

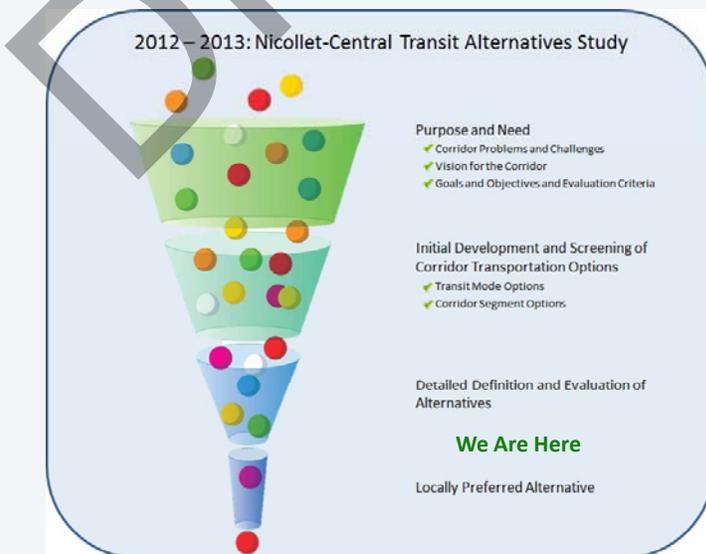
Nicollet-Central Transit Alternatives

Policy Advisory Committee Meeting #4 June 10, 2013



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Overview of Evaluation Process



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Alternatives for Detailed Evaluation

No Build
(existing bus)



Enhanced Bus
(9-mile)




Streetcar
(9-mile)




Streetcar
(Preliminary starter line)




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Enhanced Bus Differs from Arterial BRT

Enhanced Bus

- Short trips/local circulation
- Slower speed
- Frequent stops (~¼ mile)

Arterial BRT

- Long trips/regional nature
- Higher speed
- Limited stops (½ mile +)

...yet similar in these ways:

- Frequent service
- Reliable service
- Improved passenger experience



Evaluation Criteria

- 28 criteria organized around six goals in Purpose and Need:
 1. Connect People and Places
 2. Increase the Attractiveness of Transit
 3. Catalyze and Support Economic Development
 4. Integrate with the Transportation System
 5. Support Healthy Communities and Environmental Practices
 6. Develop an Implementable Project with Community Support
- For each measure alternatives ranked: BEST GOOD FAIR

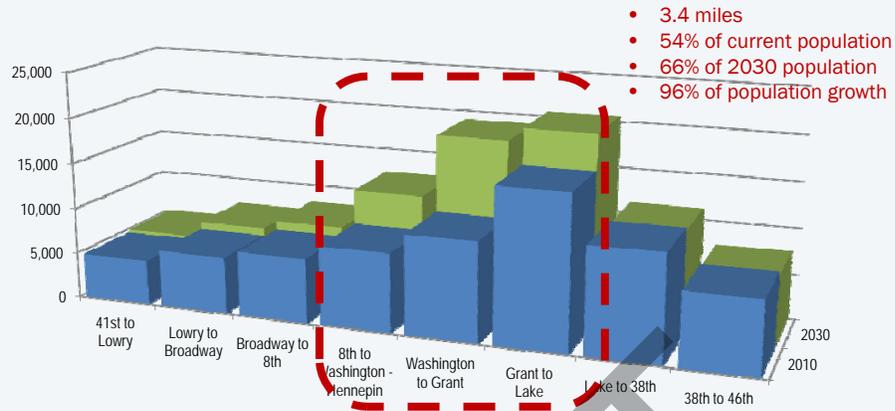


Goal 1 Rankings: Connect People and Places

Criteria	No Build	Enhanced Bus	Long Streetcar	Streetcar Starter Line
1.1 Population density served	GOOD	GOOD	GOOD	BEST
1.2 Employment density served	GOOD	GOOD	GOOD	BEST
1.3 Major activity centers served	BEST			
1.4 Transitway Connections	BEST	BEST	BEST	GOOD
1.5 Quality of pedestrian connections	GOOD	GOOD	GOOD	BEST
1.6 Quality of bicycle connections	GOOD	GOOD	GOOD	BEST
Overall	GOOD	GOOD	GOOD	BEST



