

Back on Track: Renegotiating and Restructuring the Purple Line Project

Information Case Study
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Michael Bennon
Stanford University



BUILD AMERICA CENTER

**INNOVATIVE FINANCING AND DELIVERY
OF TRANSPORTATION INFRASTRUCTURE**

Introduction

This is an information case study on the restructuring of the Purple Line Light Rail project in Maryland. It includes background information on a series of events and describes some of the actions of firms, public agencies, stakeholders and elected representatives, and how those actions and events impacted a major infrastructure project. This version of the case study includes study questions, as well as background information on key topics relevant to the project and events included in this case study, but it is not formatted for classroom instruction.

The Purple Line is a 16-mile light rail transit infrastructure project connecting Silver Spring and Bethesda, two growing Washington D.C. suburbs. Once complete, the line will integrate with Washington Metro's larger transit network. A contract to build the Purple Line was awarded by the Maryland Transit Administration in 2016.

New transit lines in the United States are typically financed by transit agencies and developed via a number of different service and construction contracts. They are then maintained and operated via some combination of agency staff and services contractors. The Purple Line was unique, because it was procured via a public-private partnership, in which a single company would be contracted to design, build, finance, and then operate and maintain the new transit line over a 36-year concession. While slightly more common in other sectors and globally, when the Purple Line was awarded it was the second rail transit public-private partnership in U.S. history, after Denver's Eagle Rail P3.

Shortly after the contract for the Purple Line was awarded, a series of events caused costs on the infrastructure project to increase significantly. The state and contracted firms then underwent a multiyear renegotiation and restructuring of the Purple Line contract mid-construction.

Rail Transit Development in the United States

By many measures, the passenger rail sector in the United States is small compared to rail transportation in developed countries in Europe or Asia, and this is the case for both light and heavy rail transit, as well as for regional passenger rail and high-speed rail. American travelers use rail transit comparatively less for both commutes and longer trips. With notable exceptions, major U.S. cities have less rail transit infrastructure than comparable cities in Europe or Asia. Despite decades of planning, high-speed rail is nearly non-existent in the United States outside of the Acela corridor, though some high-speed rail projects are currently in development.

Perhaps the only metric in which the American passenger rail infrastructure exceeds those of comparable countries is the industry's unit costs. One recent comparison found the United States to have the sixth highest unit costs for rail transit projects in the world, though even that rank is misleading, because the five countries with higher costs all had rail projects with nearly twice as much tunnelling (65%) compared to the United States (37%).¹ Another recent study estimated the cost per mile of U.S. rail transit to be \$1,347 million for primarily tunneled projects, compared to just \$292 million in South Korea.²

America's lack of rail transit is not due to a lack of political will. Passenger rail transit enjoys strong public and political support in the United States. Recent polling indicates that a supermajority of Americans support passenger rail investment and service expansions, and that support for passenger rail is

¹ Goldwyn et al., "Transit Costs Project."

² Lewis, "On the Right Track: Rail Transit Project Delivery Around the World."

bipartisan.³ Various subsectors of passenger rail also enjoy significant support via federal infrastructure funding. While the United States spends more, in aggregate, on road and highway infrastructure, rail infrastructure projects tend to also receive a high federal cost-share, and transit receives a far higher share of federal funding relative to its share of passenger-trips. When including state and local funding (which is the majority of transportation infrastructure spending), transit's share of national infrastructure spending is even higher.⁴ Passenger rail is arguably one of the most popular public works sectors in the United States.

The American transit sector does face unique challenges related to the development process for large infrastructure projects in the United States. When an infrastructure project requires federal funding or an action by one or more federal agencies, the development process is governed by the National Environmental Protection Act of 1970 (NEPA). For an infrastructure project with significant environmental impacts, NEPA requires the federal agency to complete an Environmental Impact Statement (EIS), which is a study of the project's environmental and social impacts and potential project alternatives.

An EIS is typically an enormous administrative undertaking, which can produce thousands of pages of documentation and take years to complete on average.⁵ The EIS also includes a democratic process for taking community input: federal agencies must publish a Draft EIS for a mandatory public review period in order to collect comments on the study from citizens and stakeholder groups. The agency must then publish a Final EIS which includes changes and responses based on the comments received.

The NEPA process also gives stakeholders recourse to federal courts to challenge an environmental study like an EIS. When stakeholders believe that an EIS did not adequately study a particular environmental impact or alternative, they can petition federal courts and request that the project be enjoined until the claimed deficiency is remedied. Federal environmental permitting in the United States has thus evolved significantly as courts produce more federal case law regarding what the NEPA process requires.

The NEPA process and stakeholder intervention via comments or litigation are a pivotal part of American infrastructure development, NEPA is just one of many laws and regulations that impact the development process or allow for stakeholder intervention. State or local environmental regulations, other federal environmental laws, various property right protections and utility relocation regulations all protect the interests of various stakeholders, and often afford them opportunities to intervene in infrastructure projects. These regulations compound with a very natural element of political risk that comes with infrastructure development in a democracy: elections. Public support for any given infrastructure project may change over time, political champions may reach a term limit or be voted out, and new administrations may change or outright cancel projects in development.

The NEPA process applies to all federal actions, and only a very small percentage of actions with significant environmental impacts are required to complete an EIS, including many large transit or other infrastructure projects.

High-capacity rail transit projects are generally considered to have many environmental benefits. For a number of reasons, however, the sector may be disproportionately impacted by federal regulations like NEPA. One reason is that modern rail transit projects tend to directly impact a larger number of

³ Mathews, "New RPA Poll."

⁴ "Public Spending on Transportation and Water Infrastructure, 1956 to 2014."

⁵ Bennon, De La Hormaza, and Geddes, "A Hazard Analysis of Federal Permitting under the National Environmental Policy Act of 1970."

stakeholders in such a way that it motivates them to actively oppose the project. Transit projects naturally run through dense urban corridors, and thus impact many property owners, businesses, utilities and transportation corridors. Comparable transportation sectors, such as modern highway network expansions, tend to directly impact fewer stakeholders. This is because they are often only adding capacity to an existing travel corridor or, if they are greenfield highway additions, are located in more rural areas.

Rail transit projects may also “attract” higher levels of stakeholder interventions because of the size of their budgets and source of their funding. Rail transit projects naturally have very large budgets, which gives stakeholder a stronger incentive to intervene to demand “mitigation” for claimed environmental or social impacts of the project. Transit projects often include many mitigations, ranging from nearby infrastructure development or improvements, or even major scope changes such as rerouting, tunnelling, additional stations or other betterments.⁶

The “pie” of a rail transit project budget is not only large - it is also very heavily subsidized. Public transportation has very strong political support from the federal government, but pre-pandemic, federal subsidies were much higher for new capital projects relative to operating expenses. The maximum allowed federal cost share for capital projects, at 80%, is also high relative to operating funds.⁷ The subsidized source of funding may increase stakeholder incentives to intervene and reduce the incentives of local project sponsors to deny costly mitigations.

Planning the Purple Line

The contract to deliver the 16-mile light rail Purple Line project was awarded in 2016, but planning for the project began much, much earlier. Montgomery County, Maryland, purchased some right of way for the project in 1988, while exploring the potential for a new rail line between the Washington, D.C. suburbs of Silver Spring and Bethesda. In 1990, the county adopted a new master plan amendment to develop a transit line along the corridor.

For years, the project made very little progress in planning. In the early 2000’s, the project gained momentum with political support from Governor Parris Glendening and his successor in Governor Robert Erlich. In 2003, the Maryland Transit Administration (MTA) and Federal Transit Administration (FTA) formally began the NEPA process to study transit alternatives along the corridor. The project scope was also expanded during this period to extend the alignment east past Silver Spring to its present terminus at New Carrollton. See **Exhibit 1** for a map of the Purple Line’s planned alignment.

In 2008, a Draft EIS for the project was published, and in 2009 Governor Martin O’Malley’s administration selected light rail as the preferred project alternative (Governor Ehrlich briefly explored a bus rapid transit solution). Environmental permitting and early engineering continued through late 2013, when the state published a Final EIS for the project.

Around the same time, Governor O’Malley announced that the state intended to use a unique Public-Private Partnership (P3) contract to deliver and operate and maintain the new rail line via a lifecycle procurement. In 2014, the FTA issued a Record of Decision for the Purple Line, formally ending the NEPA permitting process after roughly 11 years.

