

Testimony of the Associated Pennsylvania Constructors (APC)

**S. Scott Grannas, President
Grannas Brothers Stone & Asphalt Co., Inc.
Hollidaysburg, PA**

Before

Senate Transportation Committee

Moving PA Forward by Investing in Roads, Bridges, and Transit

Harrisburg, PA

September 17, 2024

Chairman Langerholc, Chairman Flynn, and members of the Senate Transportation Committee, thank you for the opportunity to testify before you today on transportation needs throughout the Commonwealth.

My name is Scott Grannas owner of Grannas Brothers, Inc. in Hollidaysburg, Pa. I am also APC's current president.

The Associated Pennsylvania Constructors (APC) is a trade association that representing more than 400 members, including prime and subcontractors, consulting engineers, material suppliers, manufacturers, and others interested in Pennsylvania's road and bridge construction industry. APC has been serving the industry for over 90 years and represents the majority of actively bidding contractors in the Commonwealth's \$2.8 billion highway industry.

APC is also a founding Keystone Transportation Funding Coalition (KTFC) member. The KTFC is a diverse group of transportation advocates that came together to support one simple goal: to secure a comprehensive, long-term, multimodal solution to Pennsylvania's transportation funding needs.

While the KTFC was first organized in the early 1990s, it played a vital role in the passage of Act 89 in 2013. Act 89 represented a significant, multimodal transportation funding initiative that produced a "decade of investment" that sustained our transportation program over the last decade.

While Act 89 continues to infuse much-needed funding into our transportation systems, it was enacted now 11 years ago. We are past the lifecycle of Act 89, and we face several new challenges in our Commonwealth.

I want to applaud the General Assembly's systematic movement of the State Police funding out of the state's Motor License Fund and into the General Fund. These actions directly put money into the highway construction program.

When Act 89 was enacted in 2013, approximately \$580 million annually was taken from the Motor License Fund for State Police operations. That level rose to \$802 million in 2017 before you took action. (See Appendix A) Since then, the General Assembly has reduced this level to \$250 million with the budget you just enacted with a pledge to reduce this to zero over the next two years. APC fully supports these commitments.

Today, however, it is essential to note that additional funds created by moving the state police funding out of the Motor License Fund, combined with Congress' passage of the IIJA (Infrastructure Investment and Jobs Act) in 2021, have enabled PennDOT to make capital program investments of nearly \$3 billion per year. However, because of material costs and other inflation, the buying power of these funds is diminished. Also, technically, IIJA expires in 2026. Failure by Congress to reauthorize the federal program at the levels authorized under IIJA will result in PennDOT needing to pull back its program in the years ahead.

Appendix B is a chart of data APC compiles showing the annual value of PennDOT's letting program. For us, this is a direct picture of funding for our industry. You will see that in 2013, PennDOT's construction program was on the decline and was down to a \$1.6 billion annual letting program at a level last seen a decade prior. These were dark times for the industry. I can personally tell you this had a negative impact on my business. Some companies had to lay off workers to keep their doors open. These workers sought employment in other industries or left the state entirely. Other companies were unable to hire additional workers or invest in equipment due to the uncertainty of funding and a stable letting schedule.

You will see, beginning in 2014 and up until Covid year in 2020, the direct impact Act 89 had on the letting program. Lettings consistently hovered around \$2.5 billion annually, providing much-needed predictability and consistent funding levels vital for our industry's success.

Contractors need predictability in the construction program to invest in equipment, people, and materials yearly. Our members often bid on projects that may be 6 months to several years out before any physical work begins. Having a consistent funding program—one that is not up and down from year to year—is an environment in which we can succeed. And our success means the Commonwealth succeeds as well.

But, you will also see in this graph where the program was heading before the IJA provided a "lifeline" of support. In 2021, lettings were just barely above \$2 billion. Much of the program's erosion was attributed to several factors, chief among them being rising construction costs, scarcity of materials, and a "capped funding source" as Act 89 was fully implemented.

Appendix C is a snapshot of the inflationary impacts on the construction program, severely exacerbated by today's economic climate. In 2018, our industry had 726 contracts (aka projects) for a \$2.5 billion program. In 2023, we completed 612 contracts (over 100 less) with more funding...\$2.9 billion. We cannot stretch our transportation dollars today like we have just five years ago.

Outlook and Options

APC and the KTFC firmly believe that a multimodal, comprehensive transportation funding approach should be pursued in both the short and long term as you look to address our transportation system.

Several issues outlined below will continue to loom over our state as we look for ways to deal with these factors.

- Pavements, signals, and maintenance are currently in stable to fair condition;
- Aging bridges are getting older and in need of repair;

- Revenue streams flat (Act 89 was "Decade of Investment");
- Loss of buying power due to inflation;
- EV proliferation and increasing fuel efficiency standards;
- Dependency on the gas tax or Oil Company Franchise Tax;
- Uncertainty of future federal funding – IIJA expires in 2026.

Each of these above-listed items presents its own set of challenges. But allow me to address just a few of them.

As mentioned previously, Act 89 did help. Act 89 enabled us to tackle the rapidly growing deficient bridge inventory that propelled us to the top of the list nationally—a list no state wants to be on. We've made significant strides and cut our deficient bridge inventory in half.

PennDOT reports that 85% of its bridges older than 50 years are in fair or poor condition. This statistic shows how we must stay ahead of the curve before we rise back to the top of the list of poor bridges nationally.

Earlier, APC and the KTFC proposed a short-term funding plan for this year's budget. This plan proposed to establish a three-to-five-year bonding program primarily to fund state and local bridges. While bonding isn't a preferred way to fund our infrastructure in the long term, it can provide a way to generate funding for targeted infrastructure projects. However, APC maintains that any bonding program must have a corresponding payback revenue source so as not to mortgage our future with debt payments.

