LEE'S SUMMIT R-7 SCHOOL DISTRICT RON GIPFERT KINZIE WOODERSON 500 E. 8TH STREET, ROOM 1146 301 NE TUDOR ROAD KANSAS CITY, MISSOURI 64106 LEE'S SUMMIT, MO 64086 (816) 275-1550 (816) 986-1050 ÈMAIL: RG7910@ATT.COM KINZIE.WOODERSON@LRS7.NET LEE'S SUMMIT WATER UTILITIES JEFF R. WILLIAMS- ENGINEER-CENTRAL DESIGN 1200 SE HAMBLEN ROAD 401 SE BAILEY ROAD LEE'S SUMMIT, MO 64081 LEE'S SUMMIT, MO 64081 (816) 969-1900 (816) 347-4310 ÈMAIL: JEFF.WILLIAMS@KCPL.COM WASTE WATER LEE'S SUMMIT WATER UTILITIES 1200 SE HAMBLEN ROAD CONSOLIDATED COMMUNICATIONS LEE'S SUMMIT, MO 64081 JOHN CASTILOW (816) 969-1900 14859 W. 95TH STREET LENEXA, KS 66215 (913) 322-9785 RICHARD FROCK JOHŃ.CASTILOW@CONSOLIDATED.COM 3025 SE CLOVER DRIVE LEE'S SUMMIT, MO 64082 (816) 472-3489 GOOGLE FIBER RICHARD.FROCK@SPIREENERGY.COM LAUREN MARCUCCI (913) 663-1900 CHARTER/SPECTRUM LMARCUCCI@GOOGLE.COM TROY PREWITT 8221 W. 119TH STREET OVERLAND PARK, KS 66213

LEGEND

(816) 401-3573

TROY.PREWITT@CHARTER.COM

•	SECTION CORNER	(M) (P)	
•	SET 1/2" REBAR W/LC 366 CAP	7 7	OVERHEAD POWER LINE
0	FOUND MONUMENT AS NOTED		
- \(\dots	FIRE HYDRANT		GAS LINE
\boxtimes wv	WATER VALVE		UNDERGROUND POWER LINE
WM	WATER METER		UNDERGROUND TELEPHONE LINE
MP —	WATER METER PIT		UNDERGROUND FIBER OPTIC LIN
⊠ _{GV}	GAS VALVE		SANITARY SEWER LINE
GM	GAS METER		STORM LINE
S	SPRINKLER BOX		WATER LINE
S	SANITARY SEWER MANHOLE	T	TELEPHONE MANHOLE
TS	TRAFFIC SIGNAL BOX	TP	TELEPHONE PEDESTAL
000	TRAFFIC SIGNAL POLE	TC	TELEPHONE CABINET
F	FIBER OPTIC BOX	(D)	STORM SEWER MANHOLE
TVP	TELEVISION PEDESTAL		SANITARY SEWER CLEANOUT
TB	TELEVISION BOOTH	E	ELECTRIC BOX
	GRATE INLET	В	BREAKER BOX
\mathbb{H}	4"x4" WOOD POST	ЕМ	ELECTRIC METER
₩	BOLLARD	ER	ELECTRIC RISER
₩	STEEL POST		TRANSFORMER
	COLUMN	 	POWER POLE .
-o-	SIGN	LPPP	POWER POLE/W LIGHT
\odot	TREE	\leftarrow	GUY WIRE
\bowtie scv	SPRINKLER VALVE	\Diamond	LIGHT POLE
①	BOREHOLE	⊙ _{BU}	BUSH

DEVELOPMENT TEAM CONTA	CT INFORMATION
DWNER/DEVELOPER	
SCANNELL PROPERTIES #603, LLC	8801 RIVER CROSSING BOULEVARD, SUITE 300 INDIANAPOLIS, INDIANA 46240
CIVIL ENGINEER	
MITCH PLEAK OLSSON	7301 W 133RD STREET SUITE 200 OVERLAND PARK, KS 66213 PH: 913-381-1170 mpleak@olsson.com

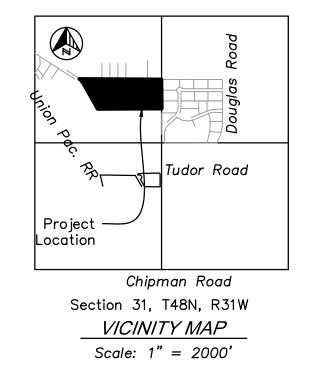
PROPERTY DESCRIPTION

CONTAINING 2,375,437 SQUARE FEET OR 54.5325 ACRES, MORE OR LESS.

ALL THAT PART OF AN UNPLATTED TRACT OF LAND, TOGETHER WITH ALL THAT PART OF NORTH MAIN STREET RIGHT OF WAY, ALL LYING IN THE WEST HALF OF SECTION 31, TOWNSHIP 48 NORTH, RANGE 31 WEST, LYING IN THE CITY OF LEE'S SUMMIT. JACKSON COUNTY, MISSOURI, DESCRIBED BY PATRICK ETHAN WARD, MO PLS-20050071, OF OLSSON MOLC-366, ON OCTOBER 14, 2021, AS

BEGINNING AT THE NORTHEAST CORNER OF THE SOUTHWEST QUARTER OF SECTION 31, TOWNSHIP 48 NORTH, RANGE 31 WEST; THENCE SOUTH 01 DEGREE 59 MINUTES 47 SECONDS WEST, ON THE EAST LINE OF SAID SOUTHWEST QUARTER, A DISTANCE OF 65.98 FEET TO A POINT ON THE WEST LINE OF NW SLOAN STREET RIGHT OF WAY, AS ESTABLISHED IN DOCUMENT 2013E0075031 SAID POINT ALSO LYING ON A NON-TANGENT CURVE: THENCE IN A SOUTHERLY DIRECTION, DEPARTING SAID EAST LINE, ON SAID WEST LINE AND ON A CURVE TO THE RIGHT WHOSE INITIAL TANGENT BEARS SOUTH 02 DEGREES 47 MINUTES 37 SECONDS WEST HAVING A RADIUS OF 970.00 FEET, THROUGH A CENTRAL ANGLE OF 6 DEGREES 27 MINUTES 07 SECONDS, AN ARC DISTANCE OF 109.23 FEET TO A POINT OF TANGENCY; THENCE SOUTH 09 DEGREES 14 MINUTES 44 SECONDS WEST, CONTINUING ON SAID WEST LINE. A DISTANCE OF 111.80 FEET TO A POINT OF CURVATURE: THENCE IN A SOUTHERLY DIRECTION, CONTINUING ON SAID WEST LINE AND ON A CURVE TO THE LEFT, HAVING A RADIUS OF 1030.00 FEET, THROUGH A CENTRAL ANGLE OF 7 DEGREES 14 MINUTES 57 SECONDS, AN ARC DISTANCE OF 130.32 FEET TO A POINT OF TANGENCY; THENCE SOUTH 01 DEGREE 59 MINUTES 47 SECONDS WEST, CONTINUING ON SAID WEST LINE, A DISTANCE OF 69.49 FEET TO A POINT ON THE NORTH LINE OF NE TUDOR ROAD RIGHT OF WAY, AS ESTABLISHED IN SAID DOCUMENT 2013E0075031; THENCE SOUTH 46 DEGREES 15 MINUTES 48 SECONDS WEST, DEPARTING SAID WEST LINE. ON SAID NORTH LINE. A DISTANCE OF 46.09 FEET TO A POINT: THENCE NORTH 89 DEGREES 24 MINUTES 16 SECONDS WEST, CONTINUING ON SAID NORTH LINE, AND ON THE NORTH LINE OF NW TUDOR ROAD RIGHT OF WAY, AS ESTABLISHED IN DOCUMENT 2013E0075030, A DISTANCE OF 1249.23 FEET TO A POINT ON THE EAST LINE OF UNION PACIFIC RAILROAD RIGHT OF WAY, AS NOW ESTABLISHED, SAID POINT ALSO LYING ON A NON-TANGENT CURVE: THENCE IN A NORTHERLY AND NORTHWESTERLY DIRECTION, DEPARTING SAID NORTH LINE, ON SAID EAST LINE AND ON A CURVE TO THE LEFT WHOSE INITIAL TANGENT BEARS NORTH 15 DEGREES 46 MINUTES 27 SECONDS WEST, HAVING A RADIUS OF 3203.90 FEET, THROUGH A CENTRAL ANGLE OF 22 DEGREES 48 MINUTES 11 SECONDS. AN ARC DISTANCE OF 1275.12 FEET TO A POINT OF TANGENCY: THENCE NORTH 38 DEGREES 34 MINUTES 39 SECONDS WEST, CONTINUING ON SAID EAST LINE, A DISTANCE OF 738.40 FEET TO A POINT OF CURVATURE; THENCE IN A NORTHWESTERLY DIRECTION. CONTINUING ON SAID EAST LINE AND ON A CURVE TO THE RIGHT, HAVING A RADIUS OF 5981.13 FEET. THROUGH A CENTRAL ANGLE OF 2 DEGREES 39 MINUTES 22 SECONDS, AN ARC DISTANCE OF 277.27 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF SAID SECTION 31, SAID POINT ALSO LYING ON A NON-TANGENT LINE; THENCE SOUTH 87 DEGREES 40 MINUTES 30 SECONDS EAST, DEPARTING SAID EAST LINE, ON SAID NORTH LINE, A DISTANCE OF 884.17 FEET TO A POINT ON A NON-TANGENT CURVE; THENCE IN A SOUTHEASTERLY DIRECTION, DEPARTING SAID NORTH LINE, ON A CURVE TO THE RIGHT WHOSE INITIAL TANGENT BEARS SOUTH 45 DEGREES 29 MINUTES 38 SECONDS EAST, HAVING A RADIUS OF 544.00 FEET, THROUGH A CENTRAL ANGLE OF 16 DEGREES 50 MINUTES 44 SECONDS. AN ARC DISTANCE OF 159.94 FEET TO A POINT OF TANGENCY; THENCE SOUTH 28 DEGREES 38 MINUTES 55 SECONDS EAST A DISTANCE OF 437.58 FEET TO A POINT OF CURVATURE: THENCE IN A SOUTHEASTERLY AND EASTERLY DIRECTION. ON A CURVE TO THE LEFT, HAVING A RADIUS OF 476.00 FEET, THROUGH A CENTRAL ANGLE OF 63 DEGREES 19 MINUTES 59 SECONDS, AN ARC DISTANCE OF 526.16 FEET TO A POINT OF TANGENCY; THENCE NORTH 88 DEGREES 01 MINUTE 06 SECONDS EAST A DISTANCE OF 416.85 FEET TO A POINT OF CURVATURE: THENCE IN AN EASTERLY AND SOUTHEASTERLY DIRECTION. ON A CURVE TO THE RIGHT, HAVING A RADIUS OF 544.00 FEET, THROUGH A CENTRAL ANGLE OF 65 DEGREES 51 MINUTES 08 SECONDS, AN ARC DISTANCE OF 625.24 FEET TO A POINT ON A NON-TANGENT LINE, SAID POINT ALSO LYING ON THE EAST LINE OF SAID NORTHWEST QUARTER; THENCE SOUTH 01 DEGREE 53 MINUTES 30 SECONDS WEST, ON SAID EAST LINE, A DISTANCE OF 338.00 FEET TO THE POINT OF BEGINNING.





Sheet List Table

COVER SHEET GENERAL NOTES C2.00 GENERAL LAYOUT PLAN C3.00 TYPICAL ROADWAY & PAVEMENT SECTIONS C4.00 OVERALL DIMENSION PLAN C4.01 DIMENSION PLAN C4.02 DIMENSION PLAN C4.03 DIMENSION PLAN C5.00 OVERALL GRADING PLAN GRADING PLAN C5.02 GRADING PLAN C5.03 GRADING PLAN C5.07 GRADING DETAILS C5.08 RETAINING WALL DETAILS C5.09 RETAINING WALL DETAILS C5.10 RETAINING WALL DETAILS C6.00 OVERALL UTILITY PLAN C6.01 UTILITY PLAN UTILITY PLAN UTILITY PLAN OVERALL SANITARY SEWER PLAN C6.08 SANITARY GENERAL NOTES PROPOSED LINE 3 - PLAN & PROFILE SANITARY SEWER CONNECTION PLAN SANITARY SEWER CONNECTION PLAN SANITARY SEWER DETAILS SHEET OVERALL STORM PLAN STORM PLAN & PROFILE A STORM PLAN & PROFILE A CONT. C7.03 STORM PLAN & PROFILE B STORM PLAN & PROFILE C STORM PLAN & PROFILE C CONT. STORM PLAN & PROFILE E STORM PLAN & PROFILE E CONT. STORM PLAN & PROFILE F STORM PLAN & PROFILE G STORM PLAN & PROFILE H C7.11 STORM PLAN & PROFILE I C7.12 STORM PLAN & PROFILE J C7.13 STORM CALCULATIONS C8.00 STANDARD DETAILS STANDARD DETAILS C8.02 STANDARD DETAILS STANDARD DETAILS OVERALL LANDSCAPE PLAN LANDSCAPE PLAN L1.02 LANDSCAPE PLAN LANDSCAPE PLAN L1.04 LANDSCAPE PLAN LANDSCAPE PLAN L1.06 LANDSCAPE PLAN LANDSCAPE NOTES & DETAILS OVERALL LIGHTING PLAN SITE LIGHTING PHOTOMETRIC PLAN SITE LIGHTING PHOTOMETRIC PLAN SITE LIGHTING PHOTOMETRIC PLAN SITE LIGHTING POWER PLAN SITE LIGHTING POWER PLAN SITE LIGHTING POWER PLAN SITE LIGHTING DETAILS SITE LIGHTING SPECIFICATIONS

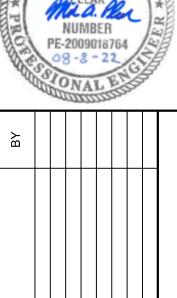


THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

approved by: QA/QC by: project no.: <u>B21-04157</u>

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drawing no.:TTL01 C2104157.dwg date: 03.11.2022

SHEET

C1.00

- 2. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER.
- ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- 4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATION PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND FOR BRINGING THE PROJECT TO THE LINES AND GRADES SHOWN HEREIN. CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS REQUIRED TO COMPLETE THE WORK SHOWN IN THESE PLANS. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE EARTHWORK QUANTITIES AND TO ACCOUNT FOR HAUL IN OR HAUL OFF OF MATERIAL AS NECESSARY TO MEET THE LINES AND GRADES OF THE PLANS EVEN IF QUANTITY ESTIMATES ARE SHOWN WITHIN THESE DOCUMENTS. NO ADDITIONAL PAYMENTS WILL BE MADE FOR IMPORT OR EXPORT OF MATERIAL OR FOR ADJUSTMENTS TO QUANTITY ESTIMATES.
- 5. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT, EXCEPT WHERE SHOWN OTHERWISE. NOTIFY ENGINEER OF DISCREPANCIES.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
- 7. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF MISSOURI STATE LAW WHICH REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT—OF—WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM UTILITY COMPANIES.
- 8. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.
- 9. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES SHOWN TO REMAIN FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN FOR REMOVAL ON THESE PLANS.
- 10. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
- 11. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- 12. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE APPLICABLE UTILITY COMPANIES.
- 13. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
- 14. ALL DISTURBED AREAS SHALL BE LANDSCAPED, SEEDED OR SODDED, AS SHOWN ON THE LANDSCAPE PLAN.
- 15. HANDICAP PARKING STALLS SHALL BE SIGNED WITH CITY/ADA APPROVED SIGN AND CONSTRUCTED IN STRICT ACCORDANCE WITH CITY/ADA STANDARDS AND SHALL NOT EXCEED 2.00 PERCENT IN ANY DIRECTION. ACCESSIBLE SIDEWALKS HAVE A MAXIMUM CROSS SLOPE OF 2 PERCENT AND A MAXIMUM LONGITUDINAL SLOPE OF 5 PERCENT.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF SURFACE EROSION DURING CONSTRUCTION AND UNTIL THE OWNER ACCEPTS THE WORK AS COMPLETE. EROSION CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, THE SILT FENCES AND GRAVEL FILTER BAGS SHOWN ON THE EROSION CONTROL PLAN SHALL BE IN PLACE FOR THE DURATION OF THE SITE IMPROVEMENTS.
- 17. ALL HDPE PIPE SHALL BE ADS (N-12) OR APPROVED EQUAL, AND CONFORM TO AASHTO M294 SPECIFICATIONS. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- 18. IF PRECAST CONCRETE STORM SEWER STRUCTURES ARE TO BE USED ON THIS PROJECT, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND HAVE THEM APPROVED BY THE ENGINEER PRIOR TO FABRICATION OF THE STRUCTURES. FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION.
- 19. EXISTING TOPSOIL SHALL BE STRIPPED TO A POINT WHERE ALL VEGETATION IS REMOVED.
- 20. THE CONTRACTOR SHALL, BY HIS OWN INVESTIGATION, AND PRIOR TO COMMENCING WORK, SATISFY HIMSELF AS TO THE SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED.
- 21. ALL WATER SERVICE LINES SHALL BE INSTALLED PER LEE'S SUMMIT WATER UTILITIES STANDARDS. ALL WATER LINES SHALL BE A MINIMUM OF 48 INCHES BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN.
- 22. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
- 23. NO FEDERALLY OWNED MAILBOX MAY BE DISTURBED. THE CONTRACTOR SHALL GIVE AT LEAST TWENTY-FOUR (24) HOURS ADVANCE NOTICE TO THE MANAGER OF DELIVERY AND COLLECTIONS. TAMPERING WITH FEDERAL MAIL FACILITIES MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.
- 24. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE FOR SURFACE OF PAVEMENT, TOP OF SIDEWALKS AND CURBS, TOP OF FLOOR SLABS, ETC. REFER TO TYPICAL SECTIONS
- FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT FOR GRADING LINE ELEVATIONS.
- 25. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL 26. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND SIDEWALKS WHEN FINISH LANDSCAPE MATERIALS ARE IN PLACE.
- 27. ALL EXTERIOR CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI AND BE AIR ENTRAINED. FLYASH IS NOT A SUITABLE REPLACEMENT FOR PORTLAND CEMENT.
- 28. ALL ON-SITE WIRING AND CABLES SHALL BE PLACED UNDERGROUND
- 29. THE CONTRACTOR SHALL MAKE HIS OWN ASSUMPTIONS ON THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. ALL ROCK EXCAVATION AND REMOVAL SHALL BE INCLUDED IN THE
- 30. CONCRETE PAVEMENT JOINTS SHALL AT A MINIMUM BE CONSTRUCTED AS FOLLOWS (REFER TO HARDSCAPE PLANS FOR SPECIFIC TREATMENT OF THESE AREAS):
 - LONGITUDINAL CONSTRUCTION JOINTS SPACED AT INTERVALS NOT GREATER THAN 12 FEET, TOOLED TO 1/3 THE SLAB THICKNESS AND OF THE BAR TYPE
 - CONSTRUCTION JOINTS AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE AND DOWELED WITH SMOOTH DOWELS. TRANSVERSE JOINTS SPACED AT INTERVALS NOT GREATER THAN 15 FEET AND TOOLED TO 1/3 OF THE SLAB THICKNESS.
- ISOLATION JOINTS PLACED WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 3/4" NONEXTRUDING FILLER, CLOSED-CELL FOAM RUBBER OR A BITUMEN-TREATED FIBER-BOARD, AND WITH A THICKENED EDGE, INCREASED BY 20 PERCENT, TAPERED TO THE REGULAR THICKNESS IN 5 FEET. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.
- 32. CONTRACTOR TO FIELD VERIFY ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES AND INFRASTRUCTURE PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS.
- 33. TELEPHONE AND COMMUNICATION SERVICE ROUTING AND CONDUITS NOT SHOWN ON PLANS. CONTRACTOR SHALL INSTALL NECESSARY CONDUIT PRIOR TO PAVEMENT INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING AND INSTALLATION SCOPE WITH SERVICE PROVIDER.
- 34. BY ACCEPTING AND UTILIZING ANY ELECTRONIC FILE OF ANY DRAWING, REPORT OR DATA TRANSMITTED BY OLSSON, THE RECIPIENT AGREES FOR ITSELF, ITS SUCCESSORS, ASSIGNS, INSURERS AND ALL THOSE CLAIMING UNDER OR THROUGH IT, THAT BY USING ANY OF THE INFORMATION CONTAINED IN THE ELECTRONIC FILE. ALL USERS AGREE TO BE BOUND BY THE FOLLOWING TERMS. ALL OF THE INFORMATION CONTAINED IN THIS ELECTRONIC FILE IS THE WORK PRODUCT AND INSTRUMENT OF SERVICE OF OLSSON, WHO SHALL BE DEEMED THE AUTHOR, AND SHALL RETAIN ALL COMMON LAW, STATUTORY LAW AND OTHER RIGHTS, INCLUDING COPYRIGHTS, UNLESS THE SAME HAVE PREVIOUSLY BEEN TRANSFERRED IN WRITING TO THE RECIPIENT. THE INFORMATION CONTAINED IN THE ELECTRONIC FILE IS PROVIDED FOR THE CONVENIENCE OF THE RECIPIENT AND IS PROVIDED IN "AS IS" CONDITION. THE RECIPIENT IS AWARE THAT DIFFERENCES MAY EXIST BETWEEN THE ELECTRONIC FILES AND THE PRINTED HARD—COPY ORIGINAL SIGNED AND SEALED DRAWINGS OR REPORTS. IN THE EVENT OF A CONFLICT BETWEEN THE SIGNED AND SEALED ORIGINAL DOCUMENTS PREPARED BY OLSSON AND THE ELECTRONIC FILES TRANSFERRED HEREWITH, THE SIGNED AND SEALED ORIGINAL DOCUMENTS SHALL GOVERN. OLSSON SPECIFICALLY DISCLAIMS ALL WARRANTIES. EXPRESSED OR IMPLIED. INCLUDING WITHOUT LIMITATION. ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ELECTRONIC FILES. IT SHALL BE THE RECIPIENT'S RESPONSIBILITY TO CONFIRM THE ACCURACY OF THE INFORMATION CONTAINED IN THE ELECTRONIC FILE AND THAT IF ACCURATELY REFLECTS THE INFORMATION NEEDED BY THE RECIPIENT. THE RECIPIENT SHALL NOT RETRANSMIT THE ELECTRONIC FILE, OR ANY PORTION THEREOF, WITHOUT INCLUDING THIS DISCLAIMER AS PART OF ANY SUCH TRANSMISSION. IN ADDITION, THE RECIPIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS OLSSON, ITS OFFICERS, DIRECTORS, EMPLOYEES AND SUBCONSULTANTS AGAINST ANY AND ALL DAMAGES, LIABILITIES, CLAIMS OR COSTS, INCLUDING REASONABLE ATTORNEY'S AND EXPERT WITNESS FEES AND DEFENSE COSTS, ARISING FROM ANY CHANGES MADE BY ANYONE OTHER THAN OLSSON OR FROM ANY REUSE OF THE ELECTRONIC FILES WITHOUT THE PRIOR WRITTEN CONSENT OF OLSSON.
- 35. DESIGN PROFESSIONAL SHALL REVIEW SHOP DRAWINGS OR SAMPLES FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPTS ON THE PROJECT AND FOR COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS, AND SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. THE DESIGN PROFESSIONAL'S REVIEW SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS IN WRITING CALLED DESIGN PROFESSIONAL'S ATTENTION TO EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND DESIGN PROFESSIONAL HAS GIVEN WRITTEN APPROVAL OF EACH SUCH VARIATION BY SPECIFIC WRITTEN NOTATION THEREOF INCORPORATED INTO OR ACCOMPANYING THE SHOP DRAWING OR SAMPLE; NOR WILL ANY APPROVAL BY THE DESIGN PROFESSIONAL RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS WITH CONFORMANCE TO CONTRACT DOCUMENTS.
- BEFORE SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE DETERMINED AND VERIFIED:
- a. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
- b. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK; c. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
- d. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
- ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY REVIEWED THE SUBMISSION AND CHECKED ALL DATA AND DETAILS. BY CONTRACTOR SIGNATURE, CONTRACTOR CERTIFIES SHOP DRAWING CONFORMANCE AND ACCURACY TO THE CONTRACT DOCUMENTS.
- 36. ANY CONTRACTOR BIDDING ANY PORTION OF THIS WORK SHALL HAVE IN HIS OR HER POSSESSION A COMPLETE SET OF CONSTRUCTION DOCUMENTS AND BE FAMILIAR WITH ALL SCOPES OF WORK AND TRADES TO UNDERSTAND
- 37. CONTRACTOR TO PROVIDE A STRUCTURAL DESIGN FOR ALL STORM STRUCTURES WITH A ("L"+"H") AND ("W" + "H") GREATER THAN 20 FEET. "L" IS THE LENGTH OF THE BOX, "W" IS THE WIDTH OF THE BOX, AND "H" IS THE HEIGHT OF THE BOX. STRUCTURAL DESIGN SHOULD INCLUDE DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER. DESIGN SHALL BE SUBMITTED FOR REVIEW PRIOR TO ANY FABRICATION AND ORDERING OF PIPE PRODUCTS. IN THE EVEN THIS NOTE IS LESS STRINGENT THAN THE LOCAL JURISDICTION, THE MORE STRINGENT REQUIREMENTS SHOULD APPLY.

DEMOLITION NOTES

- 1. CONTRACTOR TO PRESERVE ALL SURVEY CONTROL.
- 2. CONTRACTOR TO COMPLETE DEMOLITION PER THE INTENT OF THESE PLANS.
- 3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THIS INCLUDES PRIVATE AND PUBLIC UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT MISSOURI ONE CALL AT 1-800-344-7483 IN ADVANCE OF ANY EXCAVATION TO COORDINATE UTILITY LOCATIONS.
- 4. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR SHOWN ON THESE PLANS.
- 5. REMOVAL AND DISPOSAL OF BUSHES AND TREES SMALLER THAN 12" IN DIAMETER SHALL BE CONSIDERED SUBSIDIARY TO THE PRICE BID FOR CLEARING AND GRUBBING.
- 6. ALL ITEMS REMOVED SHALL BE LEGALLY DISPOSED OFF SITE BY THE CONTRACTOR.
- 7. DO NOT DISRUPT UTILITY SERVICE TO ADJACENT BUSINESSES OR RESIDENCES WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.
- 8. DO NOT DISRUPT TRAFFIC ON ADJACENT PUBLIC STREETS WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY.
- 9. ALL SIDEWALK AND PAVEMENT TO REMAIN SHALL BE PROTECTED IN PLACE INCLUDING PROTECTION FROM DAMAGE CAUSED BY REMOVAL OF ABUTTING PAVEMENT. CONTRACTOR SHALL SAW CUT WHERE NECESSARY.
- 10. CONTRACTOR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DISCONNECTION, DEMOLITION, AND REMOVAL OF SERVICE LINES. CAP ALL LINES BEFORE PROCEEDING WITH WORK ON THIS CONTRACT.
- 11. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANIES WORK FORCE AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES.
- 12. CONTRACTOR SHALL PROTECT THE PUBLIC AT ALL TIME WITH FENCING, BARRICADES, ENCLOSURES, ETC. TO THE BEST PRACTICES AND AS APPROVED BY THE ENGINEER AND THE CITY.
- 13. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 14. DEMOLITION OF BUILDINGS SHALL INCLUDE THE BUILDING STRUCTURE, PAD, FOOTINGS, FOUNDATIONS, BASEMENT WALLS, BASEMENT FLOORS, TRUCK DOCKS, STEPS, DECKS, ALL ITEMS REMAINING IN BUILDING, ALL BUILDING UTILITY SERVICES, SIDEWALKS, AND BACKFILLING AND RESTORING REMAINING EXCAVATIONS, BASEMENTS AND TRENCHES PER SPECIFICATIONS.
- 15. ALL LIGHT POLE DEMOLITION SHALL INCLUDE FIXTURES, BASES AND WIRING.
- 16. ALL UTILITY DEMOLITION SHALL INCLUDE METERS, MANHOLES AND OTHER STRUCTURES ASSOCIATED WITH THE UTILITY SERVICE LINE.

PAVEMENT MARKING NOTES:

- 1. PAVEMENT MARKING PAINT: LATEX, WATER-BASE EMULSION, READY-MIXED, COMPLYING WITH FS TT-P-1952 WITH DRYING TIME OF LESS THAN 45 MINUTES.
- 2. DO NOT APPLY PAVEMENT MARKING PAINT UNTIL LAYOUT, COLORS AND PLACEMENT HAVE BEEN VERIFIED WITH THE ARCHITECT.
- 3. ALLOW PAVING TO AGE FOR 24 HOURS BEFORE MARKING.
- 4. SWEEP AND CLEAN SURFACE.
- 5. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE MARKINGS WITH UNIFORM STRAIGHT EDGES. PROVIDE A MINIMUM WET FILM THICKNESS OF 15 MILS.
- 6. THIS WORK SHALL CONSIST OF FURNISHING AND APPLYING PAINT ON PAVEMENT SURFACES, IN TRAFFIC LANES, PARKING BAYS, AREAS RESTRICTED TO HANDICAPPED PERSONS, CROSSWALKS, AND OTHER DETAIL PAVEMENT MARKINGS, IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS.
- 7. DETAILS NOT SHOWN SHALL BE IN CONFORMITY WITH THE STATE STANDARDS FOR TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND SIMILAR REQUIREMENTS ESTABLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
- 8. ALL PARKING LOT STRIPING SHALL BE SINGLE LINE 4" WIDE AS PER THE SITE PLANS.
- 9. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS. USE SHERWIN WILLIAMS PROMAR TRAFFIC MARKING PAINT, COLORS TO MATCH THE EXISTING ADJACENT INSTALLATIONS. USE FLAT BLACK, WHITE OR YELLOW, WHERE APPROPRIATE. UNLESS OTHERWISE DIRECTED, USE THE FOLLOWING: A. BLACKTOP OR BITUMINOUS ASPHALT PAVING: USE WHITE COLOR.
- B. PORTLAND CEMENT CONCRETE PAVING: USE YELLOW COLOR. C. HANDICAPPED ACCESSIBLE PARKING AND ENTRYWAYS: USE WHITE COLOR WITH WHITE STRIPES. D. PROVIDE PAINTED CURBS AT FIRE LANE DESIGNATIONS PER FIRE MARSHAL REQUIREMENTS.
- 10. APPLY ALL MARKINGS USING APPROVED MECHANICAL EQUIPMENT (WITH PROVISIONS FOR CONSTANT AGITATION OF PAINT), CAPABLE OF APPLYING THE MARKING WIDTHS AS SHOWN. USE PNEUMATIC SPRAY GUNS FOR HAND APPLICATION OF PAINT. ALL PAINTING EQUIPMENT AND OPERATIONS SHALL BE UNDER THE CONTROL OF EXPERIENCED TECHNICIANS THOROUGHLY FAMILIAR WITH EQUIPMENT AND MATERIALS AND MARKING LAYOUTS.
- 11. DETAIL PAVEMENT MARKINGS SHALL BE THAT MARKING, EXCLUSIVE OF ACTUAL TRAFFIC LANE MARKING, AT EXIT AND ENTRANCE ISLANDS AND TURNOUTS, ON CURBS, AT CROSSWALKS, AT PARKING BAYS AND AT SUCH OTHER LOCATIONS AS SHOWN. HANDICAPPED PARKING SPACES SHALL BE MARKED BY THE INTERNATIONAL HANDICAPPED SYMBOL AT INDICATED PARKING SPACES. USE A SUITABLE TEMPLATE THAT WILL PROVIDE A PAVEMENT MARKING WITH TRUE, SHARP EDGES AND ENDS.

EROSION & SEDIMENT CONTROL NOTES

- 1. PRIOR TO LAND DISTURBANCE ACTIVITIES. THE FOLLOWING SHALL OCCUR: A. DELINEATE THE OUTER LIMITS OF ANY NATURAL STREAM CORRIDOR DESIGNATED IN ACCORDANCE WITH THE CITY'S DESIGN AND CONSTRUCTION MANUAL SHALL BE APPLICABLE TO DEVELOPMENT IN THE ADP.
- B. CONSTRUCT A STABILIZED ENTRANCE/PARKING/DELIVERY AREA.
- C. INSTALL PERIMETER CONTROLS AND REQUEST THE INSPECTION OF THE PRECONSTRUCTION EROSION AND SEDIMENT CONTROL MEASURES DESIGNATED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. LAND DISTURBANCE WORK SHALL NOT PROCEED UNTIL THERE IS A SATISFACTORY INSPECTION.
- D. IDENTIFY THE LIMITS OF CONSTRUCTION ON THE GROUND WITH EASILY RECOGNIZABLE INDICATIONS SUCH AS CONSTRUCTION STAKING, CONSTRUCTION FENCING, AND PLACEMENT OF PHYSICAL BARRIERS OR OTHER MEANS ACCEPTABLE TO THE CITY INSPECTOR AND IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
- 2. THE SITE SHALL COMPLY WITH ALL REQUIREMENTS OF THE MISSOURI WATER POLLUTION CONTROL AND NPDES STORMWATER RUNOFF FROM CONSTRUCTION SITES GENERAL PERMIT, AND LEE'S SUMMIT STANDARDS AND SPECIFICATIONS LIMITED TO:
- A. STABILIZATION OF ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS.
- B. INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PERFORMED TO MEET OR EXCEED THE MINIMUM INSPECTION FREQUENCY IN THE MISSOURI GENERAL PERMIT. AT A MINIMUM, INSPECTIONS SHALL BE PERFORMED DURING ALL PHASES OF CONSTRUCTION AT THE FOLLOWING INTERVALS: I AT LEAST ONCE EVERY 14 DAYS
- II BY THE END OF THE NEXT DAY, EXCLUDING WEEKENDS AND FEDERAL HOLIDAYS, AFTER A RAIN EVENT OF ½ INCH OR MORE.
- C. AN INSPECTION LOG SHALL BE MAINTAINED AND SHALL BE AVAILABLE FOR REVIEW BY THE REGULATORY AUTHORITY.
- D. THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE ROUTINELY UPDATED PER THE SWPPP AND NOI TO SHOW ALL CHANGES AND AMENDMENTS TO THE PLAN. A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE KEPT ON SITE AND MADE AVAILABLE FOR REVIEW BY THE REGULATORY AUTHORITY.
- 3. UNLESS OTHERWISE NOTED IN THE PLANS. ALL SEEDING MUST CONFORM TO THE CITY OF LEE'S SUMMIT STANDARDS AND SPECIFICATIONS.
- 4. EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED FOR THE DURATION OF A PROJECT. ALL INSTALLED EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN A MANNER THAT PRESERVES THEIR EFFECTIVENESS. IF THE CITY DETERMINES THAT THE BMPS IN PLACE DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL AT ANY TIME DURING THE PROJECT, ADDITIONAL OR ALTERNATE MEASURES THAT PROVIDE EFFECTIVE CONTROL SHALL BE REQUIRED. FAILURE TO DO SO IS A VIOLATION.
- 5. SILT FENCES AND SEDIMENT CONTROL BMPS WHICH ARE SHOWN ALONG THE BACK OF CURB MUST BE INSTALLED WITHIN TWO WEEKS OF CURB BACKFILL AND PRIOR TO PLACEMENT OF BASE ASPHALT. EXACT LOCATIONS OF THESE EROSION CONTROL METHODS MAY BE FIELD ADJUSTED TO MINIMIZE CONFLICTS WITH UTILITY CONSTRUCTION; HOWEVER, ANTICIPATED DISTURBANCE BY UTILITY CONSTRUCTION SHALL NOT DELAY INSTALLATION.
- 6. THE ABOVE REQUIREMENTS ARE THE RESPONSIBILITY OF THE PERMITTEE FOR THE SITE. RESPONSIBILITY MAY BE TRANSFERRED TO ANOTHER PARTY BY THE PERMITTEE ACCORDING TO THE SWPPP, BUT THE PERMITTEE SHALL REMAIN LIABLE BY THE CITY OF LEE'S SUMMIT IF ANY OF THE ABOVE CONDITIONS ARE NOT MET.
- 7. APWA EROSION AND SEDIMENT CONTROL/BMPS USED ON THE PROJECT SHALL BE CONSTRUCTED, INSPECTED, AND MAINTAINED AT A MINIMUM TO APWA STANDARDS AND
- 8. THE SITE SHALL COMPLY WITH ALL REQUIREMENTS OF THE MISSOURI WATER POLLUTION CONTROL AND NPDES STORMWATER RUNOFF FROM CONSTRUCTION SITES GENERAL PERMIT, OTHER PERMIT REQUIREMENTS, AND CITY OF LEE'S SUMMIT.
- 9. CONTRACTOR SHALL, BY HIS OWN INVESTIGATION, AND PRIOR TO BIDDING, SATISFY HIMSELF AS TO THE CONDITION OF EXISTING BMPS INCLUDING SEDIMENT TRAPS AND BASINS UNDER CURRENT OPERATION/NOI FROM THE DEMOLITION PLANS CONSTRUCTION DOCUMENTS. AT NOTICE TO PROCEED, BMPS, EXISTING PERMITS, SWPPP OPERATIONS, AND MAINTENANCE BECOMES THE CONTRACTOR'S RESPONSIBILITY.

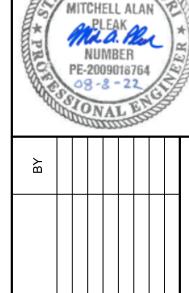
SANITARY SEWER NOTES

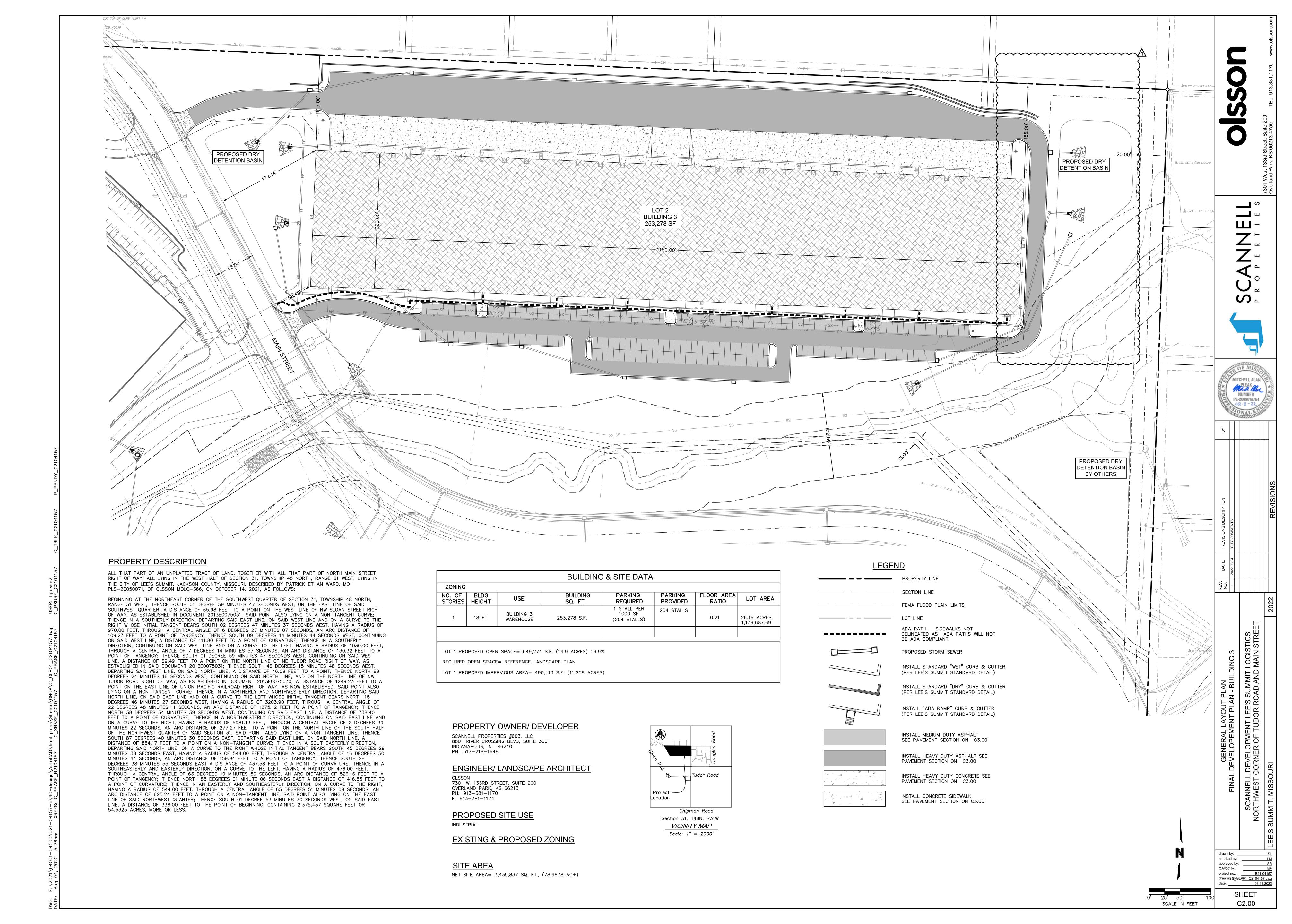
- 1. ALL SANITARY SEWER SERVICE PIPE SHALL BE PVC SDR-26. SEWER SERVICE LINE W/PUSH ON JOINTS.
- 2. INSTALL 6" ONE-WAY CLEANOUT 10' FROM BUILDING OR AS NOTED ON PLANS.
- 3. NO FOUNDATION DRAINS ARE PLANNED FOR THIS PROJECT. DOWNSPOUTS SHALL NOT BE CONNECTED TO SANITARY SEWER. DOWNSPOUTS WILL DISCHARGE AT GRADE USING SPLASHBLOCK OR TO PROPOSED STORM SEWER.
- 4. TEN FEET OF HORIZONTAL SEPARATION AND TWO FEET OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN WATER LINES AND THE SANITARY SEWER SERVICE LINE.
- 5. IN THE EVENT OF WORK IN OR ON THE SANITARY MAIN, ANY TREES OR PLANTINGS PLACED WITHIN THE SEWER EASEMENT MAY BE REMOVED WITHOUT REPLACEMENT OR COMPENSATION THERE-OF.
- 6. 90-DEGREE TURNS TO BE ACCOMPLISHED WITH TWO 45-DEGREE BENDS WITH A MINIMUM OF ONE FOOT OF PIPE BETWEEN THE 45-DEGREE BENDS.
- 7. FOR VERTICAL RISERS AND ENCASEMENTS, SEE SANITARY SEWER CONNECTION SHEETS.
- 8. SANITARY SERVICE LINES SHALL BE INSTALLED BY BUILDING PLUMBER AND IN ACCORDANCE WITH THE CURRENT SERVICE LINE DESIGN AND CONSTRUCTION STANDARDS.
- ROOF DRAINS SHALL NOT BE CONNECTED TO THE SANITARY SEWER.
- 10. REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET THE GRADE REQUIREMENTS.
- 11. MANHOLE STATIONS AND PIPE LENGTHS SHOWN ON PLANS ARE TO THE CENTER OF MANHOLES. DO NOT SCALE DRAWINGS.
- 12. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PAVEMENT OR SIDEWALKS DAMAGED DURING THE CONSTRUCTION OF THE SANITARY SEWER SERVICE LINE.

AMERICAN WITH DISABILITIES ACT. (ADA)

- 1. ADA PARKING SPACES, MARKINGS AND ACCESS TO THE BUILDING(S) SHALL COMPLY WITH ADA.
- 2. ALL CONSTRUCTION TRAFFIC, TEMPORARY TRAFFIC CONTROL DEVICES,
 - AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.





