Community Advisory Committee #8

I-295/I-76/Route 42 Direct Connection

Camden County

June 8, 2006

Presented by NJ Department of Transportation

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AGENDA

INTRODUCTIONS AND GREETING	Jody Barankin NJDOT
REVIEW OF PROGRESS / ALTERNATIVES	Craig Johnson Dewberry
ALTERNATIVE ANALYSIS PROCESS	Nick Caiazza NJDOT
METRICS FOR DISTINGUISHING CRITERIA	Ileana S. Ivanciu & Craig Johnson Dewberry

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REVIEW OF PROGRESS / ALTERNATIVES

Craig Johnson
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PROGRESS SINCE LAST MEETING

- Updated 2030 Traffic Forecasts
- Modified Ramp D alignment
- Technical Environmental Studies (TES) – completed by Dewberry, reviewed by NJDOT, currently being reviewed by FHWA.
- Construction Staging Concepts
- Construction Schedule
- Construction Cost Estimate
- New St. Mary's Cemetery – Protective Purchase

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REVIEW OF ALTERNATIVES

- Alternative D – NB and SB I-295 side by side on a bridge over I-76 and Browning Road. Ramp C crosses under I-76 just north of Browning Road.
- Alternative D1 – NB and SB I-295 side by side on a bridge over I-76 and Browning Road. Ramp C follows similar path to that of Al-Jo's curve.

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REVIEW OF ALTERNATIVES

- Alternative G2 – NB and SB I-295 in a stacked arrangement on bridges over I-76 and Browning Road. Ramp C crosses under I-76 just north of Browning Road.
- Alternative H1 – NB and SB I-295 in a stacked arrangement on bridges over I-76 and Browning Road. Ramp C follows similar path to that of Al-Jo's Curve.
- Alternative K - NB and SB I-295 side by side in a tunnel section under I-76 and Browning Road. Ramp C crosses over I-76 just north of Browning Road.

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ALTERNATIVES
D, G2 & K

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ALTERNATIVES
D1 & H1

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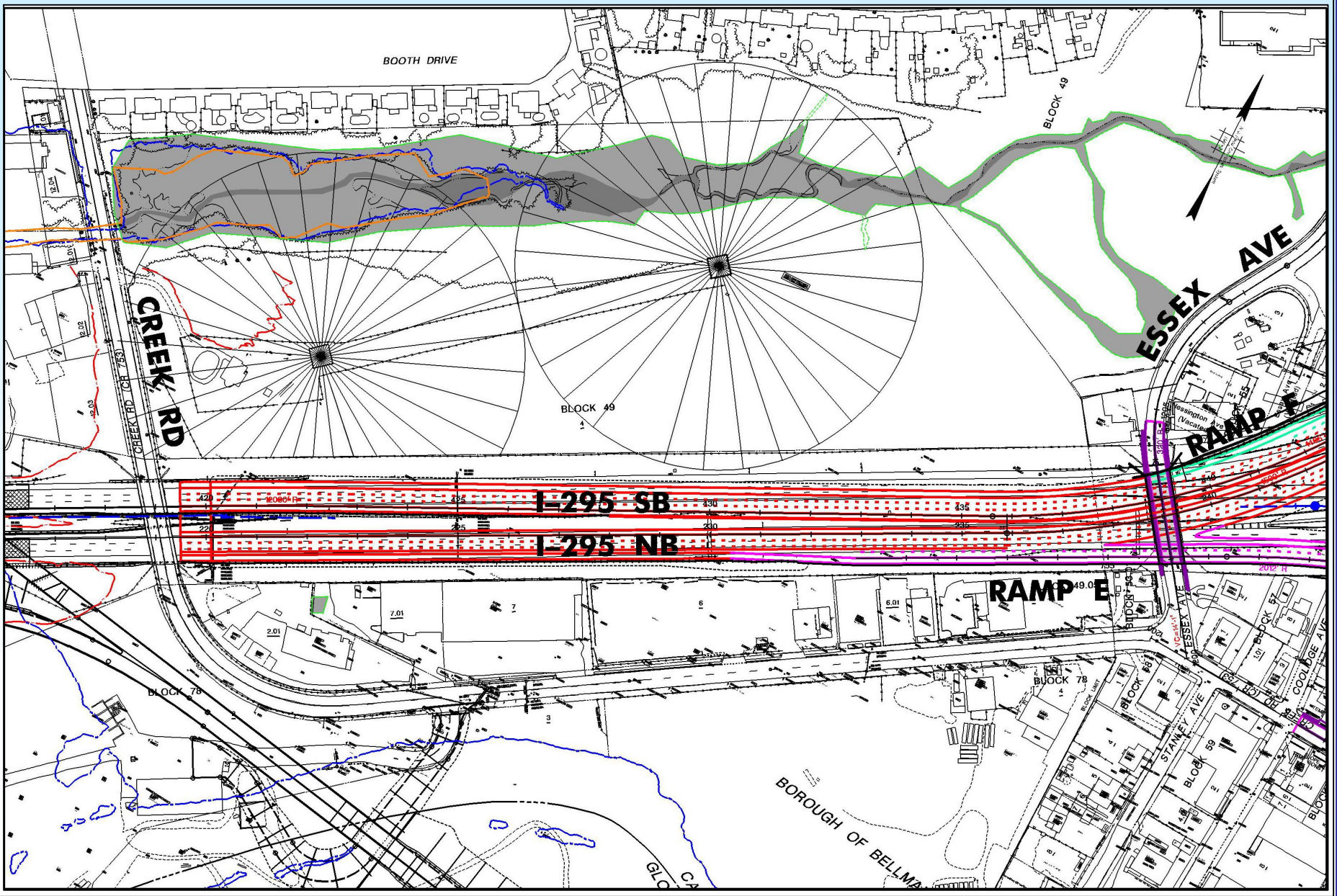
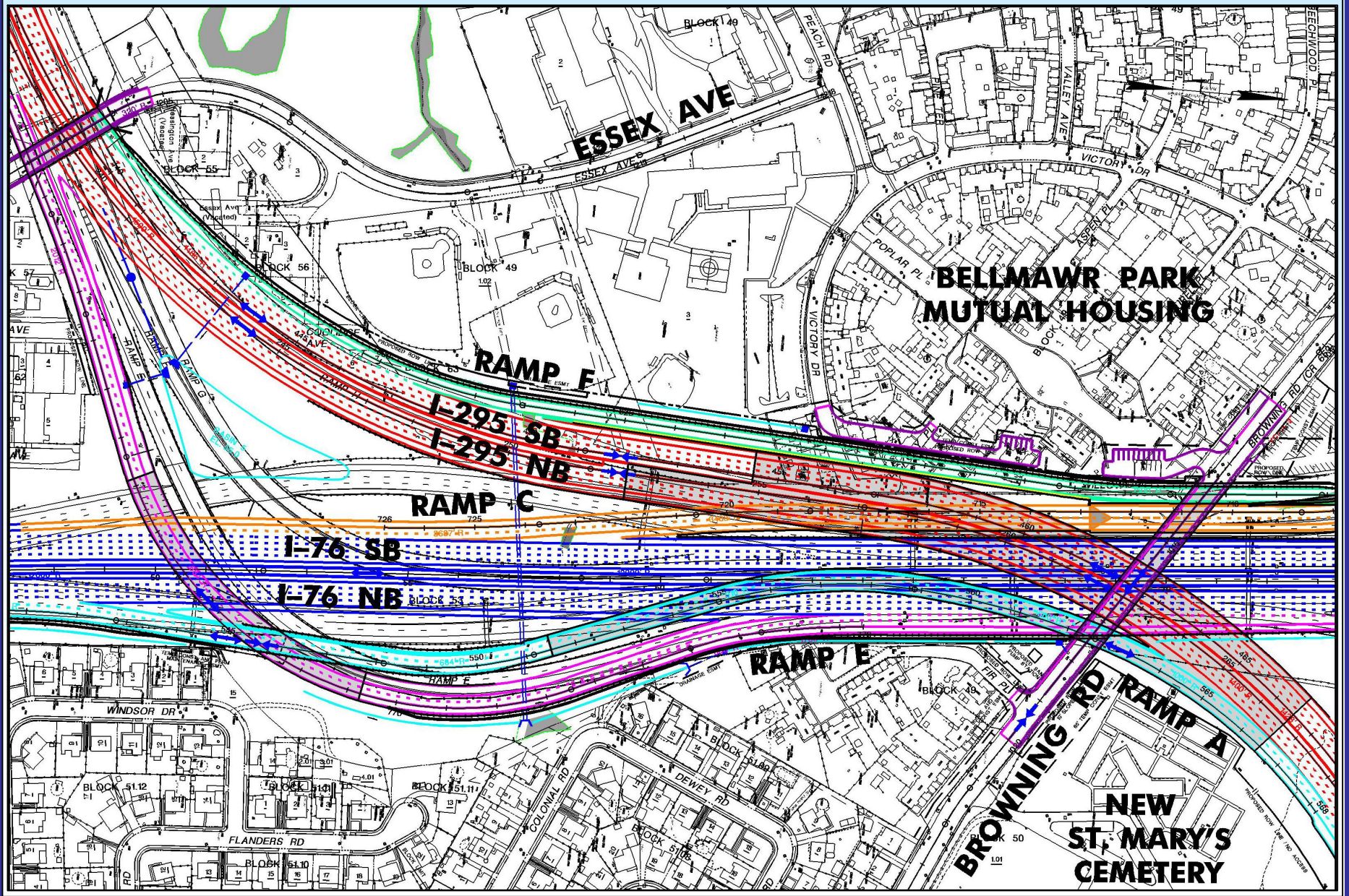
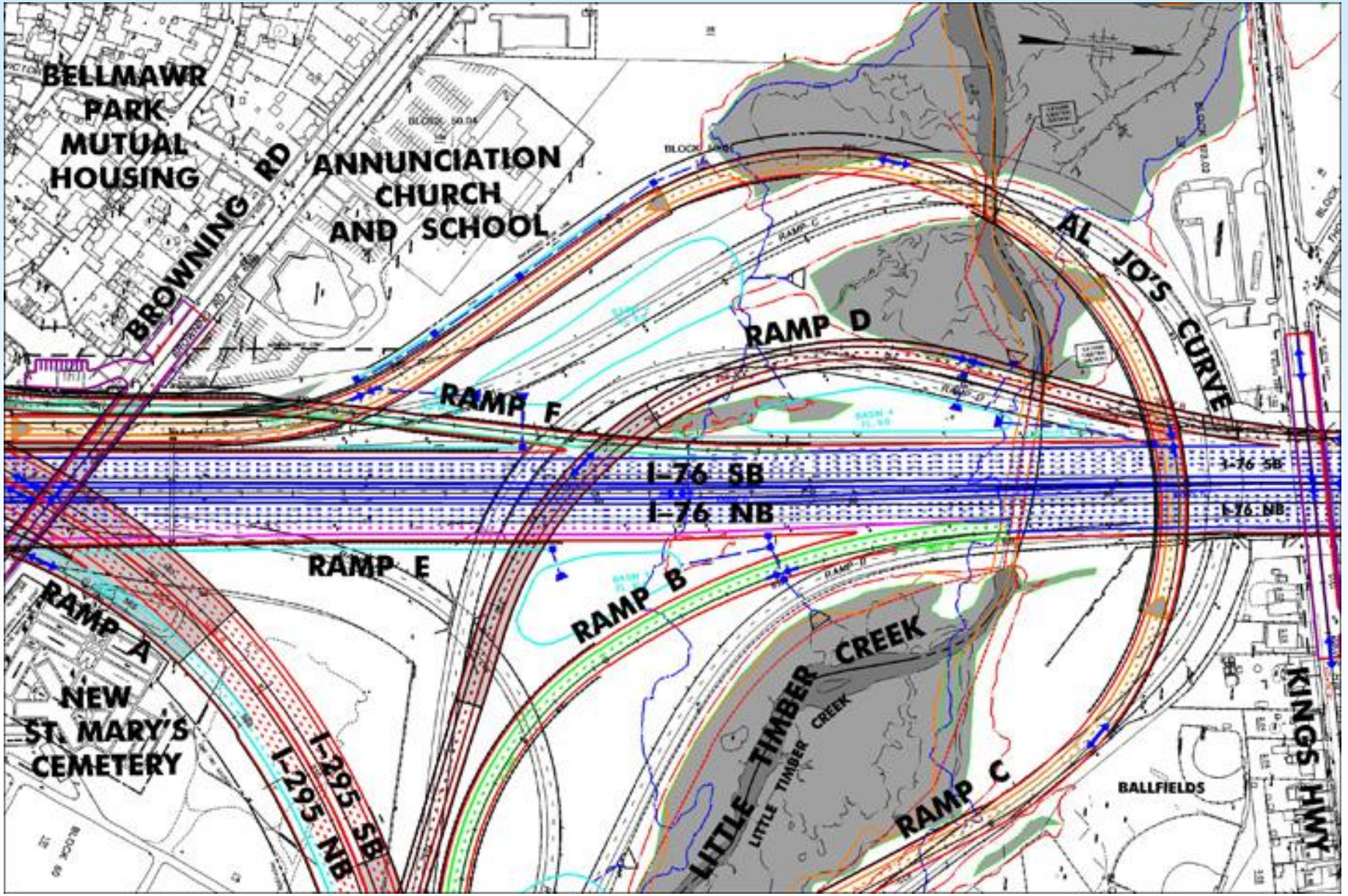
ALTERNATIVE D1



