

# The Flats Arterial

## COMMUNITY PANEL

### Advantages and Drawbacks of the Arterial Route Options

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This list of advantages and drawbacks is a work in progress, reflecting the initial work of Panel members as they consider the arterial options, the impacts of those arterial options on the community and Vancouver as a whole, and the trade-offs across the arterial options. These advantages and drawbacks were produced in small groups and do not reflect the input and perspective of each Panel member.

Panel members will refine these advantages and drawbacks in future sessions based on input from the public (online and at the Public Workshop) and responses to Panel questions from experts.

# Prior/Venables

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## Transportation Performance

An **ADVANTAGE** of maintaining Prior/Venables as an arterial in regards to transportation performance is...

1. **reduced travel time** because it is the more direct east/west route, and the four-way intersection at Clark allows continued flow east along Venables.
2. **better/easier access to public transit and local amenities and services** because there is shorter distance requiring less walking for local residents.
3. **minimal impact on Produce Row distribution hub** because it is the least disruptive and costly option.
4. **better access to (the new) St. Paul's Hospital** because time really matters with issues of healthcare/emergencies.
5. **better traffic distribution and less congestion** because the distance to get to Hastings and 1st Avenue is equidistant, allowing equal access to Hwy #1.

A **DRAWBACK** of maintaining Prior/Venables as an arterial in regards to transportation performance is...

1. there is **limited room** for sidewalks, cycling lanes, parking, high priority vehicles, and boulevards because it is a narrow road (20.6m). But, an underpass would be slightly wider than an overpass (at the actual overpass) according to the concept sketches.
2. **limited local pedestrian access across the arterial** because this creates:
  - a disconnect between 2 parks on either side of Prior
  - a separation between residents and Strathcona Park
  - a separation between residents and their neighbours
  - a safety hazard for pedestrians. Residents would be separated from the Park by the arterial, posing a safety hazard. But, an underpass mitigates this issue slightly because an overpass increases vehicles' tendency to speed downhill into the neighbourhood.
3. there will be **less large truck access to the area** between Raymur Ave, Clark Drive, Prior, and Terminal Ave because trucks would be forced further North, onto Prior. But, an underpass would allow right turns onto Raymur, making this slightly better.

*Unordered drawbacks:*

- the **impact of vehicle traffic on Prior residents**, because this could lead to local opposition that blocks traffic.
- the **overpass would be less enjoyable/rideable for active transportation** because it is a steeper grade, and goes uphill first. But, this would be largely mitigated if an underpass was built instead.
- an **underpass creates a risk of flooding** because it slows or stops traffic. This would be mitigated if an overpass were built.
- the **curve in the road at Campbell Ave**, because it makes people speed up and creates a blind spot.
- the **noise of trains** because it keeps families and children awake at night. (It was noted that this would likely be the case with all routes).

## \$ Cost and Constructability

An **ADVANTAGE** of maintaining Prior/Venables as an arterial in regards to cost and constructability is...

1. it is the **lowest cost option** because of the Class D estimate performed, which states:
  - The overpass structure is shorter
  - Park mitigation costs are low
  - Land acquisition costs are low
  - Roadway costs are low
  - Shared bicycle/pedestrian overpass/underpass included in the estimated cost

*Unordered Advantages:*

- it is **more appealing to rail funders** because it costs the least for the rail over/underpass.
- it's **easier because it builds on status quo.**

A **DRAWBACK** of maintaining Prior/Venables as an arterial in regards to cost and constructability is...

1. the **negative impact on local residents/community** because upgrading the roadway and building an over/underpass will be disruptive on neighbourhood and local businesses.
2. the **lack of land acquisition potentially affecting future land use needs** because it will be more expensive to acquire land in 20 years.
3. **additional costs associated with other routes** because of a low benefit to cost ratio suggesting other routes may be a better option.
4. **the impact to businesses on Venables between Raymur & Clark Dr** because they would need to be mitigated.
5. **the additional knock-on costs to upgrade nearby streets** (eg. National, Malkin) and to add a pedestrian overpass to help alleviate truck line ups and congestion around Produce Row and improve pedestrian safety.



## Business

An **ADVANTAGE** of maintaining Prior/Venables as an arterial in regards to business is...

