Better Decisions

With Big Picture Thinking

Strategic Planning Cycle

Customer price pressure

Labor Shortage!!

Mistakes & Carelessness

Competitor price pressure


HOW CAN WE DO MORE
WITH LESS?


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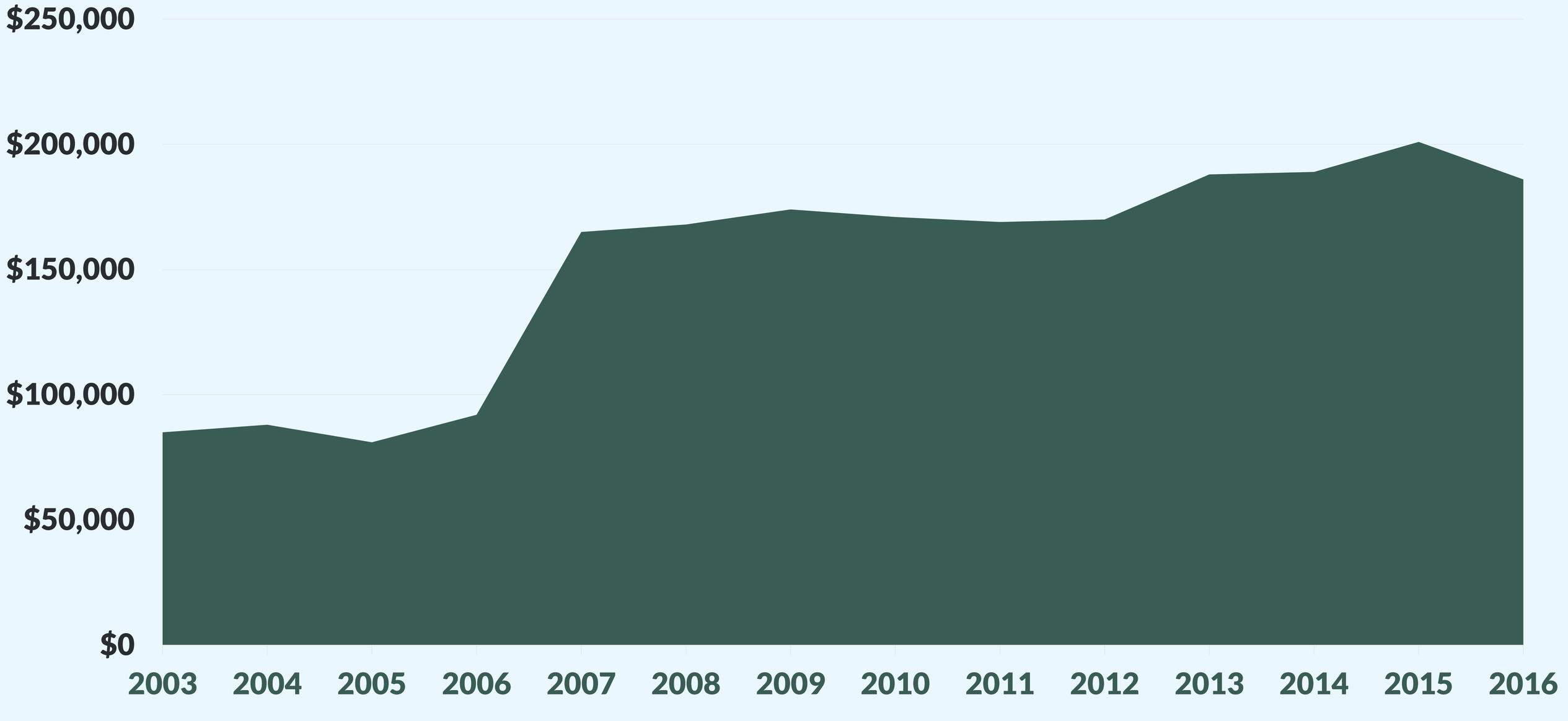
WE ARE TBG ENVIRONMENTAL
Environmental Construction | Site Development | Road Construction | Material Transport | Snow Plowing
WHAT WE DO

TBG’s Revenue Per Full Time Staff



Lessons Learned from the Bottles

1. We can get more with what we have
2. Good labor is our biggest bottleneck
3. The most important goal is company profit. Not:
    - Job Profit
    - Cost Savings

Measurements Gone Wrong

“Good Intentions” Measurement

- Revenue sold
- Gross Profit sold
- Equipment Jobcosting
- Net Profit on Estimates Sold
- Net Profit on Completed Work
- Time to get out of yard in the AM
- Speed

Potential Results

- Sell jobs too cheap!
- Sell jobs with lots of labor, less equip
- Reduce use of equipment to lower costs
- “Forget” to estimate key costs
- Forget to track materials
- Forgetting tools/materials
- Quality

PEOPLE WHO SAVE MONEY

PEOPLE WHO MAKE MONEY

Which Job Is Best for the Company?

