

TURKEY POINT UNITS 6 & 7 ROADS AND BRIDGES CONCEPTUAL DESIGN REPORT

To: Ed Copeland, PE, HDR Engineering, Inc.

From: Erki Suarez, PE, HDR Engineering, Inc.

Date: June 12, 2009

**RE: Turkey Point Units 6 & 7 Roads and Bridge Conceptual Design Report
based on the Traf Tech Engineering, Inc. Peak Construction Traffic Study**

HDR Engineering, Inc. has been retained by The Florida Power and Light Company (FPL) to perform a “Roadway Improvements” conceptual design study in connection with the construction of Units 6 & 7 at the existing Turkey Point Power Plant located at the easternmost point of SW 344th Street (Palm Drive) in south Miami-Dade County, Florida.

We have included in this document the conceptual design of the proposed roadway and bridge improvement typical sections and plan sheets within the Traffic Study transportation network. Extensive coordination was required with the Miami Dade County Public Works Department (Highway Division), Miami Dade County Right of Way Department, adjacent projects, etc. All proposed design elements (design speed, lane width, shoulder width, median width, cross slope, border width, bridge width, horizontal clearance, etc.) included in these typical sections comply with all applicable design criteria and design standards. Based on the existing field conditions and design constraints, criteria were selected as deemed practical from the Miami-Dade County Public Works Standards, Florida Department of Transportation (FDOT) Plans Preparation Manual or FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Commonly known as the “Florida Greenbook”, FDOT Design Standards, and FDOT Drainage Manual .

None of these roads fall within the FDOT jurisdiction and in absence of any other well defined design criteria from the county, we used the best applicable design criteria based on our professional knowledge, experience with similar projects, etc. That is the main reason more than one criteria was used. This is typical and common when

working outside FDOT jurisdiction. In all cases we designed for a 45 MPH (Design Speed) since the current Posted Speed is 40 MPH, or as otherwise noted.

The Metropolitan Dade County Public Works Manual Water Control Detail W.C. 2.2 was referenced for the Seasonal High Water Table (SHWT) elevations. The selection of the water elevation criteria is as follow:

- Roadway Typical in which a canal runs parallel to the roadway, the highest value between the NHW elevation and the SHWT elevation is selected.
- Roadway Typical in which no canal runs parallel to the roadway, the SHWT elevation is selected.
- Bridge Typical, Per the FDOT Drainage Manual, Section 4.6.1, the highest value between the NHW elevation plus 6' and the Design High Water (DHW) elevation (50 YR Frequency Model) plus 2' is selected for the design of the low member of bridges.

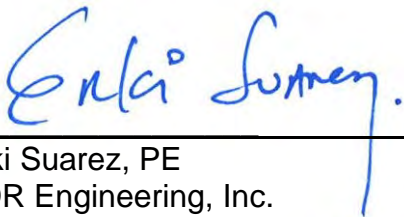
Final elevations will be determined based on agency input. To this effect the South Florida Water Management District and the Miami-Dade County Department of Environmental Resources Management (DERM) were contacted for the control elevation of the canals which can be used as the Normal High Water (NHW) elevation.

Summary of Findings

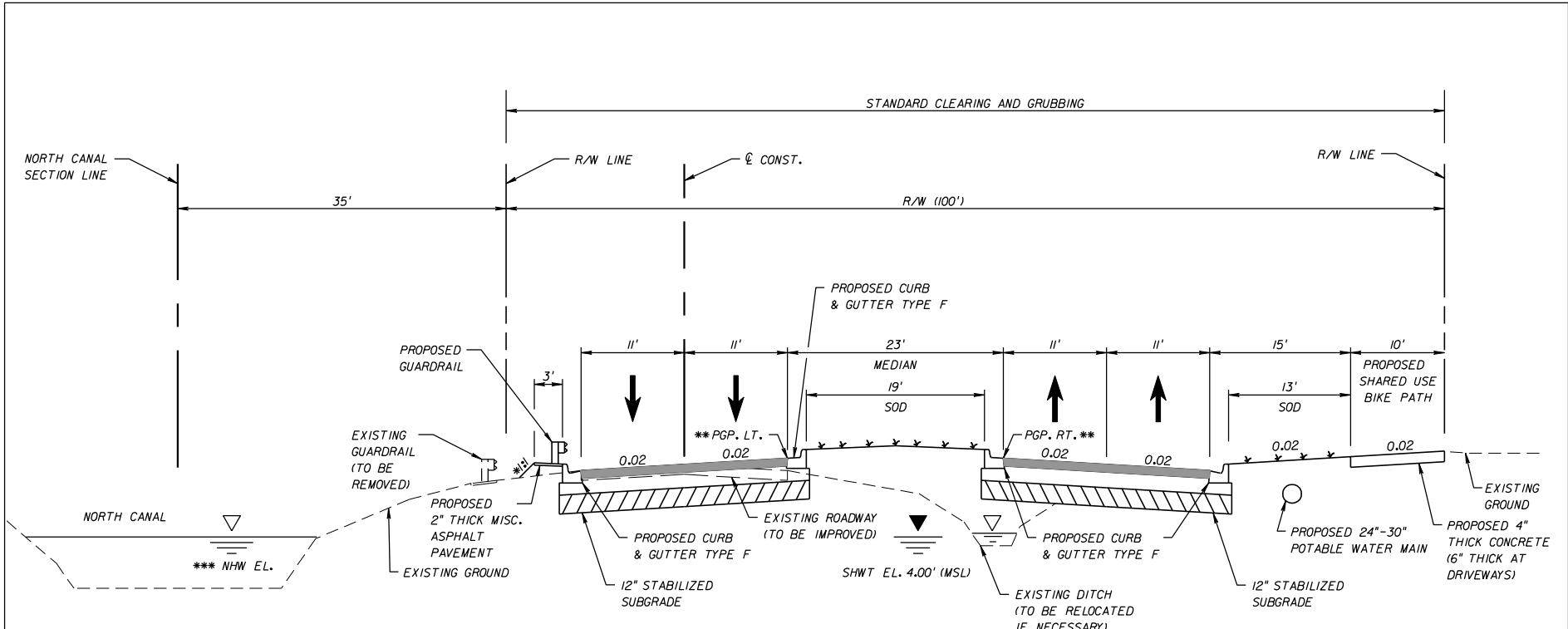
The following is a summary of all specific design elements and criteria used for each proposed typical section; which is consistent with the recommendations provided by Mike Riera, Miami-Dade County Public Works Department (MDCPWD) Highway Division Section Manager.

1. The MDCPWD has a project in the design phase that involves the widening of SW 328 Street (North Canal Drive) west of SW 137 Avenue. The proposed urban divided typical section for the section west of SW 137 Avenue will continue with the same configuration for the section east of SW 137 Avenue (Typical Section 1).
2. Along SW 117 Avenue (Six Mile Road), Typical Section 2 was developed. In this case a proposed curb and gutter section with 11-foot lanes was a better fit due to R/W restrictions. Two parallel no-name ditches run along both sides of SW 117 Avenue. These ditches will have to be relocated as part of this project. A 10-foot striped median was provided which is consistent with the Florida Greenbook and MDCPWD Standards.
3. The Typical Section 3, which is SW 117 Avenue over the Bridge Culvert No. 874128, will require the extension of the culvert and new *fabric formed concrete riprap*. The cross slopes in this section were lowered to 1% for a desired plateau effect approaching the intersection with SW 344 Street (Palm Drive).

4. The Typical Section 4 is very short as it will be used only for the small stretch between the intersection of SW 137 Avenue curve and will become the extension of SW 344 Street to the imaginary extension of SW 137 Avenue. This typical requires the relocation of an existing OH utility line of poles located on the south side of the road. The implementation of the SW 344 Street auxiliary right turn lane at the SW 344 Street and SW 137 Avenue intersection and the roadway alignment adjustment required to match the proposed improvements and the existing SW 344 Street, forces the roadway improvement limits to extend beyond the County R/W. Furthermore, additional harmonization may be required outside the County R/W (inside the Florida City Canal R/W).
5. The Typical Section 5, which is the extension of SW 137 Avenue (Tallahassee Road) will be urban with curb and gutter and will have a 12 feet striped median that will serve as a buffer between the opposing traffic. In this case, an urban section was required for R/W constraints.
6. Along SW 359 Street, which is owned by FPL as per R/W plats found at the County, Typical Sections 6 and 7 were developed. In both cases and because the extensive R/W, rural section with wide flush shoulders and ditches to collect/treat runoff on both sides of the road were provided. Typical Section 6 has three (3) lanes of traffic, two in the eastbound direction and one in the westbound direction separated by a 12 feet striped median.
7. Typical Section 7 differs from 6 in the numbers of lanes. Typical Section 7 requires 4 lanes of traffic with a 10 feet striped median. Additionally, to further reduce the potential impacts of construction traffic upon crocodiles between the cooling canals and the test cooling canals, four wildlife underpasses are being proposed along SW 359 Street (Typical Section 7) east of the L-31E Canal. The proposed wildlife crossings consist of bottomless culverts constructed of precast concrete with wing walls to direct the crocodiles through the openings and fence barriers will be installed and trenched into the ground on either side of the roadway.
8. Typical Section 8 is for the bridge over Canal L-31E and will continue the same typical along SW 359 Street with 4 lanes and a 10 feet striped median. This typical may also be applied to the cooling water canals if the same roadway configuration is maintained across the Turkey Point Power Plant Facility.
9. Typical Section 9 will replace the existing two-lane bridge over North Canal along SW 117 Avenue. Note that a very minimum for shoulder width of 2.5 feet as per FDOT PPM was proposed to reduce construction cost and because it will be tying a two-lane section on the north side of the bridge.



Erki Suarez, PE
HDR Engineering, Inc.



**TYPICAL SECTION I
(LOOKING EAST)
SW 328th STREET (NORTH CANAL DRIVE)
(FROM SW 137th AVENUE TO SW 117th AVENUE)**

* 1:1 OR TO SUIT PROPERTY OWNER
 ** THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM 3' CLEARANCE REQUIREMENTS PER THE FDOT PLANS PREPARATION MANUAL VOL. 1, TABLE 2.6.3. FOR THE ROADWAY BASE COURSE ABOVE THE BASE CLEARANCE WATER ELEVATION.

PGP = BASE CLEARANCE WATER ELEVATION (NHW OR SHWT, WHICH EVER YIELDS THE HIGHEST VALUE) + 3' MINIMUM CLEARANCE + PAVEMENT DESIGN

A PRELIMINARY PAVEMENT DESIGN CONSISTING OF LIMEROCK BASE (12"), TYPE S-1 STRUCTURAL COURSE (2"), AND FRICTION COURSE (1") SHALL BE USED FOR CONCEPT ANALYSIS ONLY.

*** THE NHW EL. IS TO BE PROVIDED BY DERM.

TYPICAL SECTION NOTES:

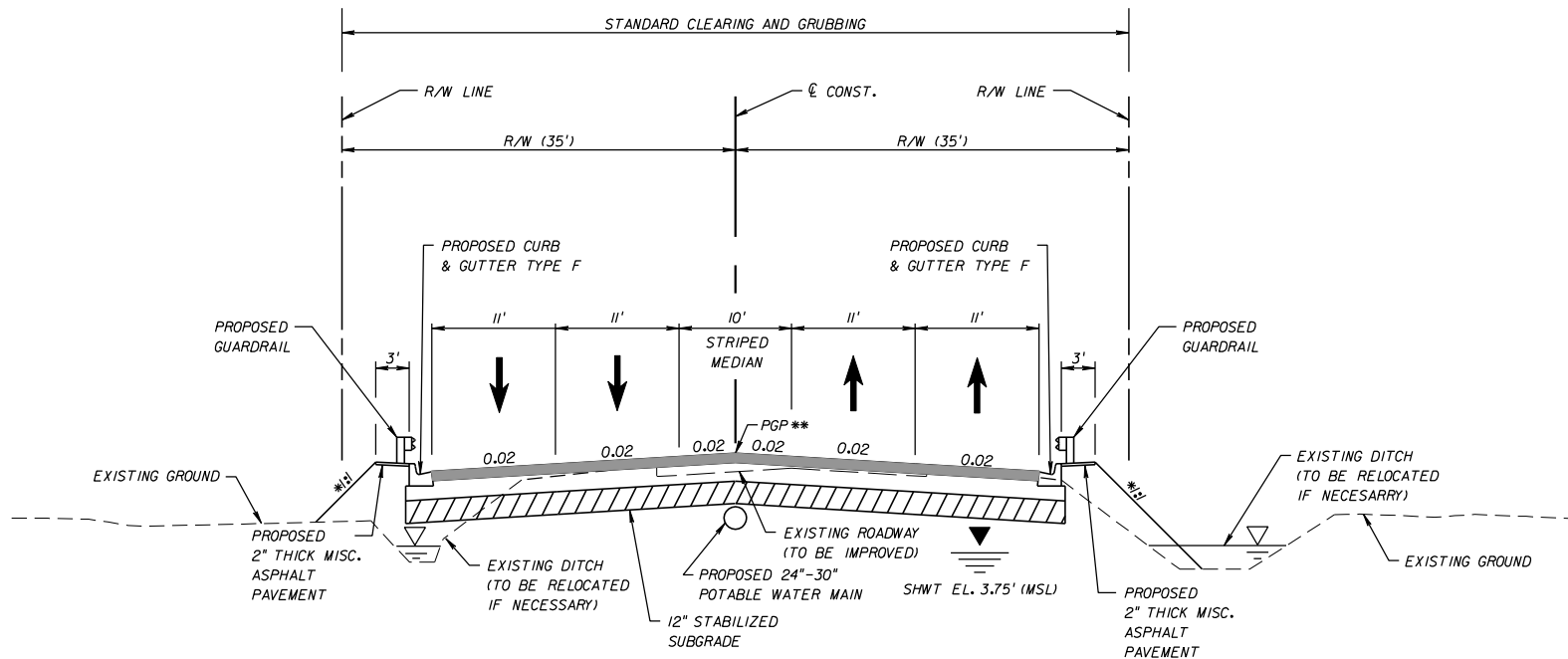
1. TYPICAL SECTION I MATCHES THE PROPOSED MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT PROJECT No. 20060302 SW 328th STREET TYPICAL SECTION FROM SW 152nd AVENUE TO SW 137th AVENUE.
2. DESIGN SPEED 45 MPH
3. STORM WATER MANAGEMENT: CLOSED SYSTEM TREATMENT AND ATTENUATION WILL BE PROVIDED BY PROPOSED EXFILTRATION TRENCH AND OVERFLOW INTO EXISTING CANAL (PRE VS. POST DISCHARGE). WATER QUANTITY/QUALITY SFWMD CRITERIA WILL BE APPLIED.



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS**

PROJECT NUMBER 109789 (HDR No.)
PROJECT MANAGER EDWIN COPELAND, P.E.
DATE 06/12/2009

SCALE N.T.S.
REFERENCE DOCUMENT
EXHIBIT NUMBER 1 OF 9



**TYPICAL SECTION 2
(LOOKING NORTH)
SW 117th AVENUE (SIX MILE ROAD)
(FROM SW 359th STREET TO SW 328th STREET)**

TYPICAL SECTION NOTES:

1. PROPOSED TRAVEL LANE WIDTH OF 11-FT DUE TO RIGHT-OF-WAY CONSTRAINTS.
2. 10-FT STRIPED MEDIAN WAS PROVIDED PER THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, SECTION C.7.e AND PER METROPOLITAN DADE COUNTY PUBLIC WORKS MANUAL ROAD DETAIL R-3.2A.
3. CURB AND GUTTER TYPE F WAS PROVIDED DUE TO RIGHT-OF-WAY CONSTRAINTS.
4. DESIGN SPEED 45 MPH
5. STORM WATER MANAGEMENT: CLOSED SYSTEM TREATMENT AND ATTENUATION WILL BE PROVIDED BY PROPOSED EXFILTRATION TRENCH AND OVERFLOW INTO EXISTING DITCH (PRE VS. POST DISCHARGE). WATER QUANTITY/QUALITY SFWM CRITERIA WILL BE APPLIED.

* 1:1/0R TO SUIT PROPERTY OWNER

** THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM 3' CLEARANCE REQUIREMENTS PER THE FDOT PLANS PREPARATION MANUAL VOL. 1, TABLE 2.6.3. FOR THE ROADWAY BASE COURSE ABOVE THE BASE CLEARANCE WATER ELEVATION.

