IPD

The Red Deer Catholic Story

PNW A4LE, Banff, Alberta
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Who Are We?

- Red Deer is located between Edmonton & Calgary
  - Population - 100,000
- Red Deer Catholic Regional Schools
  - Multiple communities, 4 counties
  - Approximately 10,000 students
  - Publicly funded
Who Are We?

- Red Deer Catholic Regional Schools has schools in
  - Red Deer (13 +1 opening in 2017)
  - Sylvan Lake (2)
  - Rocky Mountain House (2)
  - Innisfail (1)
  - Olds (1)
  - Blackfalds (1 opening 2017)

Project Background

- Design started prior to the approval of a 900 student high school (St. Joseph) in February 2014.

Project Background

- Community partners:
  - Red Deer Royals.
  - Marching band needing practice facilities
  - 2100 sq. m. field house
  - Storage and additional practice rooms

ST. JOSEPH HIGH SCHOOL
KINSMEN FIELDHOUSE
HOME OF THE RED DEER ROYALS
Project Background

- Community partners:
  - City of Red Deer.
  - Change rooms for soccer pitches

Why IPD?

- Budget
  - Initial cost was $6 million over budget (without field house and washrooms)
- Previous DBB project less than 5 years old
  - Metal and membrane roof replaced
  - Boilers require replacement
  - Litigation

Consultant team selected.
- Started the design process with a traditional Design-Bid-Build.
- Initial cost report indicated we were over budget about the same time the announcement occurred.
The Approval Process

- The Board of Trustees
- Alberta Education
- Alberta Infrastructure

The Selection Process

- Consultant team selected for Design-Bid-Build.
  - Was the team willing to forgo existing contract and enter into IPD?
- Contractor Team required RPF to meet
  - Alberta Infrastructure tendering guidelines
  - NWFTA (North West Free Trade Agreement)

The RPF

- Two stage RFP
  - Stage 1 - General Contractor to self assemble trade partners teams.
  - Stage 2 - Interview and compensation.
Stage 1

- We asked the GC to assemble a team with the following members:
  - Structural
  - Mechanical
  - Electrical
  - Any other trade that they felt would have a significant impact on schedule and budget.
  - An alternate to each trade was also requested.

Stage 1 Evaluation

- Each submission was evaluated by an evaluation team based on the criteria in the RFP.
- Shortlist to 3 for the interview.
- Evaluation team:
  - Owner
  - Architect
  - Alberta Education
  - Alberta Infrastructure

St. Gregory the Great Catholic School

- A new K-9, 500 student school (St. Gregory the Great Catholic School) was announced in October 2014 to be located in Blackfalds.
- RFP Stage 1 had been completed with interviews scheduled.
- RFP was cancelled to allow the 2 schools to be bundled under 1 contract.
- RFP for consultant services under IPD was created and issued. If the same consulting team was not selected we could not bundle these 2 projects together.
- New contractor RFP was issued.
Stage 2

- Interview
  - Interview questions were included in the RFP

- Compensation package
  - Sealed envelope handed in at the interview
  - Profit %
  - Overhead %
  - Labor rates

Stage 2 Evaluation

- Evaluation team
  - Same as Stage 1

- Interview
  - All trades present

- Compensation package
  - Opened after all interviews were complete and scored.
  - Accounted for 20% of overall score

Contract

- Poly Party Contract
  - 10 trade partners, 4 consultants, 1 owner
  - Canadian/ Alberta aspects
  - Professional liability clause
  - Lien holdback
  - Transparency is the key
Partners cannot sue each other
All expected profit is set aside
Milestone payments
SMT (Senior Management Team)
Each partner get 1 votes, owner 4 votes
PMT (Project Management Team)
Owner (1), architect(2), General Contractor (2)

How does the profit work? ICL (Incentive Compensation Layer)
Base on each partner’s profit expectation \% 
Completion of validation we know what each partner will be
spending on the project.
  Mechanical scope of work = $5 million @ 5\% profit
  Mechanical profit = $250,000

What about Lien hold back?
Commodity trades will have lien hold back as in a traditional project.
Profit is not paid out until the end (Milestone payments).
As long as the profit (ICL) is larger than the lien holdback
requirement on the IPD partners (trades only) we are OK
As the lien holdback requirement increases, additional money may
need to be held back to ensure the full lien hold back amount is
available
What have we gotten into?
- IPD training!
- Big room?
- Defining goals?
- Setting values?
- Pull Planning?
- Lean?
- Adding value?
- BIM?

The Journey Begins
- RFP interviews concluded November 17, 2014
- IPD training and validation started November 19, 2014.
  - Met daily until Christmas
  - 3 times a week in January
- Validation was complete early February 2015
  - $1.7 million over our allowable costs (3.2%)
  - Team felt they could find this in savings and agreed to sign contract

Target Value Design
- Designing to a budget rather than hoping the budget matches the design
Opportunities

- Overall site master plan
- Managing lifts & equipment rentals
- St. Gregory site conditions
- Big Room
- Stair railings

Opportunities

- BAU

Opportunities

- Pit of despair
- St. Joseph mechanical design - heating plant must be sized so that 5th Class Power Engineer is not a requirement
- St. Gregory temporary office
- Shared bus loop with Wolf Creek Public Schools
How to add value?

- Creating a culture of collaboration.
- Co location
- The Last Planner
- BIM
- View Point Construction Management

Value

- Big Room

Value

- One trade installing vapor barrier and insulation
- Chapel - door
- Ease of Problem solving
- Railing
Value

- Common use of lifts
- IPD is not necessarily the cheapest solution, it is the best solution.
- Installing gym & field house lights from top
- Friendship
- Fieldhouse (Precast vs Sprung vs pre engineered)
- Future expansion
- Site development for future schools

It’s not easy!

- Hold each other accountable and support each other
- Monthly forecasts
- Allow leaders to step up
  - Exposed to weaknesses and strengths of various trades.
- SMT vote!

The Journey Continues

- Milestone 1 (Building Permit)
  - St. Joseph (June 2015)
  - St. Gregory (March 2016)
- Milestone 2 (Building close in)
  - St. Joseph (April 2016)
  - St. Gregory (January 2017)
The Journey Continues

- The latest forecast (Apr 2017)
- Approx. $2.6 million under allowable cost (%)
- $4.3 million swing in budget in the last 19 months
- Owner requirements still met
- Wish list items being added back in

What does IPD deliver?
"An Owner needs to decide what it’s buying – a product or a team to solve a problem that no one completely understands and that keeps changing."

- Jim Carroll, Washington Group
Questions?