	JOB A	JOB B	JOB C	JOB D
PRICE	$25,000	$25,000	$40,000	$10,000
LABOR	$8,750	$5,500	$12,500	$2,000
HOURS	350	220	500	80
EQUIP	$2,000	$5,000	$3,000	$1,000
MATERIALS	$1,500	$7,000	$8,500	$3,700
OVERHEAD	$6,250	$6,250	$10,000	$2,500
GROSS	$12,750 (51%)	$7,500 (30%)	$16,000 (40%)	3,300 (27%)
NET	$6,500 (26%)	$1,250 (5%)	$6,000 (15%)	$800 (8%)

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What If We Only Had 1 Crew?

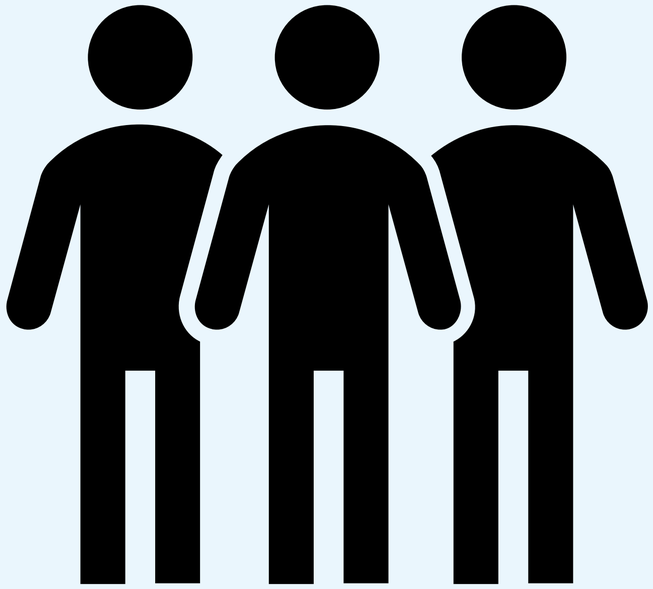
	JOB A	JOB B	JOB C	JOB D
Sales	$275K	$436K	$307K	$480K
Labor	$96K	$96K	$96K	$96K
Equip	$50K	$50K	$50K	$50K
Materials	$16K	$122K	$65K	$177K
Overhead	$100K	$100K	$100K	$100K

What If We Only Had 1 Crew?

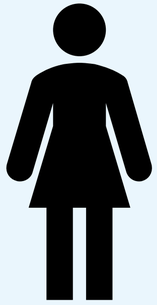
	JOB A	JOB B	JOB C	JOB D
JOB GROSS	*51%*	*30%*	*40%*	*27%*
JOB NET	*26%*	*5%*	*15%*	*8%*
SALES	$275K	$436K	$307K	$480K
YEAR GROSS	41%	39%	31%	33%
YEAR NET	4%	16%	-1%	12%

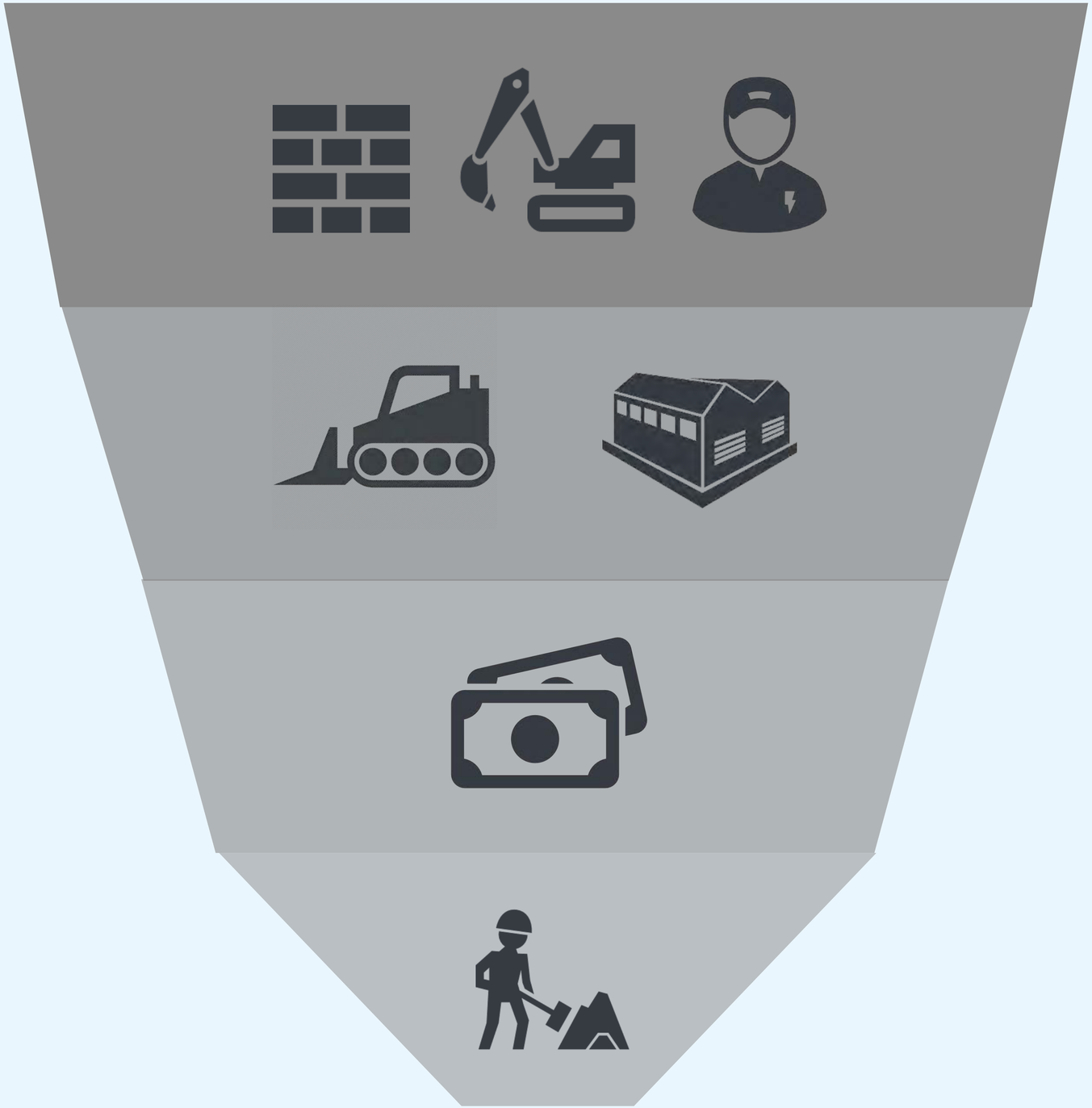
What Job is Really Best?

