



# Infrastructure Services

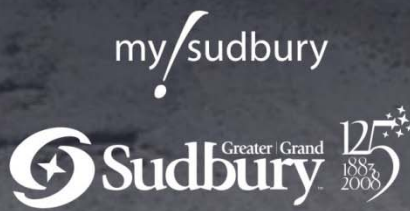
## Pothole Patching – Current Practices

**Presented by:** Robert M. Falcioni, P. Eng.,  
Director of Roads and Transportation.

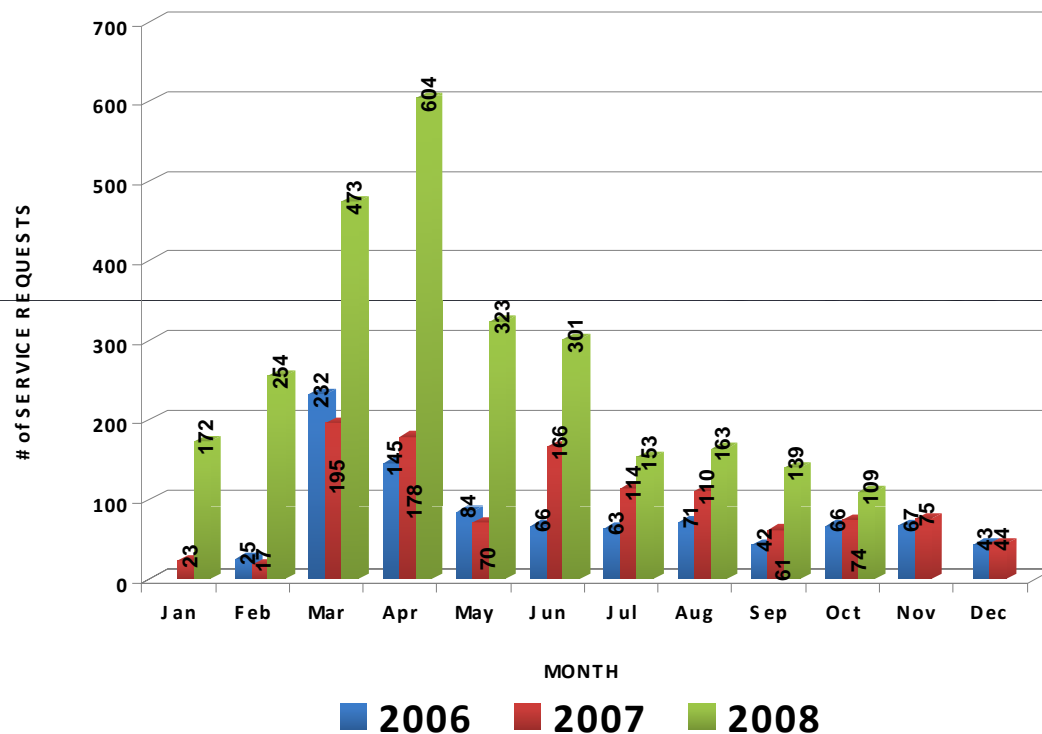
**Date:** November 19, 2008

my/sudbury

Greater | Grand  
**Sudbury**  
125  
1883  
2008



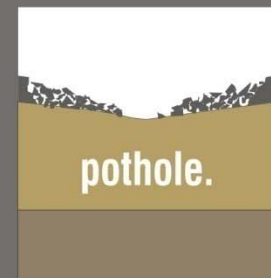
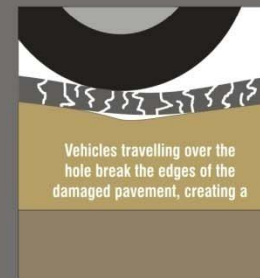
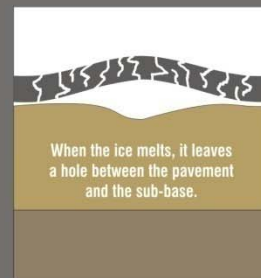
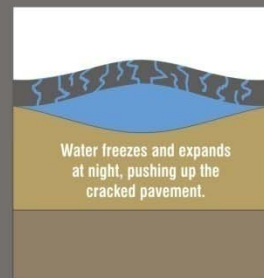
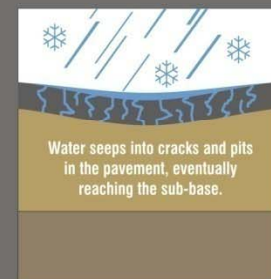
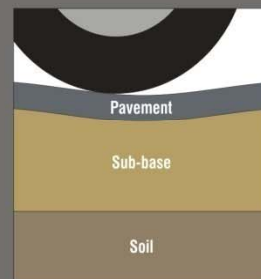
# Pothole Analysis Report – 311 Calls



- Increase in calls largely attributable to better 311 tracking
- Increased potholes the Spring of 2008

# Potholes

## How Potholes Form



- Aging Infrastructure
- Fluctuating Temperatures
- Increase in Potholes

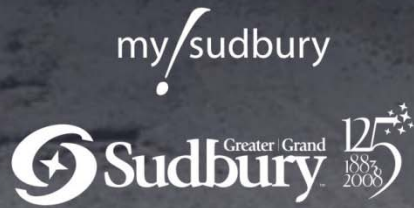




# Methods of Fixing Potholes

- Temporary Repairs
  - Conventional Patching
  - Cold Mix/UPM Patching/Hot Mix
- Permanent Repairs
  - Contract Grind and Pave
  - City Grind and Pave
  - Surface Treatment (Tar & Chip)
  - “Road Patcher” – Spray Patcher Demo

