IOWA DEPARTMENT OF NATURAL RESOURCES ENGINEERING BUREAU

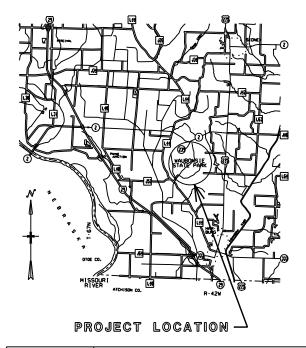
CONSTRUCTION PLANS

FOR

WAUBONSIE STATE PARK

FREMONT COUNTY
WATER DISTRIBUTION TO CABINS
PROJECT NO. 09-04-36-03

VICINITY MAP





LOCATION MAP



PLANS PREPARED BY ENGINEERING BUREAU DIVISION OF MANAGEMENT SERVICES

SHAHID HAMED 18833	
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I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of lows.

Shahid Hameed

My license renewal date is December 31, 2010.

Pages or sheets covered by this seal: ALL

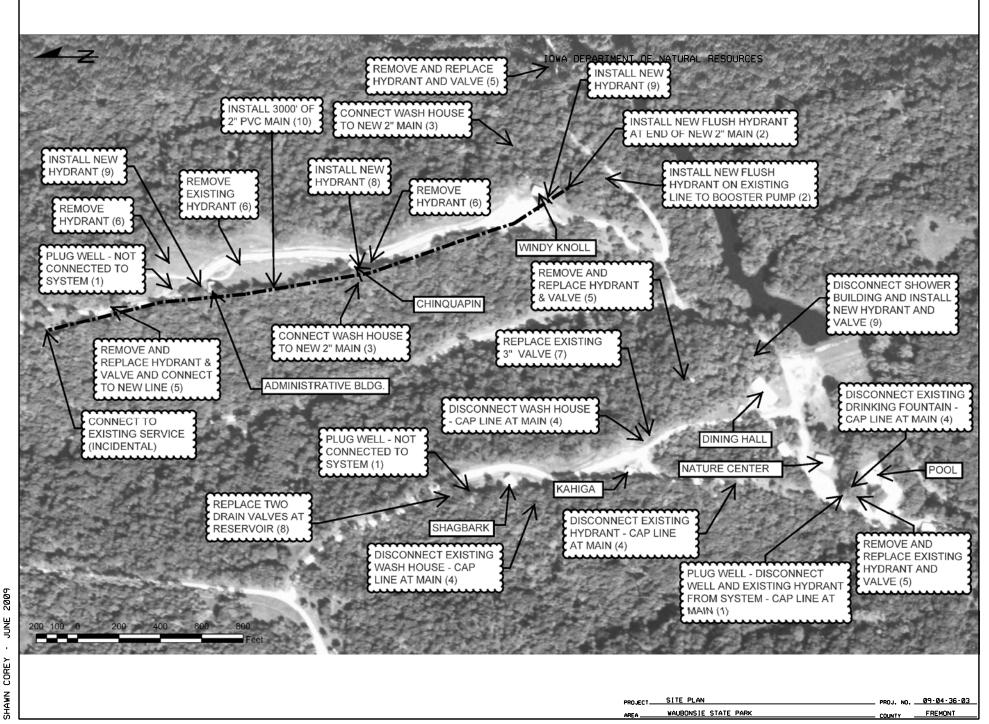
Drawing index		
TITLE	SHEET NO.	
TITLE SHEET. ESTIMATE OF QUANTITIES. LOCATION MAPS	1_	
SITE PLAN	2	
TYPICAL DRAWINGS	3	

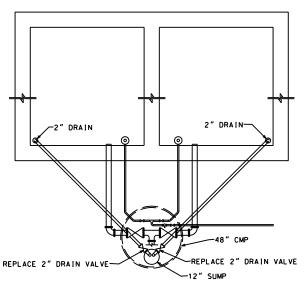
PROJECT	WATER SYSTEM IMPROVEMENT	. PROJ. NO	09-04-36-03
AREA	WAUBONSIE STATE PARK	- COUNTY .	FREMONT