	JOB A	JOB B	JOB C	JOB D
Job Gross	*51%*	*30%*	*40%*	*27%*
Job Net	*26%*	*5%*	*15%*	*8%*
Sales	$275K	$436K	$307K	$480K
Year Gross	41%	39%	31%	33%
Year Net	4%	16%	-1%	12%
Gross $	$112K	$168K	$96K	$156K
Net $	$12K	$68K	-$4K	$56K



When we add people…
You also need to add more:





Our Bottlenecks

Traditional Thinking

Job Focused.

Maximize gross or net profit per job.

Big Picture Thinking

Company-focused

Maximize company profit.

Traditional Thinking

Limit wages to keep labor costs low.

- Hire cheap

Big Picture Thinking

Skilled labor is worth extra wages, if they improve productivity.

Should We Hire Expensive?

Assumes a higher paid foreman – laborers paid the same.

	$20/hr + 0%	$24/hr + 5%	$28/hr + 10%
Sales	$66.0K	$69.3K	$72.6K
Labor Costs	$9.9K	$10.8K	$11.6K
Equip Costs	$10.0K	$10.0K	$10.0K
Material Costs	$17.8K	$18.7K	$19.6K
Overhead Costs	$16.5K	$16.5K	$16.5K

How Would Throughput View Hiring?

Assumes a higher paid foreman – laborers paid the same.

	$20/hr + 0%	$24/hr + 5%	$28/hr + 10%
Sales	$66.0K	$69.3K	$72.6K
Labor Costs	$9.9K	$10.8K	$11.6K
Equip Costs	$10.0K	$10.0K	$10.0K
Material Costs	$17.8K	$18.7K	$19.6K
Overhead Costs	$16.5K	$16.5K	$16.5K
Net Profit	**$11.7K**	**$13.3K**	**$14.9K**

Lessons Learned from Higher Wages

1. Cheaper staff aren't necessarily more profitable
2. Small increases in wages can lead to big jumps in profits
3. Needed less middle management
4. Better staff
    - Take more responsibility (free up the owner!)
    - Supervise more carefully
    - Train better
    - Make better future managers

Traditional Thinking

We must reduce or eliminate overtime to improve profit.

Big Picture Thinking

Overtime *can be* profitable if it can generate more revenue.

Should We Work Overtime?

Assumes 15 person company at 100% productivity for all hours

	No Overtime	5 Hrs OT	10 Hrs OT
Sales	$66.0K	$74.3K	$82.5K
Labor Hours	600h	675h	750h
Labor Costs	$12.0K	$14.3K	$16.5K
Equip Costs	$10.0K	$10.0K	$10.0K
Material Costs	$17.8K	$20.0K	$22.3K
Overhead Costs	$16.5K	$16.5K	$16.5K

Should We Work Overtime?

Assumes 15 person company at 100% productivity for all hours

	No Overtime	5 Hrs OT	10 Hrs OT
Sales	$66.0K	$74.3K	$82.5K
Labor Hours	600h	675h	750h
Labor Costs	$12.0K	$14.3K	$16.5K
Equip Costs	$10.0K	$10.0K	$10.0K
Material Costs	$17.8K	$20.0K	$22.3K
Overhead Costs	$16.5K	$16.5K	$16.5K
Net Profit	$9.7K	$13.5K	$17.2K
Net Profit %	15%	18%	21%

Should We Work Overtime?

