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# City of Grand Island



**Tuesday, July 01, 2003**  
**Study Session Packet**

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**City Council:**

**Joyce Haase**  
**Margaret Hornady**  
**Robert Meyer**  
**Mitchell Nickerson**  
**Don Pauly**  
**Jackie Pielstick**  
**Larry Seifert**  
**Scott Walker**  
**Fred Whitesides**

**Mayor:**

**Jay Vavricek**

**City Administrator:**

**Marlan Ferguson**

**City Clerk:**

**RaNae Edwards**

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**7:00:00 PM**  
**Council Chambers - City Hall**  
**100 East First Street**

**Call to Order**

**Pledge of Allegiance**

**Roll Call**

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## **A - SUBMITTAL OF REQUESTS FOR FUTURE ITEMS**

Individuals who have appropriate items for City Council consideration should complete the Request for Future Agenda Items form located at the Information Booth. If the issue can be handled administratively without Council action, notification will be provided. If the item is scheduled for a meeting or study session, notification of the date will be given.

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## **B - RESERVE TIME TO SPEAK ON AGENDA ITEMS**

This is an opportunity for individuals wishing to provide input on any of tonight's agenda items to reserve time to speak. Please come forward, state your name and address, and the Agenda topic on which you will be speaking.



# City of Grand Island

Tuesday, July 01, 2003

Study Session

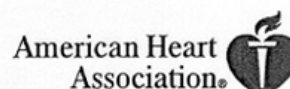
## Item -1

### **Presentation Regarding Public Access to Defibrillation**

*Cardiac arrest claims the lives of 220,000 people each year. Automated external defibrillators (AEDs) make it possible for trained lay rescuers to deliver defibrillation. Chad Bluschke with the Grand Island Fire Department will demonstrate the automated external defibrillator and explain the programs in place to make defibrillators accessible to the public.*

Staff Contact: Jim Rowell

# The Case for Public Access Defibrillation (PAD) Programs



Fighting Heart Disease and Stroke

About 220,000 people die each year from sudden cardiac arrest. That's 600 a day — an average of 25 per hour.

Cardiac arrest usually results from some underlying form of heart disease. Most cardiac arrests are due to abnormal heart rhythms called arrhythmias. Ventricular fibrillation (VF) is the most common arrhythmia that causes cardiac arrest. VF is a condition in which the heart's electrical impulses suddenly become chaotic, often without warning. That causes the heart's pumping action to abruptly stop. When cardiac arrest occurs, the victim loses consciousness, has no pulse and stops breathing normally. Death follows within minutes.

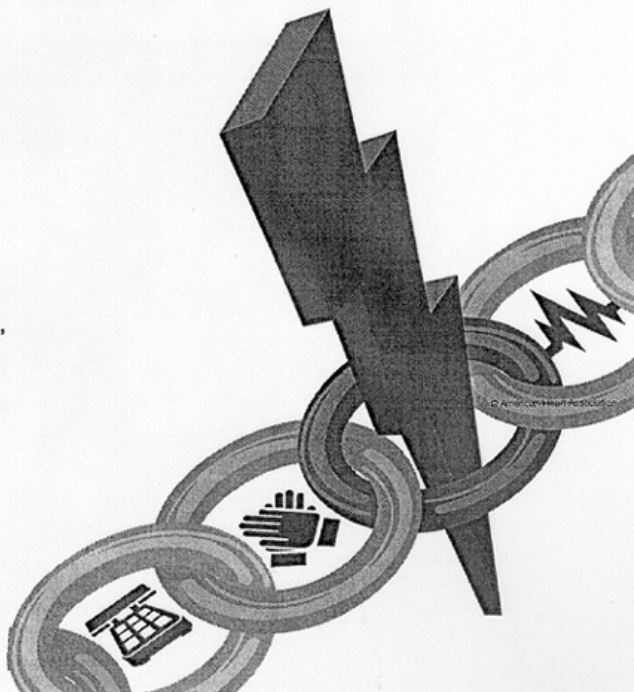
Defibrillation is the only known therapy for VF. This technique of giving an electrical shock can restore the heart's normal rhythm if it's done within minutes of the arrest. For every minute that passes without defibrillation, a victim's chances of survival decrease by 7–10 percent. After as little as 10 minutes, very few resuscitation attempts are successful.

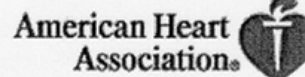
Traditionally, the ability to defibrillate was solely in the hands of emergency medical personnel. They were trained to interpret arrhythmias and determine when a shock was needed. Survival depended on the Emergency Medical Services (EMS) system being contacted and arriving quickly.

Unfortunately, quick EMS response isn't always possible. Even the very best EMS systems experience delays from heavy traffic, secured buildings, gated communities, large building complexes and high-rises. For example, in New York City where emergency response teams fight extreme traffic, the average arrival time for emergency vehicles is about 12 minutes. Not surprisingly, the cardiac arrest survival rate is less than 2 percent.

Today a new generation of defibrillators, called automated external defibrillators (AEDs) make it possible for trained lay rescuers to deliver defibrillation. The new AEDs are safe, effective, lightweight, low maintenance, easy to use and relatively inexpensive (about \$3,000 each). Having trained lay rescuers equipped with AEDs in settings where large numbers of people congregate saves precious minutes and improves survival rates for cardiac arrest victims. Facilities such as high-security companies, sports arenas, large hotels, concert halls, high-rise buildings, gated communities, sprawling manufacturing plants and remote sites can benefit from obtaining AEDs and training employees to use them as part of a public access defibrillation (PAD) program.

The American Heart Association strongly encourages establishing PAD programs as an important way to save the lives of thousands of cardiac arrest victims. The materials in this package will help you make a decision about obtaining AEDs and making them safe and effective to use by establishing a public access defibrillation program.





Fighting Heart Disease and Stroke

Emergency Cardiovascular Care Programs

[Home](#)[Mail](#)

## CPR and AEDs

### Questions and Answers About AEDs

[General Questions](#)[AED Use](#)[AED Placement](#)[Training](#)[Public Access Defibrillation](#)[Physician Oversight Package](#)[PAD Programs](#)

### General Questions

#### What does AED stand for?

AED stands for automated external defibrillator (or automated external defibrillation).

