



STAFF REPORT ACTION REQUIRED

Capital Prioritization Process

Date:	September 6, 2016
To:	TTC Budget Committee
From:	Chief Financial and Administration Officer

Summary

On September 15, 2015, the TTC Budget Committee requested TTC Staff report back with a prioritization framework for unfunded capital projects. It was suggested that this framework be based on business case, safety/risk management considerations, project readiness, growth and other related criteria.

In the past, submissions of the capital budget included a list of projects that constituted all of the capital expenditures that needed to be funded. For several budget cycles, funding has been short of those needs leaving a funding gap. The 10 year budget is overwhelmingly dedicated to refurbishment, upgrades and replacement of our assets. Prioritization of those assets previously took the form of categorizing into legislative, state-of-good-repair (SOGR) / safety, improvement and growth, with roughly 85% in the SOGR category. As part of the TTC 5 Year Corporate plan to modernize the organization, staff developed a capital project prioritization process as discussed in this report.

The process that is proposed through this report ensures projects are aligned to TTC's strategic objectives and assessed consistently. This more refined approach to prioritization is now possible through the integration of new business case, asset management and risk management processes.

The prioritization process outlined below, which reflects best practice, has five stages and is intended to guide staff in determining which projects to put forward should funding become available. The prioritization process includes:

- Stage 1: Identify and categorize capital needs
- Stage 2: Gather business case data
- Stage 3: Score and rank projects using multi-criteria analysis
- Stage 4: Apply constraints and consider opportunities
- Stage 5: Verify and re-balance

Once approved, staff will report back on the application of this process to the unfunded capital projects in the 2017-2026 capital budget and will continue to evolve this process and apply it to future TTC budget submissions.

Recommendations

It is recommended that the Budget Committee:

1. Approve the prioritization process as described in this report;
2. Request staff to apply the prioritization process to 2017-2026 unfunded projects and submit the prioritized list as an input to the 2018-2027 budget process; and
3. Request staff report back on any significant changes to the prioritization process in advance of the 2018-2027 budget cycle.

Implementation Points

Upon approval of this report, TTC will apply the prioritization process to the 2017-2026 unfunded projects and submit it as an input to the 2018-2027 budget process.

The Chief Financial and Administration Officer and the Chief of Staff will be responsible for implementing the prioritization process for TTC.

Financial Summary

Sufficient resources have been made available to develop and implement this initiative.

Although there are no direct financial implications (capital expenditures) resulting from the adoption of this report, this initiative will allow TTC to prioritize all unfunded capital needs and present a prioritized list of projects for consideration as part of the 2018-2027 budgeting process and beyond.

This process will allow TTC to:

- ✓ highlight priority projects for funding
- ✓ evaluate the priority of newly proposed projects against the existing list of unfunded projects
- ✓ identify risk/consequences for projects that remain unfunded over a period of time
- ✓ be better positioned to respond to the question ‘what would TTC do first if more funding was available’

The Chief Financial & Administration Officer has reviewed this report and agrees with the financial impact information.

Accessibility/Equity Matters

The prioritization process is designed to identify organizational benefits and rank them against the TTC's strategic objectives. The 'people' and 'customer' objectives specifically include accessibility and equity criteria against which each project will be evaluated.

Looking forward, business cases will also include the application of a diversity and inclusion lens to ensure that all accessibility/equity matters are considered. By building these factors into the prioritization process TTC is re-enforcing its commitment to accessibility/equity matters.

Decision History

On September 15, 2015, the TTC Budget Committee requested TTC Staff report back with a prioritization framework for unfunded capital projects. It was suggested that this framework be based on business case, safety/risk management considerations, project readiness, growth and other related criteria.

Link to Motion:

http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Committee_meetings/Budget/2015/November_9/Minutes/index.jsph

This report, if approved, addresses the above motion.

Comments

There is no 'one' process in the industry that can be directly applied to any organization for prioritizing projects. Prioritization processes fundamentally reflect a system/methodology of looking at alignment to corporate strategy, enterprise asset management and risk management followed by application of constraints including but not limited to capacity to deliver, interdependencies and efficiencies in implementation, etc. Therefore, the exercise for prioritization must consider both quantitative and qualitative factors.

The methodology for prioritization is expected to evolve based on changing business needs and environment. The prioritization process itself is subject to continuous improvement over time and the initial year where the process is applied to generate a prioritized list of projects is best considered a 'pilot' year.

Following is the overview of the prioritization process and its first application in the 2017-2026 unfunded projects.

