BUILDING DESIGN FOR HOMELAND SECURITY

Unit VI FEMA 452 Risk Assessment Database



BUILDING DESIGN FOR HOMELAND SECURITY

FEMA 452: Risk Assessment



Risk Management Series Risk Assessment

A How-To Guide to Mitigate Potential Terrorist Attacks Against Buildings

FEMA 452 / January 2005

Available at: http://www.fema.gov/plan/prevent/rms/rmsp452.shtm



Unit Objectives

Explain the database install process

Identify where to save photos, maps, drawings, plans, etc. to interface with the database

Explain the information required for the database to function within each screen, how to move between screens, and switch between the assessor's tool and the master database

Explain the benefit and approaches to setting priorities on identified vulnerabilities

Explain how to use the master database to produce standard reports and search the database for specific information



- Download self installing files from FEMA Web site or
- Install from CD provided during course
- Run SETUP.EXE for Assessor Tool

AssessorTool-v2_2006-04-05

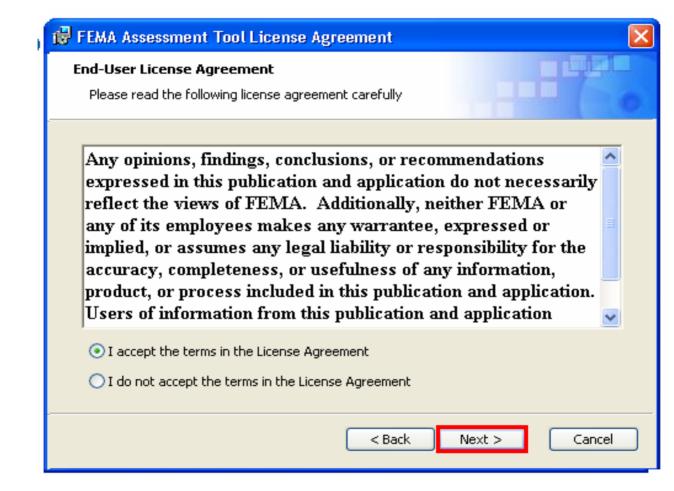


Version 2.0 is soon to be available at: http://www.fema.gov/plan/prevent/rms/rmsp452.shtm









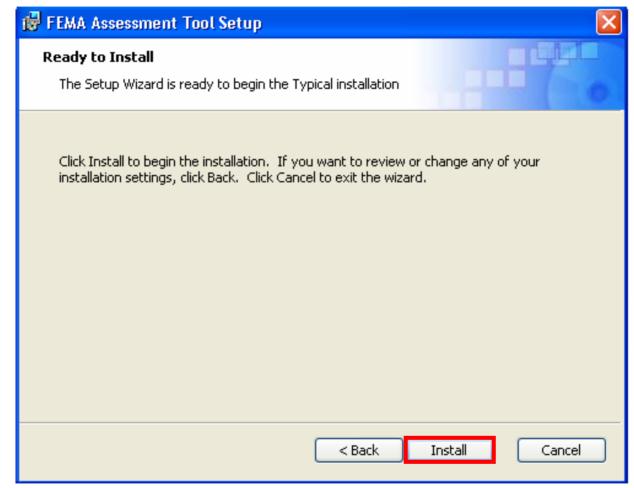


😸 FEMA Assessment Tool Setup	
Customer Information Please enter your customer information	
<u>U</u> ser Name:	
John Smith	
Organization:	
ABC Inc.	
< Back Nex	t > Cancel

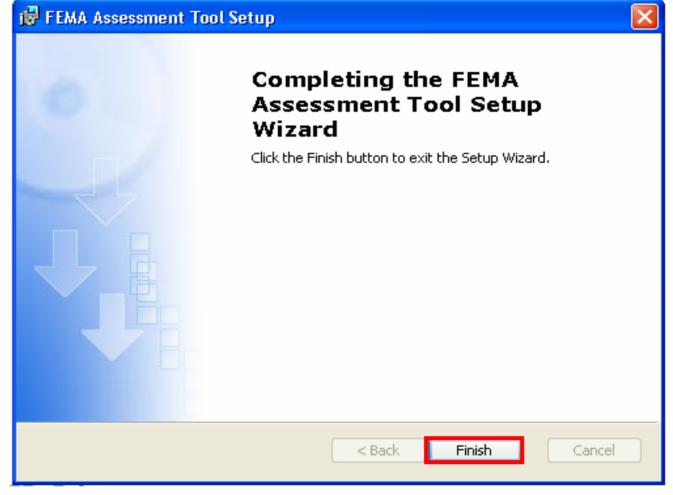


🔂 FEMA Assessment	Tool Setup 🛛 🔀		
Choose Setup Type Choose the setup ty	pe that best suits your needs		
Image: Provide a constraint of the second			
	< Back Next > Cancel		



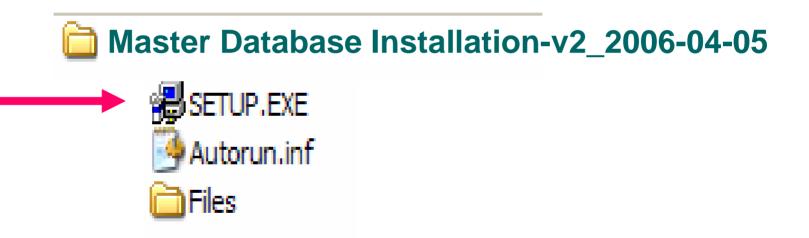








- Download self installing files from FEMA Web site or
- Install from CD provided during course
- Run SETUP.EXE for Master Database

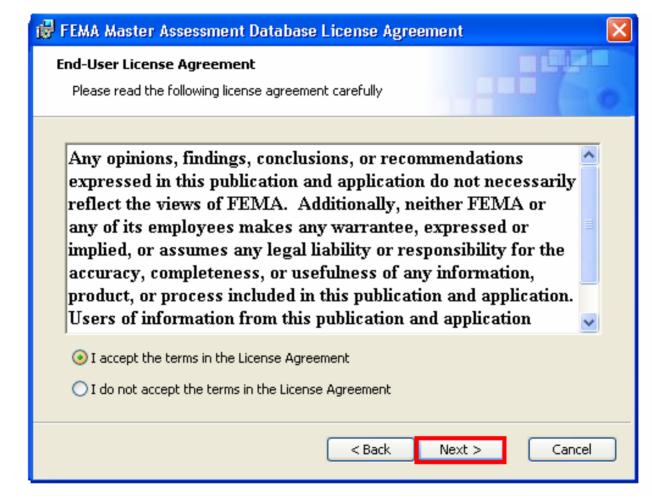


Version 2.0 is soon to be available at: http://www.fema.gov/plan/prevent/rms/rmsp452.shtm











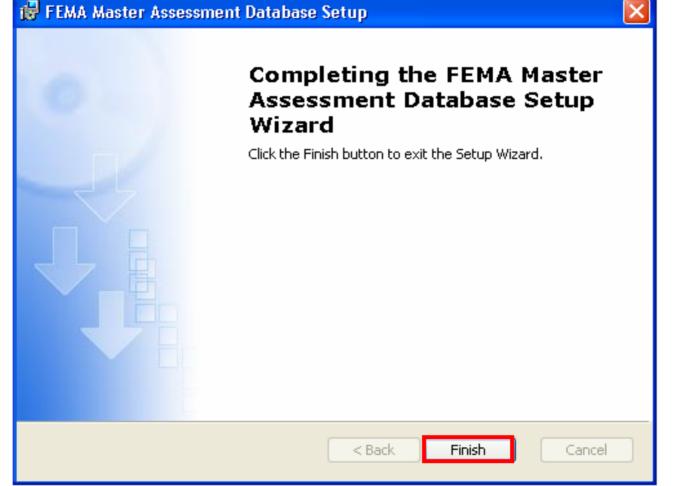
😽 FEMA Master Assessment Database	Setup		
Customer Information Please enter your customer information			
<u>U</u> ser Name:			
John Smith Organization:			
ABC Inc.			
	< Back	Next >	Cancel
FMA			

🔀 FEMA Master Asse	ssment Database Setup 🛛 🔀
Choose Setup Type Choose the setup ty	pe that best suits your needs
	<u>Typical</u> Installs the most common program features. Recommended for most users. <u>Custom</u> Allows users to choose which program features will be installed and where they will be installed. Recommended for advanced users.
	< Back Next > Cancel