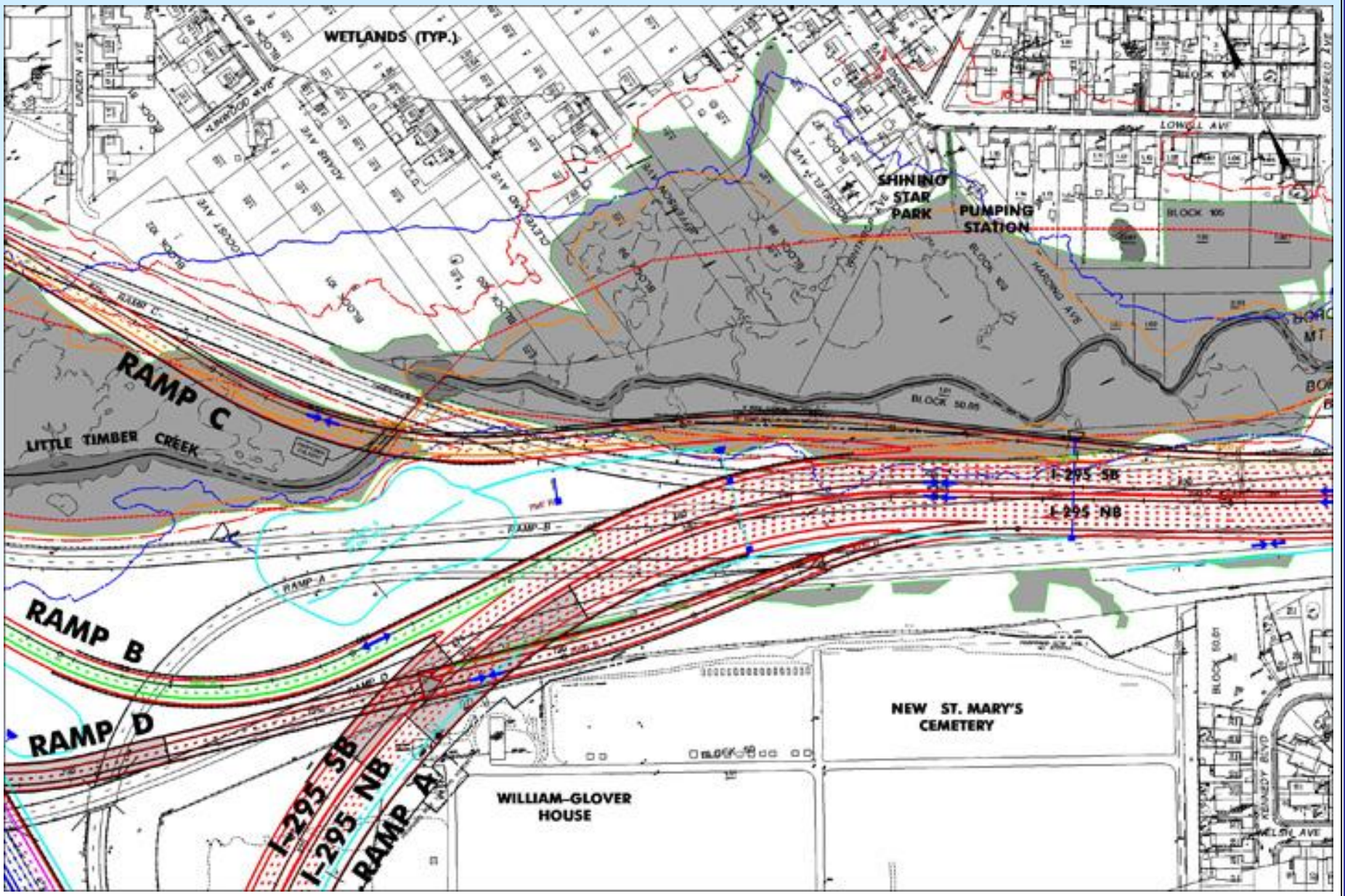
ALTERNATIVE D1



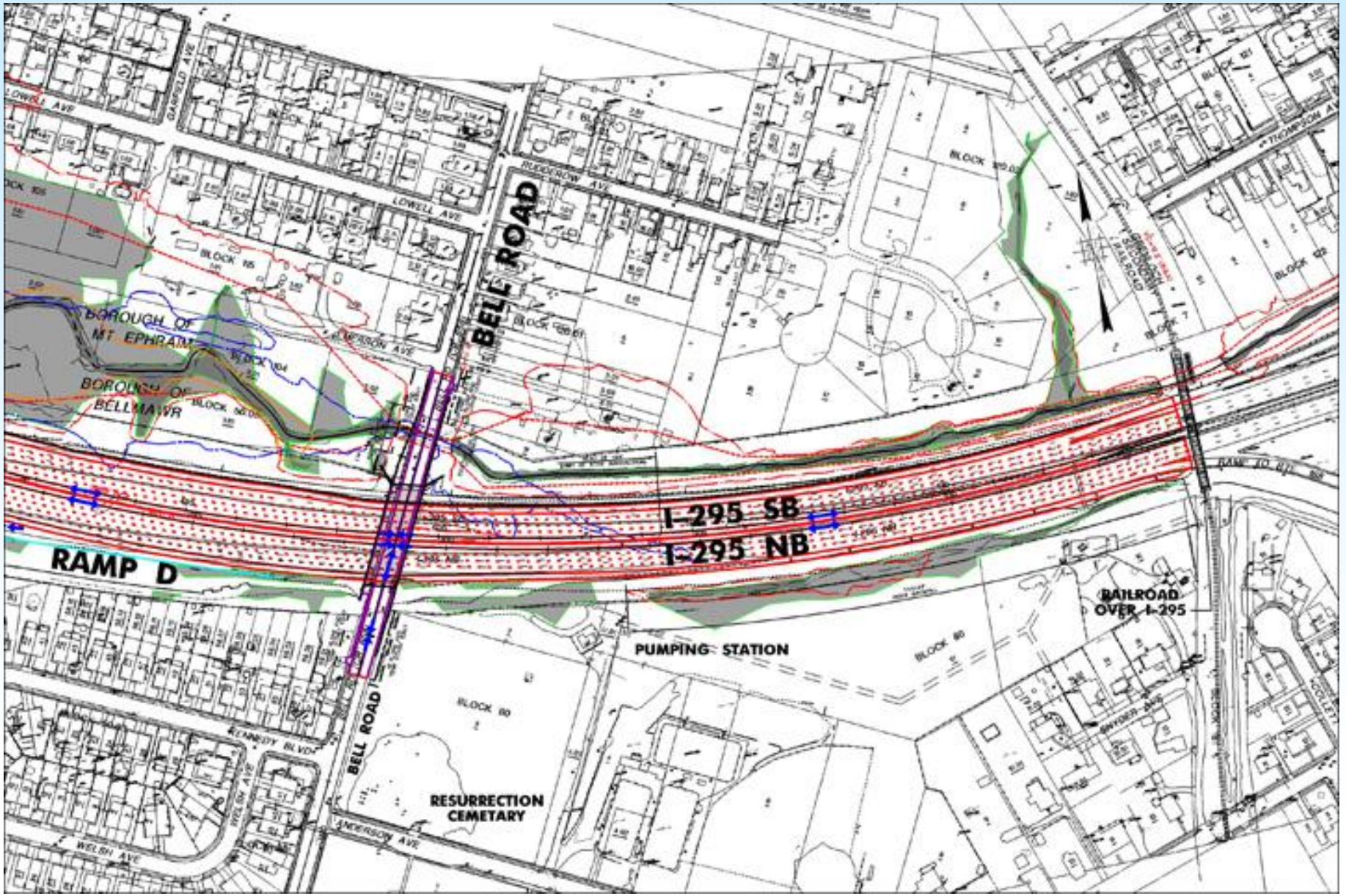
ALTERNATIVE D1



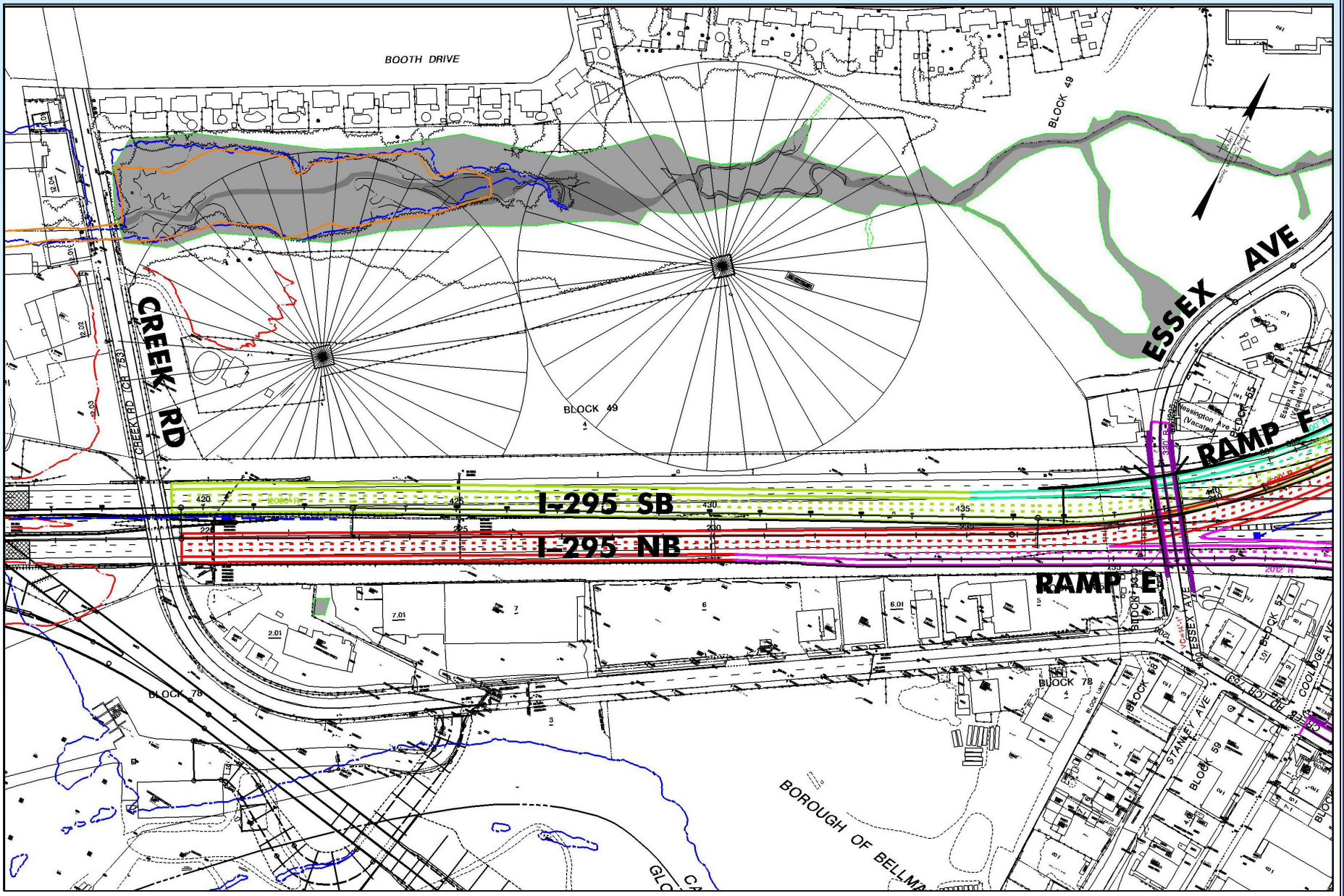
ALTERNATIVE D1



ALTERNATIVE D1



ALTERNATIVE G2



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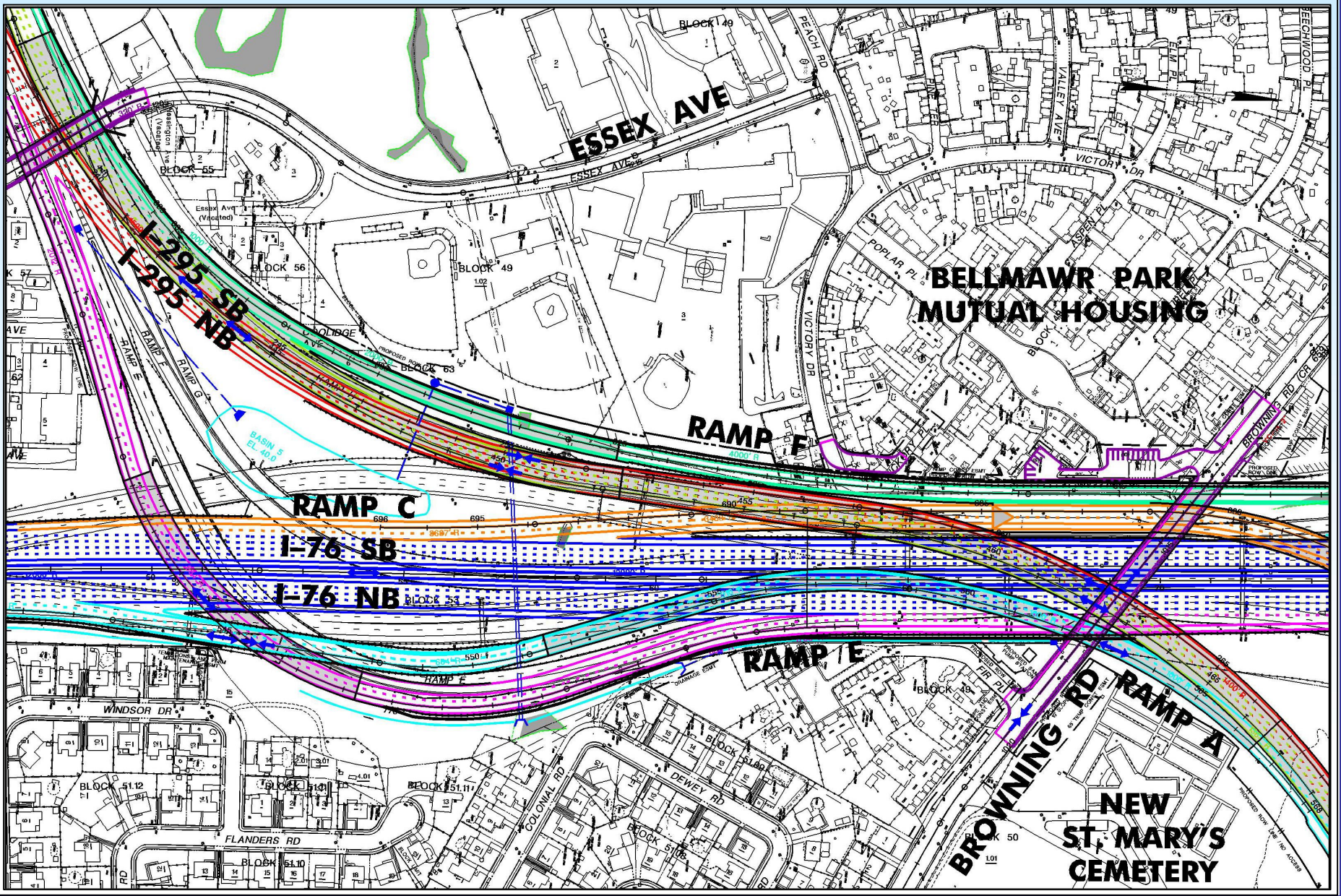