The EIS studied eight different alternatives for the Purple Line project, including heavy, medium, and light investment versions of both light rail and a bus rapid transit system, and a no build alternative. The

⁶ Elkind et al., “Getting Back on Track: Policy Solutions to Improve California Rail Transit Projects.”

⁷ Mallett, “Federal Support of Public Transportation Operating Expenses.”

last alternative studied was a “Transportation System Management” solution, which was essentially a number of minor transit improvements without the development of a new line. Under the preferred “medium investment” light rail alternative, the purple line would operate on dedicated or exclusive lanes for 13.9 miles of the 16-mile system. By 2040, the new transit line was forecast to have more than 74,000 daily boardings.⁸ See **Exhibit 2** for a map of the planned Purple Line with integrations to Metro’s broader rail transit network.

Public-Private Partnerships

Governor O’Malley’s decision to use a P3 to deliver the Purple Line made it one of the earliest major rail P3s in the United States. A P3 is an alternative way to procure and deliver a public works project, and when the procurement model is applied it is generally for very large, complex projects. P3s are more commonly used to deliver infrastructure in Europe, the United Kingdom, Canada and Australia relative to the United States.

P3s differ from traditional public contracting in a few key ways. In general, a P3 entails a long-term concession contract to Design, Build, Finance, Operate and Maintain (DBFOM) an infrastructure project. Thus, a single contract governs the project’s entire lifecycle, rather than many contracts or agencies for various aspects of design, construction and then maintenance. To the extent possible, P3 contracts are also performance-based, rather than specification-based. In other words, where possible the contract specifies project outcomes, rather than tasks or methods of achieving those outcomes.

Most importantly, however, financing for the project is raised at the project level, rather than general obligation financing on the state or city’s balance sheet.

This differs significantly from a traditional rail transit project, in which a state or transit agency would deliver the project by managing a large number of disparate contracts and public employees for various services or construction work, with state or local funds raised by selling general obligation bonds.

Not all P3s entail the full spectrum of the DBFOM project life cycle, and each project differs significantly in terms of the risks and responsibilities allocated to the private concessionaire for the project. That allocation of risk and responsibility is one of the main reasons governments use P3s, because it allows the government to transfer key project risks to the private partner. P3s are thus often used for larger, complex projects due to their increased risk of cost overruns or delays.

Large infrastructure projects are extremely risky endeavors, and expose governments to liabilities via cost overruns or delays. By using a P3, public sponsors can transfer some risks to the private contractor, and thus create aligned incentives for contractors to deliver the project on time and on budget, and to meet the government’s operational objectives.

For infrastructure projects which generate funding from operations, notably toll roads or airports, the private partner may be remunerated from all or a portion of revenues from operations. For projects without a dedicated funding source, or which require a significant public subsidy, the private partner is often remunerated by a regular Availability Payment (AP). This was the plan for the Purple Line procurement.

An AP is calculated using a complex formula, but it represents a regular payment during operations based

⁸ Federal Transit Administration, “Purple Line Project Record of Decision and Final Environmental Impact Statement.”

on the amount of the facility that is “available” to the public sector sponsor during the preceding operating period. Payments can be reduced if the project is down for maintenance or the contractor fails to meet other performance standards.

The eventual concessionaire for the Purple Line would thus not be taking on demand risk, or the risk that there would not be enough paying riders to support the new transit line. The state would, however, be able to transfer some of the risks related to construction or operating cost overruns to the private partner. To get the best proposal possible, and minimize the public AP required to support the project, the MTA would manage a competitive procurement for the project.

Procuring the Purple Line

The procurement process for a P3 differs significantly from a traditional public construction bidding process. Normal public construction contracts are let after the government procures detailed designs and specifications for the work, so contractors simply compete by bidding on the already-designed project. In a P3, governments usually select a “shortlist” of 2-5 bidders before having them develop detailed proposals. The firms competing for P3 contracts are also generally consortia of construction firms, investors, design firms, and other service providers. The additional step of qualifying bidders serves to limit competition for the final proposal process, and thus incentivize bidders to invest the considerable time and resources necessary to complete a detailed proposal for the project.

The Purple Line was a novel, massive procurement, so it unsurprisingly attracted substantial competition among leading global infrastructure investors and developers. In January 2014, after reviewing the qualifications of bid teams, MDOT published a shortlist of four different consortia, each led by leading infrastructure investment funds and construction firms. The state was expecting the winning concessionaire to invest between \$500 million and \$900 million in the project, with state and federal funding covering the remainder of the estimated \$2.2 billion in project costs. Robert L. Smith, the MTA Administrator at the time, said that the “interest expressed by so many well-regarded companies is a testament to both the value of the Purple Line as a transportation asset and the power of public-private partnership to deliver value for citizens over a long period.”

When the shortlist was set, MDOT anticipated collecting final proposals from each of the teams in late 2014 and selecting a preferred bidder by early 2015. The final proposal due date ended up being delayed a year to late 2015, and in March 2016, MDOT and the MTA finally announced that they were selecting Purple Line Transit Partners (PLTP) as the preferred bidder for the project. The broader PLTP project team included more than a dozen different companies and consultants and a number of service agreements (**See Exhibit 3**). Equity investors in PLTP were Meridiam at a 70% shareholding, Fluor Enterprises at a 15% shareholding, and Star America at a 15% shareholding. Meridiam and Star America were both prominent infrastructure investors and asset managers, and Fluor was a global infrastructure developer and construction firm with more than 40,000 employees.

As the concessionaire, PLTP was responsible for the delivery and long-term operations and maintenance of the Purple Line, with subcontracts to partners and affiliate firms for project components. The design-build contractor was Purple Line Transit Constructors (PLTC), a joint venture between Fluor Construction, Lane, and Traylor Bothers. Fluor was also a member of the O&M joint venture for the project, along with Alternative Concepts, Inc., and CAF USA. Atkins was hired as the lead design firm for the project.

The Purple Line concession came together very quickly after MDOT selected PLTP as the preferred bidder for the concession. In Maryland, all major government contracts must be approved by a majority of the state Board of Public Works (BPW), which meets monthly and is comprised of the Governor, the

State Comptroller, and the State Treasurer. In April 2016, the BPW approved the execution of the project agreement between MDOT, MTA, and PLTP (an event called “commercial close”). The total lifecycle cost budgeted for the contract was \$5.6 billion at the time, making the Purple Line the largest contract in Maryland’s history.⁹

In June, PLTP closed financing for the Purple Line’s \$2.3 billion in total development costs. Those uses included more than \$2 billion in design-build costs and nearly \$38 million in development expenses. Sources for the financing included an \$875 million federal loan via the Transportation Infrastructure Finance Innovation Act (TIFIA) lending program, \$367 million in proceeds from a Private Activity Bond (PAB) issuance, \$138 million in equity contributions, and \$860 million in progress payments during construction. See **Exhibit 4** for a breakdown of the sources and uses of funding for the Purple Line’s development.

With the financing closed, construction of the Purple Line could finally begin after 14 years of planning and predevelopment. The state planned to complete the new rail project in 2022. See **Exhibit 5** for the Purple Line’s planning and predevelopment milestones.

Political Risk

While the Purple Line’s concession agreement was between the MTA and PLTP as the public and private partners to the project, those were far from the only parties involved in the Purple Line. The project faced a number of interventions and other political risks as the concession agreement came together, and the state and PLTP included some provisions to clearly allocate those risks.

In the infrastructure development industry, these risks are sometimes referred to as “third party risks” because they refer to stakeholders or other groups that are not part of the project agreement, but whose decisions still impact project outcomes. Concession agreements between public sponsors and developers need to account for these contingencies to the extent possible.

When political risks arise during a procurement, in some cases the best solution is to simply delay finalizing the concession agreement until the risk in question is resolved. That was the solution that the project adopted in 2014, as Maryland’s gubernatorial election ramped up. Then-candidate Larry Hogan was highly critical of the project, and even indicated that he would cancel it along with Maryland’s other planned rail transit project - Baltimore’s Red Line. At other points during campaign Hogan signaled that he was open to continuing both projects but was concerned over their costs and generally wanted a “shift in priorities” towards investments in roads rather than transit projects.¹⁰

It is not uncommon for large infrastructure like the Purple Line to become focal points in an election, and particularly when the project is nearing commercial close. After Governor Hogan won election and took office, MDOT announced that it would be delaying the deadline for final proposals from March to August 2015, while the new administration evaluated project costs. A local official at the time stated that bid teams for the project were supportive of the delay, as it allowed them time to develop value-engineering solutions and to wait for the new administration to commit to the project before investing further in proposal development.¹¹

In the end, Governor Hogan did not elect to cancel the Purple Line, though he did cancel Baltimore’s Red

⁹ Shaver, “Maryland Board Approves \$5.6 Billion Purple Line Contract.”