#### What's an AED?

An AED is a device used to administer an electric shock through the chest wall to the heart. Built-in computers assess the patient's heart rhythm, judge whether defibrillation is needed, and then administer the shock. Audible and/or visual prompts guide the user through the process.

#### How does an AED work?

A microprocessor inside the defibrillator interprets (analyzes) the victim's heart rhythm through adhesive electrodes (some AED models require you to press an ANALYZE button). The computer analyzes the heart rhythm and advises the operator whether a shock is needed. AEDs advise a shock only to ventricular fibrillation and fast ventricular tachycardia. The electric current is delivered through the victim's chest wall through adhesive electrode pads.

#### Why are AEDs important?

AEDs are important because they strengthen the Chain of Survival.

They can restore a normal heart rhythm in victims of sudden cardiac arrest. New, portable AEDs enable more people to respond to a medical emergency that requires defibrillation. When a person suffers a sudden cardiac arrest, their chance of survival decreases by 7% to 10% for each minute that passes without defibrillation. AEDs save lives!

**Who can use an AED?**

Most AEDs are designed to be used by nonmedical personnel such as police, firefighters, flight attendants, security guards, and other lay rescuers who have been properly trained. Having more people in the community who can respond to a medical emergency by providing defibrillation will greatly increase sudden cardiac arrest survival rates.

**Why does someone having a heart attack need an AED?**

When a heart attack becomes a full cardiac arrest, the heart most often goes into uncoordinated electrical activity called fibrillation. The heart twitches ineffectively and can't pump blood. The AED delivers electric current to the heart muscle, momentarily stunning the heart, stopping all activity. This gives the heart an opportunity to resume beating effectively.

**Will an AED always resuscitate someone in cardiac arrest?**

The AED treats only a heart in ventricular fibrillation (VF), an irregular heart rhythm. In cardiac arrest without VF, the heart doesn't respond to electric currents but needs medications. The victim needs breathing support. AEDs are less successful when the victim has been in cardiac arrest for more than a few minutes, especially if no CPR was provided.

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## AED Use

**Is an AED safe to use?**

An AED is safe to use by anyone who's been trained to operate it. Studies have shown the devices to be 90% sensitive (able 90% of the time to detect a rhythm that should be defibrillated) and 99% specific (able 99% of the time to recommend not shocking when defibrillation is not indicated). Because of the wide variety of situations in which it will typically be used, the AED is designed with multiple safeguards and warnings before any energy is released. The AED is programmed to deliver a shock only when it has detected VF. However, potential dangers are associated with AED use. That's why training — including safety and maintenance — is important.

The AHA recommends that persons who live or work where an AED is available for use by lay rescuers participate in a Heartsaver AED Course. AEDs are so user-friendly that untrained rescuers can generally succeed in attaching the pads, pressing ANALYZE (if required), and delivering shocks. However, untrained rescuers may not

know when to use an AED, and they may not use an AED safely, posing some danger of electric shock to themselves and others. Also, untrained rescuers probably would not know how to respond to the victim if the AED prompts "no shock indicated." An operator needs only to follow the illustrations on the electrode pads and the control panel and listen and follow the voice prompts (for example, "Do not touch the patient."). An AED will deliver a shock only when a shock is advised and the operator pushes the SHOCK button. This prevents a shock from being delivered accidentally.

**Are AEDs safe to use on children?**

An AED should not be used on a child younger than 8 years old or weighing less than about 55 pounds. For more information on this question click here: [AEDs and Children](#).

**Will I get zapped if I shock a victim in the rain or near water?**

It's remotely possible to get shocked or to shock bystanders if water is standing near or underneath the patient. Try to move the patient to a dry area and cut off wet clothing. Also be sure that the skin has been toweled dry so the electrode pads will stick to the skin. At the moment you press the SHOCK button, you must make sure that no one, including yourself (the AED operator), touches any part of the victim.

**Can an AED make mistakes?**

An AED will almost never decide to shock an adult victim when the victim is in non-VF. AEDs "miss" fine VF only about 5% of the time. The internal computer uses complex analysis algorithms to determine whether to shock. If the operator has attached the AED to an adult victim who's not breathing and pulseless (in cardiac arrest), the AED will make the correct "shock" decision more than 95 of 100 times and a correct "no shock indicated" decision more than 98 of 100 times. This level of accuracy is greater than the accuracy of emergency professionals.

**Why do you stop CPR as the electrode pads are placed and analysis occurs?**

For the AED to analyze accurately, the victim must be motionless. Sometimes there will be an agonal respiration (a gasping breath that can occur when the heart is stopped) that causes some movement. AEDs can recognize this extra motion and indicate "motion detected" to the operator. This warns the operator to assess carefully for extra movements from the victim or other people at the scene.

**Why should a lay rescuer continue CPR after the arrival of emergency medical services (EMS) professionals?**

It's helpful to EMS professionals to be able to set up their equipment, including the defibrillator, while lay rescuers continue CPR. The EMTs will take over CPR and reconfirm that the victim is in cardiac arrest.

**Why does it seem that the victim goes without CPR for so long during defibrillation, and why does an AED shock so many times?**

After prescribed periods of CPR, the machine analyzes the victim's rhythm. The victim must remain motionless while the AED decides to shock and delivers the shock. Sometimes the victim doesn't change from VF to non-VF at once. These victims require multiple shocks. If repeated shocks are needed, the shocks are "stacked" in sets of three to increase their effectiveness.

**Besides using an AED, how else might a lay rescuer help at the scene of a sudden cardiac arrest?**

Lay rescuers are most often asked to call 911 and get the AED. The lay rescuer can assemble the pocket face mask and begin providing mouth-to-mask ventilations. Responders might provide CPR or continue defibrillation if a workplace defibrillator is used. Support and direction to bystanders, friends, and family are appropriate. When EMS personnel arrive, the lay rescuer can provide directions and help get information about the patient.

**What actions should a CPR responder take after using an AED on a person in cardiac arrest?**

There should be some type of debriefing for EMS personnel or lay rescuers involved in a resuscitation attempt. Also, the voice-rhythm-shock record should be collected from the AED's event documentation system. The AHA strongly recommends that AEDs used in a public access or home-responder setting have both rhythm and voice event documentation. AEDs can record and store (as a minimum) the following information:

- Patient rhythm throughout the resuscitation.
- Response of the AED (shock versus no shock; shockable rhythm versus nonshockable rhythm).
- Event and interval timing.
- Audio recording of the voices and actions recorded at the scene of a cardiac arrest.

