

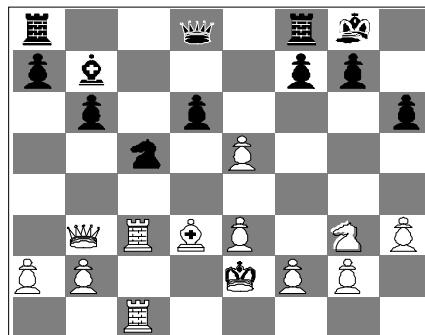
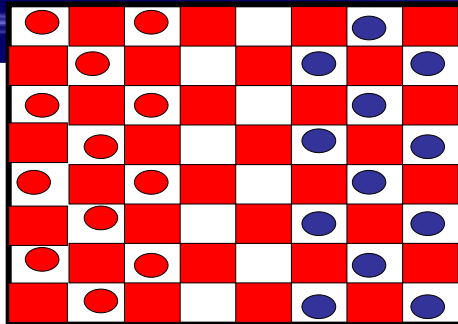
- 2008 INDOT Planning Area Realignment - Integrated Transportation Planning Division

2008 Road School Presentation

David Holtz

March 26, 2008

[Interrupt w/?s please]



2008 Indiana Department of Transportation Goals

1. Deliver the INDOT (2009 & beyond) construction program.
2. Meet or exceed specific improvement goal on performance measures.
 - Goals unique to planning.
3. Systemically reduce the cost of construction.
4. Improve ability of Hoosier businesses to compete for INDOT business.
5. Meet or beat administrative budgets.
6. Personnel development.



2008 Indiana Department of Transportation Planning Goals

1. Complete Commuter Rail Study NLT 31 August 2008.
2. Complete Mass Transit Study NLT 31 December 2008.
3. Complete 2008 deliverables for Illiana Expressway feasibility study.
4. As lead state, launch feasibility study for I-70 Dedicated Truck Lanes COF project.
5. Submit all Federal reports & plans accurately and on time.
6. Complete EXOR functionality improvements including linkage to GIS database.
7. Update relinquishment process.
8. AND OTHERS.



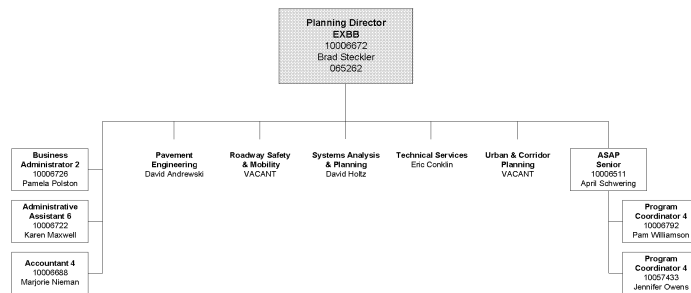
2008 Indiana Department of Transportation main effort

1. Deliver Major Moves Program.
 - On time.
 - In budget.
 - Within engineering scale.



Indiana Department of Transportation
Planning
065262
 Revised 3/12/2008

Old INDOT Planning Division organizational structure



New INDOT Planning organization - basic concept

1. This is a realignment and not a re-organization.
2. 2 divisions created out of the old huge planning division.
 - Integrated Transportation Planning Division (THIS TALK'S TOPIC)
 - Engineering Programs Divisions (Brad Steckler's AI, not today's topic)
3. Integrated Transportation Planning Division
 - Long-range planning
 - Significant corridor and project planning
 - Macro-level system planning
 - Budget & program planning
 - Programming



How should INDOT respond to future challenges of...

- Infrastructure performance?
- Financial resources?
- Staff resources?

- Know our weaknesses
- Be smart with investments—target and optimize
- Coordinate intellectual assets



Base four planning question ...

Where do we need to be in any planning horizon?

Why do we need to be there?

How do we get there and how much will it cost?

What happens if we fail?



Continually monitor performance of the transportation system—identify weaknesses

Themes of a coordinated planning process to identify needs, test candidate projects, and select new projects:

Establish most favorable, fiscally responsible investment mix across broad functional areas

Define merits of individual project-level investment opportunities

Select and program best-performing projects


Maintain core integrity of the investment



Managing Work Flow


- Funds Management Committee—assignment of budgets by broad functional area, based on performance status vs. goals
- Potential investment opportunities enter by variety of channels
- Due diligence (investment opportunities/proposed projects)
- Definition of project
- Benefits and costs (effect on performance and value)
- Selection screening of projects by functional area
- Program/activate project
- Production
- Construction
- Operation & maintenance

Certain events ...