¹⁰ Dresser, “Governor Candidates Are on Separate Tracks.”

¹¹ Shaver, “What Does a Five-Month Bid Deadline Delay Say about a Purple Line’s Future?”

Line over cost concerns. Hogan's administration also introduced a number of significant cost cutting measures to the project, in what Transportation Secretary Pete Rahn said would scale the Purple Line from a "Cadillac" to a "Chevy." Combined with an increase in project funding from Montgomery and Prince George's counties, Hogan announced that the changes would reduce the state's cost share for the Purple Line from \$700 million to \$168 million.¹²

With Governor Hogan's support, the Purple Line procurement could move forward. However, Maryland's gubernatorial election was not the project's only source of uncertainty. It also faced opposition from various stakeholder groups, each with different interests and varying degrees of both power and motivation. The town of Chevy Chase, a small but wealthy suburb of 3,000 near the Purple Line right of way, was a particularly vocal opponent. The town hired a law firm to assist in its efforts to oppose the project and a consultant to review the Purple Line's environmental study. After the project's Final EIS was completed, some Chevy Chase residents voiced concerns that it did not include adequate study of a very small and translucent but endangered shrimp-like creature that had never been seen near the Purple Line but which had been found in another metro area park.¹³

Some Chevy Chase residents and an organization called Friends of the Capital Crescent Trail (FCCT) also raised concerns over the project's impacts on the trail, which runs along the Purple Line right of way. Per federal law at the time, stakeholders would have up to 150 days to challenge the permit in federal court once the project's environmental study was formally approved.

The project's most formidable opponent was widely considered to be the Columbia Country Club, as the new transit line would need to run through the club's golf course. The state already had the necessary right of way through the club's property for the project, but the club had still been able to successfully oppose the project for decades. In fall 2013, however, state officials announced that they had reached an agreement with the club. The club agreed to no longer attempt to block the project while the state agreed to slightly adjusting the alignment through the club's property and a number of other concessions, including the construction of sound walls.

These were just a few of the stakeholders that the project team would need to navigate in delivering the Purple Line. The project would also require many utility relocations and negotiations with owners or condemnations for additional properties along the route. After the Columbia Country Club agreement was announced, other local communities voiced an interest in similar concessions of their own.¹⁴

The project agreement for the Purple Line needed to include provisions to address the risks of those potential third-party interventions, which would still be outstanding when the contract was finalized. Many of those provisions included language designed to share risk between the concessionaire and the state, or to allocate risk to the party best able to manage that particular risk. For permitting, for instance, the concession included a list of government permits that MDOT would be responsible for, including the project's NEPA study, but allocated much of the responsibility for obtaining other minor government permits to the concessionaire.

The risk of right of way delays was also shared: the concession included a list of properties that the state would be required to obtain for the project, along with the dates the property would be provided. If the concessionaire identified additional properties that it would need to deliver the project but that would not be part of the system itself, it would be responsible for the costs of obtaining them. If additional

¹² McCartney and Turque, "Maryland Gov. Larry Hogan Says Purple Line Will Move Forward."

¹³ Reed, "Chevy Chase Digs in Its Heels to Fight the Purple Line."

¹⁴ Shaver, "Purple Line Route Changed to Spare Part of Columbia Country Club Golf Course."

properties were needed for utility relocations specifically, MDOT and PLTP would each be responsible for half of those costs.

The concession and design-build agreements also included a failsafe provision if the project suffered from very long delays due to stakeholder interventions or other issues. It stated that either the state or the concessionaire would have the right to make an “unconditional election to terminate” the agreement if the project’s critical path was subject to extended delays of more than 365 days.

Injunction

The Purple Line was enjoined by a federal court over its NEPA study in August 2016, roughly one month after the project reached financial close. The injunction stopped construction work and remanded the project to the Federal Transit Administration (FTA) to complete a Supplemental EIS. The ruling came in response to a lawsuit by Friends of the Capital Crescent Trail and two local citizens, which was filed in August 2014, claiming a wide range of deficiencies in the project’s environmental study.

Over the next three years, the federal district and appellate courts would order dozens of rulings in response to multiple lawsuits and appeals regarding multiple federal environmental permits for the Purple Line, covering a wide range of environmental topics. The claim that resulted in the 2016 injunction was related to Purple Line’s ridership forecast included in the EIS. FCCT claimed that recent ridership declines in the broader Metrorail transit system meant that the Purple Line ridership forecast should be updated with a Supplemental EIS. The federal district court agreed, and enjoined the project.

That ruling would be amended multiple times, but the Purple Line’s injunction would remain in place for nearly a year. Despite the FTA’s subsequent determination that the ridership issue did not warrant a Supplemental EIS, the district court disagreed and ordered one in May 2017. In April 2017 Governor Hogan even insinuated a conflict of interest in the case, since the district judge that enjoined the project was a member of the Columbia Country Club.¹⁵

The ridership issue was one of many claims made in various environmental lawsuits opposing the project, all of which were filed by the same plaintiffs. Various claims were made under NEPA, the Endangered Species Act, the Migratory Bird Treaty Act, and the Department of Transportation Act. Some of the claims were that several of the cost cutting measures implemented by the Hogan Administration, such as the removal of “green track” mitigation from the project, would cause new environmental impacts that need to be studied. These other claims were rejected by the district and, later, appellate courts, but the injunction remained in place over the ridership issue.¹⁶

The project was finally able to begin construction after the D.C. Circuit Court of Appeals overruled the district court’s injunction in July 2017. In December 2017, the Court of Appeals further ruled that no Supplemental EIS would be required for the ridership issue.

The Purple Line thus had its groundbreaking in August 2017, after a yearlong of injunction. Environmental lawsuits and appeals over the project would continue to be filed and processed by the federal judiciary until May 2021, when a federal appellate court ruled in favor of the project’s permit

¹⁵ Alpert, “Governor Hogan Says Purple Line-Blocking Judge Richard Leon Has a Conflict of Interest.”

¹⁶ Leon, *FRIENDS OF THE CAPITAL CRESCENT TRAIL et al., Plaintiffs, v. FEDERAL TRANSIT ADMINISTRATION et al., Federal, Defendants. v. STATE OF MARYLAND, Defendant-Intervenor.*, 255 F. Supp. 3d 60 *; 2017 U.S. Dist. LEXIS 89049. (This ruling from the District Court ruled on many claims in the Purple Line litigation, but the injunction remained in place regarding the ridership issue.)

under Section 504 of the Clean Water Act.¹⁷

Off the Rails

The Purple Line's NEPA injunction was the first of four major sources of delays and cost increases that plagued the project during its first three years of development. For the injunction, specifically, PLTC would eventually submit a claim for a cost increase of nearly \$131 million and 266 days of project delays.

Three other third-party risks were also sources of major delay and cost increases for the Purple Line, and the subject of negotiations between MDOT and PLTP which eventually became contentious.

Delays in right of way acquisition for the more than 600 parcels listed in the concession agreement were another source of delays and increased costs, some of which were due to delays in providing right-of-way and some of which were due to the identification of additional utility easements required for the project. PLTC would eventually claim that these right-of-way issues caused 79 days of delays and \$90 million in increased costs.

Another third-party risk came in the form of changes to accommodate CSX, a freight railroad which owned property adjacent to the Purple Line. In early 2018, the MTA amended its third-party agreement with FTX which included changes to the project's designs near CSX property, including the addition of a new crash wall. PLTC's eventual claim for the design changes included 506 days of delays and \$130 million in additional costs.

The final source of third-party conflict for the Purple Line project was caused by the Maryland Department of the Environment (MDE) and its application of Maryland Pond Code 378, which governs the creation of impoundments or dams. According to PLTC, the MDE changed its interpretation of the pond code to classify embankments and associated culverts on the project as "unintentional dams" which necessitate design review by the MDE. PLTC claimed that this constituted a Change in Law per the concession agreement, and that the MDE's new procedure cost the project 470 days of delays and \$167 million in additional costs.

