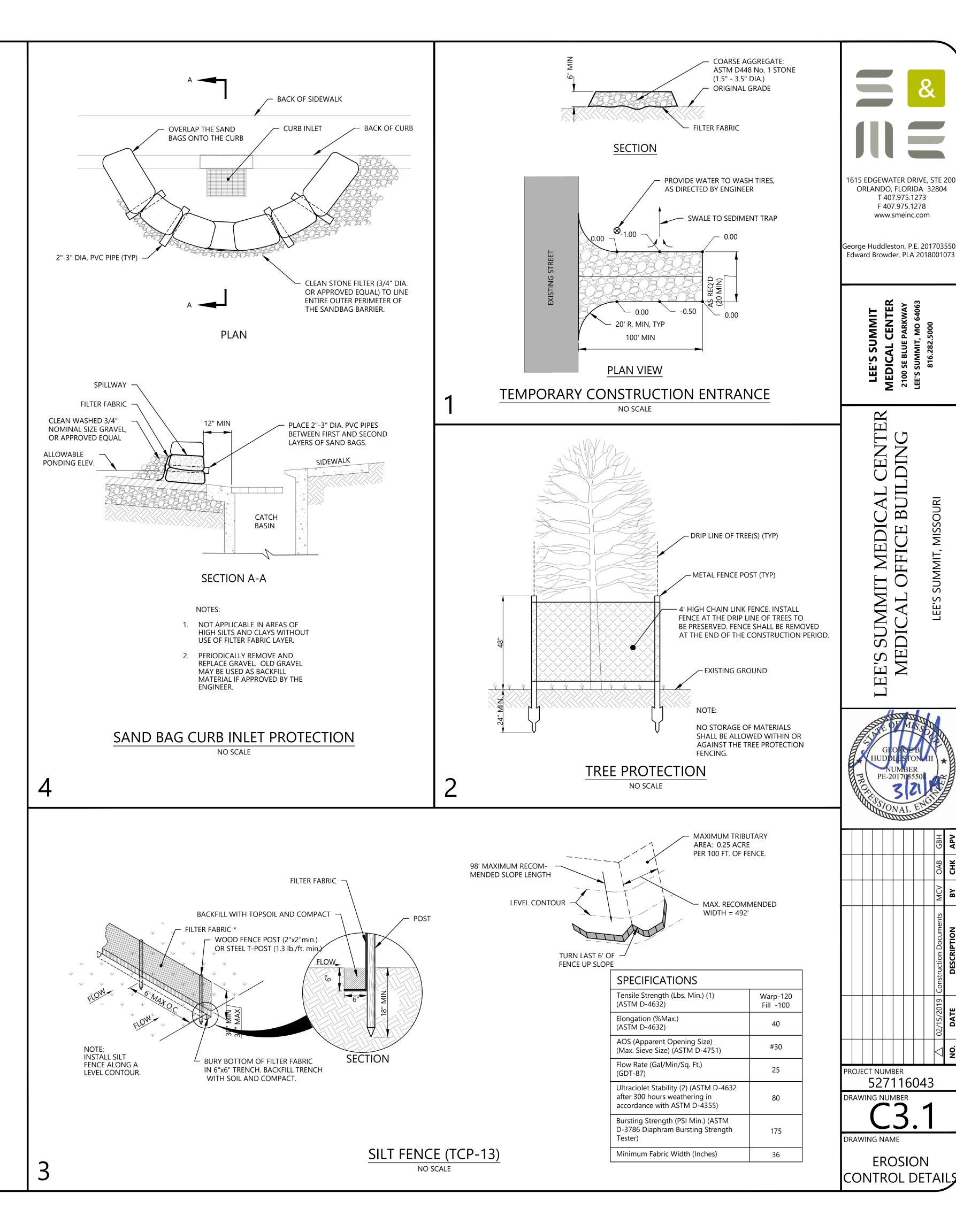
#### SITE ASSESSMENT NOTES

- 1. THE SITE ASSESSMENT SHALL BE PERFORMED BY INDIVIDUALS WITH THE FOLLOWING QUALIFICATIONS:
  - A LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT
  - A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) OR
  - A PERSON THAT SUCCESSFULLY COMPLETED THE "LEVEL II DESIGN PRINCIPLES FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE.
- 2. QUALITY ASSURANCE OF EROSION PREVENTION AND SEDIMENT CONTROLS SHALL BE DONE BY PERFORMING SITE ASSESSMENT AT A CONSTRUCTION SITE. THE SITE ASSESSMENT SHALL BE CONDUCTED AT EACH OUTFALL INVOLVING DRAINAGE TOTALING 10 OR MORE ACRES OR 5 OR MORE ACRES IF DRAINING TO AN IMPAIRED OR EXCEPTIONAL QUALITY WATERS, WITHIN A MONTH OF CONSTRUCTION COMMENCING AT EACH PORTION OF THE SITE THAT DRAINS THE **QUALIFYING ACREAGE OF SUCH PORTION OF THE SITE.**
- 3. AS A MINIMUM, SITE ASSESSMENT SHOULD BE PERFORMED TO VERIFY THE INSTALLATION, FUNCTIONALITY AND PERFORMANCE OF THE EPSC MEASURES DESCRIBED IN THE SWPPP REPORT. THE SITE ASSESSMENT SHOULD BE PERFORMED WITH THE INSPECTOR, AND SHOULD INCLUDE A REVIEW AND UPDATE (IF APPLICABLE) OF THE SWPPP REPORT. MODIFICATIONS OF PLANS AND SPECIFICATIONS FOR ANY BUILDING OR STRUCTURE, INCLUDING THE DESIGN OF SEDIMENT BASINS OR OTHER SEDIMENT CONTROLS INVOLVING STRUCTURAL, HYDRAULIC, HYDROLOGIC OR OTHER ENGINEERING CALCULATIONS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER OR LANDSCAPE ARCHITECT AND STAMPED AND CERTIFIED.
- 4. THE SITE ASSESSMENT FINDINGS SHALL BE DOCUMENTED AND THE DOCUMENTATION KEPT WITH THE SWPPP REPORT AT THE SITE. AT A MINIMUM, THE DOCUMENTATION SHALL INCLUDE INFORMATION INCLUDED IN THE INSPECTION FORM PROVIDED IN APPENDIX D OF THE SWPPP REPORT. THE DOCUMENTATION MUST CONTAIN THE PRINTED NAME AND SIGNATURE OF THE INDIVIDUAL PERFORMING THE SITE ASSESSMENT AND THE FOLLOWING CERTIFICATION:
- "I CERTIFY UNDER PENALTY OF LAW THAT THIS REPORT AND ALL ATTACHMENTS ARE, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."
- 5. THE SITE ASSESSMENT CAN TAKE THE PLACE OF ONE OF THE TWICE WEEKLY INSPECTIONS REQUIREMENT.

#### **NOTE:**

CONTRACTOR SHALL INSTALL A 4'X4' WEATHER PROOF SIGN (6' HEIGHT) AT THE MAIN CONSTRUCTION ENTRANCE THE SIGN SHALL HAVE THE FOLLOWING INFORMATION:

- 1. A COPY OF THE NOTICE OF COVERAGE WITH THE NPDES PERMIT NUMBER (FURNISHED BY ENGINEER).
- 2. THE NAME AND TELEPHONE NUMBER OF A LOCAL CONTACT PERSON (FURNISHED
- BY CONSTRUCTION MANAGER).
- 3. DESCRIPTION OF PROJECT (FURNISHED BY CONSTRUCTION MANAGER).





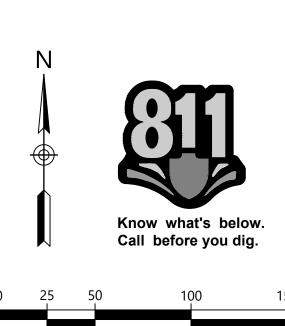
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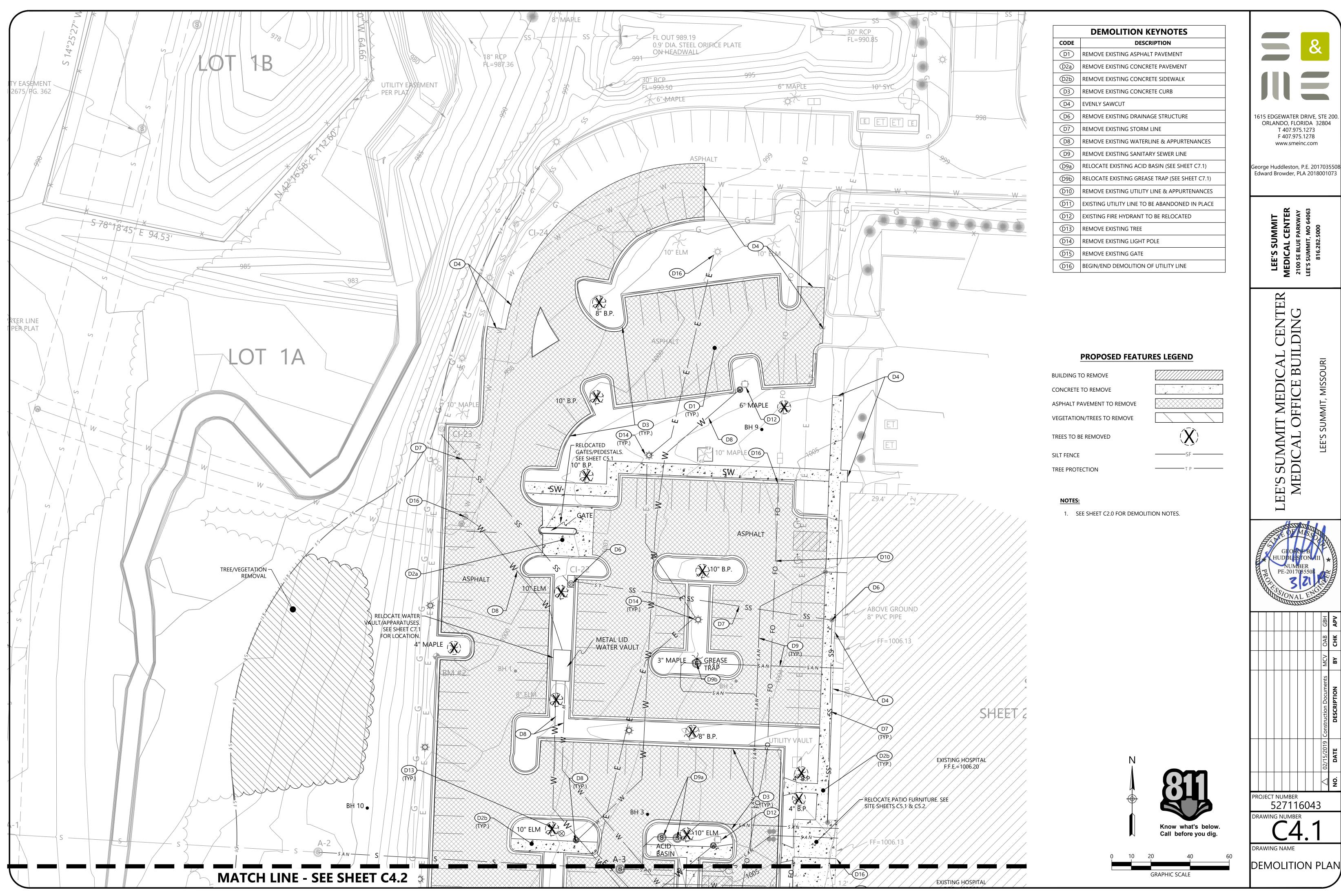
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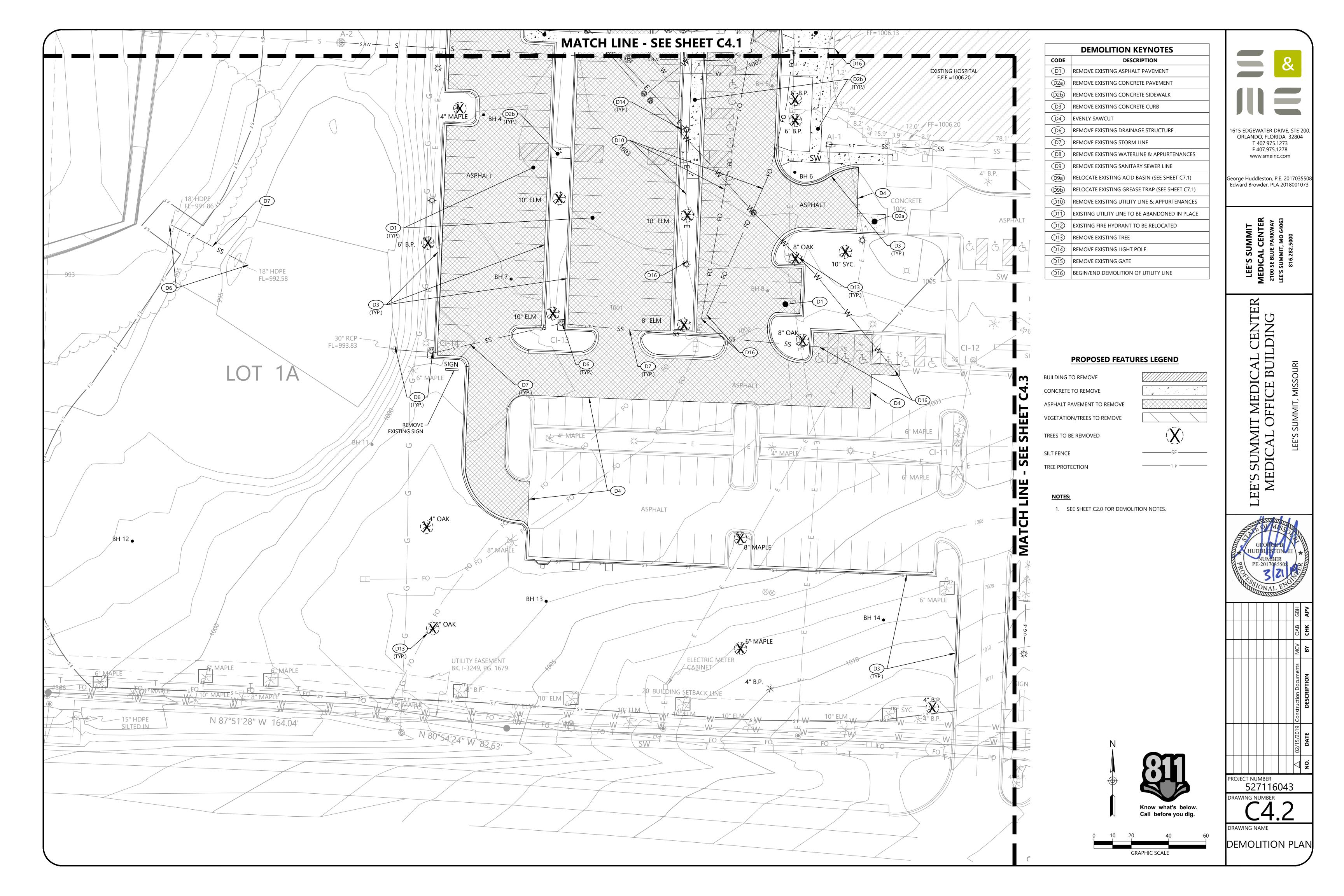
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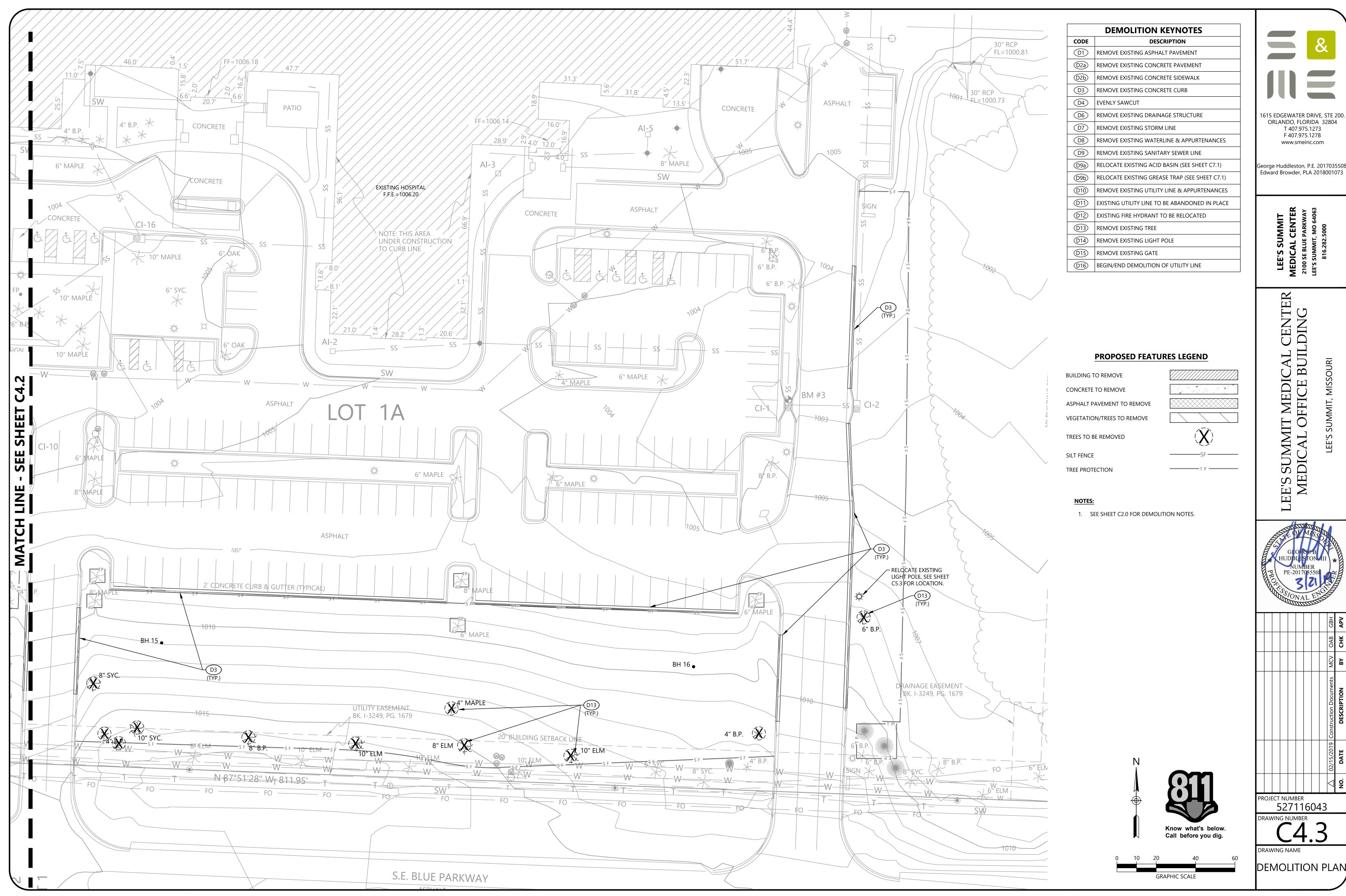
OVERALL DEMOLITION PLAY



