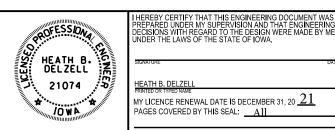
IOWA DEPARTMENT OF NATURAL RESOURCES

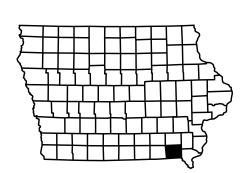
CONSTRUCTION DOCUMENTS FOR LAKE SUGEMA WMA JETTY AND SHORELINE REPAIRS

VAN BUREN COUNTY, IOWA

PROJECT # 20-06-89-02



DIRECTORY					
PROJECT MANAGER			CONSTRUCTION INSPECTOR		
COMPANY	IOWA DEPARTMENT OF	NATURAL RESOURCES	COMPANY	IOWA DEPARTMENT OF NATURAL RESOURCES	
ADDRESS	502 EAST 9TH STREET		ADDRESS		
CITY,STATE,ZIP	DES MOINES, IA, 50319		CITY,STATE,ZIP		
CONTACT	TROY DUFF		CONTACT	MIKE DUFOE	
TELEPHONE	515-250-3715		TELEPHONE	515-985-9196	
FAX	515-725-8458		FAX		
EMAIL	troy.duff@dnr.iowa.gov		EMAIL	michael.dufoe@dnr.iowa.gov	



PROJECT DESCRIPTION

This project consists of repairing wind and wave erosion to 10 fishing jetties and 950 feet of shore ine at 5 sites by placing revetment on the side slopes, crushed rock surfacing on the tops of the jetties, and other incidental work as required by the DNR Field Engineer.



