

Expertise Driven Project Delivery Results

Arizona Department of Environmental Quality



ACHIEVEMENTS

- 95% reduction in evaluation time
- 63% average customer satisfaction with consultant performance
- \$94,630 savings in procurement administration costs
- Transformational change in project work getting done quickly (Cut through bureaucracy, 96% reduction)

SUMMARY

The Arizona Department of Environmental Quality implemented the XPD (XPD) to procure professional services for Environmental Quality Plans and Actions. Project scopes consisting of action plans to provide environmental assessments and action plans to remediate land for future development.

AZDEQ Program Summary

Criteria	Baseline	XPD Program
Total spend to date via XPD	\$6.7M	
Number of projects	35	58
Total cost of projects	\$5.49M	\$7.85M
Total number of PI sites	0	26
Average number of years to complete projects	15.4 years	7 months
Number of projects with time deviation in any fiscal year	17	10
% of program on time	?	98%
% of program budget deviation	9.6%	-6.89%
% of milestone deliverables that need revisions	90%	<10%
% of projects where SOW is not completed in any fiscal year	50%	31%
Average amount of time required to support vendors	21.5hrs/wk	<10/hrs
Customer satisfaction	6.9/10	9/10
Number of projects	35	58
Total cost of projects	\$5.49M	\$7.85M

AZDEQ has recently developed and implemented the XPD Director Report to “roll up” the historical and real-time performance data from all consulting projects. AZDEQ’s objective is to utilize the Director Report to create transparency for AZDEQ and their external consultants, to quickly identify risk elements and their need for assistance.



Expertise Driven Project Delivery Results

U.S. General Services Administration



ACHIEVEMENTS

- 90 day reduction in procurement time
- 34% increase in Owner Project Manager satisfaction with contractor performance
- 44% reduction in change order costs
- 45% fewer days of project schedule delays

SUMMARY

The GSA observed a significant reduction in change orders and schedule delays through XPD implementation. The GSA implemented XPD on 10 construction projects and compared the performance results with 11 non-XPD projects running simultaneously (all were similar facility renovation projects).

GSA TEST PROJECTS

Total Number of Test Projects:	21
Base Case/Non-XPD Project:	11 (of the 21)
XPD Projects:	10 (of the 21)
Total Project Value:	\$24M (\$14M Non-XPD & \$10M XPD)
Average Project Value:	\$1.15M
Average Project Duration:	152 days

GSA TEST PROJECT PERFORMANCE RESULTS:

Procurement Time:	To contract 3 months early! (reduced the actual procurement process duration by 90 Days)
Client PM Satisfaction:	Owner PMs 34% more satisfied w/ XPD Vendors (7.1/10 satisfaction for Non-XPD vs. 9.4/10 satisfaction for XPD, includes all participatory project managers)
Change Orders:	44% fewer change order dollars (12.2% Non-XPD vs. 6.8% XPD, includes owner generated changes as well, percentage as taken from original contract amount)
Delays:	45% reduction in delays (savings of nearly 300 calendar days, includes all sources of delay, percentage as taken from the original planned duration)

REFERENCE DOCUMENT

Full research report available:

- Lines, B.C., Sullivan, K.T., Hurtado, K.C., Savicky, J. (2015). "Planning in Construction: Longitudinal Study of Pre-Contract Planning Model Demonstrates Reduction in Project Cost and Schedule Growth." *International Journal of Construction Education and Research*, Vol. 11, Issue 1, pg. 21-39.
<http://www.tandfonline.com/doi/abs/10.1080/15578771.2013.872733#.VxTsvkrJhE>



Expertise Driven Project Delivery Results

University of Alberta



ACHIEVEMENTS

- \$400,000 internal savings per year on first XPD Pilot project (custodial services)
- 100% Reduction of Outside Consultant Project Management
- \$8-12M risk avoidance on Design-Build of a Complex Research Facility
- \$190,000 in accepted Innovations to improve design project quality
- Created XPD-Best Value Specialty Position inside the organization

SUMMARY

University of Alberta was the first institution to implement the XPD in Canada. The University started in 2012 and 2013 with three major pilot test projects, where they internally documented a savings upwards of \$12M on due to XPD project efforts, summarized below:

1. *Custodial Services (\$80M, 10 year contract)*
 - UA Internal Assessments concluded that **XPD saved \$500,000 per year** (3 year initial contract, with options to extend up to 10 total years) in upfront costs.
 - **Additional \$400,000 internal savings** for each following year was also realized due to innovations proposed by the awarded vendor (after owner-approval of the vendor's value added proposal) which enabled internal reassignment of 3 FTEs to different work on a fulltime basis.
2. *Construction of a High Tech Research Facility (\$35M, Design-Build contract)*
 - **Univ. of Alberta AVP personally managed the project and eliminated the need for an outside consultant. Their internal auditors estimated that XPD saved 14-18 months in schedule and \$8-\$12 Million in cost when compared with traditional processes.** This includes savings realized from the risk-based pre-award clarification process, which eliminated or mitigated change orders that would have otherwise occurred during construction to drive additional changes and cost increases.
3. *Design for building redevelopment (\$4M design, \$160M future construction)*
 - The University accepted \$190,000 in proponent-generated Value Added ideas that delivered design services beyond the minimum requirements.
 - **On-schedule completion, 0% change order rate**, and Owner Project Manager satisfaction with the Consultant's performance rated as a 10 out of 10.

XPD Results across Canada

Building upon early successes achieved by the University of Alberta, additional universities and government agencies across Canada have begun XPD Implementation. As of 2016Q1, a total of **14 public institutions across Canada have implemented XPD, resulting in a direct cost savings of \$54M+**

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Expertise Driven Project Delivery Results

Dalhousie University



ACHIEVEMENTS

- Reduction in change orders on Construction Projects (\$180,000+ in current value)
- On-Time Improved construction project schedule performance (50% on-time or early)
- \$1M+ in accepted Value Added options proposed by XPD vendors

SUMMARY

Dalhousie University began implementing the XPD (XPD) in 2013, predominantly on renovation projects, new construction, and design services. Across Dalhousie's construction projects, the following procurement results have been achieved:

- Awarded proposals are 14.4% below project construction budgets
- The awarded XPD contractor was also the lowest cost 53% of the time.
- The XPD evaluation process identified and avoided selection of multiple "false" low bidders
- 450 hrs of procurement personnel development through numerous on-site training sessions and workshops.
- Greatly improved Inter-department synergies due to improved collaboration.

Summary of Benefits Achieved on XPD Projects

Documented Savings & Quality Improvements	Total Value Gained
Accepted Value Added Savings	\$361,810
Accepted Value Added Additions	\$1,880,320
Change Order Reduction – Minor Projects	\$121,689
Change Order Reduction – Major Projects	\$68,868
Avoidance of Fee Increases – Planning	\$165,000+
Total Value Gained:	\$2,597,687+
Estimated ROI:	549%

Note: the above Values only reflect directly quantifiable results. These values do not account for additional XPD program value that has been achieved in the following areas:

- Improved schedule performance (over half of XPD construction projects finished on-time or early).
- Competitive pricing for potential change orders during the procurement stage.
- Improved long-term vendor accountability due to documentation of Past Performance Information.
- Savings and risk avoidance achieved via application of XPD training on Dalhousie's non-XPD projects.
- Avoidance of additional fee increases in design phases.

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