**GRAPHIC SCALE** 









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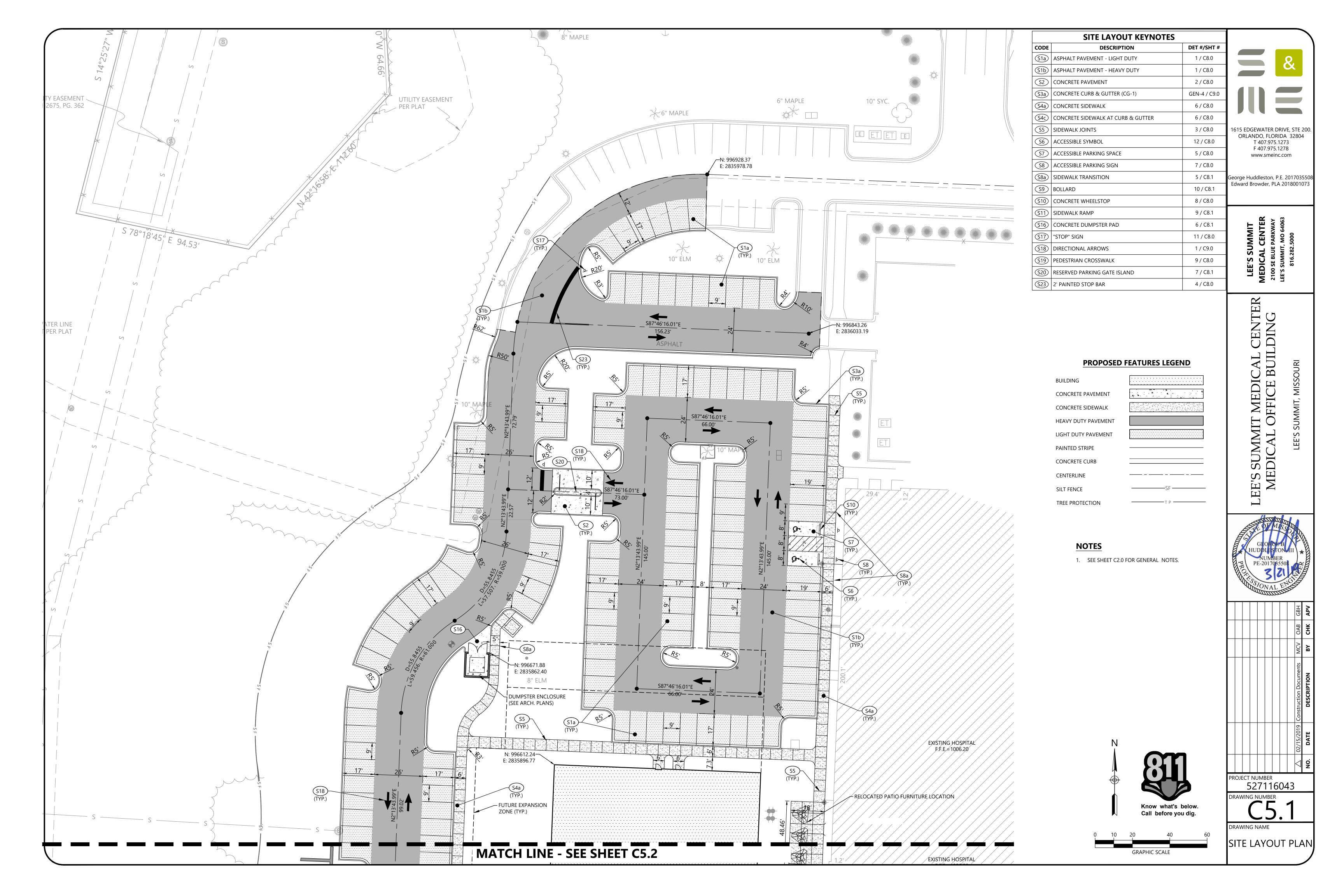
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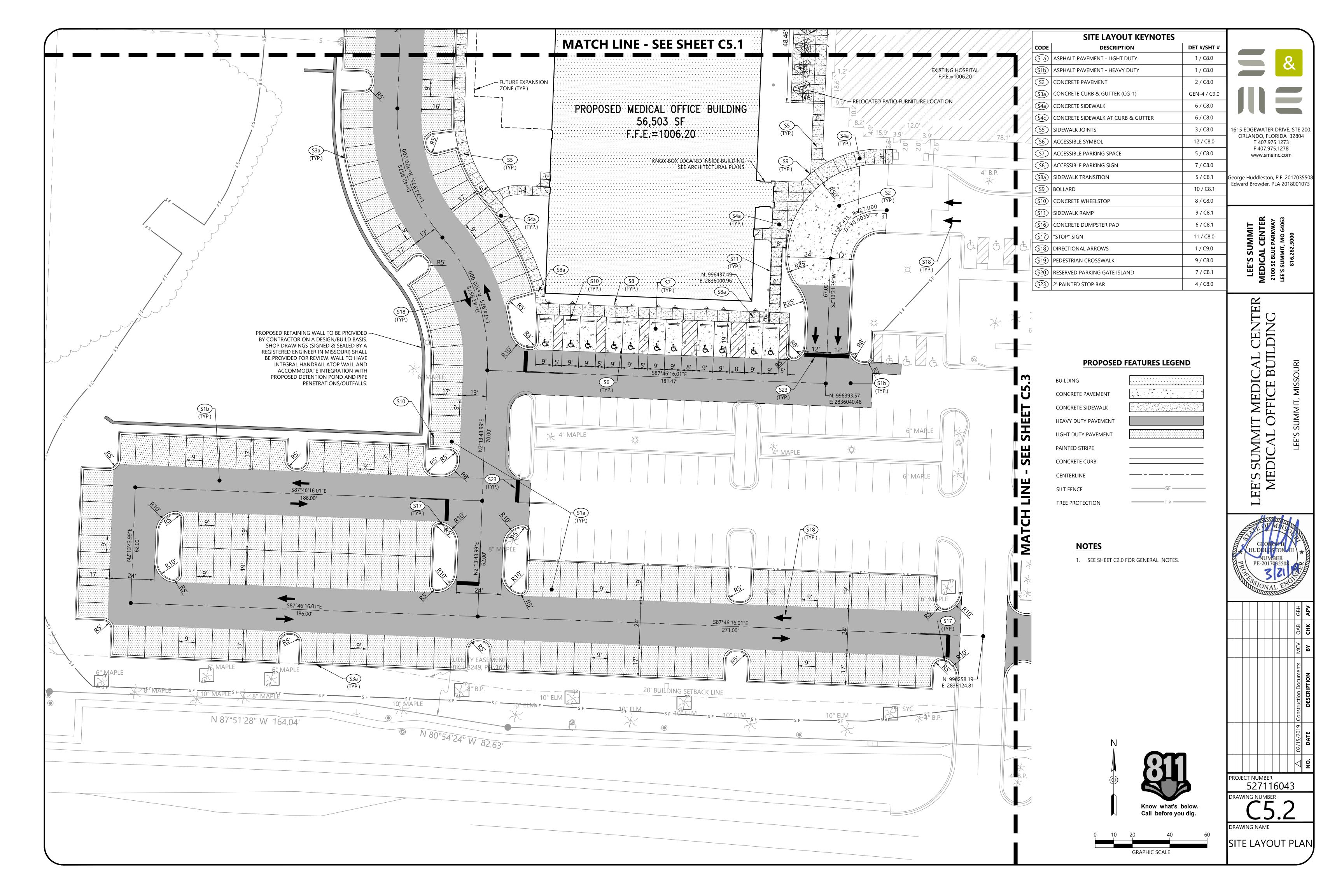
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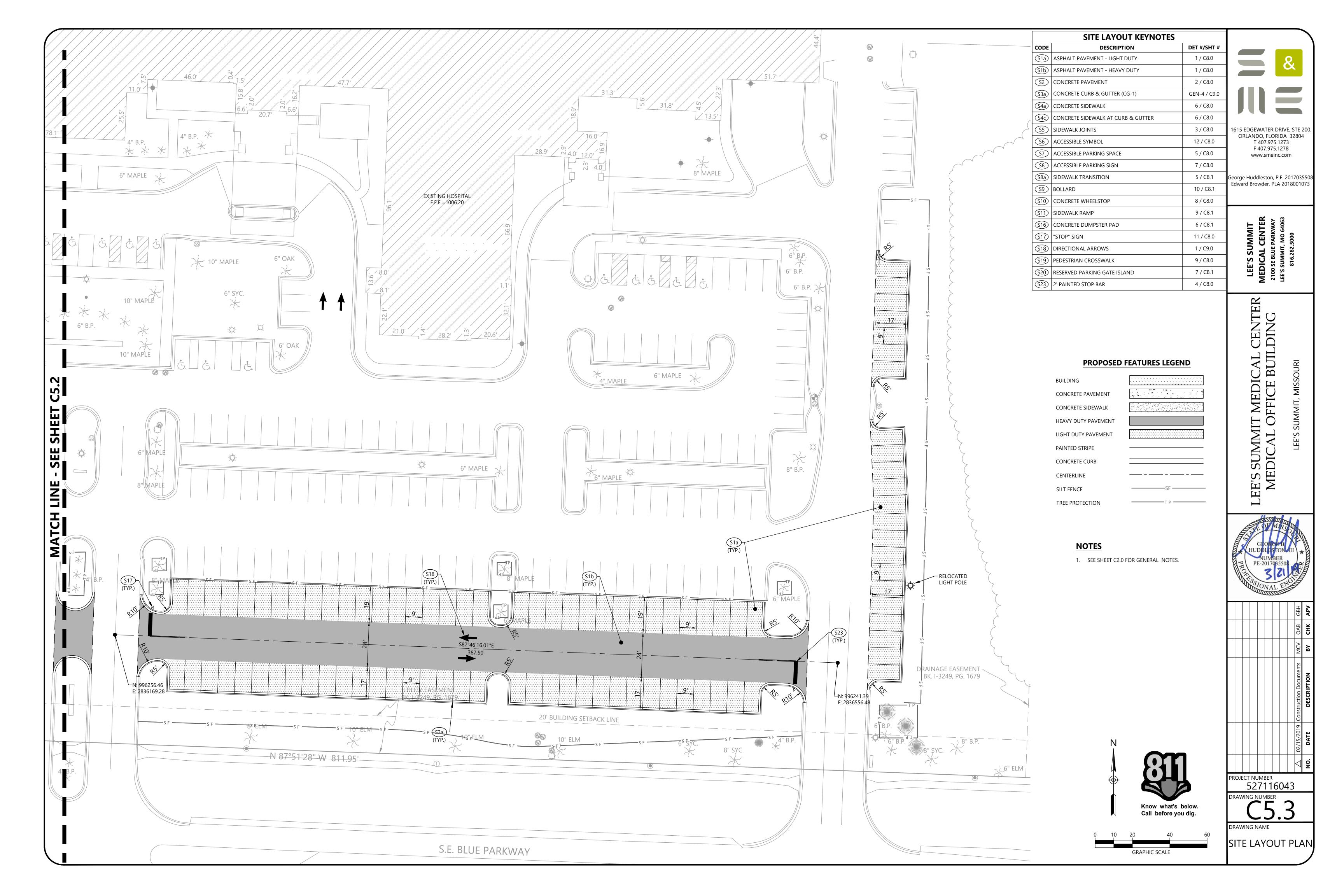
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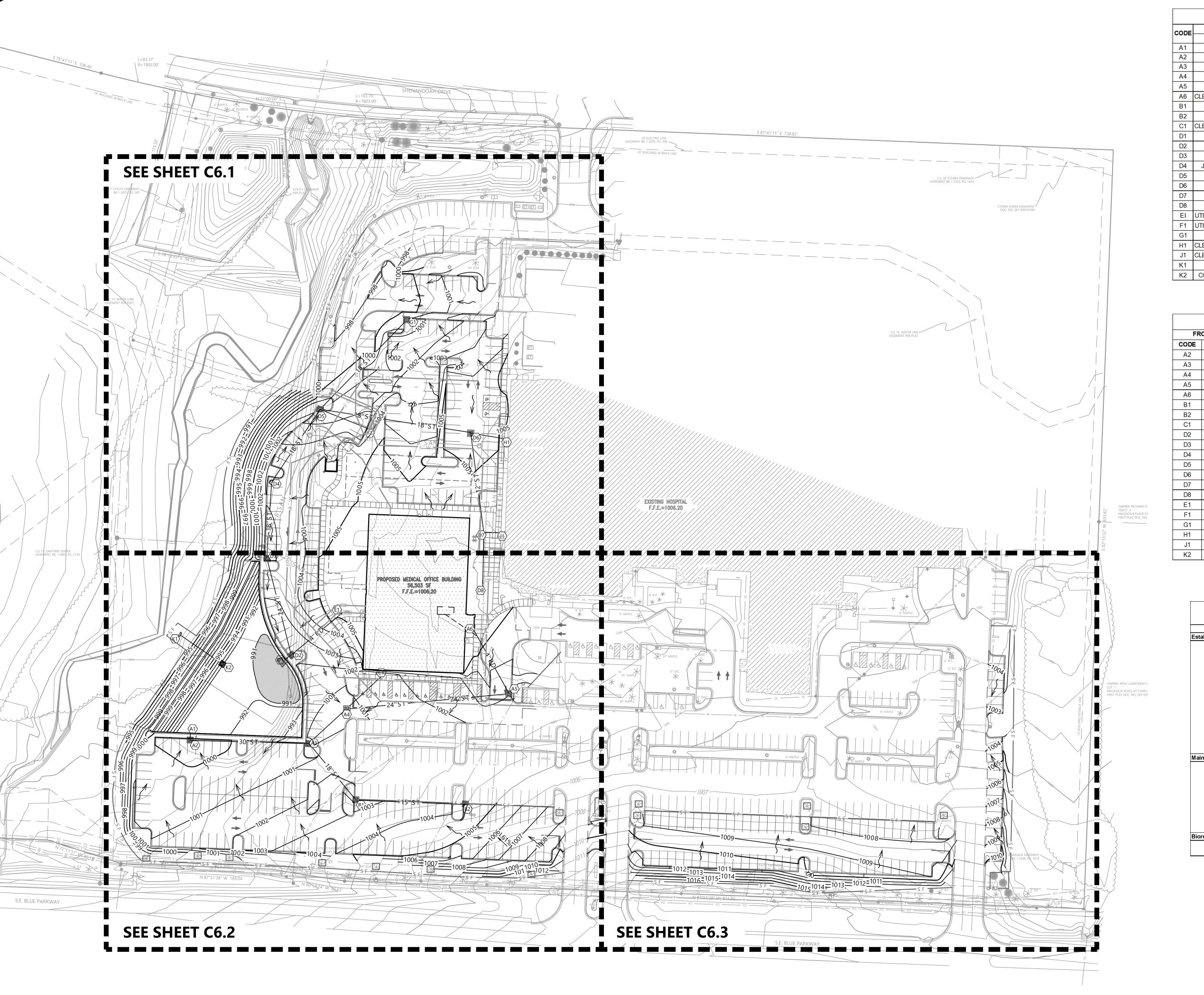
GRAPHIC SCALE

OVERALL SITE LAYOUT PLAN





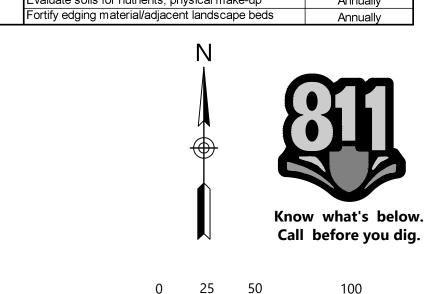


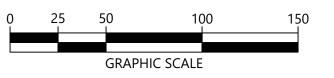


00DE	STRUCTUR	E	DEDTU	ELEVATION TOP OF GRATE INVER		
CODE	DESCRIPTION	DETAIL	DEPTH	TOP OF GRATE	INVER	
A1	U-TYPE ENDWALL	1 / C8.1				
A2	CATCH BASIN	STM-2 / C9.1			992.27	
А3	CATCH BASIN	STM-2 / C9.1	5.91	1000.80	994.89	
A4	CATCH BASIN	STM-2 / C9.1	4.71	1 1000.74 99		
A5	CURB INLET	STM-1/ C9.1			999.6	
A6	CLEANOUT / ROOF DRAIN	11 / C8.1			1002.1	
B1	CURB INLET			998.14		
B2	CURB INLET	STM-1/ C9.1	3.35	35 1003.89 1000		
C1	CLEANOUT / ROOF DRAIN	11 / C8.1	4.27	1003.00 998.		
D1	U-TYPE ENDWALL	1 / C8.1		99		
D2	CATCH BASIN	STM-2 / C9.1	9.48	1002.08	992.60	
D3	CATCH BASIN	STM-2 / C9.1	6.97	1002.80	995.8	
D4	JUNCTION MANHOLE	SAN-2 / C9.2	7.02	1003.68	996.6	
D5	CURB INLET	STM-1/ C9.1	4.10	1001.34	997.2	
D6	CATCH BASIN	STM-2 / C9.1	5.26	1004.17	998.9	
D7	NDS DRAIN INLET	10 / C8.0	5.70	1005.71	1000.0	
D8	NDS DRAIN INLET	10 / C8.0	5.13	1005.75	1000.6	
EI	UTIL VAULT CONNECTION	C7.2	9.27	1005.40	996.1	
F1	UTIL VAULT CONNECTION	C7.1	4.23	1003.45	999.2	
G1	CURB INLET	STM-1/ C9.1	3.05	1000.70	997.6	
H1	CLEANOUT / ROOF DRAIN	11 / C8.1	5.41	1006.10	1000.6	
J1	CLEANOUT / ROOF DRAIN	11 / C8.1	5.16	1006.10	1000.9	
K1	HEADWALL	8 / C8.1			991.8	
K2	CONTROL STRUCTURE	C6.4	7.70	1000.00	992.3	

PROPOSED STORM SEWER PIPE							
FROM		Т	О	GRADE	DIAMETER	TYPE	LENGTH
CODE	INV.	CODE	INV.	GIVADE	(IN)		(L.F.)
A2	992.27	A1	992.00	2.00%	30	RCP	14
А3	994.89	A2	992.27	2.00%	30	RCP	131
A4	996.03	А3	994.89	2.00%	24	RCP	57
A5	999.61	A4	996.03	2.00%	24	RCP	179
A6	1002.11	<b>A</b> 5	999.61	3.00%	4	PVC	83
B1	998.14	A3	994.89	4.00%	18	RCP	81
B2	1000.54	B1	998.14	2.00%	15	RCP	120
C1	998.73	A4	996.03	4.50%	12	PVC	60
D2	992.60	D1	992.00	4.00%	24	RCP	15
D3	995.83	D2	992.60	3.00%	24	RCP	107
D4	996.66	D3	995.83	1.00%	18	RCP	84
D5	997.24	D4	996.66	0.60%	18	RCP	96
D6	998.91	D5	997.24	1.00%	18	RCP	167
D7	1000.01	D6	998.91	1.00%	12	PVC	110
D8	1000.62	D7	1000.01	1.00%	12	PVC	61
E1	996.13	D2	992.60	4.50%	4	PVC	78
F1	999.22	D5	997.24	3.50%	4	PVC	57
G1	997.65	D5	997.24	0.30%	18	RCP	137
H1	1000.69	D6	998.91	5.00%	8	PVC	36
J1	1000.94	D7	1000.01	5.00%	8	PVC	19
K2	992.30	K1	991.86	0.80%	30	RCP	55

TABLE 8.3	
Bioretention Cell	
Typical Maintenance Activities	
Activity	Frequency
ublishment (1-3yrs)	
Watering plants (plug and container plants in drought)	1" per week as needed
Weed control (string-trim, mechanical removal, follar herbicide)	Monthly
Remove litter and debrise (trash, leaves, mower, discharge, and sand)	Monthly
Monitor & repair erosion (stablize soil, replace plants, secure edging)	Monthly
Check for standing water (longer than design, any puddles, saturated soils)	Monthly
Add mulch (moisture & weed control, 3" or less, dispose properly)	Monthly
Inspect drainage area (parking lot sweeping, open dumpsters, etc)	Monthly
Replace dead plans (use design species/size, maintain density)	Annually, as needed
tenance (3+yrs, establishment activities may carry over	r, as needed)
Vegetation cleanup (string trim, prescribed burn, prune)	Annually, spring or fall
Evaluate plant composition (woody invasion, grass/flower ratio, "right plant, right place")	Annually
Sediment removal (pretreatement structures: forebay, swales)	Annually
Address animal damage (Canada geese, muskrats, deer rubs)	Annually
Verify structural componenet function (area inlet, valve lube, underdrains, outlet protection)	Annually
retention cell	1
Evaluate soils for nutrients, physical make-up	Annually







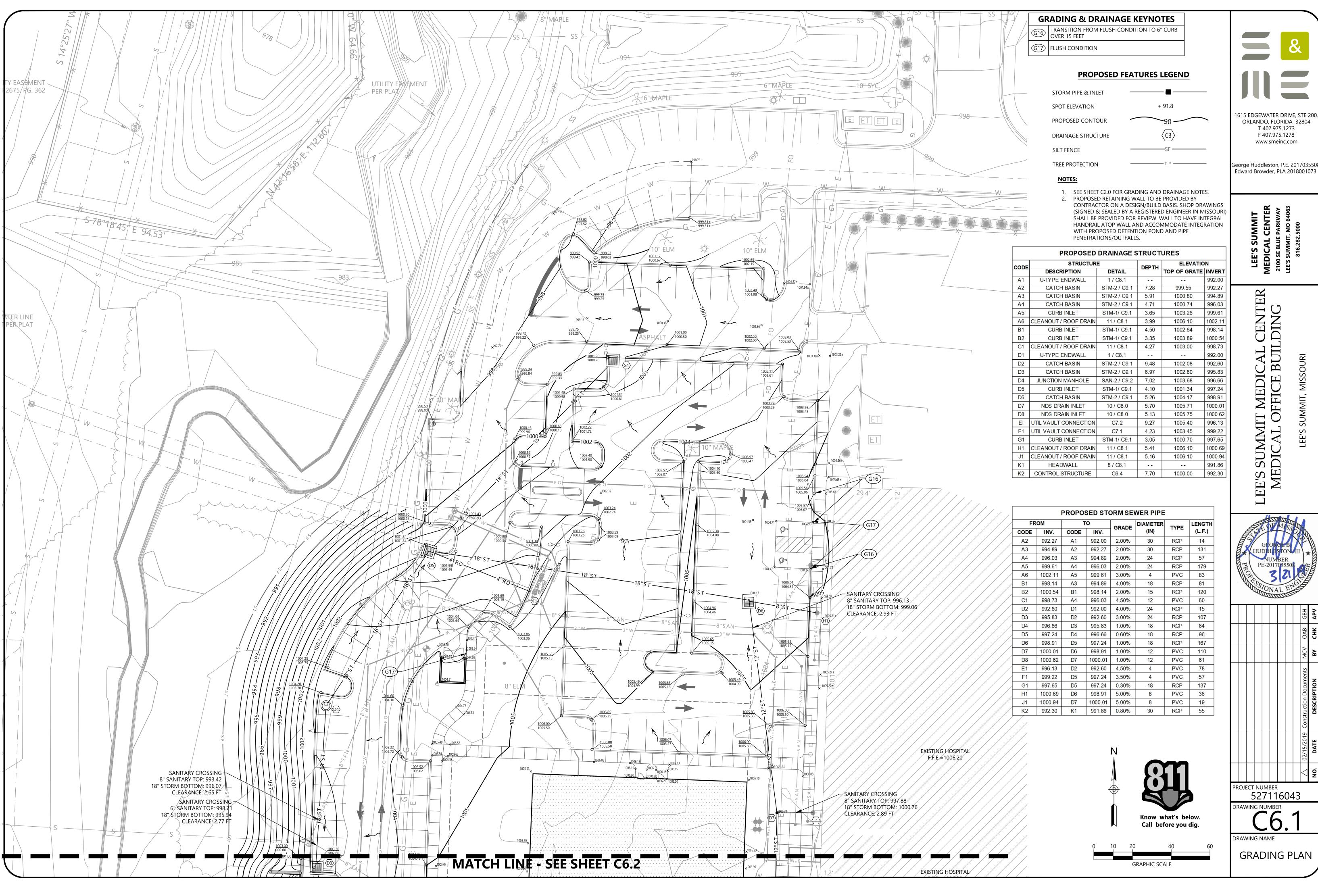
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APV	GBH				
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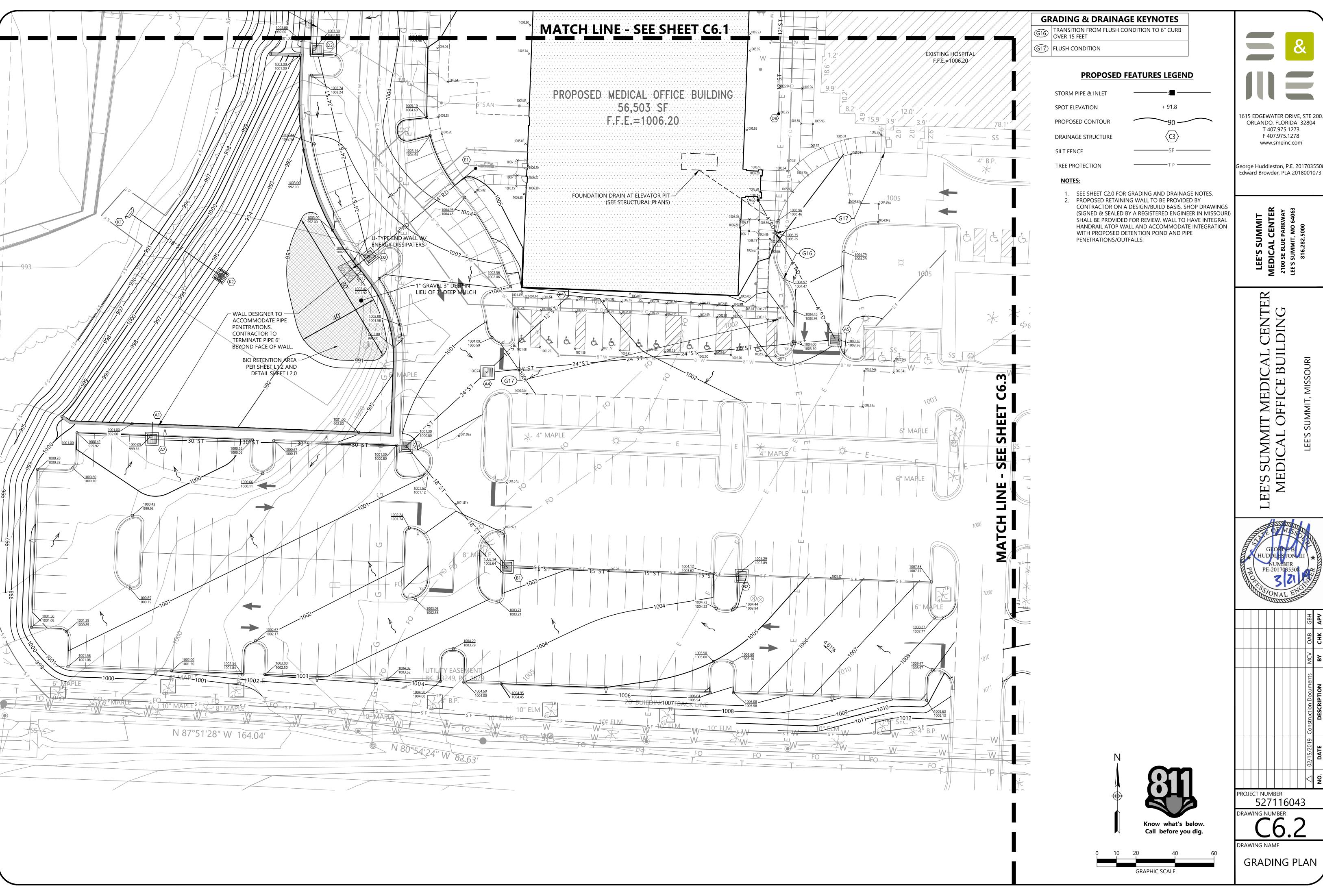
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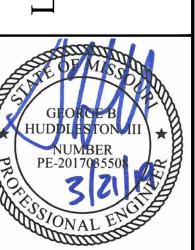
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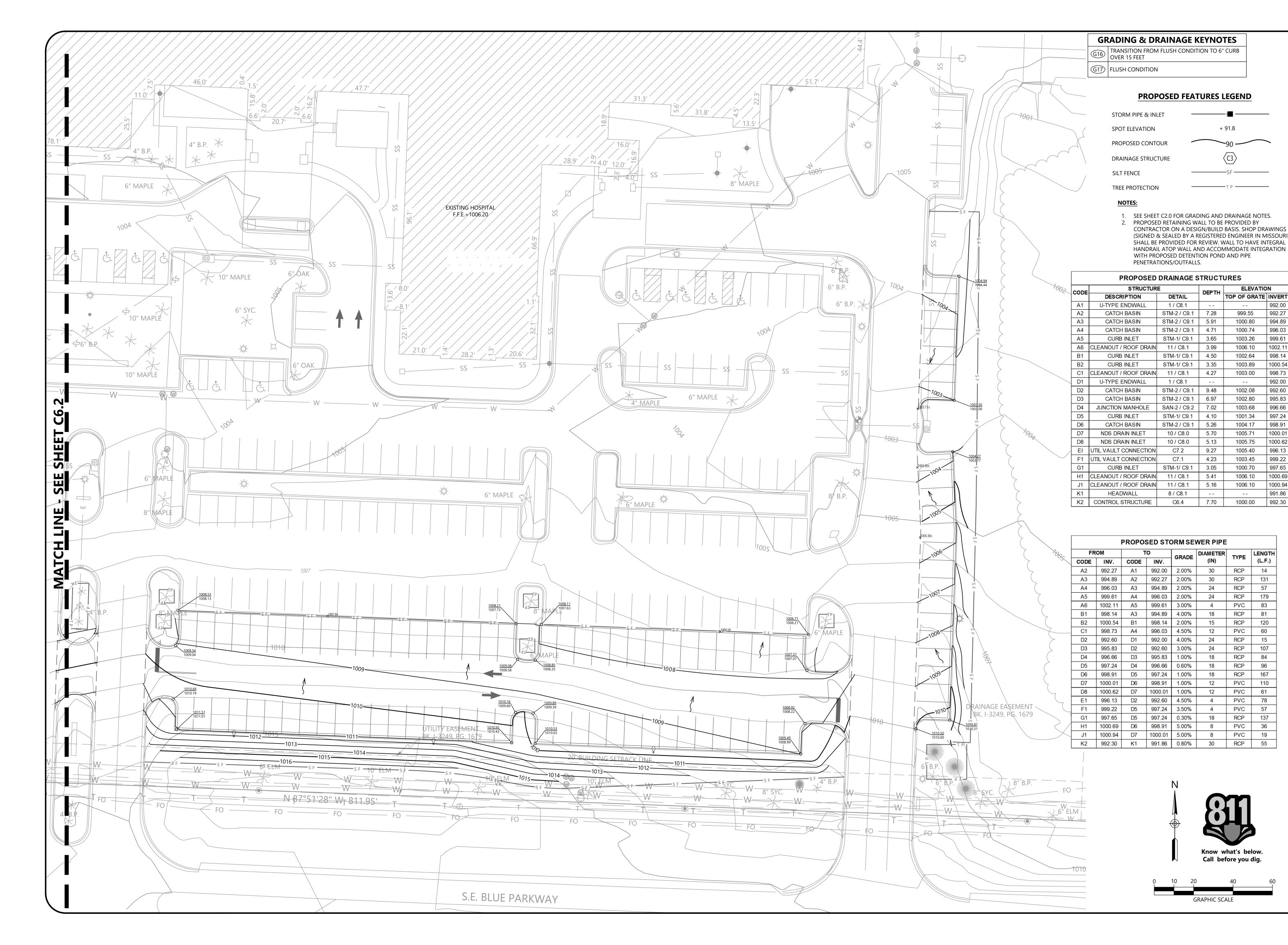
OVERALL GRADING PLAN













