Appendix C

FIGURES

Figure 1: Preferred Alternatives | Figure 2: Southern Alternatives Dismissed | Figure 3: Middle Alternatives Dismissed |
Figure 4: Northern Alternative Dismissed | Figure 5: Environmental Features (pp. 1-21) | Figure 6: Soil Map | Figure 7: Karst Features

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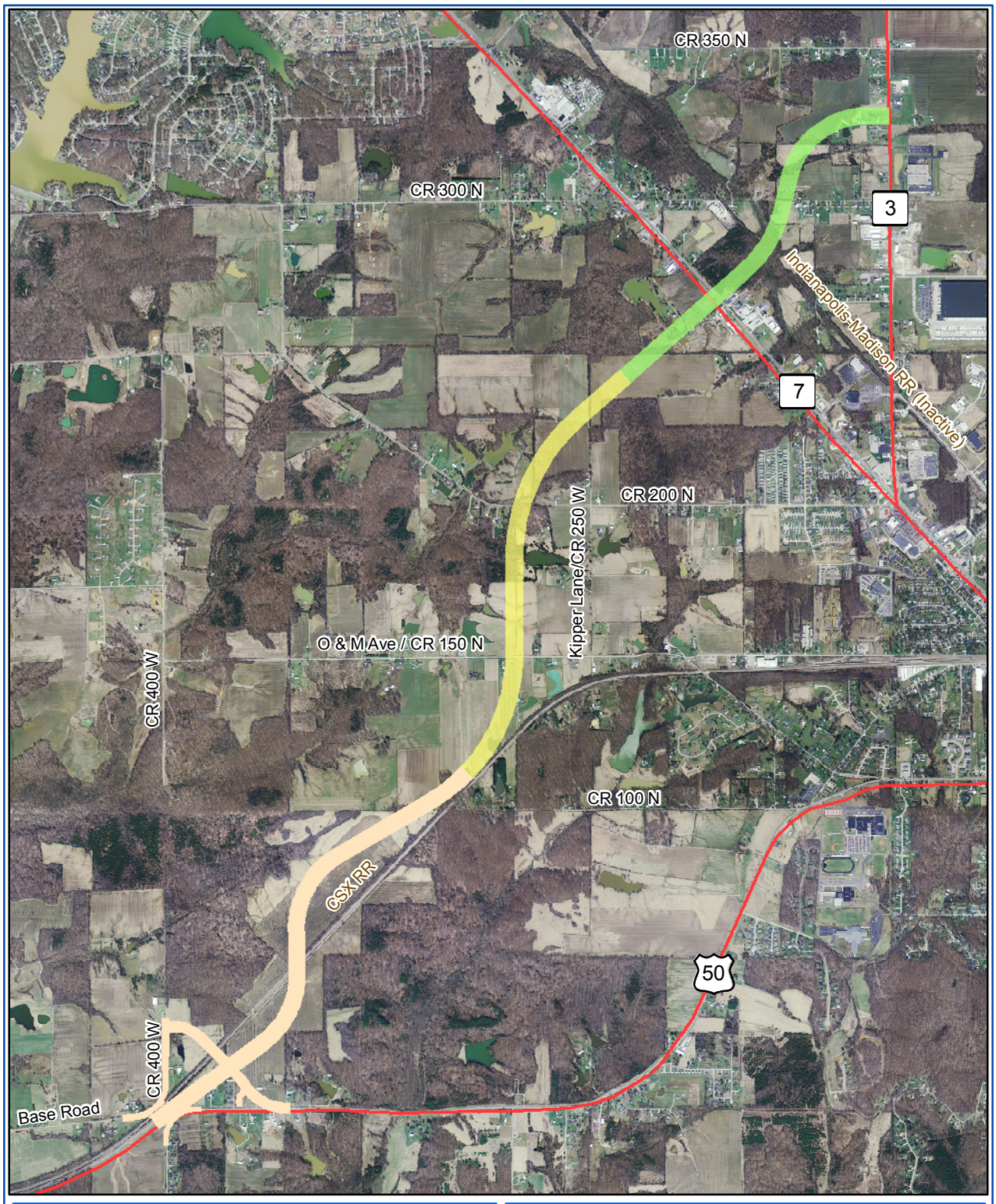


