



**Community Development Department**  
45175 W. Ten Mile Road  
Novi, MI 48375

## Memo

**Date:** September 5, 2007  
**To:** Clay Pearson  
**Through:** **Steve Rumples**  
**From:** John Hines  
**RE:** **Interactive Voice Response (IVR) System**

9-5-07  
To: Mayor and City  
Council Members  
For briefing @ 9/10/07 mtg.  
*Clay Pearson*

The Community Development Department is pleased to announce the successful implementation of the Interactive Voice Response (IVR) System, an inspection hotline system targeted toward improving customer service and streamlining the building inspection request systems within the department. The phone-in hotline system allows homeowners and contractors to contact the City for virtual around-the-clock access and ability to schedule inspection requests.

Following approval of this system by the City Council earlier this year, the IVR system was purchased through the Selectron Company and implemented by a team from both the Information Technology and Community Development Departments. It has been open for use to the public since July 18, 2007. Since that time, our department has received 2,722 calls on the system. See exhibit "A" for the break down of the times and days that the calls were received.

Our office believes that the system will provide a higher level of service to anyone requesting or obtaining a permit to construct, alter or renovate a building or structure within the City of Novi. Permit holders may be residential builders, homeowners, commercial contractors, foundation contractors, and contractors who perform electrical, mechanical and plumbing work.

The system allows the permit holder to call in at virtually any hour of the day or night and schedule inspections, cancel inspections, obtain results, and to leave the inspector a message. This message feature is helpful if the permit-holder wishes to request a certain

**Building**  
248-347-0415  
248-735-5600 Fax

**Planning**  
248-347-0475  
248-735-5633 Fax

**Ordinance Enforcement**  
248-735-5678  
248-735-5682 Fax

time for an inspection or even provide a lock box number if the permit holder cannot be available at the site.

The system also gives the inspector the ability to post inspection results from the field via a cellular telephone. An inspector can post an approval or use correction codes where code violations occur. Inspectors can also leave a message for the contractor or permit holder regarding any specific concern or provide an explanation of the inspection performed.

This entire system is automated and a report is run daily to collect, review and disseminate the information collected. The system saves time and reduces errors that may occur in a non-automated system. Once a permit-holder is familiar with the system, the process for typing in the codes should become routine.

We conducted a survey to determine how well the system has been accepted by the public. It consists of approximately forty patrons chosen at random and asked six questions relating to the use of the system. See exhibit "B". Most of our survey results show that the system is easy to use and convenient. In fact, most believe that it is so user-friendly that a training session is not necessary.

However, there are a few concerns that our team will need to investigate. A foremost concern is that the system takes too long, and there are too many selections. Secondary concerns are not having the capability of cancelling for the next day after the cut off time for inspections to be posted for the next day and not having an option to go back into the system once confirmation is given by the system. These concerns will be followed up and addressed in a subsequent report

The system will continue to be marketed to let the clients know the system is available for their use. Exhibit "C" and "D" are copies of the press release and flyer, respectively, already made available to the public. It has also been posted on the Internet. In addition, we plan to produce a small wallet size user card for our patrons. This will have all of the instructions needed to make it even more convenient for use.

John H Hines  
Building official

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 Back to Report Selection

## System Usage By Hour Report

Server: NOVI15

Start Date: 7/16/2007

End Date: 8/29/2007

Application	Hour	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Telephony : VoicePermits									
	01:00	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0
	05:00	0	0	0	0	0	0	0	0
	06:00	0	1	0	0	0	0	0	1
	07:00	0	3	7	0	1	2	0	13
	08:00	0	11	24	5	12	9	0	61
	09:00	2	42	37	45	43	28	0	197
	10:00	0	47	67	47	47	47	2	257
	11:00	0	66	55	65	56	54	0	296
	12:00	0	59	64	59	47	65	0	294
	13:00	1	44	50	45	32	48	1	221
	14:00	0	82	88	79	44	52	0	345
	15:00	1	110	122	115	98	54	0	500
	16:00	0	66	78	86	71	89	0	390
	17:00	0	19	29	36	18	13	0	115
	18:00	0	3	4	4	3	3	0	17
	19:00	0	1	3	2	1	0	0	7
	20:00	0	1	2	0	0	0	0	3
	21:00	1	0	0	0	0	0	0	1
	22:00	0	0	2	1	0	0	0	3
	23:00	0	0	0	0	0	0	0	0
	24:00	0	0	0	0	1	0	0	1