1. **less impact to surrounding business** on Clark, Grant, Venon, etc.
2. that it **stays the same**; the existing route is maintained and there is less change and there is opportunity for improvement.
3. **easier for traffic disbursement** North, South and East and **least business displacement**.

A **DRAWBACK** of maintaining Prior/Venables as an arterial in regards to business is...

1. that local businesses will have **more difficulty with transportation** because there will be less large truck access between Raymur Ave & Clark Drive and trucks would be forced further north (since there will only be 1 rail crossing in the area).
2. **dislocation** because 5 local businesses may be forced to move or adjust their business model with the construction of the overpass/underpass.
3. **loss of sales** because of: less visibility due to obstructed sightlines/view from altered street levels, ease of access is reduced, and loss of parking availability and increased traffic in the area.
4. the **closure of local businesses**, which may not have the financial resources to relocate due to scarcity of affordable options for purchase/rental.



## Community Livability

An **ADVANTAGE** of maintaining Prior/Venables as an arterial in regards to community livability is...

1. **convenience** because residents will have direct access to a main thoroughfare and public transit routes.
2. that there are **fewer or no impacts to gardens and parkland** because wild spaces and parks are not sacrificed for the arterial.
3. that **community can spend more money on local mitigation** because construction costs are lower.
4. **stability** because the arterial remains and community has adapted to it.
5. the **opportunity to create complete streets for Strathcona residents** because the construction of overpass/underpass will also require/facilitate construction of biking and walking paths.
6. **direct access to emergency medical services** because there will be a direct route from the neighbourhood to new St Paul's (in 20 years when it opens).

A **DRAWBACK** of maintaining Prior/Venables as an arterial in regards to community livability is...

1. the **disconnection between community and amenities, parks, gardens and artist community.**
2. the **erosion of trust** between the community and the governments because of the historic agreements regarding the decision to remove the viaducts.



## Parks, Recreational Spaces, Community Gardens

An **ADVANTAGE** of maintaining Prior/Venables as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. that **Cottonwood Gardens is not impacted** because the route does not go by the garden.
2. **no major habitat loss** because the eagle's nest and habitat in gardens would not be impacted
3. **preservation of cultural educational programming** because Prior does not impact the programming in Trillium.
4. the **second least area loss** because replacement with adjacent land is potentially sufficient and mitigation is possible.

A **DRAWBACK** of maintaining Prior/Venables as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. the **community will be cut off from greenspace and gardens** because of increased traffic in between them and the park
2. the **reduction of tree canopy and overall region's green space** (due to loss of NE corner of park) because land acquisition would be difficult for replacing this space
3. **makes gardening less enjoyable or feasible for the Strathcona Garden** because of increased noise pollution and air pollution from higher traffic being so close
4. there would **still be a negative impact on the eagles' nesting area** as the widening of the arterial will cut into the buffer zone for raptors' habitat, which would still infringe on the provincial Raptor's Guideline (and the traffic of trucks might end up going down Hawkes, being quite close to the eagles too)



## Public and Other Community Facilities

An **ADVANTAGE** of maintaining Prior/Venables as an arterial in regards to public and other community facilities is...

1. **minimum or no impact to civic facilities** and hospital hub because the road does not cut down into them
2. **better well-being for patients** because there would be less roads on campus as it would not cut through like Malkin
3. give **more resiliency and foundation to hospital** because the hospital would be built further north in comparison to Malkin-linked alignments (further south the mud flats are harder to make foundation on)
4. **better hospital access and emergency response** even in extreme scenarios as the grid network around Prior allows for more contingency routes to bypass arterial blockages compared to Malkin-linked alignments (even though in some areas Union and Keefer do have road blockages still)

A **DRAWBACK** of maintaining Prior/Venables as an arterial in regards to public and other community facilities is...

1. **impeded flow of traffic and emergency services** because Prior is the narrowest (20m vs 30m).

# William

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## Transportation Performance

An **ADVANTAGE** of selecting William as an arterial in regards to transportation performance is...