eorge Huddleston, P.E. 201703550 Edward Browder, PLA 2018001073

992.00

992.27

994.89

1002.11

998.14

1000.54

998.73

992.00

995.83

996.66

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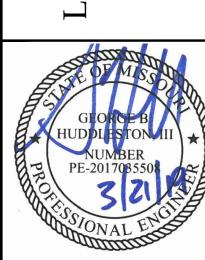
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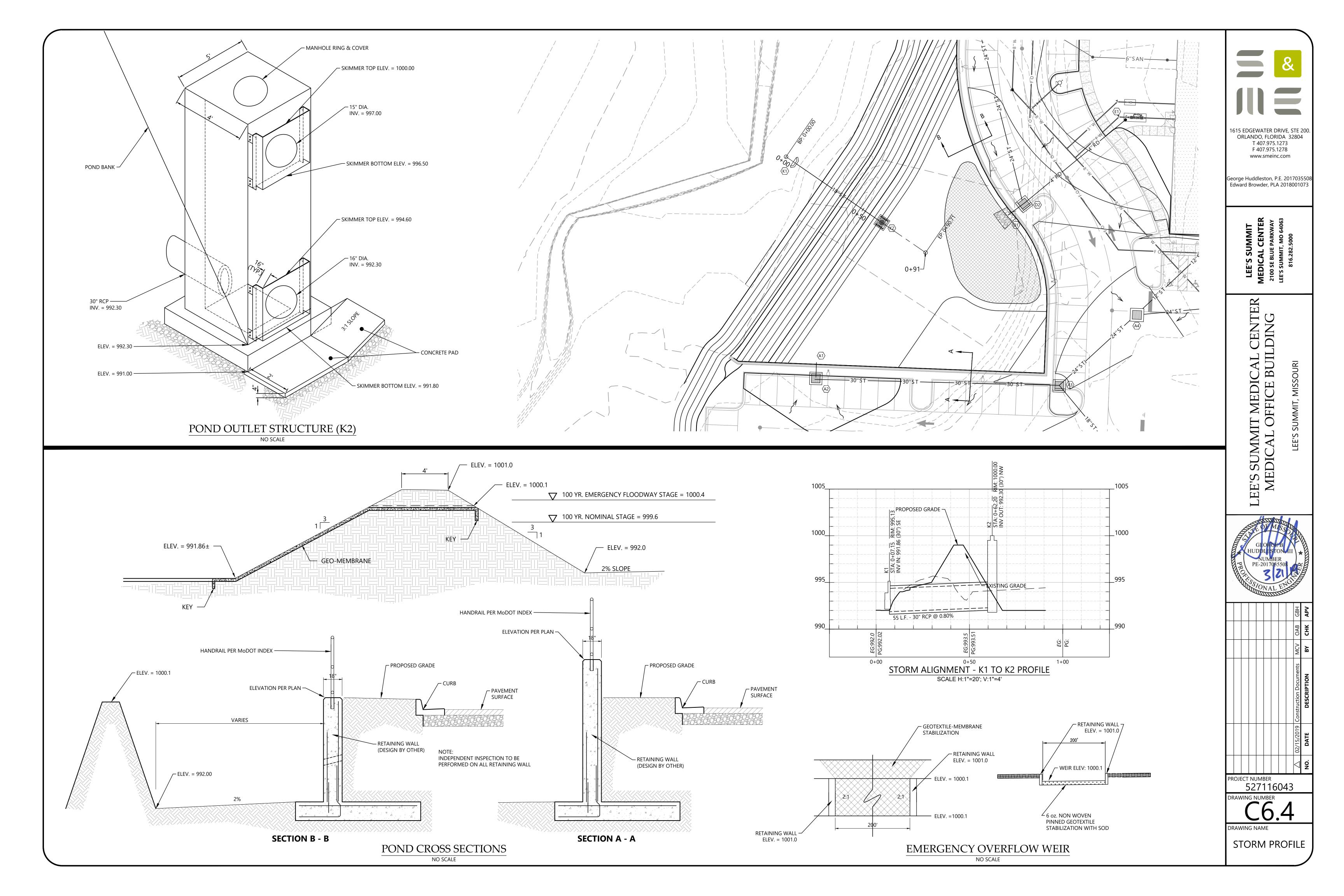


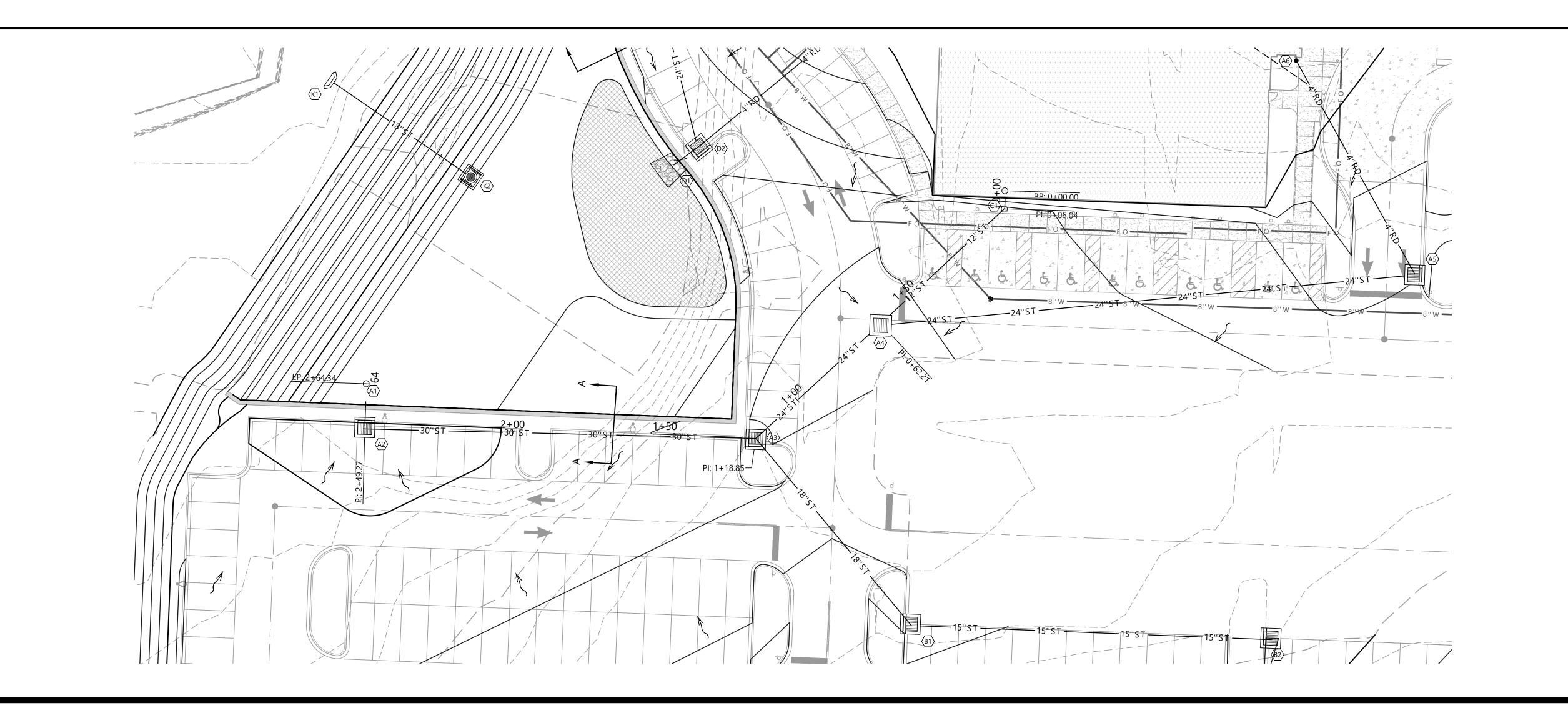
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**GRADING PLAN** 







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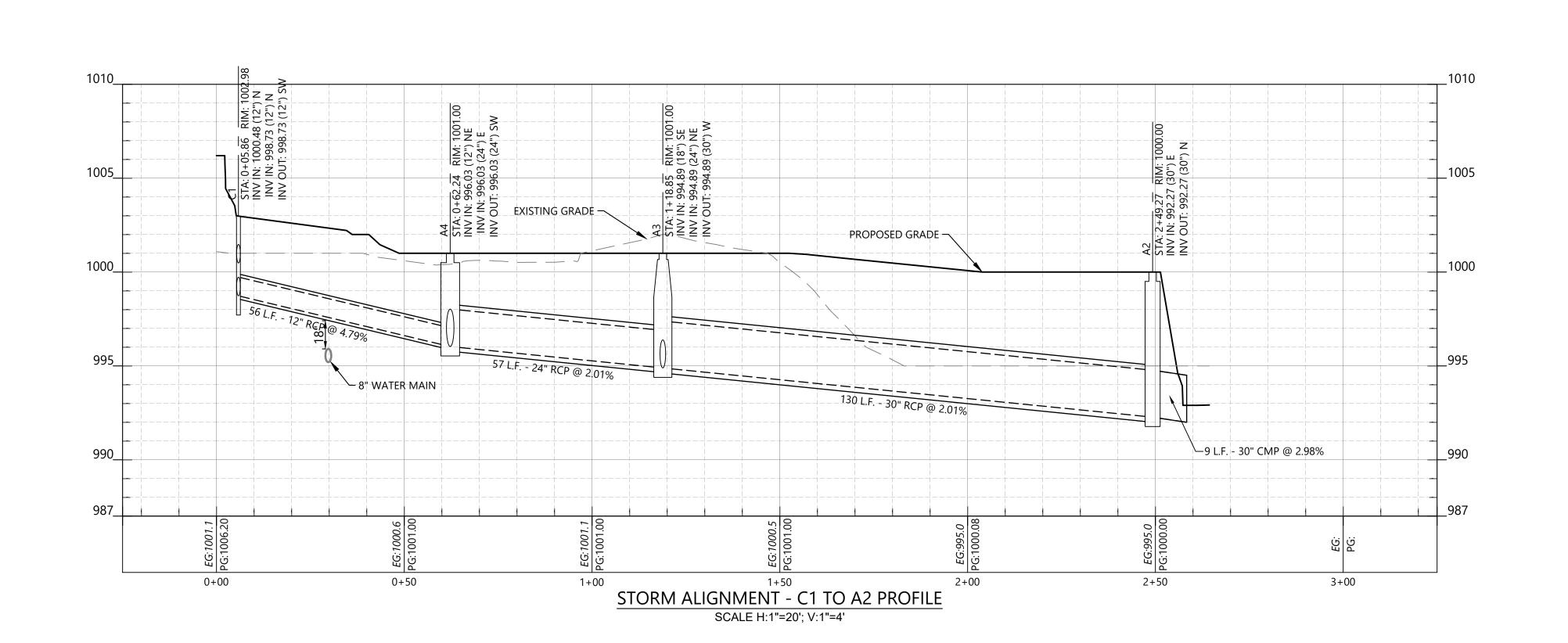
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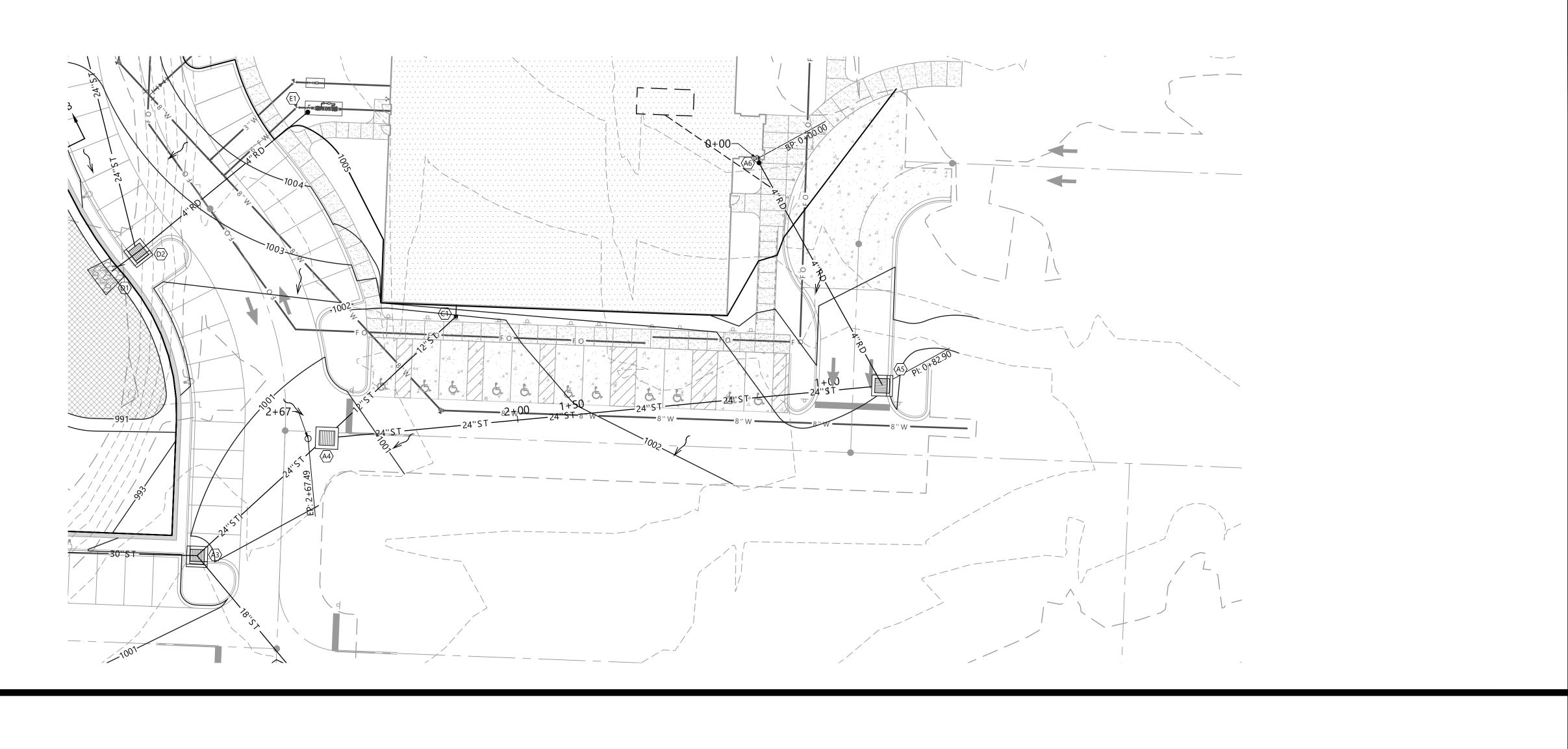
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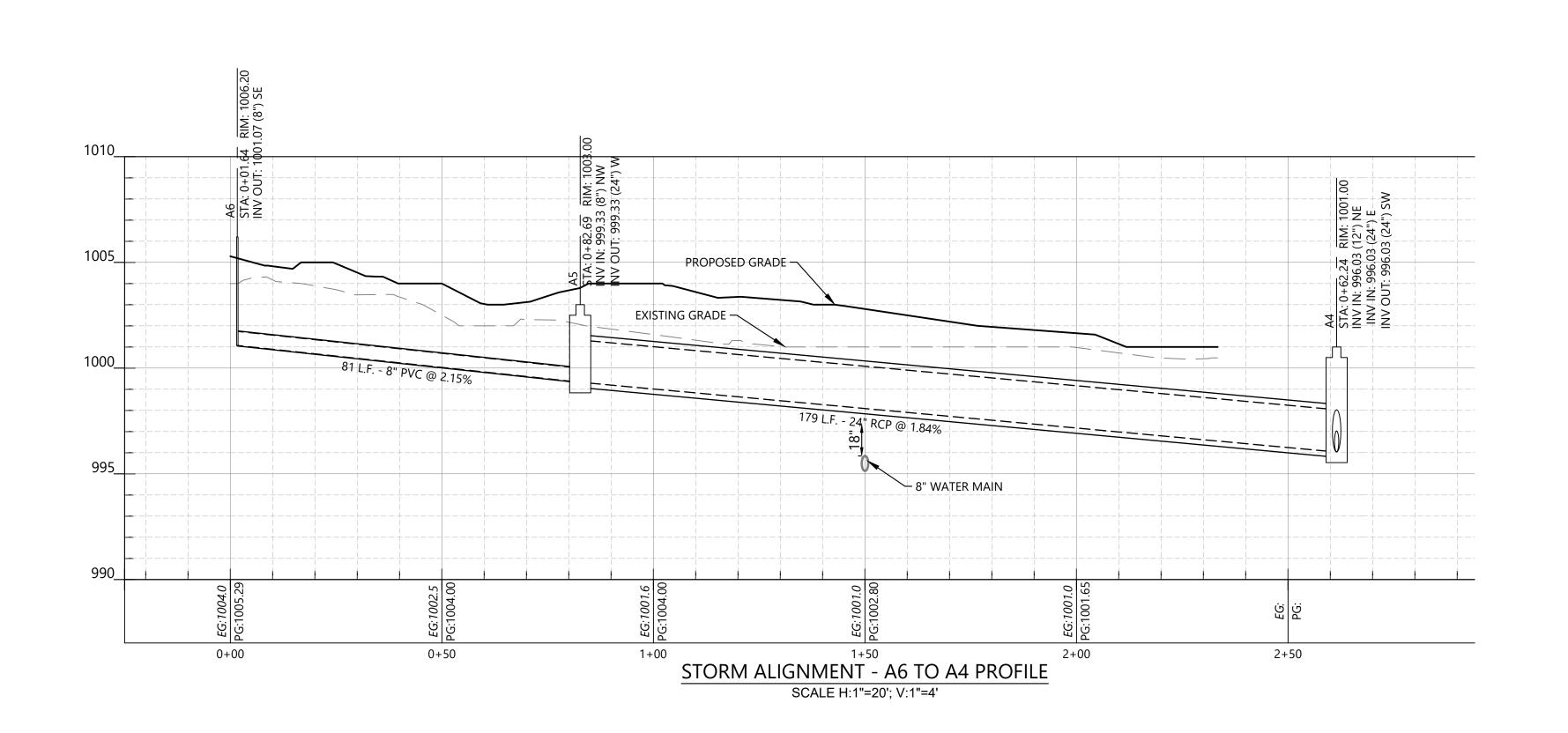
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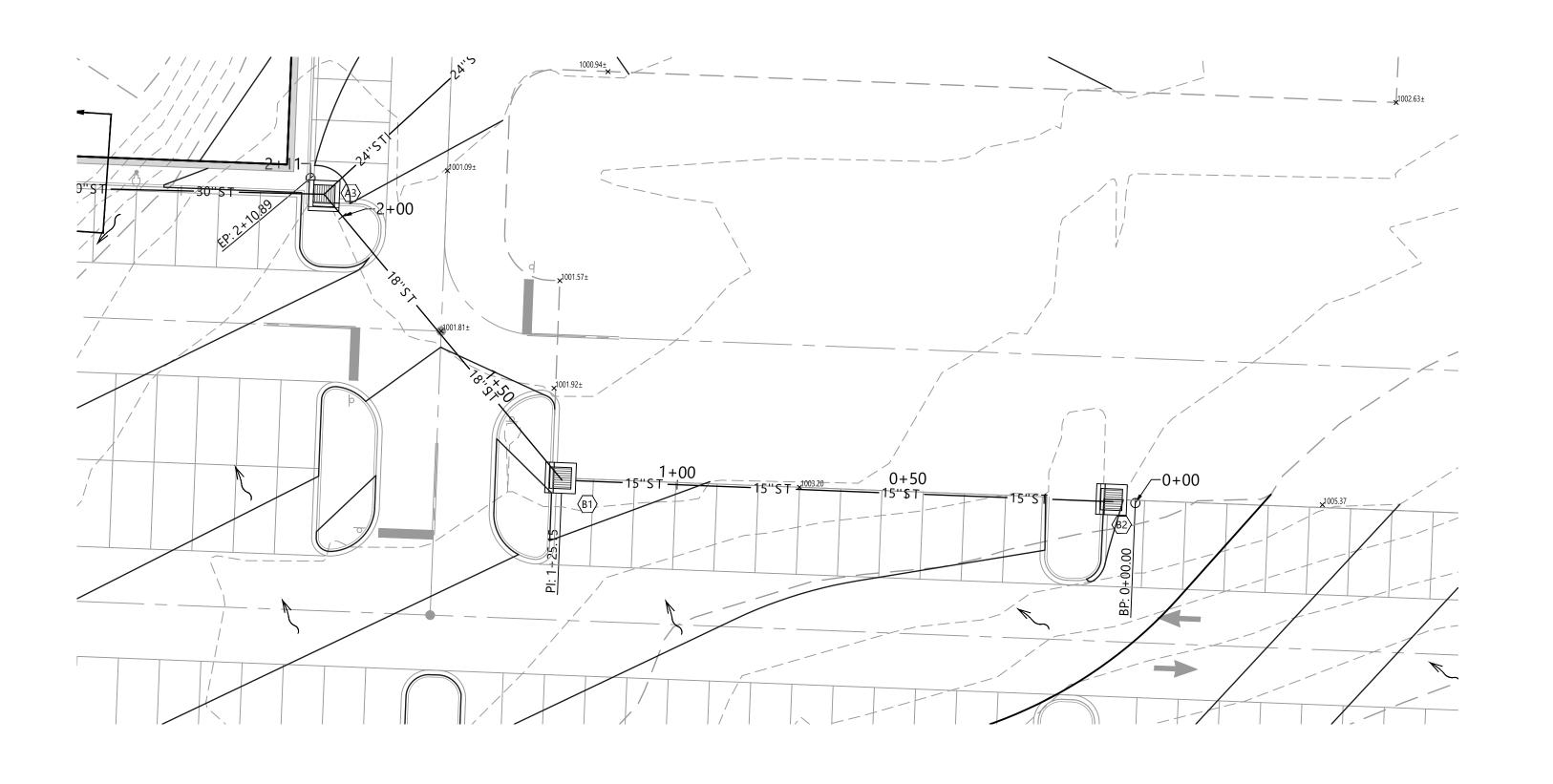
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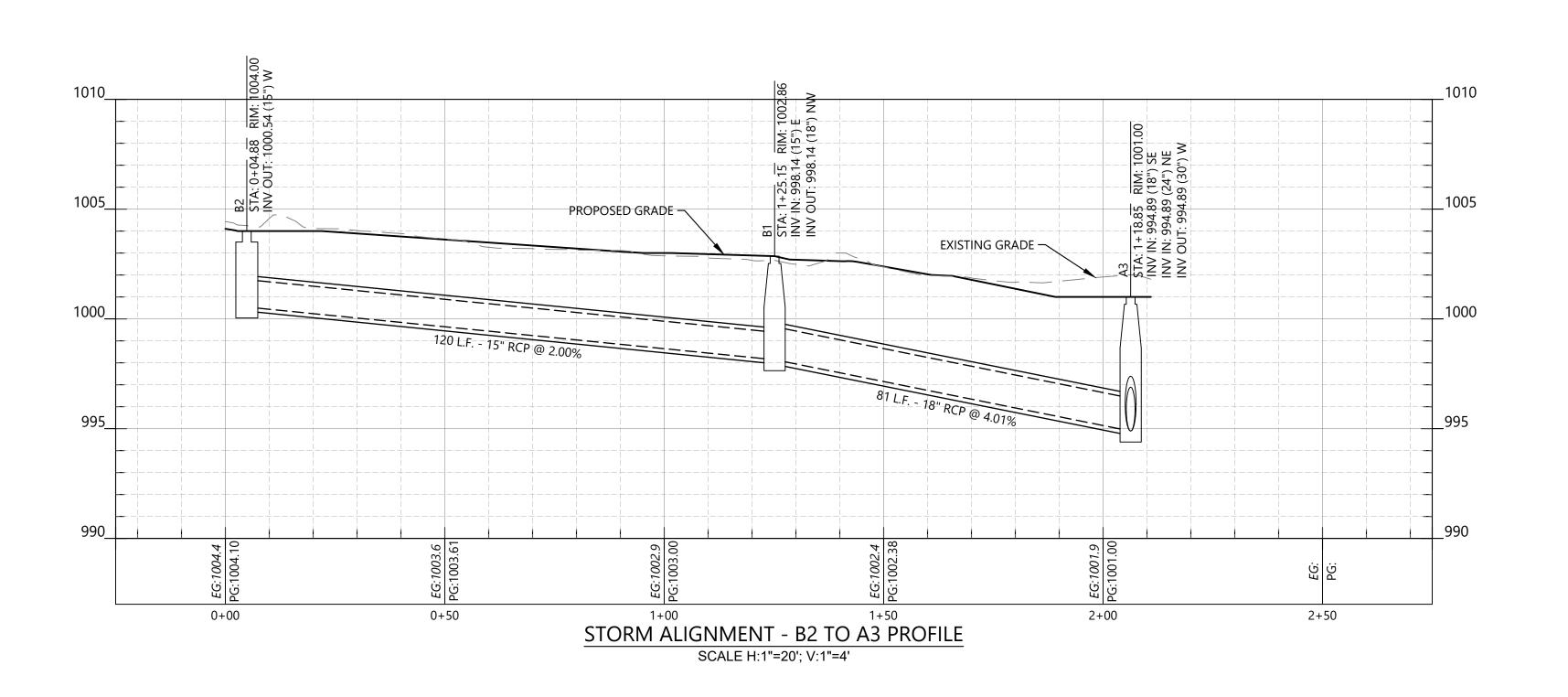
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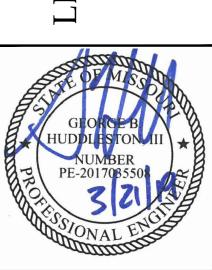
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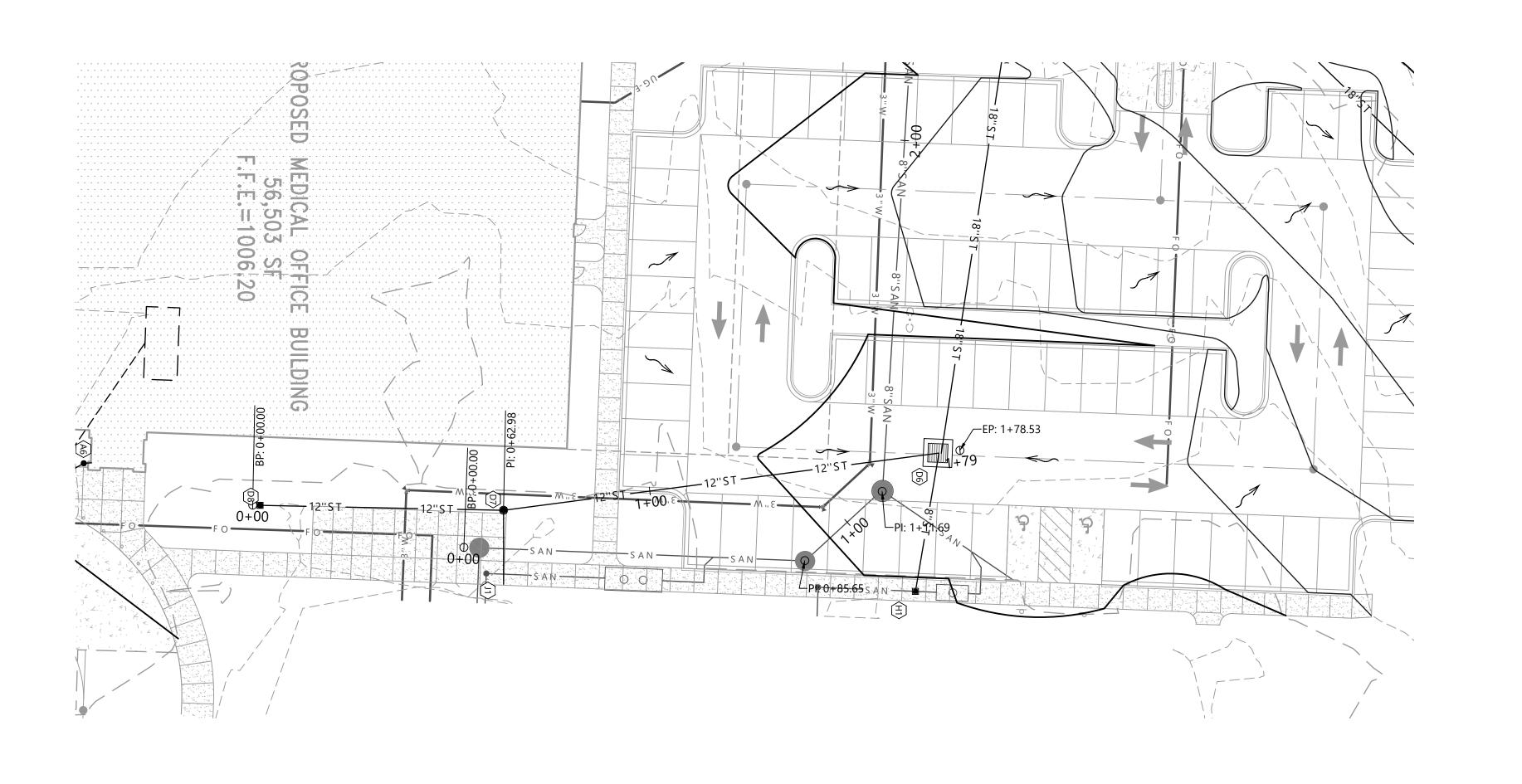
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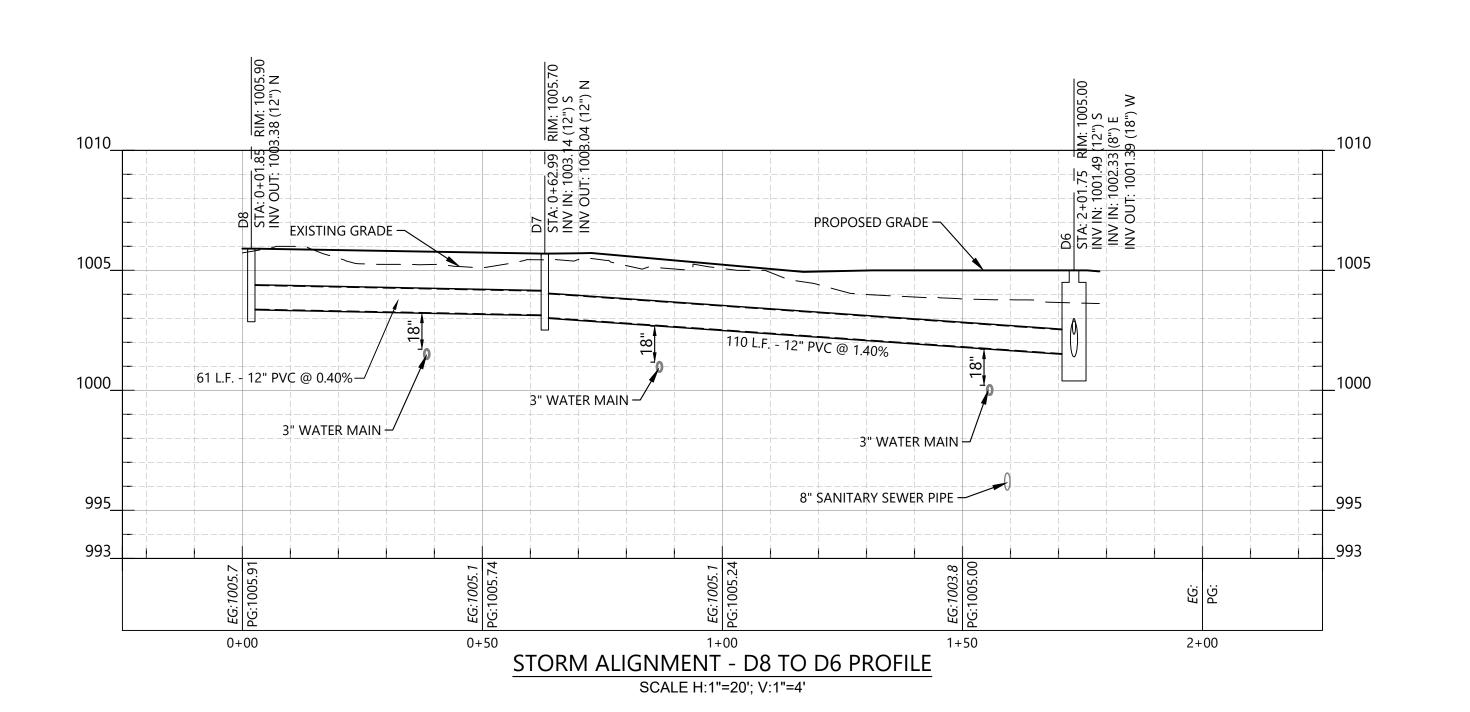