All of these additional cost increases occurred within the first four years of the Purple Line's construction. MDOT and PLTP negotiated over cost and schedule compensation, and, according to PLTC, nearly reached an agreement in principle in December 2019, however, that proposed agreement in principle broke down in early 2020. Absent a relief agreement, the project's rising cost increases brought the Purple Line partnership to the brink of collapse.¹⁸

The Purple Line Breaks Down

The Purple Line partnership began to come apart in May 2020, when PLTC delivered PLTP its notice of unconditional election letter to terminate the project construction contract. The letter, which would trigger

¹⁷ Keenan, FRIENDS OF THE CAPITAL CRESCENT TRAIL; JOHN MACKNIGHT FITZGERALD; LEONARD SCENSNY, Plaintiffs - Appellants, v. UNITED STATES ARMY CORPS OF ENGINEERS; COL. JOHN T. LITZ, Commander and District Engineer United States Army Corps of Engineers; CHIEF JOSEPH P. DAVIA, Chief, Maryland Section, Northern United States Army Corps of Engineers, Defendants - Appellees, and MARYLAND DEPARTMENT OF TRANSPORTATION, MARYLAND TRANSIT ADMINISTRATION Intervenor/Defendant - Appellee.

¹⁸ Risley, "NOTICE OF UNCONDITIONAL ELECTION TO TERMINATE DESIGN-BUILD CONTRACT," May 1, 2020.

a similar notice from PLTP to MDOT, cited the provision in the concession agreement and construction contract which gives PLTC the right to terminate the contract should the project experience more than 365 days of delays. According to PLTC's claims, the project had already experienced more than 976 days of delays due to the aforementioned third-party risks.

The letter invoked what industry members considered a “nuclear option” in a claims negotiation, as it would end the partnership, potentially necessitate serious additional transaction costs for the project during a restructuring, and seriously damage the reputation of all of the parties involved. Shortly after receiving the letter from PLTC, PLTP as the concessionaire responded that, in light of the ongoing settlement discussions, “we are deeply disappointed that PLTC chose to take the action contemplated by [the termination letter].” Nevertheless, after reviewing its options and contractual responsibilities to PLTC, PLTP sent its own notice of unconditional election to terminate to MTA on June 23rd. The Purple Line public-private partnership was officially coming apart.

After the notice, Erin Hanson, a spokesperson for MDOT, stated that the agency intended to “vigorously protect the interest of the citizens of Maryland and pursue all legal options available to the state.” The statement also said that “MDOT disputes PLTP's right to file a Notification of Termination, and considers this action a default.”¹⁹

The Purple Line concession included a detailed process for terminating the partnership and transitioning the Purple Line from PLTP/PLTC back to the MTA. It stated that PLTP would develop a Transition Plan jointly with the MTA within 15 days from the termination notice. Within 30 days, PLTP would provide a list of all data and documents that would be part of the transition, the MTA would have the right to step into specific subcontracts to continue construction or design work or to make offers of employment to private sector workers on the project. The transition would be completed within 60 days of the termination notice.

In practice, such a transition is messier, and more contentious. In the case of the Purple Line, the MTA disagreed that PLTP/PLTC had met the requirements for an unconditional election to terminate the project, so all three parties to the Purple Line P3 would spend the summer of 2020 simultaneously negotiating, terminating, and litigating the future of the project. They would, on the one hand, continue the ongoing negotiation over the project's cost and schedule relief claims in the hope of reaching an agreement and salvaging the project. At the same time, they needed to proceed with the transition process and termination despite disagreeing over PLTC's contractual right to do so, and finally, they would be litigating that contractual right in court.

It did not help that the Purple Line termination was happening during a pandemic and associated lockdowns and travel restrictions. The restrictions in place made travel or in-person negotiation extremely difficult or impossible at times.

Despite disagreeing that the PLTP had a right to terminate, the state and PLTP proceeded, haltingly, through the transfer process. In late July, roughly halfway through the transition period, PLTP wrote MDOT a letter that the concessionaire needed to stick to an “orderly transition” according to the transition schedule “despite [MDOT's] lack of assistance in finalizing the Transition Plan...”

In the letter, PLTP asked that MTA identify which subcontracts that the state would be taking over no later than August 3rd, so that PLTP could begin terminating those subcontracts that the state would not

¹⁹ DePuyt, “If Purple Line Stops, Impact Would Be ‘Devastating,’ Officials Say.”

take over.²⁰ On August 5th, the state sent letters to 171 subcontractors stating that it planned to take over their subcontracts, and asked them not to leave the project, but had not yet notified PLTP that it would be doing so. On August 7th, PLTP wrote to the state requesting a written assumption of subcontracts by August 10th or that PLTP would begin terminating them.²¹ It also told the state to “cease and desist” contacting subcontractors before taking over the subcontracts in writing.

On August 10th, MDOT filed a breach of contract lawsuit against PLTP and received a temporary restraining order preventing the concessionaire from demobilizing and stopping work on the project. The restraining order would expire on 14 September, after the court held hearings over whether or not it could be extended.²²

After the injunction, State Delegate Marc Korman of Montgomery County told local news that if “reconciliation is possible, we need to get there quickly.” He added that if “it’s a divorce, we need to get to that end game quickly too...”²³

The state’s lawsuit claimed that PLTP/PLTC had not actually met the requirement that would allow them to unconditionally terminate the concession, because PLTP had not yet established that more than 365 days of delays had occurred according to the concession’s dispute resolution process. In other words, the concessionaire would need to establish, through MDOT’s agreement or via the dispute resolution process in the project agreement, that 365 days of extended delays had, in fact, occurred, before it could terminate the concession.

Little progress was made in the weeks after the temporary restraining order, and the court scheduled hearings on the order in early September. The subject of the hearings was the state’s request to extend the order preventing PLTP from terminating the concession. Work on the project was technically ongoing, but the Purple Line partnership was in tatters.

One week after receiving the temporary restraining order, MDOT sent PLTP its final decisions regarding two of the largest claims in the dispute: the costs and delays of the NEPA injunction and the costs and delays associated with right-of-way acquisition. For the NEPA injunction, MDOT granted a 160-day schedule delay (far less than that requested by PLTP), but denied all claims for additional costs. For the right-of-way delays, MDOT denied all claims in full.

Re-Stopping Work, Re-Starting Negotiations

On September 10th, Judge Jeffery Geller of the Baltimore City Circuit Court ruled that PLTP could demobilize under the terms of the project agreement and lifted the restraining order.

Judge Geller’s ruling was limited to the restraining order, rather than the broader breach of contract claims, but it was also very clear. He stated that the termination provision of the Purple Line concession was “clear, direct and absolute” and that the state simply “has no right to contest the [contract] termination.”²⁴ He further stated that there is “a public interest in the court’s refraining from rewriting

²⁰ Peter van der Waart van Gulik, “Owner Delay in Acceptance of Transition Plan,” July 29, 2020.

²¹ Maryland Department of Transportation, “Following MDOT/MTA Filing, Circuit Court Judge Grants 35-Day Restraining Order to Keep Purple Line Work on Track - MDOT.”

²² DePuyt, “Judge Grants State 35-Day Reprieve in Dispute With Purple Line Contractor.”

²³ DePuyt.

²⁴ Shaver, “Purple Line Builders May Quit Mid-Project over Cost Disputes, Judge Rules.”

contract provisions that sophisticated parties entered into, on even ground, while represented by counsel.”

Judge Geller also admonished the state for not actively preparing for the transition, stating that it “failed to participate in any meaningful way. There are numerous letters in the record in which PLTP implores the state to engage in the process. ... But the state had dug its heels in.”²⁵

The end of the restraining order did not end the litigation between the partners. In fact, the following week PLTP filed a counterclaim in the lawsuit for more than \$100 million in damages. MDOT, for its part, was seeking \$75 million in damages in the breach of contract lawsuit.²⁶

Nevertheless, PLTP and MDOT continued to both transition the ongoing construction contracts over to MDOT while also continuing negotiations to reach a settlement regarding the cost claims. At the end of September, MDOT officially took over control of 233 design and construction contracts that were ongoing on the Purple Line. A spokesperson announced that some construction, design and utility relocation work would continue while the parties negotiated.