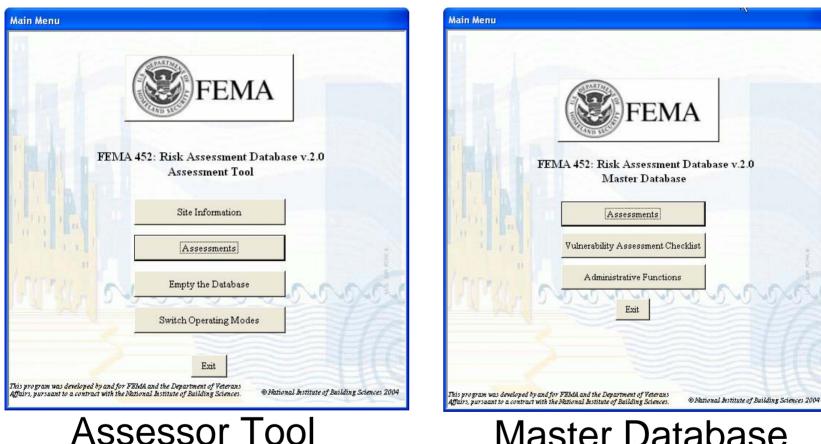
🥵 FEMA Master Assessment Database Setup	
Ready to Install The Setup Wizard is ready to begin the Typical installation	0
Click Install to begin the installation. If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.	
< Back Install Cano	:el







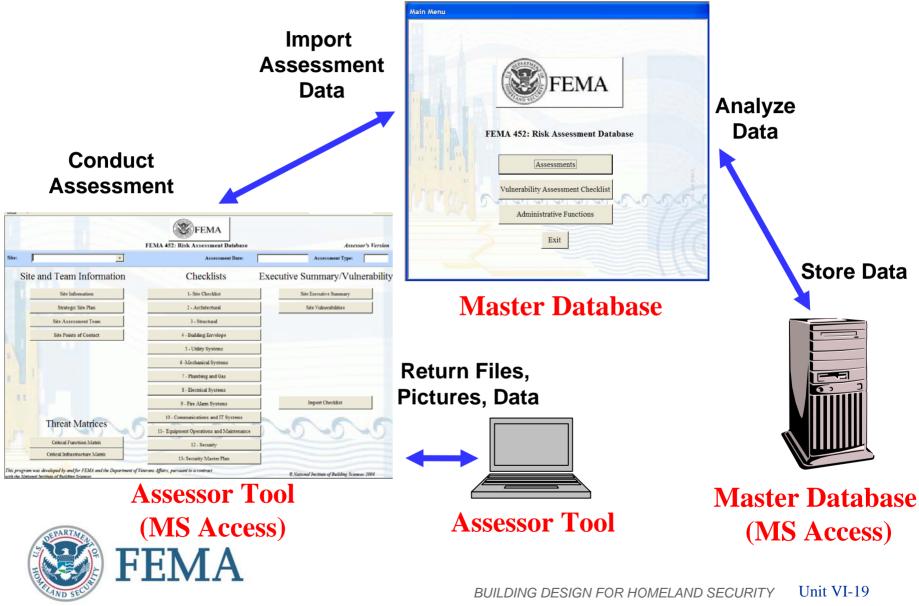
FEMA 452: Risk Assessment



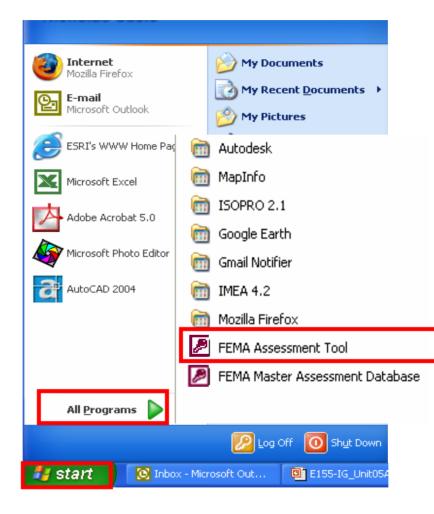
Master Database



Database Structure



Open Assessor Tool



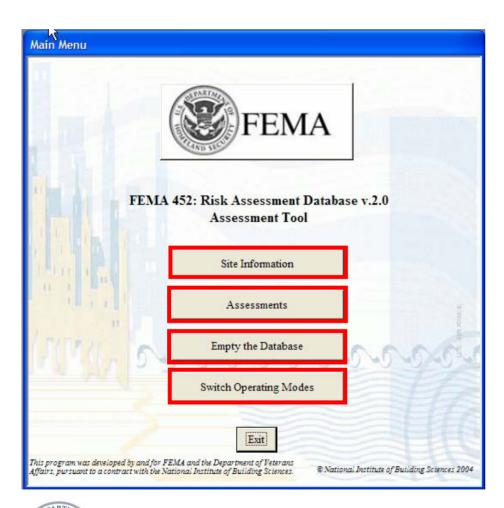


Login to Assessor Tool

Logon	? 🗙
Name:	
Assessor	OK
Password:	Cancel



Assessor Tool



FEMA

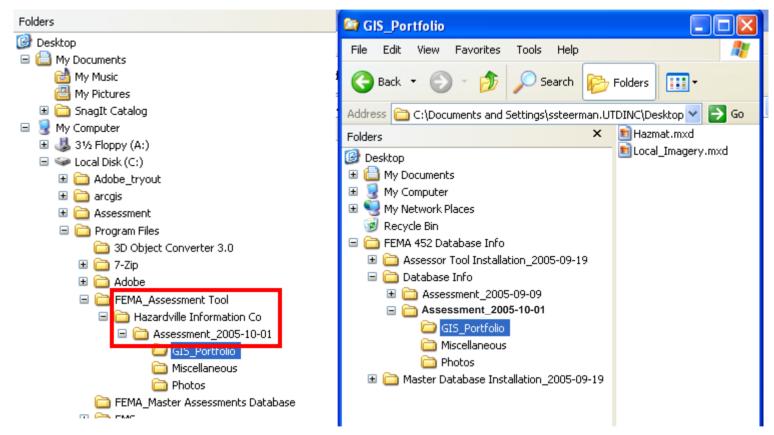
- Create and name assessment site
- Enter assessment screen
- Empty database
- Switch to Master Database Mode

Site Information

Create Assessme	ent Site			
Site Name*:	Hazardville	nformation Co Defau Site	Image:	
Address1:	1234 USA	rive Site Descriptive Text:		No Image Available
Address2:				No mage Available
	Hazardville	St AK +		
Zip:	12345	Aicrosoft Access		
Assessmen	Assessments Buildings This Site Assessment will be stored in folder: Assessment Locatio C:\Program Files\FEMA_Assessment Tool\Hazardville Information Co\Assessment_2005-10-01\ Assessment Dat Photos will need to be placed in the \Photos subfolder Assessment Typ GIS Portfolio images will need to be placed in the \Miscellaneous subfolder OK OK			
New Site	<prev< th=""><th></th><th></th><th>Close</th></prev<>			Close
Record: 🚺	1	▶ ▶ ▶ ▶ ★ of 1		