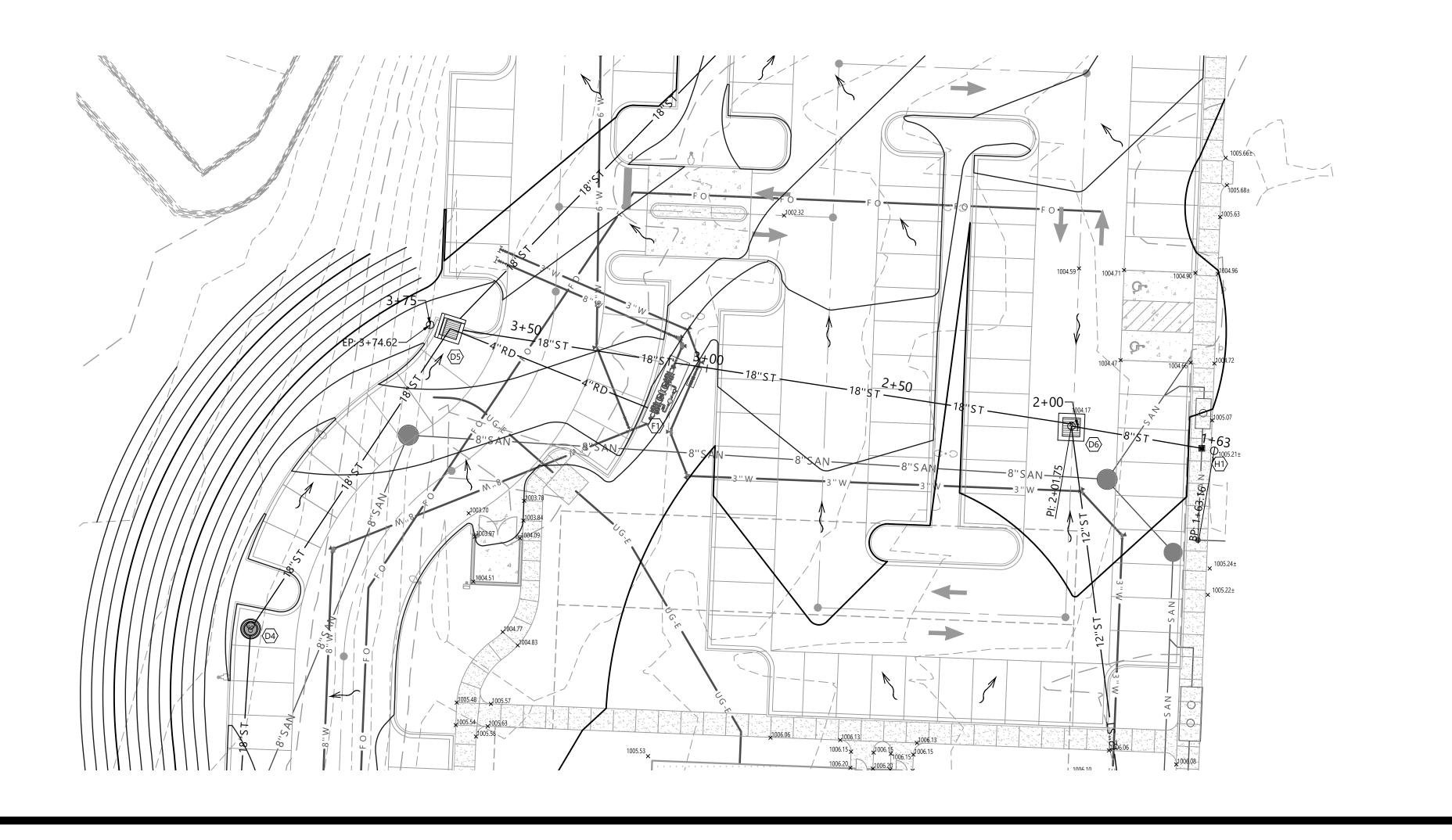
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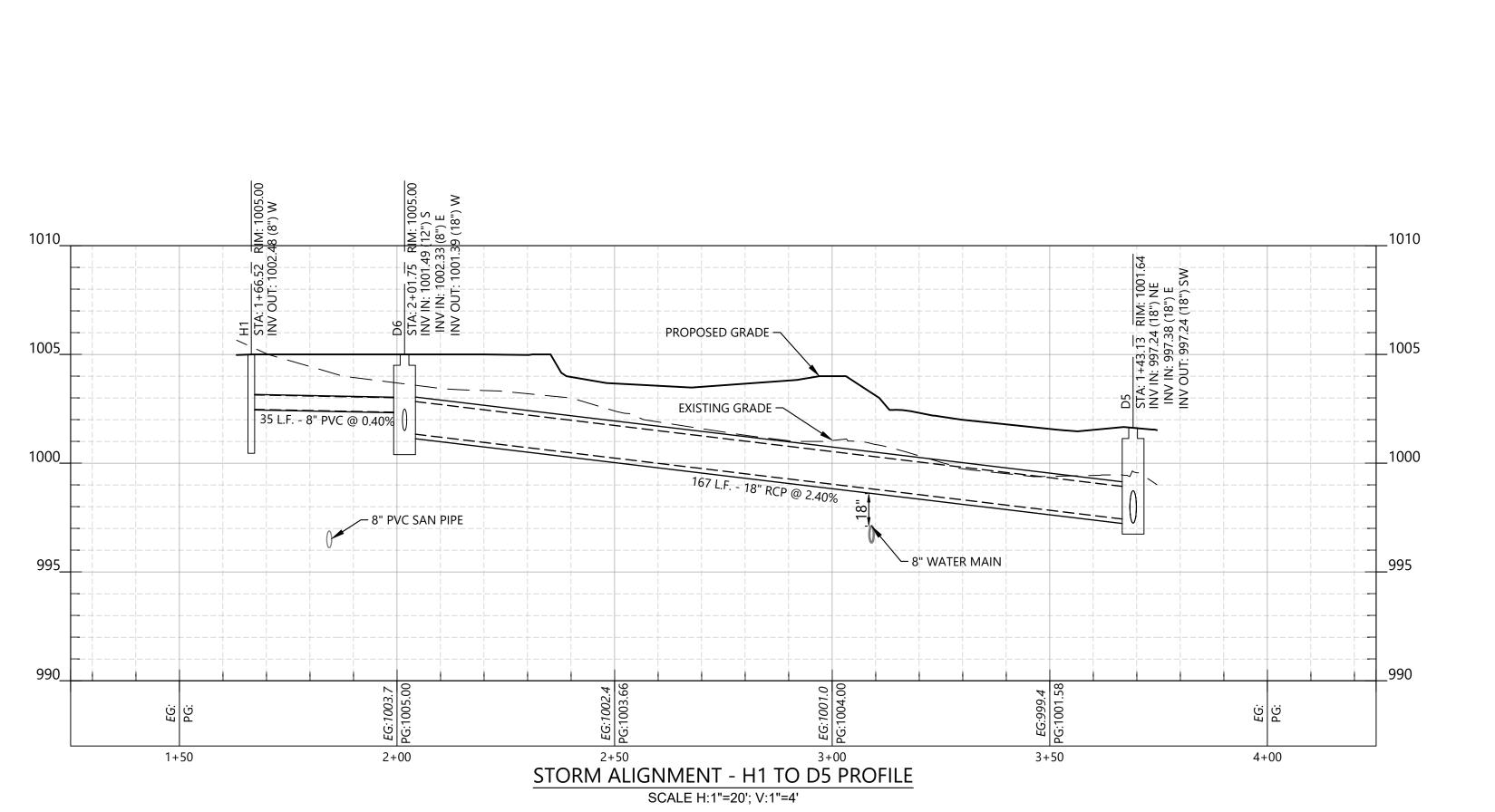
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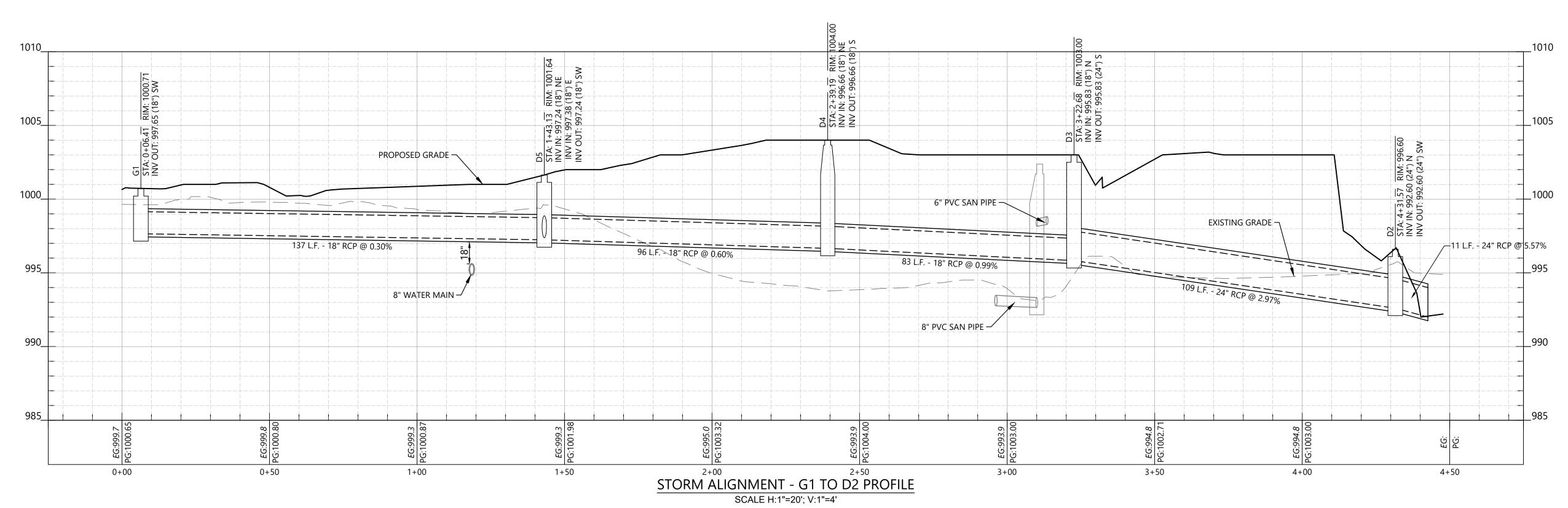