PGP = BASE CLEARANCE WATER ELEVATION + 3' MINIMUM CLEARANCE + PAVEMENT DESIGN

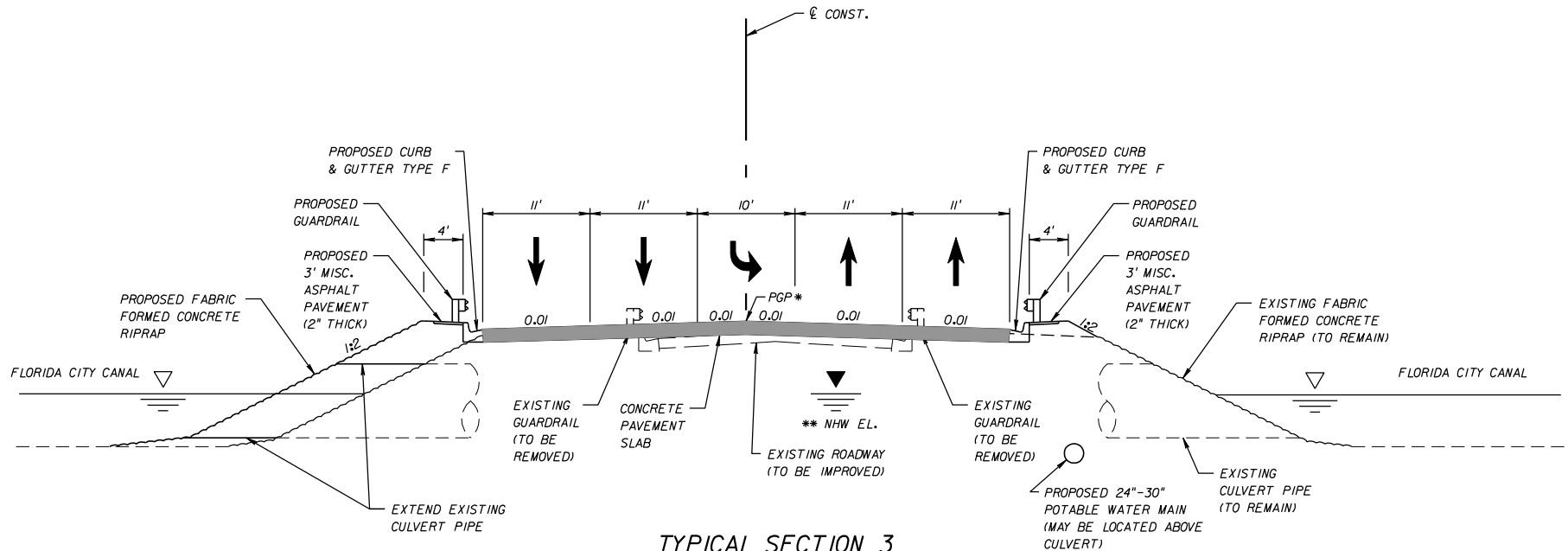
A PRELIMINARY PAVEMENT DESIGN CONSISTING OF LIMEROCK BASE (12"), TYPE S-1 STRUCTURAL COURSE (2"), AND FRICTION COURSE (1") SHALL BE USED FOR CONCEPT ANALYSIS ONLY.



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS**

PROJECT NUMBER 109789 (HDR No.)
PROJECT MANAGER EDWIN COPELAND, P.E.
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**TYPICAL SECTION 3
(LOOKING NORTH)
SW 117th AVENUE (SIX MILE ROAD)
(NORTH OF SW 344th STREET OVER THE
BRIDGE CULVERT No. 874I28)**

TYPICAL SECTION NOTES:

1. PROPOSED TRAVEL LANE WIDTH OF 11-FT DUE TO RIGHT-OF-WAY CONSTRAINTS.
2. 10-FT STRIPED MEDIAN WAS PROVIDED PER THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, SECTION C.7.e AND PER METROPOLITAN DADE COUNTY PUBLIC WORKS MANUAL ROAD DETAIL R-3.2A.
3. CURB AND GUTTER TYPE F WAS PROVIDED DUE TO RIGHT-OF-WAY CONSTRAINTS.
4. CONCRETE PAVEMENT SLAB WAS PROVIDED TO MEET REQUIRED PIPE COVER AND MINIMIZE IMPACT TO THE SW 117th AVENUE VERTICAL ALIGNMENT.
5. EXTENSION OF THE EXISTING CULVERT PIPE AND RECONSTRUCTION OF THE FABRIC FORMED CONCRETE RIPRAP ON THE WEST SIDE WILL BE REQUIRED.

6. CROSS SLOPES DEPICTED REPRESENT THE SW 117th AVENUE LANE SLOPES AT THE TRANSITION'S MID-POINT LOCATION WHILE TRANSITIONING TO MATCH THE SW 344th STREET EDGE OF PAVEMENT TO PROVIDE A PLATEAU EFFECT AT THE INTERSECTION.
7. DESIGN SPEED 45 MPH
8. STORM WATER MANAGEMENT: THE BRIDGE CULVERT VERTICAL ALIGNMENT WILL INCLUDE A HIGHPOINT WHICH WILL DIRECT THE COLLECTED STORM WATER TOWARDS THE SW 117th AVENUE DRAINAGE CLOSED SYSTEM. (SEE TYPICAL SECTION 2 NOTES)

* THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM 9" COVER REQUIREMENTS PER THE FDOT DESIGN STANDARDS, INDEX 205 (SHEET 1 OF 6), FOR A 15"-72" CORRUGATED ALUMINUM PIPE AND RIGID PAVEMENT DESIGN.

PGP = NHW OR DHW ELEVATION (WHICH EVER YIELDS THE HIGHEST VALUE) + 9" MINIMUM COVER + RIGID PAVEMENT DESIGN

DHW ELEVATION NOT AVAILABLE, PENDING DRAINAGE ANALYSIS. RIGID PAVEMENT DESIGN NOT AVAILABLE.

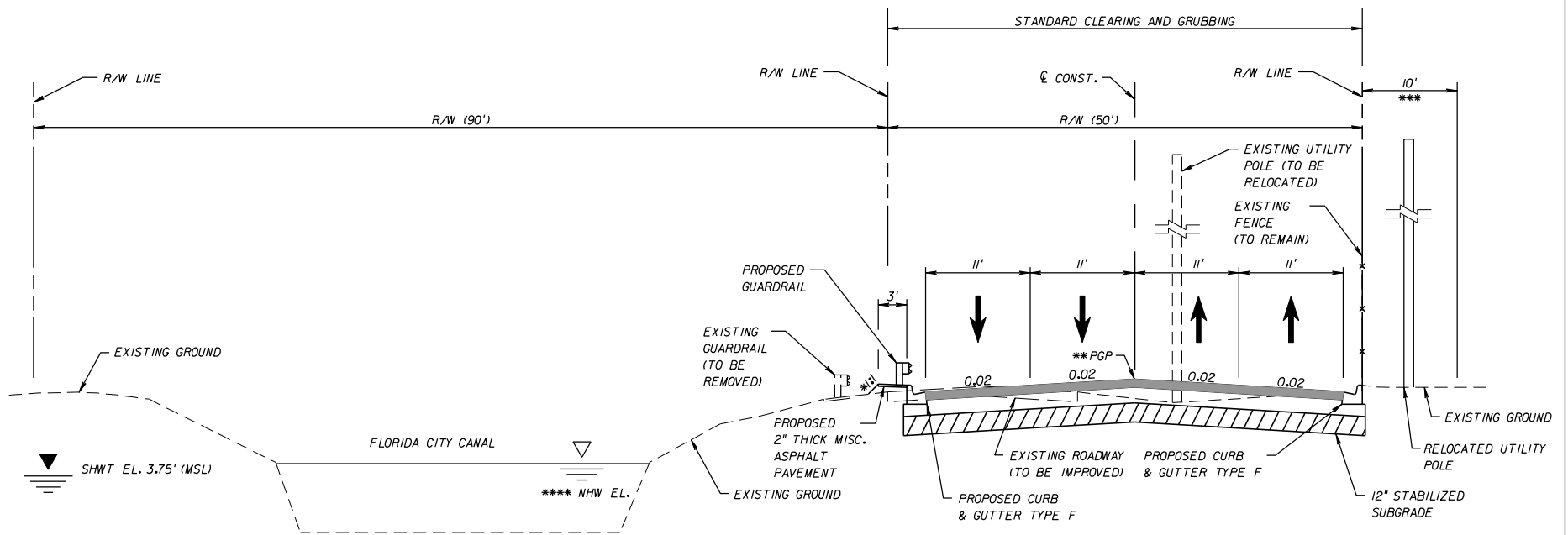
** THE NHW EL. IS TO BE PROVIDED BY DERM.



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS**

PROJECT NUMBER 109789 (HDR No.)
PROJECT MANAGER EDWIN COPELAND, P.E.
DATE 06/12/2009

SCALE N.T.S.
REFERENCE DOCUMENT
EXHIBIT NUMBER 3 OF 9



**TYPICAL SECTION 4
(LOOKING EAST)
SW 344th STREET (PALM DRIVE)
(SW 137th AVENUE CONNECTION)**

* 12' OR TO SUIT PROPERTY OWNER

** THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM 3' CLEARANCE REQUIREMENTS PER THE FDOT PLANS PREPARATION MANUAL VOL. 1, TABLE 2.6.3. FOR THE ROADWAY BASE COURSE ABOVE THE BASE CLEARANCE WATER ELEVATION.

PGP = BASE CLEARANCE WATER ELEVATION (NHW OR SHWT, WHICH EVER YIELDS THE HIGHEST VALUE) + 3' MINIMUM CLEARANCE + PAVEMENT DESIGN

A PRELIMINARY PAVEMENT DESIGN CONSISTING OF LIMEROCK BASE (12"), TYPE S-1 STRUCTURAL COURSE (2"), AND FRICTION COURSE (1") SHALL BE USED FOR CONCEPT ANALYSIS ONLY.

*** PROPOSED EASEMENT TO BE USED FOR THE RELOCATION OF THE EXISTING UTILITY POLES.

**** THE NHW EL. IS TO BE PROVIDED BY DERM.

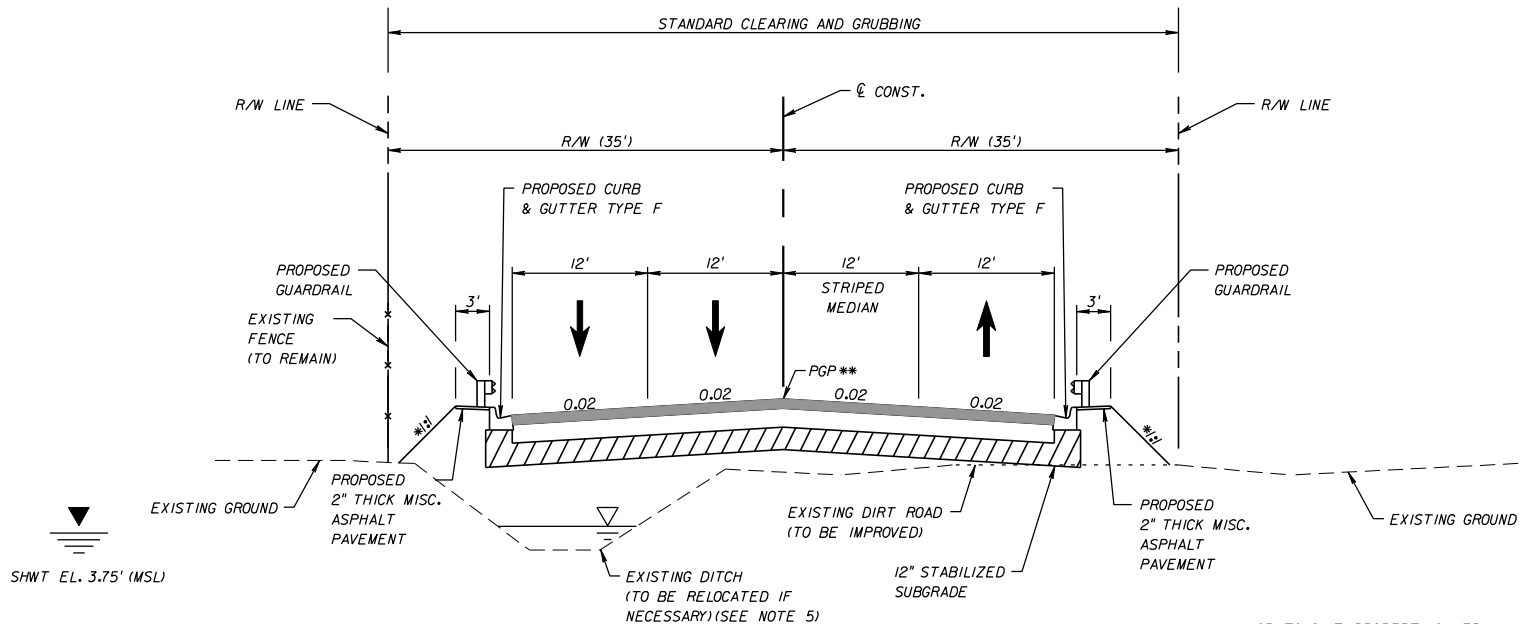
TYPICAL SECTION NOTES:

1. PROPOSED TRAVEL LANE WIDTH OF 11-FT DUE TO RIGHT-OF-WAY CONSTRAINTS.
2. CURB AND GUTTER TYPE F WAS PROVIDED DUE TO RIGHT-OF-WAY CONSTRAINTS.
3. DESIGN SPEED 45 MPH
3. STORM WATER MANAGEMENT: CLOSED SYSTEM TREATMENT AND ATTENUATION WILL BE PROVIDED BY PROPOSED EXFILTRATION TRENCH AND OVERFLOW INTO EXISTING CANAL (PRE VS. POST DISCHARGE). WATER QUANTITY/QUALITY SFNWD CRITERIA WILL BE APPLIED.

PROJECT NUMBER 109789 (HDR No.)	SCALE N.T.S.
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/12/2009	EXHIBIT NUMBER 4 OF 9



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS**



**TYPICAL SECTION 5
(LOOKING NORTH)
SW 137th AVENUE (TALLAHASSEE ROAD)
(FROM SW 359th STREET TO SW 344th STREET)**

* 1:1 OR TO SUIT PROPERTY OWNER

** THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM 3' CLEARANCE REQUIREMENTS PER THE FDOT PLANS PREPARATION MANUAL VOL. 1, TABLE 2.6.3. FOR THE ROADWAY BASE COURSE ABOVE THE BASE CLEARANCE WATER ELEVATION.

PGP = BASE CLEARANCE WATER ELEVATION + 3' MINIMUM CLEARANCE + PAVEMENT DESIGN

A PRELIMINARY PAVEMENT DESIGN CONSISTING OF LIMESTONE BASE (12"), TYPE S-1 STRUCTURAL COURSE (2"), AND FRICTION COURSE (1") SHALL BE USED FOR CONCEPT ANALYSIS ONLY.