Nationally, the Federal Highway Trust Fund is heavily dependent upon the federal gas tax. At the state level, over 78% of our highway revenues come from motor fuel taxes. This creates a massive over-dependence upon gas and diesel tax consumption to support our infrastructure. However, government policies and regulations mandate that vehicles be made with higher miles-per-gallon efficiency standards. Government initiatives encourage purchasing and using electric, hybrid, and alternative-fueled vehicles. While these initiatives may be laudable and sound public policy, they come at a considerable cost—directly impacting the structural way we fund infrastructure.

Any long-term transportation funding solution will require a “multi-modal” approach and should consider new revenue for both highways and transit.

Some of the "non-traditional" long-term options were suggested by the 2021 Transportation Revenue Options Commission.

- Apply the state's gross receipts tax to electric vehicle charging stations.
- Allocate future growth in the vehicle sales tax to the Motor License Fund.
- Review how counties use the \$5 annual registration fee option to incentivize local matching funds.
- Establish a viable vehicle-miles-traveled fee.
- Implement a package delivery fee similar to utilities service fees.
- Re-examination of tolling and congestion pricing fees.
- Low-level bonding with dedicated revenue sources.

The above represent a mix of options that should be considered part of any transportation funding conversation in the future.

Streamlining and Efficiencies

However, APC not only comes asking for additional funding for roads and bridges but, we also bring to the table, suggestions for how we can be more efficient and reduce costs to deliver highway projects for the taxpayer.

Understanding that dollars have to be stretched thinner in all facets of society and due to the amount of infrastructure needs far outweighing the available funding, the transportation industry was asked to propose opportunities for efficiency throughout the Design and Construction phases of a project.

A workgroup was created with members of the Contractor and Consultant community which brainstormed a list of opportunities that could save significant time and costs on projects and as we all know in many cases time is money.

Although some of the opportunities ask PennDOT to modify some existing processes, most of the significant opportunities for savings are external to the

Department and require future discussions and negotiations with other State agencies, utility companies, railroads, Chief Counsel and legislators.

Increased use of Design Build procurements, including but not limited to the Design Build Best Value, can save extensive funds whereby contractors are able to utilize their expertise and knowledge to work alongside the design consultants to create the most effective and efficient projects and eliminate the millions of dollars of redundancy and redesign that occurs currently.

Other suggestions include creating task forces with the Public Utility Commission to establish maximum review and relocation timeframes with the utility companies and create a process for obtaining railroad flaggers in a timely fashion for all projects across PennDOT, the Turnpike Commission and local municipal projects. The delays due to these two issues have cost millions of dollars per project costs money that should be going towards the labor force or the infrastructure.

In addition, a similar task force needs created with the Department of Environmental Protection as yearly project delay costs due to permitting and reviews are extensive, and these conversations need to be collaborative, not just another item on the PennDOT To-Do list.

In summary, This is just a snapshot of the many opportunities for efficiencies in which industry looks forward to assisting the Department advance and in turn, allow for more of the available transportation funding go towards our roads, bridges, tunnels, and labor force which as taxpayers, where we would like to see the money flow.

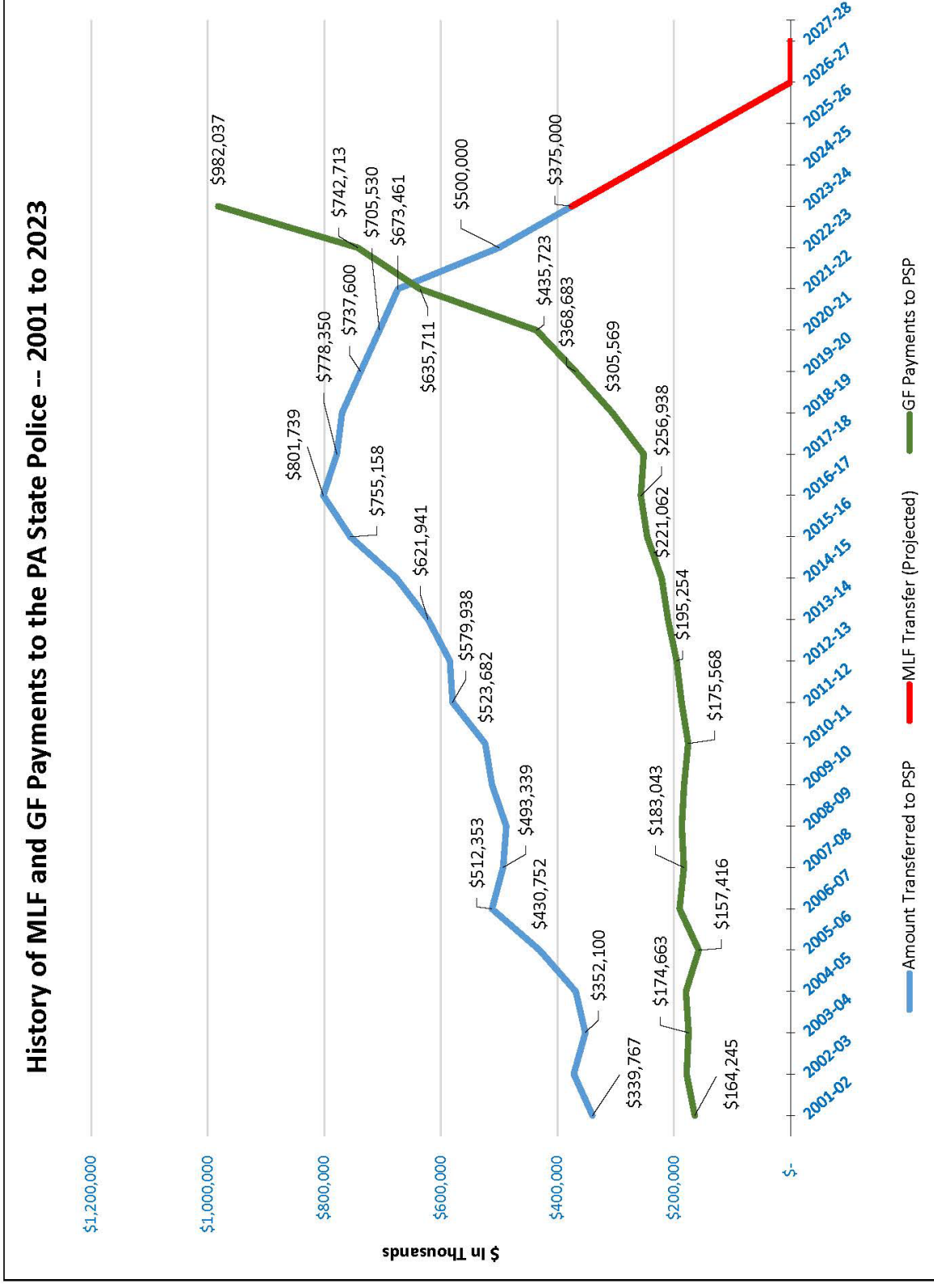
APC’s complete report and recommendations is attached to this testimony.

