DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

GIC Doc Control Rec'd
NOV 0 4 2009

October 26, 2009

West Bank Area Office

SUBJECT: Contract No. W912P8-09-C-0041, West Bank and Vicinity, New Orleans, Louisiana, Hurricane Protection Project WBV-90, Gulf Intracoastal Waterway West Closure Complex, Jefferson and Plaquemines Parish, Louisiana

Gulf Intracoastal Constructors
3850 N. Causeway Blvd.
Metairie, La. 70002

Gentlemen:

Your proposed addendum No. 4 to the Quality Control Plan revising the right of way controls for the work along the 404C floodwall is acceptable, predicated on satisfactory implementation in the field.

If you have any questions, contact Mr. Jules Boudreaux at 504-862-2783.

Sincerely,

Kenneth Crumholt, P.E.
Administrative Contracting Officer

KTR

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE (Read instructions on the reverse side prior to initiating this form)	DATE 10/23/2009	TRANSMITTAL NO. 01 45 04.00 10-4

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)

TO: New Orleans West Bank Area Ofc P. O. Box 2246 Marrero, Louisiana 70073	FROM: GULF INTRACOASTAL CONSTRUCTORS 13119 OLD DENTON ROAD FORT WORTH, TX 76177	CONTRACT NO. W912P8-09-C-0041 NA	CHECK ONE: [X] THIS IS A NEW TRANSMITTAL [ ] THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. (Cover only one section with each transmittal) 01 45 04.00 10	PROJECT TITLE AND LOCATION 01-Main Register Gulf Intracoastal Waterway West Closure		CHECK ONE: THIS TRANSMITTAL IS FOR [ ] FIO [X] GA [ ] DA [ ] CR

ITEM NO. a.	DESCRIPTION OF ITEM SUBMITTED (Type size, model number/etc.) b.	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. (See instruction no. 8) c.	NO. OF COPIES d.	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. e.	CONTRACT REFERENCE DOCUMENT DRAWING SHEET NO. f.	FOR CONTRACTOR USE CODE g.	VARIATION (See Instruction No. 6) h.	FOR CE USE CODE i.
4	CQC Plan Addendum 4	PRECON SUBMTL	6	3.2	N/A	A	N	A

REMARKS
Addendum to the CQC Plan.

Centric Tracked Activity #: 1285

I certify that the above submitted items have been reviewed in detail and are correct and in the strict conformance with the contract drawings and specifications except as otherwise stated.

Conrad R. Smallwood

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (List by item No.)	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE
		10/26/09

Specific Quality Control Plan for work in the 404c Wall/ESA Area

1. Purpose

To control work in the 404c Wall work area and protect the ESA line.

2. Scope

This procedure applies to all work performed in the 404c Wall work area.

3. Definitions and Acronyms

SWN – Stop Work Notice
Stop Work Notice - A documented direction to suspend an operation until necessary corrective actions are taken or the appropriate investigation is completed and risk is analyzed.
Nonconformance – Non-fulfillment of a requirement.
Nonconformance Report (NCR) - A documented quality record stating the detection of a nonconformance.
Supervision – Supervision may include the foreman, project engineer, superintendents, managers, designers, or operations and maintenance personnel.
Discipline QC Managers – Members of the Gulf IntraCoastal Constructors quality control team responsible for reporting nonconformance and initiating the stop work process.
ESA – Environmentally Sensitive Area

4. Responsibilities

Discipline QC Managers - Responsible for the following:
- Issues SWN on nonconformance issues when required,
- Monitor the progress of the suspension,
- Approve the SWN revocation.

Supervision – Responsible for the following:
- Compliance with the SWN,
- Perform the required corrective action, investigation or risk analysis,
- Respond to the SWN appropriately.

Project Personnel – Responsible for reporting all nonconformance and to provide notification if the nonconformance may promote more damage or rework.

Management – Responsible for providing resources to effectively complete the work without encroaching on the ESA line.

Quality Control 404c/ESA Inspector – Responsible for monitoring the work along the EAS line of the 404c work area; will stop work if the orange fencing of the 10' boundary around the ESA line is in danger of being encroached.

5. Procedure

- **Specific Plan for 404c Wall Clearing**
  - GIC QC will have a full time inspector assigned to monitor the clearing operation. During the clearing operation, this GIC Inspector will have no other assigned duties.
  - The inspector will be stationed on the sub-contractor support boat to remain compliant with the GIC safety program. He will remain in contact with the clearing operator through the supervisor in the support boat with him.
  - The inspector will have an air horn with him to signal the operator. This is in the event that the sub-contractor is deviating from the work plan and is too close to the ESA line.
  - The inspector will be in phone contact with managers should any questions or issues arise.
  - The inspector will have the authority to stop work if needed.
- **Other work in 404c Wall Area**
  - GIC QC will have a full time inspector assigned to monitor the work in the 404c Wall work area.
  - The inspector will work on the land side of the 404c Wall area inside the work zone and outside of the ESA.
  - The inspector will be in phone contact with managers should any questions or issues arise.
  - The inspector will have the authority to stop work if needed.
  - No deviation from the work plan will be allowed without stopping the work, making the change in writing, and receiving sign off by quality control and quality assurance.

5 Metrics

- 0 incident allowed

6 Quality Records

- QC Daily Report

7 Reference Documents

- Stop Work Notice Form

Gulf IntraCoastal Constructors

INSPECTION TEST PLAN (ITP)

CWBS CODE	CWBS ELEMENT	Test Inspection	Test Type	Inspection/Test Method	Frequency	Spec. Section	Spec. Paragraph	Remarks/Special Process
1.6	**Floodwall at 404c Site**							
	Clearing and Grubbing-404C Floodwall	Quality Control	Inspection	Visual Inspection	Daily - Full Time During Clearing activities	31 11 00.00 12	1.3	The Contractor shall inspect and report clearing and grubbing station to station limits, transverse limits, percentages of area complete, type of material, method andlocation of disposition, damage to timber or improvements which are not to be cleared.

