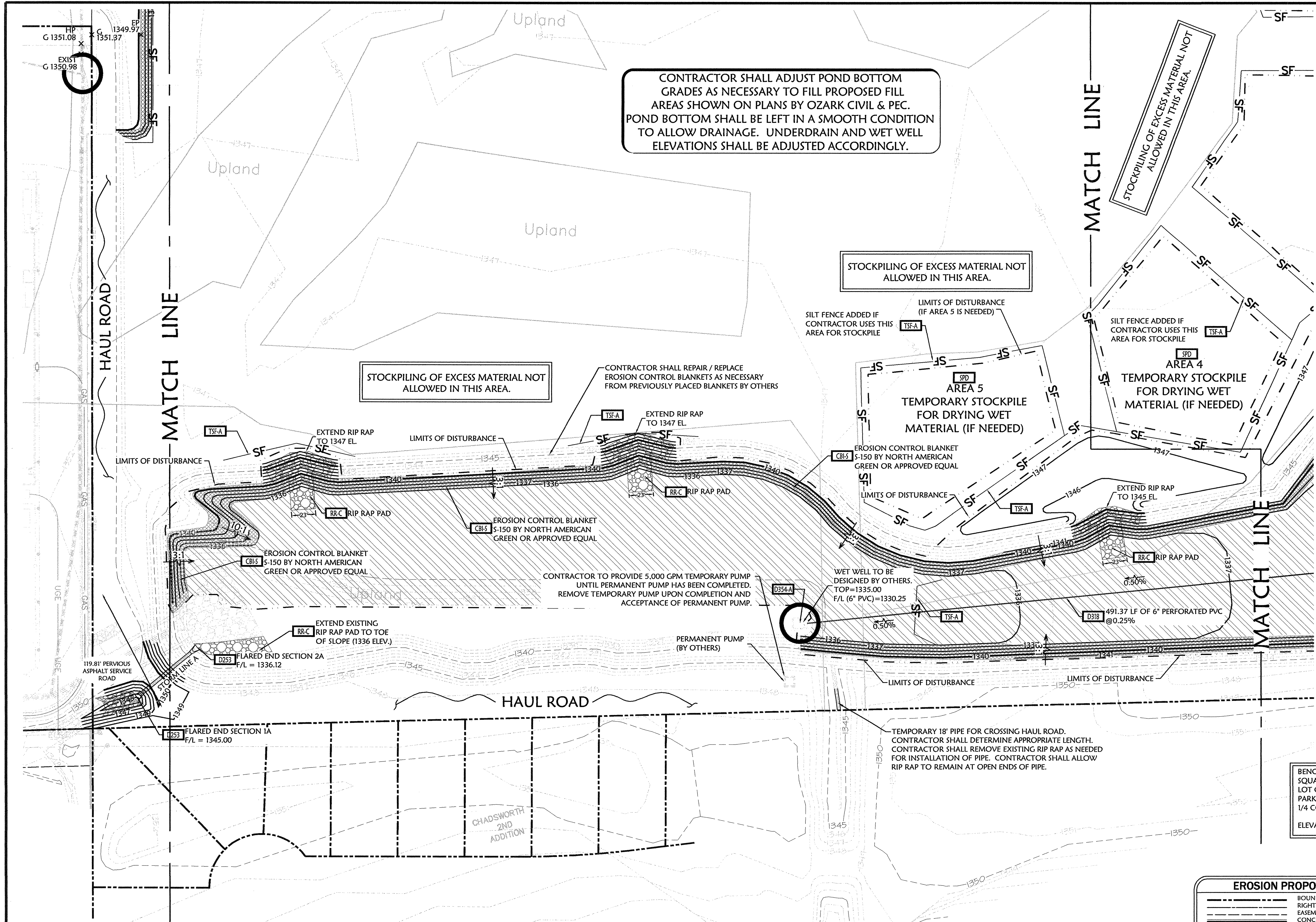

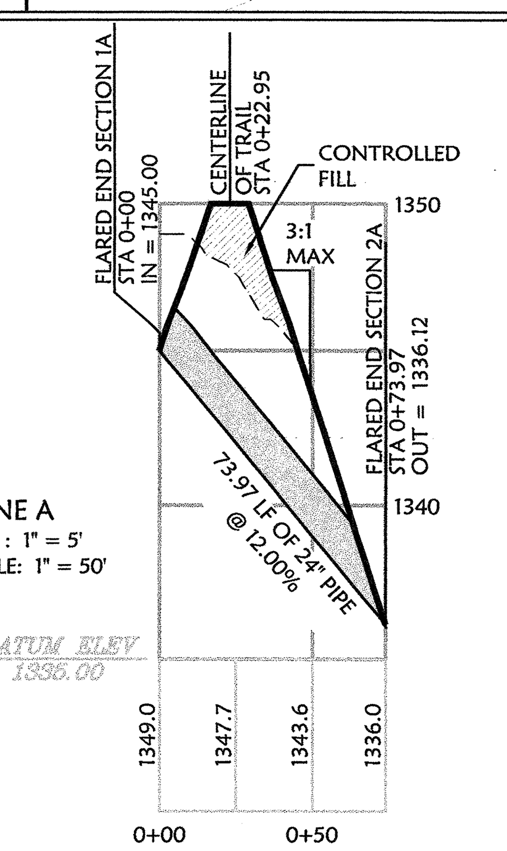

STORM LINE A
VERTICAL SCALE : 1" = 5'
HORIZONTAL SCALE: 1" = 50'

MASS GRADING AND DRAINAGE NOTES:

INFORMATION PERTAINING TO UNDER GROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD LOCATIONS WHEN POSSIBLE, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS IN ADVANCE OF MACHINE TRENCHING. IF CLEARANCES ARE LESS THAN SPECIFIED ON THESE PLANS OR 18", WHICH EVER IS LESS, CONTACT THE ENGINEER AND THE OWNER/ DEVELOPER PRIOR TO PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON ADJUSTING EXISTING UTILITY LINE AS REQUIRED BY CUT AND FILL AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF SHEETING, SHORING, BRACING AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS.

ALL STORM DRAIN PIPES ARE MEASURED FROM CENTER OF STRUCTURES AND END OF FLARED END SECTIONS.

ALL DISTURBED AREAS AND SLOPES SHALL BE GRADED SMOOTH AND (4") OF TOP SOIL APPLIED. THE AREA SHALL BE SEEDED AND WATERED UNTIL HARDY GRASS GROWTH HAS BEEN ESTABLISHED. (SEE LANDSCAPING PLAN FOR SEED MIX)