Thank you for allowing us to testify before you today, and I'm happy to answer any questions you may have.

#

MOTOR LICENSE STATE POLICE SUBSIDY

Appendix A

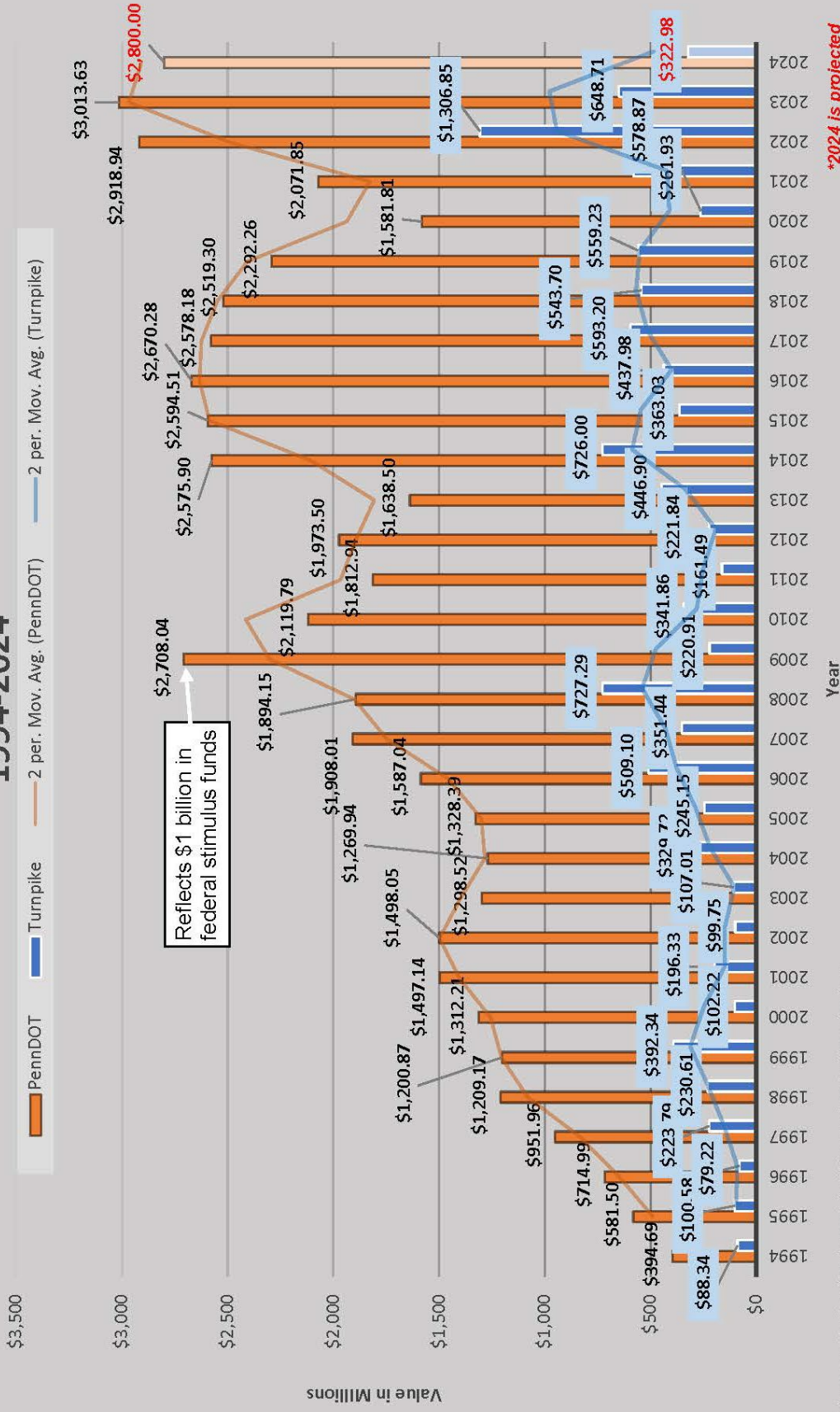


CONSTRUCTION PROGRAM HISTORY

Appendix B

Dollar Value of PennDOT & Turnpike Contract Lettings

1994-2024



Data compiled by the Associated Pennsylvania Constructors

*2024 is projected

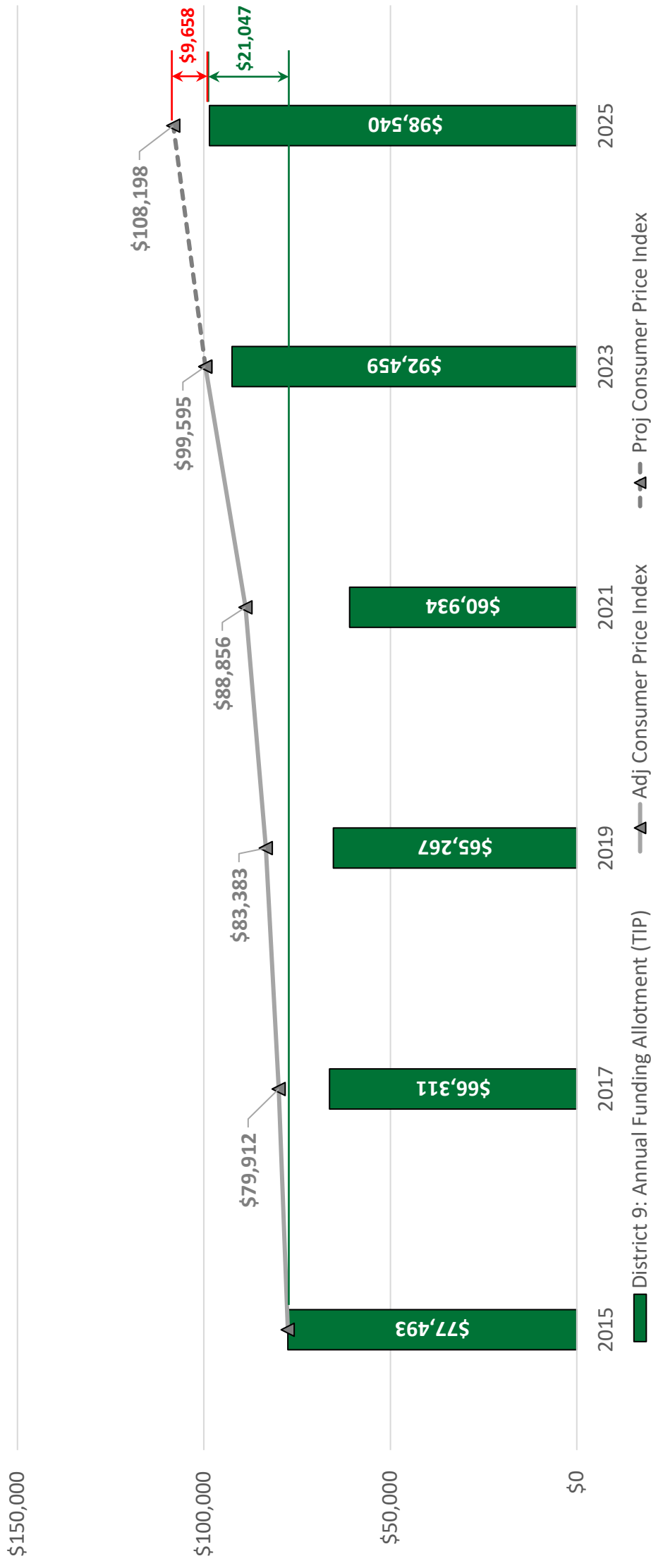
CONSTRUCTION LETTING SUMMARY

Appendix C

- **Calendar Year 2018**
 - **\$2.48 Billion**
 - **726 Contracts**
- Calendar Year 2019
 - \$2.20 Billion
 - 589 Contracts
- **Calendar Year 2020**
 - **\$2.2 Billion (Goal) - \$1.55 Billion (Actual)**
 - **473 Contracts**
- Calendar Year 2021
 - \$ 2.02 Billion
 - 566 Contracts
- Calendar Year 2022
 - \$2.84 Billion
 - 548 Contracts
- **Calendar Year 2023**
 - **\$2.93 Billion**
 - **612 Contracts**
- Calendar Year 2024
 - \$2.80 Billion (Goal)

