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STORM SEWER GENERAL NOTES:

- PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR TO THE CENTER OF TOE OF END SECTION. ALL PIPES SHALL BE FIELD STAKED TO THE CENTER OF THE INSIDE WALL FACE OF THE STRUCTURE.
- THE DIMENSION FOR ALL STRUCTURES ARE FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE.
- THE FIRST STRUCTURE DIMENSION SHOWN IS THE "L" DIMENSION AND THE SECOND IS THE "W" DIMENSION (SEE STORM SEWER STRUCTURE DETAILS).
- LOCATIONS OF NORTHINGS AND EASTINGS SHOWN ARE AS FOLLOWS:
 - THROATED AREA INLET: CENTER OF STRUCTURE
 - SETBACK CURB INLET: CENTER OF STRUCTURE
 - MODIFIED CURB INLET: CENTER OF STRUCTURE ALONG TOP OF CURB AT INLET
 - END SECTIONS: CENTER OF TOE OF END SECTION
- STORM SEWER PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
 - HIGH DENSITY POLYETHYLENE (HDPE) MEETING THE REQUIREMENTS FOR TEST METHODS, DIMENSIONS, AND MARKINGS FOUND IN AASHTO M294 AND ASTM F2306. JOINTS SHALL BE WATER TIGHT REINFORCED BELL & GASKETED SPIGOT TYPE.
- ALL PIPE SHALL BE PLACED IN TRENCH CONDITIONS. PLACE A MINIMUM OF 2 FEET OF FILL OVER PROPOSED PIPE BEFORE TRENCHING AND PIPE INSTALLATION. PROPOSED FILL SHALL BE PLACED IN ACCORDANCE WITH PROJECT REQUIREMENTS.
- UTILITY LINES AND STRUCTURES IN FILL AREAS BELOW PIPE GRADE SHALL NOT BE CONSTRUCTED UNTIL ALL CONSOLIDATION OF THE FILL IS COMPLETE AND SO APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER.
- ALL CURB INLETS AND OTHER STRUCTURES SET AT LOW POINTS ARE TO BE SET LEVEL. ALL OTHER CURB INLETS ARE TO BE SET WITH THE GRADE AT THE TOP OF CURB OR PAVEMENT. ALL CURB INLETS SHALL HAVE TOP SLABS SLOPING TOWARD THE PAVEMENT AT A 2% GRADE UNLESS OTHERWISE NOTED.
- PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED CONCRETE INVERT FROM INVERT IN TO INVERT OUT.
- ALL REINFORCING STEEL SHALL COMPLY WITH ASTM-615 GRADE 60.
- THE LIDS OF ALL PRECAST STRUCTURES SHALL BE GROUDED TO THE TOP OF THE WALLS.
- ALL UNSUITABLE MATERIAL ENCOUNTERED DURING THE INSTALLATION OF STORM SEWER SHALL BE REMOVED AT CONTRACTOR'S EXPENSE.

UTILITY PLAN GENERAL NOTES

- UTILITY CONSTRUCTION SHALL COMPLY WITH THE STANDARD SPECIFICATIONS, CODES, AND DETAILS OF THE CITY OF CITY, STATE AND UTILITY PROVIDERS.
- OPEN CUTTING OF EXISTING STREETS IS PROHIBITED. ALL PROPOSED UTILITY STREET CROSSINGS SHALL BE BORED UNDER STREETS UNLESS NOTED OTHERWISE.
- THE LAST 10' OF UTILITY LINE BEDDING INTO THE BUILDING SHALL NOT CONTAIN GRANULAR MATERIAL.
- THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CONTACT THE UTILITY LOCATION SERVICE A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION TO FIELD LOCATE UTILITIES.
- IF DURING THE COURSE OF CONTRACTOR COORDINATION WITH ANY UTILITY THE NEED FOR AN EASEMENT IS REQUESTED CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY.
- CONTRACTOR TO INSTALL PROTECTIVE SLEEVES IN FOOTINGS IF NECESSARY FOR UTILITY CONNECTION WITH BUILDING. SEE STRUCTURAL AND MEP PLANS.
- CONTRACTOR SHALL CONTACT POWER PROVIDER TO INSPECT ELECTRIC CONDUIT INSTALLATION PRIOR TO BACKFILLING.
- ROOF DRAINS, GUTTERS, AND DOWNSPOUTS SHALL NOT CONNECT TO SANITARY SEWER.

DEMOLITION PLAN GENERAL NOTES

- EXISTING CONDITIONS SHOWN FOR DEMOLITION ARE CURRENTLY UNDER CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ON-SITE CONSTRUCTION CREWS TO MINIMIZE DEMOLITION OF NEWLY COMPLETED INFRASTRUCTURE.
- CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL ITEMS ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT A REQUIRED PART OF THE PROPOSED PROJECT UPON COMPLETION.
- CONTRACTOR SHALL COORDINATE WITH OWNER ON SALVAGING AND DISPOSAL OF DEMOLISHED/REMOVED ITEMS.
- CONTRACTOR SHALL PROTECT OFFSITE IMPROVEMENTS (INCLUDING BUT NOT LIMITED TO SIDEWALKS, DRIVES, UTILITIES, CURBS, AND PAVING) SURROUNDING THE PROJECT BOUNDARY FROM DAMAGE DURING DEMOLITION ACTIVITY. ALL PAVEMENT REMOVALS SHALL BE SAWCUT WITH CLEAN FULL DEPTH CUTS ADJACENT TO EXISTING PAVEMENT TO REMAIN. CONTRACTOR SHALL INSTALL AND MAINTAIN PEDESTRIAN AND VEHICULAR TRAFFIC CONTROL SIGNAGE IN COMPLIANCE WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION AND CITY OF LIBERTY REQUIREMENTS. CONTRACTOR SHALL NOT OBSTRUCT ACCESS TO EXISTING BUSINESSES.
- CONTRACTOR SHALL INSTALL SAFETY FENCING SURROUNDING ALL EXCAVATIONS DURING DEMOLITION OF STRUCTURES, AREAS OF HEAVY EQUIPMENT USAGE FOR SITE GRADING AND GRUBBING, TREE REMOVAL AREAS, AND ANY OTHER AREAS WHERE PEDESTRIAN OR VEHICULAR TRAFFIC MAY ENCROACH. THIS FENCING SHALL BE INSTALLED NO LATER THAN THE END OF EACH WORKING DAY. CONTRACTOR SHALL REPAIR AND MAINTAIN FENCING IN AN ORDERLY MANNER. CONTRACTOR MAY RE-USE FENCING MATERIALS AFTER ALL DEMOLITION ACTIVITIES HAVE BEEN COMPLETED FOR THAT AREA OF WORK.

GRADING PLAN GENERAL NOTES:

- ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS.
- ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED (GREEN SPACES) SHALL BE FINISH GRADED WITH A MINIMUM OF SIX INCHES OF TOPSOIL.
- FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
- EXISTING GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS. PROPOSED GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS.
- HAIL OFF AND MATERIAL IMPORT SHALL NOT BE AN EXCLUDED ITEM IN THE BASE BID. ALL EXCAVATION SHALL BE CONSIDERED NON-CLASSIFIED. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK EXCAVATION OR BLASTING.
- ALL DISTURBED AREAS ARE TO RECEIVE TOPSOIL (6"), SEED/SOD, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED. RE-SEEDING SHALL BE REQUIRED.
- WITHIN FORTY-EIGHT HOURS PRIOR TO ANY ASPHALT OR CONCRETE PAVING, THE SUBGRADE SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM WHEEL DUMP TRUCK AND OBSERVED BY THE ON-SITE GEOTECHNICAL ENGINEER. AREAS OF THE SUBGRADE WITH EXCESSIVE RUTTING AND/OR PUMPING SHALL BE RE-WORKED OR REMOVED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. FLY ASH OR GRANULAR MATERIAL MAY BE ADDED BY THE CONTRACTOR (AS APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER) TO STABILIZE THE SUBGRADE.
- REFERENCE GEOTECHNICAL REPORT FOR BUILDING PAD PREPARATION.
- CONTRACTOR SHALL OPERATE UNDER THE TERMS AND PERMITS INCLUDED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT AND PERMITTED THROUGH THE STATE OF MISSOURI. CONTRACTOR SHALL EMPLOY A QUALIFIED PERSON TO CONDUCT REGULAR INSPECTIONS OF THE SITE EROSION CONTROL MEASURES AND DOCUMENT SUCH INSPECTIONS IN THE SWPPP DOCUMENT MAINTAINED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL ADHERE ALL TERMS & CONDITIONS AS OUTLINED IN THE PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES AS ISSUED BY CITY OF LEE'S SUMMIT, MO AND THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR).

GENERAL EROSION & SEDIMENTATION NOTES:

- THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING, THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
- ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
- CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
- CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
- ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 7 DAYS, SHALL BE TEMPORARILY STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
- DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN.
- IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
- ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
- SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.

EROSION & SEDIMENTATION CONTROL MAINTENANCE

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.

UTILITY NOTES:

- UTILITY CONSTRUCTION SHALL COMPLY WITH THE STANDARD SPECIFICATIONS, CODES AND DETAILS OF THE CITY OF LEE'S SUMMIT, MISSOURI AND ALL LOCAL UTILITY PROVIDERS.
- OPEN CUTTING OF EXISTING STREETS IS PROHIBITED. ALL PROPOSED UTILITY STREET CROSSINGS SHALL BE BORED UNDER STREETS UNLESS NOTED OTHERWISE.
- THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CONTACT THE UTILITY LOCATION SERVICE A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION TO FIELD LOCATE UTILITIES.
- IF CURING THE COURSE OF CONTRACTOR COORDINATION WITH ANY UTILITY THE NEED FOR AN EASEMENT IS REQUIRED CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY.
- CONTRACTOR TO INSTALL PROTECTIVE SLEEVES IN FOOTINGS IF NECESSARY FOR UTILITY CONNECTION WITH BUILDING. SEE STRUCTURAL AND MEP PLANS.
- CONTRACTOR SHALL CONTACT POWER PROVIDER TO INSPECT ELECTRIC CONDUIT INSTALLATION PRIOR TO BACKFILLING.
- ROOF DRAINS, POOL DRAINS, GUTTERS, AND DOWNSPOUTS SHALL NOT CONNECT TO SANITARY SEWER!
- THE CONTRACTOR IS OBLIGATED TO INSPECT FOR EXISTING CONDITIONS/INSTALLATIONS AND AVAILABLE INFORMATION PRIOR TO SUBMITTING A BID. REFER TO SPECIFICATIONS ALSO.
- EXISTING INSTALLATIONS (SUCH AS WATER MAINS/LINES, GAS MAINS/LINES, SEWER MAINS/LINES, TELEPHONE LINES, POWER LINES, AND UTILITY STRUCTURES IN THE VICINITY OF THE WORK TO BE DONE) ARE INDICATED ON THE DRAWINGS ONLY TO THE EXTENT THAT SUCH INFORMATION HAS BEEN MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER IN PREPARING THE DRAWINGS. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF IS EXPRESSLY DISCLAIMED.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING INSTALLATIONS.
- ANY DELAY, ADDITIONAL WORK, FEES OR EXTRA COST TO THE CONTRACTOR CAUSED BY OR RESULTING FROM DAMAGE TO OR MODIFICATION OF EXISTING INSTALLATIONS BY THE CONTRACTOR OR AFFECTED UTILITY COMPANY SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT OR DAMAGES.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS/INSTALLATIONS.

GENERAL SIDEWALK & SIDEWALK RAMP NOTES

- POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR). NO PONDING SHALL BE PRESENT IN THE PAR. ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN ¼ INCH.
- TURNING SPACE SHALL BE LOCATED ANYWHERE THE PAR CHANGES DIRECTION, AND IF THE APPROACHING WALK IS INVERSE GRADE.
- THE MAXIMUM CROSS SLOPE REQUIREMENTS FOR PERPENDICULAR CURB RAMPS AND BLENDED TRANSITIONS ADJACENT TO PEDESTRIAN STREET CROSSINGS ARE AS FOLLOWS:
AT YIELD OR STOP CONTROL - 2%;
WITHIN YIELD OR STOP CONTROL, OR WITH TRAFFIC SIGNALS - 5%;
AT MIDBLOCK - NO GREATER THAN THE STREET GRADE;
- WHEN NOT ADJACENT TO PEDESTRIAN STREET CROSSINGS, PAR AND RAMP CROSS-SLOPE 1% DESIRED, 2% MAXIMUM.
- CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS AND AT THE TOP OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
- ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.
- ALL RAMP TYPES SHOULD HAVE A MINIMUM OF 3' RAMP LENGTH.
- DETECTIBLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MINIMUM OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE WIDTH OF SIDEWALK AND SHARED-USE PATHS. ARC LENGTH OF RADIAL DETECTABLE WARNINGS SHALL NOT BE GREATER THAN 20 FEET.
- RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 2" MINIMUM TO 9" MAXIMUM FROM BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 2" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.
- LONGITUDINAL JOINT SPACING TO MATCH WITH OF SIDEWALK (4' MIN.).
- ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 250' CENTERS MAX.
- SIDEWALK RAMPS SHALL BE LENGTHENED AS NEEDED TO PROVIDE COMPLIANT SLOPE (8.33% MAX.) BUT NEED NOT EXCEED 15' REGARDLESS OF RESULTING SLOPE.
- NO CASTING OR UTILITY BOXES SHALL BE ALLOWED IN RAMPS OR TURNING SPACES. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING UTILITY BOXES AND CORRDINATING WITH UTILITIES TO OBTAIN RAMP AND SIDEWALK COMPLIANCE.
- NEWLY CONSTRUCTED EXTERIOR ACCESSIBLE ROUTES SHALL NOT EXCEED 5% SLOPE IN THE DIRECTION OF TRAVEL OR 2% CROSS-SLOPE. WALKING SURFACES EXCEEDING 5% SLOPE IN THE DIRECTION OR TRAVEL OF CHANGES IN ELEVATION GREATER THAN 1/4" UNBEVELED OR 1/2" BEVELED MUST HAVE RAMPS COMPLYING WITH ICC A117.7 - 2009 AND 2010 ADA STANDARD SECTIONS 405.

REFERENCE:

- UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY:
 - ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF THE CITY OF LEE'S SUMMIT, MISSOURI.
 - ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
 - ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES.
 - ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT, MISSOURI.

EXISTING CONDITIONS:

- THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS OF THE PROJECT AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THEIR OWN INVESTIGATIONS AND MAKE THEIR OWN ASSUMPTIONS REGARDING SITE SURFACE AND SUBSURFACE CONDITIONS. THIS INCLUDE 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.
- 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 LOCATED EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS WHEN CONFLICTS AND DISCREPANCIES ARE FOUND.

SHOP DRAWINGS:

- THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUIRED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLE CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OF 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 OBTAIN ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:
 - ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
 - ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO PERFORMANCE OF THE WORK;
 - ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
- 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 COMPLETED THE ABOVE TASKS.
- SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:
 - ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THE PROJECT.
 - ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

CONSTRUCTION:

- THE CONTRACTOR SHALL DISPOSE OF ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
- 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.
- THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROADS TO THE SITE AT THE CONCLUSION OF THE PROJECT.