Prioritization Process

Stage 1: Identify and categorize capital needs

Stage 2: Gather business case data

Stage 3: Score and rank projects using multi-criteria analysis

Stage 4: Apply constraints and consider opportunities

Stage 5: Verify and re-balance

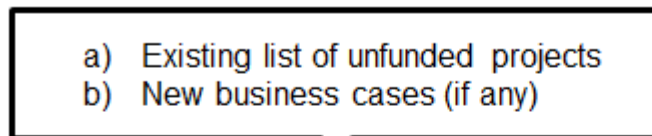
Below is a brief description of each stage in the prioritization process:

Stage 1: Identify and categorize capital needs

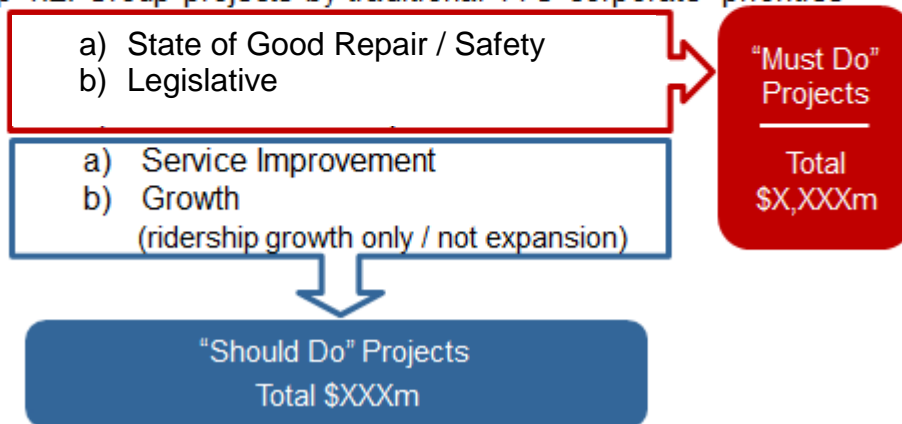
The first step in the application of the prioritization process is to categorize the projects into ‘must do’ and ‘should do’.

This initial filter is applied to avoid unfairly pairing categorically different types of projects against the other. For example, a legislated/mandated project like Easier Access presents a different opportunity than a Subway Track replacement program which is ‘state-of-good-repair’. Below is a high level process of how projects are filtered into ‘must do’ and ‘should do’.

Step 1.1: Identify all unfunded capital needs 2017 to 2026



Step 1.2: Group projects by traditional TTC corporate priorities



In the process above, we first categorize all projects into five budget categories

- Health and Safety
- Legislated
- State of Good Repair
- Service Improvement and
- Growth

Once projects are categorized, they are filtered into ‘must do’ and ‘should do’. ‘Must do’ projects typically include health and safety, legislated and state-of-good-repair initiatives - projects if not implemented can have an adverse impact to safety and/or compliance. ‘Should do’ projects include service improvement and growth initiatives - projects that make good business sense and may present a stronger return on investment.

Stage 2: Gather business case data

In 2014, TTC established an internal process where a business case was required for all ‘new’ projects. Business cases allow staff to capture relevant information on a new project including but not limited to financial impact, benefits, options considered for implementation, high level schedule, etc. These business cases, therefore, provide valuable insight into cost and operating impact, impact of deferral and demonstrate a given project’s alignment to TTC’s strategic objectives – important information that can then be used for prioritization once the business case is approved by internal sponsors.

For projects in the unfunded capital program where business cases are not yet available, relevant business case type data will be gathered including project summaries, presentations, reports, etc.

Stage 3: Score and rank projects using multi-criteria analysis

Careful attention has been paid to minimize subjectivity in assessing project benefits. Benefits are measured according to the degree of impact each project has on TTC’s strategic objectives and this scoring is used as the basis for prioritization. TTC has, therefore, taken the approach of using its Enterprise Risk Ranking Table for consistently assessing the impact each project has against TTC’s strategic objectives- Safety, Customer, People, Assets, Growth, Financial Sustainability and Reputation. (see attachment 1: TTC’s Enterprise Risk Ranking Table)

Finally, TTC executives’ risk appetite is applied as a weighting for each strategic objective and it allows for calculating a total benefit score for each project. Projects once scored may then be ranked in order of benefit and preliminary list of prioritized unfunded projects will be available.

Project	Cost (millions)	Impact on TTC's Strategic Objectives							Weighted Score	Prioritization Benefit Ranking
		Safety	Customer	People	Assets	Growth	Financial	Reputation		
Surface Track	\$54	5	3	0	5	0	0	5	190	1
Second Exits	\$112	5	3	1	3	0	0	3	108	2
Bus Overhaul	\$261	2	3	1	5	2	1	3	98.5	3
Vision	\$115	2	4	1	2	2	3	3	77.5	4
Purchase of 99 Buses for Customer Service Initiatives	\$95	1	3	1	0	1	0	2	29.5	5

Note: information presented in the table above is for illustrative purposes only. Finite and on-going projects have been included for demonstration of the prioritization process.