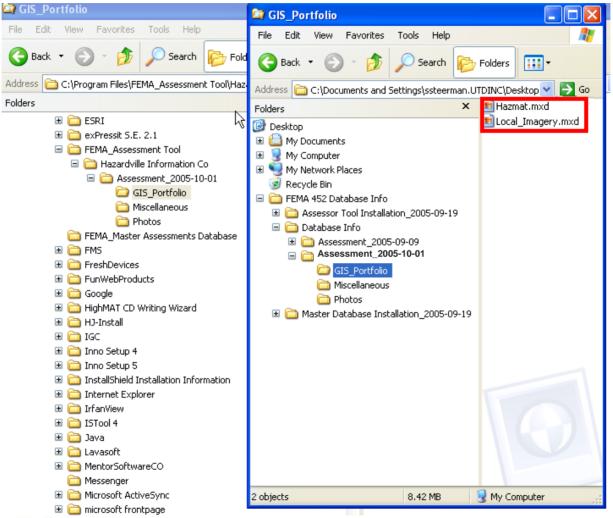
Load Information



Open a second window with existing data



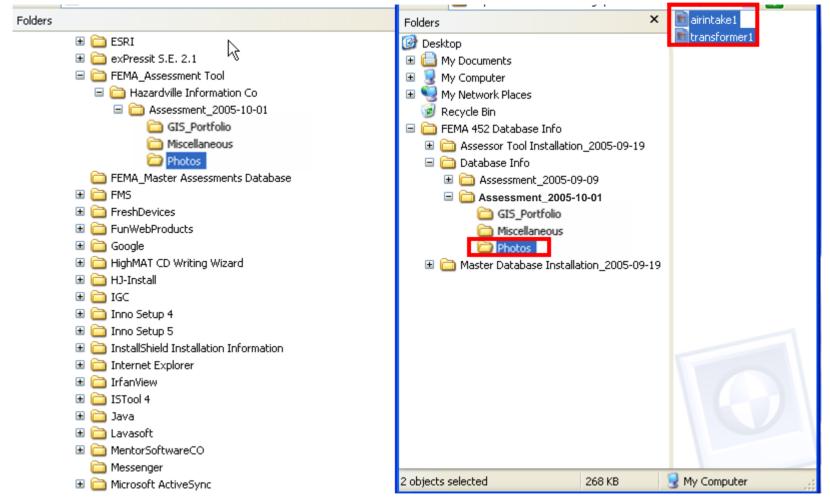
Load Information







Load Information









R	FEMA 452: Risk Assessment Database v.2.0	Assessor's Too
Hazardville Information Co	Assessment Date: 10/1/2	
Site and Team Information	Checklists Exc	ecutive Summary/Vulnerabil
Site Information	1- Site Checklist	Site Executive Summary
Site Assessment Team	2 - Architectural	Site Vulnerabilities
Site Points of Contact	3 - Structural	
	4 - Building Envelope	
	5 - Utility Systems	
	б -Mechanical Systems	
	7 - Plumbing and Gas	
	8 - Electrical Systems	
	9 - Fire Alarm Systems	Import Checklist
Thursd Mathematic	10 - Communications and IT Systems	660
Threat Matrices	11- Equipment Operations and Maintenance	02020
Critical Function Matrix	12 - Security	
Critical Infrastructure Matrix	13- Security Master Plan	



Add Team Members

As	essment Main Page	•				
•	Site Name: Assessment Location: Assessment Date:	Hazardville Information Co Hazardville Administrative Building 10/1/2005 Type Tier 1	Default Image:		No Image Available	
	Executive Summary	Vulnerabilities Points of Contact Assessment	Team Add Photos Photos Add		tfolio Miscellaneous Files	
	Team menoe	. IIIIe	₩ Sameanon	11 02A F HORE [10001]	E LIGHE LIGHT	
	Select Team Me Record: 14 4	amber from List Add New Team Member	Undo Team Member Record			
					Close	



Add Team Members

Add a new person t	o this Team
	Add New Person
First Name:	John
Last Name:	Smith
Title:	Senior Assessor
Company:	ABC Inc
Address:	1234
City:	Cleveland
State:	он –
Zip:	12345
Email:	Jsmith@abcinc.com
Work Phone:	(123) 456-7890
Mobile Phone:	
Entered By:	
Enter Date:	10/6/2005
Modified By:	
Modify Date:	
	[Add] Cancel



Team Members

Ass	essment Main Page						
•	Site Name:	Hazardville Information Co	Default Imag		•		
	Assessment Location: Assessment Date:	Hazardville Administrative Building 10/1/2005 Type Tier 1	r			No Image Available	
	Assessment Date.	10/1/2005 Type Tier 1 -					
	Executive Summary	Vulnerabilities Points of Contact Assessment Tea	m Add Photos Photos Add	GIS Portfolio Images	GIS Portfolio Misc	ellaneous Files	
	Team Member		Organization	Work Phone	Mobile Phone	Email	
	Smith, John	Senior Assessor	ABC Inc	(123) 456-7890		Jsmith@abcinc.con	
	Select Team Me	mber from List	Undo Team Member Record				
	Record: I	1 ▶ ▶ ▶ ♦ 1	<u>.</u>			<u> </u>	
						ose	



Add Point of Contact

As	essment Main Pag	e							
•	Site Name: Assessment Location: Assessment Date:	Hazardville . 10	/1/2005 Type F	ling Fier l)efault Image:	<u>•</u>		: Available	
	-	Vulnerabilities	Points of Contac	t Assessment Team Add F Organization	Photos Photos Add GIS Address	Portfolio Images GIS Portfolio City	Miscellaneous Fi	Zip	
	Add New POC Record:	2		Delete this PC		Add New POC and	Duplicate	Þ	
							Close		



Add Point of Contact

	Main Page Name: Hazardville Informati	on Co	Def	ault Image:	<u>.</u>	
	nt Location: Hazardville Administr ment Date: 10/1/2005	ative Building Type Tier 1				No Image Available
Executive :	Summary Vulnerabilities Points Address	of Contact Assessmen	Wild I	otos Photos Add GIS Portfo Zip Work Phone	blio Images GIS Portfolio	Miscellaneous Files
.0	1234 B Street	Hazardville		12345 (123) 456-7890	House Flighte	Jdirte@hazinfoco.com
*				(125) (55-7000		
: Record:		Add New POC and Du	plicate			



Add Photos

Assessment Main Page						
•	Site Name: Assessment Location: Assessment Date:	Hazardville Information Co Hazardville Administrative Building 10/1/2005 Type Tier 1	Default Image:	No Image Available		
	Executive Summary	Vulnerabilities Points of Contact A	sessment Team Add Photos Photos Add GIS Portfolio Images GIS Portfolio	Miscellaneous Files		
	File Name		Comments for this assessment	_		
	airintake1.jpg transformer1.jpg					
	Add Photos		Microsoft Access	k}		
	Record: I			Close		



Add Photos

Assessment Main Page						
Site Name: Hazardville Information Co Default Image: Image: Assessment Location: Hazardville Administrative Building Image: Image: Image: Assessment Date: 10/1/2005 Type Tier 1 Image: Image: Image: Executive Summary Vulnerabilities Points of Contact Assessment Team Add Photos Photos Add GIS Portfolio Images GIS Portfolio	No Image Available					
Interesting of the second s	Image #:					
	Close					





Photo Zoom				
Description: n/a	Photo Comments: n/a			
		k		
Zoom (Stretch Proportionally)	Clip (Actual size without scroll bars) View with IE (Actual size with scroll bars)	Elose Close		



Add GIS Images

Assessment Main Page						
•	Site Name: Assessment Location: Assessment Date:	Hazardville Information Co Hazardville Administrative Building 10/1/2005 Type Tier 1	Default Image:		No Image Available	
	Executive Summary	Aulnerabilities Points of Contact Ass	essment Team Add Photos Photos A	dd GIS Portfolio Images GIS Portfolio Miso	ellaneous Files	
	File Name		Comments for this assess	ment	_	
	Hazmat.mxd.jpg					
	Local_Imagery.r	nxd.jpg				
			Microsoft Access Added 2 Portfolio Images t OK	to the GIS Portfolio)		
	Add GIS Portfo	lio Images				
					ose	



Add GIS Images

Asse	essment Main Page			
•	Site Name: Hazardville Information Co Assessment Location: Hazardville Administrative B Assessment Date: 10/1/2005 Type		<u>.</u>	No Image Available
	Executive Summary Wulnerabilities Points of Cont	tact Assessment Team Add Photos Photos Add	.GIS Portfolio Images GIS Portfolio Mis	scellaneous Files
	Image #: Image #	(4 images total)	Image #:	Image #:
				Close



Add GIS Images

As	essment Main Page					
•	Site Name: Assessment Location: Assessment Date:	Hazardville Information Co Hazardville Administrative Building 10/1/2005 Type Tier 1 •	Default Image:	i .	• No Image Available	
	Executive Summary	Wulnerabilities Points of Contact Assessment Tear Image #: 2	n Add Photos A	di GIS Portfolio Images GIS Port Image #:	folio Miscellaneous Files	_
	Hazmat mx Load G	d.jpg Local_Imagery.mxd.jpg				
					Close	



Add Miscellaneous Files

As	sessment Main Page		k					
•	Site Name: Ha Assessment Location: Ha Assessment Date:	zardville Information Co zardville Administrative Bui 10/1/2005 Type	lding	lt Image:		<u> </u>	Yo Image Available	
	Executive Summary Vulne	erabilities Points of Contac File Name	tt Assessment Team Add Phot File Description	os Photos Add GIS Por	tfolio Images GIS Pot	rtfolia Miscella File Date	neous Files Enter Date	
					1			
	Add Miscellaneous Record:	Files ?	*** Double click "File Name" 1	of desired file to open.	***			
	l					Close		

* Same as photos and GIS images



Threat Matrices

		FEMA FEMA 452: Risk Assessment Database v.2.0	Assessor's Tool
ite:	Hazardville Information Co 🗾 💌	Assessment Date: 10/1/2005	Assessment Type: Tier 1
Sit	e and Team Information	Checklists Execu	itive Summary/Vulnerability
	Site Information	1- Site Checklist	Site Executive Summary
[Site Assessment Team	2 - Architectural	Site Vulnerabilities
	Site Points of Contact	3 - Structural	
		4 - Building Envelope	
		S - Utility Systems	
		б -Mechanical Systems	
		7 - Plumbing and Gas	
		8 - Electrical Systems	
11		9 - Fire Alarm Systems	Import Checklist
	Threat Matrices	10 - Communications and IT Systems	6 6 A
4	nireat Mairices	11- Equipment Operations and Maintenance	02020
	Critical Function Matrix	12 - Security	
	Critical Infrastructure Matrix	13- Security Master Plan	