TYPICAL SECTION NOTES:

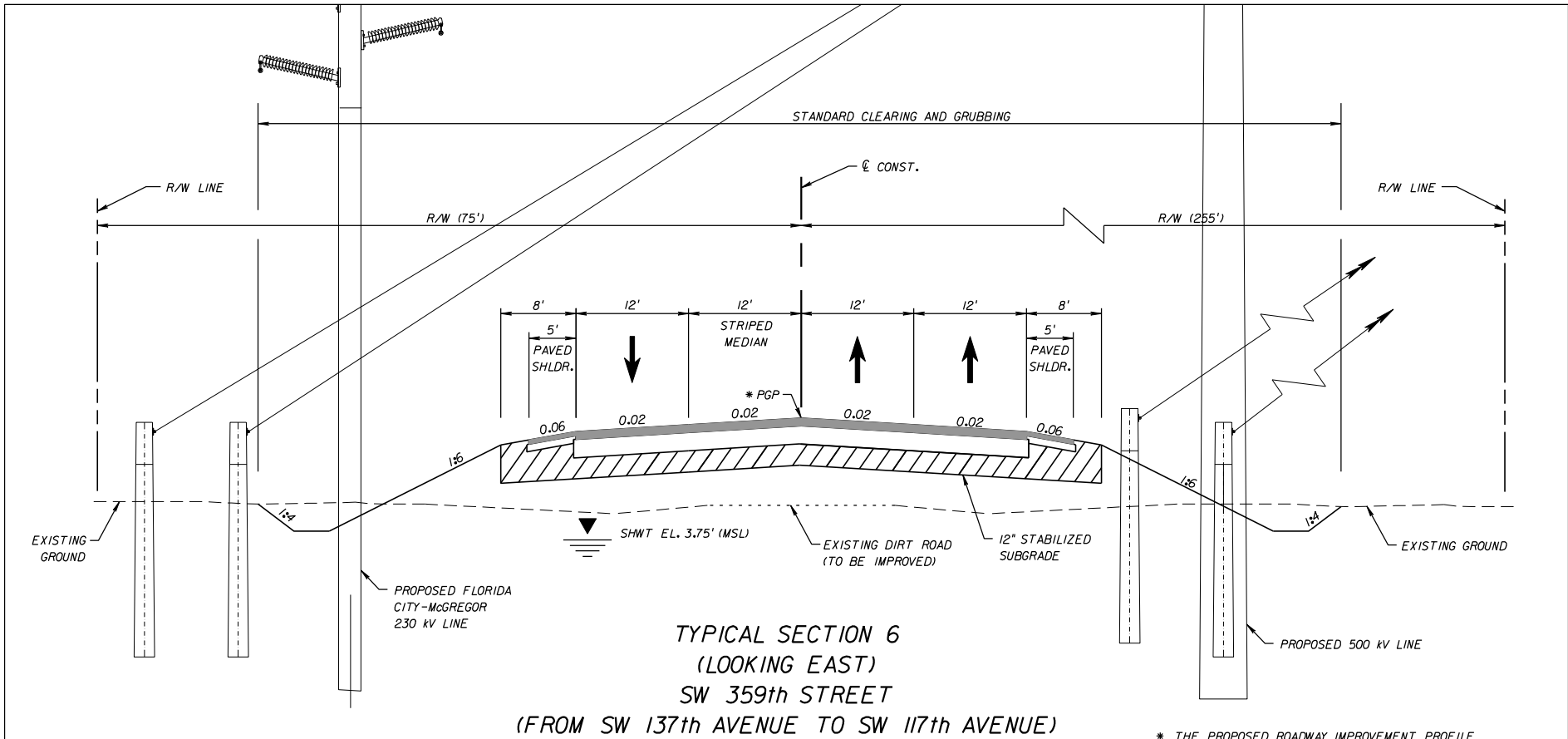
1. 12-FT STRIPED MEDIAN WAS PROVIDED PER THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, SECTION C.7.6 AND PER METROPOLITAN DADE COUNTY PUBLIC WORKS MANUAL ROAD DETAIL R-3.2A.
2. CURB AND GUTTER TYPE F WAS PROVIDED DUE TO RIGHT-OF-WAY CONSTRAINTS.
3. DESIGN SPEED 45 MPH
4. STORM WATER MANAGEMENT: CLOSED SYSTEM TREATMENT AND ATTENUATION WILL BE PROVIDED BY PROPOSED EXFILTRATION TRENCH. WATER QUANTITY/ QUALITY SFWMD CRITERIA WILL BE APPLIED.
5. PER THE MIAMI-DADE COUNTY CANAL MAINTENANCE MAP THE EXISTING DITCH IS CATEGORIZED AS A SECONDARY HYDROGRAPHY (MAINTENANCE UNIDENTIFIED).



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS**

PROJECT NUMBER 109789 (HDR No.)
PROJECT MANAGER EDWIN COPELAND, P.E.
DATE 06/12/2009

SCALE N.T.S.
REFERENCE DOCUMENT
EXHIBIT NUMBER 5 OF 9



**TYPICAL SECTION 6
(LOOKING EAST)
SW 359th STREET
(FROM SW 137th AVENUE TO SW 117th AVENUE)**

TYPICAL SECTION NOTES:

1. 12-FT STRIPED MEDIAN WAS PROVIDED PER THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, SECTION C.7.6 AND PER METROPOLITAN DADE COUNTY PUBLIC WORKS MANUAL ROAD DETAIL R-3.2A.
2. 8-FT SHOULDER TOTAL WIDTH (5-FT PAVED) WAS PROVIDED PER FDOT PLANS PREPARATION MANUAL VOL. 1, TABLE 2.3.3 FOR A MULTILANE LOW VOLUME HIGHWAY.
3. DESIGN SPEED 45 MPH
4. STORM WATER MANAGEMENT: OPEN SYSTEM TREATMENT AND ATTENUATION WILL BE PROVIDED BY PROPOSED ROADSIDE SWALES (BOTH SIDES OF ROADWAY). WATER QUANTITY/QUALITY SFWMD CRITERIA WILL BE APPLIED.
5. SEE FIGURE W9.2.0-10 FOR ROAD PLACEMENT IN RELATION TO TRANSMISSION FACILITIES.

* THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM 3' CLEARANCE REQUIREMENTS PER THE FDOT PLANS PREPARATION MANUAL VOL. 1, TABLE 2.6.3. FOR THE ROADWAY BASE COURSE ABOVE THE BASE CLEARANCE WATER ELEVATION.

PGP = BASE CLEARANCE WATER ELEVATION + 3' MINIMUM CLEARANCE + PAVEMENT DESIGN

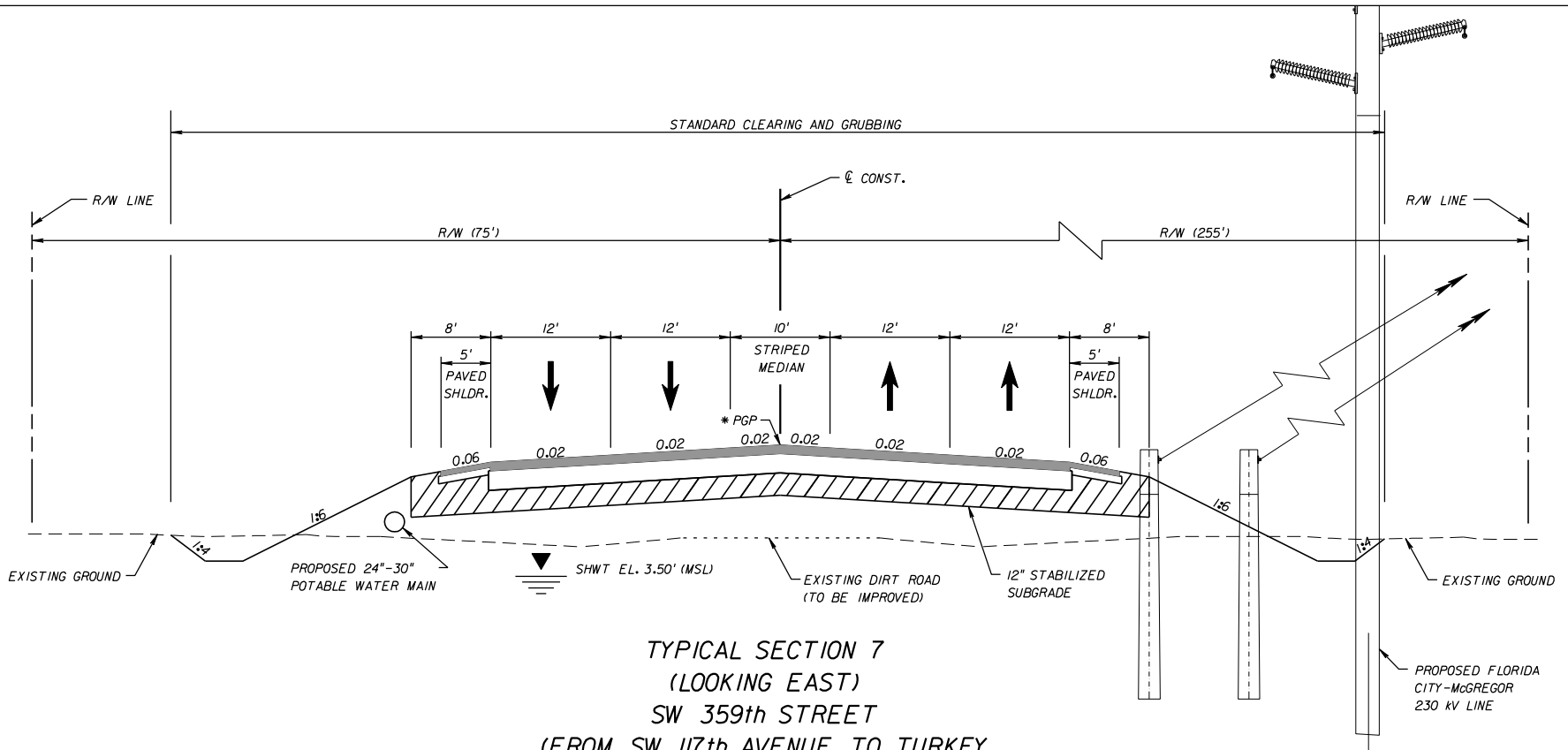
A PRELIMINARY PAVEMENT DESIGN CONSISTING OF LIMEROCK BASE (12"), TYPE S-1 STRUCTURAL COURSE (2"), AND FRICTION COURSE (1") SHALL BE USED FOR CONCEPT ANALYSIS ONLY.



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS**

PROJECT NUMBER 109789 (HDR No.)
PROJECT MANAGER EDWIN COPELAND, P.E.
DATE 06/12/2009

SCALE N.T.S.
REFERENCE DOCUMENT
EXHIBIT NUMBER 6 OF 9



**TYPICAL SECTION 7
(LOOKING EAST)
SW 359th STREET
(FROM SW 117th AVENUE TO TURKEY
POINT POWER PLANT FACILITY)**

TYPICAL SECTION NOTES:

1. 10-FT STRIPED MEDIAN WAS PROVIDED PER THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, SECTION C.7.e AND PER METROPOLITAN DADE COUNTY PUBLIC WORKS MANUAL ROAD DETAIL R-3.2A.
2. 8-FT SHOULDER TOTAL WIDTH (5-FT PAVED) WAS PROVIDED PER FDOT PLANS PREPARATION MANUAL VOL. 1, TABLE 2.3.3 FOR A MULTILANE LOW VOLUME HIGHWAY.
3. DESIGN SPEED 45 MPH
4. STORM WATER MANAGEMENT: OPEN SYSTEM TREATMENT AND ATTENUATION WILL BE PROVIDED BY PROPOSED ROADSIDE SWALES (BOTH SIDES OF ROADWAY). WATER QUANTITY/QUALITY SFWMD CRITERIA WILL BE APPLIED.
5. SEE FIGURE W9.2.0-10 FOR ROAD PLACEMENT IN RELATION TO TRANSMISSION FACILITIES.

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PGP = BASE CLEARANCE WATER ELEVATION + 3' MINIMUM CLEARANCE + PAVEMENT DESIGN

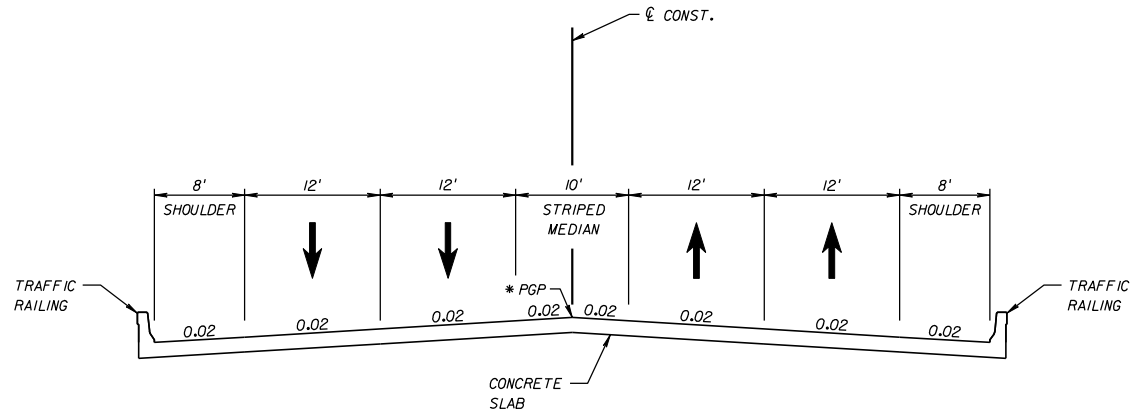
A PRELIMINARY PAVEMENT DESIGN CONSISTING OF LIMEROCK BASE (12"), TYPE S-1 STRUCTURAL COURSE (2"), AND FRICTION COURSE (1") SHALL BE USED FOR CONCEPT ANALYSIS ONLY.



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS**

PROJECT NUMBER 109789 (HDR No.)
PROJECT MANAGER EDWIN COPELAND, P.E.
DATE 06/12/2009

SCALE N.T.S.
REFERENCE DOCUMENT
EXHIBIT NUMBER 7 OF 9



TYPICAL SECTION 8
(LOOKING EAST)
SW 359th STREET
(PROPOSED BRIDGE TYPICAL OVER CANAL L-31E)

TYPICAL SECTION NOTES:

1. 10-FT STRIPED MEDIAN WAS PROVIDED PER THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, SECTION C.7.e AND PER METROPOLITAN DADE COUNTY PUBLIC WORKS MANUAL ROAD DETAIL R-3.2A.
2. 8-FT SHOULDER WAS PROVIDED PER FDOT PLANS PREPARATION MANUAL VOL. 1, FIGURE 2.0.2 FOR A MULTILANE LOW VOLUME HIGHWAY.
3. DESIGN SPEED 45 MPH
4. STORM WATER MANAGEMENT: THE BRIDGE VERTICAL ALIGNMENT WILL INCLUDE A HIGHPOINT AT ITS MID-POINT LOCATION WHICH WILL DIRECT THE COLLECTED STORM WATER TOWARDS THE SW 359th STREET DRAINAGE OPEN SYSTEM. (SEE TYPICAL SECTION 7 NOTES)

* THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM FDOT DRAINAGE MANUAL, SECTION 4.6.1, CRITERIA FOR CLEARANCE BETWEEN DHW ELEVATION (50 YR FREQUENCY) OR NHW ELEVATION AND THE LOW MEMBER OF BRIDGES.

$$PGP = (NHW \text{ ELEVATION} + 6') \text{ OR } (DHW \text{ ELEVATION} + 2') \text{ (WHICH EVER YIELDS THE HIGHEST VALUE)} + \text{SUPERSTRUCTURE DESIGN}$$

SUPERSTRUCTURE DESIGN NOT AVAILABLE, PENDING FEASIBILITY STRUCTURE ANALYSIS. DHW ELEVATION NOT AVAILABLE, PENDING DRAINAGE ANALYSIS.

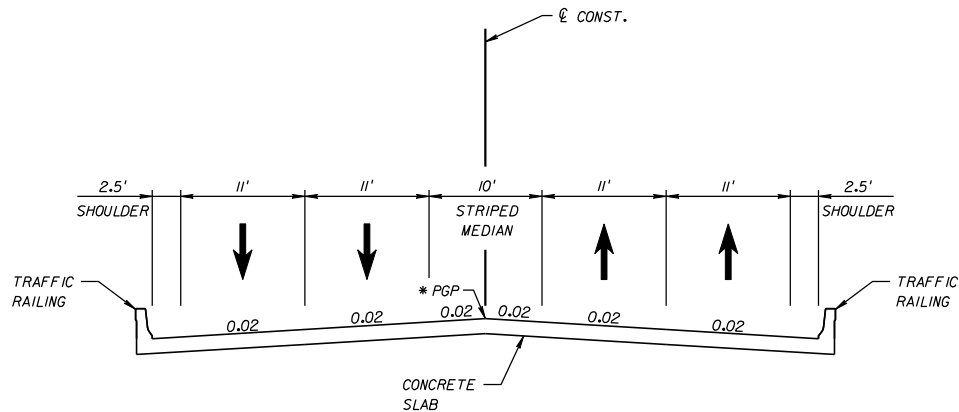
** THE NHW EL. IS TO BE PROVIDED BY DERM.



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENTS
TYPICAL SECTIONS

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DATE 06/12/2009

SCALE N.T.S.
REFERENCE DOCUMENT
EXHIBIT NUMBER 8 OF 9



TYPICAL SECTION 9
(LOOKING NORTH)
SW 117th AVENUE (SIX MILE ROAD)
(PROPOSED BRIDGE OVER NORTH CANAL)

TYPICAL SECTION NOTES:

1. TRAVEL LANE AND STRIPED MEDIAN WIDTHS MATCH TYPICAL SECTION 2.
2. 2.5-FT SHOULDER WAS PROVIDED PER FDOT PLANS PREPARATION MANUAL VOL. 1, FIGURE 2.0.4.
4. DESIGN SPEED 45 MPH
5. STORM WATER MANAGEMENT: EXISTING CONDITIONS ARE TO REMAIN UNTIL FURTHER EVALUATION.