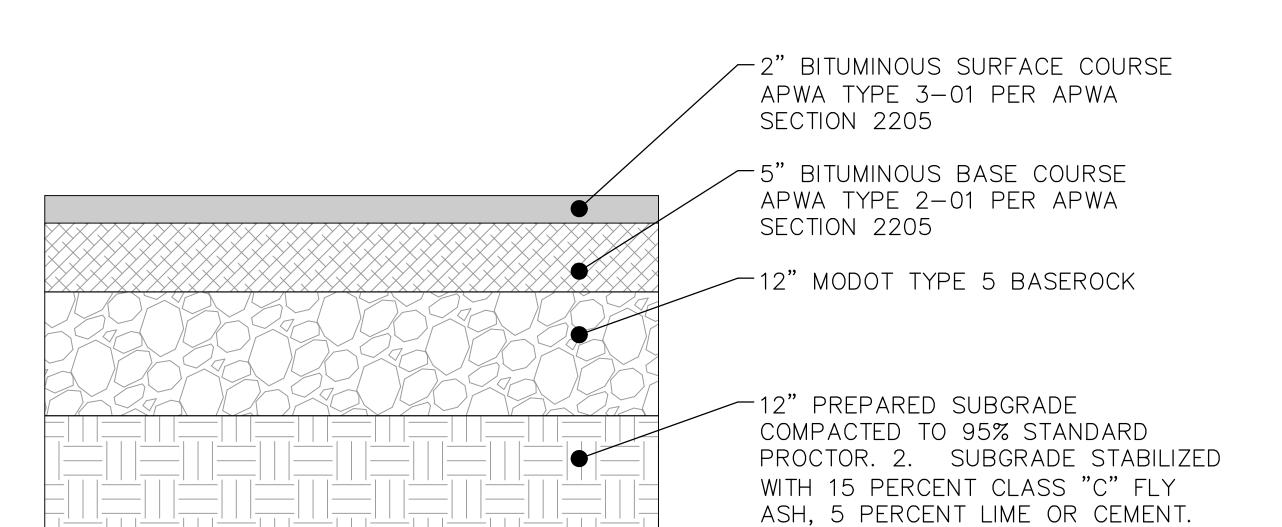




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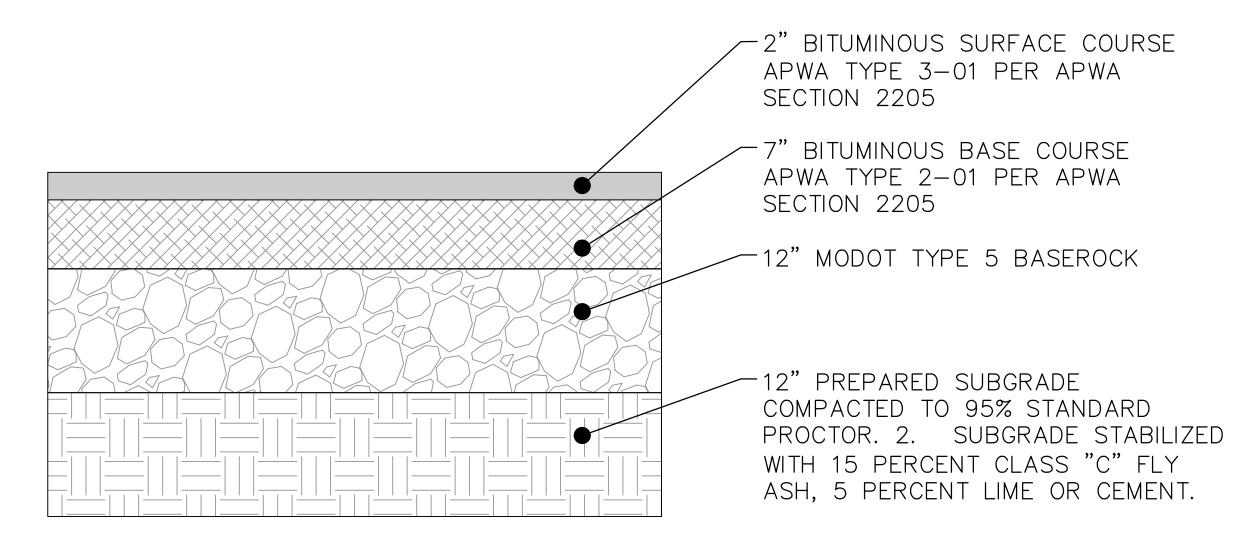
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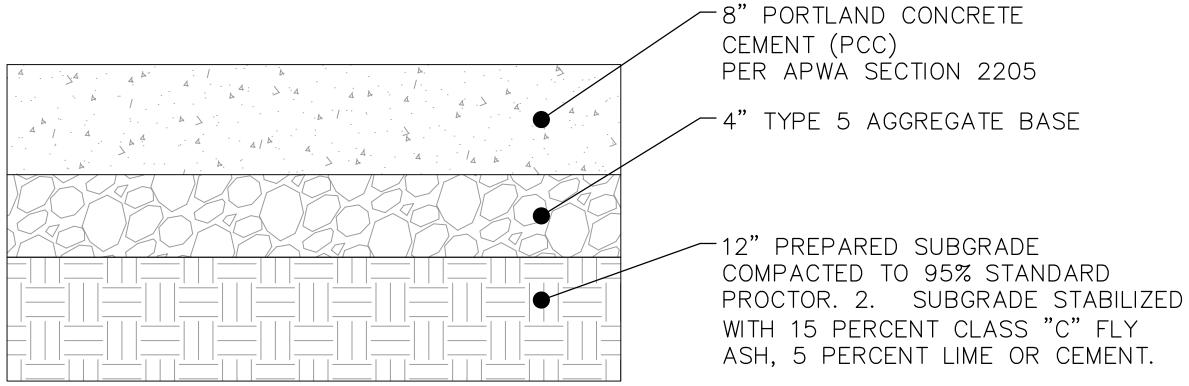
MEDIUM DUTY ASPHALT PAVEMENT SECTION

NOT TO SCALE PER GEOTECHNICAL REPORT



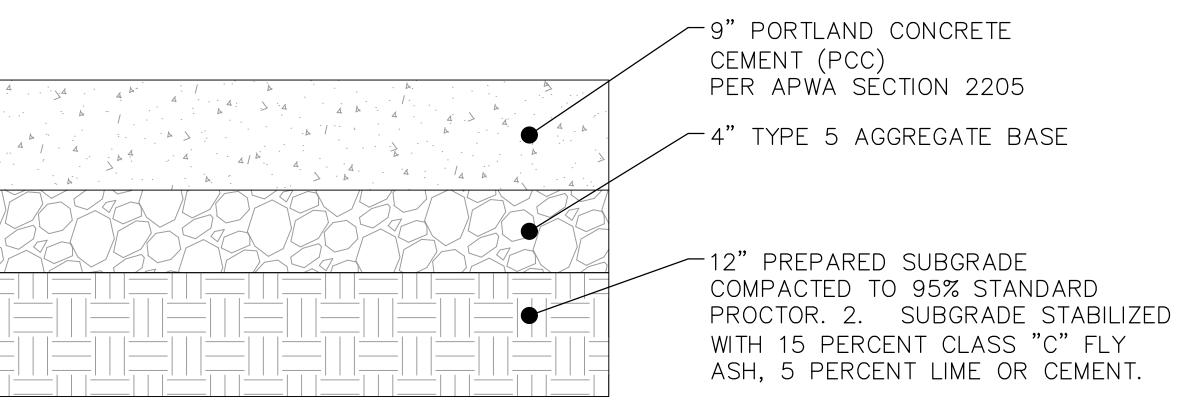
HEAVY DUTY ASPHALT PAVEMENT SECTION

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MEDIUM DUTY CONCRETE PAVEMENT SECTION

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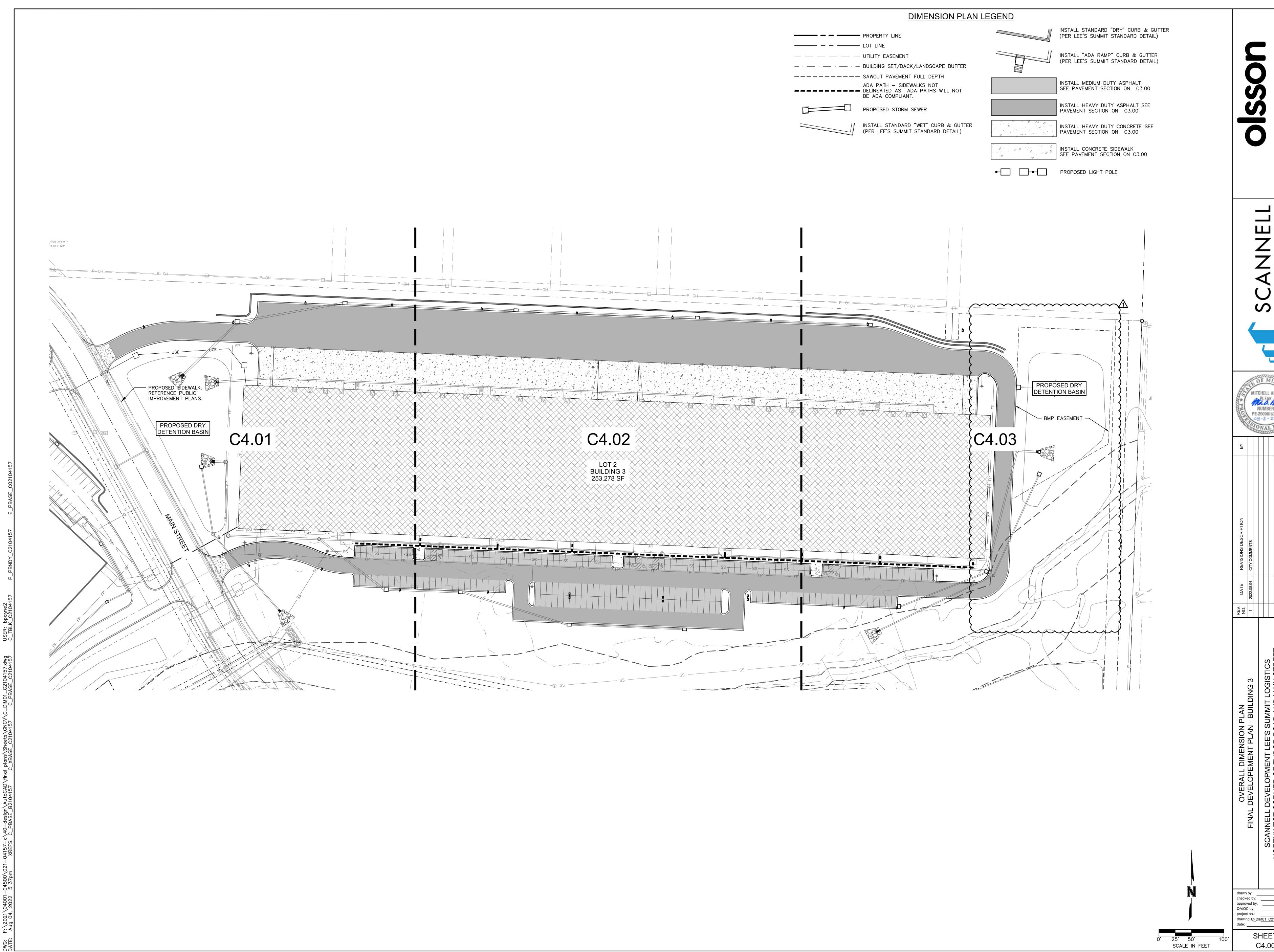


HEAVY DUTY CONCRETE PAVEMENT SECTION

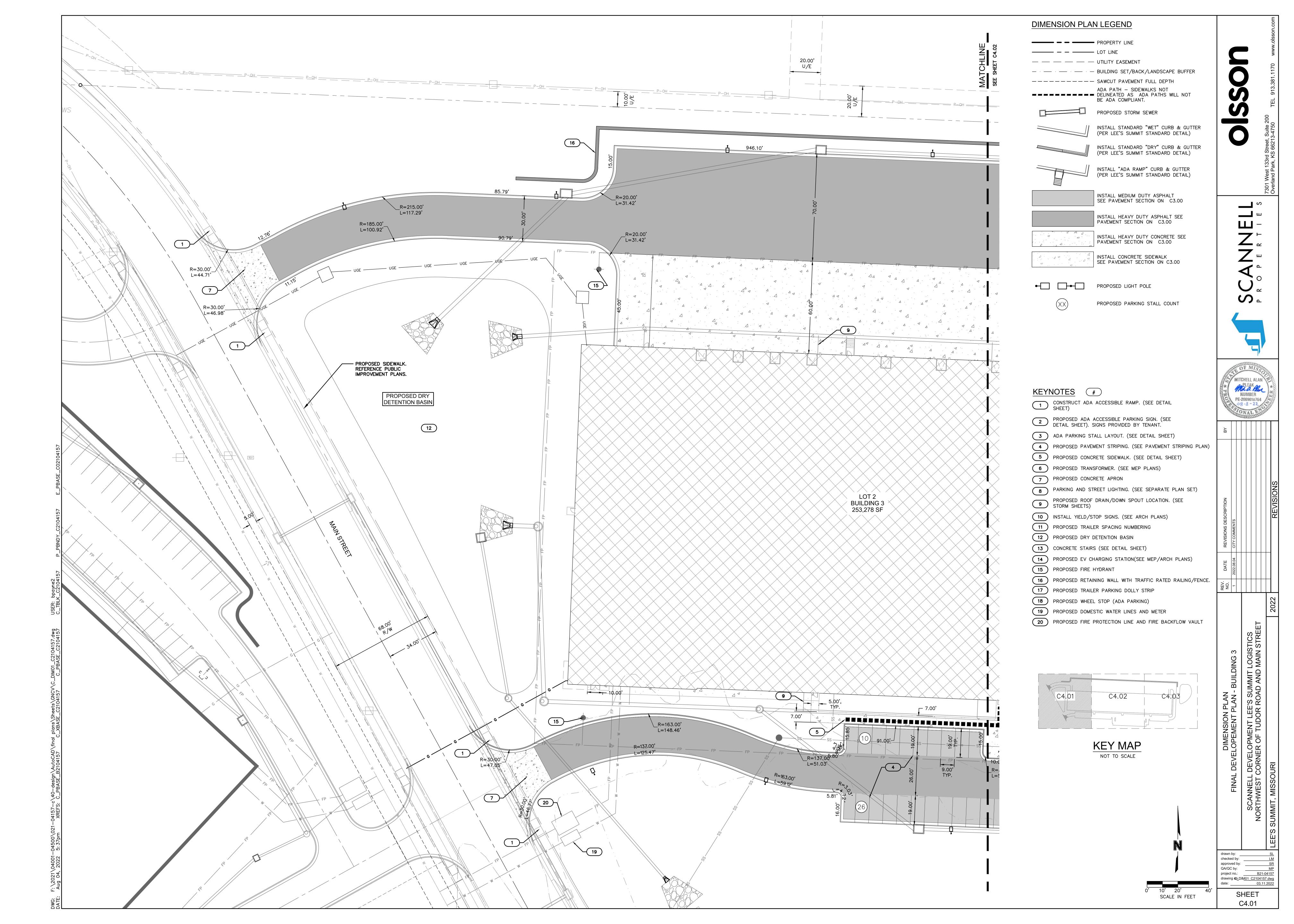
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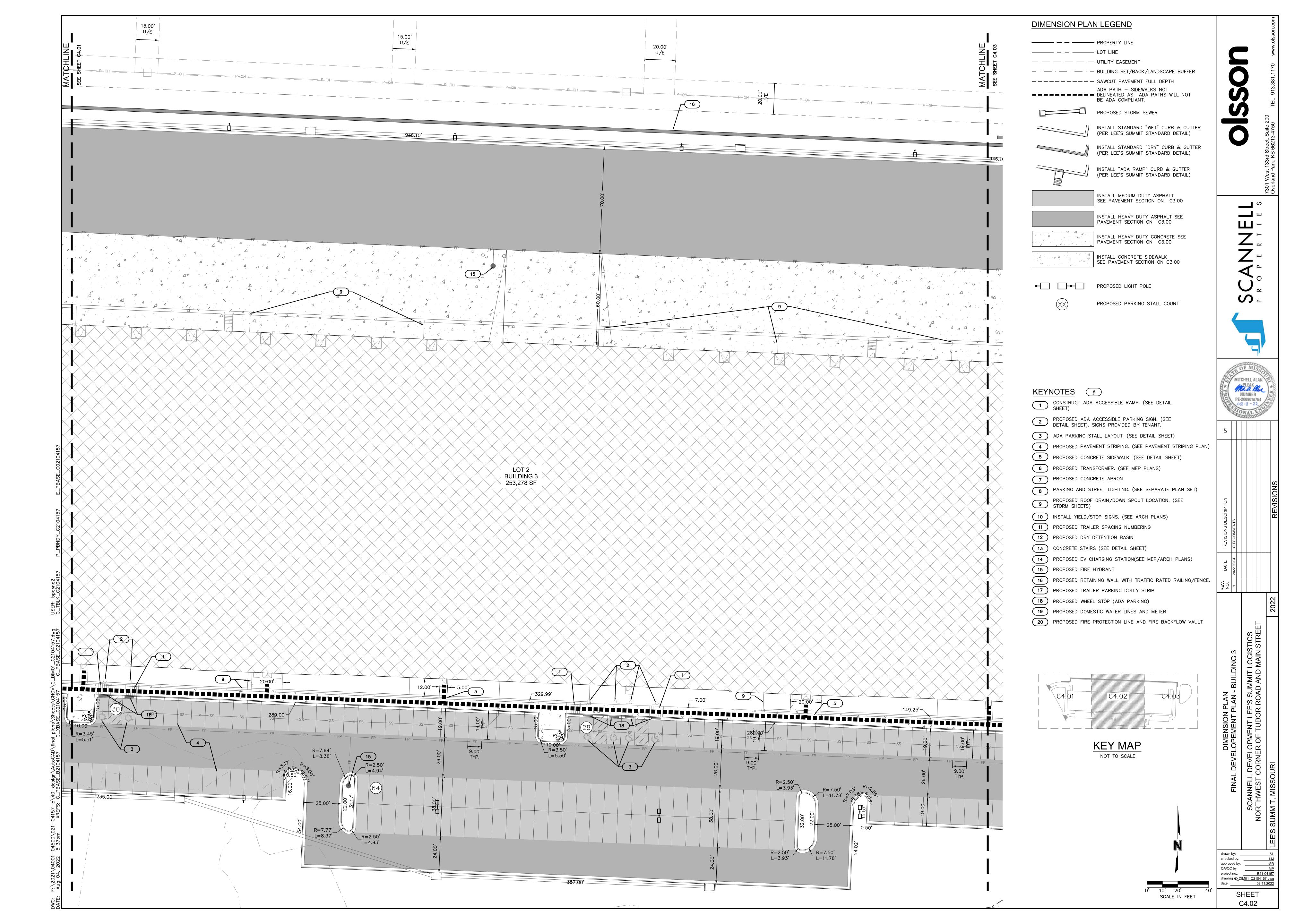
- 1. ALL CONSTRUCTION, SITE PREPARATION, GRADING, AND EXCAVATION PROCEDURES SHALL CONFORM TO RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT INCLUDING ADDENDUMS. CONTRACTOR SHALL CONTACT ENGINEER WITH
- ANY DISCREPANCIES OR CONCERNS BASED ON ACTUAL SITE CONDITIONS. 2. GEOTECHNICAL REPORT GOVERNS ONLY IF IT MEETS OR EXCEEDS CITY REQUIREMENTS.
- 3. SUBGRADE STABILIZED WITH 15 PERCENT CLASS "C" FLY ASH, 5 PERCENT LIME

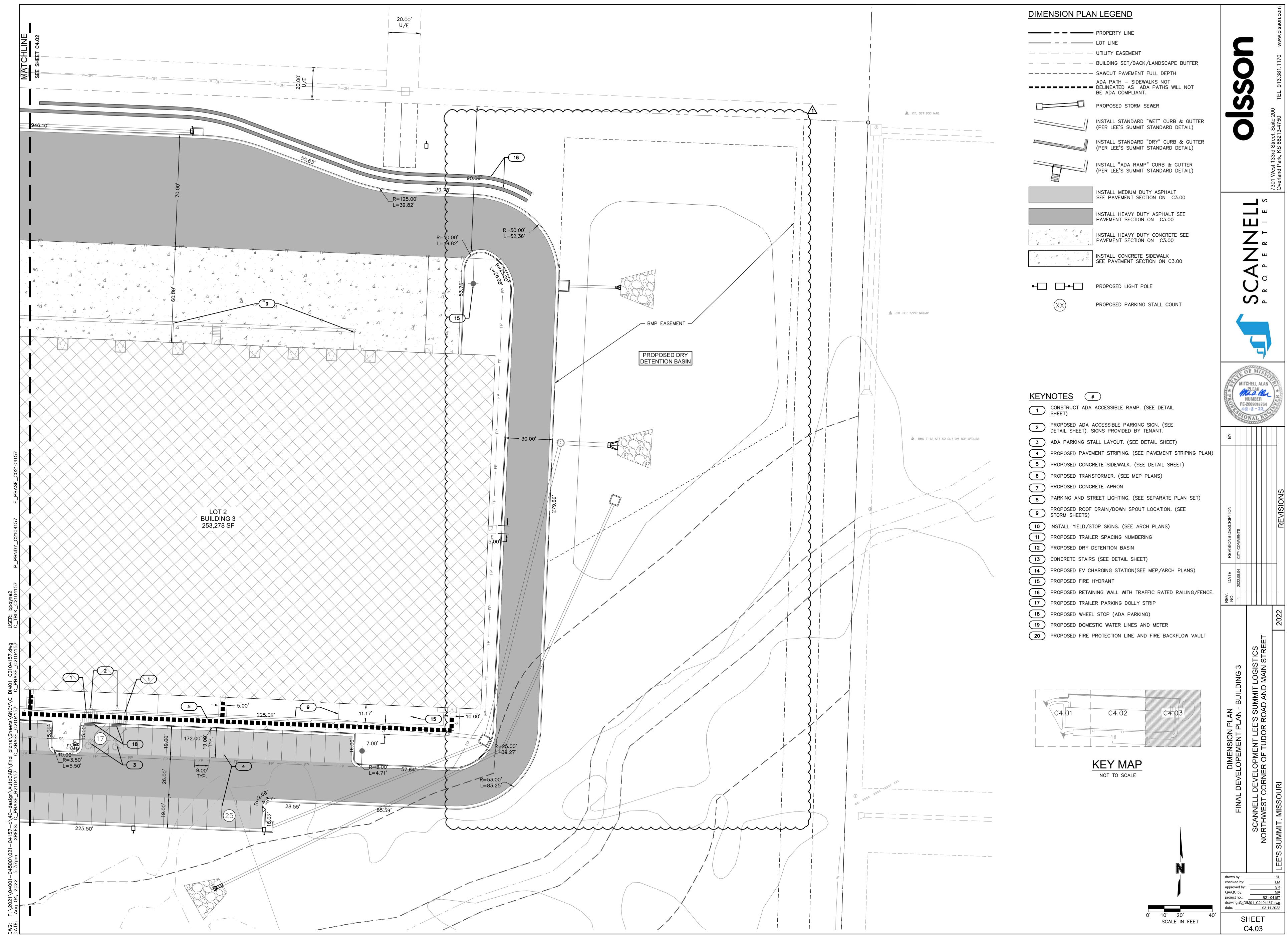
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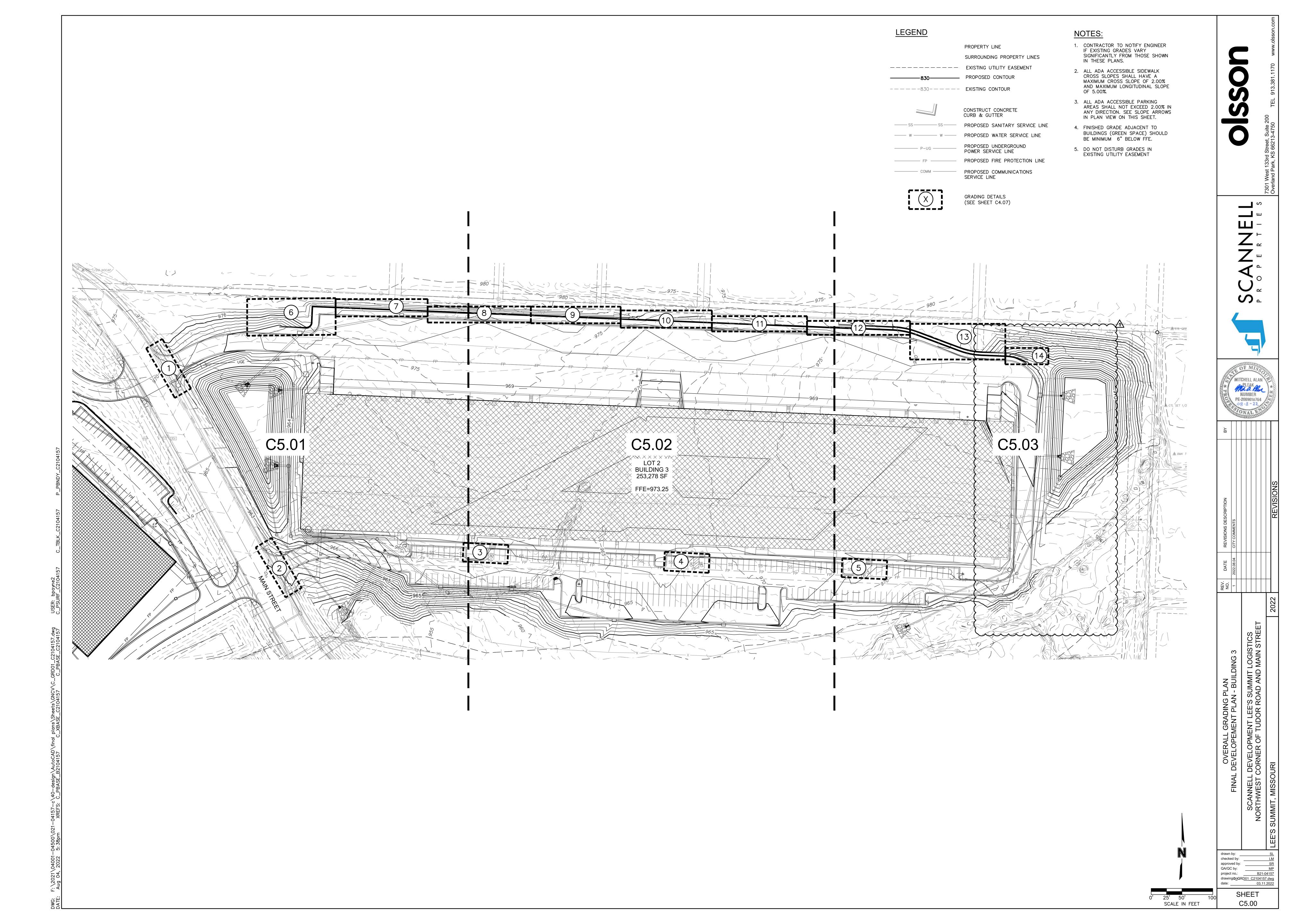


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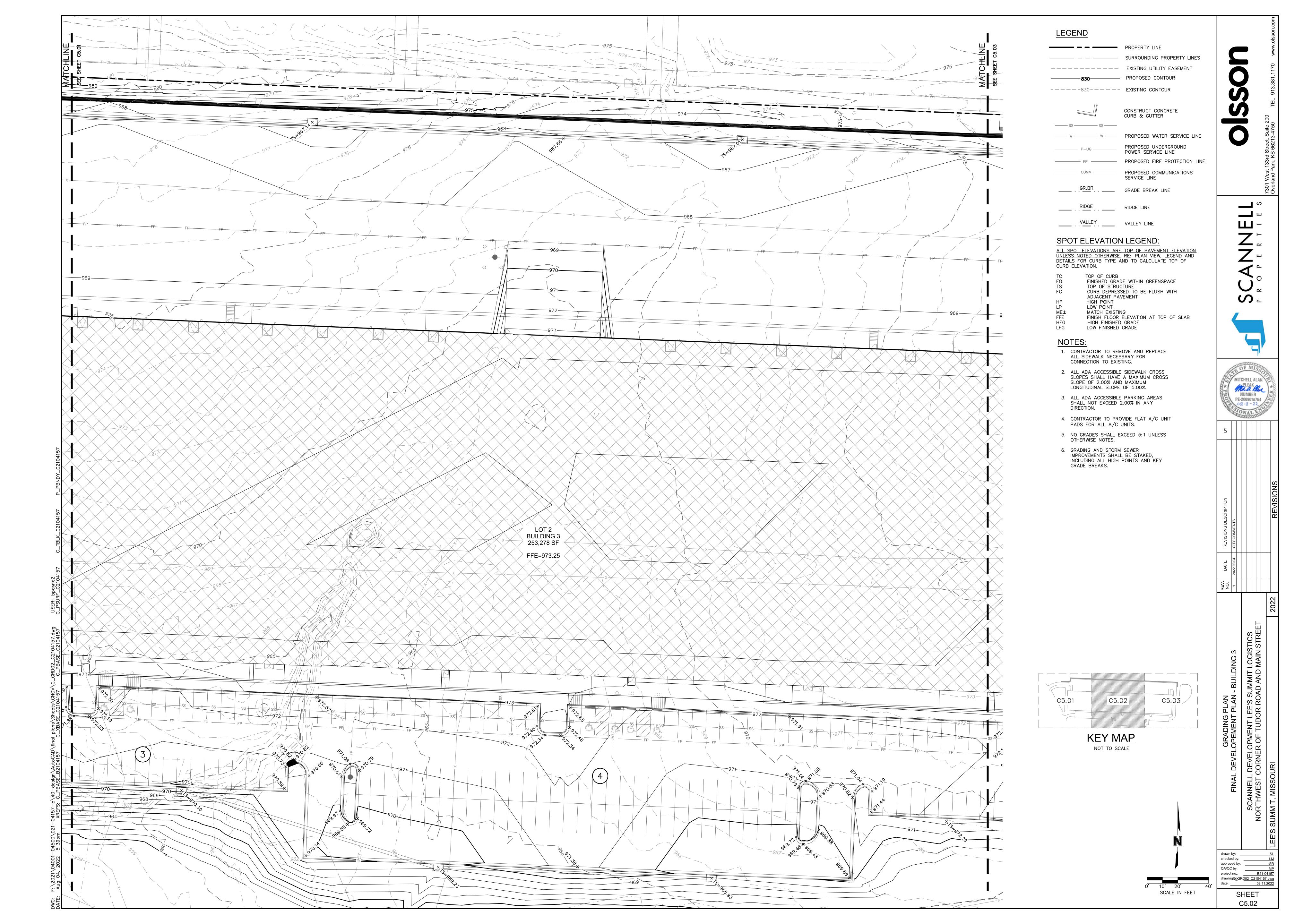


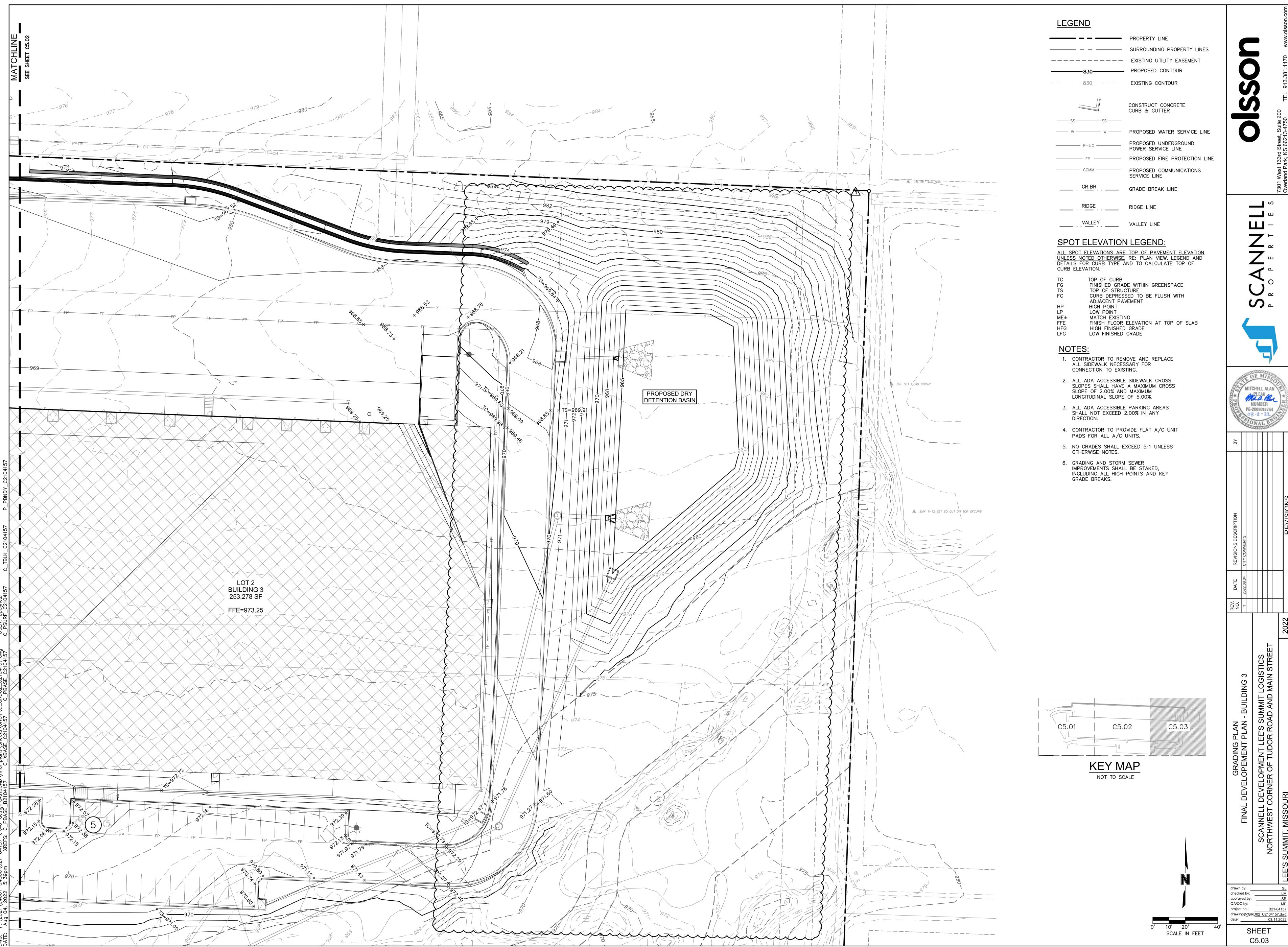




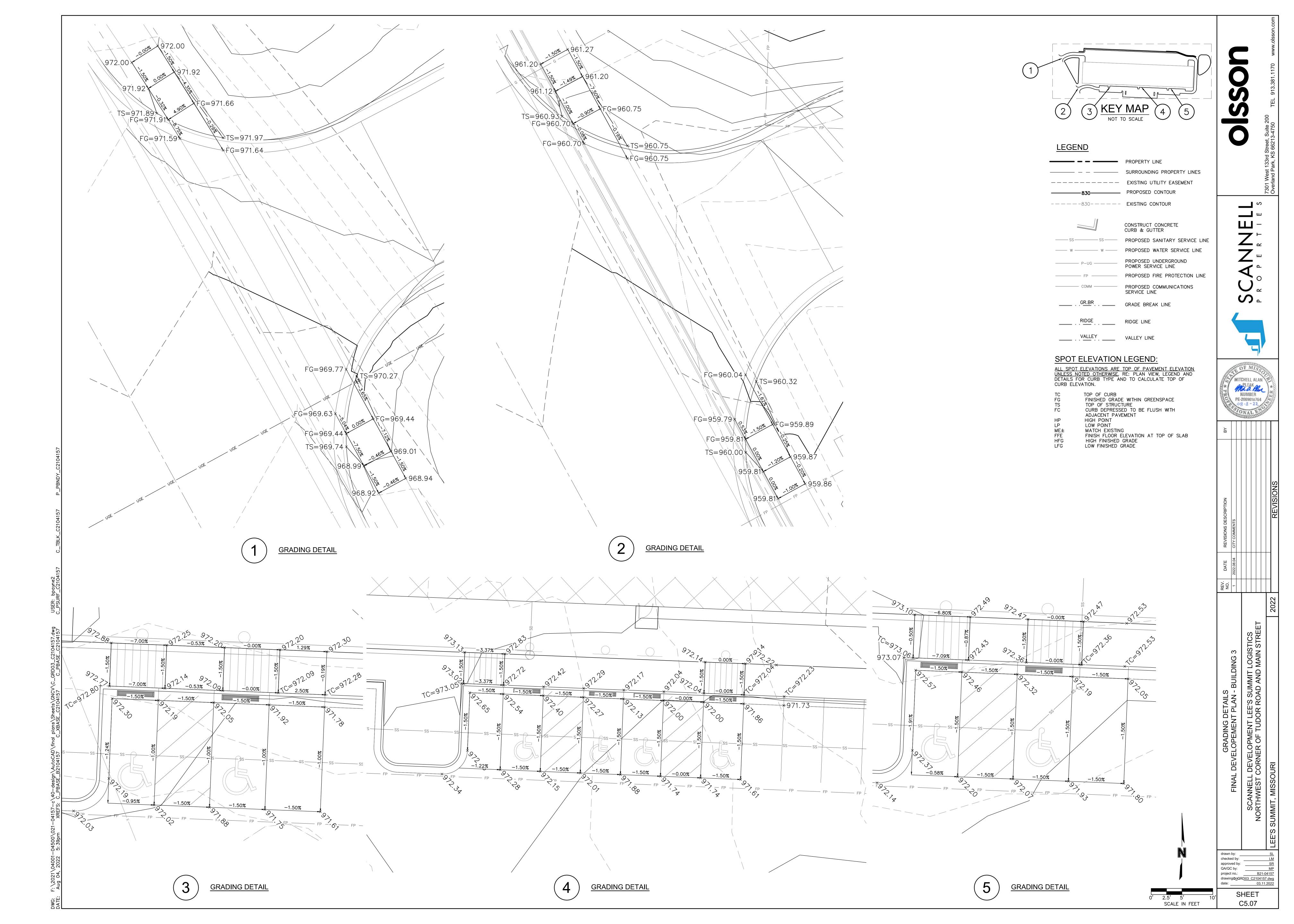


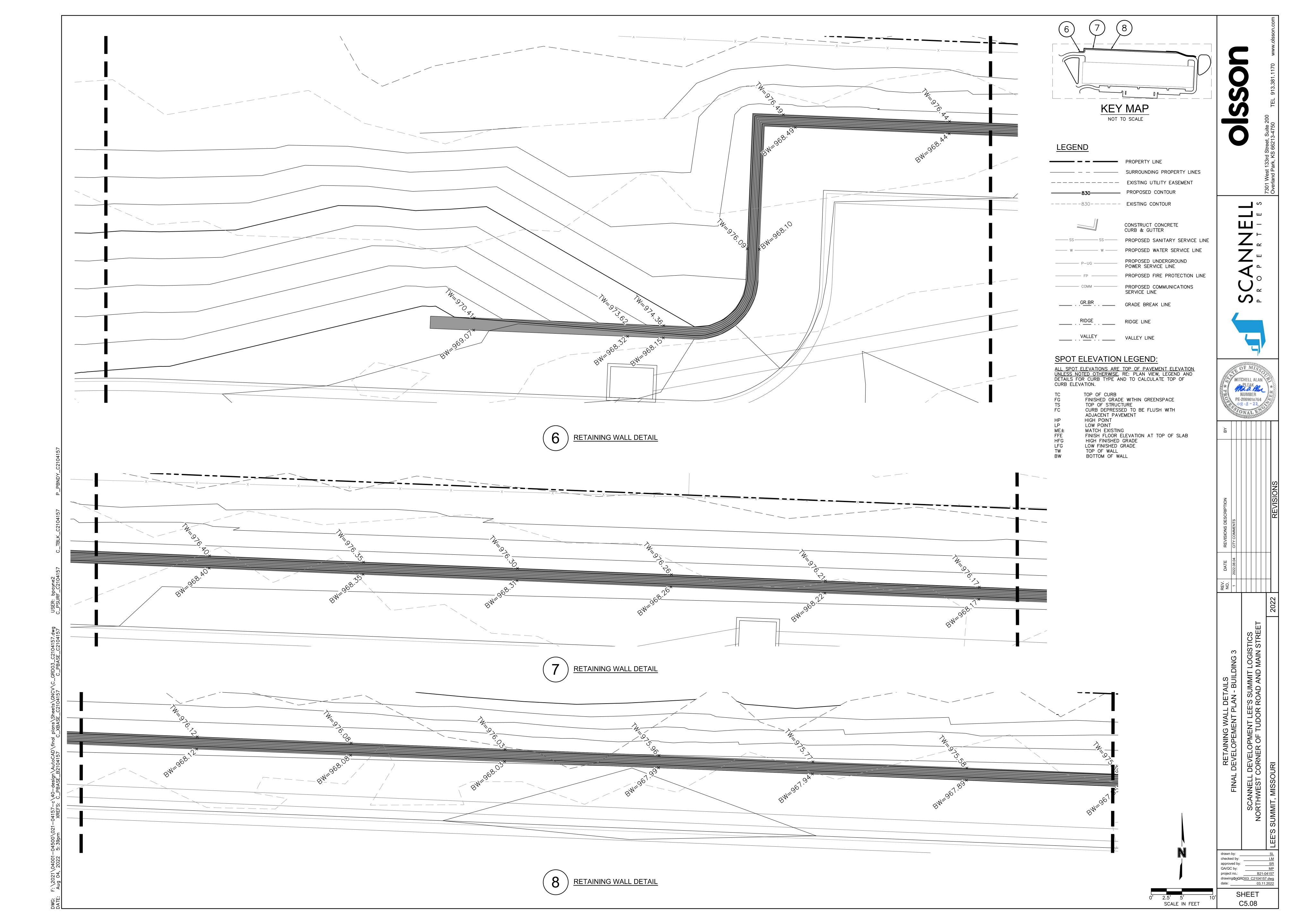


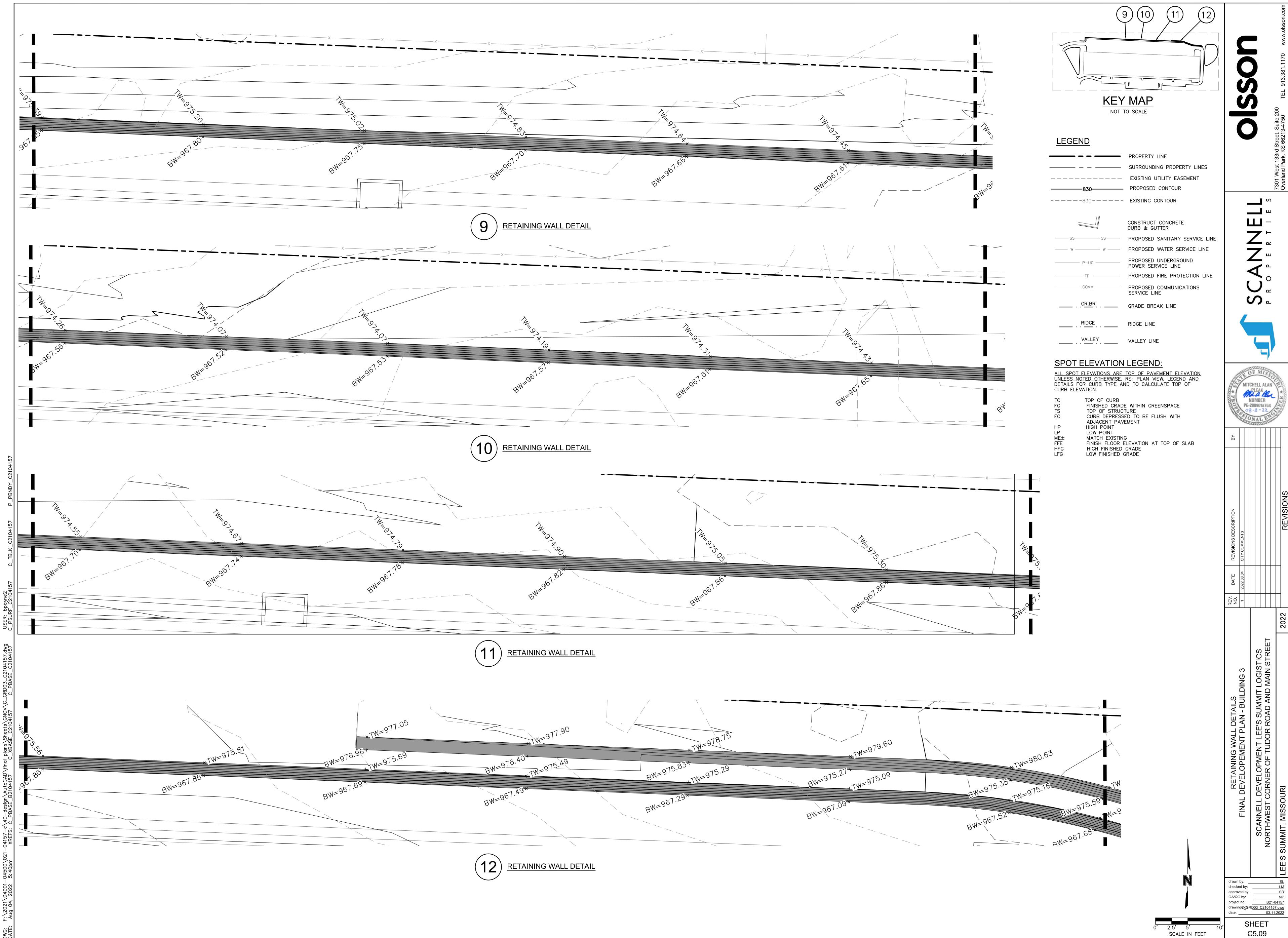


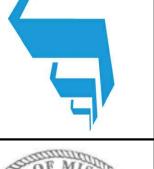


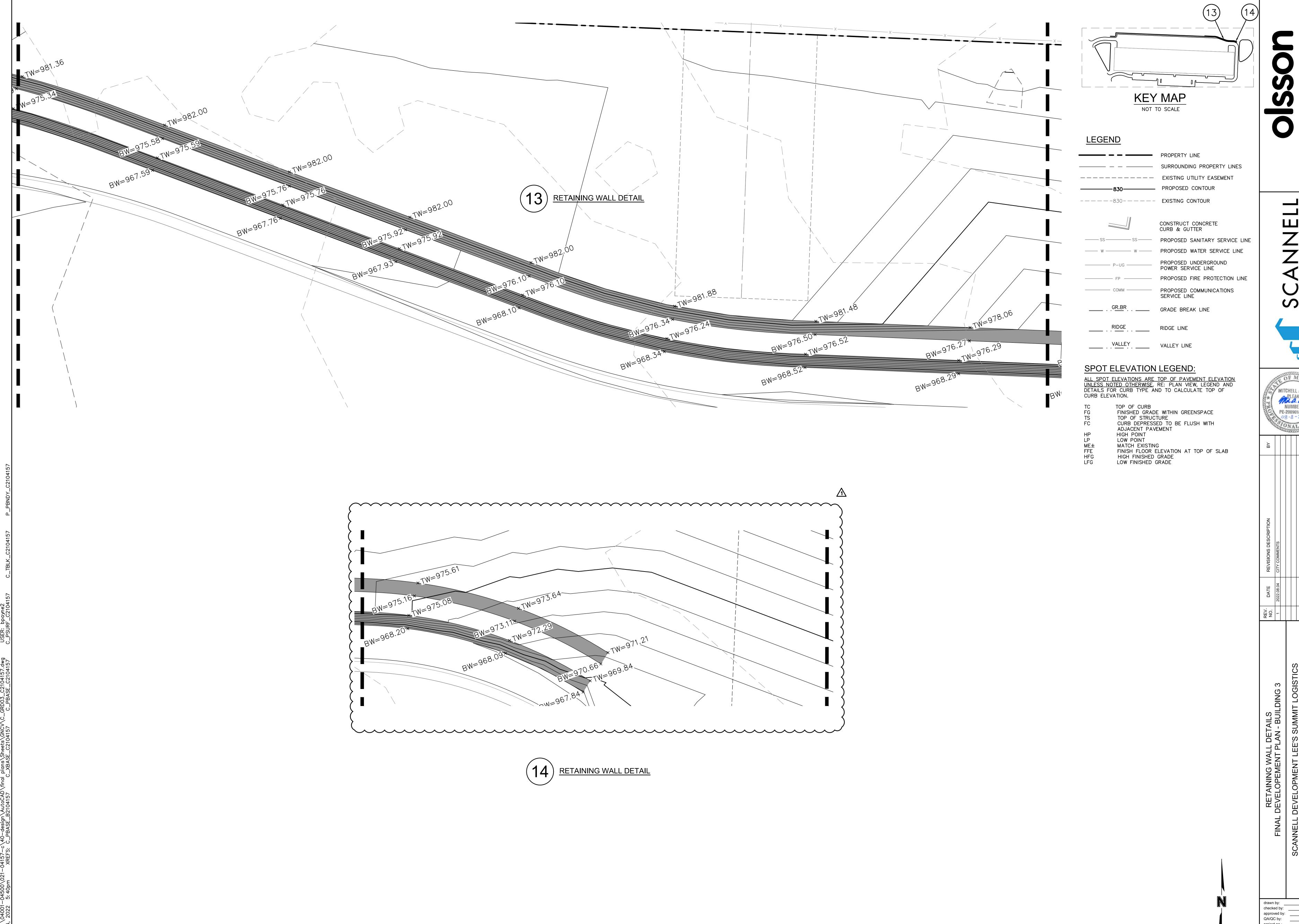
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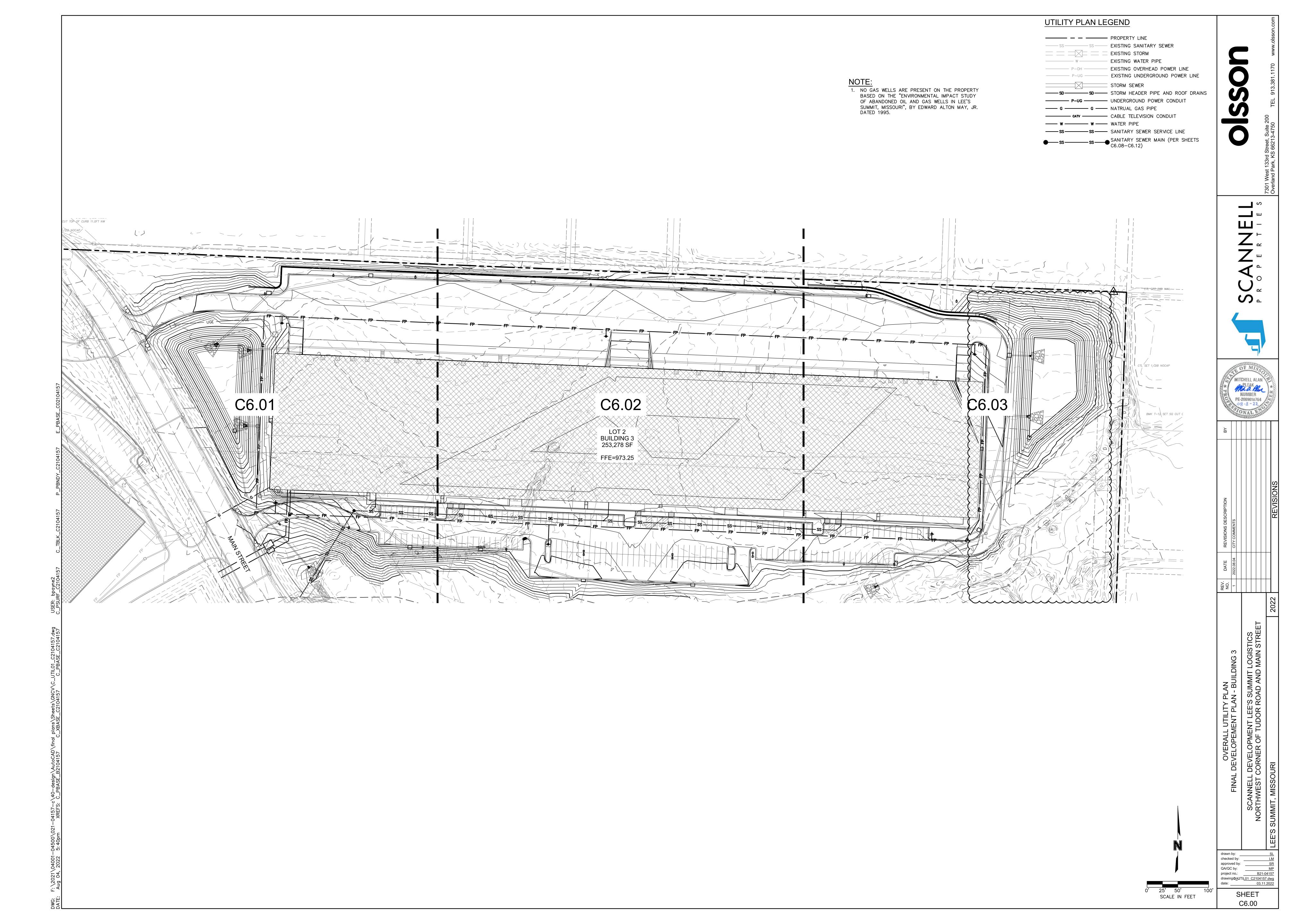