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## **AED Placement**

**What's public access to defibrillation?**

Public access to defibrillation (PAD) means making AEDs available in public and/or private places where large numbers of people gather or people who are at high risk for heart attacks live.

**What's the AHA position on placement of AEDs?**

The AHA strongly advocates that all EMS first-response vehicles and ambulances be equipped with an AED or another defibrillation device (semiautomatic or manual defibrillator). The AHA also supports



placing AEDs in targeted public areas such as sports arenas, gated communities, office complexes, doctor's offices, shopping malls, etc. When AEDs are placed in a community, the AHA strongly encourages that they be part of a defibrillation program in which

- Persons or entities that acquire an AED notify the local EMS office.
- A licensed physician or medical authority provides medical oversight to ensure quality control.
- Persons responsible for using the AED are trained in CPR and how to use an AED.

**Why is notifying the local EMS office important?**

It's important for the local EMS system to know where AEDs are located in the community. In the event of a sudden cardiac arrest emergency, the 911 dispatcher will know if an AED is on the premises and will be able to notify the EMS system as well as the responders already on the scene.

**Why should a licensed physician or medical authority be involved with purchasers of AEDs?**

This is a quality control mechanism. The licensed physician or medical authority will ensure that all designated responders are properly trained and that the AED is properly maintained.

**Why should people who are responsible for operating an AED receive CPR training?**

Early CPR is an integral part of providing lifesaving aid to people suffering sudden cardiac arrest. The ventilation and compression skills learned in a CPR class help to circulate oxygen-rich blood to the brain. After delivering a series of three electric shocks, the typical AED will prompt the operator to continue CPR while the device continues to analyze the patient.

**If AEDs are so easy to use, why do people need formal training in how to use them?**

An AED operator must know how to recognize the signs of a sudden cardiac arrest, when to activate the EMS system, and how to do CPR. It's also important for operators to receive formal training on the AED model they will use so that they become familiar with the device and are able to successfully operate it in an emergency. Training also teaches the operator how to avoid potentially hazardous situations.

**Can anyone buy an AED?**

AEDs are manufactured and sold under guidelines approved by the Food and Drug Administration. Current FDA rules require someone who purchases an AED to present a physician's prescription for the

device.

**My health club has identified a member physician willing to purchase an AED for the club. What's the first step in the process?**

Your local EMS system can help you find out about local and state protocols and requirements for AED training and use.

**The police are the first responders in my community. Officials are reluctant to have them carry and use AEDs for fear of potential litigation. What legislation is currently in effect to protect first responders who use an AED?**

If the person is a trained and licensed medical first responder (MFR), an established standard of care is outlined in the law, and those operating within these guidelines are protected under these laws. These same guidelines pertain to the personnel in your EMS system. If they are not trained and licensed MFRs, check the state laws to determine if lay rescuers are given limited liability immunity. If not, they may not be protected from litigation. Agencies should seek legal counsel before implementing a defibrillation program.

**How much does an AED cost?**

The price of an AED varies by make and model. Most AEDs cost around \$3000.

**What steps should an organization take to buy an AED for its premises?**

Any person or entity wanting to buy an AED must first get a prescription from a physician. The AED should be placed in use within a defibrillation program that includes these elements:

- Training of all users in CPR and operation of an AED (AHA Heartsaver AED Course).
- Physician oversight to ensure appropriate maintenance and use of the AED.
- Notification of local EMS of type and location of AED.

**Which AED model does the AHA recommend?**

The AHA does not recommend a specific device. All AED models have similar features, but the slight differences allow them to meet a variety of needs. The AHA encourages potential buyers to consider all models and make a selection based on the buyer's particular needs. The local EMS system can help you with this decision.

## Training

### How can I enroll in a CPR or AED class?

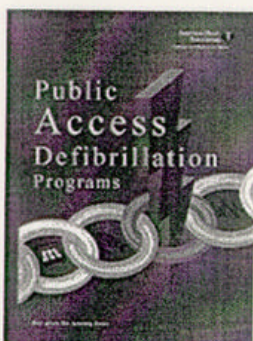
The American Heart Association offers CPR and AED training through community training centers (CTCs). To locate a CTC, call your nearest AHA office or ECC consultant, or click here to [Find a Course Near You](#).

### What kind of training on AEDs is available?

The AHA has developed a new Heartsaver AED Course that integrates CPR and AED training. The course is 3½ to 4 hours long.

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## Public Access Defibrillation



- [The Case for PAD Programs](#)
- [Quick Overview on Establishing a PAD Program](#)
- [Lay Rescuer Training](#)
- [Physician Oversight](#)
- [Integrating With the EMS System](#)
- [Using and Maintaining an AED](#)
- [Placing AEDs-Where and How Many?](#)
- [Follow-up After an AED Is Used](#)
- [PAD Program Legal Issues](#)
- [Promoting a PAD Program](#)
- [Q & A About AEDs and Defibrillation](#)
- [More Q & A About AEDs and Defibrillation](#)
- [Sample Notification Letter to City EMS Director](#)
- [Sample PAD Program Announcement News Release](#)
- [AED Maintenance Checklist](#)

To view and read the above documents, you will need the [Adobe Acrobat Reader](#). If your computer is not already configured to view PDFs (portable document files), you may download free, either the Macintosh or PC version from [adobe.com](#). Note: To print pages off the PDF, print them from the Adobe Acrobat Reader application using the Adobe Acrobat Reader tool bar or print menu.

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### Who is at Risk?

About 95% of all SCA victims die – about 1000 lives each day in the U.S.

Although the average age of victims is 65, SCA can strike...

*Any time,  
Any place,  
Any body.*

Glassberg W. American Journal of Emer Med. 1998;16:515-519.  
Cobb LA. Circ. 1992;85:249-262.