1.1 2010 & 2030 Population Density Served by Study Alignment



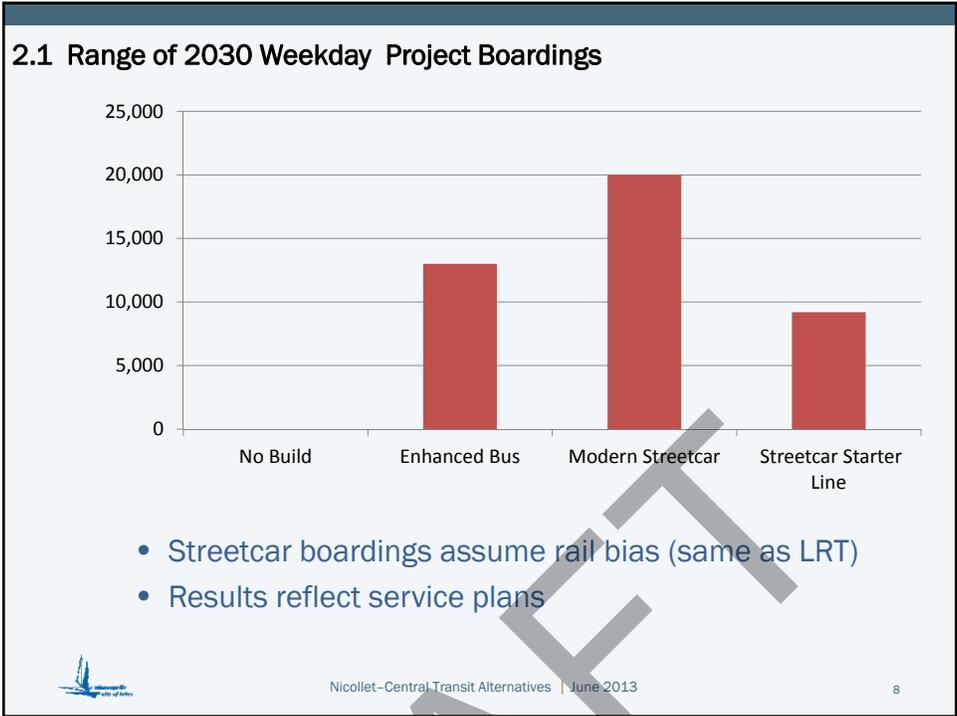
- Highest population densities currently between 8th and Lake
- Largest growth through 2030 is also between 8th and Lake



Goal 2 Rankings: Increase Attractiveness of Transit

Criteria	No Build	Enhanced Bus	Streetcar	Streetcar Starter Line
2.1 2030 ridership	N/A	13,000	20,000	9,000
Rating	N/A	GOOD	BEST	GOOD
2.2 Ability to accommodate growth	N/A	GOOD	FAIR	BEST
Overall	N/A	GOOD	GOOD	BEST