WHERE THE WORD PIPE IS USED ON THESE PLANS, THE CONTRACTOR HAS THE OPTION TO BID MATERIAL WITH n=0.012 OR LESS.

STORM DRAIN PIPE BEDDING SHALL BE INSTALLED PER DETAIL D326 (SEE DETAIL SHEETS)

RETAINING WALL(S) SHALL BE CONSTRUCTED TO EXTEND A MINIMUM OF 6 INCHES ABOVE THE TOP OF FINISHED GRADE. CONTRACTOR SHALL REFER TO THE RETAINING WALL PLAN(S) FOR CONSTRUCTION AND DESIGN SPECIFICATIONS. CONTRACTOR SHALL NOTIFY OZARK CIVIL ENGINEERING, INC. IF RETAINING WALL PLANS DIFFER FROM THIS.

SEE EROSION CONTROL PLAN FOR RIP RAP PAD SIZES.

CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL EROSION AND SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND CONSTRUCTION SCHEDULE.

REMOVE GOOD TOPSOIL FROM AREAS TO BE GRADED AND FILLED, AND PRESERVE IT FOR USE IN FINISHING THE GRADING OF ALL CRITICAL AREAS.

SCARIFY AREAS TO RECEIVE TOPSOIL TO A MINIMUM DEPTH OF 2 INCHES BEFORE PLACING TOPSOIL

CLEAR AND GRUB AREAS TO BE FILLED, REMOVE TREES, VEGETATION, ROOTS, OR OTHER DEBRIS, AND OTHER MATERIALS THAT WOULD AFFECT THE STABILITY OF THE FILL.

