

**GENERAL TREE & NATURAL AREA PROTECTION NOTES:**

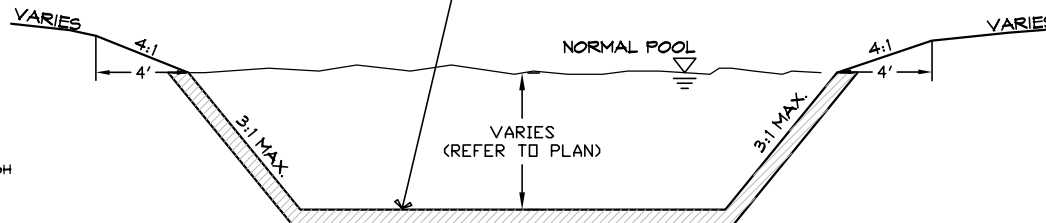
- TREES ARE AN IMPORTANT ASSET TO THE DEVELOPER. EVERY EFFORT SHALL BE MADE TO PRESERVE EACH AND EVERY TREE (UNLESS NOTED FOR REMOVAL) AS DIRECTED IN THESE PLANS & NOTES.
- BEFORE ANY TYPE OF CONSTRUCTION BEGINS WITHIN THE PROJECT IMPROVEMENT AREA THE CONTRACTOR SHALL INSTALL PROTECTION FENCE AROUND ALL TREE MAGGES AND INDIVIDUAL TREES AS NOTED IN PLANS. ALL TREE REMOVAL SHALL BE DISCUSSED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
- EQUIPMENT AND CONSTRUCTION MATERIALS SHALL REMAIN OUT OF AND AWAY FROM TREE DRIP LINES SO AS TO NOT COMPACT THE ROOT ZONE OR DAMAGE THE TREE (REFER TO DETAIL). CHEMICAL SPILL DAMAGE SHALL BE PREVENTED BY FILLING GAS TANKS, CLEANING TOOLS & REPAIRING EQUIPMENT WELL OUTSIDE TREE PROTECTED ROOT ZONES. MIXING TRUCKS SHALL BE RINSED OUT OFF SITE. WHERE IT OCCURS THAT A CONSTRUCTION ROUTE OR A PROPOSED IMPROVEMENT OCCURS WITHIN A TREE'S PROTECTED ROOT ZONE, IT MAY BE NECESSARY, DEPENDENT UPON THE TYPE OF CONSTRUCTION AND EQUIPMENT USED, TO INSTALL A ROOT PROTECTION BRIDGE OR APPROVED EQUIVALENT. THIS MAY BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
- ANY TREE THAT MUST HAVE BRANCHES REMOVED SHALL BE TRIMMED WITH SHARP INSTRUMENT/TOOL THAT IS INTENDED FOR SUCH OPERATIONS. CONSULT LANDSCAPE ARCHITECT PRIOR TO TRIMMING. KNOCKING BRANCHES OFF WITH A BACKHOE OR OTHER SIMILAR MACHINE IS NOT ACCEPTABLE. REFER TO TREE TRIMMING DETAIL.
- FAILURE TO MAINTAIN ERECTED TREE PROTECTION FENCE AROUND DESIGNATED AREAS WITHOUT PRIOR REMOVAL CONSENT FROM THE OWNER'S REPRESENTATIVE IS STRICTLY PROHIBITED. ALL WORK SHALL HALT UNTIL REMEDIED SHOULD ANY PROTECTION FENCE BE REMOVED, MOVED, OR DEVIATIONS FROM THESE NOTES ARE OBSERVED BY THE OWNER'S REPRESENTATIVE (THIS INCLUDES TREES WHERE NO FENCE IS REQUIRED).