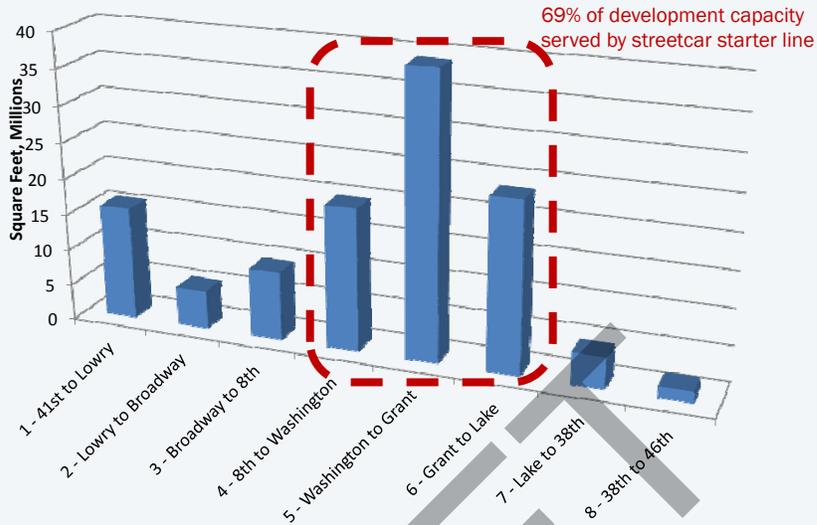


Goal 3 Rankings: Catalyze and Support Economic Development

Criteria	No Build	Enhanced Bus	Long Streetcar	Starter Streetcar Line
• Potential to spur development	FAIR	FAIR	BEST	BEST
• Development Capacity (area and value)	GOOD	GOOD	GOOD	BEST
Overall	FAIR	FAIR	GOOD	BEST

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3.1 Maximum Potential Development Capacity (SF based on zoning)

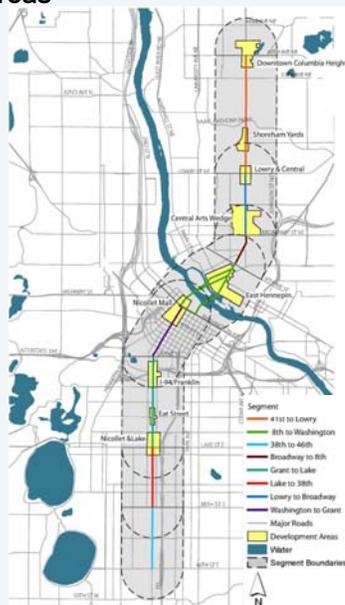
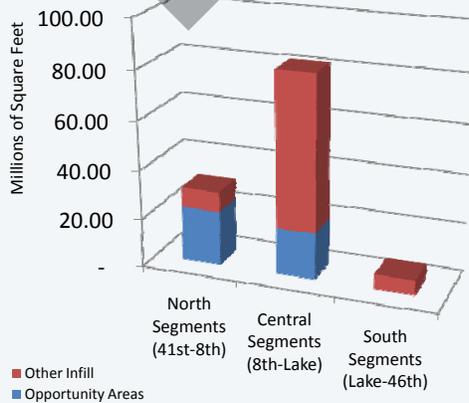


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Development Capacity – Major Opportunity Areas

- Nine opportunity sites representing large planned redevelopments, zones in transition, or vital activity centers are located along the corridor



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Goal 4 Rankings: Integrate with Existing Transit System

<u>Criteria</u>	<u>No Build</u>	<u>Enhanced Bus</u>	<u>Modern Streetcar</u>	<u>Streetcar Starter Line</u>
4.1 Boardings per vehicle revenue hour		To be determined		
4.2 O&M cost per boarding		To be determined		
4.3 Impact on corridor traffic	No significant difference between alternatives			
4.4 Impact on parking	No significant difference between alternatives			
4.5 Impact on freight railroads	No impacts	No impacts	Cost implications	No impacts
Overall	To be determined			



4.3 Potential Impacts on Corridor Traffic

- Number of transit vehicles in the corridor overall would not change significantly
- Enhanced Buses and Modern Streetcar will stop in the traffic lane
- But...
 - Decreased boarding times
 - Fewer stops
 - Transit signal priority



Goal 5 Rankings: Support Healthy Communities

Criteria	No Build	Enhanced Bus	Modern Streetcar	Streetcar Starter Line
5.1 Number of known historical, cultural and natural resources	No significant impacts identified			
5.2 Transit-reliant ridership	N/A	GOOD	GOOD	BEST
5.3 Benefits to low income, transit-reliant and minority populations	GOOD	GOOD	GOOD	BEST
5.4 Affordable housing served	GOOD	GOOD	GOOD	BEST
5.5 Environmental benefits	No significant difference between alternatives			
Overall	GOOD	GOOD	GOOD	BEST

