VEENSTRA & KIMM, INC.
3000 Westown Parkway • West Des Moines, Iowa 50266-1320
515-225-8000 • 515-225-7848(FAX) • 800-241-8000(WATS)

CON: 12-15
Doc # 23803

February 2, 2011

Dan Cook
Environmental Specialist Senior
Iowa Department of Natural Resources
502 East Ninth Street
Des Moines, Iowa 50309

INDIANOLA, IOWA
SOUTH PLANT LIFT STATION EQUALIZATION BASIN EXPANSION PROJECT
SITE ASSESSMENT PLAN FOR SHOOTING RANGE

INTRODUCTION

Site Location and History

The City of Indianola is located in Warren County approximately 10 miles south of Des Moines, Iowa and 23 miles west of Knoxville, Iowa. The population of the City of Indianola was 12, 998 in 2000, and the estimated population in 2008 was 14, 361 according to the US Census Bureau.

The purpose of the South Plant Lift Station Equalization Basin Expansion is to enhance the reliability, increase capacity, and prevent discharge of untreated wastewater to better safely and reliably operate the City of Indianola's wastewater system for at least the next 20 years. The project will expand the equalization capacity by increasing the size of the existing equalization basin. The basin expansion is in the location is in the location of a firing range. The existing wet weather flow lift station at the South Plant Lift Station will be expanded with new piping, pumps, and a splitter box structure. The work will provide capacity to hold wet weather flows until such time as they can be transferred to the north wastewater treatment plant located north of the City of Indianola.

Positive environmental effects will be a reduction of the human health and safety risks associated with wastewater backing up into residential basements. Additional positive environmental effects will be a reduction in the number of events when quantities of untreated or partially treated wastewater must be discharged to the environment.

An environmental review was performed by the Iowa Department of Natural Resources and Finding of No Significant Impact was issued on August 3, 2010. This environmental review stated the following:

- The project will not significantly affect the pattern and type of land use or growth and distribution of population.
- The project will not conflict with local, regional or State land use plans or policies.
- The project will not significantly impact wetlands provided the terms of Nationwide Permit No. 12 are abided by.
- The project will not impact threatened or endangered species or their habitats provided that there is no removal of trees that could provide the habitat for the Indiana Bat between April 15th and September 15th.
- The project will not displace population, alter the character of existing residential areas, or convert farmlands to non-agricultural purposes.
- The project will not impact the 100-year floodplain provided the excess spoil material and boring mud is either removed or spread thinly.
- No Historic Properties will be adversely affected by the project.
- The project will not have a significant adverse effect upon local ambient air quality provide the applicant takes reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property during the project work.
- No significant impact to surface water quality, fish, shellfish, wildlife, or their natural habitat is expected provided that an NPDES General Permit No. 2 is obtained and the terms abided by.
- The project will not have a significant adverse effect upon local ambient noise levels, surface water quantity, groundwater quality or quantity, or water supply.
- Minimum separation distances will be maintained.

The FONSI and all pertinent permits were issues by the Iowa DNR for the South Plant Lift Station Equalization Basin Expansion project. A preconstruction meeting was held on October 20, 2010, and construction started soon after.

The first part of the project to be constructed was the expansion of the equalization basin, which involved removed the firing range. The firing range was first in use in 1988 and was generally used the Indianola, Norwalk, Pleasant Hill, and Carlisle personnel on a twice yearly basis, and occasionally use by ISP. The soils from the firing range were stripped and separated to be reused for topsoil on the lagoon expansion. Soils for the berm construction were from a borrow site located on the northwest corner of the South Plant Lift Station site. The soil from the firing range was repsread on the newly constructed berm in a layer 6 to 10 inches thick.

A notice from Dan Cook with the Iowa DNR stating the soil from the firing range should have been tested for lead contamination was received by the City of Indianola on November 29, 2010. Team Services, Inc. collected three samples on November 30, 2010. The test results dated December 2, 2010 showed lead concentrations of 89.8, 74.0, and 358 mg/kg.

Dan Cook collected four samples on December 3, 2010. The test results showed lead concentrations of 58.63, 53.84, 57.02, and 2,589.05. Due to the one sample with a lead concentration greater than the 400 mg/kg limit, a Notice of Violation was issued on December 9, 2010.

The potentially contaminated soils from the shooting range were stripped and respread on the top 6 to 10 inches of the new berm embankment along the outer slope, the top of the berm and the top 2 feet of the inner slope.