IRP Division – Departmental Planning Philosophy and Principles – 1 (in no particular order, priority or sequence)

1. Collaborative planning conducted, (i.e., invisible organizational seams).
2. Reality-based, multiple scenario, planning courses-of-action considered/evaluated.
3. Nested planning operations conducted, (i.e., shared purpose/goal).
4. Budget & revenue sensitive planning effected.
5. Pragmatic expectations created via multiple planning scenarios.
6. **Effective use of scarce funds required as projects/programs are de facto competing for the same dollar.**
7. Network effects of proposed & completed major projects considered.



IRP Division – Departmental Planning Philosophy and Principles – 2 (in no particular order, priority or sequence)

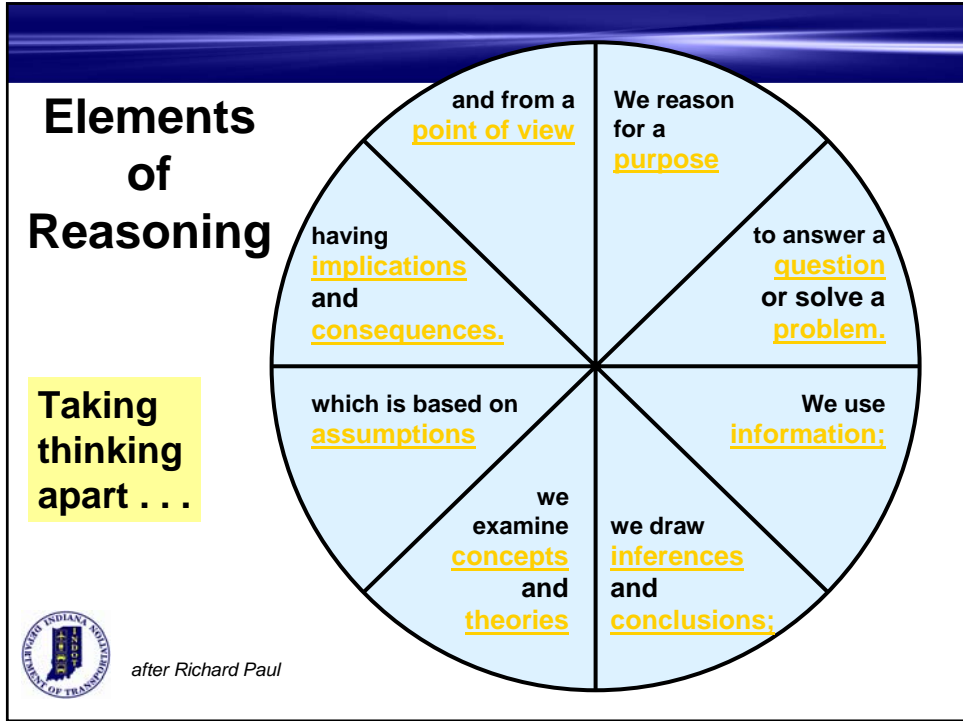
8. Representatives/agents of INDOT integrated into planning operations, (including employees, contract-employees & contractors).
9. Optimize/ prioritize spending by identifying exactly what department is getting from its projects for the money expended.
10. Acknowledgement of realistic trade-offs between various courses-of-action and projects.
11. Trustee/ stewardship approach to system planning & management.
12. Act as staff advisor role to department's executive leadership and support their leadership philosophy, intent and lawful authority.
13. Conduct data-driven, objective planning operations.



IRP Division – Departmental Planning Philosophy and Principles – 3 (in no particular order, priority or sequence)

14. Frame planning products using elements of critical reasoning and intellectual standards.
15. Acknowledge consequences of decisions, i.e., 'if-then'.
16. Predict 'before' performance measures needs [and compare to] assessed 'after' performance measures produced.





Intellectual Standards

Testing the quality of your thinking. . .

- Clarity
- Accuracy
- Precision
- Relevance
- Depth
- Breadth
- Logic
- Significance
- Fairness

A good start...

What standards might you add for your discipline?

after Richard Paul

Setting the Stage ... (Joe Gustin)

1. Do you think spending is tied to long term asset performance?
2. Do you think we efficiently allocate our funding across the four functional areas? State-wide? Real time?
3. Do you feel allocation of funding really is a collaborative effort between central office and districts? Or, between one district & another?
4. Do you know how much funding we will have over the next 3 years? 5 years? 15 years?