 Back to Report Selection

## System Usage Report

Server: NOVI15

Start Date: 7/16/2007

End Date: 8/29/2007

Application	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total
Telephony								
VoicePermits	5	555	632	589	474	464	3	2722
<b>Total:</b>	5	555	632	589	474	464	3	2722

## IVR Survey

Name of Company	Have You Used the System?	How Frequently Do You Use It?	Likes	Dislikes	Do You Have Any Suggestions to Improve the System?	Would You Be Interested In a Training Session?
Winnick Homes	Yes	Daily	Easy to use	None	No	No
Thurber Building	Yes	Daily	None	It's too time consuming	No	No
Pulte Homes	Yes	Every other Day	It's convenient to be able to schedule anytime of the day	It becomes time consuming when scheduling multi-inspections, but stills likes	No	No, it's self explanatory
Singh	Yes	3-4 Times a week	It's easy to use	None	Inspectors need to check for messages more often	No
Hunter Pasteur	Yes	Daily	It's easy to use	Prompts should be in a different order. Once you dial one for the conformation number you don't have the other options	No	No, it's self explanatory
Toll Brothers	Yes	Approximately seven times a week	It's easy to use and I like the idea of a confirmation number	Prompts should be in a different order. Once you dial one for the confirmation number you don't have the other options	Change the prompts around	No, it's self explanatory
Deville Plumbing	Yes	3-4 times a month	None	It's a little difficult to schedule multiple inspections and there are too many selections	Change the format to address and permit number only and type of inspection. Go back to old system.	No

## IVR Survey

Name of Company	Have You Used the System?	How Frequently Do You Use It?	Likes	Dislikes	Do You Have Any Suggestions to Improve the System?	Would You Be Interested In a Training Session?
CK Bull Dozing	No	N/A	N/A	N/A	N/A	N/A
Dan Allor Plumbing	Yes	2-3 times a week	Convenient call in times, easier to use and gives you a confirmation number	None	No	No
Bill James Plumbing	Yes	Once	It's easy to use once you've become familiar with the system.	None	No	No
Sachse Construction	No	N/A	N/A	N/A	N/A	Maybe
GNS Foundation	Yes	I use it for every job	Nothing- Absolutely Nothing	I'm never sure if the message got through. I like talking to a person. You can't schedule elevation Inspections. You can't cancel inspections on the system and you can't reschedule if the weather changes.	Throw system out.	Yes
Mozart Homes	Yes	Every Inspection	I like that you can call at any time.	I would rather talk to a person.	No	No
Killer Decks	Yes	Every Inspection	It seems like it will be easy to use eventually.	I don't like having to wait to hear the code number for the inspection.	Need list of codes provided.	No
JM Olson	Yes	Every Inspection	I like that you can call in after hours.	It's very frustrating to use at first.	No	Yes



## IVR Survey

Name of Company	Have You Used the System?	How Frequently Do You Use It?	Likes	Dislikes	Do You Have Any Suggestions to Improve the System?	Would You Be Interested In a Training Session?
Elite Poured Walls	No	N/A	N/A	N/A	N/A	Maybe
Crystal Electric	Yes	A couple of times a week.	It works nicely, and it's more convenient.	None	No, I'm happy with it.	No
Canton Electric	Yes	2-3 times in the last week.	It's easy to use.	None	No	No
Anstandig Electric	Yes	I've used it a couple of times.	Not many.	The lack of personal contact.	When I couldn't remember what kind of permit I was calling in I couldn't find an option for what I was looking for.	No
Plumbco Plumbing	Never returned call.					
Solomon Plumbing	Yes	Daily	It's easy to use.	None	No	No
WM R. Curtis	Number disconnected					
JMP Custom	Yes	Not often.	It's easy to understand.	None. Everything works fine.	No	Yes
Williams Panel Brick	Yes	Daily	I like that I'm able to get through right away, I can leave a message for the inspector, and I like getting a confirmation number. It's very user friendly.	I got a confirmation number once but the inspection was never scheduled. I haven't had a problem recently though.	No	No