Gulf IntraCoastal Constructors

REMEDIATION PLAN FOR THE 404C AREA

	STEPS TO BE FOLLOWED	DATE: 10/21/2009
1	A 10' buffer line from the ESA will be staked every 25' and clearly marked.	
2	A orange fence will be installed on the 10' buffer line to act as a visual and physical barrier.	
3	Warning signs denoting "Environmentally Sensitive Area: KEEP OUT" will be installed on the orange fence every 50 feet.	
4	No operations on the Environmentally Sensitive Area will continue unless the orange fence is completely installed.	
5	Gulf IntraCoastal Constructors (GIC) will have a full-time supervisor present for the duration of the orange fence installation.	
6	Gulf IntraCoastal Constructors (GIC) and Marsh Buggies Inc (MBI) will have a full-time supervisor present for the duration of the clearing operation.	
7	Operations will NOT continue unless the above condition is met.	
8	To ensure that the plan is followed, a GIC QC inspector will be present at all times during the operation.	
9	A USACE QA inspector will visit the operation 3 times a shift to ensure the plan is followed.	
10	Any deviation from the plan will be recorded, reviewed, approved, and signed by GIC QC Manager (Robert Pocano) and USACE QA team leaders (Jules Boudreaux and Randy Oustalet) before operation can continue.	
11	Operations will NOT continue unless the above condition is met.	
12	GIC superintendent and foreman involved with the Orange fence installation will be present at the preparatory meeting.	
13	MBI superintendent and operator involved with the clearing and grubbing operations will be present at the preparatory meeting.	

Operation Work Plan

TITLE:	INSTALL ORANGE FENCE @ 404C	DATE:	10/17/2009

SCOPE OF WORK:

This work consists of installing of a temporary orange fence along the 10-foot buffer line from the ESA boundary at the 404c Wall. This fence will act as a visual and physical barrier between the work area and the Environmentally Sensitive Area (ESA). **No clearing operations will continue until this orange fence is installed.**

Prior to the installation of the orange fence, the 10-foot buffer line from the ESA will be clearly marked with survey stakes at every 25 feet. Moreover, all clearing limits will be clearly marked with survey stakes at every 25 feet. This includes the south end of the 404c wall and the portion of the ROW on the land to the north of Estelle canal. The survey marks will be staked clear to the water wherever the limits of clearing reaches

The orange fence will be tied to t-posts spaced out at 6 feet on-centers. For added stabilization, the orange fence will be attached to any trees that are within a close proximity of the 10-foot buffer line; trees beyond the ESA line will not be utilized. For added rigidity, three rows of 11 gauge aluminum wire will also be installed. The orange fence will be zip tied to the t-posts, trees, and the three rows of wire. The orange fence will be installed one foot above the ground to allow for water flow and wildlife passage. Once the fence is up,

A GIC supervisor will be present at all times for the duration of the operation. The operation will STOP if the GIC supervisor is not present. The GIC supervisor will be named at the preparatory meeting.

A GIC QC representative will ensure that the plan is being followed by being present at all times during the duration of the operation.

A USACE QA representative will ensure that the plan is being followed by doing a minimum of 3 visits to the operation a day.

Any deviation from this plan will be recorded, reviewed, approved, and signed by a GIC QC manager (Robert Pocano) and USACE QA Team leaders (Jules Boudreaux and Randy Outstalet).

TOP 3 SAFETY RISKS:
Slips, trips, and falls
Heavy Lifting, back strains
Snakes and other wildlife
TOP 3 QUALITY RISKS:
Disturbing the Environmetally Sensitive Area
Securing of the Orange Fence
Damaging wildlife and trees

STEP BY STEP:	
1	Prep. Load, and unload materials
2	Shake out materials
3	Drive posts
4	Install 11 gauge aluminum wire
5	Tension cattle connections
6	Install orange fence
7	Install warning signs
8	
9	
10	

Work Plan:	INSTALL ORANGE FENCE @ 404C	Date:	10/17/2009
STEP NO. 1	**Prep, load, and unload materials**		
	Materials will be loaded onto the crew boat at the office yard bulkhead. Only 200 posts can be loaded onto the boat at a time. Materials will then be unloaded and transferred to the amphiblous gater at the work site.		

SAFETY

HAZARDS:	PRECAUTIONS:
Back Strains	Do not carry more then your body can handle. Use two people if carrying over 40 lbs.
Overloading the boat	Do not put more than 200 posts per trip.
Going overboard	Be aware of the boat movement and hold on to something. Wear PFDs at all times in a boat (and 25' from water). Follow overboard procedure...If a person goes overboard, one person needs to maintain eye contact with that person while another person goes for the life ring.
Pinch Points	Be careful of where you place your hands when handling materials, esp. the t-posts.

REVISIONS:	PRECAUTIONS:	DATE:
	wear fest.	

QUALITY

SPECIFICATIONS SUMMARY:

Orange Fence Installation

TOLERANCES:

Zero tolerance on crossing the ESA line.

QUALITY RISKS:	HOLD POINTS:
1 Crossing the ESA line.	1 Survey stakes MUST be in place at 25' o.c.
2 Damaging material	2
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. Survey stakes will be provided.	Superintendent
2. Stay within 10' of the survey stakes, any direction.	Foreman

Gulf IntraCoastal Constructors

Work Plan:	INSTALL ORANGE FENCE @ 404C	Date: 10/17/2009
STEP NO. 2	Shake out Materials	
	Load materials onto the amphibious ATV and spread out through out the length of the work area. Spread by foot if the ATV is not able to reach the stakes...do not attempt to clear a path for the ATV if it requires cutting	

SAFETY

HAZARDS:	PRECAUTIONS:
Equipment	Maintain good communication with the driver and everyone around the ATV.
Pinch Points	Place hands, feet, and body accordingly to avoid putting them in a pinch situation.
Repetitive Lifting	Avoid putting our body in awkward positions. Switch out with another person to avoid strainig your body from repetitive motions.
Cuts/scrapes	Watch out for sharp tree branches and thorns
Fall Hazards	Clear work path of all sharp protruding sticks and wrenches. Use chainsaw to cut large diameter tree stems.