Critical Functions Matrix

Threats —

	C	itic	al Functions Matri	ix																															
			Site Name: Hazard	lville	Info	rmat	ion Co.	_			Ī	Asse	ssm	entI	Date	÷	10/	/01/200	IS			Assessn	nent7	уре	e:	Tie	EA.		_		Ţ				(1-€
		AV:	Threat Rating Asset Value			prov plo:	ised ive			Che	emi	cal		A	1501	n/Ir	icen	diary		A	rme	d		Bio	olog	ica	1				ľ		Medn High		čisk (>1
Functions		No.	Vulnerability Rating Critical Function				Bomb) R Risk		ΓR		gen VF	t R Risk		TH			tack VR F		TR	11.00	ttac VR	k Risk		P	Agen V V	nt				rtei V V		rism Risk			terr VVI
	>	1	Administration		6	4 8	3 192		4	4	8	12	•	0		0	0	0	3	4	8	96		4	4	8	128		6	4	8	192			C
		2	Engineering		6	5 8	3 240	- 6	4	5	8	16)	0	D	0	0	0	3	S	8	120	4	4	5	8	160	1	5	5	8	200	(0 0) (
		3	Warehousing		6	5 8	3 240		4	5	8	160)	0	2	0	0	0	3	5	3	45	4	4	5	8	160		5	5	2	50	(D C	0 0
		4	Data Center		6 1	0 8	480		4	10	8	32		C	D	0	0	0	3	10	3	90	4	4 10	0	8	328		9 1	0	9	810	0	0 0	0 0
		5	Food Service		0	0 (0 0		0	0	0	0		0	D	0	0	0	0	0	0	0	(0 0	0	0	0		0	0	0	0	0	D C) C
		6	Security		6	7 8	336		4	7	8	22		0	D	0	0	0	3	7	3	63	4	4	7	8	224		5	7	3	105	0	o o	D C
		7	Housekeeping		6	1 8	3 48		4	1	8	33		0		0	0	0	3	1	1	3	4	1	1	8	32		2	1	1	2	1	D C	0 C
L		8	Day Care		0	0 (0 0		0	0	0)	C	D	0	0	0	0	0	0	0	() (0	0	0		0	0	0	0	. (0 0) (
		9	Other CF-1		6	8 8	384	-	4	8	8	25		C		0	0	0	3	8	3	72		4 4	8	8	256		5	8	8	320	(D C	0 C
		10	Other CF-2		0	0 (0 0	-	0	0	0	()	C		0	0	0	0	0	0	0	(0	0	0	1	0	0	0	0	(D O) C
		11	Other CF-3		0	0 0	0 0		0	0	0)	C		0	0	0	0	0	0	0	(0	0	0		0	0	0	0	(D O) C
		12	Other CF-4		0	0 (0 0		0	0	0	()	0	D	0	0	0	0	0	0	0	() (0	0	0		0	0	0	0	(0 0	0 0
			Other CF-5		0	0 (0 0		0	0	0	- 0		0		0	0	0	0	0	0	0	() (0	0	0		0	0	0	0	(0 0) (
		14	Other CF-6		Qļ	ρļα	2, Q		Q	Q	, Q	(i	1	ļι	្រ	Qļ	Q	Q	ļQ	Q	Q	Q	[(il (Q	QĻ	Q	13	QĻ	٥ļ	QĻ	Q	ļ	oļ o	ı, c

Asset Value

Threat Rating	
/ulnerability Rating	





Low risk (1-60) Medium risk (61-175) High risk (> 175)



Threat Matrices

		FEMA FEMA 452: Risk Assessment Database v.2.0	Assessor's Tool
ite: H	lazardville Information Co 🗾 💌	Assessment Date: 10/1/2005	Assessment Type: Tier 1
Site	and Team Information	Checklists Executiv	e Summary/Vulnerabilit
	Site Information	1- Site Checklist	Site Executive Summary
	Site Assessment Team	2 - Architectural	Site Vulnerabilities
	Site Points of Contact	3 - Structural	
	The second second	4 - Building Envelope	
		S - Utility Systems	
		6 -Mechanical Systems	
		7 - Phimbing and Gas	
		8 - Electrical Systems	
63. L		9 - Fire Alarm Systems	Import Checklist
	Thursd Matrices	10 - Communications and IT Systems	
	Threat Matrices	11- Equipment Operations and Maintenance	02020
	Critical Function Matrix	12 - Security	
	Critical Infrastructure Matrix	13- Security Master Plan	





Critical Infrastructure Matrix

Threats ———

Infrastructure

Site Name: Hazardville Information Co.							AssessmentDate: 10/01/2005							AssessmentType: Tier 1								Low Risk (1-60) Medium Risk (61-175)								
AV:	Threat Rating Asset Value Vulnerability Rating			losiv		į	- 222	emic gent	1.0	Ars		Ince ttac	ndiary k			1rm 1tta				olog Ager		c	ybe	rte		High Ri rism		175) grite	TOP	ism
No.	Critical Infrastructure	10 10 D.S.			Risk				Risk				Risk		2000000		R Risk	TF		0000000	R Risk	-	R A					AV		Contraction of the
1	Site	6		8	240	4	5	8	160	0		0.5	0	-	3 5	5 8	- Contraction		-	-	8 160		10	5	3	15		0 0	0	0
2	Architectural	6		8	240	4	5	-	80	0	-	0.00	0		3 2	1			-	-	4 80		- C	5	3	15	0	1	0	0
		6		8	240	4	5	_	60	0	-	-	0	100	3 5	-	- 100 CO		-	-	3 60		-	5	3	15	0	-	0	0
4	Envelope Systems	6		8	248	4	5	_	60	0	-	-	0	100	3 5	<u> </u>	CONTRACTOR OF A			_	3 60		_	5	3	15	0	1 1	0	0
5	Utility Systems	6		6	180	4	5		60	0	_		0	100	5 5		110			-	3 60		_	5	5	75	0	-		0
	Mechanical Systems	4		8	224	4	7	7	196	0	_	-	0	100	5 7	<u> </u>		1			7 196		-	7	5	105	0	-	_	0
1.2	Plumbing and Gas Systems	4	-	8	160	4	5		100	0	-	1	0	100	3 5	-			-	-	S 100		_	5	3	30	0		0	0
	Electrical Systems	4		8	224	4	7	5	140	0	1	1	0	100	3 7		141		· ·		5 <mark>140</mark>	1	-	7	5	105	0		0	0
- Carlos	Fire Alarm Systems	4		8	160	4	5	-	60	0	0	0	0		3 5	2	45			-	3 60			5	3	30	0	0 (0	0
10	IT/Communications Systems	4	10	8	320	4	10	6	248	0	0	0	0		3 10	S	240		4 1	0	6 240		0 1	0	10	1000	0	0 0	0	0
11	Other CI-1	0	0	0	0	0	0	0	0	0	0	0	0	3	0 0) (0 0		- L	-	0 0		0	0	0	0	0	0 (0	0
12	Other CI-2	0	0	0	0	0	0	0	0	0	0	0	0) (0 0	0 0		0	0	0 0		0	0	0	0	0	0 0	0	0
13	Other CI-3	0	0	0	0	0	0	0	0	0	0	0	0	1	0 0) (0	1	0	0	0 0		0	0	0	0	0	0 (0	0
14	Other CI-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0) (0	1	0	0	0 0		0	0	0	0	0	0 (0	0
15	Other CI-S	0	0	0	0	0	0	0	0	0	0	0	0	3	0 0	0 0	0 0		0	0	0 0		0	0	0	0	0	0 (0	0
16	Other CI-6	0	0	0	0	0	0	0	0	0	0	0	0	1		0	0 0	1	0	0	0 0	4-1-1	0	0	0	0	0	0 0	0	0
17	Other CI-7	0	0	0	0	0	0	0	0	0	0	0	0	1	0 0) (0 0	1	0	0	0 0		0	0	0	0	0	0 (0	0
18	Other CI-8	0	0	0	0	0	0	0	0	0	0	0	0		0 0		0		0	0	0 0		0	0	0	0	0	0 0	0	0
19	Other CI-9	0	0	0	0	0	0	0	0	0	0	0	0				0 0	(0	0	0 0		0	0	0	0	0		0	0