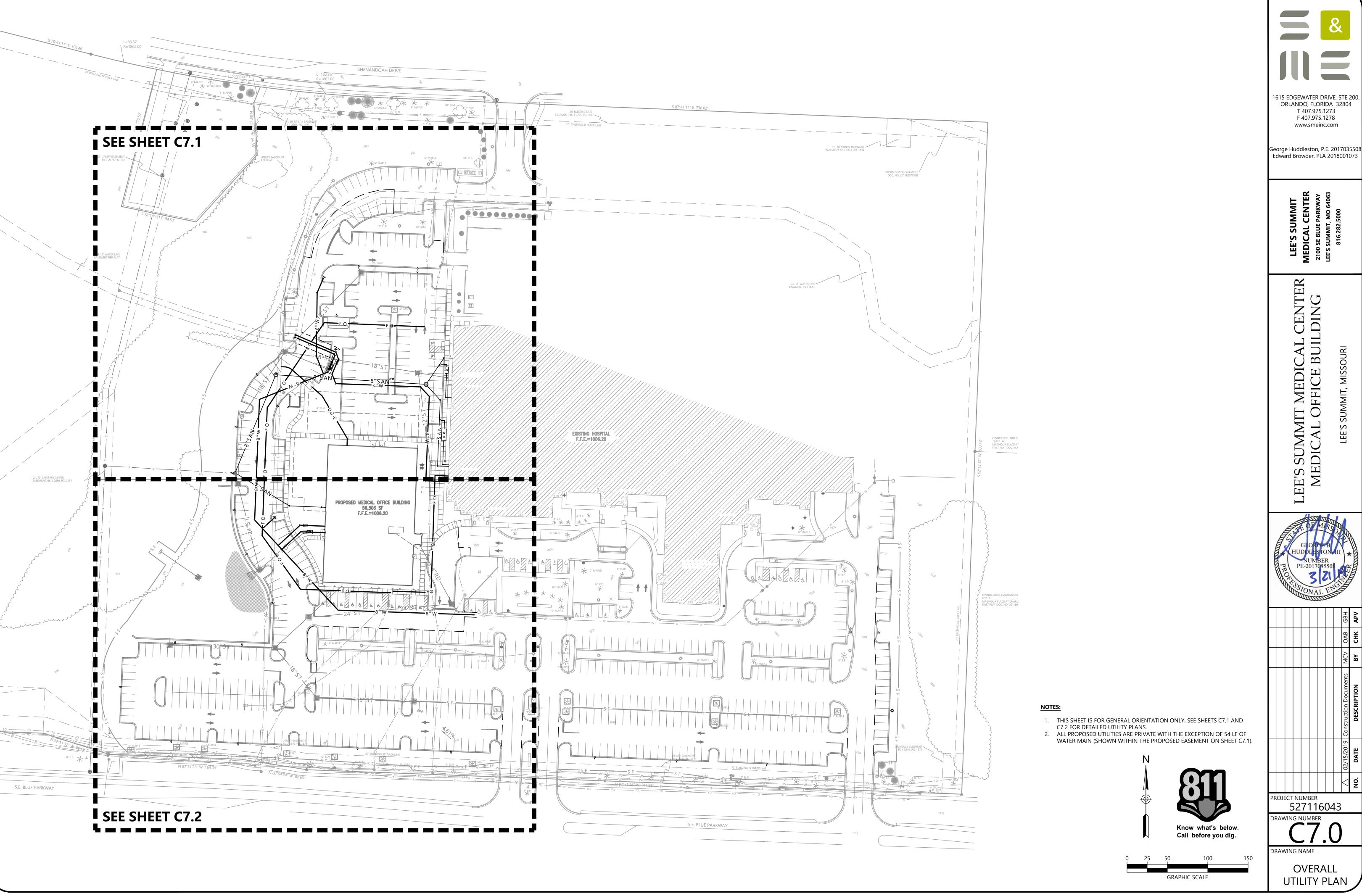
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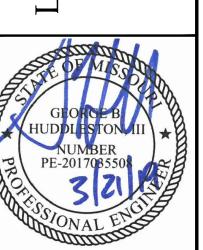
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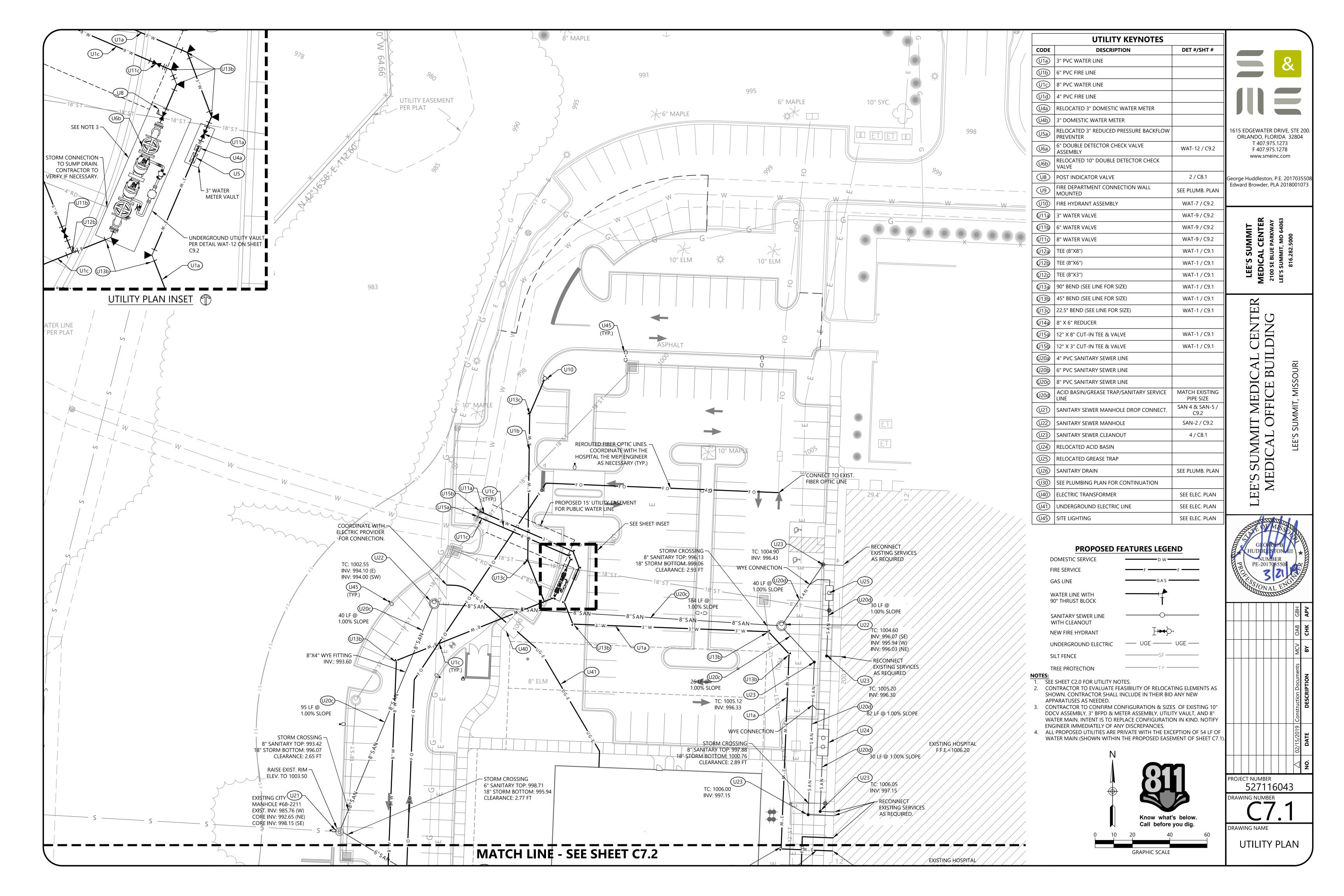


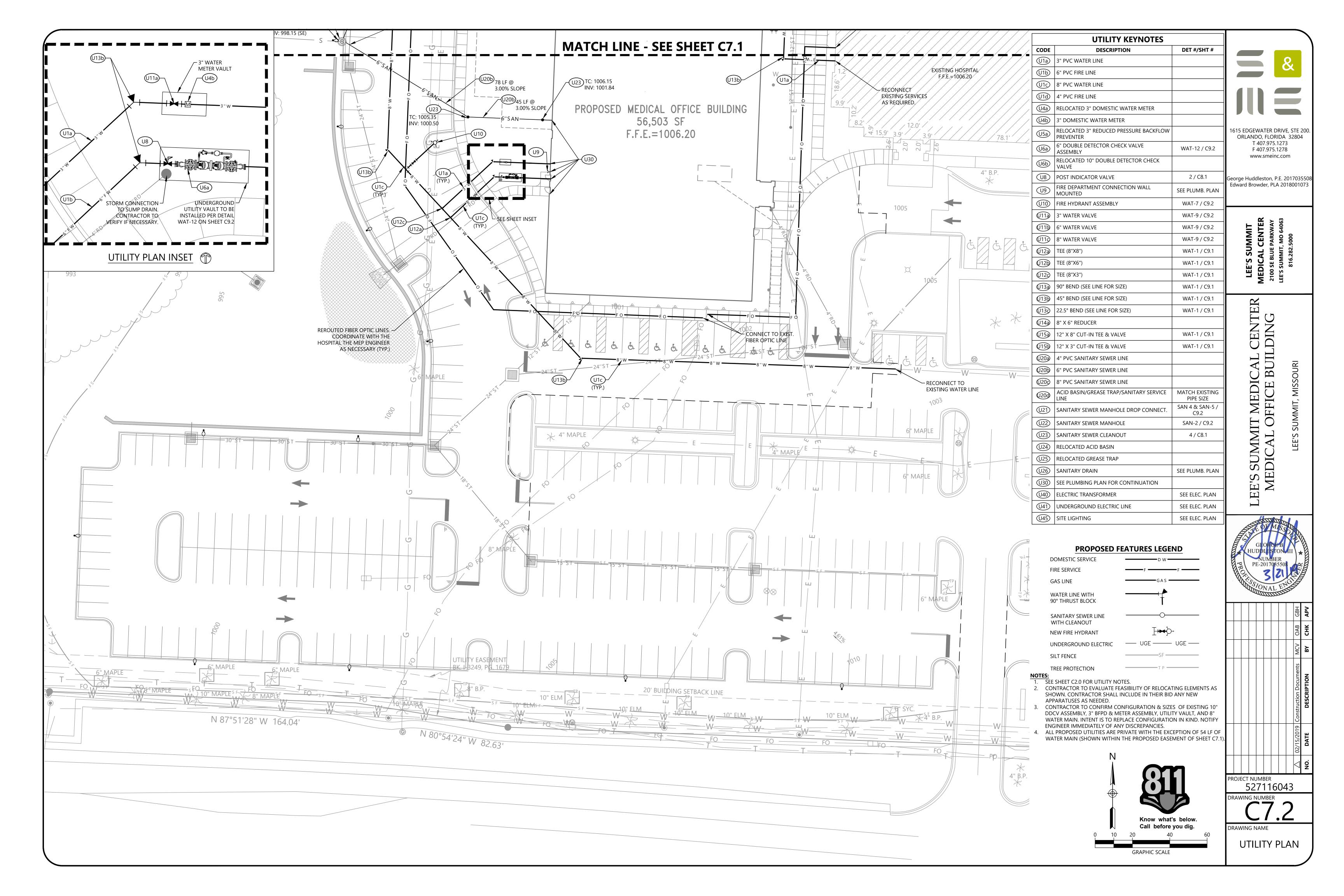


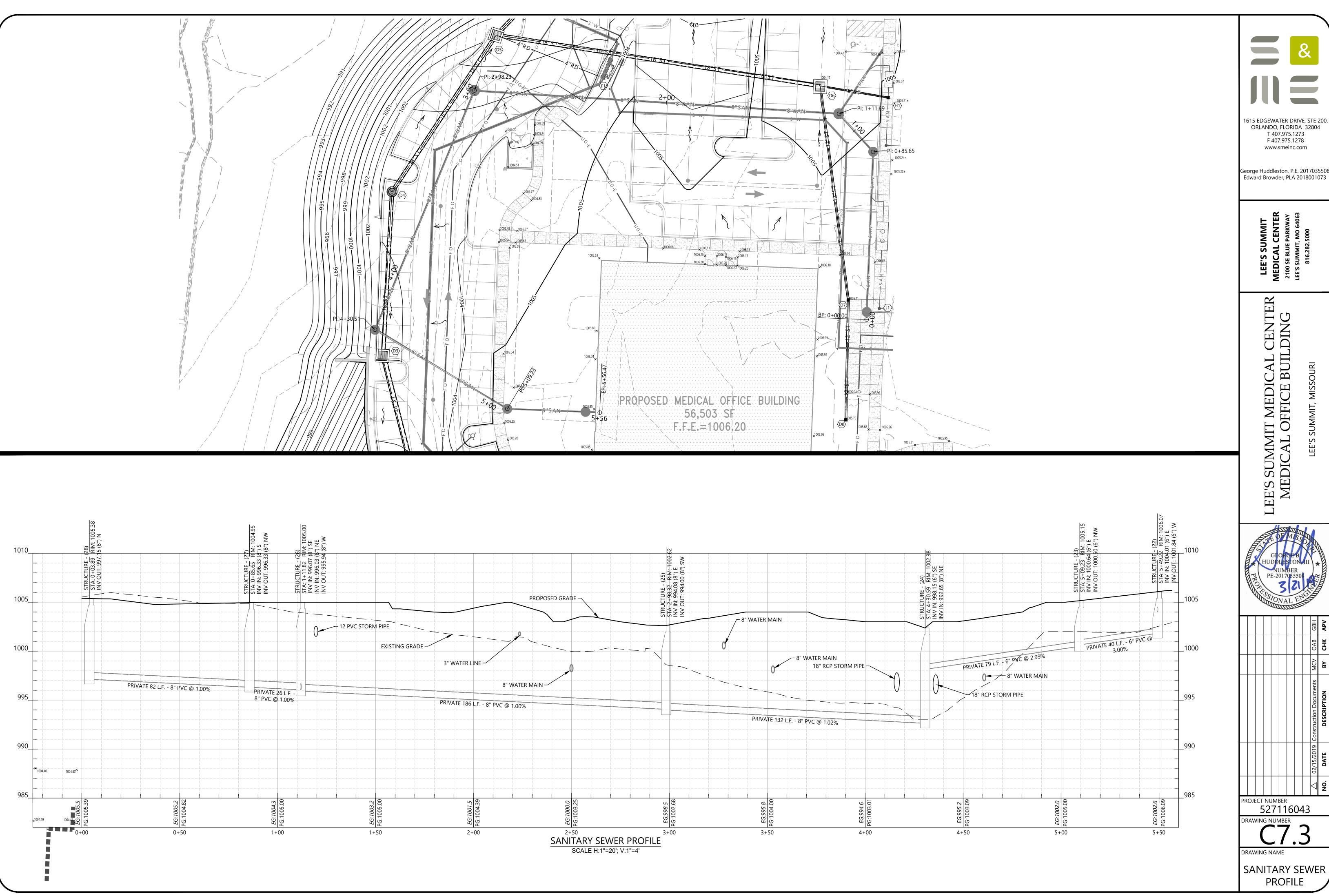




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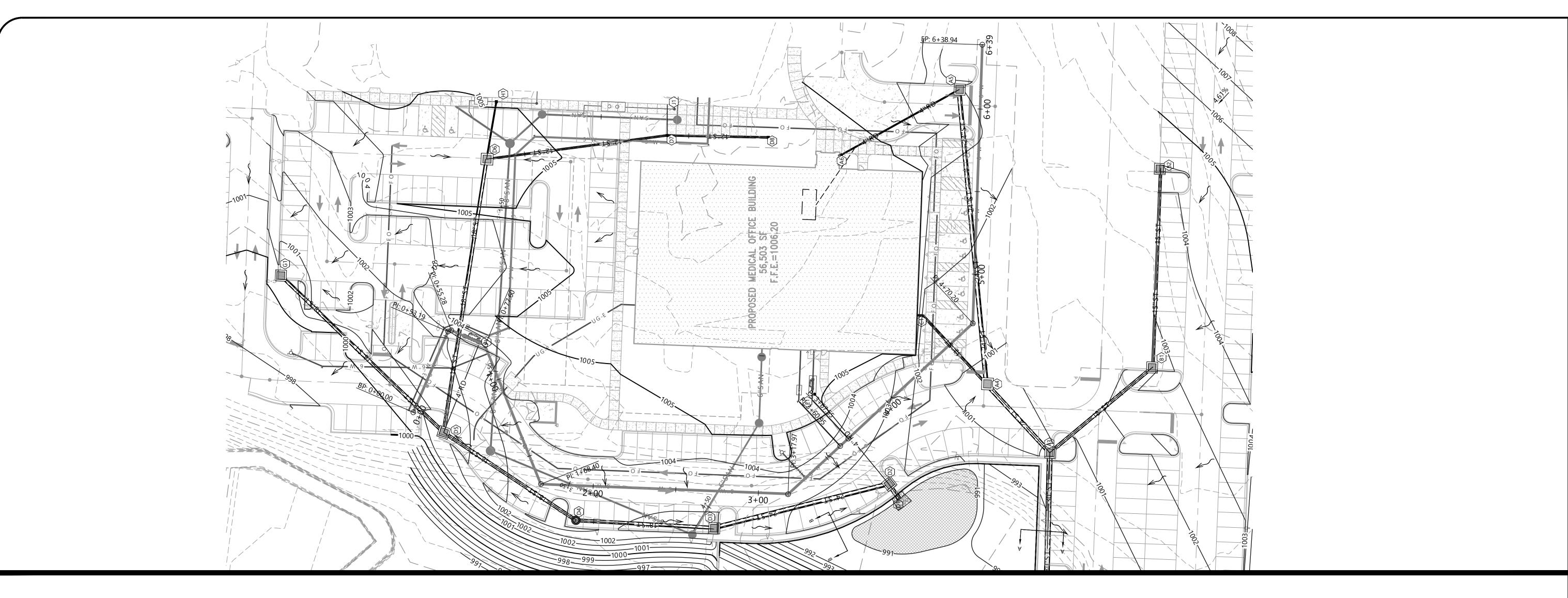






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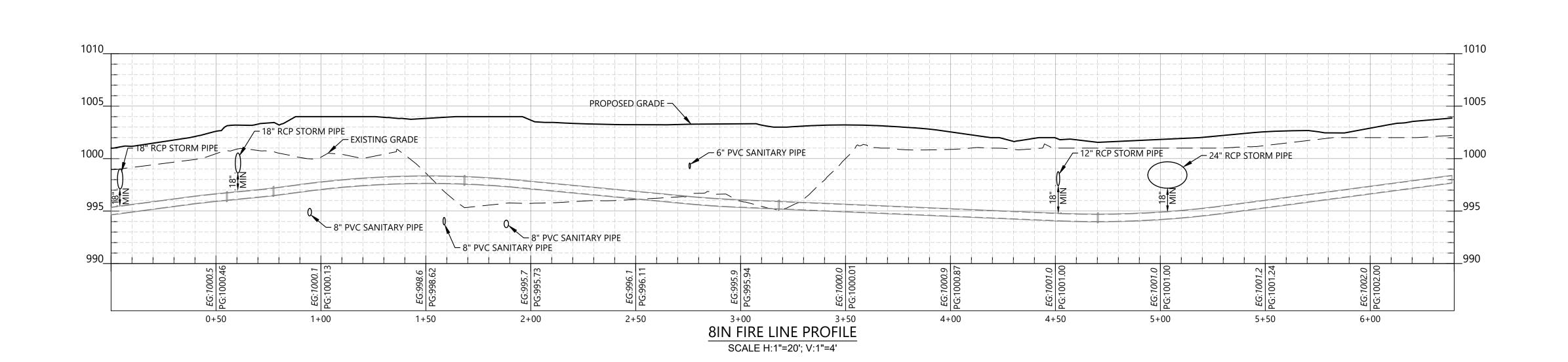
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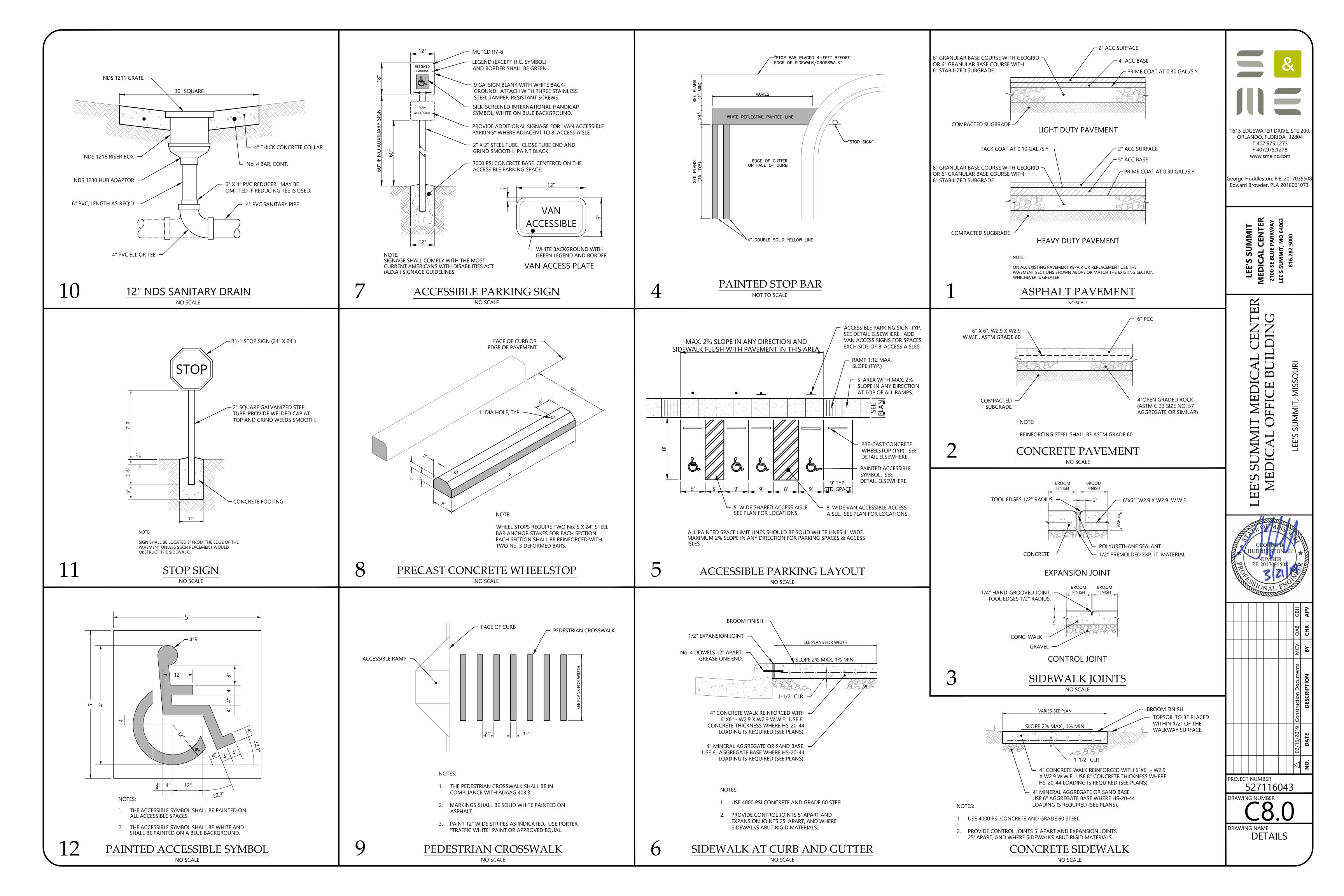
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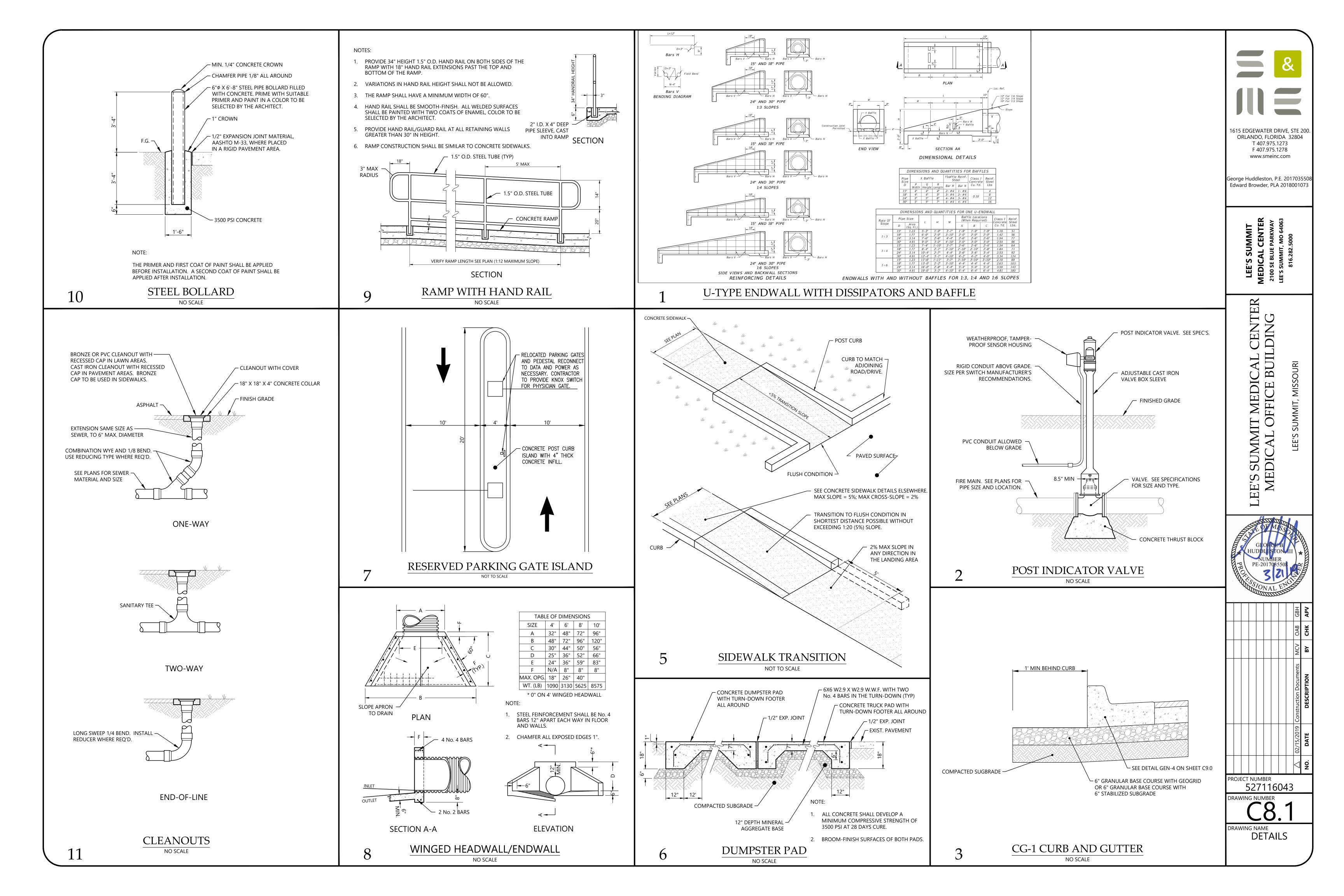
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FIRE LINE PROFILE