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

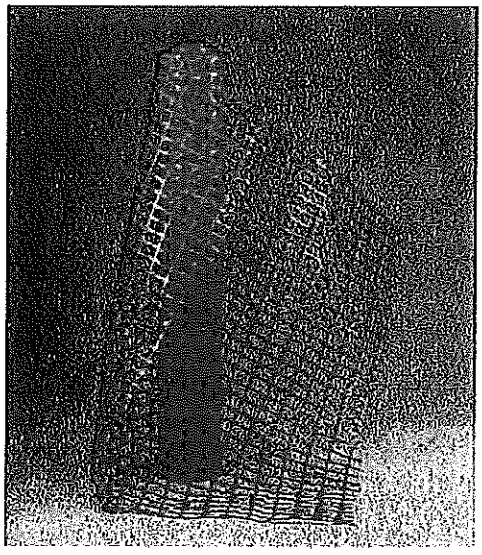
Orange Fence Installation

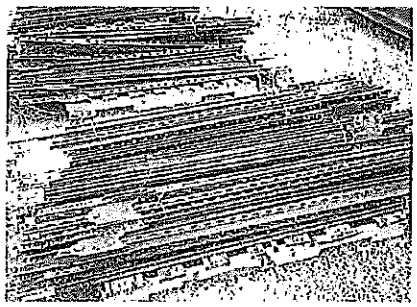
TOLERANCES:

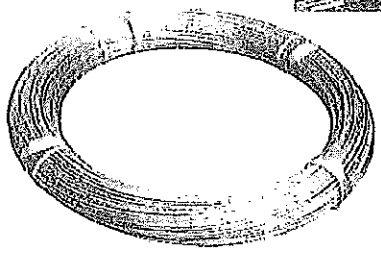
Zero tolerance on crossing the ESA line
Stay within 10' of the survey stakes

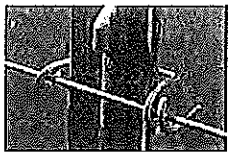
QUALITY RISKS:	HOLD POINTS:
1 Crossing the ESA line	1 Survey MUST be in place prior to continue
2 Damaging material	2
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. Survey stakes provided at the 10' buffer line.	Superintendent
2. Stay within 10' of the survey stakes, any direction.	Foreman









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Work Plan:	INSTALL ORANGE FENCE @ 404C	Date: 10/17/2009
STEP NO. 3	Drive posts	
	T- Posts to be driven at 6' o.c. and 3" steel post to be driven at 100' o.c. The t posts are to be driven 4' into the ground and the 3" post to be driven into the ground 6'.	

SAFETY

HAZARDS:	PRECAUTIONS:
Snakes/ other wild life.	Visually check the area befor entrance; wear snake chaps
Trips	Clear path wear installing fence.have proper footing and body postion to avoid tripping.
Back strain.	Use proper body position when driving post into ground stand in front of post not to side of post.
Pinch points.	Keep fingers off the top of stake and the bottom of post driver when driving stake.to avoid smashing fingers.
Cuts and scrapes	Watch out for sharp tree branches and thorns

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

Orange Fence Installation

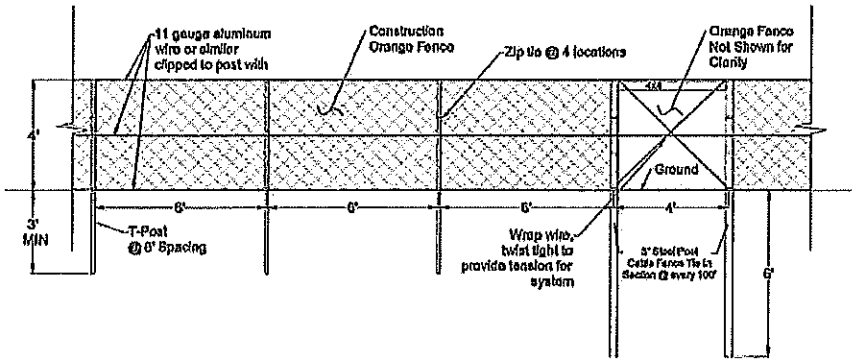
TOLERANCES:

Zero tolerance on crossing the ESA line

Posts can be driven within 8' of the survey stakes.

QUALITY/ENVIRONMENTAL RISKS:	HOLD POINTS:
1 Crossing over the ESA line	1 Survey stakes MUST be in place
2 Unstable post	2
3 Post spacing not met	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. Survey stakes provided at 25' o.c. Stay within 10' of survey stakes.	Superintendent
2. Drive post 4' into the ground.	Foreman
3. Double check with measuring tape.	Foreman



404c Wall Orange Fence Detail

Approx. Length = 4500'

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West Bank and Vicinity, New Orleans, Louisiana
Hurricane Protection Project WBV-90
GIWW West Closure Complex

Gulf Intracoastal Constructors
Owner: Army Corp of Engineers
10/22/2009

Work Plan:	INSTALL ORANGE FENCE @ 404C	Date: 10/17/2009
STEP NO. 4	Install 11 gauge aluminum wire	
	Pull wire and clip to t-post. When the wire spans the 3" posts, pull in tighter and clip.	

SAFETY

HAZARDS:	PRECAUTIONS:
Trips	Watch where you place your feet. Determine a clear path before proceeding.
Cuts/scrapes	Watch out for sharp tree branches and thorns. Be careful when handling and cutting wire; ends may be sharp.
Pinch Points	Be aware of where you place your hands when clipping and tighting wire

PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

Orange Fence Installation

TOLERANCES:

Zero Tolerance for crossing the ESA line.

QUALITY/ENVIRONMENTAL RISKS:	HOLD POINTS:
1 Crossing over the ESA line	1 Survey stakes MUST be in place
2 Line sagging	2
3 Not clipped to the t-post	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. Survey stakes clearly marking the 10' buffer line...stay within 10' of survey stakes	Superintendent
2. Tighten the wire between each t-post	Crew Member
3. Double check prior to proceeding	Crew Member

Gulf IntraCoastal Constructors

Work Plan:	INSTALL ORANGE FENCE @ 404C	Date: 10/17/2009
STEP NO. 5	**Tension cattle connections**	
	Cut 4x4s to 4' lengths. Place 4x4 near the top of the 3" steel posts as shown in drawing below. Wrap wire and criss cross; criss cross several times to create a twist. Stick a piece of 2x4 and twist until both posts are tight up against the 4x4.	