Asset Value	
Threat Rating	
Vulnerability Rating	

1- 10 1- 10

1-10



FEMA



Low risk (1-60) Medium risk (61-175) High risk (> 175)

Checklists

	u for Assessors	FEMA 452: Risk Assessment Database v.2.0		Assessor's Tool
iite: Haza	ardville Information Co 🗾 🔹	Assessment Date:	10/1/2005	Assessment Type: Tier 1
Site a	nd Team Information	Checklists	Executive S	ummary/Vulnerabili
	Site Information	1 - Site Checklist	Site	Executive Summary
	Site Assessment Team	2 - Architectural	S	ite Vulnerabilities
	Site Points of Contact	3 - Structural		
		4 - Building Envelope		
		5 - Utility Systems		
		6 -Mechanical Systems		
		7 - Plumbing and Gas		
		8 - Electrical Systems		
		9 - Fire Alarm Systems	I	Import Checklist
	Threat Matrices	10 - Communications and IT Systems		-
	Threat Matrices	11- Equipment Operations and Maintenance	1.0	020
	Critical Function Matrix	12 - Security		
	Critical Infrastructure Matrix	13- Security Master Plan		
	A the Department of Veterans Affairs.	13- Security Master Plan		Copyright





Site Checklist

Site	Name: Hazardville Information Co.		Type: Tier 1	
Q#	Observation	Recommendation/Remediation	Vuln? Vulnerability Assessment Question	Guidance
1-1	Two Critical Hazard Facilities within 2 mile and a dozen Tier II HAZMAT Facilities within 3 miles. Major interstate highway within 1/4 mile. Two railroads have tracks within 1/2 mile with no restrictions on materials carried Four nearby buried lonz-distance	Collateral effects of attacks or accidents impact HIC similar to CBR attacks. See recommendations for HVAC systems.	What major structures surround the facility (site or building(s))? What critical infrastructure, government, military, or recreation facilities are in the local area that impact transportation, utilities, and collateral damage (attack at this facility impacting	Critical infrastructure to consider includes: - Telecommunications infrastructure - Facilities for broadcast TV, cable TV; cellular networks; newspaper offices, production, and distribution; radio stations; satellite base stations: telephone trunking and
1-2	The site is above the tank faint and the rear parking area slopes away from the building to a stream, which allows winds to pass over the structure unhindered.	Prone.	Does the terrain place the building in a depression or low area?	Depressions or low areas can trap heavy vapors, inhibit natural decontamination by prevailing winds, and reduce the effectiveness of in-place sheltering Reference: USAF Installation Force Protection Guide
1-3	With a loading dock on the west side, it is possible for vehicles to park right next to the building. Normal parking for employees is in front; the closest row is 44 feet from the front door.	Increased stand-off or increased access control is needed to reduce risk of vehicle-borne improvised explosive device. Any action will require coordination with Business Park Management and other tenants due to impacts on the overall business park	In dense, uban areas, does cub lane parking place uncontrolled parked vehicles unacceptably close to a building in public rights-of-way?	Where distance from the building to the nearest curb provides insufficient setback, restrict parking in the curb lane. For typical city streets this may require negotiating to close the curb lane. Setback is common terminology for the distance between a building and



Checklists

🗃 Main Menu for Assessors	N		
	FEMA		
FE	MA 452: Risk Assessment Database v.2.0	Assessor's Tool	
Site: Hazardville Information Co 💌	Assessment Date:	0/1/2005 Assessment Type: Tier 1	
Site and Team Information	Checklists	Executive Summary/Vulnerability	
Site Information	1- Site Checklist	All launch similar cheo	klists
Site Assessment Team	2 - Architectural	with places to ente	r
Site Points of Contact	3 - Structural	observations and	1
	4 - Building Envelope		
	S - Utility Systems	recommendations .	/
	6 -Mechanical Systems	remediatons	
	7 - Phimbing and Gas		
	8 - Electrical Systems		
	9 - Fire Alarm Systems	Import Checklist	
Threat Matrices	10 - Communications and IT Systems	000	
The eat Matrices	11- Equipment Operations and Maintenance		
Critical Function Matrix	12 - Security		
Critical Infrastructure Matrix	13- Security Master Plan		
In association with the Department of Veterans Affairs.		Copyright Pending	





Executive Summary

🗃 Main Menu for Assessors		
	FEMA	
F	EMA 452: Risk Assessment Database v.2.0	Assessor's Tool
Site: Hazardville Information Co	Assessment Date:	10/1/2005 Assessment Type: Tier 1
Site and Team Information	Checklists	Executive Summary/Vulnerability
Site Information	1- Site Checklist	Site Executive Summary
Site Assessment Team	2 - Architectural	Site Vulnerabilities
Site Points of Contact	3 - Structural	
	4 - Building Envelope	
	5 - Utility Systems	
	б -Mechanical Systems	
	7 - Plumbing and Gas	
	8 - Electrical Systems	
	9 - Fire Alarm Systems	Import Checklist
Threat Matrices	10 - Communications and IT Systems	
The ear Mairices	11- Equipment Operations and Maintenance	
Critical Function Matrix	12 - Security	
Critical Infrastructure Matrix	13- Security Master Plan	
In association with the Department of Veterans Affairs.		Copyright Pending





Executive Summary Tab

ssment Main Page		
Site Name: Hazardville Information Co. Assessment Location: Hazardville Admin Assessment Date: 10/1/2005 Type	Default Ima Tier 1	age: No Image Available
Executive Summary Wulnerabilities Points of Conta	ct Assessment Team Add Photos P.	hotos Add GIS Portfolio Images GIS Portfolio Miscellaneous Files Recommendations/Remediations
 Hazardville Information Company (HIC) is a state-of-the-art information technology (IT) services company locted in a major metropolitan city in a typical sububan business office park. The company's mission is to provide information technology and services support to include hosting servers, databases, applications, and other hardware and software; develop, install, and maintain software applications; provide field support IT technicians; and provide 24-hour help desk support. HIC has over 20 clients and supports approximately 1,000 users and 100 applications as a primary data center and as a biocetement in the UTC struct include Record: IN IN 1 IN IN INFORMATION (IT) is a term of the second structure of the UTC structure of the U	Due to standard business office park construction, HIC is vulnerable to tern attacks and technological accidents bo targeted facility and as collateral dams There are limited procedural changes to provide protection. Each attack p has a set of measures that can be prior and applied to mitigate that attack an the risk from other attacks as well.	oth as the (DBT) and consider GSA and DoD facility age. levels of protection criteria. Access control available of vehicles would be the primary deterent for ossibility vehicle-borne improvised explosive devices. ritized While Chemical, Biological, Radiological
		Close



Vulnerabilities

		FEMA	
ite: Hazardville	Information Co 🔹	FEMA 452: Risk Assessment Database v.2.0	Assessor's Tool
ite: [Hazardville	Information Co 🗾	Assessment Date:	0/1/2005 Assessment Type: Tier 1
Site and T	eam Information	Checklists	Executive Summary/Vulnerabilit
S	ite Information	1- Site Checklist	Site Executive Summary
Site	Assessment Team	2 - Architectural	Site Vulnerabilities
Site	Points of Contact	3 - Structural	
		4 - Building Envelope	
		S - Utility Systems	
		6 -Mechanical Systems	
		7 - Plumbing and Gas	
		8 - Electrical Systems	
		9 - Fire Alarm Systems	Import Checklist
	- Martin	10 - Communications and IT Systems	
Inr	eat Matrices	11- Equipment Operations and Maintenance	02020
Critic	cal Function Matrix	12 - Security	
Critical	Infrastructure Matrix	13- Security Master Plan	





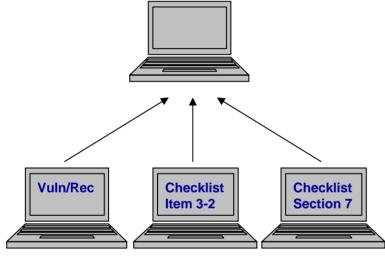
Vulnerabilities and Recommendations

Assessr Ass	5 U.U. X			
	Building No	Vulnerability	Priority Recommendation/Remediation	
Ixecuti	Hazardville Admin	With a loading dock on the west side, it is possible for vehicles to park right next to the building. Normal parking for employees is in front; the closest row is 44 feet from the	2 ▼ Increased stand-off or increased access control is needed to reduce risk of vehicle-borne improvised explosive device. Any action will require coordination with Business Park Management and	
В	Action Dat	e Cost	Comments	
► Ha	▶ Jnitial	\$0		
	Planned	\$0		
	Underway	\$0		
Ha	Completed	\$0		
Ha *		side). In that area the fenestration is probably more than 40%. The window	Close of the frame and silicone sealant and fragmentation retention film should be added to the glass	
Record	d: 📕 🚺 1	▶ ▶ ▶ ▶ ★ of 3		



Assessment Team Import Function

Lead Assessor



Assessment Team

• Establish a link to a team member's database

- Open the remote database
- Import Observation, Recommendation/Remediation, or Vulnerability entries

The assessment team members to combine their data into one database file on one computer at the end of the assessment.