Stage 4: Apply constraints and consider opportunities

At this stage, qualitative indicators will be used for implementation planning and sequencing. Some considerations may include:

- Asset condition and consequence of failure (e.g. assets with highest risk of failure and safety impact);
- Project interdependencies (e.g. opportunity to gain efficiencies by implementing two inter-related projects that may have been ranked separately as independent projects); and
- Capacity to undertake work (e.g. resources, skillset)

Upon applying constraints, a draft list of prioritized unfunded projects will be ready for submission as part of the capital budget cycle.

Stage 5: Verify and re-balance

The final stage in prioritization is a review by TTC executive, the TTC Budget Committee and the TTC Board to verify priorities in light of the following:

- Wider business environment (e.g. need for innovation like installing wi-fi, CCTV cameras inside subway stations);
- Developing external factors not built into prioritization process/tools (e.g. legislative requirements);
- Current implementation status of ongoing projects/programs;
- Investment balance between state-of-good-repair, growth and service improvement; and
- The ability to seize Provincial and/or Federal funding which can result in some unfunded projects being eligible for funding.

Next steps and continuous improvement: Once approved, TTC will apply this process to the unfunded projects in the 2017-2026 budget cycle. Staff will continue to evolve the prioritization process and document it in the form of a framework.

As mentioned earlier, the methodology for prioritization also evolves based on changing business needs and environment and as TTC continues to apply the prioritization process, any significant change to the process will be presented to the Budget Committee for review.

As future refinements to the prioritization process, TTC will consider:

- **Benefit Cost Analysis:** Assessing projects using benefit cost analysis and aligning to industry accepted best practices which may include calculating a project's net present value, rate of return and cost effectiveness. Although this assessment may not reflect a positive return for state-of-good-repair 'must do' type projects, it can be valuable for new 'should do' type projects like service improvement, growth, etc.
- **Enterprise Asset Management:** At present, TTC has asset management plans and strategies specific to certain asset types like Bus Fleet plan, etc. Staff is currently undertaking preliminary assessment to develop a fully integrated enterprise asset management system that enables increased accuracy in budget forecasting over a

greater period. When this system is instituted, it is envisioned that it will provide additional information and clarity to the prioritization process for 'state-of-good-repair' projects in particular.

- Enterprise Risk Management: Continue to leverage the enterprise risk management program to enable risk based decision making for projects including assessing the risk of deferral over a period of time.

Contact

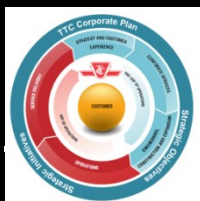
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Attachments

