KANSAS FOREST SERVICE

TREE PLANTING PLAN

Neosho River Site 20A

OWNER:

LEGAL DESCRIPTION: NW4, Sec 24-19-12

COUNTY: Lyon County

LANDOWNER OBJECTIVE: Stream bank stabilization along the Neosho River

TYPE OF PRACTICE: Riparian Forest Buffer

SOIL NAME & SUITABILITY GROUP: Reading silt loam (1), and Ivan silt loam (1)

METHOD OF PLANTING: Machine plant in the spring of 2011. Make sure to place the tree order as soon as possible to ensure that the desired species are reserved for spring planting. Late March or early April would be a good time to aim for planting.

When planting row 4 (black walnut and bur oak), group species in multiples of 25 – i.e. 25 oak, 25 walnut, 25 oak, etc.

PRESENT GROUND COVER: Crop field – recent stream bank stabilization work

SITE PREPARATION: Heavy disk the planting area this spring prior to planting to facilitate the use of a tree planting machine. Make sure that the site is not too fluffy prior to planting.

WEED CONTROL: Weed control will be critical in ensuring the success of any planting. Selective herbicides will be the most practical type of weed control for this project. Pendulum 3.3 EC, will work well to suppress the annual grassy weeds such as foxtail and panicum grass. Because it is a pre-emergent herbicide, it will need to be applied before weed seed germination. This will occur immediately after planting the first year, and can be in February or March for the next two seasons. Follow the directions listed on the label and direct the spray at the base of the trees with a flat-fan nozzle to minimize any chance of damaging the trees.

Depending on the weed competition, there are opportunities to use a post-emergent herbicide after planting (early June). Fusilade will target grassy weeds, while Transline will focus on broadleaf issues. These herbicides will need to be directed towards the base of the seedlings.

Overview of selective herbicide use:
2011 – Immediately after tree planting – apply Pendulum 3.3 EC
- Early June – apply post-emergent herbicide as needed (Fusilade for grass, Transline for broadleaf weeds)

2012 – Late Feb/Early March – apply Pendulum 3.3 EC (prior to weed seed germination)
- Early June – apply post-emergent herbicide as needed (Fusilade for grass, Transline for broadleaf weeds)

2013 – Late Feb/Early March – apply Pendulum 3.3 EC (prior to weed seed germination)
- Early June – apply post-emergent herbicide as needed (Fusilade for grass, Transline for broadleaf weeds)

If any brome grass begins to encroach into the planting site, it will be very important to not allow it to do so. Brome grass is very aggressive for moisture and nutrients and will slow the establishment and growth of the seedlings. To kill brome grass, spray with a glyphosate-type herbicide (i.e. Roundup) when the grass is actively growing - best control will be seen in the fall (October). Annual applications may need to be made at the perimeter of the planting if there is brome along the existing tree line/creek bank.

It will be important to mow between the rows when the competing vegetation reaches a 6"-8" height. This can be performed on a monthly basis during the growing season. A final mowing in the fall will help to eliminate any cover for rodents that may cause damages to the trees. Mowing should be performed until the trees are well established.

FENCING REQUIREMENTS: None unless livestock will have access to the planting. If that is the case then fencing will be required for livestock exclusion.

MISCELLANEOUS: Replace all losses during the first three growing seasons. Protect the planting from wildfire and livestock. Inspect the planting frequently for rodent, insect, and disease problems.

To help protect from deer rubbing and browse, it will be necessary to use plastic tree shelters. The shelters will be installed immediately after planting and will be left on the trees until they are nearly as large in diameter as the shelters, at which point they will be cut off. Due to the high cost of the shelters, it will not be practical to install them on every tree. Instead, position a shelter on every 4th tree in the rows that contain bur oak and/or black walnut (deer do not seem to browse the sycamore trees as heavily).

Tree shelters will need to be at least 48" tall (Miracle Tubes by TreePro are recommended) and wooden stakes that are 5-6 ft tall will be required to hold the shelters upright. Treated pine, or oak, stakes tend to hold up better.

FIRE PROTECTION: Keep fire out of the tree planting area.

ESTIMATED COST OF MATERIALS:

500 bareroot seedlings @ $0.68/seedling:	$340.00
and	
56 – 4 ft tall tree shelters @ $4.20/shelter:	$235.20

SUMMARY OF SPECIES NEEDED:

Sycamore:	125
Black walnut:	100
Bur oak:	125
American plum:	150

TOTAL PLANTING AREA: 1.0 acres

PLAN PREPARED BY: Thad Rhodes, District Forester,
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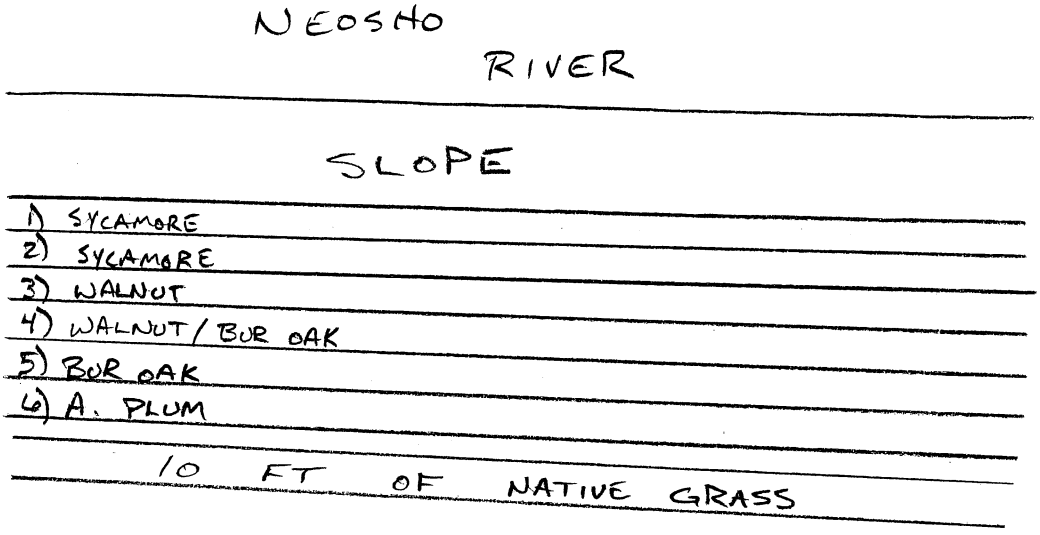
Site 20A



* NOT TO SCALE

Note: Row one is on the river side of the planting.

Row #	Species	Spacing in Row	Spacing Between Rows	Length of Row	Number of Plants
1	Sycamore	8.6 ft		520 ft	60
			10 ft		
2	Sycamore	8.6 ft		556 ft	65
			10 ft		
3	Black walnut	8 ft		592 ft	74
			10 ft		
4	Black walnut/bur oak	8 ft		628 ft	26 walnut 52 bur oak
			10 ft		
5	Bur oak	9.1 ft		664 ft	73
			10 ft		
6	American plum	4.7 ft		700 ft	150

10 ft strip of native grass on outside of planting
(between trees/shrubs and crop field)

Total	500