Setting the Stage ... (Joe Gustin)

1. Tie spending to asset performance.
2. Allocate funding across functional areas.
3. Central Office & District Partnership.
4. Planning for Funding Uncertainty.
5. Transition from MM Spending to Motor Fuel Tax.



Planning Constraints & Considerations

1. Budget & revenue levels
2. Performance measures & goals
3. Cause & effect relationships
4. Multi-agency environment & related constraints
5. Breadth of view - executive focus
6. Refinement of 2006 departmental reorganization
7. Decentralization of programming / scheduling



- Integrated Resource Planning Division - Major Functional Areas of Responsibility

1. Long-range planning (& air quality conformance)
2. MPO coordination (& MPO Long-range plans coordination)
3. Programming (& TIP / STIP development)
4. Network modeling (traffic/network performance levels/goals)
5. Long-term economic, budget & revenue levels
6. Freight corridor planning
7. Corridor development/assessment (& relinquishments)
 - FUTURE – regional/rural planning organizations



- Integrated Resource Planning Division - Major Functional Areas of Responsibility

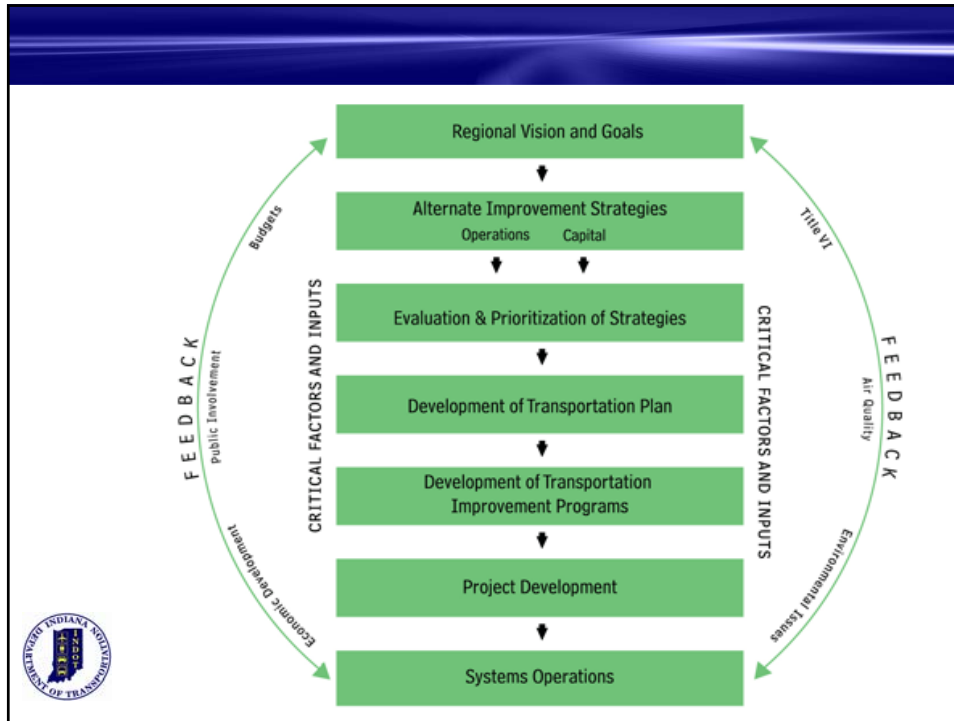
1. Long-range planning (& air quality conformance)



Transportation planning steps

- *Define the mission.
- *Conduct a situation analysis by assessing strengths and weaknesses and identifying opportunities and threats.
- *Set goals and objectives.
- *Develop related strategies (tactical and operational).
- *Monitor the plan's execution.





Transportation planning steps (FHWA)

- Monitoring existing conditions;
- Forecasting future population and employment growth, including assessing projected land uses in the region and identifying major growth corridors;
- Identifying current and projected future transportation problems and needs and analyzing, through detailed planning studies, various transportation improvement strategies to address those needs;
- Developing long-range plans and short-range programs of alternative capital improvement and operational strategies for moving people and goods;
- Estimating the impact of recommended future improvements to the transportation system on environmental features, including air quality; and
- Developing a financial plan for securing sufficient revenues to cover the costs of implementing strategies.
- **IMPLEMENT PLAN (added)**
- **ASSESS RESULTS OF PLAN (added)**



- Integrated Resource Planning Division -
Major Functional Areas of Responsibility

2. MPO coordination (& MPO Long-range plans coordination)



- Integrated Resource Planning Division -
Major Functional Areas of Responsibility

3. Programming (& STIP / INSTIP development)



Choosing the Right Projects

- It is easy to spend money.
- It is hard to spend it wisely.
- It is even harder to know how well you are spending when the results may not be evident for years.