*Assumes 15 person company at **70% productivity** for overtime hours*

	No Overtime	5 Hrs OT	10 Hrs OT
Sales	$66.0K	$72.2K	$78.3K
Labor Hours	600h	675h	750h
Labor Costs	$12.0K	$14.3K	$16.5K
Equip Costs	$10.0K	$10.0K	$10.0K
Material Costs	$17.8K	$19.5K	$21.2K
Overhead Costs	$16.5K	$16.5K	$16.5K
Net Profit	$9.7K	$11.9K	$14.2K
Net Profit %	15%	17%	18%

Lessons Learned from Overtime

1. Overtime isn't as bad as we make it out to be… as long as its producing additional revenue

Traditional Thinking

Keeping equipment costs down improves net profit.

- *Less equipment*
- *No payments*

Big Picture Thinking

Makes it simple to calculate whether we should invest in equipment based on expected increase in productivity.

Machine cost assumptions:

Lease: $1,000/mo

Fuel + Operating : $300/mo

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Should We Invest In Equipment?

Assumes 1 crew month + machine @ $1000/mo lease + $300/mo fuel + maintenance

	No Equipment	Equip + 5% Productivity	Equip + 10% Productivity
Sales	$52.8K	$55.4K	$58.0K
Labor Costs	$9.6K	$9.6K	$9.6K
Equip Costs	$7.9K	$9.2K	$9.2K
Material Costs	$14.2K	$15.0K	$15.7K
Overhead Costs	$13.2K	$13.2K	$13.2K

Should We Invest In Equipment?

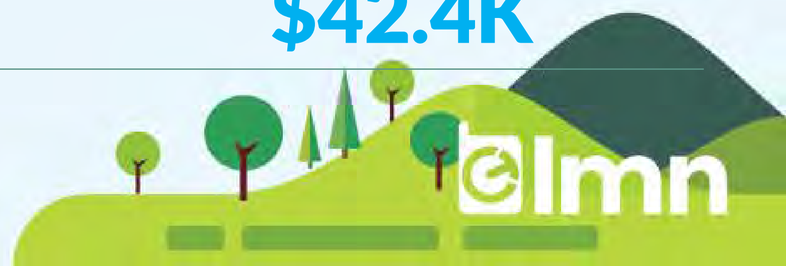
Assumes 1 crew month + machine @ $1000/mo lease + $300/mo fuel + maintenance

	No Equipment	Equip + 5% Productivity	Equip + 10% Productivity
Sales	$52.8K	$55.4K	$58.0K
Labor Costs	$9.6K	$9.6K	$9.6K
Equip Costs	$7.9K	$9.2K	$9.2K
Material Costs	$14.2K	$15.0K	$15.7K
Overhead Costs	$13.2K	$13.2K	$13.2K
Net Profit	$7.8K	$8.4K	$10.3K

How Would Throughput View Equipment?

Assumes 1 crew month + machine @ $1000/mo lease + $300/mo fuel + maintenance

	No Equipment	Equip + 5% Productivity	Equip + 10% Productivity
Sales	$52.8K	$55.4K	$58.0K
Labor Costs	$9.6K	$9.6K	$9.6K
Equip Costs	$7.9K	$9.2K	$9.2K
Material Costs	$14.2K	$15.0K	$15.7K
Overhead Costs	$13.2K	$13.2K	$13.2K
Net Profit	$7.8K	$8.4K	$10.3K
Throughput	$38.5K	$40.4K	$42.4K