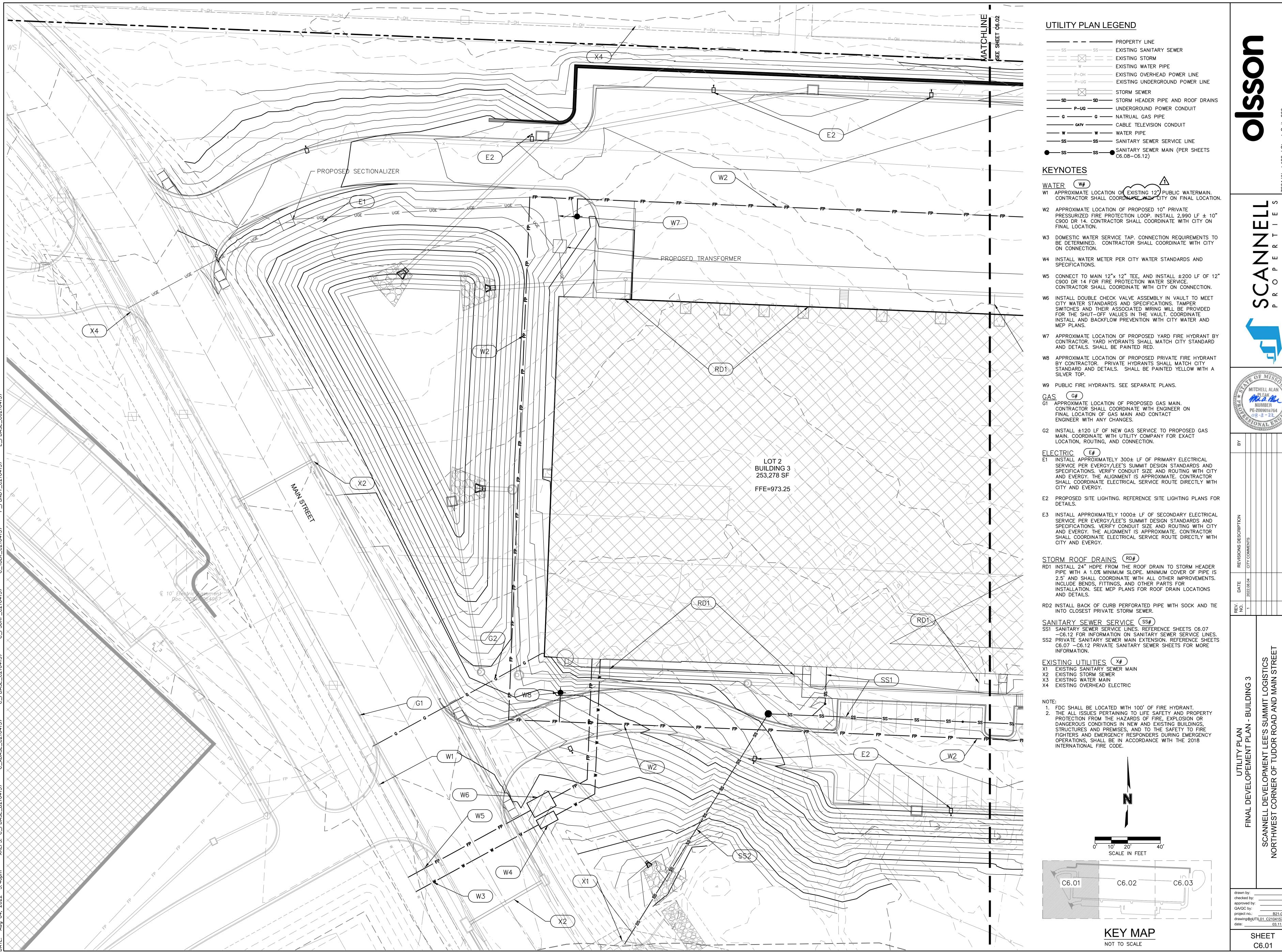




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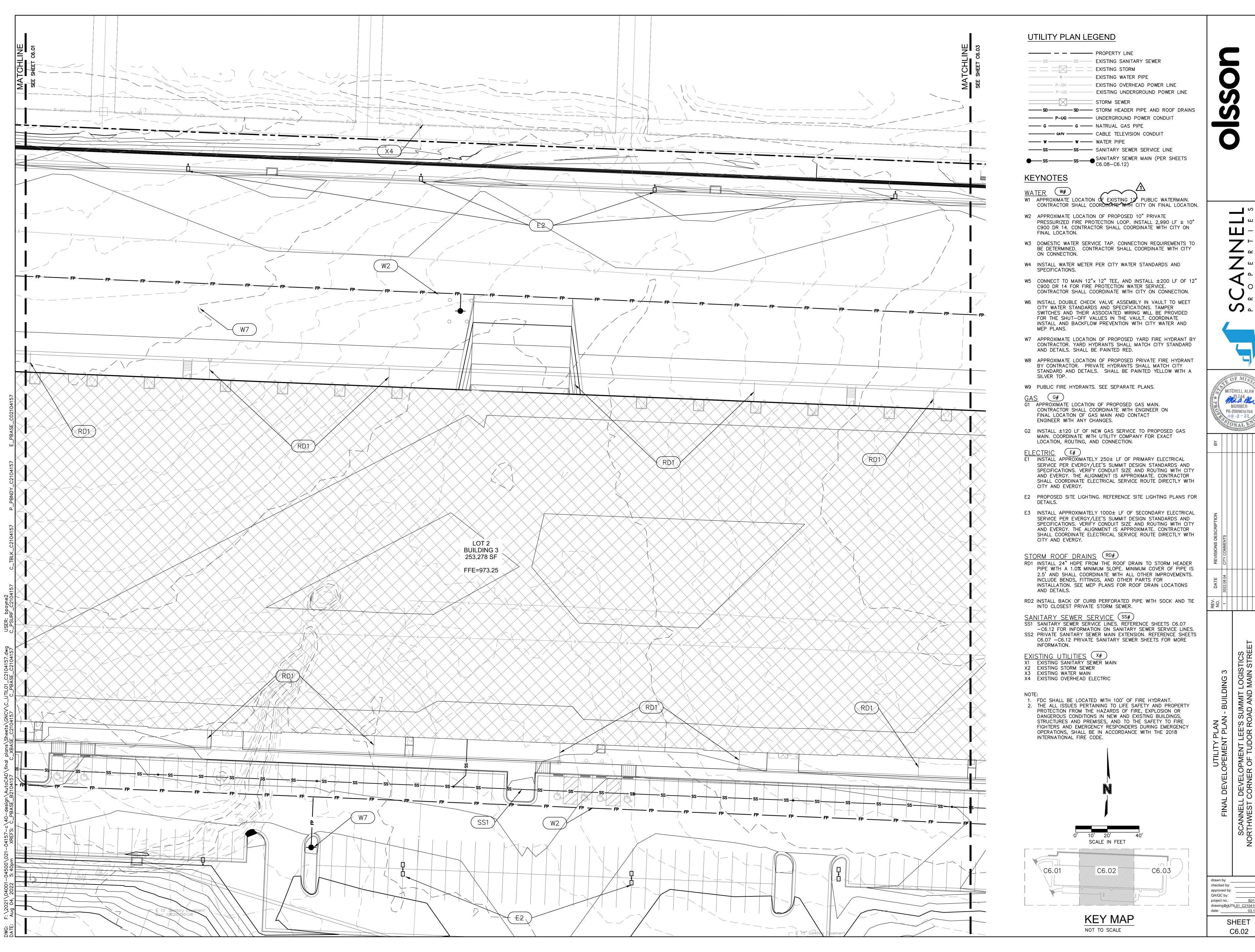
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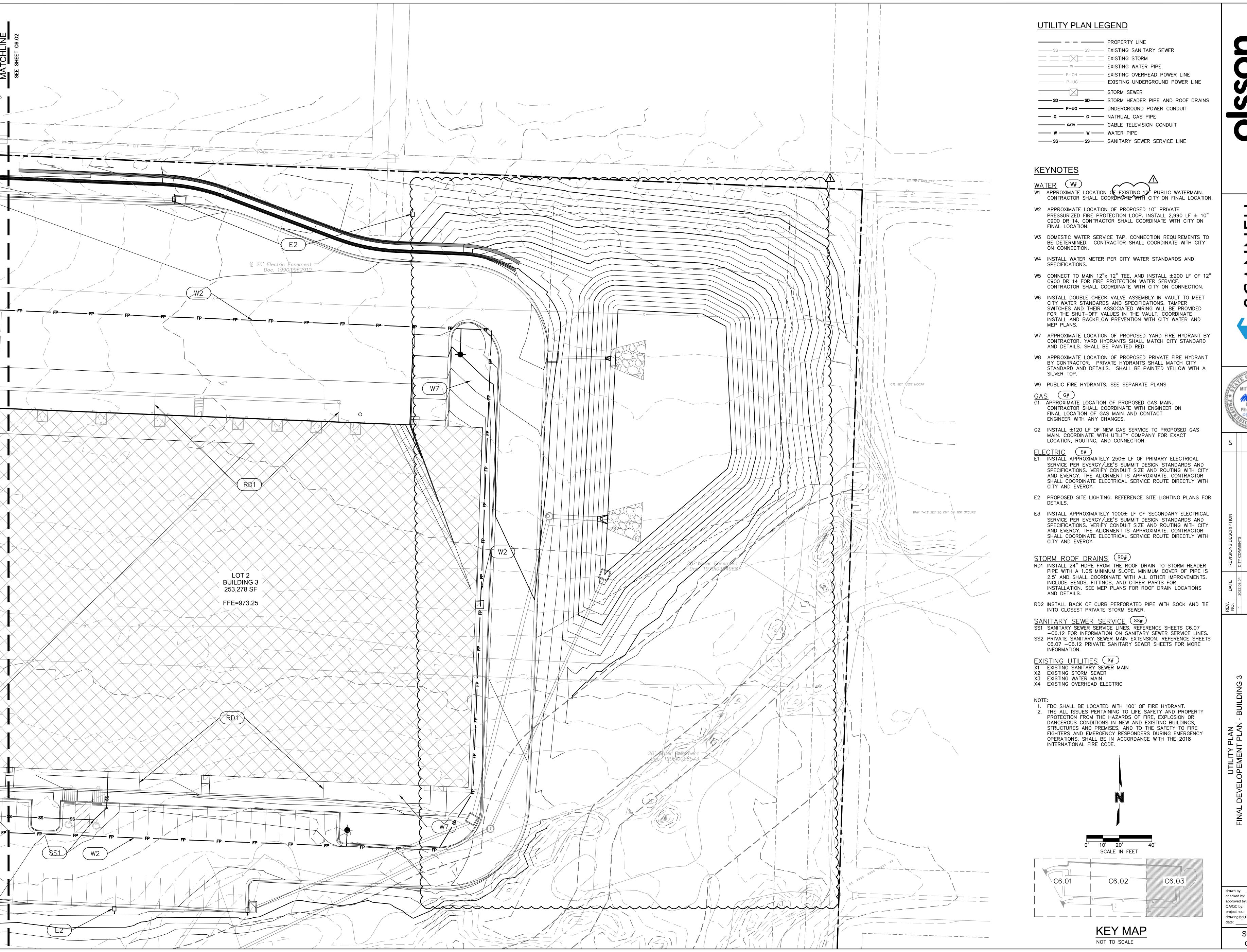


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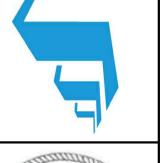
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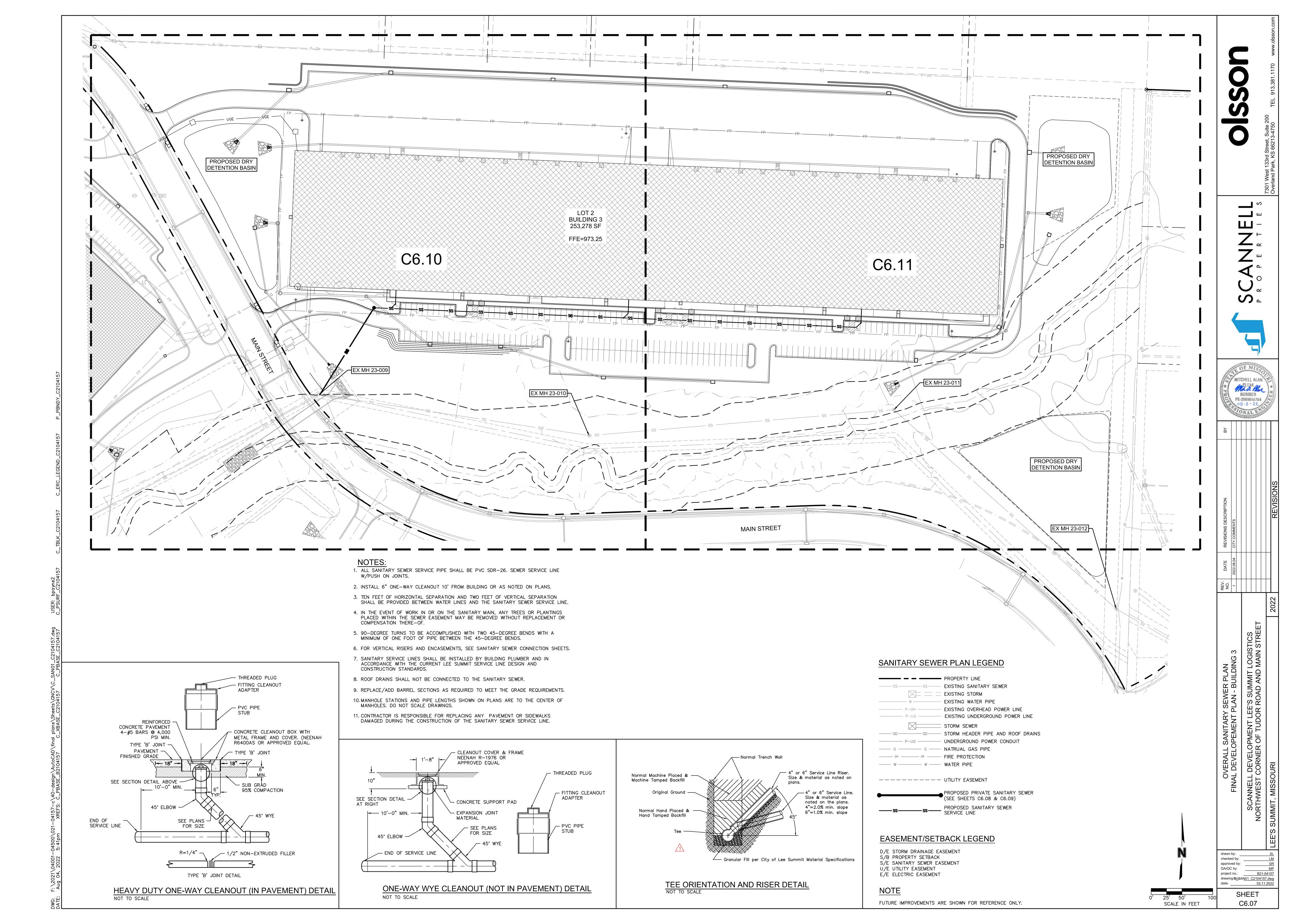
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- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
- 3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- 4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
- 7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
- 8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
- 9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
- 12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

REFERENCES

- 1. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY:
- A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF LEE'S SUMMIT, MISSOURI.
- B. ALL CONSTRUCTION IN MODOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF
- TRANSPORTATION AND MODOT. C. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES
- D. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES.
- E. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI
- 4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

EXISTING CONDITIONS

- 1. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKING THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDES THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. CONTACT THE ENGINEER REGARDING ANY DISCREPANCIES THAT MAY AFFECT THE ABILITY TO CONSTRUCT FROM THESE PLANS AS DESIGNED.
- 3. EXISTING CONDITIONS WERE DETERMINED THROUGH A VARIETY OF METHODS THAT MAY INCLUDE SURVEY, AERIAL IMAGERY, AVAILABLE RECORDS, GIS DATA, ETC. SUBSURFACE CONDITIONS ARE APPROXIMATE AND MAY NOT INCLUDE ALL UTILITIES AND OTHER SITE IMPROVEMENTS PRESENT ON SITE. THE CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

CONSTRUCTION

- 1. THE CONTRACTOR SHALL INSTALL TRAFFIC CONTROL WHILE WORKING IN THE PUBLIC RIGHT-OF-WAY AS SHOWN IN THESE PLANS. IF PLANS ARE NOT PROVIDED, CONTRACTOR SHALL COORDINATE AND PROVIDE CONTROLS TO THE SATISFACTION OF THE RIGHT-OF-WAY OWNER.
- 2. THE CONTRACTOR SHALL PROTECT ALL TREES OVER 3" CALIPER FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE ON THESE PLANS.
- 3. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
- 4. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.
- 5. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

SHOP DRAWINGS

- 1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND
- A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT
- B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION
- PERTAINING TO THE PERFORMANCE OF THE WORK; C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY
- PRECAUTIONS AND PROGRAMS INCIDENT THERETO; D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES. AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
- E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.
- 2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING: A. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS
- B. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED

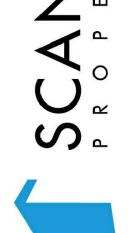
EQUAL" ALTERNATIVE.

SANITARY SEWER GENERAL NOTES

- PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF LEE'S SUMMIT, MISSOURI.
- 2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF
- STRUCTURE TO CENTER OF STRUCTURE. 4. ALL STRUCTURE DIMENSIONS ARE TO INSIDE FACE OF STRUCTURE.
- COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE LID DURING INSTALLATION.
- 6. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.
- 7. SANITARY SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
- MANHOLE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO 1/2 THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE MANHOLE.
- 9. PIPE PENETRATIONS SHALL USE GASKETS TO ENSURE WATERTIGHT
- 10. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
- 11. SEWER LINE INSPECTIONS AND TESTING MUST BE SCHEDULED A MINIMUM OF TWO FULL BUSINESS DAYS IN ADVANCE. CONTRACTOR SHALL FURNISH
- ALL TESTING EQUIPMENT. TESTING SHALL INCLUDE A. MANDREL TEST OF ALL GRAVITY SEWERS. IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION SHALL BE UNCOVERED AND REPLACED.
- B. AIR PRESSURE TEST OF ALL GRAVITY SEWERS. C. VACUUM TEST OF ALL MANHOLES.
- 12. REFER TO SHEET SS3.02 FOR SANITARY DESIGN & SEWER LATERAL
- 13. ALL SERVICE LINE CONNECTIONS SHALL BE MADE WITH AN 8"X8" PVC WYE, 8"PVC 45° BEND, AND THE APPROPRIATE LENGTH OF 8" PVC LATERAL (UNLESS OTHERWISE SHOWN) AND CAP. SEE DETAIL SHEET
- 14. MSFE- INDICATES LOWEST FLOOR SERVICEABLE BY PROPOSED SANITARY
- 15. MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.
- 16. SANITARY LATERALS ARE DESIGNED @ 2.00% SLOPE. IF RISER IS INDICATED, IT IS TO BE AT THE SANITARY MAIN, UNLESS OTHERWISE
- 17. REFER TO CURRENT CITY SPECIFICATIONS FOR MINIMUM PIPE SLOPES.
- 18. CONTRACTOR MAY BE REQUIRED TO RECONSTRUCT PIPE AND STRUCTURE IF MINIMUM INVERT DROP OR PIPE SLOPE REQUIREMENTS ARE NOT MET.
- 19. SANITARY STRUCTURES SHALL BE PER CURRENT CITY DETAILS. IF CITY DOES NOT HAVE PUBLISHED DETAILS STRUCTURES SHALL BE PER CURRENT APWA SPECIFICATIONS.
- 20. GRAVITY SANITARY SEWER AND WATER LINES SHALL BE SEPARATED BY A MINIMUM OF 10'HORIZONTALLY WHEN PARALLEL AND 2'VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.

ITEM NO.	DESCRIPTION	QUANTITIY	UNIT	AS-BUILT QUANTITY	UNIT
1	CONNECT TO EXISTING SANITARY SEWER	1	EA.		EA.
2	10" PVC SDR-26 PIPE (MAIN LINE)	150.34	L.F.		L.F.
3	STANDARD 4'-0" I.D. MANHOLE (8' DEEP)	2	EA.		EA.

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.



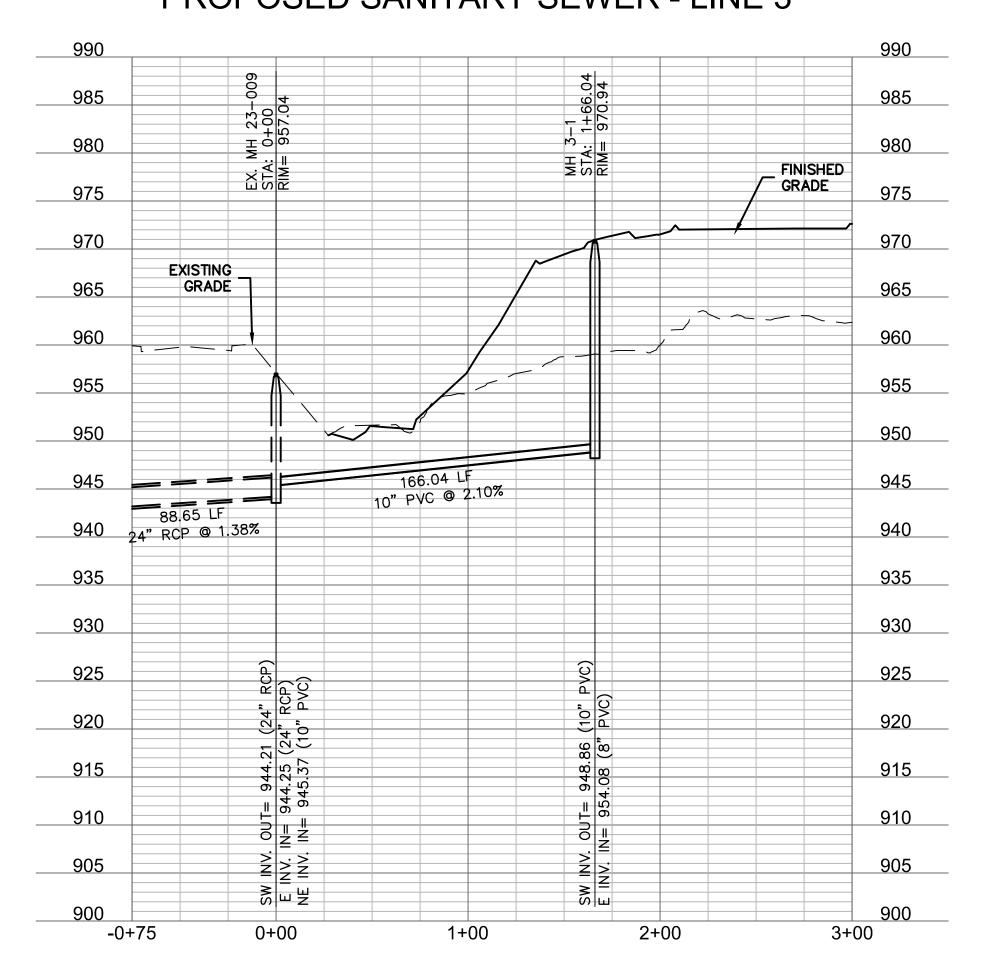


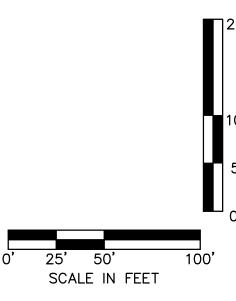
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PROPOSED SANITARY SEWER - LINE 3





LEGEND

	PROPERTY LINE
— — <i>— 830</i> — — —	EXISTING CONTOUR
 830	PROPOSED CONTOUR

- D/E STORM DRAINAGE EASEMENT
- S/B PROPERTY SETBACK

- 1. ALL SANITARY SEWER SERVICE PIPE SHALL BE PVC
- 3. IN THE EVENT OF WORK IN OR ON THE SANITARY MAIN, ANY TREES OR PLANTINGS PLACED WITHIN THE SEWER EASEMENT MAY BE REMOVED WITHOUT REPLACEMENT OR COMPENSATION THERE-OF.
- 4. FOR VERTICAL RISERS AND ENCASEMENTS, SEE SANITARY
- 5. ROOF DRAINS SHALL NOT BE CONNECTED TO THE SANITARY
- 6. REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET
- 7. MANHOLE STATIONS AND PIPE LENGTHS SHOWN ON PLANS ARE TO THE CENTER OF MANHOLES. DO NOT SCALE
- 8. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PAVEMENT OR SIDEWALKS DAMAGED DURING THE

RIM ADJUSTMENT NOTES:

THE GRADE REQUIREMENTS.

STRUCTURES

MH 3-1 PROPOSED SANITARY SEWER - LINE 3 RIM= 970.94 INV IN = 954.08 (8" PVC) INV OUT = 948.86 (10" PVC) N: 53462.658; E: 54900.696

4' ID STD MANHOLE

DESCRIPTION

MITCHELL ALAN

PLEAK NUMBER
PE-2009018764

REVISIONS DESCRIPTION	CITY COMMENTS				REVISIONS
DATE	022 08 04				

QA/QC by: MP
project no.: B21-04157
drawissanb_PLP01 C2104157.dwg
date: 03.11.2022

SHEET

DPODERTY LINE

EASEMENT/SETBACK LEGEND

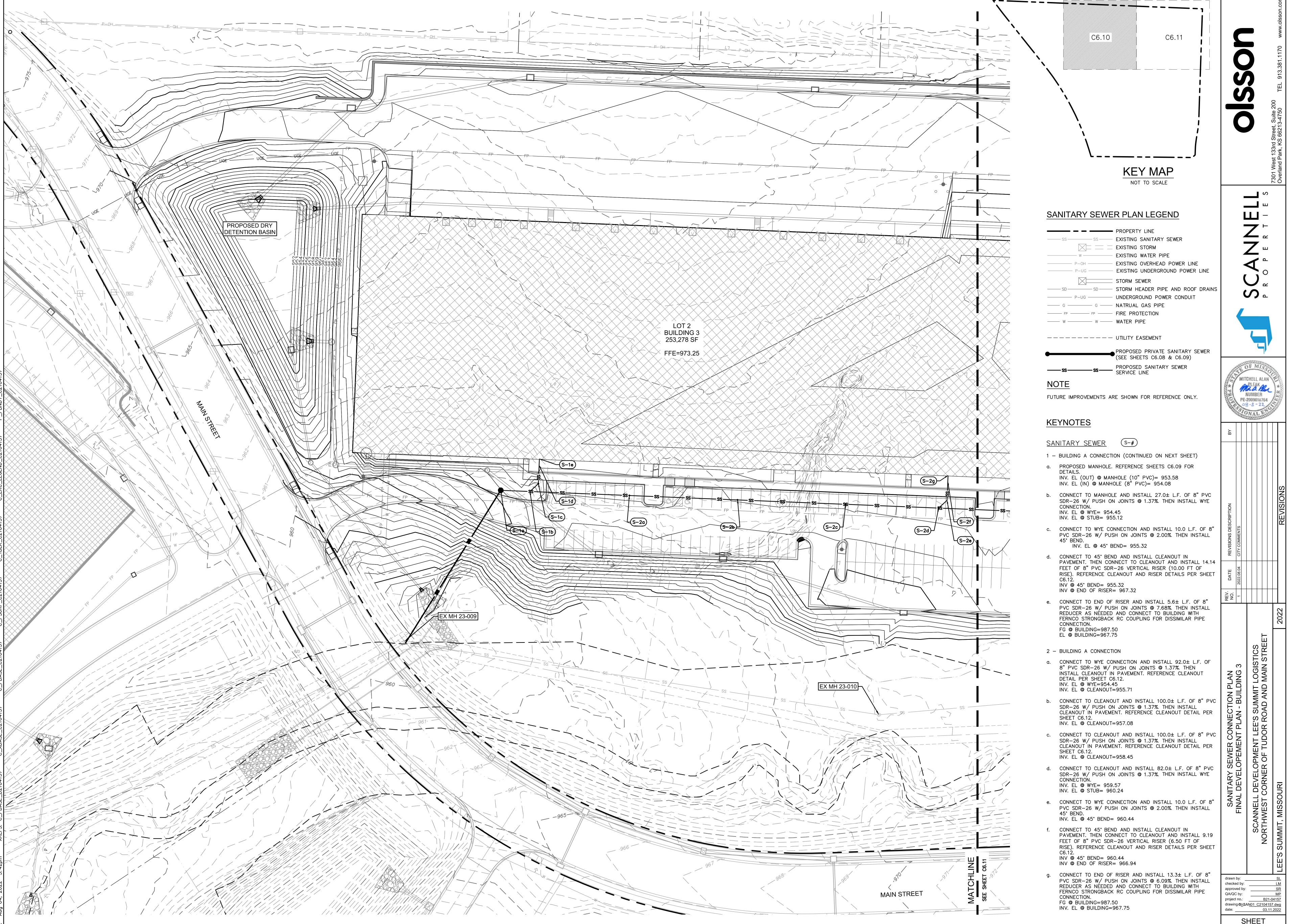
S/E SANITARY SEWER EASEMENT U/E UTILITY EASEMENT

E/E ELECTRIC EASEMENT

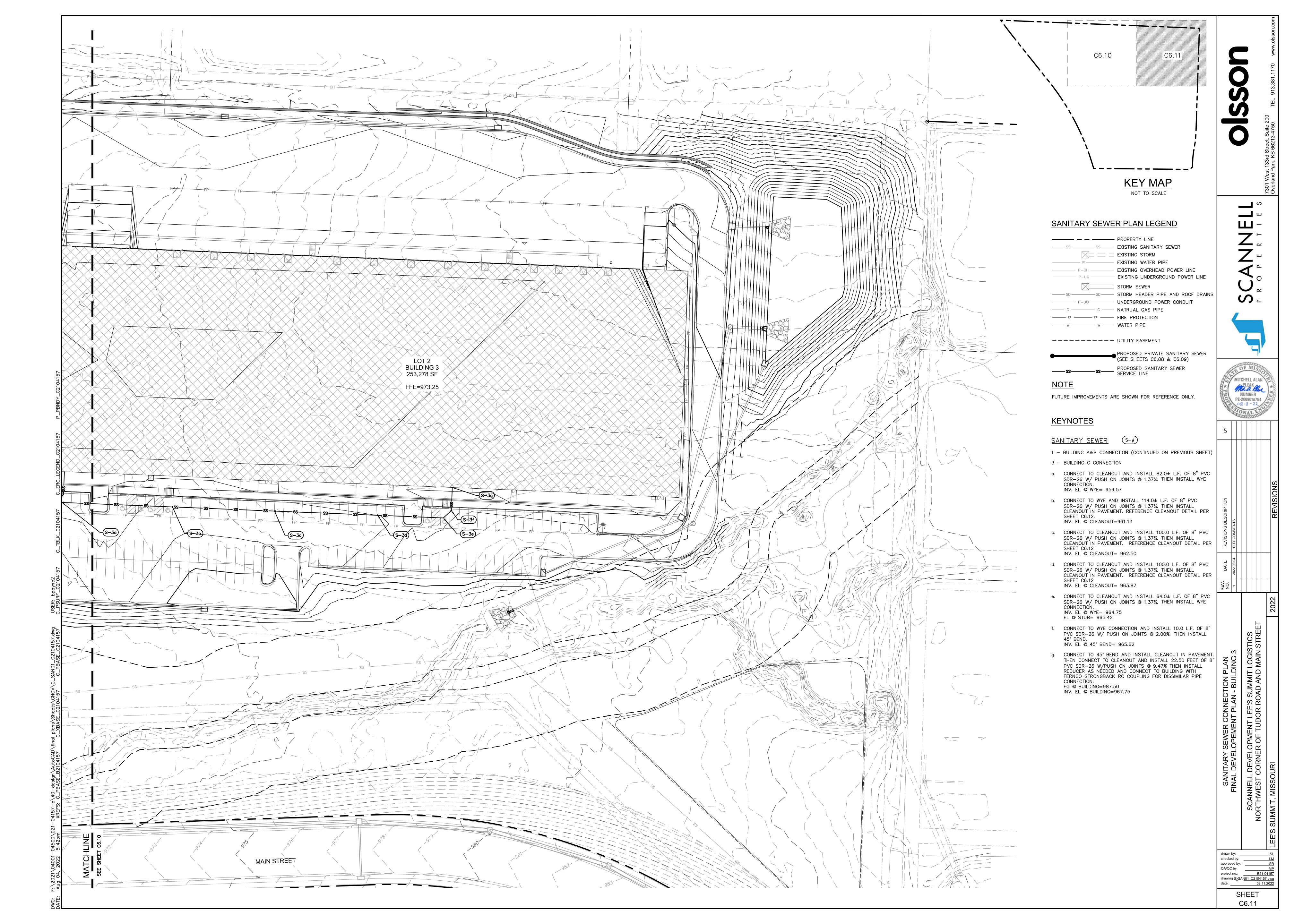
SANITARY SEWER NOTES:

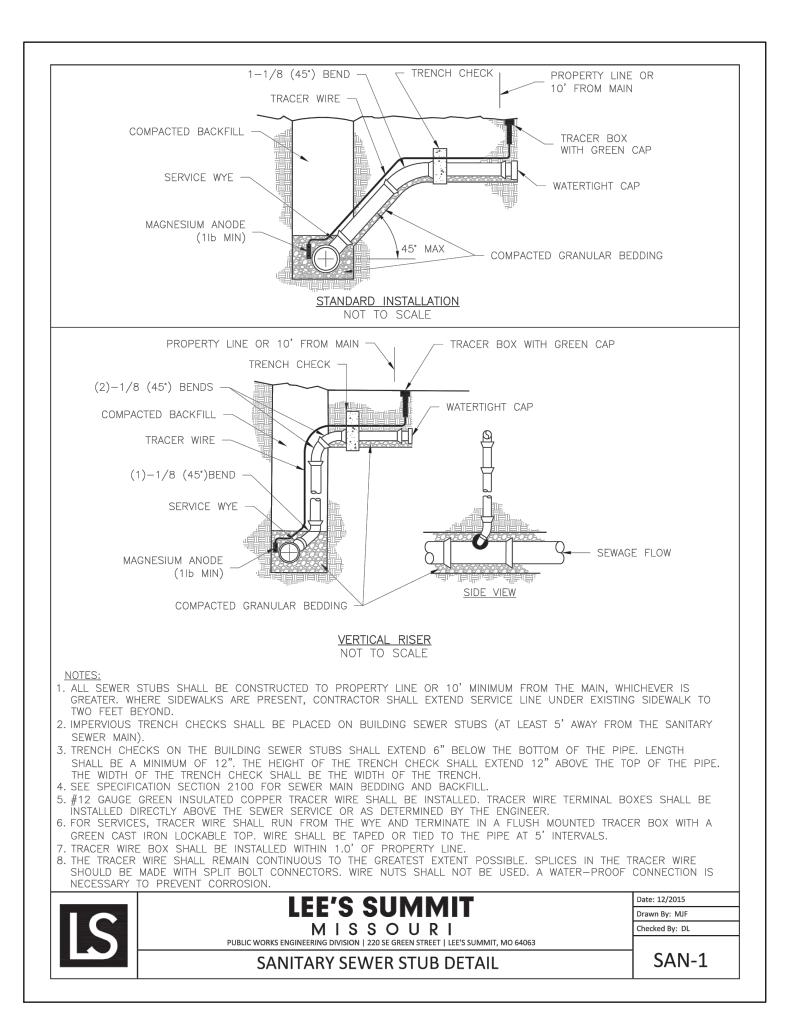
- SDR-26. SEWER SERVICE LINE W/PUSH ON JOINTS.
- 2. TEN FEET OF HORIZONTAL SEPARATION AND TWO FEET OF VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN WATER LINES AND THE SANITARY SEWER SERVICE LINE.
- SEWER CONNECTION SHEETS.
- THE GRADE REQUIREMENTS.
- DRAWINGS.
- CONSTRUCTION OF THE SANITARY SEWER MAIN.

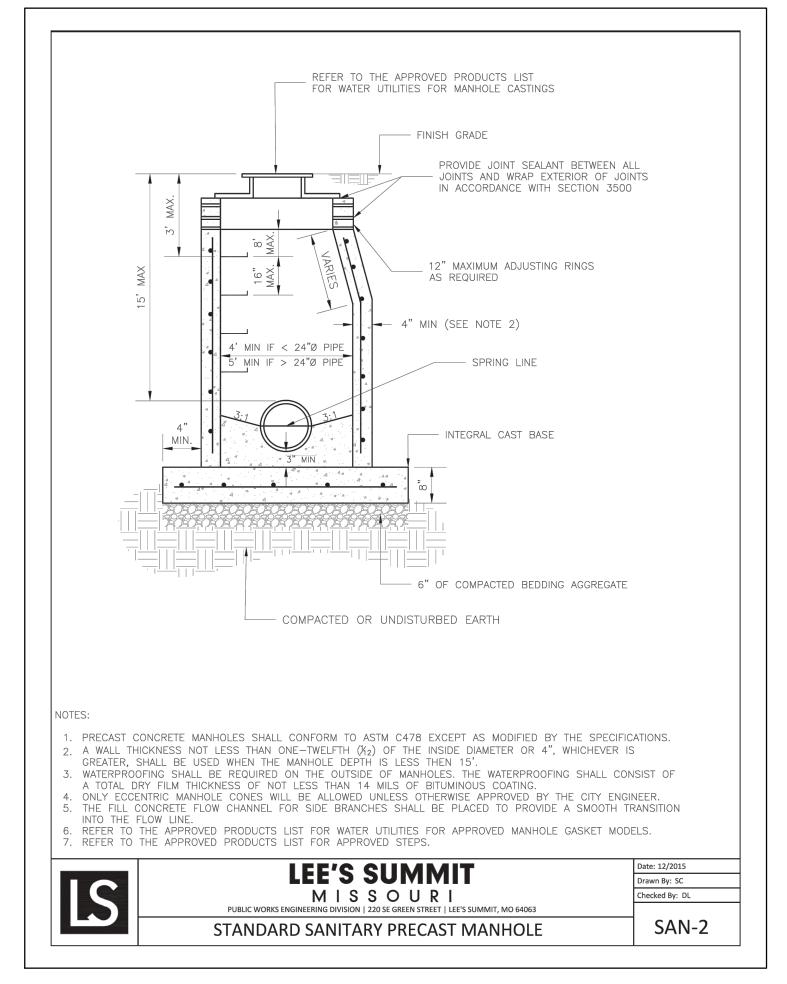
1. REPLACE/ADD BARREL SECTIONS AS REQUIRED TO MEET

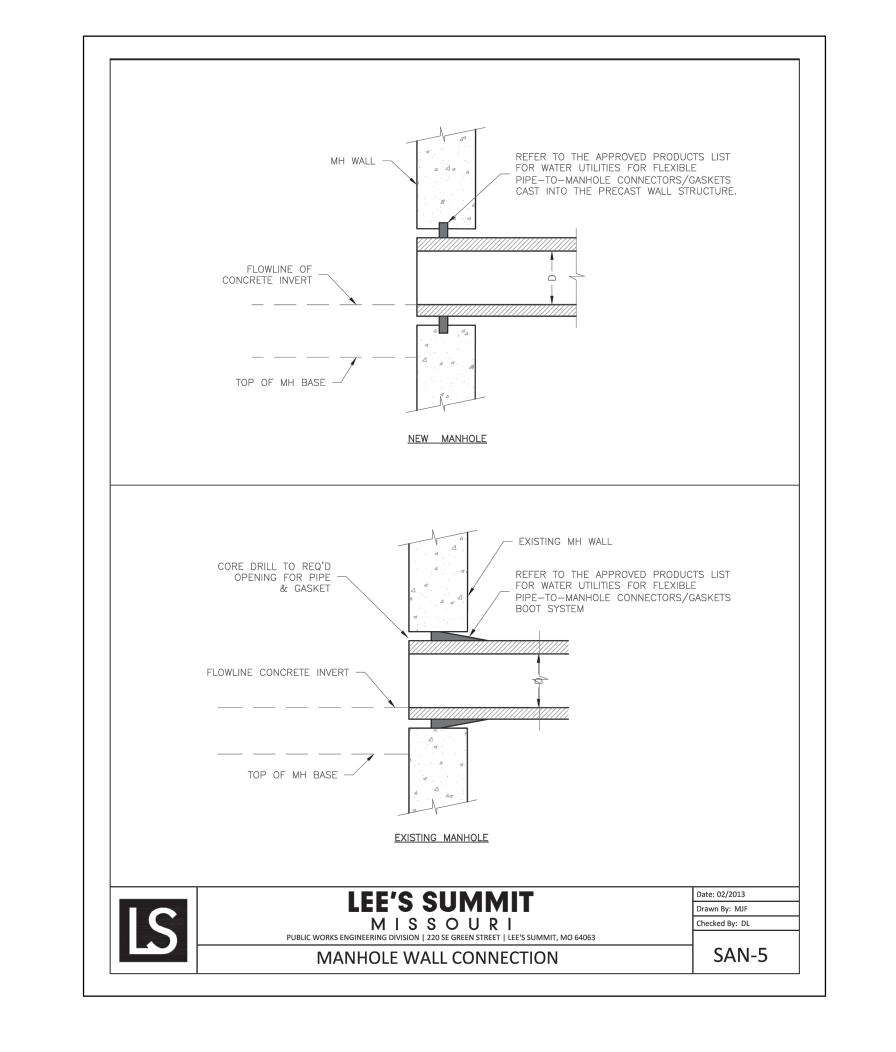


SHEET C6.10





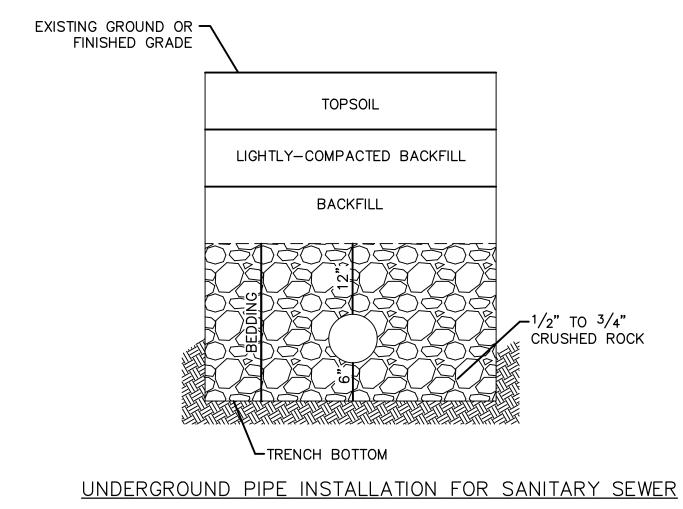




— Finished grade

On plans

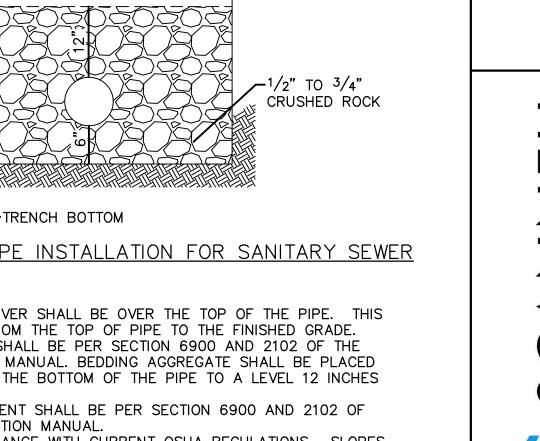
Subject to revision without notice.



1. A MINIMUM OF 36 INCHES OF COVER SHALL BE OVER THE TOP OF THE PIPE. THIS MINIMUM OF COVER SHALL BE FROM THE TOP OF PIPE TO THE FINISHED GRADE. 2. BEDDING AGGREGATE MATERIAL SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. BEDDING AGGREGATE SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 12 INCHES ABOVE THE TOP OF THE PIPE.

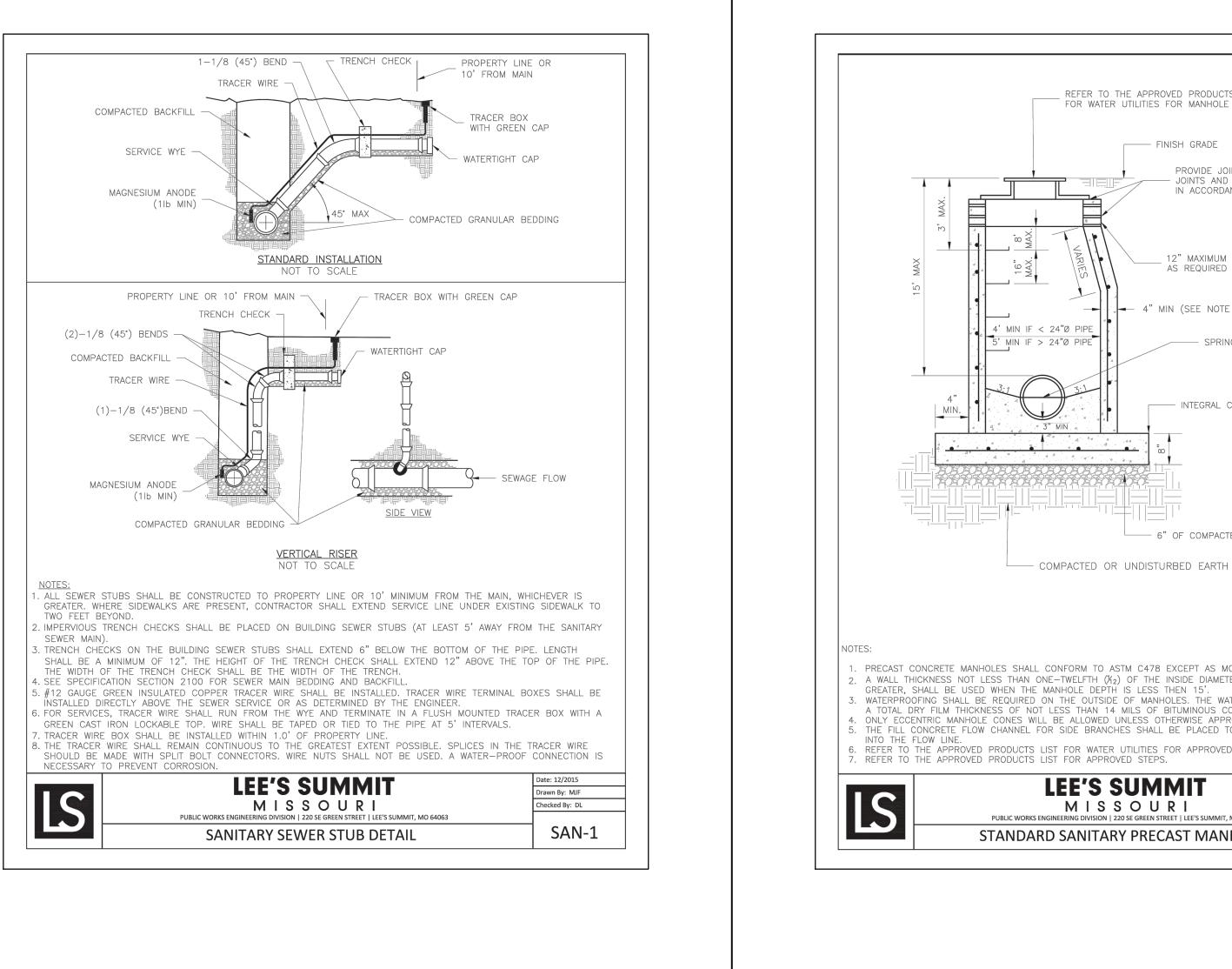
3. BACKFILL MATERIAL AND PLACEMENT SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. 4. TRENCHING SHALL BE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.

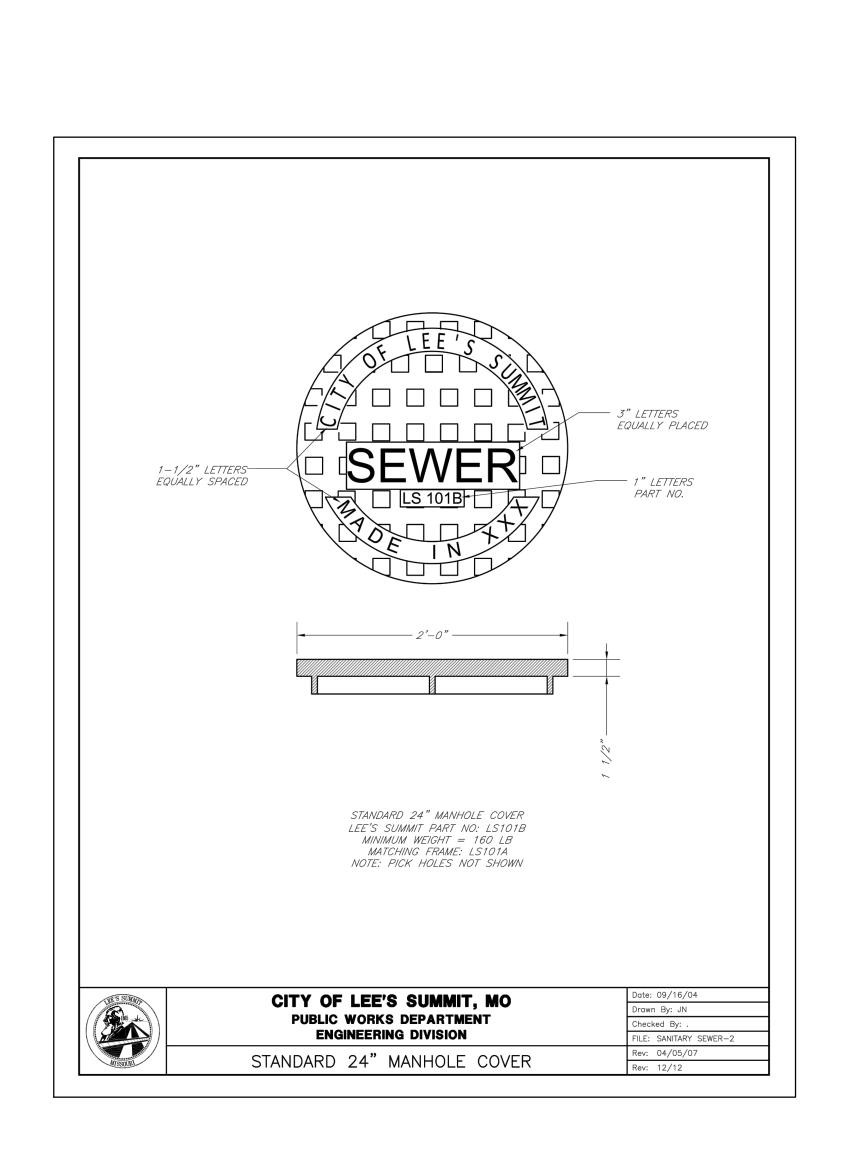
5. MINIMUM AND MAXIMUM TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.

