HIGHLAND MEADOWS - 5TH PLAT

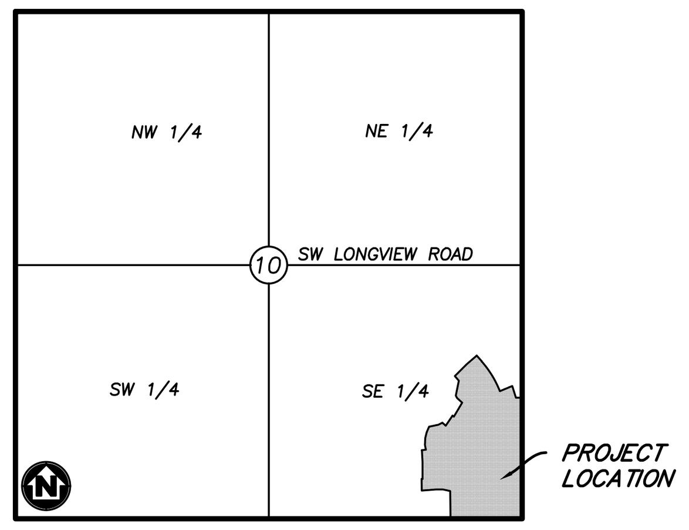
EROSION & SEDIMENT CONTROL PLANS

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SEC. 10, TWP. 47N, RNG. 32W

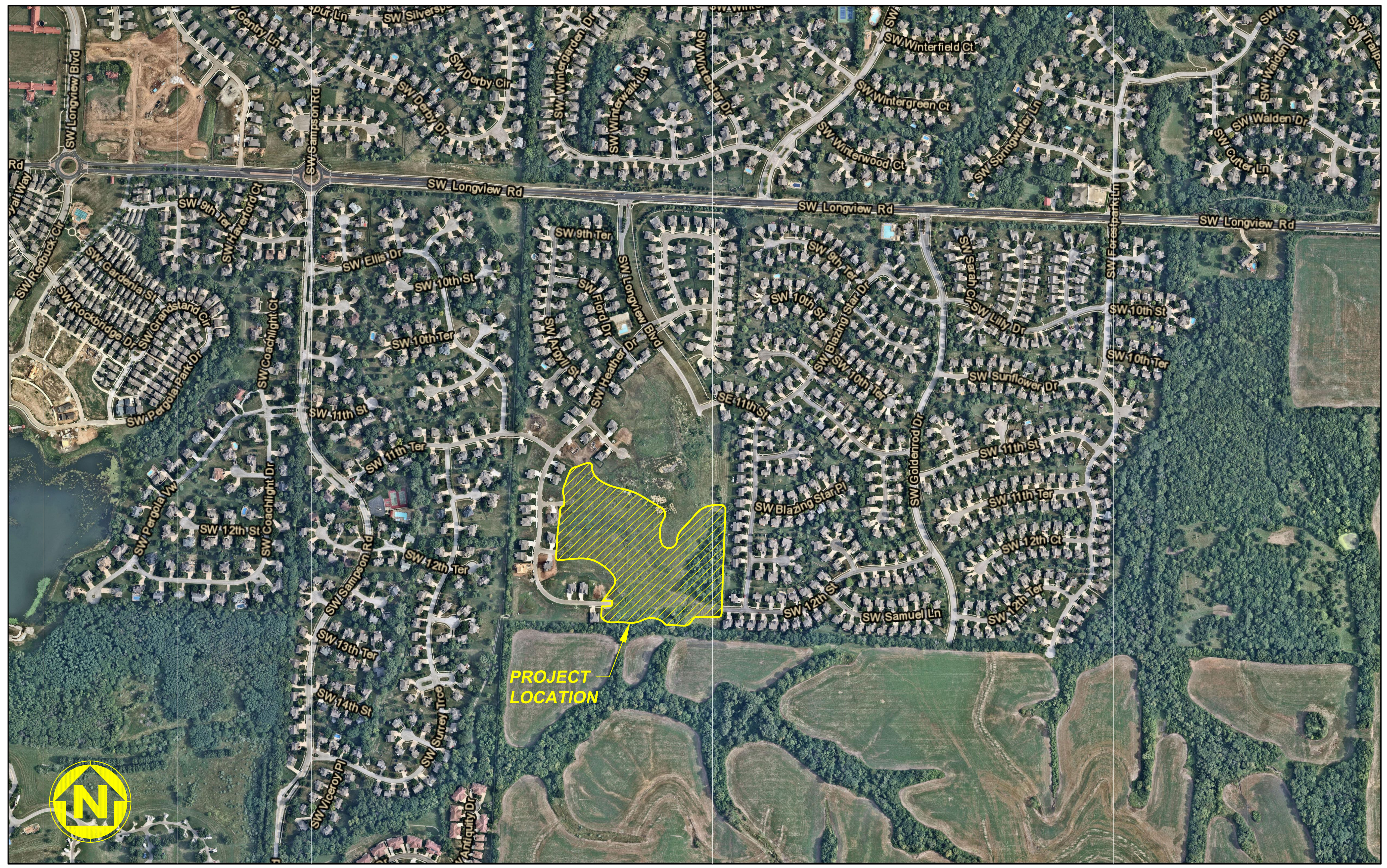
DATE: 3/10/2021

LOTS: 134-159 (26 TOTAL)



VICINITY MAP

SECTION 10, TOWNSHIP 47, RANGE 32
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI
NOT TO SCALE



WATERSHED: LITTLE BLUE RIVER

DISTURBED AREA: 15.3 AC

SHEET INDEX:

CVR – COVER SHEET
C301 – PRE-CLEARING EROSION CONTROL PLAN
C302 – INTERMEDIATE EROSION CONTROL PLAN
C303 – FINAL STABILIZATION EROSION CONTROL PLAN
C601 – CONSTRUCTION ENTRANCE DETAILS
C602 – STEEP SLOPE PROTECTION DETAILS
C603 – SILT FENCE DETAILS
C604 – CURB INLET PROTECTION DETAILS
C605 – AREA INLET PROTECTION DETAILS
C606 – ROCK DITCH CHECKS
C607 – SEDIMENT BASIN
C608 – SEDIMENT BASIN DETAILS
C609 – OUTLET PROTECTION DETAILS
C610 – TEMPORARY DIVERSION BERM

LEGAL DESCRIPTION:

THE EAST HALF OF THE SOUTHEAST QUARTER OF SECTION 10, TOWNSHIP 47 NORTH, RANGE 32 WEST, EXCEPT THOSE PARTS PLATTED AS HIGHLAND MEADOWS FIRST PLAT, HIGHLAND MEADOWS SECOND PLAT , HIGHLANDS MEADOWS THIRD PLAT, HIGHLAND MEADOWS 4TH PLAT, SUBDIVISIONS IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

OIL AND GAS WELL NOTES:

NO ABANDONED OIL OR GAS WELLS HAVE BEEN IDENTIFIED WITHIN THE PROPERTY LIMITS OF THE PROPOSED CONSTRUCTION ACTIVITIES, PER THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) PERMITTED OIL AND GAS DATABASE, DATED JUNE 2, 2020.

811 Know what's below. Call before you dig.

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP-CALL BEFORE YOU DIG!

UTILITY CONTACTS:

SANITARY & WATER:
CITY OF LEE'S SUMMIT
JEFF THORN
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969–1900

STORMWATER:
CITY OF LEE'S SUMMIT
PUBLIC WORKS
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969–1800

STREETS:
CITY OF LEE'S SUMMIT
MICHAEL PARK
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969–1900

AT&T:
RONALD GIPFERT
500 E 8TH STREET
KANSAS CITY, MO 64106
PHONE (816) 275–1550

EVERGY:
DOUG DAVIN
1300 SE HAMBLEN ROAD
LEE'S SUMMIT, MO 64081
PHONE (816) 347–4320

MISSOURI GAS ENERGY:
RICHARD FROCK
3025 SW CLOVER DRIVE
LEE'S SUMMIT, MO 64082
PHONE (816) 472–3489

FEMA FLOOD INFORMATION:

THE SITE IS LOCATED IN ZONE X, AREA OF MINIMAL FLOOD HAZARD, PER FEMA FIRM MAP 29095C0418G: EFFECTIVE DATE OF JANUARY 20, 2017. NO LETTERS OF MAP AMENDMENT OR REVISIONS ARE BEING PROPOSED.

BENCHMARK:

BM #1 N=999843.9665 E=2898946.9717 ELEV=935.04
DESCRIPTION = "JA–148" REFERENCE SYSTEM MONUMENT

SURVEY CONTROL:

COORDINATES ARE BASED ON THE MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE, USING JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA–148 (2003 ADJUSTMENT) AND ARE MODIFIED FROM GRIS COORDINATES TO GROUND COORDINATES BY UTILIZING A GRID SCALE FACTOR OF 0.9999020 AT REFERENCE MONUMENT JA–148.

PROJECT ELEVATIONS ARE BASED ON JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA–148 (2003 ADJUSTMENT).

"JA–148" – STANDARD KC METRO ALUMINUM GRS DISK SET IN CONCRETE FLUSH WITH THE GROUND AND STAMPED "JA–148, 2002" LOCATED ON THE NORTH SIDE OF 3RD STREET, 12.5 FEET NORTH OF A SIDEWALK AND 102.5 FEET WEST OF THE PARKING LOT EXIT OF CEDAR CREEK ELEMENTARY SCHOOL.

GENERAL NOTES:

1. CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE EXISTING CONDITIONS OF THE SITE AND HAVE ALL UTILITIES MARKED PRIOR TO COMMENCING CONSTRUCTION.
2. CONTRACTOR SHALL POTHOLE ALL CONNECTION POINTS TO EXISTING UTILITIES AND POTENTIAL UTILITY CONFLICT LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. NOTIFY ENGINEER IMMEDIATELY IF CONFLICT OR DISCREPANCY EXISTS.
3. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED/ REPLACED TO PRE–CONSTRUCTION CONDITION AT CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE–CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969–1200.