STATEMENT OF WORK

Object of the Investigation

The objectives of the proposed Site Assessment are: to determine number and locations of soil sampling in the area where the topsoil from the firing range was respread; the removal of the 6 to 10 inches of respread topsoil from areas where sample concentrations exceed the level of 400 mg/kg; and recycle/dispose of the contaminated soil material.

The areas where the potential for contamination exists will be divided into grids with each grid approximately 25 feet by 25 feet or 18 feet by 35 feet in size. This results in approximately 46 test areas. Each grid area will be tested for lead and antimony.

Any area that tests above the required limits for lead or antimony, 400 ppm and 31 ppm respectively, will be removed from the site and properly recycled or disposed. The area removed and properly disposed will be all the soils within that particular grid to the depth of the spread soils of 6 to 10 inches.

Soil Disposal

If a soil sample test result for a grid is above the required limits for lead or antimony, the soil will be removed from the site. The area removed and properly disposed will be all the soils within that particular grid to the depth of the spread soils of 6 to 10 inches. Depending on the concentration of lead in the soil sample for a grid with a concentration level that exceeds the limit, the soil removed from the grid may be blended with clean soil and taken to a landfill, or the soil may be sieved to remove and recycle the lead, and then the soil will be retested for lead concentration to determine if blending with clean soil will be required before the soil is taken to a landfill.

Reporting

Subsequent to the completion of the work, a report will be prepared describing the field methods, analytical data, areas of soil removed, volume of the soil, volume of soil disposed, and if lead is recycled, the volume of lead reclaimed. The report will be submitted to Dan Cook of the Iowa DNR and the City of Indianola.

SITE HEALTH AND SAFETY PLAN

It is expected that Team Services, Inc. will perform the field sample collection and perform the lead and antimony tests.

The area that will be tested is located at the site of a wastewater lift station, and is primarily located on the outside of a newly constructed berm, the top of the newly constructed berm, and the top 2 feet of the inside of the berm. The area is fenced, and can be accessed via bridge, and will require entering a locked gate. Construction of a new pump station and splitter box is currently under way north of the berm, but will not affect access to the berm or the soils of the berm.

Physical hazards on the site include slippery ground, heavy equipment, cold, falls, noise, and turbulent weather. Lead may be present in a solid state or in contaminated soil. Lead is toxic, but not biological, caustic, acidic, explosive, ignitable, or a carcinogen. In the process of the soil sampling, there is low probability of exposure to lead via dermal and inhalation pathways. Personnel on site for soil sampling should be trained for the possible exposure to safety or health hazards, according to applicable regulations including 29 CFR 1910.120 and 29 CFR 1910.1200.

Personnel on site for soil sampling should wear cotton coveralls, outside latex gloves, rubber or steel-toed boots, and have access to a cellular phone in case of emergencies.

No air monitoring is required for this work. Personnel should conduct sampling in a manner to minimize soil disturbance and dust.

On-site personnel will be monitored for the following: heat stress, heart rate, oral temperature, and cold stress. The monitoring method will be self-monitoring.

The rest area will be the parking area.

Contact with contaminated or potentially contaminated surfaces should be avoided. Cotton coveralls will be donned prior to sampling, and will be doffed prior to leaving the work area. Personnel decontamination procedures include: disposal of gloves and over boots, wash hands, rinse hands, and wash face. The necessary equipment for decontamination includes plastic bags for discarded PPE, wash basin, soap, and water.

Confined space entry and spill containment are not applicable to this site.

In the event of an emergency, the on-site personnel shall stop activities and contact emergency services by calling 911.

STANDARD OPERATING PROCEDURE FOR SOIL SAMPLING

Drilling methods will not be used for the collection of near-surface soil samples. The sampling instrument (shovel, spoon, etc.) will be thoroughly cleaned and rinsed prior to each reuse or a different clean sampling instrument be used for each sample taken. This is to prevent cross-contamination between samples. Samples should be placed in labeled jars or plastic bags with the date, site, location and depth noted as well as the sampler's name or initials. Standard chain-of-custody protocols will be observed for soil samples. Sampling personnel will avoid causing airborne contamination or dust, and will avoid wind-blown particles from contaminating the samples.

If you have any questions or comments, please contact us at 225-8000.

