RAINTREE VILLAGE

SITE DISTURBANCE PLANS

1501 SW ARBORWALK BLVD.
LEE'S SUMMIT, MO

DISTURBED AREA = 12.85 AC

PROJECT CONTACTS

DEVELOPER:

SCENIC DEVELOMENT LLC
6731 W 121ST STREET STE 100
OVERLAND PARK, KS 66209
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EMAIL: Jordan.Anderson@Scenic-Dev.com

CIVIL ENGINEER:

OLSSON
1301 BURLINGTON, SUITE 100
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EMAIL: JSELLERS@OLSSON.COM

SURVEYOR:

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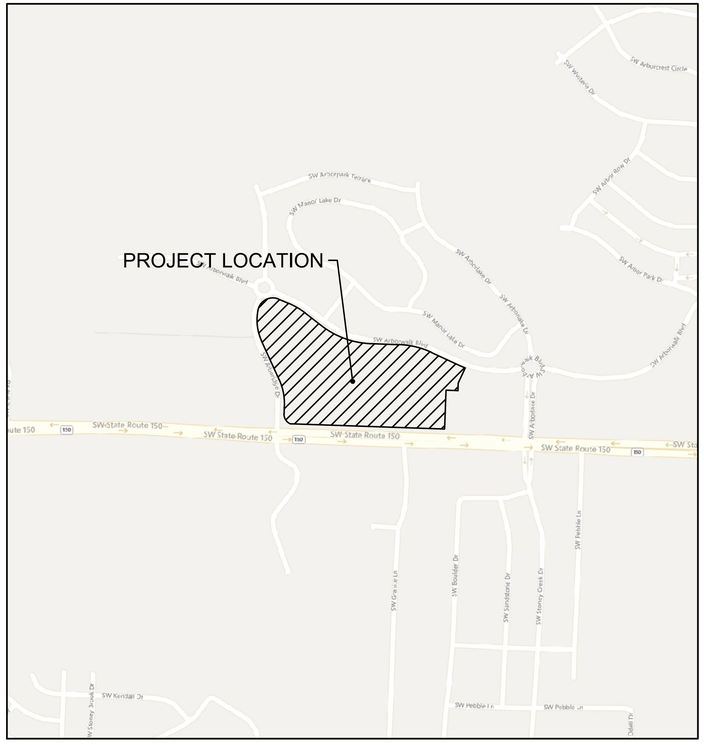

VICINITY MAP

PROPERTY DESCRIPTION:

A TRACT OF LAND IN THE SOUTHWEST AND SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI BEING BOUNDED AND DESCRIBED BY OR UNDER THE DIRECT SUPERVISION OF JASON S ROUDEBUSH, P.L.S. 2002014092 AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHWEST QUARTER, ALSO BEING THE SOUTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE SOUTH 87°53'43" EAST, 391.50 FEET TO THE SOUTHWEST CORNER OF AMENDED ARBORWALK – 6TH PLAT, LOTS 3001 THRU 3003 AND TRACT 6–A, A MINOR SUBDIVISION IN SAID LEE'S SUMMIT RECORDED JANUARY 6, 2006 AS INSTRUMENT NUMBER 200610002453 IN BOOK I91 AT PAGE 53 IN JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE NORTH 02°06'17" EAST, ON THE WESTERLY LINE OF SAID AMENDED ARBORWALK – 6TH PLAT, LOTS 3001 THRU 3003 AND TRACT 6–A, 70.00 FEET; THENCE NORTH 02°05'48" EAST, ON SAID WESTERLY LINE, 7.33 FEET TO A POINT ON THE EXISTING NORTHERLY RIGHT–OF–WAY LINE OF MISSOURI STATE HIGHWAY NO. 150, AS ESTABLISHED BY A MISSOURI STATE HIGHWAY NO. 150 SURVEY RECORDED ON JULY 9, 2009 AS INSTRUMENT NUMBER 2009E0068194 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE AND ALSO BEING THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE NORTH 88°02'15" WEST, ON SAID EXISTING NORTHERLY RIGHT–OF–WAY LINE, 864.32 FEET TO A POINT ON THE EXISTING EASTERLY RIGHT–OF–WAY LINE OF SW. ARBORIDGE DRIVE AS ESTABLISHED BY ARBORWALK 4TH PLAT, A–4 THRU K–4, RECORDED MAY 6, 2005 AS INSTRUMENT NUMBER 200510038320 IN BOOK I86 AT PAGE 73 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE NORTHWESTERLY ON SAID EXISTING EASTERLY RIGHT–OF–WAY LINE, ON A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 63°56'56" WEST WITH A RADIUS OF 60.00 FEET, A CENTRAL ANGLE OF 66°03'30" AND AN ARC DISTANCE OF 69.18 FEET; THENCE NORTH 02°06'35" EAST, ON SAID EXISTING EASTERLY RIGHT–OF–WAY LINE, 43.75 FEET; THENCE NORTHERLY, ON SAID EXISTING EASTERLY RIGHT–OF–WAY LINE, ON A CURVE TO THE LEFT BEING TANGENT TO THE LAST DESCRIBED COURSE WITH A RADIUS OF 325.00 FEET, A CENTRAL ANGLE OF 26°31'46" AND AN ARC DISTANCE OF 150.48 FEET; THENCE NORTH 24°25'11" WEST, ON SAID EXISTING EASTERLY RIGHT–OF–WAY LINE, 240.58 FEET; THENCE NORTHERLY, ON SAID EXISTING EASTERLY RIGHT–OF–WAY LINE ON A CURVE TO THE RIGHT BEING TANGENT TO THE LAST DESCRIBED COURSE WITH A RADIUS OF 275.00 FEET, A CENTRAL ANGLE OF 36°32'00" AND AN ARC DISTANCE OF 175.35 FEET; THENCE NORTHEASTERLY, ON SAID EXISTING EASTERLY RIGHT–OF–WAY LINE, ON A CURVE TO THE RIGHT HAVING A COMMON TANGENT WITH THE LAST DESCRIBED COURSE WITH A RADIUS OF 84.00 FEET, A CENTRAL ANGLE OF 100°32'29" AND AN ARC DISTANCE OF 147.40 FEET; TO A POINT ON THE EXISTING SOUTHERLY RIGHT–OF–WAY LINE OF SW. ARBORWALK BOULEVARD AS ESTABLISHED BY SAID ARBORWALK 4TH PLAT, A–4 THRU K–4; THENCE SOUTH 67°20'42" EAST, ON SAID EXISTING SOUTHERLY RIGHT–OF–WAY LINE, 59.12 FEET; THENCE SOUTHEASTERLY, ON SAID EXISTING SOUTHERLY RIGHT–OF–WAY LINE ON A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 67°20'44" EAST WITH A RADIUS OF 420.00 FEET, A CENTRAL ANGLE OF 15°11'39" AND AN ARC DISTANCE OF 111.38 FEET; THENCE SOUTH 52°09'04" EAST, ON SAID EXISTING SOUTHERLY RIGHT–OF–WAY LINE, 113.01 FEET; THENCE EASTERLY, ON SAID EXISTING SOUTHERLY RIGHT–OF–WAY LINE, ON A CURVE TO THE LEFT BEING TANGENT TO THE LAST DESCRIBED COURSE WITH A RADIUS OF 480.00 FEET, A CENTRAL ANGLE OF 35°42'22" AND AN ARC DISTANCE OF 299.13 FEET; THENCE SOUTH 87°51'25" EAST, ON SAID EXISTING SOUTHERLY RIGHT–OF–WAY LINE, 157.54 FEET; THENCE EASTERLY, ON SAID EXISTING SOUTHERLY RIGHT–OF–WAY LINE, ON A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 87°51'23" EAST WITH A RADIUS OF 470.00 FEET, A CENTRAL ANGLE OF 22°40'59" AND AN ARC DISTANCE OF 186.07 FEET; THENCE SOUTH 65°10'24" EAST, ON SAID EXISTING SOUTHERLY RIGHT–OF–WAY LINE, 183.16 FEET; THENCE SOUTHEASTERLY, ON SAID EXISTING SOUTHERY RIGHT–OF–WAY LINE, ON A CURVE TO THE LEFT BEING TANGENT TO THE LAST DESCRIBED COURSE WITH A RADIUS OF 530.03 FEET, A CENTRAL ANGLE OF 02°47'35" AND AN ARC DISTANCE OF 25.84 FEET TO THE NORTHWEST CORNER OF SAID AMENDED ARBORWALK – 6TH PLAT, LOTS 3001 THRU 3003 AND TRACT 6–A; THENCE ALONG A LINE NON–TANGENT TO SAID CURVE, SOUTH 24°49'36" WEST, ON SAID WESTERLY LINE OF SAID AMENDED ARBORWALK – 6TH PLAT, LOTS 3001 THRU 3003 AND TRACT 6–A; 92.90 FEET; THENCE SOUTH 02°05'48" WEST, ON SAID WESTERLY LINE, 41.91 FEET; THENCE NORTH 87°54'12" WEST, ON SAID WESTERLY LINE, 66.85 FEET; THENCE SOUTH 02°05'48" WEST, ON SAID WESTERLY LINE, 217.62 FEET TO THE POINT OF BEGINNING. CONTAINING 516,669 SQUARE FEET OR 11.86 ACRES, MORE OR LESS.

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SHEET LIST

NO.	TITLE
SD1.0	TITLE SHEET
SD1.1	GENERAL NOTES
SD1.2	SITE DISTURBANCE NOTES
SD2.0	EXISTING CONDITIONS & DEMOLITION PLAN
SD3.0	EROSION CONTROL PLAN - STAGE A
SD3.1	EROSION CONTROL PLAN - STAGE B
SD3.2	EROSION CONTROL PLAN - STAGE C & D
SD3.3	SITE DISTURBANCE DETAILS
SD4.0	DETAILS
SD4.1	DETAILS

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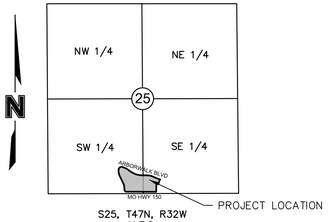
ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
SITE DISTURBANCE			
1	VEHICLE TRACKING CONTROL	EA.	1
2	SILT FENCE INLET PROTECTION	EA.	4
3	FILTER SOCK INLET PROTECTION	EA.	30
4	SILT FENCE	L.F.	2,600
5	EROSION CONTROL BLANKET	S.Y.	11,568
6	SEDIMENT TRAP	EA.	3
7	DIVERSION BERM	L.F.	1,462
8	CONCRETE WASHOUT	EA.	1



S25, T47N, R32W
N.T.S.