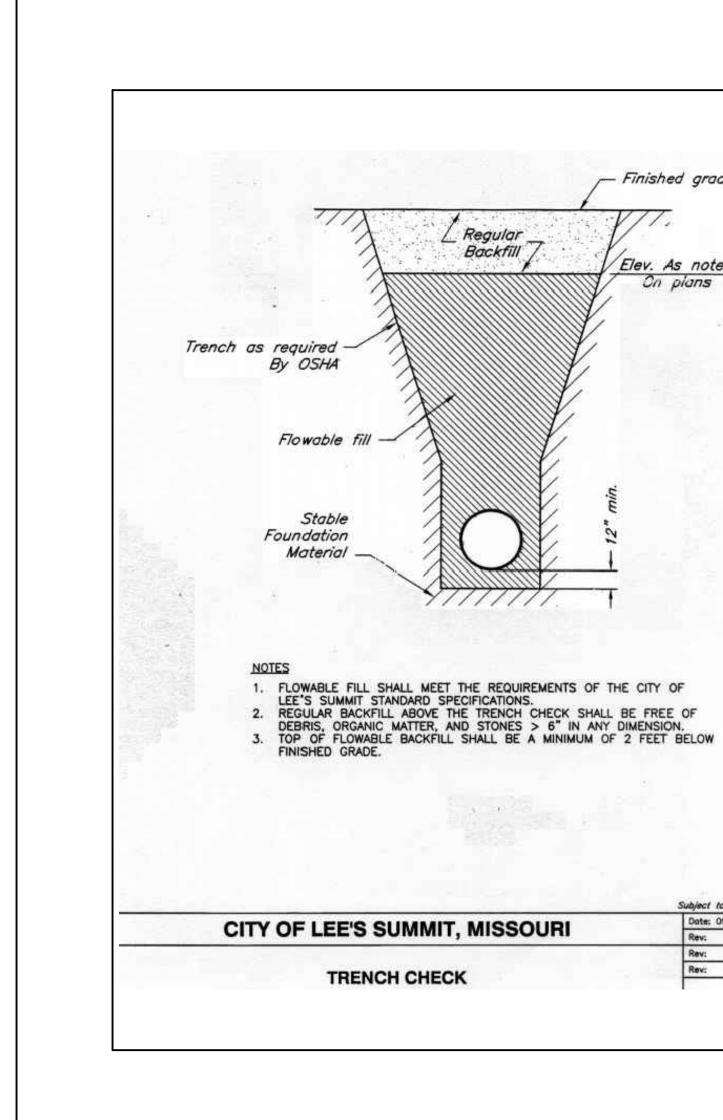


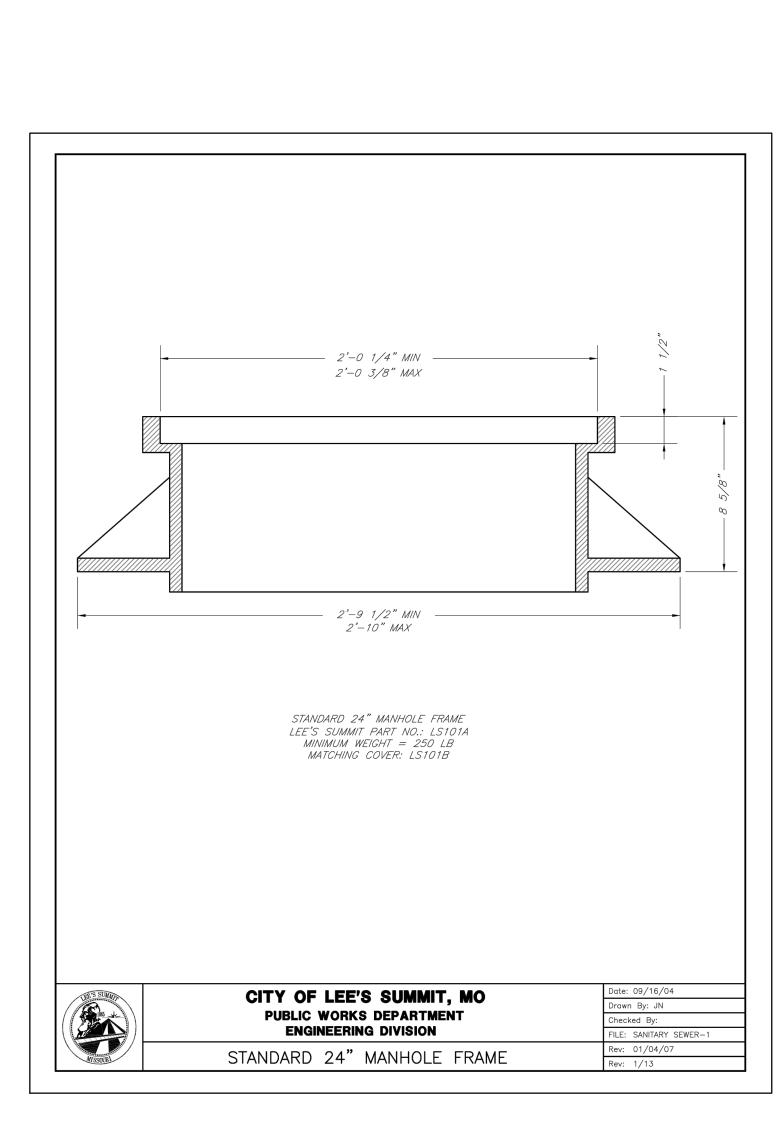


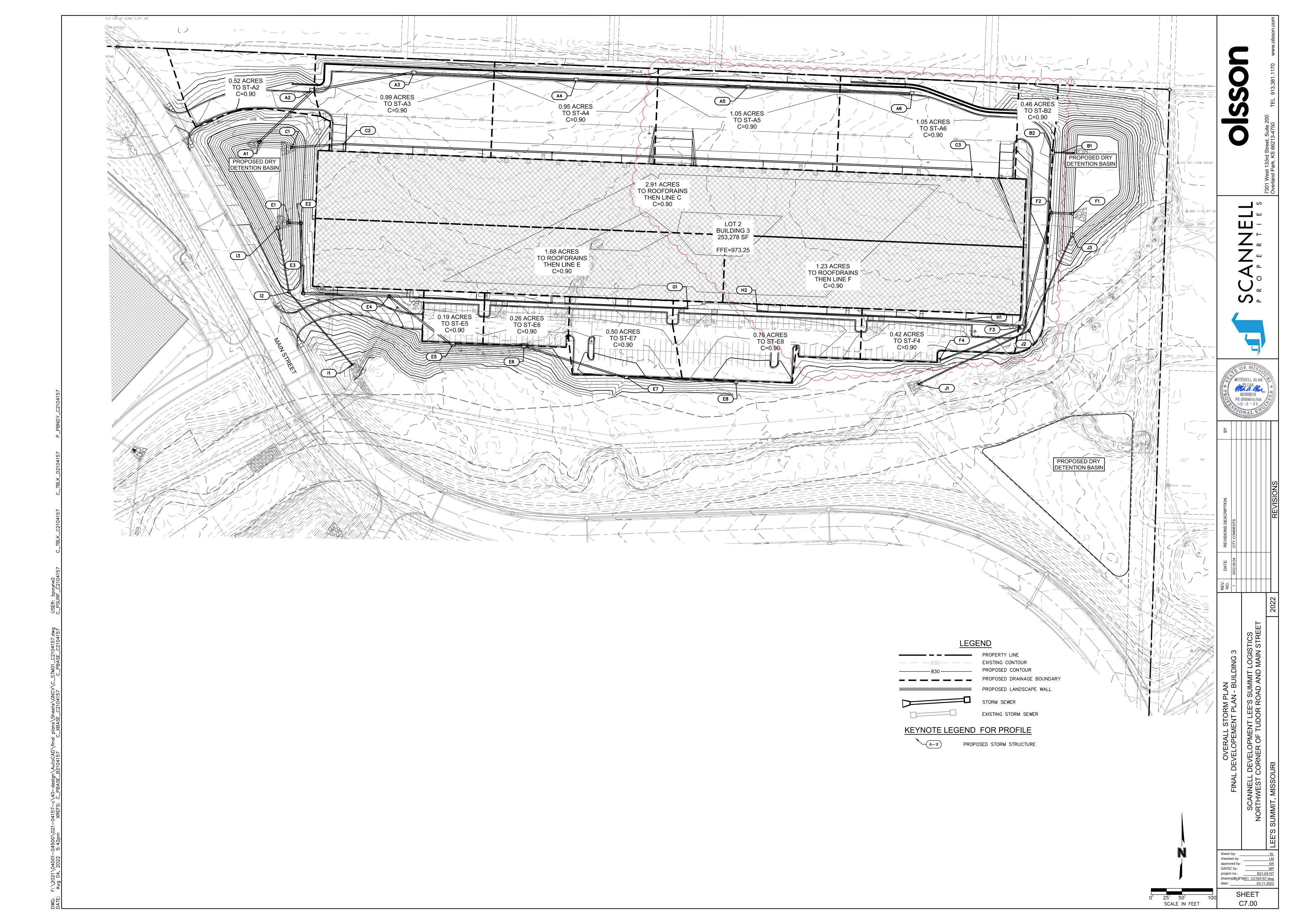
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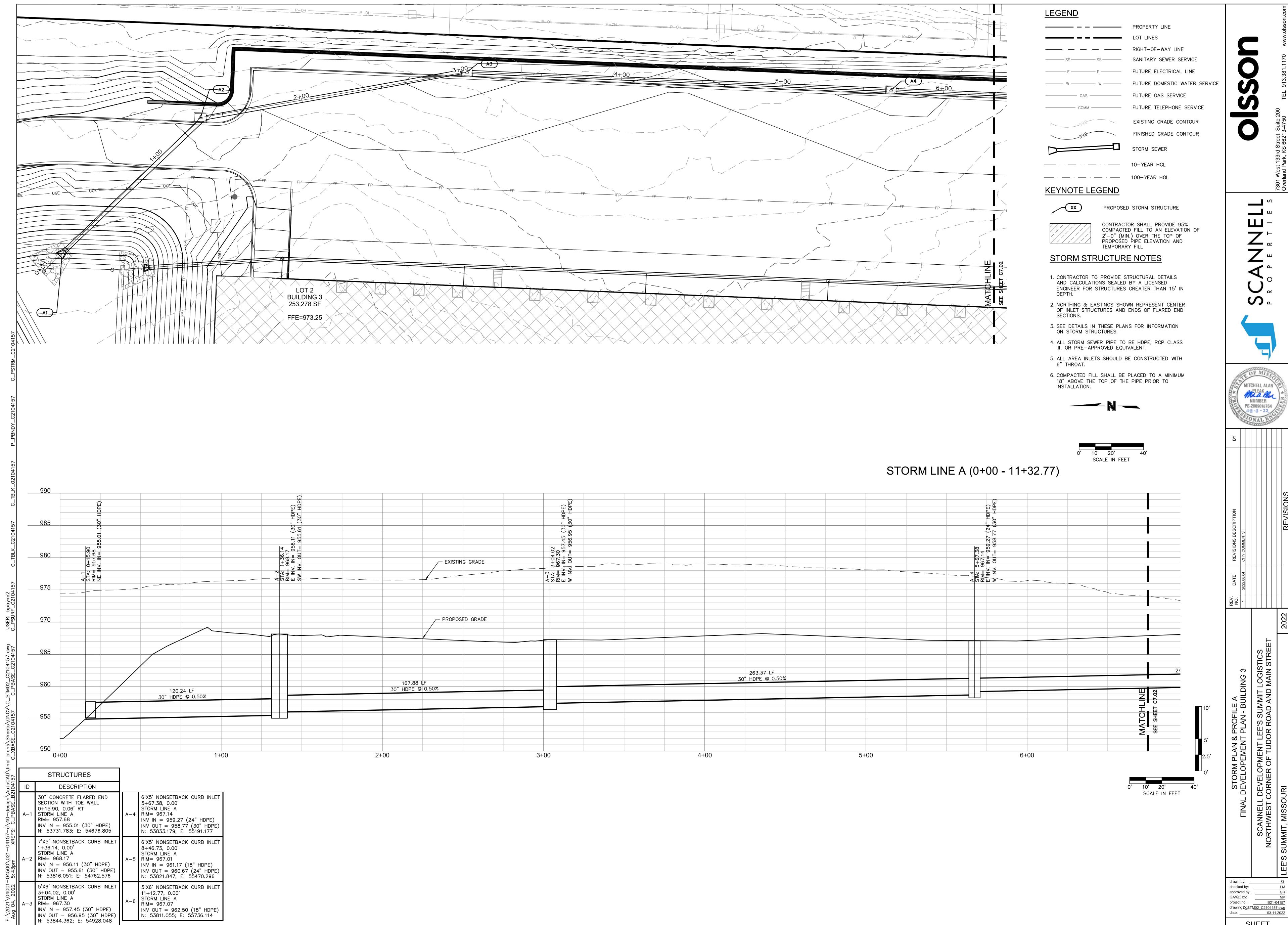




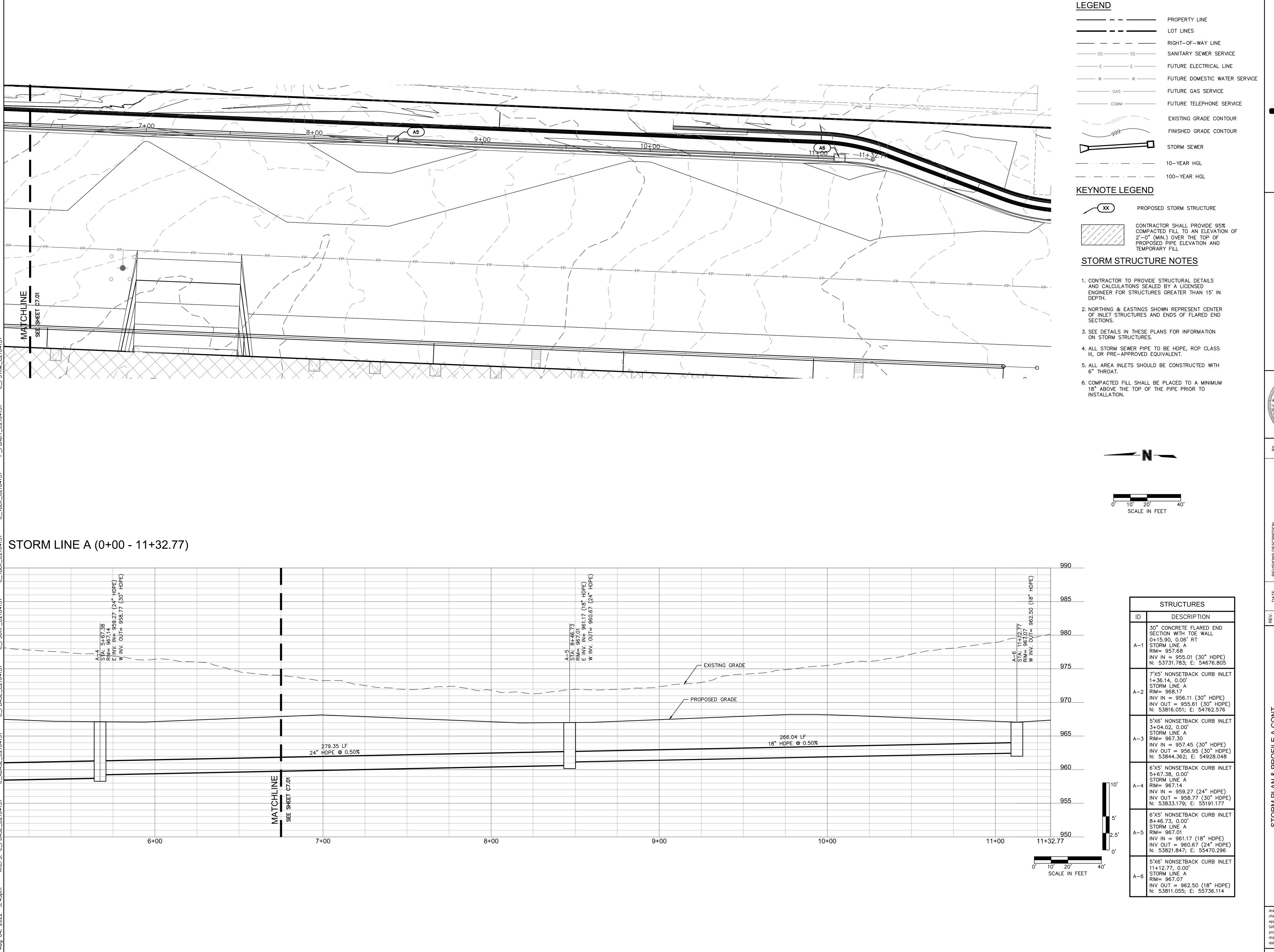








SHEET C7.01



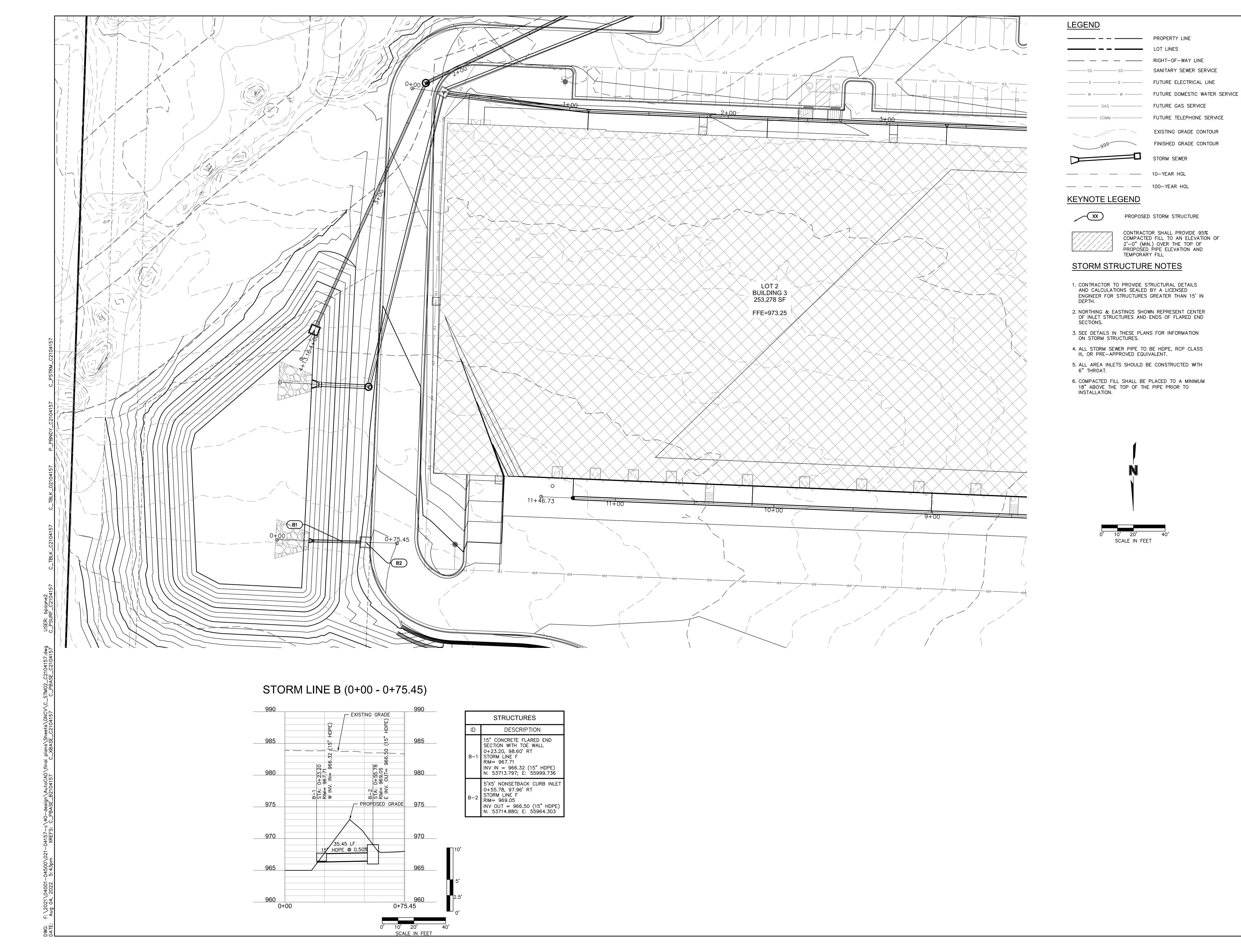


MITCHELL ALAN NUMBER
PE-2009018764
PB-3 - 22

STORM PLAN & PROFILE A CONT.
FINAL DEVELOPEMENT PLAN - BUILDING 3
NNELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
WEST CORNER OF TUDOR ROAD AND MAIN STREET
MISSOURI

QA/QC by: project no.: B21-04157 drawing @oSTM02 C2104157.dwg

SHĚET C7.02





MITCHELL ALAN

QA/QC by: MP
project no.: B21-04157
drawing @oSTM02 C2104157.dwg
date: 03.11.2022

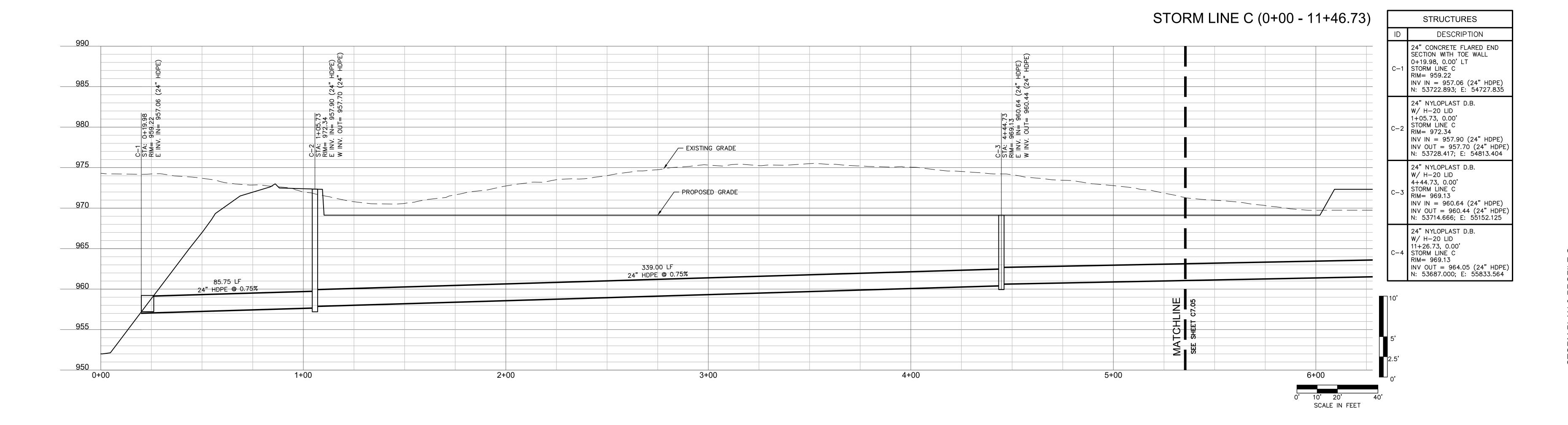
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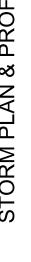


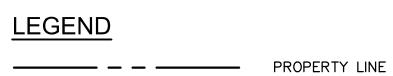
LEGEND

- - PROPERTY LINE

LOT LINES







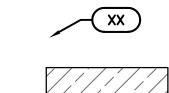
LOT LINES ----- RIGHT-OF-WAY LINE -ss----- **SANITARY SEWER SERVICE** FUTURE ELECTRICAL LINE — W — W — FUTURE DOMESTIC WATER SERVICE ————— GAS ————— FUTURE GAS SERVICE ----- COMM ------ FUTURE TELEPHONE SERVICE EXISTING GRADE CONTOUR

FINISHED GRADE CONTOUR

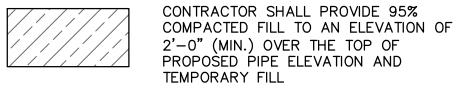
STORM SEWER · --- 10-YEAR HGL

---- · --- · --- 100-YEAR HGL

KEYNOTE LEGEND



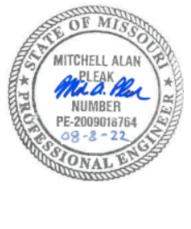
PROPOSED STORM STRUCTURE



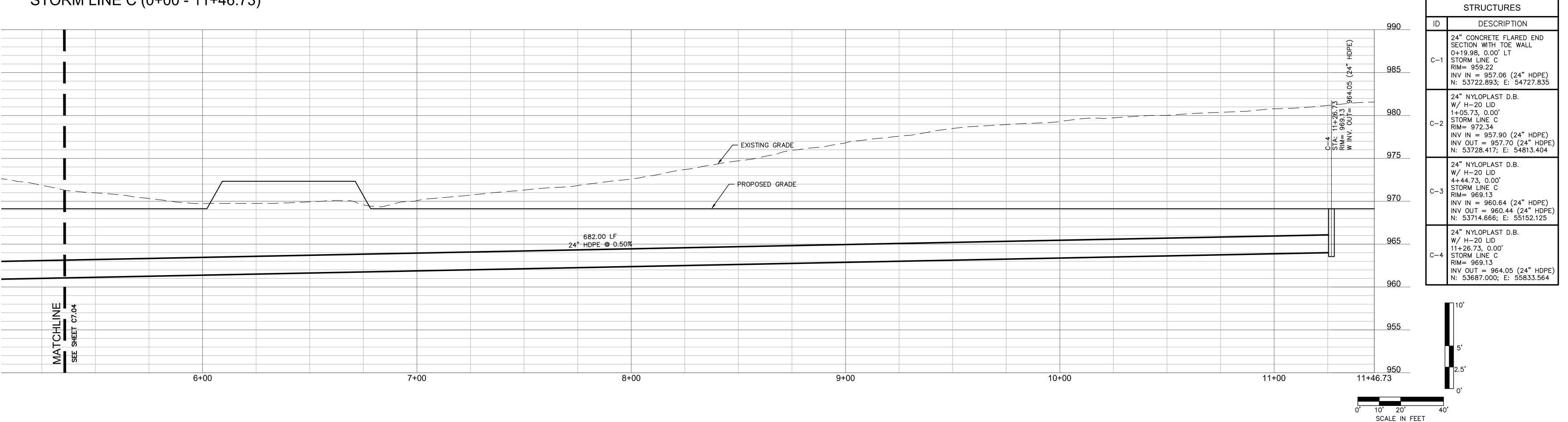
STORM STRUCTURE NOTES

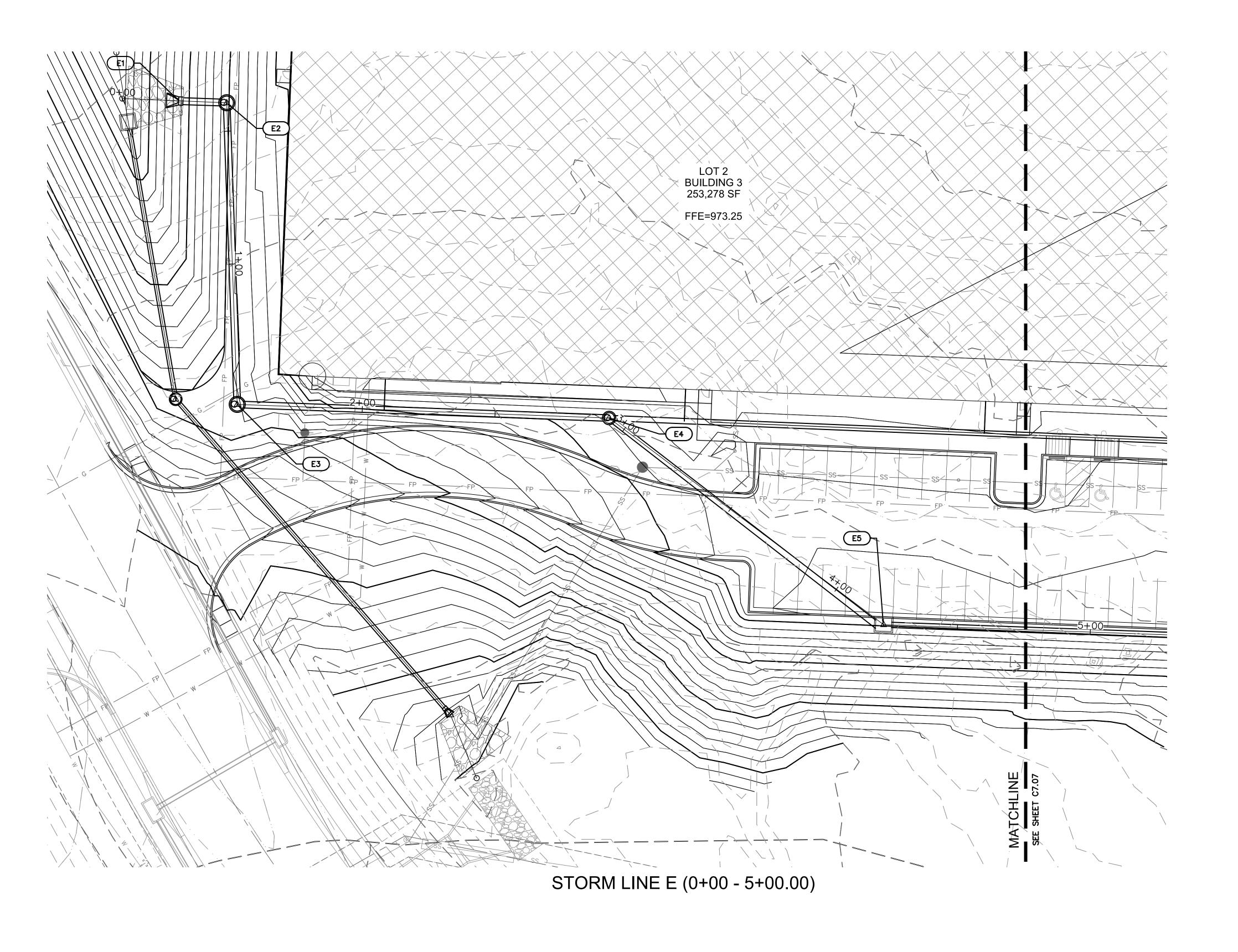
- 1. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN
- 2. NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
- 3. SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- 4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE—APPROVED EQUIVALENT.
- 5. ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.

6. COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION.



STORM LINE C (0+00 - 11+46.73)





LEGEND

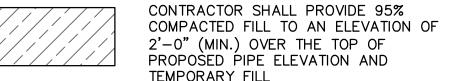
LOT LINES ----- RIGHT-OF-WAY LINE — SS———— SANITARY SEWER SERVICE ——— E ——— E ——— FUTURE ELECTRICAL LINE — W — W — FUTURE DOMESTIC WATER SERVICE ————— GAS ————— FUTURE GAS SERVICE ----- COMM ------ FUTURE TELEPHONE SERVICE EXISTING GRADE CONTOUR FINISHED GRADE CONTOUR STORM SEWER

· --- 10-YEAR HGL

— — — PROPERTY LINE

KEYNOTE LEGEND

PROPOSED STORM STRUCTURE



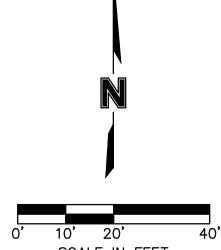
---- · --- · --- 100-YEAR HGL

2'-0" (MIN.) OVER THE TOP OF PROPOSED PIPE ELEVATION AND TEMPORARY FILL

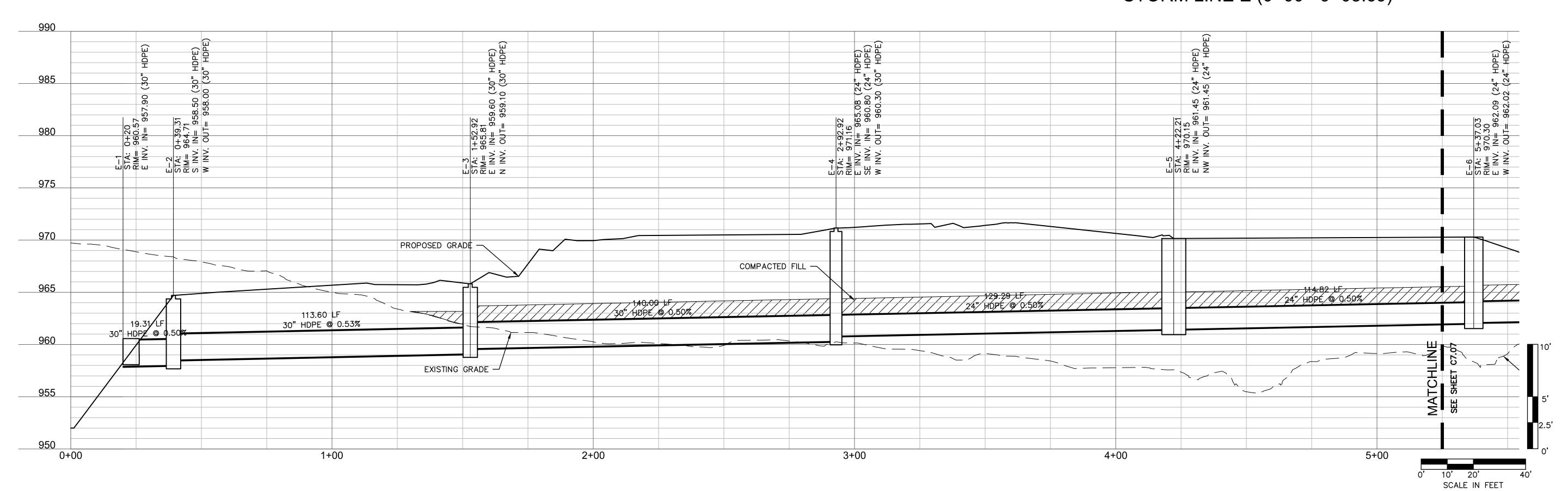
STORM STRUCTURE NOTES

- 1. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN
- 2. NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
- SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- 4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE—APPROVED EQUIVALENT.
- 5. ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.
- 6. COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION.





STORM LINE E (0+00 - 9+08.69)



	STRUCTURES
ID	DESCRIPTION
E-1	30" CONCRETE FLARED END SECTION WITH TOE WALL 0+20, 0.00' RT STORM LINE E RIM= 960.57 INV IN = 957.90 (30" HDPE) N: 53600.609; E: 54724.959
E-2	60" I.D. MANHOLE 0+39.31, 0.00' STORM LINE E RIM= 964.71 INV IN = 958.50 (30" HDPE) INV OUT = 958.00 (30" HDPE) N: 53599.826; E: 54744.255
E-3	60" I.D. MANHOLE 1+52.92, 0.00' STORM LINE E RIM= 965.81 INV IN = 959.60 (30" HDPE) INV OUT = 959.10 (30" HDPE) N: 53486.291; E: 54748.216
E-4	48" I.D. MANHOLE 2+92.92, 0.00' STORM LINE E RIM= 971.16 INV IN = 965.08 (24" HDPE) INV IN = 960.80 (24" HDPE) INV OUT = 960.30 (30" HDPE) N: 53481.183; E: 54888.123
E-5	5'X6' NONSETBACK CURB INLET 4+22.21, 0.00' STORM LINE E RIM= 970.15 INV IN = 961.45 (24" HDPE) INV OUT = 961.45 (24" HDPE) N: 53403.429; E: 54991.423

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<u>LEGEND</u>

RIGHT-OF-WAY LINE

SS SANITARY SEWER SERVICE

FUTURE ELECTRICAL LINE

W W FUTURE DOMESTIC WATER SERVICE

- - PROPERTY LINE

LOT LINES

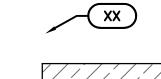
EXISTING GRADE CONTOUR

FINISHED GRADE CONTOUR

_____ · · · ___ · · · ____ 10-YEAR HGL

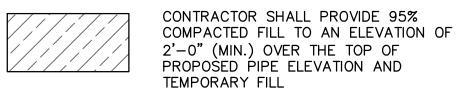
---- · --- · --- 100-YEAR HGL

KEYNOTE LEGEND



PROPOSED STORM STRUCTURE

STORM SEWER

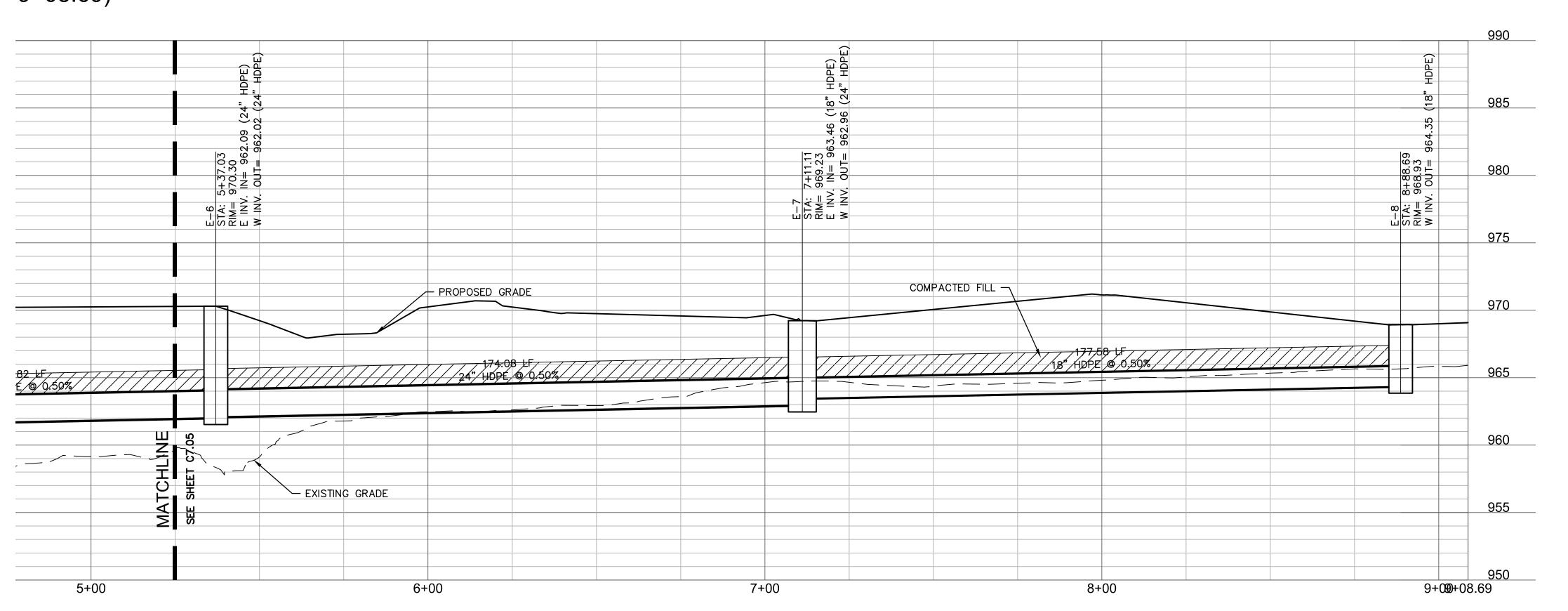


STORM STRUCTURE NOTES

- 1. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS
 AND CALCULATIONS SEALED BY A LICENSED
 ENGINEER FOR STRUCTURES GREATER THAN 15' IN
 DEPTH
- 2. NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
- SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- 4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE-APPROVED EQUIVALENT.
- 5. ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.
- 6. COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION.

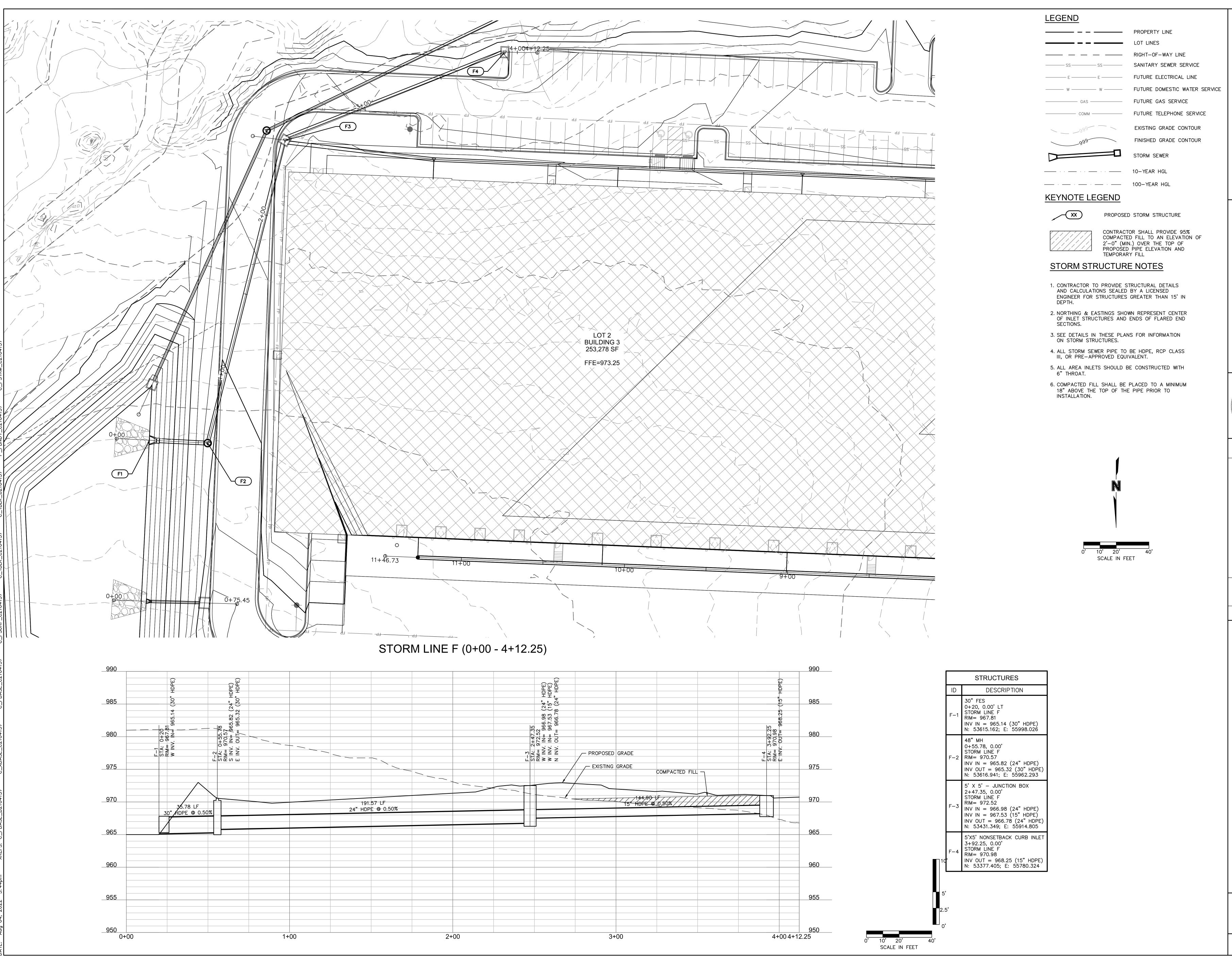


9+08.69)



STRUCTURES					
ID DESCRIPTION					
E-6	5'X5' NONSETBACK CURB INLET 5+37.03, 0.00' STORM LINE E RIM= 970.30 INV IN = 962.09 (24" HDPE) INV OUT = 962.02 (24" HDPE) N: 53399.270; E: 55106.171				
E-7	5'X5' NONSETBACK CURB INLET 7+11.11, 0.00' STORM LINE E RIM= 969.23 INV IN = 963.46 (18" HDPE) INV OUT = 962.96 (24" HDPE) N: 53349.463; E: 55272.970				
E-8	5'X5' NONSETBACK CURB INLET 8+88.69, 0.00' STORM LINE E RIM= 968.93 INV OUT = 964.35 (18" HDPE) N: 53342.259; E: 55450.409				

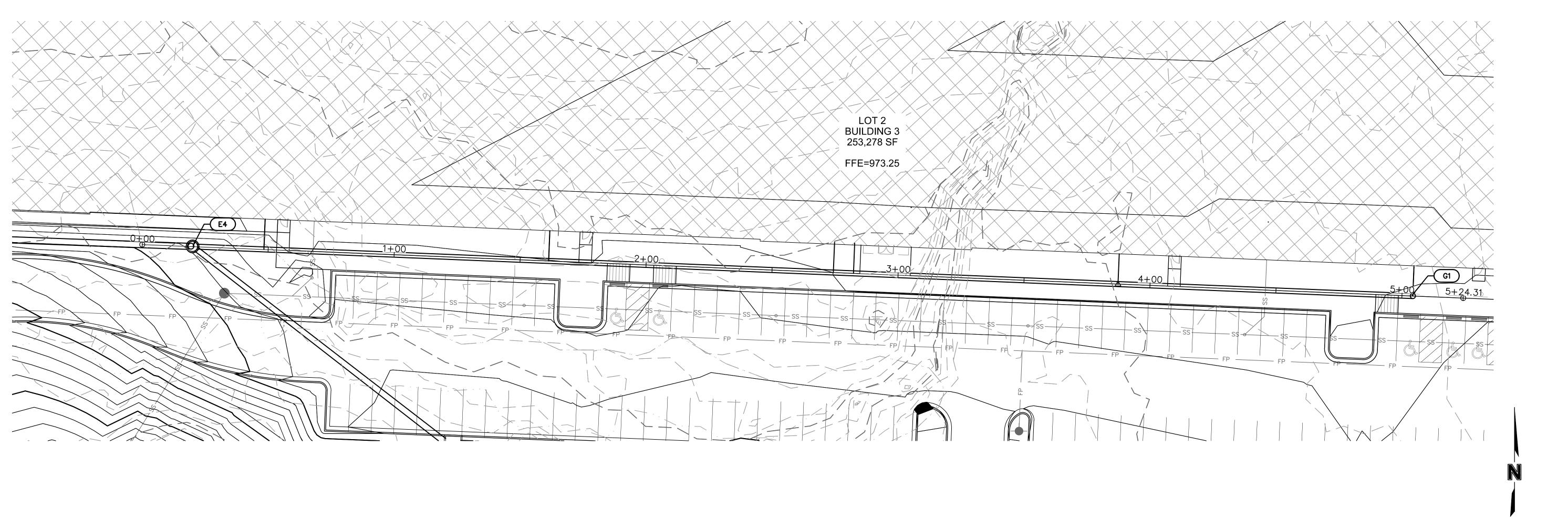
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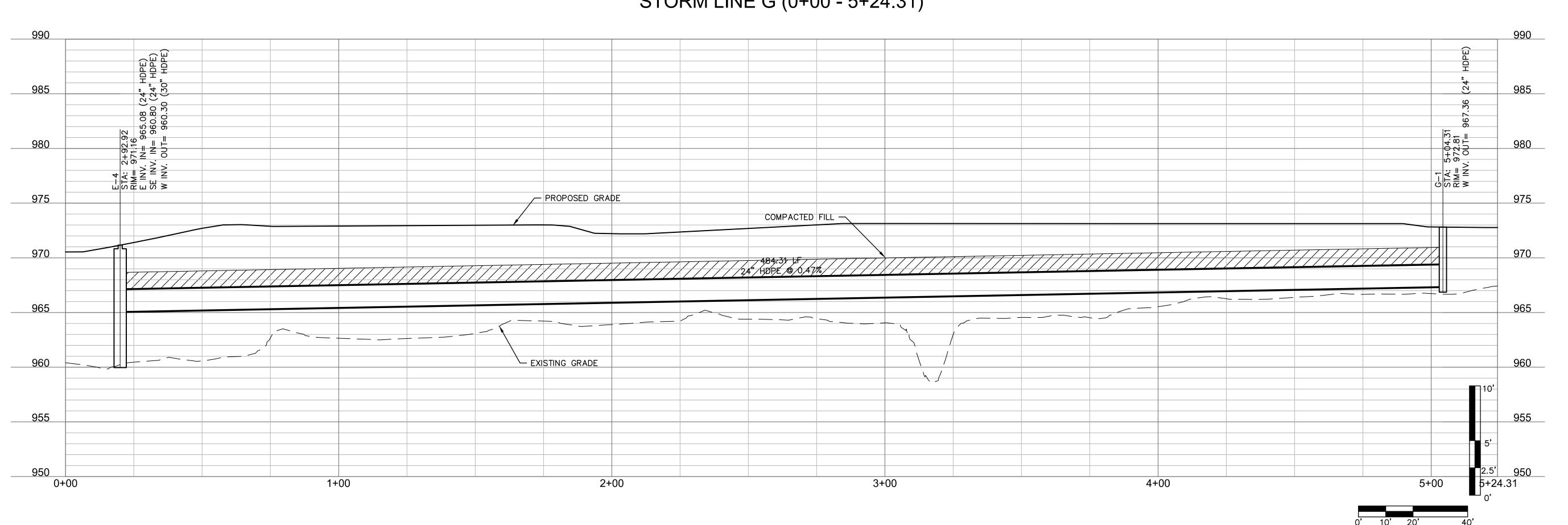
MITCHELL ALAN PLEAK NUMBER PE-2009018764

checked by: QA/QC by: MP project no.: B21-04157 drawing @oSTM02 C2104157.dwg

SHEET C7.08

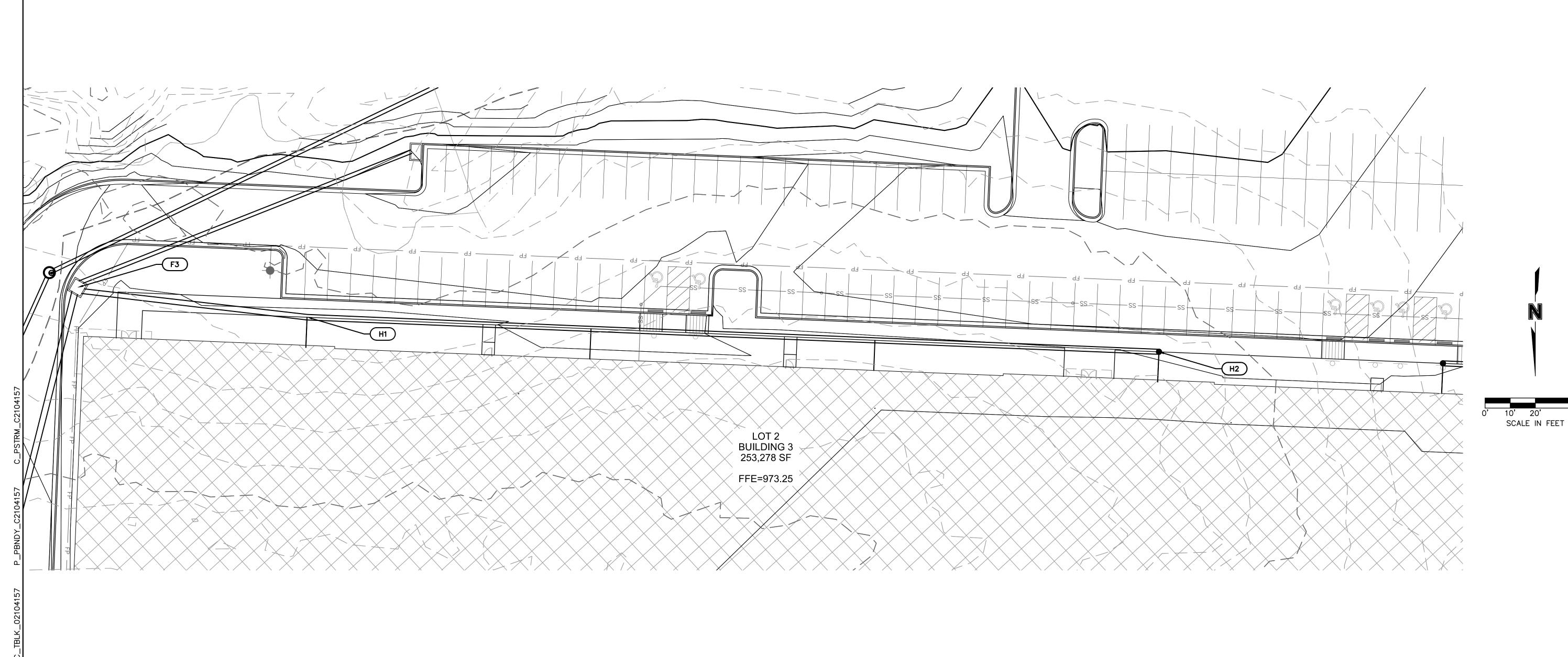


STORM LINE G (0+00 - 5+24.31)



STRUCTURES DESCRIPTION 48" I.D. MANHOLE
2+92.92, 0.00'
STORM LINE E
RIM= 971.16
INV IN = 965.08 (24" HDPE)
INV IN = 960.80 (24" HDPE)
INV OUT = 960.30 (30" HDPE)
N: 53481.183; E: 54888.123 G-1 24" NYLOPLAST D.B. 5+04.31, 0.00' STORM LINE G RIM= 972.81 INV OUT = 967.36 (24" HDPE) N: 53461.537; E: 55372.038

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——— E ———— FUTURE ELECTRICAL LINE — W — W — FUTURE DOMESTIC WATER SERVICE ————— GAS ————— FUTURE GAS SERVICE ----- COMM ------ FUTURE TELEPHONE SERVICE · --- 10-YEAR HGL ---- · --- · --- 100-YEAR HGL **KEYNOTE LEGEND**

LEGEND

PROPOSED STORM STRUCTURE

PROPERTY LINE

----- RIGHT-OF-WAY LINE

— SS———— SANITARY SEWER SERVICE

EXISTING GRADE CONTOUR

FINISHED GRADE CONTOUR

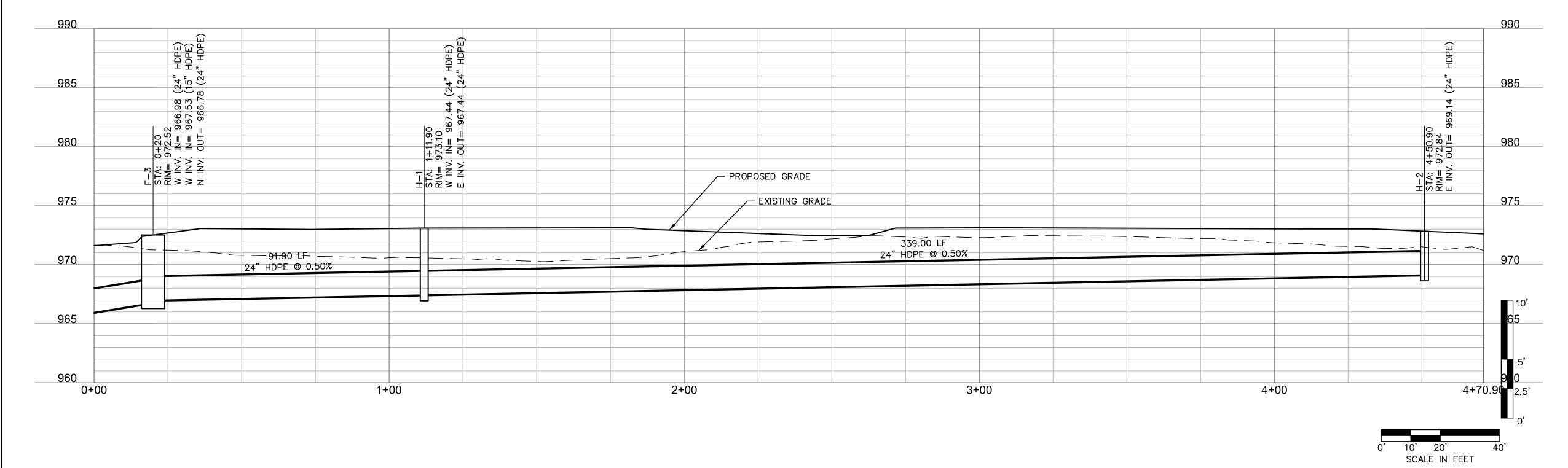
STORM SEWER

CONTRACTOR SHALL PROVIDE 95% COMPACTED FILL TO AN ELEVATION OF 2'-0" (MIN.) OVER THE TOP OF PROPOSED PIPE ELEVATION AND TEMPORARY FILL

STORM STRUCTURE NOTES

- 1. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN
- 2. NORTHING & EASTINGS SHOWN REPRESENT CENTER OF INLET STRUCTURES AND ENDS OF FLARED END SECTIONS.
- 3. SEE DETAILS IN THESE PLANS FOR INFORMATION ON STORM STRUCTURES.
- 4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE—APPROVED EQUIVALENT.
- 5. ALL AREA INLETS SHOULD BE CONSTRUCTED WITH 6" THROAT.
- 6. COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO INSTALLATION.