8455 College Boulevard
Overland Park, KS 66210
816.777.0400
weareown.com

FORMERLY ANDERSON ENGINEERING

DISCOVERY PARK
THE VILLAGE -LOT 9-1

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

REVISIONS		
NO.	DESCRIPTION	DATE
1	INITIAL SUBMISSION	04/19/2024
2	PER CITY COMMENTS	10/10/24

DRAWING INFORMATION


PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:



ISSUED BY:

LICENSE NO: _____

A licensed Missouri
Engineering Corporation
COA# 00062

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

C101

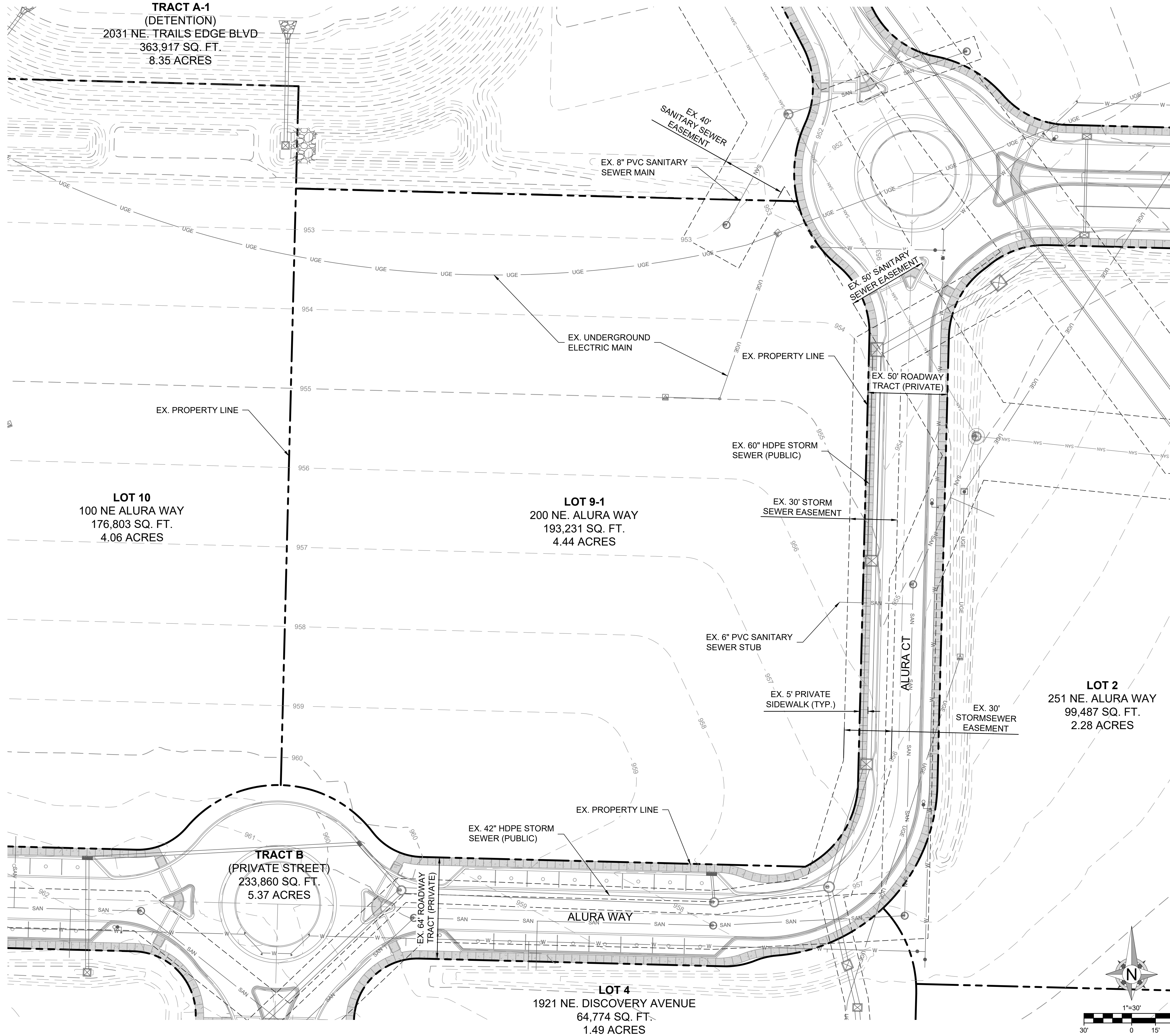
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LEGEND

- PROPERTY LINE
--- EX. SSWR EASEMENT
--- EX. STORM EASEMENT
--- EX. CURB AND GUTTER
--- EX. STORM SEWER
--- SAN --- EX. SANITARY SEWER
--- UGE --- EX. ELECTRICAL MAIN
--- 1335 --- EXISTING GRADE LINES

NOTE:
REFERENCE THE FOLLOWING APPROVED CONSTRUCTION
PLANS FOR MORE INFORMATION ON THE EXISTING
INFRASTRUCTURE SHOWN:

- 1) **PRSITE20235732**
PRIVATE SITE DEVELOPMENT PLANS FOR THE VILLAGE
AT DISCOVERY PARK ZONE 1
- 2) **PRSUBD20232726 (PL20233146)**
MASS GRADING & EROSION AND SEDIMENT CONTROL
PLANS FOR THE VILLAGE AT DISCOVERY PARK ZONE 1
& ARIA APARTMENTS
- 3) **PRSUBD20232726 (PL2023206)**
PUBLIC STORM SEWER PLANS FOR THE VILLAGE AT
DISCOVERY PARK ZONE 1
- 4) **PRSUBD20232726 (PL2023144)**
PUBLIC WATER MAIN EXTENSION PLANS FOR THE
VILLAGE AT DISCOVERY PARK ZONE 1
- 5) **PRSUBD20232726 (PL2023145)**
PUBLIC SANITARY SEWER AND FORCE MAIN
RELOCATION PLANS FOR THE VILLAGE AT DISCOVERY
PARK ZONE 1



Engineering beyond.

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Overland Park, KS 66210
816.777.0400
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FORMERLY ANDERSON ENGINEERING

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LICENSE NO:

A licensed Missouri
Engineering Corporation
COA# 00062














SHEET TITLE

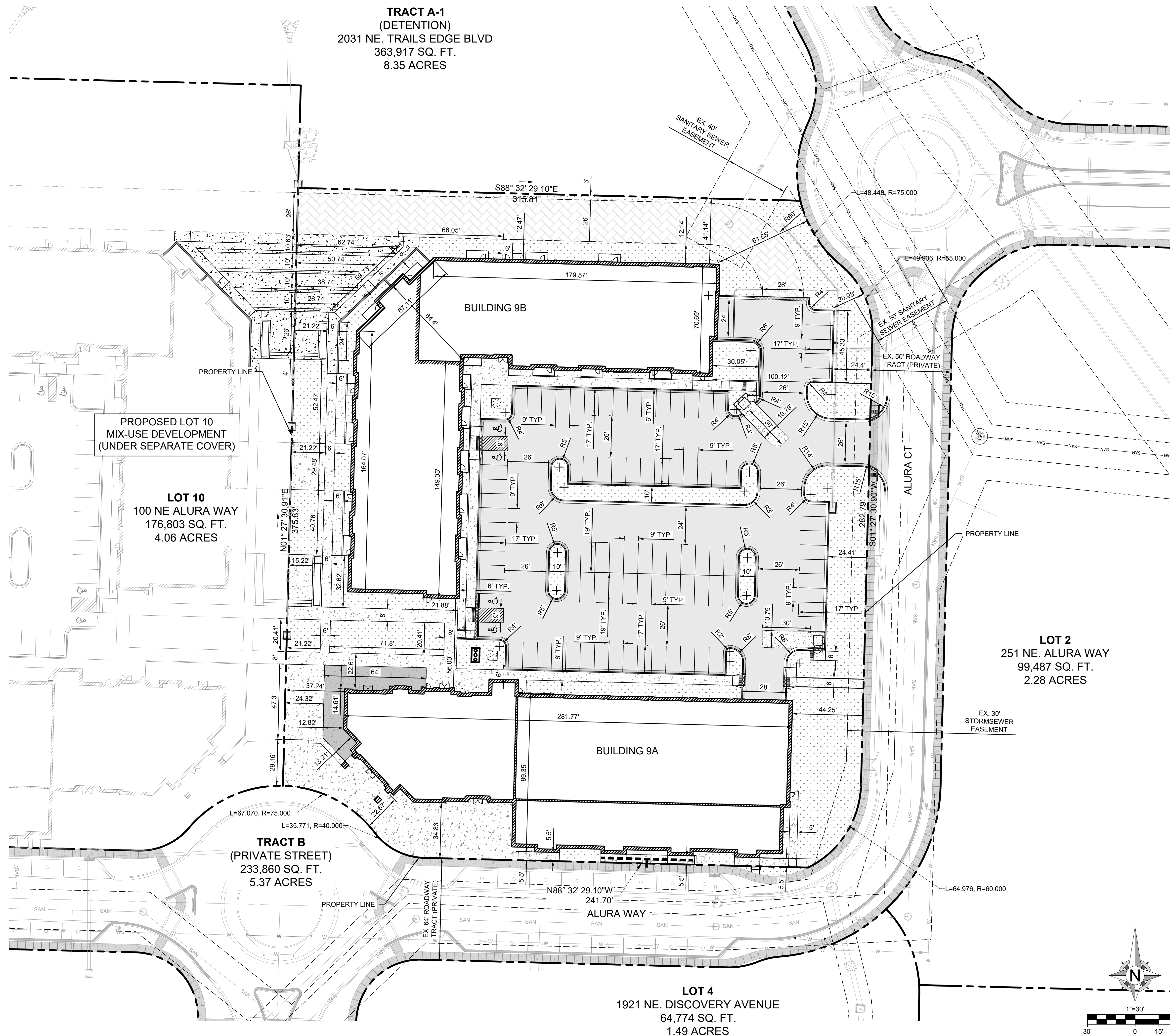
EXISTING
CONDITIONS

SHEET NUMBER

C102

3 OF 25

	PROPERTY LINE
	EX. UTILITY EASEMENT
	CURB AND GUTTER (TYPE CG-1)
	CURB AND GUTTER (TYPE CG-1 DRY)
	CURB AND GUTTER (TYPE CG-2)
	SAWCUT EX. PAVEMENT
	PROP. STORM SEWER
	ADA ACCESSIBLE PATH
	PARKING STALL COUNT
	PROP. CONCRETE SIDEWALK
	FIRE ACCESS LANE
	PROP. ASPHALT PAVEMENT
	GREEN SPACE



NOTE: HARDCAPE DIMENSIONS ARE PROVIDED FOR REFERENCE ONLY.
REFERENCE APPROVED HARDCAPE PLANS FOR PROPOSED DIMENSIONS



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FORMERLY ANDERSON ENGINEERING

**DISCOVERY PARK
THE VILLAGE -LOT 9-1**

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

REVISIONS

[illegible]

DRAWING INFORMATION

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:



ISSUED BY:

LICENSE NO:

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Engineering Corporation
COA# 00062

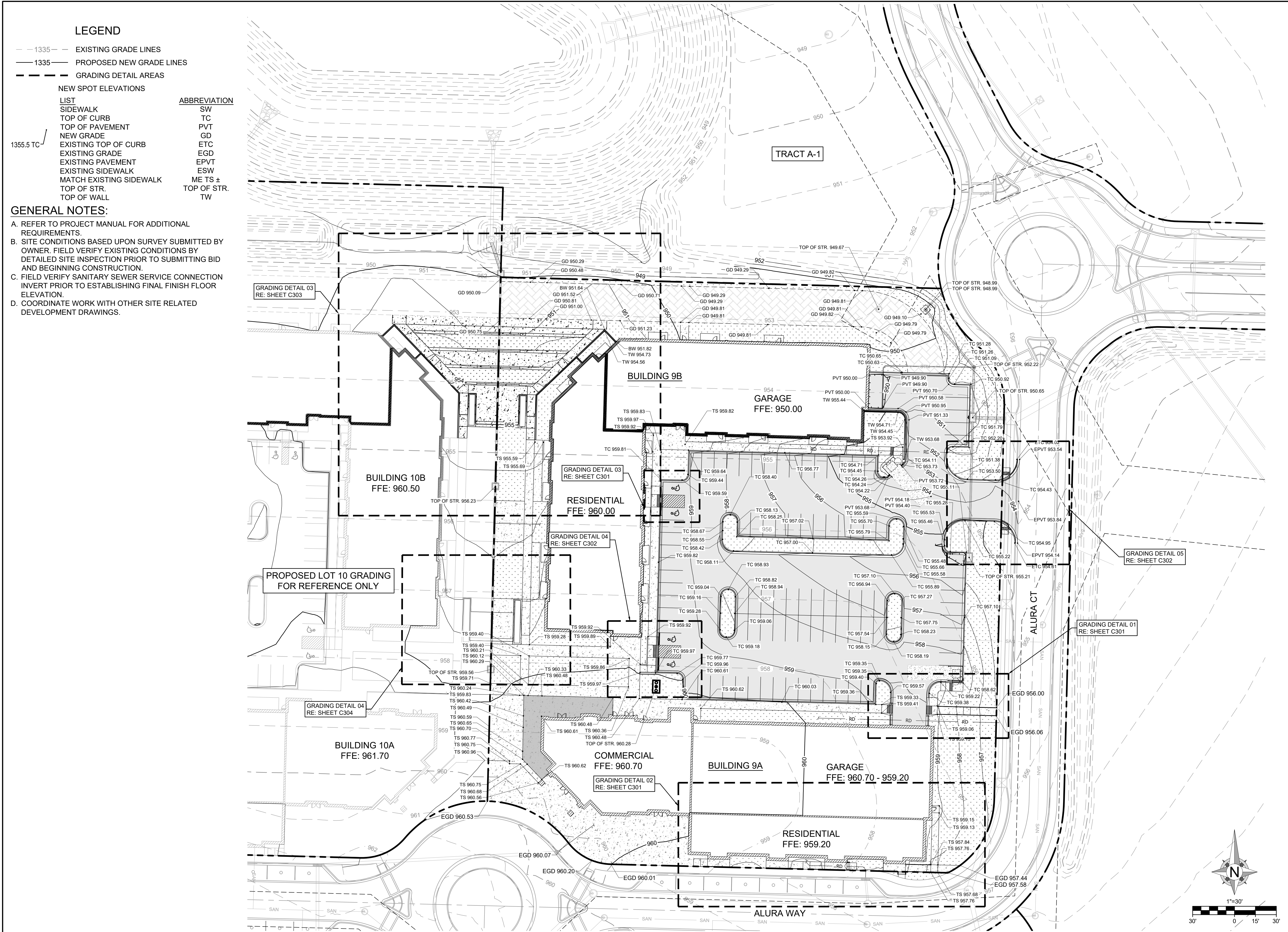
SHEET TITLE

DIMENSION PLAN

SHEET NUMBER

C201

5 OF 25



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FORMERLY ANDERSON ENGINEERING

**DISCOVERY PARK
THE VILLAGE -LOT 9-1**

200 NE ALURA WAY
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LOT 9-1 - THE VILLAGE AT
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REVISIONS		
NO.	DESCRIPTION	DATE
1	INITIAL SUBMISSION	04/19/2024
2	PER CITY COMMENTS	10/10/24

DRAWING INFORMATION

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:

JEFFREY W. BARTZ
NUMBER
PE-201202294
PROFESSIONAL ENGINEER

ISSUED BY:

LICENSE NO:

A licensed Missouri
Engineering Corporation
COA# 00062

SHEET TITLE

GRADING PLAN

SHEET NUMBER

C300

8 OF 25



200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

[illegible]

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWb

ISSUED DATE: 10/10/2024

FIELD BOOK:



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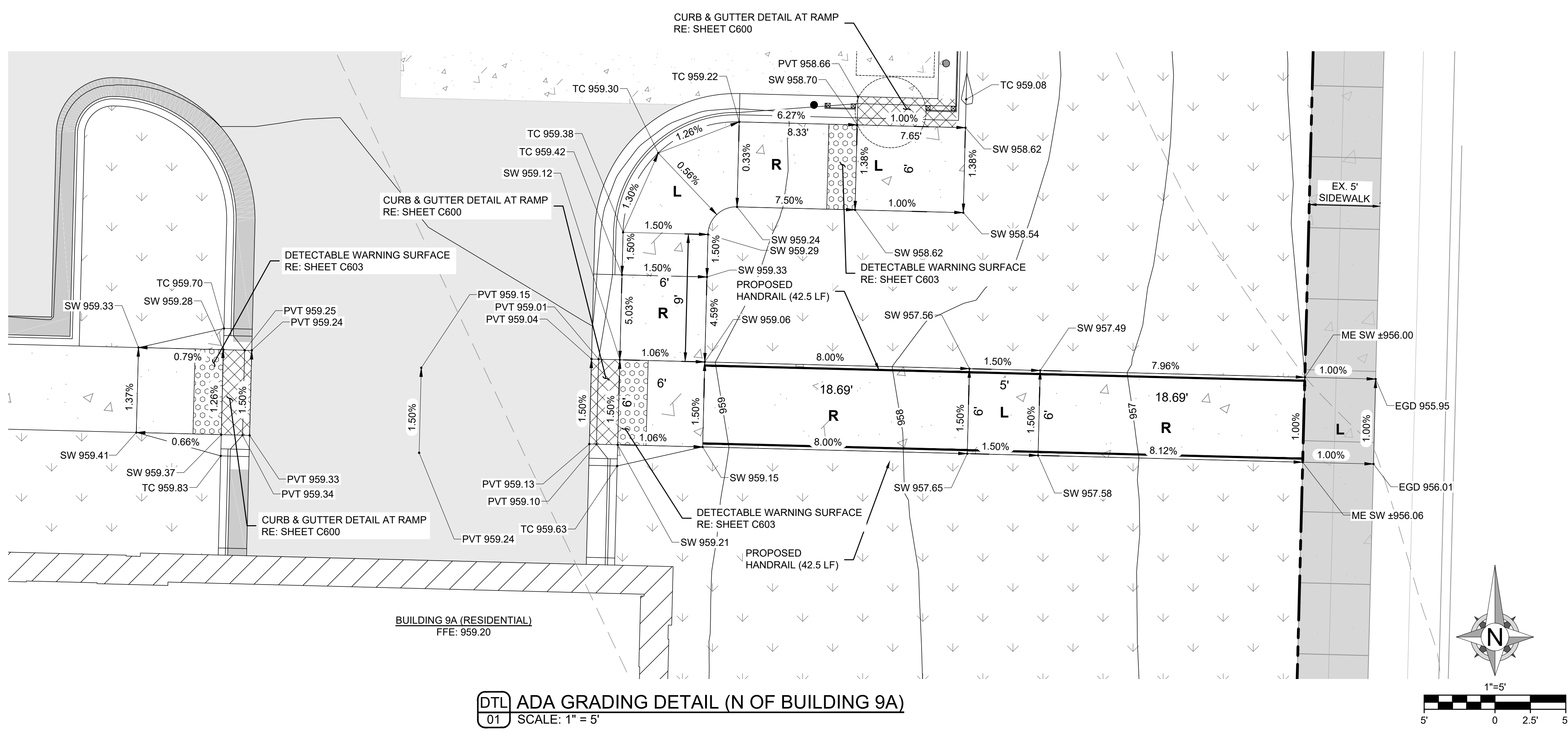
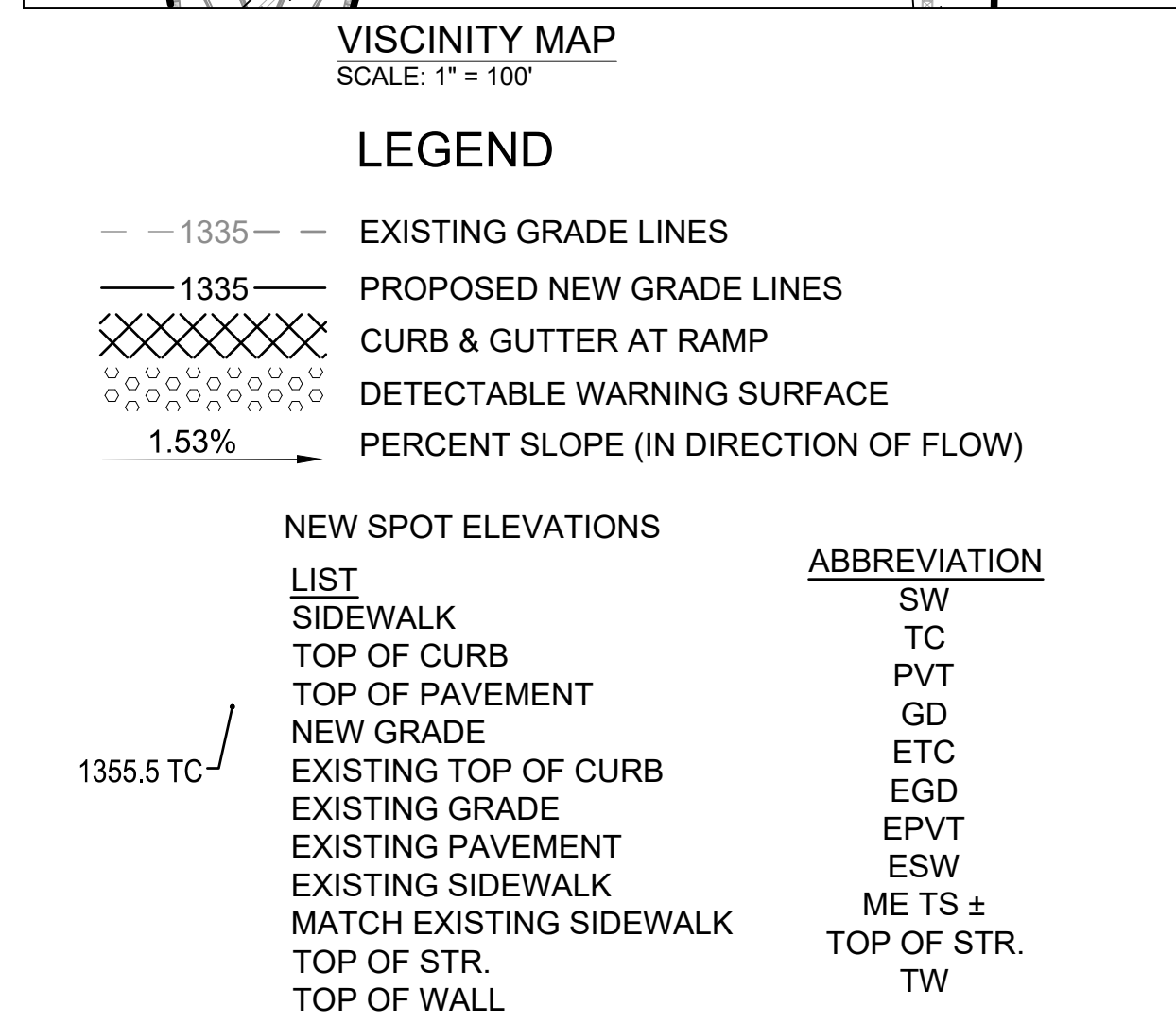
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**GRADING
DETAILS**

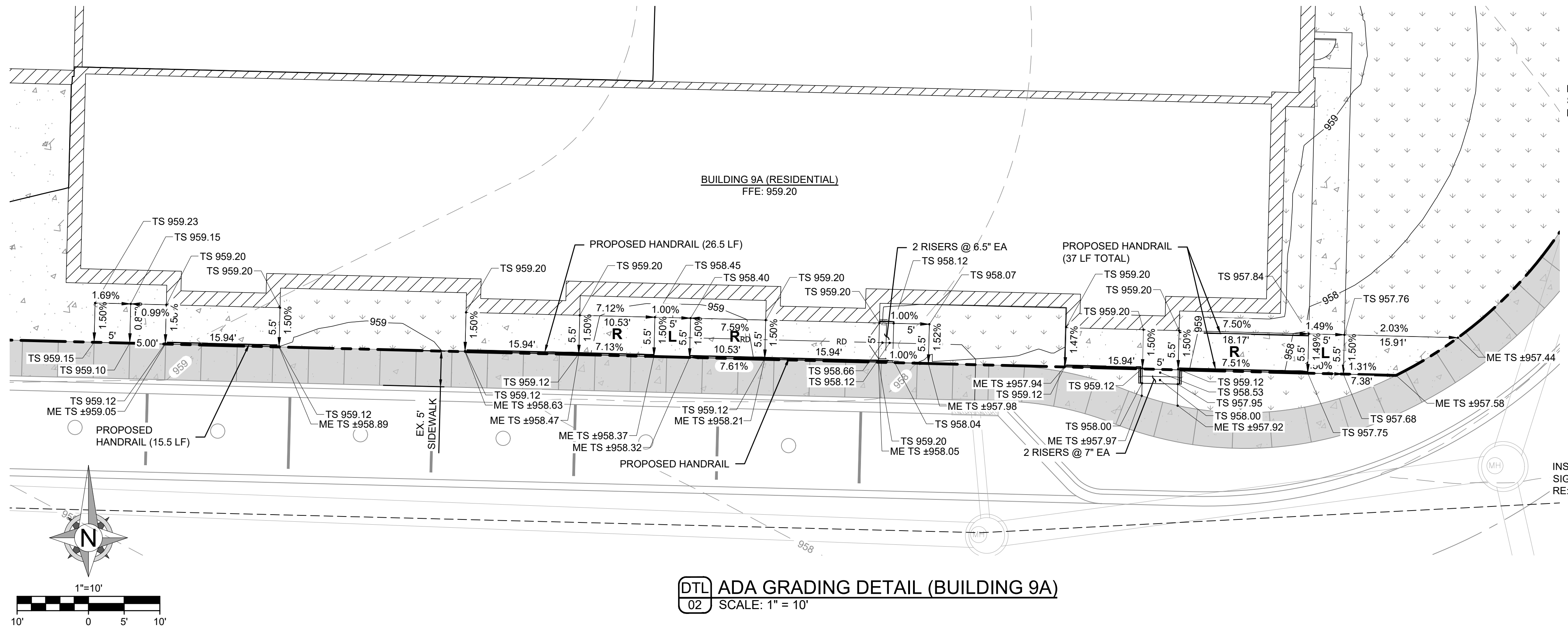
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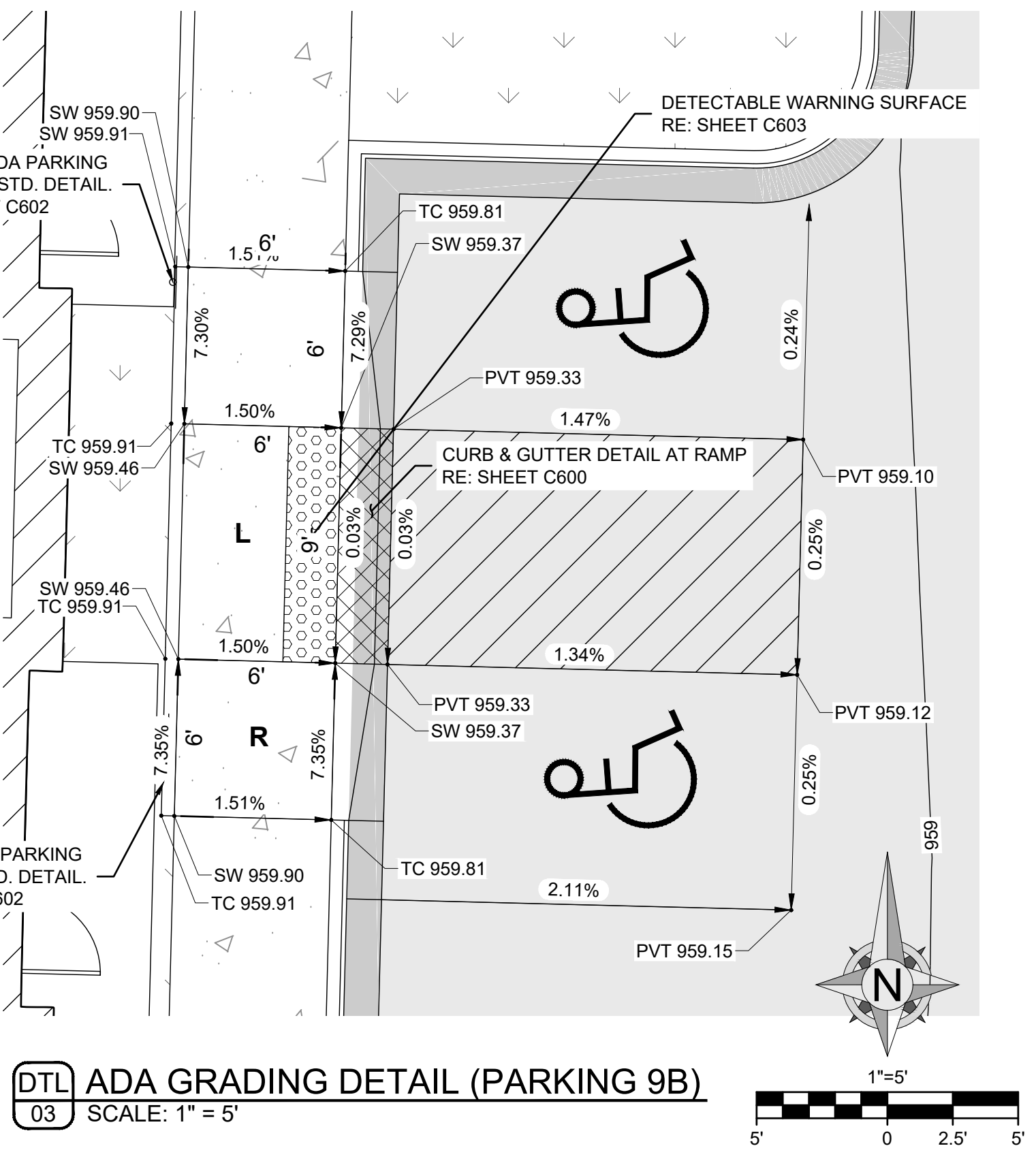
9 OF 25



DTL ADA GRADING DETAIL (N OF BUILDING 9A)
01 SCALE: 1" = 5'



DTL ADA GRADING DETAIL (BUILDING 9A)
02 SCALE: 1" = 10'