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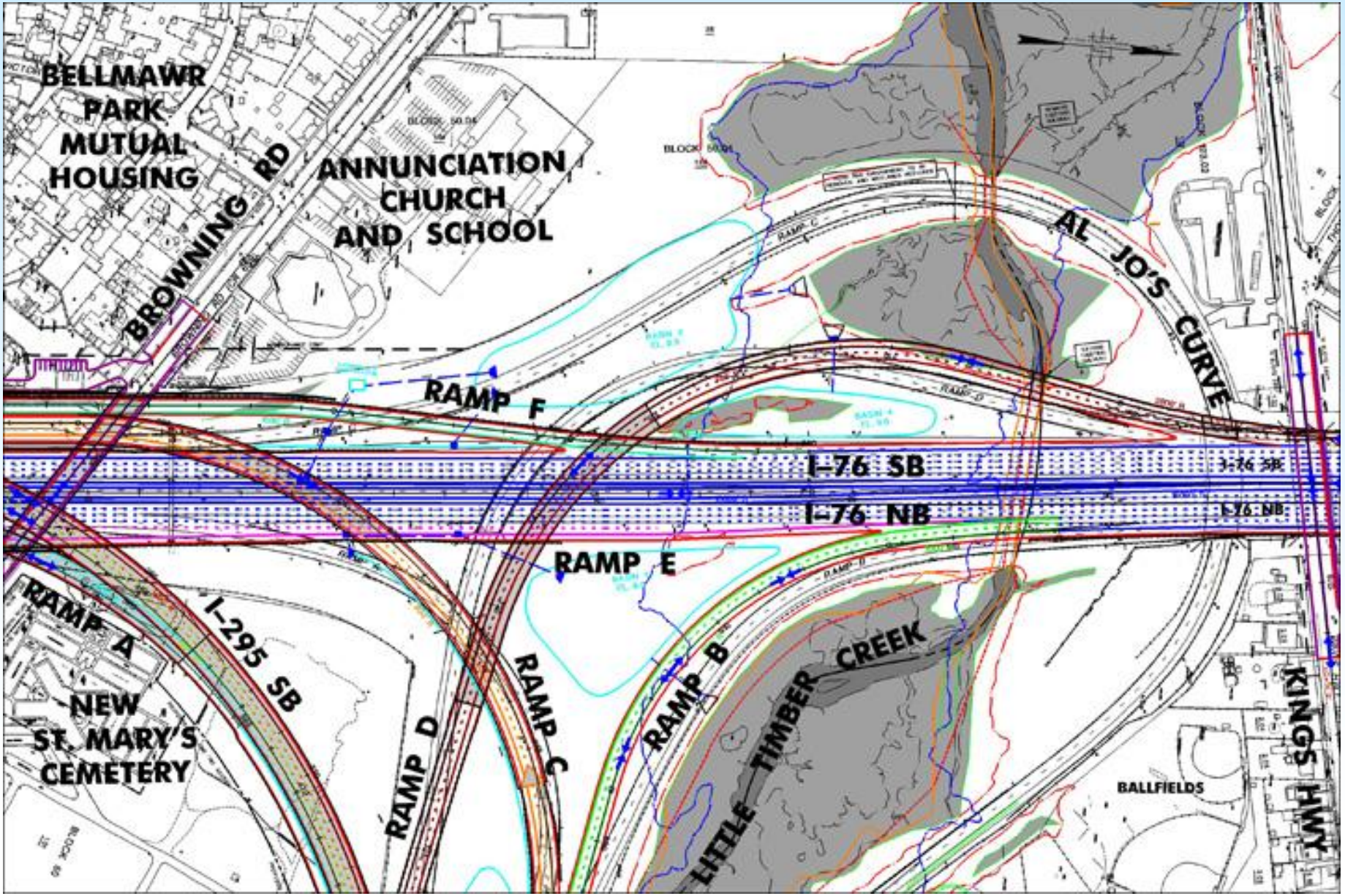

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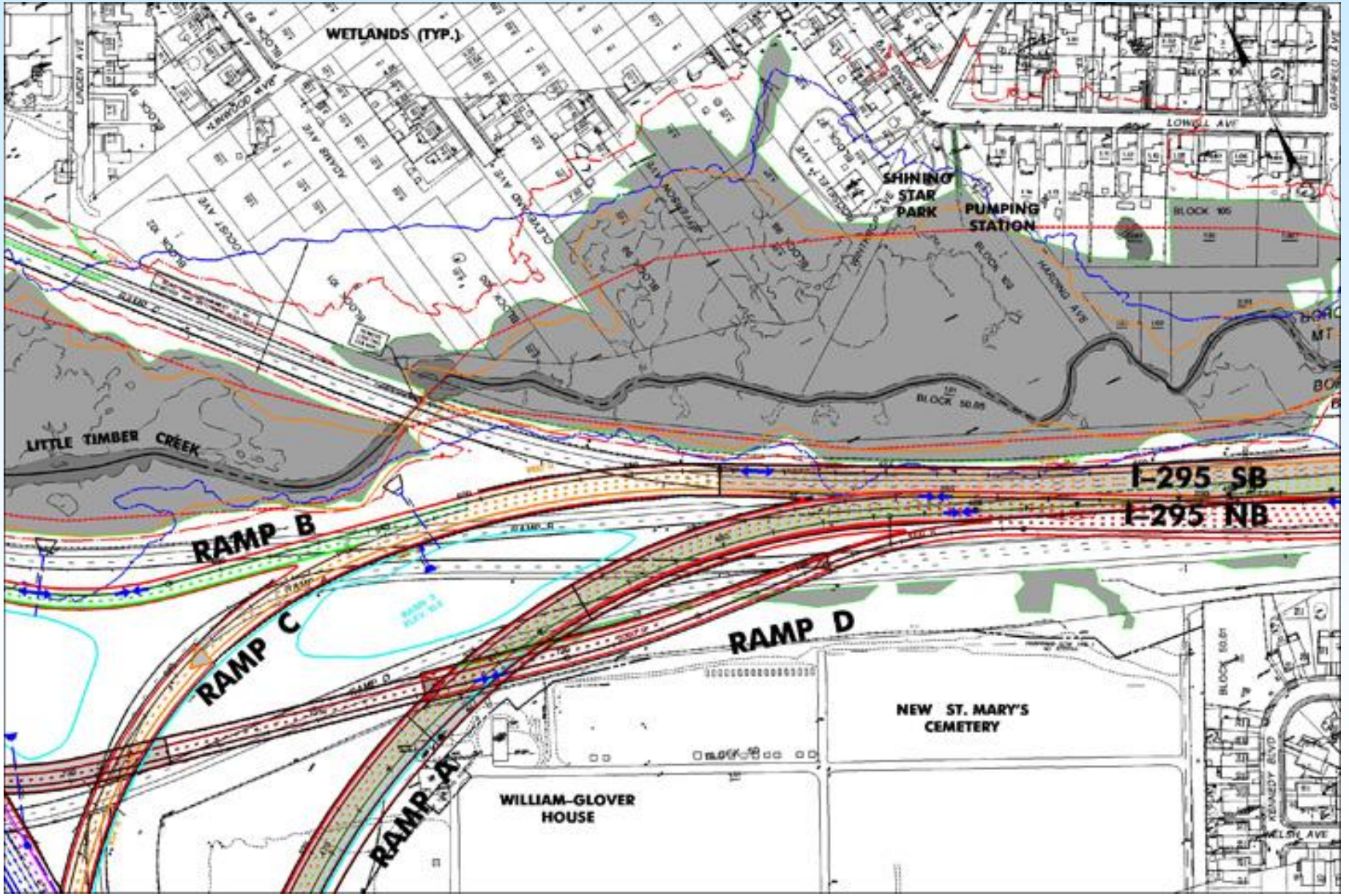
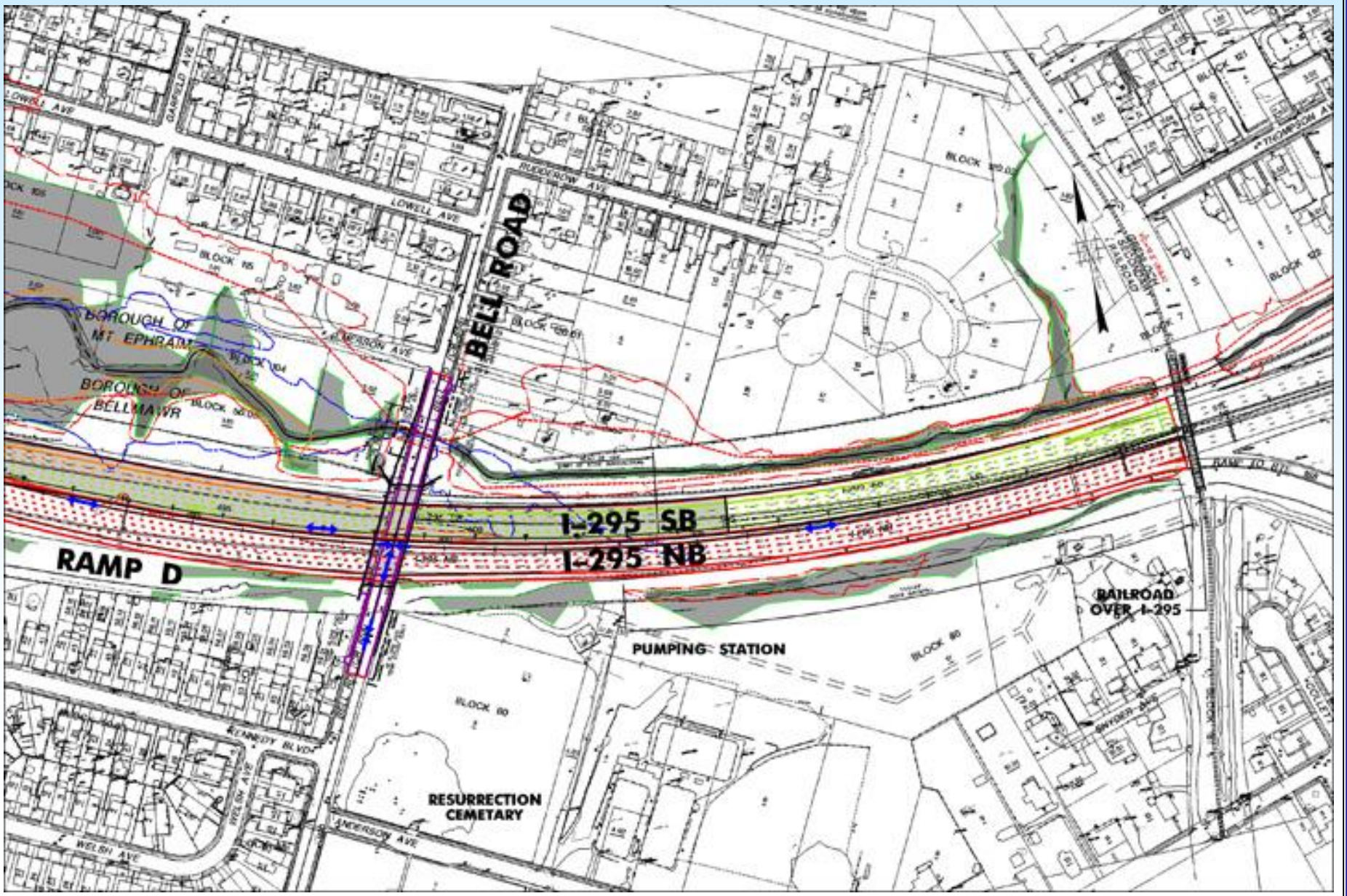