DEVELOPER:

BRAD KEMPF
SUMMIT HOMES KC
120 SE 30TH STREET
LEE'S SUMMIT, MO 64082
BRADLEY@SUMMITHOMESKC.COM
(816) 927–9711

CIVIL ENGINEER:

ZACH MYERS
ANDERSON ENGINEERING, INC.
941 W 141ST TERR
KANSAS CITY, MO 64145
ZMYERS@ANDERSONENGINEERINGINC.COM
(816) 380–4821

PROJECT SPECIFICATIONS:

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THE FOLLOWING:

1. MOST CURRENT VERSION OF THE DESIGN AND CONSTRUCTION MANUAL OF THE CITY OF LEE'S SUMMIT AS ADOPTED BY ORDINANCE 5813.

THE STANDARD SPECIFICATIONS THROUGH AND INCLUDING THE LATEST AMENDMENTS SHALL BE PART OF THESE PROJECT DRAWINGS AND SPECIFICATIONS AND ARE INCORPORATED HEREIN BY REFERENCE. THE MORE STRINGENT OF THESE STANDARD SPECIFICATIONS AND THOSE PREPARED BY THE ENGINEER PREPARING THESE PLANS SHALL GOVERN.

PREPARED & SUBMITTED BY:

ANDERSON ENGINEERING INC.
KANSAS CITY, MISSOURI

ZACH MYERS, P.E. DATE
MISSOURI P.E. NO. 2012009232

STATE OF MISSOURI ZACH A. MYERS NUMBER PE-2012009232 3/10/21 PROFESSIONAL ENGINEER

ANDERSON ENGINEERING EMPLOYEE OWNED
ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
941 W. 141ST TER.• KANSAS CITY, MISSOURI 64145 • PHONE (816) 777-0400
A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION - LC 62

REVISIONS

NO.	DESCRIPTION	BY	DATE
1.	REVISED PER CITY COMMENTS	GC	1/15/21
2.	REVISED PER CITY COMMENTS	GC	2/26/21
3.	REVISED PER CITY COMMENTS	GC	3/10/21

DRAWING INFO.

DRAWN BY:	GC
CHECK BY:	ZM
LICENSE NO.	PE-2012009232
DATE:	1/15/2021
ISSUED FOR:	FOR REVIEW
JOB NUMBER:	20KC10057
MO COA NO.	000062

SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

COVER SHEET

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

SHEET NUMBER
CVR

Mar 11, 2021 – 2:23pm Plotted By: gcate G:\Shared drives\KC10 – Land Development\Projects\2020\20KC10057 Highland Meadows – 5th Plat\01 CIVIL\03–DWG\Sheet\EROSION CONTROL\20KC10057 – SHT – COVER.dwg Layout: COVER SHEET

GENERAL EROSION CONTROL 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 DICTATED 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 WATERS 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 OR DISPOSED.
9. 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.
10. 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.
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 STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. 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.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 7 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 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, ROCK, 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, 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.
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. CONTRACTOR 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:

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:

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 IF THEY SHOW 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 REACHES ONE-HALF 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 RIGHTS-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 FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGN OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

KCAPWA REFERENCE DETAILS:

ESC-01	CONSTRUCTION ENTRANCE & CONCRETE WASHOUT
ESC-02	EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS
ESC-03	SILT FENCE
ESC-05	TEMPORARY ROCK DIVERSION BERM
ESC-06	CURB INLET PROTECTION
ESC-07	AREA INLET PROTECTION
ESC-10	ROCK DITCH CHECK DAM
ESC-11	SEDIMENT BASIN
ESC-12	SEDIMENT BASIN DETAILS
ESC-14	OUTLET PROTECTION

FEMA FLOOD NOTE:

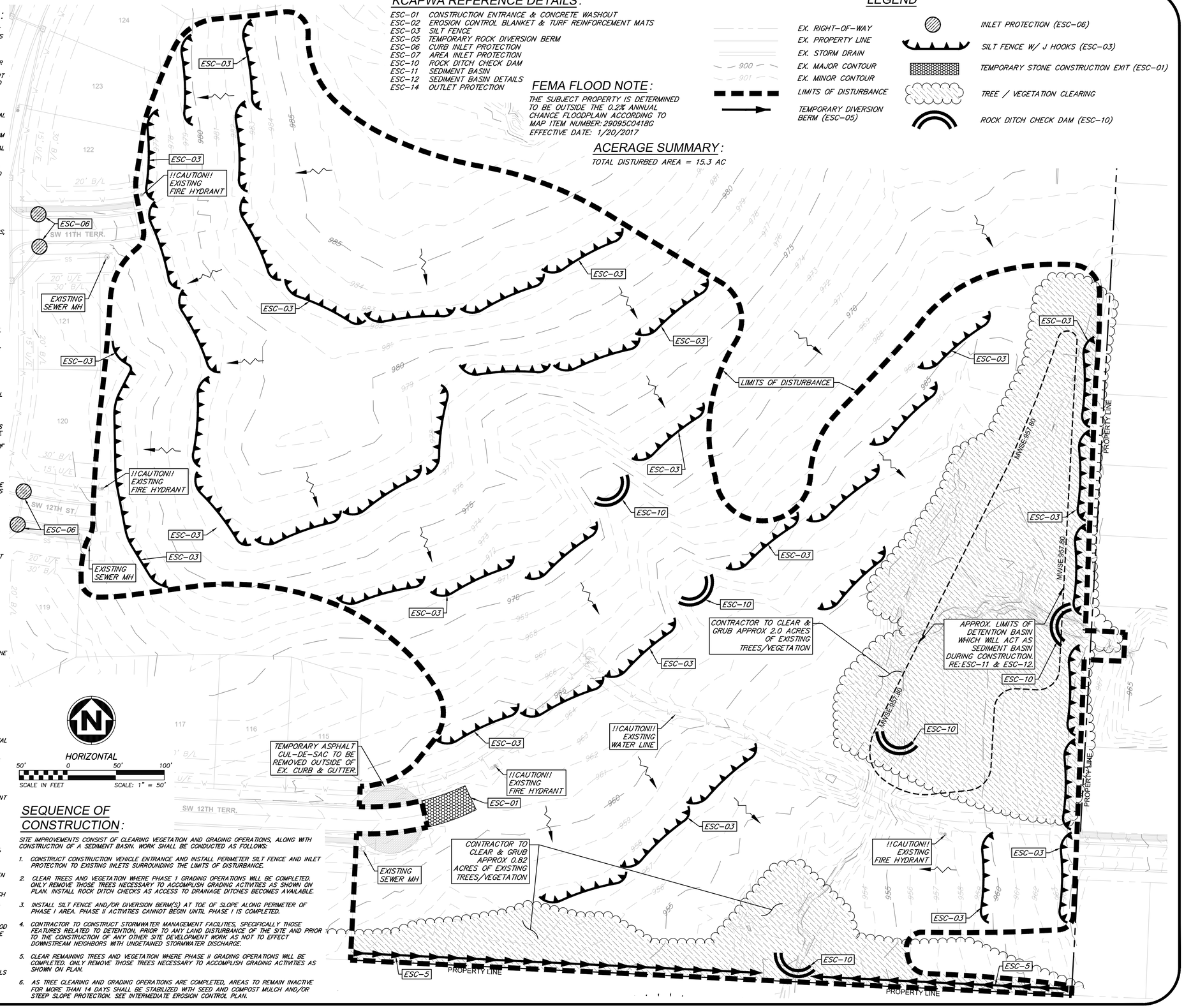
THE SUBJECT PROPERTY IS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO MAP ITEM NUMBER: 29095C0418G EFFECTIVE DATE: 1/20/2017

ACERAGE SUMMARY:

TOTAL DISTURBED AREA = 15.3 AC

LEGEND

- EX. RIGHT-OF-WAY
- EX. PROPERTY LINE
- EX. STORM DRAIN
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION BERM (ESC-05)
- INLET PROTECTION (ESC-06)
- SILT FENCE W/ J HOOKS (ESC-03)
- TEMPORARY STONE CONSTRUCTION EXIT (ESC-01)
- TREE / VEGETATION CLEARING
- ROCK DITCH CHECK DAM (ESC-10)



SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF CLEARING VEGETATION AND GRADING OPERATIONS, ALONG WITH CONSTRUCTION OF A SEDIMENT BASIN. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. CONSTRUCT CONSTRUCTION VEHICLE ENTRANCE AND INSTALL PERIMETER SILT FENCE AND INLET PROTECTION TO EXISTING INLETS SURROUNDING THE LIMITS OF DISTURBANCE.
2. CLEAR TREES AND VEGETATION WHERE PHASE 1 GRADING OPERATIONS WILL BE COMPLETED. ONLY REMOVE THOSE TREES NECESSARY TO ACCOMPLISH GRADING ACTIVITIES AS SHOWN ON PLAN. INSTALL ROCK DITCH CHECKS AS ACCESS TO DRAINAGE DITCHES BECOMES AVAILABLE.
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 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. CLEAR REMAINING TREES AND VEGETATION WHERE PHASE II GRADING OPERATIONS WILL BE COMPLETED. ONLY REMOVE THOSE TREES NECESSARY TO ACCOMPLISH GRADING ACTIVITIES AS SHOWN ON PLAN.
6. AS TREE CLEARING AND 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.

