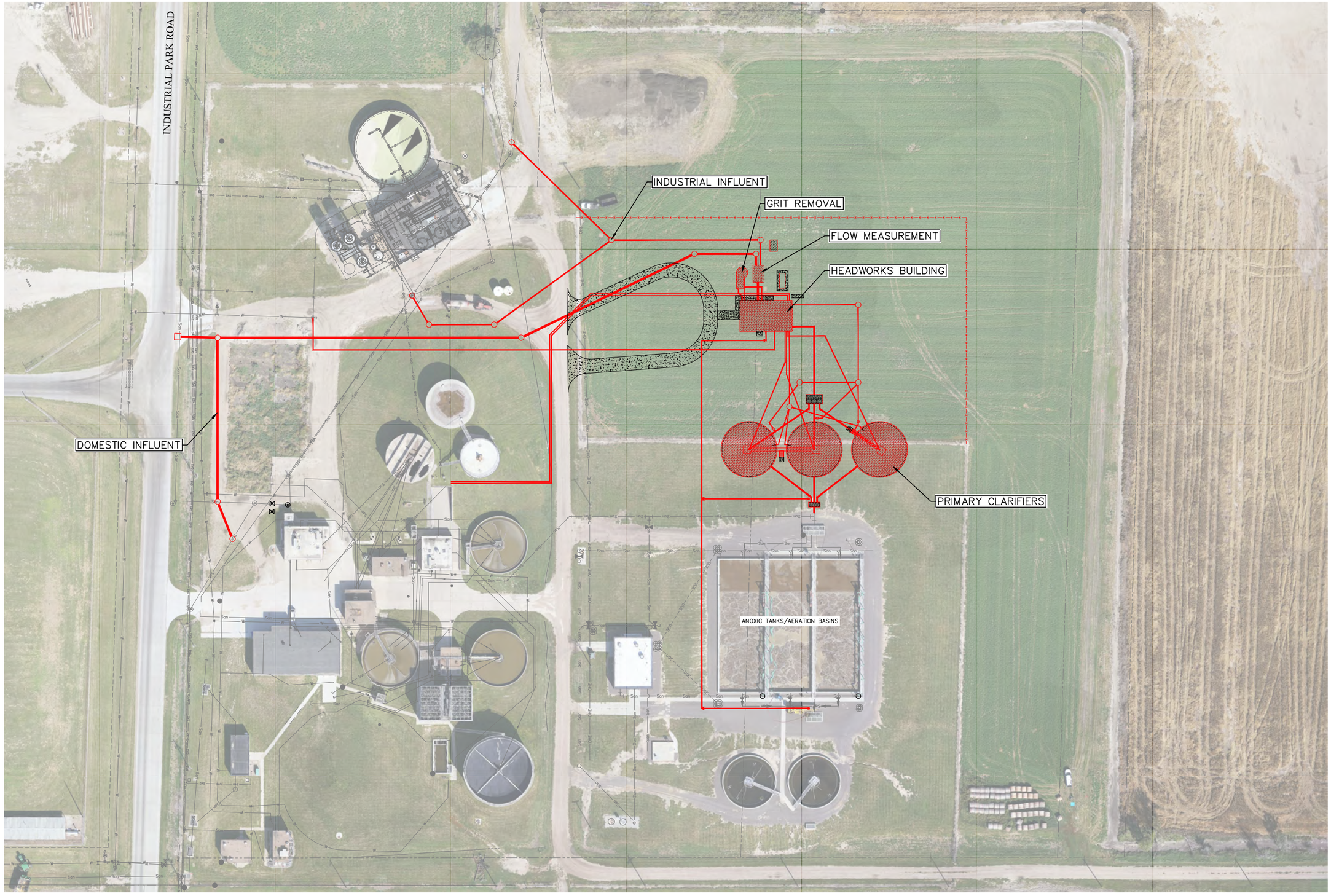

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WASTEWATER TREATMENT FACILITY UPGRADES

LEXINGTON, NEBRASKA

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EQUIPMENT FOR 2020 LEXINGTON WWTP UPGRADE

Follow is the summary of the major equipment being proposed for the 2020 Upgrade to the Lexington WWTP:

- **Mechanical Bar Screen:** A "climber" type screen is specified that is similar to the current screen. The screen will have a 3'0" channel width with 1/2" bar spacing. In order to better handle the screening, a screening washer/compactor will be installed.

- **Grit Removal Unit:** A single vortex grit removal unit will be installed immediately following the bar screen. The unit is similar to the one being used at the site now.

- **Grit Pumps:** Two recessed impeller grit pumps are specified to pump grit from the vortex grit unit to the grit washer.

- **Grit Washer:** A grit washer, equipped with a hydro cyclone will be installed to wash the grit prior to disposal.

- **Influent Pumps:** Three influent pumps will be installed (2 operating/1 standby). Each pump will have a capacity of 2,250 gpm for a firm capacity of 4,500 gpm or 6.5 mgd, the predicated maximum plant flow.

- **Primary Clarifiers:** Three primary clarifiers will be constructed. Each will be 50' in diameter with a 12' side water depth. The mechanisms are specified to be constructed of 316 stainless steel. The stainless steel materials should be more cost effective as the equipment will not require periodic sandblasting and painting.

- **Sludge/Scum Pumps:** Three sludge pumps will pump sludge from the primary clarifiers to the digester. In addition, a scum pump will pump scum removed from the surface of the clarifiers to the digester. The sludge and scum pumps will be identical units. Three sludge pumps, one scum pump and one standby pump will be furnished.

Prepared by: Miller & Associates, Consulting Engineers, P.C., 2/18/21