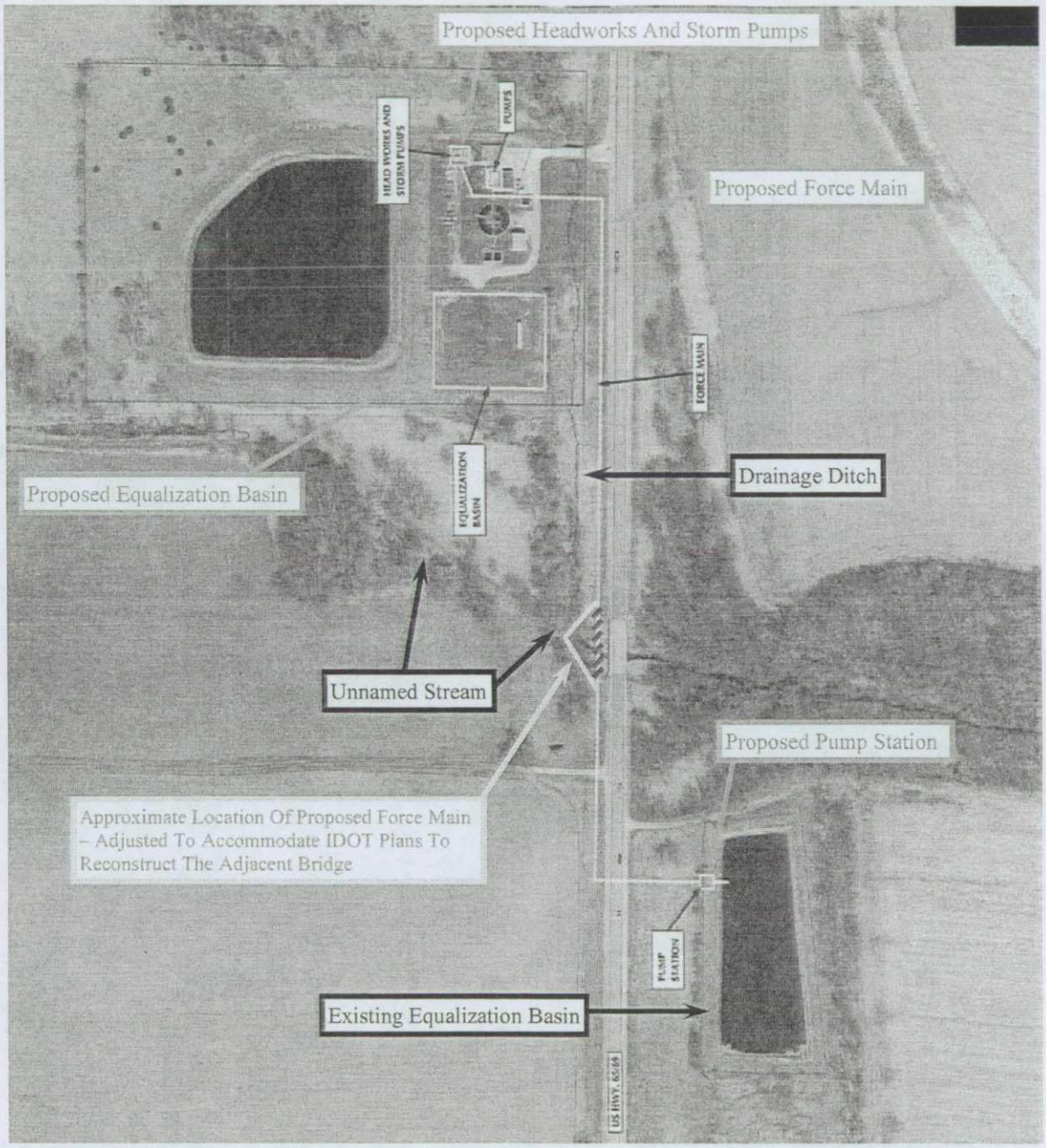
VEENSTRA & KIMM, INC.

Forrest Aldrich

FSA:rlf
169235
Enclosures
cc: Tim Zisoff, City of Indianola w/ enclosures
Dan Miers, City of Indianola w/ enclosures

Base Map Provided By Veenstra & Kimm, Inc.