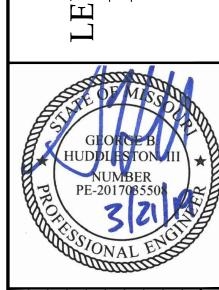


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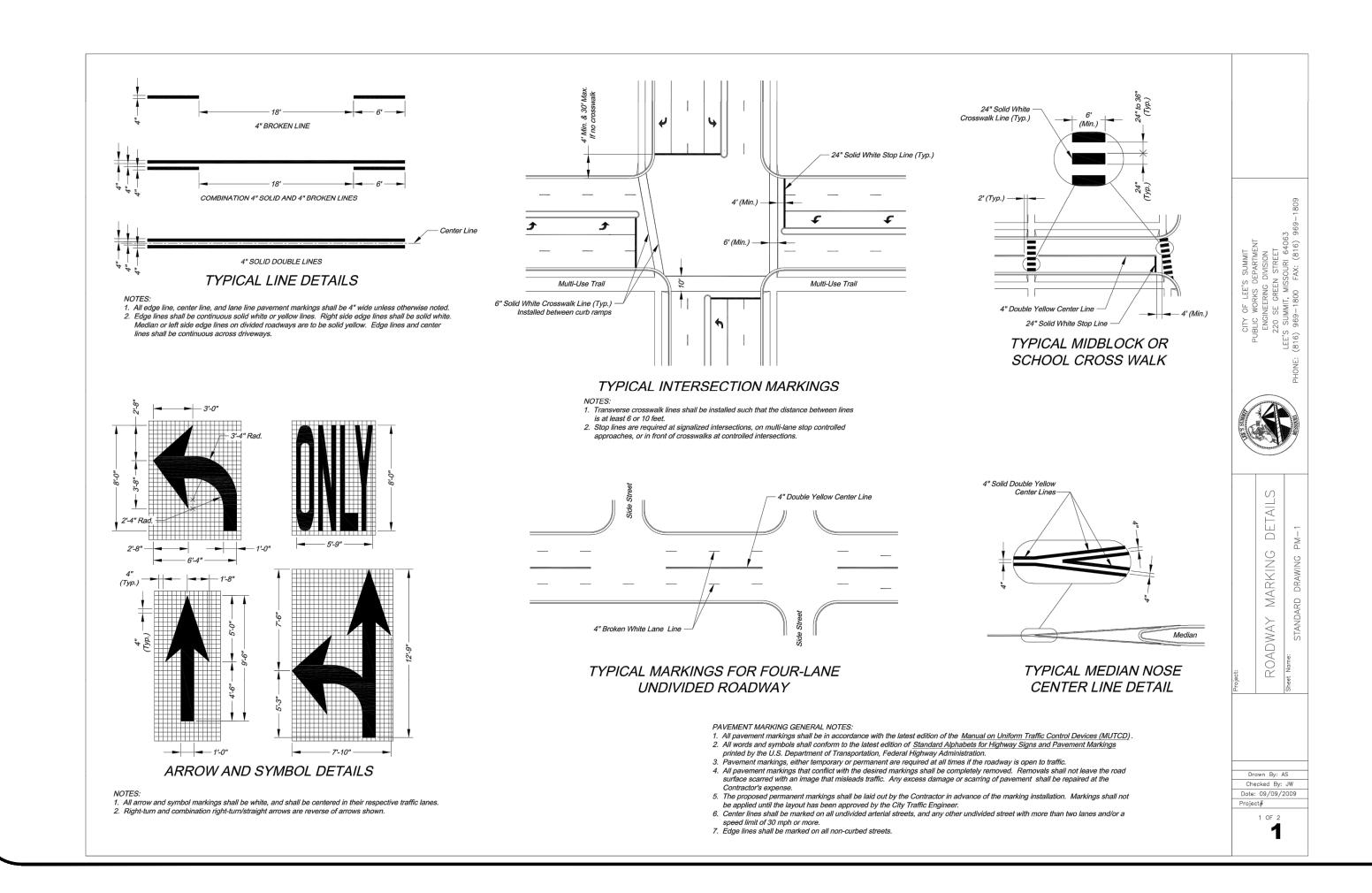
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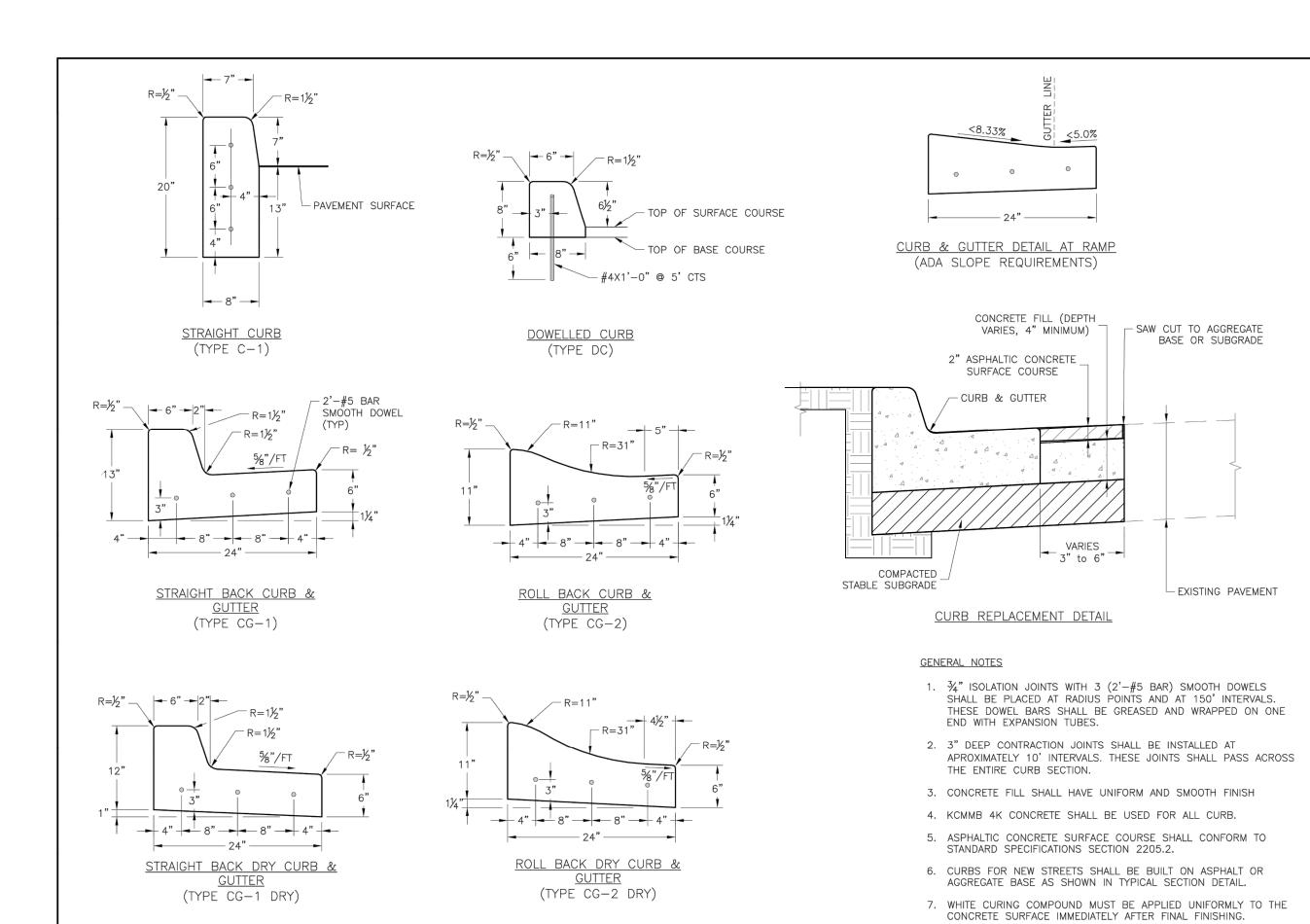
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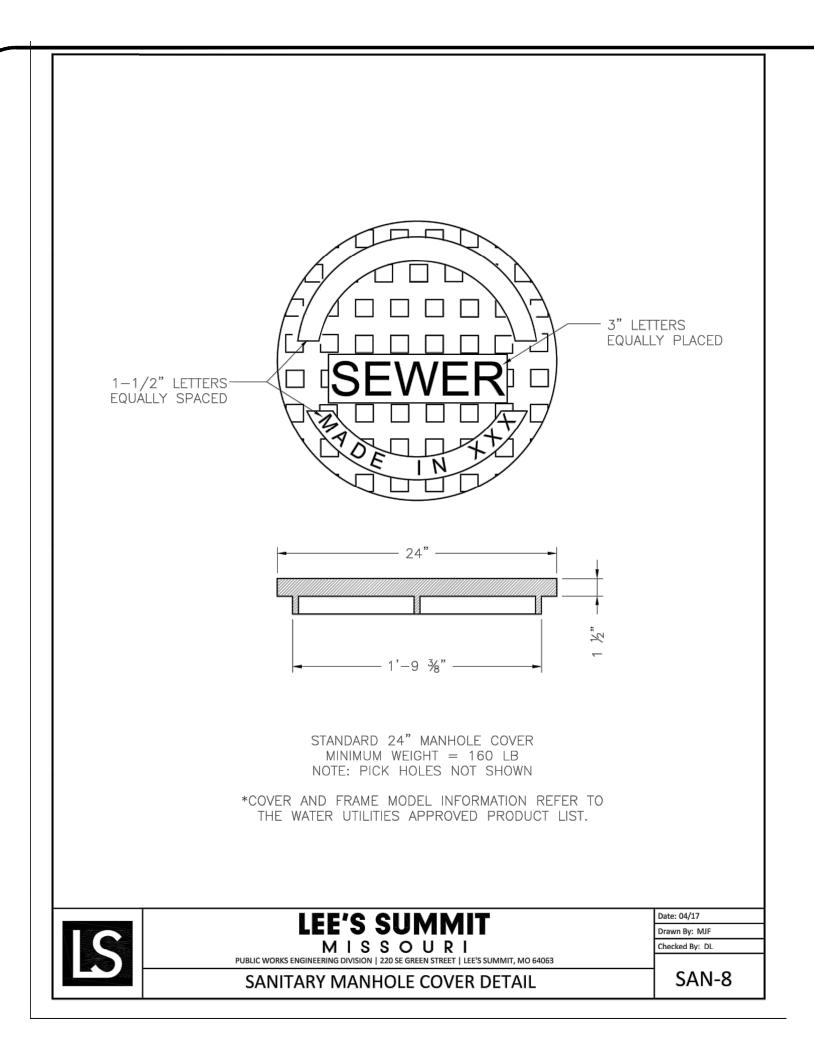
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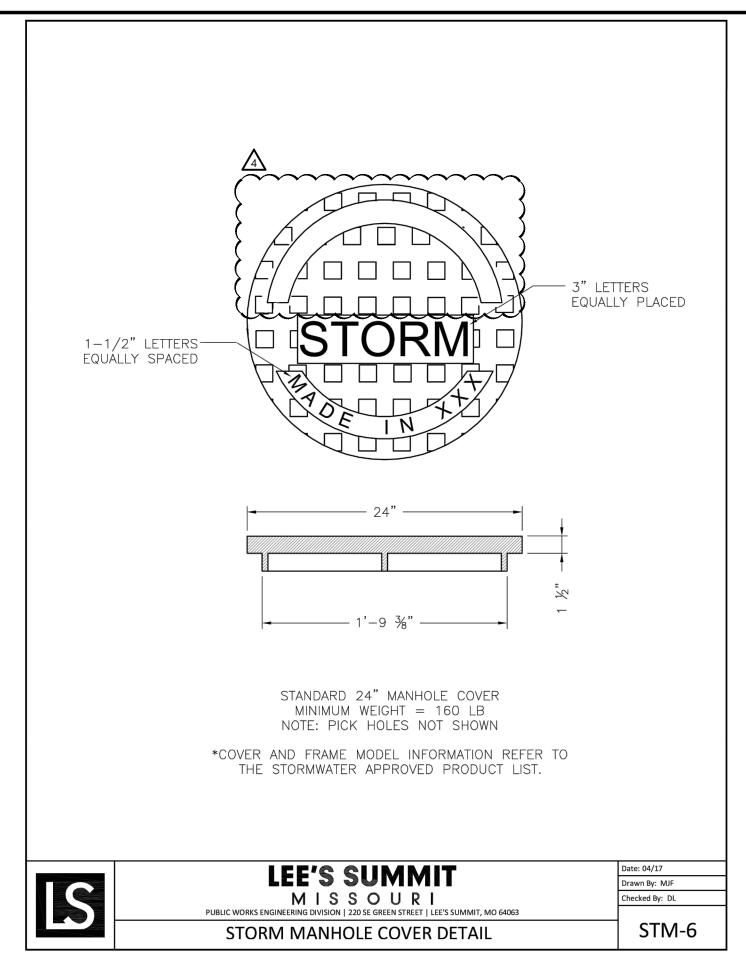
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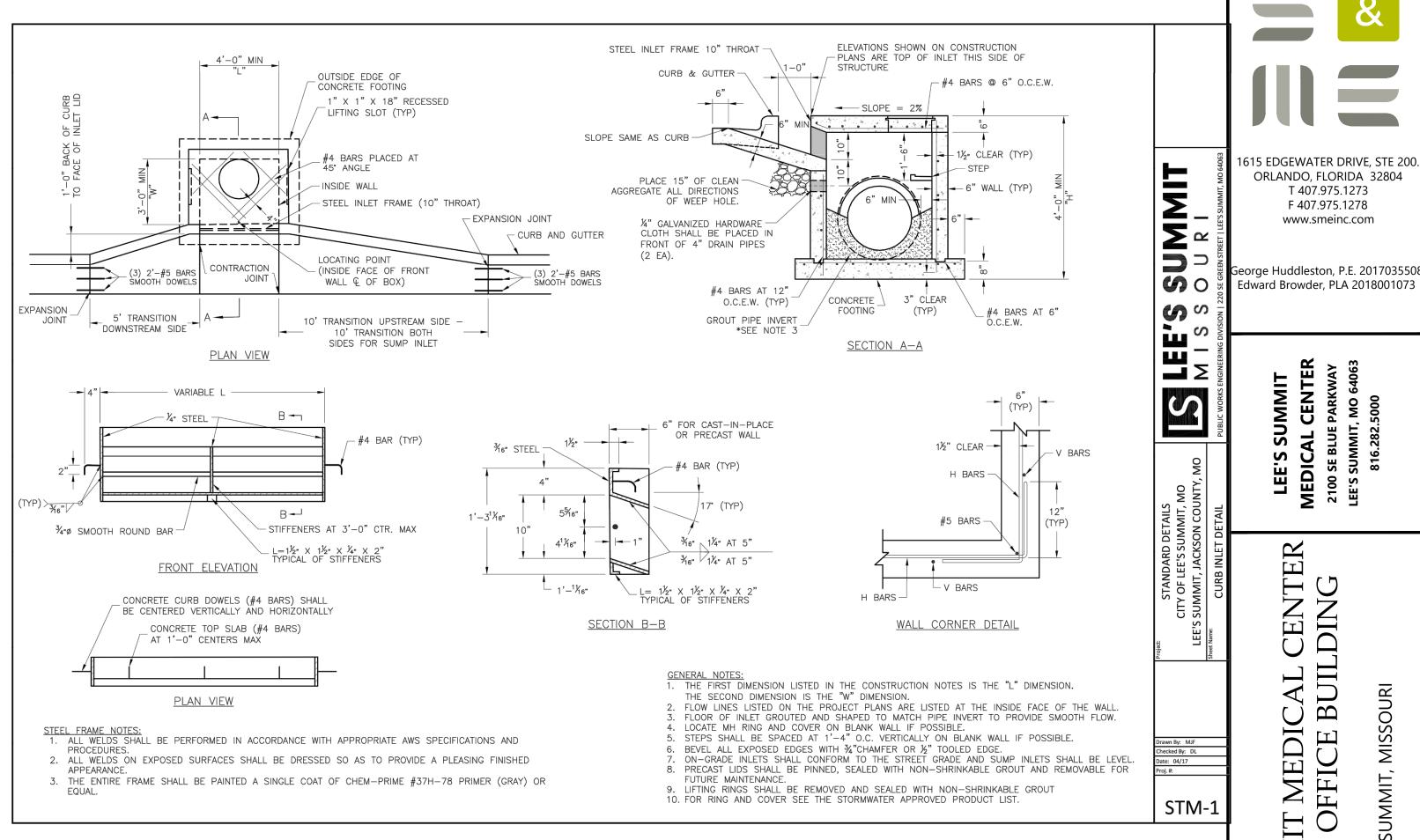
CITY DETAILS