SAFETY

HAZARDS:	PRECAUTIONS:
Pinch points	Be aware of the pinch points between 4x4 and posts, wire and posts, wire and 2x4, wire and wire.
Stored Energy	When twisting the wire, stored energy will start to accumulate. Be aware of this phenomena.
Trips	Watch your step at all times
Cuts and scrapes	Avoid branches with sharp edges and thorns.

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

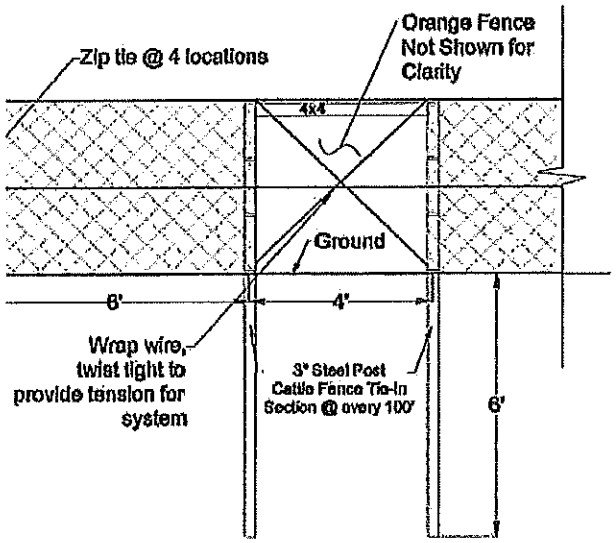
Install orange fence

TOLERANCES:

Zero tolerance on crossing the ESA line.
Wire to twist tight
No gap between 4x4 and post

QUALITY/ENVIRONMENTAL RISKS:	HOLD POINTS:
1 Crossing the ESA line	1 11 gauge wire must be installed
2 Wire breaking	2
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. Survey stakes show the 10' buffer line...stay within 10' of survey stakes.	Superintendent
2. Twist to snug tight. Do not over tighten.	Crew Member



Work Plan:	INSTALL ORANGE FENCE @ 404C	Date: 10/17/2009
STEP NO. 6	Install orange fence	
	Stretch out the orange fence between each post. One person pulls the fence tight while the other zip ties it to the post and 11 gauge wire. Zip tie fence to t-post 1' o.c. veritcally and to the 11-ga wire every 2'. Make sure that there is a 1' gap at the bottom of the orange fence; pull any left over fence on the top down the back and zip tie back the to itself.	

SAFETY

HAZARDS:	PRECAUTIONS:
Pinch points	Watch where you place your hands.
Slips, trips, falls	Be careful on what you step on; watch your footing.
Cuts/ scrapes	The ends of the orange fence may be sharp.

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

Orange fence installation

TOLERANCES:

Zero tolerance on crossing the ESA line
Fence to be snug tight

QUALITY/ENVIRONMENTAL RISKS:	HOLD POINTS:
1 Crossing the ESA line	1 11-ga wire must be installed
2 Damaged fence	2 Cattle fence connection must be installed
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. Survey stakes marking the 10' buffer line...stay within 10' of survey stakes.	Superintendent
2. Don't pull too much on the orange fence	Crew Member

West Bank and Vicinity, New Orleans, Louisiana
Hurricane Protection Project WBV-90
GIWW West Closure Complex

Gulf Intracoastal Constructors
Owner: Army Corp of Engineers
10/22/2009

Work Plan:	INSTALL ORANGE FENCE @ 404C	Date: 10/17/2009
STEP NO. 7	Install warning signs	
	Warning signs to state: Environmentally Sensitive Area: KEEP OUT	
	Install warning signs at 50' o.c.	

SAFETY

HAZARDS:	PRECAUTIONS:
Pinch points	Watch where you place your hands.
Slips, trips, falls	Be careful on what you step on; watch your footing.
Cuts/ scrapes	The ends of the orange fence may be sharp.

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

Orange fence installation

TOLERANCES:

Zero tolerance on crossing the ESA line
Fence to be snug tight

QUALITY/ENVIRONMENTAL RISKS:	HOLD POINTS:
1 Crossing the ESA line	1 11-ga wire must be installed
2 Damaged fence	2 Cattle fence connection must be installed
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. Survey stakes marking the 10' buffer line...stay within 10' of survey stakes.	Superintendent
2. Don't pull too much on the orange fence	Crew Member

Gulf IntraCoastal Constructors

REVISIONS TO STEP BY STEP

Date: 10/17/2009

REVISED STEP

SAFETY

HAZARDS:	PRECAUTIONS:

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

TOLERANCES:

QUALITY/ENVIRONMENTAL RISKS:	HOLD POINTS:
1	1
2	2
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:

REVIEWED BY:	SIGNATURE	DATE
Robert Pocano		
Jules Boudreaux		
Randy Oustalet		

Gulf IntraCoastal Constructors

ACCIDENT PREVENTION PROGRAM
CONTRACTOR ACTIVITY HAZARD ANALYSIS

1. Contract No. W912P8-09-C-0041	2. Contract Name GIWW West Closure Project	3. Contract Administrator:
4. Date: 10-17-09	5. Location: Belle Chasse, Louisiana	6. Estimated Start Date: 10-26-09