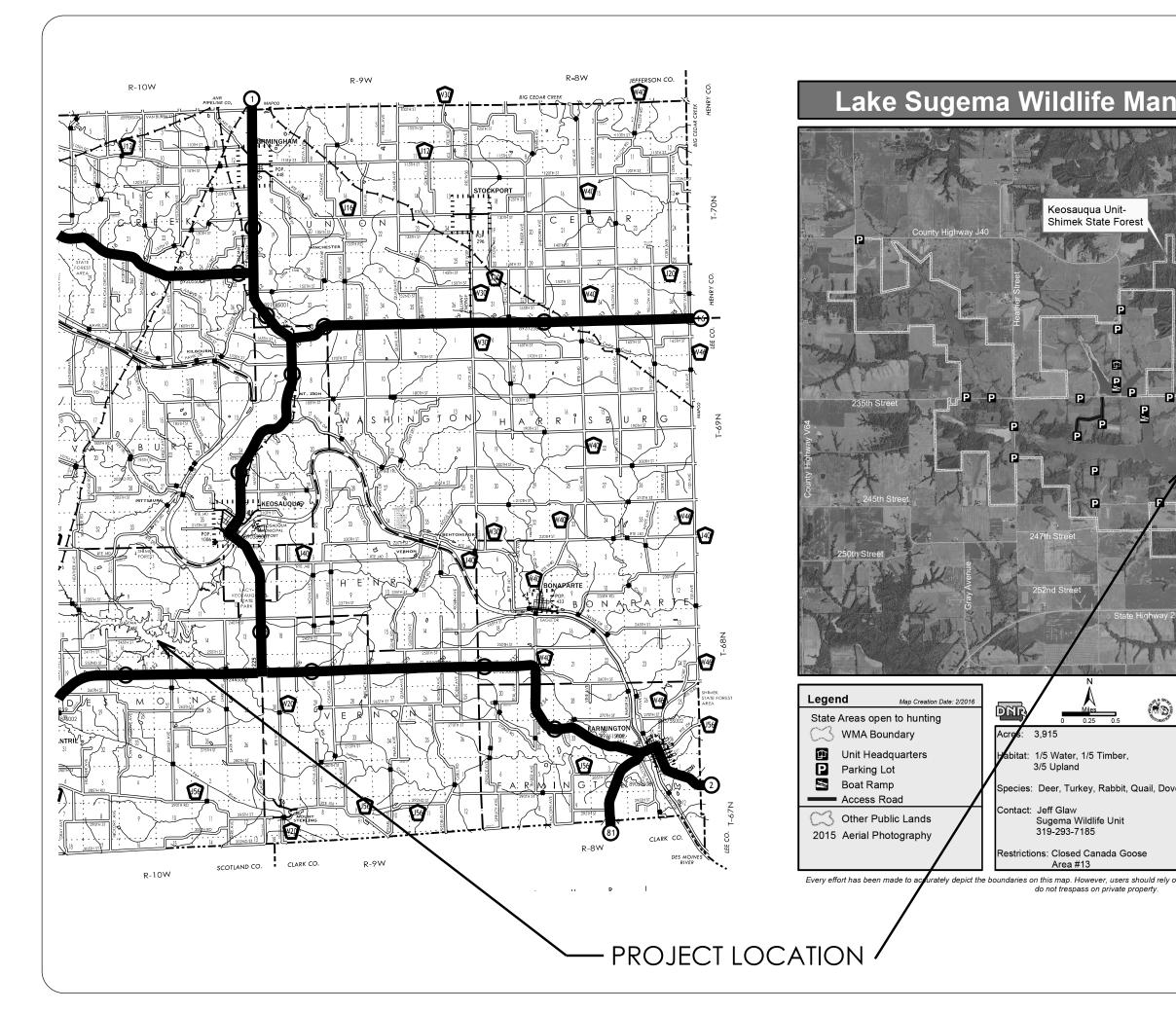
AUTHORIZATION TO BID

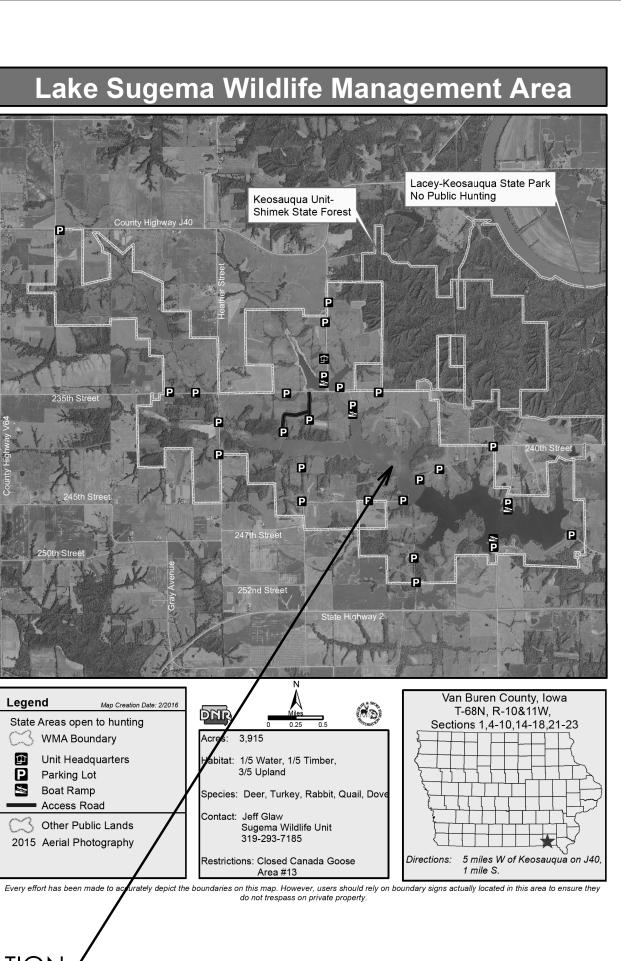
AUTHORIZATION - PARKS WILDLIFE FISHERIES LAW ENFORCEMENT FORESTRY	DATE

ENGINEERING	BUREAU	CHIE

DATE

	SHEET INDEX					
A.01 A.02 B.01 C.01 D.01	COVER SHEET LOCATION MAP TYPICAL SECTIONS AND DETAILS QUANTITIES AND GENERAL INFORMATION SITE PLAN	CONSULTANT:				
			IOWA DEPARTMENT OF	NATURAL RESOURCES	ENGINEERING SERVICES - WALLACE BUILING	502 E. YIH SI., DES MOINES, IA 503 19-0034
				JETTY AND SHORELINE REPAIRS FOR:	LAKE SUGEMA WMA	VAN BUREN COUNTY
			BY DATE WN BY: D BY:	PROJECT I 20-06- DATE:	NUMBER:	