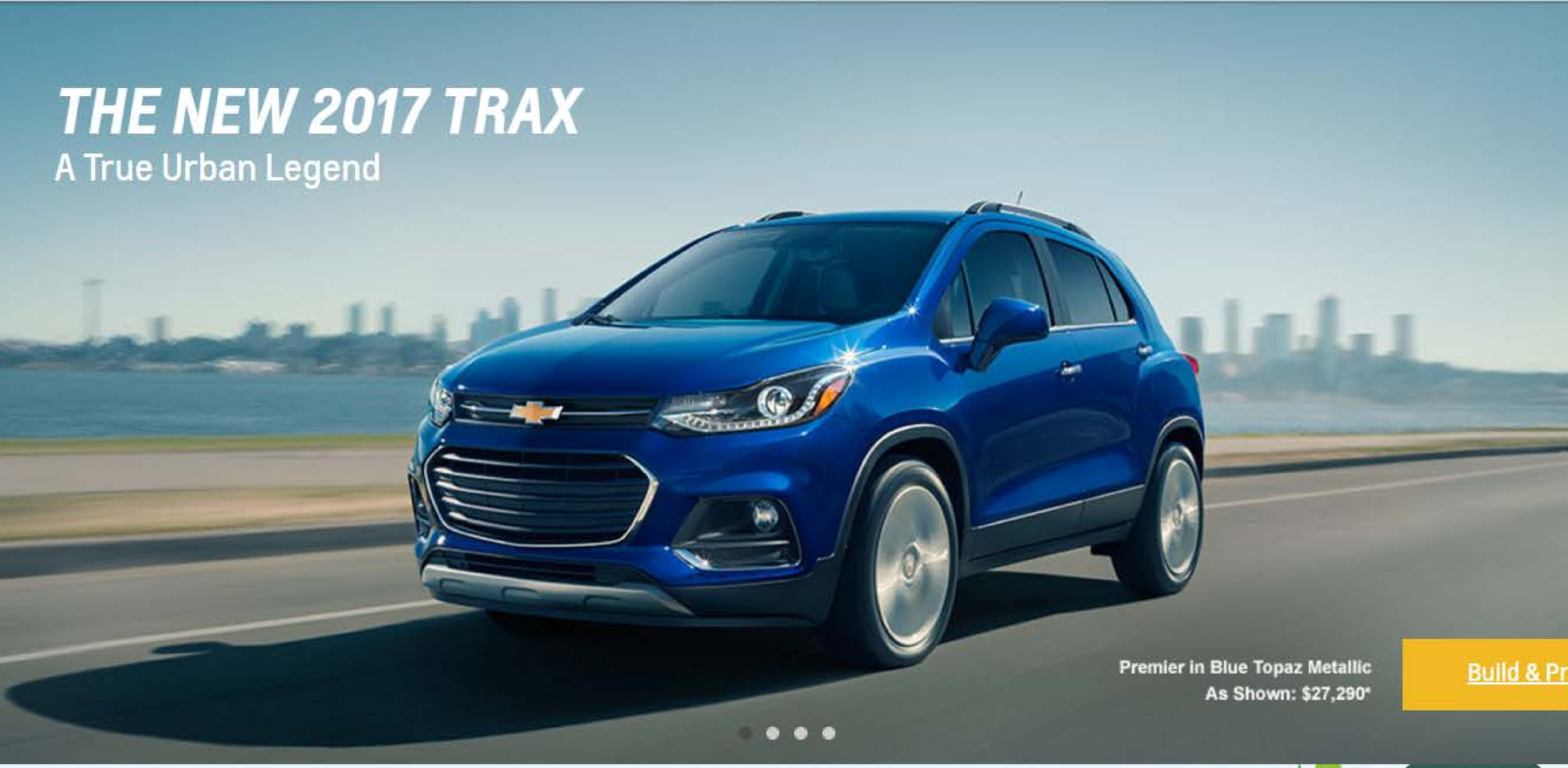
2.5%

If the machine drives an increase of 2.5% in productivity (sales), you should invest in the machine.

Lessons Learned from Equipment

1. Look at equipment not as a monthly expense but as a net gain
2. Payments are typically cheaper than old equipment that breaks down
3. You need good equipment to get the good jobs

Loading + Drivetime: A Daily Productivity Killer


THE NEW 2017 TRAX
A True Urban Legend
Premier in Blue Topaz Metallic
As Shown: $27,290*
Build & Pr

How To Handle Drivetime?

Assumes a 3 man crew @ 40hrs per month

	1.5 hrs/day Unbillable	0hrs Unbillable, Lease Cars
Sales	$42.9K	$52.8K
Labor Costs	$9.6K	$10.2K
Equip Costs	$6.4K	$7.1K
Material Costs	$11.6K	$14.3K
Overhead Costs	$10.7K	$10.7K

How To Handle Drivetime?

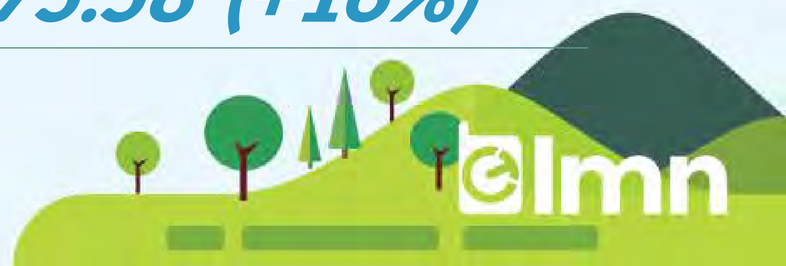
Assumes a 3 man crew @ 40hrs per month

	1.5 Hrs Unproductive Time	Leased Car
Sales	$42.9K	$52.8K
Labor Costs	$9.6K	$10.2K
Equip Costs	$6.4K	$7.1K
Material Costs	$11.6K	$14.3K
Overhead Costs	$10.7K	$10.7K
Net Profit	***$4.6K***	***$10.5K***

How To Handle Drivetime?