7. PRINCIPAL STEPS	8. POTENTIAL HAZARDS	9. RECOMMENDED CONTROLS
1. Load / unload materials 2. Shake out materials. 3. Drive posts. 4. Install 11-ga wire. 5. Tension cattle fence connections 6. Install orange fence.	1.1 Back strains 1.2 Going overboard 1.3 Overloading boat 1.4 Pinch points with materials, boat, and equipment. 2.1 Struck by moving equipment 2.2 Cuts / scrapes 3.1 Awkward position / strains 3.2 Trips and falls. 4.1 Cuts / scrapes 4.2 Pinch points with post and wire. 5.1 Stored Energy 5.2 Trips and falls 5.3 Pinch points with 4x4 and post 6.1 Pinch points	1.1 Maintain good body position when lifting. Use two people if necessary to move materials. 1.2 Sit down and hang on when in boat. Be aware of boat movement. 1.3 Do not load more than 200 posts per trip. 1.4 Place hands, feet, and body accordingly to avoid getting into a pinch. 2.1 Maintain good communication with driver. 2.2 T-post edges and wire ends may be sharp... inspect before handling. 2.1 Marsh Buggies, Inc to follow all rules and regulation of transporting or towing on the Intracoastal Waterway. 2.2 Scope the site out before taking the equipment in. Understand your work and plan the path for equipment. 3.1 Maintain good body positioning and foot placement. 3.2 Inspect area before stepping or proceeding. 3.3 Be in good contact/communication with the operator when in the vicinity of the work. Maintain good eye and hand signal contact with operator. 4.1 See 2.2. Also, watch out for sharp tree branches and thorns. 4.2 Be careful to not place fingers between wire and post when tightening 5.1 Do not over twist wire or else it will snap. 5.2 Watch you r footing 5.3 Be careful of hand placing when installing 4x4. 6.1 See 4.2

10. EQUIPMENT TO BE USED	11. INSPECTION REQUIREMENTS	12. TRAINING REQUIREMENTS
1. Amphibious ATV or similar 2. Crew Boat 3.	1. Full time QC/QA inspector on-site 2. Daily reports	
Contractor/Superintendent or Safety Officer (Signature & Date)	Contractor/Project Manager Or Representative (Signature & Date)	

HAZARD ANALYSIS

DATE PREPARED: 10/17/09 **PREPARED BY:** Seminare Ta'afua

Gulf IntraCoastal Constructors

OPERATION: Orange Fence Installation at the 404c

STEP BY STEP PLAN:

1) Load and unload materials
2) Shake out materials
3) Drive posts
4) Install 11 gauge aluminum wire
5) Tension cattle connections
6) Install orange fence

Access Identification

Location:	Type:
404c	Boat
	By Foot
	Amphibious ATV

Ergonomic Risks

Lifting	X
Repetitive Motion	X
Vibration	X
Awkward Position	X

Strategic Risks	Evident Risk	Needs Special Planning
Equipment	X	
Exposure to Falls		
Confined Space		
Traffic		
Trenching / Excavation		
Lock-Out / Tag-Out		
MSDS Attached		
Utilities		
Electrical		
Critical Lift Plan		
On the Spot Lift Plan		
Steel Erection		
Night Work		
Falsework / Shoring		
Other Safety Risks:		
Snakes/wildlife	X	
Marsh Conditions	X	

Unique PPE	Required
Cutting Goggles	
Face Shield	
Leather/Kevlar Chaps	
Respiratory Protection	
Toe/Foot Guards	
Ear Plugs/Muffs	
Life Vest/PFD	X
Welding Hood	
Welding Leathers	
Snake Chaps	X
Other PPE:	
Other PPE:	
Other PPE:	
Other PPE:	

Superintendent

Prepared and Reviewed By:	
Name	Signature

Note: Solutions are part of the operation Plan

Any deviat

	Step 1: Load and unload materials
WHAT IS THE WORST THAT COULD HAPPEN?	Boat overturning
PREVENTION PLAN (FOCUS ON BEHAVORS)	Do not overload the boat. 200 posts max per trip.
HOW ARE YOU MOST LIKELY TO GET HURT?	Pinch Points - post to post - post to boat - Wire to wire
PREVENTION PLAN (FOCUS ON BEHAVORS)	Be aware of where your hands and feet go.
OTHER RISKS TO BE AWARE OF?	Back strains Going overboad
PREVENTION PLAN (FOCUS ON BEHAVORS)	Do not carry more than your body can handle. Use two people when carrying over 40 lbs. Hang on when in boat. Be aware of the boat movement

	Step 2: Shake out materials
WHAT IS THE WORST THAT COULD HAPPEN?	Ran over by equipment Cut by chainsaw
PREVENTION PLAN (FOCUS ON BEHAVORS)	Maintain good communication with the driver. If driving, be aware of your surrounding and people's locations Wear chaps, ear plugs, safety glasses face shield, gloves when using chain saw. Do not walk with chainsaw on... restart when you get to next position.
HOW ARE YOU MOST LIKELY TO GET HURT?	Pinch Points - post to post - post to equipment - wire to wire
PREVENTION PLAN (FOCUS ON BEHAVORS)	Do not rush picking up materials. Watch for potential pinch points like the typical shown above. Watch where your hands and feet go at all times.
OTHER RISKS TO BE AWARE OF?	Repetitive Movement Awkward Positions Cut and scrapes Snakes
PREVENTION PLAN (FOCUS ON BEHAVORS)	Plan your work so as to avoid placing your body in awkward positions. Switch with another person if a task becomes overly repetitive. Avoid sharp tree branches and thorns. Visually inspect area before proceeding

	Step 3: Drive posts
WHAT IS THE WORST THAT COULD HAPPEN?	Back strain
PREVENTION PLAN (FOCUS ON BEHAVORS)	Use good body positioning when driving post. Never carry more than you can handle. Use two people when carrying over 40 lbs.
HOW ARE YOU MOST LIKELY TO GET HURT?	Trips and falls
PREVENTION PLAN (FOCUS ON BEHAVORS)	Inspect area before stepping in. Watch where you step and maintain good visual inspection of the work zone.
OTHER RISKS TO BE AWARE OF?	Pinch Points Snakes Cuts and scrapes
PREVENTION PLAN (FOCUS ON BEHAVORS)	Avoid potential pinch points when inserting post driver over t-post Visuallu inspect area for snakes prior to proceeding Avoid sharp tree branches and thorns.

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	Step 4: Install 11 gauge aluminum wire
WHAT IS THE WORST THAT COULD HAPPEN?	Cuts and scrapes
PREVENTION PLAN (FOCUS ON BEHAVORS)	11-ga wire may have sharp ends...be careful when handling. Inspect before handling.
HOW ARE YOU MOST LIKELY TO GET HURT?	Cuts and scrapes
PREVENTION PLAN (FOCUS ON BEHAVORS)	11-ga wire may have sharp ends...be careful when handling. Inspect before handling.
OTHER RISKS TO BE AWARE OF?	Trips Pinch Points
PREVENTION PLAN (FOCUS ON BEHAVORS)	Be aware of your surrounding; inspect for potential trip hazards. Be careful where you put your hands and feet and body.