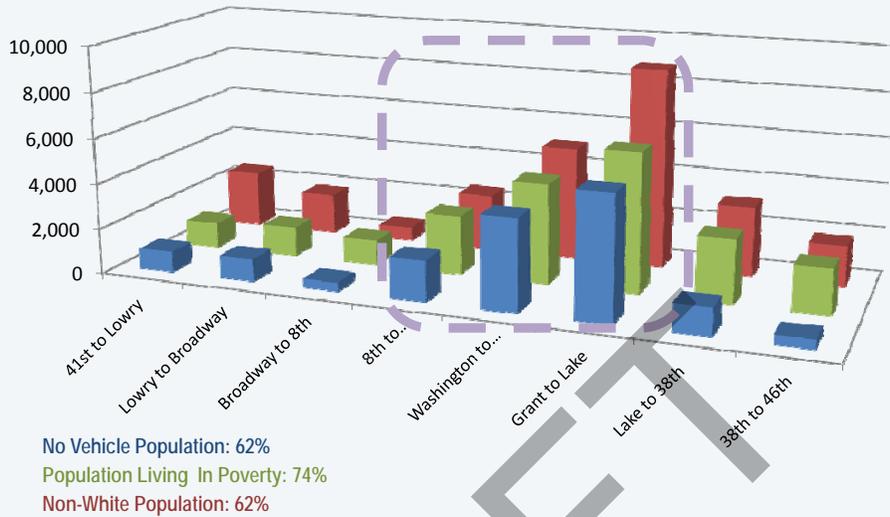


5.2 Transit-Reliant Ridership

Percent of Project Boardings by Transit-Reliant Population



5.3 Benefits to 2010 Minority and Transit-Reliant Populations



No Vehicle Population: 62%
 Population Living In Poverty: 74%
 Non-White Population: 62%

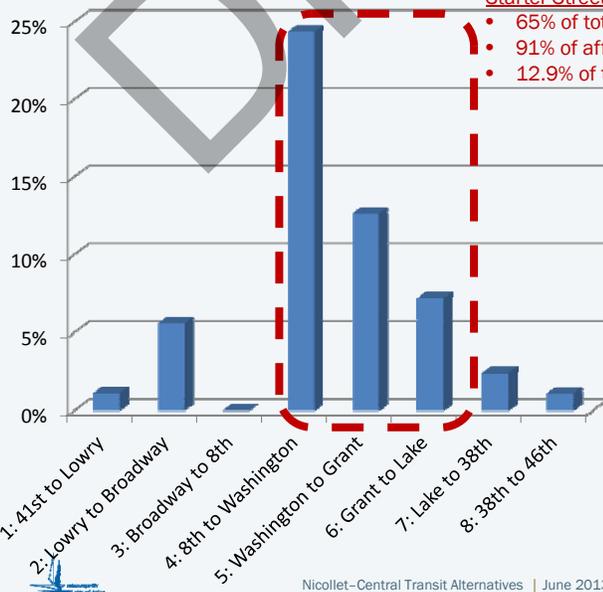


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5.4 Percent of Legally Binding Affordable Rental Housing Units

(within 1/2 mile)



Starter Streetcar Line:

- 65% of total housing units
- 91% of affordable housing units
- 12.9% of total units are affordable housing



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Goal 6 Rankings: Develop an Implementable Project with Community Support

Criteria	No Build	Enhanced Bus	Modern Streetcar	Streetcar Starter Line
6.1 Public sentiment	TBD; based on feedback from July 2013 open house meetings			
6.2 Business/developer sentiment	FAIR	FAIR	GOOD	BEST
6.3 Change in Annual O&M cost estimate relative to No Build (2013\$)	N/A	\$4.4 M	\$12.4 M	\$8.3 M
Ranking		BEST	FAIR	GOOD
6.4 Capital cost estimate (2013\$)	N/A	\$100-\$110M	\$400-\$450M	\$180-\$195M
Ranking		BEST	FAIR	GOOD
6.5 Cost-effectiveness	N/A	BEST	GOOD	GOOD
Overall (pending public input)	N/A	BEST	FAIR	GOOD

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6.3 Annual Operating and Maintenance (O&M) Costs