Assumes a 3 man crew @ 40hrs per month

	1.5 Hrs Unproductive Time	Leased Car
Sales	$42.9K	$52.8K
Labor Costs	$9.6K	$10.2K
Equip Costs	$6.4K	$7.1K
Material Costs	$11.6K	$14.3K
Overhead Costs	$10.7K	$10.7K
Net Profit	***$4.6K***	***$10.5K***
Throughput/Hr	***$65.24***	***$75.58 (+16%)***

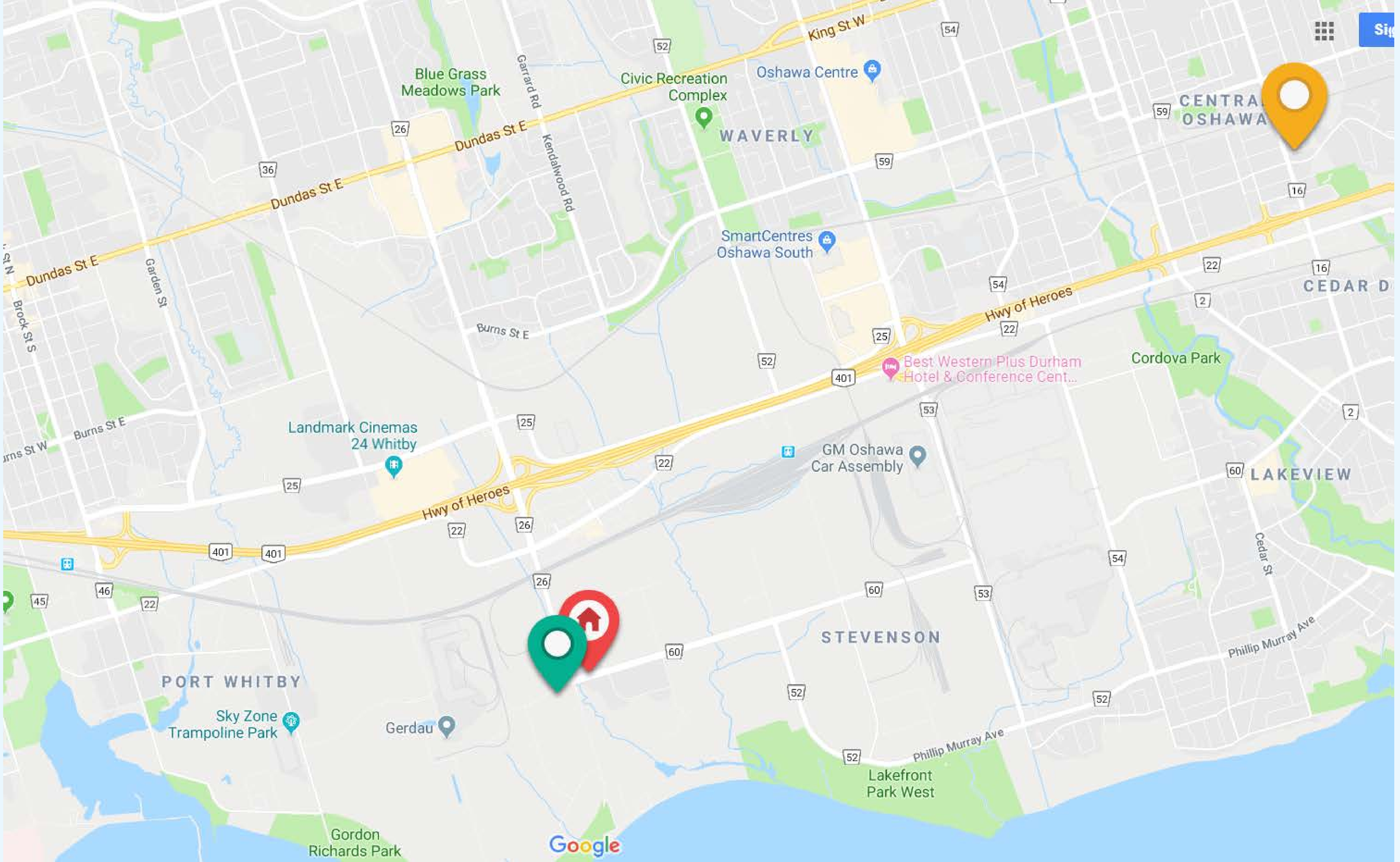


Lessons Learned from Loading/Driving

1. Fully-loaded, organized trailers
2. Load at night
3. Start earlier than competitors
4. Fuel at the shop
5. *If you can… start from site*

The Cost of Drivetime:

Profit Vs. Opportunity


King St W
Dundas St E
Dundas St E
Dundas St E
Blue Grass Meadows Park
Garrard Rd
Kendalwood Rd
Civic Recreation Complex
Oshawa Centre
WAVERLY
CENTRAL OSHAWA
SmartCentres Oshawa South
Hwy of Heroes
CEDAR D
Burns St E
Burns St E
Best Western Plus Durham Hotel & Conference Cent...
Cordova Park
Landmark Cinemas 24 Whitby
GM Oshawa Car Assembly
LAKEVIEW
Hwy of Heroes
STEVENSON
PORT WHITBY
Sky Zone Trampoline Park
Gerdau
Phillip Murray Ave
Lakefront Park West
Phillip Murray Ave
Gordon Richards Park
Google