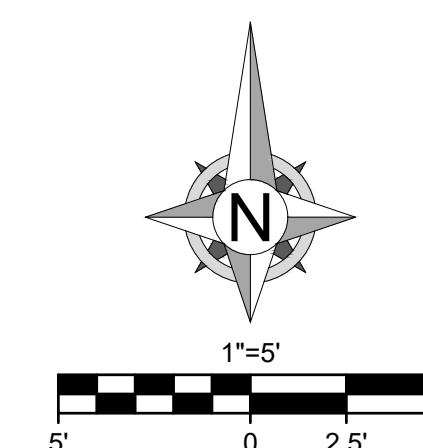
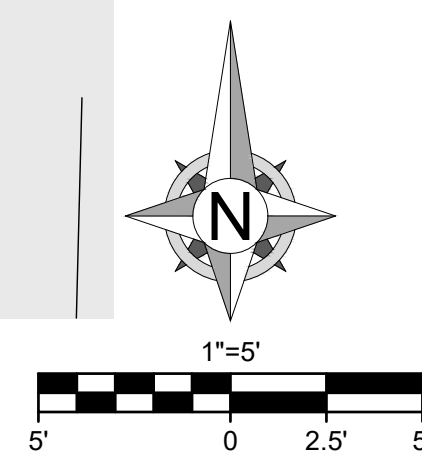
DTL 03 ADA GRADING DETAIL (PARKING 9B)
SCALE: 1" = 5'



— 1335 — EXISTING GRADE LINES
 —— 1335 PROPOSED NEW GRADE LINES
 XXXX CURB & GUTTER AT RAMP
 OOOO DETECTABLE WARNING SURFACE
 → 1.53% PERCENT SLOPE (IN DIRECTION OF FLOW)

LIST
SIDEWALK
TOP OF CURB
TOP OF PAVEMENT
NEW GRADE
EXISTING TOP OF CURB
EXISTING GRADE
EXISTING PAVEMENT
EXISTING SIDEWALK
MATCH EXISTING SIDEWALK
TOP OF STR.
TOP OF WALL

SW
TC
PVT
GD
ETC
EGD
EPVT
ESW
ME TS ±
TOP OF STR.
TW



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FORMERLY ANDERSON ENGINEERING

200 NE ALURA WAY
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LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

[illegible]

PROJECT NO: 24KC10006

DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 10/10/202
FIELD BOOK:



ISSUED BY:
LICENSE NO:

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GRADING DETAILS - 2

C302

10 OF 25



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200 NE ALURA WAY
EE'S SUMMIT, MO 64086

REVISIONS

DRAWING INFORMATION

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWR

ISSUED DATE: 10/10/2024

FIELD BOOK:



LICENSE NO:

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SHEET TITLE

SHEET NUMBER

C303

11 OF 25





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FORMERLY ANDERSON ENGINEERING

**DISCOVERY PARK
THE VILLAGE -LOT 9-1**

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLA

REVISIONS

[illegible]

DRAWING INFORMATION

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWF

ISSUED DATE: 10/10/2024

FIELD BOOK:



LICENSE NO:

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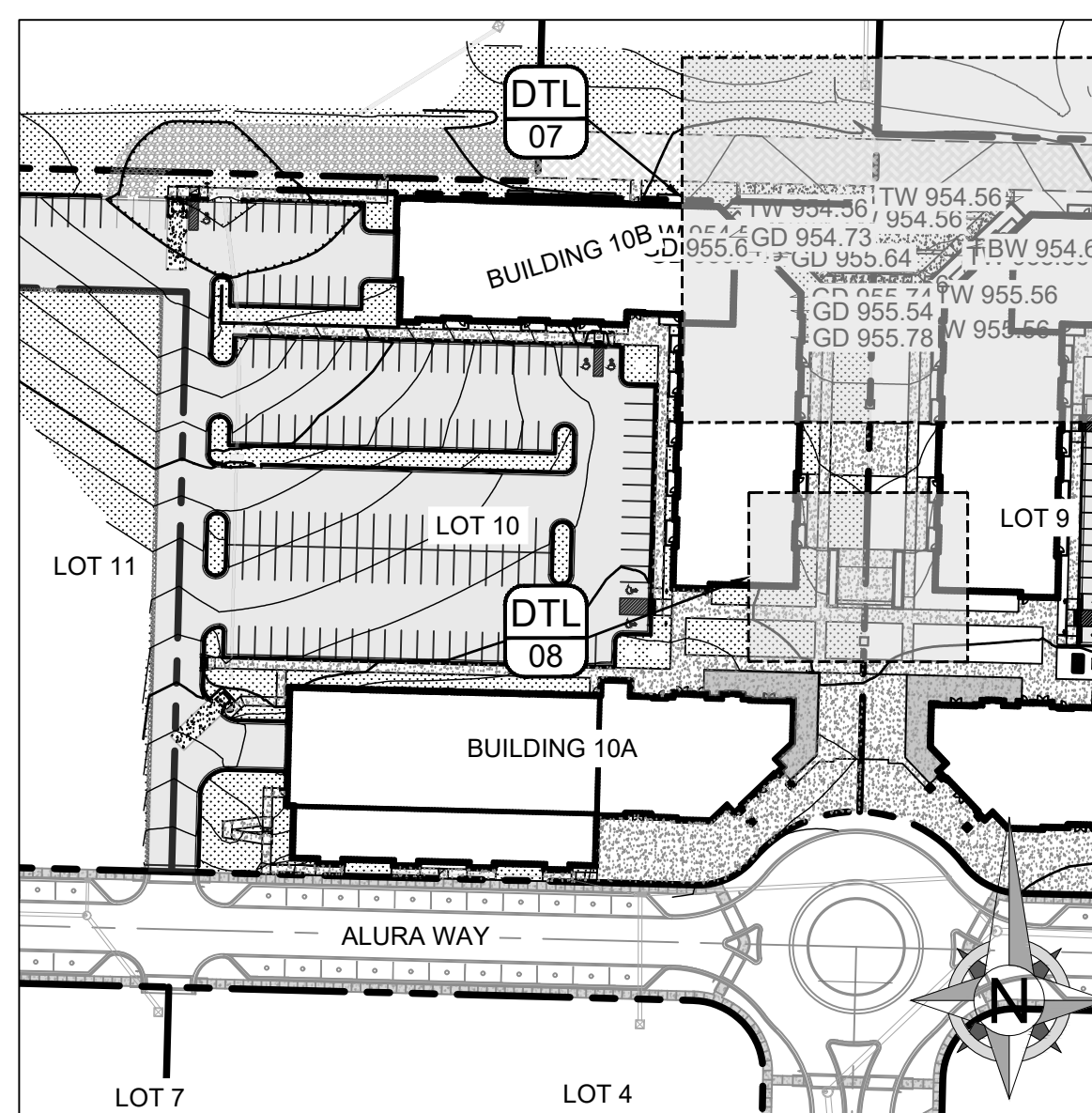
SHEET TITLE

GRADING DETAILS - 4

SHEET NUMBER

C304

12 OF 25



VISCINITY MAP

SCALE: 1" = 100'

LEGEND

- 1335 — EXISTING GRADE LINES
 — 1335 — PROPOSED NEW GRADE LINES
 XXXX CURB & GUTTER AT RAMP
 O O O O DETECTABLE WARNING SURFACE
 1.53% PERCENT SLOPE (IN DIRECTION OF FLOW)

NEW SPOT ELEVATIONS

LIST
SIDEWALK
TOP OF CURB
TOP OF PAVEMENT
NEW GRADE
EXISTING TOP OF CURB
EXISTING GRADE
EXISTING PAVEMENT
EXISTING SIDEWALK
MATCH EXISTING SIDEWALK
TOP OF STR.
TOP OF WALL

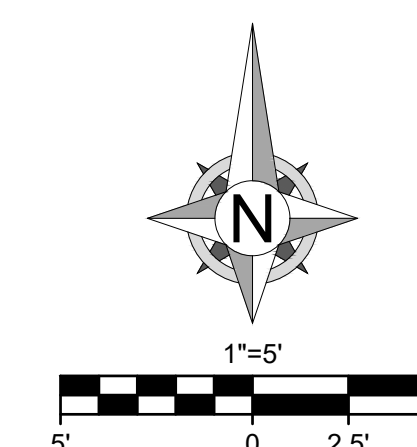
ABBREVIATION

SW
TC
PVT
GD
ETC
EGD
EPVT
ESW
ME TS \pm
TOP OF STR.
TW

BUILDING 10B (RESIDENTIAL)
FFF: 960.00

BUILDING 9B (RESIDENTIAL)
FFC- 960.00

DTL COURTYARD GRADING - 2
08 SCALE: 1" = 5'



NOTE: REFER TO PROPOSED HARDSCAPE PLAN FOR MORE DETAIL
ON PAVEMENT SECTION, COLOR, AND DESIGN.



FORMERLY ANDERSON ENGINEERING

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

REVISIONS

[illegible]

PROJECT NO: 24KC10006

DRAWN BY: JGD

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:



ISSUED BY:

LICENSE NO:

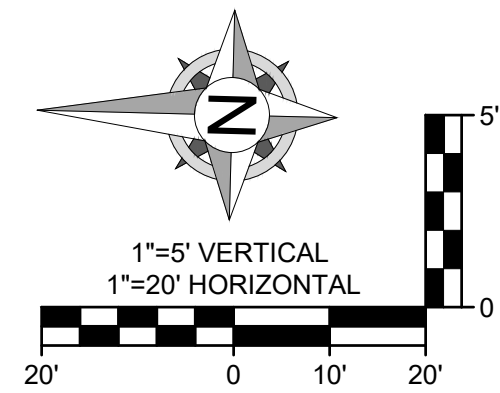
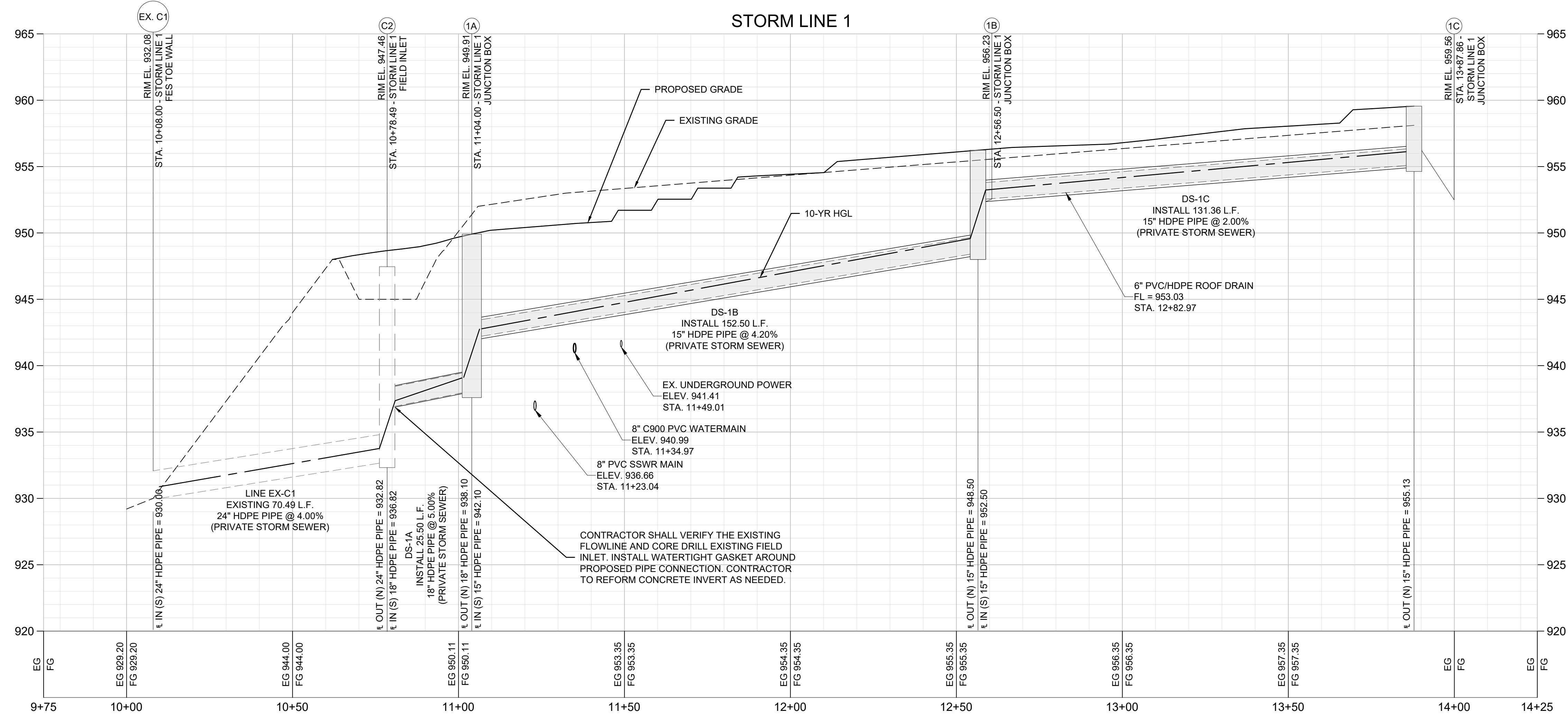
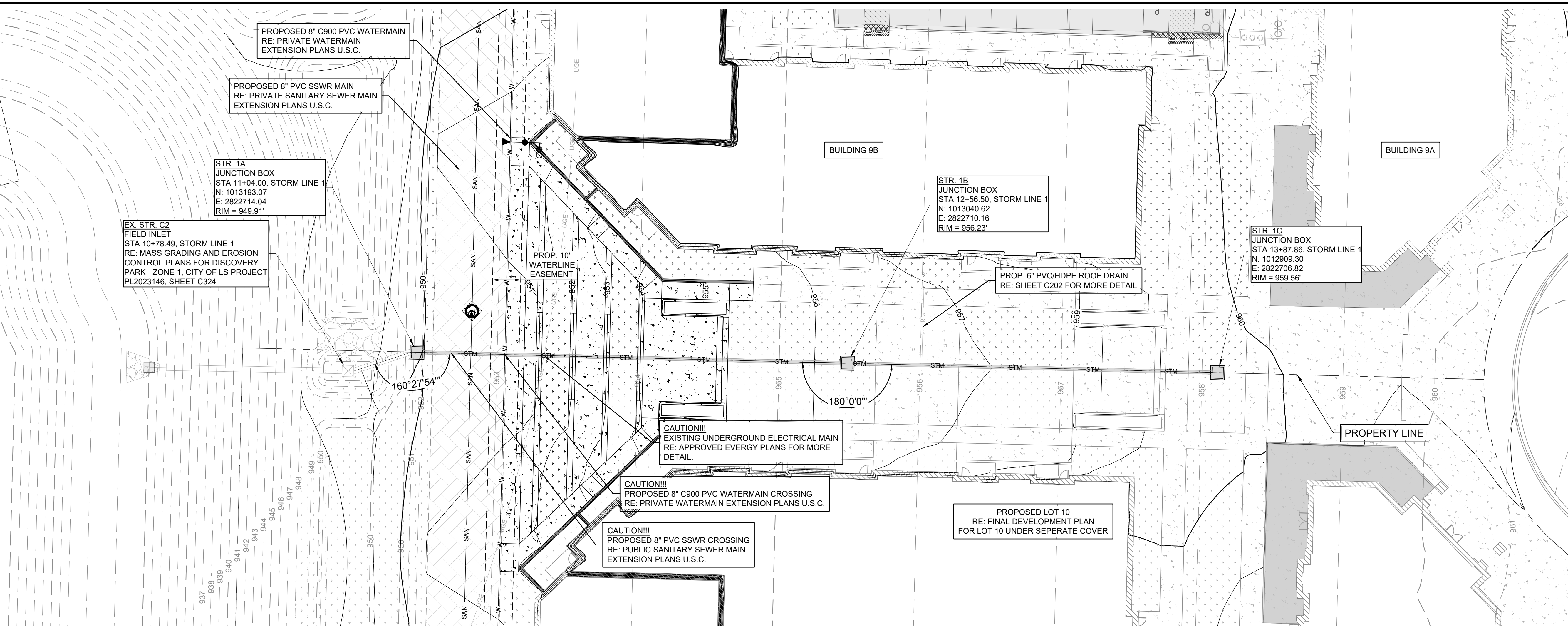
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PLAN & PROFILE