Legend

- Alternative N6-Modified
- Alternative M2
- Alternative S2-Modified

0 1,000 2,000 4,000 Feet

Figure 1:
Preferred Alternatives

PARSONS

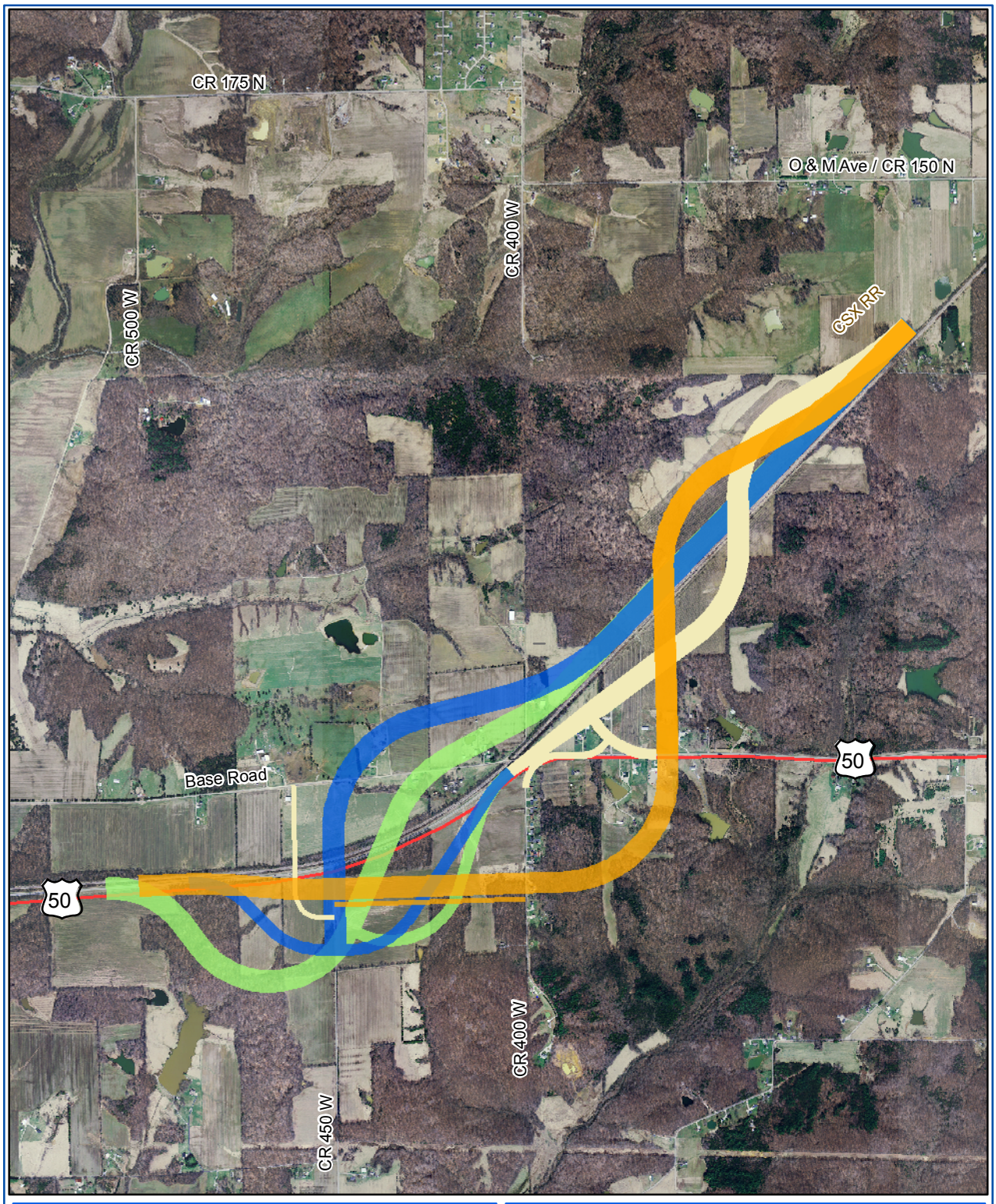


Figure 2:
Southern Alternatives Dismissed

PARSONS

Legend

Alternative M1

0 750 1,500 3,000 Feet

Figure 3:
Middle Alternative Dismissed

PARSONS

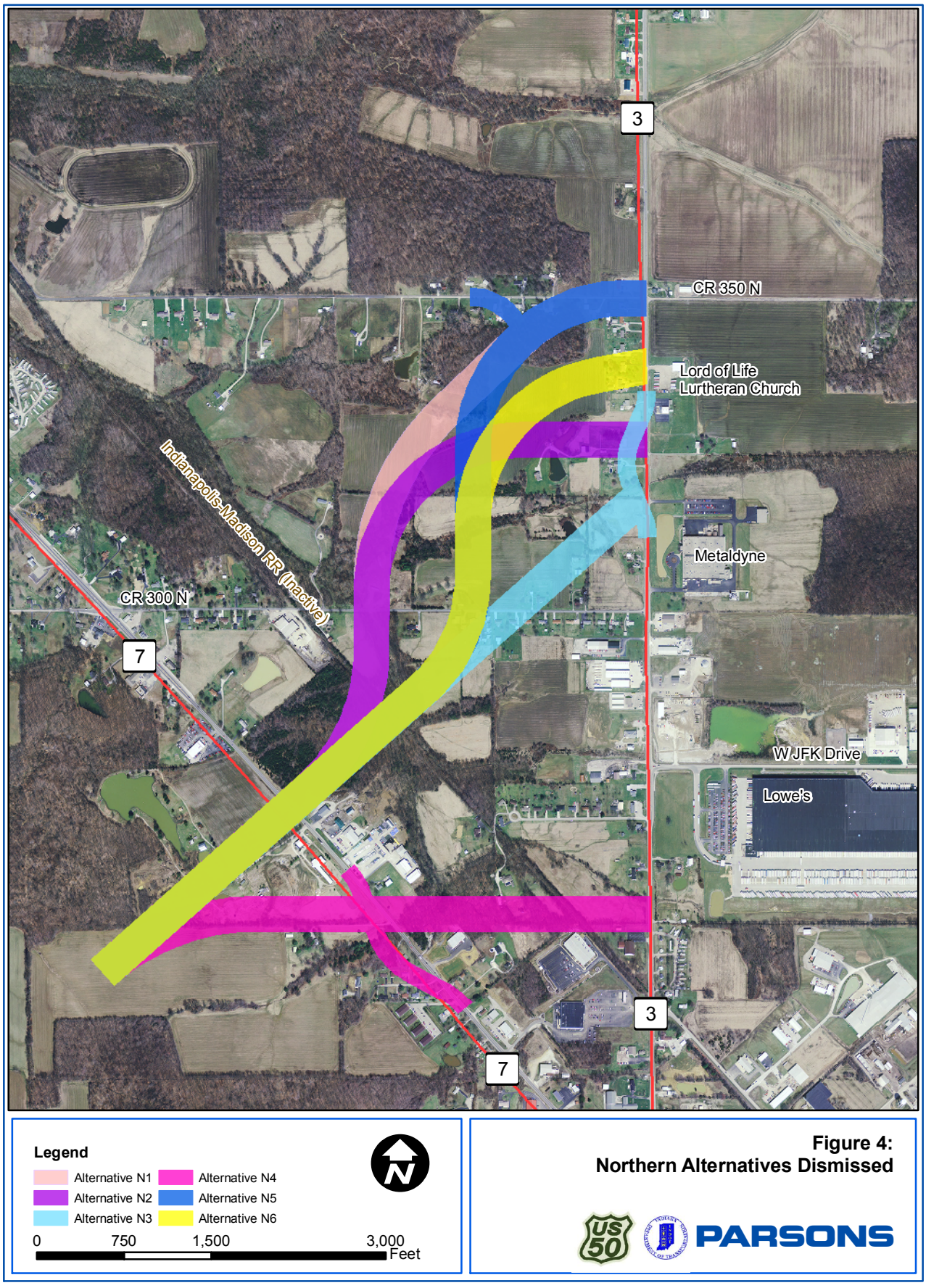


Figure 4:
Northern Alternatives Dismissed

PARSONS

0 1,000 2,000 4,000 6,000 Feet

1 inch = 2,000 feet

GIS DATA SOURCES

Aerial Photography: INDOT (2005)

National Geodetic Monuments: NOAA

Floodplain/Floodway: FEMA

Pipelines: Indiana Geological Survey

Streams: USGS

Hazardous Material Sites: IDEM & USEPA

FIGURE 5: SHEET INDEX
Environmental Features

Environmental Assessment

PARSONS

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 1
Environmental Features: Alternative S2-Modified