Service	No Build	Enhanced Bus (via Hennepin)	Modern Streetcar (via Hennepin)	Streetcar Starter (via Hennepin)
Modern Streetcar	\$ -	\$ -	\$20.1 million	\$10.6million
Enhanced Bus	\$ -	\$13.6 million	\$ -	\$ -
Supporting Bus Network (Corridor only)	\$18.9 million	\$9.7 million	\$11. 2million	\$16.6 million
Build Alternative Supporting Bus Savings	N/A	-\$9.2 million	-\$7.7 million	-\$2.3 million
Systemwide Change in O&M Costs	N/A	\$4.4 million	\$12.4 million	\$8.3 million
	N/A	BEST	FAIR	GOOD

* Approximately \$300,000-\$800,000 additional per year via Central

- Ratings are based on system-wide change in O&M cost
- No Build subject to change, based on ongoing review of demand and capacity
- System-wide change in O&M cost for each Build alternative are subject to change as it is calculated relative to the No-Build alternative

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6.4 Preliminary Range of Capital Cost Estimates

Year 2013 \$

Alternative	Enhanced Bus (9.2 miles)	Modern Streetcar (9.2 miles)	Modern Streetcar Starter (3.4 miles)
Total Cost	\$100-\$110 million	\$400-\$450 million	\$180-\$195 million
Cost/Mile	\$11-\$12 million	\$43-\$49 million	\$54-\$57 million

BEST

FAIR

GOOD

Year 2017 \$ (assumes 3% annual growth)

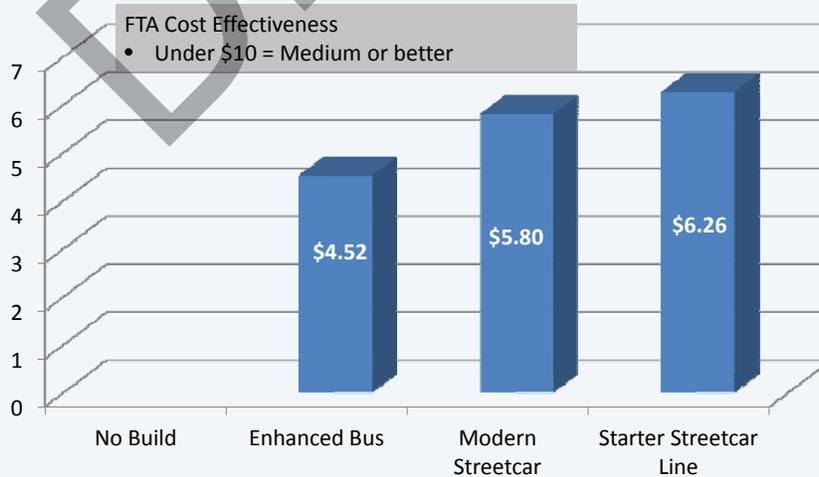
Alternative	Enhanced Bus (9.2 miles)	Modern Streetcar (9.2 miles)	Modern Streetcar Starter (3.4 miles)
Total Cost	\$114-\$124 million	\$450-\$507 million	\$200-\$220 million
Cost/Mile	\$12-\$13 million	\$48-\$55 million	\$60-\$65 million

*Cost estimates may be refined as allowances for bridge rehabilitation/reconstruction are adjusted