ESIDMATE OF QUARTITIES				
item no.	DESCRIPTION	QUANTITY		
_ 1 _	PLUG WELLS	3 EACH		
_ 2 _	FLUSH HYDRANTS	2 EACH		
_ 3	CONNECT WASH HOUSE	2 EACH		
4	DISCONNECT WATER SERVICE	4 EACH		
_ 5 _	REMOVE AND REPLACE YARD HYDRANT & VALVE	4 EACH		
_ 6 _	REMOVE YARD HYDRANT	3 EACH		
	REPLACE 3" VALVE	1 EACH		
	REPLACE 2" DRAIN VALVE	2 EACH		
_ 9 _	INSTALL YARD HYDRANT	4 EACH		
1	2" WATER MAIN	3000 LF		
_ 11 _	SYSTEM DISINFECTION & TESTING EQUIPMENT	_1_LS_		

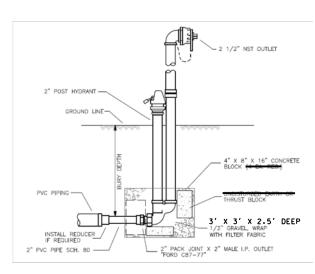
ESTIMATE OF OHAMTITIES

REVISIONS	
	DATE
	DATE
	DATE





RESEVOIR DETAIL NOT TO SCALE



FLUSH HYDRANT DETAIL

NOT TO SCALE

GENERAL NOTES:

- 1. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND SHALL BE RESPONSIBLE FOR ANY OR ALL DAMAGES WHICH MAY RESULT FROM THE CONTRACTORS FAILURE TO LOCATE AND PRESERVE ANY AND ALL BURIED UTILITIES
- 2. THE LOCATION OF THE NEW WATER LINE. AND NEW SERVICES SHOWN IS APPROXIMATE THE ACTUAL LOCATION WILL BE STAKED BY THE DNR CONSTRUCTION INSPECTOR.
- 3. MAINTAIN A MINIMUM OF 5 FEET COVER OVER WATER LINES
- 4. ANY TREES AND BRUSH IN THE WAY OF CONSTRUCTION SHALL BE REMOVED ONLY IF SO DIRECTED BY THE D.N.R. CONSTRUCTION INSPECTOR. TUNNEL. INSTALL TIGHT SHEETING. HAND EXCAVATE OR EMPLOY OTHER MEANS APPROVED BY THE D.N.R. CONSTRUCTION INSPECTOR TO PROTECT EXPOSED PORTIONS AND ROOT SYSTEMS OF TREES AND OTHER VEGITATION NOT TO BE REMOVED. TREES AND OTHER VEGITATION DAMAGED DURING TRENCHING OPERATIONS SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER. TREE REMOVAL IS CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK AND WILL NOT BE PAID FOR SEPARATELY.
- 5. THE CONTRACTOR SHALL SEED, FERTILIZE AND MULCH AREAS DISTURBED BY TRENCHING OPERATIONS AS DIRECTED BY THE D.N.R. INSPECTOR. THE COST OF SEEDING SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK AND WILL NOT BE PAID FOR SEPARATELY.
- 6. PROVIDE THRUST BLOCKS AT ALL ABRUPT CHANGES IN DIRECTION: TEES, BENDS, DEAD ENDS, AND HYDRANTS. THE COST OF THRUST BLOCKS SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK AND WILL NOT BE PAID FOR SEPARATELY.
- 7. THE COST OF ALL OTHER PIPE FITTINGS NOT ITEMIZED SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK AND WILL NOT BE PAID FOR SEPARATELY.
- 8. FINAL LOCATION OF ALL YARD HYDRANTS IS TO BE DETERMINED BY THE D.N.R. CONSTRUCTION INSPECTOR.
- 9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS SHOWN ON THE DRAWINGS AT THE JOB SITE AND SHALL NOTIFY IN WRITING THE D.N.R. CONSTRUCTION INSPECTOR OF ANY OMISSIONS. DISCREPENCIES AND/OR CONFLICT BEFORE PROCEEDING WITH ANY CONSTRUCTION.
- 10. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN.
- 11. THE CONTRACTOR SHALL SECURE ALL REQUIRED BUILDING PERMITS AND SHALL PERFORM ALL WORK TO CONFORM WITH APPLICABLE BUILDING CODES.
- 12. ALL PAVEMENT CROSSINGS ARE TO BE BORED.

 PROJECT
 TYPICAL DRAWINGS
 PROJ. NO.
 09-04-36-03

 AREA
 WAUBONSIE STATE PARK
 COUNTY
 FREMONT