### SCA - Who is at Risk?

#### Risk Factors:

- Previous Heart Attack
- Previous SCA Event
- Fast Rhythm in Lower Part of Heart
- Family History of SCA
- Heart Failure
- Visit Your Doctor and Discuss Your Medical Condition



### Julie's Story

- Julie experienced a SCA during dinner at a restaurant
- Julie's husband started CPR
- Police Officer answering the 911 call used his AED to resuscitate Julie
- Paramedics provided advanced care



### Key to Surviving SCA

#### Early Defibrillation

- Only effective treatment is an electrical shock delivered by a defibrillator.
- Time is critical – each minute of delay before defibrillation reduces survival by about 10%.



Glassberg W. American Journal of Emer Med. 1998;16:519-526.

### What is an AED?

- Device that looks for shockable heart rhythms
- Delivers a defibrillation shock if needed
- Small, portable, size of laptop computer
- Simple, automatic



### Who Can Use an AED?

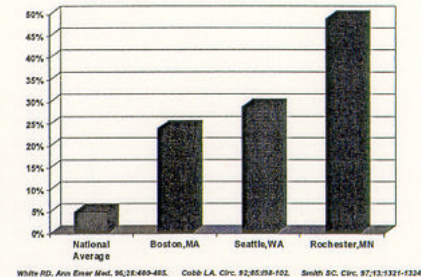
- Anyone who has taken a nationally recognized CPR course and is trained on the operation of the AED
- Four- to six-hour training courses offered by the American Heart Association, National Safety Council, American Red Cross and other organizations



### Who is Using AEDs?

- Police
- Firefighters
- EMTs
- Security Officers
- Emergency Response Teams
- Flight Attendants
- Golf Pros
- Lifeguards
- Ski Patrol
- Health Club Employees

### AEDs Improve Survival



### Survivors are at High Risk

- 30-50% of Sudden Cardiac Arrest survivors will experience another arrest within one year.
- Proper treatment can improve the odds of surviving future SCA events.

AVD Investigators. N Engl J Med. 1997;337(22):1576-1583.  
Myerburg RJ. Heart Disease, A Textbook of Cardiovascular Medicine, 8<sup>th</sup> ed. Vol 1. Philadelphia: WB Saunders Co;1997:ch. 24.

### Heart Rhythm Specialists

- Electrophysiologists (EPs) are Cardiologists with specialized training in the diagnosis and treatment of heart rhythm problems.



### Treatment for SCA Survivors – Implantable Cardioverter Defibrillator

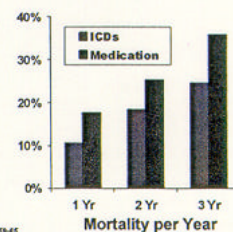
- Internal device that monitors your heart and can deliver an electrical shock that brings the heart back into a normal rhythm
- Implanted in a one-hour procedure
- Many patients leave the hospital the following day



### Preventing SCA with ICDs

Clinical Studies have shown that:

- ICDs are 99% effective in treating SCA
- ICDs reduce mortality over medications





Looking  
Forward to the  
Future



### Sudden Cardiac Arrest

- ✓ What is it?
- ✓ What if it happens?
- ✓ Can you prevent it?

Are You and Your Community Heart Safe?

*There is something you can do!*



## ***Fire Department***

*Working Together for a  
Better Tomorrow. Today.*

### AED Locations:

**Evangelical Church**  
**Fonner Park Keno**  
**Conestoga Mall**  
**Grand Island Senior High**  
**Saint Francis Medical Center – Skilled Care**  
**Stuhr Museum**  
**Jack Rabbit Run**  
**Fonner View Golf Course**  
**Riverside Golf Course**  
Overhead Door  
St. Paul Lutheran Church  
Employer Health Care  
McCain Foods  
New Holland  
Chief Auto and Fabrication  
Dept. of Treasury  
Pioneer Hi-Breeds – Doniphan  
Hall County Jail  
Platte Generating Station  
*Trinity Lutheran Church*  
*Central Community College*  
YMCA  
YWCA  
*Salvation Army*

The names in bold type are AED's placed by Project Heartsave. The names in italic are AED's that will be in place by the end of July from Project Heartsave.



# City of Grand Island

Tuesday, July 01, 2003

Study Session

## Item -2

### **Discussion Concerning Change Orders by the Public Works Department**

*A presentation on Change Orders was prepared for the City Council Retreat in February 2003 but the presentation was not made due to time constraints.*

Staff Contact: Steve Riehle, City Engineer/Public Works Director



Slide 1

# Change Orders

Slide 2

Typical  
Measured  
Quantity  
Contract

SOUTH LOCUST IMPROVEMENTS -  
U.S. HIGHWAY 34 TO STOLLEY PARK ROAD - STREET DISTRICT 1221

CONTRACT DOCUMENTS  
AND  
SPECIFICATIONS

ENGINEERING DIVISION  
DEPARTMENT OF PUBLIC WORKS  
GRAND ISLAND, NEBRASKA



Slide 3

Contractor's Bid  
in Contract  
Specifications

CONTRACTOR'S BID

Slide 4

BID SECTION I - LANDSCAPE & IRRIGATION (CONTINUED)				
Item	Description	Estimated Quantity	Unit Price	Total Price
291.	Spirea Albiflora	282.8 18-24"CT	\$4.00	\$1,131.20
292.	Symphoricarpos x Clematis 'Hemlock'	23.9 18-24"CT	\$4.00	\$95.60
293.	Viburnum x Doerflingeri	23.9 24-36"CT	\$4.00	\$95.60
294.	Viburnum Trichotera 'Spring Green'	98.9 18-24"CT	\$4.00	\$395.60
295.	Fuchsia Americana 'Autumn Purple'	35.9 35"CT Ball	\$4.00	\$1,436.00
296.	Fuchsia Prostrata 'Patience'	22.9 35"CT Ball	\$4.00	\$916.00
297.	Ulmus Truncatus 'Seymour' 'Skyline'	47.9 35"CT Ball	\$4.00	\$1,916.00
298.	Malus 'Sugar Tyme'	19.9 15"CT Ball	\$4.00	\$796.00
299.	Echinacea Purpurea 'Magnus'	556.8 6" Pot	\$4.00	\$2,227.20
300.	Desmodium Illinoense	680.0 6" Pot	\$4.00	\$2,720.00
301.	Polygonum Affine 'Himalayan Border Jewel'	1,527.0 6" Pot	\$4.00	\$6,108.00
302.	Rubus 'Goldflame'	455.0 6" Pot	\$4.00	\$1,820.00
303.	Nepa Faucialis	1,845.0 6" Pot	\$4.00	\$7,380.00
304.	Fescue Sod	126,268.0 SF	\$1.00	\$126,268.00
305.	Diagnon Sod	11,580.0 SF	\$1.00	\$11,580.00
306.	Sealing	80,000.0 SF	\$1.00	\$80,000.00
307.	Drill Pavers	2,304.0 SF	\$1.00	\$2,304.00
308.	Irrigation System	1.8 LB	\$100.00	\$180.00
309.	Topsoil	380.0 CY	\$1.00	\$380.00
SUBTOTAL FOR BID SECTION I			\$	278,579.00
TOTAL BID			\$	4,996,117.00