LOCATION MAP

olsson
Olsson - Civil Engineering
Missouri Certificate of Authority #
1301 Burlington Street
North Kansas City, MO 64116
TEL 816.361.1177
www.olsson.com

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
10/11/22
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	10.10.2022	CITY COMMENTS	CSM

TITLE SHEET

RAINTREE VILLAGE
SITE DISTURBANCE PLANS
LEE'S SUMMIT, MO

2022

drawn by: CSM
checked by: CSM
approved by: JS
QA/QC by: JS
project no.: A21-04054
drawing no.: C_TTL01_A2104054
date: 08.10.2022

SHEET
SD1.0

DWG: F:\2021\04001-04500\021-04054-01\40-design\AutoCAD\final plans\Sheets\GNCV\SITE DISTURBANCE PLANS\C_TTL01_A2104054.dwg USER: cmayo
DATE: Oct 10, 2022 12:26pm XREFS: C_PTBLK_A2104054 - Site Distubance Plans

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
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. ARCHITECTURAL AND STRUCTURAL ELEMENTS SHOWN IN THESE PLANS ARE FOR REFERENCE ONLY. CONTRACTORS AND SURVEYORS SHALL REFERENCE THEIR RESPECTIVE PLANS FOR DESIGN INFORMATION.
2. THE CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AS PROVIDED BY THE GEOTECHNICAL ENGINEER INCLUDING ALL CURRENT ADDENDUMS. THE STANDARDS AND SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI SHALL ALSO APPLY AND TAKE PRECEDENCE WHEN STRICTER THAN THE GEOTECHNICAL REPORT OR WHEN NO GEOTECHNICAL REPORT IS GIVEN.
3. 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 (MUTCD).
   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 AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
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. IN ADDITION TO THE CONDITIONS OF THE GEOTECHNICAL REPORT AND AS A MINIMUM THE CONTRACTOR SHALL PERFORM THE GRADING AS FOLLOWS:
   A. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE IN AREAS DESIGNATED BY THE OWNER. CONTRACTOR SHALL REMOVE EXCESS STRIPPINGS AND EXCESS EXCAVATION WITHIN 30 DAYS OF COMPLETION OF GRADING OPERATIONS.
   B. AREAS TO RECEIVE FILL AND AREAS CUT TO SUBGRADE LEVEL SHALL BE SCARIFIED AND THE TOP 8-INCH DEPTH COMPACTED TO 95% STANDARD PROCTOR DENSITY. THE SUBGRADE SHALL BE PROOF ROLLED WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.
   C. FILL SHALL BE PLACED IN MAXIMUM OF 8 INCH LIFTS.
   D. TOPSOIL SHALL BE PLACED TO A MINIMUM DEPTH OF 6 INCHES OVER ALL AREAS DISTURBED BY THE WORK. LARGE STONES, STICKS AND LUMPS SHALL BE REMOVED OR BROKEN UP, AND THE TOPSOIL SHALL BE LEVELED AND RAKED. ALL DISTURBED AREAS SHALL BE LANDSCAPED PER LANDSCAPE PLANS OR SHALL BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED.
   E. CONTRACTOR SHALL PROVIDE COMPACTION TEST RESULTS AS REQUIRED.
4. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIAL RESULTING FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
5. 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.
6. 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 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.
   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 STORM SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
   B. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
   C. ALL SITE FENCING AND RAILING INCLUDING ANY GATES.
   D. ALL LANDSCAPE AND RETAINING WALLS.
   E. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

SITE PLAN NOTES

1. ALL PAVEMENT DIMENSIONS ARE TO BACK OF CURB, OR EDGE OF PAVEMENT WHERE NO CURB IS PRESENT, UNLESS OTHERWISE NOTED. DIMENSIONED TIES BETWEEN PROPERTY LINES AND BUILDING FACES OR PAVEMENT ARE AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ANY ADJUSTMENTS NECESSARY FOR FOUNDATIONS, BEDDING EXTENSIONS, SURCHARGING, ETC.
2. INSTALLED PAVEMENT SHALL MATCH EXISTING PAVEMENT IN GRADE AND ALIGNMENT TO PROVIDE SMOOTH SURFACE TRANSITIONS. INSTALLED CURB & GUTTER SHALL MATCH EXISTING CURB & GUTTER IN SIZE AND TYPE OR CONTRACTOR SHALL INCLUDE A TRANSITION FROM NEW TO EXISTING OF NO LESS THAN 5' AS MEASURED ALONG BACK OF CURB.
3. ALL ASPHALT PAVING SHALL BE IN CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, ASPHALT PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MoDOT.
4. ALL PCC PAVING SHALL BE IN CONFORMANCE WITH LOCAL CODES AND ORDINANCES AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. WHERE NOT COVERED BY THE ABOVE, PCC PAVING SHALL BE IN CONFORMANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF MoDOT.
5. CONCRETE PAVEMENT JOINTS SHALL BE CONSTRUCTED AS FOLLOWS (REFER TO HARDSCAPE PLANS FOR SPECIFIC TREATMENT OF THESE AREAS):
   A. CONTROL JOINTS SPACED AS SHOWN IN THESE PLANS OR AT INTERVALS NOT GREATER THAN 1.5x PANEL WIDTH OR 12 FEET (WHICHEVER IS SMALLER).
   B. CONTROL JOINTS SHALL BE TOOLED OR SAWCUT TO ¼ THE SLAB THICKNESS. LOCAL STANDARDS AND SPECIFICATIONS SHALL TAKE PRECEDENCE WHERE MORE STRICT THAN THOSE LISTED HERE.
   C. CONSTRUCTION JOINTS PLACED AT THE END OF EACH POUR AND WHEN PAVING OPERATIONS ARE SUSPENDED FOR 30 MINUTES OR MORE.
   D. ISOLATION JOINTS PLACED WHERE THE PAVEMENT ABUTS THE BUILDING, DRAINAGE STRUCTURES AND OTHER FIXED STRUCTURES, CONSTRUCTED WITH A 1/2" NON-EXTRUDING 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.
   E. ALL EXPANSION JOINTS SHALL BE FILLED AND SEALED WITH A PLASTIC JOINT SEALANT MATERIAL.
6. ACCESSIBLE PARKING
   A. STALLS SHALL BE SIGNED WITH CITY/ADA APPROVED SIGN AND CONSTRUCTED IN STRICT ACCORDANCE WITH CITY/ADA CODES AND ORDINANCES.
   B. ACCESSIBLE PARKING STALLS 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.
   C. STALLS SHALL BE MARKED BY THE INTERNATIONAL HANDICAPPED SYMBOL AT INDICATED PARKING SPACES. USE A SUITABLE TEMPLATE THAT WILL PROVIDE A PAVEMENT MARKING WITH SHARP EDGES AND ENDS.
7. PAVEMENT MARKINGS SHALL NOT BE APPLIED UNTIL LAYOUT, COLORS AND PLACEMENT HAVE BEEN VERIFIED WITH THE ARCHITECT AND ENGINEER, THE INSTALLED PAVEMENT IS ALLOWED TO AGE AS RECOMMENDED BY THE MANUFACTURER (MINIMUM OF 24 HOURS), AND THE PAVEMENT SURFACE HAS BEEN SWEPT AND CLEANED.
8. PAVEMENT MARKINGS SHALL INCLUDE TRAFFIC LANES, PARKING BAYS, AREAS RESTRICTED TO HANDICAPPED PERSONS, CROSSWALKS, AND OTHER DETAIL PAVEMENT MARKINGS SHOWN IN THESE PLANS.
9. ALL PARKING LOT STRIPING SHALL BE SINGLE LINE 4" WIDE WHITE STRIPES UNLESS OTHERWISE INDICATED WITHIN THESE PLANS. ALL ROAD STRIPING SHALL BE AS INDICATED WITHIN THESE PLANS.
10. CURBS AT FIRE LANES AS DESIGNATIONS BY THE FIRE MARSHAL SHALL BE PAINTED OR OTHERWISE INDICATED PER CITY OF CITY CODES AND ORDINANCES.
11. PAINT FOR MARKING PAVEMENT SHALL CONFORM TO FEDERAL HIGHWAY MARKING STANDARDS (FHMS) AND CITY OF CITY CODES AND ORDINANCES. USE FLAT BLACK, WHITE, OR YELLOW AS DIRECTED WITHIN PLANS OR IN CONFORMANCE WITH THE FHMS. UNLESS OTHERWISE SPECIFIED USE LATEX, WATER-BASE EMULSION, READY-MIXED, COMPLYING WITH FS TT-P-1952 WITH DRYING TIME OF LESS THAN 45 MINUTES.
12. APPLY ALL MARKINGS USING APPROVED MECHANICAL EQUIPMENT (WITH PROVISIONS FOR CONSTANT AGITATION OF PAINT), CAPABLE OF APPLYING THE MARKING WIDTHS AS SHOWN AND A MINIMUM WET FILM THICKNESS OF 15 MILS. 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.

GRADING PLAN NOTES

1. THE CONTOUR LINES, SPOT ELEVATIONS AND BUILDING FLOOR ELEVATIONS SHOWN ARE TO FINISH GRADE, SURFACE OF PAVEMENT, TOP OF CURBS, ETC. REFER TO TYPICAL SECTIONS FOR PAVING, SLAB AND AGGREGATE BASE THICKNESS TO DEDUCT PAVEMENT DEPTH FROM ELEVATIONS SHOWN.
2. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL.
3. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND SIDEWALKS WHEN FINISH LANDSCAPE MATERIALS ARE IN PLACE.
4. SPOT ELEVATIONS ARE TO EDGE OF PAVEMENT, LIP OF CURB, OR FINISHED GRADE UNLESS OTHERWISE INDICATED. (SEE LEGEND)

STORM SEWER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH LEE'S SUMMIT, MISSOURI.
2. ALL PIPE LENGTHS AND ELEVATIONS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE BOX DURING INSTALLATION.
4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.
5. STORM 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.
6. STRUCTURE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ 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 STRUCTURE.
7. PIPE PENETRATIONS SHALL BE GROUTED TO ENSURE WATERTIGHT SEALS.

SANITARY SEWER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH LEE'S SUMMIT, MISSOURI.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
3. 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.
4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.
5. 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.
6. MANHOLE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO ½ 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.
7. PIPE PENETRATIONS SHALL BE USE GASKETS TO ENSURE WATERTIGHT SEALS.
8. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
9. 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.
10. 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.

WATER PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF FITTING OR WALL OF VAULT.
3. COORDINATES ARE PROVIDED ALONG PIPE CENTERLINE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING INSTALLATIONS.
4. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF WATER.
5. WATER PIPE 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.
6. ALL PRIVATE WATER LINES SHALL BE A MINIMUM OF 48 INCHES AND MAXIMUM OF 60 INCHES BELOW THE FINISHED GRADE ELEVATIONS SHOWN HEREIN UNLESS OTHERWISE NOTED.
7. IF AN AS-BUILT OF A WATER LINE IS REQUIRED OR EXPECTED THE CONTRACTOR SHALL NOT BACKFILL THE TRENCH UNTIL AN AS-BUILT SURVEY IS CONDUCTED.
8. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED AND PAID FOR BY THE CONTRACTOR AND AS REQUIRED BY THE UTILITY OWNER.
9. BALL EXISTING FIRE HYDRANTS ON SITE OR IN THE RIGHT-OF-WAY BETWEEN PROPERTY AND ROADWAY SHALL BE REPAINTED PER LOCAL CODES AND ORDINANCES.
10. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.

DEMOLITION PLAN NOTES

1. ALL NECESSARY DEMOLITION IS EXPECTED TO BE PERFORMED AS INDICATED IN THE SITE DISTURBANCE, MASS GRADING, AND PUBLIC IMPROVMENT PLANS. CONTRACTOR SHALL CONTACT ENGINEER AND OWNER PRIOR TO PERFORMING ANY ADDITIONAL DEMOLITION ACTIVITIES.
2. THE CONTRACTOR SHALL COORDINATE ALL ITEMS TO BE SALVAGED AND/OR PROTECTED WITH SITE OWNER AND UTILITY OWNERS.
3. THE CONTRACTOR SHALL NOT INTERRUPT ANY UTILITY SERVICES TO ANY ADJACENT PROPERTIES. SHOULD ANY INTERRUPTIONS BECOME NECESSARY, THE CONTRACTOR SHALL COORDINATE WITH THE ADJACENT PROPERTY AND UTILITY OWNER AND MINIMIZE THE LENGTH OF TIME THE UTILITY IS INTERRUPTED TO THE GREATEST EXTENT POSSIBLE.
4. SECONDARY WIRING, SERVICES, IRRIGATION AND OTHER MINOR SITE IMPROVEMENTS THAT ARE NOT TO REMAIN IN SERVICE ARE TO BE DEMOLISHED AND REMOVED.
5. ALL PAVEMENT SAWCUTS ARE TO BE MADE IN STRAIGHT, CLEAN LINES LEAVING A CLEAN AND STABLE EDGE AT FULL PAVEMENT DEPTH.
6. ALL PCC PAVEMENT AND ALL CURB SHALL BE REMOVED TO NEAREST JOINT.
7. ALL MATERIALS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN STRICT CONFORMANCE WITH LOCAL CODES AND ORDINANCES.
8. ALL TREE REMOVAL SHALL INCLUDE STUMPS AND ROOTS. DEPRESSIONS CREATED SHALL BE FILLED TO PROVIDE DRAINAGE.