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

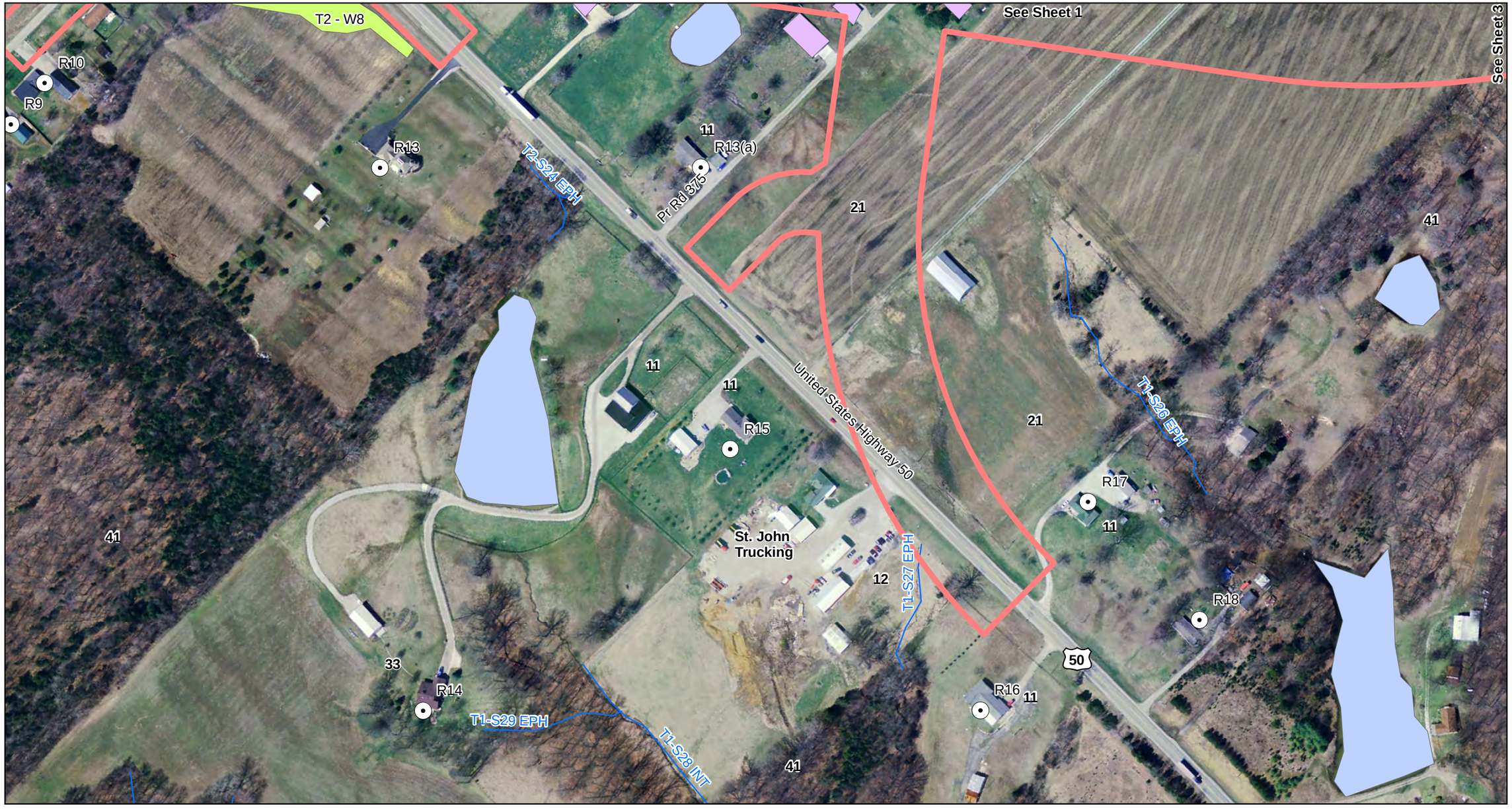
11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 2
Environmental Features: Alternative S2 Modified

PARSONS

Environmental Assessment

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 3
Environmental Features: Alternative S2-Modified

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 4
Environmental Features: Alternatives S2-Modified and M2

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 5
Environmental Features: Alternative M2

Environmental Assessment

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 6
Environmental Features: Alternative M2

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

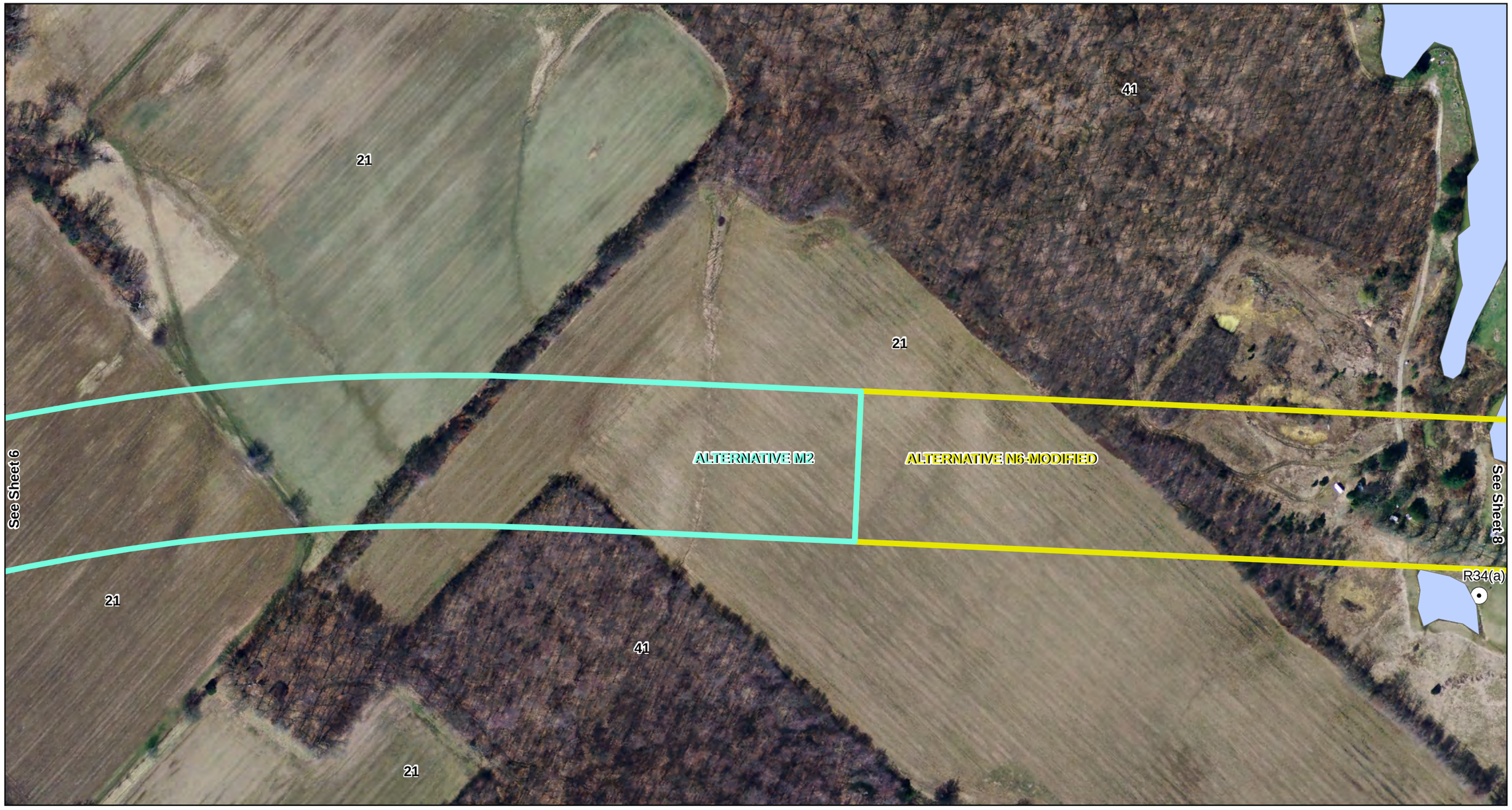
11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 7
Environmental Features: Alternative M2 and N6-Modified