	Step 5: Tension cattle connections
WHAT IS THE WORST THAT COULD HAPPEN?	Wire breaking and hitting you 4x4 snapping and hitting you
PREVENTION PLAN (FOCUS ON BEHAVORS)	Be aware of stored energy produced from twisting the wire. Be careful not to over twist; twist to snug tight.
HOW ARE YOU MOST LIKELY TO GET HURT?	Pinch Points
PREVENTION PLAN (FOCUS ON BEHAVORS)	Be careful not to entangle your hands between the wires. Be careful not to place your hands between the 4x4 and steel post.
OTHER RISKS TO BE AWARE OF?	Cuts and scrapes Trips and Falls
PREVENTION PLAN (FOCUS ON BEHAVORS)	Avoid running into shard tree branches and thorns. Watch your step and footing.

	Step 6: Install orange fence
WHAT IS THE WORST THAT COULD HAPPEN?	Cuts / scrapes
PREVENTION PLAN (FOCUS ON BEHAVORS)	The ends of the orange fence may be sharp...inspect orange fence prior to handling.
HOW ARE YOU MOST LIKELY TO GET HURT?	Cuts / scrapes Trips and falls
PREVENTION PLAN (FOCUS ON BEHAVORS)	Inspect orange fence prior to handling. Watch your footing and steps
OTHER RISKS TO BE AWARE OF?	Pinch points
PREVENTION PLAN (FOCUS ON BEHAVORS)	Be careful of hand placement during zip tieing

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Marsh Buggies Inc.
2018 Engineers Road
Belle Chasse, LA 70037

Operation Work Plan

TITLE:	404c Clearing and Grubbing	DATE:	10/21/2009

SCOPE OF WORK:

This work consists of the continuing of the clearing operation at the 404c Environmentally Sensitive Area (ESA) and the grubbing of the stumps for the 404c wall and Water Control Structure. **Prior to the commencement of this work plan, an orange fence will be installed at the 10' buffer line from the ESA clearly marking the limits of the clearing.** The orange fence installation will be completed by Gulf Intracoastal Constructors (GIC). GIC will notify Marsh Buggie Inc (MBI) of the completion of the orange fence and approval to continue the clearing and grubbing operations.

The clearing will begin where the previous clearing operation stopped and will move South clearing 40' wide pass from water's edge inland and stopping at the orange safety fence perpendicular to ESA line. The excavator will turn around moving North and clear up to the orange fence at all directions until all the clearing is completed.

The grubbing will begin after the stakes are provided by GIC to show the grubbing limits. MBI will proceed to pull out trees stumps that will interfere with the pile driving operations for the 404c wall and Water Control Structure. The stumps will be placed in a wind row towards the canal for a removal by others. Any holes produced by pulling the stumps will be filled back in, if possible, with natural materials of the site.

Both a GIC supervisor and a MBI supervisor will be present at all times for the duration of the operation. The operation will not continue unless BOTH supervisors are present. The GIC and MBI supervisors will be named at the preparatory

A GIC QC representative will ensure that the plan is being followed by being present at all times during the duration of the operation.

A USACE QA representative will ensure that the plan is being followed by doing a minimum of 3 visits to the operation a

Any deviation from this plan will be recorded, reviewed, approved, and signed by a GIC QC manager (Robert Pocano) and

TOP 3 SAFETY RISKS:

All personnel must be 1000' feet from excavator while cutter is in operation due to flying chips and debris.

All personnel must wear protective gloves, visible safety vest, safety glasses, steel toe boots, life vest (when within 25'

Make sure all trees fall away from the excavator.

TOP 3 QUALITY RISKS:

Disturbing the Environmentally Sensitive Area (ESA) - Including ensuring that no trees will fall into the ESA.

Clearing beyond the orange safety fence

Making sure obstructions are completely grubbed for piling operation

STEP BY STEP:

1	Clear 40' pass along the water's edge heading south
2	Clear remaining uncleared area up to orange fence heading north
3	Grub out stumps within stake limits and place a wind row toward canal side.
Note	Clearing and grubbing can occur concurrently if safety conditions are met.

MBI

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2018 Engineers Road
Belle Chasse, LA 70037

Work Plan:	Clearing and Grubbing	Date: 10/16/2009
STEP NO. 1	Tree cutting and clearing moving South, 40' wide pass from water's edge Inland and stop at the orange safety fence perpendicular to the ESA line.	
	Note: Clearing cannot begin until all orange safety fence is installed on the 404c Environmentally Sensitive Area	

SAFETY

HAZARDS:	PRECAUTIONS:
Flying debris and tree chips	Stay 1000' away from grinding operation. Operator to maintain good eye contact with the grinding
Fall Trees	Operator to make sure that the equipment and any personel is away from the tree fall zone.
Snakes	Check the area before exiting equipment; snake chaps optional
Slips, trips, and fall	Use proper access areas to get on and off equipment. Watch where you step.

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

31 11 00.00 12 CLEARING AND GRUBBING - 404C FLOODWALL

TOLERANCES:

DO NOT GO OVER THE ORANGE FENCE

QUALITY / ENVIRONMENTAL RISKS:	HOLD POINTS:
1 Crossing the ESA line.	1 Orange Fence MUST be installed prior to clearing
2 Fueling (see fueling procedure)	2
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. An orange fence will be in place to be a visual barrier of the clearing limit.	Equipment Operator
2. All necessary precaution shall be in place to avoid spilling; spill kits should be on-board at all times	Equipment Operator

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2018 Engineers Road
Belle Chasse, LA 70037

Work Plan:		Clearing and Grubbing	Date:	10/16/2009
STEP NO.	2	Excavator turns around moving South to North and clear all area from fence to water's edge.		