ENSURE THAT FILL MATERIAL IS FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER MATERIALS INAPPROPRIATE FOR CONSTRUCTING STABLE FILLS.

DO NOT INCORPORATE FROZEN MATERIAL OR SOFT, MUCK, OR HIGHLY COMPRESSIBLE MATERIALS INTO FILL SLOPES.

KEEP DIVERSIONS AND OTHER WATER CONVEYANCE MEASURES FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.

PERMANENTLY STABILIZE ALL GRADED AREAS AFTER FINAL GRADING IS COMPLETED ON EACH AREA OF THE GRADING PLAN. APPLY TEMPORARY STABILIZATION MEASURES ON ALL GRADED AREAS WHEN WORK IS TO BE INTERRUPTED OR DELAYED (SEE EROSION CONTROL PLAN).

ALL UTILITIES, INCLUDING STORM SEWER, SHOWN WITHIN PUBLIC EASEMENTS OR RIGHT OF WAYS SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE CONSTRUCTED TO THE CLIENT'S OR THE GOVERNING AGENCY'S SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. IF THERE IS A QUESTION AS TO WHICH SPECIFICATIONS SHOULD APPLY THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.

ALL EXISTING STRUCTURES, UNLESS OTHERWISE NOTED TO REMAIN. ALL FENCING, TREES, & ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. UNLESS OTHERWISE NOTED. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES & CITY OF WICHITA SPECIFICATIONS.

ALL DRAINAGE STRUCTURES SHALL BE PRE-CAST.

ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.

CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY (STATE ONE CALL SYSTEM) AND LOCATE ALL UTILITIES PRIOR TO GRADING START.

SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH CITY OF WICHITA STANDARD SITE SPECIFICATIONS.

CONTRACTOR SHALL SUBMIT A PLAN DEPICTING THE LOCATION OF PROPOSED HAUL ROUTE ACROSS WETLAND AREAS. ROUTE SHALL HAVE THE LEAST IMPACT POSSIBLE TO EXISTING WETLANDS, AND WILL BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION. WITH THE EXCEPTION OF HAUL ROUTE, CONTRACTOR SHALL NOT BE ALLOWED ACCESS TO WETLAND AREAS.

EARTHWORK QUANTITIES SHOWN HAVE BEEN CALCULATED AS THE VOLUME OF MATERIAL BOUNDED BY THE EXISTING GROUND LINE AND THE PROPOSED GROUND LINE. NO ALLOWANCE HAS BEEN MADE TO ACCOUNT FOR OVER-EXCAVATION OF UNSUITABLE MATERIAL, THE OVER-EXCAVATION OF MATERIAL REQUIRED FOR THE PLACEMENT OF POND LINING, OR FOR THE PLACEMENT OF TOP SOIL ABOVE THE PROPOSED GOUND LINE ON SLOPES AS IS REQUIRED BY THE PLANS.

BENCHMARK
SQUARE CUT ON TOP OF PARKING LOT CURB, NORTHWEST CORNER OF PARKING LOT, 90' EAST OF WEST 1/4 COR. SEC. 5-27S-R1W.

ELEVATION = 1353.11

EROSION CONTROL GENERAL NOTES:

THE CONTRACTOR SHALL INSPECT, REPAIR AND ADD STONE TO THE STONE CONSTRUCTION ENTRANCE WHEN IT BECOMES SATURATED WITH MUD TO INSURE IT FUNCTIONS AS IT WAS INTENDED.

THE TOPSOIL STOCKPILE SHALL BE GRADED TO DRAIN AND SEEDED WITH A TEMPORARY SEED MIX.

ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSPECTED, CLEANED REPAIRED IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN.

TEMPORARY SEDIMENT CONTROL MEASURES (SILT FENCE, CONSTRUCTION ENTRANCE, ETC..) SHALL BE MAINTAINED UNTIL ALL CONTRIBUTING AREAS ARE GRADED AND STABILIZED.