1. there is an **opportunity to create complete streets** (lively streets with public life) because:
  - Seeing parks on a daily basis increases wellbeing
  - Walking and cycling routes can be integrated into the park
  - There will potentially be new landscaping by the new hospital
  - There is a possibility to commission local artists to create public art.
2. **improved active transportation** because:
  - There will be a new protected cycling route that connects to McLean Drive, making cycling safer and encouraging new cyclists
  - The street has a reasonable slope (an easier route)
  - It's an efficient way to go from point A to point B.
  - It increases the resiliency of the cycling network by having a second railway crossing in the area.
3. that it is **efficient, time-saving, and accessible** to the greatest number of residents because it provides relatively even spacing between other arterials (Hastings & Terminal) and it provides a relatively straight path from Main to Clark (no S-curves which are sharp curves)
4. **truck access** because accessibility to Produce Row can be maintained with some mitigation strategies.
5. **efficient access to St Paul's** because it is compatible with the new St Paul's Street Network.
6. **Prior/Venables remains an important street for local and emergency access.**

A **DRAWBACK** of selecting William as an arterial in regards to transportation performance is...

1. the **impact on truck access to Produce Row** because it impacts businesses and leads to congestion.
2. **increased traffic on Clark Drive** because it causes congestion and affects the safety of pedestrians, cyclists and motorists.
3. **increased distance to public transit** because residents and workers taking public transportation have to walk further to the bus stop.
4. **the separation between the park and Cottonwood Gardens** because it reduces accessibility by foot (walkability) to the garden/park.

## \$ Cost and Constructability

An **ADVANTAGE** of selecting William as an arterial in regards to cost and constructability is...

1. **cheaper and more cost-effective** than the other new options because it only goes over 4 train tracks.
2. that it **allows for the expansion of park space (due to land acquisition)** because it provides more space for recreational use for park users.

A **DRAWBACK** of selecting William as an arterial in regards to cost and constructability is...

1. **longer construction time** because:
  - The park mitigation structures may take a while to put in place (ex: developing replacement plans for field house, urban forest canopy, track & field, walking path).
  - The Parks Board may veto or take a while to accept proposal.
  - The soil conditions are worse than Prior.
2. that the **parks cost is the highest of any proposed route** because of the high park mitigation costs, especially for land acquisition.
3. the **cost of construction** because it is double the cheapest option.
4. that the overpass is **420 m long, which leads to longer construction time and higher costs** (compared to all options except National).



## Business

An **ADVANTAGE** of selecting William as an arterial in regards to business is...

1. **less impact to Malkin Ave & Prior St businesses**, the **downstream businesses they serve**, and **Cottonwood Gardens**.
2. if transit was rerouted down Malkin to William it would be **more convenient for people who work in the area** and users of mobility devices.
3. **increased visibility** (from cars and transit passing by) creating more awareness of this important food hub and increasing public access to these businesses.

A **DRAWBACK** of selecting William as an arterial in regards to business is...

1. **businesses will have to go under or be relocated** due to the route alignment going directly through existing properties east of Raymur St (requiring the most expropriation and potentially building demolitions of all route options), and this is also a concern because local businesses will have a harder time getting back into the area due to higher costs of entry (i.e. gentrification).
2. **businesses will lose access to park land**, which matters to their business models, drawing in customers, and also the well-being of their employees.
3. that it is the **2nd worst option for Produce Row** due to the arterial being still too close to the truck receiving area, which would cause inefficiency and traffic backup.
4. **harm to the local artist community** because 1000 Parker Place may be impacted by the road indirectly.
5. the **construction time**, though shorter than some of the other alignments, will be longer than Prior and thus have a greater harm to business.
6. there **may be an accumulation of garbage** under the underpass due to the underpass being considered as a informal shelter, which would negatively impact the business community.



## Community Livability

An **ADVANTAGE** of selecting William as an arterial in regards to community livability is...

1. the **reconnecting of Strathcona community with their park space** because Prior Street would go through calming, which would also lead to safety improvements for seniors and children walking.
2. **giving a viable replacement transit route in place of the #22 Prior St bus route** because William is one of the more centrally located alignments that run through Strathcona.
3. it **may lead to more even east-west traffic flow distribution through the neighbourhood** because the arterial is spaced out between Hastings and Terminal/1st Ave.
4. The **preservation of Cottonwood Garden** as the road cuts north of it into the park, though we are pretty certain the garden would be not very viable being cut off from the park by a major arterial; major mitigation and creative design would be necessary.
5. it is **one of the lesser costing alignments** but is more expensive than Prior.

A **DRAWBACK** of selecting William as an arterial in regards to community livability is...