The Formality of Programming

- Collecting “Investment Opportunities”
- Adding Definition
- Establishing Purpose & Need
- Performing Due Diligence (Scope, Cost, Schedule).
- Determining Benefit vs. Cost
- Prioritizing within Functional Area
- Matchmaking - Needs with Funding
- Project Activation
- Production



- Integrated Resource Planning Division -
Major Functional Areas of Responsibility

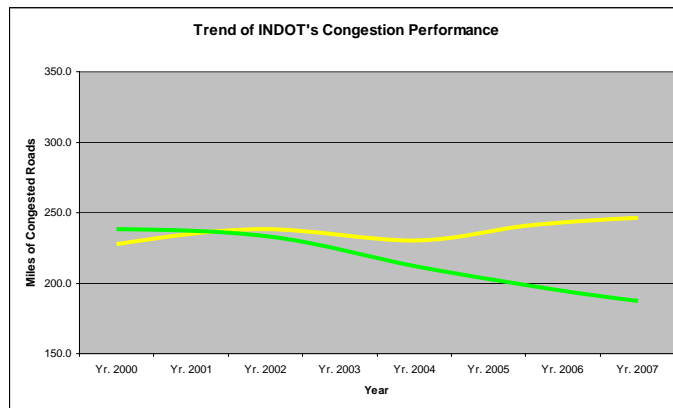
4. Network modeling (traffic/network performance levels/goals)



Performance = f (Investment)



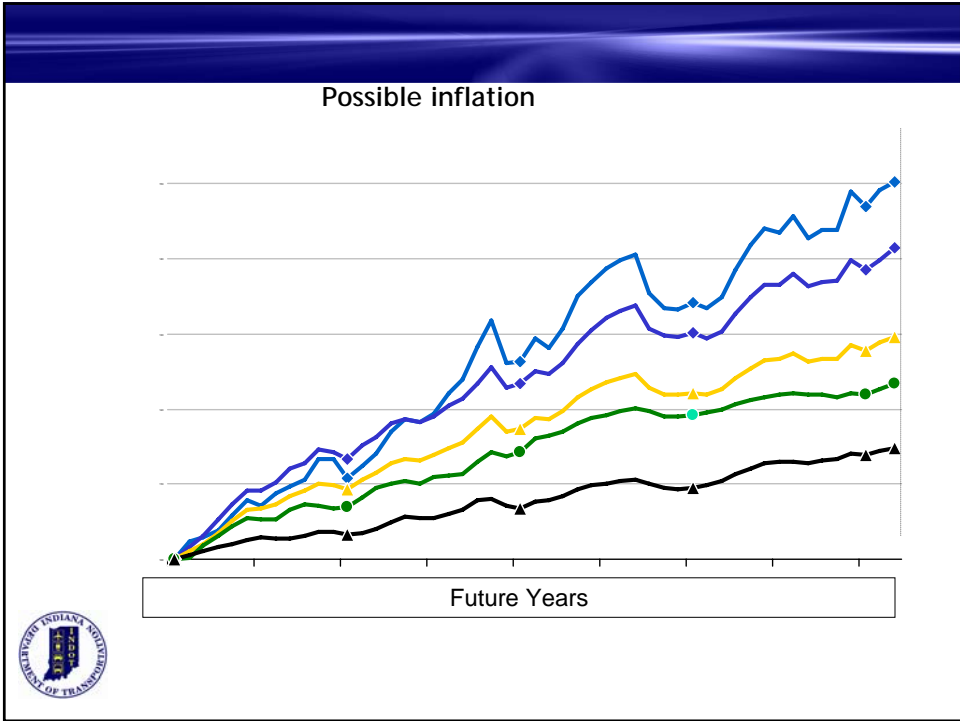
Congestion Performance



- Integrated Resource Planning Division - Major Functional Areas of Responsibility

5. Long-term economic, budget & revenue levels





- Integrated Resource Planning Division -
Major Functional Areas of Responsibility

6. Freight corridor planning



- Integrated Resource Planning Division -
Major Functional Areas of Responsibility

7. Corridor development/assessment (& relinquishments)



Comprehensive Project & Program Cost Estimating
Index Factors
[SECONDARY & TERTIARY COSTS]

