

# Transportation Topics Related to Heavy Industry



State laws give local government the authority to adopt certain regulations pertaining to road use.

# Goal

## Protecting Municipal Infrastructure

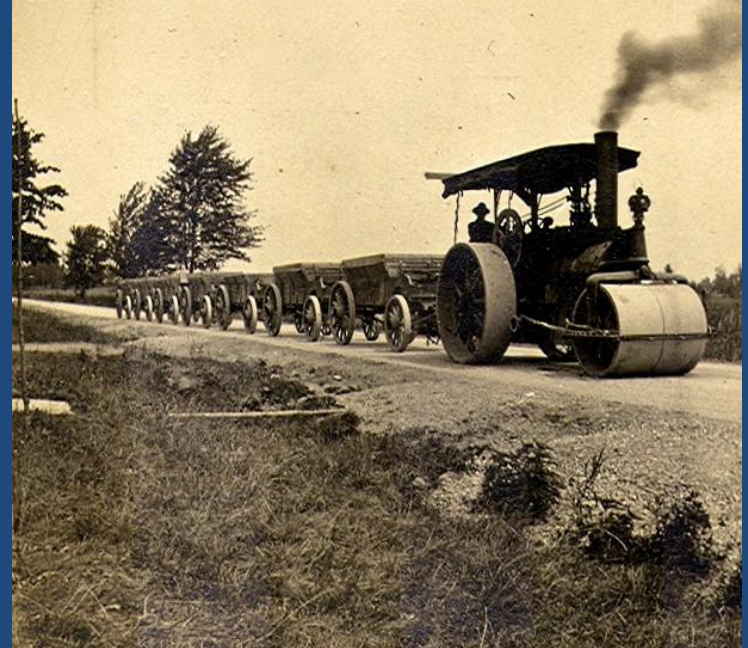
This presentation will describe strategies towns may employ to protect roads from the damaging effects of heavy industry.



# WHY?

\$50-100k per mile... road reconstruction... 100k plus!

- Greater than 70% of rural municipal budgets are road related



For the City of Oneonta, that's a 2.5% tax increase per mile...

What is it in your municipality and what are you willing to pay?

# Overview

- Road Structures and Differences
- Municipal Options and Components of Legislation
- Considerations and Local Experiences



# Roads

Some were planned and planned well,  
some weren't...



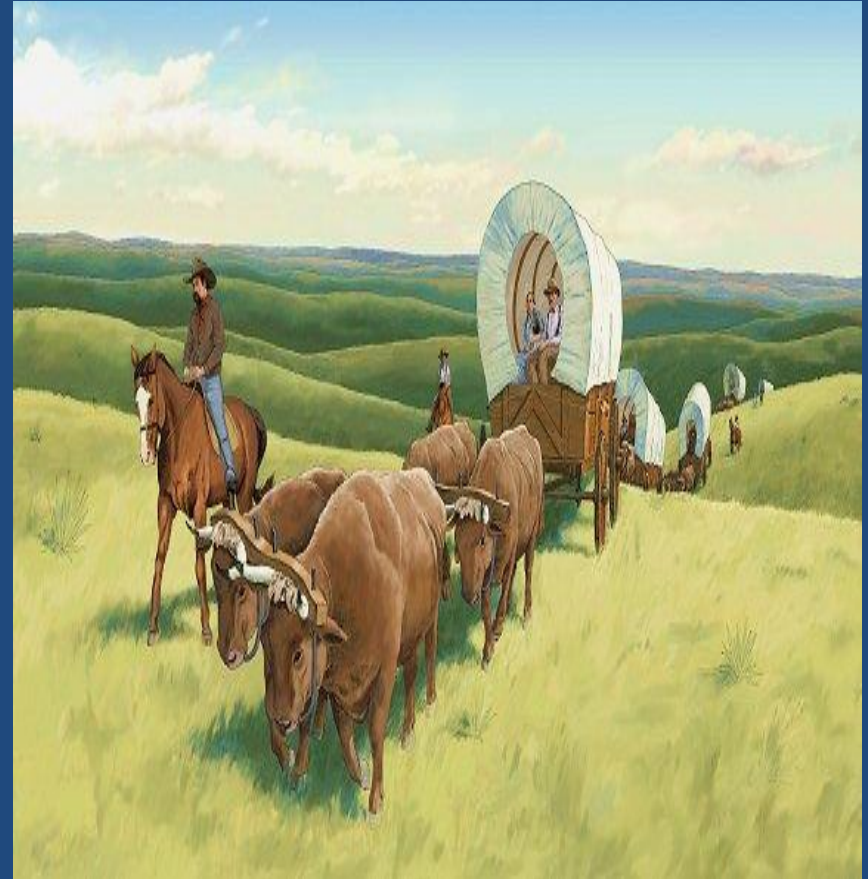
# Road Structures and Differences

Footpaths...