- 1

C401

14 OF 25





FORMERLY ANDERSON ENGINEERING

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

REVISIONS

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DRAWING INFORMATION

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWE

ISSUED DATE: 10/10/2024

FIELD BOOK:



ISSUED BY:

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COA# 00062

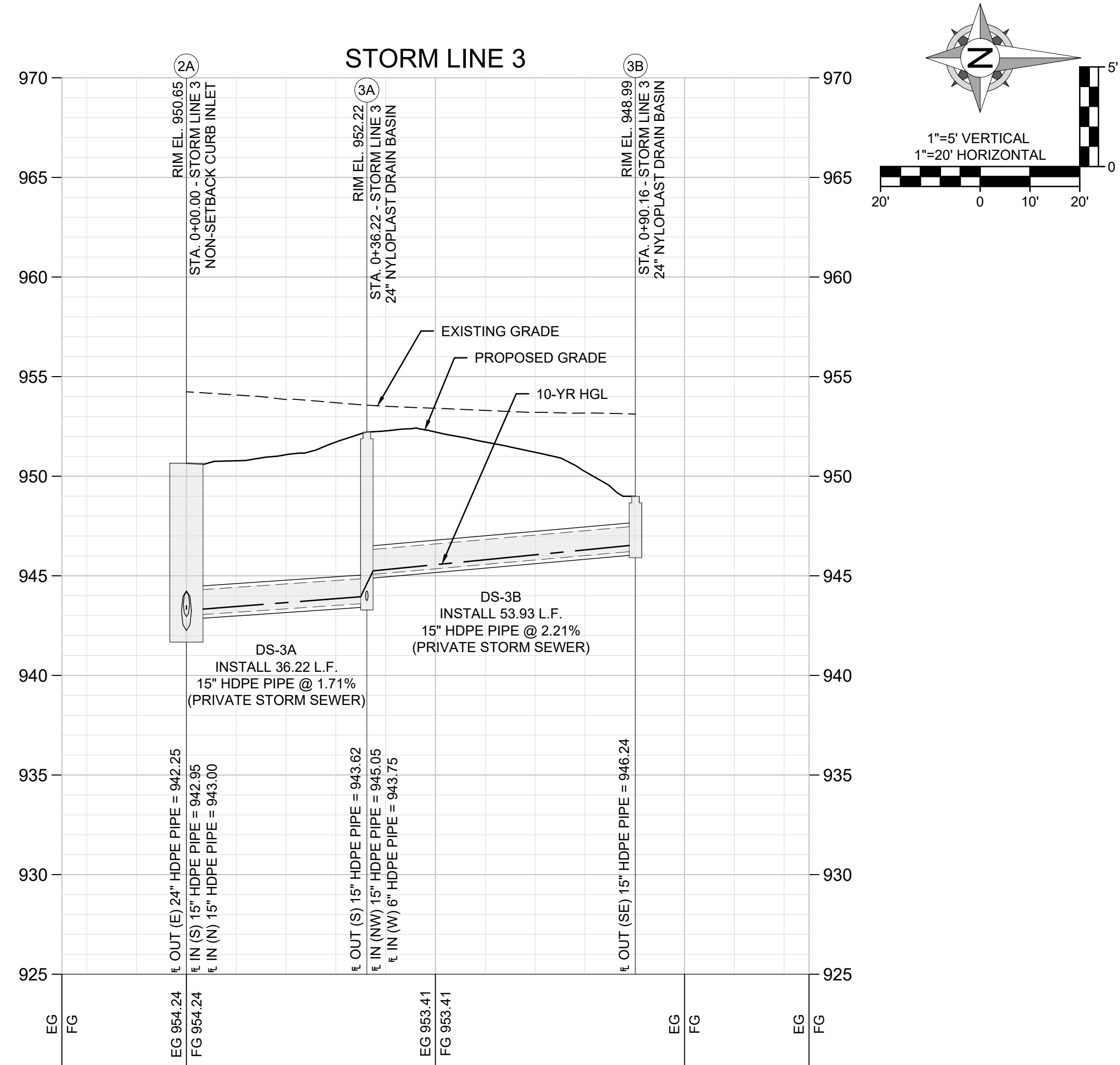
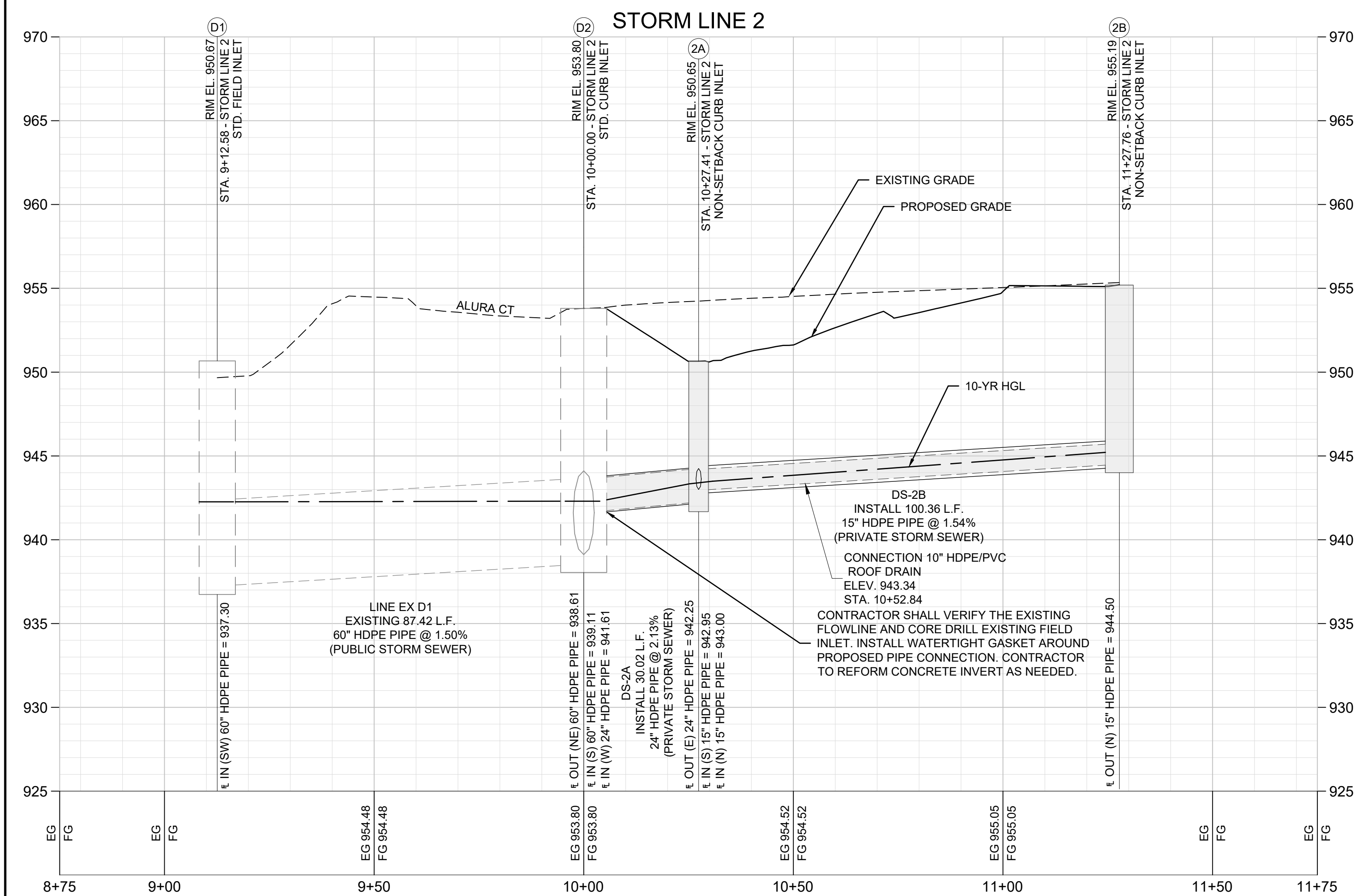
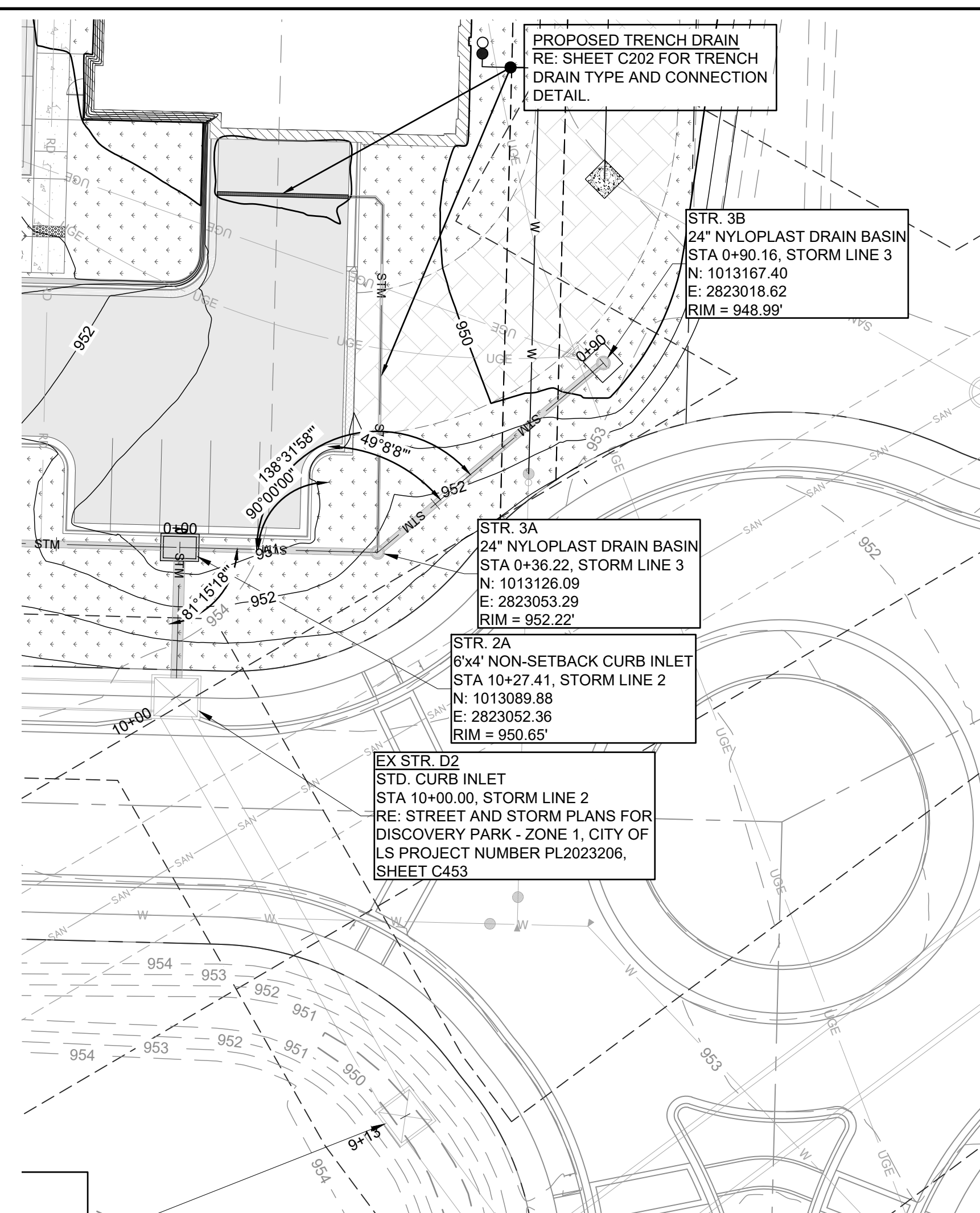
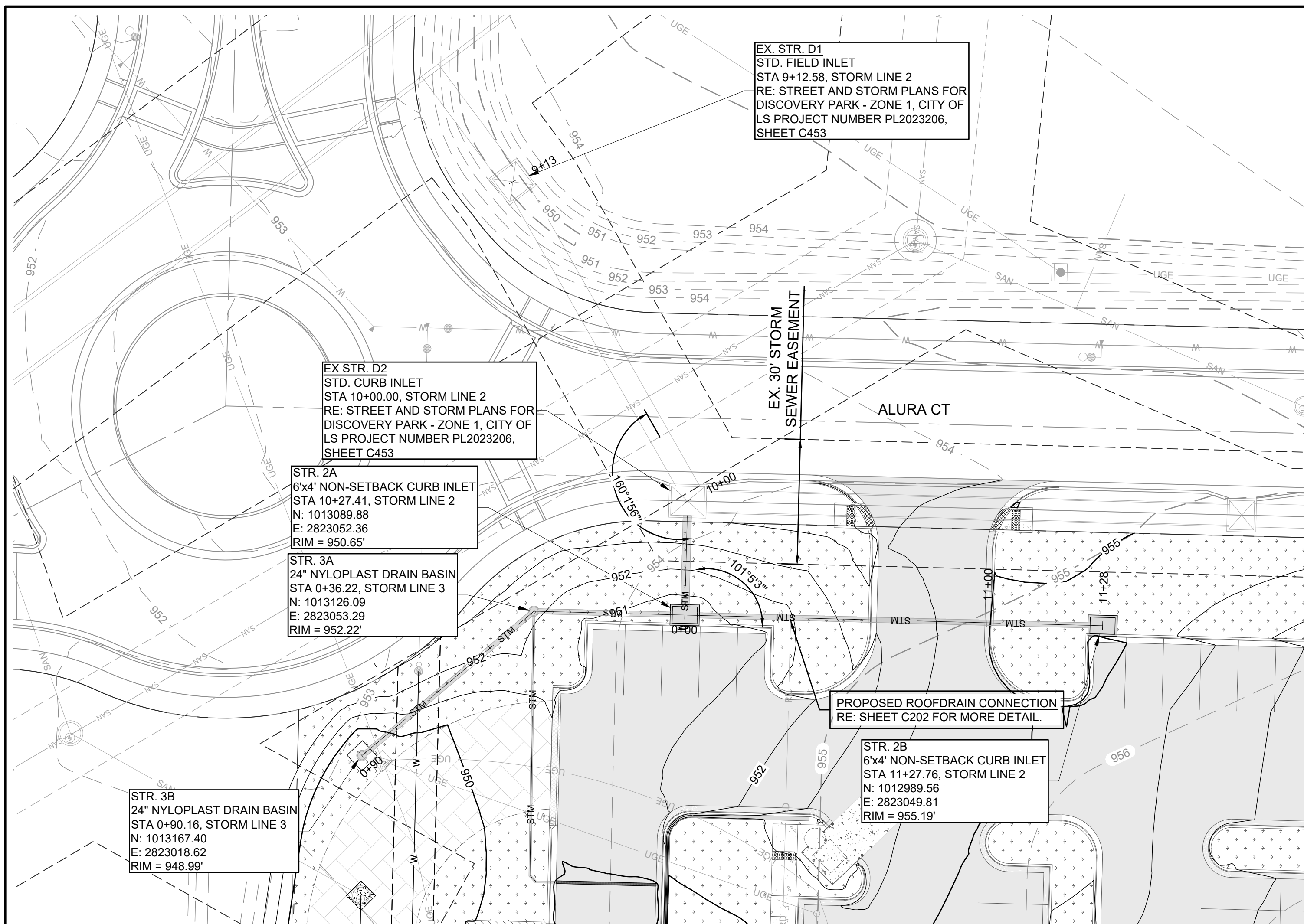
SHEET TITLE