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

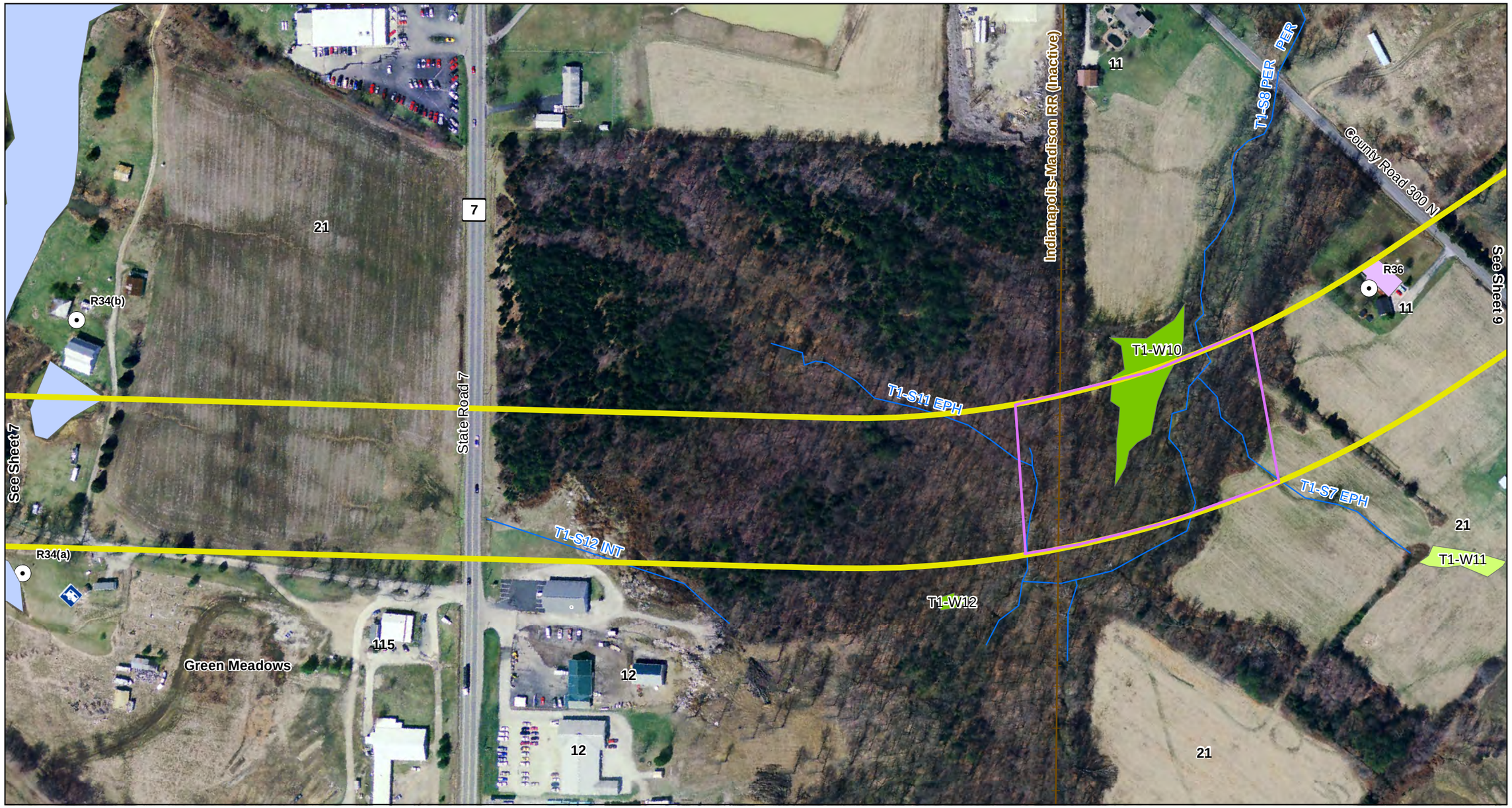
11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 8
Environmental Features: Alternative N6-Modified