Wagon trails...

Light vehicle...

and today...



A road is only as good as its base - its foundation and what it was built for. Every road meets a specific need.



World War II U.S. tank buried under French road

# Road Structures and Differences

**ROADWAY  
VULNERABILITY**

**STATE  
ROADS**

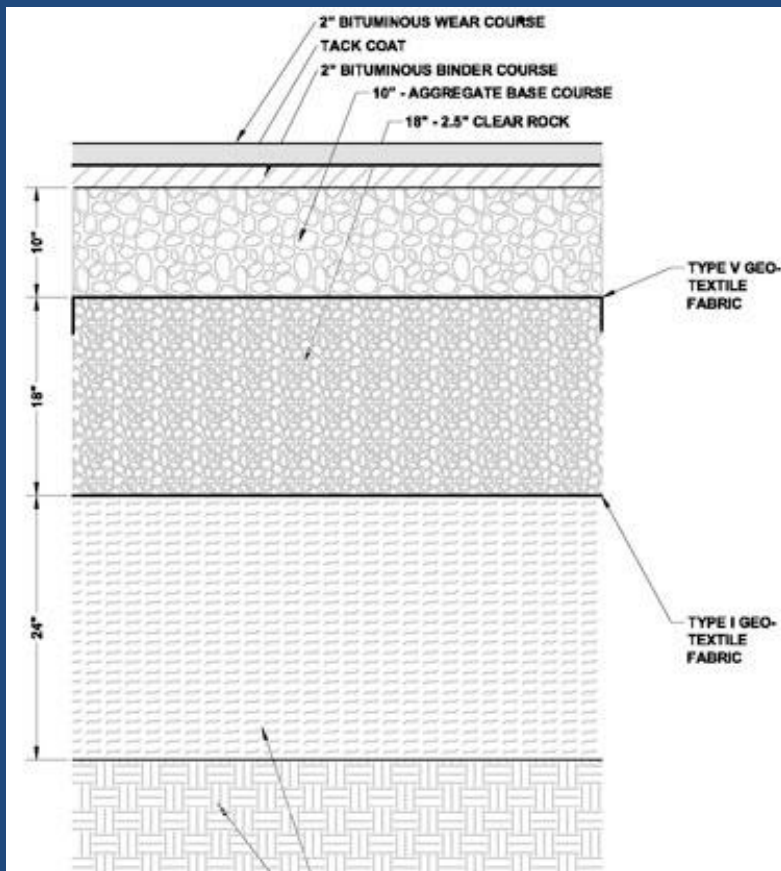
**COUNTY  
ROADS**

**LOCAL ROADS**

75% of Roads are County and Local, 20% State, 5% Federal

# Million Dollar Question...

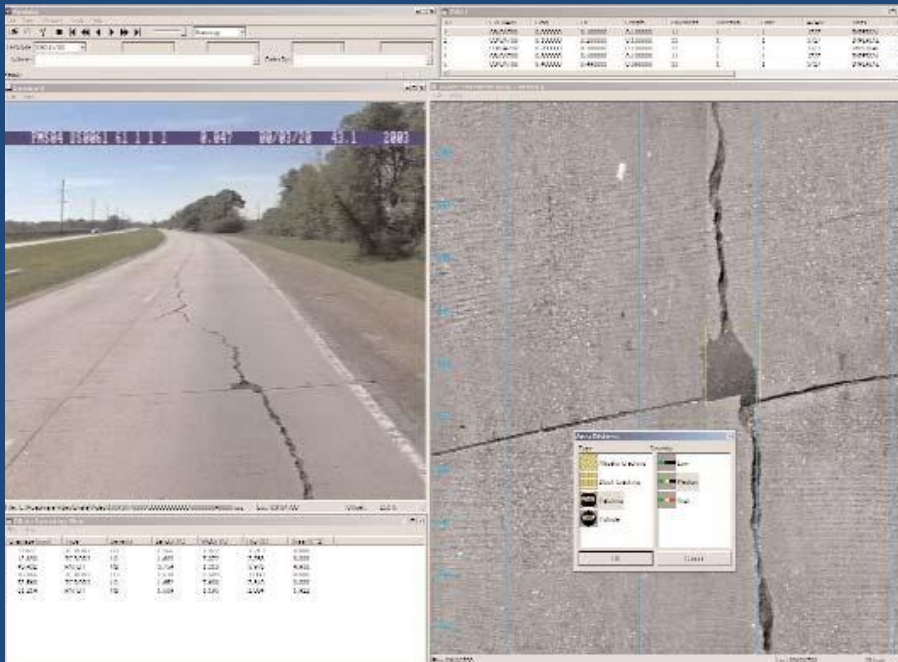
What do you have and what was it built for?