ALTERNATIVE G2



ALTERNATIVE ANALYSIS PROCESS

Nick Caiazza
NJ Department of Transportation

EIS SCHEDULE

- FHWA review of TES – Summer 2006
- Identify Preferred Alternative – Fall 2006
- Pre-Draft EIS and Conceptual ACOE Permit – Winter 2007
- Agency Review – Spring 2007
- Circulation of DEIS – Fall 2007
- Public Hearing – Fall 2007
- Final EIS – Spring 2008

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ENGINEERING FACTORS

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ALTERNATIVE COMPARISON MATRIX

CRITERIA	BUILD ALTERNATIVES					No Build
	D	D1	G2	H1	K	
ENGINEERING FACTORS						
Meets Purpose and Need						
Temporary Construction Impacts						
Maintenance and Protection of Traffic						
Security						
Design Criteria						
Construction Cost						
Construction Schedule						
Maintenance and Operations						
ENVIRONMENTAL IMPACTS						
Noise						
Increase from Existing Conditions						
Natural Ecosystems						
Floodplain						
Wetlands						
Stream Ecology and Storm Water Quality						
Waterfront Access						
Socioeconomic Impacts						
Visual Impacts						
Residential Acquisitions						
Community Property Acquisitions						
4(f) Property Acquisition						
Economic Benefits - Regional Accessibility						
Economic Benefits - Travel Time						
Historic Architecture						
Physical Impact to Historic District						
Noise Increase from Existing Conditions on Historic District						
Impact to Viewshed						

NOTES: Air Quality, Hazardous Waste and Archaeology are not distinguishing criteria.

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ENGINEERING FACTORS

- **Meets Purpose and Need**
  - ✓ **Improve traffic safety, reduce traffic congestion and meet driver's expectations by improving the direct connection of the I-295 mainline and the interchange of I-295/I-76/Route 42.**
  - ✓ **Metrics: Yes, No**

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ENGINEERING FACTORS

- **Temporary Construction Impacts**
  - ✓ **Includes increased noise, dust and vibrations, encroachment through easements, visual impacts and in general, an inconvenience to local residents.**
  - ✓ **Metrics:**

Low	Impacts caused by routine maintenance and potential upgrades which will result in local noise and dust and inconvenience of short duration (less than a few months).
Medium	Noise, dust, vibration and/or visual impacts and inconvenience to neighboring properties for several months to a year.
High	Considerable noise, dust, vibrations, visual impacts, inconvenience to neighboring properties for several years.

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ENGINEERING FACTORS

- **Maintenance and Protection of Traffic**
  - ✓ **Traffic will slow through the construction zone due to narrowing of lanes, elimination of shoulders, etc. Some stages of construction will require anticipated diversions onto local roads from the interchange. Overall construction duration is also a consideration.**
  - ✓ **Metrics:**

Low	Minimal traffic is diverted off the mainline due to construction.
Medium	Traffic diversions off the mainline due to the southbound weave are 12 months or less, and overall construction duration is less than 6 years.
High	Traffic diversion off the mainline due to the southbound weave is greater than 12 months, and overall construction duration is 6 years or more.

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ENGINEERING FACTORS

- **Security**
  - ✓ **Potential breach of security results in structural or facility damage. Incidents which can impact multiple facilities are of greatest concern.**
  - ✓ **Metrics:**

Low	Potential breach of security results in minor facility damage with a short recovery time to repair.
Medium	Potential breach of security results in facility damage requiring several months recovery time for repair.
High	Potential breach in security results in multiple failures of facilities requiring redesign and reconstruction lasting several years.

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ENGINEERING FACTORS

- **Design Criteria**
  - ✓ **Geometric improvements which eliminate substandard conditions and allow posted speeds expected for an Interstate facility.**
  - ✓ **Metrics:**

Low	Mainline I-295 is accommodated with a direct connection with 55 mph posted speed, and interchange ramps are designed for a 40 mph posted speed. Limited substandard conditions.
Medium	Some geometric improvements are made to the interchange with some increase in posted speeds. Some substandard conditions.
High	Mainline I-295 is not accommodated with a direct connection and the northbound weave with Route 42 and the use of Al-Jo's curve for I-295 southbound still exist. There are no changes in posted speed. Numerous substandard conditions.

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ENGINEERING FACTORS

- **Construction Cost**
  - ✓ **Probable estimated construction cost based on work restrictions and construction staging scheme. Costs include up to 20% contingencies and were capped at 20% escalation.**
  - ✓ **Metrics: $**

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ENGINEERING FACTORS

- Construction Schedule
  - ✓ Anticipated schedule for construction based on construction staging scheme. Opportunities for acceleration and the split into various contracts will be investigated once an alternative is selected.
  - ✓ Metrics: Years

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ENGINEERING FACTORS

- **Maintenance and Operations**
  - ✓ **Includes routine maintenance (i.e., replacing damaged guide rail, replacing burnt out bulbs) to more significant work, such as maintenance of structures, as well as operations of pump stations and tunnel control systems.**
  - ✓ **Metrics:**

Low	Amount of structure has not increased significantly and structure maintenance is routine. Operations of pump stations and tunnel sections are not required.
Medium	Amount of structure has increased or structure maintenance is significant. Operations of pump stations are required. Operations of tunnel sections are not required.
High	Amount of structure has increased significantly or structure maintenance is significant. Operations of pump stations and tunnel sections are required.

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SUMMARY OF DRAFT TES FINDINGS AND DISTINGUISHING CHARACTERISTICS

Ileana Ivanciu

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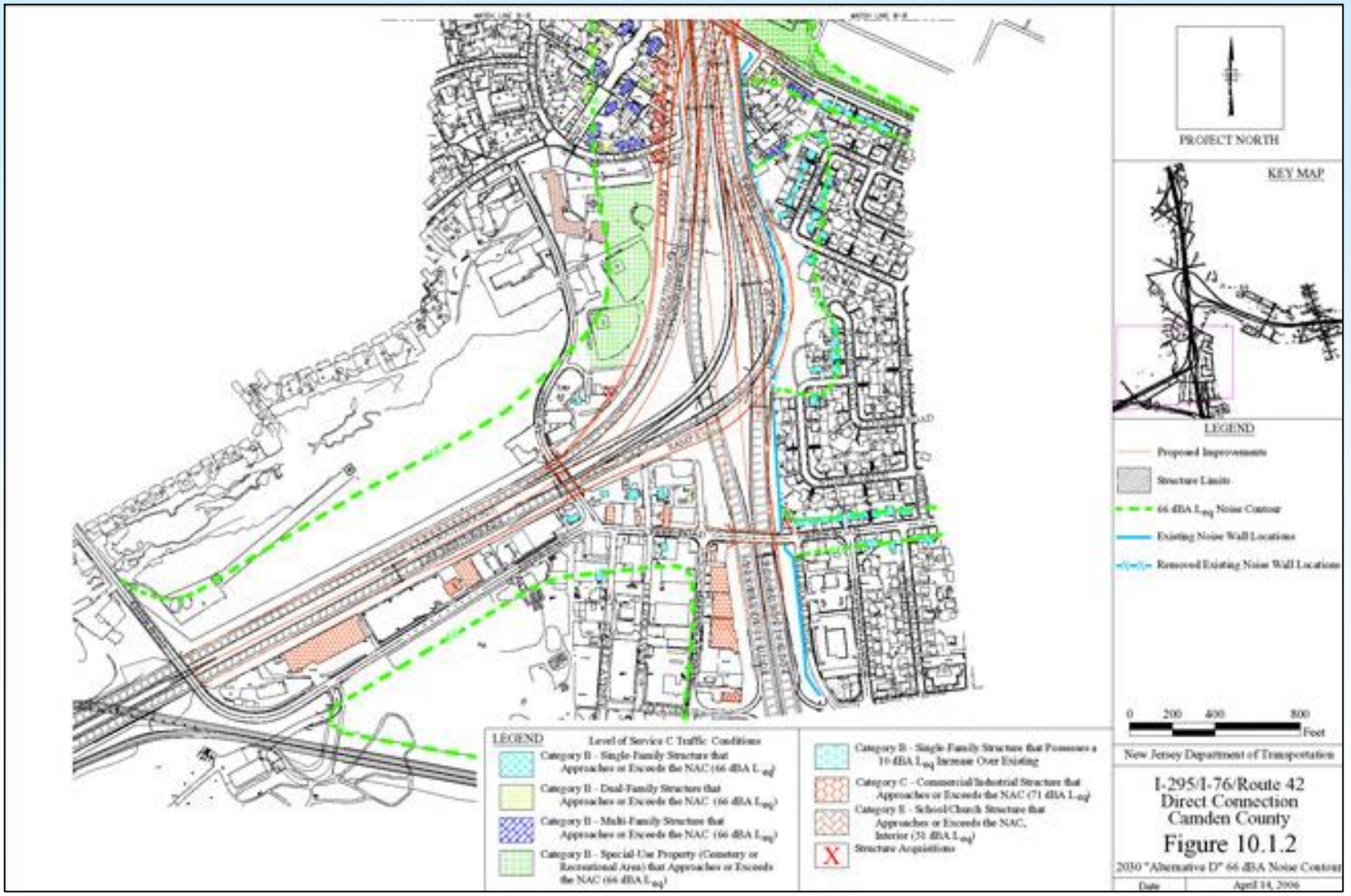
DRAFT TES FINDINGS
NOISE