DRY UTILITY PLAN NOTES

1. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH UTILITY OWNER.
2. ALL ON-SITE WIRING AND CABLES SHALL BE PLACED UNDERGROUND AND WITHIN CONDUIT UNLESS OTHERWISE SPECIFIED IN THESE PLANS. IF NOT SPECIFIED, ALL CONDUIT SHALL BE IN CONFORMANCE WITH UTILITY OWNER STANDARDS AND SPECIFICATIONS.
3. TELEPHONE AND COMMUNICATION SERVICE ROUTING AND CONDUITS, IF SHOWN AT ALL, ARE SUGGESTED ALIGNMENTS ONLY. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AS REQUIRED BY MEP AND RELATED PLANS AS WELL AS SERVICE PROVIDER PRIOR TO PAVEMENT INSTALLATION.
4. ALL CONDUIT SHALL BE SCHEDULE 40 PVC PIPE AND SIZED PER MEP PLANS OR AS NOTED. CONDUIT SHALL BE SUFFICIENTLY FLEXIBLE TO ALLOW IT TO CONFORM TO MINOR CHANGES IN TRENCH DIRECTION OR ELEVATION. ALL OTHER BENDS SHALL BE MADE USING PRE-FORMED SWEEPS.

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
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PROFESSIONAL ENGINEER

REVISIONS

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1	10.10.2022	CITY COMMENTS	CSM

GENERAL NOTES

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

drawn by: CSM
checked by: CSM
approved by: JS
QA/QC by: JS
project no.: A21-04054
drawing no.: C_TTL01_A2104054
date: 08.10.2022

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DATE: Oct 10, 2022 12:26pm
USER: cmayo
XREFS: C_PTBLK_A2104054 - Site Disturbance Plans

GENERAL NOTES:

1. THE INTENT OF THIS LAND DISTURBANCE PLAN IS TO ASSIST THE DEVELOPER IN HIS RESPONSIBILITY TO PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR NECESSARY TO CONTROL EROSION, SILTATION AND DISCHARGES OF SOIL MATERIAL (SEDIMENT) INTO DOWNSTREAM SYSTEMS OR RECEIVING CHANNELS. THIS SHALL BE REQUIRED DURING ALL PHASES OF CONSTRUCTION AND UNTIL SUITABLE GROUND COVER IS ESTABLISHED FOR ALL DISTURBED AREAS. IF ANY METHOD OF CONTROL FAILS, THE DEVELOPER SHALL NOTIFY THE OWNER IMMEDIATELY, SO THAT THE OWNER OR HIS AGENT CAN REVIEW THE DEVELOPER'S PROPOSED METHOD OF REPAIR.

THIS PLAN INDICATES THE CRITICAL AREA(S) OF CONCERN AND THESE AREA(S) WILL BE CONTROLLED AS A MINIMUM. THE CONTROL MAY CONSIST OF TEMPORARY CONTROL MEASURES AS SHOWN ON THE PLANS OR ORDERED BY THE OWNER DURING THE LIFE OF THE CONTRACT TO CONTROL EROSION OR WATER POLLUTION, THROUGH THE USE OF BERMS, DIKES, DAMS, SEDIMENT BASINS, FIBER MATS, NETTING, STRAW BALES, GRAVEL, MULCHES, GRASSES, SLOPE DRAINS, DIVERSION SWALES OR OTHER EROSION CONTROL DEVICES OR METHODS. THE OWNER HAS THE AUTHORITY TO LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY THE CONSTRUCTION OPERATIONS AND TO DIRECT THE DEVELOPER TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, OR OTHER AREAS OF WATER IMPOUNDMENT OR CONVEYANCES.

THE TEMPORARY POLLUTION CONTROL PROVISIONS CONTAINED HEREIN SHALL BE COORDINATED WITH ANY PERMANENT EROSION CONTROL FEATURES SPECIFIED ELSEWHERE IN THE CONTRACT TO THE EXTENT PRACTICAL TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION CONTROL THROUGHOUT THE CONSTRUCTION AND POST CONSTRUCTION PERIOD.

2. THIS SEDIMENTATION CONTROL PLAN MAKES USE OF THE FOLLOWING APPLICATIONS:
___PRESERVATION OF EXISTING VEGETATION
_X_SEDIMENT BARRIERS
_X_SEDIMENT TRAPS
_X_INLET PROTECTION
___OUTLET PROTECTION
___SOIL RETAINING SYSTEMS
___SLOPE DRAINS
___SUBSURFACE DRAINS

PHYSICAL DESCRIPTION OF EACH SPECIFIC SEDIMENT CONTROL DEVICE TO BE UTILIZED IS CALLED OUT ON THE PLANS WITH INSTALLATION PROCEDURES, CONSTRUCTION SPECIFICATIONS AND MAINTENANCE ARRANGEMENT AS CALLED FOR ON THE DETAIL SHEET. IN ADDITION TO THE MEASURES SPECIFIED, THE FOLLOWING GENERAL PRACTICES SHALL BE ADHERED TO WHEN APPLICABLE.

A) CLEARING AND GRUBBING WITHIN 50' OF A DEFINED DRAINAGE COURSE SHOULD BE AVOIDED WHEN POSSIBLE. WHERE CHANGES TO A DEFINED DRAINAGE COURSE OCCUR, WORK SHOULD BE DELAYED UNTIL ALL MATERIALS AND EQUIPMENT NECESSARY TO PROTECT AND COMPLETE THE DRAINAGE CHANGE ARE ON SITE. CHANGES SHALL BE COMPLETED AS QUICKLY AS POSSIBLE ONCE THE WORK HAS BEEN INITIATED. THE AREA IMPACTED BY THE CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED OR PROTECTED FROM EROSION AS SOON AS POSSIBLE. AREAS WITHIN 50' OF A DEFINED DRAINAGE WAYS SHOULD BE RECONTOURED AS NEEDED OR OTHERWISE PROTECTED WITHIN FIVE (5) WORKING DAYS AFTER GRADING HAS CEASED.

B) WHERE SOIL DISTURBING ACTIVITIES CEASE IN AN AREA FOR MORE THAN 14 DAYS, THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES. IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH, THEN THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES IF ACTIVITIES CEASE FOR MORE THAN SEVEN (7) DAYS.

C) EXISTING VEGETATION SHALL BE PRESERVED TO THE EXTENT AND WHERE PRACTICAL. IN NO CASE SHALL DISTURBED AREAS REMAIN WITHOUT VEGETATIVE GROUND COVER FOR A PERIOD IN EXCESS OF 60 DAYS.

D) ADDITIONAL SITE MANAGEMENT PRACTICES WHICH SHALL BE ADHERED TO DURING THE CONSTRUCTION PROCESS SHALL INCLUDE:

SOLID AND HAZARDOUS WASTE MANAGEMENT INCLUDING PROVIDING TRASH CONTAINERS AND REGULAR SITE CLEAN UP FOR PROPER DISPOSAL OF SOLID WASTE SUCH AS BUILDING MATERIAL, PRODUCT/MATERIAL SHIPPING WASTE, FOOD CONTAINERS AND CUPS, AND PROVIDING CONTAINERS FOR THE PROPER DISPOSAL OF WASTE PAINTS SOLVENTS, AND CLEANING COMPOUNDS.

PROVISIONS OF PORTABLE TOILETS FOR PROPER DISPOSAL OF SANITARY SEWAGE.

STORAGE OF CONSTRUCTION MATERIALS AWAY FROM DRAINAGE COURSES AND LOW AREAS.

INSTALLATION OF CONTAINMENT BERMS AND USE OF DRIP PANS AT PETROLEUM PRODUCT AND LIQUID STORAGE TANKS AND CONTAINERS.

3. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED, OR SODDED, IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY AND GOOD ENGINEERING PRACTICES. THIS SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER COMPLETING THE WORK, IN ANY AREA. IF THIS IS OUTSIDE OF THE SEEDING PERIOD, SILT BARRIERS OR OTHER SIMILARLY EFFECTIVE MEASURES SHALL BE PROVIDED UNTIL SUCH TIME THAT THE AREAS CAN BE SEEDED.

4. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL CURRENT STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY. THE DEVELOPER WILL BE RESPONSIBLE FOR DETERMINING ALL ADDITIONAL STANDARDS, SPECIFICATIONS OR REQUIREMENTS WHICH ARE REQUIRED BY GOVERNING AGENCIES (INCLUDING LOCAL, STATE AND FEDERAL AUTHORITIES) HAVING JURISDICTION OVER THE WORK PROPOSED BY THESE CONSTRUCTION DRAWINGS.

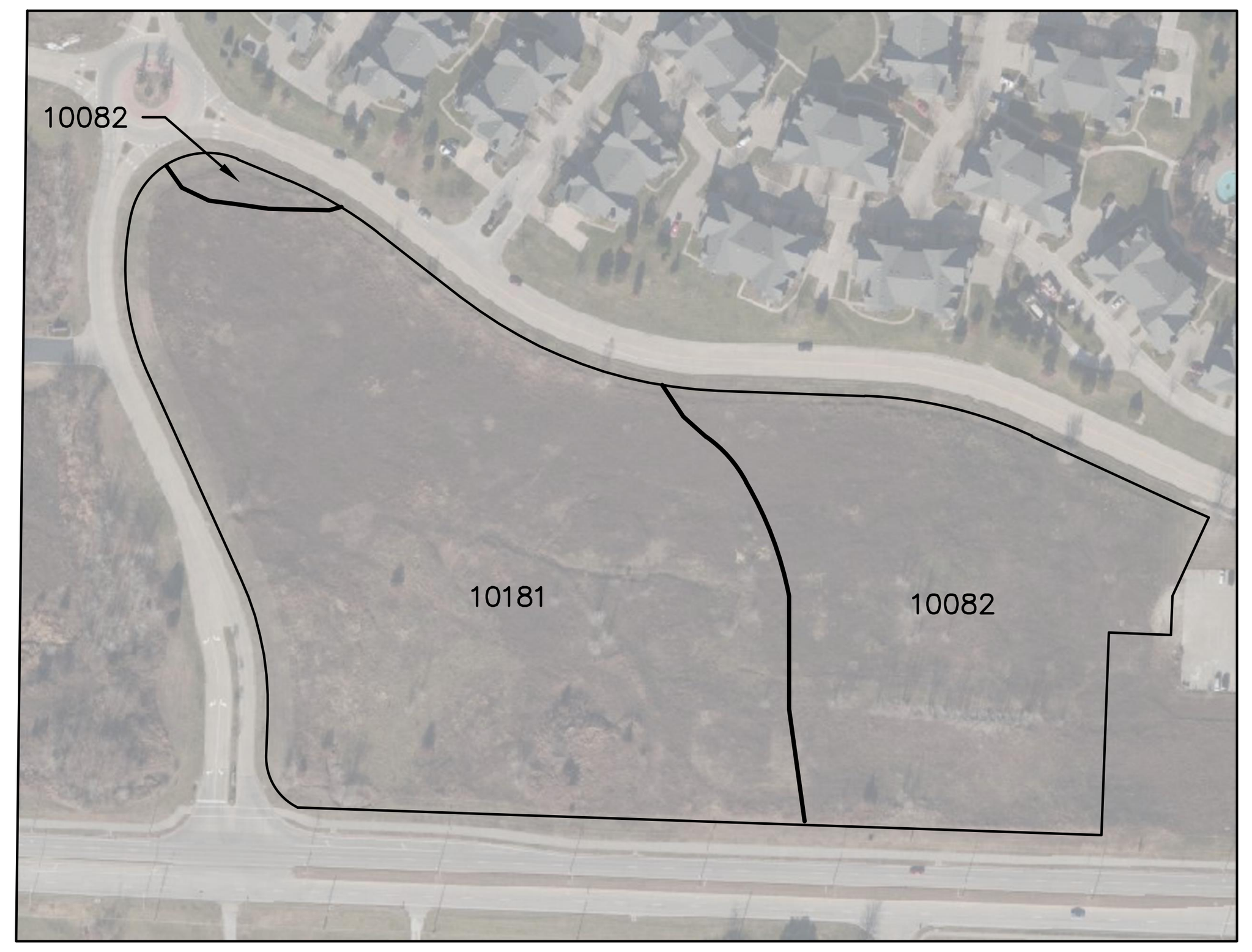
5. ALL EROSION CONTROL MEASURES, TEMPORARY OR PERMANENT, REQUIRE MAINTENANCE TO PRESERVE THEIR EFFECTIVENESS. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED IMMEDIATELY AFTER EACH HEAVY RAINSTORM AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. ALL COSTS ASSOCIATED WITH THE REPAIR WORK INCLUDING RELATED INCIDENTALS WILL BE THE DEVELOPER'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE DEVELOPER'S BID FOR THE PROPOSED WORK.