Profit Margin vs. Drivetime

Assumes a 3 man crew on a 1 hr job

	Next Door	15 Min Drive
Job Price	**$135**	**$155**

Profit Margin vs. Drivetime

Assumes a 3 man crew on a 1 hr job

	Next Door	15 Min Drive
Job Price	$135	$155
Labor & Equip Costs	$80	$80
Overhead Costs	$40	$40
Net Profit	10%	23%

Profit Margin vs. Drivetime

Assumes a 3 man crew on a 1 hr job

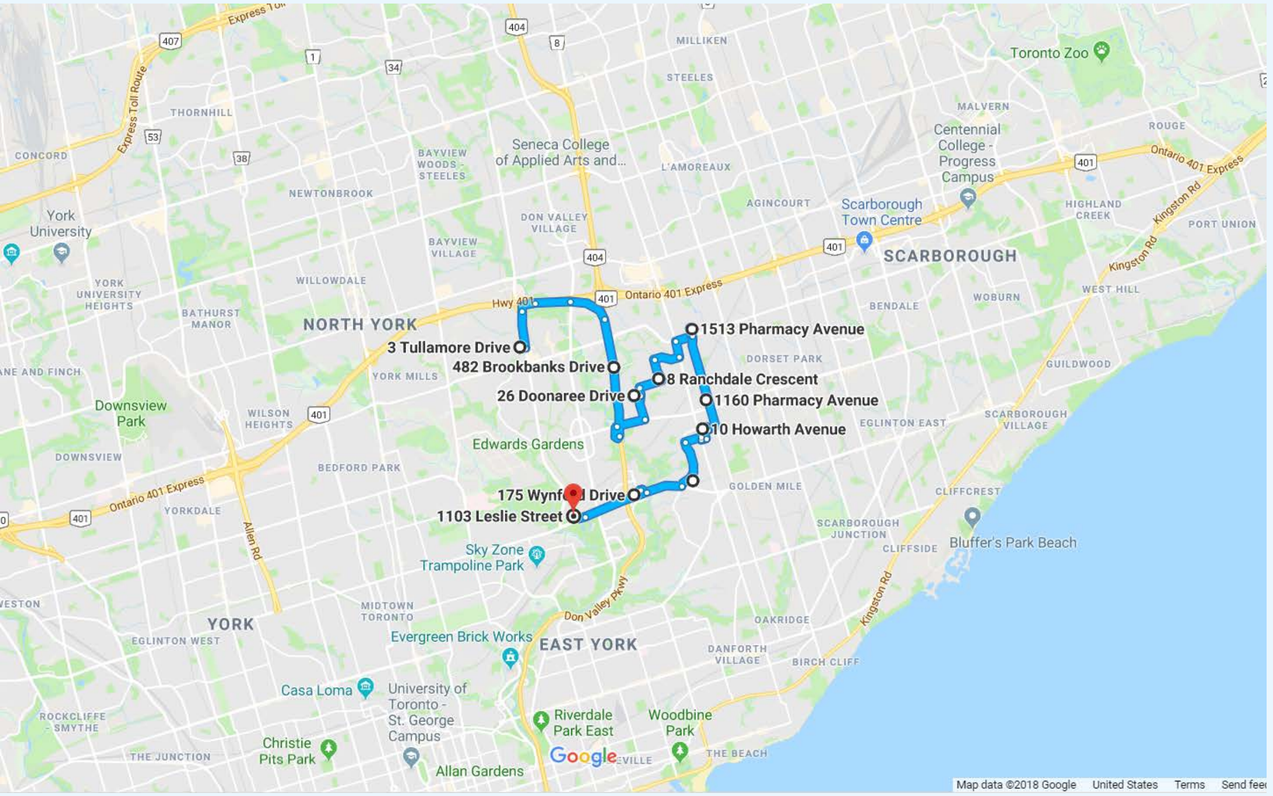
	Next Door	15 Min Drive
Job Price	$135	$155
Labor & Equip Costs	$80	$80
Overhead Costs	$40	$40
Net Profit	10%	23%
Lost Opportunity	0min : $0	15min : $35