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A LICENSED MISSOURI ENGINEERING & SURVEYING CORPORATION - LC 62

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JOB NUMBER:	20KC10057
MO COA NO.	000062

SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

PRE-CLEARING EROSION CONTROL PLAN

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/10/21
PROFESSIONAL ENGINEER

SHEET NUMBER
C301
2 OF 14

Mar 11, 2021 - 2:23pm Plotted By: grote G:\Shared drives\KC10 - Land Development\Projects\2020\20KC10057 Highland Meadows - 5th Plat\01 CIVIL\03-DWG\Sheet\STREET AND STORM\20KC10057 - SHTS - EROSION.dwg Layout: PRE-CLEARING EROSION CONTROL PLAN (2)

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3. 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.
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10. 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.
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 STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
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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, 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.
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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. CONTRACTOR 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:

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:

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 IF THEY SHOW 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 REACHES ONE-HALF 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 RIGHTS-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 FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGN OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

KCAPWA REFERENCE DETAILS:

ESC-01	CONSTRUCTION ENTRANCE & CONCRETE WASHOUT
ESC-02	EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS
ESC-03	SILT FENCE
ESC-05	TEMPORARY ROCK DIVERSION BERM
ESC-06	CURB INLET PROTECTION
ESC-07	AREA INLET PROTECTION
ESC-10	ROCK DITCH CHECK DAM
ESC-11	SEDIMENT BASIN
ESC-12	SEDIMENT BASIN DETAILS
ESC-14	OUTLET PROTECTION

FEMA FLOOD NOTE:

THE SUBJECT PROPERTY IS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO MAP ITEM NUMBER: 29095C0418G EFFECTIVE DATE: 1/20/2017

ACERAGE SUMMARY:

TOTAL DISTURBED AREA = 15.3 AC

LEGEND

- PROP. STORM DRAIN
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION BERM (ESC-05)
- INLET PROTECTION (ESC-06 OR ESC-07)
- SILT FENCE W/ J HOOKS (ESC-03)
- TEMPORARY STONE CONSTRUCTION EXIT (ESC-01)
- STEEP SLOPE PROTECTION (ESC-02)
- RIPRAP OUTLET PROTECTION (ESC-14)

HORIZONTAL SCALE IN FEET 50' 0 50' 100' SCALE: 1" = 50'

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT ARE 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 GROUND 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 HEREON.

SEQUENCE OF CONSTRUCTION:

PHASE II CONSISTS OF FINISHING MASS GRADING ACTIVITIES, AND INSTALLATION OF WATER MAIN, SEWER MAIN, SEWER SERVICE LINES, 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, OUTLET PROTECTION AND RIPRAP SHALL BE INSTALLED TO PROTECT OUTLET AREAS 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.

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REVISIONS			DRAWING INFO.	
NO.	DESCRIPTION	BY DATE	DRAWN BY:	GC
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2.	REVISED PER CITY COMMENTS	GC 2/26/21	LICENSE NO.	PE-2012009232
3.	REVISED PER CITY COMMENTS	GC 3/10/21	DATE:	1/15/2021
			ISSUED FOR:	FOR REVIEW
			JOB NUMBER:	20KC10057
			MO COA NO.	000062

SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

INTERMEDIATE EROSION CONTROL PLAN

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/10/21
PROFESSIONAL ENGINEER

SHEET NUMBER
C302
3 OF 14

GENERAL EROSION CONTROL 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 DICTATED 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 WATERS 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 OR DISPOSED.
9. 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.
10. 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.
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 STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. 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.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 7 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 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, ROCK, 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, 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.
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. CONTRACTOR 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:

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:

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 IF THEY SHOW 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 REACHES ONE-HALF 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 RIGHTS-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 FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGN OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABILIZE THE FAILED AREA.

KCAPWA REFERENCE DETAILS:

ESC-01	CONSTRUCTION ENTRANCE & CONCRETE WASHOUT
ESC-02	EROSION CONTROL BLANKET & TURF REINFORCEMENT MATS
ESC-03	SILT FENCE
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ESC-14	OUTLET PROTECTION

FEMA FLOOD NOTE:

THE SUBJECT PROPERTY IS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO MAP ITEM NUMBER: 29095C0418G EFFECTIVE DATE: 1/20/2017

ACERAGE SUMMARY:

TOTAL DISTURBED AREA = 15.3 AC

LEGEND

- PROP. RIGHT-OF-WAY
- PROP. STORM DRAIN
- 900 PROP. MAJOR CONTOUR
- 901 PROP. MINOR CONTOUR
- 900 EX. MAJOR CONTOUR
- 901 EX. MINOR CONTOUR
- LIMITS OF DISTURBANCE
- TEMPORARY DIVERSION BERM (ESC-05)
- INLET PROTECTION (ESC-06 OR ESC-07)
- SILT FENCE W/ J-HOOKS (ESC-03)
- STEEP SLOPE PROTECTION (ESC-02)
- FINAL SEEDING (13.8 AC)
- RIPRAP OUTLET PROTECTION (ESC-14)

HORIZONTAL
50' 0 50' 100'
SCALE IN FEET
SCALE: 1" = 50'

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT ARE 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 GROUND 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 HEREON.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF CLEARING VEGETATION AND GRADING OPERATIONS, ALONG WITH CONSTRUCTION OF A SEDIMENT BASIN. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. REMOVE CONSTRUCTION ENTRANCE/EXIT AS ROADS ARE PAVED.
2. INSTALL CURB, ROAD PAVEMENT, AND REQUIRED SIDEWALKS ADJACENT TO TRACTS. ADJUST SILT FENCE AND SLOPE INTERRUPTS AS NECESSARY TO PREVENT MUD AND SILT FROM FLOWING LONG DISTANCES.
3. SEED AND/OR SOD ALL DISTURBED AREAS ONCE FINISH GRADE HAS BEEN ACHIEVED. MAINTAIN SILT FENCE, SLOPE INTERRUPTS, STEEP SLOPE PROTECTION, 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, SLOPE INTERRUPTS, ROCK DITCH CHECKS, AND DIVERSION BERMS CAN BE REMOVED UPON CITY INSPECTION AND APPROVAL. ENSURE ENTIRE SITE IS STABILIZED FOR PHASE 6 CONSTRUCTION ACTIVITIES TO THE NORTH OF PHASE 5 TO BEGIN.

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				ISSUED FOR: PQR REVIEW
				JOB NUMBER: 20KC10057
				MO COA NO. 000062

SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

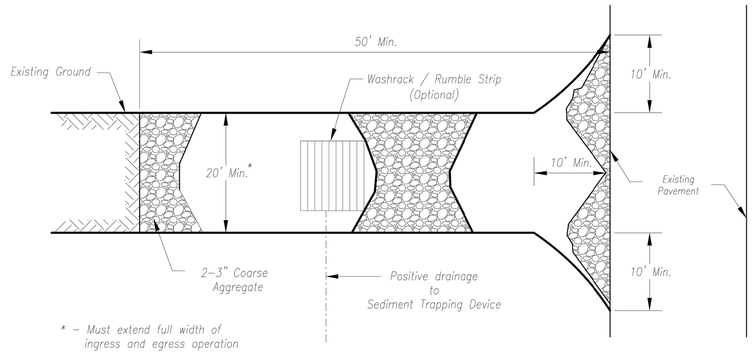
FINAL STABILIZATION EROSION CONTROL PLAN

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/10/21
PROFESSIONAL ENGINEER

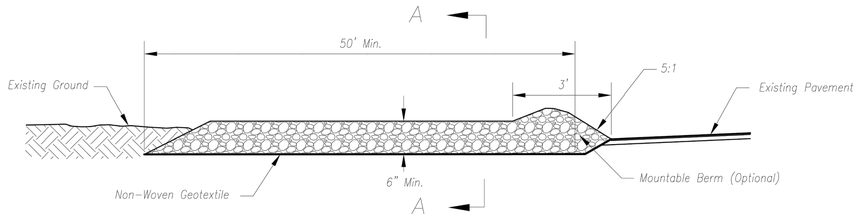
SHEET NUMBER
C303
4 OF 14

G:\Shared drives\KC10 - Land Development\Projects\2020\20KC10057 - Highland Meadows - 5th Plat\01 CIVIL\02-DWG\Sheet\STREET AND STORM\20KC10057 - SHTS - EROSION.dwg Layout: FINAL STABILIZATION EROSION CONTROL PLAN (2)
Mar 11, 2021 - 2:23pm Plotted By: gcote



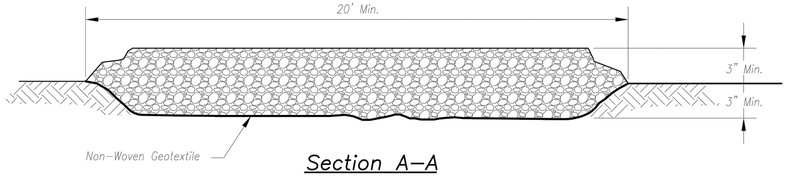
Plan View

Not to Scale



Side Elevation

Not to Scale



Section A–A

Not to Scale

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.*

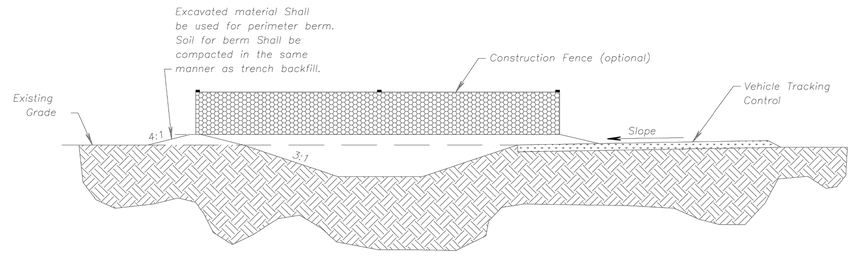
CONSTRUCTION ENTRANCE

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 APWA AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01

