K A N S A S

DEPARTMENT OF HEALTH AND ENVIRONMENT

Plot Plan Checklist

For Solid Waste Landfills annual permit renewal
March 19, 2009

General: Plot plans are intended to be an overall site plan and if a site plan was included with the landfill plans it can probably be used for a base for the plot plan. In so far as practical use the coordinate system, benchmarks, and other survey data shown on the approved landfill plan. It is not necessary to reverify data from the previous plan unless there is reason to believe it is not accurate. Plot plan requirements may be phased in over 3 phases, generally consisting of 3 years. For new landfills the plot plan shall be included in the engineering drawings, and supporting data such as ALTA/ACSM Land Title Survey, title documents and easements furnished at the time the initial plan is submitted to KDHE.

Year One (Phase One):

Title Work: Provide a title document showing proof of ownership. The title document may be a certificate of title, or title insurance policy, or title commitment including a listing of easements. If the title document is dated when the property was purchased a statement is required from the owner that no easements have been granted, or land sold since the date of the title document. Submit with the title document copies of all easements and encumbrances listed on the title document. If the property includes more than one parcel include title document and copies of easements for every parcel. Copies of all documents are acceptable.

Plot Plan: Provide a plot plan prepared by a Registered Land Surveyor of landfill property with the following items. This drawing will be used as the base drawing for information required in subsequent years. When preparing the drawing allow for topography and notes that will be added in the future.

1) Legal description of the landfill property (legal description of all parcels if more than one parcel). If more than one parcel number the parcels and indicate the exact ownership as shown on the title document for each parcel.
2) Indicate the date and title company for the title document for which the ownerships, easements and encumbrances were based.
3) Exterior boundary lines as well as interior parcel boundaries if more than one parcel. If more than one parcel, show an index number for each parcel on the drawing and matching index numbers on the parcel legal descriptions.
4) Delineate and label easements and right-of-ways within the exterior boundary as listed on the title document.
5) Delineate and label existing utilities within the site based on Kansas One Call and local information along with the associated easement, if any. (Service lines within the exterior

boundary owned by the owner and providing service to the site are not required, unless the line involves an easement.)

6) Delineate and label all rights of way, such as public roads, private roads and railroads running through the site or adjacent to the site.
7) Section Index Map drawn to a scale of 1 inch=1,000 feet. The landfill property to be labeled and shaded within the Section.
8) Legend (be specific when explaining symbols and features). Use standard KDOT plan symbols if possible. .
9) North Arrow, bar scale, and ratio scale. Use a standard scale such as 1”=100’, 1”=50’, or 1”=20’
10) Title Block for the firm that prepared the drawing, include address and telephone number.
11) Field Equipment Used: Total Station, GPS, etc.
12) Basis of Bearing.
13) Benchmarks. Show benchmarks and elevations remaining from original approved plan. If no benchmarks are remaining set a new benchmark and describe how the elevation was determined. An assumed datum that does not match the approved plan is not acceptable.
14) Boundary Information: Show boundary information that is readily available, a new boundary survey is not required in Phase One.
    a. Found monuments at property and parcel corners.
    b. Found section and quarter section corners.
    c. Point of beginning for metes and bounds descriptions.
    d. Distance and bearings of each property corner around the facility, if known. If metes and bounds description indicate record, or measured.
    e. Gross acreage and net acreage subtracting public road and railroad r/w. If a survey was not performed use record distances to compute the area.
15) Buffers as shown on the approved landfill plan.
16) Horizontal Control. Sufficient control is required in order for the next survey to be tied into the existing survey. If GPS field work was performed reference two horizontal control points with description and GPS coordinates. If total station surveying was used indicate three horizontal control points with description and local coordinates.
17) The location of the active face of the landfill. Note the date the active face is shown on the map.
18) Locate and delineate the limits of all previous waste disposal and their types (Municipal Solid Waste, Construction and Demolition, Industrial, or Waste Tire Monofill). Use the best information available, if in doubt conservatively delineate the limits of the waste disposal, and identify the source of information on the drawing. It is advisable to obtain old records that describe the limits of waste previously disposed at the landfill facility as well as memory of the landfill operators.
19) Show the waste disposal units previously approved for the site, include all closed, open and any approved unopened units. Number the units in accordance with the approved plan with the prefix MSW for Municipal, C&D for construction and demolition, and IND for industrial. Examples: MSW-1, C&D-A, IND-1)