# Inventorying Roads

Some items that can be looked at:

- Longitudinal profile (roughness)
- Transverse profile (rutting)
- Pavement distress (cracking, potholes)
- Video log of existing roadway conditions



# Where To Go?

## Cornell Local Roads Program:

The Cornell Local Roads Program provides training and assistance to municipal officials and highway superintendents

[www.clrp.cornell.edu](http://www.clrp.cornell.edu)

607-255-8033

# Heavy Industry Vehicles and Their Weights

It's more than simply vehicular weights we need to be concerned with...

It's trips, repetition, frequency and the actual wear and tear on our roadways.

# CATSKILL AQUEDUCT LOADING RESTRICTIONS STANDARD TRUCKS

	TYPE	GVWR <sup>(1)</sup> (LBS)	ALLOWED	W/ TIMBER <sup>(3)</sup> MAT
	TYPE 3 UNIT	50,000	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 19 FT				
	HS-15	54,000	✓	✓
	HS-25	90,000	✗	✓
<sup>(4)</sup> APPROX. LENGTH = 44 FT				
	TYPE 3-S2	72,000	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 41 FT				
	TYPE 3-3	80,000	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 54 FT				
	7 AXLE DOUBLE	109,000	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 101 FT				
	9 AXLE TURNPIKE DOUBLE	128,000	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 112 FT				

\* NOTES:  
1. LENGTHS GIVEN ARE FOR SELECT VEHICLES  
VEHICLES ARE NOT TO SCALE  
2. GVWR - GROSS VEHICLE WEIGHT RATING  
3. WITH 3FT THICKNESS OF GRAVEL AND  
12" X 12" TIMBER MAT, 10 FT LONG




# CATSKILL AQUEDUCT LOADING RESTRICTIONS SPECIALTY VEHICLES

	TYPE	GVWR <sup>(1)</sup> (LBS)	ALLOWED	W/ TIMBER <sup>(3)</sup> MAT
	FIRE TRUCK	56,500	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 30 FT				
	OIL TRUCK	60,600	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 28 FT				
	GARBAGE TRUCK	72,000	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 32 FT				
	CONCRETE MIXER	100,000	✗	✓
<sup>(4)</sup> APPROX. LENGTH = 18.5 FT				
	OIL TRACTOR TRAILER	120,000	✓	✓
<sup>(4)</sup> APPROX. LENGTH = 58 FT				

\* NOTES:  
1. LENGTHS GIVEN ARE FOR SELECT VEHICLES  
VEHICLES ARE NOT TO SCALE  
2. GVWR - GROSS VEHICLE WEIGHT RATING  
3. WITH 3FT THICKNESS OF GRAVEL AND  
12" X 12" TIMBER MAT, 10 FT LONG



# CATSKILL AQUEDUCT LOADING RESTRICTIONS CONSTRUCTION VEHICLES

	TYPE		GVWR <sup>(2)</sup> (LBS)	ALLOWED	W/ TIMBER <sup>(3)</sup> MAT
	WHEEL LOADER	904B	9,800	✓	✓
		966H	52,300	✗	✗
		988H	111,500	✗	✗
		994F	430,900	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 30 FT					
	TRACK LOADER (TRACK)	939C	20,900	✓	✓
		973C	58,100	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 24 FT					
	BACKHOE LOADER		27,100	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 26 FT					
	LOG SKIDDER	WHEEL	39,800	✓	✓
		TRACK	47,300	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 25 FT					
	WHEEL DOZER	814F	47,900	✓	✓
		834H	103,800	✗	✗
		854G	219,100	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 20 FT					
	ARTICULATED TRUCK	725 (E) <sup>(4)</sup>	49,500	✓	✓
		740 (E)	73,000	✗	✗
		725 (L) <sup>(4)</sup>	101,000	✓	✓
		740 (L)	157,000	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 23 FT					
	OFF HIGHWAY TRUCK	770 (E) <sup>(4)</sup>	76,000	✗	✓
		777F (E)	145,000	✗	✗
		770 (L) <sup>(4)</sup>	157,000	✗	✗
		777F (L)	360,000	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 36 FT					









<sup>(1)</sup> NOTES:  
1. LENGTHS GIVEN ARE FOR SELECT VEHICLES  
VEHICLES ARE NOT TO SCALE  
2. GVWR - GROSS VEHICLE WEIGHT RATING  
3. WITH 3FT THICKNESS OF GRAVEL AND  
12" X 12" TIMBER MAT, 18 FT LONG  
4. E = EMPTY, L = LOADED