2030 Alt. D 66 dBA Noise Conditions

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DRAFT TES FINDINGS
NOISE

Summary of 2030 Unmitigated Noise Impacts

DISCIPLINES	ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Category B Residences	320	342	378	380	327	269
Category B Recreation	2	2	3	5	3	1
Category B Cemeteries	3	5	2	2	2	2
Category E Schools	3	3	3	3	3	2
Category E Churches	2	2	2	2	2	2
Category C Commercial/Industrial	11	11	15	15	10	11
Commercial Acquisitions	1	1	0	0	1	0
Residential Acquisitions	7	7	3	3	7	0

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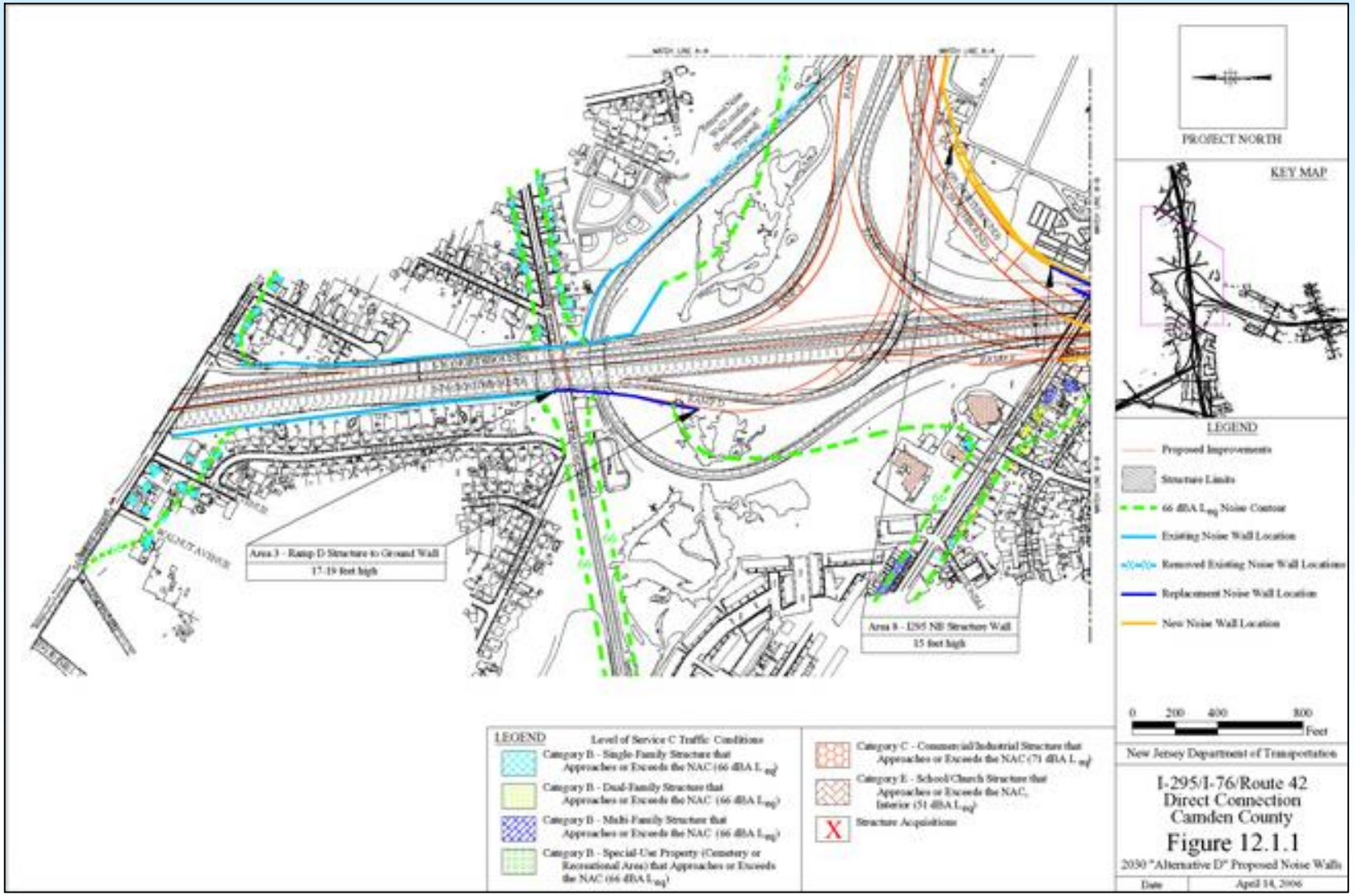
DRAFT TES FINDINGS
NOISE



2030 Proposed Noise Wall Locations

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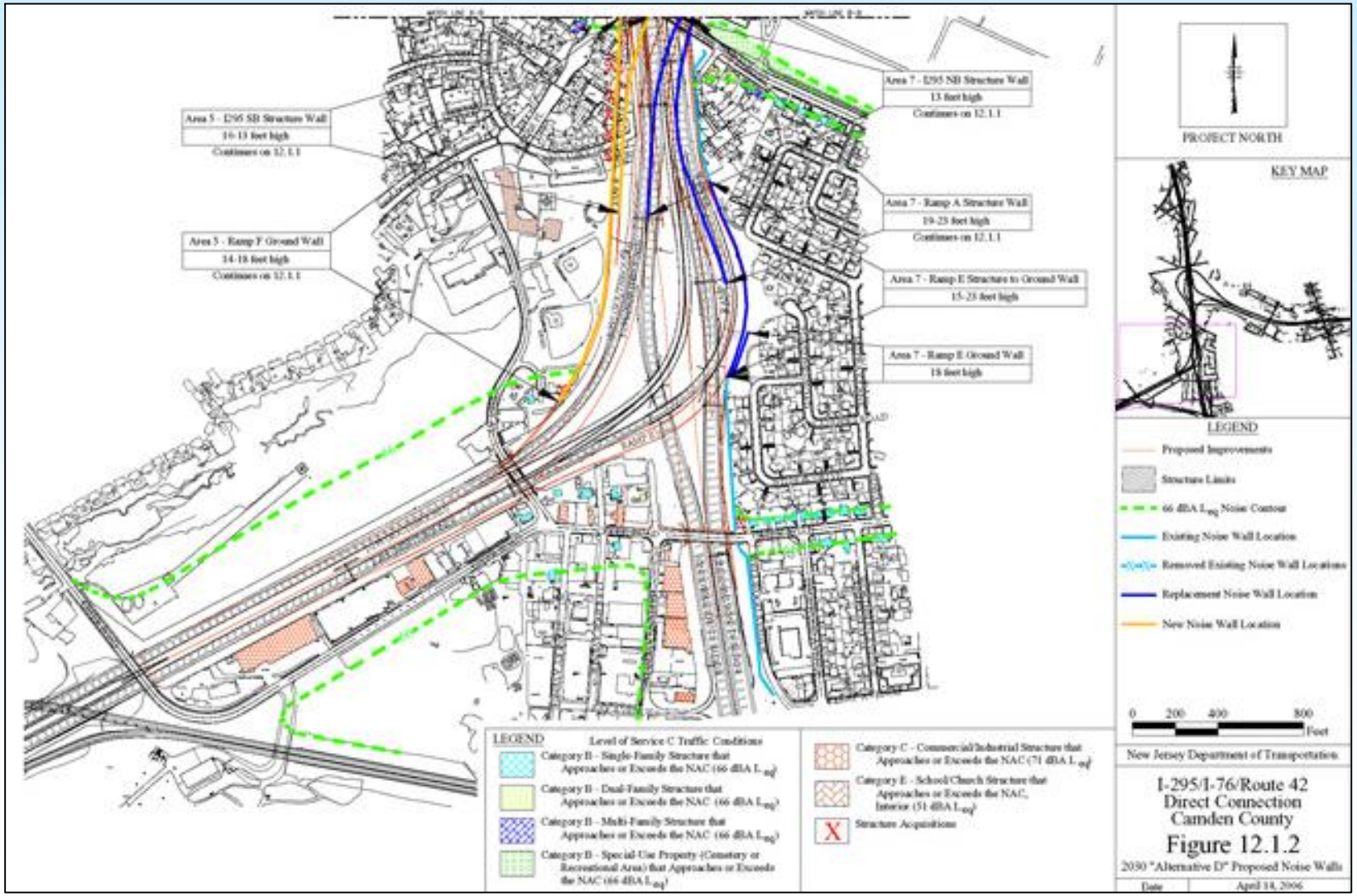
DRAFT TES FINDINGS
NOISE



2030 Proposed Noise Wall Locations

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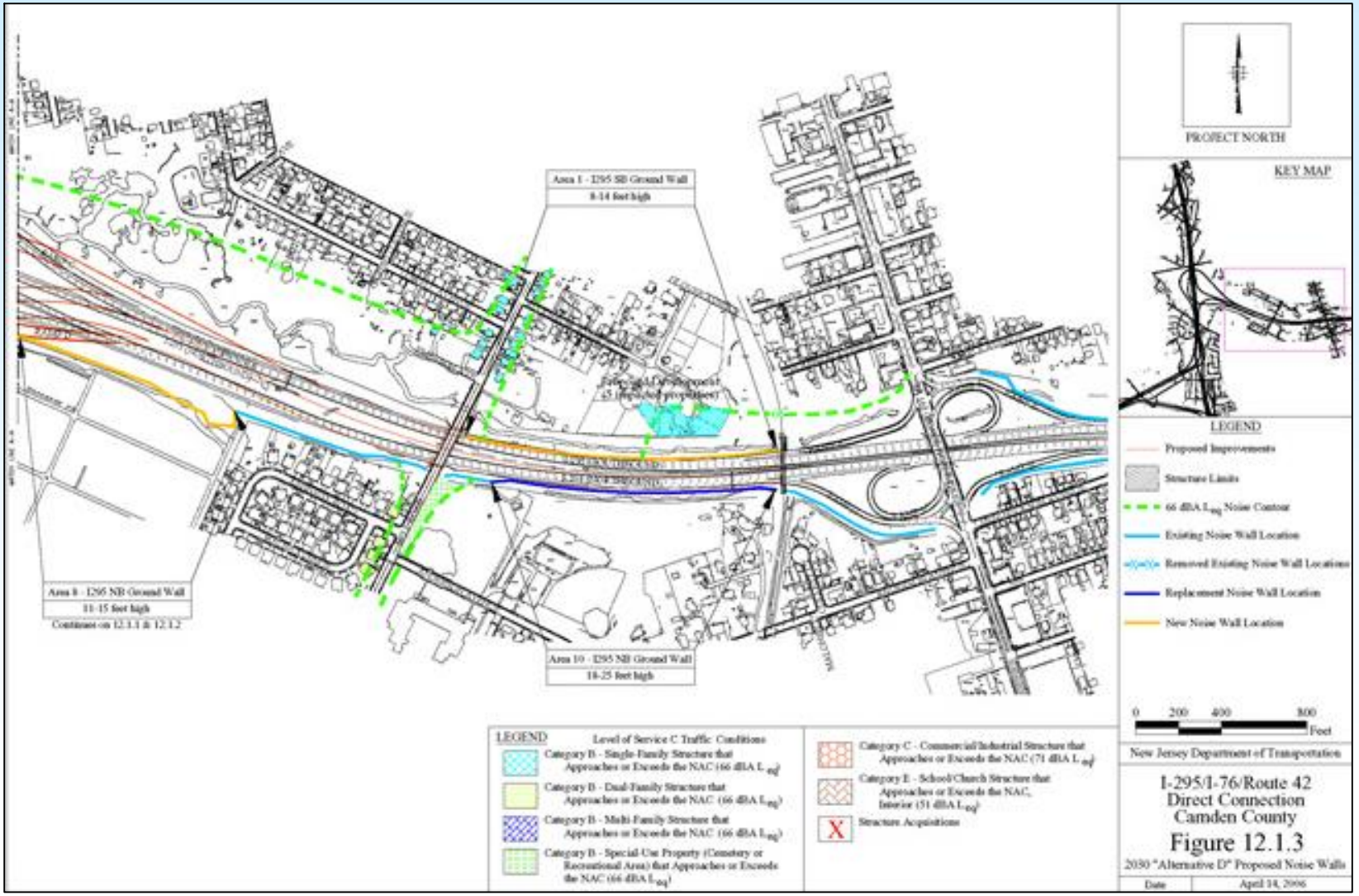
DRAFT TES FINDINGS
NOISE