Attachment 1: TTC's Risk Ranking Table

Attachment 2: TTC Capital Project Prioritization Presentation



TTC ENTERPRISE RISK RANKING TABLE

POSITIVE POTENTIAL IMPACTS ON TTC

NEGATIVE POTENTIAL IMPACTS ON TTC

POSITIVE POTENTIAL IMPACTS ON TTC						TTC STRATEGIC OBJECTIVES	NEGATIVE POTENTIAL IMPACTS ON TTC					
Supreme (6)	Extreme (5)	Major (4)	Moderate (3)	Minor (2)	Minimal (1)		Minimal (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)	Disastrous (6)
<ul style="list-style-type: none"> Prevention of multiple fatalities Major increase in environment performance across TTC 	<ul style="list-style-type: none"> Prevention of 1 Fatality or 1 Fatality and Weighted Injuries (FWI) Prevention of total permanent disability Major increase in environment performance across a Group 	<ul style="list-style-type: none"> Prevention of injury or illness which place life in jeopardy Prevention of partial disability, loss of limb, sight or hearing Minor increase in environment performance across TTC 	<ul style="list-style-type: none"> Prevention of injury or illness affecting 1 person which requires hospitalization and/or ongoing medical treatment Major increase in environment performance across a department or location 	<ul style="list-style-type: none"> Prevention of injury or illness affecting 1 person which requires medical attention Minor increase in environment performance across a Group 	<ul style="list-style-type: none"> Prevention of injury or illness affecting 1 person which requires minimal intervention Minor increase in environment performance across a department or location 	Safety Risks & opportunities to the following: <ul style="list-style-type: none"> Safety, Health and Security of Customers, Employees and the Public Environment 	<ul style="list-style-type: none"> Injury or illness affecting 1 person which requires minimal intervention Minor env. Damage in a limited area within TTC property. 	<ul style="list-style-type: none"> Injury or illness affecting 1 person which requires medical attention Minor env. damage in a limited area not owned by TTC. 	<ul style="list-style-type: none"> Injury or illness affecting 1 person which requires hospitalization and/or ongoing medical treatment Minor env. damage over a widespread area 	<ul style="list-style-type: none"> Injury or illness which places life in jeopardy Partial disability, loss of use of limb, sight or hearing Multiple internal injuries Major env. damage (> 5 year) in a limited TTC area 	<ul style="list-style-type: none"> 1 Fatality or 1 Fatality and Weighted Injuries (FWI) Total permanent disability Major damage in limited area not owned by TTC violating law / regulation 	<ul style="list-style-type: none"> Multiple fatalities Major env. damage over a widespread area violating law / regulation resulting in orders of shutdown
<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by more than 20% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by 10-20% 	<ul style="list-style-type: none"> Reduction in customer satisfaction or on time performance by 7-10% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by 5-7% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by 3-5% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by up to 3% 	Customer Risks & opportunities to the following: <ul style="list-style-type: none"> On-Time Service Delivery Customer Service Performance Measures 	<ul style="list-style-type: none"> Minor customer and network impacts Reduction in customer satisfaction or on time performance by up to 3% 	<ul style="list-style-type: none"> 1 major route delayed for multiple peak periods Reduction in customer satisfaction or on time performance by 3-5% 	<ul style="list-style-type: none"> Several major routes or 1 subway line delayed for 1 peak period Reduction in customer satisfaction or on time performance by 5-7% 	<ul style="list-style-type: none"> Several major routes or 1 subway line delayed for multiple peak periods Reduction in customer satisfaction or on time performance by 7-10% 	<ul style="list-style-type: none"> Whole network closes for 1 peak period Reduction in customer satisfaction or on time performance by 10-20% 	<ul style="list-style-type: none"> Whole network closes for multiple peak periods Reduction in customer satisfaction or on time performance by more than 20%
<ul style="list-style-type: none"> Extensive sustained widespread positive relations with employees Increase in overall employee engagement score by more than 20% 	<ul style="list-style-type: none"> Improved employee relations across TTC Increase in overall employee engagement score by 10-20% 	<ul style="list-style-type: none"> Significant improvement in employee morale Increase in overall employee engagement score by 7-10% 	<ul style="list-style-type: none"> Improvement in employee morale Increase in overall employee engagement score by 5-7% 	<ul style="list-style-type: none"> Localized improvement in employee morale Increase in overall employee engagement score by 3-5% 	<ul style="list-style-type: none"> Temporary localized improvement in employee morale Increase in overall employee engagement score by up to 3% 	People <ul style="list-style-type: none"> Employee engagement, performance and culture 	<ul style="list-style-type: none"> Temporary localized employee disengagement Reduction in overall employee engagement score by up to 3% 	<ul style="list-style-type: none"> Localized employee disengagement Reduction in overall employee engagement score by 3-5% 	<ul style="list-style-type: none"> Employee disengagement across groups Reduction in overall employee engagement score by 5-7% 	<ul style="list-style-type: none"> Significant employee disengagement Reduction in overall employee engagement score by 7-10% 	<ul style="list-style-type: none"> Industrial action by employees Reduction in overall employee engagement score by 10-20% 	<ul style="list-style-type: none"> Large scale industrial action Reduction in overall employee engagement score by more than 20%
<ul style="list-style-type: none"> Improvement by more than 20% to a major asset reliability / longevity Security enhancement to information that can be used for terrorism 	<ul style="list-style-type: none"> Improvement of 10-20% to a major asset reliability / longevity Security enhancement to information that can be used for fraud or theft 	<ul style="list-style-type: none"> Improvement of 7-10% to a major asset reliability / longevity Security enhancement to information sensitive to organizational interests 	<ul style="list-style-type: none"> Improvement of 5-7% to a major asset reliability / longevity Security enhancement to information that can be used to impact operational efficiency 	<ul style="list-style-type: none"> Improvement of 3-5% to a major asset reliability / longevity Security enhancement to information sensitive to internal interests 	<ul style="list-style-type: none"> Improvement by up to 3% to a major asset reliability / longevity Security enhancement to information otherwise available in the public domain 	Assets Risks & opportunities to the following: <ul style="list-style-type: none"> Security of Asset & Information 	<ul style="list-style-type: none"> Damage, loss or deterioration by up to 3% to a major asset Compromise of information otherwise available in the public domain 	<ul style="list-style-type: none"> Damage, loss or deterioration of 3-5% to a major asset Minor compromise of information sensitive to internal interests 	<ul style="list-style-type: none"> Damage, loss or deterioration of 5-7% of a major asset Compromise of information that can be used to impact operational efficiency 	<ul style="list-style-type: none"> Damage, loss or deterioration of 7-10% of a major asset Compromise of information sensitive to organizational interests 	<ul style="list-style-type: none"> Damage, loss or deterioration of 10-20% of a major asset Compromise of information that can be used for fraud or theft 	<ul style="list-style-type: none"> Damage, loss or deterioration by more than 20% of a major asset Compromise of information that can be used for terrorism
<ul style="list-style-type: none"> Capacity enhancement of >20% of added demand. 	<ul style="list-style-type: none"> Capacity enhancement of 10-20% of added demand. 	<ul style="list-style-type: none"> Capacity enhancement of 7-10% of added demand. 	<ul style="list-style-type: none"> Capacity enhancement of 5-7% of added demand. 	<ul style="list-style-type: none"> Capacity enhancement of 3-5% of added demand 	<ul style="list-style-type: none"> Capacity enhancement of up to 3% of added demand. 	Growth <ul style="list-style-type: none"> Expand the system to meet future demand 	<ul style="list-style-type: none"> Failure to meet up to 3% of added capacity demands. 	<ul style="list-style-type: none"> Failure to meet 3-5% of added capacity demands 	<ul style="list-style-type: none"> Failure to meet 5-7% of added capacity demands 	<ul style="list-style-type: none"> Failure to meet 7-10% of added capacity demands 	<ul style="list-style-type: none"> Failure to meet 10-20% of added capacity demands 	<ul style="list-style-type: none"> Failure to meet >20% of added capacity demands
>\$100m	>\$50m to \$100m	>\$25m to \$50m	>\$5m to \$25m	\$1m to \$5m	<\$1m	Financial Sustainability <ul style="list-style-type: none"> Funding, Revenue or expenditures 	< \$1m	\$1m to \$5m	>\$5m to \$25m	>\$25m to \$50m	>\$50m to \$100m	>\$100m
<ul style="list-style-type: none"> Extensive prolonged and widespread positive reactions from key stakeholders and/or media. 	<ul style="list-style-type: none"> Prolonged and widespread positive reactions from key stakeholders and/or media. 	<ul style="list-style-type: none"> Significant stakeholder support. Major positive local media campaign. National media interest creating public support. 	<ul style="list-style-type: none"> Substantial positive media interest creating public support. Positive stakeholder statements. 	<ul style="list-style-type: none"> Positive local media reporting over a period. Localized public and/or stakeholder support. 	<ul style="list-style-type: none"> Positive local media report. 	Reputation Risks & opportunities to the following: <ul style="list-style-type: none"> Customer Confidence Stakeholder and Media Management Financial Penalties Regulatory Compliance 	<ul style="list-style-type: none"> Minor individual stakeholder concerns Adverse local media report Minor out of court settlement in amount of ≤ \$50k 	<ul style="list-style-type: none"> Localized public and/or stakeholder concern. Adverse local media reporting over a period. Minor out of court settlement in amount of ≤ \$100k 	<ul style="list-style-type: none"> Significant concern raised by individual stakeholder Local media reports for a prolonged period. Major out of court settlement 	<ul style="list-style-type: none"> Wide media reports. Significant concerns raised by numerous stakeholders. Failure to comply with regulation resulting in fines / order Civil action – no defense 	<ul style="list-style-type: none"> Widespread and organized community reaction Extensive stakeholder concerns Days of national media reporting TTC Executive change likely. Class action 	<ul style="list-style-type: none"> Sustained and organized community reaction Sustained national media reporting Large numbers of Executive leave. Criminal Prosecution – no defense.