ADOPTED: 10/24/2016

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

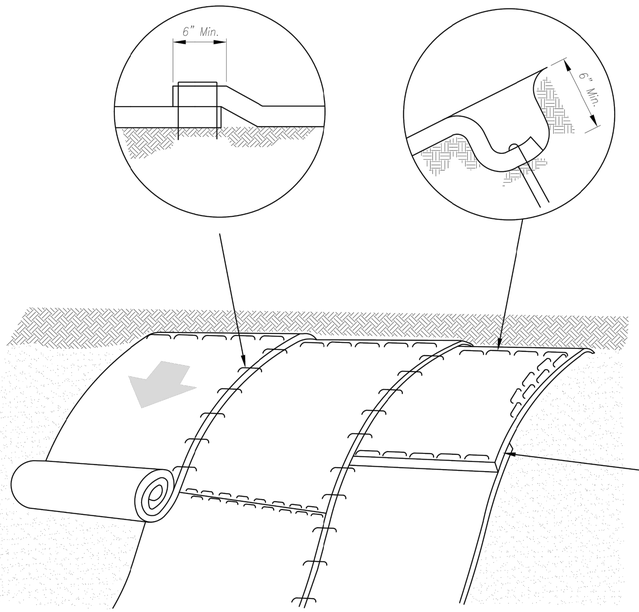
CONSTRUCTION ENTRANCE DETAILS

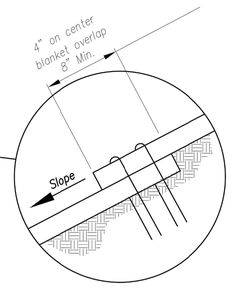
S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/10/21
PROFESSIONAL ENGINEER

SHEET NUMBER
C601
5 OF 14

Mar 11, 2021 – 2:23pm Plotted By: geate G:\Shared drives\KC10 – Land Development\Projects\20201.20KC10057 – Highland Meadows – 5th Plat\01 CIVIL\03–DWG\Sheet\EROSION CONTROL\20KC10057 – SHTS – DETAILS.dwg Layout: CONSTRUCTION ENTRANCE DETAILS





Splice Seam

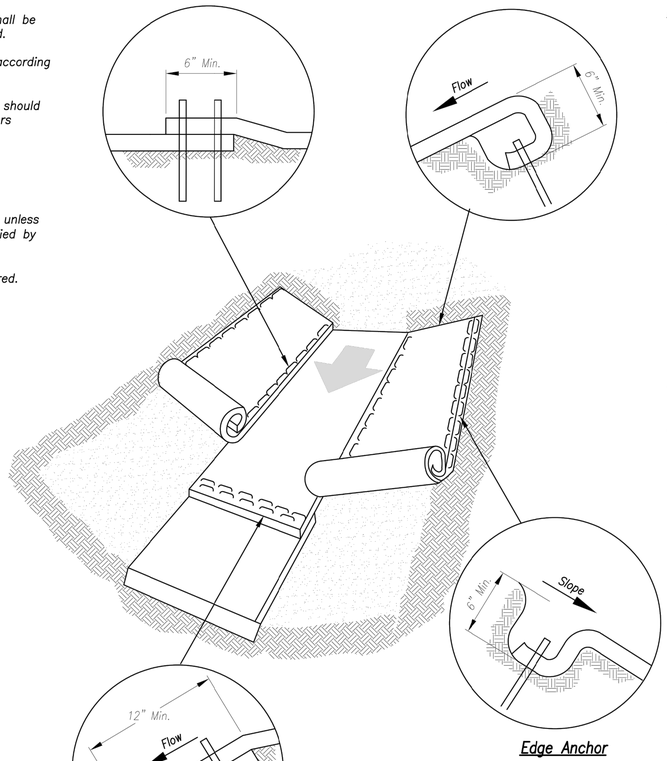
Installation on Slopes

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.

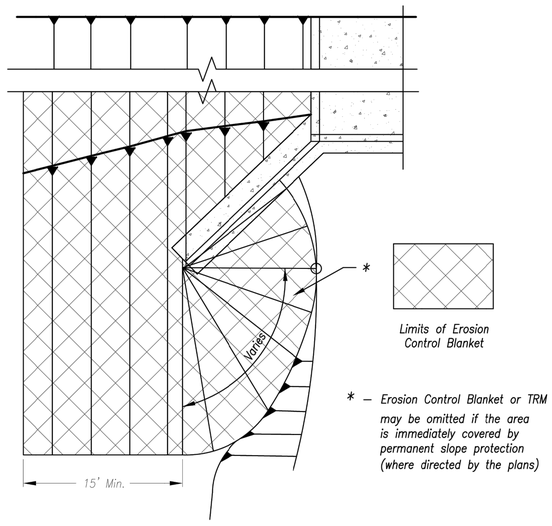


Edge Anchor

Splice Seam

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.



Limits of Erosion Control Blanket

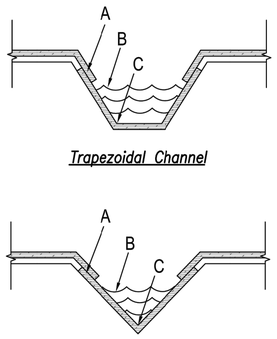
* – Erosion Control Blanket or TRM may be omitted if the area is immediately covered by permanent slope protection (where directed by the plans)

Partial Box Culvert Plan
Not to Scale

Installation Around Culvert Slope

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.



Trapezoidal Channel

V Channel

Critical Points:

A – Overlaps and seams;

B – Projected water line;

C – Channel bottom / side slope vertices;

Installation in Channels

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

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KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS

STANDARD DRAWING NUMBER ESC-02

ADOPTED: 10/24/2016

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

STEEP SLOPE PROTECTION DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/10/22
PROFESSIONAL ENGINEER

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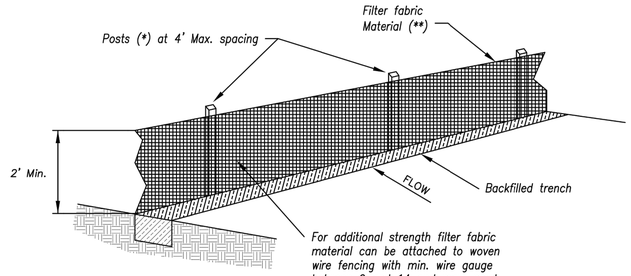
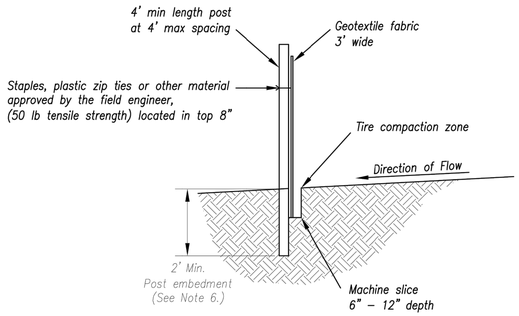




(*) POSTS

- MIN, LENGTH 4'
- HARDWOOD 1 3/16" x 1 3/16"
- NO.2 SOUTHERN PINE 2 5/8" x 2 5/8"
- STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS

Not to Scale

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.

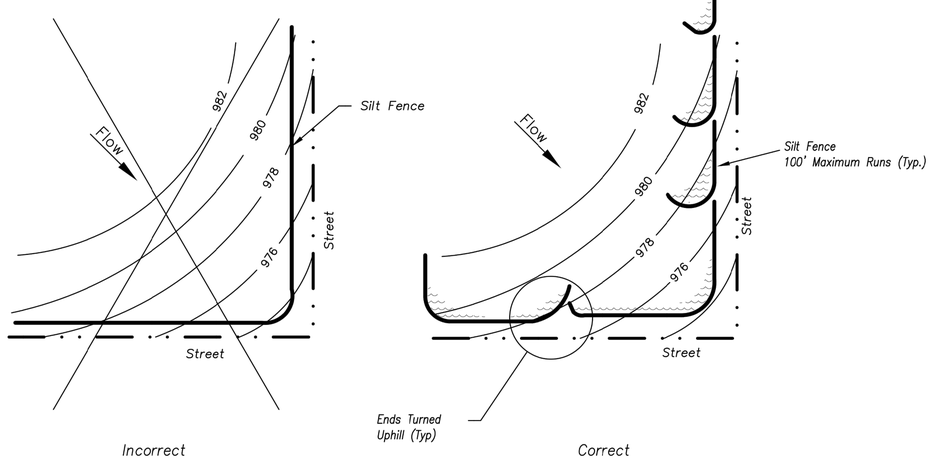
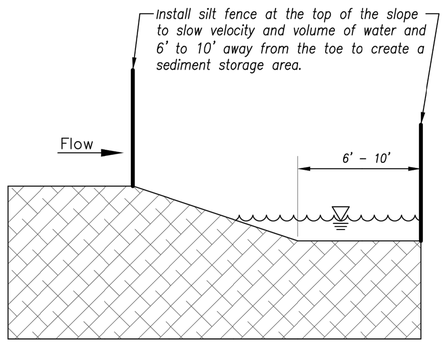
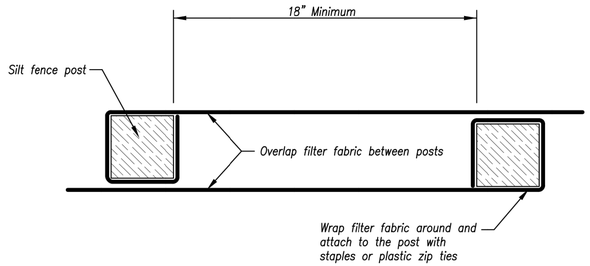


Figure A

SILT FENCE LAYOUT

Not to Scale





JOINING FENCE SECTIONS

Not to Scale

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

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SILT FENCE

STANDARD DRAWING NUMBER ESC-03

ADOPTED: 10/24/2016

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

SILT FENCE DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI ZACH A. MYERS NUMBER PE-2012009232 3/12/21 PROFESSIONAL ENGINEER