* THE PROPOSED ROADWAY IMPROVEMENT PROFILE GRADE POINT (PGP) DESIGN IS TO MEET MINIMUM FDOT DRAINAGE MANUAL, SECTION 4.6.1, CRITERIA FOR CLEARANCE BETWEEN DHW ELEVATION (50 YR FREQUENCY) OR NHW ELEVATION AND THE LOW MEMBER OF BRIDGES.

$$PGP = (NHW \text{ ELEVATION} + 6') \text{ OR } (DHW \text{ ELEVATION} + 2') \text{ (WHICH EVER YIELDS THE HIGHEST VALUE)} + \text{SUPERSTRUCTURE DESIGN}$$

SUPERSTRUCTURE DESIGN NOT AVAILABLE, PENDING FEASIBILITY STRUCTURE ANALYSIS. DHW ELEVATION NOT AVAILABLE, PENDING DRAINAGE ANALYSIS.

** THE NHW EL. IS TO BE PROVIDED BY DERM.



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
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TYPICAL SECTIONS

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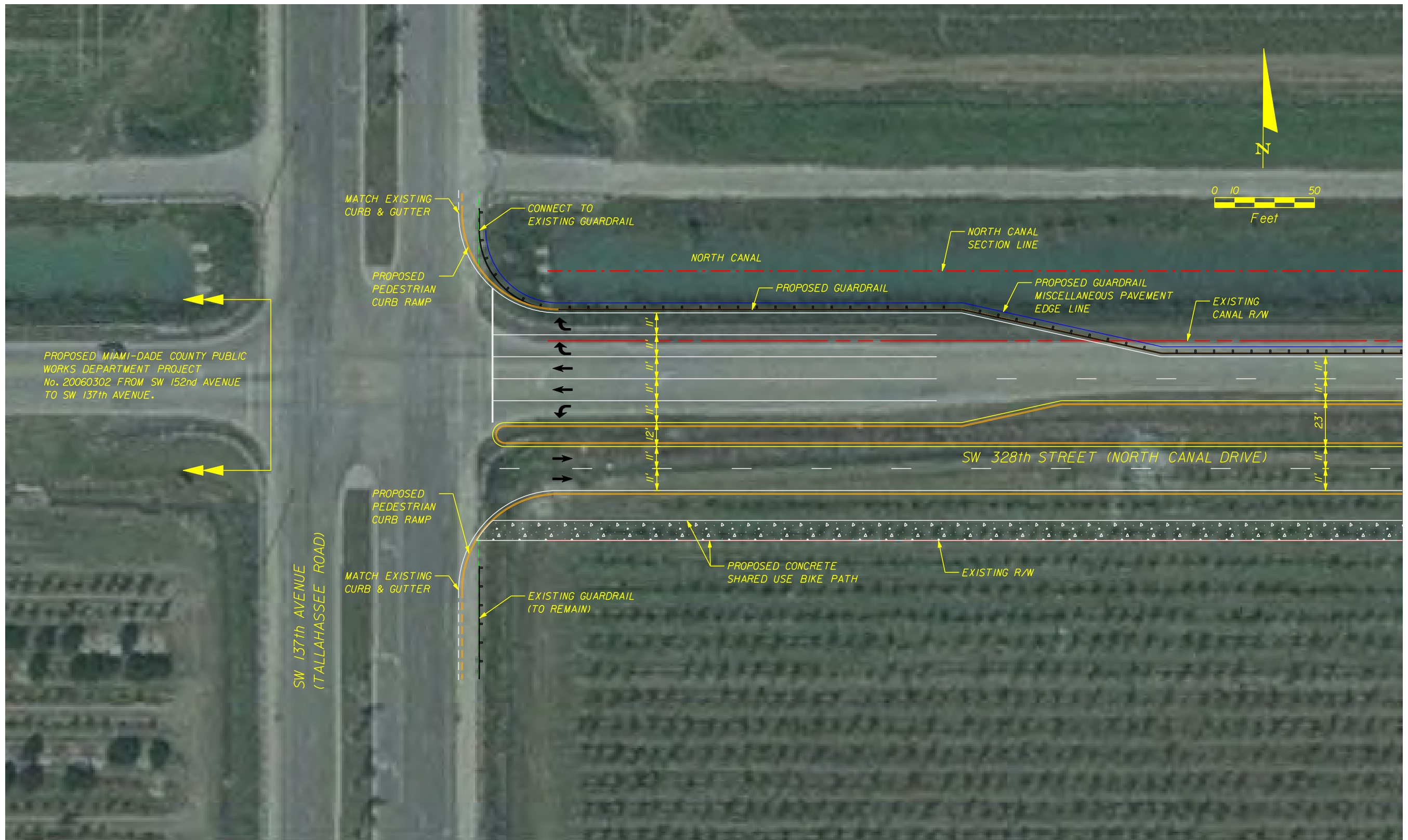
SHEET INDEX

L-1	PLAN SHEET LAYOUT
A-1 THRU A-18	SW 328th STREET (NORTH CANAL DRIVE)
B-1 THRU B-17	SW 117th AVENUE (SIX MILE ROAD)
C-1 THRU C-3	SW 344th STREET (PALM DRIVE)
D-1 THRU D-5	SW 137th AVENUE (TALLAHASSEE ROAD)
DE-1	SW 137th AVENUE TO SW 359th STREET
	HORIZONTAL CURVE
E-1 THRU E-28	SW 359th STREET



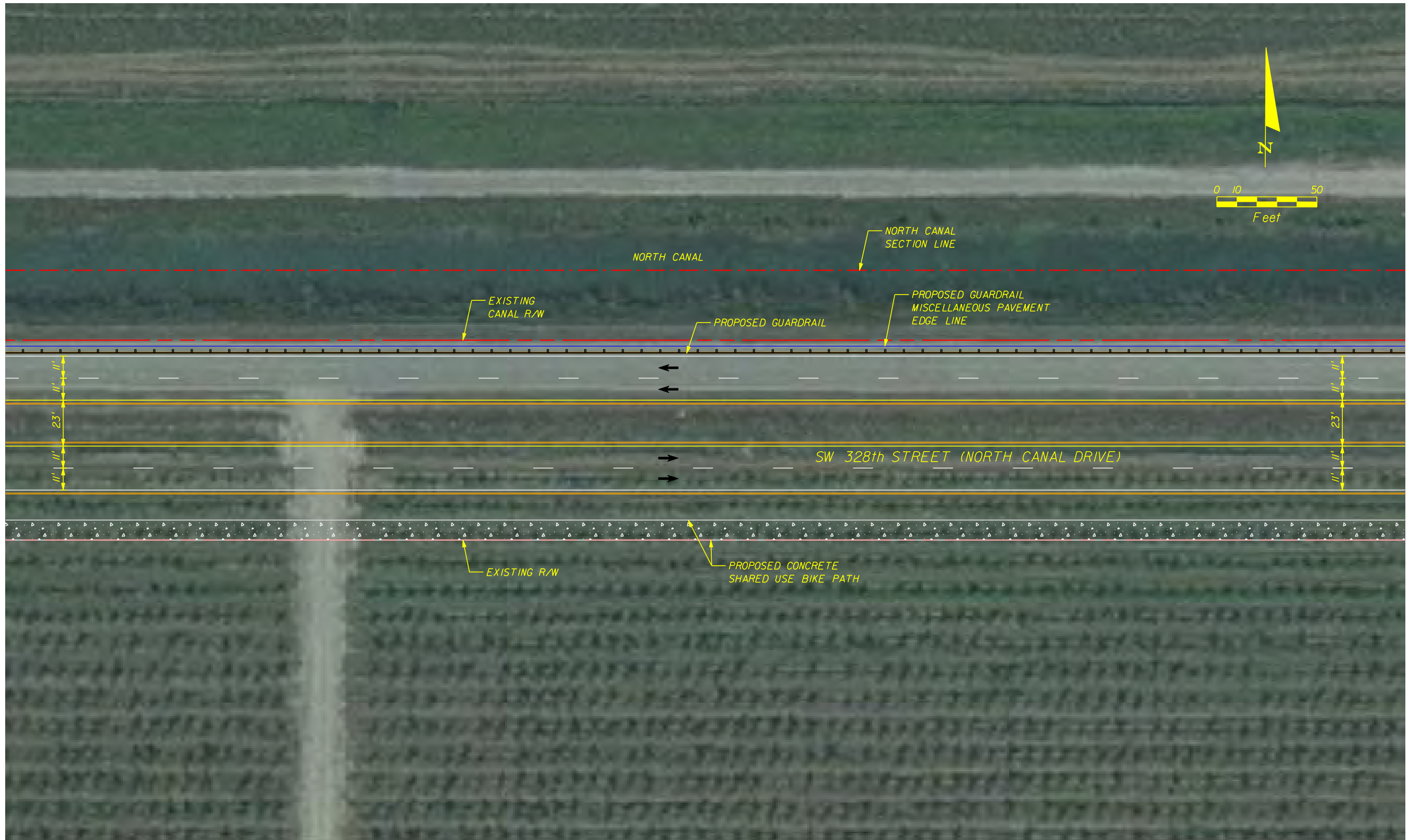
**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEET LAYOUT**

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 1500'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER L-1



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-1



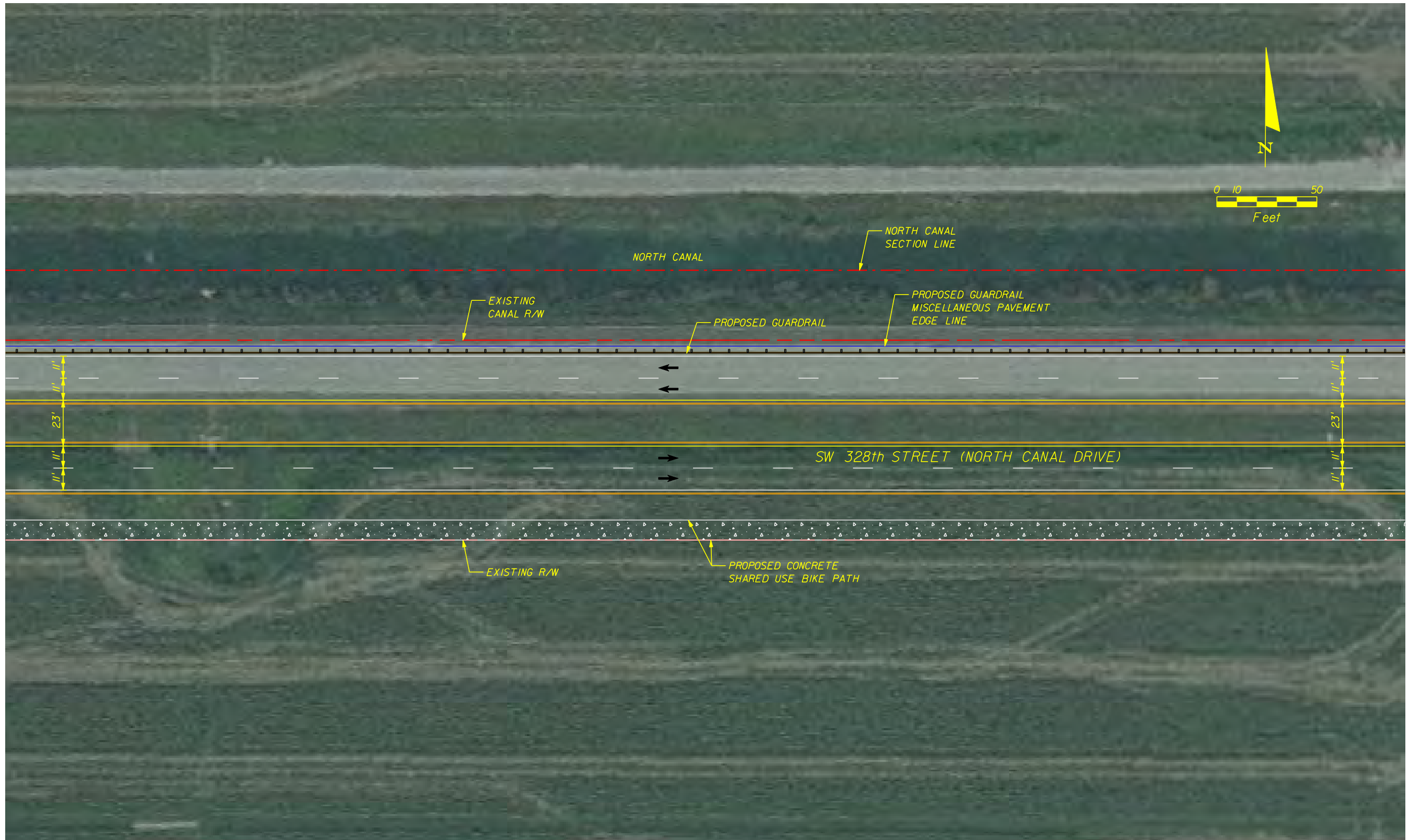
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-2



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-3



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-4



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-5



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS**

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-6



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-7



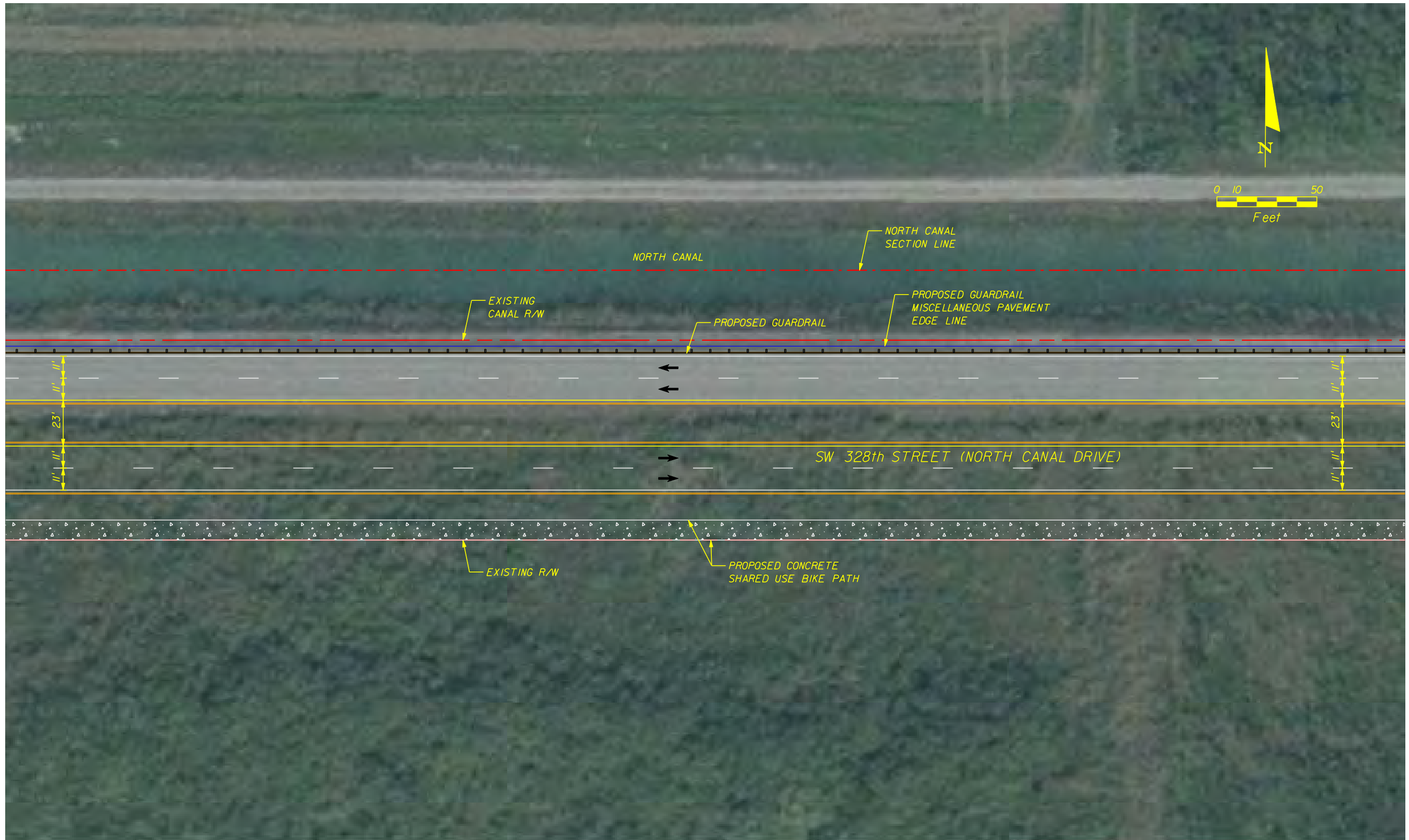
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-8