1. that it would **make Cottonwood Gardens**—which is integral to many residents' lives—**untenable** by restricting access and surrounding it by traffic.
2. the **impact to eagles** which are symbolic, sacred, and valued, especially to Indigenous residents—this actually violates provincial conservation guidelines.
3. **increased congestion** on a main arterial due to Produce Row truck traffic.
4. the **reduction of the already low park to people ratio** by cutting through the park.
5. **reducing the already low urban canopy** (5.9%) by removing 60+ trees.



## Parks, Recreational Spaces, Community Gardens

An **ADVANTAGE** of selecting William as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. **Improved user access** because a) Prior is calmed/downgraded, resulting in improved access to Strathcona Park from the neighbourhood and b) impact to park land will create opportunities to reimagine bike/walk access to Trillium and Strathcona Parks through mitigation strategies.
2. **Strathcona Park is connected East-West** because Hawks becomes parks land to mitigate a portion of lost park land on William route.
3. **it helps preserve Cottonwood Garden** (not eliminate it), **though it will negatively impact the user experience.** (Disadvantage as well)

A **DRAWBACK** of selecting William as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. it works **against the Parks Board goals** to protect and grow green space in a neighbourhood that is the most severely deficient, **as well as City policies like the Healthy City and Greenest City Strategies**, because it has the most hectares of green space lost out of all the alignment options.
2. the **loss of ecosystems, biodiversity, and habitat** for bees, birds, critters, and eagles because of the removal of habitats in Strathcona Park and the Cottonwood Gardens.
3. **impact on user experience and health** because increased noise and pollution directly adjacent to both Trillium and Strathcona Parks
4. the **loss of very valuable programs connecting people to nature and each other** because the Cottonwood and Strathcona gardens would be especially and largely impacted.
5. **less opportunity and possible degraded experience for organized sport** because there will be a loss of a soccer field, baseball diamond, tennis courts, and a large space for a potential track in Strathcona Park.
6. it shows a **disrespect for community history and commitment** because it results in a loss of decades of volunteer work on the Cottonwood and Strathcona Gardens.



## Public and Other Community Facilities

An **ADVANTAGE** of selecting William as an arterial in regards to public and other community facilities is...

1. **all vacuous City Facilities and Public Facilities are retained in their current, central location** because the route doesn't directly impact the National Works Yard, Fire Training, HUSAR, VSB, or Animal Services.
2. it **allows dispersed traffic throughout the area** because it accesses St. Paul's and other businesses, and **allows traffic from city yards and fire training to remain on National.**

A **DRAWBACK** of selecting William as an arterial in regards to public and other community facilities is...

1. the **negative impact to hospital services** due to decreased air quality, less natural light for patient healing, and building design (more vertical and less horizontal, decreases collaboration among departments)
2. the Providence healthcare campus will have **less land available.**

# Malkin

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## Transportation Performance

An **ADVANTAGE** of selecting Malkin as an arterial in regards to transportation performance is...

1. for the Malkin North alignment, **improved maneuvering and circulation for Produce Row** because of separated service lane.
2. for all Malkin alignments, **Prior could become a local serving road** because traffic would be redirected to Malkin.
3. for the Malkin Central alignment, **the community gardens are minimally impacted**, because the route isn't disruptive or altering to them.
4. for all Malkin alignments, **that many residents/businesses will be within 5 minute walk**, because the alignment is closer to businesses but still close to residents.
5. for all Malkin alignments, is **less pressure on Clark's existing entry points** because longer/more sufficient spacing because of existing entry points.

A **DRAWBACK** of selecting Malkin as an arterial in regards to transportation performance is...

1. for most Malkin alignments, there would be **heavier traffic congestion** because arterial traffic would have to share the road with hospital traffic, emergency responders, and Produce Row trucking. The North variation may not have this problem as there would be a side road built for Produce Row trucking, but we need further clarification on this.
2. for all Malkin alignments, **the #22 bus route would under serve the local residential community** because it would be moved further south from the main residential area of the neighbourhood, making it a longer journey for walking and a harder journey for the elderly and those needing to do shopping.
3. for all Malkin alignments, that it would **severely disrupt the transportation of regional food and other goods** because there is a potential existential threat to Produce Row (though the North version may mitigate impact).
4. for all Malkin arterial alignments, that there would be **more traffic congestion and longer commute times** because there would be a T-turn, and there is the problem that the route options would all bring the arterial corridor closer to another arterial corridor, 1st Ave, thus making that section of Clark Dr. a congestion issue

## \$ Cost and Constructability

An **ADVANTAGE** of selecting Malkin as an arterial in regards to cost and constructability is...