STORM LINE H (0+00 - 4+70.90)



	STRUCTURES
)	DESCRIPTION
.3	5' X 5' - JUNCTION BOX 2+47.35, 0.00' STORM LINE F RIM= 972.52 INV IN = 966.98 (24" HDPE) INV IN = 967.53 (15" HDPE) INV OUT = 966.78 (24" HDPE) N: 53431.349; E: 55914.805
-1	24" NYLOPLAST D.B. 1+11.90, 0.00' STORM LINE H RIM= 973.10 INV IN = 967.44 (24" HDPE) INV OUT = 967.44 (24" HDPE) N: 53443.130; E: 55823.663
-2	24" NYLOPLAST D.B. W/ H-20 LID 4+50.90, 0.00' STORM LINE H RIM= 972.84 INV OUT = 969.14 (24" HDPE) N: 53456.953; E: 55484.945



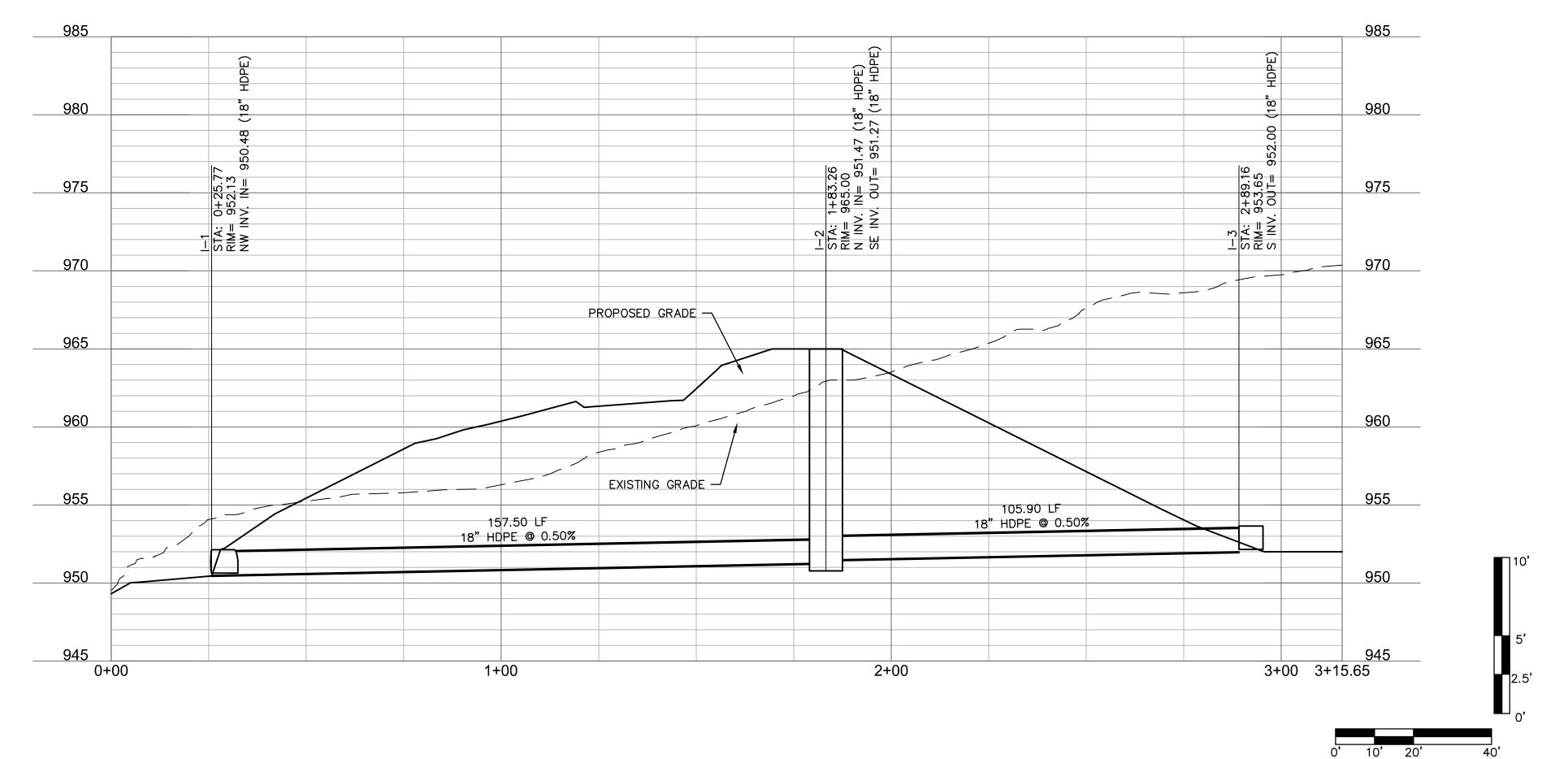
MITCHELL ALAN
PLEAK
NUMBER
PE-2009018764
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QA/QC by: MP
project no.: B21-04157
drawing @oSTM02 C2104157.dwg
date: 03.11.2022

SHEET C7.10

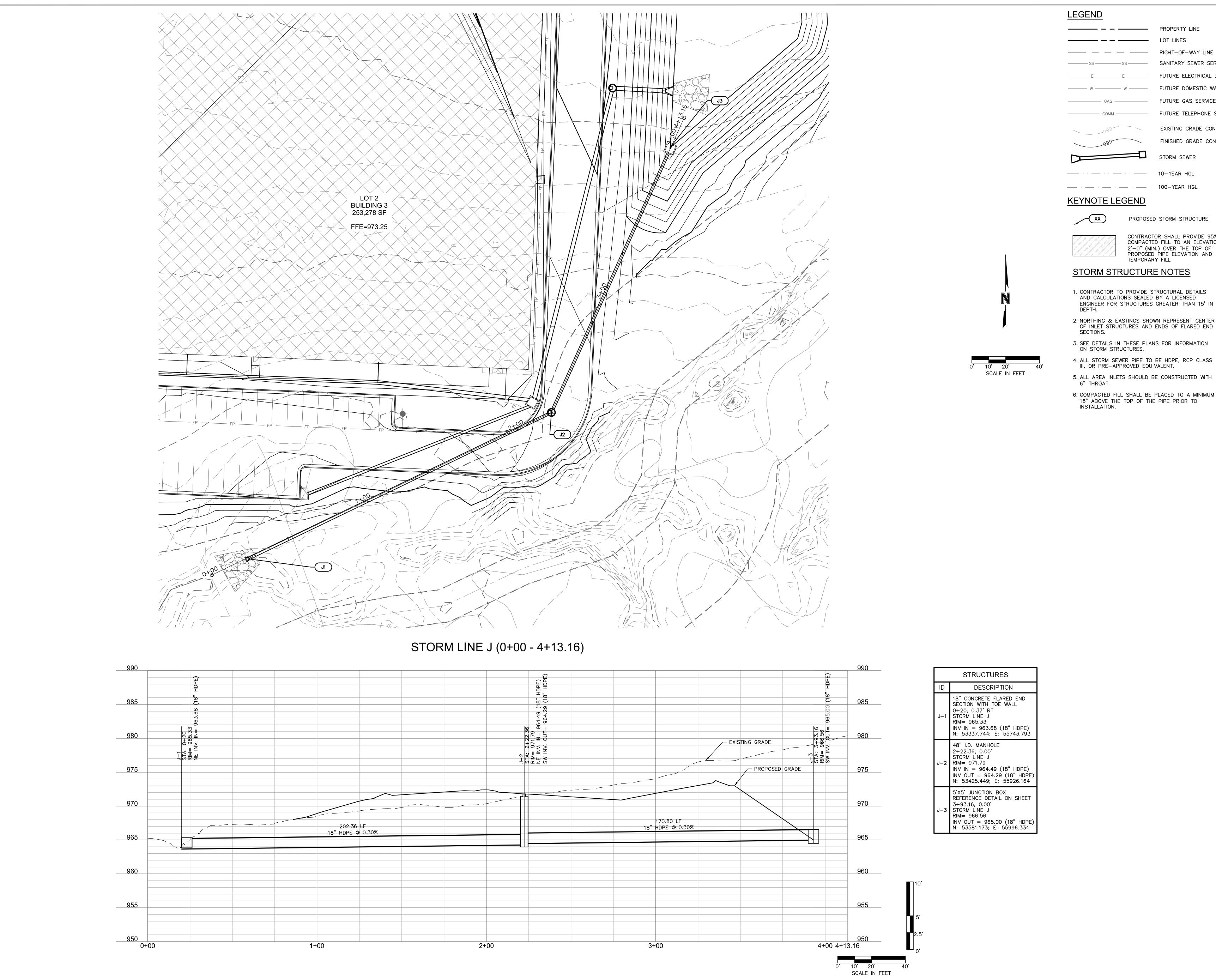


STORM LINE I (0+00 - 3+15.65)



	STRUCTURES
ID	DESCRIPTION
I—1	18" CONCRETE FLARED END SECTION WITH TOE WALL 0+25.77, 0.00' STORM LINE I RIM= 952.13 INV IN = 950.48 (18" HDPE) N: 53369.466; E: 54828.437
I-2	5'X5' JUNCTION BOX 1+83.26, 0.00' STORM LINE I RIM= 965.00 INV IN = 951.47 (18" HDPE) INV OUT = 951.27 (18" HDPE) N: 53488.279; E: 54725.050
I - 3	18" CONCRETE FLARED END SECTION WITH TOE WALL 2+89.16, 0.00' STORM LINE I RIM= 953.65 INV OUT = 952.00 (18" HDPE) N: 53592.663; E: 54707.210

LEGEND



PROPERTY LINE LOT LINES ----- RIGHT-OF-WAY LINE — SS———— SANITARY SEWER SERVICE FUTURE ELECTRICAL LINE

— W — W — FUTURE DOMESTIC WATER SERVICE ————— GAS ————— FUTURE GAS SERVICE ----- COMM ------ FUTURE TELEPHONE SERVICE

STORM SEWER

EXISTING GRADE CONTOUR FINISHED GRADE CONTOUR

___ · · · ___ 10-YEAR HGL — · — · — · — 100-YEAR HGL

PROPOSED STORM STRUCTURE

CONTRACTOR SHALL PROVIDE 95% COMPACTED FILL TO AN ELEVATION OF 2'-0" (MIN.) OVER THE TOP OF PROPOSED PIPE ELEVATION AND TEMPORARY FILL

STORM STRUCTURE NOTES

- 1. CONTRACTOR TO PROVIDE STRUCTURAL DETAILS AND CALCULATIONS SEALED BY A LICENSED ENGINEER FOR STRUCTURES GREATER THAN 15' IN
- ON STORM STRUCTURES.
- 4. ALL STORM SEWER PIPE TO BE HDPE, RCP CLASS III, OR PRE—APPROVED EQUIVALENT.
- 5. ALL AREA INLETS SHOULD BE CONSTRUCTED WITH
- 6. COMPACTED FILL SHALL BE PLACED TO A MINIMUM 18" ABOVE THE TOP OF THE PIPE PRIOR TO

MITCHELL ALAN
PLEAK
NUMBER
PE-2009018764

QA/QC by: MP
project no.: B21-04157
drawing @oSTM02 C2104157.dwg
date: 03.11.2022



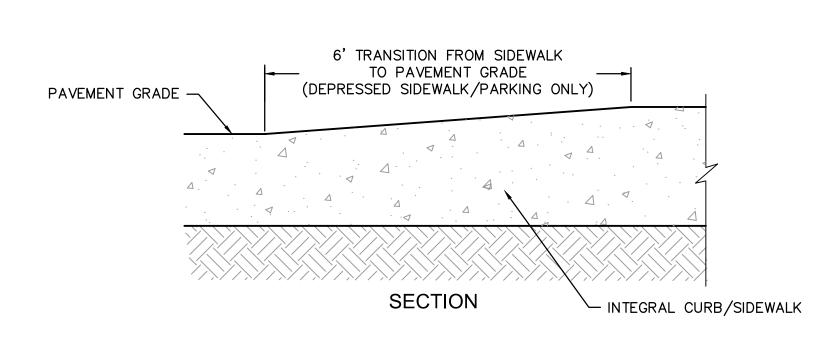
STORM CALCULATIONS
FINAL DEVELOPEMENT PLAN - BUILDING 3
INELL DEVELOPMENT LEE'S SUMMIT LOGISTICS
VEST CORNER OF TUDOR ROAD AND MAIN STREET
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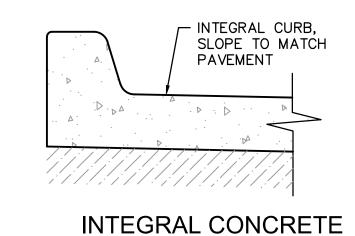
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drawn by:		S
checked by:		LN
approved by:		SF
QA/QC by:		MI
project no.:	B21-0	415
drawing <u>oo</u> ST	M01_C2104157	7.dw
date:	03.11	.202
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										STORM SE	FWFR PIPE	E AND STRU	ICTURE T	ΔRI F - 10 \	/FΔR												
TITLE: Lee's Sum	mit Logistics Bui	ildina C								3101(11) 31		L AND STRE	OTOKE I	ADLL - IV	ILAN												
JOB #: C021-041		nung C																									
DESIGN CONDIT		E - 10 YEAR STO	ORM EVENT																								
STRUC	TURES		F	RUNOFF CALCULATIONS											PIPE DESIG	GN											
		DIRECT T	OTAL	FLOW INTENSITY DESIGNO		DIDE LENGTH	DIDE		0.51111	DIDE ADEA	\	DECIONA		MUTOD	LIDOTDEANA		DOWNSTREAM	EDICTION	ENTRY LOSS	ACTUAL	ENTEN	la & 1 la .aa	LDA/ INUET	HW, HYDRA	ULIC HYDRAUI	LIC	
FROM	TO	AREA	AREA C	KC (K=1) TC TIME INTENSITY DESIGN Q	DESCRIPTION	PIPE LENGTH		PIPE DIA	Q FULL	PIPE AREA		DESIGN V	Hw/D	MH TOP	UPSTREAM		WATER	FRICTION	COEFFICIENT	ENTRY			HW, INLET	UTLET GRA	DE GRADE	E Comment	nts
		(ACRES) (A				(L.F.)	SLOPE (%)	(IIN)	(CFS)	(SQ.FT.)	(F/S)	(F/S)		ELEVATION	FLOWLINE	FLOWLINE	ELEVATION	HEAD (h f)	(k)	LOSS (k)	LOSS (h m)	(FT)		NTROL ELE			
			Í																` '	,					,		
A6		1.05	0.90	0 0.90 5.0 7.35 6.95										967.07										964.	36 965.57	,	
	A5		1.05 0.90	0 0.90 5.0 0.93 7.35 6.95		266.04	0.50	18	7.45	1.77	4.21	4.78	1.08		962.50	961.17	962.83	1.18	0.40	1.00	0.35	1.53	964.12	964.36			
A5		1.05	0.90											967.01										962.	82 965.51		
	A4		2.10 0.90			279.35	0.50	24	16.04	3.14	5.11	5.70	1.03		960.67	959.27	961.33	0.99	0.40	1.00	0.50	1.49	962.73	962.82			
A4		0.95	0.90											9667.14										961.	12 9665.64	4	
	A3		3.05 0.90	7.55 25.15		263.24	0.50	30	29.08	4.91	5.92	6.39	0.94		958.77	957.45	959.75	0.64	0.40	0.40	0.25	0.90	961.12	960.64			
A3	4.0	0.99	0.90			107.00	0.50		20.00	1.01	5.00	0.00	4.40	967.30	057.05	050.44	050.00	0.00	0.40	0.40	0.00	0.00	000.74	960.	74 965.80)	
10	A2		4.04 0.90			167.88	0.50	30	29.08	4.91	5.92	6.68	1.12	000.47	957.95	956.11	958.83	0.68	0.40	0.40	0.28	0.96	960.74	959.78	57 000 07	,	
A2	Δ1	0.52	4.56 0.90	· · · · · · · · · · · · · · · · · · ·		122.28	0.50	30	29.08	4.91	5.92	6.74	1.22	968.17	955.11	955.01	957.68	0.61	0.40	0.40	0.28	0.89	958.16	958. 958.57	57 966.67		
B2	A I	0.46	0.90			122.20	0.50	30	29.00	4.91	5.92	0.74	1.22	969.05	955.11	955.01	957.00	0.61	0.40	0.40	0.20	0.09	956.10	968.	03 967.55	:	
D2			0.46 0.90			35.45	0.50	15	4.58	1.23	3 73	3.99	0.87	909.05	966.50	966.32	967.70	0.08	0.40	1 00	0.25	0.33	967.58	968.03	03 907.55	,	
of Drain C4	ы	2.04	0.90			33.43	0.50	15	7.50	1.20	3.73	3.33	0.07	969.13	300.30	300.32	307.70	0.00	0.40	1.00	0.25	0.00	307.30	966.	12 967.63	R	
DI DI GIII O T	Roof Drain C3		2.04 0.90			682.00	0.50	24	16.04	3.14	5.11	5 71	1.04	303.10	964.05	960.64	962.71	2.44	0.40	1.00	0.51	2.95	966.12	965.66	12 307.00	,	
of Drain C3	TOOL BIGHT GO	0.87	0.90			002.00	0.00	27	10.04	0.14	0.11	0.7 1	1.04	969.13	004.00	000.04	002.71	2.77	0.40	1.00	0.01	2.00	000.12	963.	05 967.63	3	
or Brain Go	Roof Drain C2	+	2.91 0.90			339.00	0.75	24	19.64	3.14	6.25	7.07	1.31	000.10	960.44	957.90	960.15	2.11	0.40	0.40	0.31	2.42	963.05	962.57	007.00		
of Drain C2		0.00	0.90											972.34										960.	24 970.84	1	
	C1		2.91 0.90			85.75	0.75	24	19.64	3.14	6.25	7.04	1.27		957.70	957.06	959.15	0.50	0.40	0.40	0.31	0.81	960.24	959.96			_
E8		0.76	0.90	0 0.90 5.0 7.35 5.03										968.63										965.	68 967.13	3	
	E7		0.76 0.90			177.58	0.50	18	7.45	1.77	4.21	4.52	0.89		964.35	963.46	964.80	0.41	0.40	1.00	0.32	0.73	965.68	965.52			
E7		0.50	0.90											968.93										964.	57 967.43	3	
	E6		1.26 0.90			174.08	0.50	24	16.04	3.14	5.11	5.11	0.80		962.96	962.09	963.60	0.23	0.40	0.40	0.16	0.39	964.57	963.99			
E6		0.26	0.90											970.30										963.	60 968.80)	
	E5	2.12	1.52 0.90			114.82	0.50	24	16.04	3.14	5.11	5.32	0.85		961.89	961.32	962.99	0.21	0.40	0.40	0.18	0.38	963.60	963.37			
E5	<u> </u>	0.19		0 0.90 5.0 7.35 1.26		100.01	0.50	0.4	10.01	0.44	F 44	5.45	0.00	970.30	001.10	000.47	000.04	0.00	0.40	0.40	0.40	0.47	000.04	962.	91 968.80)	
	E4	0.00	1.71 0.90			129.01	0.50	24	16.04	3.14	5.11	5.45	0.90	070.07	961.12	960.47	962.24	0.29	0.40	0.40	0.18	0.47	962.91	962.71	074.07	,	
E4		0.00		0 0.90 5.0 7.35 0.00 0 0.90 7.0 0.36 6.79 20.71	Flow Line E L Boof Drain C	140.00	0.50	20	20.00	4.01	5.02	6.42	0.05	972.87	060.07	050.60	064.02	0.26	0.40	0.40	0.26	0.62	062.65	962.	65 971.37		
E3	<u>E3</u>	0.00		0 0.90 7.0 0.36 6.79 20.71 0 0.90 5.0 7.35 0.00	Flow Line E + Roof Drain G	140.00	0.50	30	29.08	4.91	5.92	6.42	0.95	965.87	960.27	959.60	961.93	0.36	0.40	0.40	0.26	0.62	962.65	962.55 961.	46 964.37	,	
LJ	F2	 	3.39 0.90			113.60	0.50	30	29.08	4.91	5.92	6.40	0.95	900.07	959.10	958.50	960.81	0.28	0.40	0.40	0.25	0.54	961.46	961.35	-0 304.37		
E2	<u> </u>	0.00	0.90			110.00	0.50		20.00	7.01	0.02	0.70	0.00	967.54	555.16	000.00	330.01	0.20	0.70	0.70	0.20	0.07	301.70	960.	45 966.04	<u> </u>	
	E1		3.39 0.90			52.62	0.50	30	29.08	4.91	5.92	6.39	0.94	307.0-1	958.00	957.90	960.07	0.13	0.40	0.40	0.25	0.38	960.35	960.45	.5 500.04	,	
F4		0.42	0.90											970.98		-						·		969.	29 969.48	3	
	F3		0.42 0.90			144.90	0.50	15	4.58	1.23	3.73	3.91	0.83	-	968.25	967.53	968.57	0.27	0.40	1.00	0.24	0.51	969.29	969.08			
F3		0.00	0.90								1			972.52										968.	37 971.02)	-
	F2		1.23 0.90		Flow Line F + Roof Drain H	191.57	0.50	24	16.04	3.14	5.11	5.09	0.80		966.78	965.82	967.32	0.24	0.40	0.40	0.16	0.40	968.37	967.71			
F2		0.00	0.90	0 0.90 5.0 7.35 0.00										970.57										967.	39 969.07	,	
	F1		2.46 0.90			35.78	0.50	30	29.08	4.91	5.92	6.01	0.83		965.32	965.14	967.07	0.05	0.40	0.40	0.22	0.28	967.39	967.35			
oof Drain G		1.68	0.90											972.81										969.	20 971.31		
	E4	+	1.68 0.90			484.31	0.50	24	16.04	3.14	5.11	5.50	0.92		967.36	965.08	966.90	1.18	0.40	1.00	0.47	1.65	969.20				
of Drain H2		1.23		0 0.90 5.0 7.35 8.14									_	972.84		_								970.	75 971.34		
	Roof Drain H1			0 0.90 5.0 1.10 7.35 8.14		339.00	0.50	24	16.04	3.14	5.11	5.12	0.80		969.14	967.44	968.96	0.44	0.40	1.00	0.41	0.85	970.75	969.81			
of Drain H1		0.00		0 0.90 5.0 7.35 0.00			1				 			973.10				<u> </u>					005 55	969.	02 971.60)	
	F3		1.23 0.90	0 0.90 6.1 0.30 7.03 7.78		91.90	0.50	24	16.04	3.14	5.11	5.06	0.79		967.44	966.98	968.60	0.11	0.40	0.40	0.16	0.27	969.02	968.87			

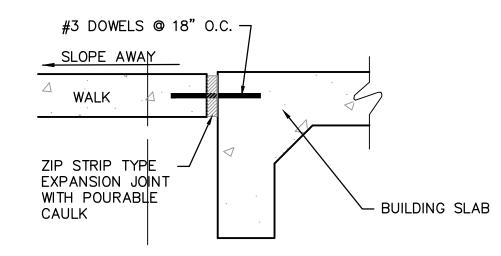
	STORM SEWER PIPE AND STRUCTURE TABLE - 100 YEAR																														
TLE: Lee's Summit Logistics Building C																															
B #: C021-04157																															
SIGN CONDITIONS: PRIVATE - 100 YEAR STORM EVENT																															
STRUCTURES RUNOFF CALCULATIONS																															
		DIRECT	TOTAL			FLOW															DOWNSTREAM		ENTRY LOSS	ACTUAL				HW	HYDRAULIC	HYDRAULIC	
FROM	ТО	AREA	AREA	C KC	Tc	TIME	INTENSITY	DESIGN Q	DESCRIPTION	PIPE LENGTH		PIPE DIA	Q FULL	PIPE AREA		DESIGN V	Hw/D			DOWNSTREAM	WATER	FRICTION	COEFFICIENT	ENTRY	ENTRY	hf+hm	HW, INLET	OUTLET		GRADE	Comments
1 ICOIVI	10			(K=1.25) (MIN)	(MIN)	(IN/HR)	(CFS)	DESCRIPTION	(L.F.)	SLOPE (%)	(IN)	(CFS)	(SQ.FT.)	(F/S)	(F/S)	1 100/ 🖸	ELEVATION	FLOWLINE	FLOWLINE	ELEVATION	HEAD (h f)	(b)	LOSS (k)	LOSS (h m)	(FT)	CONTROL	CONTROL	SIVADE ELEV		Comments
		(ACRES)	(ACRES)			(IVIIIV)															ELEVATION		(K)	LUSS (K)				CONTROL	ELEV.	(MAX)	
					+ +			10.01							+ +																
A6		1.05		0.90 1.00	5.0		10.32	10.84										967.07											966.75	965.57	
	A5		1.05	0.90 1.00	5.0	0.72	10.32	10.84		266.04	0.50	18	7.45	1.77	4.21	6.13	1.67		962.50	961.17	963.30	2.86	0.40	1.00	0.58	3.45	965.00	966.75			
A5		1.05		0.90 1.00	5.0		10.32	10.84										967.01											965.23	965.51	
	A4		2.10	0.90 1.00	5.7	0.69	10.03	21.06		279.35	0.50	24	16.04	3.14	5.11	6.70	1.57		960.67	959.27	962.09	2.44	0.40	1.00	0.70	3.14	963.80	965.23			
A4		0.95		0.90 1.00	5.0		10.32	9.81										9667.14											962.72	9665.64	
	A3		3.05	0.90 1.00	5.0	0.68	10.32	31.48		263.24	0.50	30	29.08	4.91	5.92	6.41	1.33		958.77	957.45	960.91	1.56	0.40	0.40	0.26	1.82	962.08	962.72			
A3		0.99		0.90 1.00	5.0		10.32	10.22										967.30											962.35	965.80	
	A2		4.04	0.90 1.00	5.7	0.34	10.05	40.58		167.88	0.50	30	29.08	4.91	5.92	8.27	1.76		957.95	956.11	959.68	1.66	0.40	0.40	0.42	2.08	962.35	961.76			
A2		0.52		0.90 1.00	5.0		10.32	5.37										968.17											960.17	966.67	
	A1		4.56	0.90 1.00	6.0	0.22	9.91	45.21		122.28	0.50	30	29.08	4.91	5.92	9.21	2.02		955.11	955.01	958.15	1.50	0.40	0.40	0.53	2.02	960.16	960.17			
B2		0.46		0.90 1.00	5.0		10.32	4.75										969.05											968.63	967.55	
	B1		0.46	0.90 1.00		0.15	10.32	4.75		35.45	0.50	15	4.58	1.23	3.73	3.87	1.15		966.50	966.32	968.21	0.19	0.40	1.00	0.23	0.43	967.93	968.63			
Drain C4		2.04		0.90 1.00	_		10.32	21.03										969.13											970.10	967.63	
	Roof Drain C3		2.04	0.90 1.00		1.70	10.32	21.03		682.00	0.50	24	16.04	3.14	5.11	6.69	1.56		964.05	960.64	963.46	5.95	0.40	1.00	0.70	6.64	967.17	970.10	07 0.10	007.00	
Drain C3	(OOI DIGITI OC	0.87	2.07	0.90 1.00	5.0	1.70	10.32	9.01		002.00	0.00		10.04	0.17	- 0.11	0.00	1.00	969.13	004.00	000.04	000.40	0.00	0.40	1.00	0.70	0.04	307.17	070.10	966.60	967.63	
	Roof Drain C2		2.91	0.90 1.00		0.63	9.66	28.11		339.00	0.75	24	19.64	3.14	6.25	8.95	2.27	303.13	960.44	957.90	960.82	5.28	0.40	0.40	0.50	5.78	964.97	966.60	300.00	307.00	
Drain C2	NOOI DIAIII GZ	0.00	2.31	0.90 1.00	5.0	0.03	10.32	0.00		339.00	0.75	24	19.04	3.14	0.23	0.95	2.21	972.34	900.44	957.90	900.02	3.20	0.40	0.40	0.50	3.76	904.91	900.00	962.08	970.84	
Diaili C2	C1	0.00	2.91	0.90 1.00	7.3	0.16	9.44	27.46		85.75	0.75	24	19.64	3.14	6.25	8.74	2.19	912.34	957.70	957.06	959.70	1 27	0.40	0.40	0.47	1.75	962.08	961.44	902.00	910.04	
F0	<u> </u>	0.76	2.91	0.00		0.10		7.85		65.75	0.75	24	19.04	3.14	0.25	0.74	2.19	000.00	937.70	957.00	959.70	1.21	0.40	0.40	0.47	1.75	902.08	901.44	000.04	967.13	
E8	E 7	0.76	0.76			0.67	10.32			177.50	0.50	10	7.45	1 77	4 24	4.44	1 10	968.63	064.25	062.46	065.50	1.00	0.40	1.00	0.24	1 21	066.14	066.04	966.81	907.13	
F7	<u> </u>	0.50	0.76	0.90 1.00 0.90 1.00	5.0 5.0	0.67	10.32	7.85 5.16		177.58	0.50	10	7.45	1.77	4.21	4.44	1.19	968 93	964.35	963.46	965.50	1.00	0.40	1.00	0.31	1.31	966.14	966.81	004.05	007.40	
E/		0.50	4.00		5.0	0.54	10.32			474.00	0.50	0.4	40.04	0.44		F 05	0.00	908.93	000.00	000.00	004.07	0.55	0.40	0.40	0.00	0.75	004.05	004.00	904.95	967.43	
Fo	<u> </u>	0.00	1.26	0.90 1.00	5.7	0.51	10.05	12.67		174.08	0.50	24	16.04	3.14	5.11	5.65	0.99	070.00	962.96	962.09	964.07	0.55	0.40	0.40	0.20	0.75	964.95	964.82	004.07	000.00	
E6		0.26	4.50	0.90 1.00	5.0		10.32	2.68		11100	0.50		10.01	244			4.40	970.30	004.00	004.00	222.55	0.54	0.40	0.40	2.24	0.70	00444	00107	964.27	968.80	
	E5		1.52	0.90 1.00		0.33	9.85	14.98		114.82	0.50	24	16.04	3.14	5.11	5.79	1.12		961.89	961.32	963.55	0.51	0.40	0.40	0.21	0.72	964.14	964.27			
E5		0.19		0.90 1.00	5.0		10.32	1.96										970.30											964.08	968.80	
	E4		1.71	0.90 1.00		0.41	9.73	16.64		129.01	0.50	24	16.04	3.14	5.11	5.30	1.23		961.12	960.47	963.21	0.70	0.40	0.40	0.17	0.88	963.58	964.08			
E4		0.00		0.90 1.00	5.0		10.32	0.00										972.87											964.23	971.37	
	E3		3.39		6.9	0.35	9.58	32.48	Flow Line E + Roof Drain G	140.00	0.50	30	29.08	4.91	5.92	6.62	1.37		960.27	959.60	963.07	0.88	0.40	0.40	0.27	1.16	963.69	964.23			
E3		0.00		0.90 1.00	5.0		10.32	0.00										965.87											962.93	964.37	
	E2		3.39		7.3	0.29	9.46	32.06		113.60	0.50	30	29.08	4.91	5.92	6.53	1.35		959.10	958.50	961.96	0.70	0.40	0.40	0.26	0.96	962.47	962.93			
E2		0.00		0.90 1.00	5.0		10.32	0.00										967.54											961.61	966.04	
	E1		3.39	0.90 1.00	7.6	0.14	9.36	31.72		52.62	0.50	30	29.08	4.91	5.92	6.46	1.34		958.00	957.90	961.04	0.32	0.40	0.40	0.26	0.58	961.34	961.61			
F4		0.42		0.90 1.00	5.0		10.32	4.34										970.98											969.86	969.48	
	F3		0.42	0.90 1.00		0.57	10.32	4.34		144.90	0.50	15	4.58	1.23	3.73	4.24	1.07		968.25	967.53	968.92	0.66	0.40	1.00	0.28	0.94	969.58	969.86			
F3		0.00		0.90 1.00	5.0		10.32	0.00										972.52											968.74	971.02	
	F2		1.23			0.57	10.09	12.41	Flow Line F + Roof Drain H	191.57	0.50	24	16.04	3.14	5.11	5.63	0.98		966.78	965.82	967.78	0.58	0.40	0.40	0.20	0.78	968.74	968.55			
F2	-	0.00		0.90 1.00	5.0		10.32	0.00					· •					970.57										1	967.97	969.07	
	F1	2.00	2.46	0.90 1.00	6.1	0.09	9.87	24.28		35.78	0.50	30	29.08	4.91	5.92	6.62	1.06	5.5.5.	965.32	965.14	967.52	0.13	0.40	0.40	0.27	0.40	967.97	967.92	25		
f Drain G		1.68		0.90 1.00	5.0	3.00	10.32	17.34		556	5.55			1.01		2.02		972.81	0.02	333.11	307.32	55	J. 15	55	5.27	5. 10		337.32	971.18	971.31	
i Diaiii U	<u></u>	1.00	1.68	0.90 1.00	5.0	1 46	10.32	17.34		484.31	0.50	24	16.04	3.14	5.11	5.52	1.28	312.01	967.36	965.08	967.83	2.87	0.40	1.00	0.47	3.35	969.91	971.18	37 1. 10	57 1.51	
Drain ⊔?	ᆫᅮ	1 22	1.00		5.0	1.70	10.52			707.01	0.00	<u> </u>	10.04	J. 14	5.11	0.02	1.20	072.94	007.00	000.00	007.00	2.01	0.70	1.00	0.77	3.33	300.91	37 1.10	071 12	071 34	
f Drain H2	Poof Droin Life	1.23	100	0.90 1.00		1.00	10.32	12.70 12.70		220.00	0.50	24	16.04	2 1 4	E 11	- E 6 E	4.00	972.84	060.44	067.44	000.40	1.08	0.40	1 00	0.50	1 57	074.40	074.00	9/ 1.13	971.34	
	Roof Drain H1		1.23	0.90 1.00	5.0	1.00	10.32			339.00	0.50	24	16.04	3.14	5.11	5.65	1.00		969.14	967.44	969.43	1.08	0.40	1.00	0.50	1.57	971.13	971.00	000.07	074.00	
f Drain H1	<u> </u>	0.00	1.00	0.90 1.00		0.00	10.32	0.00		04.00	0.50		40.04	0.44			0.01	973.10	007.44	000.00	000.00	1 2 22	0.40	0.40	1 2 42	0.44	000.07	600.01	969.27	971.60	
	F3		1.23	0.90 0.90	6.0	0.28	9.92	10.98		91.90	0.50	24	16.04	3.14	5.11	5.49	0.91		967.44	966.98	968.83	0.22	0.40	0.40	0.19	0.41	969.27	969.24			

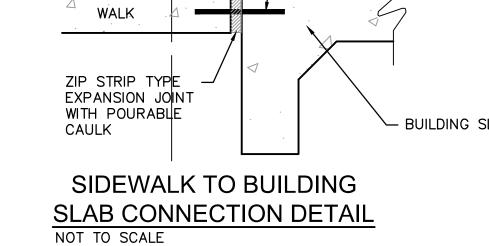


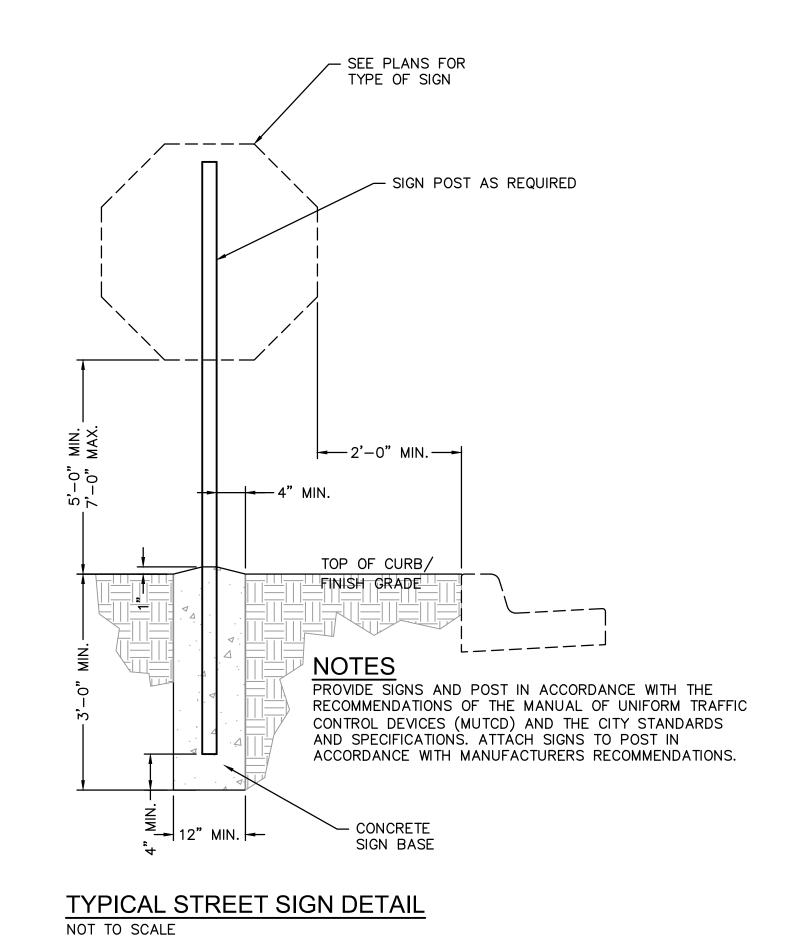
DEPRESSED SIDEWALK TRANSITION DETAIL

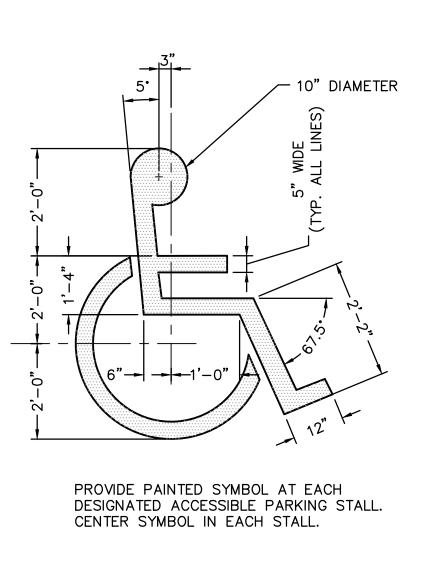


CURB & GUTTER DETAIL

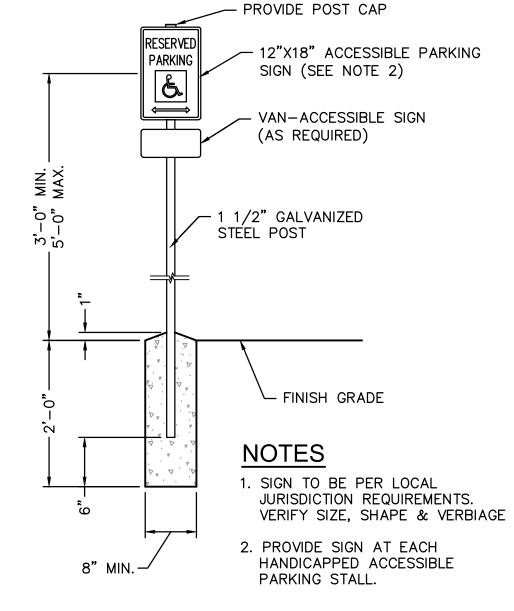




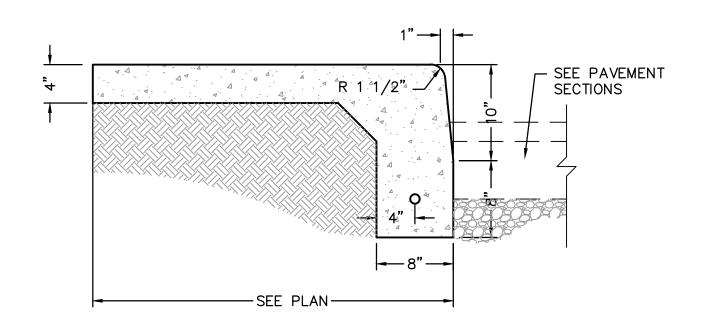








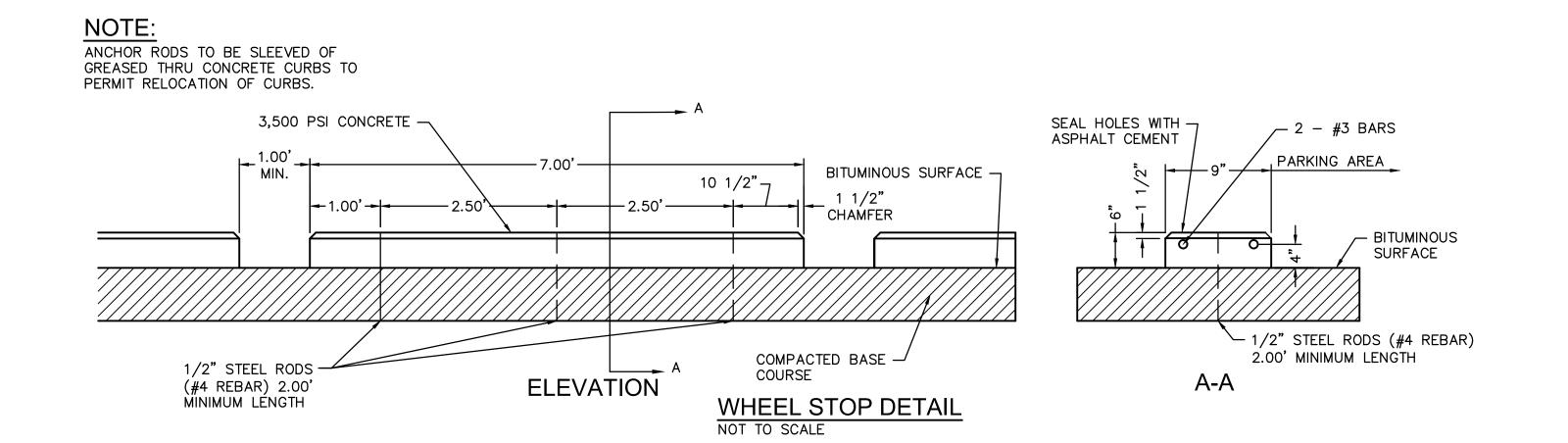
ACCESSIBLE PARKING SPACE SIGNAGE NOT TO SCALE

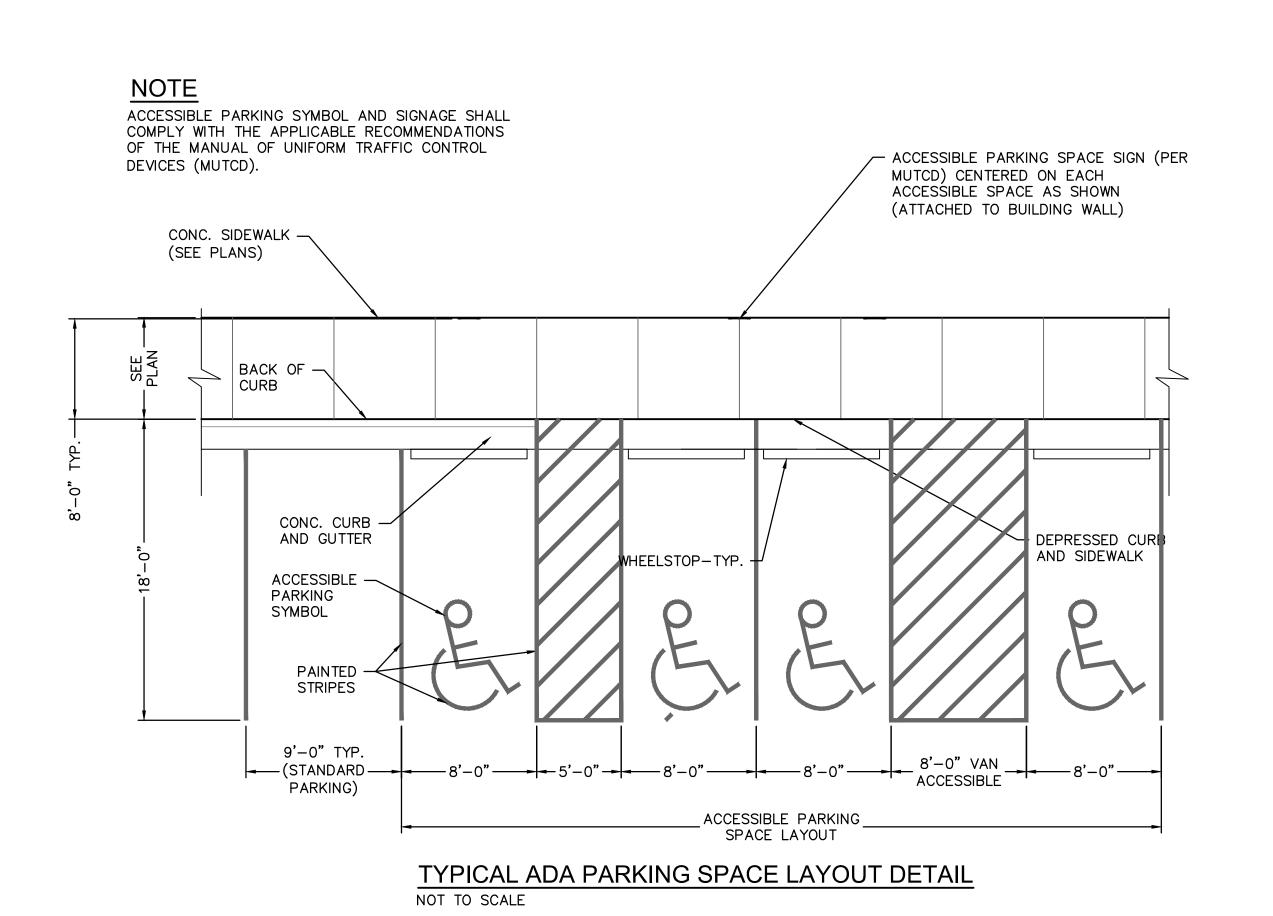


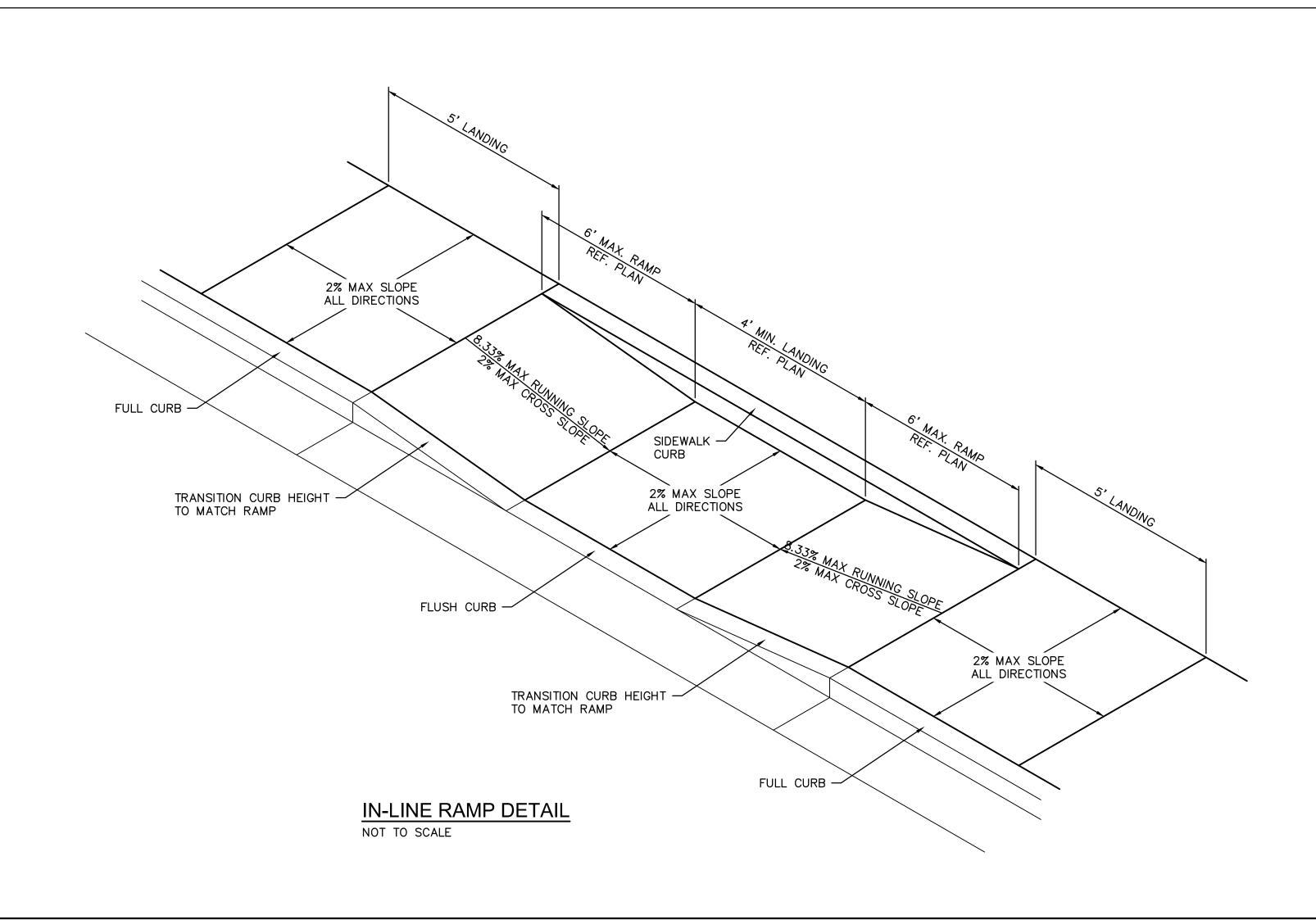
GENERAL NOTES:

- 1. 3/4" ISOLATION JOINTS WITH 5/8" DIA. X 2' SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
- 2. 1" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
- 3. FIX DOWEL BARS WITH BAR SUPPORTS.
- 4. DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH HANDICAP ACCESSIBLE RAMP.