Import Assessments

🗉 Main Menu for Assessors		
FEMA		-
Open	? 🗙 🚽	Assessor's Tool
Site: Hazardville Informa Look in: 🗁 Temp 🔹 🖛 🖽 📸	sessment Ty	pe: Tier l
Site and Team	narv/Vu	Inerability
frmSiteAssessments_Remote		l l l l l l l l l l l l l l l l l l l
Assessments Available for Import From: C:\Temp\AssessorTool.mde		
	Assessment	T
Site Name Microsoft Office Access	Date 3/14/2006	Type
IL xample site 2	2/2/2006	Tier 2
Example site 3 Connection made.	6/6/2006	Tier 3
216 Checklist records		
1 Vulnerability records		
available for Viewing/Copying.		
OK		
Select Assessment	6	ancel
Select Assessment		ancer
Record: III I IIII a of 3		
In association with the Department of Veterans Affairs.		Copyright Pending



FEMA

Assessment Team Import Function

Main Menu for Assessors

FEIVIA

Ob	servati	ions and Rec	ommendations/Remedia	ations for Section Heading: Site				
	Site I	Name: Hazardvi	ille Information Company			Type: Tier 1		
	Oper	n Remote Data	C:\temp\AssessorToo1.mde					
	Q#	Observation		Recommendation/Remediation	Vu	In? Vulnerability Assessment Question	Guidance	
▶	1-1	1			ſ	What major structures surround the facility (site or building(s))? What critical infrastructure, government, military, or recreation facilities are in the local area that impact transportation, utilities, and collateral damage (attack at this facility impacting	Critical infrastructure to consider includes: - Telecommunications infrastructure - Facilities for broadcast TV, cable TV; cellular networks; newspaper offices, production, and distribution; radio stations; satellite base stations: telephone trunking and	
	1-2				T	Does the terrain place the building in a depression or low area?	Depressions or low areas can trap heavy vapors, inhibit natural decontamination by prevailing winds, and reduce the effectiveness of in-place sheltering Reference: USAF Installation Force Protection Guide	
	1-3				ſ	In dense, urban areas, does curb lane parking place uncontrolled parked vehicles unacceptably close to a building in public rights-of-way?	Where distance from the building to the nearest curb provides insufficient setback, restrict parking in the curb lane. For typical city streets this may require negotiating to close the curb lane. Setback is common terminology for the distance between a building and	
Re	cord: 📘		1 ▶ ▶ ▶ ▶ ★ of 23 (Filtered)		Close		•
			Critical Infrastructure	e Matrix 13- S	ecurity	Master Plan		
	EPAR	In asse	ociation wit <mark>h the Department of Veter</mark>	ans Affairs.			Copyright Pending	
1	ST.G		СЛАА					

Assessment Team Import Function

	Site	Name:	Hazardville Information Company		
	opy ecord	Q#	Observation	Recommendation/Remediation	Vuln?
		1-1	Two Critical Hazard Facilities within 2 mile and a dozen Tier II HAZMAT Facilities within 3 miles. Major interstate highway within 1/4 mile. Two railroads have tracks within 1/2 mile with no restrictions on materials carried. Four nearby buried long-distance	Collateral effects of attacks or accidents impact HIC similar to CBR attacks. See recommendations for HVAC systems.	
		1-2	The site is above the tank farm and the rear parking area slopes away from the building to a stream, which allows winds to pass over the structure unhindered.	None.	
ŗ		1-3	With a loading dock on the west side, it is possible for vehicles to park right next to the building. Normal parking for employees is in front; the closest row is 44 feet from the front door.	Increased stand-off or increased access control is needed to reduce risk of vehicle-borne improvised explosive device. Any action will require coordination with Business Park Management and other tenants due to impacts on the overall business park.	
Se	elect Al	1	Update Local Copy	Copy and OVERWRITE Copy and APPEND	





Close Assessor Tool

E Company	FFMA	FEMA	Assessor's Tool
ite: Hazardville Information Co	-	Assessment Date:	10/1/2005 Assessment Type: Tier 1
Site and Team Inform	nation	Checklists	Executive Summary/Vulnerabilit
Site Information		1- Site Checklist	Site Executive Summary
Site Assessment Team		2 - Architectural	Site Vulnerabilities
Site Points of Contact		3 - Structural	
		4 - Building Envelope	
		5 - Utility Systems	
		6 -Mechanical Systems	
		7 - Plumbing and Gas	
		8 - Electrical Systems	
		9 - Fire Alarm Systems	Import Checklist
Thurst Methics		10 - Communications and IT Systems	
Threat Matrice		Equipment Operations and Maintenance	0~0~0
Critical Function Matrix	:	12 - Security	
Critical Infrastructure Mat	rix	13- Security Master Plan	





Empty Database



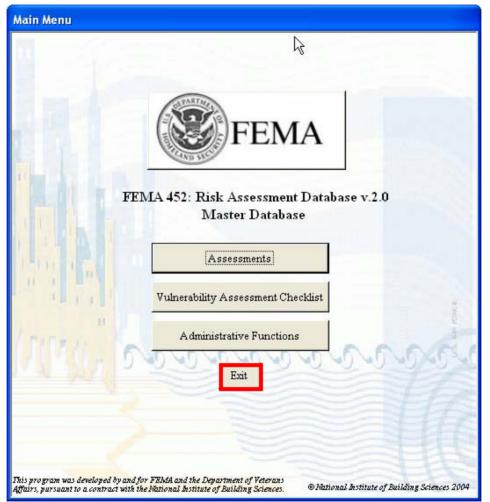


Switch to Master Database



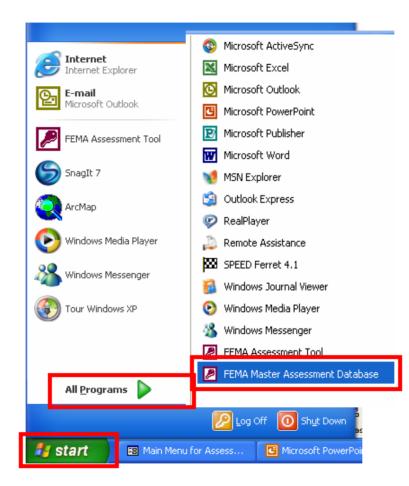


Master Database





Open Master Database





Login to Master Database

Logon	? 🗙
Name:	
Administrator	OK
Password:	Cancel



Master Database





View Checklists

List of Assessments
Assessment Checklists
Site Name: Hazardville Information Co. Assessment Location: Hazardville Admin Assessment Date: 10/1/2005 Type: Tier 1 Site Architectural Structural Building Envelope Utilities Mechanical Plumbing Electrical Fire Comm/Computers Equip O&M Security Systems Security Plan
Q# Observation Recommendation / Remediation Vulnerability? Vulnerability Assessment Checklist Question
I-1 Two Critical Hazard Facilities within 2 mile and a dc Collateral effects of attacks or accidents imp. What major structures surround the facility (site or build)
1-2 The site is above the tank farm and the rear parking None. Does the terrain place the building in a depression or low
1-3 With a loading dock on the west side, it is possible fit Increased stand-off or increased access contre 🔽 In dense, urban areas, does curb lane parking place uncon
1-4 Is a perimeter fence or other types of barrier controls in
1-5 What are the site access points to the site or building?
1-6 Is vehicle traffic separated from pedestrian traffic on the
1-7 Is there vehicle and pedestrian access control at the period
1-8 Is there space for inspection at the cub line or outside th
1-9 Is there any potential access to the site or building throu;
1-10 What are the existing types of vehicle anti-ram devices t
1-11 What is the anti-ram buffer zone stand-off distance from
1-12 Are perimeter barriers capable of stopping vehicles? 🕅 🗸
Record: I </th
View All Site Observations View All Site Vulnerability Assessment Questions Close
Record: 1 1 1 1 1