LOSS OF BUYING POWER OVER TIME

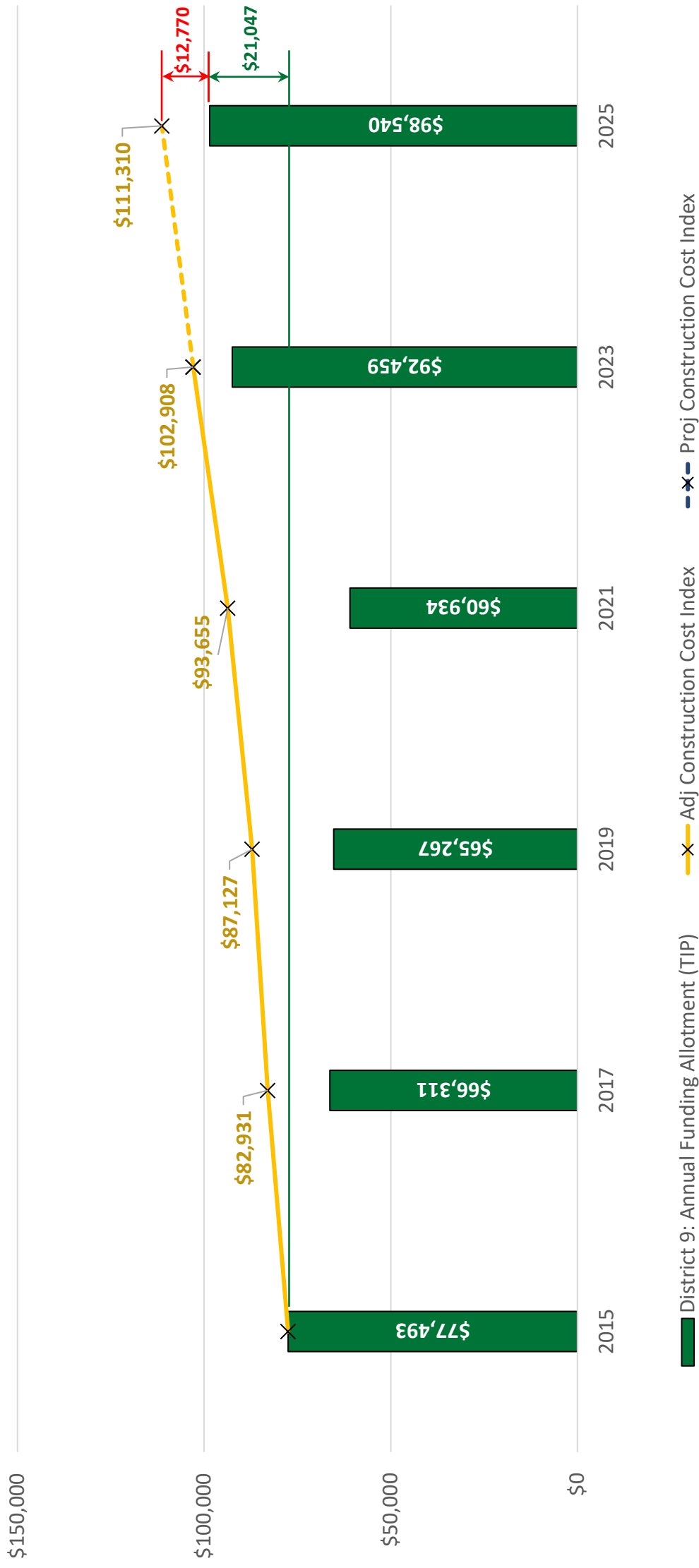
2015 Buying Power Adjusted For Inflation: Consumer Price Index



CPI - Measure of average change over time in prices paid by urban consumers for a range of goods and services

LOSS OF BUYING POWER OVER TIME

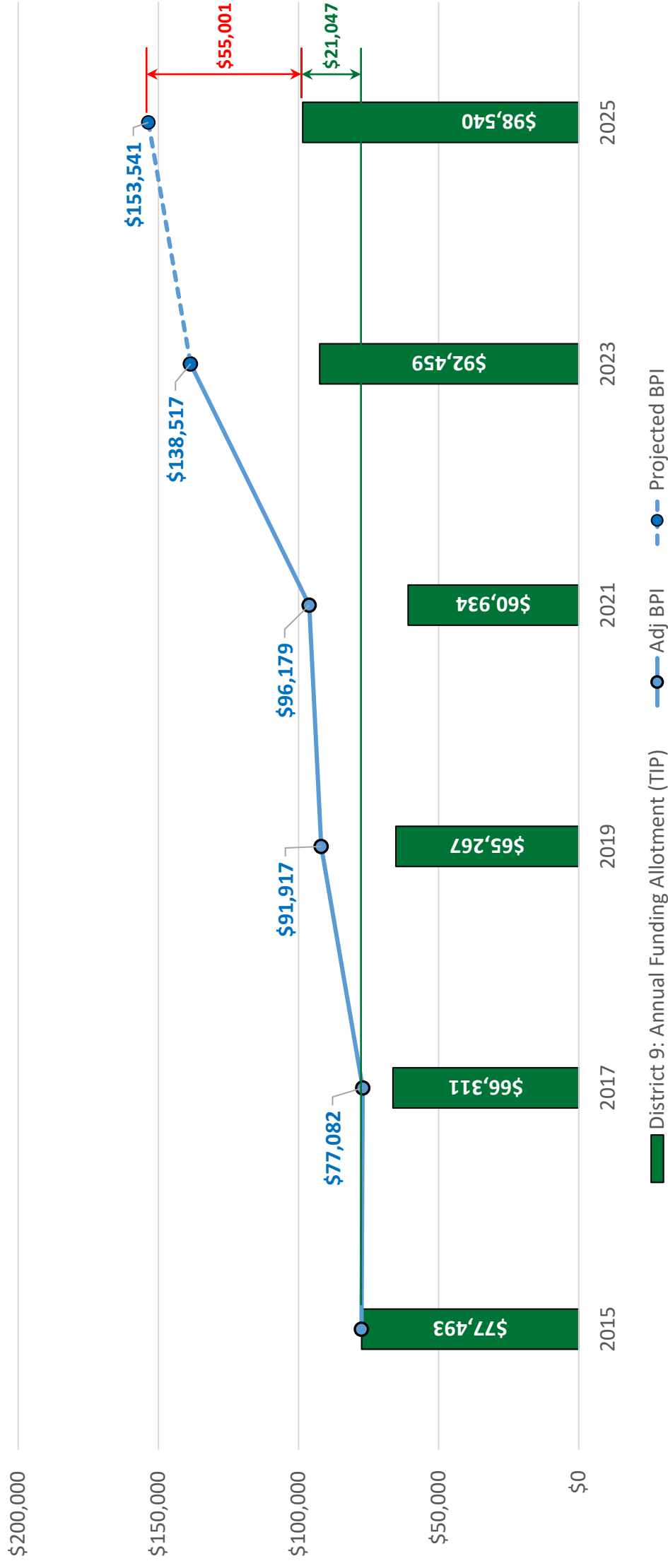
2015 Buying Power Adjusted For Inflation: Construction Cost Index