A COMPLETE PLAN FOR MAINTENANCE OF CONTROL DEVICES IS CONTAINED WITHIN THE STORM WATER POLLUTION PREVENTION PLAN WHICH IS PART OF THE SITE WORK SPECIFICATIONS.

DUST CONTROL ON SITE SHALL BE MINIMIZED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS STRICTLY PROHIBITED.

IF THE MAJORITY OF MUD OR DIRT IS NOT REMOVED FROM EXITING TRAFFIC, CONTRACTOR SHALL ESTABLISH VEHICLE WASH AREAS AT CONSTRUCTION TRAFFIC EXIT POINTS AND VEHICLE OPERATION SHALL BE INTERCEPTED AND TRAPPED BEFORE WASH WATER IS ALLOWED TO BE DISCHARGED OFFSITE. RINSE-OFF WILL NOT BE ALLOWED OUTSIDE THE PROJECT CONSTRUCTION LIMITS.

REPAIR ERODED AREAS IMMEDIATELY, RESEED AS NECESSARY TO MAINTAIN GOOD VEGETATIVE COVER, MOW VEGETATIVE COVER TO MAINTAIN A MAXIMUM HEIGHT OF SIX INCHES, AND REMOVE TRASH AS NEEDED.

INSPECT AND REPAIR THE COLLECTION SYSTEM (I.E. CATCH BASINS, PIPING, SWALES, RIP RAP, ETC.) AFTER SIGNIFICANT RAINFALL TO MAINTAIN PROPER FUNCTIONING.

ALL EXISTING STRUCTURES, FENCING, TREES, ETC., WITHIN THE CONSTRUCTION AREA SHALL BE REMOVED AND DISPOSED OF OFF SITE PER STATE AND LOCAL ORDINANCES. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES.

ALL WASH WATER (CONCRETE TRUCK, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE.

ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY

CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES/DITCHES AND DISPOSE OF PER LOCAL CODES ONCE THE SITE HAS BEEN STABILIZED. CONTRACTOR SHALL REFER TO THE GRADING PLAN FOR FINAL GRADES.

LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.

THE GENERAL CONTRACTOR SHALL STRICTLY ADHERE TO THE SWPPP DURING CONSTRUCTION OPERATIONS.

NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 14 DAYS OF FINAL GRADING.

SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.

AFTER EVERY SIGNIFICANT RUNOFF PRODUCING RAINFALL EVENT OF 1/2" OR GREATER AND AT LEAST ONCE A WEEK:
A. INSPECT THE DETENTION BASIN SYSTEM FOR SEDIMENT ACCUMULATION, EROSION, TRASH ACCUMULATION, VEGETATED COVER, AND GENERAL CONDITION.
B. CHECK AND CLEAR THE OUTFALL DEVICE OF ANY OBSTRUCTIONS.

THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.

GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.

ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.

IF INSTALLATION OF STORM DRAINAGE SYSTEM SHOULD BE INTERRUPTED BY WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE COVERED WITH FILTER FABRIC.

COMPACT AND MAINTAIN 25' WIDE DRIVE FROM DETENTION POND TO NORTH LOT.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.

SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN BEFORE IT IS 25% FULL.

ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH CITY OF WICHITA'S STANDARD SITE SPECIFICATIONS.

EROSION DETAILS

D### Items labeled by the following symbols are shownon this sheet and referenced on detail sheets, which are included as part of this set of plans.