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 9
Environmental Features: Alternative N6-Modified

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

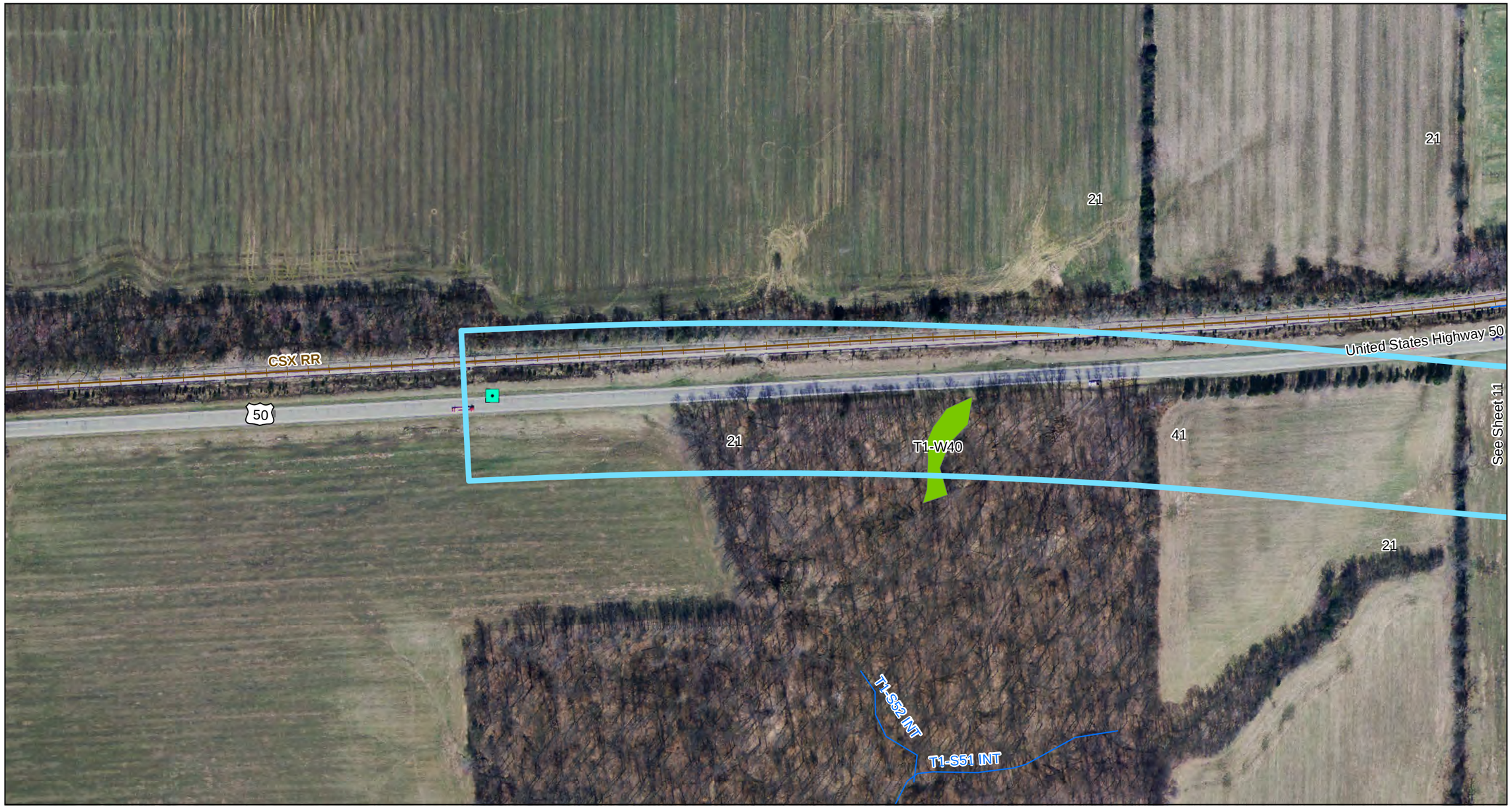
11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.