6. ALL EROSION CONTROL MEASURES TO BE PER KANSAS CITY, MISSOURI STANDARD DETAILS.

7. THE DEVELOPER MUST REMOVE AT HIS COST ANY BAD SUBSURFACE SOIL WHICH WOULD NOT BE ABLE TO SUPPORT ANY PROPOSED PUBLIC IMPROVEMENT. BACKFILL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTIONS 2100 AND 2201 ENTITLED "GRADING AND SITE PREPARATION" AND "SUBGRADE PREPARATION".

8. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTORS 48 HOURS PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

9. TREE CLEARING TO HAPPEN BETWEEN NOVEMBER 1 AND MARCH 31. TREES CLEARED BETWEEN APRIL 1 AND OCTOBER 31 MUST BE TREES GREATER THAN 1,000 FEET FROM FORESTED OR WOODED AREAS OR TREES LESS THAN 3 INCHES IN DIAMETER, AT BREAST HEIGHT, AND NOT MIXED WITH LARDER TREES. IF LARGER TREES NEED TO BE CLEARED, A SURVEY OF THE TREES MUST BE CONDUCTED TO MAKE SURE THERE ARE NO BAT ROOSTS IN THE TREES. TREE CLEARING TO BE CONDUCTED BY CUTTING DOWN AND MULCHING OR BY PUSHING OVER AND MULCHING. TREES SHALL NOT BE BURNED DOWN.



SOIL CLASSIFICATION FROM SOIL MAPS PUBLISHED IN THE SOIL SURVEYS OF CLAY AND RAY COUNTIES, MISSOURI, CATEGORIZE SOIL IN THIS WATERSHED AS:

HYDROLOGIC SOIL GROUP – D URBAN LAND COMPLEX	SYMBOL – 10082 1 TO 5% SLOPES
HYDROLOGIC SOIL GROUP – D URBAN LAND-SAMPSEL COMPLEX	SYMBOL – 10181 5 TO 19% SLOPES

OPINION OF PROBABLE CONSTRUCTION SCHEDULE

CONSTRUCTION ACTIVITY	MONTH											
	1	2	3	4	5	6	7	8	9	10	11	12
ALL EXISTING EROSION CONTROL MEASURES LEFT IN PLACE AFTER MASS GRADING HAS BEEN COMPLETED SHALL REMAIN IN PLACE AND MAINTAINED PER SWPPP.												
PRIVATE UTILITY CONSTRUCTION												
BUILDING CONSTRUCTION												
PAVING & CURBS												
PUBLIC ROW IMPROVEMENTS												
SEEDING & MULCHING												
ESTABLISH VEGETATION (TO OCCUR MARCH/APRIL OR SEPTEMBER/OCTOBER PER CODE OF ORDINANCE SEC 63-31												

NOTE:
THIS SCHEDULE DOES NOT ADDRESS WEATHER DELAYS OR THE SEEDING SEASON. SCHEDULE IS PRELIMINARY FOR DESIGN USE ONLY AND MAY NEED MODIFIED DUE TO CONSTRUCTION AND CONTRACTOR AVAILABILITY. SCHEDULE MAY FLUCTUATE DUE TO MARKET DEMAND AND AS DETERMINED BY THE DEVELOPER AND IS TO BE USED AS A GUIDELINE ONLY. SEEDING IS NOT TO OCCUR DURING THE WINTER MONTHS. IF STABILIZATION IS TO OCCUR DURING THIS TIME, EROSION CONTROL MAT IS TO BE IN PLACE TO STABLIZE DISTURBED AREA.

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STATE OF MISSOURI
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10/11/22
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	10.10.2022	CITY COMMENTS	CSM

SITE DISTURBANCE NOTES

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

drawn by: CSM
checked by: CSM
approved by: JS
QA/QC by: JS
project no.: A21-04054
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date: 08.10.2022

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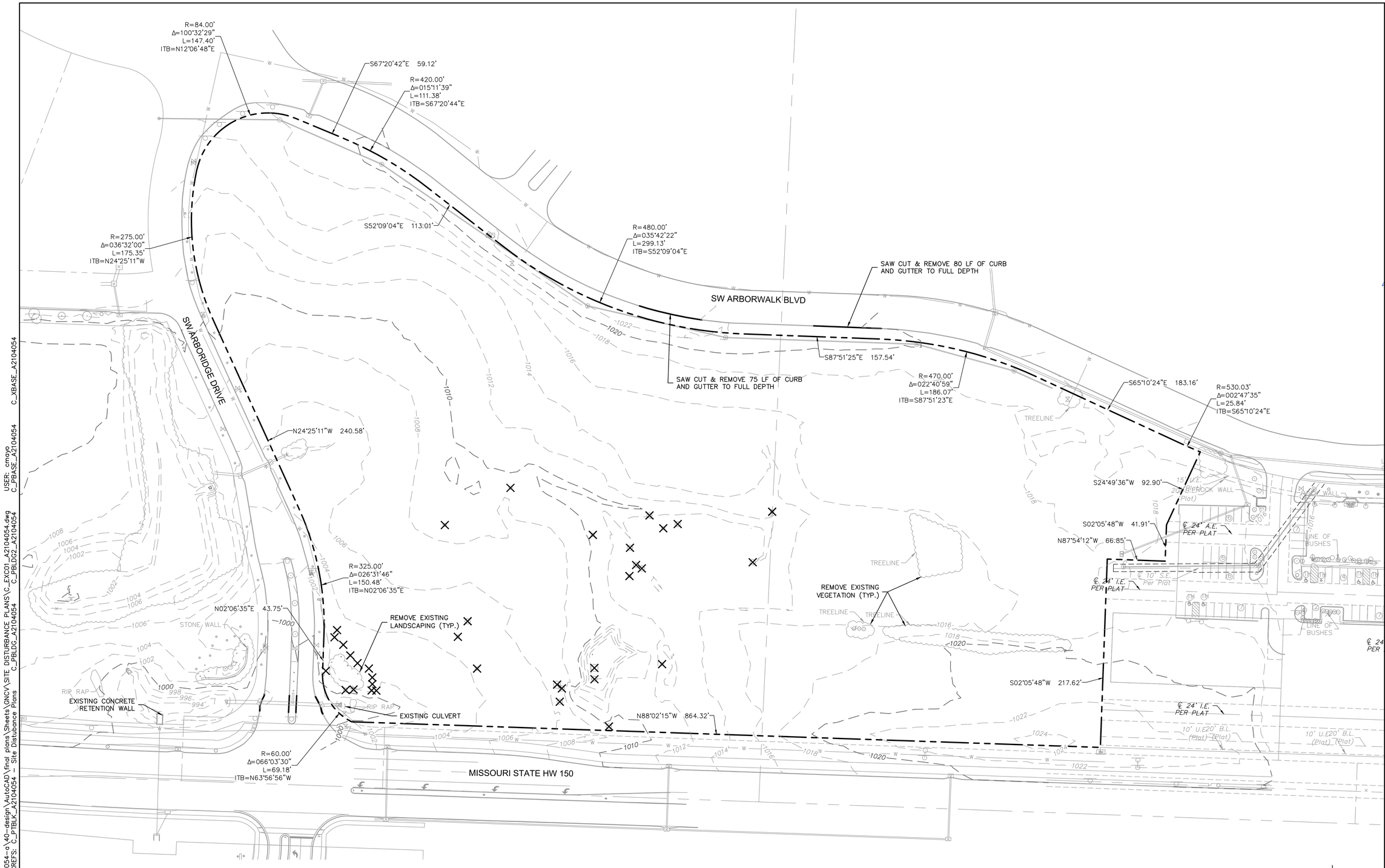

EXISTING LEGEND

- SURVEY CONTROL POINT
- SURVEY BENCHMARK
- CABLE BOX
- TELEPHONE BOX
- ELECTRIC BOX
- ELECTRICAL POLE
- SIGN
- STORM MANHOLE
- STORM INTAKE
- SANITARY MANHOLE
- PROPERTY BOUNDARY
- 1370 EXISTING CONTOUR
- 1371 EXISTING CONTOUR
- SS EXISTING SANITARY LINE
- SD EXISTING STORM LINE
- W EXISTING WATER LINE
- REMOVE CURB AND GUTTER TO FULL DEPTH
- REMOVE EXISTING TREE/SHRUB

N

0' 25' 50' 100'
SCALE IN FEET

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EXISTING CONDITIONS & DEMOLITION PLAN

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

2022

LEE'S SUMMIT, MO

drawn by: CSM
checked by: CSM
approved by: JS
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USER: cmoyo C_XBASE_A2104054

EROSION CONTROL PLAN LEGEND

- EXISTING GRADE INDEX CONTOUR
- EXISTING GRADE MINOR CONTOUR
- FINISHED GRADE INDEX CONTOUR
- FINISHED GRADE MINOR CONTOUR
- CONSTRUCTION ENTRANCE SEE NOTE
- CONCRETE WASHOUT SEE NOTE
- SILT FENCE
- FILTER SOCK CURB INLET PROTECTION

EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRE–DEMOLITION	A1	CONSTRUCTION ENTRANCE	D	INSTALL PER APWA DETAIL ESC–01. REMOVE DURING STAGE C AS REQUIRED FOR PAVEMENT INSTALLATION.
	A2	CONCRETE WASHOUT	D	INSTALL PER APWA DETAIL ESC–01. REMOVE DURING STAGE C AS REQUIRED FOR PAVEMENT INSTALLATION.
	A3	SILT FENCE	D	INSTALL PER APWA DETAIL ESC–03
	A4	FILTER SOCK CURB INLET PROTECTION	D	INSTALL AT ALL EXISTING INLETS WHERE INDICATED. INSTALL PER APWA DETAIL ESC–06
B – INTERIM	B1	SEDIMENT TRAP	D	INSTALL PER APWA DETAIL ESC–08. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
	B2	DIVERSION BERM	D	INSTALL PER APWA DETAIL ESC–05. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
	B3	ROCK DITCH CHECKS	D	INSTALL PER APWA DETAIL ESC–10. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
C– CONSTRUCTION	C1	SILT FENCE INLET PROTECTION	D	INSTALL PER APWA DETAIL ESC–07
	C2	FILTER SOCK CURB INLET PROTECTION	D	INSTALL AS SOON AS PROPOSED INLETS ARE INSTALLED. INSTALL PER APWA DETAIL ESC–06
	C3	EROSION CONTROL BLANKET	D	INSTALL PER APWA DETAIL ESC–02
D– FINISH GRADING	N/A	SEED, SOD, INSTALL LANDSCAPE, OR TEMPORARILY STABILIZE SITE		SEED, SOD, AND LANDSCAPING SHALL BE INSTALLED PER LANDSCAPE PLANS. ALL OTHER DISTURBED AREAS MUST BE TEMPORARILY STABILIZED IN CONFORMANCE WITH APWA SEPCIFICATION 2400.

1

SW ARBORWALK BLVD

SW ARBORIDGE DRIVE

MISSOURI STATE HW 150

RIP RAP

TREELINE

LOD

N

0' 25' 50' 100'
SCALE IN FEET

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EROSION CONTROL PLAN - STAGE A

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

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EROSION CONTROL PLAN LEGEND

- EXISTING GRADE INDEX CONTOUR
- EXISTING GRADE MINOR CONTOUR
- FINISHED GRADE INDEX CONTOUR
- FINISHED GRADE MINOR CONTOUR
- CONSTRUCTION ENTRANCE SEE NOTE
- CONCRETE WASHOUT SEE NOTE
- SILT FENCE
- DIVERSION BERM
- SWALE
- SEDIMENT TRAP BOUNDARY
- DRAINAGE AREA
- FILTER SOCK CURB INLET PROTECTION

NOTE:
SEDIMENT TRAP MUST BE FULLY INSTALLED PRIOR TO ANY SITE DISTURBANCE WITHIN THE TRIBUTARY AREA.