Reports

	nt Datab	ase vz.0 - [vuir	erability Report without C	osts	T P A A A	
Help <u>C</u> lose Report					Type a question for help	•
	Vulne	erabilities an	d Recommendations			
	Priority 1	Building Number Hazardville Admin	Vulnerability	Recommendation/Remediation For balanced performance, the anchorage of the windows should be improved		
	1	Hazarovine Adami	of the building (all the front and half of	for the blast capability of the frame and silicone sealant and fragmentation retention film should be added to the glass		
			is probably more than 40%. The window system is standard commercial	2		
			installation and thus, the glass, framing, and anchorage are expected to be			
			insufficient for the design basis threat			
	2	Hazardville Admin	With a loading dock on the west side, it	Increased stand-off or increased access control is needed to reduce risk of		
			is possible for vehicles to park right next to the building. Normal parking	vehicle-borne improvised explosive device. Any action will require coordination with Business Park Management and other tenants due to impacts		
			for employees is in front; the closest row is 44 feet from the front door.	on the overall business park: For example, increase distance to first parking space to 80 feet by closing off nearby parking, control access to rear of building, or use reserved parking spaces in front of building anywhere within 80 feet of		
				building.		
	3	Hazardville Admin		There is little that can be done for the loading dock directly. Access control		
			the interior space, critical functions, and infrastructure.	already required for other vulnerabilities will be beneficial in keeping threats away from the loading dock and reducing risk		
				Page 1		



Executive Summary

Introduction

Hazardville Information Company (HIC) is a state-of-the-art information technology (IT) services company locted in a major metropolitan city in a typical suburb an business office park. The company's mission is to provide information technology and services support to include hosting servers, databases, applications, and other hardware and software; develop, install, and maintain software applications; provide field support IT technicians; and provide 24-hour help desk support.

HIC has over 20 clients and supports approximately 1,000 users and 100 applications as a primary data center and as a disaster recovery site. HIC clients include local and regional government offices and commercial entities along with large prime defense contractors and Federal government agencies. HIC handles unclassified and classified information.

Observations

Due to standard business office park construction, HIC is vulnerable to terrorist attacks and technological accidents both as the targeted facility and as collateral damage. There are limited procedural changes available to provide protection. Each attack possibility has a set of measures that can be prioritized and applied to mitigate that attack and reduce the risk from other attacks as well.

Recommendations / Remediations

The owner has agreed to work with a recommended set of design basis threats (DBT) and consider GSA and DoD facility levels of protection criteria. Access control of vehicles would be the primary deterent for vehicle-borne improvised explosive devices. While Chemical, Biological, Radiological (CBR) attacks are at a risk level to consider, proximity to transportation, storage, and other HAZMAT sites indicates that CBR considerations would also provide protection against technological accidents. There are also measures to take from a COOP (Continuity of Operations Plans) perspective as this is a backup facility for other data centers.





Assessment ID Assessmen	nt Location	Organization Na	me As:	As essment Date	sessment Type Assessn	nent Folder Name
	Site A	ssessment Reports M	enu			Search Clear
l Hazardville Ir	nformation C	Site Ass	essment Renorts	Menn	Assessme	mt_2005-10-01\
	Micro	soft Access	5		- E	<
	1	\	ouild a stoplig sure you wan			
		Yes	No	Ca	ncel	
			Close			
Executive Summary	Vulnerabilities	Points of Contact	Assessment Team	Photos	GIS Portfolio	Miscellaneous Files
Assessment Checklist	Critical Function	Critical Infrastructure	Site Reports	Other Reports	Help	Close



Threat Matrix

A	В	d D	E	F	G	Н		J	K
	1 5 10								
Facility									
		Improvised	Chemical	Arson / Incendiary	Armed	Biological	Cyberterrorism	Agriterrorism	
Core Process/	Function	Explosive Device	Agent	Attack	Attack	Agent			Agnet
Administration		192	128			128	192	0	
	Threat Rating	6	4			4	6		
	Asset Value	4	4	· ·	· ·	4	4	0	
	Vulnerability Rating	8	8			8	8	0	
Engineering		240	160			160	200	0	
	Threat Bating	6	4			4			
	Asset Value	5	5			5	5		
	Vulnerability Rating	8	8	-		8	8	0	
Warehousing		240	160				50		
	Threat Rating	6	4	-		4	5		
	Asset Value	5	5	•		5	5		
	Vulnerability Rating	8	8	-					
Data Center		480	320	0				0	
	Threat Bating	6	4						
	Asset Value	10	10			10	10		
	Vulnerability Rating	8	8			8	9		
Food Service		0	0	0	0	0	0	0	
	Threat Bating	0	0	0	0	0	0	0	
	Asset Value	0	0	0	0	0	0	0	
	Vulnerability Rating	0	0	0			0		
Security		336	224	0	63	224	105	0	2
	Threat Bating	6	4	0	3	4	5	0	
	Asset Value	7	7	0	7	7	7	0	
	Vulnerability Bating	8	8	0	3	8	3	0	
Housekeeping		48	32	0	3	32	2	0	
	Threat Bating	6	4	0	3	4	2	0	
	Asset Value	1	1	0	1	1	1	0	
	Vulnerability Bating	8	8	0	1	8	1	0	
Day Care		0	0	0	0	0	0	0	
	Threat Bating	0	0	0	0	0	0	0	
	Asset Value	0	0	0	0	0	0	0	
	ulnerability Rating	0	0	0			0	0	
Communications		384	256	0	72	256	320	0	2
	hreat Rating	6	4	0	3	4	5	0	
	Asset Value	8	8	0	8	8	8	0	
	Yulnerability Rating	8	8	0	3	8	8	0	
Other 2		0	0	0	0	0	0	0	
	Threat Bating	0	0	0	0	0	0	0	
	Asset Value	0	0	0	0	0	0	0	
	Vulnerabilitu Bating		- 0				0		



FEMA

Threat Matrix

K7	•	fx.								
A	В	С	D	E	F	G	Н	1	J	К
1 Facility										
12			Improvised		Arson / Incendiary		Biological	Cyberterrorism	Agriterrorism	Radiological
3 Critical Infrastructure			Explosive Device	Agent	Attack	Attack	Agent			Agnet
4										
5 Site		-	240	160						
6	Threat Rati		6	4	-				· ·	
7	Asset Valu		5	5	-					
8	Vulnerabilit	y Rating	8	8	-	-		-	-	
9 Architectural			240	80						
:0	Threat Rati		6	4	•	3				
1	Asset Valu		5	5	-			-		
2	Vulnerabilit	y Rating	8	4	-	-		-		
3 Structural Systems			240	60					0	-
4	Threat Rati		6	4	0	3		1	0	
25	Asset Valu		5	5	0	-		5	0	
6	Vulnerabilit	y Rating	8	3		8	3	3	0	
7 Envelope Systems			240	60	0	120	60	15	0	
8	Threat Rati	ing	6	4	0	3	4	1	0	
9	Asset Valu	ie	5	5	0	5	5	5	0	
0	Vulnerabilit	y Rating	8	3	0	8	3	3	0	
1 Utility Systems			180	60	0	175	60	75	0	6
32	Threat Rati	ing	6	4	. 0	5	4	3	0	
3	Asset Valu	le	5	5	0	5	5	5	0	
34	Vulnerabilit	y Rating	6	3	0	7	3	5	0	
5 Mechanical Systems			224	196	0	245	196	105	0	15
6	Threat Rati	ina	4	4	0	5	4			
37	Asset Valu		7	7	0					
8	Vulnerabilit		8	7						
9 Plumbing and Gas Systems		,	160	100		120		30		
0	Threat Bati	ina	4	4						
1	Asset Valu		5	5	-					
2	Vulnerabilit		8	5	-				-	
3 Electrical Systems	T differ donie	gridding	224	140		147				
14	Threat Rati	ina	4							
15	Asset Valu		7	7						
6	Vulnerabilit		8	5						
7 Fire Alarm Systems	vuinerabilit	griading	160	60						
8	Threat Rati	ina	4	4						
9	Asset Valu		5	5					0	
0	Vulnerabilit		8	-	-				-	
u 1 IT and Communication Syster		y Hating	320	240	-	240			0	
	ns Threat Rati	in a	320		-					
2					-					
3	Asset Valu		10	10	-					
i4	Vulnerabilit	iy Hating	8	6	-					
i5 Other1	Inerability	_	ہ tructure Vulnerabili		0	0	0	0	0	