PLAN & PROFILE

SHEET NUMBER

C402

15 OF 25



Discovery Park - Lot 9: 10-Yr Storm Summary																								
LineNo.	LineID	DnStrmLine No.	RunoffCoeff (C)	DrainageArea (ac)	IncrCxA	TotalArea (ac)	Tc (min)	iSys (in/hr)	InletTime (min)	IncrQ (cfs)	TotalRunoff (cfs)	InvertUp (ft)	InvertDn (ft)	LineLength (ft)	LineSlope (%)	LineSize (in)	n-valuePipe	FlowRate (cfs)	CapacityFull (cfs)	VelAve (ft/s)	HGLUp (ft)	HGLDn (ft)	EGLUp (ft)	EGLDn (ft)
1	LINE EX-C1	Outfall	0.65	0.01	0.01	1.29	6.00	7.75	5.00	0.05	6.97	932.82	930.00	70.49	4.00	24.00	0.012	6.97	49.01	5.03	933.76	930.88	934.12	931.24
2	DS-1A	1	0.65	0.01	0.01	1.28	5.90	7.81	5.00	0.05	6.97	938.10	936.82	25.50	5.02	18.00	0.012	6.97	25.49	8.86	939.12	937.36	939.58	937.82
3	DS-1B	2	0.65	0.26	0.17	1.27	5.50	8.04	5.00	1.40	7.13	948.50	942.10	152.50	4.20	15.00	0.013	7.13	13.23	8.68	949.57	942.75	950.20	943.39
4	DS-1C	3	0.71	1.01	0.72	1.01	5.00	8.30	5.00	5.95	5.95	955.13	952.50	131.36	2.00	15.00	0.013	5.95	9.14	6.83	956.12	953.24	956.63	953.75
5	DS D7	Outfall	0.65	0.01	0.01	0.23	5.20	8.19	5.00	61.24	1.67	950.20	948.03	197.01	1.10	42.00	0.013	71.99	105.59	8.44	952.86	951.30	954.17	952.61
6	DS-G1	5	0.90	0.22	0.20	0.22	5.00	8.30	5.00	10.77	1.64	952.29	951.70	39.56	1.49	24.00	0.013	10.77	27.62	5.67	953.47	952.86	953.96	953.35
7	LINE EX D1	Outfall	0.65	0.01	0.01	1.86	8.10	6.84	5.00	16.57	9.55	938.61	937.30	87.42	1.50	60.00	0.012	166.30	345.42	9.59	942.30	942.26	944.08	944.04
8	DS-2A	7	0.81	1.05	0.85	1.67	8.00	6.89	5.00	7.06	9.13	942.25	941.61	29.75	2.15	24.00	0.012	9.13	35.94	7.36	943.33	942.30	943.76	942.74
9	DS-3A	8	0.90	0.02	0.02	0.14	7.20	7.21	5.00	0.15	0.71	943.62	943.00	31.70	1.96	15.00	0.013	0.71	9.03	2.77	943.95	943.33	944.07	943.45
10	DS-TD	9	0.90	0.02	0.02	0.02	5.00	8.30	5.00	0.15	0.15	948.31	943.75	61.88	7.37	6.00	0.012	0.15	1.65	2.09	948.50	943.95	948.57	944.02
11	DS-3B	9	0.63	0.10	0.06	0.10	5.00	8.30	5.00	0.52	0.52	946.24	945.05	55.80	2.13	15.00	0.013	0.52	9.43	3.33	946.52	945.25	946.62	945.35
12	DS-2B	8	0.78	0.48	0.37	0.48	5.00	8.30	5.00	3.11	3.11	944.50	942.95	100.36	1.54	15.00	0.013	3.11	8.03	5.22	945.21	943.49	945.50	943.78
13	LINE D2	7	0.37	0.18	0.07	0.18	5.00	8.30	5.00	140.78	0.55	941.17	939.11	133.07	1.55	60.00	0.012	140.78	351.09	10.27	944.57	942.30	946.09	943.83

Discovery Park - Lot 9: 100-Yr Storm Summary																								
LineNo.	LineID	DnStrmLine No.	RunoffCoeff	DrainageArea	IncrCxA	TotalArea	Tc	iSys	InletTime	IncrQ	TotalRunoff	InvertUp	InvertDn	LineLength	LineSlope	LineSize	n-valuePipe	FlowRate	CapacityFull	VelAve	HGLUp	HGLDn	EGLUp	EGLDn
			(C)	(ac)		(ac)	(min)	(in/hr)	(min)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)	(ft/s)	(ft)	(ft)	(ft)	(ft)
1	LINE EX-C1	Outfall	0.65	0.01	0.01	1.29	5.70	11.98	5.00	0.08	10.77	932.82	930.00	70.49	4.00	24.00	0.012	10.77	49.01	6.85	934.00	930.88	934.48	931.37
2	DS-1A	1	0.65	0.01	0.01	1.28	5.60	12.04	5.00	0.08	10.75	938.10	936.82	25.50	5.02	18.00	0.012	10.75	25.49	10.30	939.36	937.50	940.08	938.22
3	DS-1B	2	0.65	0.26	0.17	1.27	5.30	12.30	5.00	2.12	10.90	948.50	942.10	152.50	4.20	15.00	0.013	10.90	13.23	10.52	949.70	942.96	950.96	944.22
4	DS-1C	3	0.71	1.01	0.72	1.01	5.00	12.57	5.00	9.01	9.01	955.13	952.50	131.36	2.00	15.00	0.013	9.01	9.14	8.05	956.29	953.51	957.19	954.41
5	DS D7	Outfall	0.65	0.01	0.01	0.23	5.10	12.46	5.00	104.82	2.55	950.20	948.03	197.01	1.10	42.00	0.013	123.33	105.59	13.00	954.21	951.30	956.76	954.00
6	DS-G1	5	0.90	0.22	0.20	0.22	5.00	12.57	5.00	18.53	2.49	952.29	951.70	39.56	1.49	24.00	0.013	18.53	27.62	5.90	956.42	956.15	956.96	956.69
7	LINE D1	Outfall	0.65	0.01	0.01	1.86	7.10	10.94	5.00	46.24	15.28	938.61	937.30	87.42	1.50	60.00	0.012	301.65	345.42	15.59	943.28	942.26	947.17	946.14
8	DS-2A	7	0.81	1.05	0.85	1.67	7.00	11.00	5.00	10.69	14.57	942.25	941.61	29.75	2.15	24.00	0.012	14.57	35.94	5.76	943.62	943.28	944.25	943.91
9	DS-3A	8	0.90	0.02	0.02	0.14	6.40	11.38	5.00	0.23	1.13	943.62	943.00	31.70	1.96	15.00	0.013	1.13	9.03	2.49	944.04	943.62	944.19	943.78
10	DS-TD	9	0.90	0.02	0.02	0.02	5.00	12.57	5.00	0.23	0.23	948.31	943.75	61.88	7.37	6.00	0.012	0.23	1.65	2.19	948.55	944.04	948.64	944.13
11	DS-3B	9	0.63	0.10	0.06	0.10	5.00	12.57	5.00	0.79	0.79	946.24	945.05	55.80	2.13	15.00	0.013	0.79	9.43	3.75	946.59	945.30	946.71	945.42
12	DS-2B	8	0.78	0.48	0.37	0.48	5.00	12.57	5.00	4.71	4.71	944.50	942.95	100.36	1.54	15.00	0.013	4.71	8.03	5.95	945.38	943.64	945.78	944.04
13	LINE D2	7	0.37	0.18	0.07	0.18	5.00	12.57	5.00	241.05	0.84	941.17	939.11	133.07	1.55	60.00	0.012	241.05	351.09	13.51	945.53	943.28	948.27	946.02

Drainage Area Design Table (10-yr)						
Inlet	Drainage Area	C	Tc	i	K	Peak Flow
	(Ac)		(min)	(in/hr)		(cfs)
2A	0.50	0.77	5.00	7.35	1.00	2.83
2B	0.67	0.85	5.00	7.35	1.00	4.19

Inlet Design Table (10-yr)								
Inlet	Throat Height	Orifice Coeff.	Depth at Lip of Curb opening	Inlet Length	Inlet Capacity	80% Inlet Capacity	Peak Flow	Bypass
	(ft)		(ft)	(ft)	(cfs)	(cfs)	(cfs)	(cfs)
2A	0.50	0.67	0.83	6.00	14.72	11.78	2.83	0.00
2B	0.50	0.67	0.83	6.00	14.72	11.78	4.19	0.00

Drainage Area Design Table (100-yr)						
Inlet	Drainage Area	C	Tc	i	K	Peak Flow
	(Ac)		(min)	(in/hr)		(cfs)
2A	0.50	0.77	5.00	10.32	1.25	4.97
2B	0.67	0.85	5.00	10.32	1.25	7.35

Inlet Design Table (100-yr)								
Inlet	Throat Height	Orifice Coeff.	Depth at Lip of Curb opening	Inlet Length	Inlet Capacity	80% Inlet Capacity	Peak Flow	Bypass
	(ft)		(ft)	(ft)	(cfs)	(cfs)	(cfs)	(cfs)
2A	0.50	0.67	0.83	6.00	14.72	11.78	4.97	0.00
2B	0.50	0.67	0.83	6.00	14.72	11.78	7.35	0.00



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FORMERLY ANDERSON ENGINEERING

DISCOVERY PARK
THE VILLAGE -LOT 9-1

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

REVISIONS		
NO.	DESCRIPTION	DATE
1	INITIAL SUBMISSION	04/19/2024
2	PER CITY COMMENTS	10/10/24

DRAWING INFORMATION


PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:



ISSUED BY:

LICENSE NO: _____

A licensed Missouri
Engineering Corporation
COA# 00062

SHEET TITLE

STORM
CALCULATIONS

SHEET NUMBER

C403

16 OF 25

GENERAL NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("EROSION CONTROL"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
5. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATER OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OF DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOATATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATER OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURED PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS POSSIBLE.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 21 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. STABILIZATION MAY CONSIST OF SEED, SOD, TOCK, PAVEMENT, STRUCTURE OR OTHER NON-ERODIBLE COVER.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PREVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IS IS CARRIED OFF THE SITE. ONLY USED INGRESS/EGRESS LOCATIONS AS PROVIDED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTRSACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY SWALES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.

EROSION CONTROL & MAINTENANCE PLAN NOTES:

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
2. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IN THEY SHOWN SIGNS OF UNDERMINING OR DETERIORATION.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDD AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION CONTROL FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGNS OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

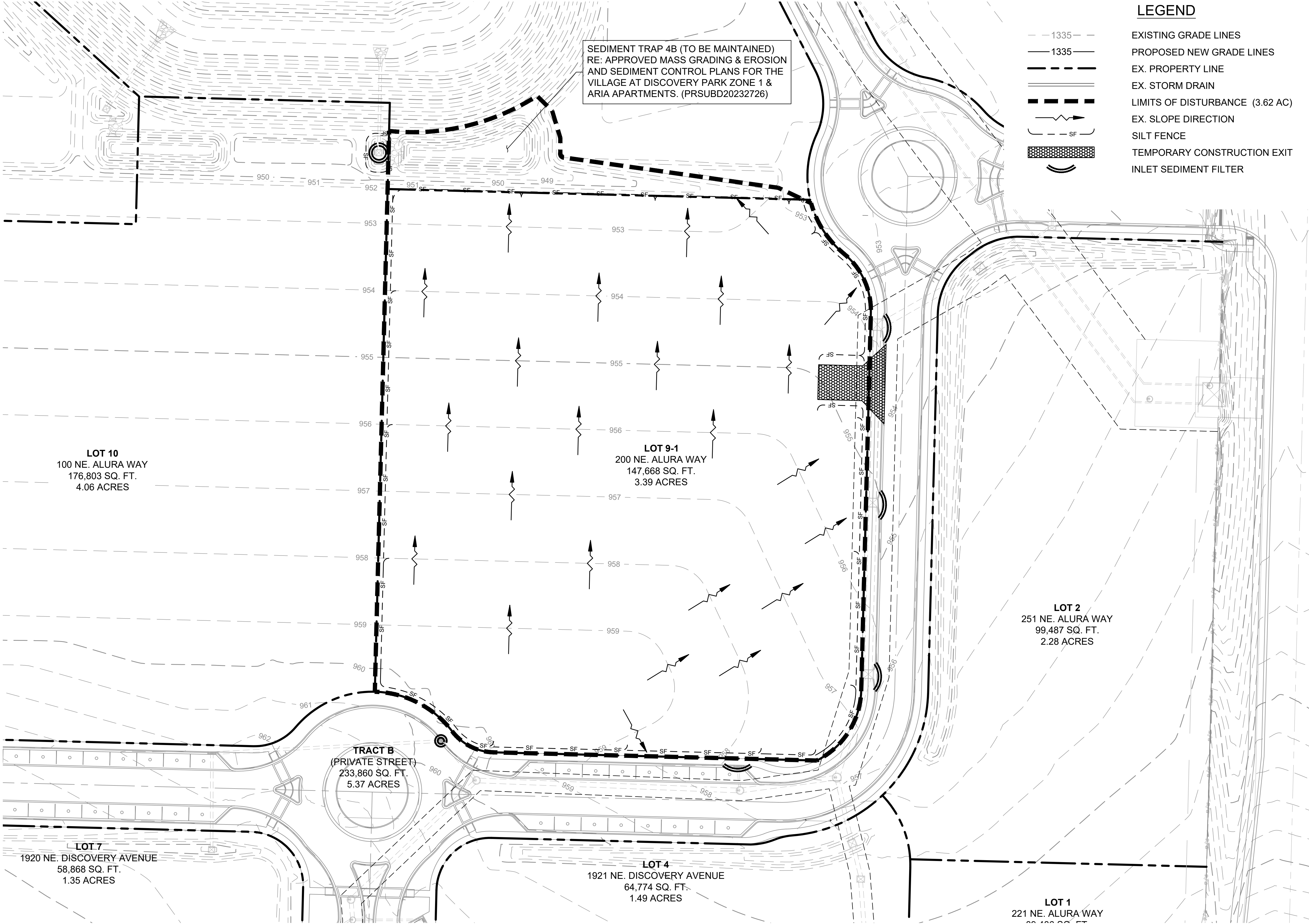
GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT AREA IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GRADE ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREIN.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF GRADING OPERATIONS, ALONG WITH RE-ACTIVATING OF AN EXISTING SEDIMENT TRAP. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. MAINTAIN/RECONSTRUCT EXISTING SEDIMENT TRAP 4B AS DETAILED IN "MASS GRADING & EROSION AND SEDIMENT CONTROL PLANS FOR THE VILLAGE AT DISCOVERY PARKING ZONE 1 & ARIA APARTMENTS" ("CITY OF LEE'S SUMMIT, MO PROJECT NUMBER PRSUBD20232726")
2. INSTALL CONSTRUCTION VEHICLE ENTRANCE AND INSTALL PERIMETER SILT FENCE AND INLET PROTECTION TO EXISTING INLETS SURROUNDING THE LIMITS OF DISTURBANCE.
3. INSTALL SILT FENCE AND/OR DIVERSION BERM(S) AT TOE OF SLOPE ALONG PERIMETER OF PHASE I AREA. PHASE II ACTIVITIES CANNOT BEGIN UNTIL PHASE I IS COMPLETED.
4. CONTRACTOR TO CONSTRUCT/MAINTAIN STORMWATER MANAGEMENT FACILITIES, SPECIFICALLY THOSE FEATURES RELATED TO DETENTION. PRIOR TO ANY LAND DISTURBANCE OF THE SITE AND PRIOR TO THE CONSTRUCTION OF ANY OTHER SITE DEVELOPMENT WORK AS NOT TO EFFECT DOWNSTREAM NEIGHBORS WITH UNDETAINED STORMWATER DISCHARGE.
5. AS GRADING OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE INTERMEDIATE EROSION CONTROL PLAN.