6.5 Cost-Effectiveness

Annualized Capital Cost + Annual O&M Cost per Rider



N/A

BEST

GOOD

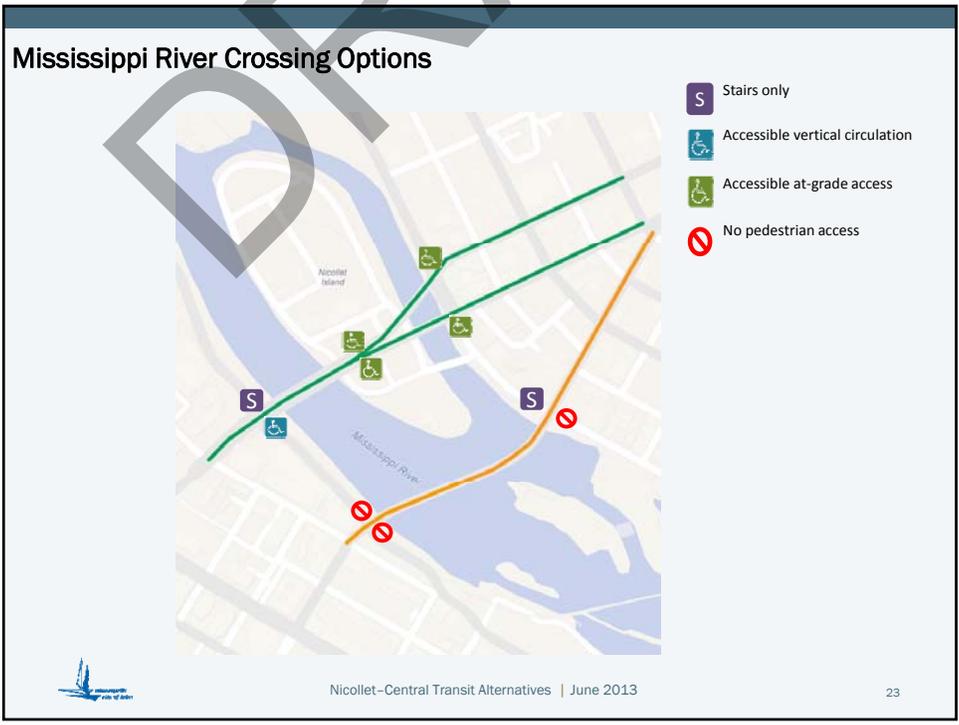
GOOD



Overall Summary

Goal	No Build	Enhanced Bus	Modern Streetcar	Streetcar Starter Line
1. Connect People and Places	GOOD	GOOD	GOOD	BEST
2. Increase the Attractiveness of Transit	N/A	GOOD	GOOD	BEST
3. Catalyze and Support Economic Development	FAIR	FAIR	GOOD	BEST
4. Integrate with the Transportation System	To be determined			
5. Support Healthy Communities and Environmental Practices	GOOD	GOOD	GOOD	BEST
6. Develop an Implementable Project with Community Support*	N/A	BEST	FAIR	GOOD
Overall (pending validation of results and public input)	GOOD	GOOD	GOOD	BEST

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Mississippi River Crossing Options

	Hennepin/1st	3rd/Central
1.4 Connections with Transitways	<ul style="list-style-type: none"> Share river crossing with Hennepin/University streetcar 	
1.5 Major Activity Centers	<ul style="list-style-type: none"> Better access to riverfront and Nicollet Island 	<ul style="list-style-type: none"> More limited access to riverfront No access to Nicollet Island
1.7 Pedestrian Connections	<ul style="list-style-type: none"> Accessible connections to both sides of River and Nicollet Island 	<ul style="list-style-type: none"> Access to riverfront only via stairs at NW corner of bridge
1.8 Bicycle Connections	<ul style="list-style-type: none"> Room for bike lane Direct access to paths on both sides of River 	<ul style="list-style-type: none"> No room for bike lane without parking impacts Indirect access to riverfront
2.1 Ridership	<ul style="list-style-type: none"> About 1,000 more boardings for the Streetcar alternatives 	<ul style="list-style-type: none"> Shorter walk distance for some existing riders
4.3 Traffic	<ul style="list-style-type: none"> Shorter travel time 3 travel lanes/direction 	<ul style="list-style-type: none"> Frequent peak hour back-ups 2 travel lanes/direction
6.3 Annual O&M Cost	<ul style="list-style-type: none"> Slightly lower (~\$300-800K) 	
6.4 Capital Cost		<ul style="list-style-type: none"> Enhanced Bus: \$5 million more Streetcar: \$14-17 million more
Overall	BEST	GOOD

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Overall Summary

Modal Alternative

No Build	GOOD
Enhanced Bus	GOOD
Modern Streetcar	GOOD
Streetcar Starter line	BEST

River Crossing

Hennepin/1 st	BEST
3 rd /Central	GOOD

Next Steps for AA

- Validate technical results
- Obtain public input
- Select LPA

Next Steps after LPA

- Environmental review
- Amend Transportation Policy Plan to include LPA

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