1

EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
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	A3	SILT FENCE	D	INSTALL PER APWA DETAIL ESC–03
	A4	FILTER SOCK CURB INLET PROTECTION	D	INSTALL AT ALL EXISTING INLETS WHERE INDICATED. INSTALL PER APWA DETAIL ESC–06
B – INTERIM	B1	SEDIMENT TRAP	D	INSTALL PER APWA DETAIL ESC–08. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
	B2	DIVERSION BERM	D	INSTALL PER APWA DETAIL ESC–05. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
	B3	ROCK DITCH CHECKS	D	INSTALL PER APWA DETAIL ESC–10. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION 1
C– CONSTRUCTION	C1	SILT FENCE INLET PROTECTION	D	INSTALL PER APWA DETAIL ESC–07
	C2	FILTER SOCK CURB INLET PROTECTION	D	INSTALL AS SOON AS PROPOSED INLETS ARE INSTALLED. INSTALL PER APWA DETAIL ESC–06
	C3	EROSION CONTROL BLANKET	D	INSTALL PER APWA DETAIL ESC–09
D– FINISH GRADING	N/A	SEED, SOD, INSTALL LANDSCAPE, OR TEMPORARILY STABILIZE SITE		SEED, SOD, AND LANDSCAPING SHALL BE INSTALLED PER LANDSCAPE PLANS. ALL OTHER DISTURBED AREAS MUST BE TEMPORARILY STABILIZED IN CONFORMANCE WITH APWA SECTION 2400. 1

SW ARBORWALK BLVD

SW ARBORIDGE DRIVE

MISSOURI STATE HW 150

4.98 AC TO SEDIMENT TRAP 1

SEDIMENT TRAP 1, REF SHEET SD3.3

2.29 AC TO SEDIMENT TRAP 2

SEDIMENT TRAP 2, REF SHEET SD3.3

4.56 AC TO SEDIMENT TRAP 3

SEDIMENT TRAP 3, REF SHEET SD3.3

RIP RAP

PRIOR TO INSTALLATION OF SEDIMENT TRAP #1 REMOVE EXISTING RIP RAP AND TEMPORARILY CAP EXISTING STORM PIPE 1

N

0' 25' 50' 100'
SCALE IN FEET

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
10/11/22
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	10.10.2022	CITY COMMENTS	CSM

REVISIONS

EROSION CONTROL PLAN - STAGE B

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

drawn by:	CSM
checked by:	CSM
approved by:	JS
QA/QC by:	JS
project no.:	A21-04054
drawing no.:	C_ERC02_A2104054
date:	08.10.2022

SHEET
SD3.1

DWG: F:\2021\04001-04500\021-04054-a\40-design\AutoCAD\final plans\Sheets\GNCV\SITE DISTURBANCE PLANS\C_ERC02_A2104054.dwg
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USER: cmoyo
C_PTBLK_A2104054 – Site Disubance Plans

EROSION CONTROL PLAN LEGEND

- EXISTING GRADE INDEX CONTOUR
- EXISTING GRADE MINOR CONTOUR
- FINISHED GRADE INDEX CONTOUR
- FINISHED GRADE MINOR CONTOUR
- CONSTRUCTION ENTRANCE SEE NOTE
- CONCRETE WASHOUT SEE NOTE
- EROSION CONTROL BLANKET SEE NOTE
- SILT FENCE
- DIVERSION BERM
- SWALE
- SEDIMENT TRAP BOUNDARY
- SILT FENCE INLET PROTECTION
- FILTER SOCK CURB INLET PROTECTION
- ROCK DITCH CHECK

EROSION CONTROL PHASING CHART

PROJECT PHASE	BMP NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRE–DEMOLITION	A1	CONSTRUCTION ENTRANCE	D	INSTALL PER APWA DETAIL ESC–01. REMOVE DURING STAGE C AS REQUIRED FOR PAVEMENT INSTALLATION.
	A2	CONCRETE WASHOUT	D	INSTALL PER APWA DETAIL ESC–01. REMOVE DURING STAGE C AS REQUIRED FOR PAVEMENT INSTALLATION.
	A3	SILT FENCE	D	INSTALL PER APWA DETAIL ESC–03
	A4	FILTER SOCK CURB INLET PROTECTION	D	INSTALL AT ALL EXISTING INLETS WHERE INDICATED. INSTALL PER APWA DETAIL ESC–06
B – INTERIM	B1	SEDIMENT TRAP	D	INSTALL PER APWA DETAIL ESC–08. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
	B2	DIVERSION BERM	D	INSTALL PER APWA DETAIL ESC–05. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
	B3	ROCK DITCH CHECKS	D	INSTALL PER APWA DETAIL ESC–10. REMOVE DURING STAGE C AS REQUIRED FOR CONSTRUCTION
C– CONSTRUCTION	C1	SILT FENCE INLET PROTECTION	D	INSTALL PER APWA DETAIL ESC–07
	C2	FILTER SOCK CURB INLET PROTECTION	D	INSTALL AS SOON AS PROPOSED INLETS ARE INSTALLED. INSTALL PER APWA DETAIL ESC–06
	C3	EROSION CONTROL BLANKET	D	INSTALL PER APWA DETAIL ESC–02
D– FINISH GRADING	N/A	SEED, SOD, INSTALL LANDSCAPE, OR TEMPORARILY STABILIZE SITE		SEED, SOD, AND LANDSCAPING SHALL BE INSTALLED PER LANDSCAPE PLANS. ALL OTHER DISTURBED AREAS MUST BE TEMPORARILY STABILIZED IN CONFORMANCE WITH APWA SECTION 2400.

SW ARBORWALK BLVD

SW ARBORIDGE DRIVE

MISSOURI STATE HW 150

TREELINE

SCALE IN FEET: 0' 30' 60' 120'

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
10/11/22
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	10.10.2022	CITY COMMENTS	CSM

REVISIONS

EROSION CONTROL PLAN - STAGE C & D

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

drawn by: CSM
checked by: CSM
approved by: JS
QA/QC by: JS
project no.: A21-04054
drawing no.: C_ERC03_A2104054
date: 08.10.2022

SHEET
SD3.2

DWG: F:\2021\04001-04500\021-04054-a\40-design\AutoCAD\final plans\Sheets\GNCV\SITE DISTURBANCE PLANS\C_ERC03_A2104054.dwg
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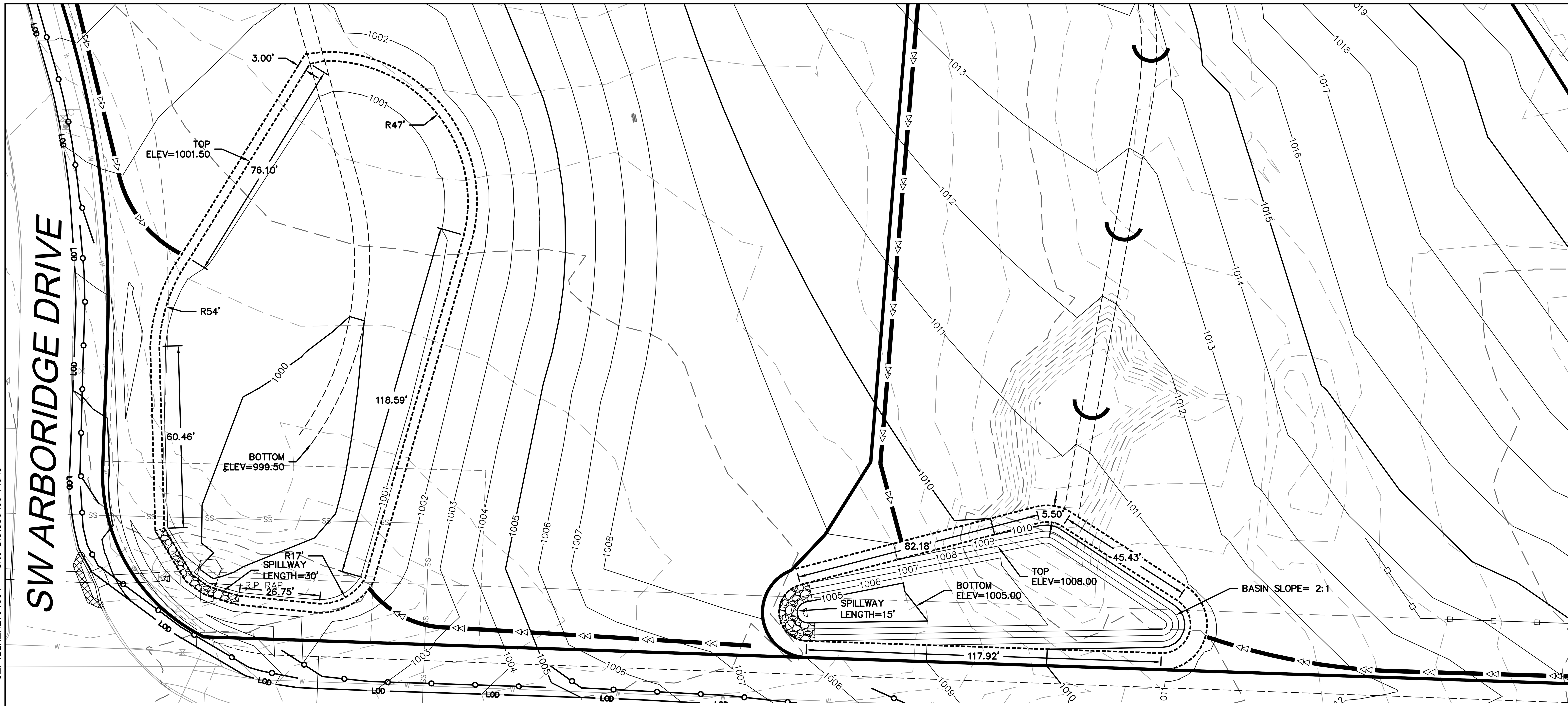
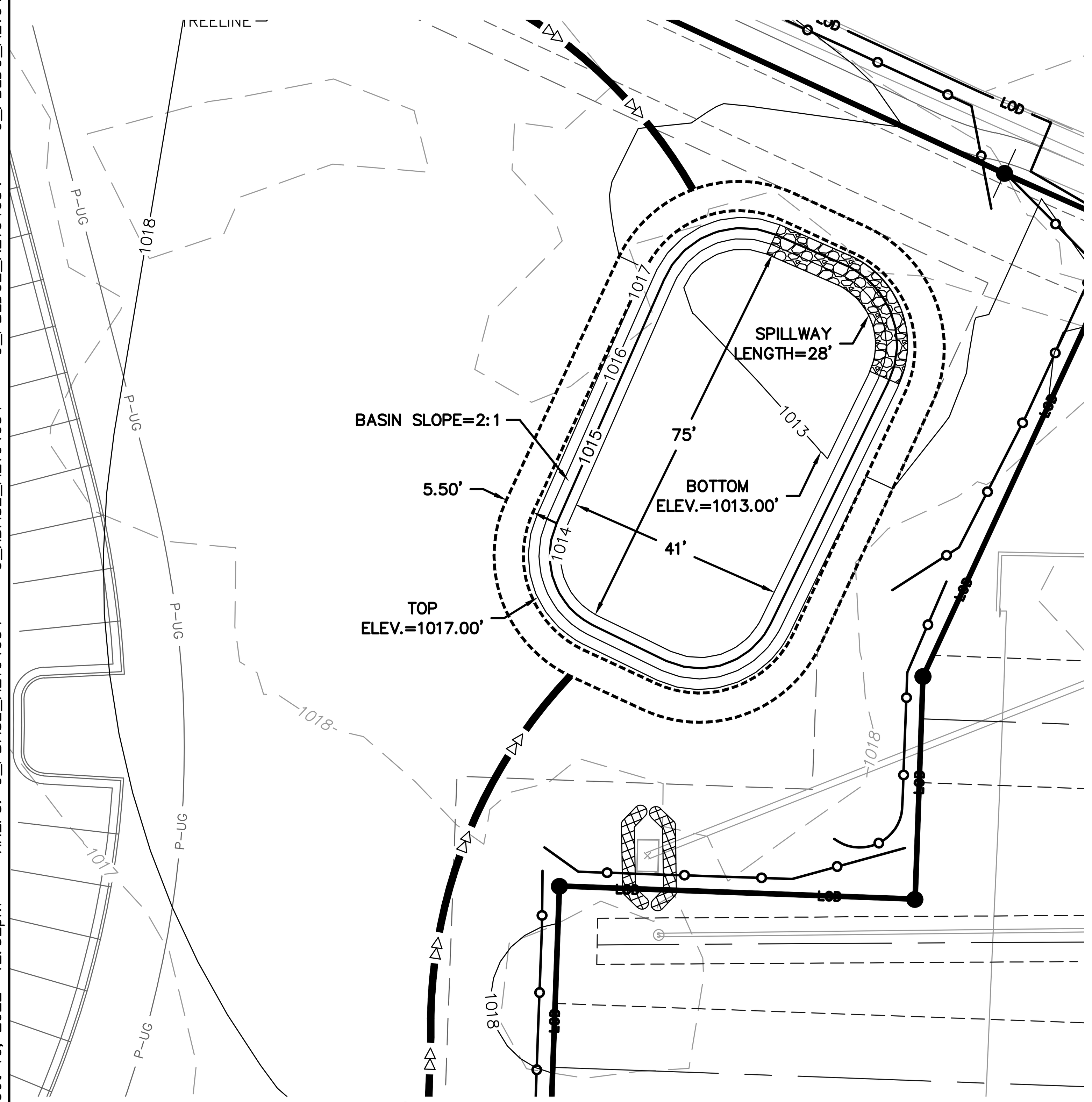
USER: cmoyo
C_PTBLK_A2104054 – Site Disturbance Plans