CCI - Measure of average wage and benefit rates for 20 cities as well as structural steel, bulk portland cement and lumber

LOSS OF BUYING POWER OVER TIME

2015 Buying Power Adjusted For Inflation: Bid Price Index



BPI - Measure of annual cost trends for key PennDOT construction materials: Aggregate, Excavation, Asphalt, Structural Steel, Concrete, Re-Bars

Associated Pennsylvania Constructors

Approved by Board of Directors; July 22, 2024

**Opportunities for Improvement in Project Delivery Timelines,
Increased Efficiencies, and Cost Savings**

Opportunities for PennDOT implementation:

Presented to: Senate Transportation Committee: September 17, 2024

Preliminary and Final Design

Project submittals need to have adhered to schedules. In order to be successful, the Districts need to have a way to track standard metrics via an easily tracked computer system which can be viewed by consultants, and/or contractors for Design/Build. If a project deliverable does not get submitted or approved, then Assistant District Executives for Design need to be notified on a weekly basis. Software systems exist that could accomplish this result.

For instance, a Line and Grade Submission should take 2 weeks. If it's the controlling factor on the design side and takes 6 months for submittals or reviews, then the project is delayed, and all parties are losing money.

Consultant Selection

Often this takes anywhere from a few months to over a year. This can be reduced.

Recommended Timeframes

Planned Project- 10 working days

Advertisement – 10 working days

Statement of Interest- District should review and obtain approval within 3-6 weeks. Currently this can take anywhere from one month to 4 months. Or in some cases, never selected and re-advertised.

Selection Announcement

Technical Proposal- Existing process could be months- These need to have specific deadlines based upon project complexity.

Price Proposal- Existing process could be months-These need to have specific deadlines based upon project complexity.

Negotiation- Existing process could take months and multiple times – These need to be held within two weeks.

District required to put negotiated information back into the system within two weeks and submit to CO for approval.

Interviews need to be minimized as much as possible. Costs for these interviews cost anywhere from \$25-50k for each consultant which goes into overhead and ends up costing the public. This also takes multiple people out of production. Limit these only to extremely complex projects.

Consultant submits a qualification package at the beginning of the year. Eliminate these questions on the SOI, to expand the technical information to be placed in the 3 pages.

Deputy Secretary of Highway Administration needs to have monthly reviews of the consultant agreement timeframe metrics. These metrics are also provided to the District Executive and ADED or ADEC. If the District struggles to make their timeframes, CO or other Districts will step in to assist to bring back on schedule.

Design Build Traffic Signals

Each year hundreds of thousands of dollars and hundreds of hours are wasted performing detailed traffic signal designs in highly urbanized areas. The problem is that there are so many conflicts, especially utilities, that almost all of the signal designs must be redone once the contractor has an opportunity to dig test holes and locate the utilities. At that time, the pole designs and foundations often need to be totally redesigned before the poles are even ordered. This increases the scheduled time of the project and leads to greater costs per project. It would be much more effective and efficient for the contractors to hire consultants to design the signal poles once all of the utilities have been accurately located. This may be a more prevalent issue in some Districts.

Paving projects on 4-digit SR's

Pilot a Design Build paving project on a lesser ADT roadway. In order to allow for bidding, must include specific items and scope of work. For guiderail updates, allow PDA for utility coordination. Any utility relocations would be handled by Additional Work items.

Currently the design of these roadway projects in urban areas is costing half as much as the actual paving. If you eliminate some of this design, you could stretch the paving dollars immensely.

Eliminate the requirement for the use of Subsurface Utility Engineering on simple paving jobs whereby the only reason for it is Guide Rail replacement. The contractors have to perform One Call anyhow therefore the SUE done in design is not providing a lot of value other than to potentially show where utility relocations may occur.

Local Bridge Bundling

We recommend using agreements from 2012 whereby Local Municipalities allow the Department to deliver projects for them, including procuring right of way, coordinating utilities, design, bid and manage project. There is no local match as the savings by utilizing this type of project delivery is much greater than 5%-20% normally required.

In addition, many local municipalities do not have the expertise to effectively deliver the projects in a timely fashion and these bridge bundling projects can be beneficial to all.

These bridges are normally completed using a standard low bid Design Build process. The Department hires consultants to design to 30% and then manage through construction.

Cost Savings- Overall savings 20% per project

Savings to local municipalities- 20-40%

Time Savings- Multiple years per project

Increase Use of Design Build Low Bid Procurement

For lower risk projects such as box culvert, single span bridges, roadway preservation projects with minimal environmental, utility and R/W impacts, utilize the Design Build Low Bid Procurement process. This means the owner or their consultant designing a project to 30% and then bidding the Final Design and Construction phases of the project. This allows for significant cost savings and efficient design as the partnership formed by the designer and the contractor as they are able to accurately assess specifically how the project should be scheduled, what innovations can be used, what material and equipment may be easily available or on-hand. Currently, Final designs can be unnecessarily costly as designers are often guessing on what they think is the best solution but many times that is truly just a guess and the contracting team may have a better, less expensive solution.

This procurement method should only be utilized on the lower risk projects where there are not significant impacts such as complex RR, Right-of-Way and Environmental concerns which would need evaluated and facilitated by the Department/consultant team during the Final Design phase.

Increased use of Alternate Bidding Opportunities

Current project delivery process results in Design/Bid/Build projects that do not allow opportunities for proposing alternate project designs. Many bridge replacement projects do allow for an alternate bid and have a process developed for a contractor to submit a bridge option different than “as-designed”. But the process can be quite cumbersome due to the efforts that are needed to modify the environmental document and utility or railroad clearances. Therefore, bridge replacements are an excellent candidate for the Design Build procurement process.