1. it is the **cheapest of the non-Prior options** because it does not cross 14 rail lines and does not have as big of an impact on park land (and therefore has cheaper park mitigation costs), **but only for the South variation**. The North variation would make it comparably expensive to William options.
2. it has more **practicality and flexibility for design and constructability** because the width is quite large and there is more space to work with and potential for variations, allowing for more walkability and bike lane options. It also has less of a steep gradient, better soil than the southern options (that are more in the mud flats reclaimed land) and has less building mitigation costs (parking lots of 2 blocks west of Clark)

A **DRAWBACK** of selecting Malkin as an arterial in regards to cost and constructability is...

1. the **complexity and time required to conduct land acquisition** with many stakeholders.
2. the **construction costs are higher** due to larger structure and depth to stable soil compared to the Prior route.
3. the **higher impact of the Produce Row** being greatly affected during road construction.
4. that **two solutions/projects would need to be accounted for**, because Prior still needs to be addressed (vs. Prior being upgraded as the only route)



## Business

An **ADVANTAGE** of selecting Malkin as an arterial in regards to business is...

1. **improved vehicle access to Produce Row** because the North alignment provides an opportunity for a parallel service road,
  - BUT the Malkin Central and Malkin South alignments offer minimal mitigation opportunities to integrate Produce Row and arterial through traffic.
2. employers and employees on Produce Row and businesses on the east side of the tracks would have **better access to public transportation** because the bus would be very close to their businesses.
3. there would be **opportunities for new business development** (due to the new arterial road) because there would be more jobs created and transit access would be better for employees and clients.

A **DRAWBACK** of selecting Malkin as an arterial in regards to business is...

1. the **negative impact to Produce Row** because access, loading and dock sales would be more difficult. Would put some out of business, like North American Produce sales.
  - BUT, if Malkin North is selected, the negative impact to access to most of Produce Row would be reduced, with the segregated road and access for trucks.
2. the **negative impact to local small businesses** because of limited mitigation options - would displace them.
3. the **collective creativity and synergy of artists/businesses** that currently define character of East side would be displaced.
4. **air quality** with diesel trucks, exhaust, dust, increased traffic would negatively impact food supply on Produce Row.



## Community Livability

An **ADVANTAGE** of selecting Malkin as an arterial in regards to community livability is...

1. **no impact on Strathcona Park boundaries and eagle habitat.**
2. least damage to community garden.
  - But if, Malkin North is selected, there would be significant impact, likely requiring the complete removal of Cottonwood Garden. However, we acknowledge that this area is currently a legal right of way.
3. that it **returns Prior/ Venables to a local street** and unites park to Strathcona neighbourhood and benefits bike/pedestrian route.
4. the **alignment is closer to transit connections than the National option** (closer to residential and jobs areas).
5. **efficient travel times** for commercial, residential, transit traffic and future hospital access because it is a more direct route.
  - But if the Malkin North route, benefits of separating truck access to Produce Row is preferred.
6. **lower negative impact to arts community.**

A **DRAWBACK** of selecting Malkin as an arterial in regards to community livability is...

1. the Malkin Central and Malkin North routes would mean the **elimination of the Cottonwood Gardens** land because they are on the city's right of way. Some of the green space at the North end of Trillium Park will be negatively impacted because it is on the right of way.
  - However, for the Malkin South route, impact on Cottonwood Gardens will be mitigated.
2. the **existing bus 22 route will be further away from the residents** in Strathcona because it is further south of the existing route (>5 min), and because a large proportion of the residents is elderly.
3. the route will **impact the homes on Atlantic Street** because they will be exposed to increased noise, traffic and air pollution.
4. there would be **significant impact to the urban forest canopy and ecosystem** from removal of large, mature trees that have eagles (wildlife habitat) because we cannot recreate this.
5. the **elimination of some light-industry space** (east side of Glen) through expropriation.