SEDIMENT TRAPS 1 & 2
SCALE: 1"=20'



SEDIMENT TRAP 3
SCALE: 1"=20'

EROSION CONTROL PLAN LEGEND

- EXISTING GRADE INDEX CONTOUR
- EXISTING GRADE MINOR CONTOUR
- FINISHED GRADE INDEX CONTOUR
- FINISHED GRADE MINOR CONTOUR
- SILT FENCE
- DIVERSION BERM
- SWALE
- SEDIMENT TRAP BOUNDARY
- DRAINAGE AREA
- FILTER SOCK CURB INLET PROTECTION

NOTES

1. THE SITE DISTURBANCE PLANS INDICATE THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.
2. ALL EROSION CONTROL DEVICES SHALL BE INSTALLED PER THE AMERICAN PUBLIC WORKS ASSOCIATION, KANSAS CITY METRO CHAPTER DIVISION III STANDARD DRAWINGS, EROSION AND SEDIMENT CONTROL, 2016 VERSION.

Q	TRIBUTARY AREA	REQUIRED VOLUME	BERM HEIGHT "H"	SPILLWAY HEIGHT "H_O"	PROVIDED STORAGE VOLUME	BERM TOP WIDTH "W"	SPILLWAY LENGTH	EXCAVATED DEPTH	EXCAVATED VOLUME	BOTTOM OF TRAP	SEDIMENT CLEANOUT VOLUME	SEDIMENT CLEANOUT ELEVATION
	(AC.)	(C.F.)	(FT.)	(FT.)	(C.F.)	(FT.)	(FT.)	(FT.)	(C.F.)	(FT.)	(C.F.)	(FT.)
1	4.98	8964.00	1.5	0.5	13855.00	2	30	1.5	4568.00	999.50	1792.80	1000.74
2	2.29	4122.00	4	3	5484.20	3	14	3	2777.00	1005.00	1096.84	1006.35
3	4.56	8208.00	3	2	8747.44	2.5	28	2	3263.52	1014.00	1749.49	1014.99

N

0' 25' 50' 100'
SCALE IN FEET

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	10.10.2022	CITY COMMENTS	CSM

REVISIONS

SITE DISTURBANCE DETAILS

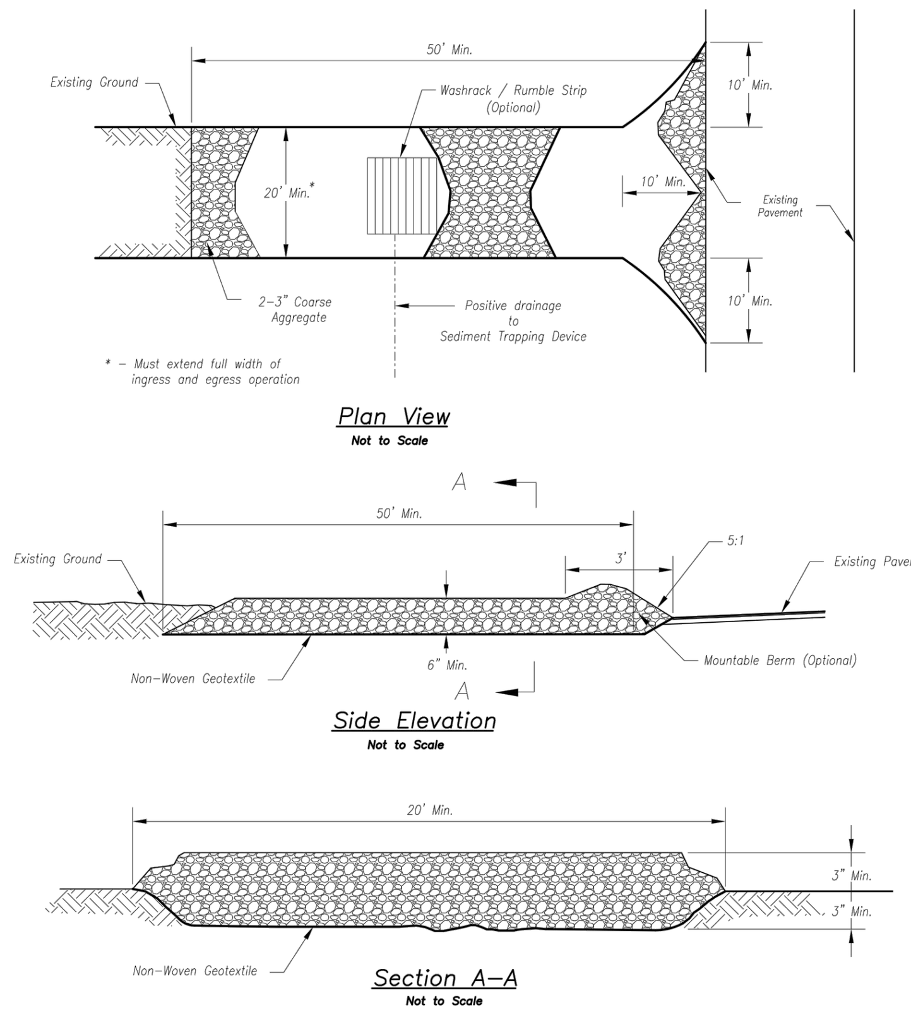
RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

drawn by: CSM
checked by: CSM
approved by: JS
QA/QC by: JS
project no.: A21-04054
drawing no.: C_ERC02_A2104054
date: 08.10.2022

SHEET
SD3.3



Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6– to 8–inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.

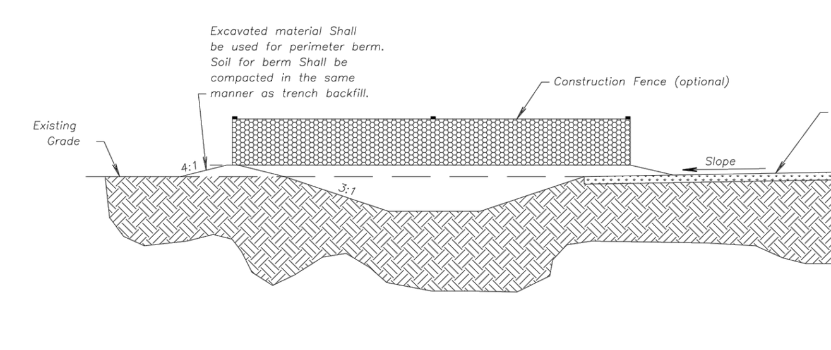
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one–piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

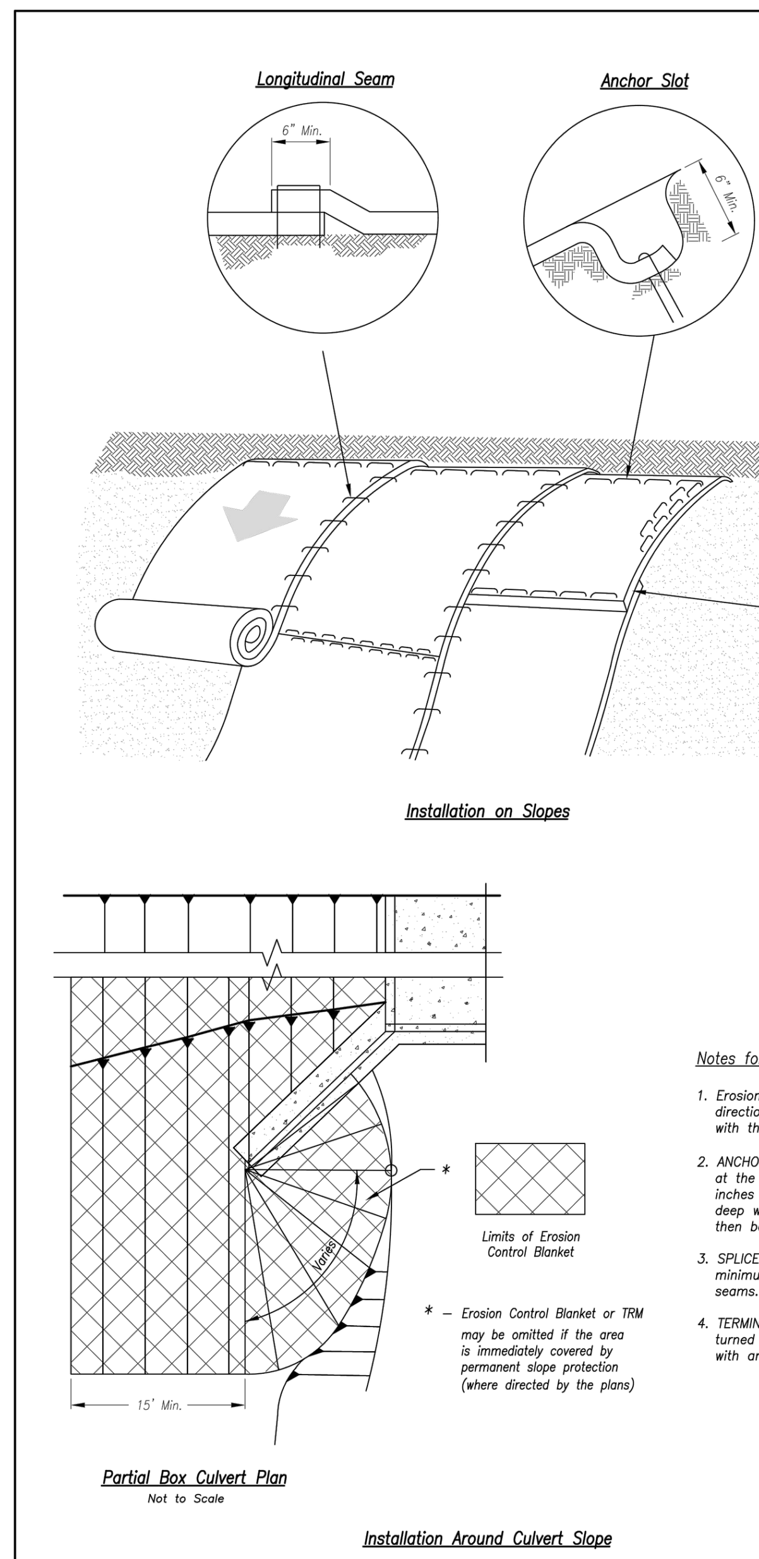
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water–tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2016



General Notes:

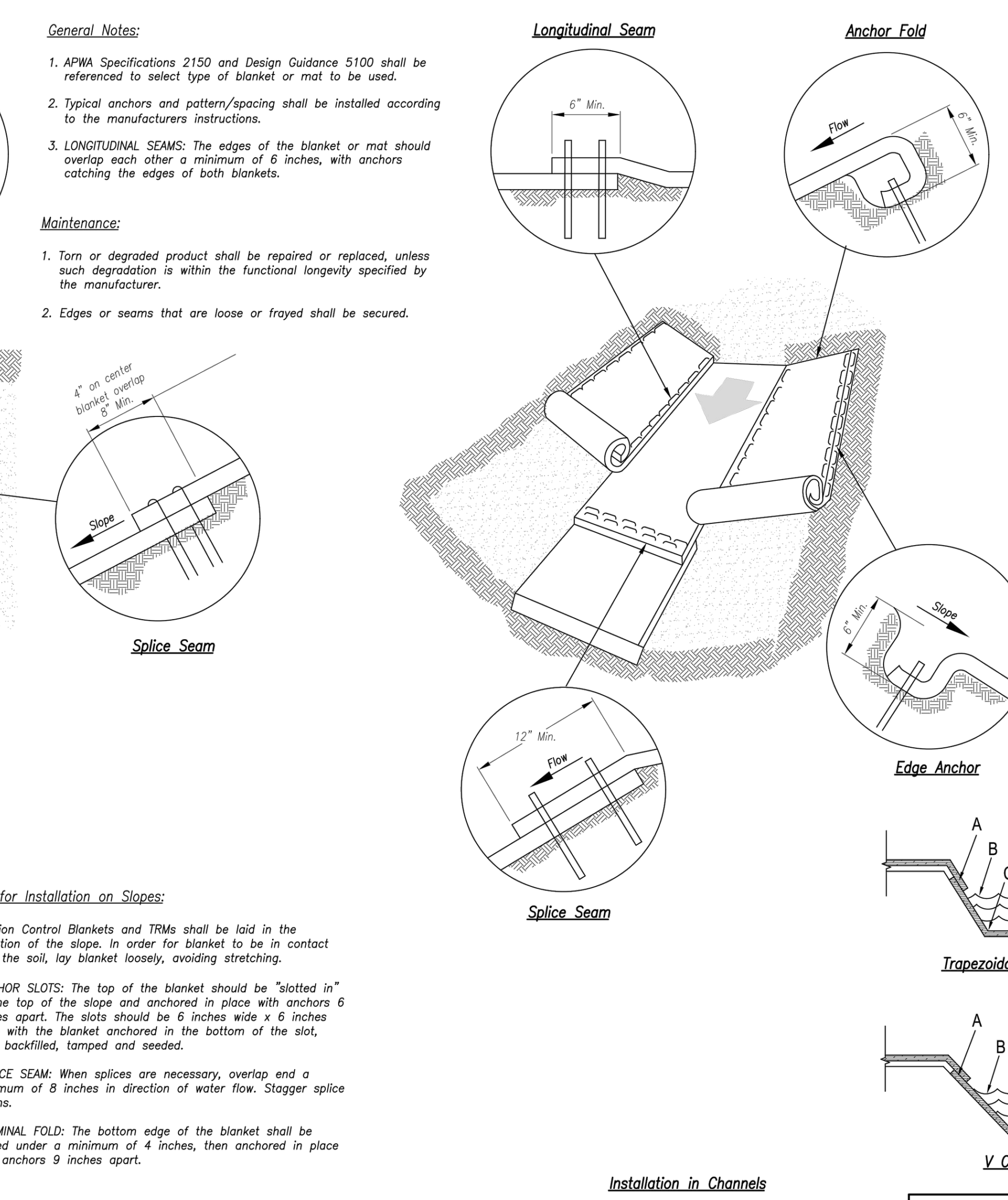
1. APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.
2. Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.
3. LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.

Maintenance:

1. Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.
2. Edges or seams that are loose or frayed shall be secured.

Notes for Installation on Slopes:

1. Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.
2. ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 8 inches in direction of water flow. Stagger splice seams.
4. TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.



Notes for Installation in Channels:

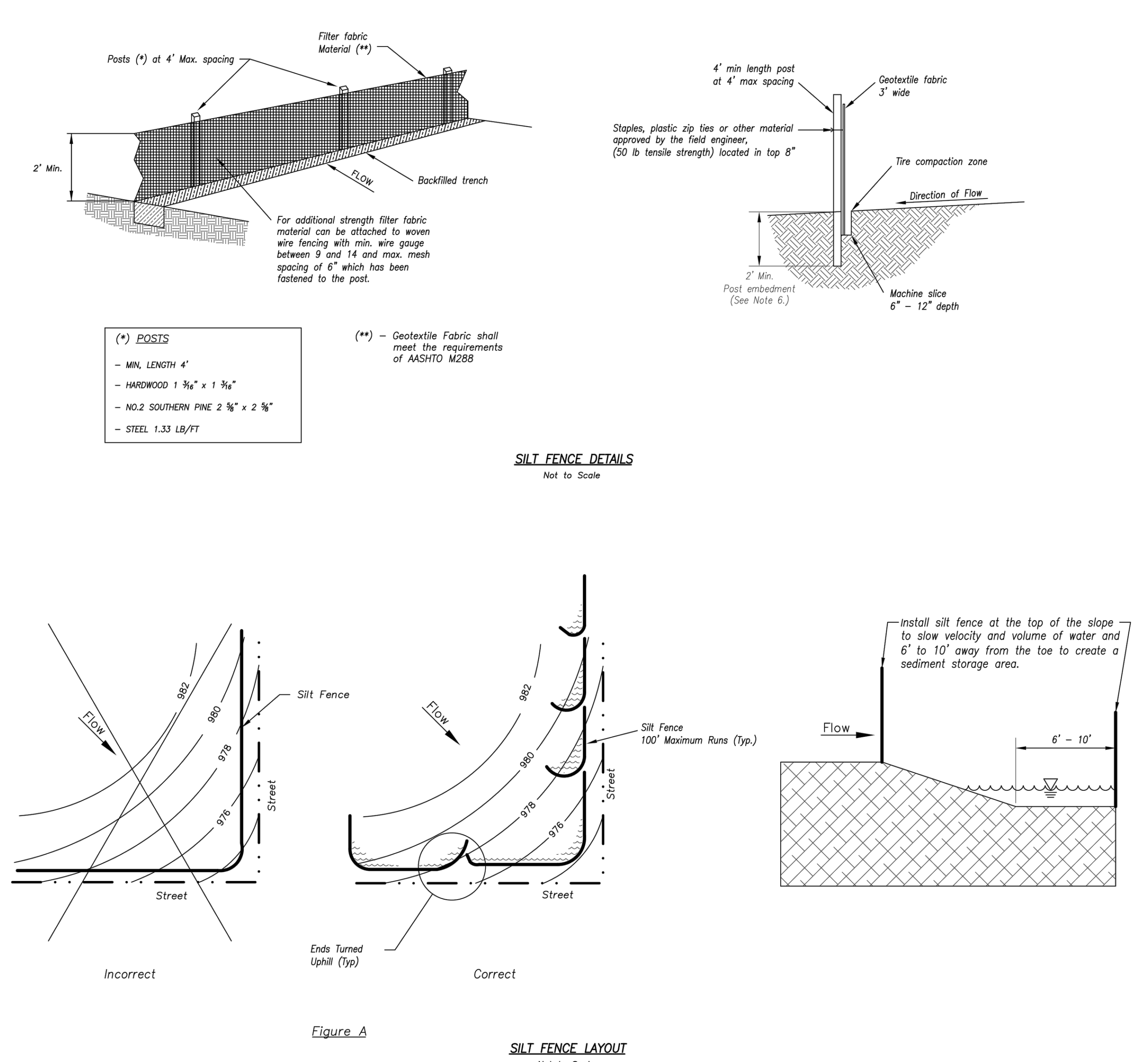
1. Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.
2. ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.
3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.
4. CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.
5. EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.
6. TERMINUS: The bottom edge of the mat shall be anchored.

Critical Points:

A – Overlaps and seams;
B – Projected water line;
C – Channel bottom / side slope vertices;

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS
STANDARD DRAWING NUMBER ESC-02
ADOPTED: 10/24/2016

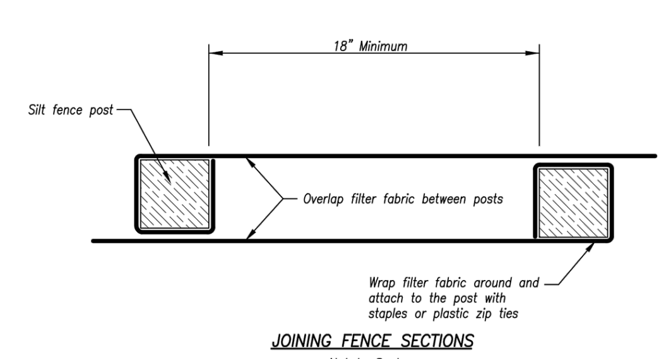


Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

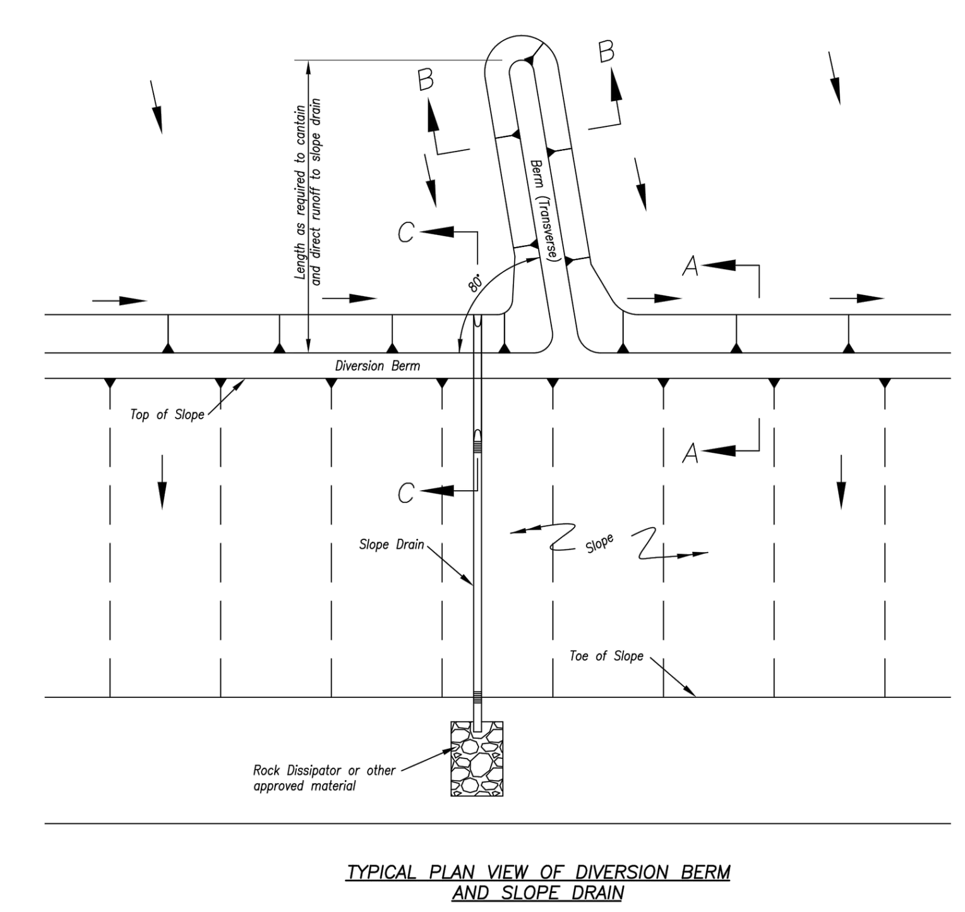
Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ⅓ the height of silt fence.
2. Repair as necessary to maintain function and structure.



Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
SILT FENCE
STANDARD DRAWING NUMBER ESC-03
ADOPTED: 10/24/2016



Notes for Diversion Berm:

1. Slope drains are optional, but may be required by the engineer if the berm is at the top of a steep slope.
2. Diversion berms must be installed as a first step in the land–disturbing activity and must be functional prior to upslope land disturbance.
3. The berm should be adequately compacted to prevent failure.
4. Temporary or permanent seeding and mulch shall be applied to the berm immediately following its construction.
5. Place the berm so to minimize damages by construction operations and traffic.
6. The berm must discharge to a temporary sediment trap or stabilized area.
7. All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of diversion.
8. The diversion shall be excavated or shaped to line, grade and cross–section as required to meet the criteria specified herein, free of irregularities which will impede flow.
9. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed diversion. Fill shall be composed of soil which is free from excessive organic debris, rocks or other objectionable materials.