0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 10
Environmental Features: Alternative S1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 11
Environmental Features: Alternative S1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 12
Environmental Features: Alternative S1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 13
Environmental Features: Alternatives S1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 14
Environmental Features: Alternative S1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 15
Environmental Features: Alternatives S1 and M1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 16
Environmental Features: Alternative M1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

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0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 17
Environmental Features: Alternative M1

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 18
Environmental Features: Alternatives M1 and N3

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 19
Environmental Features: Alternative N3

LEGEND

DESIGN ELEMENTS

- Alternative S1
- Alternative S2-Modified
- Proposed Bridge Locations
- Alternative M1
- Alternative M2
- Alternative N3
- Alternative N6-Modified

FEATURES

- City Limits (North Vernon)
- Pipeline
- Railroad
- Business Relocations
- Residential Relocations
- National Geodetic Monument
- Open Water
- Potentially Historic Property
- Recreational Facilities
- Religious Centers
- Noise Receiver (R00)
  ID number refers to individual receivers listed in Appendix G

Hazardous Material (HazMat) Sites

- Underground Storage Tank (UST)

STREAMS

- Stream
  Number refers to stream ID listed in Appendix D

Stream Classifications

EPH	Ephemeral
INT	Intermittent
PER	Perennial

WETLANDS

- PEM
- PSS
- PFO
  Number refers to wetland ID listed in Appendix D

Wetland Classifications

PEM	Palustrine, emergent
PSS	Palustrine, scrub/shrub
PFO	Palustrine, forested

LAND USE CODES (Based on Anderson Land Use Classification)

11	Residential
12	Commercial Services
15	Industrial
21	Cropland and Pasture
25	Farmstead
33	Mixed Rangeland
34	Vacant (Urban)
41	Forest (Deciduous)
115	Mobile Home Park
123	Religious Institution
126	Institutional
139	Other Industrial

GIS Data Sources

Aerial Photography: INDOT (2005)
National Geodetic Monuments: NOAA
Floodplain/Floodway: FEMA
Pipelines: Indiana Geological Survey
Streams: USGS
Hazardous Material Sites: IDEM & USEPA

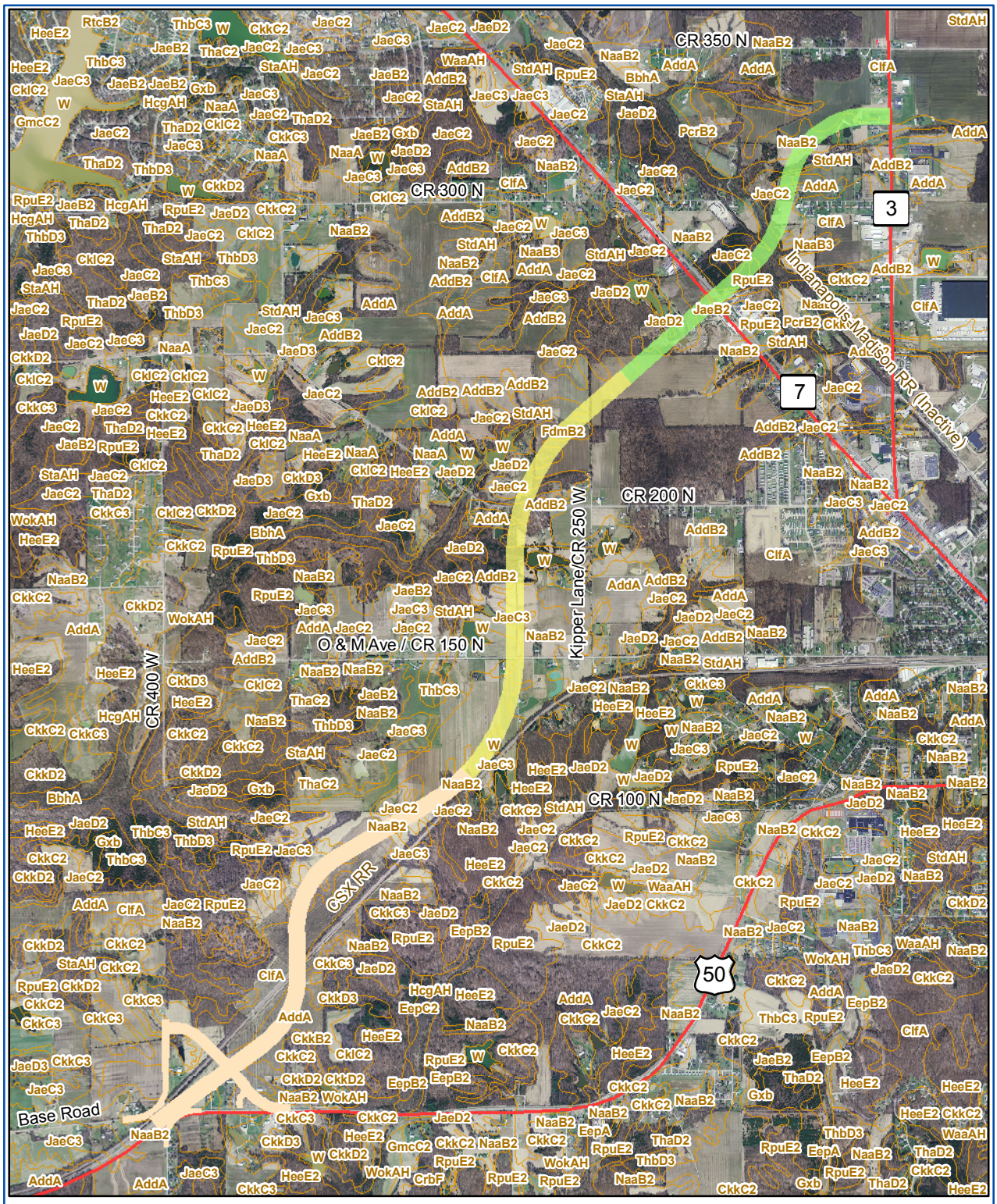
Indiana Map: http://indianamap.org/

Note: At the request of the State of Indiana, archaeological sites, public wells, and wellhead protection zones are not indicated on these maps.

