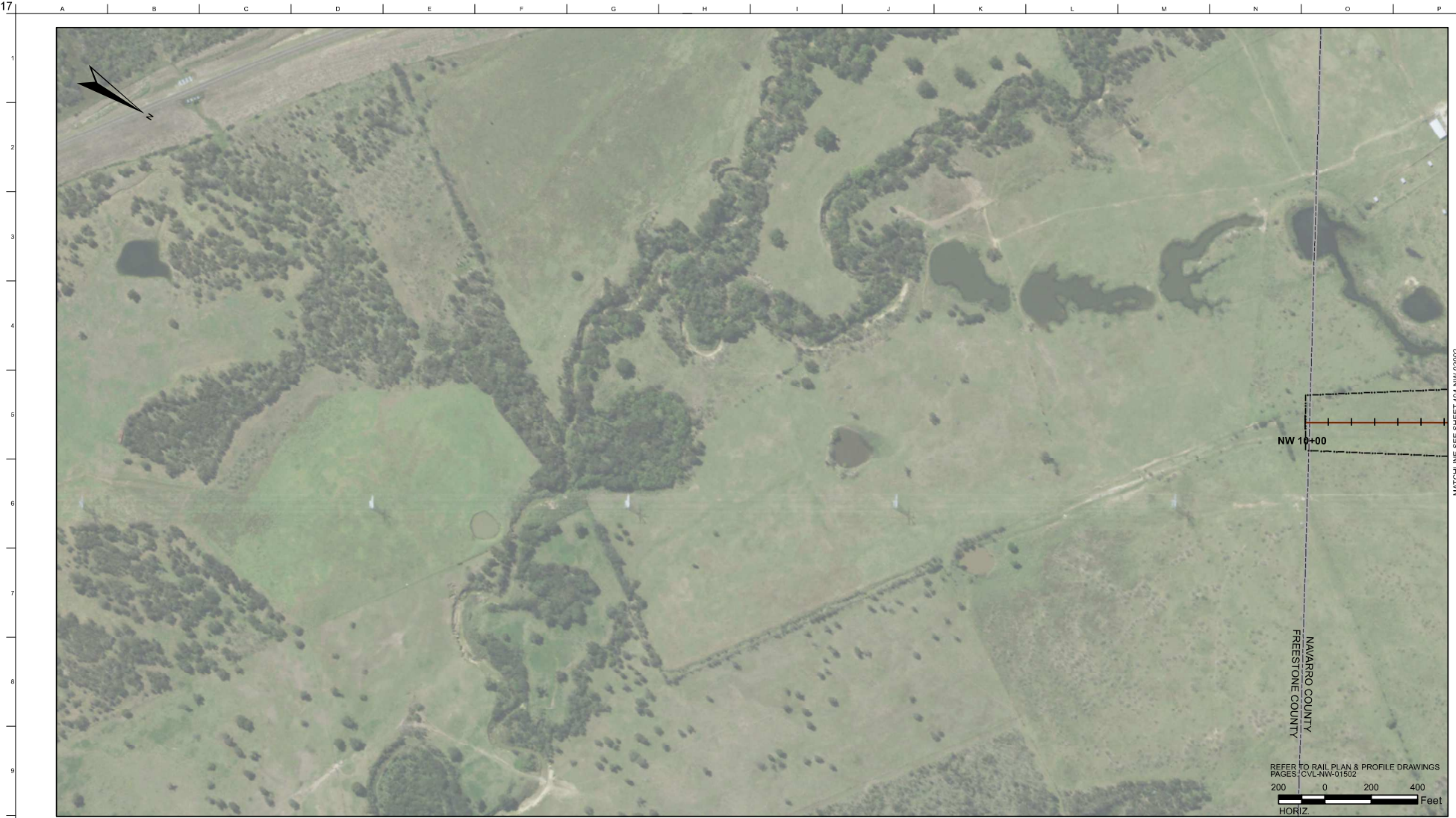


11x17



RAIL CONSTRUCTION TYPE	
CUT	
EMBANKMENT	
RETAIN FILL	
RETAIN CUT	
VIADUCT	

PERMANENT IMPACTS	
EMERGENT WETLAND	
FORESTED WETLAND	
POND	
SCRUB/SHRUB WETLAND	
STREAMS	

TEMPORARY IMPACTS	
EMERGENT WETLAND	
POND	
STREAMS	
OTHER IMPACTS	
CONVERSION WETLAND	

OTHER	
LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	
PERMANENT UTILITIES IMPACTS	
TEMPORARY UTILITIES IMPACTS	
ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
PIER PILE CAP LOCATIONS	