## Parks, Recreational Spaces, Community Gardens

An **ADVANTAGE** of selecting Malkin as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. **Strathcona park is least impacted** and leaves room for garden/ park buffer, as the area has mature trees and room for landscape buffers.
  - If the Malkin north variation, then most impactful to Cottonwood gardens.
2. increases awareness and popularity of Strathcona, Trillium parks. This may result in more facilities and education in these parks.
  - If Malkin north route, this diminishes programming at Cottonwood gardens, ecoart, and environmental youth alliance.
3. there would be **better access (walk, cycle, transit) to the parks with finished complete street.** Currently there are no sidewalks on the south side of Strathcona park and utilizing the 30m right of way area with the Malkin route, would permit connectivity, access enhancements because there is sufficient space.
4. **Strathcona park would be better connected to the residential area.** The Malkin route would separate residential and park uses to the North, with industrial uses to the south.

A **DRAWBACK** of selecting Malkin as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. **the loss of green space including Cottonwood community gardens** because it reduces gardening space in an area that already has minimal gardening space, and it removes an important community asset.
  - If Malkin Central variation, impact is minimal
  - If Malkin South variation, no impact
2. compromise of potential eagle habitat because residents and community value their place in the park and society.
  - But if Malkin Central or Malkin south, impact is reduced
3. **noise and traffic pollution impacts on all garden and green spaces adjacent to Malkin**, because noise and air pollution make existing recreation uses uncomfortable for space users, including school groups at Trillium Park and users of cultural assets at Trillium Park.
4. the **negative impact to Trillium Park** because there would be new barriers for park users and negative impact on spaces used for school programs and cultural assets.



## Public and Other Community Facilities

An **ADVANTAGE** of selecting Malkin as an arterial in regards to public and other community facilities is...

1. **less impact to public facilities and lower mitigation costs** than (some) other options because otherwise, resources would have to be allocated away from other priorities.
2. it **coincides with and provides an opportunity for Animal Services to re-develop a facility that exceeds/meets their current needs at their existing location**, because the facility has benefits at its current location, but services have been evolving.
  - But if Malkin Central/Malkin South, the amount of displacement is less.
3. **better access to National Yard, Fire rescue/HUSAR.**
4. it seems like the **most likely route to get carried through because stakeholders would have prepared/anticipated cost/displacement.**

A **DRAWBACK** of selecting Malkin as an arterial in regards to public and other community facilities is...

1. Group completed this process to fulfill exercise requirements, however **does not see that there are significant drawbacks to civic facilities with the Malkin option.** The animal services site is needing to enter a process of future planning and this route may be an opportunity for them. The hospital master planning has considered that Malkin will be the arterial route.
2. **poorer circulation/access choices for the hospital**, as it will not be as direct or flexible for emergency circulation route.
3. **animal services will be most impacted and may require relocation, but if these buildings need to be updated/upgraded soon they can possibly go higher in density and reduce their land requirements.**
  - It was also noted that the southern or central variations will have less impact on the animal services site.
4. the outdoor perimeter spaces for the **hospital will be reduced in greenspace/quiet.**

# National

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## Transportation Performance

An **ADVANTAGE** of selecting National as an arterial in regards to transportation performance is...

1. that it **allows for higher volumes of traffic further away from residential** because the alignment is further south of Prior and Strathcona Park.
2. that it has a **lower negative impact on businesses** because of improved access and least impact on Produce Row. But the “Civic Facilities” variation may cause some disruption to Produce Row. The National-Charles St variation would require building modifications and would have impacts to Produce Row.
3. that it would **allow for more complete street / maximize flexibility of road design** because the right of way width would not be as constrained/narrow as Prior (wider than the existing route). But if the Civic alignment is selected, it would create/cause impact to municipal buildings and emergency services.
4. that it would **allow a better flow of traffic because the alignment has fewer intersections and the S-curve would discourage traffic** (lessen it). But if the National-Charles variation is selected, the transit users will have better access (reduced walking distances). But if the National-Charles variation is selected, the impact would be reduced as it is located further from Terminal/First. But if the Civic Facilities alignment is selected, it would remove the S-curve and be a more direct route.

A **DRAWBACK** of selecting National as an arterial in regards to transportation performance is...

