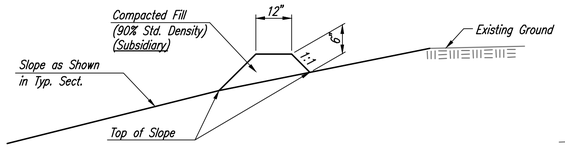


TEMPORARY EROSION CONTROL DETAIL FOR SLOPE PROTECTION

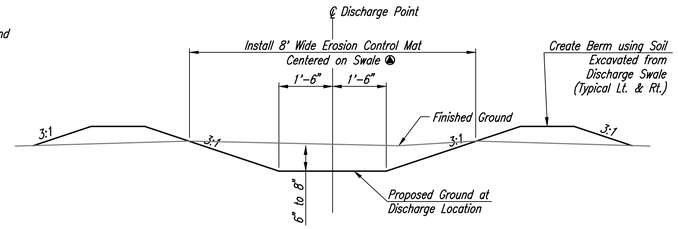
THE ENGINEER MAY DETERMINE THAT THE HEIGHT OF BERM SHOULD BE INCREASED OVER THAT SHOWN IF DRAINAGE CONDITIONS ARE PRODUCING SLOPE EROSION.

TEMPORARY EROSION CONTROL BERMS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

AT REGULAR INTERVALS OF NO GREATER THAN 250 FT, AND WHERE FLOW IS CONCENTRATED, SUCH AS THE CORNERS OF THE POND, OR AS DIRECTED BY THE ENGINEER, AND AS PER PLANS DEPICT PROVIDE BREAKS IN THE BERM TO ALLOW CONTROLLED DISCHARGE OF TRAPPED WATER. DISCHARGE LOCATIONS SHALL BE PROTECTED AS NECESSARY TO PREVENT SLOPE EROSION. SEE TYPICAL SECTION.

ALL AREAS WHERE FLOW IS CONCENTRATED SHALL BE PROTECTED BY SILTATION BARRIERS PRIOR TO DISCHARGING INTO ANY DITCH, STORM SEWER, OR WATERCOURSE, AS APPROVED BY THE ENGINEER.

MEASUREMENT AND PAYMENT: THIS WORK SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE CONSIDERED SUBSIDIARY TO "UNCLASSIFIED EXCAVATION".



TYPICAL SECTION
(Erosion Berm Discharge Point)

▲ EROSION CONTROL MAT SHALL BE NORTH AMERICAN GREEN P300 OR APPROVED EQUIVALENT. INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

PAID FOR AS S.Y. "EROSION CONTROL MAT" AS INDICATED ON PLANS. THE BID PRICE SHALL BE CONSIDERED FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTS NECESSARY TO COMPLETE WORK.

APPROXIMATE LOCATIONS ARE SHOWN ON THE GRADING PLANS.

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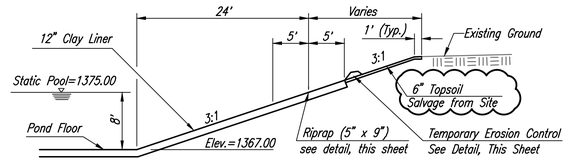
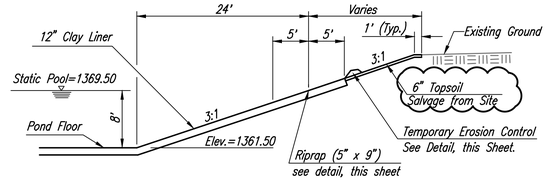


SECTION A–A



SECTION B–B

POND SEALING NOTES:

THE POND AREAS INDICATED FOR CLAY LINER SHALL BE OVEREXCAVATED TO A DEPTH OF ONE FOOT BELOW THE FINAL POND SURFACE. THE OVEREXCAVATED MATERIAL SHALL BE STOCKPILED FOR RE–USE, UTILIZED IN PROJECT EMBANKMENTS, OR STOCKPILED ON SITE. BACKFILL OVEREXCAVATED AREA WITH PROJECT AREA CLAY MATERIAL AND COMPACTED TO PROVIDE AN IMPERVIOUS SURFACE. NO SHALE PERMITTED IN THIS ZONE. PROVIDE QUALITY CONTROL TESTING AS OUTLINED BELOW:

1. CONSTRUCT 12" THICK POND LINER IN 6" THICK LIFTS.
2. MATERIAL INTENDED FOR POND LINER CONSTRUCTION SHOULD BE SUBMITTED TO A 3RD PARTY TESTING AGENCY FOR LABORATORY TESTING PRIOR TO THE START OF CONSTRUCTION.
3. LIFTS SHOULD BE COMPACTED TO THE MAXIMUM DRY DENSITY REQUIRED TO ACHIEVE A MINIMUM HYDRAULIC CONDUCTIVITY OF 1X10–7 CM/SEC OR LESS.
4. MAXIMUM DRY DENSITY SHOULD BE DETERMINED BY A GEOTECHNICAL TESTING LABORATORY.
5. MOISTURE CONTENT SHOULD BE DETERMINED BY A GEOTECHNICAL TESTING LABORATORY.
6. POND LINER DENSITY TESTING FREQUENCY SHALL BE EVERY 400' ALONG POND SIDES PER LIFT AND AT 2 LOCATIONS ALONG THE POND BOTTOM IN EACH POND (4 TOTAL ALONG POND BOTTOM).
7. AFTER CONSTRUCTION OF THE POND LINER, CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING MOISTURE CONTENT OF THE LINER AT OR ABOVE OPTIMUM TO PREVENT SHRINKAGE CRACKING UNTIL THE POND IS FILLED.

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POND SEALING, AS DESCRIBED HEREIN, SHALL BE MEASURED AND PAID FOR AS FOLLOWS: THE OVEREXCAVATION WILL BE PAID FOR UNDER THE LUMP SUM BID ITEM "POND SEALING". THIS SHALL BE CONSIDERED FULL COMPENSATION FOR ALL OVEREXCAVATION, STOCKPILING, AND DOUBLE HANDLING OF EARTHWORK (IF NECESSARY).

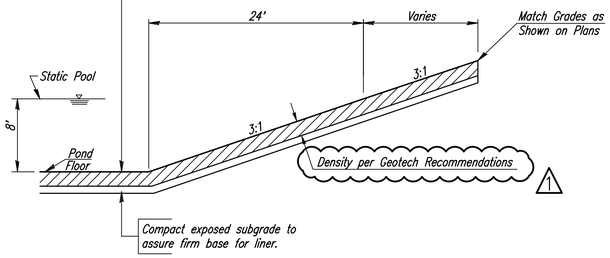
REQUIRED PHYSICAL PROPERTIES OF CLAY LINER MATERIAL

PROPERTY	TEST METHOD	TEST VALUE
MIN. % PASSING #200 SIEVE	ASTM D1140	80
MIN. LIQUID LIMIT	ASTM D4318	40
MIN. PLASTICITY INDEX	ASTM D4318	30

POND GRADING NOTES:

CONTRACTOR SHALL PERFORM GRADING AS SHOWN BY CONTOURS AND COORDINATES ON SHEET NOS. C104 AND C105.

1. Construct 12 inches clay liner.
2. On–site high plasticity clay may be used.
3. Construct liner in two 6–inch lifts.
4. Compact to 95% Std. Density (ASTM D–698)



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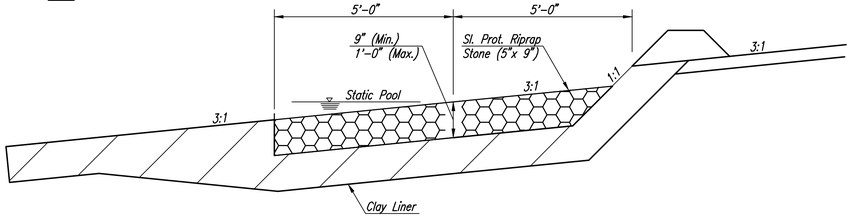
CLAY LINER CONSTRUCTION PROCEDURE FOR POND SEALING



RIPRAP (5" x 9")

NOTES

RIPRAP MATERIALS SHALL MEET THE REQUIREMENTS FOR QUALITY AND DELETERIOUS SUBSTANCES AS SET FORTH IN SUBSECTION 1114 OF STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, KANSAS DEPARTMENT OF TRANSPORTATION, 2007 EDITION.

SHALL BE PAID FOR AS SQUARE YARD "SLOPE PROTECTION RIPRAP STONE (5"x 9")".

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CITY OF WICHITA

JOSHUA GOLK LICENSED 24136 12/03/2019 KANSAS PROFESSIONAL ENGINEER

STORM DRAIN NO. 463
TO SERVE
THE VILLAS AT OAK CREEK

GARY JANZEN, P.E. - CITY ENGINEER
CITY OF WICHITA PROJECT NO. 468-2019-085434

Issue:		
1	PONDS	12/02/19

JOB NO.	35-170551-001-0042
DATE	NOVEMBER 2019
PM	JAG
DESIGNED BY	JAG
DRAWN BY	CSL, KTD
CHECKED BY	CSB

TYPICAL SECTIONS

C106

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Plot Scale 1:1.291 12-03-2019 5:22:48 PM by JAG
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