With the termination of the design-build contract complete, the negotiation between MDOT, PLTP, and PLTC could end in a number of different scenarios. If the parties couldn’t come to an agreement on the cost and breach of contract claims, a complete divorce would be necessary. PLTP and PLTC would depart the project entirely, and their cost and other claims would eventually be decided in court. This outcome would have other negative ramifications for all of the parties. The members of PLTP and PLTC would suffer more damage to their reputations, and the investors in PLTP would need to deal with the fallout of the project company’s default. MDOT could try to deliver the remainder of the project itself, or it could solicit a replacement partner via another P3 procurement. The state would be taking on significant additional risk in either of those scenarios.

A potential settlement would continue the project under the P3, but with a few broad adjustments. The construction firms making up PLTC would be exiting the project, including Fluor, which was also an investor in the concession via PLTP. However, PLTP’s other investors (Meridiam and Star America) were infrastructure fund managers and thus not part of the project’s design-build contract. Those investors were still interested in finding a solution that would enable the Purple Line project to recover and complete construction, and which would enable PLTP to avoid defaulting on its debt.

However, restructuring the Purple Line’s various consortia would be no small task, because it would involve far more than simply resoliciting a new design-build contractor for the project. This was because the lead member of the design-build consortium, Fluor, was also an investor in the concessionaire (PLTP) and a member of the operations and maintenance contractor (Purple Line Transit Operators) as well. In other words, a restructured project would not only entail a new construction contractor, but a restructuring of nearly every organization and agreement previously in place to deliver the Purple Line. There was simply no alternative in which the design-build contractor could be replaced while Fluor still retained its other obligations on the project.

Whatever the outcome of the negotiation, the termination and demobilization of the design-build contract meant that the negotiation would need to be resolved very soon, one way or the other. The transition of construction and uncertainty regarding the future of the project caused some concerns from local businesses and residents, who were facing the prospect of extended torn up streets and open construction sites. Media scrutiny of the project and the negotiation was already high prior to the court ruling, and it

²⁵ DePuyt, “MDOT Loses Showdown With Purple Line Contractor.”

²⁶ Shaver, “Purple Line Companies Countersue Maryland for Breach of Contract over Cost Overruns.”

intensified afterwards.

News articles and interviews with local residents and businesses highlighted the toll that the prolonged uncertainty was having on the community. Maya Rosenberg, a student at the University of Maryland, told the *Washington Post* “I don’t understand why they couldn’t figure out their disputes. It just seems pretty frivolous and childish almost that they couldn’t come to a resolution.”²⁷

Very little public information regarding the claims negotiation was released by any party during this period, but occasionally information spilled into the public, mostly due to PLTP’s lender disclosure requirements for its rated private-activity bonds. One such disclosure included a letter from the MTA to PLTP providing notice that the agency intended to remarket the P3 agreement in accordance with the terms of the contract, or replace the project concessionaire in its entirety.²⁸

At the end of October, a group of state lawmakers wrote a letter to Governor Hogan expressing deep concerns regarding the fate of the project. Transportation Secretary Greg Slater stated that MDOT was working in parallel on both the negotiation with PLTP and developing a plan to complete the project on its own.²⁹

Public anger was not the only reason that time was of the essence: PLTP was also facing the prospect of an imminent default. On October 1st, PLTP signed a one-month “forebearance agreement” with the trustee representing bondholders of the \$367 million in PABs that financed part of the project. Under the agreement, PLTP’s investors contributed \$7.8 million to make a crucial interest payment due at the end of September, and bondholders agreed not to take any enforcement action to give the parties a month to negotiate a resolution. When no resolution came by the end of October, PLTP and the PABs trustee agreed to another one-month extension through the end of November.

At the end of November, MDOT and PLTP emerged to announce the broad strokes of a negotiated settlement that would enable the Purple Line P3 to eventually move forward. All of the outstanding claims could be settled via a \$250 million payment from MDOT, and PLTP would exit as the project’s design-build contractor. Fluor would also exit the PLTP consortia and end its other affiliations with the project, and MDOT would continue its partnership with PLTP via Meridian and Star America. Under the terms of the settlement, PLTP and MDOT would collaboratively solicit a new design-build contractor to step in and take over construction of the Purple Line, and in the meantime MDOT would continue to make progress managing some of the project’s subcontracts where it could.

Once finalized, however, the terms of the Purple Line settlement agreement would need to be approved by Maryland’s Board of Public Works.

The BPW Votes on a Settlement

The proposed settlement agreement went before the BPW at its December 2020 meeting. It included a detailed process through which PLTP and MDOT would collaboratively advertise a new design-build contract, while also continuing progress on the subcontracts currently under MDOT’s management, then transfer responsibility for those subcontracts to the new design-builder. PLTP would then refinance the project with the new design-build team in place. Costs during the interim construction period were expected to be \$100 million, and would be split between PLTP and MDOT up to a maximum cost of \$50

²⁷ Shaver and Lazo, “Purple Line Project Uncertainty Leaves Maryland Residents, Businesses in Limbo.”

²⁸ Quinn, “NOTICE OF INTENT TO REMARKET P3 AGREEMENT,” October 9, 2020.

²⁹ Shaver, “Maryland Lawmakers Write to Gov. Hogan with ‘Deep’ Concerns about Fate of Purple Line.”

million for PLTP.

The settlement included the following additional terms:

- The agreement would settle all outstanding claims and litigation between the parties.
- MDOT would make an initial payment to PLTP of \$100 million and would make a second payment of \$150 million once the transition to the new design-builder was complete.
- PLTP would invest additional equity in the project and agreed to underwrite the eventual financing at a return on equity 20% lower than that for the original financing of the concession.
- The state would receive the benefits of any savings associated with lower interest rates when the project is refinanced.

If PLTP and MDOT were unable to bring on a new design builder within the next year, the state planned to terminate the P3 and raise other financing to complete the project.

At the BPW meeting, Transportation Secretary Slater said that the negotiations between partners continued throughout the recent months of litigation. “I want to note that through the challenges that we were facing in this project, the court filings, the letter writing, I spoke nearly daily to our partners as we engaged to find a way to find a great path forward for this project. We believe that with a new design builder in place, and our partnership with Meridiam and Star America remaining intact, we have the tools needed for successful completion of this project.”

Governor Hogan also spoke in favor of approving the settlement so the Purple Line could continue, noting the project’s environmental and economic benefits. “We’ve already seen it result in more than \$2 billion in office, residential and commercial projects in and around the Purple Line corridor. The projections are that the Purple Line will take at least 17,000 cars off the road every day...”

After some discussion, the BPW unanimously approved the settlement.

Restructuring the Purple Line

With the settlement approved, PLTP and MDOT set about re-advertising the project’s construction contract, and passed a few milestones early in the year. In March 2021, PLTP announced that it had received significant interest from major construction firms and published a shortlist of three firms from which it would accept detailed cost proposals.

In May, the Purple Line passed a very different milestone, when an appellate court ruled in favor of the project in an environmental lawsuit challenging a permit for the project that was issued by the U.S. Army Corps of Engineers (USACE). The lawsuit, which was also filed in January 2019 by the same Friends of the Capital Crescent Trail and two Maryland residents that filed the other NEPA lawsuit against the project, claimed that the alternatives analysis completed by USACE in issuing the permit was “arbitrary and capricious” by relying on the alternatives analysis that was included in the project’s original EIS. After the ruling, the Purple Line project had no outstanding environmental litigation pending for the first time since the project began.

Despite that early progress, transitioning the Purple Line to a new design-builder would be an extremely difficult task. The shortlisted construction teams would need to put together their final designs and fixed-price proposals, but the Purple Line was no longer just a multibillion dollar public works project, it was a

multibillion dollar *half-built* public works project. The construction teams thus needed to also assess the status and quality of the completed or partially-completed construction to determine the additional work required to meet the final specifications. Further complicating the bid process, MDOT was actively managing several ongoing construction subcontracts while the bid teams were preparing proposals. The handoff of responsibility and liability to the new construction contractor would need to be delicately managed.

The complexity of the project and transition mid-construction was only one dimension of the challenge, however. The approval process for the new contractor was legally and financially complex in equal measure. The final arrangement, with a new design-builder, would need to be approved by the BPW (which only met once every 2-3 weeks), before PLTP could take the new package of contracts and raise debt financing for the restructured project. Those steps alone would add months to the restructuring timeline.