2030 Proposed Noise Wall Locations

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DRAFT TES FINDINGS
NOISE

Proposed Noise Mitigation

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Wall Removal	4	4	4	4	4	0
Mitigation Cost	11.2 m	11.5 m	12.7 m	13 m	8 m	0
Post-Mitigation Impacts	155	156	215	216	145	N/A
Air Conditioning for Schools	2	2	3	3	2	N/A
Increase of 0-3 dBA	148	149	169	169	140	179
Increase of 4-6 dBA	2	2	16	17	0	0
Increase of over 7 dBA	0	0	12	12	0	0
Total Number of Impacts	155	156	215	216	145	194

Distinguishing Criteria:

Noise - Noise impacts are measured as the number of receptors experiencing an increase over existing conditions

0-3 dBA - Not Perceivable Increase
4-6 dBA - Perceivable Increase
7-10 dBA - Noticeable Increase

Metrics:

Low: Noise level increase that is not perceivable to the average person without the use of instruments

Medium: Some receptors with a perceivable increase over existing conditions

High: Some receptors with a perceivable increase and some receptors with a noticeable increase over existing conditions

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DRAFT TES FINDINGS
NATURAL ECOSYSTEM

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Upland Vegetation	19.039 Ac	20.923 Ac	20.569 Ac	21.951 Ac	21.427 Ac	None
Geology Impacts	Minimal	Minimal	Minimal	Minimal	Minimal	None
Soil Impacts	Minimal	Minimal	Minimal	Minimal	Minimal	None
Groundwater Flow / Quality Impacts	Minimal	Minimal	Minimal	Minimal	Minimal	None

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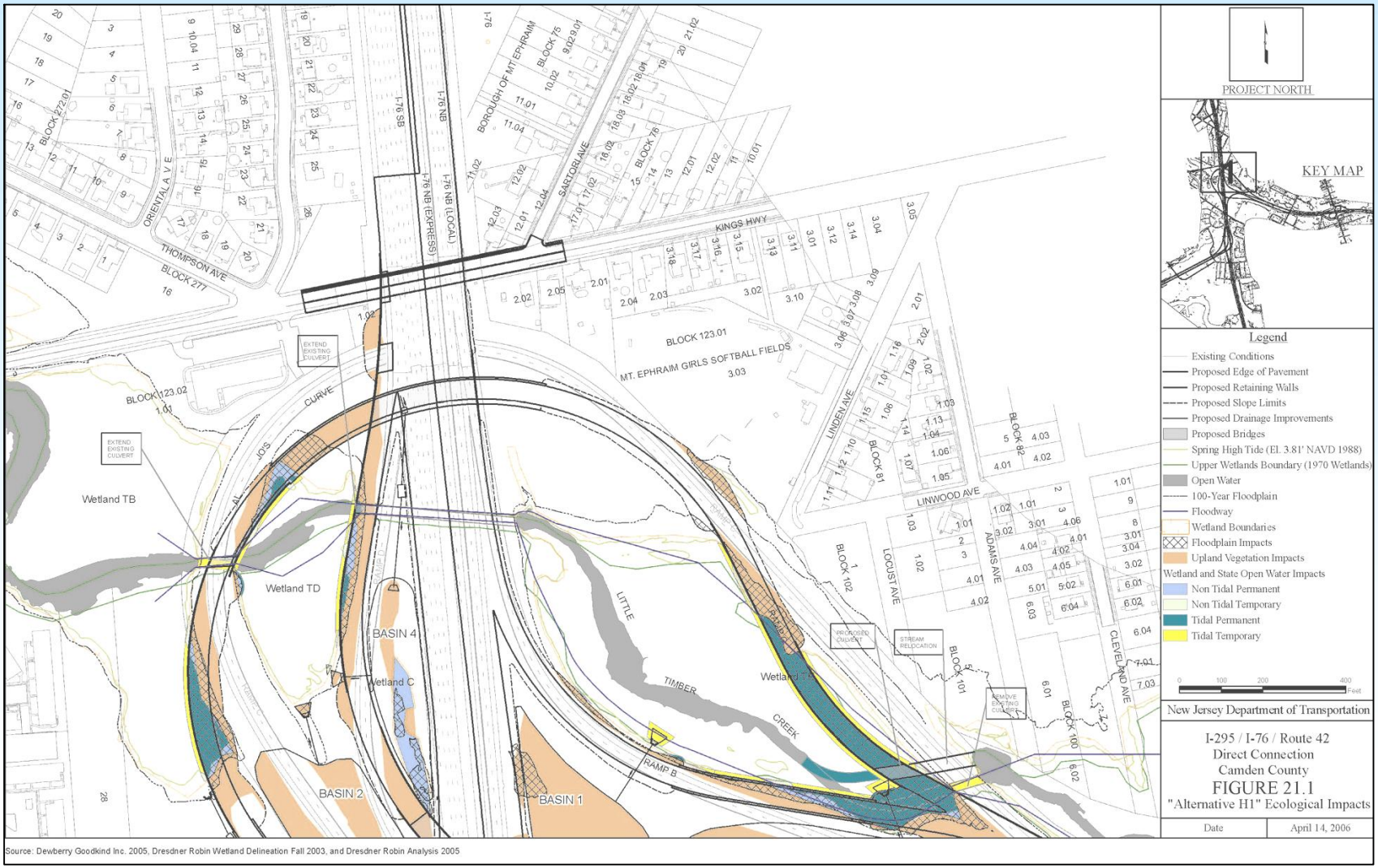
DRAFT TES FINDINGS
NATURAL ECOSYSTEM



Source: Dewberry Goodkind Inc. 2005, Dresdner Robin Wetland Delineation Fall 2003, and Dresdner Robin Analysis 2005

Alt. H1 Ecological Impacts

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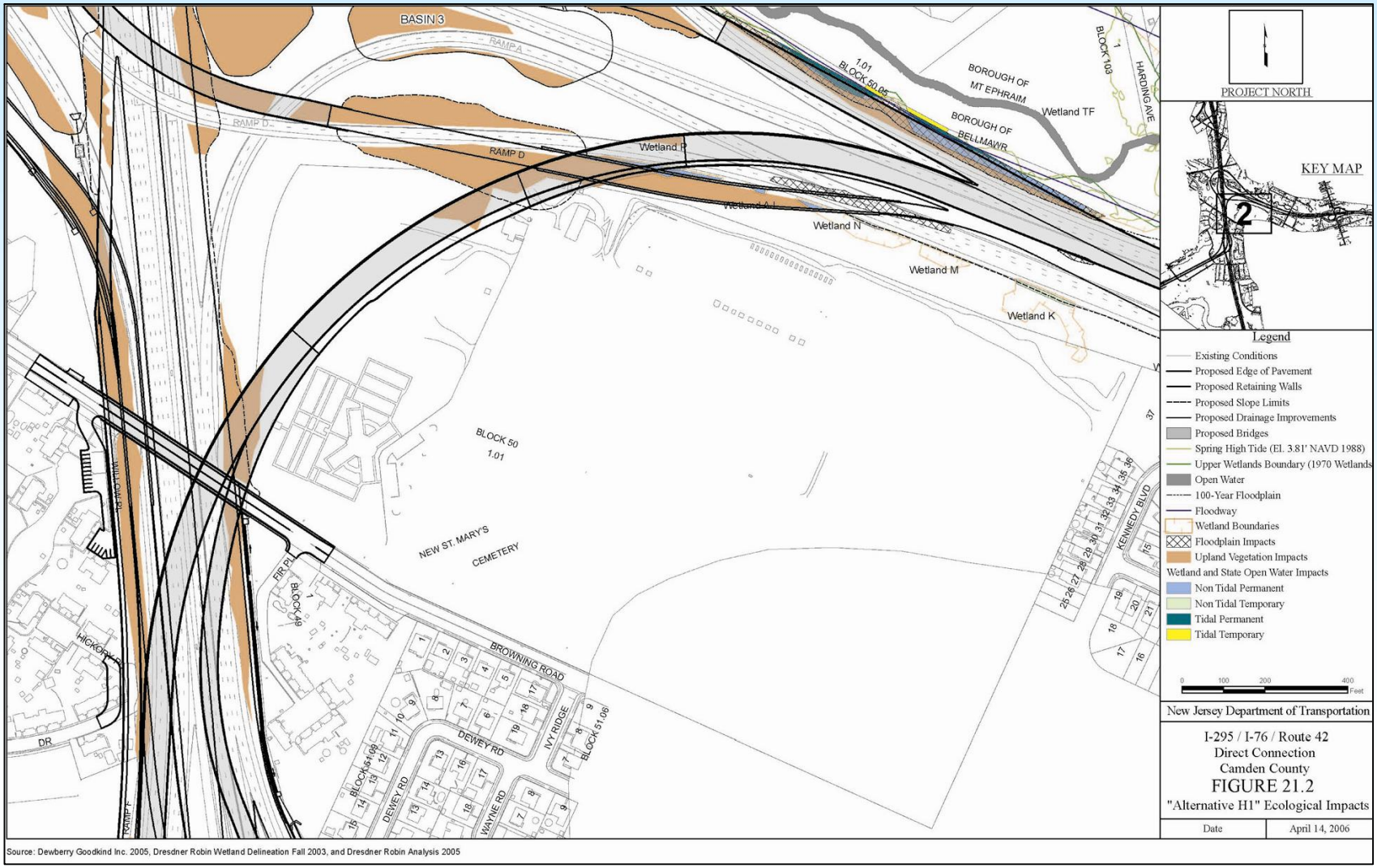
DRAFT TES FINDINGS
NATURAL ECOSYSTEM



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Alt. H1 Ecological Impacts

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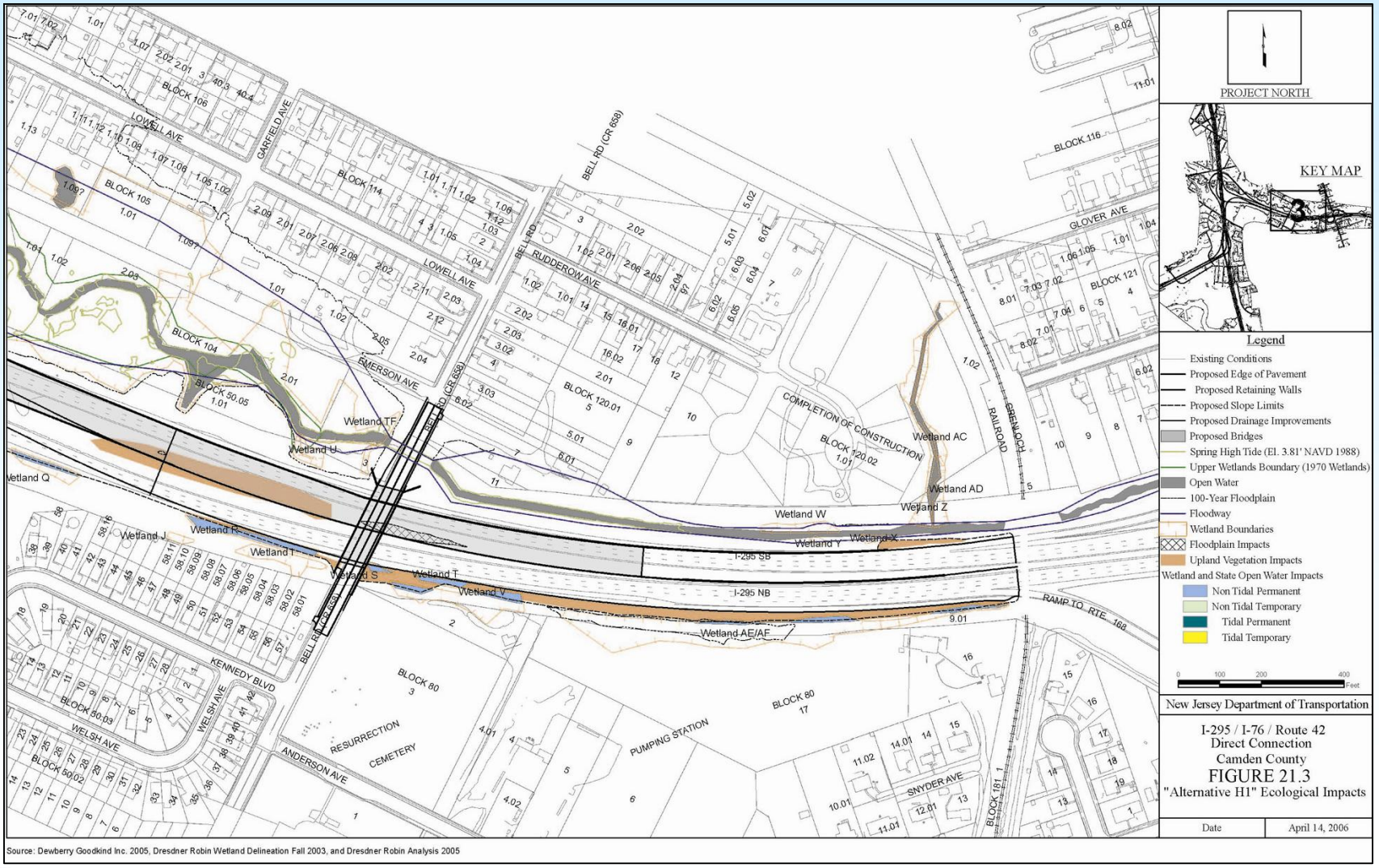
DRAFT TES FINDINGS
NATURAL ECOSYSTEM