POSITIVE IMPACT						LIKELIHOOD		NEGATIVE IMPACT					
Supreme (6)	Extreme (5)	Major (4)	Moderate (3)	Minor (2)	Minimal (1)	QUALITATIVE	QUANTITATIVE	Minimal (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)	Disastrous (6)
						5	FREQUENT Has or is likely to occur often at various locations	>10 times per year	5				
						4	PROBABLE Has or is likely to occur often at TTC	2 to 10 times per year	4				
						3	OCCASIONAL Has occurred once or twice at TTC	Once every 1 to 10 years	3				
						2	REMOTE Occurred once or twice in industry	Once every 10 to 100 years	2				
						1	IMPROBABLE Can be assumed it may not occur	Once every 100 to 1,000 years	1				



CAPITAL PROJECT PRIORITIZATION

Vince Rodo
Chief Financial and Administration Officer

TTC Budget Committee: September 6, 2016





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2. Best practices & lessons learned
3. Prioritization process
4. Next steps

Appendix

1. TTC's Enterprise Risk Ranking Table



BACKGROUND



- TTC's capital needs exceed available funding

10 –Year Capital Budget Comparison Approved Base Program (\$Billions)			
	2014 – 2023	2015 – 2024	2016 – 2025
Budget/Request	9.036	9.268	9.316
Funding Available	6.493	6.901	6.637
Unfunded	2.543	2.367	2.679

- Unfunded projects do not necessarily represent lower priority projects
- Timing to proceed with unfunded projects are approaching a critical point
- On Sep 15, 2015, the TTC Budget Committee requested Staff report back with a prioritization framework for unfunded capital projects





Best practices

Consulted project professionals and industry leaders at Hong Kong's MTR, London Underground, New York City Transit, and Montreal's STM