For roadway projects, alternate bidding opportunities are rare. For more than a decade, the Department has been working with industry to develop an accurate Life Cycle Cost Methodology to allow for Alternate Bidding opportunities, but it has yet to be refined to a point where there is a level playing field for asphalt versus concrete competition. Without allowing for competition, especially on the larger interstate projects, there is limited opportunity for contractors to utilize their proprietary skills and create more cost-effective and efficient projects. As Roads and Bridges Magazine highlights, *improving interindustry competition brings additional contractors to the bidding process and a second level of competition into the supply chain (e.g., the asphalt, concrete and cement suppliers). This drives lower costs as supply chains get established, skilled personnel develop, construction quality improves, innovation is spurred and risks decline.*

Opportunities to utilize available transportation funding:

Utilize non-Federal funding to combine PE and FD on non-complex projects

On non-complex projects such as small bridges, culverts, or roadway paving jobs where there is a very defined scope of work and minimal environmental impacts, we recommend creating a process where the designer can complete the entire project under one design phase. This would allow the environmental document to be completed concurrently with design. There is minimal risk that there would have to be any redo of design efforts because of the defined scope of work.

Cost savings- Minimal. Cost savings would be a result of time savings.

Time savings- 6 months to 2 years

Swap funding to efficiently use all funding opportunities

Utilize new General Fund transportation funding for rural roads because BIL/IIJA funds are not eligible to be used on the 4-digit road network and much of the 3-digit network.

42, 816 linear miles of State-owned Non-Federal Aid Road network with 227M DVMT

Total System- 121,891 miles

Federal Aid- 28,792 miles

Non- Federal Aid- 93,099 miles- 42,816 State-owned

The only funds able to be used are State funds. Most of the 100% State Capital funds are used to match the formula and the IIJA Federal-Aid transportation funds, therefore this only leaves the Maintenance and the 409 funds for the minor collectors and “local” roads. These are the same funds utilized to pay for County employees, snow removal, equipment, facilities, materials for summer and winter needs, etc..

Many counties currently have Zero County funds left after paying salaries and materials to allow for one mile of paving. There are 409 funds that are available from the Expanded Maintenance Program but are very limited.

Costs to pave 4-digit SR’s in rural districts are half as much as urban districts therefore the distribution needs to be commensurate to the cost of doing business in those areas.

Potential for statewide task forces/workgroups – including industry/affected agencies

Right of Way

Currently the Right of Way process adds a minimum of 9-12 months to a project timeline for delivery even if there is only a small sliver take needed for the project. When there is a larger take or a relocation it adds 12 months to 2 or 3 years to a project. This process needs totally reviewed and could help significantly move projects to construction much more quickly.

Reestablish the PNG Modernization groups to review if suggestions that were made 10 years ago are actually operating as intended.

Create policy for how to access properties with unknown owners so projects do not get held up for years tracking down information that may not exist especially on low-risk areas such as the hillside between a roadway and a creek.

R/W plans- Allow plans to be developed prior to final design so that acquisitions can begin as soon as the environmental document is approved.

Review the Appraisal Waiver limit and increase to acceptable figure. This is a necessity because it is difficult to procure general appraisers to perform the work. Same with appraiser reviews.

Review the approval level for District Right of Way Administrators and District Executives can approve higher limits and avoid Central office reviews.

Review the policy that was created about 15 years ago whereby the Department is recreating right-of-way plans and paying property owners for property whereby portions of the bridge (that has existing for 50-100 years) are currently located in what appears to be private property.

On many of these projects, costs for appraisals and follow-up court cases are way exceeding the cost and value of the parcels that are required for the projects.

Cost savings- Could be millions of dollars.

Time savings- 6 months to multi-years per project

Project Agreements

Expediting agreements could reduce the time for project delivery by months, and potentially years. Below are some examples:

- 1) Local Project Reimbursement Agreements
- 2) Contribution Agreements
- 3) Railroad Agreements
- 4) Unique Utility agreements
- 5) Right of Way agreements

We suggest allowing Reimbursement Agreements to be written for maximum available funding and only need amended for additional funding, not at every phase.

Work with OGC and AGC to create more standardized agreements, and to allow Department OCC the ability to approve small modifications. Currently two extra months at a minimum are added to every agreement for OGC and AGC to review and approve. Normally adds 6-12 months due to workload. Most of these agreements are very low risk and the time it is taking for processing causes funding to be lost in both State and Federal fiscal years because fiscal documents cannot be processed without signed agreements in place.

An example of one that should be streamlined is if a municipality would like to contribute funds to a State project to include a municipal owned facility such as a traffic signal, curb ramp,

sidewalk etc. often takes 6-9 months for execution due to workload. The agreements are secured by Liquid Fuels Funds, so the risk is minimal to the Department of not getting payment.

Use of Subsurface Underground Engineering (SUE)

Evaluate the cost/benefit ratio of utilizing SUE during the design process. For complicated urban design projects, SUE is probably beneficial and cost effective if done correctly. For roadway paving jobs, the use of SUE for guiderail replacement is an extreme waste of money and time. The contractor must perform One Call and the guide rail is limited to where it can be replaced so hundreds of thousands of dollars of investigation could be better utilized to perform the actual construction repairs.

Requests for Information (RFI)

RFI's, that could be characterized as construction means and methods, are not being reviewed at the District level, and being passed onto consultant designers, who are not able to respond to costs and District sensitive decisions. This adds significantly to project costs. There needs to be training created for Construction Managers and potentially a statewide consistency workgroup formed.