0 100 200 400 Feet

1 inch = 200 feet

FIGURE 5: SHEET 20
Environmental Features: Alternative N3



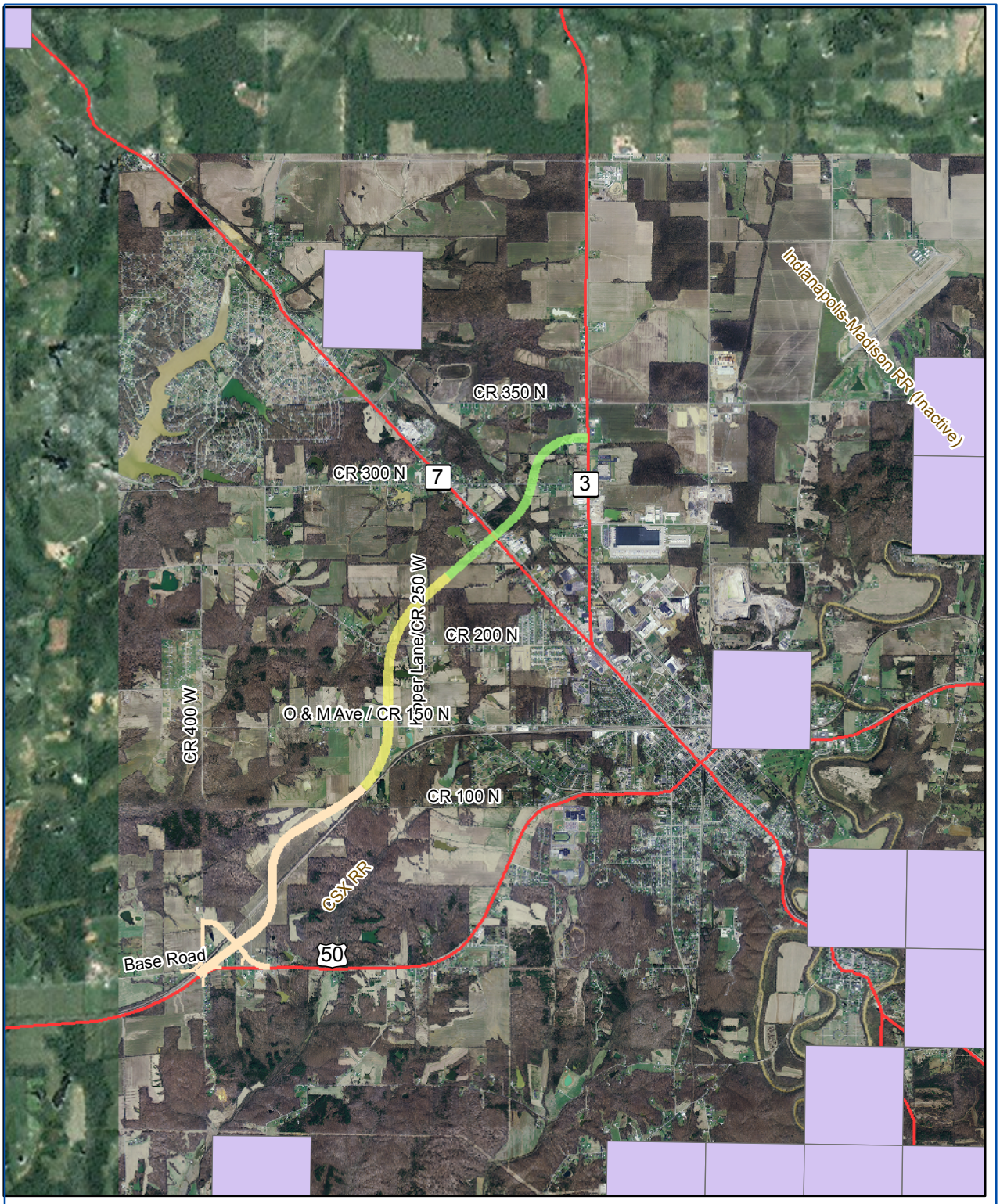
Legend

- Alternative N6-Modified
- Alternative M2
- Alternative S2-Modified
- Soils

0 1,000 2,000 4,000 Feet

Figure 6: Soil Types

PARSONS



Legend

- Karst Features
- Alternative N6-Modified
- Alternative M2
- Alternative S2-Modified

0 2,000 4,000 8,000 Feet

Figure 7:
Karst Features

PARSONS