North



Site Sketch

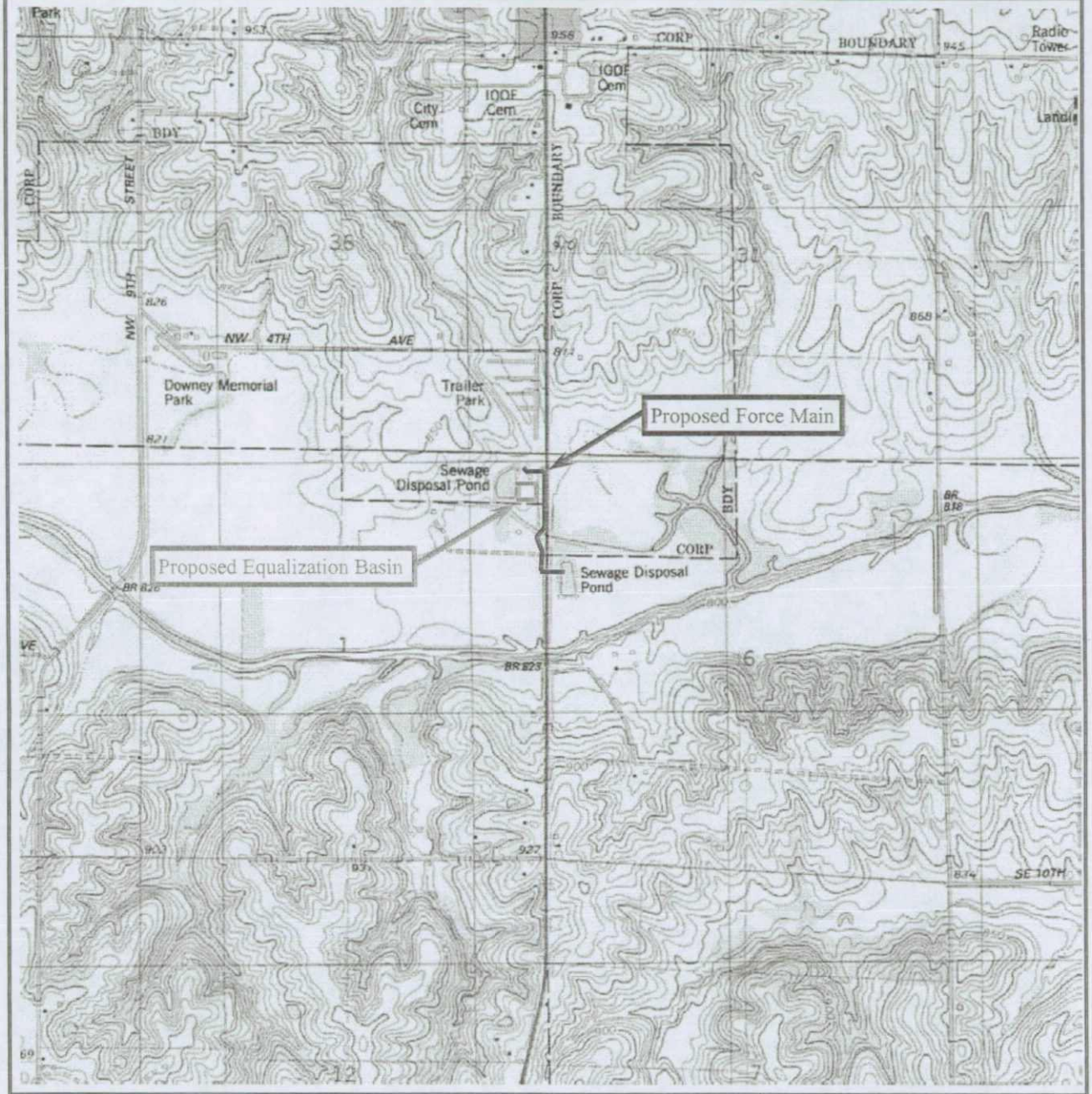
Indianola Sanitary Sewer Improvements – Phase 3
Indianola, IA 50125

State Revolving Fund
401 SW 7th Street, Suite M
Des Moines, IA 50309-4611

29716 AM11:12 02/04/11

USGS 7.5 Minute Quadrangle: Indianola, IA (1983)
County: Warren County, Iowa
Township: Otter – NW¼ of **Section:** 06, **Township:** 75 N, **Range:** 23 W
Township: White Oak – NE¼ of **Section:** 01, **Township:** 75 N, **Range:** 24 W
Scale: 1 Inch = 2,000 Feet / **Contour Interval:** 10 Feet