Lessons Learned

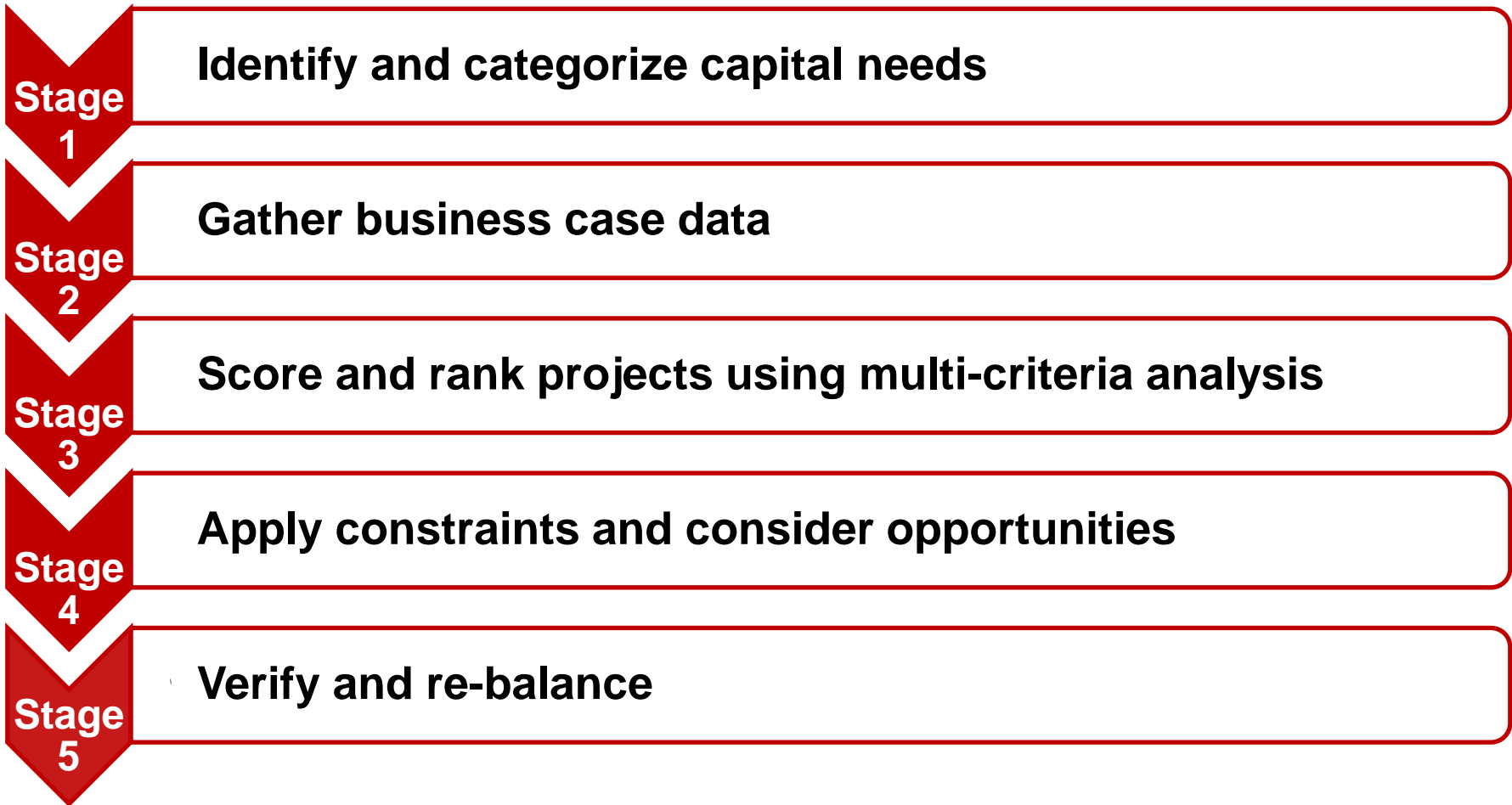
- No one standard process or tool
- Generally consistent approach through:
 1. Scope and timing set through enterprise asset management (EAM);
 2. Alignment with corporate strategic objectives; and
 3. Assessment using enterprise risk management (ERM)

Internal working group applied lessons learned to integrate these elements

Prioritization process to evolve as portfolio management, ERM and EAM mature



PRIORITIZATION PROCESS



PRIORITIZATION PROCESS

Stage
1

Identify and categorize capital needs

Step 1.1: Identify all unfunded capital needs 2017 to 2026

- a) Existing list of unfunded projects
- b) New business cases (if any)

Step 1.2: Group projects by traditional TTC corporate priorities

- a) State of Good Repair / Safety
- b) Legislated

- a) Service Improvement
- b) Growth
(ridership growth only / not expansion)