1. the **S-curve because of safety hazards**. But
  - if Civic variation is chosen, the problem is removed but parks’ corner is cut
  - negative impacts of S curve could be mitigated by design (e.g. Clark around 15th Ave.)
  - all problems can be mitigated if National continues to Station Street.
2. **long distance between bus line (#22) and the surrounding communities**. But
  - if Civic variation is chosen, the problem is mitigated slightly. It’s still far.
  - if National-Charles variation is chosen, the bus on east section of National-Charles is somewhat closer to community.
3. **closeness of Clark-Terminal intersection** because of potential congestion. But
  - if National-Charles variation is chosen, problem is mitigated somewhat.

## \$ Cost and Constructability

An **ADVANTAGE** of selecting National as an arterial in regards to cost and constructability is...

1. **being most expensive allows us the most long-term re-imaginings.**
  - We are planning for 30 years
  - Incorporate with Flats plan without affecting parklands, residential areas
  - Intangible benefits of physical and emotional impact
2. its **potential to get funding from diverse sources**, including external partners.
  - Availability of light industrial lands into something denser
3. the **opportunity to connect to Terminal.**

A **DRAWBACK** of selecting National as an arterial in regards to cost and constructability is...

1. that it is **most expensive to build** because of widest span, land acquisition and construction costs. It may be hard to secure funding partners and positive cost/benefit.
2. that it **would take away from other city priorities and projects** because it would dominate capital demands (highest cost). But if this aligns with city need for upgrading/ expanding civic emergency facilities anyway, this would not be as big of an impact.
3. that it is the **most complex for landowners and purchasing of land and would risk political support.** But if S-curve to Grant route, it would not require moving civic or emergency facilities.
4. that it would **increase local impacts because of longer construction time and complexity**, along with relocating services.
  - But if S-curve to Grant, would have less impact, compared to variations because it is sited on existing road alignment and lessens impacts compared to other variations because that route would be sited on existing road alignment and less impact on residential neighbourhood.
5. that it **adds uncertainty to the project** because of additional costs and poor ground conditions.



## Business

An **ADVANTAGE** of selecting National as an arterial in regards to business is...

1. for the Civic variation, an **improved flow and access for Produce Row** because there would be less road congestion and easier access to an arterial (especially without the S-curve).
2. for the Civic variation, that **Produce Row will not need to relocate** as the path mainly by-passes the buildings of the companies.
3. for all variations, that it has low impact on artist/artisan and art-based businesses because many of them are located along/close to the other routes.
4. for all variations, the **potential to replace the City Works Yard with new businesses** due to land that is freed up.
5. for all variations, **better flow and access to the hospital and universities (and future businesses)** because it is closest to those destinations.

A **DRAWBACK** of selecting National as an arterial in regards to business is...

1. for all variations, **disruption to local businesses because an arterial road may cause loss of revenue, relocation, or closure.**
  - The National-Grant and Civic Facilities variations would potentially impact 35 businesses, Yellow Cab, and the back of Produce Row buildings.
  - The National-Charles variation would potentially impact 15 artists, 12 other local businesses, and Fresh Point.
2. for all variations, it would be **more difficult to access businesses on Prior/Venables** because vehicle and transit traffic would be on National.
  - But, the National-Charles variation would be slightly better because it is slightly further north (closer to Prior/Venables).
3. for all variations, a **high level of uncertainty about business impact and mitigation** because the design details for each variation have not been developed.



## Community Livability

An **ADVANTAGE** of selecting National as an arterial in regards to community livability is...

1. it will **allow Prior to be downgraded to a local serving street** because the arterial will be on National, moving traffic further away from the community.
2. it will **allow the community safe access to Strathcona Park** because this increases community wellness, recreation, and protects the eagles.
3. it **preserves the Cottonwood and Strathcona gardens** because these create community and food security.
4. it **balances community and business interests because it is preferred by both**, leading to social cohesion in the area.

*Unprioritized advantages:*

- it **leaves artist studios mostly intact** because the route runs mostly through city owned lands without disruption to many studios, and art contributes to the community wellbeing.
- it **moves traffic and congestion away from residents** in Strathcona because this reduces emissions and increases breathability.
- it is **better in line with city goals of greener city** because residents will have more greenspace and the city has ambitious goals of combating climate change.
- it has **s curves because this will slow down traffic** and create a more delightful street.
- the **overpass** because it will be more beautiful in this area.