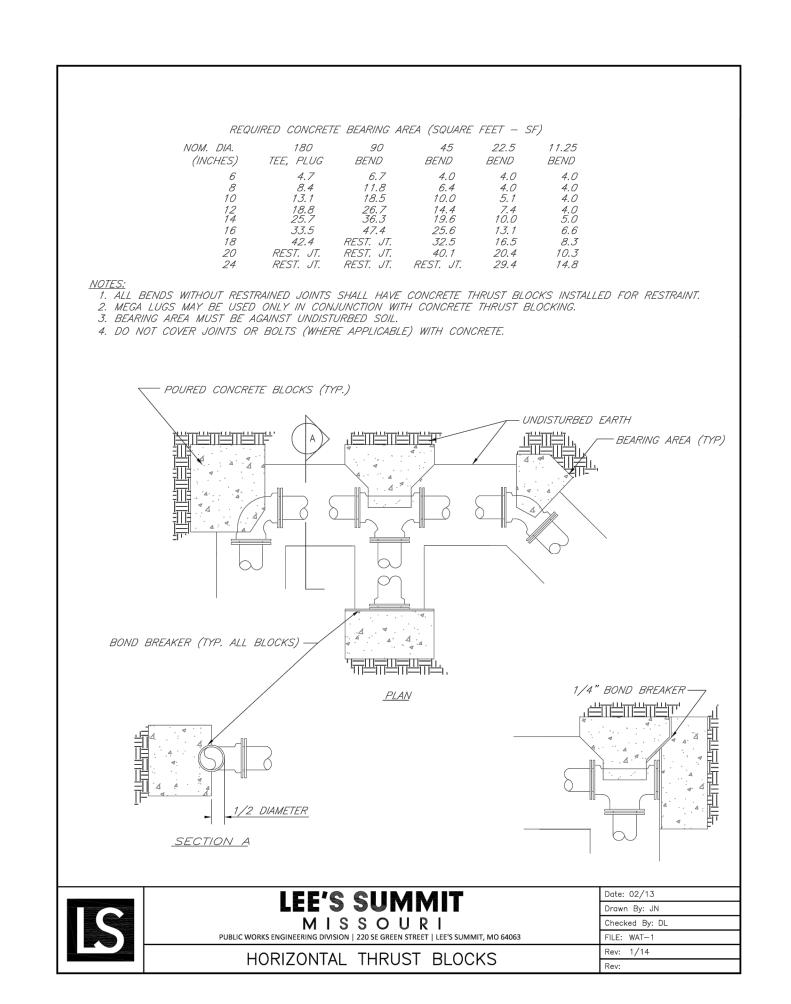


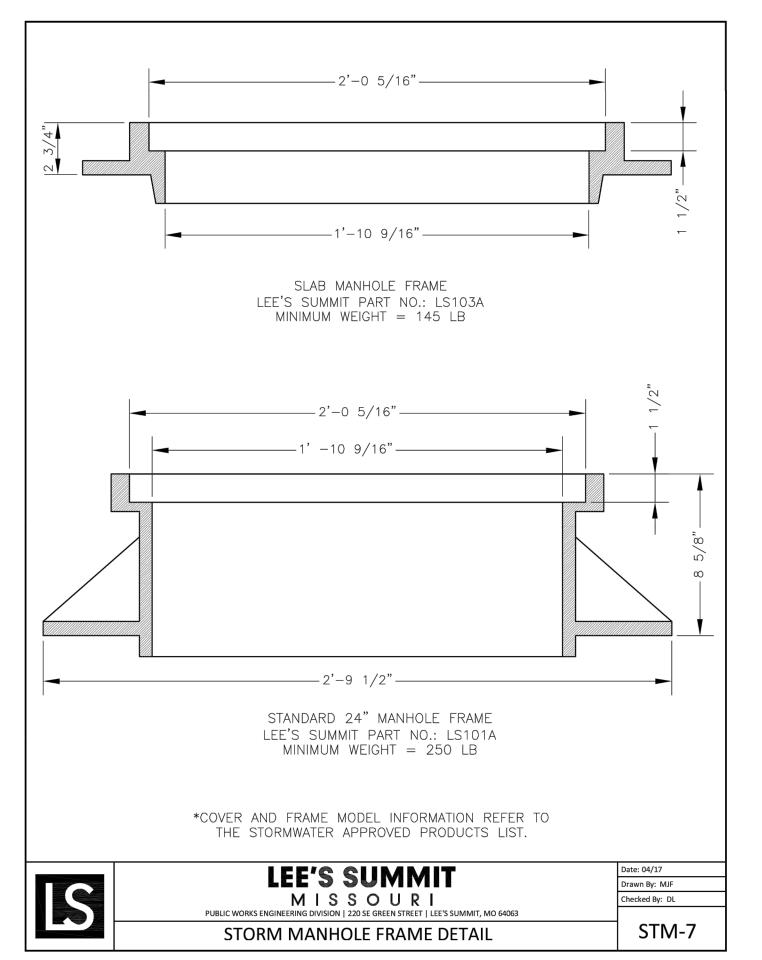


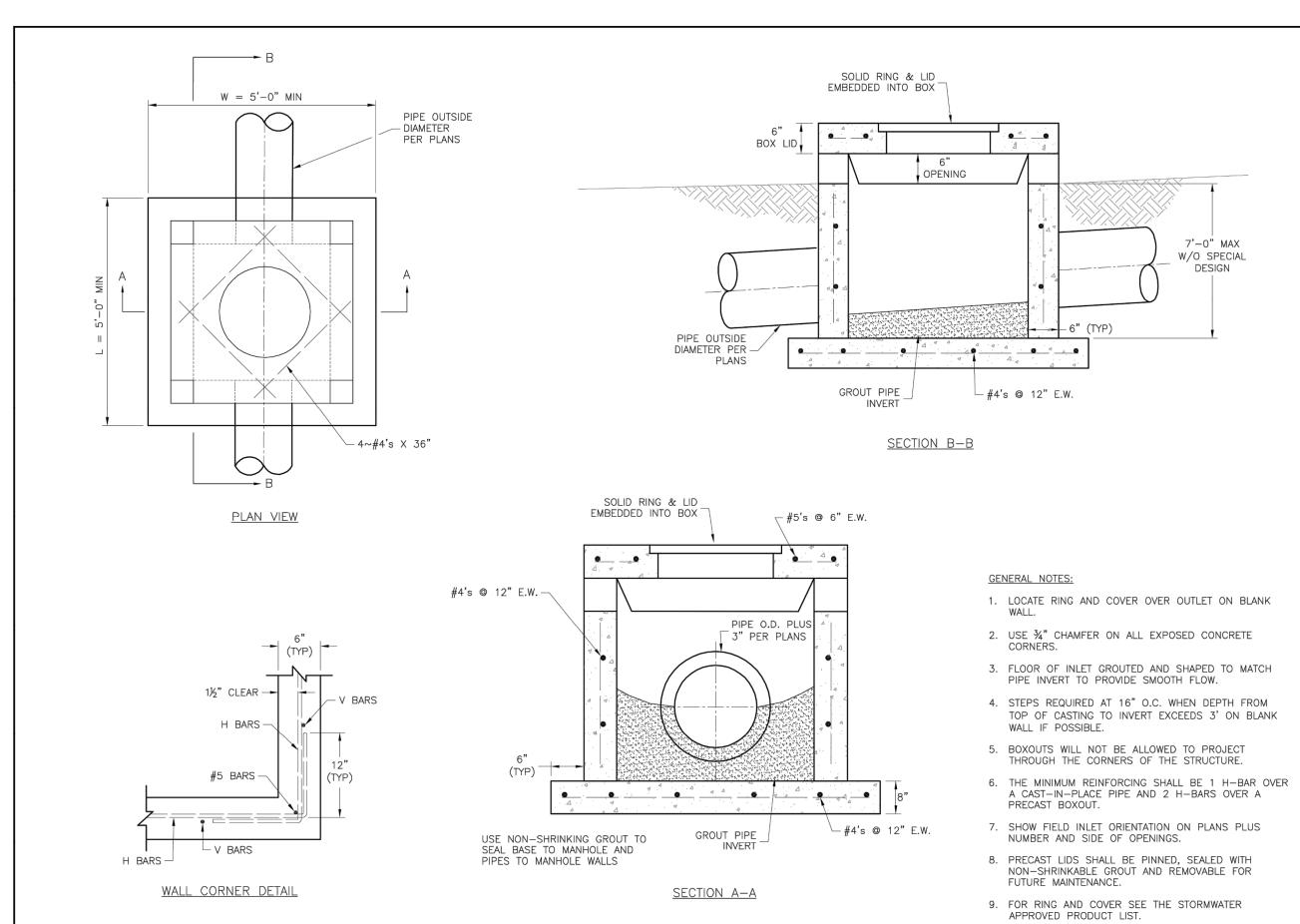


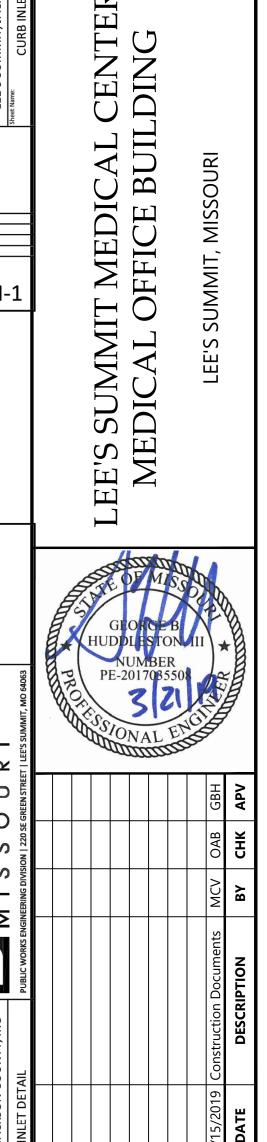












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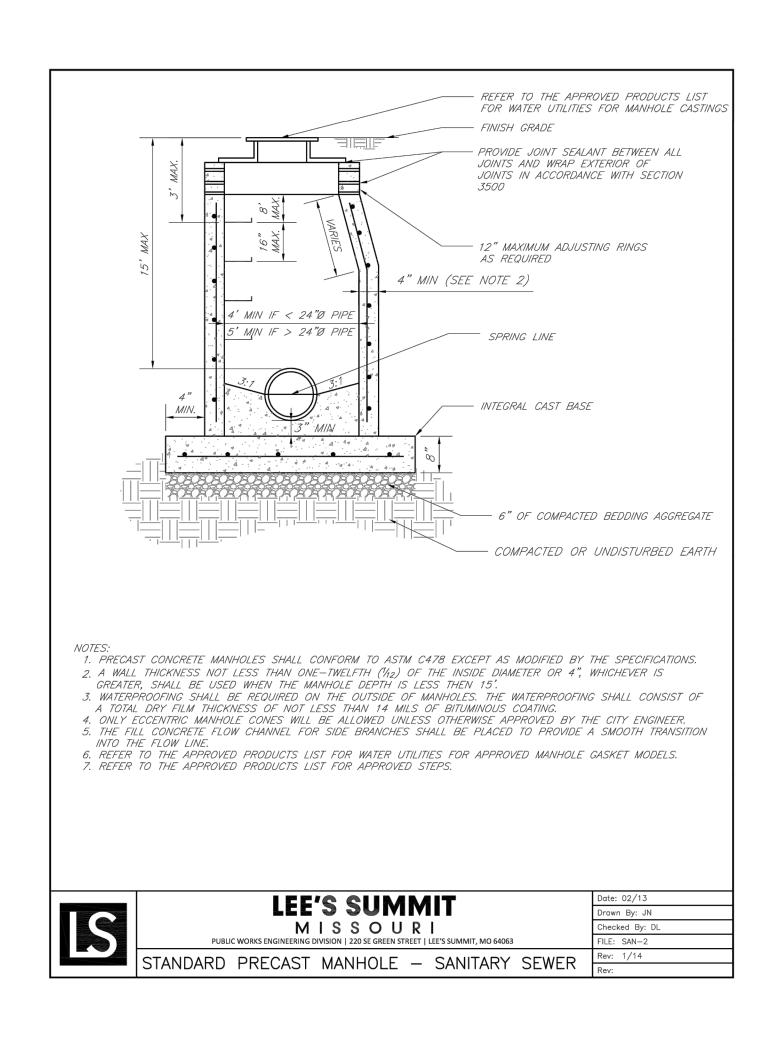
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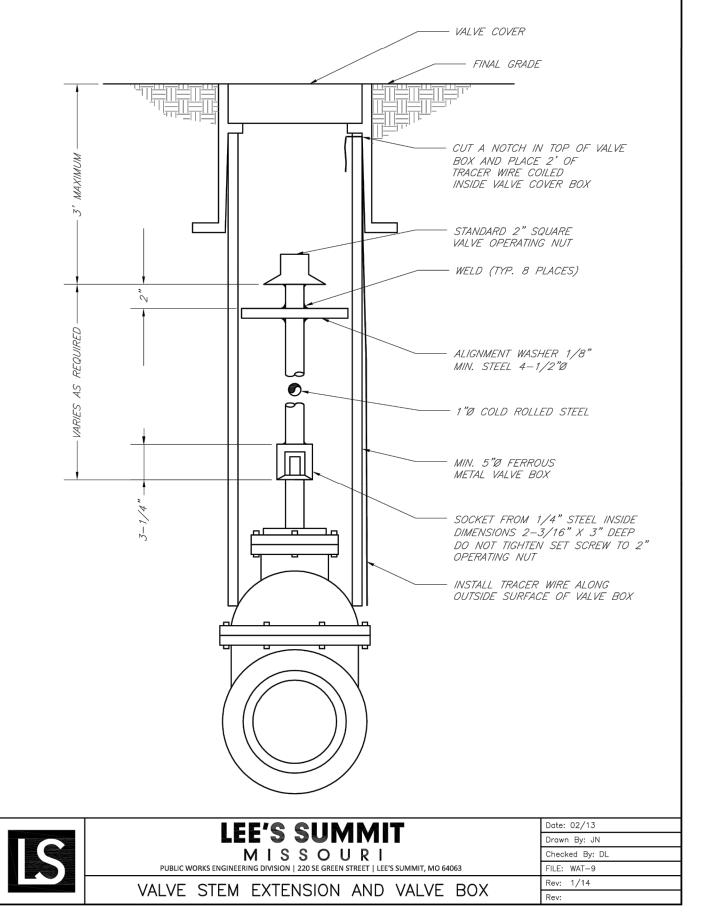
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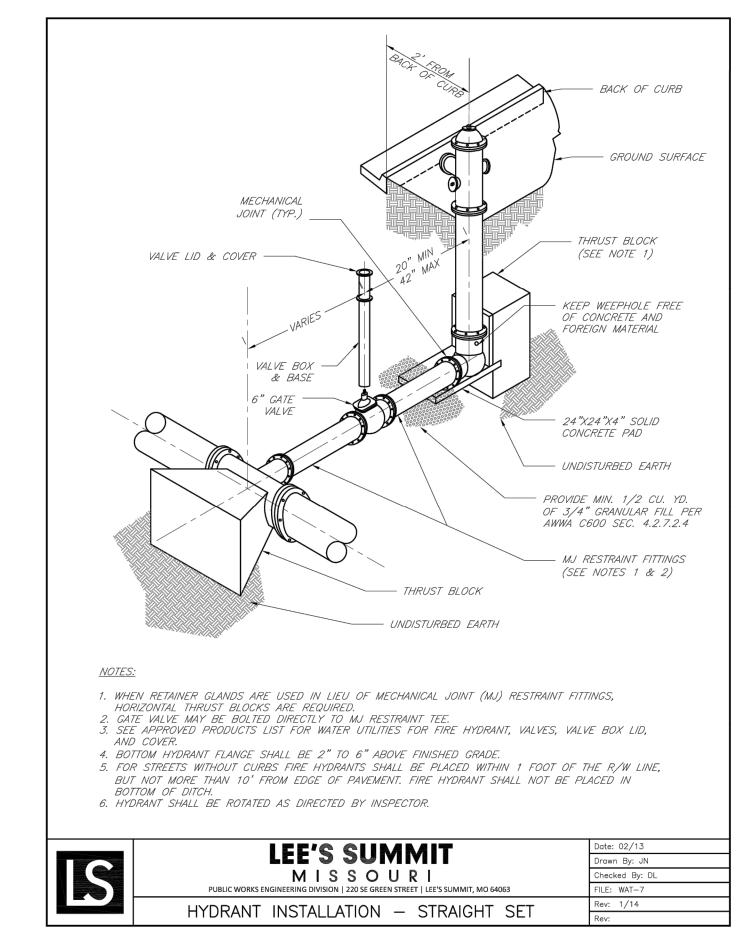
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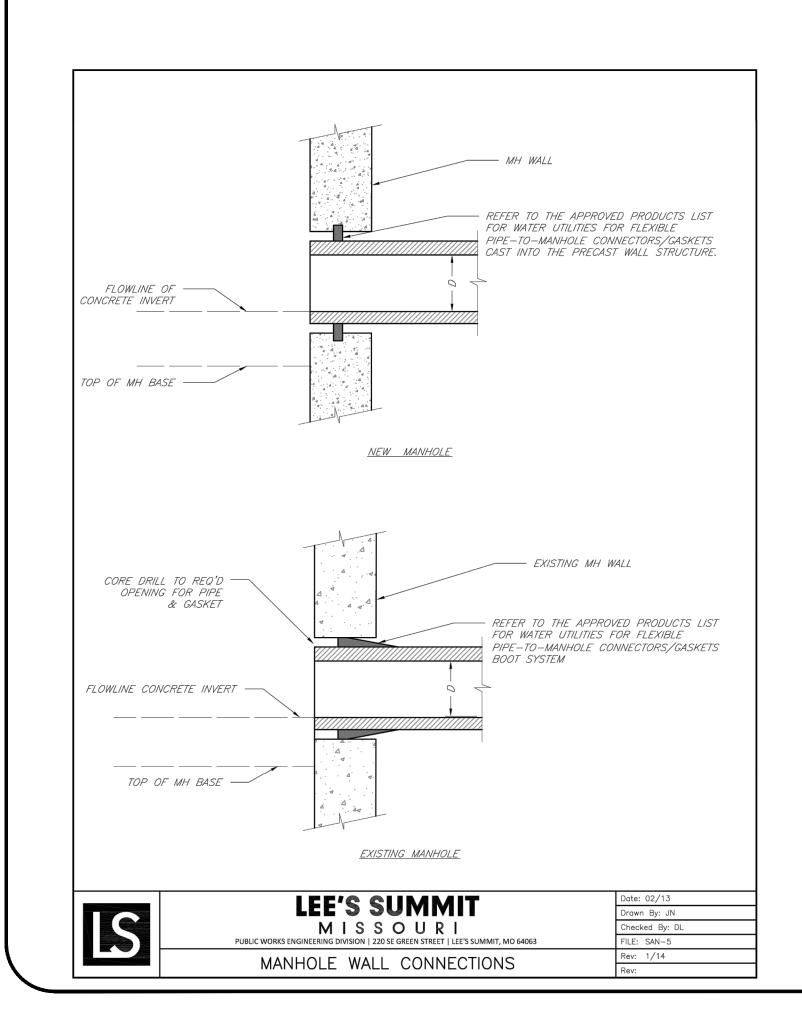
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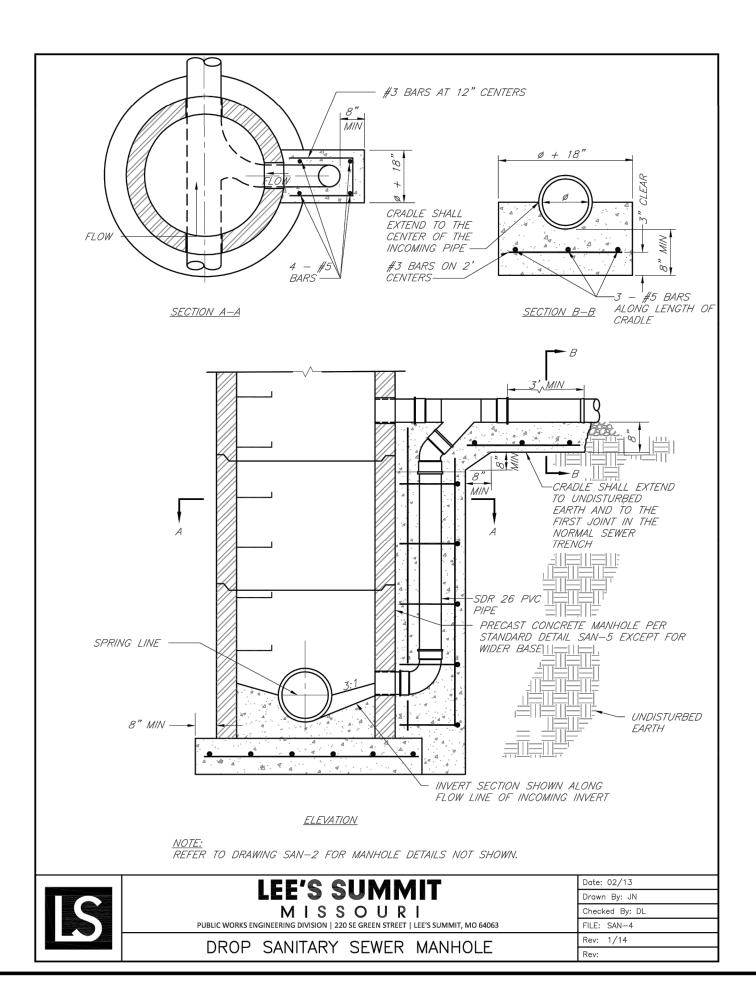
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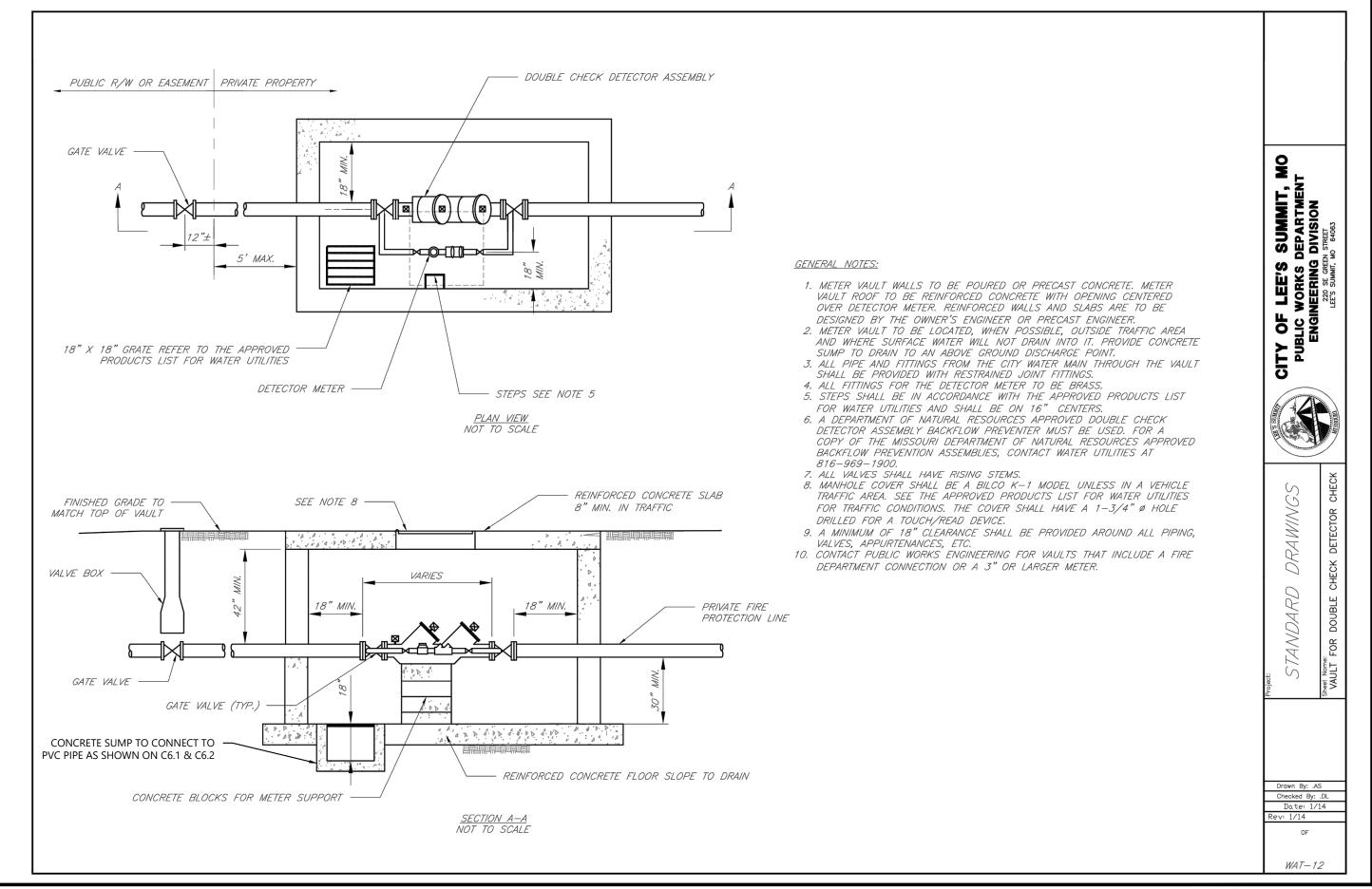














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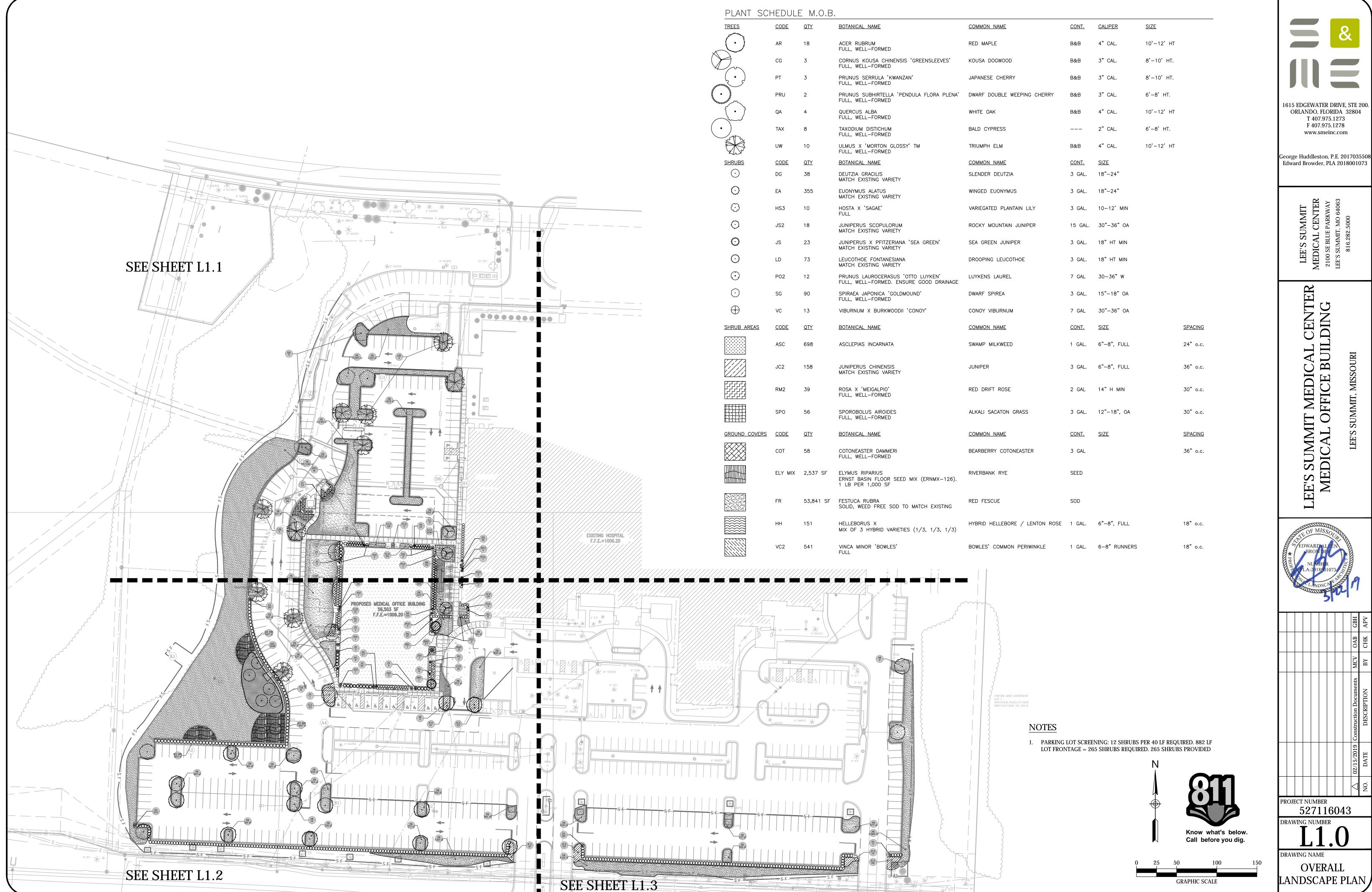
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MEDICAL CENTER
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LEE'S SUMMIT, MO 64063