Quantity

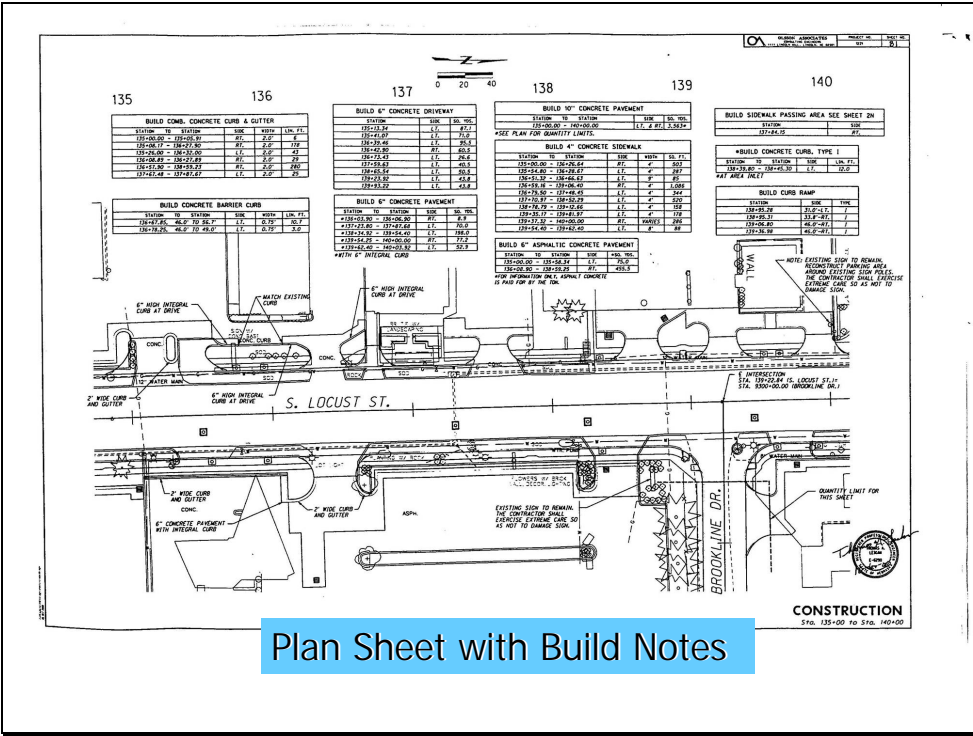
Quantity

Total Price

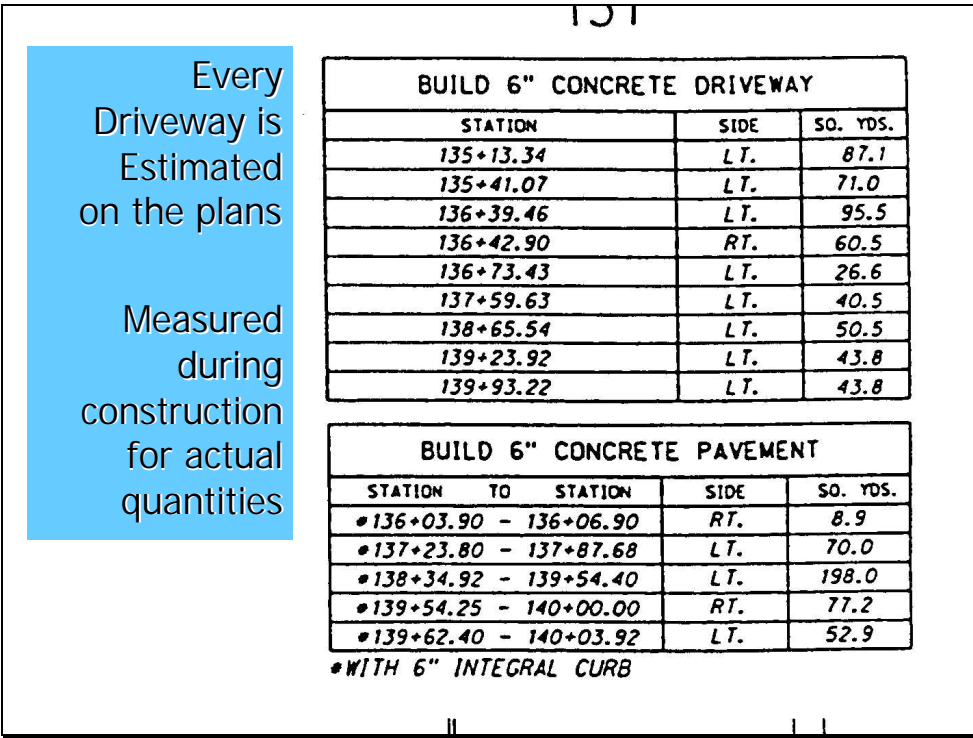
Total Bid

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Slide 5



Slide 6



# Changes to Plans

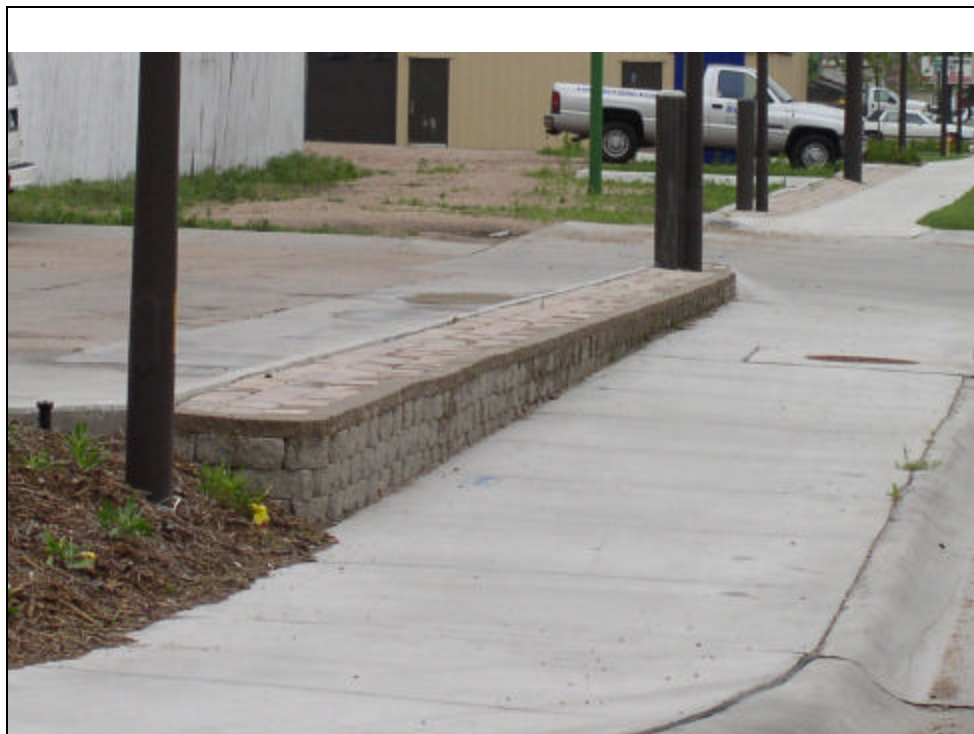
- When a change is necessary
  - Contract items can be adjusted
    - Some will be over
    - Others may be under
  - New items of work need a Change Order



Slide 9



Slide 10



# Change Order Process

- Negotiations determine the price
  - Use previous city project bids for price comparison
  - Use NDOR Average Unit Price listing
  - Negotiate Unit Prices with the Contractor
- If time allows
  - Change Order approved before the work is performed
- If Time does not allow
  - A Work Order is prepared so the project can proceed
  - Change Order then presented to Council for approval

City of Grand Island 100 East 1st Street Grand Island, Nebraska 68801		CHANGE ORDER NO. 4 (Continued)			Date of Issuance: February 4, 2003
New Bid Item No.					
344	#8 Grounding Conductor. Required for traffic signal wiring, no quantity on bid tab.	470 L.F. @ \$0.75	Add	\$352.50	
345	12" Cap, M.J., With Set Screw Ring. Required for water removals as per city specifications.	6 EA @ \$225.00	Add	\$1,350.00	
346	6" Cap, M.J., With Set Screw Ring. Required for water removals as per city specifications.	1 EA @ \$100.00	Add	\$100.00	
347	4" Restrained Plug, M.J., Required for phased construction of 4" services.	2 EA @ \$100.00	Add	\$200.00	
348	4" Retainer Gland, M.J., Required for new 4" water services.	4 EA @ \$70.00	Add	\$280.00	
349	Remove Existing Structure at 132+93, Rt. 330'.	1 L.S. @ \$325.00	Add	\$325.00	
350	Change Median/Island South of Stolley Park.	1 L.S. @ \$2,476.50	Add	\$2,476.50	
351	Restock unused CMP.	1 L.S. @ \$572.75	Add	\$572.75	
352	Restock 12" Gate Valve, M.J.	1 EA @ \$153.79	Add	\$153.79	
353	Rout and seal McDermott and Miller parking lot. Additional area required for bridge construction.	1 L.S. @ \$2,725.00	Add	\$2,725.00	