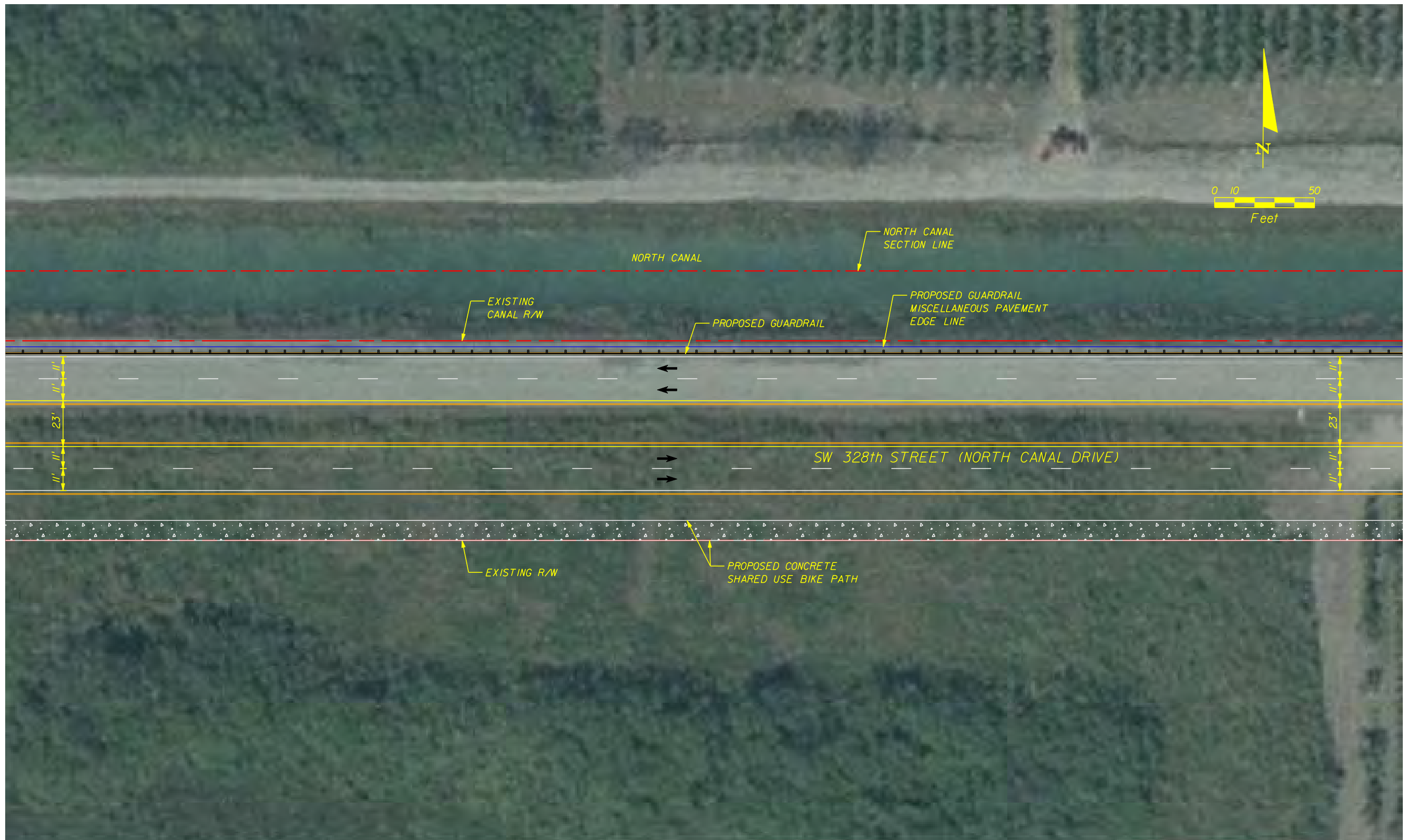
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-9



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-10



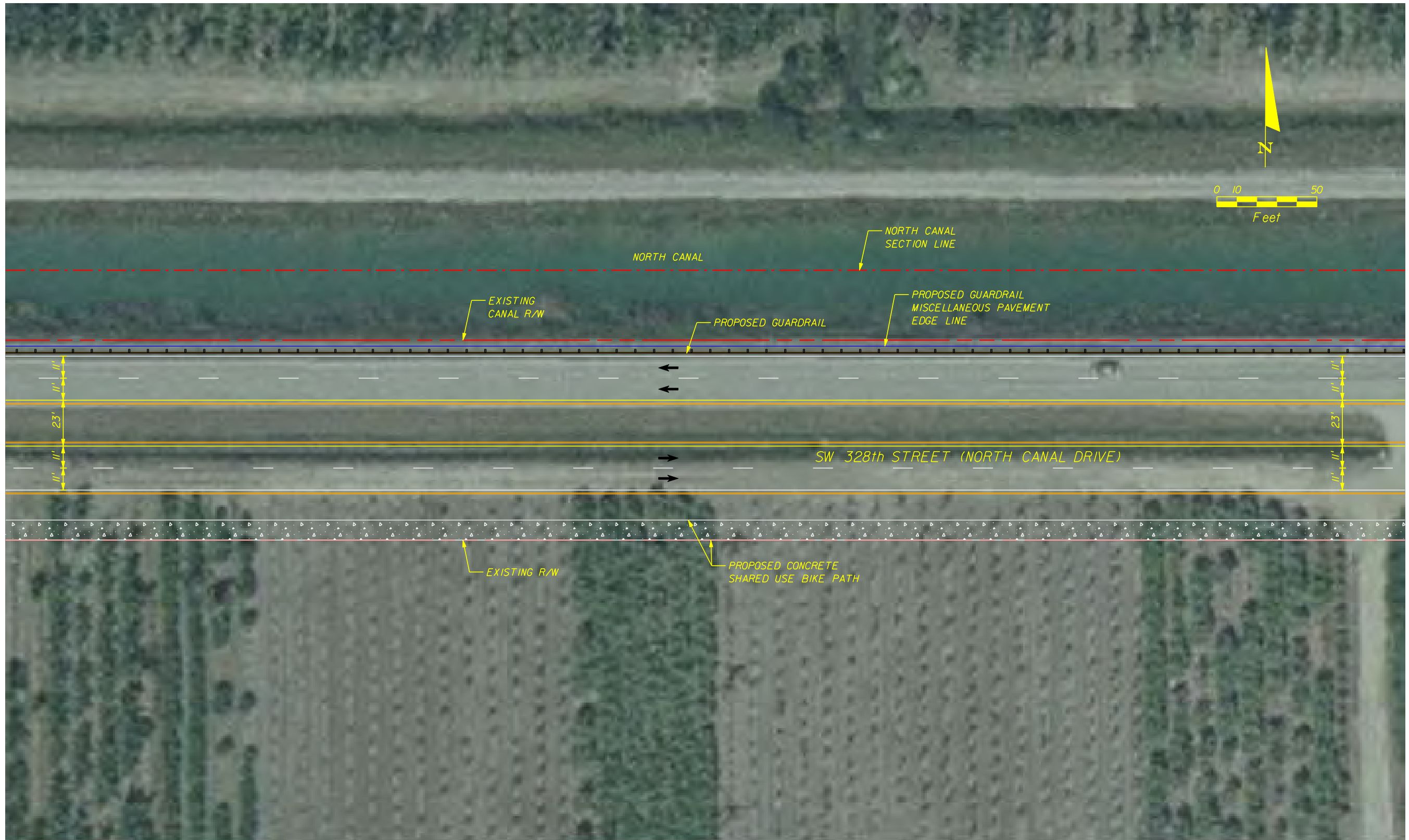
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-11



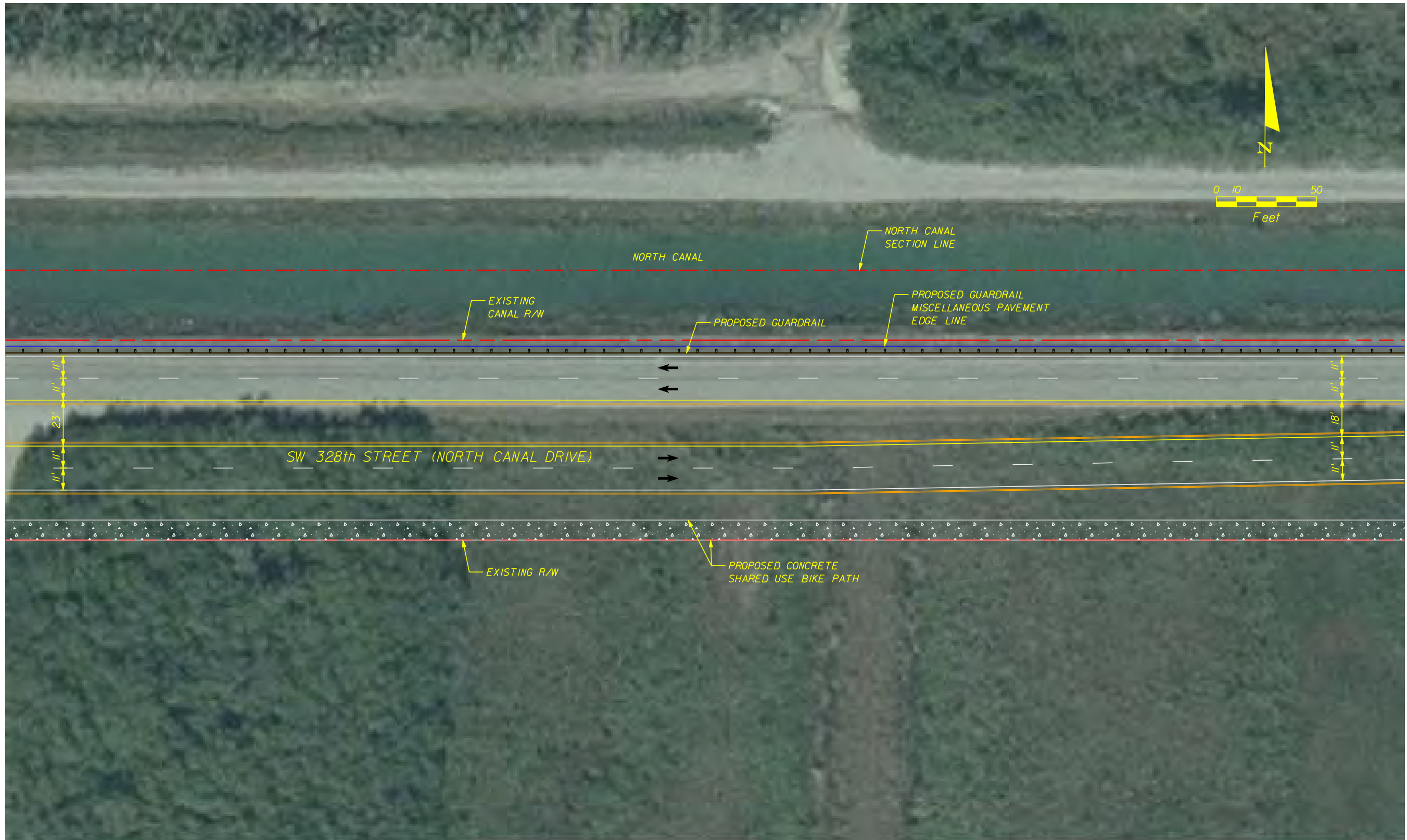
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-12



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-13



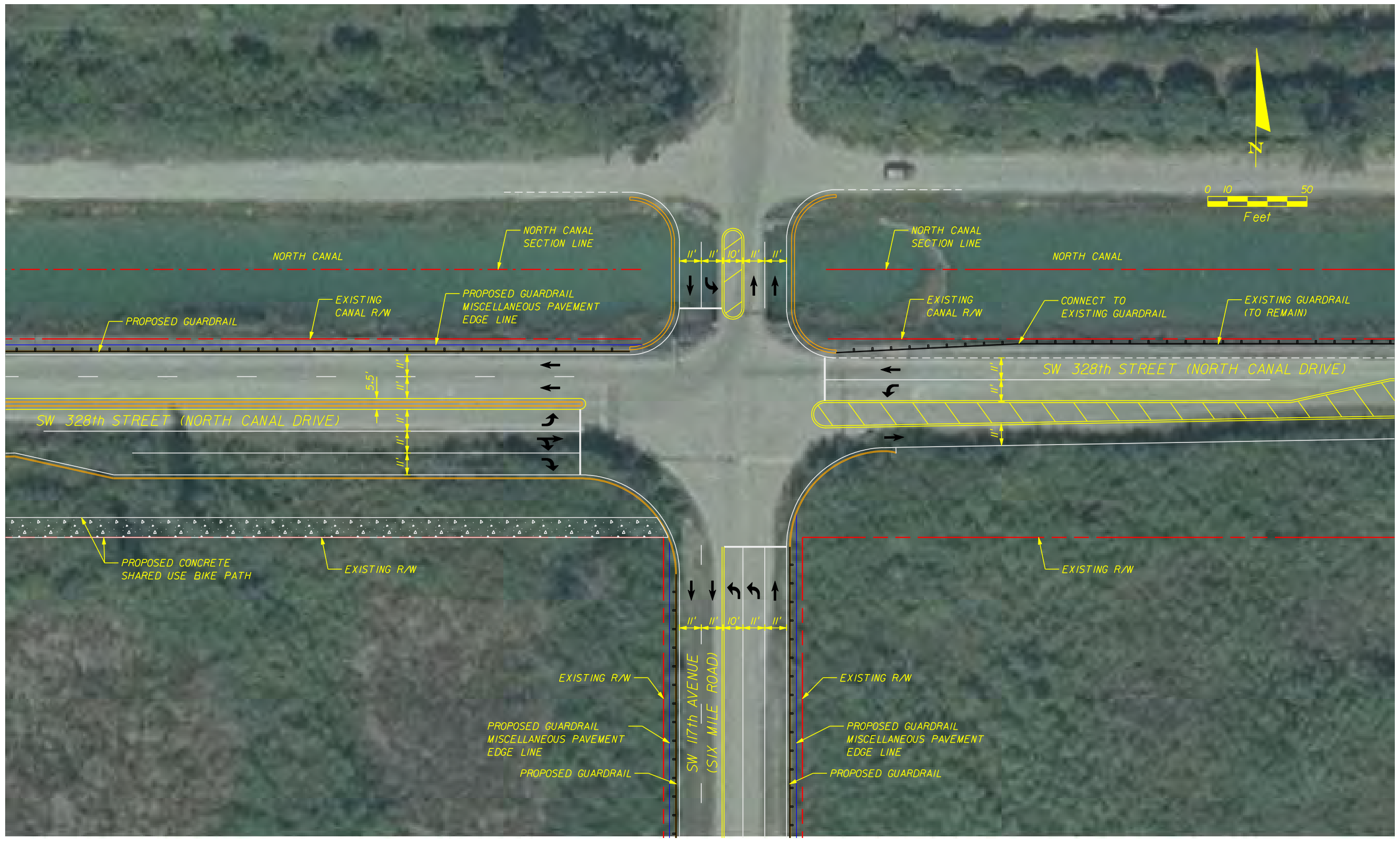
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-14