Alt. H1 Ecological Impacts

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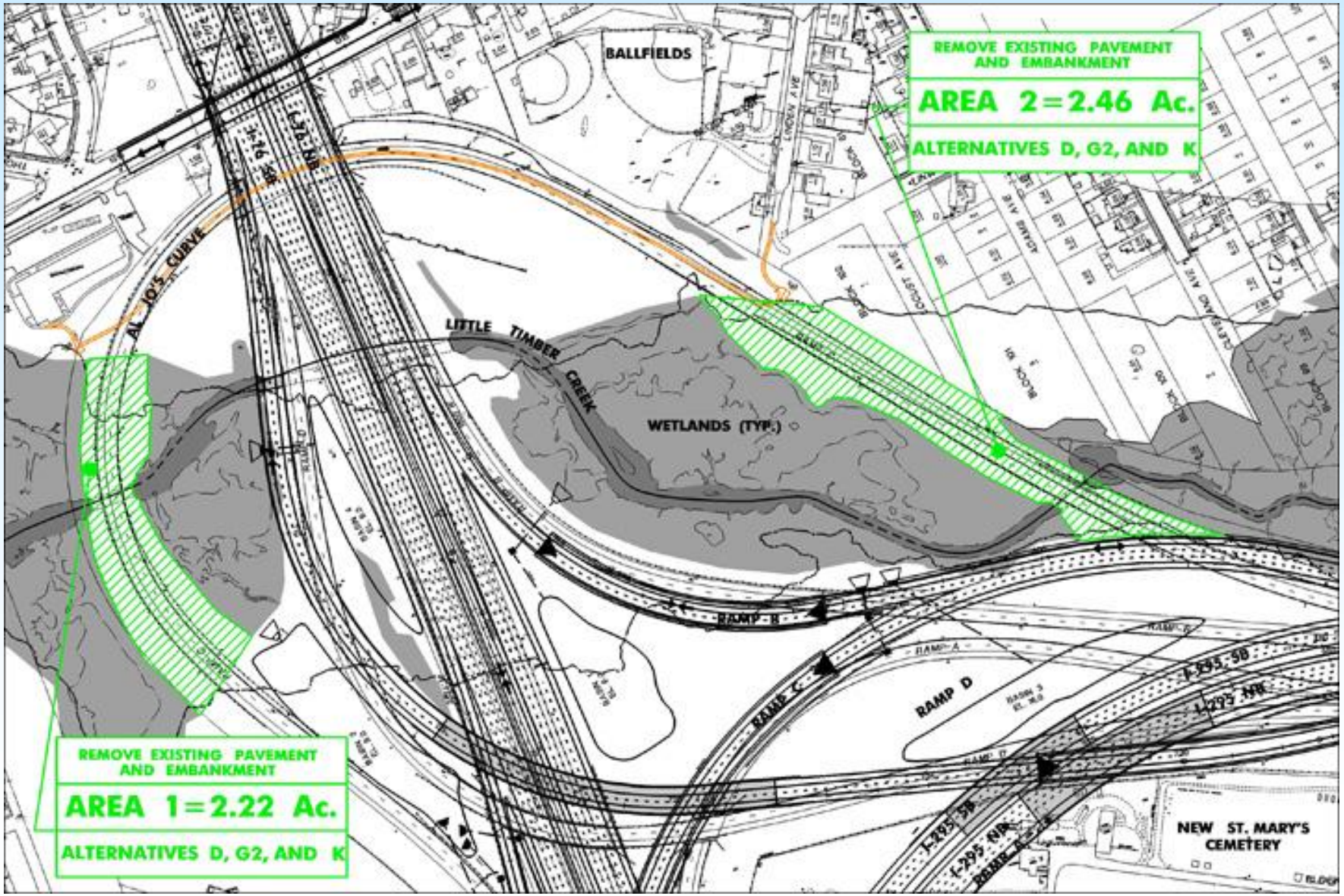
POTENTIAL ON-SITE MITIGATION/WATERFRONT ACCESS



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THREATENED & ENDANGERED SPECIES

- **Resident Reported Sightings of Red-Headed Woodpecker, Peregrine Falcon, and Coopers Hawk**
  - ✓ **Wooded areas in Mt. Ephraim along Little Timber Creek – Jefferson and Lowell Avenues**
  - ✓ **Threatened and Endangered Bird Habitat Evaluation conducted in June-July 2005**
  - ✓ **Findings**
    - ❖ **No threatened or endangered bird species observed**
    - ❖ **No suitable habitat found**

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DRAFT TES FINDINGS
NATURAL ECOSYSTEM

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Floodplain	2.28 Ac	4.45 Ac	0.90 Ac	4.26 Ac	3.04 Ac	No Impact
Total Wetland and SOW Permanent Impacts	1.97 Ac	3.73 Ac	0.95 Ac	3.15 Ac	2.90 Ac	None
State Open Water	0.06 Ac	0.10 Ac	0.06 Ac	0.22 Ac	0.06 Ac	None
Tidal Wetlands	0.64 Ac	2.14 Ac	0.04 Ac	1.53 Ac	1.44 Ac	None
Non-Tidal Wetlands	1.28 Ac	1.49 Ac	0.86 Ac	1. 40 Ac	1.40 Ac	None
Freshwater Wetland Buffer Impacts	3.59 Ac	4.20 Ac	2.48 Ac	4.67 Ac	3.35 Ac	None
Wild Rice (Wildlife Food Source)	Positive	Negative	Positive	Negative	Positive	None
Wetland Mitigation Opportunities	On-site	Primarily Off-site	On-site	Primarily Off-site	Partially On-site	N/A

Distinguishing Criteria:

Floodplain – Permanent loss of floodplain due to construction and fill.

Metrics: Actual acreage of floodplain lost.

Wetlands – Acres of Wetlands and State Open Waters Impacts and ability to mitigate those impacts within.

Metrics:

Low: Total wetland impacts are less than 2 acres and all wetland impacts could be mitigated within the project area.

Medium: Total wetland impacts are more than 2 acres and all wetland impacts could be mitigated within the project area.

High: Total wetland impacts are more than 2 acres and minimal potential for wetland mitigation exists within the project area.

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DRAFT TES FINDINGS
NATURAL ECOSYSTEM

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Stream Ecology	Minimal	Minimal	Minimal	Minimal	Minimal	No Impact
Surface Water Quality	Imp Stormwater Quality	Imp Stormwater Quality	Imp Stormwater Quality	Imp Stormwater Quality	Imp Stormwater Quality	Negative
Relocation of LTC Channel	No	No	No	Yes	No	No
Public Access to LTC	Yes	No	Yes	No	Yes	No

Distinguishing Criteria:

Stream Ecology / Stormwater Quality – Restoration of stream channels and enhanced stormwater treatment.

Metrics:

Low: Stormwater treatment is provided and culvert length is reduced.

Medium: Stormwater treatment is provided, length of culverts is increased, and/or channel relocation is involved.

High: No stormwater treatment is provided.

Waterfront Access – Opportunity for waterfront access for passive recreation.

Metrics:

Yes: Mitigation design allows for waterfront access.

No: Mitigation design has no waterfront access.

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DRAFT TES FINDINGS
AIR QUALITY

- No impact on any alternative
- Not a distinguishing criterion

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DRAFT TES FINDINGS
SOCIOECONOMICS

- Impact Assessment Areas
  - ✓ Community impact analysis
  - ✓ Environmental Justice
  - ✓ Land use
  - ✓ Zoning
  - ✓ Consistency with state and local planning
  - ✓ Visual impacts
  - ✓ Residential acquisitions
  - ✓ Community facilities and 4(f) acquisition
  - ✓ Economic benefits – regional accessibility and travel time savings

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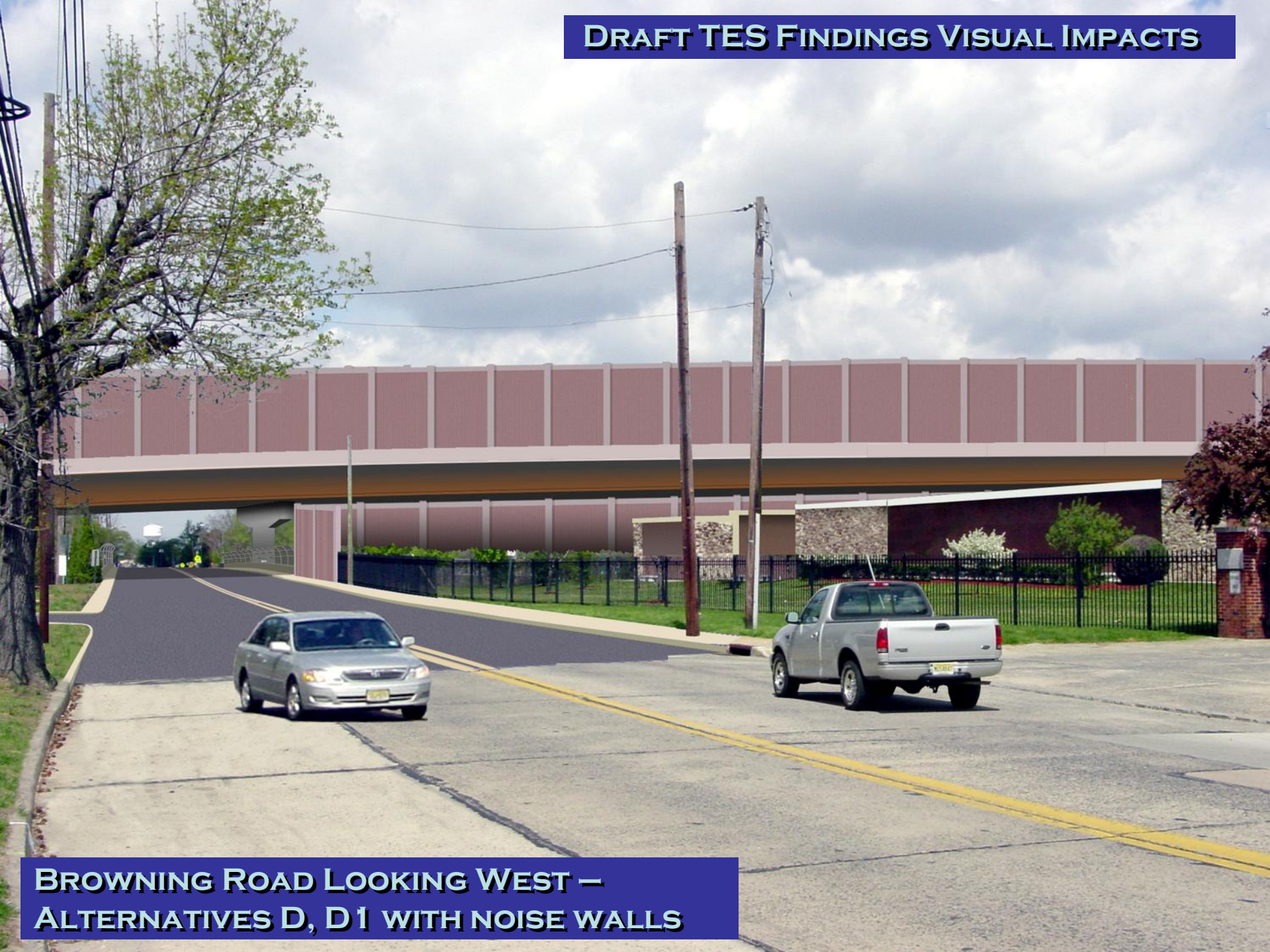
Draft TES Findings Visual Impacts