CBI-S	EROSION CONTROL BLANKET-SLOPE INSTALLATION
DCF	DANDY CURB FILTER
D253	NON-GASKETED FLARED END SECTION
D318	FRENCH DRAIN DETAIL
D326	TRENCH & BEDDING DETAILS
D354-A	GRAVEL DROP INLET PROTECTION (GRAVEL DONUT)
RCD-C	TEMPORARY ROCK CHECK DAMS
RR-C	TYPICAL RIP-RAP PAD FOR SLOPE PROTECTION
SPD	TEMPORARY STOCKPILE DETAIL
TCE	TEMPORARY CONSTRUCTION ENTRANCE
TSF-A	TEMPORARY SILT FENCE

POND BANK SEED MIX ONLY
DRY DETENTION BASIN SEED MIX

PRIOR TO SEEDING, DENTENTION AREA BANKS SHALL BE LIGHTLY RAKED AND PACKED. THE SEED WILL BE MIXED WITH SAND OR SAWDUST AT A RATE OF 10 PARTS FILLER TO ONE PART SEED. SEED WILL BE APPLIED USING A MECHANICAL BROADCAST SEEDER. FOLLOWING SEEDING, EROSION CONTROL BLANKETS SHALL BE PLACED OVER THE SEEDED AREA TO PREVENT THE SEED FROM WASHING AWAY DURING RAIN EVENTS.

THE DRY DETENTION BASIN SEED MIX WILL BE BROADCAST AT AN APPLICATION RATE OF NO LESS THAN 30 POUNDS PER ACRE. THE APPLICATION OF THE NATIVE WETLAND SEED MIX WILL BE NOVEMBER THROUGH MARCH.

PROPOSED DRY DETENTION BASIN SEED MIX:

COMMON NAME:	BOTANICAL NAME:
LITTLE BLUE STEM	Schizachyrium scoparium
FOX SEDGE	Carex vulpinoidea
PRAIRIE CORD GRASS	Spartina pectinata
DARK GREEN BULRUSH	Scirpus atrovirens
DUDLEY'S RUSH	Juncus dudleyi
SWITCH GRASS	Panicum virgatum
INDIAN GRASS	Sorghastrum nutans
WESTERN WHEAT GRASS	Agropyron smithii
SIDEOATS GRAMA	Bouteloua curtipendula

EROSION PROPOSED FEATURES

BOUNDARY LINE
RIGHT OF WAY LINE
EASEMENT LINE
CONCRETE CURB AND GUTTER
FENCE
GUARD RAIL
RETAINING WALL
STORM DRAIN (SEE GRADING PLAN FOR SIZE)
8"SS SANITARY SEWER SERVICE
10"W WATER SERVICE
UGE UNDERGROUND ELECTRIC SERVICE
UGT UNDERGROUND TELEPHONE SERVICE
OHE OVERHEAD ELECTRIC SERVICE
OHT OVERHEAD TELEPHONE SERVICE
FO FIBER OPTIC CABLE SERVICE
GAS GAS SERVICE
LIMITS OF CONSTRUCTION LINE
SF TEMPORARY SILT FENCE
TD TEMPORARY DIVERSION SWALE
TEMPORARY ROCK CHECK DAMS
XXXX.XX EG=EXISTING GRADE
FG=FINISH GRADE
CONSTRUCTION ENTRANCE
IP# TEMPORARY INLET PROTECTION
DROP INLETS (SEE GRADING PLAN FOR TYPE)
SANITARY SEWER MANHOLE
FIRE HYDRANT WITH GUARD POSTS
UTILITY POLE
WATER LINE TEE, BEND, VALVE, AND PLUG
EROSION CONTROL BLANKET - S-150 BY NORTH AMERICAN GREEN OR APPROVED EQUAL (SEE POND BANK SEED MIX)
SEEDING SPECIFICATIONS FOR NORTHERN REGIONS (SEE SPECIFICATIONS THIS SHEET)

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GRADING AND EROSION CONTROL
DETENTION POND (EAST)
CADILLAC LAKE DRAINAGE IMPROVEMENTS
MAIZE ROAD AND 29TH STREET NORTH
WICHITA, KS

DRAWN BY:	EDH
APPV. BY:	SPM
DWG. NAME:	07-0798-BID.dwg
DATE:	06-24-08
JOB NO:	07-0798
SHEET NO:	B6

p:\07-0798 (nw wichita ks grading work with poe and assoc)\dwg\project\bid\07-0798-bid.dwg - Plotted on 7/1/2008 10:33:18 AM @ a scale of 1:1 to hp designjet 1050c by hp by Administrator