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-15



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS**

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-16



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-17



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER A-18



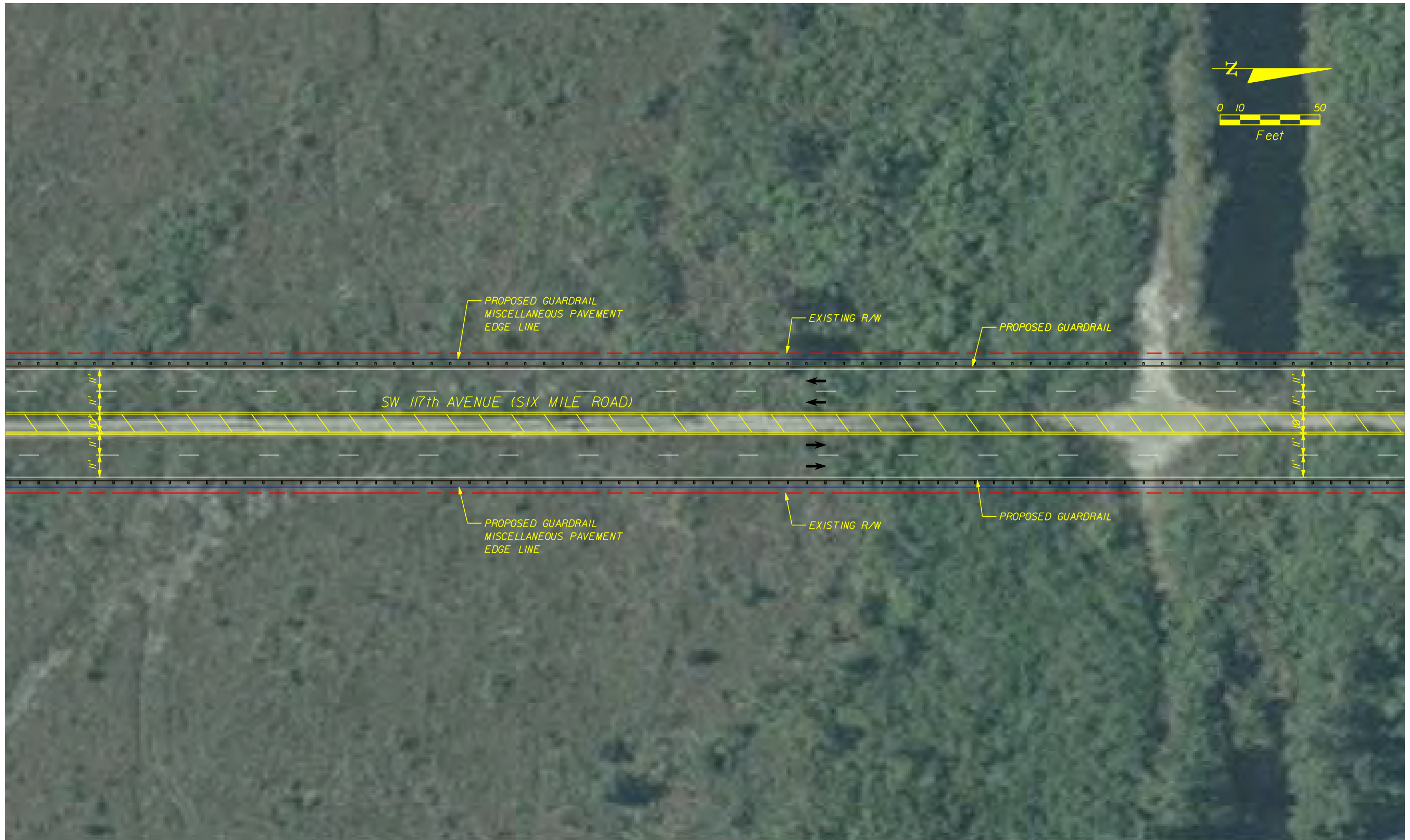
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-1



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-2



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-3



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-4



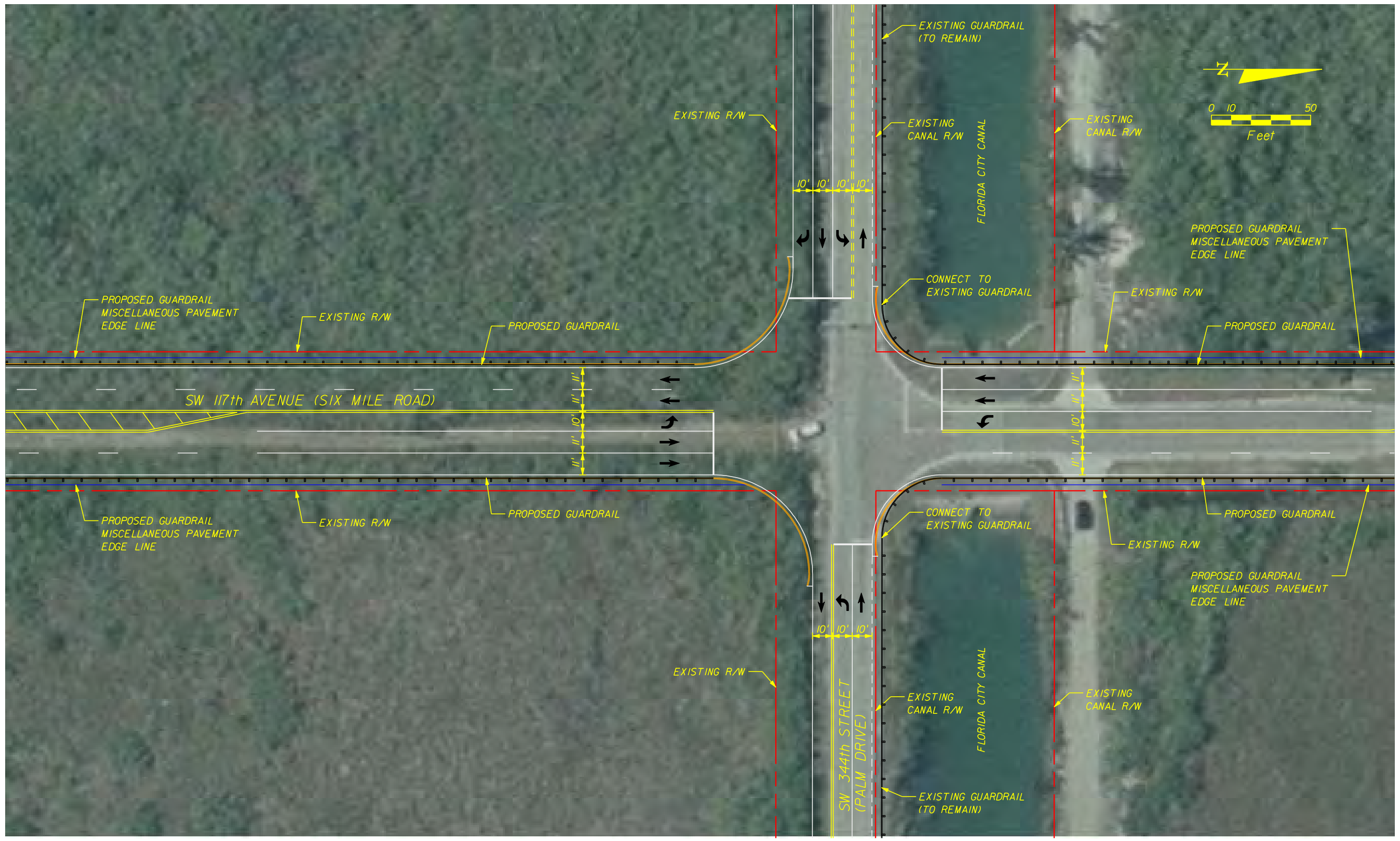
**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS**

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-5



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-6



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS**

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-7



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-8



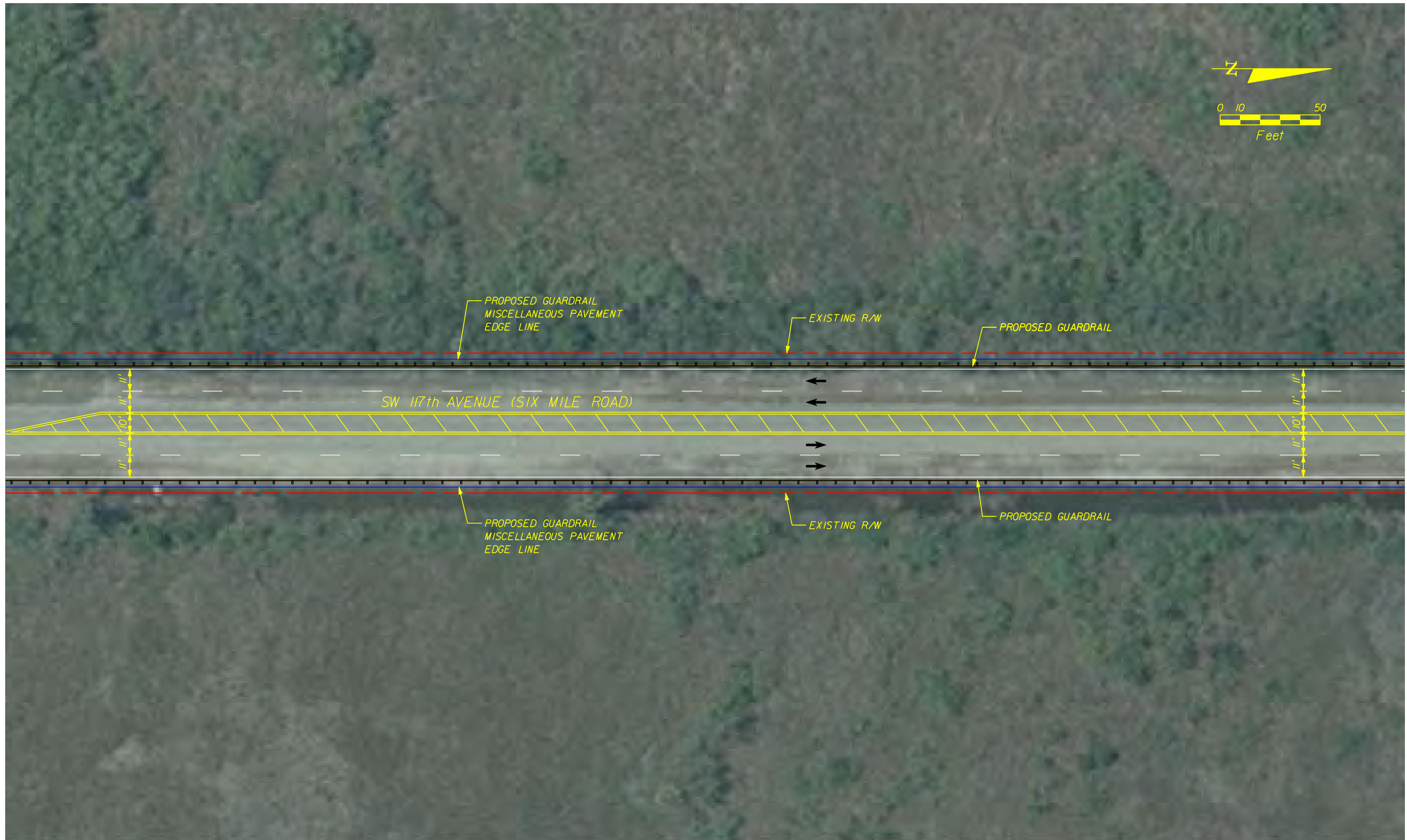
**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS**

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-9



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-10



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-11



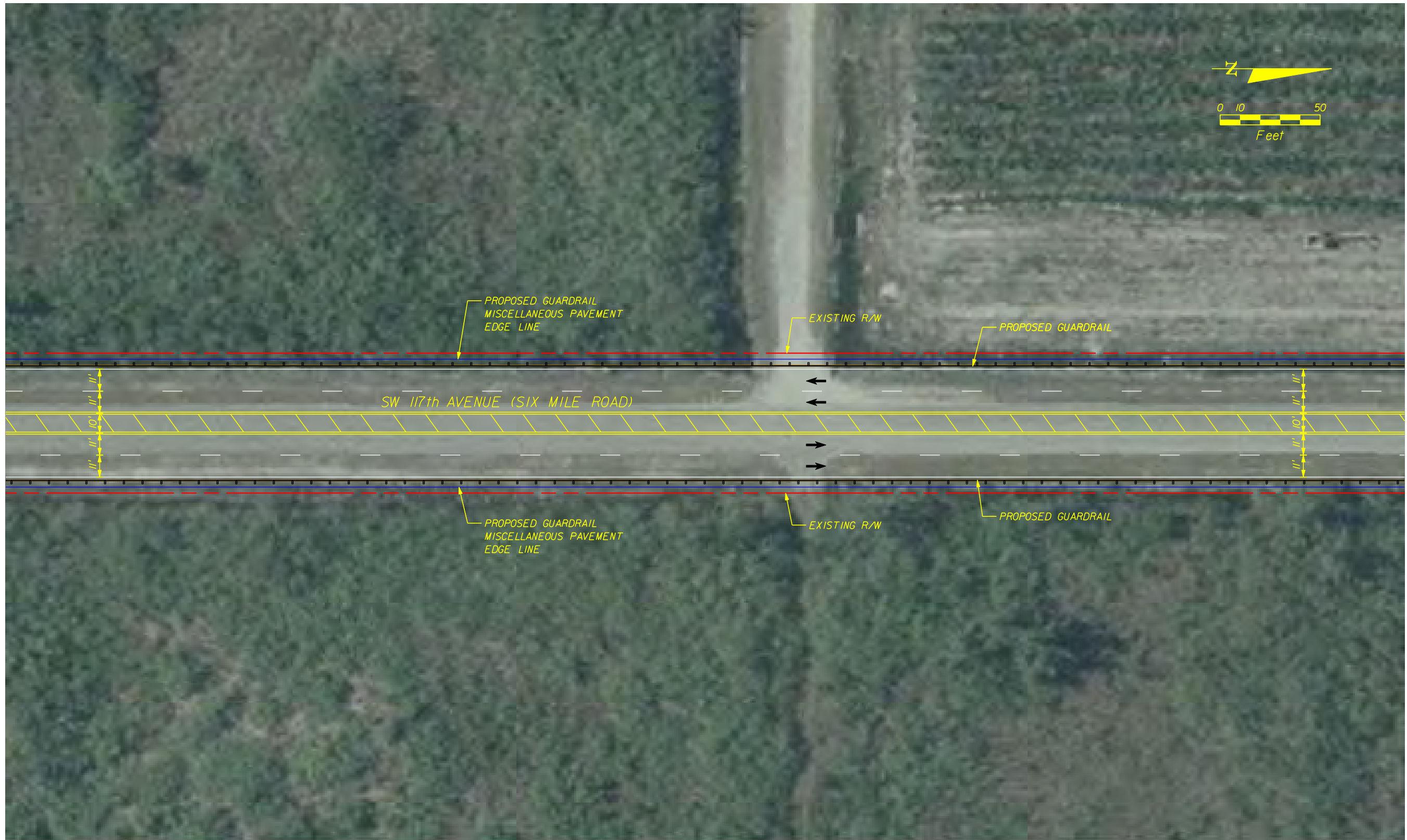
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-12



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-13



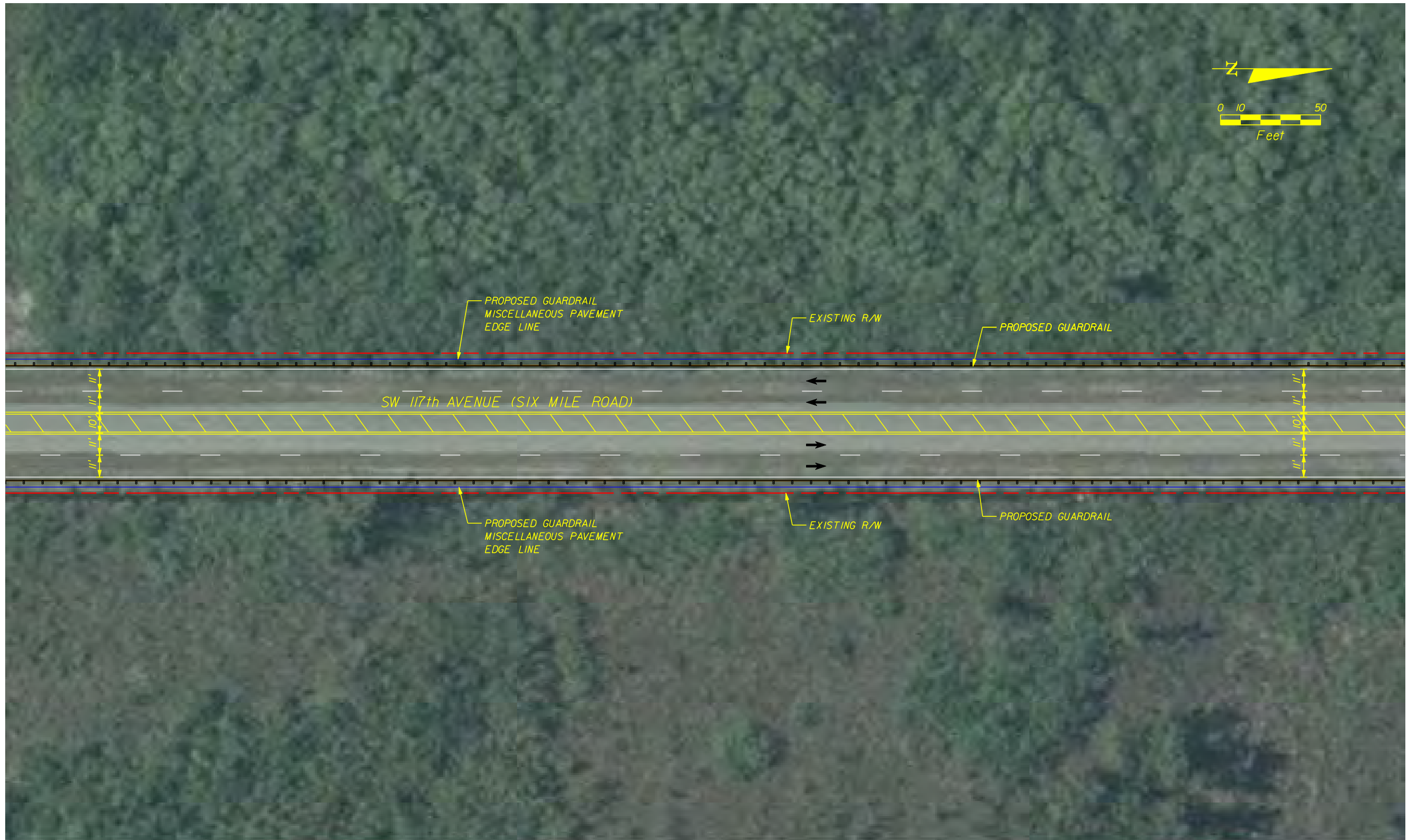
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-14