## IVR Survey

Name of Company	Have You Used the System?	How Frequently Do You Use It?	Likes	Dislikes	Do You Have Any Suggestions to Improve the System?	Would You Be Interested In a Training Session?
Cappy Heating	Once, I've just learned of it.	I will use it a lot.	It's fast to use.	It's too long.	I would like to be able to bypass the automation.	Maybe
Christian Brothers	No	N/A	N/A	N/A	N/A	N/A
Quality Heating & Cooling	Yes	Very Often	It's easy to understand, check results, and leave a message for the inspector.	All the codes and having to go through the list on the phone.	Give contractors a list of the codes when they apply for a permit.	No
Electrical Power & Design	Yes	Once a week.	It's very easy to use and set up better than Pontiac's system.	None	There's nothing that needs improving.	No
Labelle Electric	Yes	Once or twice a month	I like the automation.	None	No	No
Corby Energy	N/A	N/A	N/A	N/A	N/A	N/A
Center Live Electric	Yes	Once	N/A	How long it takes to get the conformation number.	No	Yes
DR Electric	Yes	Once a week.	It's very easy to use.	None	No	No
Ideal Electric	Yes	2-4 times a week.	It's easy to follow.	It's slower than talking to a person.	No	No
All City Electric	Yes	Once a week.	I liked that I could use it without a booklet. It's a better system than	I would rather have the cut off at 6PM.	No	No, it's not necessary.
Family Heating Company	Yes	I've used it twice.	It's easy to call in.	The message is too lengthy.	Send out a letter that has short cuts to bypass the system.	No, it's not needed.



## IVR Survey

Name of Company	Have You Used the System?	How Frequently Do You Use It?	Likes	Dislikes	Do You Have Any Suggestions to Improve the System?	Would You Be Interested In a Training Session?
Tru Wall	Yes	2 times a week.	It's easy to call in.	I don't like that you have to cancel by 3PM and to cancel for the next day you have to call direct, not on the line.	Leave time machine.	No, It's not necessary.
Fireclass	Yes	Twice daily	It's convenient to use.	It takes a long time to type in the inspection.	I would like to be able to bypass functions to get to where I need to be in the system.	No, It's not necessary.
Taubman	No	N/A	N/A	N/A	N/A	N/A
Mulligan Heating	Yes	I've used it six times.	I like being able to put times in and leave a message.	None	No	No, It's not needed.

*Welcome to the Inspection Hotline!*

## Welcome to The Inspection Hotline!

The City of Novi proudly brings you the automated City of Novi Voice Permits™ IVR (Interactive Voice Response) System.

The Inspection Hotline allows you to contact the City for virtual around-the-clock access to our Community Development Department.

Residents or contractors may schedule or cancel inspections and find the results of inspections that have previously been conducted at their convenience. The Inspection Hotline can be accessed 24 hours a day, seven days a week as long as you have a touch-tone phone.

For more information, please contact the Community Development Department at (248) 347-0415.



*City Contact Information*

**Inspection Hotline**  
(248) 347-0480

**General Information**  
(248) 347-0485

**Community Development**  
(248) 347-0415

**Assessing**  
(248) 347-8485

**Engineering**  
(248) 347-0454

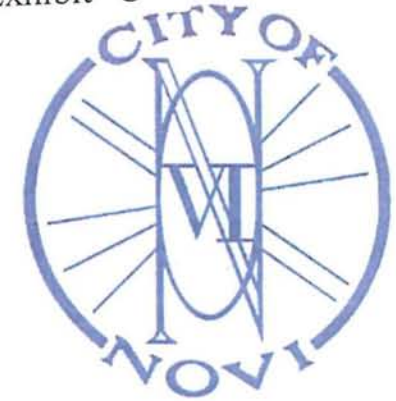
**Ordinance Enforcement**  
(248) 735-5678

**EMERGENCY**  
911



[www.cityofnovi.org](http://www.cityofnovi.org)

Exhibit "C"



[www.cityofnovi.org](http://www.cityofnovi.org)

City of Novi

**AUTOMATED  
INSPECTION  
HOTLINE**

(248) 347-0480

**CITY OF NOVI**  
45175 W. Ten Mile Road  
Novi, MI 48375



# City of Novi INSPECTION HOTLINE (248) 347-0480

You will be given simple prompts that will guide you throughout the entire process. You can press the [\*] at any time for more information.