MAP SYMBOLOLOGY	
CULVERT FLOW - RO	
CULVERT FLOW - OPEN BOTTOM	

PLAN

- NOTES:
- POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.
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FINAL, REVISION 1				DESIGNED BY	H. MYERS
FINAL, REVISION 2				DRAWN BY	M. KINZER
				CHECKED BY	R. ALDREDGE
				IN CHARGE	R. ZARATE
				DATE	NOV. 2019
REV	DATE	BY	CHK	APP	DESCRIPTION

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

ARUP

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Texas Registered Engineering Firm: F-2144

DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

TEXAS CENTRAL

1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 10+00 TO NW 16+16

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02001 Rev. 02



NOTES:	1. POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES	4. C = CONVERSION	8. TEMPORARY PERMANENT AND CONVERSION IMPACTS ARE SUMMED UP IN ONE CALLOUT BOX FOR EACH FEATURE.
	2. P = PERMANENT IMPACT	5. ES = EPHEMERAL STREAM	9. UTILITY, TEMPORARY CONSTRUCTION, AND CONSTRUCTION ALLOWANCE IMPACTS DO NOT REFERENCE A DETAIL.
	3. T = TEMPORARY IMPACT	6. IS = INTERMITTENT STREAM	
		7. PS = PERENNIAL STREAM	* ONLY APPLIES IN USAGE FORT WORTH DISTRICT.

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCRR
SWF-2011-00483

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Texas Registered Engineering Firm: F-1990



Drawing Title

NAVARRO WEST SEGMENT

PLAN VIEW (FRA SEG. 3)
STA NW 14+36 TO NW 74+36

Scale
AS SHOWN

Drawing Status
NOT FOR CONSTRUCTION

Job No	Drawing No	Rev
234180	404 NW 02002	02

11x17

MATCHLINE SEE SHEET 404-NW-02002

MATCHLINE SEE SHEET 404-NW-02004

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS

REV	DATE	BY	CHK	APP	DESCRIPTION
					FINAL, REVISION 1
					FINAL, REVISION 2

DESIGNED BY
H. MYERS
DRAWN BY
M. KINZER
CHECKED BY
R. ALDREDGE
IN CHARGE
R. ZARATE
DATE
NOV. 2019

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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Texas Registered Engineering Firm: F-2144

DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING
**TEXAS CENTRAL**
1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 72+30 TO NW 132+30

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02003 Rev. 02

- NOTES:
- POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.
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PLAN

REFER TO RAIL PLAN & PROFILE DRAWINGS
PAGES: CVL-NW-01503 - CVL-NW-01504
200 0 200 400
Feet
HORIZ

11x17

MATCHLINE SEE SHEET 404-NW-02003

MATCHLINE SEE SHEET 404-NW-02005

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLOLOGY
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - ROB
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS	
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS	

FINAL, REVISION 1	DESIGNED BY H. MYERS
FINAL, REVISION 2	DRAWN BY M. KINZER
	CHECKED BY R. ALDREDGE
	IN CHARGE R. ZARATE
	DATE NOV. 2019

REV	DATE	BY	CHK	APP	DESCRIPTION

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PLAN

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DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