SAFETY

HAZARDS:	PRECAUTIONS:
Flying debris and tree chips	Stay 1000' away from grinding operation. Operator to maintain good eye contact with the grinding
Fall Trees	Operator to make sure that the equipment and any personel is away from the tree fall zone.
Snakes	Check the area before exiting equipment; snake chaps optional
Slips, trips, and fall	Use proper access areas to get on and off equipment. Watch where you step.

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

31 11 00.00 12 CLEARING AND GRUBBING - 404C FLOODWALL

TOLERANCES:

DO NOT GO OVER THE ORANGE FENCE

QUALITY RISKS:	HOLD POINTS:
1 Crossing the ESA line	1 Orange fence MUST be in place prior to clearing
2 Fueling (see fueling procedure)	2
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. An orange fence will be in place to be a visual barrier of the clearing limit.	Equipment Operator
2. All necessary precaution shall be in place to avoid spilling; spill kits should be on-board at all times	Equipment Operator

MBI

Marsh Buggies Inc.
2018 Engineers Road
Belle Chasse, LA 70037

Work Plan:	Clearing, and Grubbing	Date: 10/16/2009
STEP NO. 3	Grub between the stakes provided by GIC. Pull out stumps and place in a wind row toward canal side. Fill in with natural site materials.	
	NOTE: NO GRUBBING OPERATION CAN BEGIN UNTIL ORANGE FENCE IS INSTA	

SAFETY

HAZARDS:	PRECAUTIONS:
Stump Debris	Stay 200' away from grubbing operation
Snakes	Check the area before exiting equipment; snake chaps optional
Slips, trips, and fall	Use proper access areas to get on and off equipment. Watch where you step.

REVISIONS:	PRECAUTIONS:	DATE:

QUALITY

SPECIFICATIONS SUMMARY:

31 11 00.00 12 CLEARING AND GRUBBING - 404C FLOODWALL

TOLERANCES:

DO NOT CROSS OVER THE ORANGE FENCE

QUALITY RISKS:	HOLD POINTS:
1 Crossing the ESA line	1 Orange fence MUST be installed prior to grubbing
2 Fueling (see fueling procedure)	2 Survey stakes MUST be in place prior to grubbing
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:
1. An orange fence will be in place to be a visual barrier of the clearing limit.	Equipment Operator
2. All necessary precaution shall be in place to avoid spilling; spill kits should be on-board at all times	Equipment Operator

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Belle Chasse, LA 70037

REVISION TO STEP BY STEP

Date: 10/16/2009

REVISED STEP:

SAFETY

HAZARDS:	PRECAUTIONS:

QUALITY

SPECIFICATIONS SUMMARY:

TOLERANCES:

QUALITY RISKS:	HOLD POINTS:
1	1
2	2
3	3

QUALITY RISK PREVENTION:	RESPONSIBLE PERSON:

REVIEWED BY:	SIGNATURE	DATE
Robert Pocano		
Jules Boudreaux		
Randy Oustalet		

Marsh Buggies Inc.
2018 Engineers Road
Belle Chasse, LA 70037
800-264-6868

GULF INTRACOASTAL CONSTRUCTORS
WORKPLAN SIGN-OFF SHEET

NAME	DATE

ACCIDENT PREVENTION PROGRAM
CONTRACTOR ACTIVITY HAZARD ANALYSIS

1. Contract No.W912P8-09-C-0041	2. Contract Name GIWW West Closure Project	3. Contract Administrator:
4. Date: 10-21-09	5. Location: Belle Chasse, Louisiana	6. Estimated Start Date: 10-27-09
7. PRINCIPAL STEPS	8. POTENTIAL HAZARDS	9. RECOMMENDED CONTROLS
1. Top off trees and grind. 2. Pull Stumps and remove. 3. Mobe out.	1.1 Struck or hit by flying debris 1.2 Struck or hit by falling tree 1.3 Struck by moving equipment 2.1 Struck by moving equipment 3.1 Waterway traffic on the canal.	1.1 Stay back from cutting/grinding operation at least 100'. 1.2 Stay back from cutting/grinding operation at least 100'. 1.3 Be in good contact/communication with the operator when in the vicinity of the work. Maintain good eye and hand signal contact with operator. 2.1 See 1.3 3.1 Marsh Buggies Inc to follow all waterway traffic rules and regulations on the GIWW and Harvey Canals.
10. EQUIPMENT TO BE USED	11. INSPECTION REQUIREMENTS	12. TRAINING REQUIREMENTS
1. Marsh Excavator with cutting attachment 2. Skiff or boat. 3. Marsh Buggie (optional)	1. Maintain log of area cleared a day. 2. Daily equipment inspection and visuals.	
Contractor/Superintendent or Safety Officer (Signature & Date)	Contractor/Project Manager Or Representative (Signature & Date)	

HAZ ANALYSIS

DATE PREPARED: PREPARED BY:

Gulf IntraCoastal Constructors

OPERATION: Clearing and Grubbing

STEP BY STEP PLAN:

1) Cut trees and grind down
2) Grub area
3) Mobe out

Access Identification

Location:	Type:
404c AREA	Boat

Ergonomic Risks

Lifting	☐
Repetitive Motion	☐
Vibration	☐
Awkward Position	☒

Strategic Risks	Evident Risk	Needs Special Planning
Equipment	☒	☐
Exposure to Falls	☐	☐
Confined Space	☐	☐
Traffic (Water)	☒	☐
Trenching / Excavation	☒	☐
Lock-Out / Tag-Out	☒	☐
MSDS Attached	☐	☐
Utilities	☐	☐
Electrical	☐	☐
Critical Lift Plan	☐	☐
On the Spot Lift Plan	☐	☐
Steel Erection	☐	☐
Night Work	☐	☐
Falsework / Shoring	☐	☐
Other Safety Risks	☐	☐
Snakes	☒	☐
	☐	☐

Unique PPE	Required
Cutting Goggles	☐
Face Shield	☐
Leather/Kevlar Chaps	☐
Respiratory Protection	☐
Toe/Foot Guards	☒
Ear Plugs/Muffs	☐
Life Vest/PFD	☒
Welding Hood	☐
Welding Leathers	☐
Other PPE: Protective Gloves	☒
Other PPE: Life Vest	☒
Other PPE: Safety Vest	☒
Other PPE: Hard Hat	☒
Other PPE:	☐