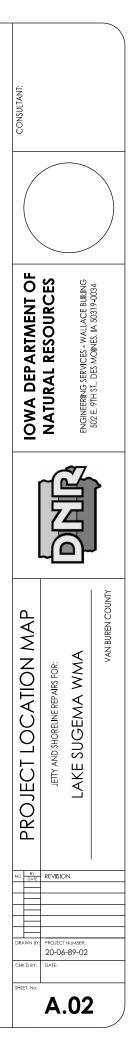


Keosauqua Unit-

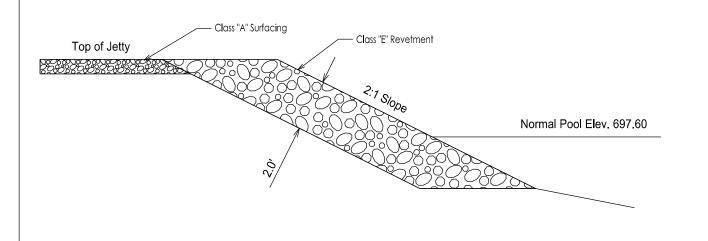
PM

P

Area #13

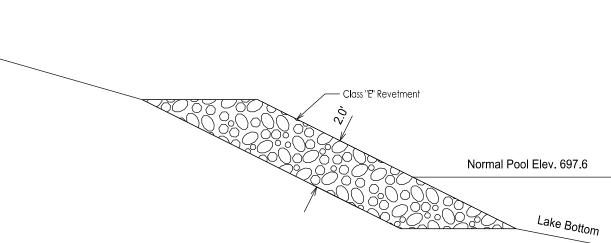


Jetty No.	Repair Length	Height	Class 'E' Revetment	Class 'A' Surfacing
1	75'	5'	101 Tons	20 Tons
2	40'	5'	54 Tons	15 Tons
3	65'	5'	87 Tons	15 Tons
4	35'	5'	47 Tons	10 Tons
5	120'	5'	161 Tons	15 Tons
6	85'	5'	114 Tons	20 Tons
7	140'	5'	188 Tons	15 Tons
8	180'	5'	242 Tons	20 Tons
9	130'	5'	175 Tons	15 Tons
10	55'	5'	74 Tons	15 Tons



Notes:

- 1. Partial disassembly and re-assembly of barrier cables for access at jetties 2, 3, 4, and 5 incidental to Class "E" Revetment.
- 2. Trimming of trees and brush for access is incidental to Class "E" Revetment.
- 3. Seeding, fertilizing, and mulching to include all disturbed areas. Seeding mixture to be fine lawns.
- 4. Materials allocated for a site or jetty may be reallocated to another site or jetty at the DNR Field Engineer's discretion.
- 5. See sheet D.01 for Jetty locations.



Shoreline Site	Repair Length	Height	Class 'E' Revetment
А	170'	3'	137 Tons
В	120'	5'	161 Tons
С	360'	5'	484 Tons
D	120'	3'	97 Tons
E	180'	4'	193 Tons

Notes:

 Any clearing and grubbing for access or placement of revetment shall be incidental to Class "E" Revetment.
 Target slope for revetment is 2:1, but may be adjusted by DNR Field Engineer due to site conditions. Any grading necessary for placement of revetment shall be incidental to Class "E" Revetment.
 Seeding, fertilizing, and mulching to include all disturbed areas. Seeding mixture to be rural mix.