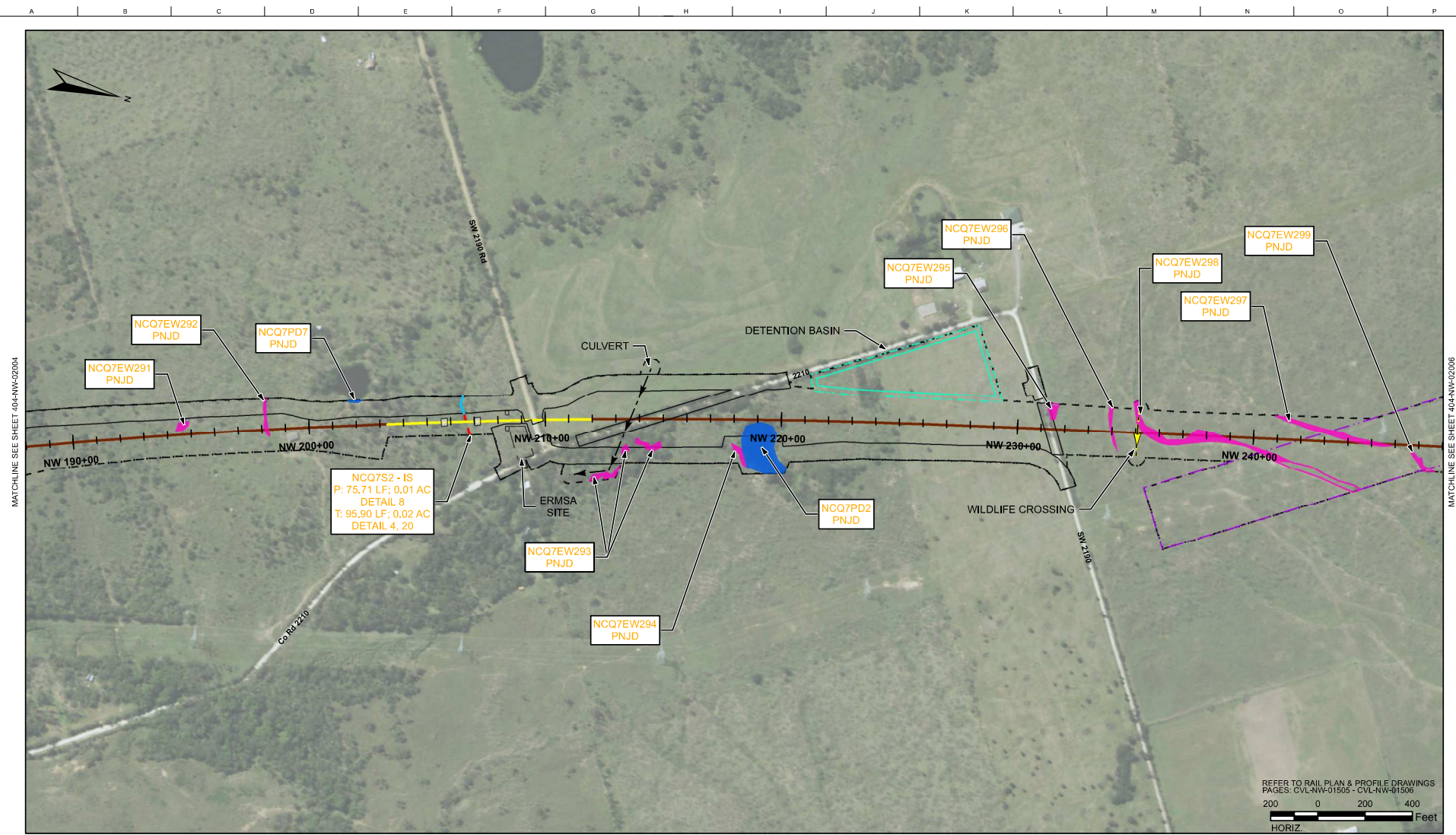
1409 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENTPLAN VIEW (FRA SEG. 3)
STA NW 130+01 TO NW 190+12Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION

JCD No. 234180 Drawing No. 404-NW-02004 Rev. 02

Arup Texas Inc.

11x17



RAIL CONSTRUCTION TYPE
CUT
EMBANKMENT
RETAIN FILL
RETAIN CUT
VIADUCT

PERMANENT IMPACTS
EMERGENT WETLAND
FORESTED WETLAND
POND
SCRUB/SHRUB WETLAND
STREAMS

TEMPORARY IMPACTS
EMERGENT WETLAND
POND
STREAMS
OTHER IMPACTS
CONVERSION WETLAND

OTHER
LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
PERMANENT UTILITIES IMPACTS
TEMPORARY UTILITIES IMPACTS
ROADWAY IMPACTS/EMERG. RESP. (ERMSA)
PIER PILE CAP LOCATIONS

MAP SYMBOLOLOGY
CULVERT FLOW - RCB
CULVERT FLOW - OPEN BOTTOM

PLAN

- NOTES:
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REV	DATE	BY	CHK	APP	DESCRIPTION
					FINAL, REVISION 1
					FINAL, REVISION 2