# Temporary Repairs Conventional Patching



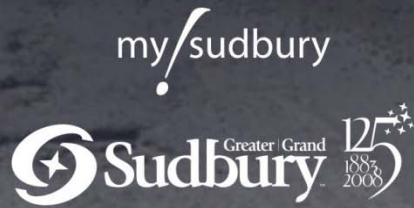
- Clean/Preparing Hole
- Feeding of Hot Mix from Hot Box





# Temporary Repairs

## Conventional Patching



- Placing and Leveling Repair Material
- Tamping and Compacting



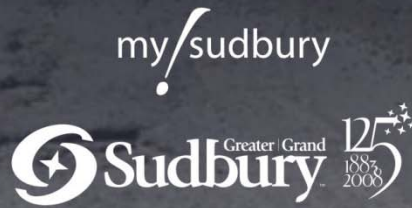
## Temporary Repairs Cold Mix



- Cold Mix Stock Piles, Frobisher Depot
- Cold Mix remains pliable in cold weather

Pothole Repair Material	2007 Quantity	2008 Quantity (as of October 30)
<b>Cold Mix</b> (Typical for Winter Use)	<b>1,531 MT</b>	<b>2,558 MT</b>





## Temporary Repairs Hot Mix

- Better product than Coldmix
- Commercial Sources for Summer Operations
- City Hot Mix Recycler Capable of Producing 2 MT/Hr
- Capable of working through the winter



Pothole Repair Material	2007 Quantity	2008 Quantity (as of October 30)
Recycled Asphalt (Typical for Winter Use)	743 MT	826 MT



# Temporary Repairs Hot Mix

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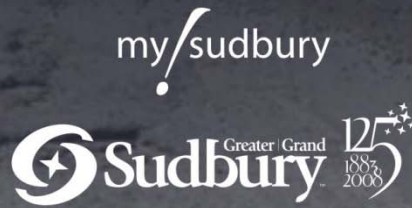
Pothole Patrol  
Hot Box

Utilized by City Crews in  
the Winter



# Temporary Repairs

## Hot Mix - Mobile Asphalt Recycler

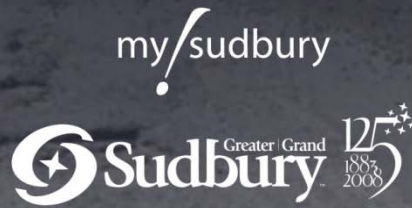


- Purchased second unit in 2008
- The unit is a trailer mounted mobile unit
- Anticipated to improve productivity
- Capacity of 1 MT/hr



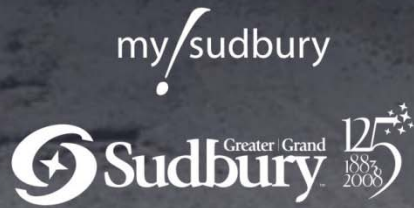


# Permanent Repairs Grind and Pave

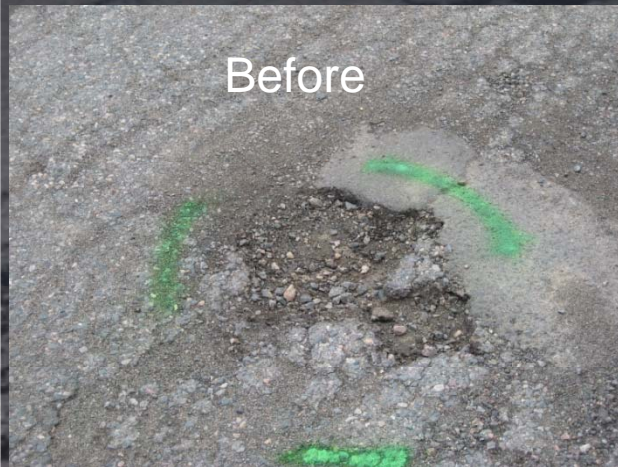


Pothole Repair Material	2007 Quantity	2008 Quantity (as of October 30)
Hotmix (Typical for Summer Use)	2,193 MT	2,864 MT

# Permanent Repairs Hand Placed Surface Treatment Unit



Currently utilized in the South West Section – Trial Period





# Permanent Repairs

## Road Patcher – Spray Patcher



Road Patcher



Dura Patcher

### Pros

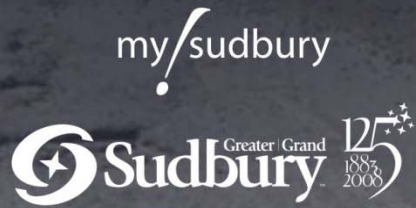
- Testimonials - patches last upward of 7yrs
- One man operation on minor Highways
- Can be used “non stop” in the summer
- Works well on asphalt, concrete and surface treated roads

### Cons

- Does not work well in cold wet conditions – utilization limited
- Sensitivity exists when mixing emulsion and aggregate
- Limited quantity in truck box – 5MT of aggregate per load
- Material is more expensive than hotmix



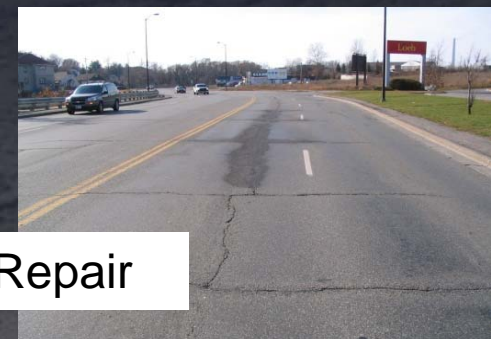
# Permanent Repairs



Overlay Repair



Crack Repair



Pothole Repair



11/12/2008



# Where Do We Go from Here



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- Permanently implement Grind and Pave
- Purchase new MT mounted grinders
- City wide distribution of Recycled Asphalt Plants
- Monitor durability of “Road Patcher” work
- Continue Research