■ Planning studies (significant projects only)	1(-)% - 2%
■ Environmental Document development	1(-)% - 2%
■ Preliminary engineering & design	5% - 10%
■ Right-of-Way engineering, services & acquisition	10% - 15%
■ Utility involvement engineering, svcs & constr.	3% - 5%
■ Railroad involvement engineering, svcs & constr.	3% - 5%
■ Construction	100%
■ Construction engineering	5%
■ Change orders	3% - 10%
■ Relinquishment considerations	1(-)% - 10%
■ Index SUB-TOTAL:	31% - 64%
■ Total Project Cost % of Construction Cost	31.0%-64.0%
■ Construction cost multiplier:	x1.3 to x1.65



- Integrated Resource Planning Division - Major Functional Areas of Responsibility

- FUTURE – regional/rural planning organizations

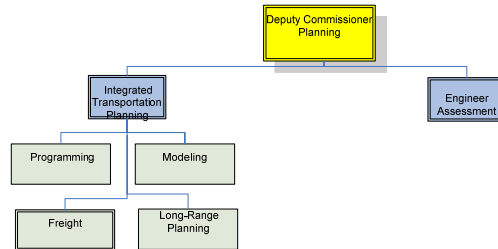


- Integrated Resource Planning Division - Preliminary Mission Statement

- The Integrated Resource Planning Division will accomplish long-range, network planning necessary to initiate delivery of the annual construction programs in order to sustain or improve network performance measures at or above acceptable levels.
 - - Method of accomplishment will include FAS(+) test:
 - Feasible
 - Acceptable
 - Suitable
 - Comprehensive & differentiated



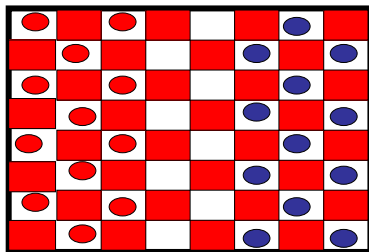
- Integrated Resource Planning Division - Preliminary Organizational Chart



More accurate, still probably misleading.

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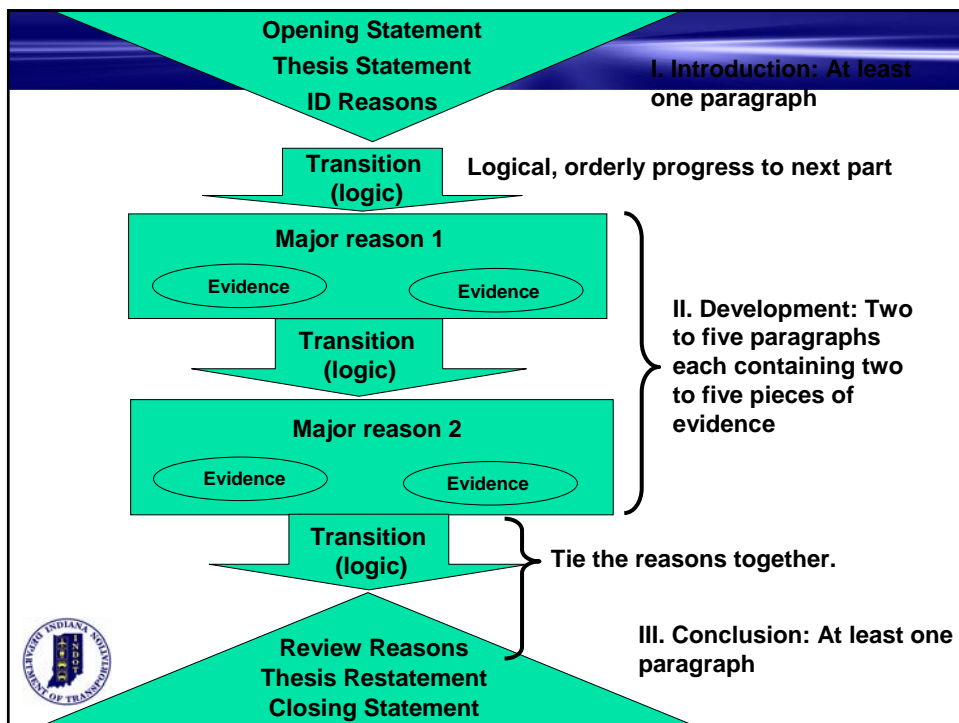
Questions



There are multiple stakeholders in the spheres of planning.

- Integrated Resource Planning Division -

Back-up Slides



Steps to Effective Communication

1. **Research:** Answers a question; fulfills the requirement; produces a thesis
2. **Plan:** Outline your thinking
3. **Draft:** Follow the outline; work fast
4. **Revise:** Apply critical thinking
5. **Proof:** Re-read; spelling; grammar
6. **Final Draft**