“Must Do”
Projects

Total
\$X,XXXm

“Should Do” Projects

Total \$X,XXXm

Capital Project Prioritization - TTC Budget Committee



PRIORITIZATION PROCESS



Stage
2

Gather business case data

Step 2.1: Estimate capital cost and operating impact

Step 2.2: Assess impact of deferral or not proceeding at all

Step 2.3: Quantify benefits against TTC's strategic objectives using a business case approach



Note: strategic objectives are complementary but not equal

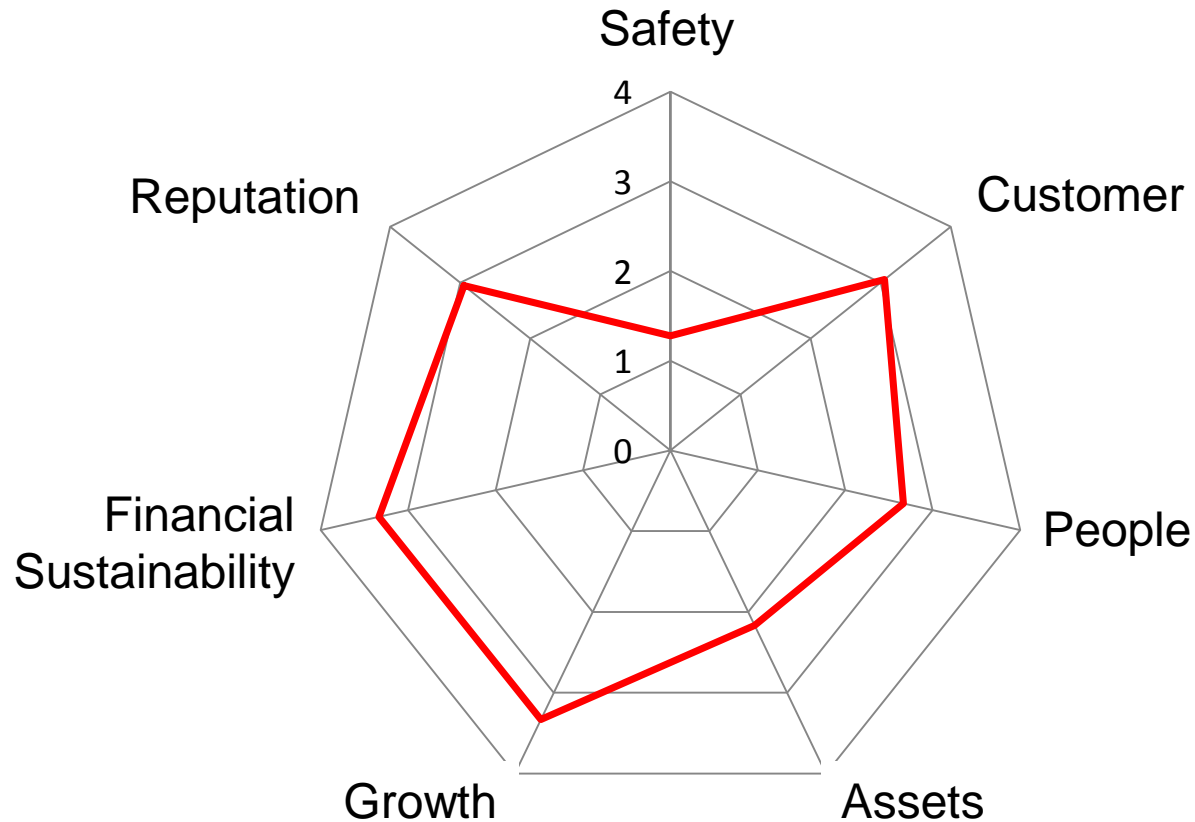


PRIORITIZATION PROCESS



Stage
2

Gather business case data



Note: for illustrative purposes only.



PRIORITIZATION PROCESS



Score and rank projects using multi-criteria analysis

Step 3.1: Use ERM to consistently evaluate degree of impact

Project	Cost (millions)	Impact on TTC's Strategic Objectives							Weighted Score	Prioritization
		Safety	Customer	People	Assets	Growth	Financial	Reputation		Benefit Ranking
Surface Track	\$54	5	3	0	5	0	0	5	190	1
Second Exits	\$102	5	3	1	3	0	0	3	108	2
Bus Overhaul	\$261	2	3	1	5	2	1	3	98.5	3
Vision	\$115	2	4	1	2	2	3	3	77.5	4
Purchase of 99 Buses for Customer Service Initiatives	\$75	1	3	1	0	1	0	2	29.5	5

Note: information presented in the table above is for illustrative purposes only to demonstrate the application of the prioritization process. Projects above include a combination of finite and on-going projects which may or may not be funded.