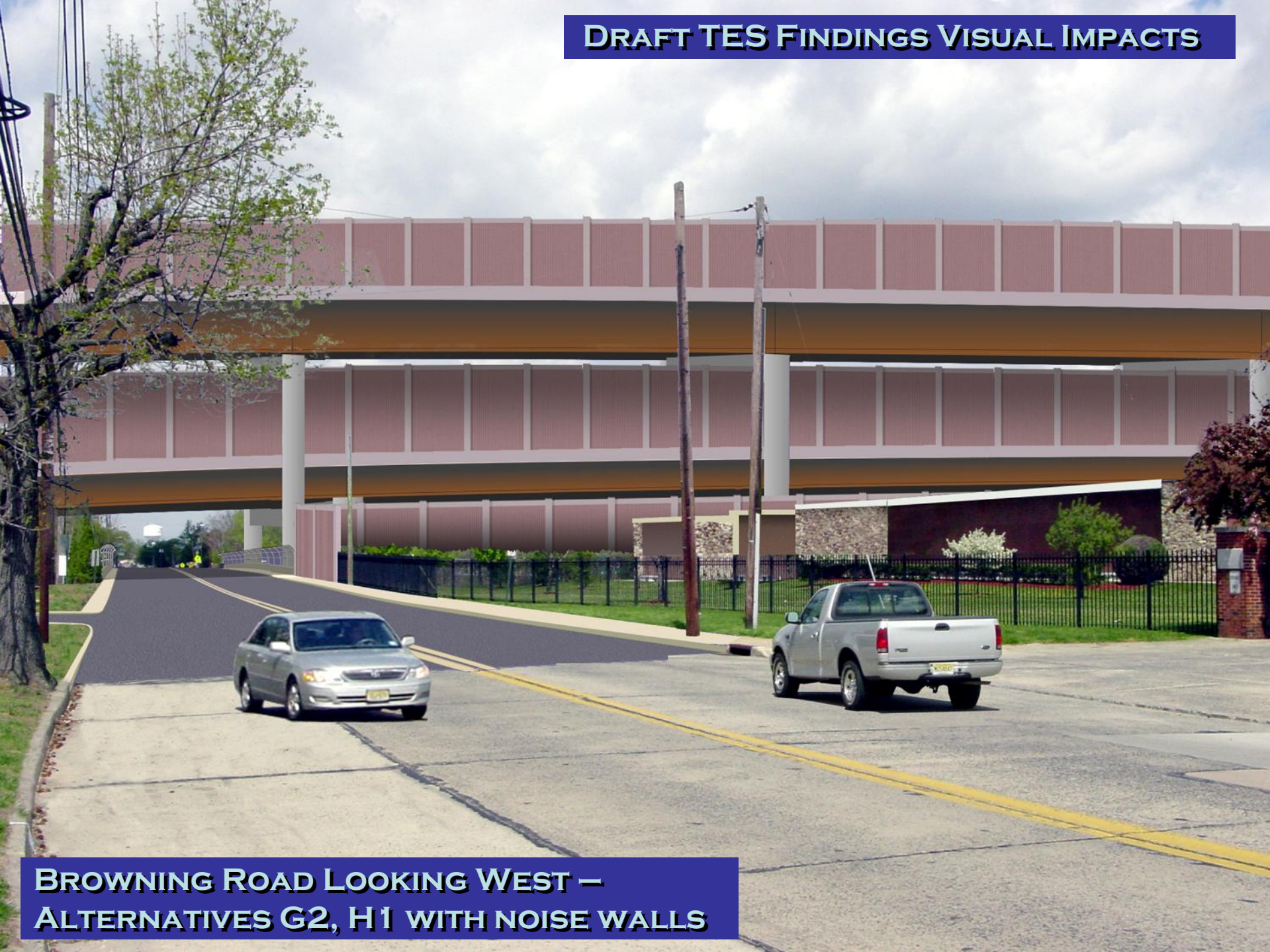
Browning Road Looking West - Existing Conditions

Draft TES Findings Visual Impacts



Browning Road Looking West – Alternatives D, D1 with noise walls

Draft TES Findings Visual Impacts



Browning Road Looking West – Alternatives G2, H1 with noise walls

Draft TES Findings Visual Impacts

Browning Road Looking West – Alternative K with noise walls

Draft TES Findings Visual Impacts

Victory Drive Looking South– Existing Conditions

Draft TES Findings Visual Impacts

Victory Drive Looking South–
Alternatives D, D1 with noise walls

Draft TES Findings Visual Impacts

Victory Drive Looking South–
Alternatives G2, H1 with noise walls

Draft TES Findings Visual Impacts

Victory Drive Looking South–
Alternative K with noise walls

DRAFT TES FINDINGS
VISUAL IMPACTS

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Visual Impacts- number of levels in interchange	1	1	2	2	1	N/A
Visual Impacts- combined height of roadway and noise walls in feet	48	48	78	78	48 - 55	N/A

Distinguishing Criteria:

Visual Impacts - Visual intrusions affecting the quality of the view.

Metrics:

Low:	View is open with limited intrusion of concrete infrastructure. Landscape is dominated by vegetation, existing buildings or buildings of a consistent nature.
Medium:	View has changed to include some road infrastructure, but infrastructure is balanced with the rest of the landscape. Although the view has changed, the view is recognizable.
High:	Field of view is dominated by massive intrusive structures, and the resulting view is barely recognizable from existing conditions.

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DRAFT TES FINDINGS SOCIOECONOMICS

- Preliminary ROW Impacts Summary

Alternative	Residential Relocations	Residential Impacts	Business Impacts	Other Impacts
D	13	15	1	16
D1	13	15	1	17
G2	5	15	0	16
H1	5	15	0	17
K	13	15	1	16

- Residential Relocations – all except one are homeowners of Bellmawr Park
- Residential Impacts – strip takings, permanent and temporary easements
- Business Impacts – business relocation required
- Other Impacts – takings, permanent and temporary (i.e., business, church, school, cemetery, borough)

DRAFT TES FINDINGS
SOCIOECONOMICS

➢ Community Facilities and 4(f) Acquisition

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Bellmawr						
Community Facilities Impacted -in acres (Acquisition and Permanent Easement)	8.61	11.03	7.67	10.10	8.62	N/A
Bellmawr Baseball League	0.86	0.86	0.30	0.31	0.88	N/A
Bellmawr Park Elementary School (4(f))	0.70	0.70	0.32	0.32	0.70	N/A
New St. Mary's Cemetery	6.26	6.26	6.26	6.26	6.26	N/A
Annunciation B.V.M. Church and Regional School	0.72	3.147	0.72	3.15	0.72	N/A
Resurrection Christ Cemetery	0.07	0.07	0.07	0.07	0.07	N/A
Community Facilities- Impact on services provided	No impact	No impact	No impact	No impact	No impact	No impact

Distinguishing Criteria:

Community Property Acquisitions – Impact to community facilities due to easements and acquisitions.

Metrics:

None: No impact to community facility.

Low: No loss of use of community facility.

Medium: Temporary loss of use of community facility.

High: Permanent loss of use of community facility.

4(f) Property Acquisition – Impacts to community facility protected by 4(f) regulations.

Metrics: Impacts are measured by the actual acreage acquired from the 4(f) property.

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DRAFT TES FINDINGS
SOCIOECONOMICS

Economic Benefits

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Economic Benefits						
Regional Accessibility	Positive	Positive	Positive	Positive	Positive	Negative
Travel Time Savings – Car	$26M	$26M	$26M	$26M	$26M	0
Travel Time Savings – Truck	$13M	$13M	$13M	$13M	$13M	0
Travel Time through the Interchange	Positive	Positive	Positive	Positive	Positive	Negative

Distinguishing Criteria:

Economic Benefits – The value of travel time savings measured by a change in opportunity costs.

Metrics: **$**

Regional Accessibility

Metrics:

Positive: **Direct regional access with increased accessibility.**

Negative: **Impaired access with an increase in congestion.**

Travel Time Savings

Metrics:

Positive: **Reduced opportunity costs (time).**

Negative: **No change. Increased opportunity costs (time).**

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DRAFT TES FINDINGS
ARCHAEOLOGY

- No impact on any of the alternatives
- Not a distinguishing criterion

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DRAFT TES FINDINGS
HISTORIC ARCHITECTURE

Distinguishing Criteria

DISCIPLINES	BUILD ALTERNATIVES					NO BUILD (2030)
	D	D1	G2	H1	K	
Physical Destruction of Resource in Acres (% of total acreage)	2.11 Ac (8.87%)	2.11 Ac (8.87%)	1.05 Ac (4.4%)	1.05 Ac (4.4%)	2.20 Ac (9.27%)	No impact
Demolition/Relocation of Contributing Resources	5 residential buildings; 12 dwelling units	5 residential buildings; 12 dwelling units	1 residential building; 4 dwelling units	1 residential building; 4 dwelling units	5 residential buildings; 12 dwelling units	No impact
Viewsheds	Moderate	Moderate	High	High	Low	No impact
Post Noise Wall (Mitigation) Impact to Resources	17	17	20	20	13	24
Increase of 0-3 dBA	16	16	18	18	12	24
Increase of 4-6 dBA	0	0	1	1	0	0
Increase of 7-10 dBA	0	0	0	0	0	0

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DRAFT TES FINDINGS
HISTORIC ARCHITECTURE

Distinguishing Criteria

Distinguishing Criteria:

Physical Impacts to Historic District – Area within the historic district impacted by ROW takings.

Metrics:	**Actual area impacted and the number of structures impacted.**

Noise impact on the Historic District – Number of contributing buildings within the historic district that would have an increase in noise levels over existing conditions.

Metrics:	
Low:	**Noise level increase that is not perceivable to the average person without the use of instruments.**
Medium:	**Increase in noise level some receptors with a perceivable increase.**
High:	**Some receptors with a perceivable increase and some receptors with a more noticeable increase.**

Impact to Viewshed – Visual intrusions as viewed from the contributing buildings within the historic district.

Metrics:	
None:	**There will be no change to the viewshed.**
Low:	**The viewshed would remain relatively unchanged and open with limited intrusion of physical infrastructure.**
Medium:	**The viewshed would be changed to include some new infrastructure at a relatively close distance to the historic district.**
High:	**The viewshed would be dominated by intrusive infrastructure at a relatively close distance to the historic district.**

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DRAFT TES FINDINGS
HAZARDOUS WASTE

- Similar impacts to all alternatives
- Not a distinguishing criterion

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ALTERNATIVE COMPARISON MATRIX

CRITERIA	BUILD ALTERNATIVES					No Build
	D	D1	G2	H1	K	
ENGINEERING FACTORS						
Meets Purpose and Need						
Temporary Construction Impacts						
Maintenance and Protection of Traffic						
Security						
Design Criteria						
Construction Cost						
Construction Schedule						
Maintenance and Operations						
ENVIRONMENTAL IMPACTS						
Noise						
Increase from Existing Conditions						
Natural Ecosystems						
Floodplain						
Wetlands						
Stream Ecology and Storm Water Quality						
Waterfront Access						
Socioeconomic Impacts						
Visual Impacts						
Residential Acquisitions						
Community Property Acquisitions						
4(f) Property Acquisition						
Economic Benefits - Regional Accessibility						
Economic Benefits - Travel Time						
Historic Architecture						
Physical Impact to Historic District						
Noise Increase from Existing Conditions on Historic District						
Impact to Viewshed						

NOTES: Air Quality, Hazardous Waste and Archaeology are not distinguishing criteria.

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EIS SCHEDULE

- FHWA review of TES – Summer 2006
- Identify Preferred Alternative – Fall 2006
- Pre-Draft EIS and Conceptual ACOE Permit – Winter 2007
- Agency Review – Spring 2007
- Circulation of DEIS – Fall 2007
- Public Hearing – Fall 2007
- Final EIS – Spring 2008

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CONSTRUCTION SCHEDULE

- Anticipate multiple construction contracts
  - ✓ Funding will influence schedule
  - ✓ Alternative selected will influence schedule
  - ✓ Start late 2009 / 2010 with an advanced contract
  - ✓ Complete by 2015±

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