LEGEND

- EXISTING GRADE LINES
- PROPOSED NEW GRADE LINES
- EX. PROPERTY LINE
- EX. STORM DRAIN
- LIMITS OF DISTURBANCE (3.62 AC)
- EX. SLOPE DIRECTION
- SILT FENCE
- TEMPORARY CONSTRUCTION EXIT
- INLET SEDIMENT FILTER

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THE VILLAGE -LOT 9-1

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

REVISIONS		
NO.	DESCRIPTION	DATE
1	INITIAL SUBMISSION	04/19/2024
2	PER CITY COMMENTS	10/10/24

DRAWING INFORMATION

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:

ISSUED BY:

LICENSE NO:

A licensed Missouri
Engineering Corporation
COA# 00062

SHEET TITLE

ESC - PHASE I

SHEET NUMBER

C500

17 OF 25

GENERAL NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("EROSION CONTROL"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
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12. ALL STORM WATER POLLUTION PREVENTION MEASURED PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS POSSIBLE.
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3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION CONTROL FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGNS OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

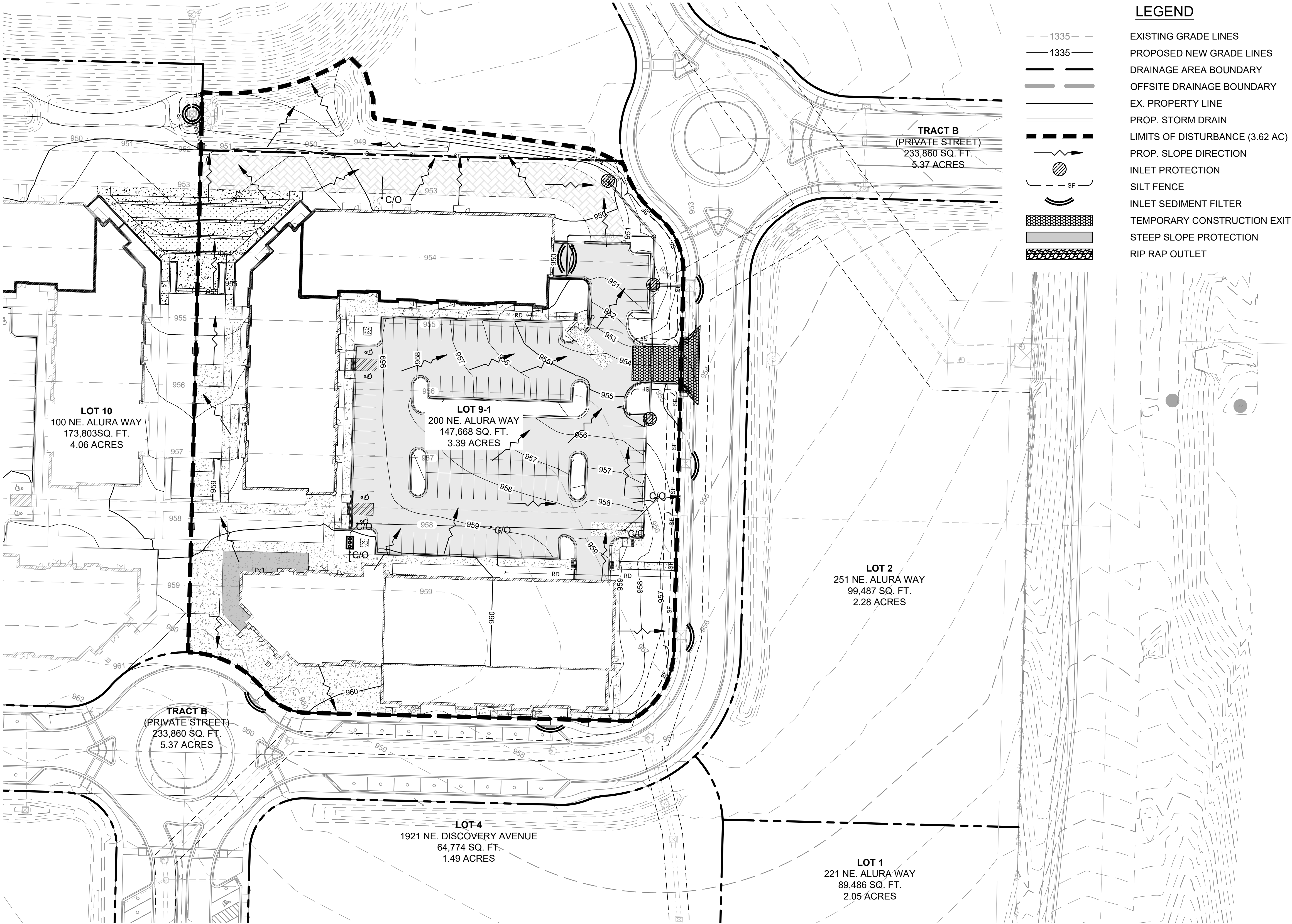
GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT AREA IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GRADE ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
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6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREIN.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF FINISHING MASS GRADING ACTIVITIES, BUILDING CONSTRUCTION, PARKING LOT PAVING, PROPOSED SERVICE LINE UTILITY INSTALLATION, AND STORM SEWERS. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. FINISH ANY MASS GRADING AND/OR STEEP SLOPE STABILIZATION ACTIVITIES THAT WERE NOT COMPLETED IN PHASE I.
2. BEGIN INSTALLING UNDERGROUND INFRASTRUCTURE STARTING WITH SANITARY SEWER, FOLLOWED BY STORM SEWER, THEN WATER LINE. INSTALL INLET PROTECTION AND SLOPE INTERRUPT SILT FENCE ONCE PIPE BACKFILLING HAS BEEN COMPLETED.
3. AS PIPE INSTALLATION OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE FINAL STABILIZATION PLAN.
4. AS STORM SEWER INFRASTRUCTURE IS COMPLETED, INLET PROTECTION SHALL BE INSTALLED TO PROTECT EXISTING STORM SEWER INFRASTRUCTURE FROM HIGHLY CONCENTRATED DISCHARGE FLOWS.
5. ALL PHASE I AND PHASE II EROSION CONTROL MEASURES SHALL CONTINUE BEING REGULARLY INSPECTED AND MAINTAINED UNTIL FINAL STABILIZATION OF AT LEAST 70% OF THE DISTURBED SURFACE HAS BEEN MET THROUGH TEMPORARY SEEDING.
6. PHASE 1 EROSION CONTROL BMPS MAY BE REMOVED UPON COMPLETION OF PAVING ACTIVITIES.



LEGEND

- EXISTING GRADE LINES
- PROPOSED NEW GRADE LINES
- DRAINAGE AREA BOUNDARY
- OFFSITE DRAINAGE BOUNDARY
- EX. PROPERTY LINE
- PROP. STORM DRAIN
- LIMITS OF DISTURBANCE (3.62 AC)
- PROP. SLOPE DIRECTION
- INLET PROTECTION
- SILT FENCE
- INLET SEDIMENT FILTER
- TEMPORARY CONSTRUCTION EXIT
- STEEP SLOPE PROTECTION
- RIP RAP OUTLET

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LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

REVISIONS		
NO.	DESCRIPTION	DATE
1	INITIAL SUBMISSION	04/19/2024
2	PER CITY COMMENTS	10/10/24

DRAWING INFORMATION

PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:

ISSUED BY:

LICENSE NO:

A licensed Missouri
Engineering Corporation
COA# 00062

SHEET TITLE

ESC - PHASE II

SHEET NUMBER

C502

18 OF 25

GENERAL NOTES:

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17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTRSACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY SWALES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.

EROSION CONTROL & MAINTENANCE PLAN NOTES:

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
2. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IN THEY SHOWN SIGNS OF UNDERMINING OR DETERIORATION.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 16% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION CONTROL FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGNS OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

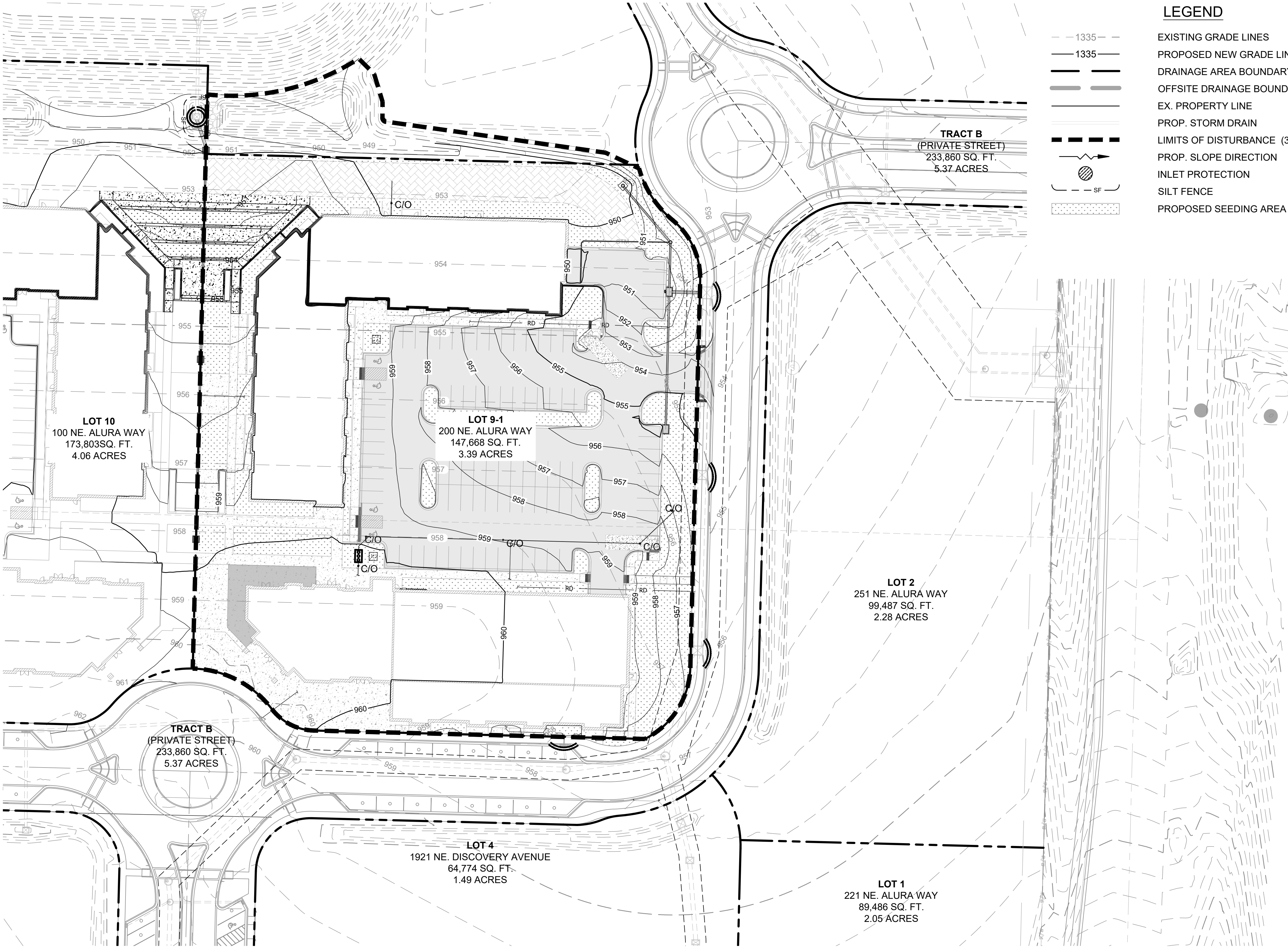
GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT AREA IN THE AREA TO BE GRADED SHALL BE REMOVED.
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GRADE ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREIN.

SEQUENCE OF CONSTRUCTION:


SITE IMPROVEMENTS CONSIST OF PAVING STREETS, RE-ESTABLISHING GROUND COVER VEGETATION, DEACTIVATING SEDIMENT TRAP 4B, REMOVING SILT FENCE, AND REMOVING INLET PROTECTION. WORK SHALL BE COMPLETED IN THE SEQUENCE AS FOLLOWS:

1. REMOVE CONSTRUCTION ENTRANCE/EXIT AS ROADS ARE PAVED.
2. INSTALL CURB, ROAD PAVEMENT, AND REQUIRED SIDEWALKS. ADJUST SILT FENCE AS NECESSARY TO PREVENT MUD AND SILT FROM FLOWING LONG DISTANCES.
3. SEED AND/OR SOD ALL DISTURBED AREAS ONCE FINISHED GRADE HAS BEEN ACHIEVED. MAINTAIN SILT FENCE AND INLET PROTECTION UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED OVER 70% OF THE TOTAL DISTURBED AREA.
4. AS ALL DISTURBED AREAS ARE STABILIZED WITH VEGETATIVE COVER, STORM SEWER INLET PROTECTION, SILT FENCE, AND SEDIMENT TRAP CAN BE REMOVED UPON CITY INSPECTION AND APPROVAL. ENSURE ENTIRE SITE IS STABILIZED PRIOR TO DEACTIVATION ON EROSION CONTROL.



LEGEND

- EXISTING GRADE LINES
- PROPOSED NEW GRADE LINES
- DRAINAGE AREA BOUNDARY
- OFFSITE DRAINAGE BOUNDARY
- EX. PROPERTY LINE
- PROP. STORM DRAIN
- LIMITS OF DISTURBANCE (3.62 AC)
- PROP. SLOPE DIRECTION
- INLET PROTECTION
- SILT FENCE
- PROPOSED SEEDING AREA



Engineering beyond.