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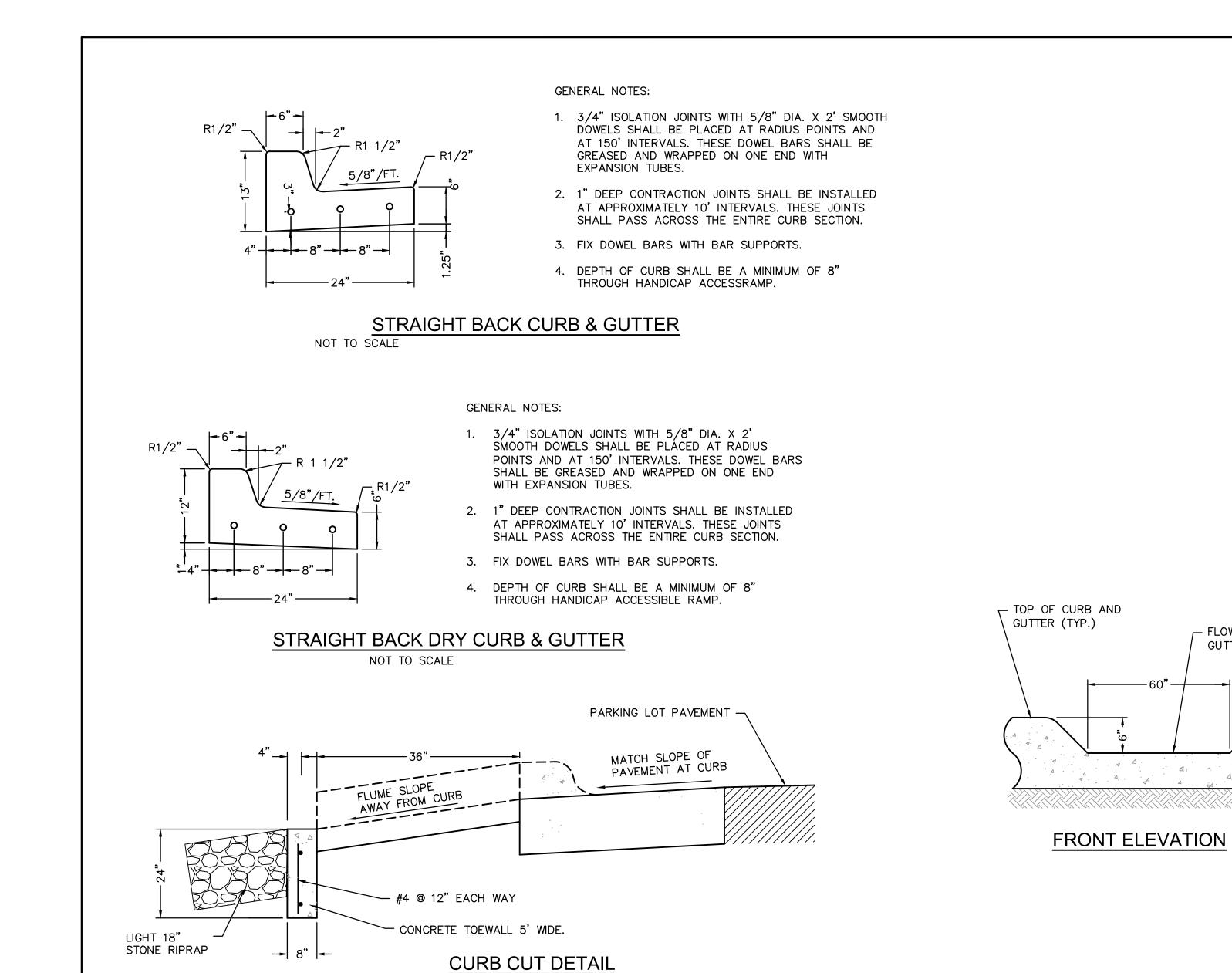
MITCHELL ALAN

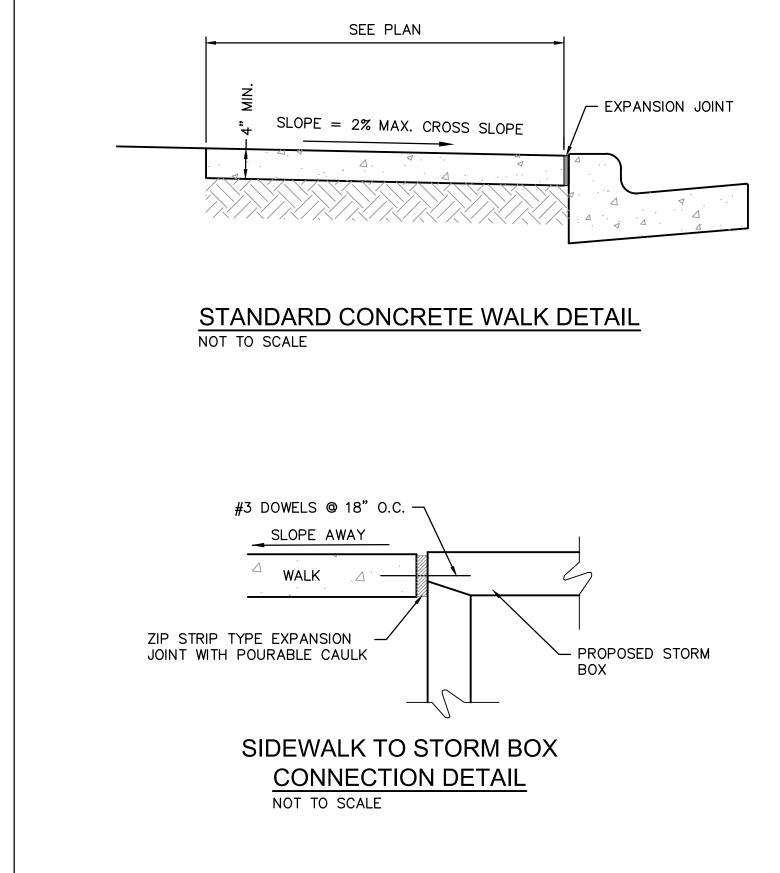
PLEAK NUMBER

PE-2009018764

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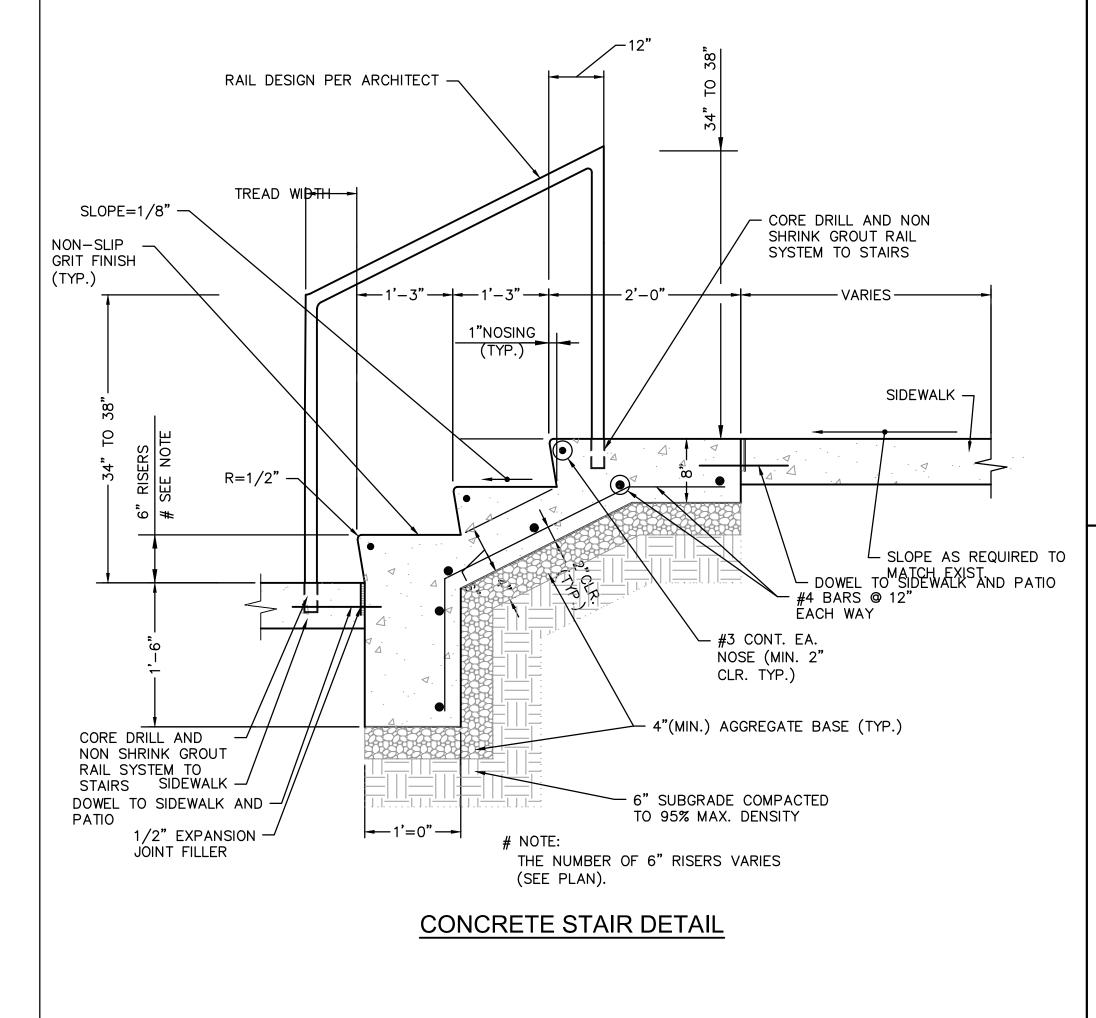




- FLOW LINE OF CURB AND

←6" TRANSITION

GUTTER (TYP.)





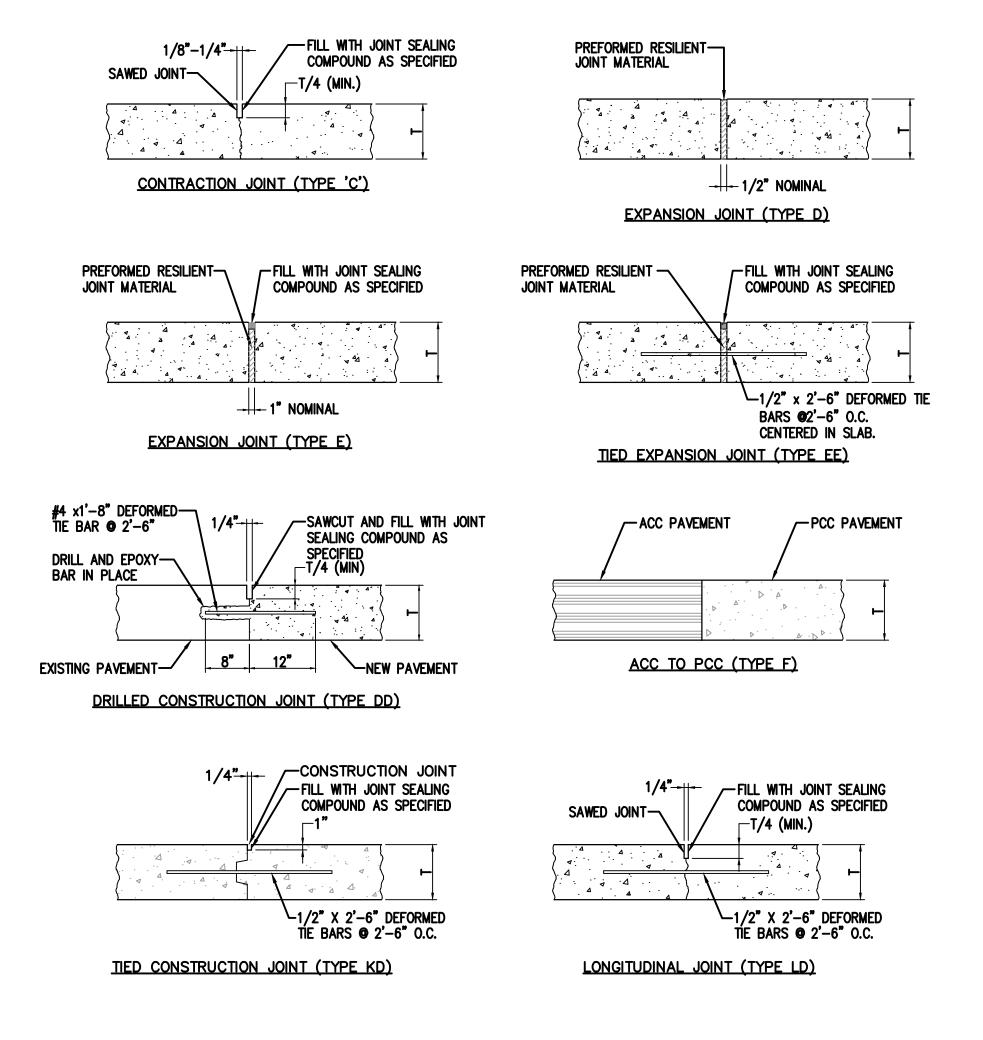
drawn by:

checked by: approved by: QA/QC by:

project no.: B21-04157 drawing @.DTL01 C2104157.dwg

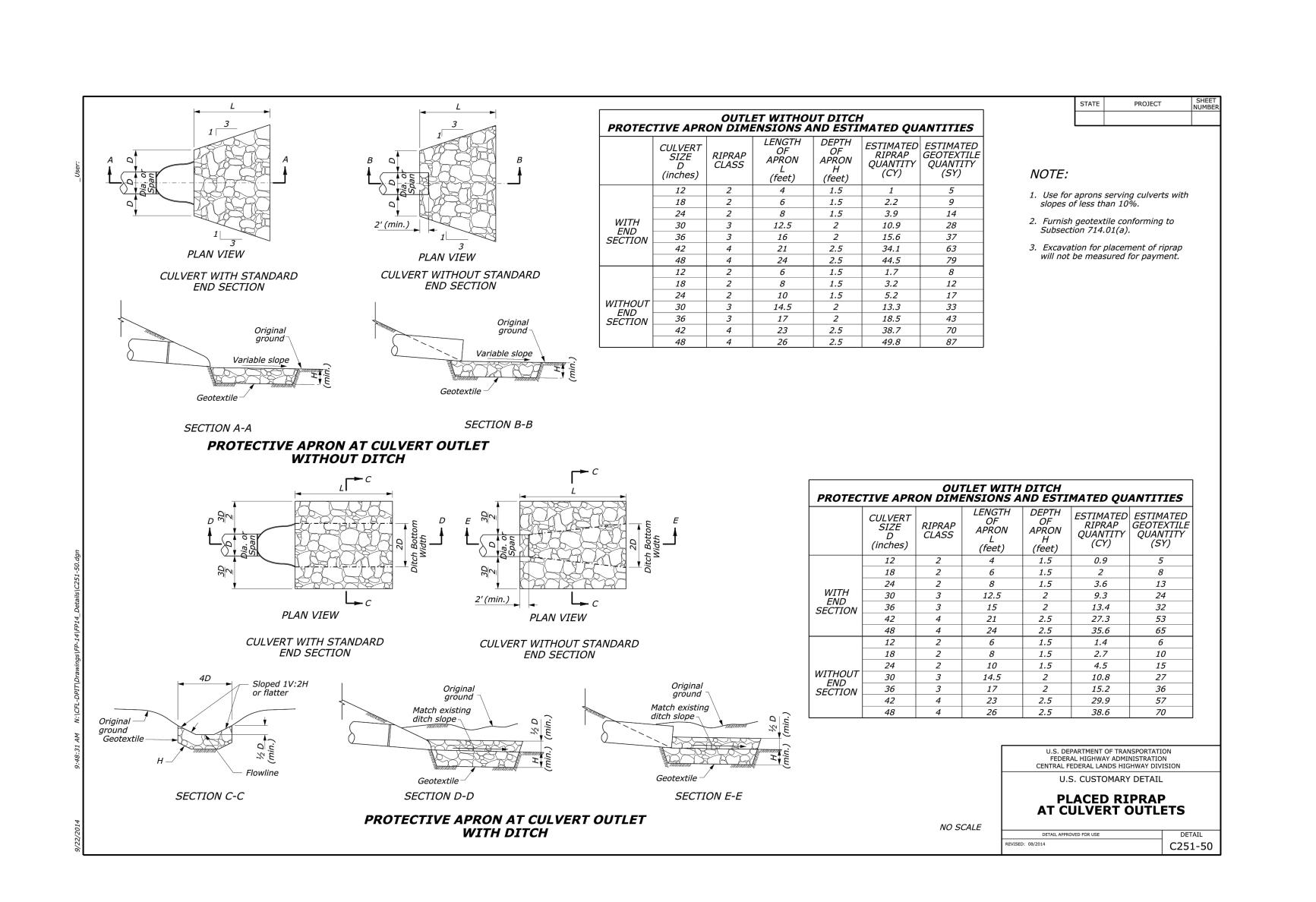
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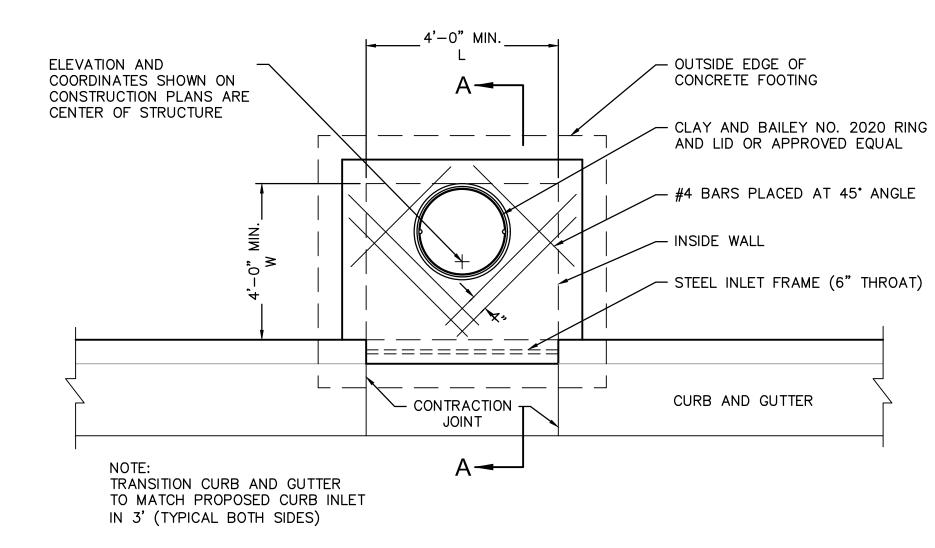
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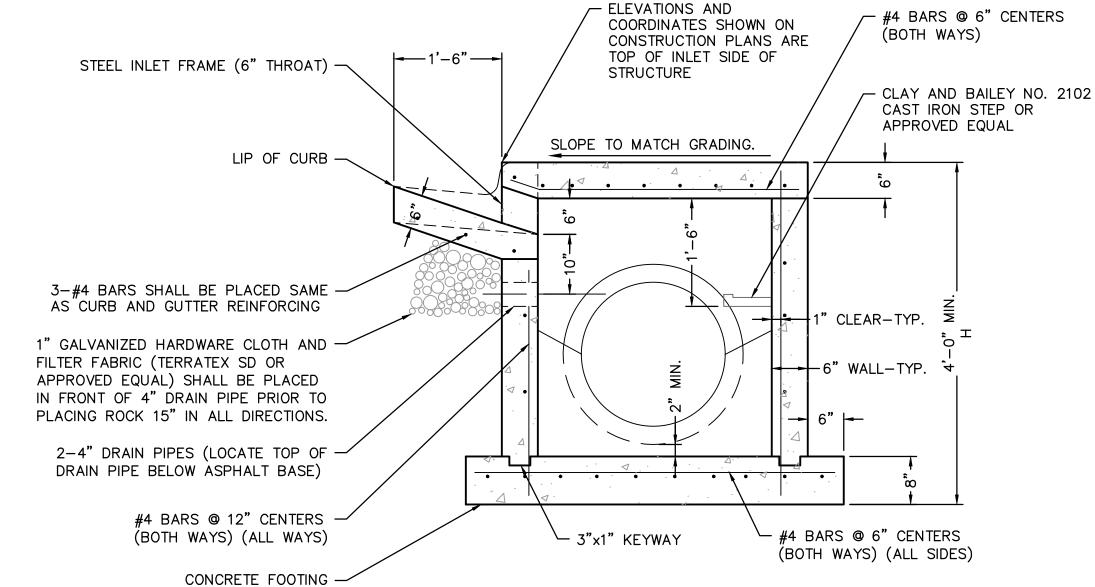
PAVEMENT JOINT DETAILS

NOT TO SCALE





PLAN



SECTION A-A

─ KEYSTONE COMPAC II UNIT

(3/4" CRUSHED ROCK

- INSTALL KCMMBK 4K CONCRETE

LEVELING BASE FOR WALLS

– UNIT DRAINAGE FILL

OR STONE)

- FINISHED GRADE

NON-SETBACK CURB INLET NOT TO SCALE HANDRAIL SEE SEPARATE DETAIL 8" MIN. LOW PERMEABLE SOIL -- KEYSTONE CAP UNIT

REINFORCED SOIL

GRID DEPTH

DIM PER ENGINEERED

PLANS BY CONTRACTOR

SEGMENTAL RETAINING WALL

APPROXIMATE

RETAINED SOIL

DRAINAGE TILE

4" PERFORATED PVC

LIMITS OF **EXCAVATION**

NON-SETBACK CURB INLET NOTES

- 1. USE CITY APPROVED CONCRETE THROUGHOUT.
- 2. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
- 3. FLOOR OF INLET SHALL BE SHAPED TO PROVIDE SMOOTH FLOW.
- 4. EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT
- SEALING COMPOUND, OR PREMOLDED EXPANSION JOINT FILLER.
- 5. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
- 6. CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND., INC. NO. PS1-PF, PS2-PF, OR APPROVED EQUAL). CAST IRON STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY.
- 7. BEVEL ALL EXPOSED EDGES WITH TRIANGULAR MOLDING.
- 8. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
- 9. ALL STORM SEWER STRUCTURES SHALL BE PRECAST. PRECAST SHOP
- DRAWINGS SHALL BE APPROVED BY THE DESIGN ENGINEER.
- 10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
- 11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF $\pm 1/8$ " SHALL BE PERMITTED.
- 12. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
- 13. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.
- 14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
- 15. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
- 16. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
- 17. ALL CURB INLET TOPS ARE TO BE CONSTRUCTED AFTER FINAL CURB STRING LINE HAS BEEN APPROVED BY THE ENGINEER AND PRIOR TO CURB CONSTRUCTION, OR AS DIRECTED BY THE CITY ENGINEER.
- 18. RCP CONNECTIONS TO PRECAST STRUCTURE SHALL MEET ALL CITY STANDARDS.
- 19. BACKFILL AROUND STRUCTURES SHALL BE COMPACTED AND SHALL BE OF THE MATERIAL SPECIFIED PER CITY STANDARDS.
- 20. NON-SETBACK CURB INLET TO BE USED ONLY WITH THE APPROVAL OF THE CITY ENGINEER.

RETAINING WALL NOTES 1. RETAINING WALL SHALL BE "VERSA-LOK MOSAIC RETAINING WALL (NONWEATHERED) AND THE COLOR SHALL BE PALOMINO GRAY". THE DETAILS PROVIDED HERE ARE FOR GENERAL GUIDANCE ONLY. THE WALL SHALL BE "DESIGN-BUILD" PROVIDED COMPLETE IN-PLACE BY THE CONTRACTOR. 2. THE MODULAR WALL UNITS SHALL HAVE A STRAIGHT FACE WITH SPLIT FINISH TEXTURE. COLOR SHALL BE "PALOMINO GRAY".

3. THE WALL SHALL BE DESIGNED BY THE INSTALLER ACCORDING TO THE WALL UNIT MANUFACTURER'S DESIGN CRITERIA. THE DESIGN SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER AS A SHOP DRAWING FOR REVIEW. ALL DESIGN CALCULATIONS AND DESIGN CRITERIA, (ANGLE OF FRICTION, SOIL WEIGHT, ETC.), SHALL BE SUBMITTED WITH THE SHOP DRAWING. ALL DESIGN MUST BE SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MISSOURI.

4. FACTORS OF SAFETY SHALL BE AS FOLLOWS:

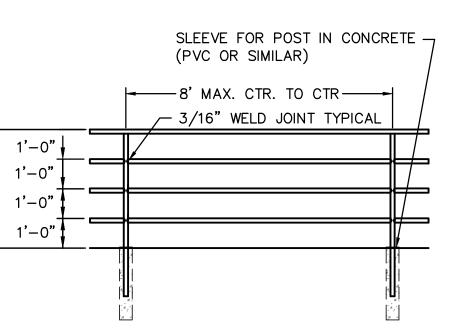
1.5 AGAINST REINFORCEMENT GRID PULLOUT OR RUPTURE 1.5 AGAINST EXTERNAL SLIDING FAILURE 2.0 AGAINST OVERTURNING

5. THE DESIGN, DIMENSIONS, AND MATERIAL SHOWN IN THIS DETAIL ARE GENERAL IN NATURE. THE AGGREGATE MATERIALS, GEOGRID SYSTEM, AND INSTALLATION SHALL BE AS WALL UNIT MANUFACTURER'S REQUIREMENTS.

6. SEE SPECIFICATIONS FOR MATERIAL SELECTION AND OTHER REQUIREMENTS.

7. WALL DESIGN SHALL INCLUDE GLOBAL STABILITY.

8. RETAINING WALL SHALL PROVIDE POSITIVE INTERLOCKING BETWEEN BLOCKS AND GRID.



NOTES:

- 1. ALL RAILING SHALL BE 2" SQUARE STEEL PIPE.
- 2. ALL EXPOSED STEEL SHALL BE PRIMED WITH ZINC OXIDE PAINT AND PAINTED WITH TWO COAT OF HIGH GLOSS EXTERIOR DARK BROWN PAINT. SUBMIT SAMPLE TO ARCHITECT PRIOR TO PAINTING FOR APPROVAL.
- 3. SPACING AND LOCATION AS SHOWN ON DETAILS.
- 4. SPACING OF VERTICAL POSTS SHALL BE EQUAL THROUGHOUT EACH SECTION OF THE HANDRAIL.

METAL PIPE HANDRAIL DETAIL NOT TO SCALE

MITCHELL ALAN DI EVK Maa. Rea NUMBER PE-2009018764

checked by: approved by:

QA/QC by: project no.: drawing <u>00.DTL01_C2104157.dwg</u> date: 03.11.2022

SHEET C8.02

REINFORCEMENT SCHEDULE, BASE

SECTION "A" #4's @ 6" E.W.

	REINFORCEMEN'	T SCHEDULE, WALLS	
SECTION	WIDTH ("W")	HOR.	VERT.
	4'	#4's @ 9"	#4's @ 10"
"A"	BETWEEN 4' & 7'	#6's @ 9"	#4's @ 10"
	GREATER THAN 7'	#5's @ 4 1/2"	#4's @ 10"

	TABLE OF "	T" 0. "NI" DIMENICIONIC		
	TABLE OF	T" & "N" DIMENSIONS		
SECTION	WIDTH ("W")	"T"	"N"	" D "
** . **	BETWEEN 4' & 7'	6" + PIPE THICKNESS	8"	8"
"A"	GREATER THAN 7'	6" + PIPE THICKNESS	8"	8"

REINI	REINFORCEMENT SCHEDULE, TOP											
DIMENSIONS	STEEL	SPECIAL PATTERN										
L = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER										
W = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER										
L = 7' OR LESS	#4's @ 8" E.W.	DIAGONAL @ COVER										
W = 7' OR GREATER	#4'S @ 6" E.W.	DIAGONAL @ COVER										
L = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER										
W = 7' OR GREATER	#4's @ 6" E.W.	DIAGONAL @ COVER										

	TABLE OF 'W' DIMENSIONS													
PIPE SIZE	SKEW OF	CROSS DRAI	N		PIPE SIZE	SKEW OF	CROSS DRAI	N						
SINGLE	STRAIGHT	30°	45°		SINGLE	STRAIGHT	30°	45°						
24"	4'-0"	4'-0"	4'-10"		DOUBLE	FOR "A"	SECTION ONL	_Y						
30"	4'-0"	4'-7"	5'-8"		24"	7'-0"	7'-10"	9'-5"						
36"	4'-0"	5'-3"	6'-5"		30"	8'-2"	9'-2"	11'-0"						
42"	5'-3"	5'-11"	7'-3"		36"	9'-4"	10'-6"	12'-6"						
48"	5'-10"	6'-7"	8'-0"		42"	10'-6"	11'-10"	14'-2"						
60"	7'-0"	7'-10"	9'-8"		48"	11'-8"	13'-2"	15'-10"						

- 1. ALL EXPOSED CORNERS TO HAVE 3/4" CHAMFER.
- 2. ALL #4 & #5 REINFORCING BARS TO HAVE 1 1/2" COVER, LARGER SIZES TO HAVE 2" COVER.
- 3. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.

CURB/GRATE INLET NOTES:

GENERAL NOTES:

- 1. CONCRETE USED IN THIS WORK SHALL BE APPROVED BY THE CITY. 2. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE
- 3. EXPANSION JOINTS SHALL BE EITHER HOT OR COLD POURED JOINT SEALING COMPOUND, OR PREMOLDED EXPANSION

WITH PIPES.

4. PIPES SHALL CONNECT TO THE ENDS OR SIDES OF THE INLET.

CONNECTION SHALL NOT BE MADE AT CORNERS OF BOX.

6. A 2' MINIMUM INTERIOR WALL WIDTH IS REQUIRED FOR SIDES

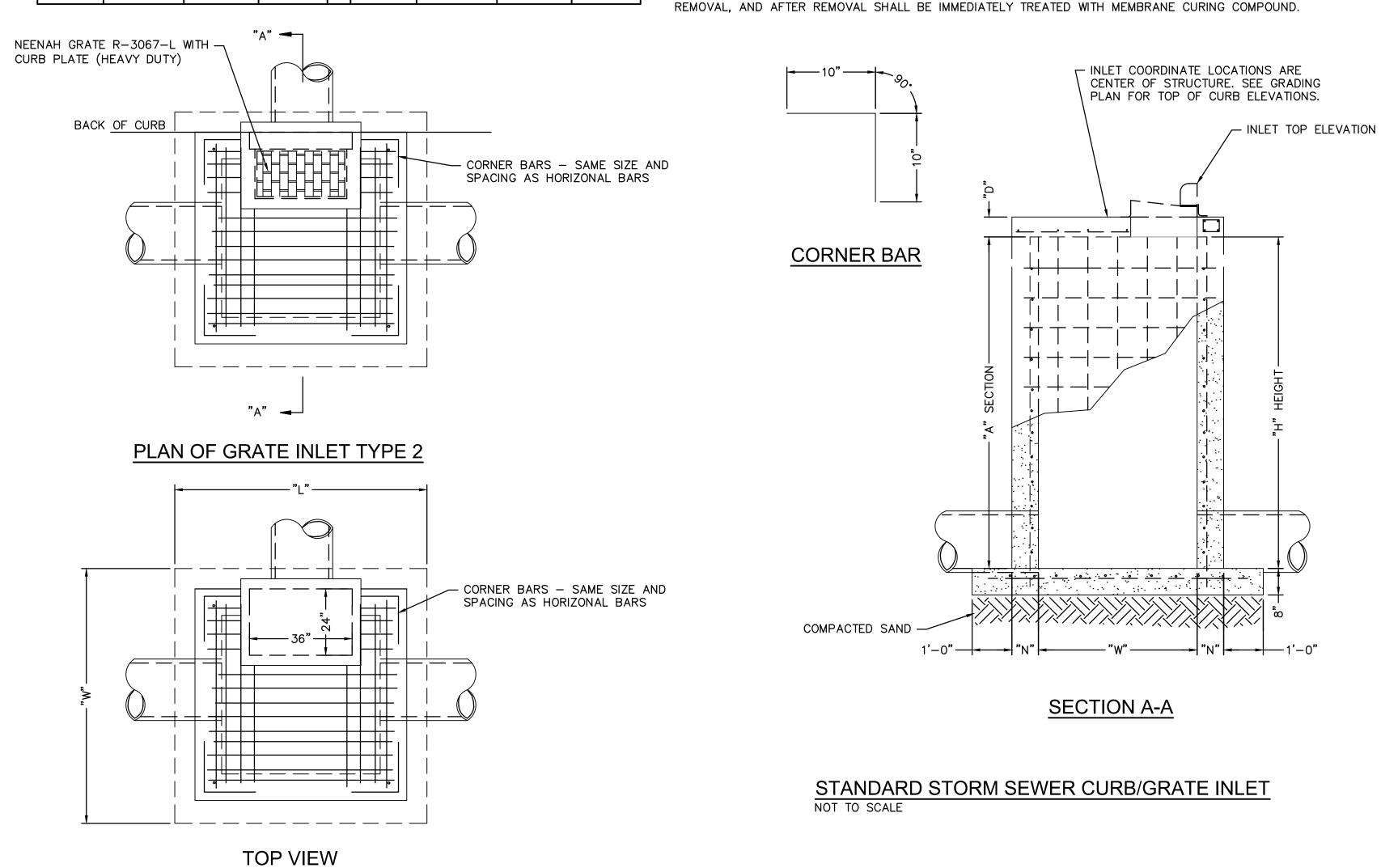
WITHOUT PIPES AND A 4' MINIMUM IS REQUIRED FOR SIDES

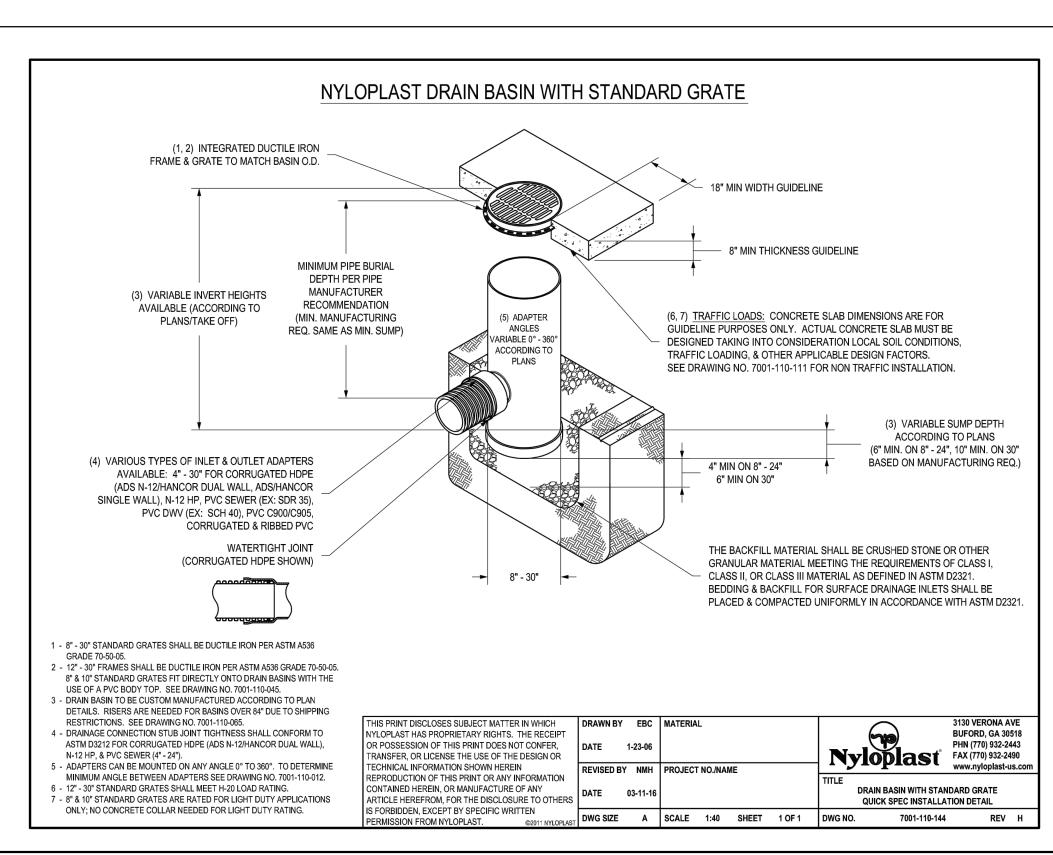
5. ALL REINFORCING BARS TO BE GRADE 40.

- 4. INSTALL ANGLE IRON FACE ON ALL INLETS.
- 5. STEEL INLET FRAME SPACERS SHALL BE PLACED AT EQUAL SPACINGS NOT TO EXCEED 4'-0".
- 6. CAST IRON STEPS TO BE CLAY & BAILEY 2102 OR APPROVED EQUAL. STEEL CORE, PLASTIC COATED STEPS MAY BE USED (M.A. IND.,INC. NO. PS1-PF, PS2-PF, OR APPROVED EQUAL). CAST IRON STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY. THE DISTANCE FROM THE LAST STEP TO THE TOP OF CONCRETE INVERT SHOULD BE A MAXIMUM OF 24".
- 7. BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOLDING.
- 8. ON-GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
- 9. ALL STORM SEWER STRUCTURES SHALL BE PRECAST. PRECAST SHOP DRAWINGS SHALL BE APPROVED BY THE DESIGN ENGINEER.
- 10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 40 AS PER ASTM A615, AND SHALL BE BENT COLD.
- 11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
- 12. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL.
- 13. BAR SUPPORTS @ 3'-0" MAXIMUM SPACING. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES.

14. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO

CONSTRUCTION. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. 15. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE





LEGEND

TABLE OF FILL DEPTHS BELOW PIPE

IN SOIL

TABLE OF TRENCH WIDTHS

MINIMUM TRENCH

WIDTH (INCHES)

44

49

54

58

73

83

102

109

D

27" & SMALLER

66" & LARGER

PIPE SIZE

(INCHES)

24

27

30

33

42

60

30"TO 66"

"A" MIN. IN

12"

MINIMUM SIDE

WALL CLEARANCE

(INCHES)

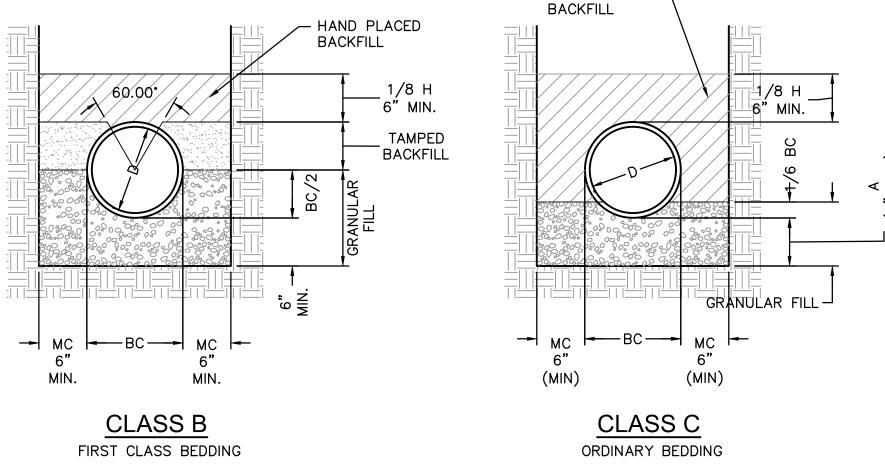
6 1/2

8 1/2

12 1/2

13 1/2

- BC = OUTSIDE DIAMETER OF PIPE
- H = BACKFILL COVER ABOVE TOP OF PIPE
- D = NOMINAL PIPE DIAMETER
- A = FILL BELOW PIPE (SEE TABLE)
- MC = MINIMUM SIDEWALL CLEARANCE (SEE TABLE)

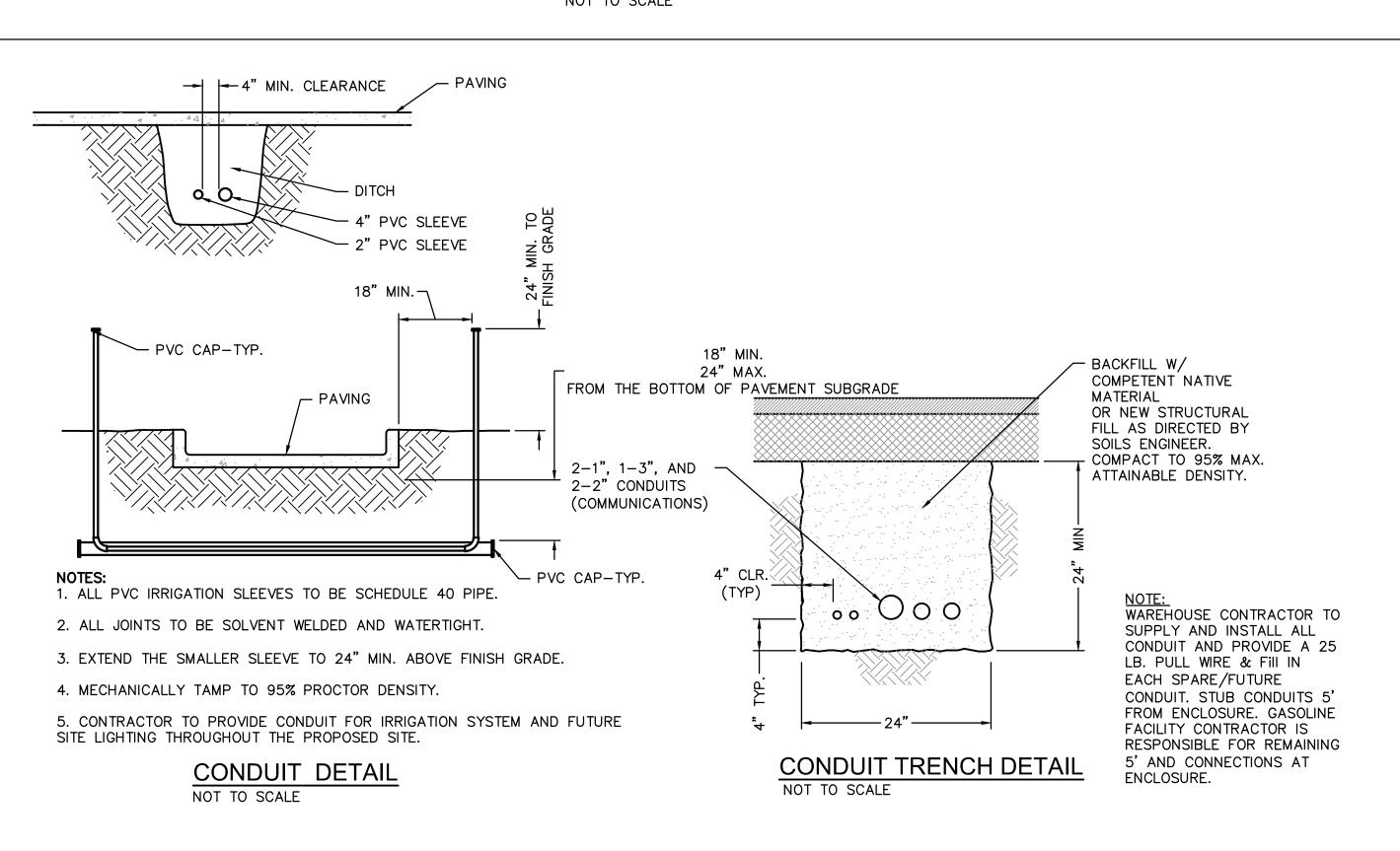


HAND PLACED -

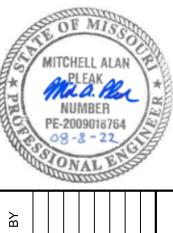
BEDDING NOTES

- 1. GRANULAR FILL TO BE CRUSHED STONE OR PEA GRAVEL WITH NOT LESS THAN 95% PASSING 1/2" SIEVE AND NOT LESS THAN 95% TO BE RETAINED ON A #4 SIEVE, TO BE PLACED IN NOT MORE THEN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL.
- 2. TAMPED BACKFILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO STANDARD METHOD T-99. GRANULAR FILL MAY BE SUBSTITUTED FOR ALL OR PART OF TAMPED BACKFILL.
- 3. HAND PLACED BACKFILL SHALL BE FINELY DIVIDED MATERIAL FREE FROM DEBRIS AND