The project's existing lenders were yet another party with approval authority over the restructured construction contract. When the project was originally financed in 2016, it included a TIFIA loan supported by the federal government as well as \$367 million in Private Activity Bonds. The terms of the bond offering gave bondholders a number of protections in the event of a replacement of the project's design-build contractor, including some approval rights over the restructured construction contract in that case. This created an additional source of uncertainty for PLTP and MDOT, because the restructured project would need to be approved by a vote from the project's outstanding bondholders.

Through the summer of 2021, the new bid teams worked on their proposals and visited the construction sites of MDOT's 150 ongoing subcontracts to assess the current status of the project. MDOT and PLTP also responded to more than 550 queries from the bid teams. As fall approached, the bid teams requested more time to prepare their proposals, and MDOT and PLTP planned to collect them by the end of September. However, given all of the approvals required, MDOT and PLTP concluded that they would likely be unable to select a new contractor and finalize the restructuring before the November deadline in the settlement agreement. Instead, they went back to the BPW with a new modification.

The new modification, which was approved by the BPW in September,³⁰ gave MDOT and PLTP an additional 100 days to restructure the project, pushing the deadline to February 2022. The modification also accelerated up to \$375 million in future availability payments for PLTP, in order to repay the project's existing PABs bonds early. The payment would allow PLTP to retire the existing bonds and remove the bondholder approval veto over the restructured design-build contract.

In October, MDOT and PLTP completed their proposal evaluations and selected Maryland Transit Solutions (MTS), a joint venture between Dragados USA and OHL USA, as the new design builder for the Purple Line. See **Exhibit 6** for the organizational design of the proposed restructuring for the Purple Line project.

Back to the BPW

The selection of MTS as the new design-builder for the project enabled MDOT and PLTP to prepare a modified project agreement, which would require another approval from Maryland's BPW. MDOT prepared the updated project agreements for a vote at the board's January 2022 meeting, first releasing a report on the modified contracts and project to the state's General Assembly in early January.

³⁰ DePuyt, "Purple Line Payment Is Approved; Contractor Timeline Slides to 2022."

Approval by the BPW was far from guaranteed, given the increased costs of the modification. Total capital costs of the project under the new contract would increase from \$2 billion to \$3.4 billion. MDOT's report to the BPW noted several drivers of significant cost inflation in the construction industry, including rising material costs, supply chain issues, labor issues and mandatory wage increases from Maryland's living wage laws due to ongoing inflation.³¹

The total, long-term costs to the state of the Purple Line, including availability payments during the 30-year operations and maintenance phase of the concession, would rise from \$5.59 billion under the project's original 2016 terms to \$9.28 billion. Beyond the additional costs of the new design-build contract, the project's costs of financing also increased, and another \$219 million in construction expenses occurred during the interim period while Maryland was supervising construction subcontracts. See **Exhibit 7** for the BPW agenda item for the contract modification.

If the BPW voted to approve the new Purple Line contract, there would also be some sources of additional funding available. The increase in design-build costs meant that the refinanced project would be eligible for a larger federally-supported TIFIA loan. PLTP also planned to increase its equity investment in the project to \$280 million. The project still had access to its \$900 million federal New Starts grant, and the American Rescue Plan Act, which was passed into law while the Purple Line was being restructured, included an additional \$106 million in federal funding for the project.

Study Questions

1. What were the primary drivers of cost increases on the Purple Line project? Is there anything that the public sponsor or private partner could have done differently to prevent those cost increases from occurring in the first place? Can you identify any potential changes to the project contractual structure or risk allocation that may have prevented or mitigated those cost increases?
2. Why did negotiations over the cost claims break down in the Spring of 2020? Why was the actioned termination clause included in the original P3 contract, and were there any alternative clauses that could have been included in its place?
3. The Purple Line partnership nearly completely broke down in the summer of 2020, then recovered in the fall. What were the causes of the change?
4. Appraise the terms of the settlement approved in late 2020? How did the various members of the project concessionaire make out under the settlement terms? Was the settlement a good deal for Maryland taxpayers? Why or why not?
5. Evaluate the restructured Purple Line P3 after the design-build readvertisement? How has the partnership itself been improved or worsened by the restructuring? Has the restructured partnership adequately addressed the problems and challenges that the project faced under the original partnership structure? If yes, how so? If not, how could the new partnership be improved?

³¹ Maryland Transit Administration, "Department of Transportation Action Agenda."

Exhibit 1: Purple Line Proposed Station Map (Source: Montgomery County Planning)

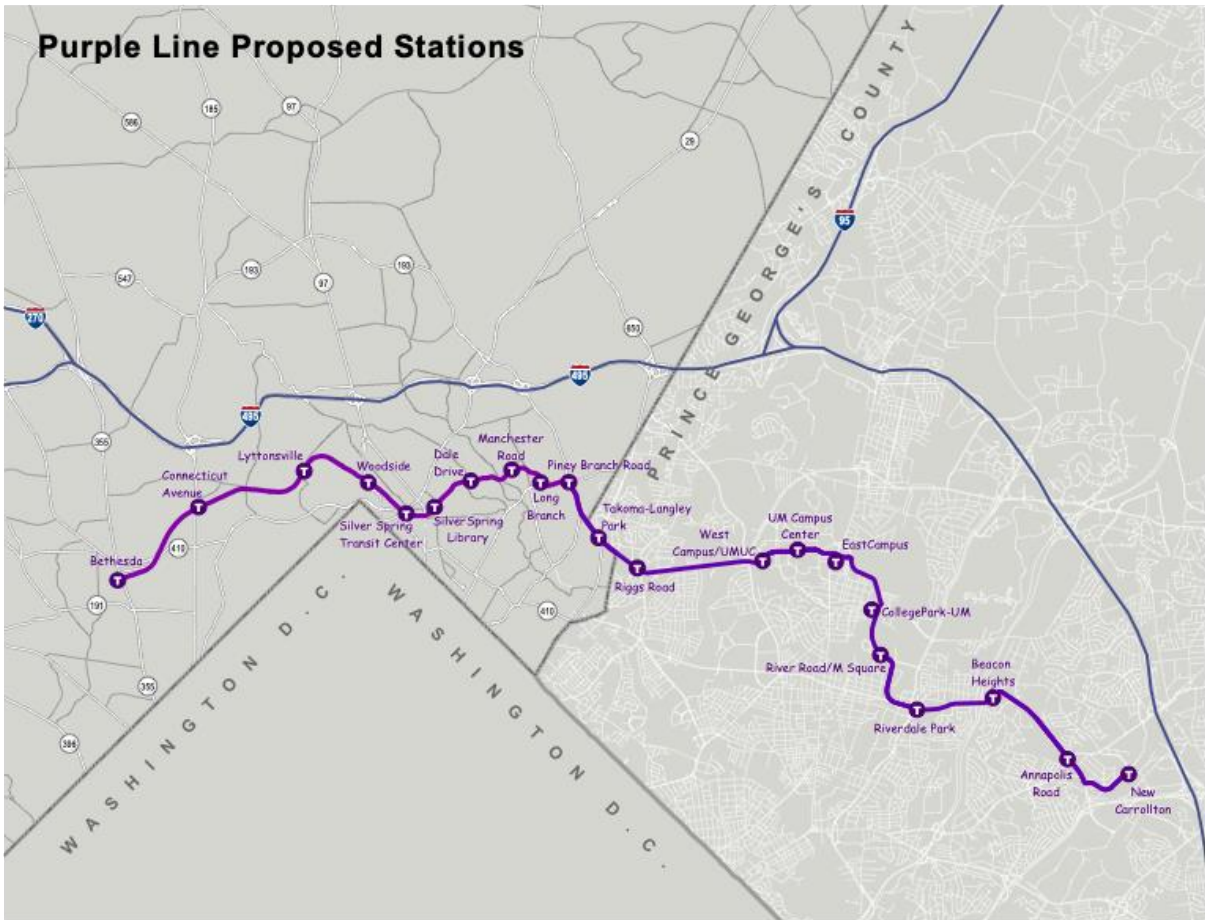


Exhibit 2: Map of Purple Line with Metro Interconnections (Source: Purple Line 2016 Private Activity Bonds Official Statement)