354	Modular Block Landscape Wall.	404 S.F. @ \$27.50	Add	\$11,110.00	← Modular Retaining Wall added
355	Provide Brick Pavers to the city (Material).	159 S.F. @ \$3.90	Add	\$620.10	
356	Additional Irrigation System Heads.	24 EA @ \$45.00	Add	\$1,080.00	
357	Additional Weed Mat.	645 S.F. @ \$0.40	Add	\$258.00	
358	Additional Border	108 LF @ \$2.90	Add	\$313.20	



Slide 13

RESOLUTION 2003-39

WHEREAS, on November 21, 2000, by Resolution 2000-355, the City Council for the City of Grand Island awarded the bid for the construction of Street Improvement District No. 1221 to The Diamond Engineering Company of Grand Island, Nebraska; and

WHEREAS, it has been determined that modifications to the work to be performed by The Diamond Engineering Company are necessary; and

WHEREAS, such modifications have been incorporated into Change Order No. 4; and

WHEREAS, the result of such modifications for this project will increase the contract amount by \$21,916.84, for a revised contract amount of \$5,187,981.70.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the Mayor be, and hereby is, authorized and directed to execute Change Order No. 4, between the City of Grand Island and The Diamond Engineering Company to provide the following modifications:

	Amount
Add #8 Grounding conductor.....	352.50
Add 12" cap, M.J., w/ set screw ring.....	1,250.00
Add 6" cap, M.J., w/ set screw ring.....	100.00
Add 4" restrained plug, M.J.....	200.00
Add 4" retainer gland, M.J.....	280.00
Remove existing structure at 132+93, Rt. 330.....	325.00
Change median/island south of Stolley Park Road.....	2,476.50
Restock unused CMP.....	572.75
Restock 12" gate valve, M.J.....	153.79
Rout and seal McDermott and Miller parking lot.....	2,725.00
Modular block landscape wall.....	11,110.00
Provide brick pavers to the city (material).....	620.10
Additional irrigation system heads.....	1,080.00
Additional weed mat.....	258.00
Additional border.....	313.30

Adopted by the City Council of the City of Grand Island, Nebraska, February 4, 2003.