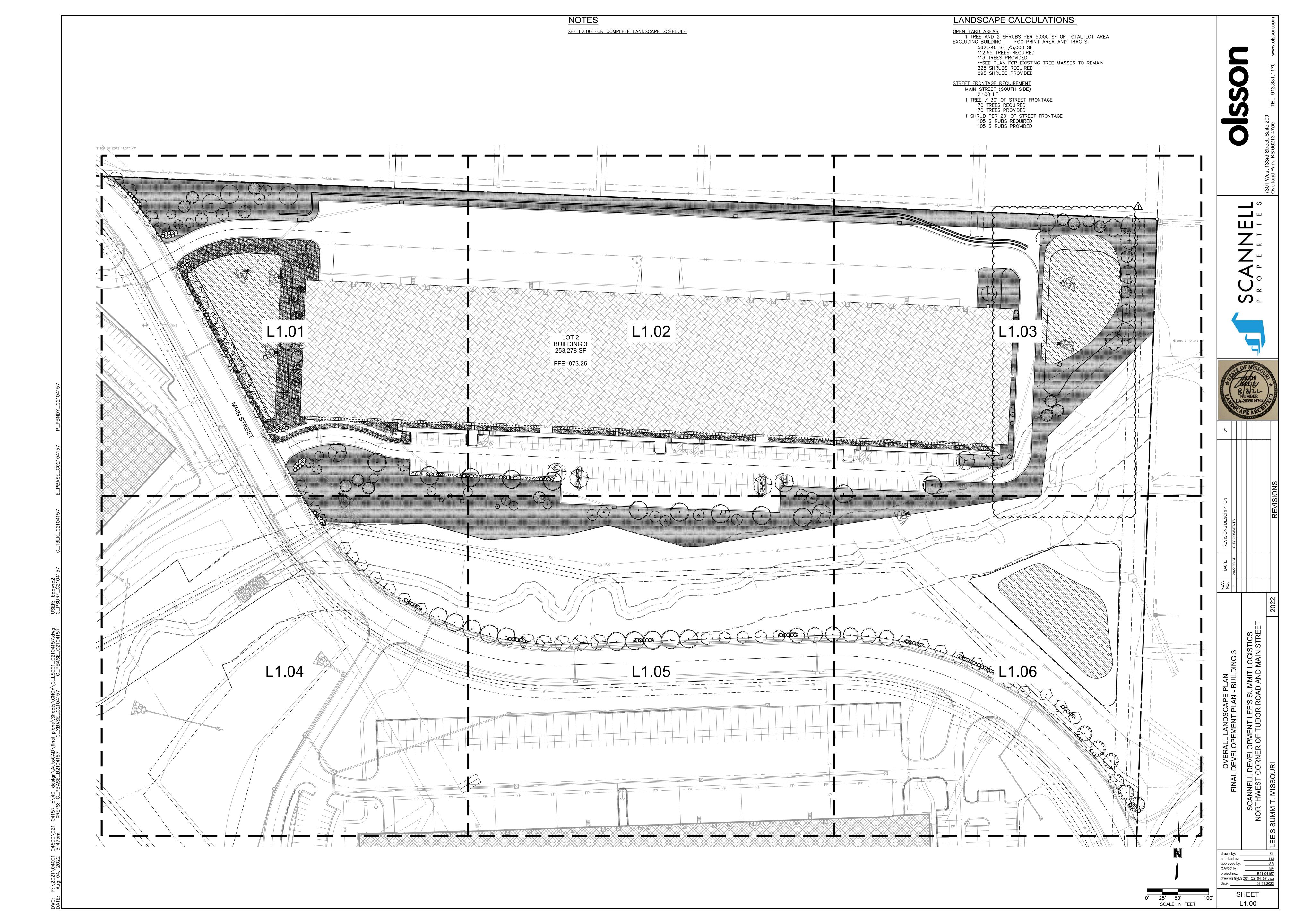
STORM SEWER TRENCH DETAIL

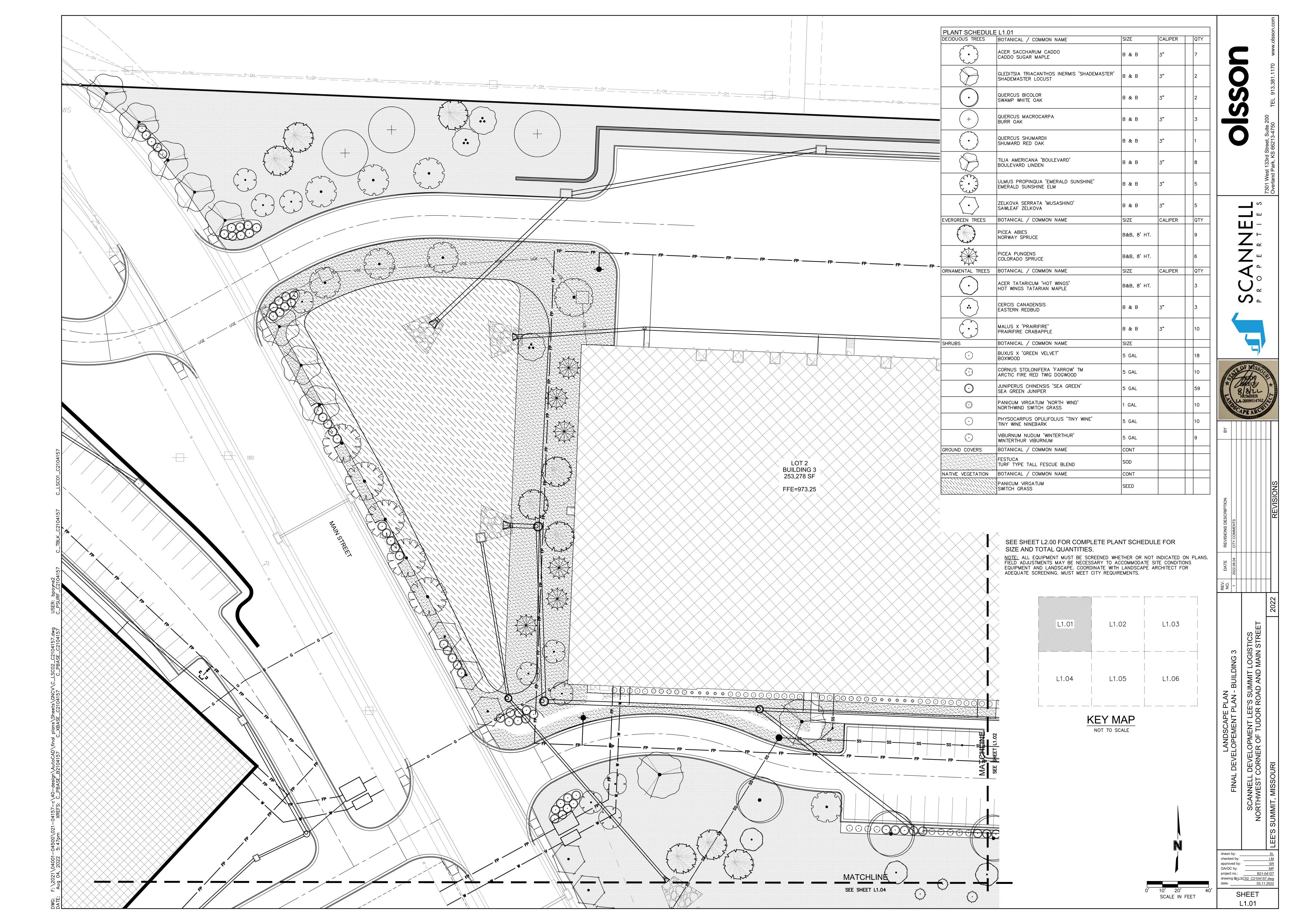


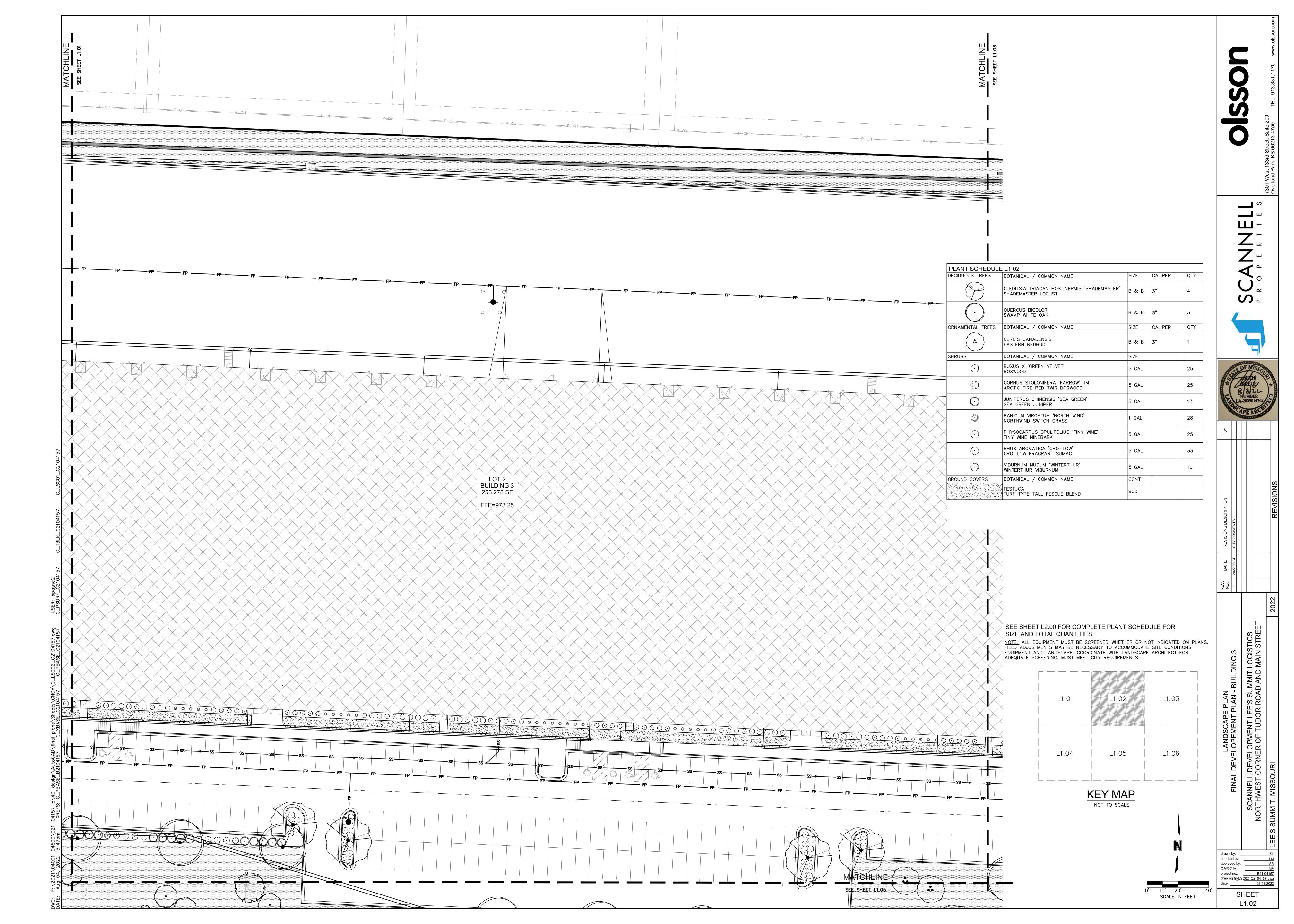


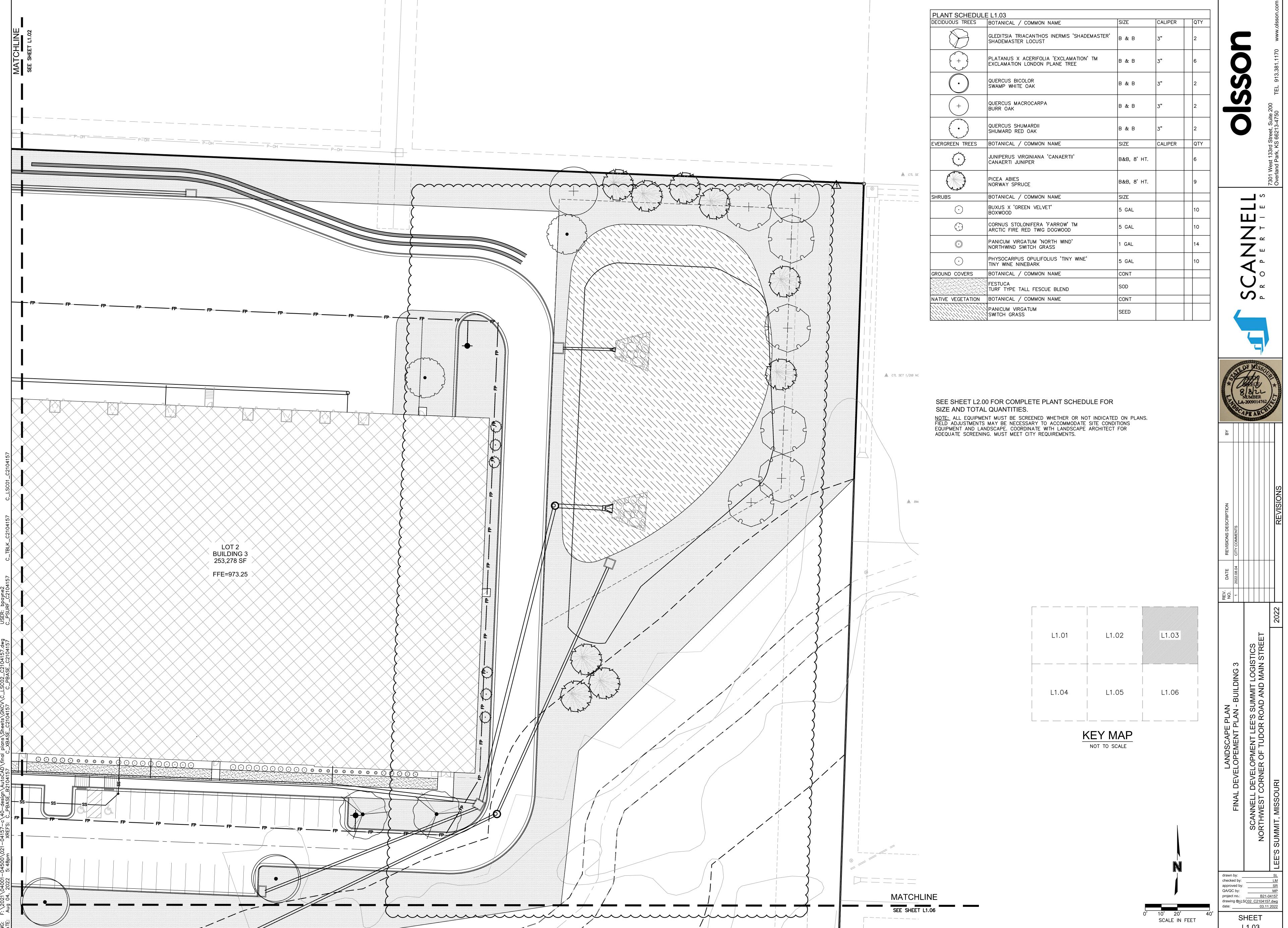


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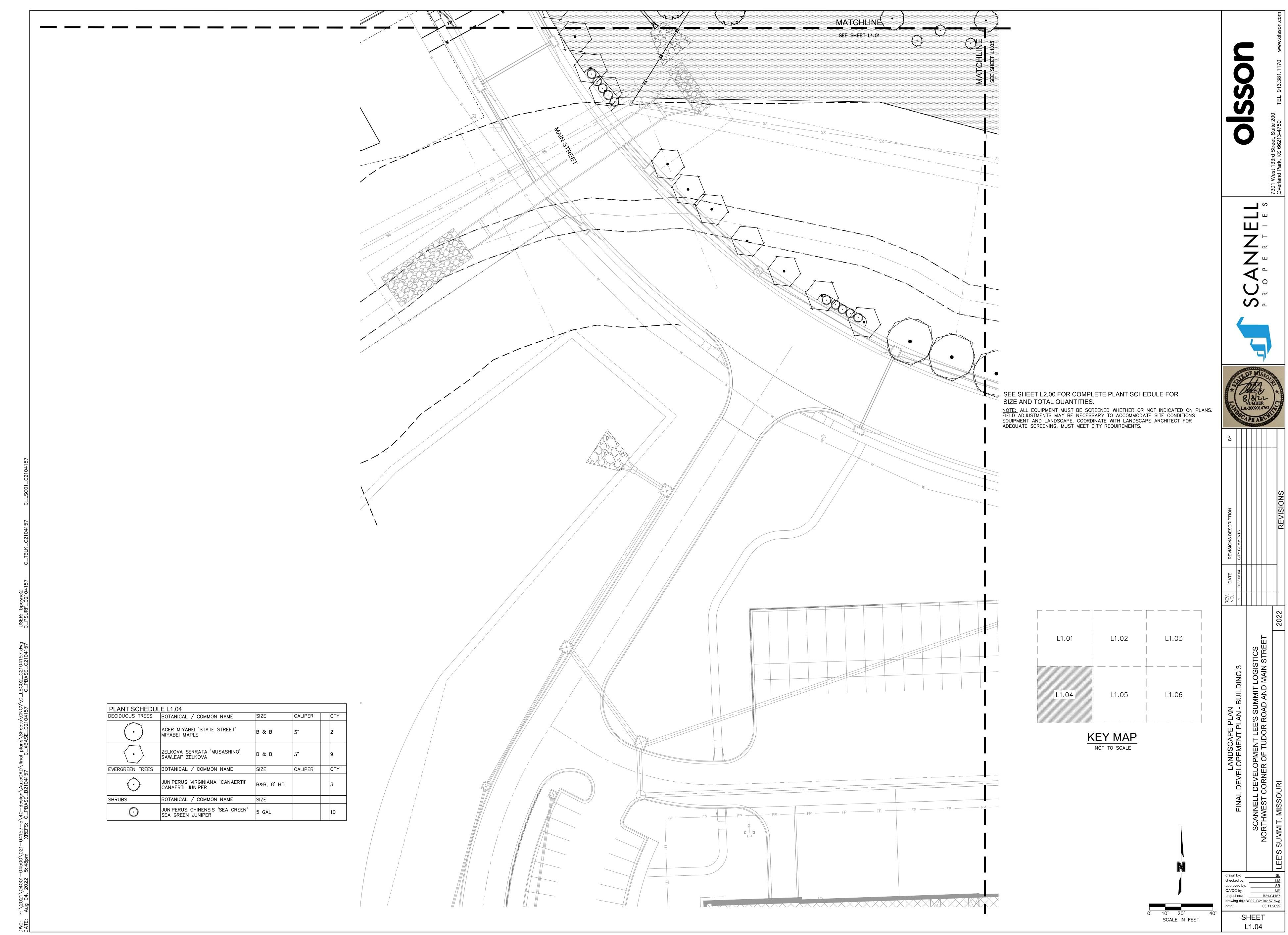


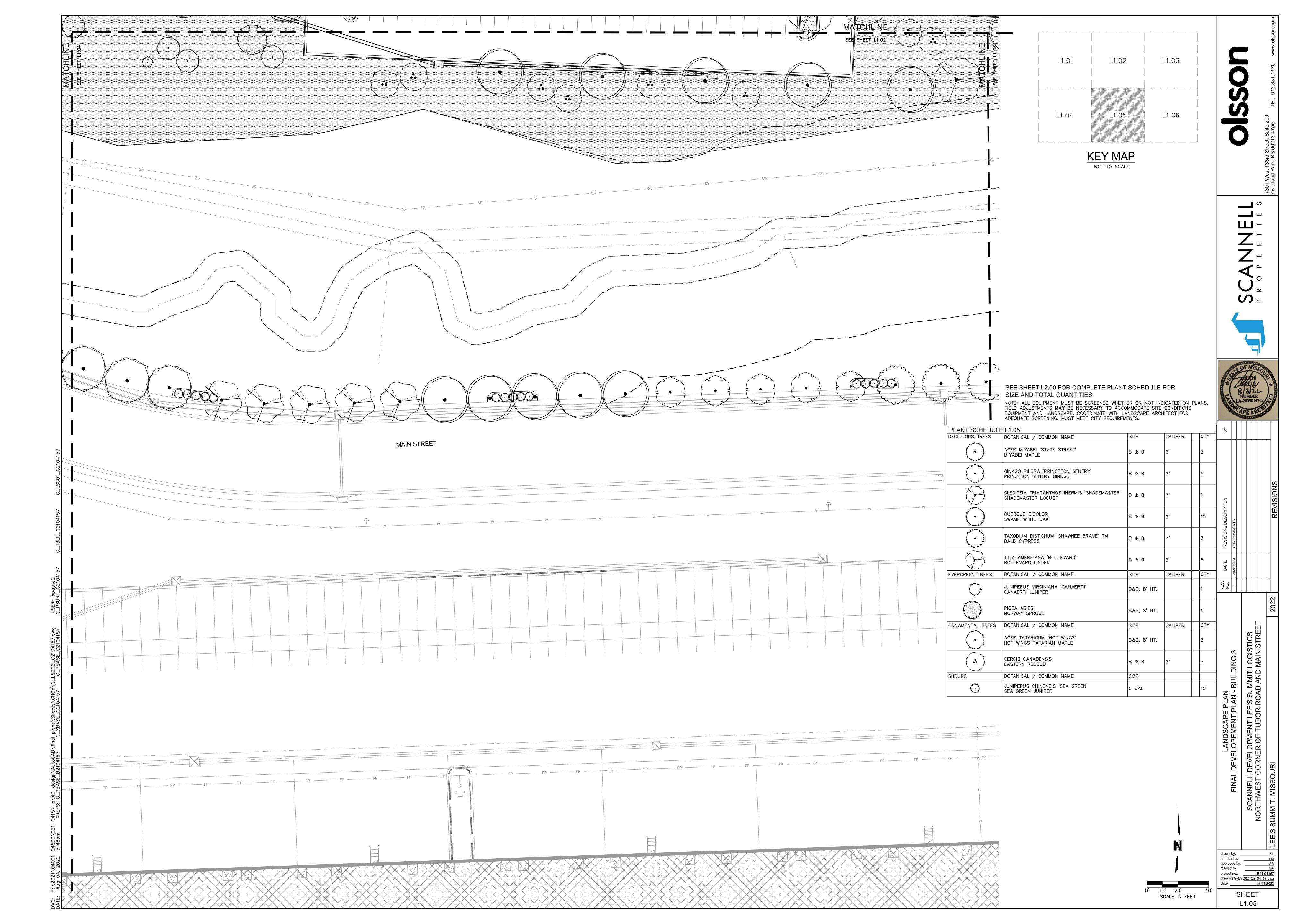


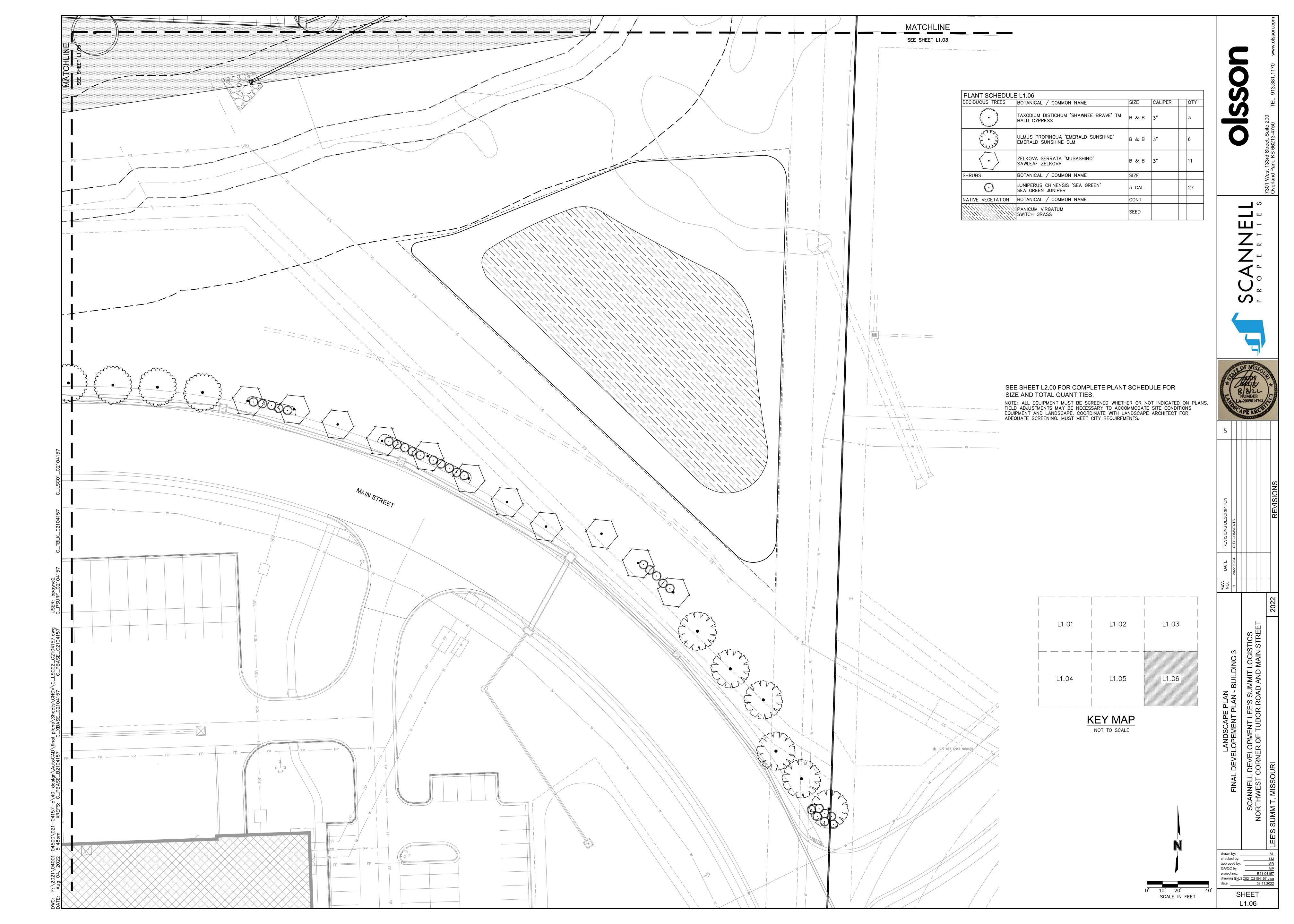




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QUANTITIES TO COMPLETE THE WORK AS DRAWN. 4. PLAN IS SUBJECT TO CHANGES BASED ON PLANT SIZE AND MATERIAL AVAILABILITY. ALL CHANGES OR SUBSTITUTIONS MUST BE APPROVED BY THE CITY OF LEE'S SUMMIT, MO AND

ALL PLANT MATERIAL SHALL BE NURSERY GROWN TO MEET MINIMUM SIZE AS SPECIFIED IN THE AMERICAN STANDARD FOR NURSERY STOCK ESTABLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (ANLA). THE LANDSCAPE ARCHITECT OR OWNER'S

ALL TREES SHALL BE CALIPERED AND ANY UNDERSIZED TREES SHALL BE REJECTED.

CONTRACTOR SHALL STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. CONTRACTOR SHALL HAVE THE LANDSCAPE ARCHITECT APPROVE ALL STAKING PRIOR TO INSTALLATION. FIELD ADJUSTMENTS MAY BE NECESSARY BASED UPON FIELD CONDITIONS (I.E. ROOT BALL AND DROP INLET CONFLICT). ALL ADJUSTMENTS MUST

THE LANDSCAPE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND MATERIALS INJURIOUS TO PLANT GROWTH FROM PLANTING PITS AND BEDS PRIOR TO BACKFILLING WITH

10. A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL SHRUB BEDS PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL.

11. BACKFILL ALL PLANTING BEDS TO A MINIMUM 12-INCH DEPTH WITH PLANTING SOIL MIX. PLANTING SOIL MIX SHALL CONSIST OF ONE (1) PART PERLITE, ONE (1) PART PEAT MOSS, AND TWO (2) PARTS CLEAN LOAM TOPSOIL. THOROUGHLY MIX PLANTING SOIL COMPONENTS PRIOR TO PLACEMENT.

13. V-TRENCH LANDSCAPE EDGING IS TO BE USED ON ALL LANDSCAPE BEDS ABUTTING SODDED AREAS.

14. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH A HIGH-EFFICIENCY, AUTOMATIC IRRIGATION SYSTEM ACHIEVING 100% EVEN COVERAGE OF ALL LANDSCAPE AREAS. IRRIGATION SYSTEM SHALL BE DESIGN-BUILD TO MEET ALL CITY REQUIREMENTS.

UNTIL THE TIME THE PERMANENT IRRIGATION SYSTEM IS FULLY FUNCTIONAL AND ACCEPTANCE OF THE PROJECT HAS TAKEN PLACE. ANY MATERIAL WHICH DIES. OR DEFOLIATES (PRIOR TO ACCEPTANCE OF THE WORK) WILL BE PROMPTLY REMOVED AND REPLACED.

BEGINNING AT THE DATE OF ACCEPTANCE. CONTRACTOR WILL MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF OWNER).

ALL DISTURBED AREAS SHALL BE SODDED WITH TURF-TYPE TALL FESCUE SOD WITH A

ALL LAWN AREAS SHALL RECEIVE A MINIMUM 6-INCH DEPTH OF TOPSOIL COMPACTED TO 85% MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

THE ENTIRE SURFACE TO BE SODDED SHALL BE REASONABLY SMOOTH AND FREE FROM STONES, ROOTS, OR OTHER DEBRIS.

SOD SHALL BE MACHINE STRIPPED AT A UNIFORM SOIL THICKNESS OF APPROXIMATELY ONE INCH (PLUS OR MINUS 1/4-INCH). THE MEASUREMENT FOR THICKNESS SHALL EXCLUDE TOP GROWTH AND THATCH. AND SHALL BE DETERMINED AT THE TIME OF CUTTING IN THE FIELD. PRECAUTIONS SHALL BE TAKEN TO PREVENT DRYING AND HEATING. SOD DAMAGED BY HEAT AND DRY CONDITIONS, AND SOD CUT MORE THAN 18 HOURS

HANDLING OF SOD SHALL BE DONE IN A MANNER THAT WILL PREVENT TEARING, BREAKING, DRYING AND OTHER DAMAGE. PROTECT EXPOSED ROOTS FROM DEHYDRATION. DO NOT

MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD. WATER THOROUGHLY AND ALLOW SURFACE TO DRY BEFORE INSTALLING SOD. FERTILIZE, HARROW OR RAKE FERTILIZER IN THE TOP 1-1/2-INCHES OF TOPSOIL, AT A UNIFORM RATE OF ONE POUND OF NITROGEN PER 1000 S.F.

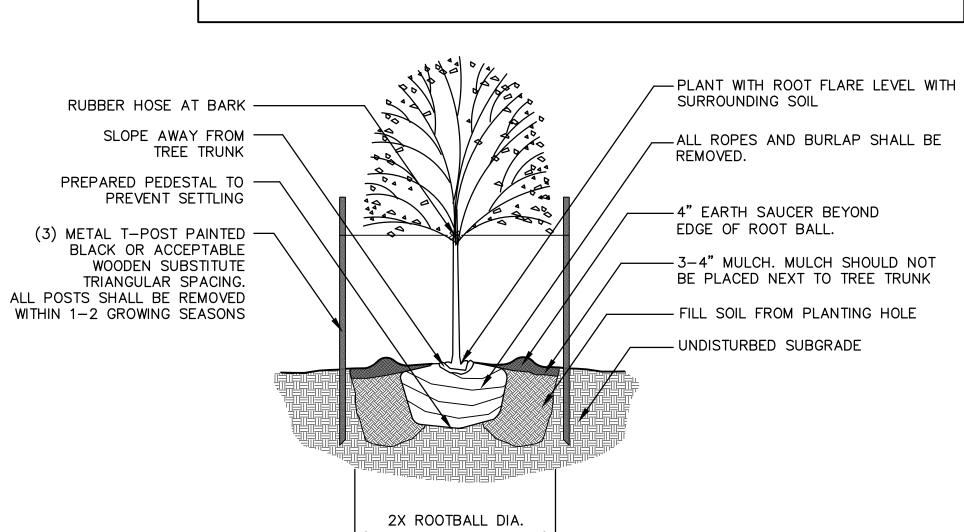
SOD SHALL BE CAREFULLY PLACED IN THE DIRECTION PARALLEL WITH THE SLOPE OF THE AREA TO BE SODDED. SOD STRIPS SHALL BE BUTTED TOGETHER BUT NOT OVERLAPPED WITH THE SEAMS STAGGERED ON EACH ROW.

SPECIFIED AND SHALL COMPLY WITH THE RULES OF THE STATE OF MISSOURI DEPT. OF

9. ALL SOD ON SLOPES GREATER THAN 5:1 AND WITHIN DETENTION AREAS SHALL BE STAKED.

10. SATURATE SOD WITH FINE WATER SPRAY WITHIN TWO HOURS OF PLANTING. DURING FIRST WEEK AFTER PLANTING, WATER DAILY OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN

11. CONTRACTOR SHALL PROVIDE FULL MAINTENANCE FOR SODDED TURF GRASS FOR A PERIOD OF 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, WELL-ROOTED, EVEN-COLORED, VIABLE TURF MUST BE ESTABLISHED. THE TURF GRASS SHALL BE FREE OF WEEDS, OPEN JOINTS, BARE AREAS, AND SURFACE IRREGULARITIES.



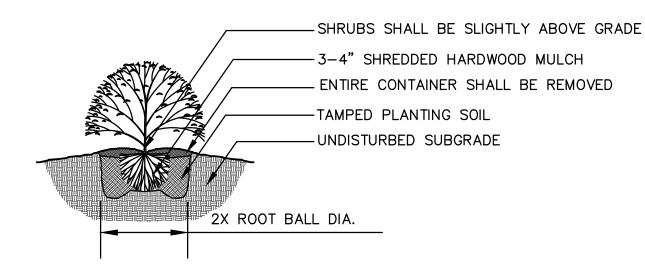
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING 2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

Deciduous Tree Planting Detail

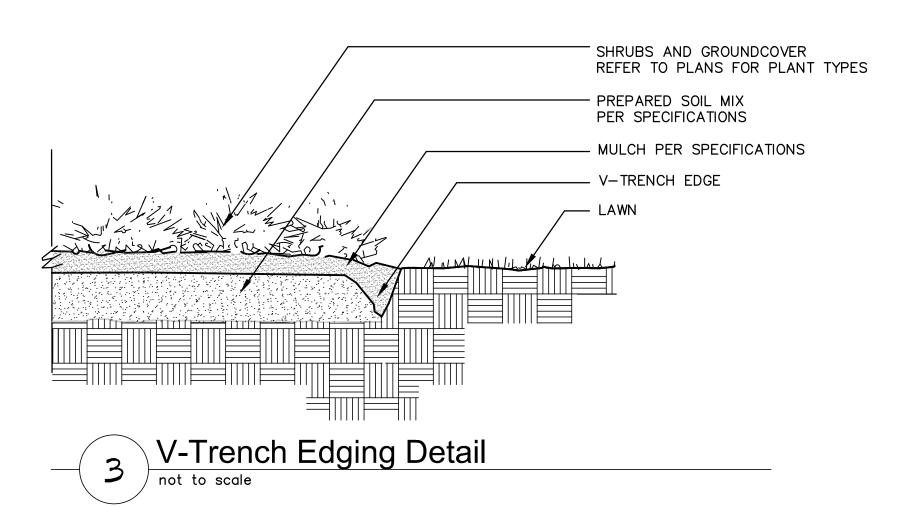
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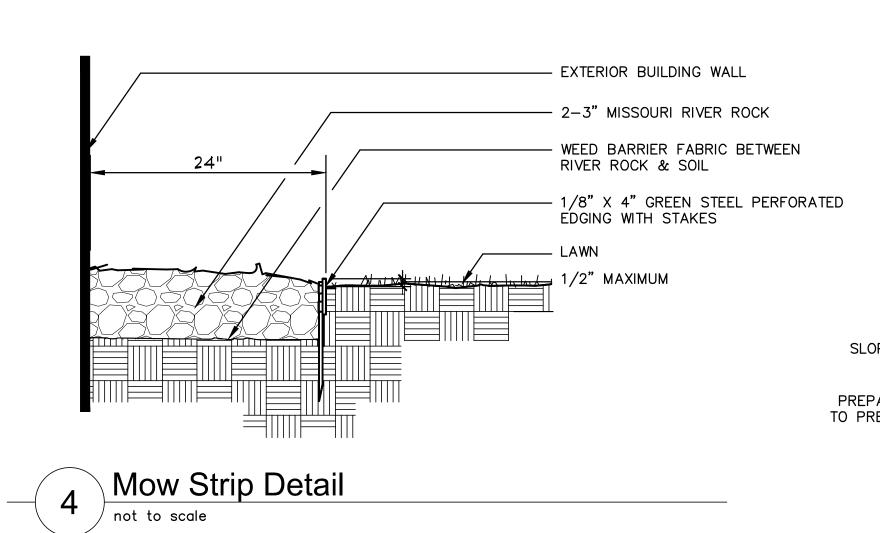
2' MIN — ALL SIDES -LEAVE SPACE FOR ACCESS ON DOOR SIDE -PLANTS SHALL BE SPACED TO CREATE CONTINUOUS SCREEN AT 3/4 MATURE UTILITY FOR NARROW SPACES ALL SHRUBS BOX OR SHALL BE DERUNK BOXWOOD (4' HT. TRASH AT PLANTING) **ENCLOSURE** STANDARD PLANTING SHALL BE TECHNY ARBORVITAE (4' HT. AT PLANTING) SHORTER GROUND MOUNTED UTILITY CAN BE SCREENED WITH SEA GREEN ___ NOTE: ALL EQUIPMENT MUST BE SCREENED WHETHER OR NOT INDICATED ON PLANS. FIELD ADJUSTMENTS MAY BE NECESSARY TO ACCOMMODATE SITE CONDITIONS EQUIPMENT AND LANDSCAPE, COORDINATE WITH LANDSCAPE ARCHITECT FOR ADEQUATE SCREENING. MUST MEET CITY REQUIREMENTS.

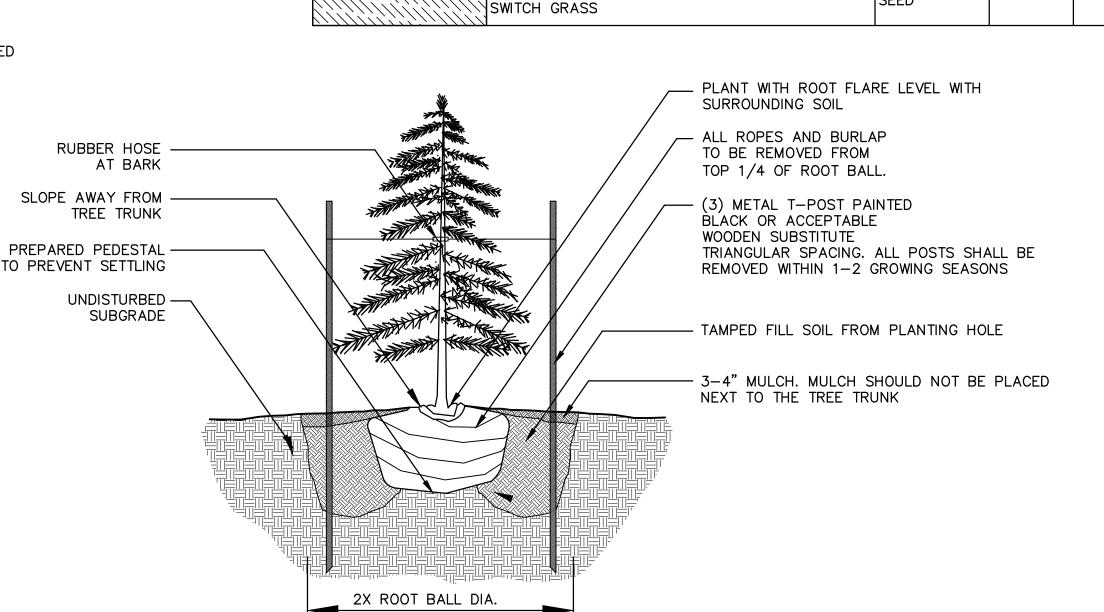
Ground Mounted Mechanical Equipment Screening Detail



- MINIMUM ROOT SPREAD TO BE IN ACCORDANCE WITH ANLA STANDARDS PRUNE DAMAGED LIMBS OR ROOTS AFTER INSTALLATION
- 3. MAKE SURE ROOTS DO NOT DRY OUT DURING INSTALLATION 4. SOAK GENEROUSLY TO COMPACT AND SETTLE
- Shrub Planting Detail







1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING 2. IN AREAS OF TURF, SURROUND BED WITH 6' DIAMETER OF MULCH

| PLANT SCHEDULE

DECIDUOUS TREES | BOTANICAL / COMMON NAME

MIYABEI MAPLE

ACER MIYABEI 'STATE STREET'

GINKGO BILOBA 'PRINCETON SENTRY'

GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'

PLATANUS X ACERIFOLIA 'EXCLAMATION' TM

TAXODIUM DISTICHUM 'SHAWNEE BRAVE' TM

ULMUS PROPINQUA 'EMERALD SUNSHINE'

EXCLAMATION LONDON PLANE TREE

ACER SACCHARUM CADDO

PRINCETON SENTRY GINKGO

CADDO SUGAR MAPLE

SHADEMASTER LOCUST

QUERCUS BICOLOR

BURR OAK

SWAMP WHITE OAK

QUERCUS MACROCARPA

QUERCUS SHUMARDII

TILIA AMERICANA 'BOULEVARD'

ZELKOVA SERRATA 'MUSASHINO'

JUNIPERUS VIRGINIANA 'CANAERTII'

|BOTANICAL / COMMON NAME

ACER TATARICUM 'HOT WINGS'

HOT WINGS TATARIAN MAPLE

SHUMARD RED OAK

BALD CYPRESS

BOULEVARD LINDEN

SAWLEAF ZELKOVA

CANAERTI JUNIPER

PICEA ABIES

NORWAY SPRUCE

PICEA PUNGENS COLORADO SPRUCE

CERCIS CANADENSIS

MALUS X 'PRAIRIFIRE'

PRAIRIFIRE CRABAPPLE

BOTANICAL / COMMON NAME

CORNUS STOLONIFERA 'FARROW' TM

DIERVILLA RIVULARIS 'KODIAK ORANGE'

KODIAK ORANGE BUSH-HONEYSUCKLE

JUNIPERUS CHINENSIS 'SEA GREEN'

PANICUM VIRGATUM 'NORTH WIND'

PHYSOCARPUS OPULIFOLIUS 'TINY WINE'

NORTHWIND SWITCH GRASS

RHUS AROMATICA 'GRO-LOW'

GRO-LOW FRAGRANT SUMAC

BOTANICAL / COMMON NAME

WINTERTHUR VIBURNUM

VIBURNUM NUDUM 'WINTERTHUR'

TURF TYPE TALL FESCUE BLEND

TURF TYPE TALL FESCUE BLEND

BOTANICAL / COMMON NAME

PANICUM VIRGATUM

ARCTIC FIRE RED TWIG DOGWOOD

BUXUS X 'GREEN VELVET'

SEA GREEN JUNIPER

TINY WINE NINEBARK

lBoxwood

EASTERN REDBUD

ORNAMENTAL TREES | BOTANICAL / COMMON NAME

EVERGREEN TREES

SHRUBS

GROUND COVERS

EMERALD SUNSHINE ELM

В & В

В & В

B & B

B & B

B & B

B & B

B & B

B & B

В & В

B & B

B&B, 8' HT.

B&B, 8' HT.

B&B, 8' HT.

B & B

В & В

5 GAL

5 GAL

5 GAL

5 GAL

GAL

5 GAL

5 GAL

5 GAL

CONT

SPACING

SPACING

161,516 SF

25,466 SF

64,158 SF

CALIPER

CALIPER

QTY

Evergreen Tree Planting Detail
not to scale

LOCATE AND FLAG ALL UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL PROTECT EXISTING OVERHEAD AND UNDERGROUND UTILITIES. ANY DAMAGE TO SUCH SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE

PLANTS AND OTHER MATERIALS ARE QUANTIFIED AND SUMMARIZED FOR THE CONVENIENCE OF THE CITY AND LOCAL GOVERNING BODIES. CONFIRM AND INSTALL SUFFICIENT

THE LANDSCAPE ARCHITECT.

REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.

SPECIFIED CALIPER MEASUREMENT FOR TREES SHALL BE MEASURED AT 12" ABOVE THE

PLANTING OF TREES, SHRUBS, SODDED AND SEEDED TURFGRASS SHALL BE COMMENCED DURING EITHER THE SPRING (MARCH 15-JUNE 15) OR FALL (SEPTEMBER 1 - OCTOBER 15) PLANTING SEASON AND WITH WATER AVAILABLE FOR IRRIGATION PURPOSES.

BE APPROVED BY THE LANDSCAPE ARCHITECT.

12. ALL LANDSCAPE PLANTING AREAS, EXCLUDING TURF AREAS SHALL BE MULCHED WITH A

MINIMUM OF 3-4" SHREDDED HARDWOOD MULCH UNLESS OTHERWISE NOTED ON PLANS.

15. LANDSCAPE CONTRACTOR IS TO BE RESPONSIBLE FOR WATERING ALL PLANT MATERIALS

16. THE CONTRACTOR WILL COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR

SODDING NOTES

MINIMUM OF 3 CULTIVARS.

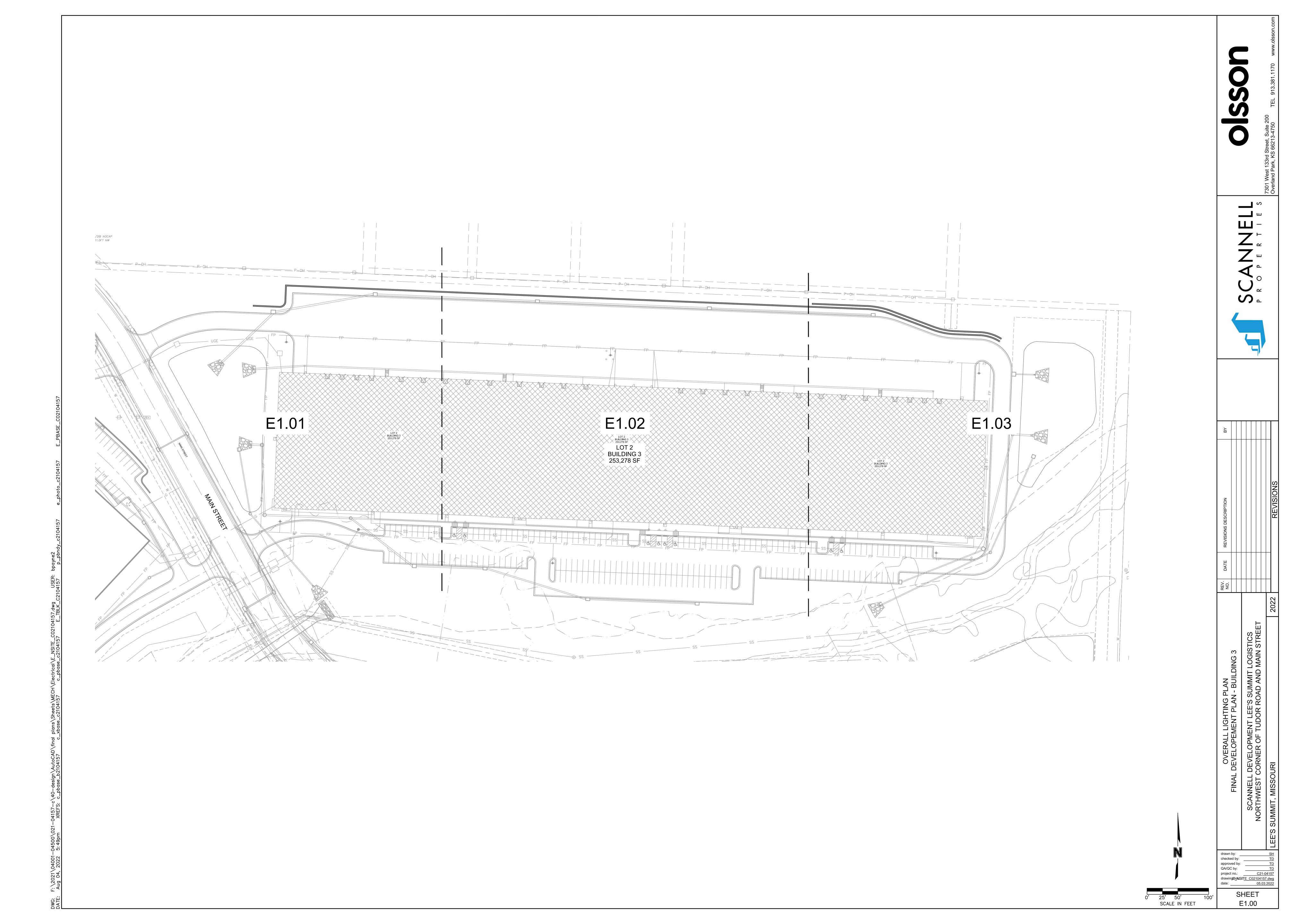
BEFORE BEING INCORPORATED INTO THE WORK SHALL NOT BE USED. DELIVER MORE SOD THAN CAN BE LAID WITHIN 24 HOURS.

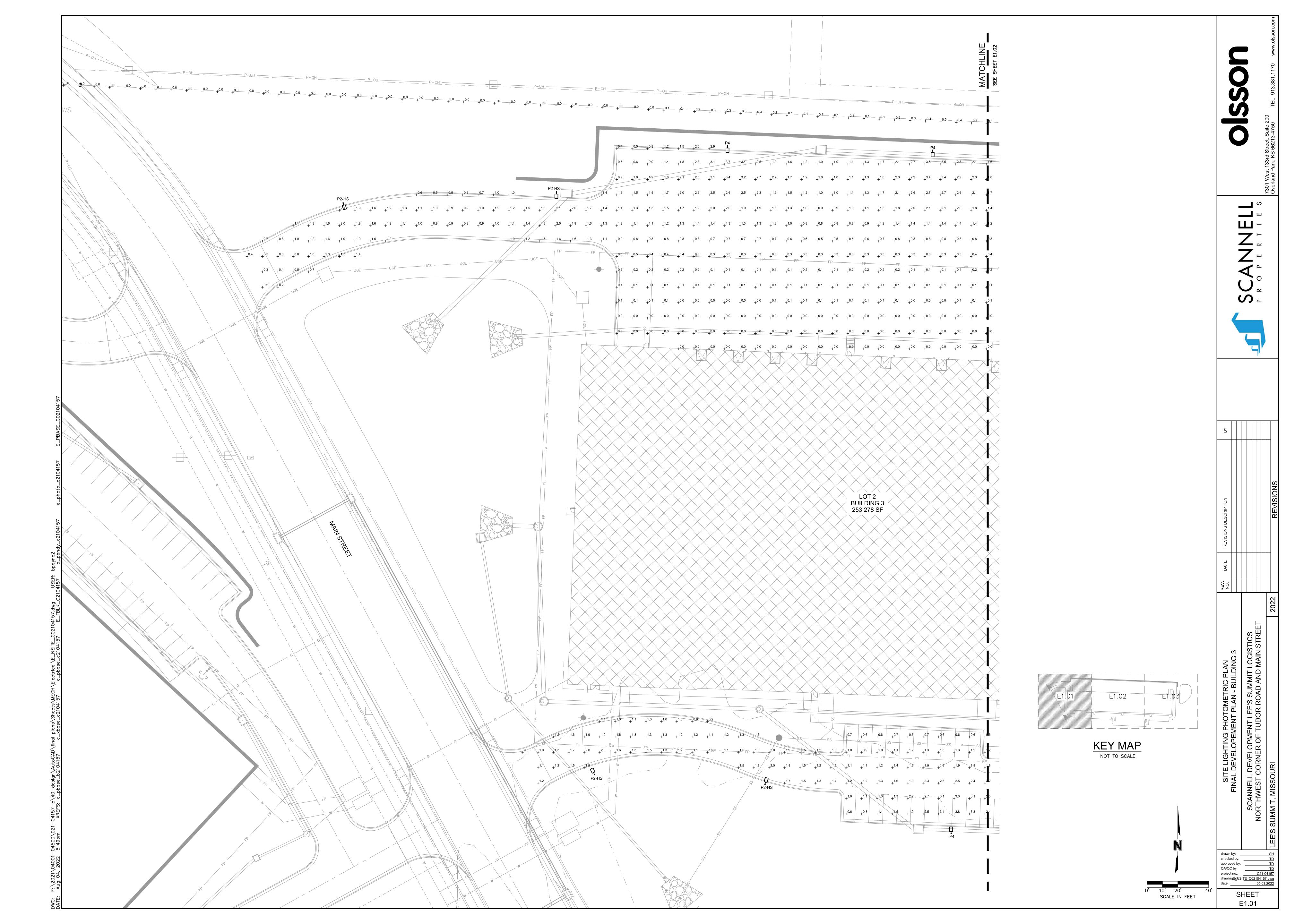
FERTILIZER SHALL BE 20-10-5 COMMERCIAL FERTILIZER OF THE GRADE, TYPE, AND FORM AGRICULTURE. FERTILIZER SHALL BE IDENTIFIED ACCORDING TO THE PERCENT N, P, K, IN

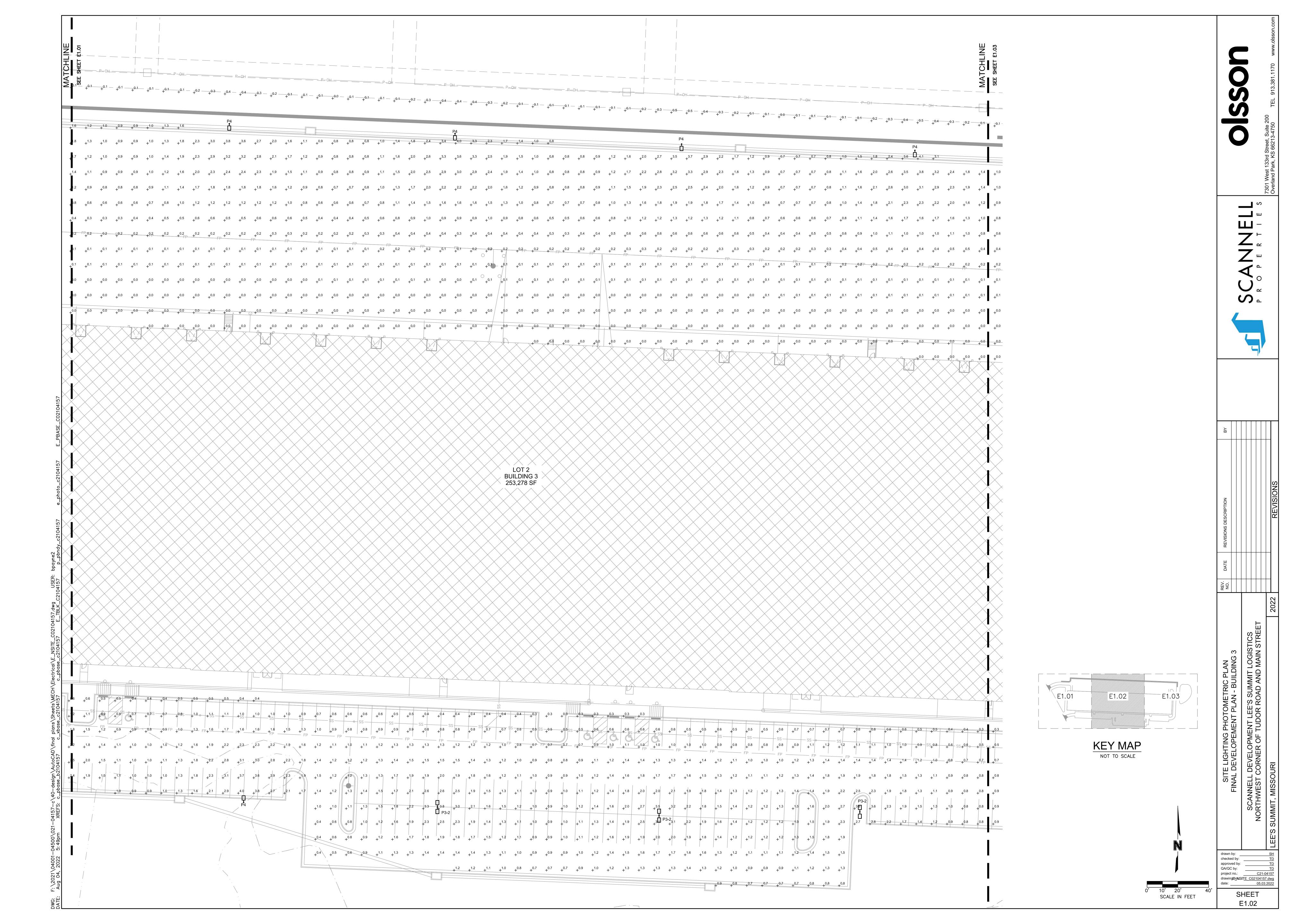
MOIST SOIL TO A MINIMUM DEPTH OF FOUR INCHES BELOW SOD.