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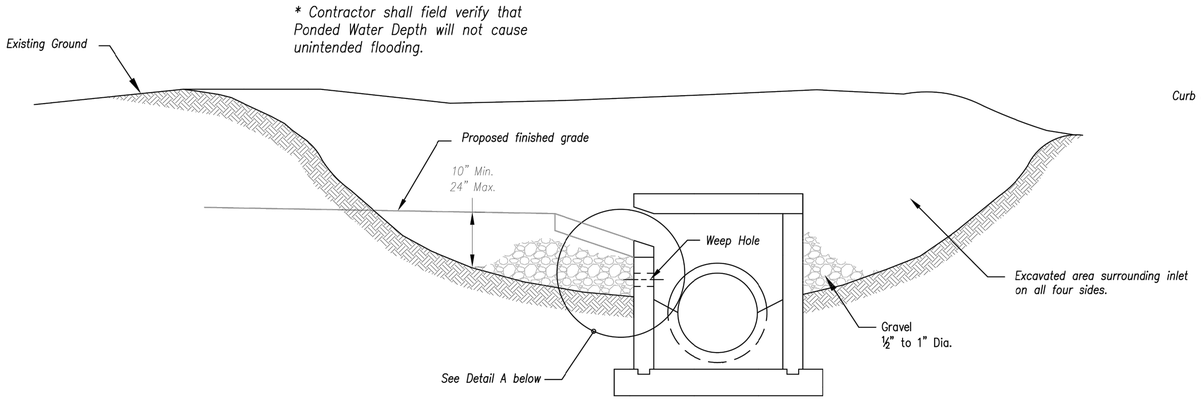
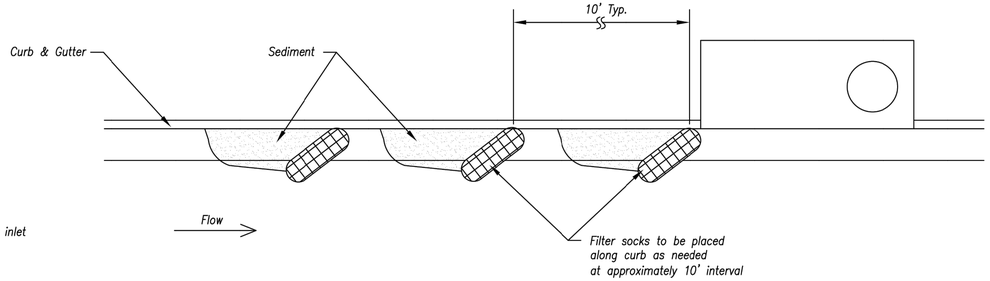
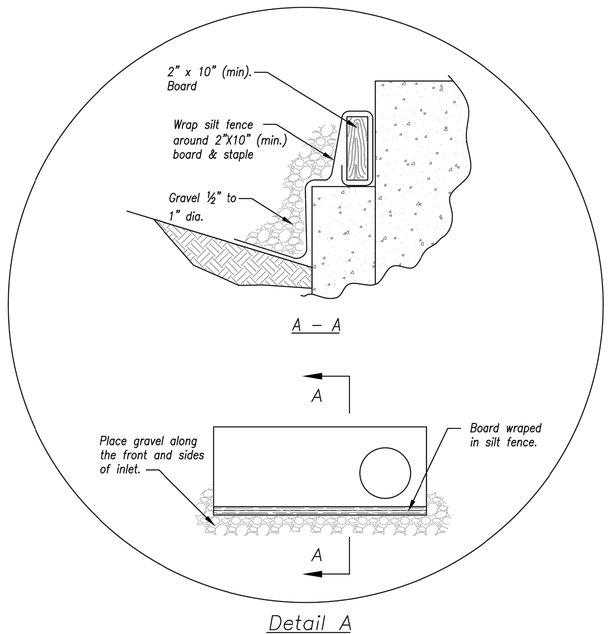




On Grade Curb Inlet Protection



Detail A

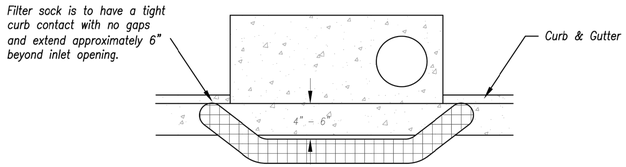
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

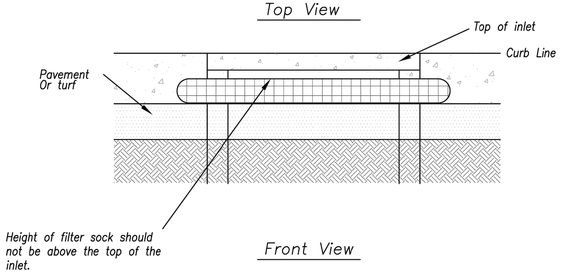
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When 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.



Top View



Front View

Sump Inlet Sediment Filter

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

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

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Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER

CURB INLET PROTECTION

STANDARD DRAWING NUMBER ESC-06
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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

CURB INLET PROTECTION DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/15/21
PROFESSIONAL ENGINEER

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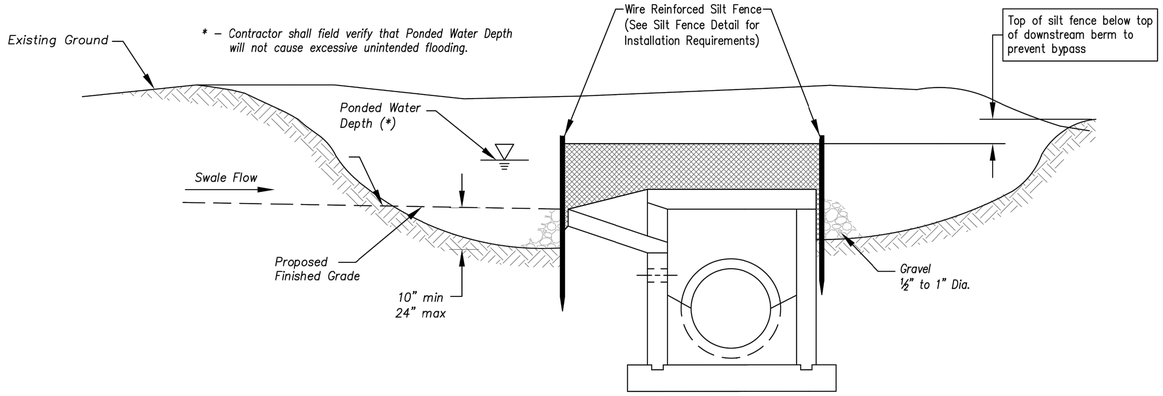
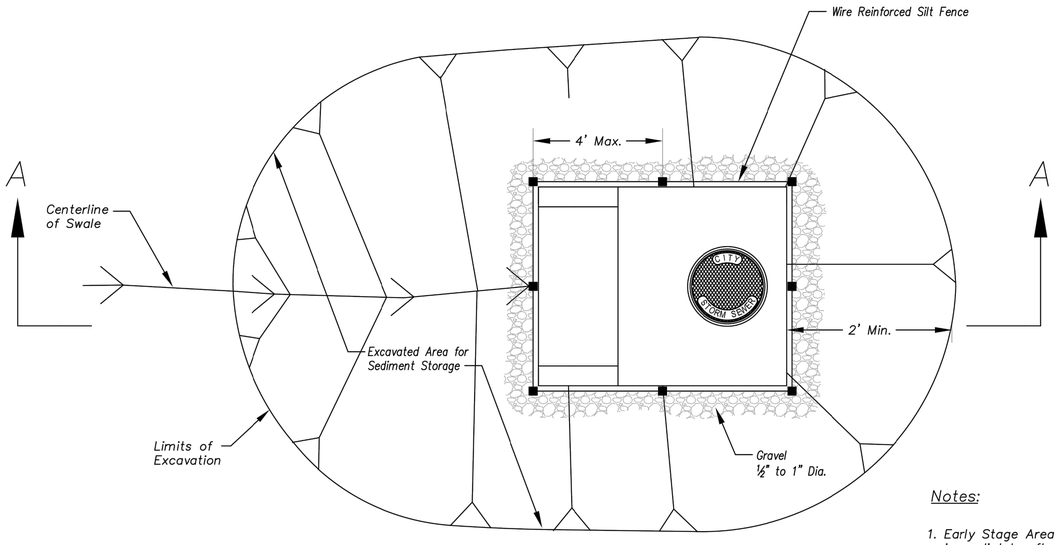


Section A–A

Not to Scale

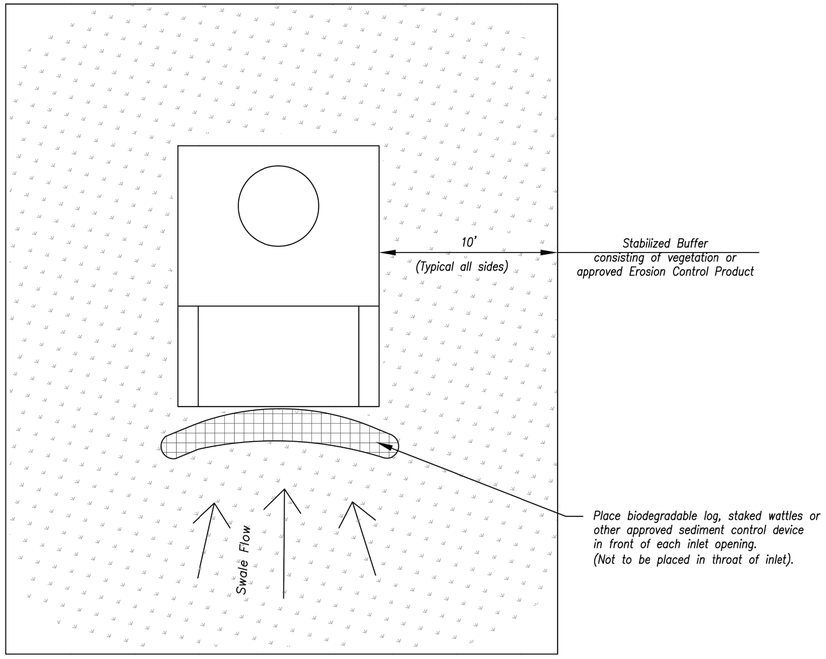


Plan

Not to Scale

EARLY STAGE AREA INLET

(All open boxes and inlets not at final grade)



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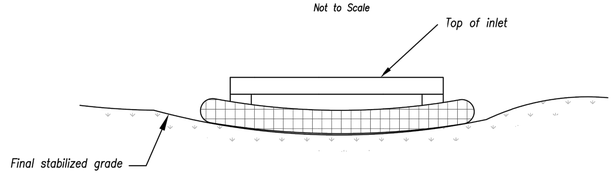

Front View

LATE STAGE AREA INLET

(Area inlets at final grade and existing inlets)

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. Backfill 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.