Submit two (2) copies of the **Plot Plan and one copy of the title document and easements** for review by KDHE-BWM. After KDHE-BWM completes its review of the Phase One Plot Plan record the plot plan at the Register of Deeds.

Phase Two (Usually year two):

After KDHE-BWM completes its review of the Phase One Plot Plan, use it as a template to create a **Base Map** for new facilities and a **Facility Site Map** for existing landfills. . If this is a new facility the Base Map can be used to develop other types of maps which will be assembled in the Design Plans. In addition to the information shown on the **Plot Plan**, the **Facility Site Map** should delineate and label the following features:

1) Indicate the coordinates of the corners of waste disposal units on the drawings. If insufficient room on the drawing a coordinate table on the plot plan is an alternative.
2) Insert a Landfill History, Area, and Capacity Table on the plot plan. A template is available from KDHE. Insert known data in the table from owners records or field measurements for area computations.
3) The location of the active face of the landfill. Note the date the active face is shown on the map.
4) Compost Area (if permitted at the site).
5) Burn pit (if permitted at the site). Burn pits are permitted by KDHE-BWM district offices.
6) Storage areas (such as white goods, scrap metal, waste tires, E-waste, etc.).
7) Monitoring wells and other types of wells. Note: The Design Plans should contain a schedule of information about wells, such as, location (using coordinates), elevation (ground, casing, groundwater, depth of well, etc.)
8) Security Fencing and gates around landfill. Use symbology to distinguish fence type (barbed wire, chain link, woven wire, etc)
9) Buildings, scales, and other permanent structures.
10) Access road and permanent haul roads. Also, label the Entrance to the site.
11) The landfill information sign and other required signs on site.
12) Two (2) foot contours for waste disposal units currently open, and if appropriate, for future disposal units as shown on the permit drawings and for past disposal units not yet approved closed by KDHE.
13) Ponds, springs, streams, and intermittent streams.

Submit two (2) copies of the Phase Two Facility Site Map signed and sealed by a registered Land Surveyor for review by KDHE-BWM.

Phase Three (Usually year three) :

After KDHE-BWM completes its review of the **Phase Two Facility Site Map** make corrections or additions as noted. The Permittee, Design Engineer or current Landfill Engineer, and the Land Surveyor must coordinate with the KDHE-BWM Permit Manager to make sure that the Phase Three Facility Site Map accurately depicts information from previous Permit Documents for the facility, this in general is the buffer width, waste disposal unit numbering, capacity and closure date in the table..

In addition to the information shown on the **Plot Plan**, and the **Phase Two Facility Site Map** the Final Facility Site Map should update the contours to reflect existing conditions, the active face

of the landfill, any changes to topography or facilities at the site, and update of the Landfill History, Area, and Capacity Table.

Submit two (2) copies of the Phase Three-Final Facility Site Map signed and sealed by a registered Land Surveyor for the survey data, and a professional engineer for the waste disposal unit numbering, capacity and closure date in the table, for review by KDHE-BWM. If significant deviations are found from the approved plan and permit drawings it may be necessary to process an update as a significant permit modification.

Subsequent Years' Surveys-Plot Plan:

Each year a plot plan may be required that involves updating the contours to reflect existing conditions, the active face of the landfill, any changes to topography or facilities at the site, and update of the Landfill History, Area, and Capacity Table, if applicable. This information is to be used as the basis for preparing the closure cost estimate to be submitted with the annual permit renewal. Submit two copies of the updated plot plan signed and sealed by a Registered Land Surveyor or Professional Engineer.