## BEFORE CALLING YOU WILL NEED:

1. A touch-tone telephone
2. A permit number
3. An inspection code
  - Choose from the following list

## CHOOSE FROM THE FOLLOWING OPTIONS:

Press [1] Schedule an Inspection  
Press [2] Cancel an Inspection  
Press [3] Obtain Inspection Results  
Press [0] Transfer to Staff  
Press [#] Disconnect and Hang Up  
Press [\*] Repeat Main Menu

Note: Each inspection is scheduled for the next working day. The cut-off time for an inspection is 3:30 the preceding day.

## INSPECTION CODES

### BUILDING PERMIT [11]

300 staking  
301 footing  
302 backfill  
303 trench  
304 basement sand  
305 garage sand  
307 sand other  
308 damper

309 masonry flashing  
310 rough  
313 final  
314 special inspection  
315 post hole  
316 brick elevation  
317 elevation – eng  
322 insulation (batt)  
323 insulation (blown in)  
325 fire rated assembly  
326 rough open ceiling  
802 final grade  
805 façade

### DEMO PERMIT [12]

103 utilities  
200 final  
302 backfill

### ELECTRICAL PERMIT [13]

400 underground  
401 rough  
402 service  
403 temporary service  
404 walls  
405 ceiling  
407 final  
408 special inspection

### GENERAL PERMIT [14]

502 sewer  
503 water

### HEATING PERMIT [15]

505 gas test  
600 underground  
601 rough  
603 rough fireplace  
604 final fireplace  
605 special inspection  
606 final  
607 open ceiling

### MINOR LAND IMPROVEMENT [16]

806 minor land inspection

### MOBILE HOME PERMIT [17]

200 final inspection

### PLUMBING PERMIT [18]

500 underground  
502 sewer  
503 water  
506 rough  
508 final  
509 special inspection

### REFRIGERATION PERMIT [19]

700 rough  
701 final

### SIGN FOUNDATION PERMIT [20]

301 footing  
313 final

### STARTING PERMIT [21]

300 staking  
301 footing  
302 backfill  
303 trench  
304 basement sand  
305 garage sand  
307 sand other  
317 elevation - eng

### ZONING PERMIT [22]

313 final



## Exhibit "D"

### Community Development Department introduces 24-hour Inspection Hotline

CONTACT: Sheryl Walsh (248) 735-5628  
FOR IMMEDIATE RELEASE

NOVI, Michigan, July 18, 2007 – The City of Novi has taken another step to streamline the building process for residents and contractors alike with the introduction of the Novi Inspection Hotline. The automated Interactive Voice Response (IVR) system allows users to get the information they need without having to worry what time of day it is.



Users access the system by dialing the Inspection Hotline at 248-347-0480. Once the caller is connected to the Inspection Hotline, they will follow a series of touch-tone commands to schedule or cancel an inspection or find the results of an inspection that has already taken place. The caller must have a permit number to access information requested. A series of numeric codes are used to select the type of inspection that is desired.

Community Development Director Steve Rumpel believes the IVR system will be a tremendous benefit for residents and contractors alike. "The new automated inspection hotline will be a convenient tool our customers can use at their convenience. Having the ability to not only schedule inspections, but check results, will give contractors and residents an added sense of security when scheduling the next phase of their projects."

Purchase of the IVR system from Selectron Technologies Professional Services was approved by the Novi City Council on January 22, 2007 for \$67,483.

An Inspection Hotline Guide that outlines the procedure and codes is available at the Community Development Department inside the Novi Civic Center or by [clicking here](#). For more information please contact the Community Development Department at (248) 347-0415.