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.

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AREA INLET AND JUNCTION BOX PROTECTION

STANDARD DRAWING NUMBER ESC-07

ADOPTED: 10/24/2016

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

AREA INLET PROTECTION DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
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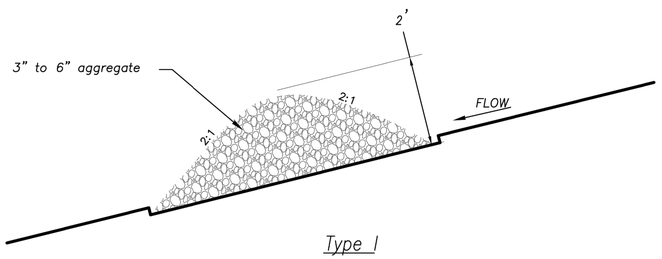
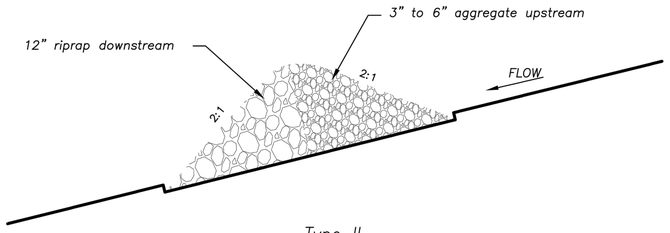


Type I

(2 Acres or less of Drainage Area)

Not to Scale



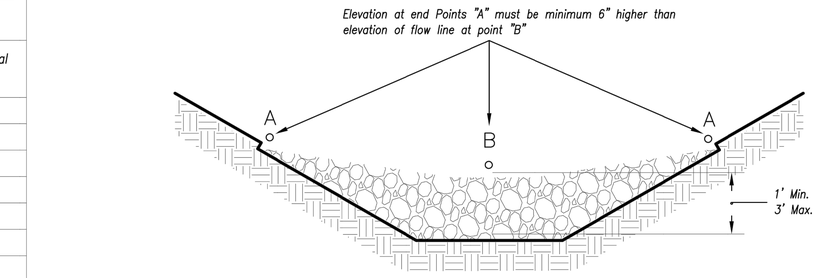
Type II

(2–10 Acres of Drainage Area)

Not to Scale

ROCK DITCH CHECK

Temporary Rock Ditch Check Spacing	
Ditch Centerline Slope (%)	Spacing Interval (Feet)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
Note: Use this spacing only for Rock Ditch Checks.	



Front View

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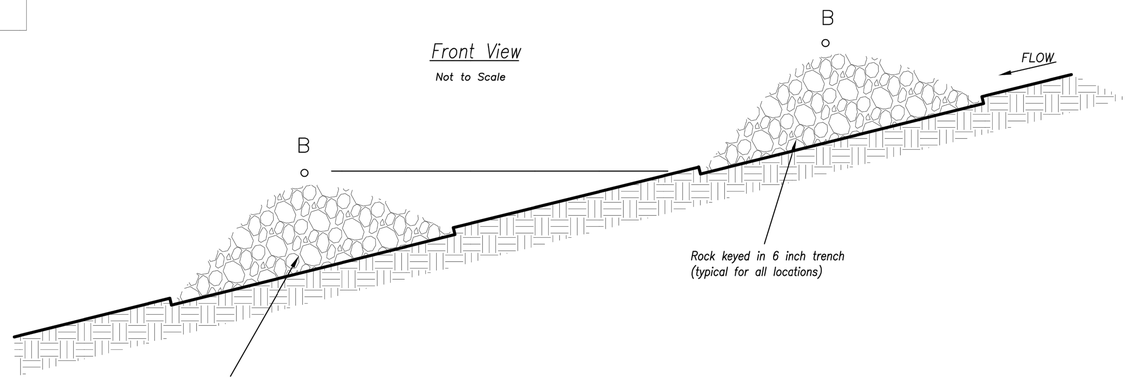

Spacing Between Check Dams (all types)

Not to Scale

Notes:

1. Rock check dams shall be used only for drainage areas less that 10 acres unless approved by the City Engineer.
2. Use rock checks only in situations where the ditch slope exceeds 6%.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of the ditch check.
2. Replace and reshape as necessary to maintain function and integrity of installation.

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

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ROCK DITCH CHECKS

STANDARD DRAWING NUMBER ESC-10

ADOPTED: 10/24/2016

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

ROCK DITCH CHECKS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
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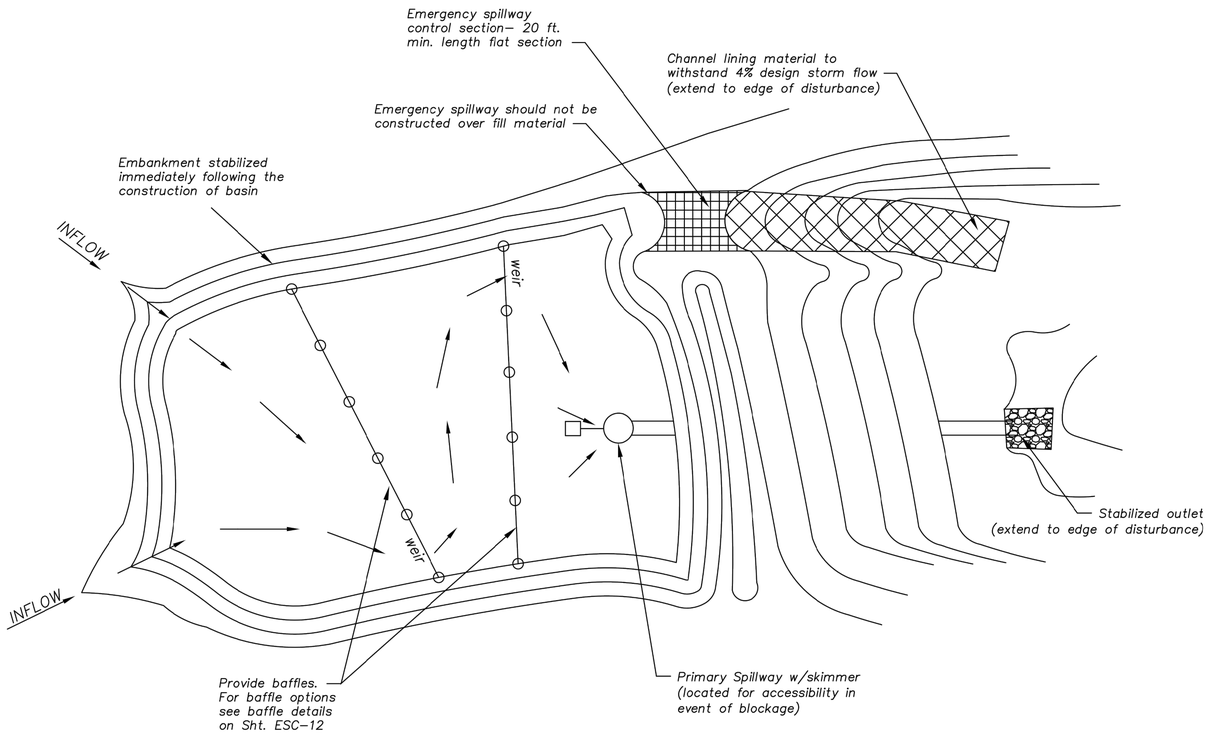
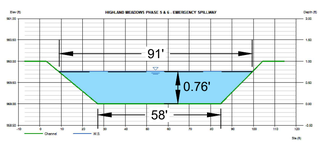


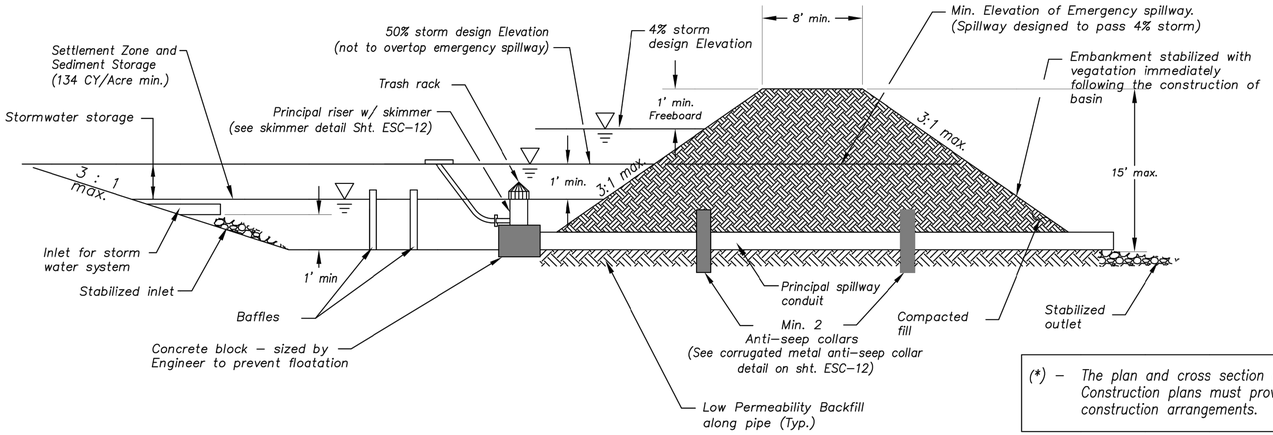
Plan View (*)