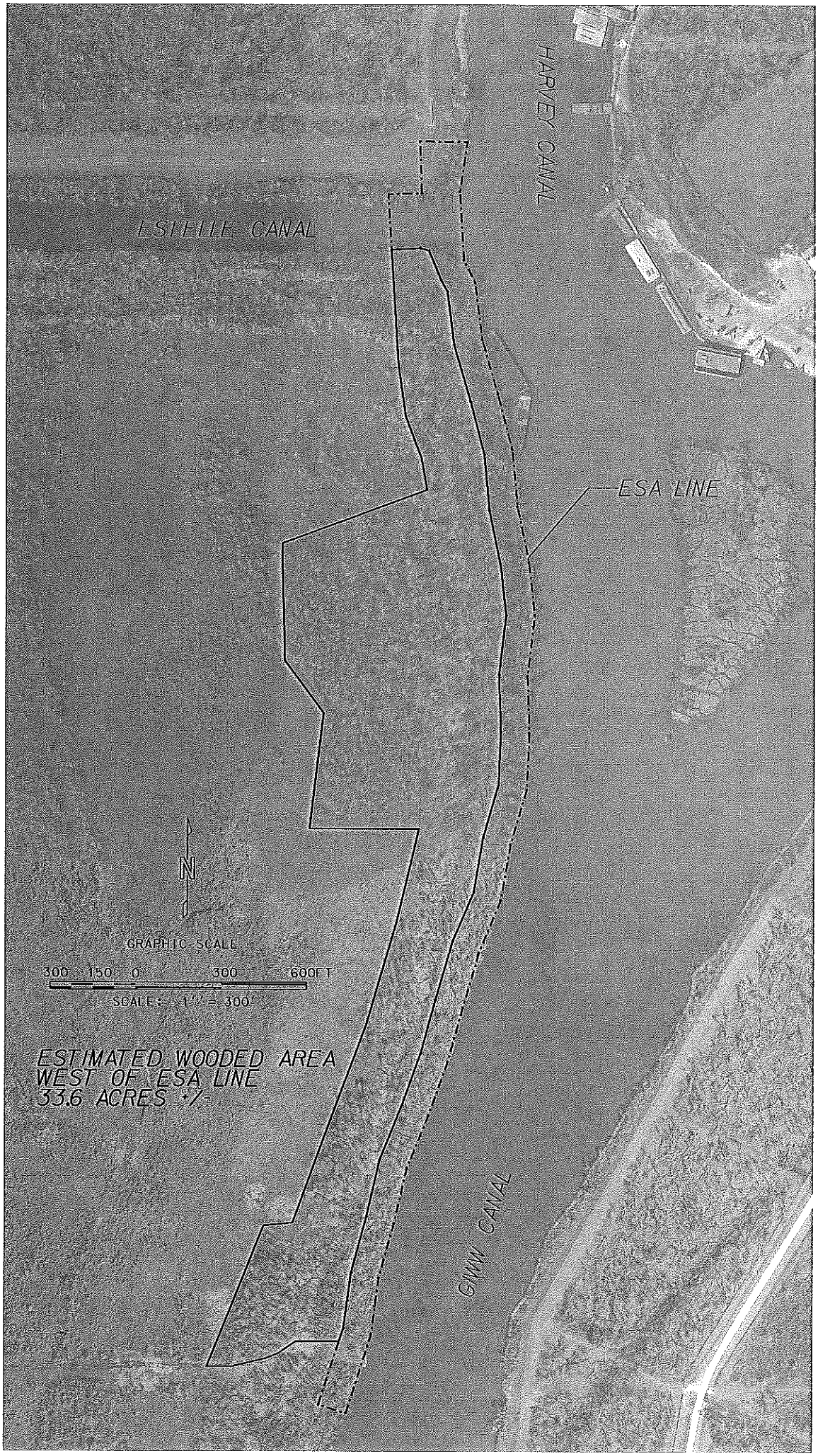
Superintendent

Prepared and Reviewed By:	
Name	Signature
Jamie Autin	

	Step 1: Clearing and Cutting Trees
WHAT IS THE WORST THAT COULD HAPPEN?	Caught in path of falling tree
PREVENTION PLAN (FOCUS ON BEHAVORS)	Stay 1000' feet from operation
HOW ARE YOU MOST LIKELY TO GET HURT?	Hit by flying wood chip
PREVENTION PLAN (FOCUS ON BEHAVORS)	Stay 1000' feet from operation
OTHER RISKS TO BE AWARE OF?	Snakes
PREVENTION PLAN (FOCUS ON BEHAVORS)	Visuasly check area Snake chaps optional

	Step 2: Grubbinhg
WHAT IS THE WORST THAT COULD HAPPEN?	Stump Debris
PREVENTION PLAN (FOCUS ON BEHAVORS)	Stay 200' away from operation
HOW ARE YOU MOST LIKELY TO GET HURT?	Hit by Equipment
PREVENTION PLAN (FOCUS ON BEHAVORS)	Maintain good communication with operator Use hand signals
OTHER RISKS TO BE AWARE OF?	Snakes
PREVENTION PLAN (FOCUS ON BEHAVORS)	Visually check area Use snake chaps

	Step 3: Mob out
WHAT IS THE WORST THAT COULD HAPPEN?	Going overboard
PREVENTION PLAN (FOCUS ON BEHAVORS)	Wear PFD's
HOW ARE YOU MOST LIKELY TO GET HURT?	Going overboard
PREVENTION PLAN (FOCUS ON BEHAVORS)	Wear PFD's
OTHER RISKS TO BE AWARE OF?	Water Traffic
PREVENTION PLAN (FOCUS ON BEHAVORS)	Follow rules of Algeirs and Harvey Canal


HARVEY CANAL
ESA LINE
GIWW CANAL
N
GRAPHIC SCALE
300 150 0 300 600FT
SCALE: 1" = 300'
ESTIMATED WOODED AREA
WEST OF ESA LINE
33.6 ACRES +/-