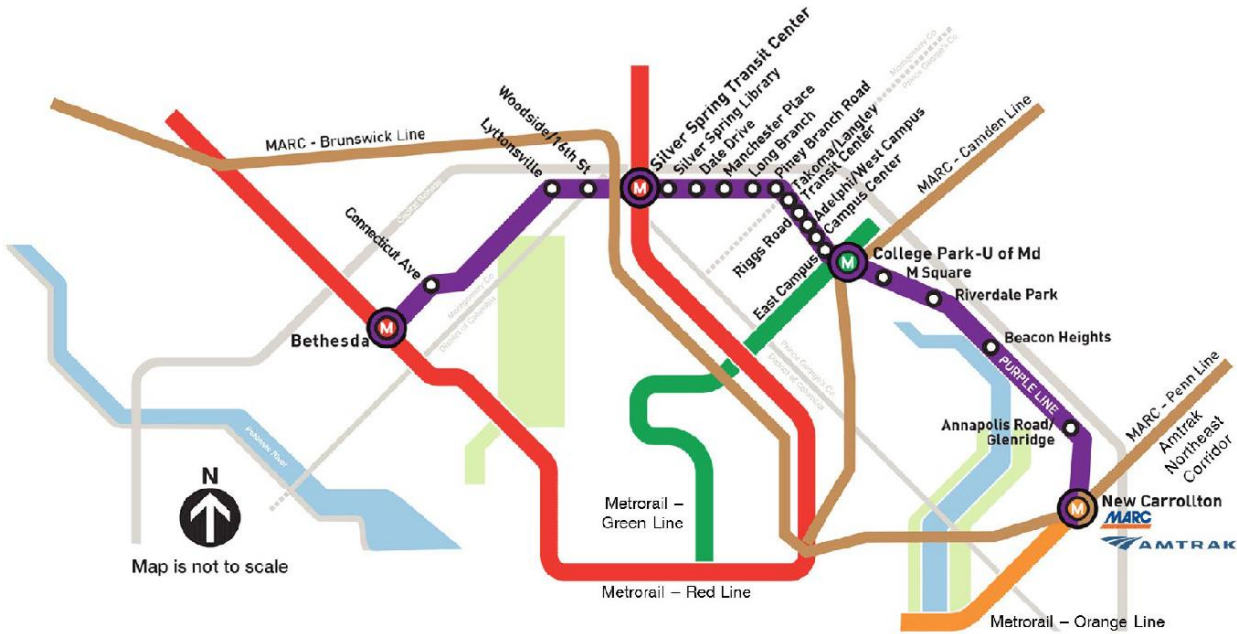


Exhibit 3: Organizational Chart of the Purple Line Project (2016)

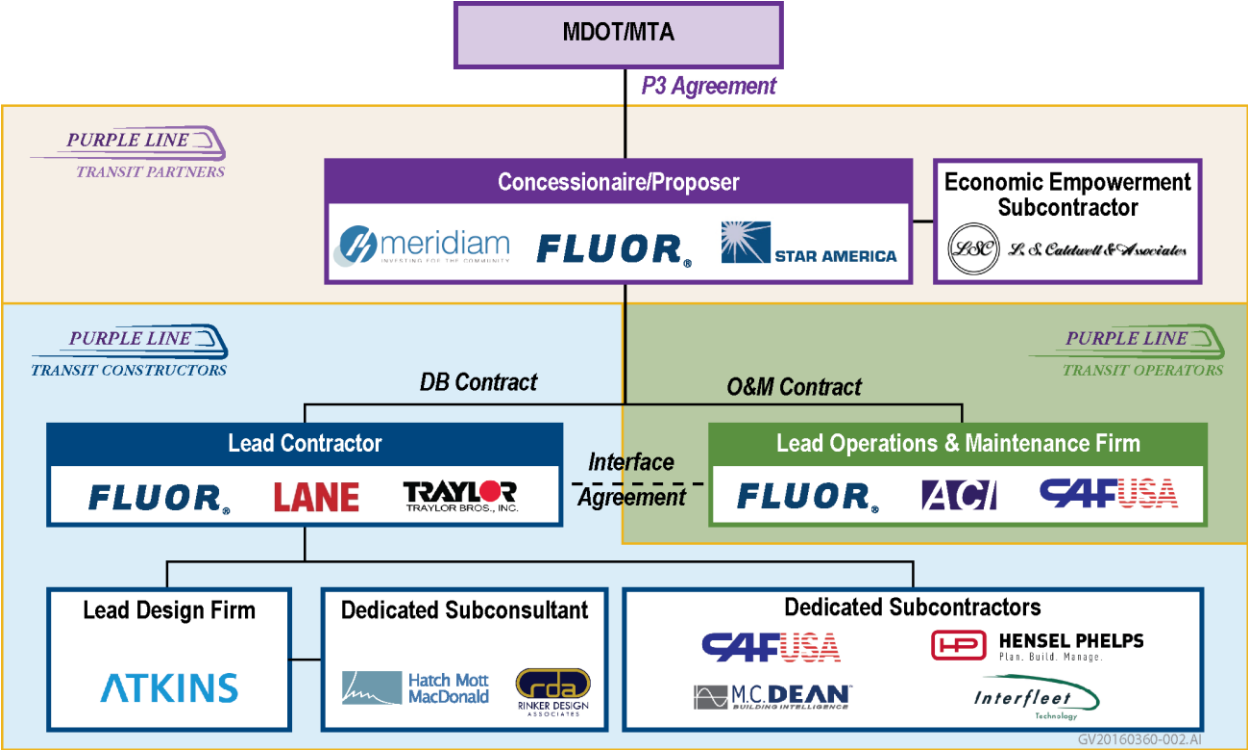


Exhibit 4: Planned Sources and Uses of the Purple Line Project (2016)

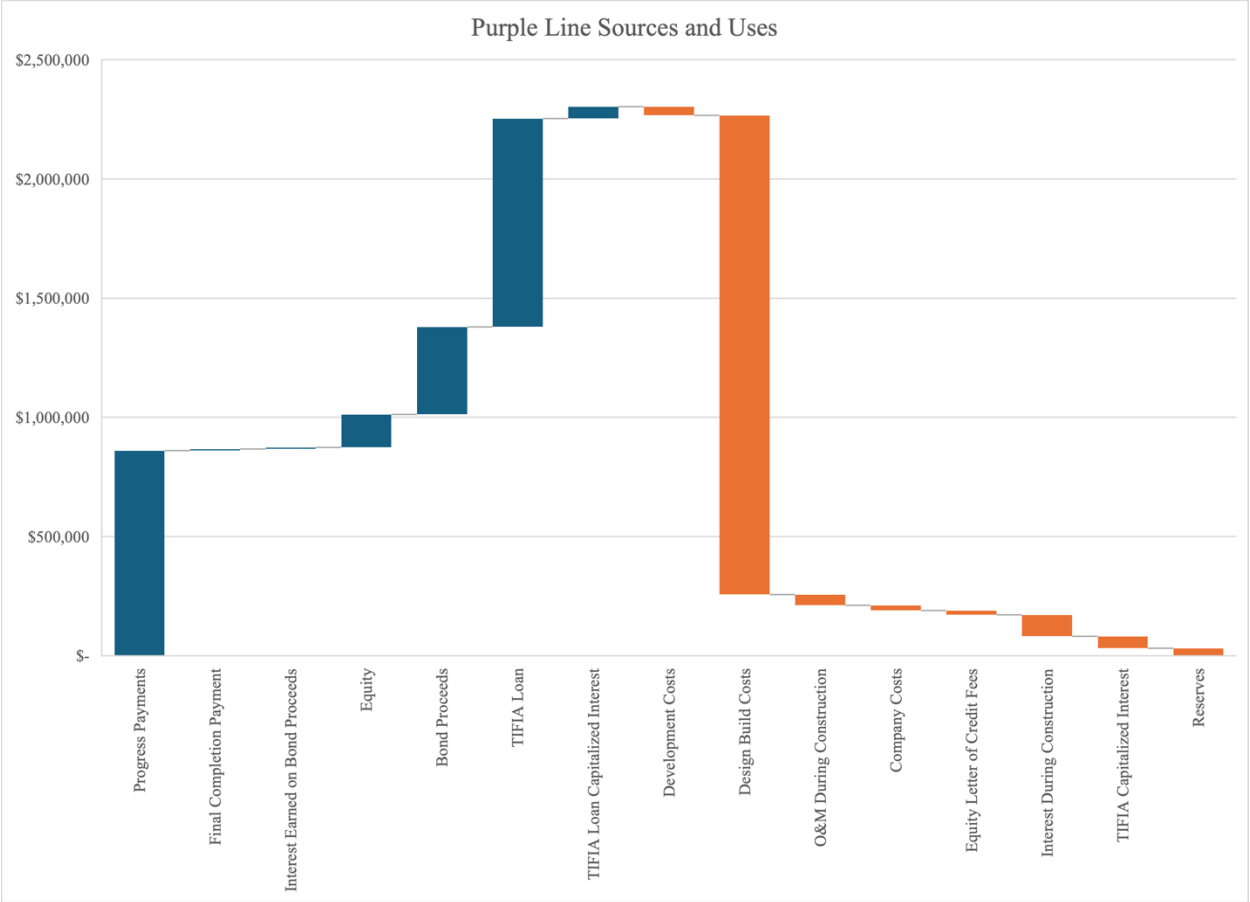


Exhibit 5: Purple Line Planning and Development Milestones (2016)