*RaNae Edwards*  
RaNae Edwards, City Clerk

Approved as to Form January 30, 2003 *[Signature]*  
City Attorney

Resolution  
Approving  
Change  
Order

Slide 14

City of Grand Island  
100 East 1st Street  
Grand Island, Nebraska 68801

CHANGE ORDER NO. 4 (FINAL)  
Date of Issuance: February 4, 2003

PROJECT: South Locust Street-Highway 34 to Stolley Park Road,  
Street Improvement District 1221, Grand Island, Nebraska

CONTRACTOR: The Diamond Engineering Company, P.O. Box 1327, Grand Island, NE 68802

CONTRACT DATE: December 19, 2000 AMOUNT OF ORIGINAL CONTRACT: \$4,996,117.60

You are directed to make the changes in the subject contract as shown on attached sheet.

The changes result in the following adjustment of Contract Price and Contract Time:

Contract Price Prior to This Change Order .....	\$5,166,064.86
Net Increase/Decrease Resulting from this Change Order .....	\$21,916.84
Revised Contract Price Including this Change Order .....	\$5,187,981.70

Contract Time Prior to This Change Order - Final Completion .....	October 4, 2002
Net Increase Resulting from This Change Order .....	0 days
Current Contract Time Including this Change Order - Final Completion .....	October 4, 2002

Approval Recommended:

City of Grand Island By <i>[Signature]</i> Public Works Director, City of Grand Island Date February 4, 2003	Olsson Associates - Project No. 00-0895.01 By <i>[Signature]</i> Kevin L. Prior, Vice President Date 2-4-03
-----------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------

The Above Change Order Accepted:

The Diamond Engineering Co. Contractor By <i>[Signature]</i> Date 2/4/03	Approved for the City of Grand Island Mayor Attest: <i>[Signature]</i> City Clerk Date 2-4-03
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F:\PROJ\173\000895\03a\Chg Order\CHGORD-003.pdf

Signed  
Change  
Order



# City of Grand Island

Tuesday, July 01, 2003

Study Session

## Item -3

### Update Concerning City Directional Signage

*In April of 2000, RDG Crose Gardner Shukert completed a study on creating an identity for Downtown Grand Island. The Consultant recommended that the City institute a Wayfinding sign program. Wayfinding signs can be used to direct people around the City, lead them to their destination, and announce their arrival at a defined district or area of the community such as South Locust, the Mall area, or Downtown. The City has constructed "Gateway" signs at the Blackstone Island and Pioneer Park to establish an entrance to Downtown, but directional signs are needed to lead visitors to this area and other community attractions. The Street Division of the Public Works Department has created a layout for signs at the intersection of US Highway 34 and South Locust Street for review. A list of signs proposed for the first phase of the project will be presented.*

Staff Contact: Steve Riehle, City Engineer/Public Works Director



# Wayfinding Signs

## Wayfinding

- A study was completed by RDG Crose Garner Shukert in April, 2000: The Design and Identity Program for Downtown Grand Island
  - Study recommended the community implement a wayfinding concept as part of the overall program

## Wayfinding


Wayfinding requires us to think through how people move through the city, and identify:

- Decision Points: intersections where a choice is made that takes visitors to, or around, the city
- Directional Points: reinforce the decision and direct visitors to other features of the community
- Gateways: inform visitors that they have arrived at the destination


## Wayfinding

- Visitor-friendly
- Addresses vehicle and pedestrian traffic
- Presents a consistent image

Other Cities



Indianapolis, IN



Wichita, KS

Possibilities for Grand Island



Gateway Signs



Vehicle Directional Signs

Top A Top B

Vehicle Directional Signs  
Located beyond perimeter



## Rules, Guidelines and Procedures for State Highways

- Nebraska Department of Roads requires all signs to follow The Manual of Uniform Traffic Control Devices (MUTCD)
- MUTCD does not allow signs that are elaborate:  
Signs are ruled by traffic speeds
  - Number of messages
  - size of lettering
  - spacing of signs

## Examples for US Highway 34/South Locust Interchange

- Design and Locations are acceptable to the NDOR
- Sign layouts conform to the MUTCD
- Sign wording is appropriate for MUTCD

Hwy 34 & Locust - Southbound



Slide 11



Slide 12







List of Destinations for Perimeter Signs			
Intersection of US Highway 281 and US Highway 34			
<ul style="list-style-type: none"><li>• <u>Northbound</u></li><li>• Rt arrow</li><li>• Rt arrow</li><li>• Rt arrow</li></ul>	<ul style="list-style-type: none"><li>• STUHR MUSEUM</li><li>• CCC/COLLEGE PARK</li><li>• DOWNTOWN/SOUTH LOCUST</li></ul>	<ul style="list-style-type: none"><li>• <u>Southbound</u></li><li>• Lt arrow</li><li>• Lt arrow</li><li>• Lt arrow</li></ul>	<ul style="list-style-type: none"><li>• DOWNTOWN</li><li>• SOUTH LOCUST</li><li>• FONNER PARK</li></ul>
<ul style="list-style-type: none"><li>• OR</li><li>• Straight arrow</li><li>• Rt arrow</li><li>• Rt arrow</li></ul>	<ul style="list-style-type: none"><li>• U.S. HWY 30</li><li>• STUHR MUSEUM</li><li>• CCC/COLLEGE PARK</li></ul>	<ul style="list-style-type: none"><li>• <u>Eastbound</u></li><li>• Straight arrow</li><li>• Straight arrow</li><li>• Lt arrow</li></ul>	<ul style="list-style-type: none"><li>• DOWNTOWN</li><li>• SOUTH LOCUST</li><li>• MALL AREA</li></ul>
<ul style="list-style-type: none"><li>• <u>Same intersection:</u></li><li>• Straight arrow</li><li>• Rt arrow</li><li>• Straight arrow</li></ul>	<ul style="list-style-type: none"><li>• MALL AREA</li><li>• DOWNTOWN/SOUTH LOCUST</li><li>• AIRPORT</li></ul>	<ul style="list-style-type: none"><li>• <u>Westbound Hwy 34 approaching 281</u></li><li>• Rt arrow</li><li>• Rt arrow</li><li>• Rt arrow</li></ul>	<ul style="list-style-type: none"><li>• AIRPORT</li><li>• MALL AREA</li><li>• ???</li></ul>