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-15



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-16



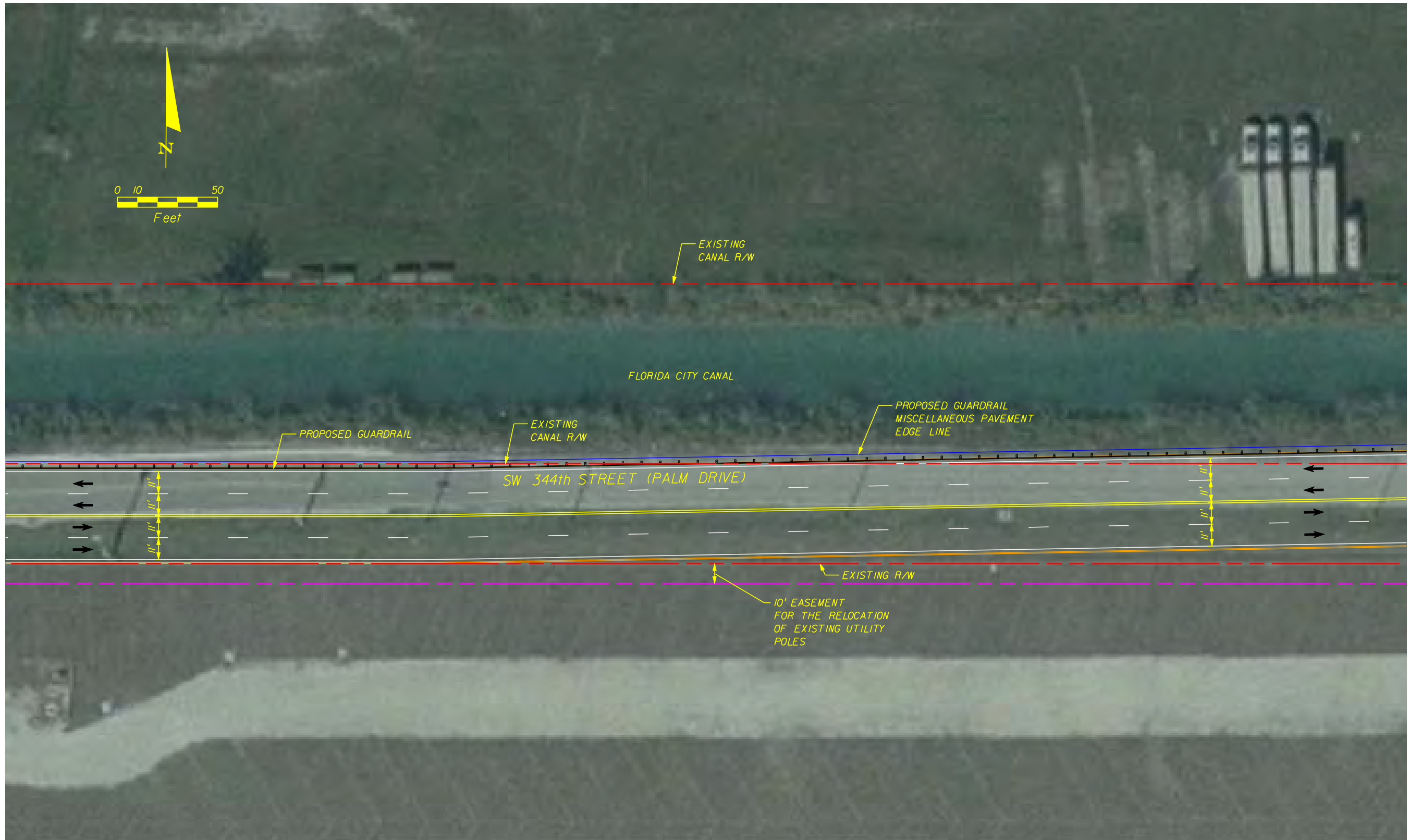
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER B-17



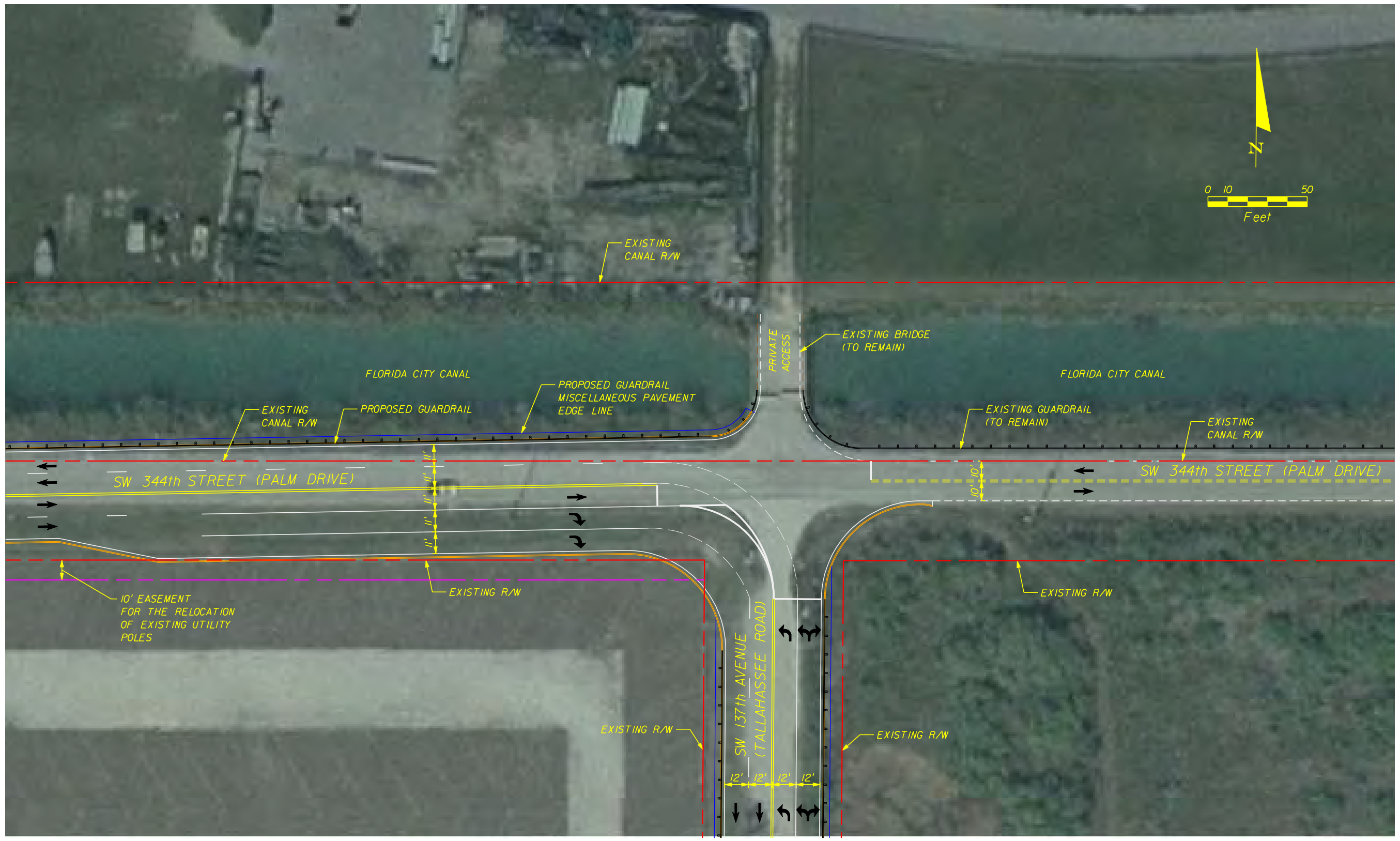
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER C-1



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER C-2



**TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS**

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER C-3



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER D-1



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER D-2



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER D-3



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

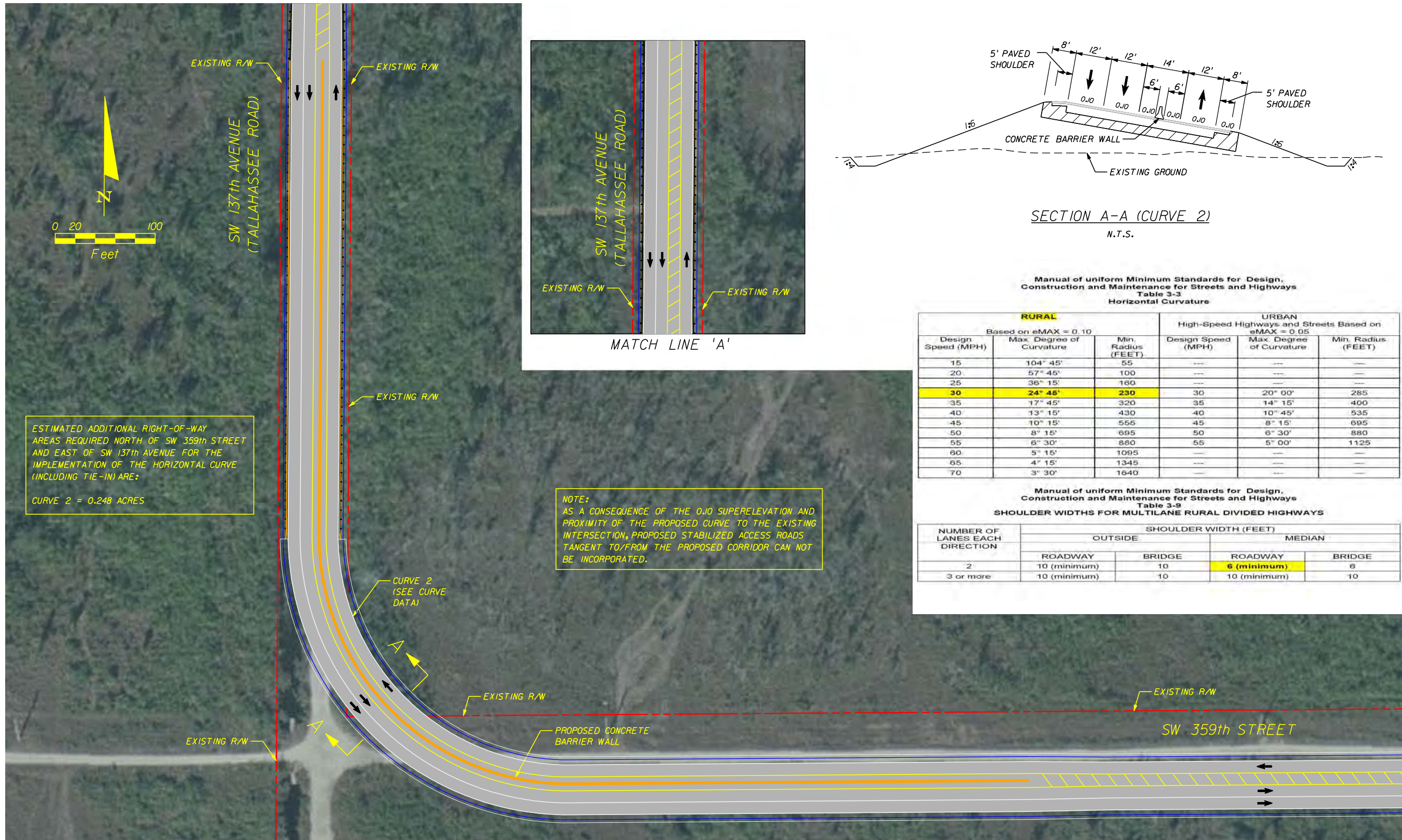
PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER D-4



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/08/2009	SHEET NUMBER D-5

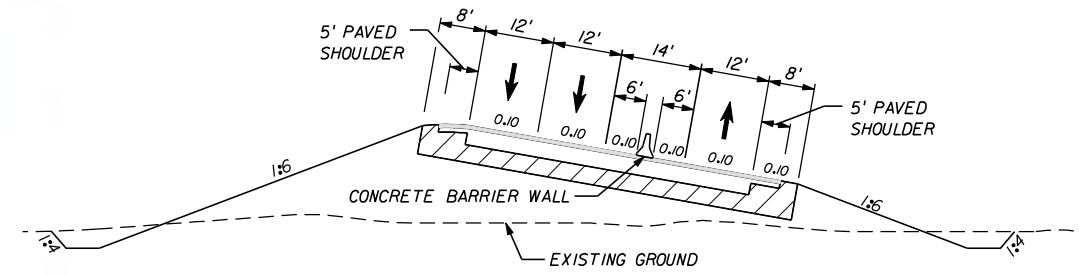
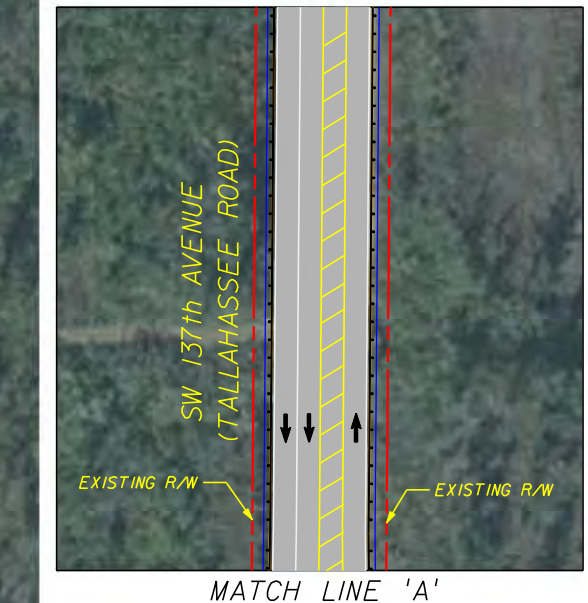
MATCH LINE 'A'



ESTIMATED ADDITIONAL RIGHT-OF-WAY AREAS REQUIRED NORTH OF SW 359th STREET AND EAST OF SW 137th AVENUE FOR THE IMPLEMENTATION OF THE HORIZONTAL CURVE (INCLUDING TIE-IN) ARE:
CURVE 2 = 0.248 ACRES

NOTE:
AS A CONSEQUENCE OF THE 0.10 SUPERELEVATION AND PROXIMITY OF THE PROPOSED CURVE TO THE EXISTING INTERSECTION, PROPOSED STABILIZED ACCESS ROADS TANGENT TO/FROM THE PROPOSED CORRIDOR CAN NOT BE INCORPORATED.

CURVE 2 DATA
(CURVE DATA REFERENCED ALONG THE INSIDE EDGE OF PAVEMENT)
RURAL CRITERIA
DESIGN SPEED: 30 MPH
DEGREE OF CURVATURE: 24°45'
LENGTH: 363.02 FT
RADIUS: 230 FT
e: 0.10



SECTION A-A (CURVE 2)
N.T.S.