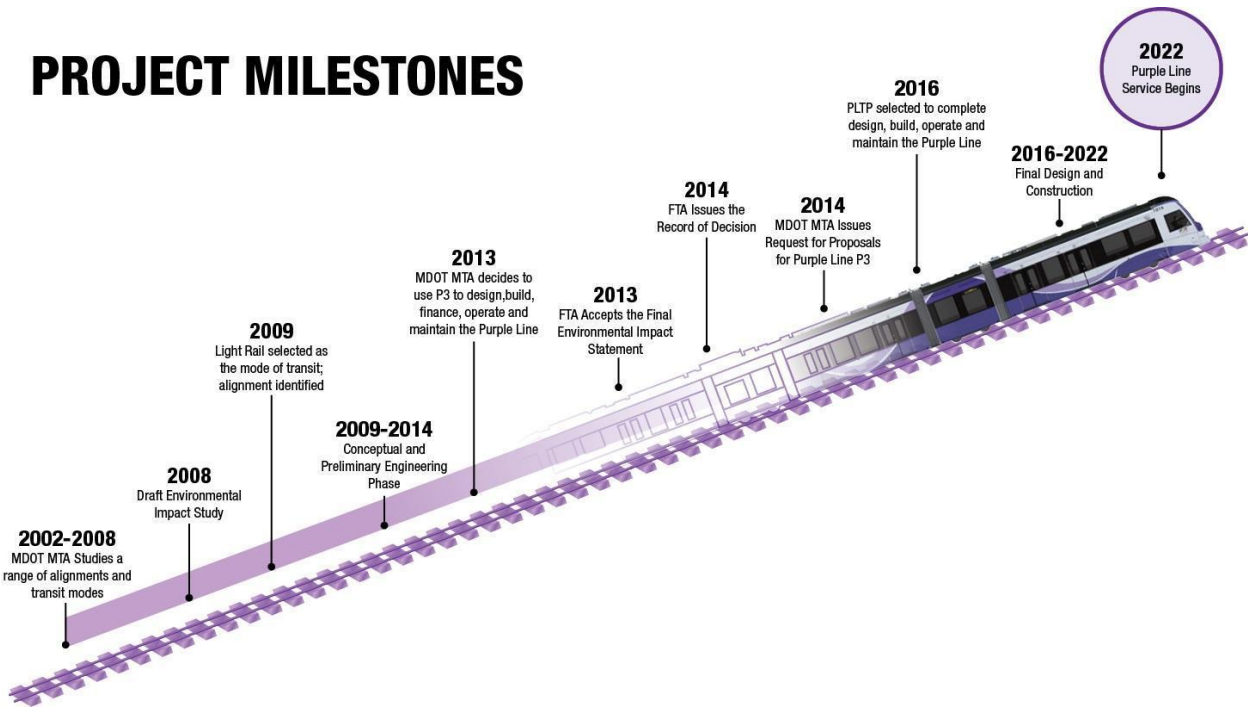


Exhibit 6: Organizational Chart of the Proposed Restructuring of the Purple Line Project

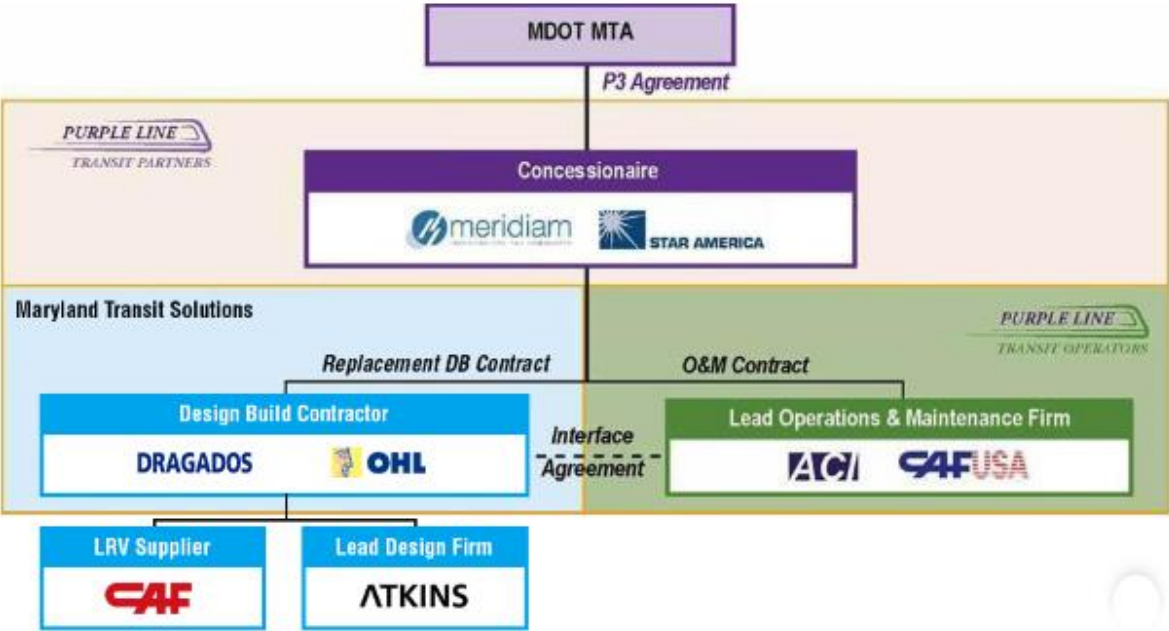


Exhibit 7: January 2022 Agenda Item for the Board of Public Works – Purple Line Modification
(Source: BPW)

16-GM-MOD. MARYLAND TRANSIT ADMINISTRATION (cont'd)

Modification Description: Modification No. 6 to the P3 Agreement incorporates the terms of the replacement design-build contract, operations and maintenance contract, and light rail vehicle contract, resulting in a change to the original contract amount and original contract term. MDOT MTA recommends that the Board of Public Works approve Modification No. 6 to the public-private partnership agreement for the Purple Line Transit Project and the design-build contract between PLTP and Maryland Transit Solutions (MTS).

Original Contract Term:	04/07/2016 – 03/11/2052
Modification Term:	01/27/2022 – 04/26/2056* *Thirty years from actual Revenue Service Availability date
Original Contract Amount:	\$5,590,000,000 ¹ (Year of Expenditure)
Modification Amount:	\$3,444,000,000 (Year of Expenditure)
Prior Mods/Options:	\$ 0 (Mod No. 1; DCAR 06/14/2016) \$ 250,000,000 (Mod No. 2; BPW 12/16/2020, 14-GM-MOD) \$ 0 (Mod No. 3; DCAR 05/04/2021) \$ 0 (Mod No. 4; DCAR 08/17/2021) \$ 0 (Mod No. 5; BPW 09/15/2021, 6-GM-MOD).
Revised Total Contract Amount:	\$9,284,000,000 ² (Year of Expenditure)
Percent +/- Change:	0% (Modification No. 1) 4% (Modification No. 2) 0% (Modification No. 3) 0% (Modification No. 4) 0% (Modification No. 5) 62% (Modification No. 6; <i>this agenda item</i>)
Overall Percent +/-:	66%



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