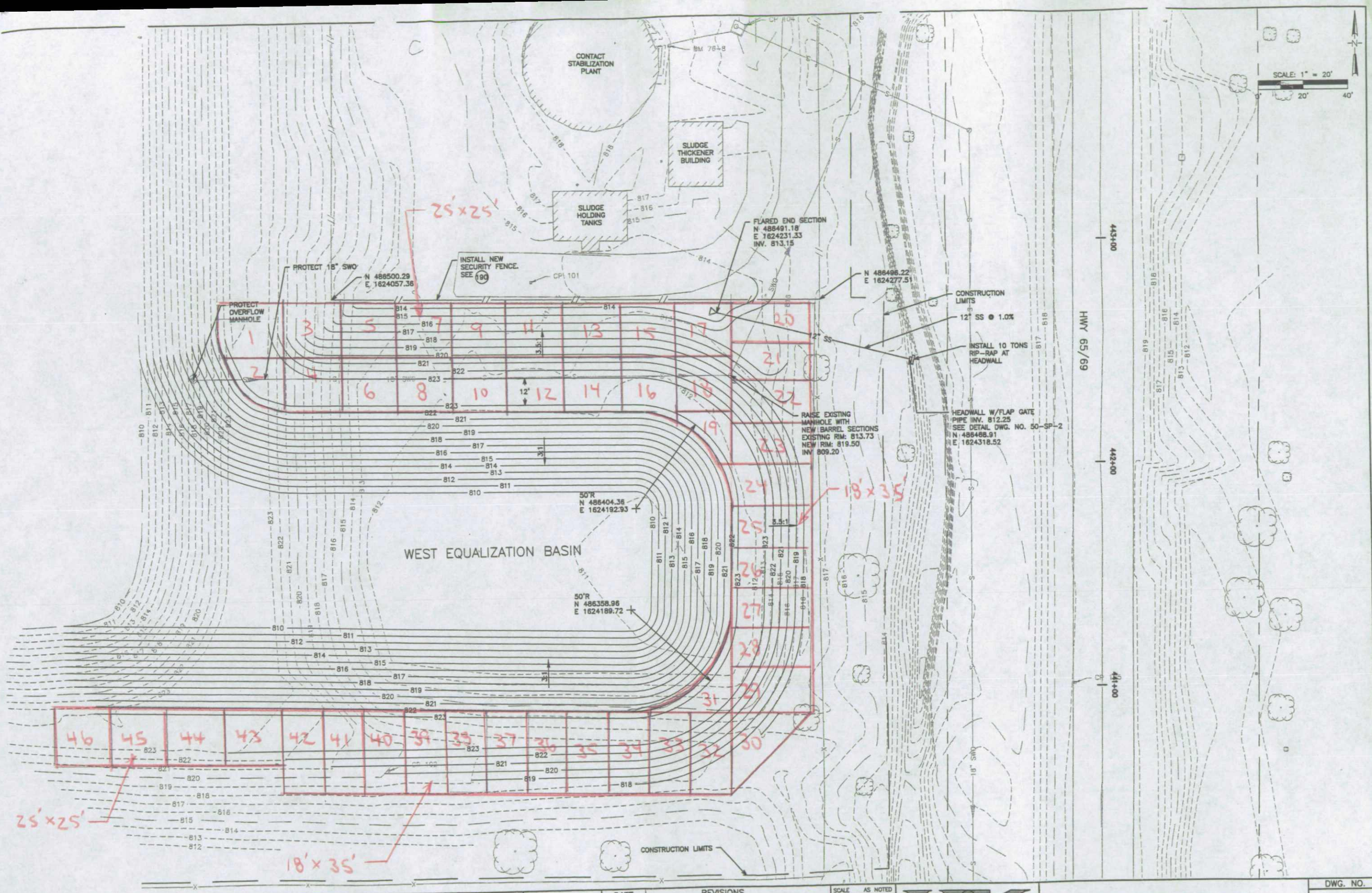
North



USGS Topographic Map

Indianola Sanitary Sewer Improvements – Phase 3
Indianola, IA 50125

State Revolving Fund
401 SW 7th Street, Suite M
Des Moines, IA 50309-4611



VERIFY SCALE	DATE	REVISIONS		
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.			SCALE	AS NOTED
			DRAWN	TAH
			CHECKED	RLF
			APPROVED	FSA
			DATE	5/27/10
			A.C.	

V&K

VEENSTRA & KIMM, INC. 3000 Westown Parkway • West Des Moines, Iowa 50266-1320 515-225-8000 • 515-225-7848 (FAX) • 800-241-8000 (WATS)

WEST EQUALIZATION BASIN

DWG. NO. 02-C-3

PROJECT 169234