**GENERAL GRADING NOTES:**

- THIS IS DESIGN GRADING. ALL GRADES SHALL BE CONTOURED SMOOTHLY WITH GENTLE ROUNDING/SHAPING OF ALL AFFECTED LAND SURFACES. ABRUPT TRANSITIONS AT THE TOP OF SLOPES WHERE PROPOSED GRADES MEET EXISTING ARE NOT ACCEPTABLE. SURVEY STAKES FOR POND GRADING ARE FOR GENERAL GRADING PURPOSES ONLY. NOT ALL SLOPES ARE CONSTANT AND THEREFORE THE GRADING PLANS SHALL BE REFERRED TO FOR FINAL GRADE SHAPING. ALL BERMS & POND EDGES SHALL BE FINAL GRADED/SHAPED WITH A TRACK DOZER, NOT A BLADE. THE GRADING SHALL BE APPROVED BY MKEC'S LANDSCAPE ARCHITECT PRIOR TO THE ADDITION OF THE TOPSOIL LAYER.
- A 6" LAYER OF TOPSOIL SHALL BE STRIPPED IN ALL AREAS OF CUT AND SAVED BACK FOR REPLACEMENT IN RESERVE AREAS. ANY EXCESS TOPSOIL SHALL BE SEPARATELY STOCK PILED ON-SITE AT AN APPROVED LOCATION. NO TOPSOIL SHALL BE PLACED ON LOTS OR WITHIN STREET R/W UNLESS SPECIFICALLY NOTED. IN CASES WHERE GRADING IS DIRECTED UNDER TREE DRIP LINES NO TOPSOIL STRIPPING SHALL BE PERFORMED WITHIN THESE AREAS.
- TOPSOIL SHALL BE REPLACED AT A DEPTH OF 6" IN ALL POND RESERVE AREAS (EXCEPT GRADES BELOW THE PROPOSED NORMAL POOL ELEVATION WITHIN PONDS). THE TOPSOIL REPLACEMENT THICKNESS SHALL BE A MINIMUM OF 12" ON BERMS. NOTE: THE FINISHED GRADE INDICATES THE SURFACE ELEVATION AFTER THE TOPSOIL LAYER HAS BEEN PLACED. THE TOP 12" OF TOPSOIL SHALL NOT BE PLACED ON BERMS WITHOUT PRIOR APPROVAL FROM THE LANDSCAPE ARCHITECT. IF THE TOP 12" OF TOPSOIL IS PLACED PRIOR TO APPROVAL AND THERE IS A PROBLEM, THE CONTRACTOR MAY NEED TO REWORK THE BERM IN ORDER TO CONSTRUCT PER THE INTENT OF THE PLAN.
- AS THE PROJECT NEARS COMPLETION, THE CONTRACTOR SHALL RIP (SCARIFY) ALL HAUL ROADS WITH AN AGRICULTURAL IMPLEMENT INTENDED FOR SUCH PURPOSES TO A DEPTH OF 10". MULTIPLE PASSES MAY BE NECESSARY TO THOROUGHLY ALLEVIATE COMPACTION.
- IN THE EVENT THAT OFFSITE TOPSOIL IS NEEDED, IT SHALL BE FERTILE NATURAL TOPSOIL, TYPICAL OF THE LOCALITY, OBTAINED FROM WELL DRAINED AREAS. STOCKPILED TOPSOIL MAY BE USED. IT SHALL BE WITHOUT ADMIXTURE OF SUBSOIL OR SLAG AND SHALL BE FREE OF STONES, LUMPS, STICKS, PLANTS OR THEIR ROOTS, TOXIC SUBSTANCES OR OTHER EXTRANEOUS MATTER THAT MAY BE HARMFUL TO PLANT GROWTH OR WOULD INTERFERE WITH FUTURE MAINTENANCE. TOPSOIL PH RANGE SHALL BE 5.5 TO 7.0. TOPSOIL SHALL BE APPROVED BY MKEC'S LANDSCAPE ARCHITECT PRIOR TO PLACEMENT.

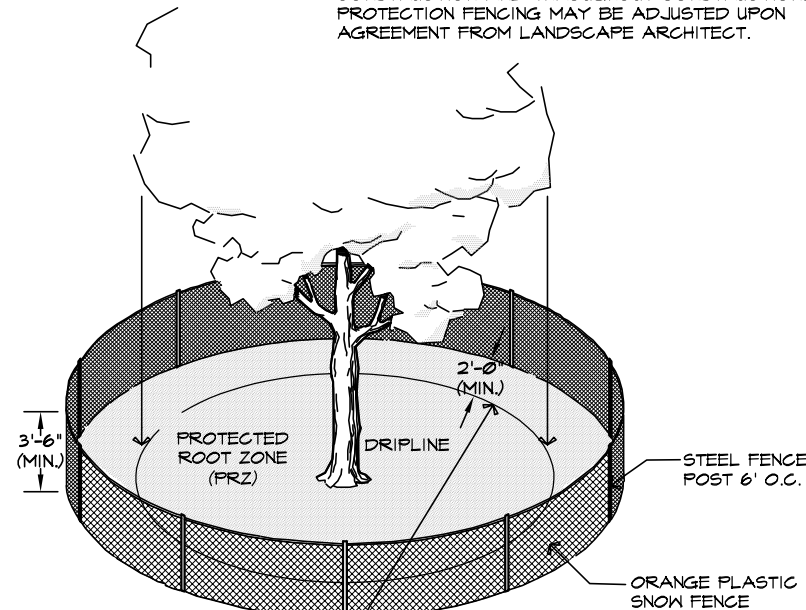
OVER EXCAVATE 12" OF SOIL. PLACE IN TWO 6" LIFTS CLAY LINER (PI=30). COMPACT TO 2% ABOVE OPTIMUM ASTM D698 95% RELATIVE MAX DENSITY. A PERMIABILITY TEST OF THE LINER MATERIAL SHALL BE PERFORMED BY A GEOTECHNICAL SOILS ENGINEER AT A RANDOM LOCATION AS DETERMINED BY THE PROJECT INSPECTOR AND AT THE CONTRACTOR'S EXPENSE (1 PER POND). THE CLAY LINER MATERIAL SHALL MEET OR EXCEED A PERMIABILITY RATING VALUE OF  $1.7 \times 10^{-7}$  CM/SEC. ALL COST ASSOCIATED WITH THIS WORK SHALL BE SUBSIDIARY TO EARTHWORK ITEMS. THE TOP 6" CLAY LIFT TO BE BLENDED WITH BENTONITE. BENTONITE TO BE PLACED @ A RATE OF 20LB/SY.

ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE SUBSIDIARY TO EARTHWORK ITEMS.



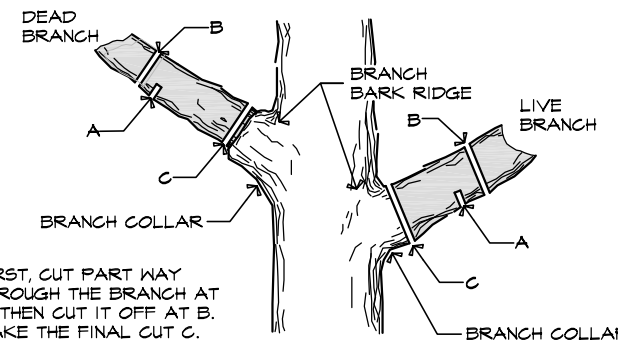
**TYPICAL LAKE DETAIL**  
NOT TO SCALE

NOTE: WHERE INDICATED, TREES SHALL BE PROTECTED AS SHOWN PRIOR TO ANY CONSTRUCTION AND THROUGHOUT CONSTRUCTION. PROTECTION FENCING MAY BE ADJUSTED UPON AGREEMENT FROM LANDSCAPE ARCHITECT.



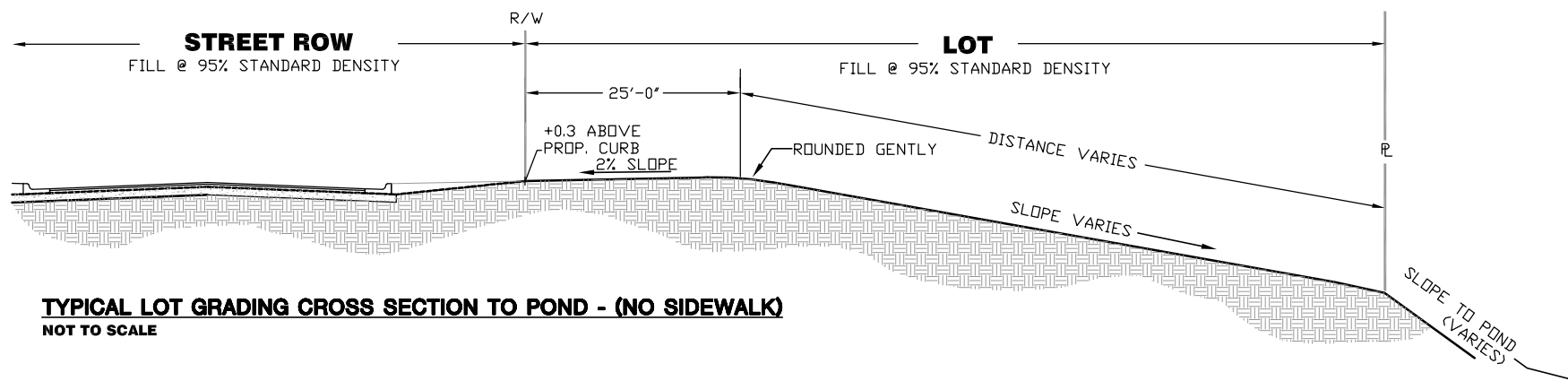
NOTE: THE TEMPORARY FENCE IS TO BE CONSTRUCTED AROUND SPECIFIED AREAS/TREES PRIOR TO ANY CONSTRUCTION AND SHALL REMAIN UNTIL ALL CONSTRUCTION IS COMPLETE. CONSTRUCTION EQUIPMENT AND MATERIALS ARE NOT PERMITTED WITHIN THE (PRZ). THE FENCE PLACEMENT AROUND THE (PRZ) MAY ONLY BE ADJUSTED WITH PERMISSION FROM THE LANDSCAPE ARCHITECT.