## List of Destinations for Perimeter Signs

- **Intersection of US Highway 281 and Stolley Park Road**

- Northbound

Straight arrow	MALL AREA
Rt arrow	STOLLEY PARK
Straight arrow	AIRPORT

- Westbound

Lt arrow	STUHR MUSEUM
Lt arrow	CCC/COLLEGE PARK
Lt arrow	DOWNTOWN/SOUTH LOCUST

- **Intersection of US Highway 281 and US Highway 30:**

- Northbound

Rt arrow	DOWNTOWN
Straight arrow	AIRPORT

- Southbound

Rt arrow	EAST HWY 30
Rt arrow	DOWNTOWN

## List of Destinations for Perimeter Signs

- **Southbound on Broadwell Ave. approaching Hwy 281:**

Straight arrow	DOWNTOWN/SOUTH LOCUST
Rt arrow	MALL AREA
Lt arrow	AIRPORT

- **Westbound on 4th Street approaching Sycamore St.:**

Straight arrow	4th STREET BUSINESS AREA
Lt arrow	DOWNTOWN
Lt arrow	GOVERNMENT CENTER

- **Eastbound on 4th St. approaching Sycamore St.:**

Rt arrow	DOWNTOWN
Rt arrow	SOUTH LOCUST
Straight arrow	AIRPORT



## List of Destinations for Perimeter Signs

- **Westbound on Airport Rd.  
approaching Broadwell Ave.:**

Lt arrow	DOWNTOWN
Straight arrow	MALL AREA
- **Westbound on Airport Rd approaching  
Sky Park Rd.:**

Straight arrow	DOWNTOWN GRAND ISLAND
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- **Southbound on Sky Park Rd.  
approaching Airport Rd.:**

Rt arrow	STUHR MUSEUM
Rt arrow	CCC/COLLEGE PARK
Rt arrow	HWY 281

OR

Straight arrow	DOWNTOWN
Rt arrow	MALL AREA
Rt arrow	HWY 281
- **Southbound on Sky Park Rd.  
approaching Capital Ave.:**

Straight arrow	DOWNTOWN
Straight arrow	SOUTH LOCUST
Rt arrow	MALL AREA

## Next Steps

- Staff will prepare plans and specifications  
for the 1<sup>st</sup> Phase of Wayfinding Signs
- Open Bids this Summer
- Install this Fall
- Next Phase in 2004?



# City of Grand Island

Tuesday, July 01, 2003

Study Session

## Item -4

### **Discussion Concerning Advance Warning on US Highway 281 for Signalized Intersections**

*When drivers enter a community, they expect to be stopped by a traffic signal. Sometimes drivers fail to see the first signal. In urban areas, the pedestrian signal will flash "Don't Walk" prior to a signal change. Many motorists use this "Don't Walk" signal to anticipate the need to stop. The City of Grand Island has worked with the Nebraska Department of Roads to add flashing yellow lights and signs to warn motorists that a signal is red or going to turn red. The flashing yellow lights and signs are in place at intersections on the perimeter of the City. The Transportation Subcommittee of the Comprehensive Plan recommended adding flashing yellow advance signal lights where speeds are at or above 45 MPH approaching a signalized intersection. Two alternatives for improvements are available. The first is re-working the current pedestrian signals for auto recall. This allows the flashing "Don't Walk" to warn the motorist of the impending signal change. The cost for this change is minimal. The second alternative is proceeding with installation of lights and signs at designated intersections. The estimated cost for one set of flashing signals and signs is \$15,000 per direction on a multi-lane roadway like US Highway 281.*

Staff Contact: Steve Riehle, City Engineer/Public Works Director



## Advance Warning on US Highway 281 for Signalized Intersections

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## Entering a Community

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- ❑ When drivers enter a community, they expect to be stopped by a traffic signal
- ❑ The first signal encountered is sometimes not seen

## Don't Walk

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- ❑ In urban areas, the pedestrian signal will flash “Don't Walk” prior to a signal change
- ❑ Motorists use the “Don't Walk” to anticipate the need to stop

## Signals on the Edge of the Community

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The City has worked with the Nebraska Department of Roads to add flashing yellow lights and signs to warn motorists when the signal is red or going to change to red





## Existing Locations

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- The flashing yellow lights and signs are in place at the following intersections:
  - Southbound US Highway 281 at Capital Ave
  - Northbound and Southbound US Highway 281 at Stolley Park Road
  - Northbound US Highway 281/34 and Husker Highway
  - Northbound Locust at US Highway 34
  - Eastbound and Westbound US Highway 34 at Locust Street
  - All approaches to the intersection of US Highway 281 with Broadwell/Airport Road



## Transportation Subcommittee, Comprehensive Plan

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The Transportation Subcommittee recommended adding Flashing Yellow Advance signal lights where speeds are over 45 MPH approaching signalized intersections

## Additional Intersections

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- These intersections could be considered for installation:
  - Southbound US Highway 281 at Old Potash Highway
  - Northbound and Southbound US Highway 281 at Faidley Avenue
  - Northbound and Southbound US Highway 281 at 13<sup>th</sup> Street
  - Northbound at US Highway 281 at Capital Avenue

## Considerations

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### Alternatives:

- Re-work the current pedestrian signals for auto recall. This allows the flashing “Don’t Walk” to warn the motorist of the impending signal change. The cost for this change is minimal.
- Proceed with installation of lights and signs at designated intersections. The estimated cost for one set of flashing signals and signs is \$15,000 per direction on a multi-lane roadway like US Highway 281



# City of Grand Island

Tuesday, July 01, 2003

Study Session

## Item -5

### Discussion Concerning Parking in Front Yards

*The City Council previously expressed interest in developing an ordinance to deal with the problem of people parking in their front yards. The proposed ordinance deals directly with this problem as a parking restriction without revising the zoning ordinances. The interaction between the zoning ordinance and the new parking ordinance is in relation to the zoning code's restriction on the location of driveways and improved parking areas in the front yard of a premises. An ordinance of this type presents drafting challenges to try and make provisions that will work for the entire community and be enforceable.*

#### *Front Yard Parking*

*It shall be unlawful for anyone to park a vehicle on any unimproved area of a front yard of any property in of the City of Grand Island. For the purposes of this ordinance, unimproved shall mean any area that has not been improved with concrete, asphalt, brick, stone, gravel or crushed rock. No front yard area shall be improved for parking after 2003 unless it meets all of the requirement of the Grand Island City Code for off-street parking, including, but not limited to, the provisions of Section 36-48.*

Staff Contact: Doug Walker