8455 College Boulevard
Overland Park, KS 66210
816.777.0400
wearcown.com

FORMERLY ANDERSON ENGINEERING

DISCOVERY PARK
THE VILLAGE -LOT 9-1

200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

REVISIONS		
NO.	DESCRIPTION	DATE
1	INITIAL SUBMISSION	04/19/2024
2	PER CITY COMMENTS	10/10/24

DRAWING INFORMATION


PROJECT NO: 24KC10006

DRAWN BY: JGD

CHECK BY: JWB

ISSUED DATE: 10/10/2024

FIELD BOOK:



ISSUED BY:

LICENSE NO:

A licensed Missouri
Engineering Corporation
COA# 00062

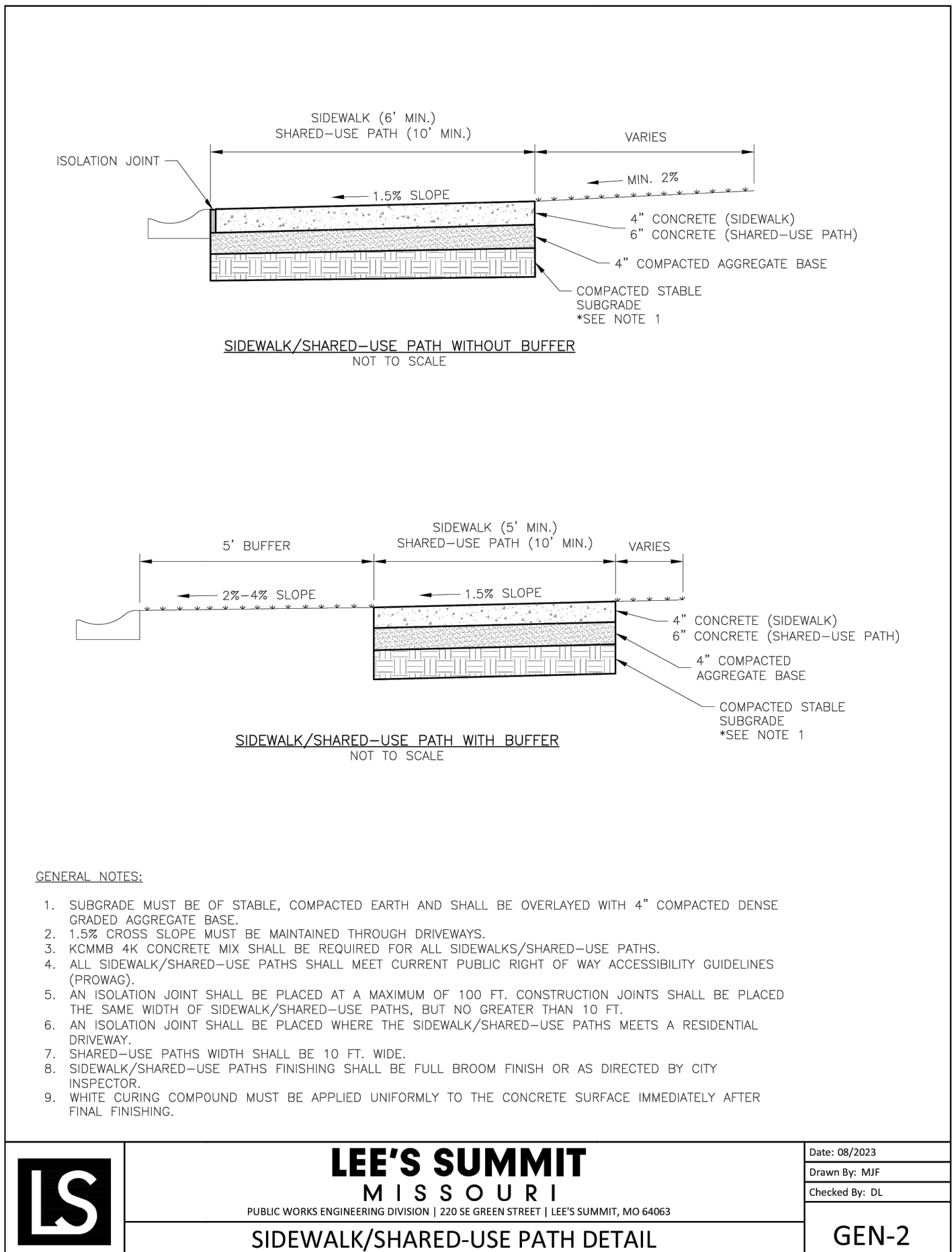
SHEET TITLE

ESC - PHASE III

SHEET NUMBER

C503

19 OF 25



200 NE ALURA WAY
LEE'S SUMMIT, MO 64086

LOT 9-1 - THE VILLAGE AT
DISCOVERY PARK
NW COLBERN RD & NE DOUGLAS ST

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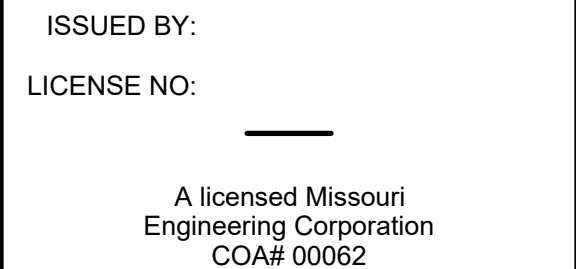
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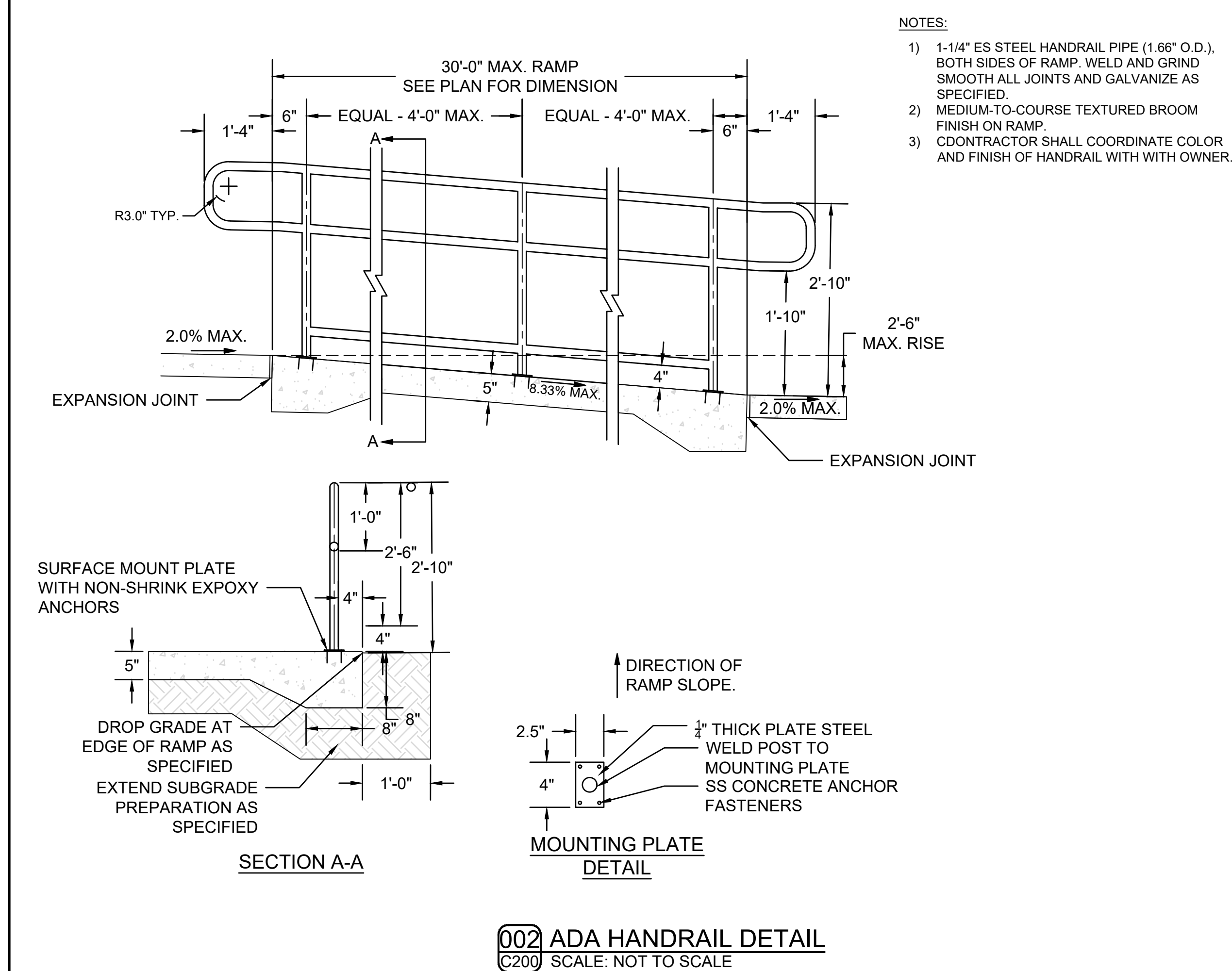
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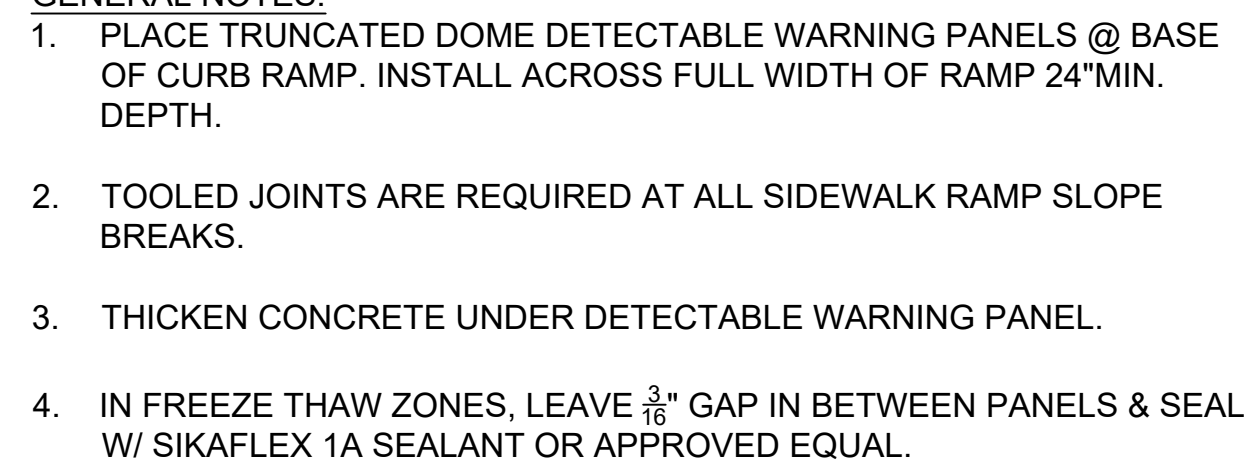
ISSUED DATE: 10/10/2024

FIELD BOOK:

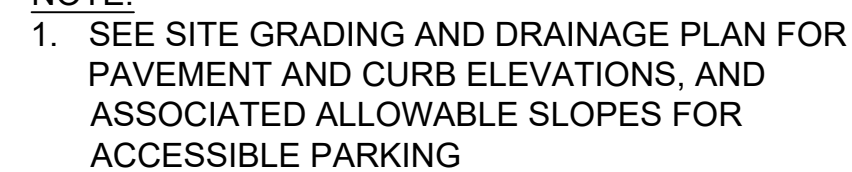
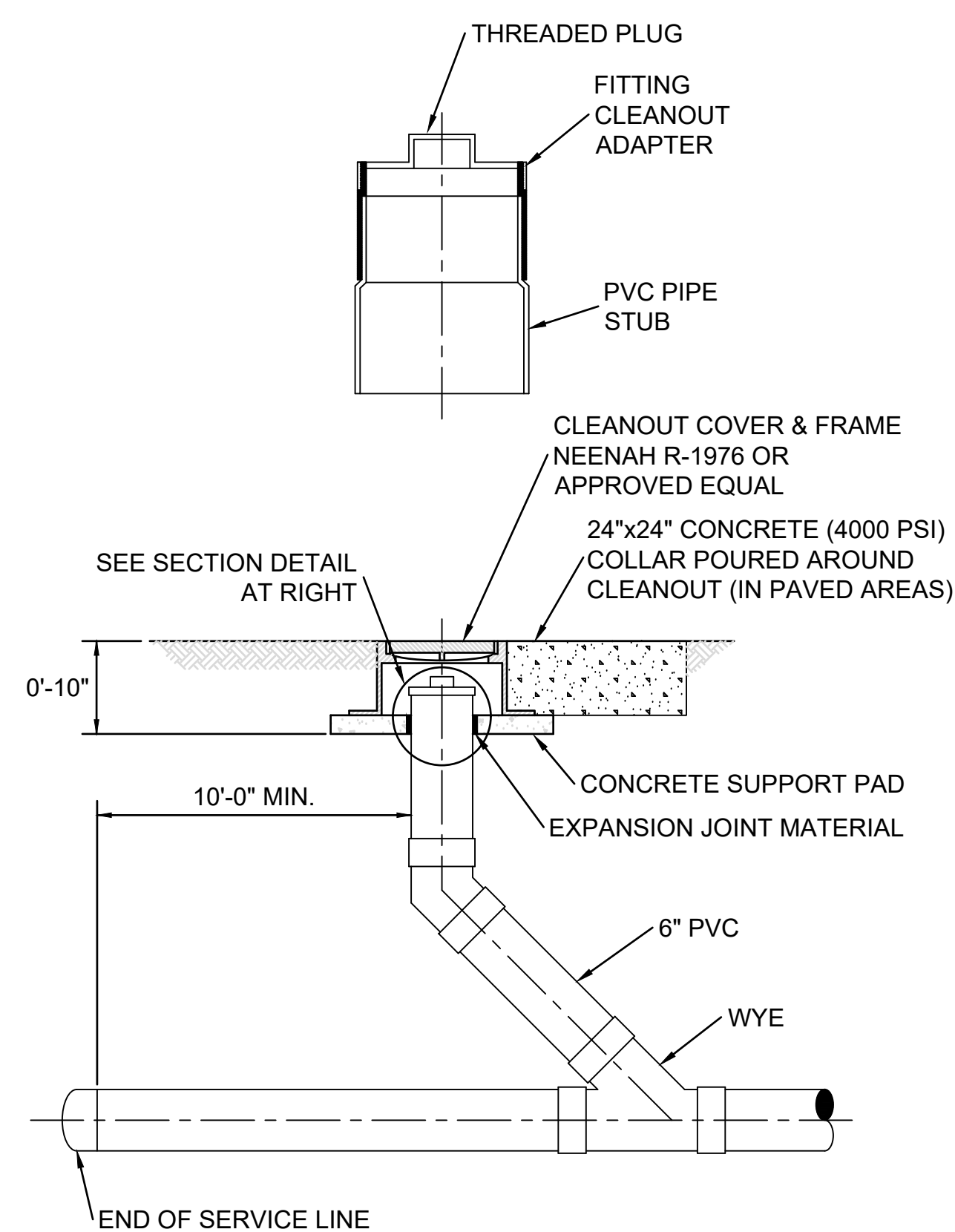


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- NOTES:**
1. SIDEWALK RAMP LOCATION DETERMINED FROM THE INTERSECTION OF THE EXTENSION OF BACK OF SIDEWALK AND BACK OF CURB & GUTTER.
 2. TIE BARS #4 EPOXY COATED @ 12"OC.
 3. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
 4. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 25' CENTERS MAX.
 5. SIDEWALK RAMP SHALL BE LENGTHENED TO PROVIDE ADA COMPLIANCE SLOPE BUT NEED NOT EXCEED 15'.
 6. ADA RAMP SLOPE MAX. = 1"/FT. ADA CROSS SLOPE MAX. = 2%.
 7. SEE DETECTABLE WARNING DETAIL FOR THE INSTALLATION REQUIREMENTS.



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