Appendix: [Click here](#)



PRIORITIZATION PROCESS



Stage
3

Score and rank projects using multi-criteria analysis

Step 3.2: Rank projects according to total benefit to TTC Strategic Objectives

Project	Cost (millions)	Weighted Score	Prioritization
			Benefit Ranking
Surface Track	\$54	190	1
Second Exits	\$102	108	2
Bus Overhaul	\$261	98.5	3
Vision	\$115	77.5	4
Purchase of 99 Buses for Customer Service Initiatives	\$75	29.5	5

Priority No. 1

Note: for illustrative purposes only.





**Stage
4**

Apply constraints and consider opportunities

Step 4.1: Determine timing constraints based on:

- Asset condition and consequence of failure (EAM); and
- Project interdependencies (Program and Portfolio Management);
- Capacity to undertake work

Step 4.2: Develop draft list of prioritized 2017-2026 unfunded projects





**Stage
5**

Verify and re-balance

Conduct TTC Senior Staff and Board level reviews to verify priorities in light of the following:

- Wider business environment;
- Developing external factors not built into prioritization process/tools;
- Current implementation status of ongoing projects/programs; and
- Investment balance between state-of-good-repair, growth and improvement; etc.
- Consider advancing work to capitalize on funding opportunities



NEXT STEPS



1. Apply prioritization process to 2017-2026 unfunded project listing (existing unfunded projects and new projects); and
2. Evolve the prioritization process through continuous improvement and apply the process to future budget submissions



APPENDIX



 TTC ENTERPRISE RISK RANKING TABLE						TTC STRATEGIC OBJECTIVES						
POSITIVE POTENTIAL IMPACTS ON TTC						NEGATIVE POTENTIAL IMPACTS ON TTC						
Supreme (6)	Extreme (5)	Major (4)	Moderate (3)	Minor (2)	Minimal (1)	Minimal (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)	Disastrous (6)	
<ul style="list-style-type: none"> Prevention of multiple fatalities Major increase in environment performance across TTC 	<ul style="list-style-type: none"> Prevention of 1 Fatality and 1 Weighted Injuries (FWI) Prevention of total permanent disability Major increase in environment performance across a Group 	<ul style="list-style-type: none"> Prevention of injury or illness which place life in jeopardy Prevention of partial disability, loss of limb, sight or hearing Minor increase in environment performance across TTC 	<ul style="list-style-type: none"> Prevention of injury or illness affecting 1 person which requires hospitalization and/or ongoing medical treatment Major increase in environment performance across a department or location 	<ul style="list-style-type: none"> Prevention of injury or illness affecting 1 person which requires medical attention Minor increase in environment performance across a Group 	<ul style="list-style-type: none"> Prevention of injury or illness affecting 1 person which requires minimal intervention Minor increase in environment performance across a department or location 	<p>Safety</p> <p>Risks & opportunities to the following:</p> <ul style="list-style-type: none"> Safety, Health and Security of Customers, Employees and the Public Environment 	<ul style="list-style-type: none"> Injury or illness affecting 1 person which requires minimal intervention Minor env. Damage in a limited area within TTC property. 	<ul style="list-style-type: none"> Injury or illness affecting 1 person which requires medical attention Minor env. damage in a limited area not owned by TTC. 	<ul style="list-style-type: none"> Injury or illness affecting 1 person which requires hospitalization and/or ongoing medical treatment Minor env. damage over a widespread area 	<ul style="list-style-type: none"> Injury or illness which places life in jeopardy Partial disability, loss of use of limb, sight or hearing Multiple internal injuries Major env. damage (> 5 year) in a limited TTC area 	<ul style="list-style-type: none"> 1 Fatality and 1 Weighted Injuries (FWI) Total permanent disability Major damage in limited area not owned by TTC violating law / regulation 	<ul style="list-style-type: none"> Multiple fatalities Major env. damage over a widespread area violating law / regulation resulting in orders of shutdown
<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by more than 20% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by 10-20% 	<ul style="list-style-type: none"> Reduction in customer satisfaction or on time performance by 7-10% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by 5-7% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by 3-5% 	<ul style="list-style-type: none"> Increase in customer satisfaction or on time performance by up to 3% 	<p>Customer</p> <p>Risks & opportunities to the following:</p> <ul style="list-style-type: none"> On-Time Service Delivery 	<ul style="list-style-type: none"> Minor customer and network impacts Reduction in 	<ul style="list-style-type: none"> 1 major route delayed for multiple peak periods Reduction in 	<ul style="list-style-type: none"> Several major routes or 1 subway line delayed for 1 peak period Reduction in 	<ul style="list-style-type: none"> Several major routes or 1 subway line delayed for multiple peak periods Reduction in 	<ul style="list-style-type: none"> Whole network closes for 1 peak period Reduction in 	<ul style="list-style-type: none"> Whole network closes for multiple peak periods Reduction in

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FEEDBACK



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