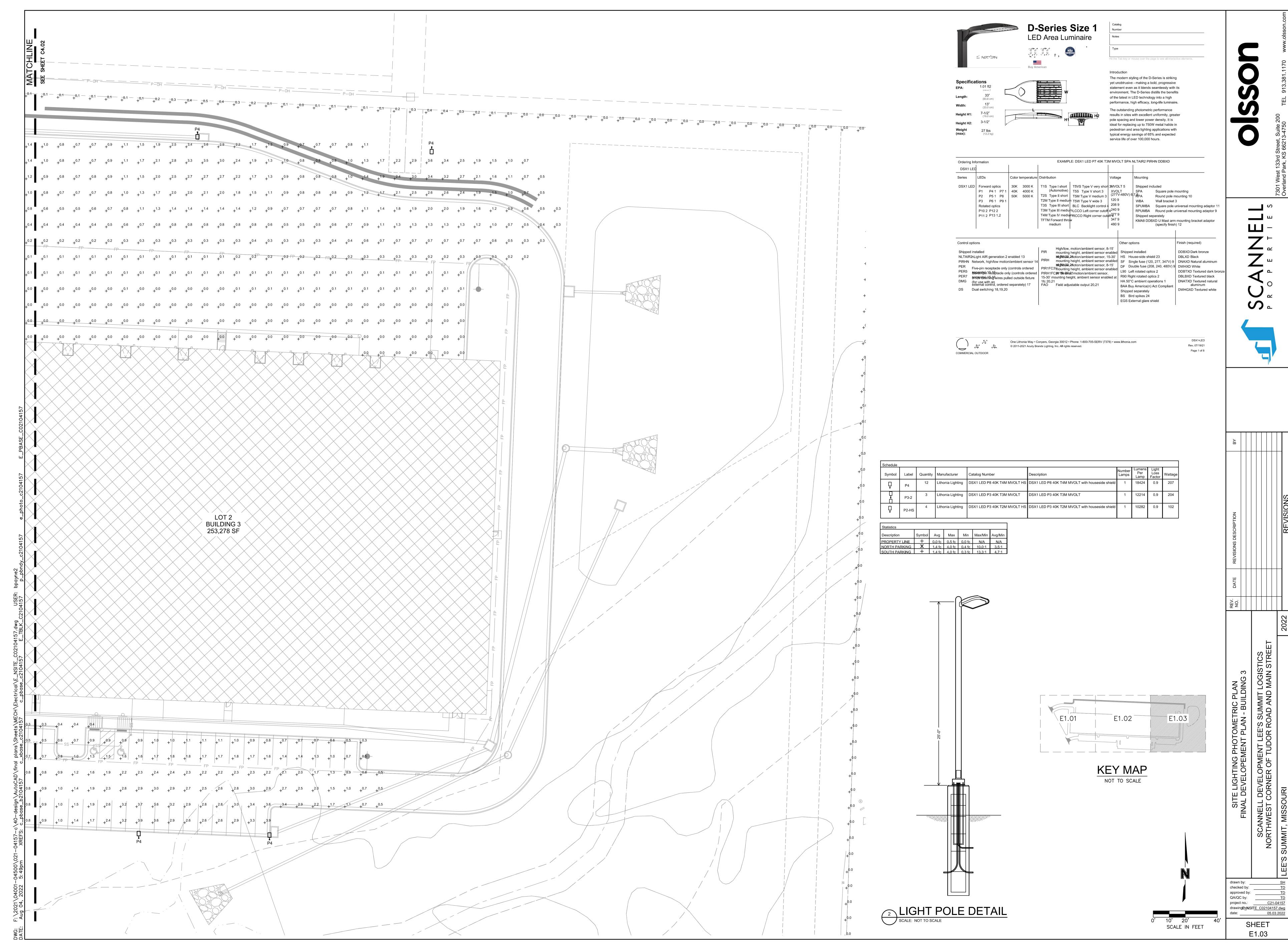
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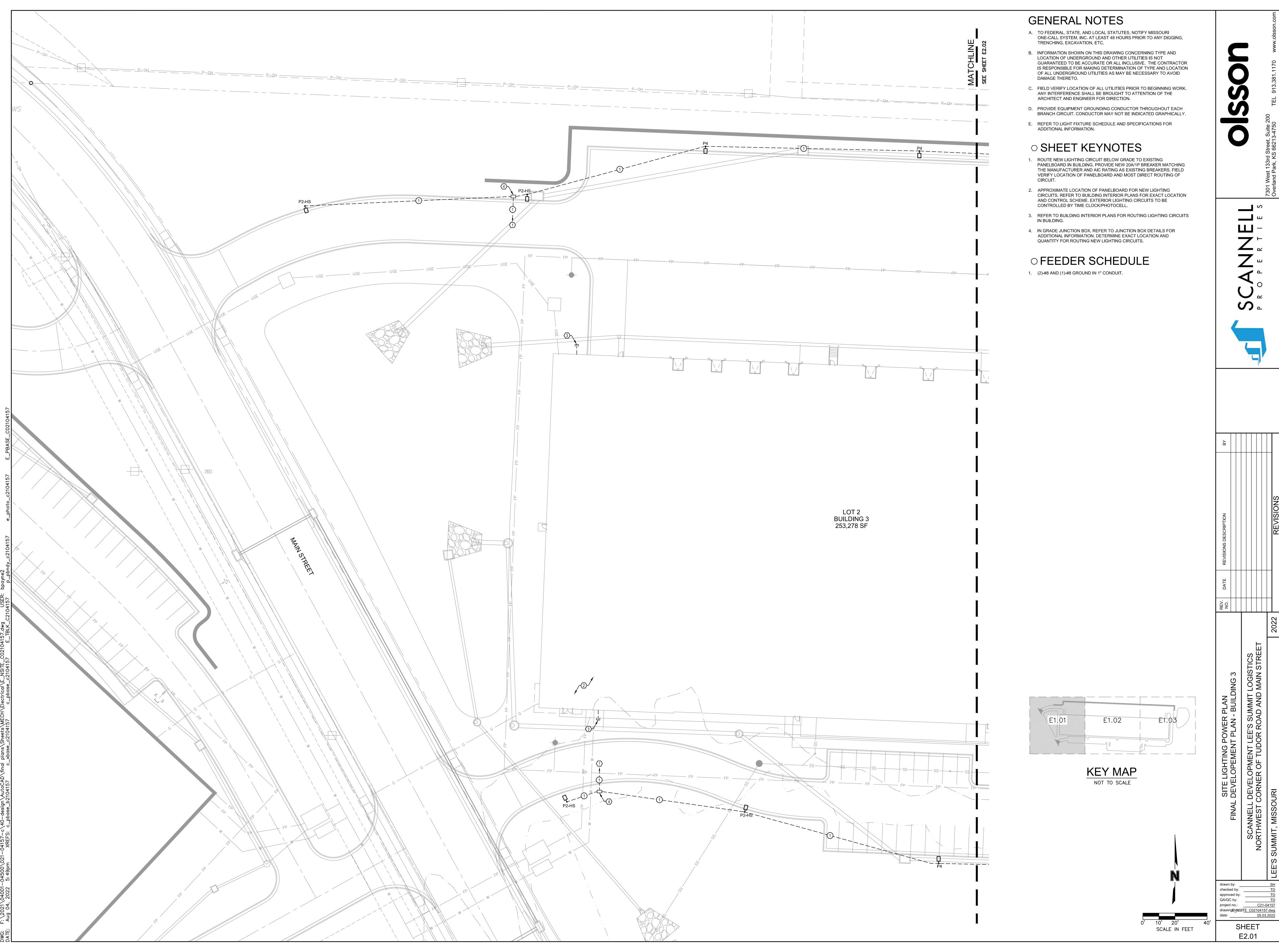
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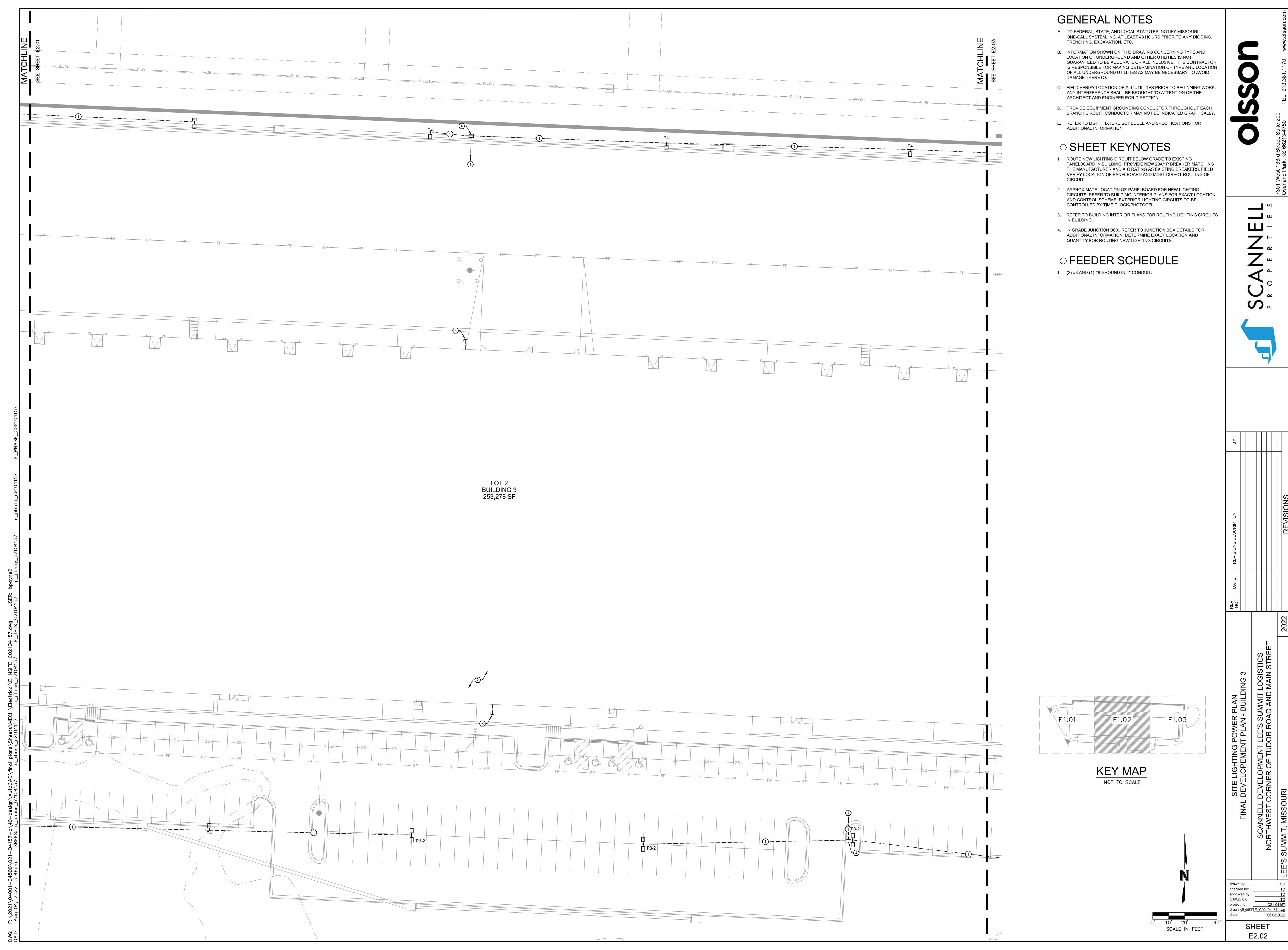


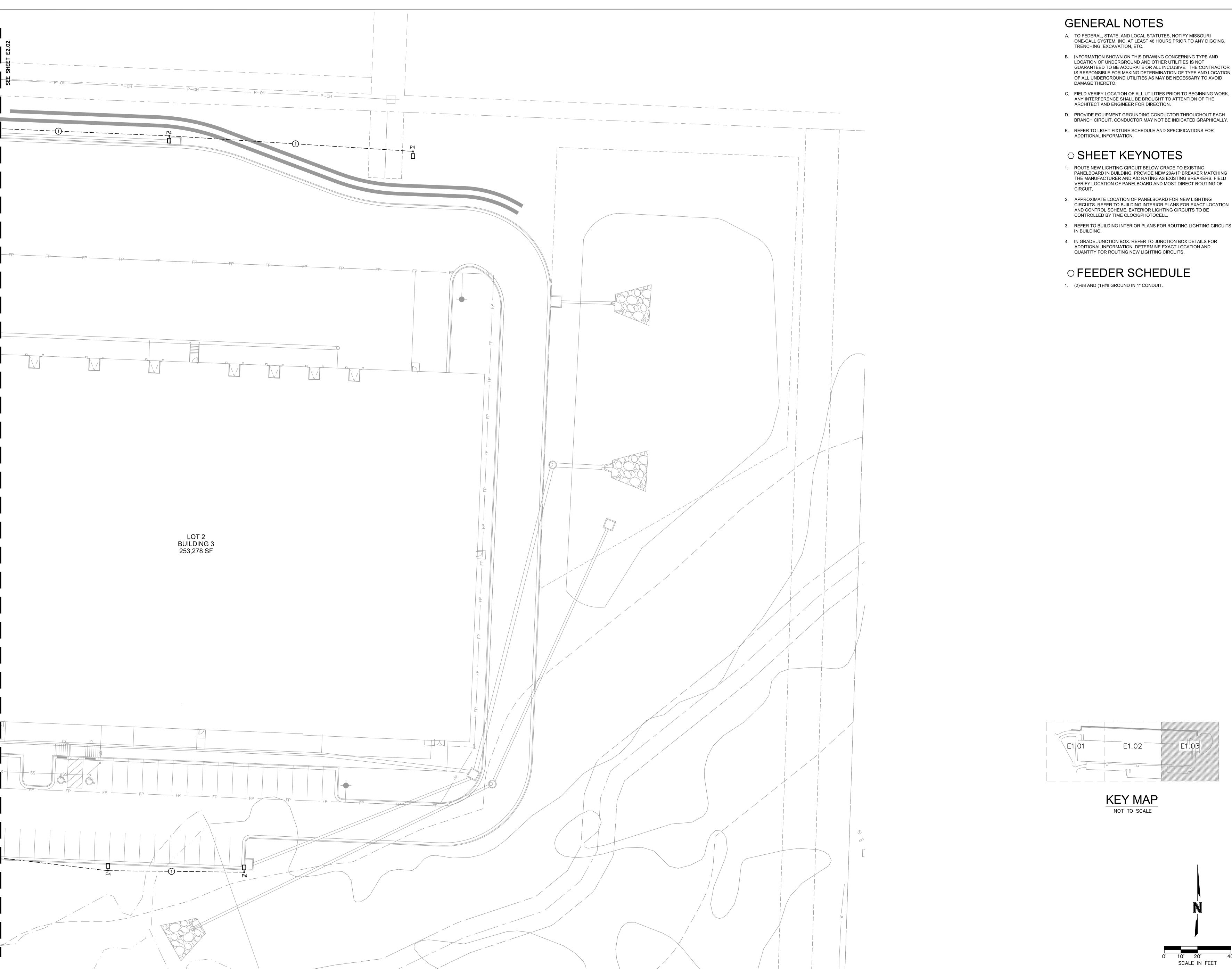












- A. TO FEDERAL, STATE, AND LOCAL STATUTES, NOTIFY MISSOURI ONE-CALL SYSTEM, INC. AT LEAST 48 HOURS PRIOR TO ANY DIGGING,
- B. INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING DETERMINATION OF TYPE AND LOCATION OF ALL UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID
- C. FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO BEGINNING WORK. ANY INTERFERENCE SHALL BE BROUGHT TO ATTENTION OF THE
- D. PROVIDE EQUIPMENT GROUNDING CONDUCTOR THROUGHOUT EACH
- E. REFER TO LIGHT FIXTURE SCHEDULE AND SPECIFICATIONS FOR

- ROUTE NEW LIGHTING CIRCUIT BELOW GRADE TO EXISTING PANELBOARD IN BUILDING. PROVIDE NEW 20A/1P BREAKER MATCHING THE MANUFACTURER AND AIC RATING AS EXISTING BREAKERS. FIELD VERIFY LOCATION OF PANELBOARD AND MOST DIRECT ROUTING OF
- CIRCUITS. REFER TO BUILDING INTERIOR PLANS FOR EXACT LOCATION AND CONTROL SCHEME. EXTERIOR LIGHTING CIRCUITS TO BE CONTROLLED BY TIME CLOCK/PHOTOCELL.
- 3. REFER TO BUILDING INTERIOR PLANS FOR ROUTING LIGHTING CIRCUITS
- 4. IN GRADE JUNCTION BOX. REFER TO JUNCTION BOX DETAILS FOR ADDITIONAL INFORMATION. DETERMINE EXACT LOCATION AND QUANTITY FOR ROUTING NEW LIGHTING CIRCUITS.

E1.03

project no.: C21-04157
drawingEndNtSITE C02104157.dwg
date: 05.03.2022

10,282

4000K / 80

0-10V DIMMING

A. PROVIDE ALL COMPONENTS TO MAKE A COMPLETE ASSEMBLY. THIS WOULD INCLUDE, BUT NOT BE LIMITED TO, ARM, MOUNTING BRACKETS, POLE BASE COVER, ANCHOR BOLTS, TEMPLATE, BASE, HAND HOLE, SEPARATE CIRCUIT OUTLET,

DSX1-LED-P3-40K-T2M-MVOLT-HS-SPA-DBLXD

POLE# SSS-25-5G-DM19AS-DBLXD

_ITHONIA#

B. PROVIDE CONCRETE BASE, PER DETAIL.

TYPE

CONCRETE BASE.

CONCRETE BASE.

P2-HS AREA LED LIGHT FIXTURE WITH 25'-0" POLE AND

SYMBOL

GENERAL NOTES

- G1. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES BEFORE CONSTRUCTING NEW FOUNDATIONS.
- G2. THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS.
- G3. EXCAVATE SHAFTS FOR DRILLED FOUNDATIONS TO INDICATED ELEVATIONS. REMOVE LOOSE DEBRIS, MATERIALS AND/OR MUCK TO MAKE BOTTOM SURFACES LEVEL WITHIN ACI 336.1 TOLERANCES.
- G4. CONSTRUCTION TOLERANCES: A. BOTTOM DIAMETER: MINUS ZERO, PLUS 6 INCHES, MEASURED IN ANY DIRECTION. B. MAXIMUM VARIATION FROM PLUMB: 1:40. C. MAXIMUM BOTTOM LEVEL: PLUS OR MINUS 2 INCHES.
- G5. AT NO ADDITIONAL COST, CASE PIER SHAFTS AS NECESSARY, PROTECT EXCAVATED WALLS WITH TEMPORARY WATERTIGHT STEEL CASINGS OF SUFFICIENT LENGTH TO PREVENT WATER INTRUSION, CAVE-INS, DISPLACEMENT OF SURROUNDING EARTH, INJURY TO PERSONNEL AND DAMAGE TO CONSTRUCTION OPERATIONS. MAINTAIN EXCAVATIONS IN ESSENTIALLY DRY CONDITION, USING PUMPS WHERE NECESSARY. REMOVE WATER TO A MAXIMUM DEPTH OF 6 INCHES FROM EXCAVATED SHAFT PRIOR TO CONCRETE PLACEMENT.
- G6. CONVEY CONCRETE FROM THE MIXER TO PLACE OF DEPOSIT BY BEST INDUSTRY METHODS THAT WILL PREVENT SEGREGATION AND LOSS OF MATERIAL. SIZE AND DESIGN THE EQUIPMENT FOR CONVEYING CONCRETE TO ENSURE UNIFORM. CONTINUOUS PLACEMENT OF CONCRETE. PLACE CONCRETE IN ACCORDANCE WITH ACI 318. PLACE CONCRETE IN A CONTINUOUS OPERATION AND WITHOUT SEGREGATION INTO DRY EXCAVATIONS WHENEVER POSSIBLE. USE ALL PRACTICABLE MEANS TO OBTAIN A DRY EXCAVATION BEFORE AND DURING CONCRETE PLACEMENT.
- G7. WHEN PULLING CASING, MAINTAIN LEVEL OF CONCRETE ABOVE BOTTOM OF CASING GREATER OR EQUAL TO LEVEL OF GROUND KEEP BOTTOM OF CASING AT LEAST 10 FEET BELOW TOP OF CONCRETE. PREVENT IN-SITU MATERIALS FROM FALLING INTO AND MIXING WITH CONCRETE. PULL CASING IN SHORT SLOW VERTICAL LIFTS (ESSENTIALLY CONTINUOUS), MAINTAINING PLUMB ALIGNMENT AND SUFFICIENT HEAD OF CONCRETE.
- G8. ALL CONCRETE SHALL BE CLASS KCMMB 4000
- G9. ALL REINFORCING SHALL BE STRUCTURAL GRADE 60 PER ASTM-A615 AND HAVE AT LEAST 3" OF CONCRETE COVER.
- G10. ANCHOR BOLTS ARE TO BE FURNISHED BY THE FOUNDATION CONTRACTOR UNLESS OTHERWISE NOTED. CONTRACTOR SHALL PLACE ALL REBAR SO AS TO NOT INTERFERE WITH ANCHOR BOLTS.
- G11. ALL ABOVE GRADE FOUNDATION SURFACES SHALL BE STEEL TROWEL FINISHED UNLESS OTHERWISE NOTED.
- G12. EACH PIER FOUNDATION SHALL BE CONSTRUCTED IN A SINGLE CONTINUOUS POUR. G13. NO EXCAVATION OR VIBRATION-INDUCING ACTIVITIES ARE ALLOWED WITHIN 3 PIER
- DIAMETERS OF A SUBJECT PIER UNTIL AT LEAST 24 HOURS HAVE ELAPSED SINCE THE TIME OF CONCRETE PLACEMENT. COVER ALL EXCAVATIONS BETWEEN OPERATIONS. REMOVE FOREIGN AND LOOSE MATERIAL FROM APPROVED EXCAVATION.
- G14. THE CONTRACTOR SHALL PROVIDE ALL MEASURES AND PRECAUTIONS NECESSARY TO PREVENT DAMAGE AND/OR SETTLEMENT OF EXISTING OR NEW CONSTRUCTION INSIDE OR OUTSIDE THE PROJECT LIMITS DURING EXCAVATION AND FOUNDATION CONSTRUCTION. ANY DAMAGE TO NEW OR EXISTING CONSTRUCTION INSIDE OR OUTSIDE OF THE PROJECT LIMITS CAUSED BY CONSTRUCTION TECHNIQUES IS THE RESPONSIBILITY OF THE CONTRACTOR.

FOUNDATION DESIGN LIMITATIONS

- L1. THIS FOUNDATION WAS DESIGNED FOR A MINIMUM LATERAL SOIL DEFORMATION MODULUS OF 0.50 KSI
- 2. THIS FOUNDATION WAS DESIGNED FOR A MINIMUM LATERAL SOIL UNDRAINED SHEAR STRENGTH OF 0.50 KSF
- .3. THIS FOUNDATION WAS DESIGNED FOR A MAXIMUM ALLOWABLE LATERAL DEFLECTION OF 1/2 INCH OVERALL AT GRADE ELEVATION
- L4. THIS FOUNDATION WAS DESIGNED WITH AN ASSUMED DEPTH TO ROCK GREATER THAN TWENTY FEET FROM FINISHED GRADE
- L5. THIS FOUNDATION WAS DESIGNED WITH AN ASSUMED WATER TABLE LOCATED AT THE SOIL
- L6. THIS FOUNDATION WERE NOT DESIGNED TO WITHSTAND THE EFFECTS OF SCOURING.
- .7. IF CONDITIONS OTHER THAN THOSE SPECIFIED HEREIN ARE PRESENT AT THE SITE, INCLUDING NON-COHESIVE SOILS FOUND IN BORINGS, PLEASE CONTACT THE ENGINEER OF

STRUCTURAL CONCRETE

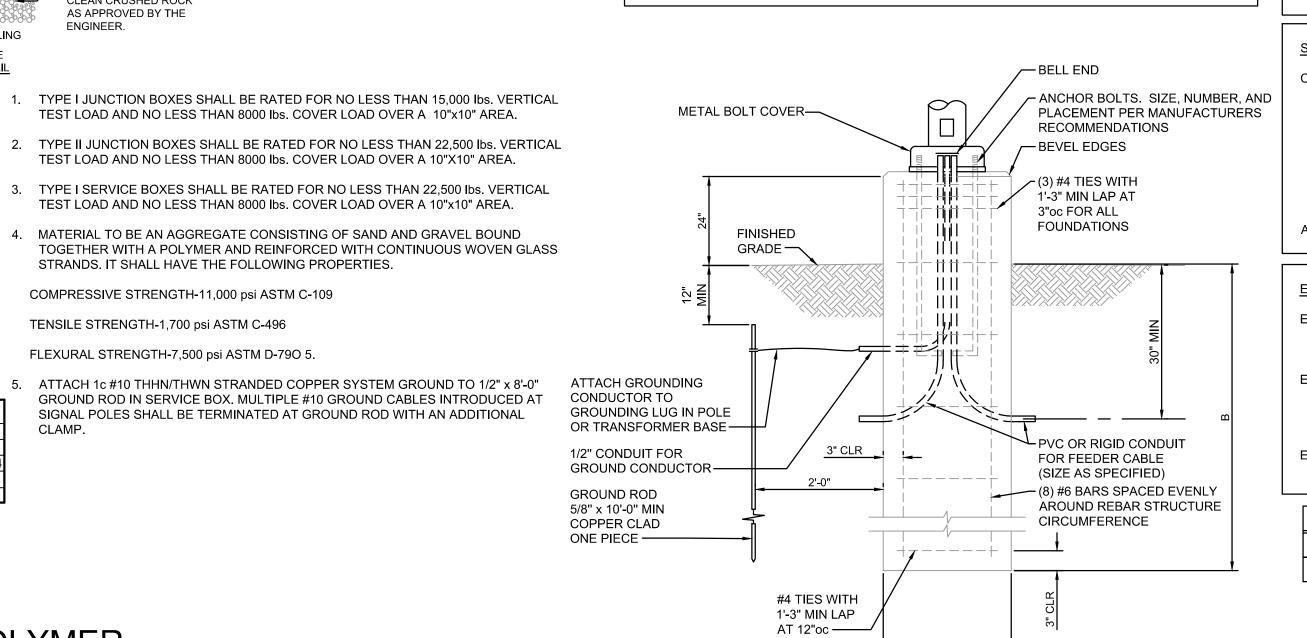
- CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF: ACI 301 - "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"
- ACI 302 "RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" ACI 304 - "ACI MANUAL OF CONCRETE INSPECTION" ACI 311 - "RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE"
- ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" ACI 318 - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" ACI 347 - "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK"
- ALL HOOKS SHALL BE "STANDARD" PER ACI SPECIFICATIONS.

- E1. THE CONTRACTOR MUST PROVIDE SURFACE DRAINAGE AND PUMPS TO PROTECT ALL EXCAVATION FROM FLOODING. FLOODING OF ANY EXCAVATION AFTER APPROVAL OF THE SUBGRADE WILL BE CAUSE FOR RE-PREPARATION OF THE SUBGRADE.
- E2. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY WATER, FROST, OR ICE FROM PENETRATING ANY FOOTING OR SLAB SUBGRADE BEFORE AND AFTER PLACING OF CONCRETE AND UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT STRUCTURE.
- E3. REFER TO THE GEOTECH REPORT FOR SUBSURFACE CONDITIONS AND CONSTRUCTION CONSIDERATIONS.

LIGHT FOUNDA	TION DA	TA
MOUNTING HEIGHT	Α	В
UP TO 30'	2'-0"	6'-0"

CONCRETE CLASS "KCMMB 4000"

HEAVY HEX GALVANIZED NUTS: (AASHTO M291, GR A) FLAT WASHERS GALVANIZED: (AASHTO M293)



CONCRETE LIGHT POLE BASE

CONCRETE JUNCTION BOX DETAILS

SECTION A-A

*NOTE: THE TYPE II SERVICE BOX SHALL HAVE A TWO-PIECE OVERLAPPING

DIMENSION (IN.)

18" MIN. 1/2" CLEAN —

COUPLING

— CONDUIT SIZED AS REQUIRED

SKID RESISTANT

SURFACE

CRUSHED ROCK AS

APPROVED BY THE ENGINEER

II-JUNCTION

 $\overline{}$ LIGHTING CIRCUITS NEUTRAL CIRCUIT → PHOTOCELL → TIME SWITCH

CONTACTOR

SITE LIGHTING 1

PANELBOARD

SITE LIGHTING CONTROL SCHEMATIC

FIBERGLASS REINFORCED POLYMER

✓ 90° ELBOW

COUPLING

SECTION A-A

SERVICE BOX DETAIL

2" PVC 90° ELBOW-

JUNCTION BOX INSTALLATION DETAIL

∏——HEX BOLT

LOGO TO BE "PARKING LIGHTING"

(UNLESS OTHERWISE NOTED)

- w/ WASHER

–CONDUIT PER PLANS 🦠

APPROVED COUPLING

REQUIRED

8" MIN. LAYER OF 1/2" CLEAN CRUSHED ROCK

1. TYPE I JUNCTION BOXES SHALL BE RATED FOR NO LESS THAN 15,000 lbs. VERTICAL

TEST LOAD AND NO LESS THAN 8000 lbs. COVER LOAD OVER A 10"x10" AREA.

TEST LOAD AND NO LESS THAN 8000 lbs. COVER LOAD OVER A 10"X10" AREA.

3. TYPE I SERVICE BOXES SHALL BE RATED FOR NO LESS THAN 22,500 lbs. VERTICAL

TEST LOAD AND NO LESS THAN 8000 lbs. COVER LOAD OVER A 10"x10" AREA.

MATERIAL TO BE AN AGGREGATE CONSISTING OF SAND AND GRAVEL BOUND

5. ATTACH 1c #10 THHN/THWN STRANDED COPPER SYSTEM GROUND TO 1/2" x 8'-0"

SIGNAL POLES SHALL BE TERMINATED AT GROUND ROD WITH AN ADDITIONAL

GROUND ROD IN SERVICE BOX. MULTIPLE #10 GROUND CABLES INTRODUCED AT

STRANDS. IT SHALL HAVE THE FOLLOWING PROPERTIES.

COMPRESSIVE STRENGTH-11,000 psi ASTM C-109

TENSILE STRENGTH-1,700 psi ASTM C-496

FLEXURAL STRENGTH-7,500 psi ASTM D-790 5.

PARKING LOT

MVOLT

checked by: QA/QC by: project no : drawing **BoNDET_C02104157.dwg**

> SHEET E3.00

SECTION 260000 ELECTRICAL

1. GENERAL CONDITIONS:

- A. THIS CONTRACTOR SHALL INSPECT THE SITE WHERE THIS WORK IS TO BE PERFORMED AND FULLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS RELATED TO THIS PROJECT.
- B. THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMANENT AND TEMPORARY PERMITS AND LICENSES AND SHALL MAKE ALL DEPOSITS AND PAY ALL FEES REQUIRED FOR THE PERFORMANCE OF WORK UNDER THIS SECTION OTHER THAN THOSE DEPOSITS OR FEES WHICH ARE FULLY REFUNDABLE TO THE OWNER.

C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. WHERE LOCAL CONDITIONS NECESSITATE A REARRANGEMENT, THE CONTRACTOR SHALL PREPARE, AND SUBMIT FOR APPROVAL, DRAWINGS OF THE PROPOSED REARRANGEMENT. THIS CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING ALL OF HIS WORK AND SHALL ARRANGE SUCH WORK ACCORDINGLY, FURNISHING SUCH FITTINGS AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.

- THIS CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.
- SPECIFICATIONS AND DRAWINGS ARE COMPLEMENTARY AND WHAT IS
- F. FURNISH LABOR, MATERIALS, EQUIPMENT AND SERVICES REQUIRED AS SHOWN ON THE DRAWINGS AND SPECIFIED IN DIVISION 15.
- G. ALL WORK SHALL BE COMPLETE AND SHALL BE LEFT IN OPERATING CONDITION.
- H. INCLUDE ALL PARTS AND LABOR WHICH ARE INCIDENTAL AND NECESSARY FOR A COMPLETE AND OPERABLE INSTALLATION EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS. .
- REQUEST INSPECTIONS AS REQUIRED BY REGULATING AGENCIES AND/OR REGULATIONS. PAY ALL CHARGES FOR INSPECTIONS BY REGULATING AGENCIES OF INSTALLATIONS OF PLANS SPECIFICATIONS.
- J. PROVIDE THE OWNER WITH A CERTIFICATE OF FINAL INSPECTION AND APPROVAL BY ENFORCEMENT AUTHORITIES.
- K. FURNISH: TO OBTAIN, COORDINATE, SUBMIT THE NECESSARY DRAWINGS, DELIVER TO THE JOB SITE IN NEW CONDITION READY FOR INSTALLATION, UNLOAD AND UNPACK, AND GUARANTEE.
- L. INSTALL: TO RECEIVE AT THE JOB SITE, STORE, ASSEMBLE, ERECT, SET IN PLACE, ANCHOR, APPLY, FINISH, PROTECT, CLEAN, TEST, START-UP, AND MAKE READY FOR OWNER'S USE.
- M. PROVIDE: TO FURNISH AND INSTALL.
- N. PROVIDE NEW MATERIAL AND EQUIPMENT, UNLESS NOTED OTHERWISE.
 PROTECT EQUIPMENT AND MATERIAL FROM DAMAGE, DIRT AND THE
 WEATHER.
- O. THE ENGINEER RESERVES THE RIGHT TO REJECT MATERIAL OR WORKMANSHIP NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, BEFORE OR AFTER INSTALLATION, AT NO ADDITIONAL COST TO THE OWNER.
- P. REFINISH ALL ELECTRICAL EQUIPMENT DAMAGED DURING SHIPPING, INSTALLATION AND/OR PRIOR TO FINAL ACCEPTANCE TO ITS ORIGINAL CONDITION. REMOVE ALL RUST; PRIME, AND PAINT PER MANUFACTURER'S RECOMMENDATIONS FOR FINISH EQUAL TO ORIGINAL.
- Q. PROTECT OPENINGS AND EQUIPMENT FROM OBSTRUCTION, BREAKAGE, MISUSE, DAMAGE OR BLEMISHES. PROTECT MATERIALS AND EQUIPMENT IMMEDIATELY UPON RECEIPT AT THE JOB SITE OR IMMEDIATELY AFTER THEY HAVE BEEN REMOVED FROM THEIR SHIPPING CONTAINERS. UNLESS NOTED OTHERWISE, KEEP THEM CLEAN AND UNDAMAGED UNTIL FINAL ACCEPTANCE OF THE ENTIRE PROJECT BY THE OWNER. WHEN A PORTION OF THE BUILDING IS OCCUPIED BY THE OWNER BEFORE SUBSTANTIAL COMPLETION OF THE ENTIRE PROJECT, MAKE ARRANGEMENTS TO TRANSFER RESPONSIBILITY FOR PROTECTION AND HOUSEKEEPING FOR THE OCCUPIED BORTION
- R. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ELECTRICAL EQUIPMENT, MATERIALS OR WORK UNTIL FINAL ACCEPTANCE OF THE ENTIRE PROJECT BY THE OWNER.
- S. KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH, CAUSED BY HIS EMPLOYEES OR WORK, AT ALL TIMES. REMOVE RUBBISH, TOOLS, SCAFFOLDING, AND SURPLUS MATERIALS FROM AND ABOUT THE BUILDING, AND LEAVE WORK AREAS "BROOM CLEAN" OR ITS EQUIVALENT DAILY. CLEAN ELECTRICAL EQUIPMENT AND REMOVE TEMPORARY IDENTIFICATION.
- T. OPERATE EQUIPMENT AND SYSTEMS IN ALL THEIR OPERATING MODES, TO VERIFY PROPER OPERATION, PRIOR TO FINAL FIELD OBSERVATION AND OWNER INSTRUCTIONS. PREPARE A PRE-INSPECTION REPORT AND SUBMIT TO THE ENGINEER AND OWNER FOR REVIEW.
- U. TEST ALL INSTALLED ELECTRICAL EQUIPMENT AND CABLES REQUIRED BY CONSTRUCTION DOCUMENTS ACCORDING TO THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE INTERNATIONAL ELECTRICAL TESTING ASSOCIATION, INC. (NETA). IF ACCEPTABLE PERFORMANCE OF ANY TEST IS NOT ACHIEVED, MAKE THE NECESSARY CORRECTIONS AND THE TEST SHALL BE REPEATED UNTIL ACCEPTABLE PERFORMANCE IS ACHIEVED. PROVIDE
- WRITTEN REPORTS OF ALL TESTS, WITH FAILURES IDENTIFIED, TO ENGINEER.
 V. FULLY INSTRUCT THE OWNER'S DESIGNATED PERSONNEL IN THE OPERATION OF EACH ELECTRICAL SYSTEM AT THE TIME IT IS PUT INTO SERVICE. PROVIDE INSTRUCTION USING COMPETENT INSTRUCTORS AND FACTORY TRAINED PERSONNEL
- W. CONTRACTOR SHALL INSTALL ALL MATERIALS AND EQUIPMENT AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND/OR RECOMMENDATIONS.
- X. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL EQUIPMENT INDICATED AND/OR REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. A FORM INDICATING ALL SHOP DRAWINGS TO BE PROVIDED AS PART OF THE PROJECT SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER PRIOR TO ANY SHOP DRAWING SUBMITTAL REVIEW.
- Y. THIS SPECIFICATION SHALL INCORPORATE ALL PROJECT REQUIREMENTS AND RESPONSIBILITIES INDICATED WITHIN THE FRONT-END OF THE PROJECT

2. LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES:

A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, THE NATIONAL FIRE PROTECTION ASSOCIATION CODES, THE NATIONAL ELECTRICAL SAFETY CODE, LOCAL BUILDING CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. SHOULD ANY WORK SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN BE OF LOWER STANDARD, THE CONTRACTOR SHALL REFER THE POINTS IN QUESTION TO THE ENGINEER FOR APPROVAL.

3. SCOPE OF WORK:

A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR,
MATERIAL AND ASSOCIATED SERVICES REQUIRED TO COMPLETELY
CONSTRUCT AND LEAVE ALL SYSTEMS OPERATIONAL AS SHOWN ON THE

DRAWINGS AND HEREIN DESCRIBED.

B. ALL WORK PERFORMED UNDER THIS SECTION SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER.

4. MATERIALS AND EQUIPMENT REVIEW:

- A. AS SOON AS POSSIBLE AFTER THE AWARD OF THE CONTRACT, THIS CONTRACTOR SHALL SUBMIT FOR REVIEW SHOP DRAWINGS FOR ALL EQUIPMENT TO BE FURNISHED FOR THIS PROJECT. SUBMITTALS SHALL HIGHLIGHT THE MANUFACTURER'S NAME, MODEL NUMBER, DESCRIPTIVE ENGINEERING DATA AND ALL NECESSARY INFORMATION AS TO FINISH, MATERIAL GAUGES AND ACCESSORIES.
- B. ALL PORTIONS OF THE SHOP DRAWINGS THAT ARE INTENDED TO BE REVIEWED SHALL BE HIGHLIGHTED. ANY PORTION NOT CALLED OUT SHALL BE ASSUMED TO BE EXCLUDED FROM THE JOB.

5. GUARANTEE:

A. THIS CONTRACTOR SHALL GUARANTEE COMPLETE SYSTEM OPERATION AND THAT THE APPARATUS FURNISHED AND INSTALLED WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS AND WILL GIVE SATISFACTORY SERVICE. THE CONTRACTOR AGREES TO REPLACE, WITHOUT EXPENSE TO THE OWNER, ANY PART OF THE INSTALLATION WHICH PROVES OR BECOMES DEFECTIVE WITHIN ONE YEAR AFTER THE SYSTEM IS ACCEPTED.

6. COORDINATION:

A. THIS CONTRACTOR SHALL EXAMINE ALL ARCHITECTURAL, MECHANICAL, STRUCTURAL AND OTHER DRAWINGS RELATED TO THIS PROJECT, AND IT SHALL BE HIS RESPONSIBILITY TO COORDINATE THE ELECTRICAL WORK WITH OTHER TRADES.

7. AS-BUILT DRAWINGS:

A. THIS CONTRACTOR SHALL PREPARE COMPLETE AS-BUILT DRAWINGS OF ALL ELECTRICAL SYSTEMS AND TURN OVER TO THE ENGINEER REVISED ELECTRONIC CAD FILES.

B. THIS CONTRACTOR SHALL PREPARE AND SUBMIT TO THE OWNER'S REPRESENTATIVE FIVE BOUND SETS OF MANUFACTURER'S LITERATURE FOR ALL EQUIPMENT TO BE INSTALLED ON THIS PROJECT SHOWING ALL DETAILS OF EQUIPMENT, REPLACEMENT PART DATA AND MAINTENANCE INSTRUCTIONS.

8. EXCAVATION:

- A. ALL EXCAVATION AND BACKFILL REQUIRED FOR THE INSTALLATION OF ELECTRICAL WORK SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR.
- B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER LAYOUT AND THE ESTABLISHMENT OF ALL LINES AND LEVELS REQUIRED FOR THE EXECUTION OF THE WORK.
- C. WHEN SERVICES ARE TO BE RUN SIDE-BY- SIDE, A COMMON TRENCH MAY BE USED PROVIDING THE REQUIRED VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE VARIOUS SERVICES ARE MAINTAINED AND PROVIDING THE METHODS OF BEDDING AND BACKFILL MEET THE APPROVAL OF THE ENGINEER. CONTRACTORS INVOLVED SHALL MAKE THEIR OWN AGREEMENT AS TO THE SHARING OF THE COST OF THE COMMON TRENCHING AND BACKFILL WORK.
- D. LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT UTILITY ENGINEER IMMEDIATELY FOR DIRECTIONS. COOPERATE WITH OWNER AND UTILITY COMPANIES IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION. REPAIR DAMAGED UTILITIES TO SATISFACTION OF UTILITY OWNER.

9. EXTERIOR AND FOUNDATION WALLS:

A. ALL PIPING THROUGH EXTERIOR OR FOUNDATION WALLS SHALL PASS THROUGH SCHEDULE 40 GALVANIZED STEEL SLEEVES WHICH SHALL BE LARGE ENOUGH TO ALLOW FOR CAULKING MATERIAL. NO SLEEVES ARE PERMITTED THROUGH CONCRETE STRUCTURAL MEMBERS. ALL SLEEVES SHALL BE COORDINATED AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

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A. ALL PIPING THROUGH FLOORS SHALL BE PROVIDED WITH SCHEDULE 40 GALVANIZED STEEL PIPE SLEEVES, EXTENDING 2 INCHES ABOVE FLOOR.

11.CUTTING:

A. ALL CUTTING OF EXISTING CONCRETE FLOORS/SLABS ON GRADE IN THE INTERIOR OF THE BUILDING SHALL BE PERFORMED BY "SAW CUTTING".

12.PATCHING:

A. ON CONCRETE, PATCH THE OPENING WITH CONCRETE, FINISHED SMOOTH WITH ADJACENT SURFACES.

13.IDENTIFICATION OF SWITCHES AND APPARATUS:

A. ALL CABINETS, SAFETY SWITCHES, AND OTHER APPARATUS USED FOR OPERATION AND CONTROL OF CIRCUITS, APPLIANCES, AND EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY IDENTIFIED BY MEANS OF ENGRAVED PLASTIC PLATES BLACK WITH WHITE LETTERS.

14.GROUNDING:

- A. ALL FEEDERS AND BRANCH CIRCUITS SHALL CONTAIN GROUND WIRES.
- B. ALL CONDUCTORS, MOTOR FRAMES, RACEWAYS, CABINETS, ETC., THAT REQUIRE GROUNDING SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, THOSE OF THE SERVING UTILITY AND LOCAL AUTHORITIES HAVING JURISDICTION.

15.CONDUIT:

- A. ALL ELECTRICAL POWER WIRING, INCLUDING LOW VOLTAGE WIRING, SHALL BE INSTALLED IN CONDUIT AS HEREIN SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH NOMINAL SIZE SHALL BE USED.
- B. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 AS MANUFACTURED BY CARLON OR APPROVED EQUAL. ALL CONDUITS SHALL BE INSTALLED WITH MINIMUM 36" INCH COVER.
- C. CONDUIT INSTALLED ABOVE GROUND EXTERIOR SHALL BE GALVANIZED RIGID STEEL AS MANUFACTURED BY THE ALLIED TUBE AND CONDUIT CORPORATION OR APPROVED EQUAL. CONDUIT SHALL BE SHERARDIZED OR HOT-DIP GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
- D. WHEN PVC CONDUITS PENETRATE CONCRETE FLOOR CONSTRUCTION, CONTRACTOR SHALL USE RIGID STEEL ELBOWS AND EXTENSION. PVC CONDUIT/FITTINGS SHALL NOT BE PERMITTED TO BE EXPOSED ABOVE THE
- E. THIN WALL TUBING SHALL BE REPUBLIC "ELECTRUNITE E.M.T." OR APPROVED EQUAL. SHALL BE INSTALLED INDOORS.

- F. ALL FITTINGS SHALL BE OF THE COMPRESSION TYPE AND SHALL BE
- G. CONDUIT FOR INTERIOR WIRING, IN GENERAL, SHALL BE THINWALL TUBING UNLESS OTHERWISE NOTED.
- H. RACEWAYS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET AND FITTING TO FITTING. A RUN OF CONDUIT BETWEEN OUTLETS OR FITTINGS SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER-BENDS INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE OUTLET OR FITTING. THE RADIUS OF BENDS SHALL NEVER BE SHORTER THAN THAT OF THE CORRESPONDING TRADE ELBOW. THE SYS- TEM SHALL BE COMPLETE WITH OUTLETS, DISTRIBUTION BOXES, ETC., SMOOTH INSIDE AND MECHANICALLY SECURE IN PLACE. APPROVED STRAPS, HANGERS, OR SUPPORTS SHALL BE USED TO SECURE CONDUITS IN PLACE. CONDUITS SHALL, IN GENERAL, BE SUPPORTED AT INTERVALS NOT EXCEEDING 10'-0" AND WITHIN 3'-0" OF EACH OUTLET BOX, JUNCTION BOX, CABINET OR FITTING.
- I. CONDUITS SHALL BE PROTECTED DURING CONSTRUCTION; PLUG AND KEEP CLEAN AND DRY. CONDUIT ENDS SHALL BE BUTTED IN CENTERS OF COUPLINGS. NO CRACKS OR FLATTENED SECTIONS WILL BE PERMITTED AT BENDS OR ELSEWHERE. ALL ENDS OF CONDUIT SHALL BE REAMED TO REMOVE ROUGH EDGES. RUNNING THREADS WILL NOT BE PERMITTED.
- J. CONDUITS SHALL BE CONCEALED WITHIN THE WALLS, CEILINGS, AND FLOORS WHERE POSSIBLE AND UNLESS OTHERWISE NOTED. EXPOSED CONDUIT SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE BUILD- ING LINES.

18. WIRE AND CABLE:

- A. WIRE AND CABLE SHALL BE AMERICAN INSULATED WIRE CORP., GENERAL CABLE CORP., SENATOR WIRE AND CABLE CORP. SOUTHWIRE OR APPROVED EQUAL, OF SIZES AS SHOWN ON THE DRAWINGS OR HEREIN SPECIFIED.
- B. ALL CONDUCTORS SHALL BE COPPER.
- C. NO. 10 AWG AND SMALLER CONDUCTORS SHALL BE SOLID WITH INSULATION AND NO. 8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED WITH TYPE THHN/THWN INSULATION EXCEPT THAT CONDUCTORS WITHIN 3 INCHES OF LIGHT FIXTURE BALLASTS SHALL HAVE RHH, THHN, OR EQUAL INSULATION RATED FOR 90 DEGREES C. APPLICATION.

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7301 West 133rd Street, Suite 20

SCANNELL



REVISIONS DESCRIPTION					REVISIONS
DATE					

IIT LOGISTICS ND MAIN STREET

EVELOPEMENT PLAN - BUILDII
VELOPMENT LEE'S SUMMIT L
RNER OF TUDOR ROAD AND I

SCANNELL DEVELOP JORTHWEST CORNER C

drawn by: SH checked by: TD approved by: TC QA/QC by: TC project no.: C21-04157 drawing BoNDET C02104157.dwc