A **DRAWBACK** of selecting National as an arterial in regards to community livability is...

1. that **access by residents to #22 is more than 5 min walk and leaves a large gap in transit** on Clark between Hastings and National (which is heavily used) and negatively impacts mobility and access.
2. **difficult access to and noise and pollution in Trillium Park** due to the arterial traffic on two sides.
3. **increasing isolation to east and west parts of Strathcona** due to the distance between vehicular access-points at Hastings and National.



## Parks, Recreational Spaces, Community Gardens

An **ADVANTAGE** of selecting National as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. the National with s-curve route represents the **least amount of impact to user experience** due to the distance and existing structures creating separation from the arterial because it minimizes traffic, noise, and pollution while preserving natural assets including tree canopy and raptor habitat.
2. the **preservation of existing parks, gardens, and natural assets** because the National with s-curve route involves the least amount of land loss.
3. the National with s-curve route will **more likely receive Park Board approval more easily** because it is the least disruptive to existing parks and gardens, thus requiring less political process.
4. **patients at St Paul's and other users will physically and mentally benefit** because the National with s-curve route will offer opportunities to mitigate land loss as part of health campus and provide access to existing natural greenways and gardens which offer areas of charm, surprise, and quiet away from arterial traffic.
5. the National with s-curve route **provides easier transit access to Trillium park** because bus routes will be closer.
6. the National with s-curve route **provides easier park access** because the arterial route will include more pedestrian and bike routes.
7. the National with s-curve route will **slow Prior to a neighbourhood street** because traffic will be diverted south.

A **DRAWBACK** of selecting National as an arterial in regards to Parks, Recreational Spaces, Community Gardens is...

1. **negative health effects on park users** (sports users and gardeners) because there are increased noise and pollution beside Trillium Park.
  - The S-Curve variation would cause more noise because of stop-and-go traffic and because the arterial is on two sides of the park.
2. it would **close down the makers garden** because the road would cut into the Northern edge of Trillium Park and the noise beside the Park would make their work untenable.
  - But the Station variation has no impact on the gardens.
3. **increased difficulty for residents to access Trillium Park** because of traffic and needing to cross an arterial to get there.
4. **greater challenge to those driving to the park** (particularly sports users) because it will be hard to find parking on the arterial street.



## Public and Other Community Facilities

An **ADVANTAGE** of selecting National as an arterial in regards to public and other community facilities is...

1. it **allows the fire training facility to relocate to a much needed larger facility** (and potentially create a regional training centre) because relocation will be necessary.
2. except for times of major disaster, **emergency vehicles will have rapid and direct access to the hospital** because National will have fewer traffic lights & pedestrian crossings.
  - But in a major disaster, there won't be as resilient a street network to fall back on.
3. it **provides more light & healing to patients** because St Paul's can move its buildings further North if it is the variation without the S-curve.
  - But if other National routes are chosen, this cannot happen.
4. the **public works yard has quicker and easier access to areas in the city** because they will be on an arterial street.
  - But if it is the Civic-National variation, then the yard will need to be rearranged.
5. it **does not impact the animal shelter** because it is not on National.
6. The **National-Charles option wouldn't interfere with the Vancouver School Board (VSB) yards.**
  - But if National-Civic or National s-curve is chosen, then the route would interfere with the VSB yards.
7. it **gives an opportunity to replace most buildings in the area**, which will need to be rebuilt by 2040 because they are old.

A **DRAWBACK** of selecting National as an arterial in regards to public and other community facilities is...

1. the **costs incurred** because works yard and fire/emergency training facilities will have to modify and/or move.
2. the **impacts and efficiencies in public services** because of the interconnected systems and optimal location of existing works yard.
3. the **opportunity costs and compromises across the City** because of the costs required for land acquisition and construction to move facilities.
4. it **hinders access and creates risks for emergency vehicles** because it creates a less direct route with fewer options for through secondary roads in emergency situations.
5. **St Paul's suffers lower safety and quality of care standards** because of hindered access, noise, pollution, lack of light, etc.
6. it creates **post-disaster challenges** because it requires St Paul's to be built on less stable ground conditions.
7. **reduced land available for St Paul's clinics and patient resources** because Malkin/National will use some space for these road options.
8. **potential impacts on VSB facility at Clark & Grant** because of intersection/overpass modifications.