Maintenance:

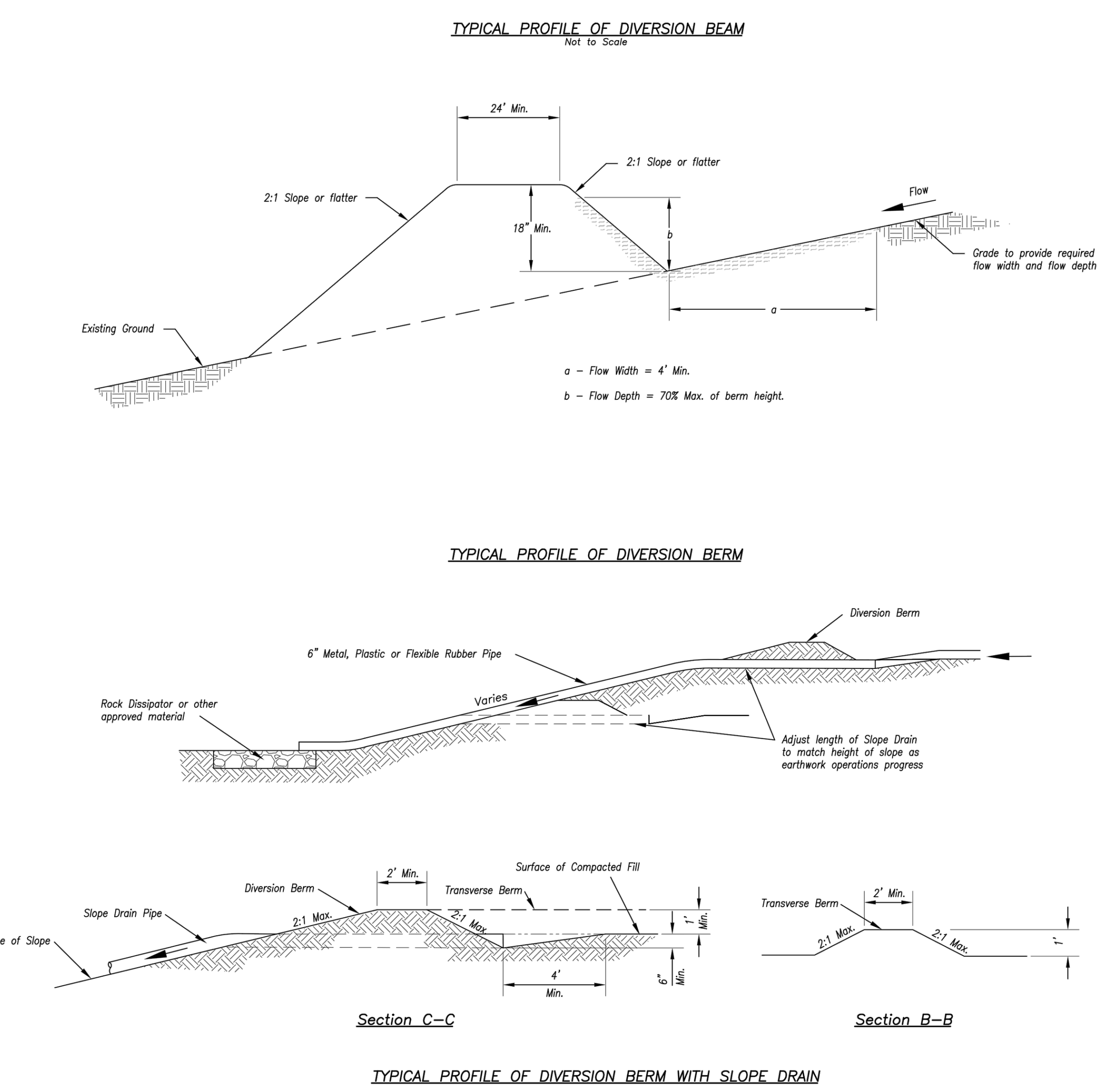
1. Berm shall be reshaped, compacted, and stabilized as necessary to maintain its function.
2. Breaches in the berm shall be repaired immediately.

Notes for Slope Drain:

1. Slope Drain and Diversion Berm may be used on either project foreslopes or project backslopes.
2. Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.
3. Pipe shall be secured in place as approved by Engineer.

Maintenance:

1. Accumulation of any visible sediment at the inlet and outlet shall be removed promptly.
2. Outlet conditions shall be repaired if scour is observed. Leaking or damaged section of pipe shall be repaired immediately.
3. Barriers directing water to the inlet shall be monitored for continuity and effectiveness.



Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
DIVERSION BERMS AND SLOPE DRAINS
STANDARD DRAWING NUMBER ESC-05
ADOPTED: 10/24/2016

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
10/11/22
PROFESSIONAL ENGINEER

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	10.10.2022	CITY COMMENTS	CSM

DETAILS

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

drawn by:	CSM
checked by:	CSM
approved by:	JS
QA/QC by:	JS
project no.:	A21-04054
drawing no.:	C_DTL01_A2104054
date:	08.10.2022

SHEET
SD4.0

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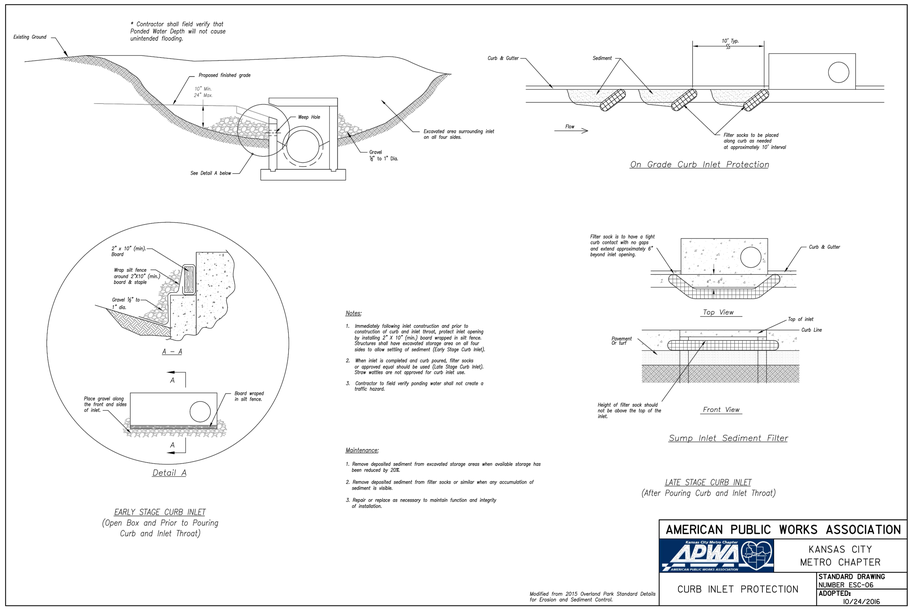


EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

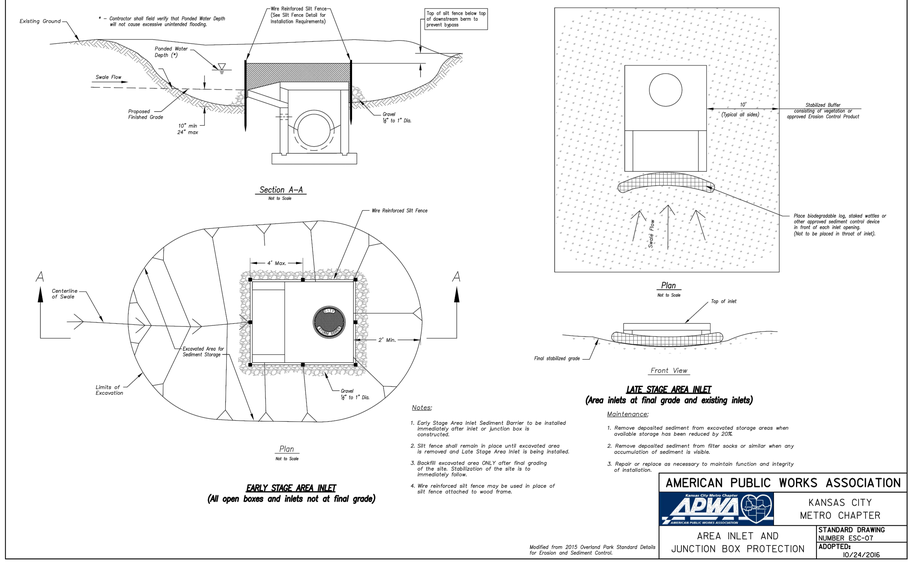
Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06
	ADOPTED: 10/24/2016



EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Block(S) excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.

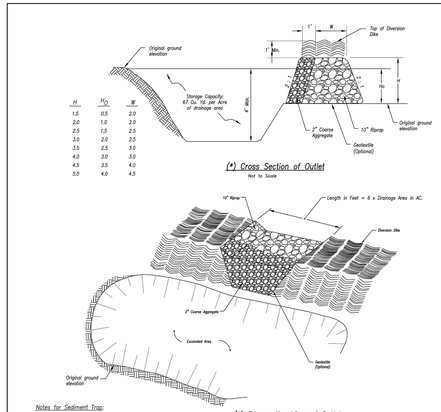
LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION	STANDARD DRAWING NUMBER ESC-07
	ADOPTED: 10/24/2016



Notes for Sediment Trap:

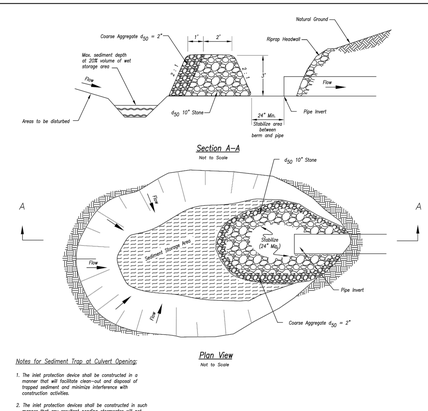
1. The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat.
2. Fill material for the embankment shall be free of roots or other woody vegetation, organic material, large stones, and other objectionable material. The embankment should be compacted in 8-inch layers by traversing with construction equipment.
3. The earthen embankment shall be stabilized immediately after installation.
4. Construction operations shall be carried out to minimize erosion and water pollution.
5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.
6. All cut and fill slopes shall be 2H : 1V or flatter, except for excavated, wet storage areas which may be at a maximum 1H : 1V grade.

(*) – The perspective view and cross section are schematic in nature. Construction plans must provide specific site construction arrangements.

Maintenance for Sediment Trap:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

SEDIMENT TRAP



Notes for Sediment Trap at Culvert Opening:

1. The inlet protection device shall be constructed in a manner that will facilitate clean-out and disposal of trapped sediment and minimize interference with construction activities.
2. The inlet protection devices shall be constructed in such manner that any resultant ponding stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
3. Geometry of the design will be a horseshoe shape around the culvert inlet.
4. The toe of the riprap shall be no closer than 24" from the culvert opening to provide an acceptable emergency outlet for flows from larger storm events.
5. Storage requirements equivalent to that of temporary sediment trap.
6. 67 CY./Acre wet storage below base of stone.
7. 67 CY./Acre dry storage from base of stone to top of stone berm.

Maintenance for Sediment Trap at Culvert Opening:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

SEDIMENT TRAP AT CULVERT OPENING

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	KANSAS CITY METRO CHAPTER
SEDIMENT TRAPS	STANDARD DRAWING NUMBER ESC-08
	ADOPTED: 10/24/2016

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STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER PE-2017000367
10/11/22
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	10.10.2022	CITY COMMENTS	CSM

REVISIONS

DETAILS

RAINTREE VILLAGE
SITE DISTURBANCE PLANS

LEE'S SUMMIT, MO

2022

drawn by: CSM
checked by: CSM
approved by: JS
QA/QC by: JS
project no.: A21-04054
drawing no.: C_DTL01_A2104054
date: 08.10.2022

SHEET
SD4.1

DWG: F:\2021\04001-04500\021-04054-a\40-design\AutoCAD\final plans\Sheets\GNCV\SITE DISTURBANCE PLANS\C_DTL01_A2104054.dwg
DATE: Oct 10, 2022 12:24pm
XREFS: C_PTBLK_A2104054 – Site Distubance Plans
USER: cmayo