Other Reports

Observations and Recommendations/Remediations for Assessment Checklist

	Site Name	Vulnerability Assessment Checklist#	Section Heading	Observation	Recommendation / Remediation				
		_ <u> </u>	•		Search Clear				
•	Hazardville Information Co.	1-1	Site	Two Critical Hazard Facilities within 2 mile and a dozen Tier II HAZMAT Facilities within 3 miles. Major interstate hizhway within 1/4 mile. Two railroads	Collateral effects of attacks or accidents impact HIC similar to CBR attacks. See recommendations for HVAC systems.				
	Hazardville Information Co.	1-2	Site	The site is above the tank farm and the rear parking area slopes away from the building to a stream, which allows winds to pass over the structure unhindered.	None.				
	Hazardville Information Co.	1-3	Site	With a loading dock on the west side, it is possible for vehicles to park right next to the building. Normal parking for employees is in front; the closest row is	Increased stand-off or increased access control is needed to reduce risk of vehicle- borne improvised explosive device. Any action will require coordination with				
	Hazardville Information Co.	1-4	Site						
	Hazardville Information Co.	1-5	Site						
Re	Print View, Sort by Site Print View, Sort by Checklist # Close Record: I								



Master Database

Main Menu	
11	R
	FEMA
	FEMA 452: Risk Assessment Database v.2.0 Master Database
1-Denie	Assessments
1 11 11	Vulnerability Assessment Checklist
(ICT (br	Administrative Functions
This program was developed by Affairs, pursuant to a contract	and for FEMA and the Department of Veterans with the National Institute of Building Sciences. © ® National Institute of Building Sciences 2004



Vulnerability Assessment Checklist Search

	Vulnera Assessm	ent Checklist # 1-1	Section Head	1		
Ĩ	Question	impact transportation, w facility)? What are the uses outside the facility (tilities, and collateral dam e adjacent land uses imme site or building (s)) perim	uage (attack at this facility impacting the other diately outside the perimeter of this facility (sit eter? Although this question bridges threat a	overnment, military, or recreation facilities are in rmajor structures or attack on the major structures te or building(s))? Do future development plans (and vulnerability, the threat is the man-made haza ng assessed. Thus, a chemical plant release may be	impacting this change these land rd that can occur
	Guidance	production, and distributi Electric power systems - oil facilities - Hazardous	ion; radio stations; satellit Power plants, especially : material facilities, oil/gas	te base stations; telephone trunking and switch nuclear facilities; transmission and distribution pipelines and storage facilities - Banking and fi	roadcast TV, cable TV; cellular networks; newspape ing stations, including critical cable routes and maj 1 system components; fuel distribution, delivery, an inance institutions - Financial institutions (banks, o sportation networks - Airports: carriers, flight pat	or rights of way - id storage - Gas and credit unions) and the
	Comments					
		Name	Assessment Date Type	Observation	Recommendation /Remediation	Vulnerability?
	▶ Test13		4/7/2006 Tier 2			1
	Hazardy	ille Information Co	10/1/2005 Tier 1	Hazardville Information Co is located on the I95 corridor in an industrial suburban area. It is adjacent to the Ft	Develop procedures to support the shelter in place planning and protect the facility from a HAZMAT event in the	M
F						
-						
-	Record: (►► of 2 View Observations			Close

Master Database



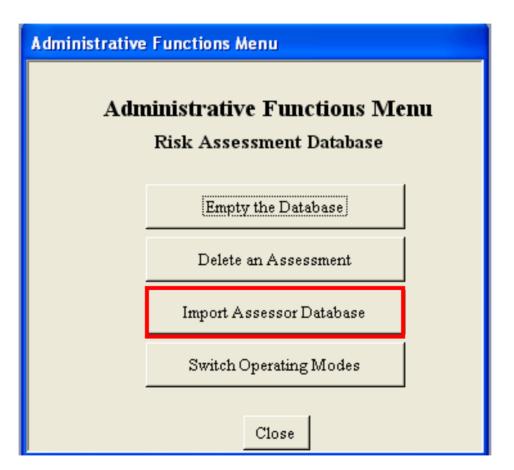




Master Database: Erasing One or All Assessments

	Administrative Functions Menu	
List of Assessments Assessmen t ID ssessment Loca 1 Test13 2 Hazardville Informat		nent Folder № ent_2006-04-07\ ent_2005-10-01\
	Empty the Database	
	Delete an Assessment	
	Import Assessor Database	
Delete this Record: I	Switch Operating Modes	Close
	Close	







Imp	ort Assessments			
\sim	Currently Linked to:	Select a database from which to imp C:\Program Files\FEMA Assessments\A		ck [Import].
	Show Detailed Results	Find a different Database	Import	? Close

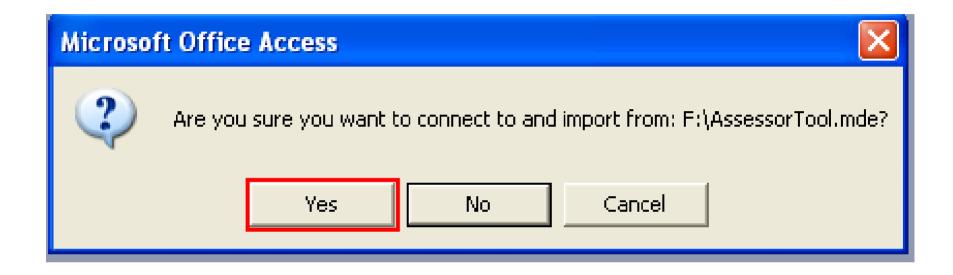


Open	? 🔀
Look in: 💌	TRAVELDRIVE (F:)
AssessorTo	ool.mde Information Co
File name:	AssessorDB.mdb Open
Files of type:	Assessment Databases (*.mdb, *.mde) Cancel
	Open as read-only



Import Assessments					
Select a database from which to import an Assessment. Then click [Import]. Link and Import from: F:\AssessorTool.mde					
Show Detailed Results	Find a different Database	Import	🦹 Close		







Microsoft Office Access



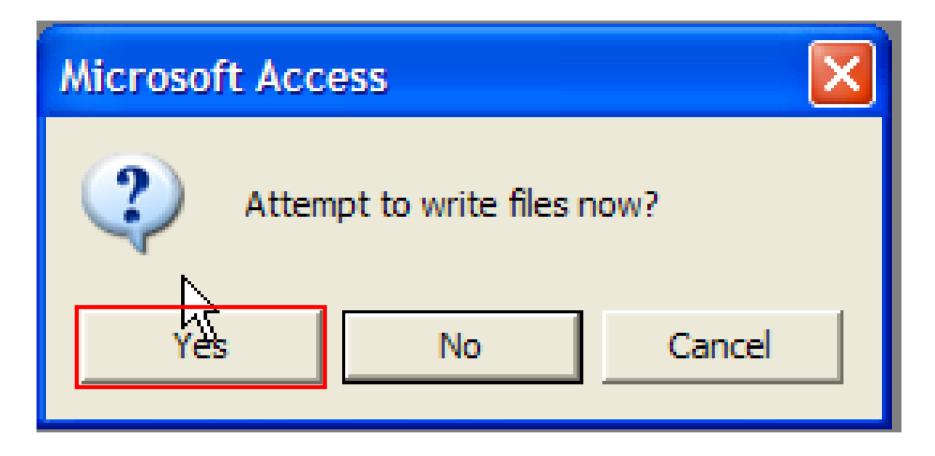
All 14 tables that were linked to: C:\Documents and Settings\tryan\My Documents\Temp File\FEMA_Assessment Tool\AssessorTool.mde have been relinked to: F:\AssessorTool.mde













Import Assessments							
Select a database from which to import an Assessment. Then click [Import]. Currently Linked to: F:\AssessorTool.mde							
	Show Detailed Results	Find a different Database	Import	? Close			



Import Detailed Diagnostics

lmport Order	Importing	NumberOf RecordsBefore	NumberOf RecordsAttempted	NumberOf RecordsAfter	Successful
_ 1	Sites	4	1	5	V
1 2	Buildings (*handled differently)	0	19	19	V
3	People	0	2	2	V
4	Assessments	4	1	5	V
5	Observations	216	216	432	
6	Vulnerabilities	0	1	1	
7	Executive Summary	1	1	2	
8	Critical Infrastructure	20	20	40	
9	Critical Functions	18	18	36	V
10	Assessment Personnel	0	2	2	
11	GIS images this assessment	0	1	1	V
12	Photos	0	1	1	V
13	Assessment Photos	0	1	1	V
14	Miscellaneous files	0	1	1	M

Record: I4

1 • • • • • • of 14





ort Assessments				
Select a database from which to import an Assessment. Then click [Import].				
Link and Import from:	F:\AssessorTool.mde			
Show Detailed Results	Find a different Database	Import	8	Close





Installation and opening of databases

Filing of GIS Portfolio, Miscellaneous, and Photos to link with the databases

Moving about the database software and between the Assessor Tool and the Master Database

Setting priorities on identified vulnerabilities and how the software handles it

Production of standard reports and searching the database for specific information