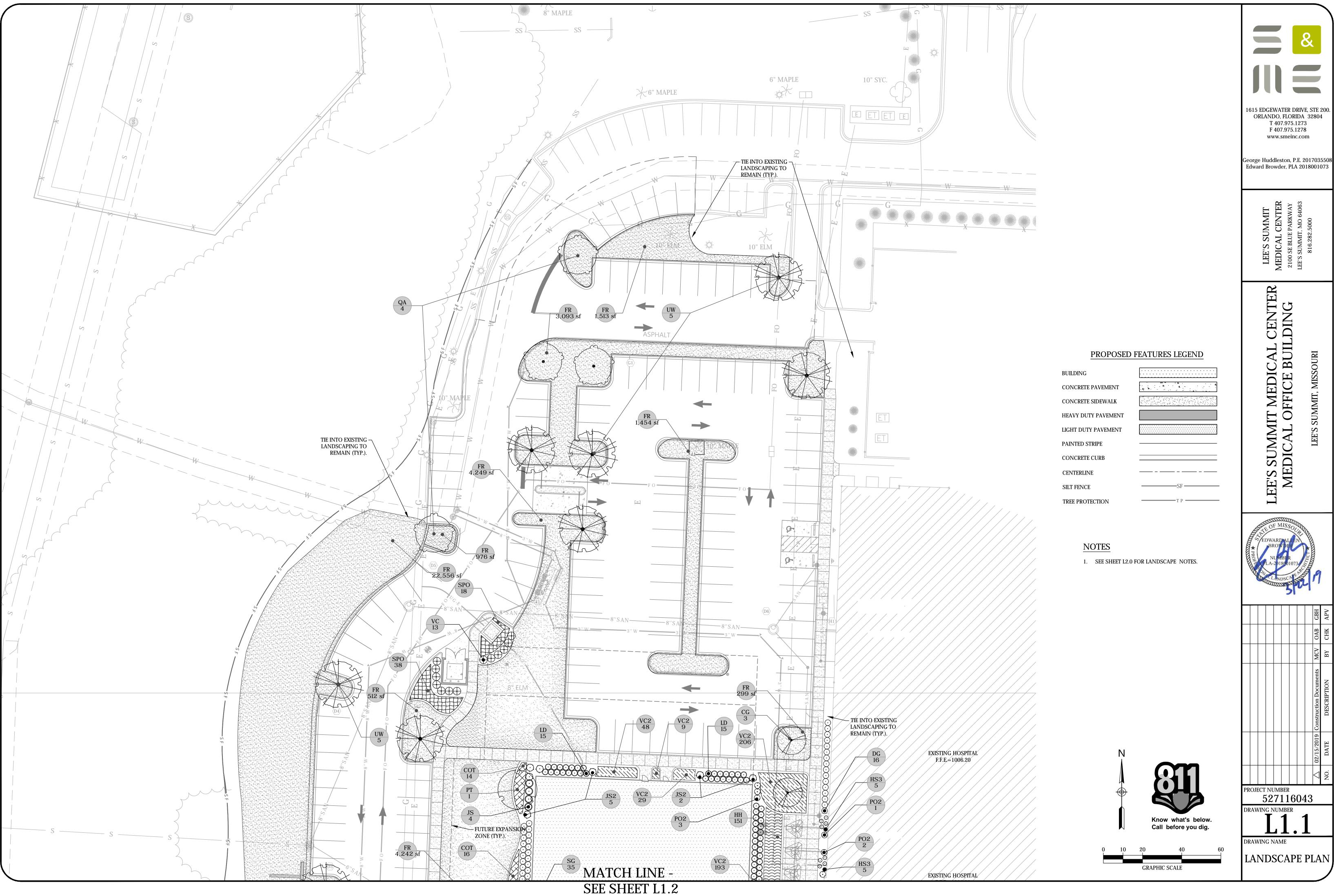
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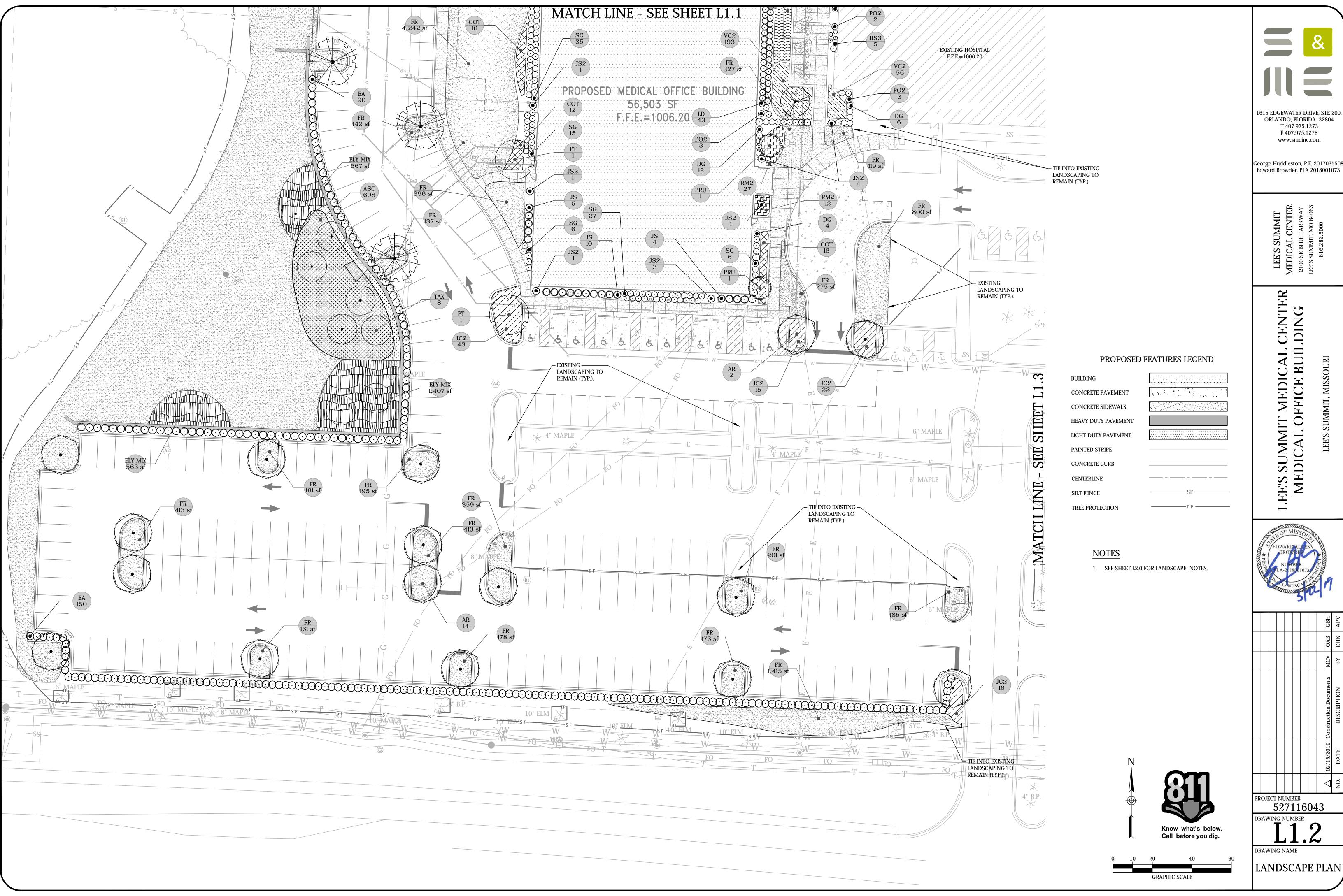
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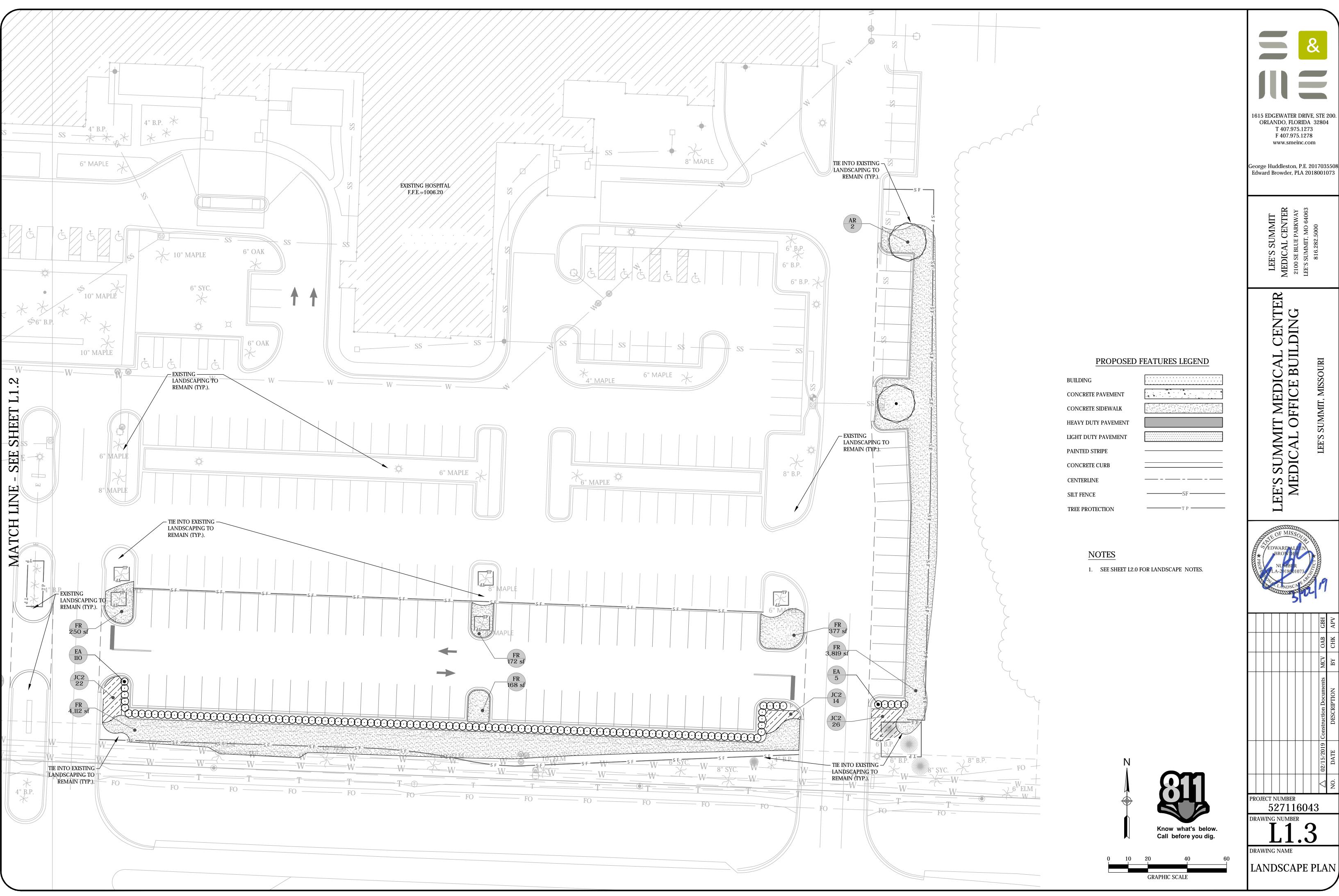








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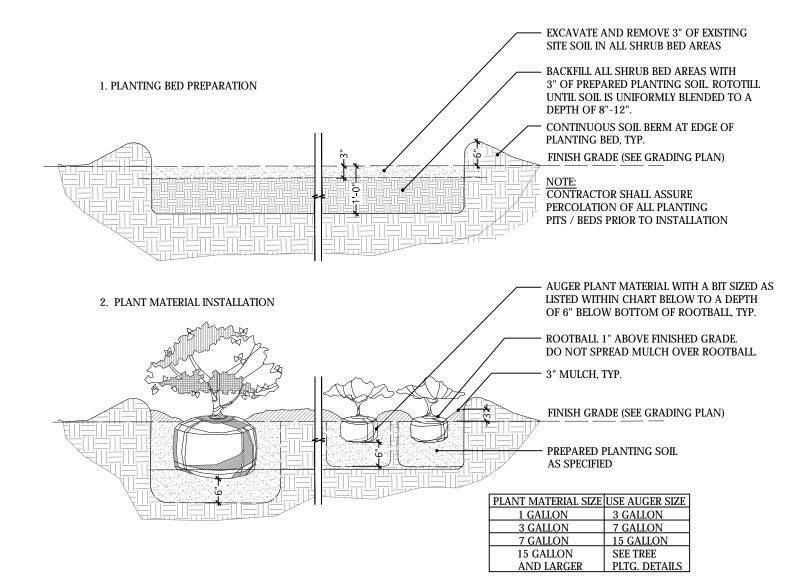
LANDSCAPE PLAN

#### LANDSCAPE NOTES

- 1. The Contractor shall field verify all existing conditions and base information prior to initiating planting installation.
- 2. Contractor shall notify all necessary utility companies 48 hours minimum prior to digging for verification of all underground utilities, irrigation and information available at the time of preparing these documents.
- 3. Contractor shall familiarize themselves with existing site conditions prior to initiating planting. 4. Unless otherwise noted, the limits of construction are the limits of work noted on the drawings.
- 5. Report any discrepancies between the construction drawings and field conditions to the Owner's Representative
- 6. Contractor shall layout all demolition lines and verify layout with the owner's representative prior to beginning any construction work.
- 7. Report and document all existing damage of existing site features and elements to the owner prior to beginning work. Contractor shall be responsible for all subsequent damage.
- 8. Contractor shall protect, by whatever means necessary, the existing site features and elements to remain. All damaged items shall be replaced or repaired at no additional cost to the owner. Notify owner immediately if any damages occur.
- 9. Contractor shall provide all necessary safety measures that may be required during the construction process to protect the public and owner at all times as per all applicable codes and recognized local practices.
- 10. Contractor shall protect all existing plant materials indicated on the plans to remain. All plant material indicated to remain damaged by the contractor shall be replaced by the contractor at no additional cost to the owner with same
- size, quality, and type of plant material. 11. Contractor shall clean the work areas at the end of each working day. Construction rubbish and debris shall be collected and deposited off-site daily. All materials and equipment stored on-site shall be kept in an organized
- 9. Landscape contractor shall coordinate all work with related contractors and with the general construction of the project in order not to impede the progress of the work of others or the contractor's own work.
- 10. The contractor shall bear all costs of testing of soils, amendments, etc. associated with the work and included in the specifications. Prior to commencement of the landscape planting work the Contractor shall provide complete soil tests for at least two on-site areas.
- 11. All plant materials shall be in full and strict accordance with the "Missouri Grades and Standards" and the project manual and specifications. Plant materials shall exceed in some instances some specifications if necessary to meet the minimum requirements of others.
- 12. All tress shall have four feet (4') clear trunk except for Weeping Cherry.
- 13. All container sizes noted on plant list are minimum. Increase size if necessary to conform to plant size and
- 14. All tree caliper sizes noted on plant list are minimum. Increase size if necessary to conform to plant size and
- specifications. 15. Any tree with a trunk formed "V" shape crotch will be rejected.
- 16. Typically, shrub and groundcover plantings are shown as mass planting beds. Plants shall be placed on a triangular spacing configuration (staggered spacing).
- 17. Landscape Contractor shall field stake the location of all plant material prior to initiating installation for the review and approval of the Owner's Representative and/or Landscape Architect.
- 18. Landscape Contractor shall field adjust location of plant material as necessary to avoid damage to all existing underground utilities and/or existing above ground elements. All changes required shall be completed at the Contractor's expense and shall be coordinated with the Owner Representative and/or Landscape Architect.
- 19. Contractor shall mulch all new plant material throughout and completely to the depth specified. 20. Any substitution in size and/or plant material must be approved by the Landscape Architect. All plants will be subject
- to approval by Landscape Architect and/or Owner's Representative before planting can begin. 21. Contractor shall refer to landscape planting details, plant list, general notes and the project manual and specifications
- for further and complete landscape planting instructions.
- 22. All shade trees are to be planted a minimum of 10' from a fire hydrant, fire plug, storm box per City regulations. 23. Minimum clear site lines are shown at all street intersections. 18" minimum offset is required from all plantings to clear
- 24. All landscaping shown in this complete plan set must be fertilized and cared for 30 days from the date of substantial completion per the maintenance specifications. The landscape contractor is responsible for this landscape maintenance and not the presiding municipality
- 25. All planting areas to have head—to—head irrigation coverage (100% coverage) throughout the establishment period. See Irrigation Plans.
- 26. All areas disturbed during construction to be fine graded to drain and replanted with solid weed—free sod to match the existing grass. No muck grown sod allowed within the limits of stormwater detention pond, sand grown sod only. The quantity of sod shown on the plant schedule is an estimate only. The total quantity of sod will depend on the size of the disturbed area.

### <u>Irrigation Notes:</u>

- 1. All landscaped areas shall be provided with an irrigation system that supplies
- 100 percent coverage to all required landscaping plant material. The irrigation system may consist of an automatic or manual underground system, or drip system. A low volume irrigation system should be used wherever possible. the irrigation system shall be designed to minimize root disturbance to existing trees and other vegetation to be retained.
- 2. Landscape contractor to provide irrigation system on a design/build arrangement for proposed landscape areas. Contractor to prepare design drawings in accordance with performance specifications per local code and submit same for approval by the owner's representative prior to construction.
- 3. Contractor to coordinate with landscape architect regarding limits of irrigation and system/main line sizing for future development needs.
- 4. Contractor to confirm adequate pressure exists to operate system prior to installation. Contractor to verify meter, backflow and valve size requirements.
- 5. Main line to be class 200 pvc pipe. Lateral lines to be class 150 pvc.
- 6. Irrigation system to be operational before planting materials may be installed in planting beds.
- 7. Install sprinkler heads according to manufacturers specifications. Flush all lines before installing nozzles.
- 8. Wire connections to be made by using Rainbird model ST-103/PT-ST snap-tite connections.
- 9. Leave 18 inches of additional wire at each valve location. roll wire into coil at each location.
- 10. All valves shall be located in Amatex 10 inch circular valve boxes with cover, or equal.
- 11. Irrigation contractor to coordinate placement of required sleeves with general contractor prior to paving and concrete installation being completed.
- 12. Sprinklers in parking pace overhangs shall be located 18" back of curb.
- 13. Sprinklers in all landscape areas shall clear all plant materials when in operation.
- 14. All exposed PVC pipe shall be painted flat black.
- 15. PLANTING SOIL IN BIORETENTION SHALL CONSIST OF APPROX. 2-5% CLAY, 0-50% SILT, 50-85% SAND AND 3-10% ORGANIC MATTER PER APWA BMP MANUAL, OCTOBER 2012, APPENDIX A. ORGANIC MATTER SHALL BE DAKOTA PEAR, BIOSOLIDS, COMPOSTED BIOMASS OR OTHER APPROVED MATERIALS. OF THE TOTAL SOIL MIXTURE IN BIORETENTION AREA, 30% SHALL BE PLANTING SOIL, 20% ORGANIC COMPOST, AND 50% SAND.



SHRUB AND GROUNDCOVER PLANTING

ROOTBALL DIA.

TREE PLANTING - UP TO 3" CAL.

PLAN VIEW OF STAKING

ARBOR TIE STAKING

APPROVED EQUAL.

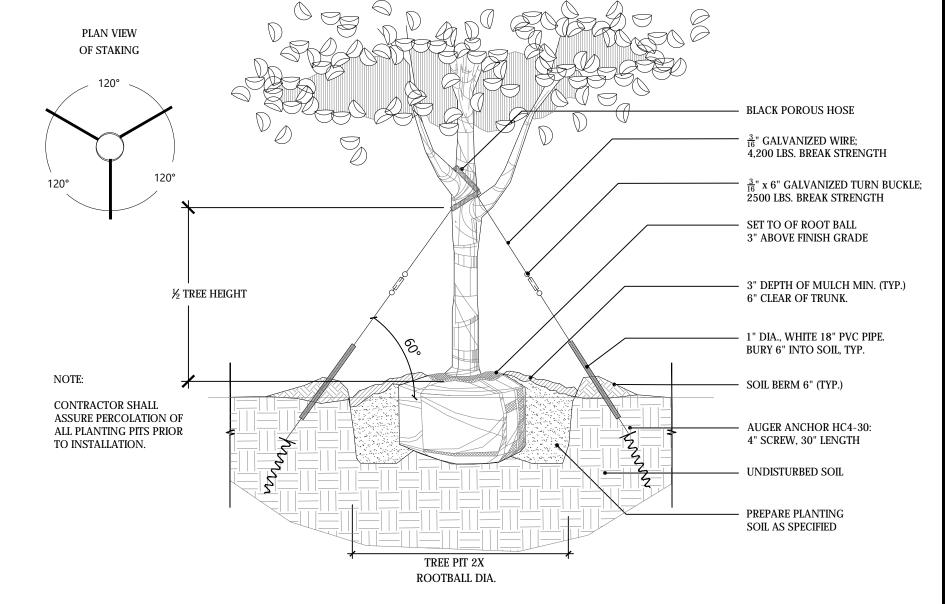
COMPONENTS MANUFACTURED

BY STAKING SYSTEMS INC. OR

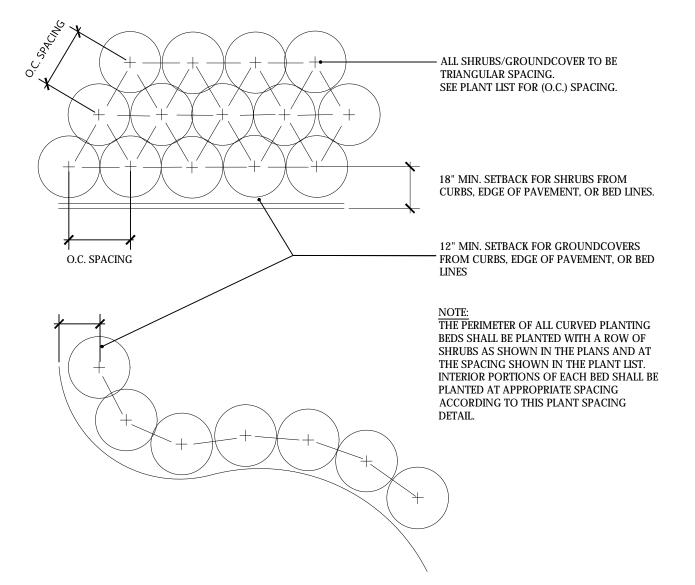
CONTRACTOR SHALL ASSURE

PITS PRIOR TO INSTALLATION.

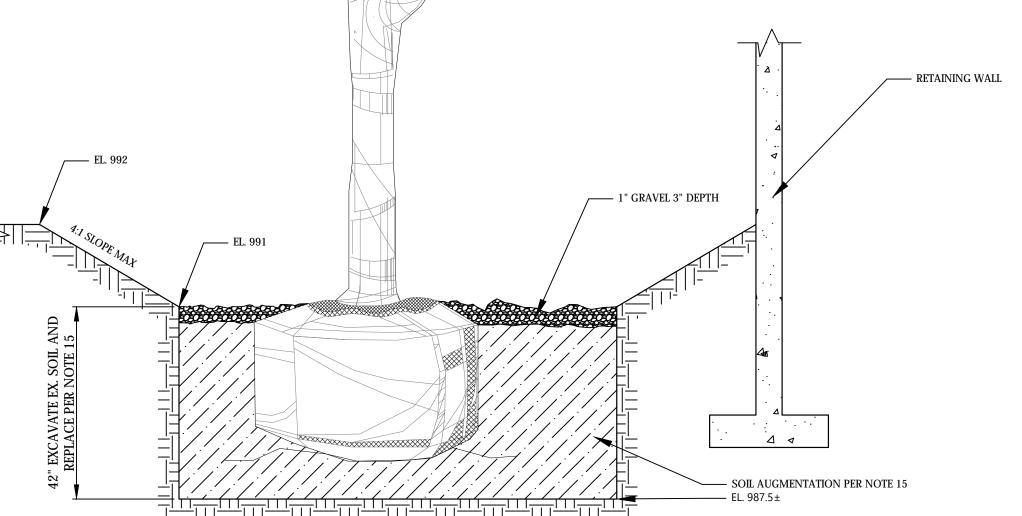
PERCOLATION OF ALL PLANTING



TREE PLANTING - 3" TO 7" CAL



SHRUB AND GROUNDCOVER SPACING



**BIORETENTION CROSS SECTION** SCALE: NTS

1" BLACK NYLON 040 GAUGE STRAPPING,

1200 LB TENSILE STRENGTH

OR APPROVED EQUAL

SET TOP OF ROOT BALL

6" CLEAR OF TRUNK.

SOIL BERM 6" (TYP.)

UNDISTURBED SOIL

PREPARE PLANTING

SOIL AS SPECIFIED

LODGE POLES EXTEND 2'

INTO UNDISTURBED SOIL

3" ABOVE FINISH GRADE

2" DIA. X 8' LONG LODGE POLE

3" DEPTH OF MULCH MIN. (TYP.)

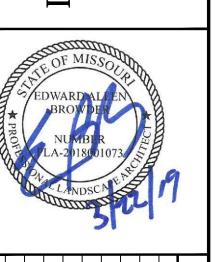
Call before you dig

1615 EDGEWATER DRIVE, STE 200 ORLANDO, FLORIDA 32804 T 407.975.1273 F 407.975.1278

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ROJECT NUMBER 527116043

DRAWING NAME

LANDSCAPE **DETAILS**