Not to Scale

EMERGENCY SPILLWAY CALCULATIONS:

DEPTH	–	0.76 FT
Q_{SPILL}	–	203.4 CFS
Q_{100}	–	194.2 CFS
AREA	–	56.4 SQ.FT.
V	–	3.61 FT/S
W_P	–	90.9 FT
Y_C	–	0.67
TOP W	–	91 FT
BOT. W	–	58 FT





Cross Section (*)

Not to Scale

Sediment Basin Design Summary (**)

Design Item	Basin #1	Basin #2	Units	Notes
Site Data:				
Tributary Drainage Area to Pond	18.87		Acres	
50% (2 yr) Design Flow	52		cfs	
4% (25 yr) Design Flow	165		cfs	
Pond Data:				
Minimum Sediment Storage Volume	2,529		cu yd	134 cy/acre required minimum
Provided Sediment Storage Volume	3,550		cu yd	
Bottom Elevation	949.00		Ft	
Sediment Cleanout Elevation	951.40		Ft	Elevation equal to 20% of original design volume
Top of Riser Elevation	954.50		Ft	Top of dry storage volume
Emergency Spillway Elevation	959.00		Ft	at or above Q–2 elevation. 1.0 ft min above principal spillway
Top of Dam Elevation	959.00		Ft	1.0 ft min above Q–25 elevation
Basin Shape Data:				
A = Area at Normal Pool	33,261		SF	
L = Length of Flow Path	505		Ft	
We = Effective Width = A/L	88.4		Ft	
Length to Width Ratio = L/We	3.7			
Principal Spillway Data:				
Riser Pipe dia	60		in	15" min. Size for 2 year flow minimum
Barrel Pipe dia	54		in	15" min. Size for 2 year flow minimum
Concrete Base size for Riser Pipe	1.5		CY	Size to prevent flotation. 1.25 safety factor required
Skimmer Size	6"			Designer to provide specific details and calculations per application to dewater in 48 to 72 hours
Emergency Spillway Data:				
Design Depth in Spillway	0.76		ft	
Design Velocity in Spillway	3.61		ft/sec	
Lining Material	CH–CL			Designer to provide specific details and calculations per application

(**) – Required on all Sediment Basin Plan Sheets

Sediment Basin Notes:

1. Interior baffles shall be provided to reduce short–circuiting of the basin. See Sht. ESC–12 for approved baffle options.
2. Emergency spillways to be located in a non–fill location when feasible and shall be lined with a non–erodible material such as Riprap or Turf Reinforcement Mat.
3. When directed, sediment basins shall be fenced using construction fence or other material for safety reasons and include warning signs, reading: "Danger – KEEP OUT".

Maintenance:

1. Check temporary sediment basins after periods of significant runoff.
2. Remove sediment and restore the basin to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlets.
4. Repair and/or replace baffles as necessary to maintain function and integrity of installation.
5. Keep outlet, skimmer and pool area free of all trash and other debris.

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

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

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KANSAS CITY METRO CHAPTER

SEDIMENT BASIN

STANDARD DRAWING NUMBER ESC-11

ADOPTED: 10/24/2016

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

SEDIMENT BASIN

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/10/21
PROFESSIONAL ENGINEER

SHEET NUMBER
C607
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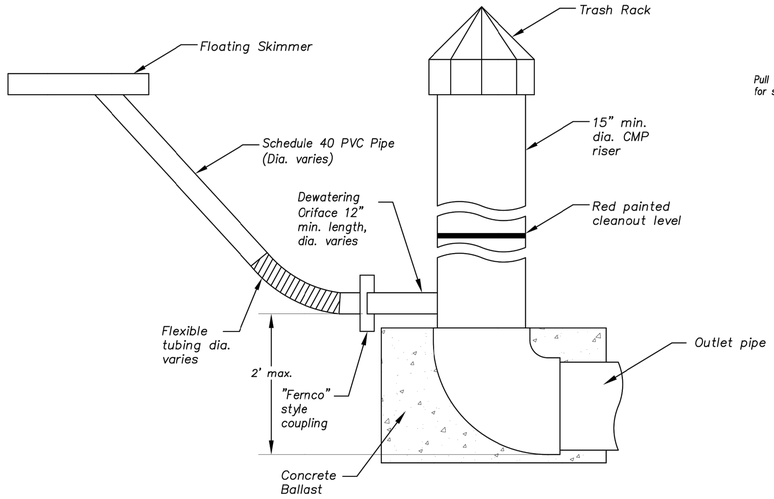
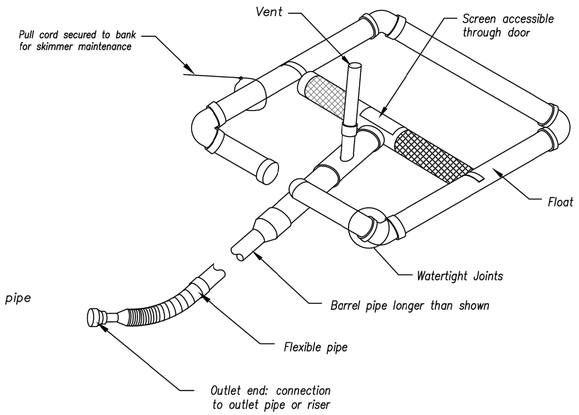
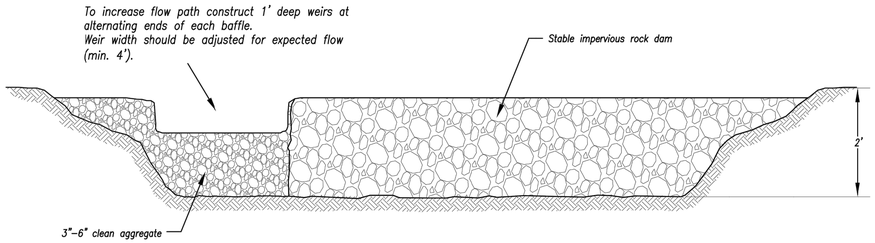


PRINCIPAL SPILLWAY DETAIL

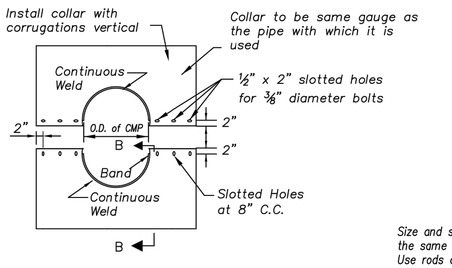


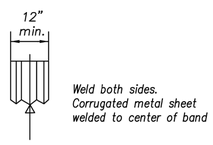
SKIMMER DETAIL (Typ.) *

* Designer to provide specific details per application (e.g. pipe sizes, screen sizes, perforation, etc.) as required.



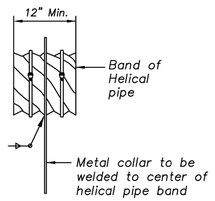
Option A – Rock with Weir



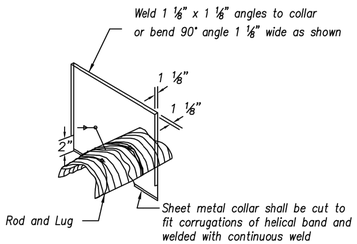


SECTION B–B

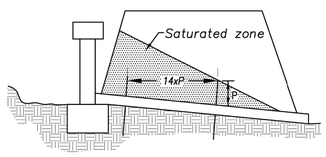
Size and spacing of slotted openings shall be the same as shown for CM collar. Use rods and lugs to clamp bands securely to pipe.



PARTIAL ELEVATION



ISOMETRIC VIEW



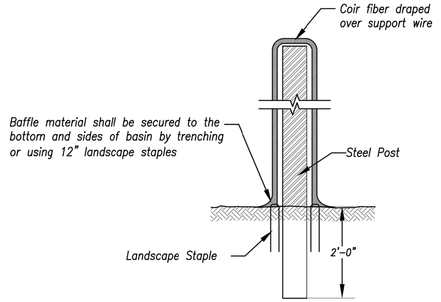
ANTI–SEEPAGE COLLAR LOCATIONS

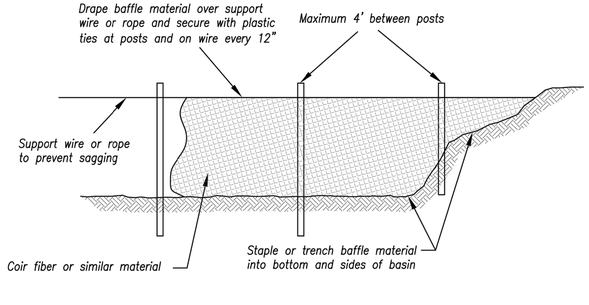
CORRUGATED METAL ANTI–SEEPAGE COLLAR DETAIL

Not to Scale

Anti–Seepage Collar Notes:

1. Connections between the anti–seepage collar and the barrel must be watertight.
2. P = projection distance. Sized as required to achieve at least a 10% increase in seepage length.
3. 14xP = Max. spacing between collars.
4. Collars shall generally be placed in the middle third of the embankment, and within the saturated zone.
5. All materials to be in accordance with construction material specifications.
6. When specified on the plans, coating of collars shall be in accordance with construction material specifications.
7. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
8. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at the time of installation.
9. Each collar shall be furnished with two (2) ½" diameter rods with standard tank lugs for connecting the collars to the pipe.
10. For bands and collars, modification of the details shown may be used providing equal water tightness is maintained and detailed drawings are Submitted and approved by the Engineer prior to delivery.
11. Two other types of anti–seep collars are:
    a. Corrugated metal, similar to above, except shop welded to a 4 ft. section of the pipe and connected to the pipe with connecting bands.
    b. Concrete, 6 inches thick, formed around the pipe with #3 rebar spaced 15".