In addition, RFI's should be given a maximum response time of 3-7 days unless there are extenuating circumstances.

Railroad Coordination

The FHWA and the State continue to subsidize and fund railroad projects, yet the railroads are also costing hundreds of thousands of dollars to project delivery due to their lack of responsiveness during the Design Phase.

The Department has tried to work with the railroad companies on ways to assist with the lack of RR Flaggers that the companies are willing to provide to construction companies. This lack of Flaggers causes some construction projects to come to a halt until Flaggers become available leading to delay claims or parts of projects not getting completed.

This Flagger issue also contributes to parts of bridges not being inspected because inspectors are not allowed to work overactive railroad tracks without a flagger present.

Similar to the Utility Coordination concerns, a Statewide Task Force needs to be set up with specific time frames for response and an escalation ladder for when it does not occur.

Utility Coordination and Relocation

Across the State, thousands of miles of utilities are located within State Right-of-Way at no cost to the Utility companies but when asked to relocate, it often takes years and adds hundreds of thousands and sometimes millions to construction projects due to the delays.

There needs to be a Statewide Task Force set up with PennDOT, the PA Utility Commission and the Office of Transformation Opportunities to develop a coordination plan that will lay a more permanent timeline for responsiveness during the Design Phase and a relocation timeline that can be placed into construction contracts. If not adhered to, the Utility Company must pay all delay claims related to their inactivity.

Environmental Permitting

Depending upon the type and complexity of the project, permitting can add months or even years to projects. Understanding that every project is different and every submission to the Department of Environmental Protection is also different, there are opportunities for improvement both in the Design and the Construction phases of a project.

For both phases, the PADEP should mimic the Maryland Department of the Environment (MDE) and allow a certification process of consultants to assist with the reviews. PADEP has not utilized consultants in the past to assist with their efforts and their lack of resources causes significant delays in the project delivery process. MDE has a certification process whereby environmental professionals take certification courses and exams through the MDE and once they are certified they are then qualified to perform the MDE work on behalf of the Department. These certified consultants are then hired by the Maryland DOT, Design consultants or contractors to assist them with either reviewing or preparing the required documents. This has enormous positive impacts on the schedule where the lack of resources does not affect project delivery to the severe extent it does in PA. Depending upon size of permit, oftentimes these permits stay in DEP staff's queues for many months because they do not have staffing to perform timely reviews. PennDOT utilizes consultants to assist with project delivery which often overloads the DEP.

The approval to utilize Waste or Borrow Areas impacts the Construction phase of a project. When an NPDES is required, mostly if the site is over 1 acre, then a contractor must spend \$20k-\$50k to hire a consultant to prepare a plan, then it goes into the lengthy queue discussed above. Approval time can easily exceed 6 months. Note this process occurs after the Project Award and in most cases no work may be performed on a project until these permits are approved.

Since funding has been allocated to the project, no work can occur, which means none of the workforce can begin earning a paycheck until these permits can get approved. Many times, field crews are forced to remain on Unemployment Compensation or move to another project if one is available. If the contractor had the ability to use a pre-certified consultant to assist with the development of these permits it would severely limit the time to obtain the permit and the contractor and the workforce could start work more quickly and the time to perform the infrastructure projects would be greatly reduced.

Consideration for Policy Guidance with FHWA:

Categorical Exclusion Environmental Document versus Environmental Assessment

Recently interpretations have significantly increased the required environmental documentation necessary to obtain Right of Way acquisition. This can add years and \$50k-\$100k additional cost to project delivery. Understandably if a project required significant property acquisitions a higher level of environmental research should be completed but if one home is required and the property owner is willing to sell, this should not increase the project delivery time by a year. This issue has caused project delivery delays across every District and increased project costs significantly.

Procurement – Legislative Action Required

Increase Use of Innovative Bidding Alternatives

Design Build Best Value

- Allows for partnership between Owner/Contractor throughout Final Design
- Reduces risk, design and construction costs. Allows for efficiencies by contractor providing input throughout design process and creates accurate schedules and allows for innovations to be built into design.
- Avoids redesign and delays in Construction due to redesign. The majority of savings occur in the Preconstruction Phases.
- Currently legislation has been drafted and agreed to by PennDOT, PTC and industry professionals but has not advanced to vote.
- Other States who already successfully utilize methodology. Savings are dependent upon the size of the project and the opportunities to utilize innovations.
- The Department, PA Turnpike, and contracting and consulting industry are all in agreement with current legislation that has been proposed.
- Time Savings: Roughly 20-40% Could range from 1-4 years depending upon magnitude of project. For a typical \$30M bridge project in PA, the normal design time would be 4-6 years. Utilizing D/B would save 1- 2 years depending upon Environmental, RR and Utility impacts.
- Cost Savings: 2.5%-5% Depending upon type/size of project, opportunities for innovations. The same \$30M project would save \$750,000 to \$1M dollars.

CM/CG-Construction Manager/General Contractor

- Allows for partnership between Owner, Design Consultant, Contractor
- Lower Project costs because risks are identified early in the project. Innovative Designs and contractor efficiencies are able to be designed into contract. Also, costs are better known up front.
- Some states who are able to utilize: Connecticut, Nevada, Rhode Island, Vermont, Washington, Michigan Colorado
- Would need legislation to be utilized.

APC Working Group Members:

Cheryl Moon, The Lindy Group

Greg Cerminara, Gannett Fleming

Chad Basinger, Swank Construction Co.

Jason Fuller, HDR Engineering

Scott Rhine, S& B Fay, Inc.

Dan Cessna, CDR Maguire

Chuck Niederriter, Golden Triangle Construction

Al Hoffman, Road-con, Inc.