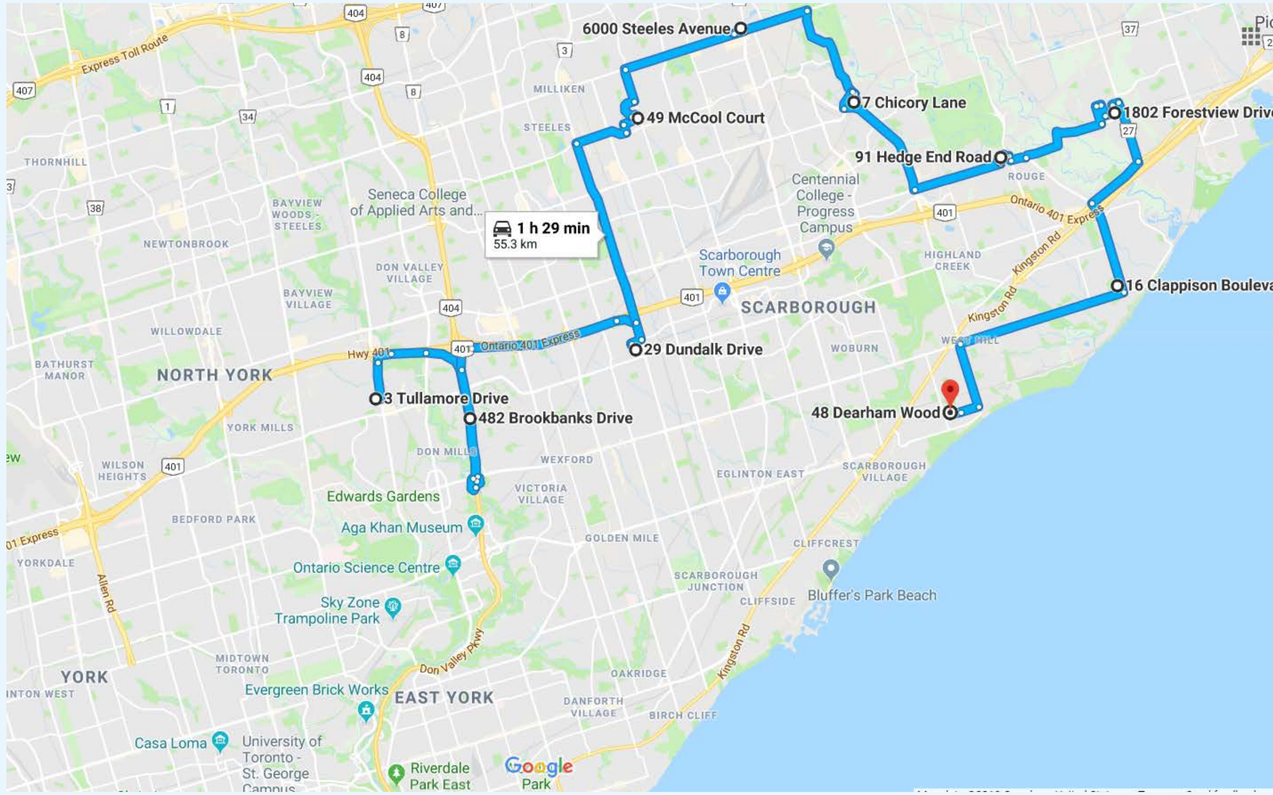
Profit Margin vs. Drivetime

Assumes a 3 man crew on a 1 hr job

	Next Door	15 Min Drive
Job Price	$135	$155
Labor & Equip Costs	$80	$80
Overhead Costs	$40	$40
Net Profit	10%	23%
Lost Opportunity	0min : $0	15min : $35
Adjusted Net Profit	10%	0%

Route (1h Drive) vs. Route (2h Drive)





Profit Margin vs. Drivetime

9 hr day with equal loading/unloading time

	.5 Hr Driving	1 Hr Driving	2 Hr Driving
Hourly Rate	$45/hr	$45/hr	$45/hr
Daily Revenue	$1,150	$1,080	$945
Labor & Equip Costs	$650	$650	$650
Overhead Costs	$350	$350	$350
Net Profit	13%	9%	-6%

Profit Margin vs. Drivetime

9 hr day with equal loading/unloading time

	.5 Hr Driving	1 Hr Driving	2 Hr Driving
Hourly Rate	**$45/hr**	**$45/hr**	**$45/hr**
Daily Revenue	**$1,150**	**$1,080**	**$945**
Net Profit	**13%**	**9%**	**-6%**
Rate Needed for 10% Profit	**$43.00**	**$46.00**	**$52.50**

A Whole Season of Driving

34 week season projections

	.5 Hr Driving	1 Hr Driving	2 Hr Driving
Sales	**$195,000**	**$183,000**	**$160,000**
Net Profit	**13%**	**9%**	**-6%**
Difference	**-**	**6% lower revenue**	**18% lower revenue**

Decisions This Can Impact

Type of Jobs

Large sites vs. small

Price of Jobs

Bid cheaper on jobs close to other jobs

Shop & Rent

Where is the best location for your shop?

Lessons Learned from Route Density

1. Adjust hourly rate based on job proximity
2. 1 4hr job is better than 4 x 1hr jobs
3. Bigger equipment wins bigger jobs
4. Plow Trucks have a lot of downtime

Cleanup
30min

Drive
10min

Plow + salt
30min

Shop
30min

Plow + salt
60min

Drive
10min

Drive
20min

Drive
10min

Drive
20min

Load salt
30min

Plow + salt
30min

Load salt
30min

Drive
10min

Drive
15min

Plow + salt
30min

Plow + salt
60min

Drive
10min

Drive
10min

Plow + salt
45min

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Trade 1 idea for 100…

Share your best idea(s) from last year that:

- **Increased revenue**
- **Reduced costs**
- **Increased productivity**