Option B – Coir Fiber Material

BAFFLE DETAILS

Not to Scale

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

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KANSAS CITY METRO CHAPTER

SEDIMENT BASIN - DETAILS

STANDARD DRAWING NUMBER ESC-12

ADOPTED: 10/24/2016

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

SEDIMENT BASIN DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER PE-2012009232
3/10/22
PROFESSIONAL ENGINEER

SHEET NUMBER
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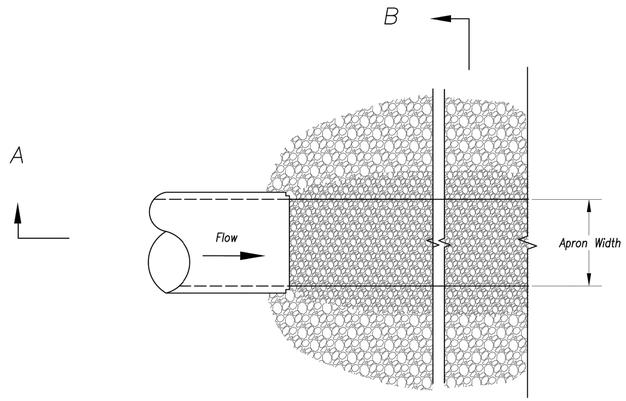

Plan View
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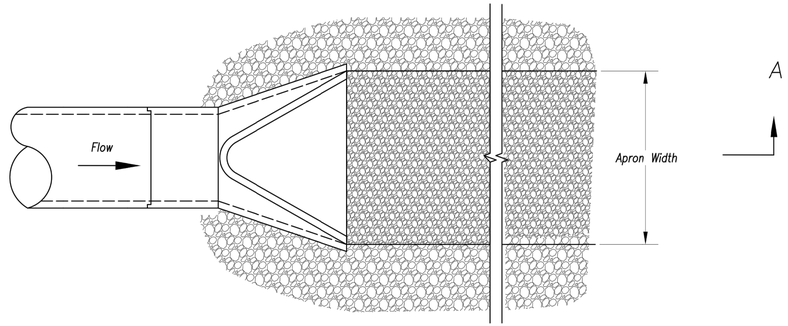

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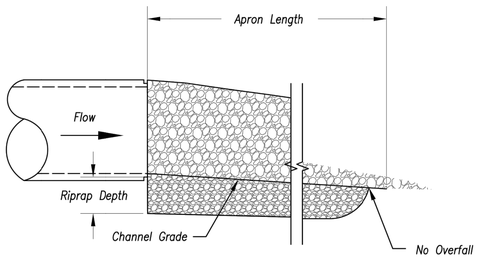

Section A–A
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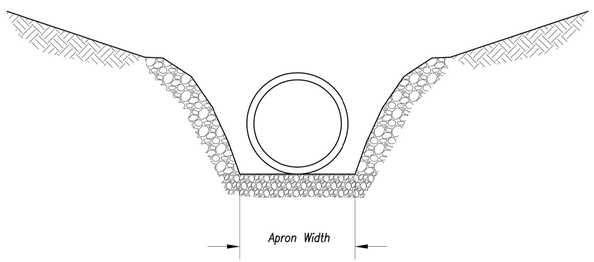

Section B–B
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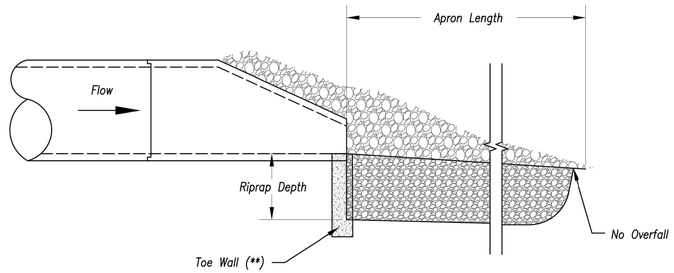
OUTLET PROTECTION W/O END SECTION



Section A–A
Not to Scale

OUTLET PROTECTION WITH END SECTION

Notes:

1. *Rock all sides steeper than 3:1.*
2. *Stabilize all disturbed areas downstream of outlet to the limits of disturbance.*
3. *Alternative outlet protection and slope stabilization measures may be used with approval by the Engineer.*
4. *Install riprap apron so that it is no higher than flowline of pipe.*
5. *Reference APWA Specification 2650 for rock type, size, and placement.*

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

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OUTLET PROTECTION

STANDARD DRAWING NUMBER ESC-14

ADOPTED: 10/24/2016

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HIGHLAND MEADOWS - 5TH PLAT

OUTLET PROTECTION DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
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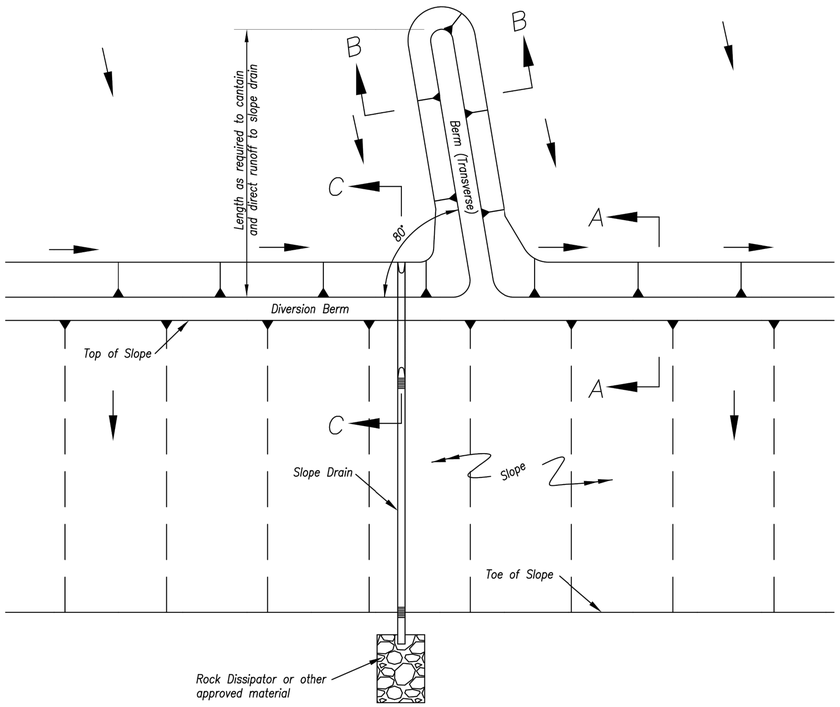


TYPICAL PLAN VIEW OF DIVERSION BERM AND SLOPE DRAIN

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:

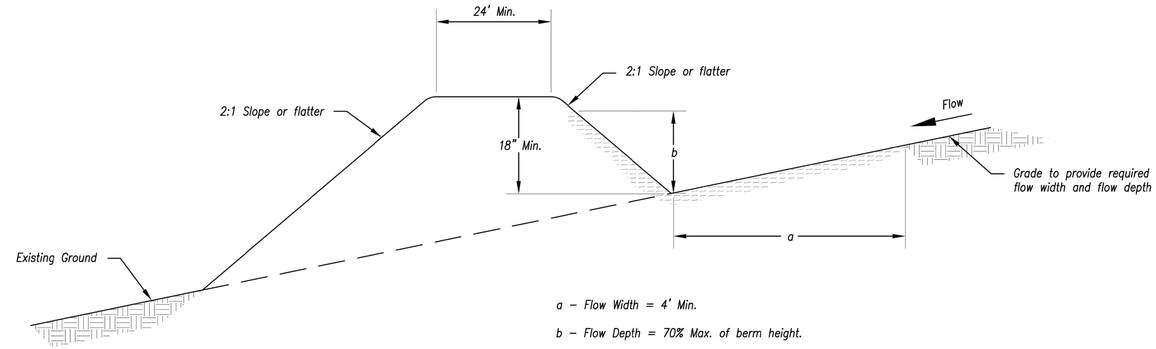
1. Slope Drain and Diversion Berm may be used on either project foreslopes or project backslopes.
2. Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.
3. Pipe shall be secured in place as approved by Engineer.

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.

TYPICAL PROFILE OF DIVERSION BEAM

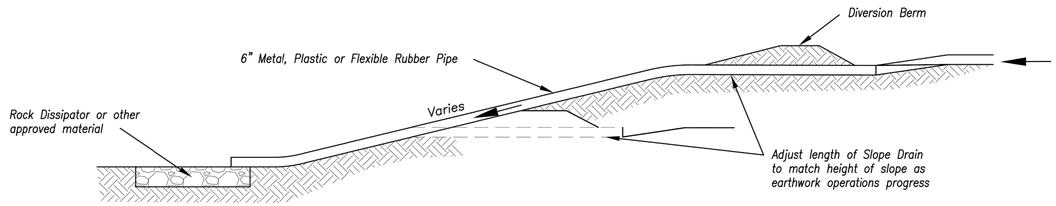
Not to Scale

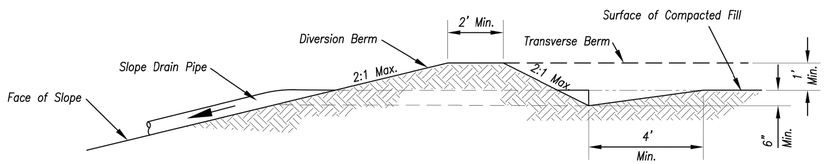


a – Flow Width = 4' Min.

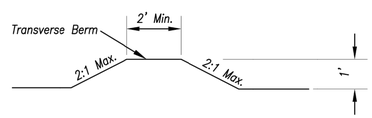
b – Flow Depth = 70% Max. of berm height.

TYPICAL PROFILE OF DIVERSION BERM





Section C–C



Section B–B

TYPICAL PROFILE OF DIVERSION BERM WITH SLOPE DRAIN

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

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KANSAS CITY METRO CHAPTER

DIVERSION BERMS AND SLOPE DRAINS

STANDARD DRAWING NUMBER ESC-05

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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

TEMPORARY DIVERSION BERM

S10, T47N, R32W
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