**TEMPORARY TREE PROTECTION**  
NOT TO SCALE

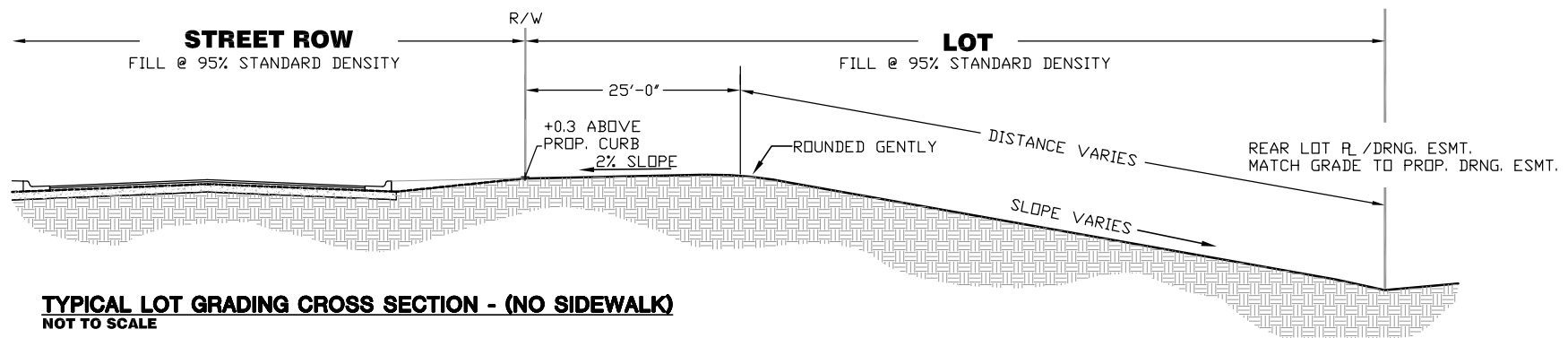


FIRST, CUT PART WAY THROUGH THE BRANCH AT A; THEN CUT IT OFF AT B. MAKE THE FINAL CUT C.

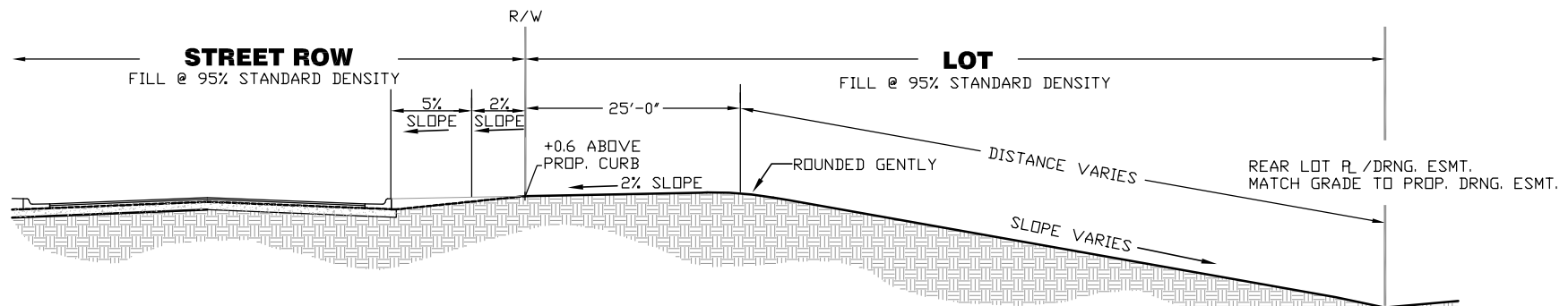
**TREE TRIMMING DETAIL**  
NOT TO SCALE



**TYPICAL LOT GRADING CROSS SECTION TO POND - (NO SIDEWALK)**  
NOT TO SCALE



**TYPICAL LOT GRADING CROSS SECTION - (NO SIDEWALK)**  
NOT TO SCALE



**TYPICAL LOT GRADING CROSS SECTION - (WITH SIDEWALK)**  
NOT TO SCALE