Manual of uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways
Table 3-3
Horizontal Curvature

RURAL Based on eMAX = 0.10			URBAN High-Speed Highways and Streets Based on eMAX = 0.05		
Design Speed (MPH)	Max. Degree of Curvature	Min. Radius (FEET)	Design Speed (MPH)	Max. Degree of Curvature	Min. Radius (FEET)
15	104° 45'	55	---	---	---
20	57° 45'	100	---	---	---
25	36° 15'	160	---	---	---
30	24° 45'	230	30	20° 00'	285
35	17° 45'	320	35	14° 15'	400
40	13° 15'	430	40	10° 45'	535
45	10° 15'	555	45	8° 15'	695
50	8° 15'	695	50	6° 30'	880
55	6° 30'	880	55	5° 00'	1125
60	5° 15'	1095	---	---	---
65	4° 15'	1345	---	---	---
70	3° 30'	1640	---	---	---

Manual of uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways
Table 3-9
SHOULDER WIDTHS FOR MULTILANE RURAL DIVIDED HIGHWAYS

NUMBER OF LANES EACH DIRECTION	SHOULDER WIDTH (FEET)			
	OUTSIDE		MEDIAN	
	ROADWAY	BRIDGE	ROADWAY	BRIDGE
2	10 (minimum)	10	6 (minimum)	6
3 or more	10 (minimum)	10	10 (minimum)	10



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
ANALYSIS REQUIRED ROADWAY IMPROVEMENT
PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 100'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER DE-1



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-1



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-2



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 08/24/2009	SHEET NUMBER E-3



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-4



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-5



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-6



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-7



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 08/24/2009	SHEET NUMBER E-8



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-9



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-10



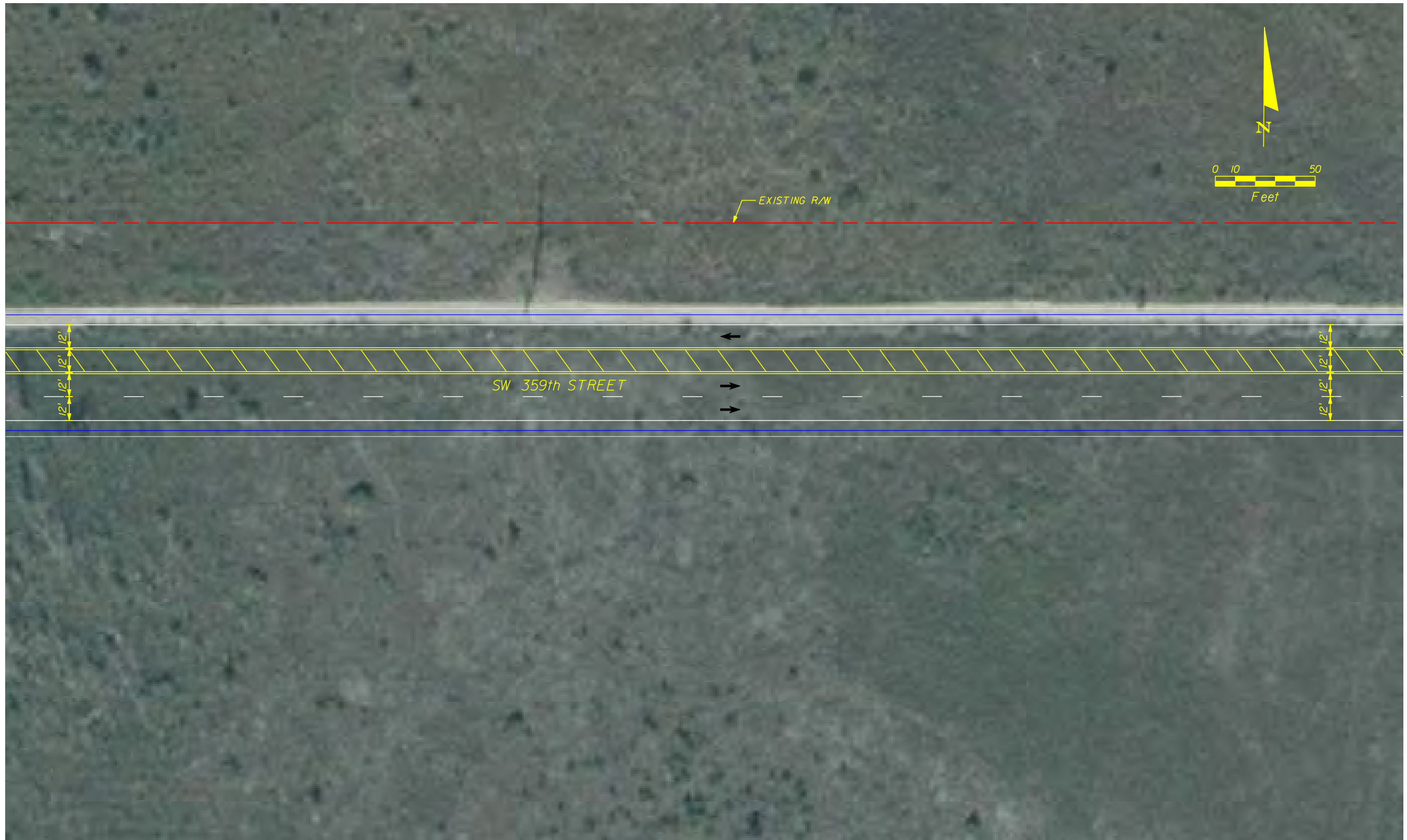
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-11



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-12



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-13



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 08/24/2009	SHEET NUMBER E-14



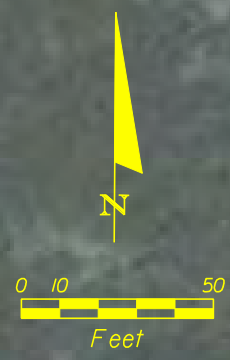
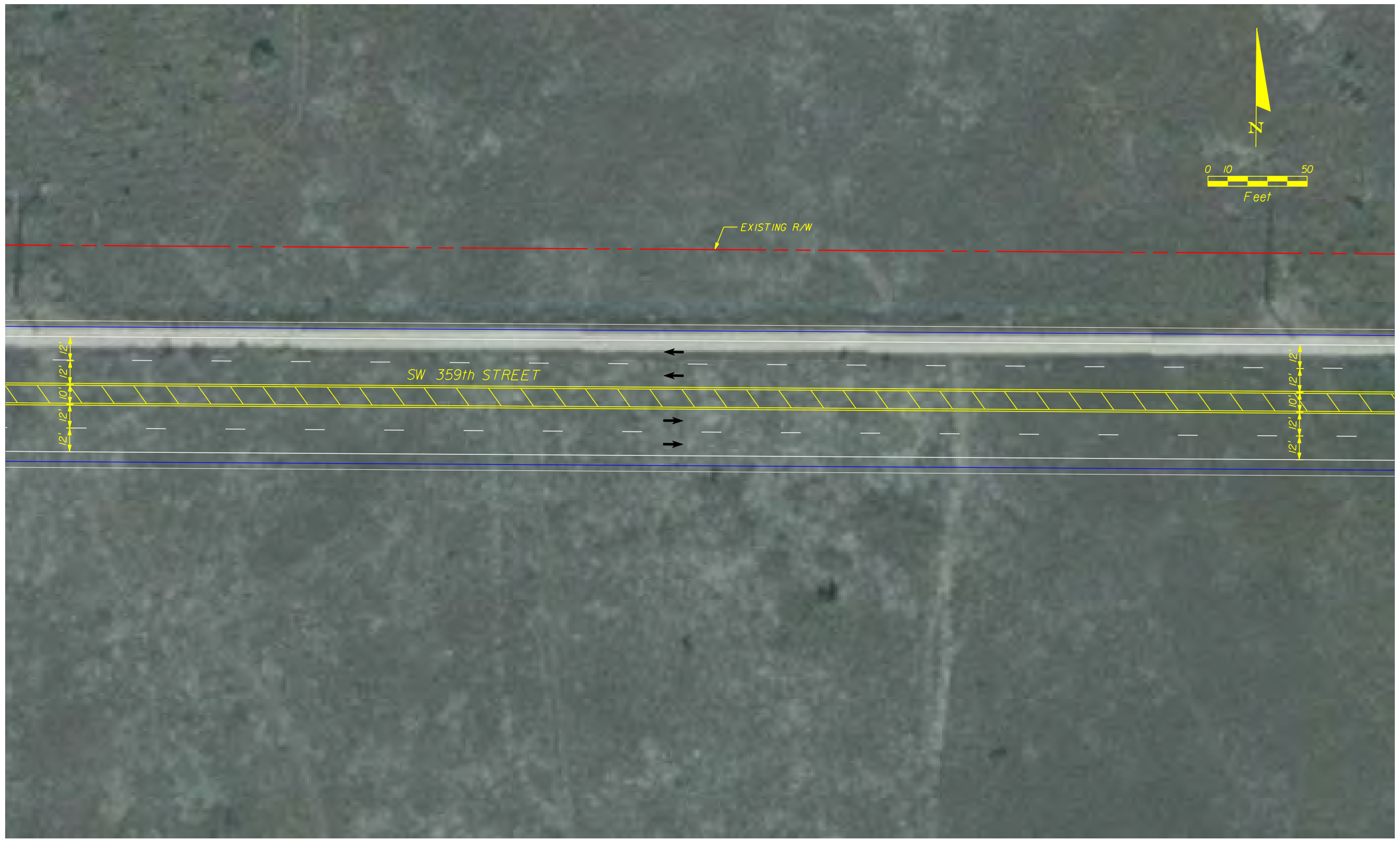
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-15



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-16



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-17



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-18



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-19



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-20



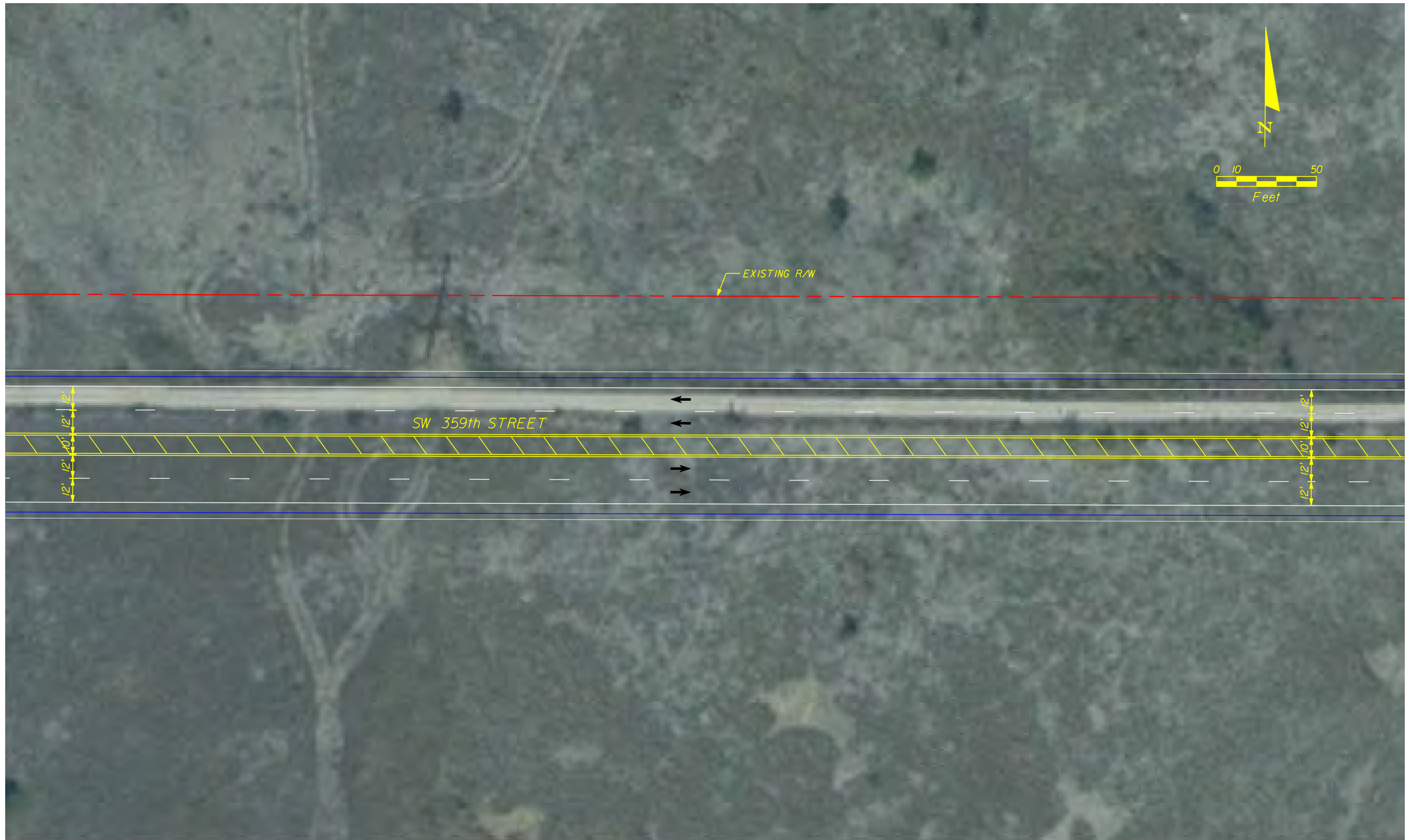
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-21



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-22



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-23



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-24



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-25



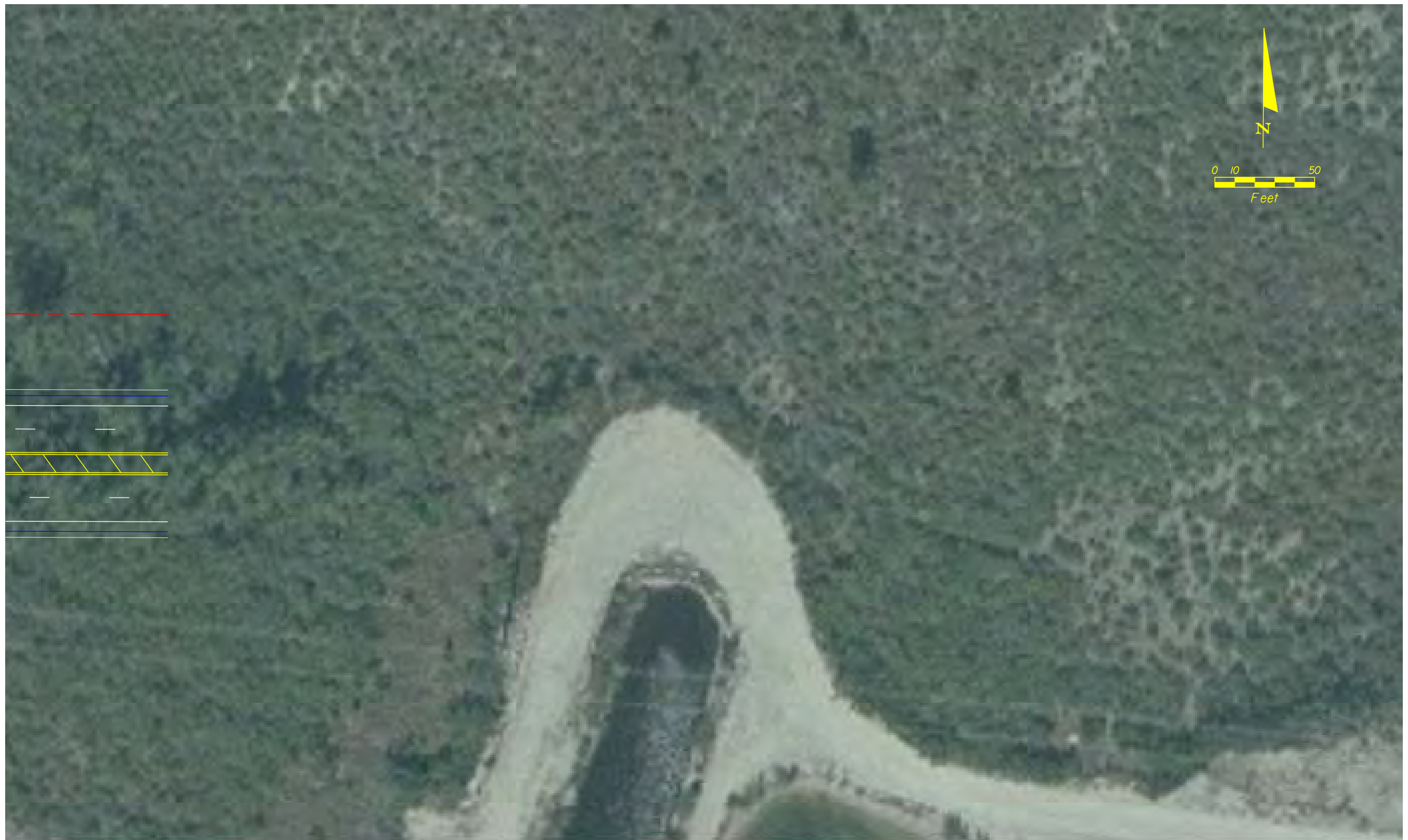
TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-26



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-27



TURKEY POINT POWER PLANT PEAK CONSTRUCTION
 ANALYSIS REQUIRED ROADWAY IMPROVEMENT
 PLAN SHEETS

PROJECT NUMBER 109789 (HDR No.)	SCALE 1" = 50'
PROJECT MANAGER EDWIN COPELAND, P.E.	REFERENCE DOCUMENT
DATE 06/24/2009	SHEET NUMBER E-28