5. See sheet D.01 for shoreline site locations.

6. Contractor must avoid guy lines, anchors, and any utilities at Shoreline Site B.

CONSULTANT:			
IOWA DEPARTMENT OF	NATURAL RESOURCES	ENGINEERING SERVICES - WALLACE BUILING	302 E. YITI 31., LES MOINES, IA 30317-0034
TYPICAL SECTIONS AND DETAILS	JETTY AND SHORELINE REPAIRS FOR:	LAKE SUGEMA WMA	VAN BUREN COUNTY
NO. BY DATE			
NO: BY DATE	PROJECT 20-06 DATE:	NUMBER:	

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL
1	Mobilization	L.S.	1
2	Revetment, Class "E"	Tons	2,315
3	Class "A" Crushed Stone Surfacing	Tons	160
4	Site Restoration	L.S.	1
	ESTIMATE REFERENCE INFORMATION		

 ITEM NO.
 DESCRIPTION

 2
 A. Contractor shall place revetment on jetties as directed by DNR Field Engineer. B. Partial disassembly and re-assembly of barrier cables for access at jetties 2, 3, 4, and 5 shall be incidental to this bid item. C. Trimming of trees and brush for access shall be incidental to this bid item.

3 A. Class 'A' crushed stone shall be placed as directed by DNR Field Engineer.

4 A. Site restoration to include seeding, fertilizing and mulching of all disturbed areas as directed by DNR Field Engineer.

GENERAL NOTES

Verify actual locations and elevations with DNR Engineer.

All work shall conform to and be performed in accordance with al ordinances.

The contractor shall visit the site and inspect the project area and themselves with the actual job conditions prior to bidding and the visit the project site shall not relieve the contractor from performing to the plans, specification, special provisions and contract.

The contractor shall verify, at the site, all dimensions and condition shall notify the DNR Engineer of any discrepancies, omissions, and, proceeding with the work.

It shall be the contractor's responsibility to provide waste areas or material (excavated material or broken concrete) which is not desi into the work involved on this project. No payment for overhaul w hauled to these sites. No material shall be placed within the rightstated in the plans or approved by the DNR Engineer.

The contractor shall not disturb desirable grass areas and desirable construction limits. The contractor will not be permitted to park o equipment or use these areas for storage of materials. Storage, pa will be subject to the approval of the DNR Engineer.

Where utilities and fixtures are shown as Existing on the plans or e construction area, it shall be the responsibility of the contractor to of those utilities prior to the beginning of any construction. The co access to these facilities for necessary modification of services. Un structures and utilities have been plotted from available surveys ar their locations must be considered approximate only. It is possible existence of which is presently not known or shown. It is the contracter determine their existence and exact location and to avoid damage additional compensation will be allowed to the contractor for any i caused by such work.

The contractor shall shape graded area to maintain surface drainage finish grade.

The contractor is expected to have materials, equipment, and labor to install and maintain erosion control features on the project. Th fence, rock ditch checks, silt basins or silt dikes.

	ANT:
	CONSULTANT
II applicable codes and	0
I thoroughly familiarize	
e start of work. Failure to ing the work in accordance	
ons shown on the plans and	
d/or conflicts prior to	ш.
r disposal sites for excess	OWA DEPARTMENT OF NATURAL RESOURCES ENGINEERING SERVICES - WALLACE BUILING 502 E. 9TH ST., DES MOINES, IA 50319-0034
sirable to be incorporated will be allowed for material	IEN UR 50319
t-of-way, unless specifically	
	OWA DEPARTMENT O NATURAL RESOURCES ENGINERING SERVICES - WALLACE BUILING 502 E. 9TH ST., DES MOINES, IA 50319-2034
le trees outside the or service vehicles and	DE JRA IRAG SE RING SE
parking and service areas	OWA DEP NATURAL ENGINEERING SERVI 502 E. 9TH ST., DES
encountered within the	
o notify the DNR Engineer contractor shall be afforded	
Inderground facilities,	
and records and therefore le there may be others, the	74
tractor's responsibility to e thereto. No claims for	
interference or delay	
	Z
age. All elevations are to	FORMATIO
or available on a daily basis	QUANTITIES AND GENERAL INFORMA Jetty and shoreline repairs for: LAKE SUGEMA WMA van buren co
his may involve seeding, silt	VAN VAN
	AL IN ARSFO
	MA LER/
	AND GENERAL INF JETTY AND SHORELINE REPAIRS FOR: AKE SUGEMA WM.
	S AND GENERAL INFO Jetty and shoreline repairs for:
	AN
	M M
	DRAWN BY: PROJECT NUMBER: 20-06-89-02 CHK/D BY: DATE:
	CHK'D BY: DATE: SHEET NO:
	C.01