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# CATSKILL AQUEDUCT LOADING RESTRICTIONS DRILLING RIGS

	TYPE	GVWR <sup>(2)</sup> (LBS)	ALLOWED	W/ TIMBER <sup>(3)</sup> MAT
	SURFACE CRAWLER TRACK	38,200	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 40 FT				
	FACE DRILLING RIG	39,200	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 46 FT				
	HAMMER RIG	39,300	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 36 FT				
	BLAST HOLE DRILL TRUCK	58,000	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 35 FT				
	TRUCK AUGER DRILL	112,000	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 18 FT				
	BLAST HOLE DRILL TRACK	230,000	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 66.5 FT				

<sup>(1)</sup> NOTES:  
1. LENGTHS GIVEN ARE FOR SELECT VEHICLES  
VEHICLES ARE NOT TO SCALE  
2. GVWR - GROSS VEHICLE WEIGHT RATING  
3. WITH 3FT THICKNESS OF GRAVEL AND  
12" X 12" TIMBER MAT, 18 FT LONG





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# CATSKILL AQUEDUCT LOADING RESTRICTIONS

## TRUCK CRANES

	TYPE	GVWR <sup>(1)</sup> (LBS)	ALLOWED	W/ TIMBER <sup>(3)</sup> MAT
	2 AXLE TRUCK	49,000	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 28 FT				
	3 AXLE TRUCK	70,000	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 28 FT				
	4 AXLE TRUCK	106,000	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 33 FT				
	5 AXLE TRUCK	132,500	✓	✓
<sup>(1)</sup> APPROX. LENGTH = 47 FT				
	6 AXLE TRUCK	158,700	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 60 FT				
	8 AXLE TRUCK	212,000	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 64 FT				
	9 AXLE TRUCK	238,500	✗	✗
<sup>(1)</sup> APPROX. LENGTH = 68 FT				



- \* NOTES:  
 1. LENGTHS GIVEN ARE FOR SELECT VEHICLES  
 VEHICLES ARE NOT TO SCALE  
 2. GVWR - GROSS VEHICLE WEIGHT RATING  
 3. WITH 10" DEPTH THICKNESS OF GRAVEL AND  
 12" X 12" TIMBER MAT, 18 FT LONG

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**OCCA**  
 OTSEGO COUNTY CONSERVATION ASSOCIATION  
 Serving Otsego County since 1968

# Municipal Options

**Each and every local action should be based on empirical data!**

ECL §23-0303(2) provides that DEC's Oil, Gas and Solution Mining Law supersedes all local laws relating to the regulation of oil and gas development except for local government jurisdiction over local roads or the right to collect real property taxes. Likewise, ECL §23-1901(2) provides for supercedure of all other laws enacted by local governments or agencies concerning the imposition of a fee on activities regulated by Article 23.

# RUA's Come in Many Forms

They range from hard and fast regulations  
to loose voluntary agreements...

If you pass a local law or regulation, it will  
require effort:

- Baseline data
- Staffing to implement and enforce
- Frequent inspection

# Road Use Agreements (RUA's)

## SGEIS 8.1.1.5 Road Use Agreements (excerpt)

The Department strongly encourages operators to attain road use agreements with governing local authorities. The issuance of a permit to drill does not relieve the operator from responsibility to comply with any local requirements authorized by or enacted pursuant to the New York State Vehicle and Traffic Law. Though the Department does not have the authority to require, review or approve road use agreements or trucking plans, the proposed Supplementary Permit Conditions for High-Volume Hydraulic Fracturing require a road use agreement or trucking plan to be filed with the Department for informational purposes prior to site disturbance.



# What's in an RUA

- Application (what does it apply to...not industry specific)
- Permitting
- Bonding (\$ per mile)
- Seasonal restrictions (speed and weight)
- Traffic routing
- Road upgrade requirements (change of approach, widening, etc.)
- Damage determination (who and how... engineer, highway superintendent, other?)
- Dispute resolution (issue: multiple permittees)

# Tioga Natural Gas Task Force

## Developing a Uniform Municipal Road Use Agreement

- Designates routes
- FEMA/SEMO established rates for road materials and equipment
- General liability insurance required
- With or without arbitration
- 911 address for well pads
- Inter-municipal road agreement with county
- Bridge ratings (structural condition and weights)
- Major truck restrictions (three railroad underpasses)
- Encourage municipalities to adopt driveway permit (for notification)

# RUA's (cont.)

## Issues:

- Bonding-
  - Difficult to access when trying to prove damages
- Regulations can be a liability-
  - Need to be legally sound and defensible
  - Not industry specific
  - Related to road capacities
- Voluntary Agreements-
  - Largely based on goodwill



# Further Considerations

- **Coalition Approach**
  - Consideration of shared manager/enforcement - roads do not stop at municipal boundaries
  - Common regulations/requirements between municipalities
  - Uniformity for end users

# Otsego County Conservation Association

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