DESIGNED BY H. MYERS
DRAWN BY M. KINZER
CHECKED BY R. ALDREDGE
IN CHARGE R. ZARATE
DATE NOV. 2019

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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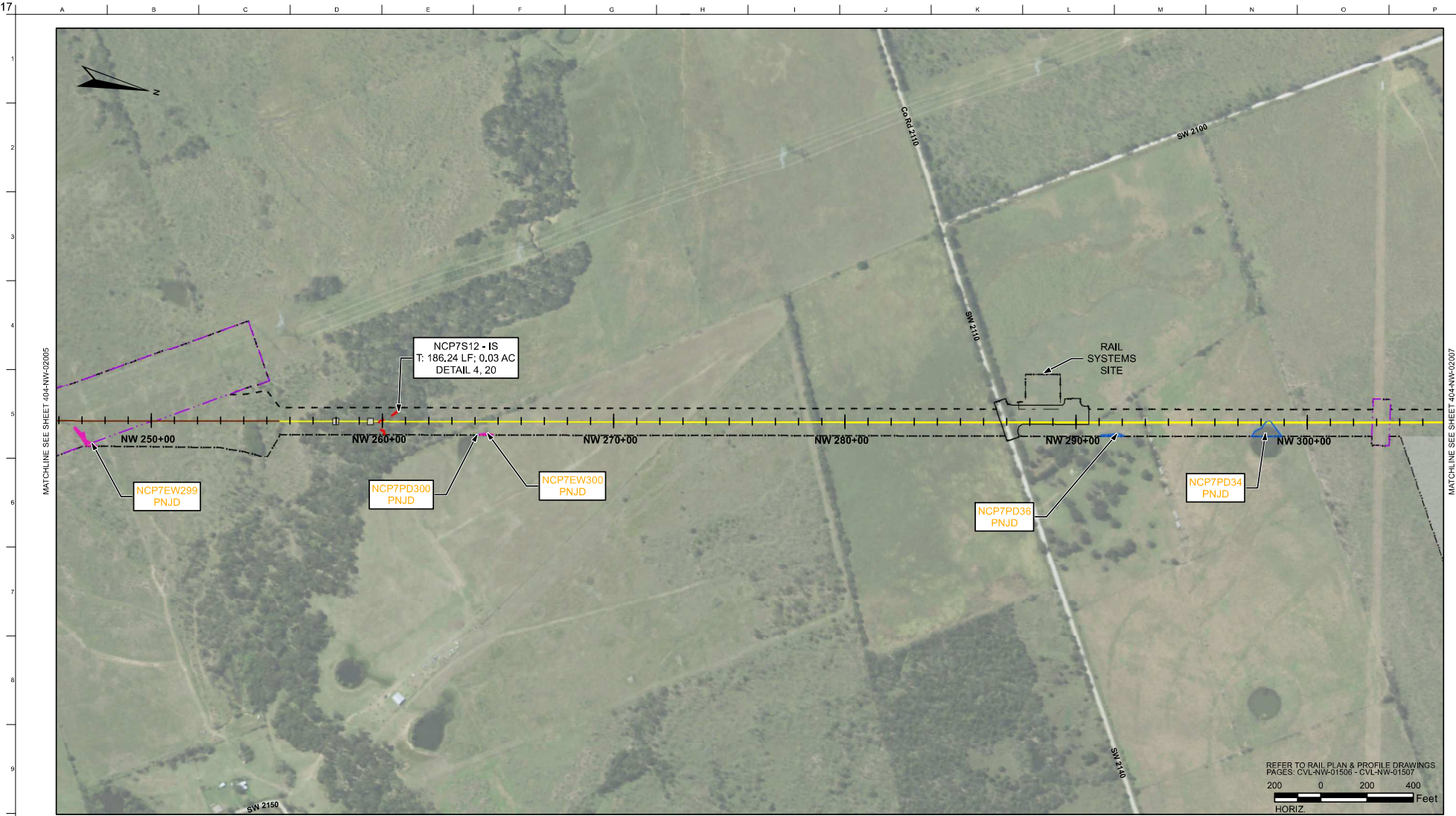
DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING

TEXAS CENTRAL
1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 187+97 TO NW 248+03

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02005 Rev. 02

11x17



RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS

FINAL, REVISION 1	DESIGNED BY H. MYERS
FINAL, REVISION 2	DRAWN BY M. KINZER
	CHECKED BY R. ALDREDGE
	IN CHARGE R. ZARATE
	DATE NOV. 2019

REV	DATE	BY	CHK	APP	DESCRIPTION

MAP SYMBOLLOGY
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

PLAN

- NOTES:
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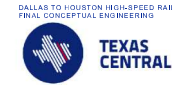
DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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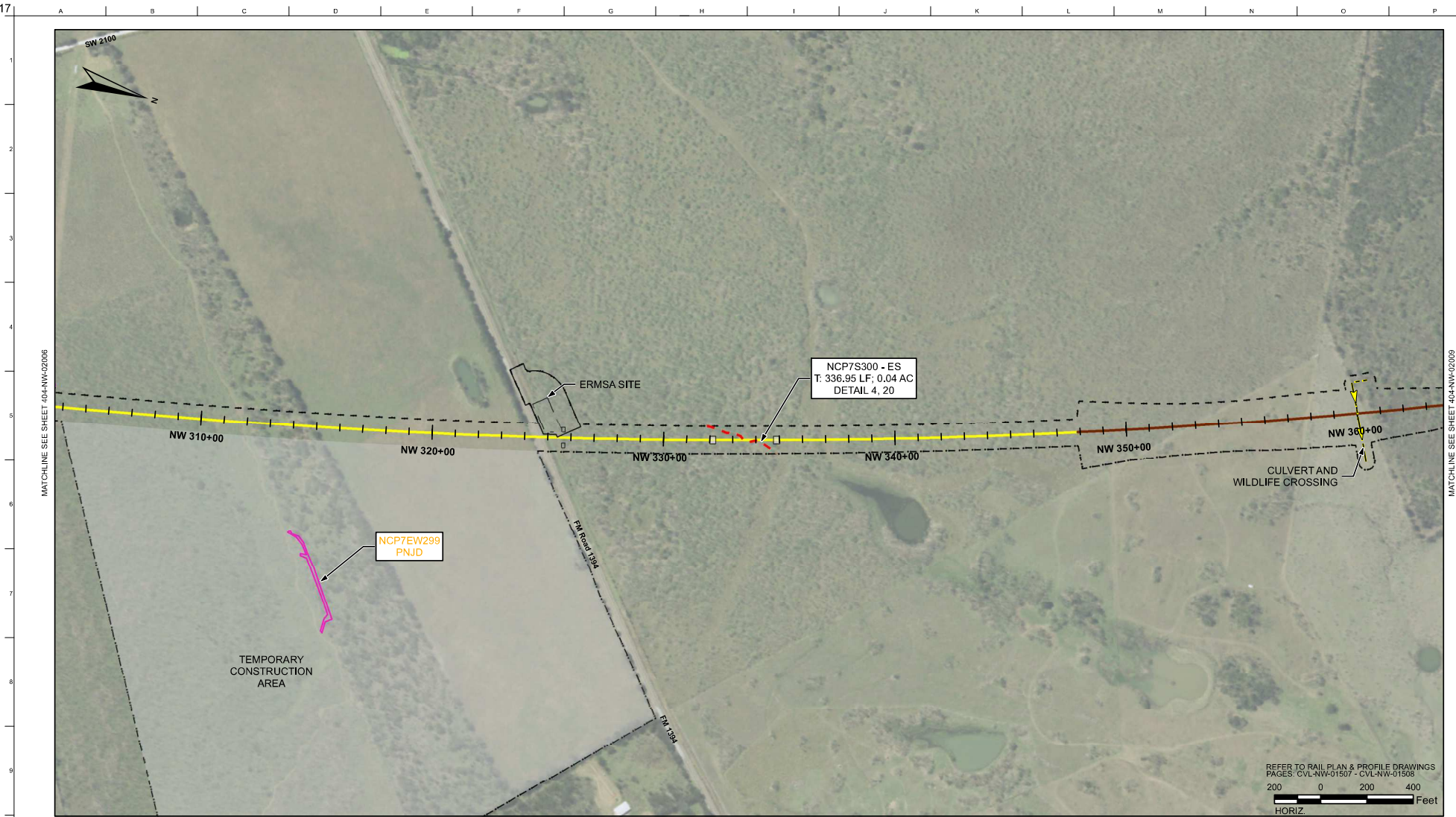
1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT

PLAN VIEW (FRA SEG. 3)
STA NW 245+89 TO NW 305+89

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION

JOB No. 234180 Drawing No. 404-NW-02006 Rev. 02



RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLS	NOTES
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - RO	1. POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM	2. P = PERMANENT IMPACT
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS		3. T = TEMPORARY IMPACT
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)		4. C = CONVERSION
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS		5. ES = EPHEMERAL STREAM
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FINAL, REVISION 1

FINAL, REVISION 2

DESIGNED BY
H. MYERS

DRAWN BY
M. KINZER

CHECKED BY
R. ALDREDGE

IN CHARGE
R. ZARATE

DATE
NOV. 2019

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

Arup Texas, Inc.
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DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT

PLAN VIEW (FRA SEG. 3)
STA NW 303+65 TO NW 363+75

Scale
AS SHOWN

Drawing Status
NOT FOR CONSTRUCTION

JOB No.
234180

Drawing No.
404-NW-02007

Rev.
02

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Arup Texas Inc.

PLOT TIME: 11/27/2019 4:48:50 PM
PLOT BY: 0027

11x17

MATCHLINE SEE SHEET 404-NW-02007



REFER TO RAIL PLAN & PROFILE DRAWINGS
PAGES: N/A

200 0 200 400
Feet

HORIZ

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLS
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - ROB
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS	
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS	

DESIGNED BY H. MYERS
DRAWN BY M. KINZER
CHECKED BY R. ALDREDGE
IN CHARGE R. ZARATE
DATE NOV. 2019

FINAL, REVISION 1
FINAL, REVISION 2

REV	DATE	BY	CHK	APP	DESCRIPTION

PLAN

- NOTES:
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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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Texas Registered Engineering Firm: F-2144



DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING

1400 South Lamar Street, Suite 1022, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT

**PLAN VIEW (FRA SEG. 3)
MATCHLINE 404-NW-02007**

Scale
AS SHOWN

Drawing Status
NOT FOR CONSTRUCTION

JOB No	Drawing No	Rev
234180	404-NW-02008	02



PLAN

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCRR
SWF-2011-00483


**FREESE
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NICHOLS**

DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

 **TEXAS
CENTRAL**

1409 South Lamar Street, Suite 1022, Dallas, Texas

Scale

AS SHOWN

Drawing Status

NOT FOR CONSTRUCTION

Job No	Drawing No	Rev
234180	404 NW 02000	02

MATCHLINE SEE SHEET 404-NW-02009

MATCHLINE SEE SHEET 404-NW-02011

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLS
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - RO
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS	
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS	

REV	DATE	BY	CHK	APP	DESCRIPTION
					FINAL, REVISION 1
					FINAL, REVISION 2

DESIGNED BY	H. MYERS
DRAWN BY	M. KINZER
CHECKED BY	R. ALDREDGE
IN CHARGE	R. ZARATE
DATE	NOV. 2019

DALLAS TO HOUSTON HIGH-SPEED RAIL APPLICANT: TCR SWF-2011-00483
--

PLAN

- NOTES:
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Texas Registered Engineering Firm: F-2144



1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENTScale
AS SHOWNDrawing Status
NOT FOR CONSTRUCTIONPLAN VIEW (FRA SEG. 3)
STA NW 418+83 TO NW 478+93JCD No. 234180
Drawing No. 404-NW-02010
Rev. 02

11x17

MATCHLINE SEE SHEET 404-NW-02010

MATCHLINE SEE SHEET 404-NW-02012

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS

FINAL, REVISION 1	DESIGNED BY H. MYERS
FINAL, REVISION 2	DRAWN BY M. KINZER
	CHECKED BY R. ALDREDGE
	IN CHARGE R. ZARATE
	DATE NOV. 2019

REV	DATE	BY	CHK	APP	DESCRIPTION

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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NICHOLS2711 North Haskell Ave., Suite 3300
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www.freese-nichols.com
Texas Registered Engineering Firm: F-2144DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

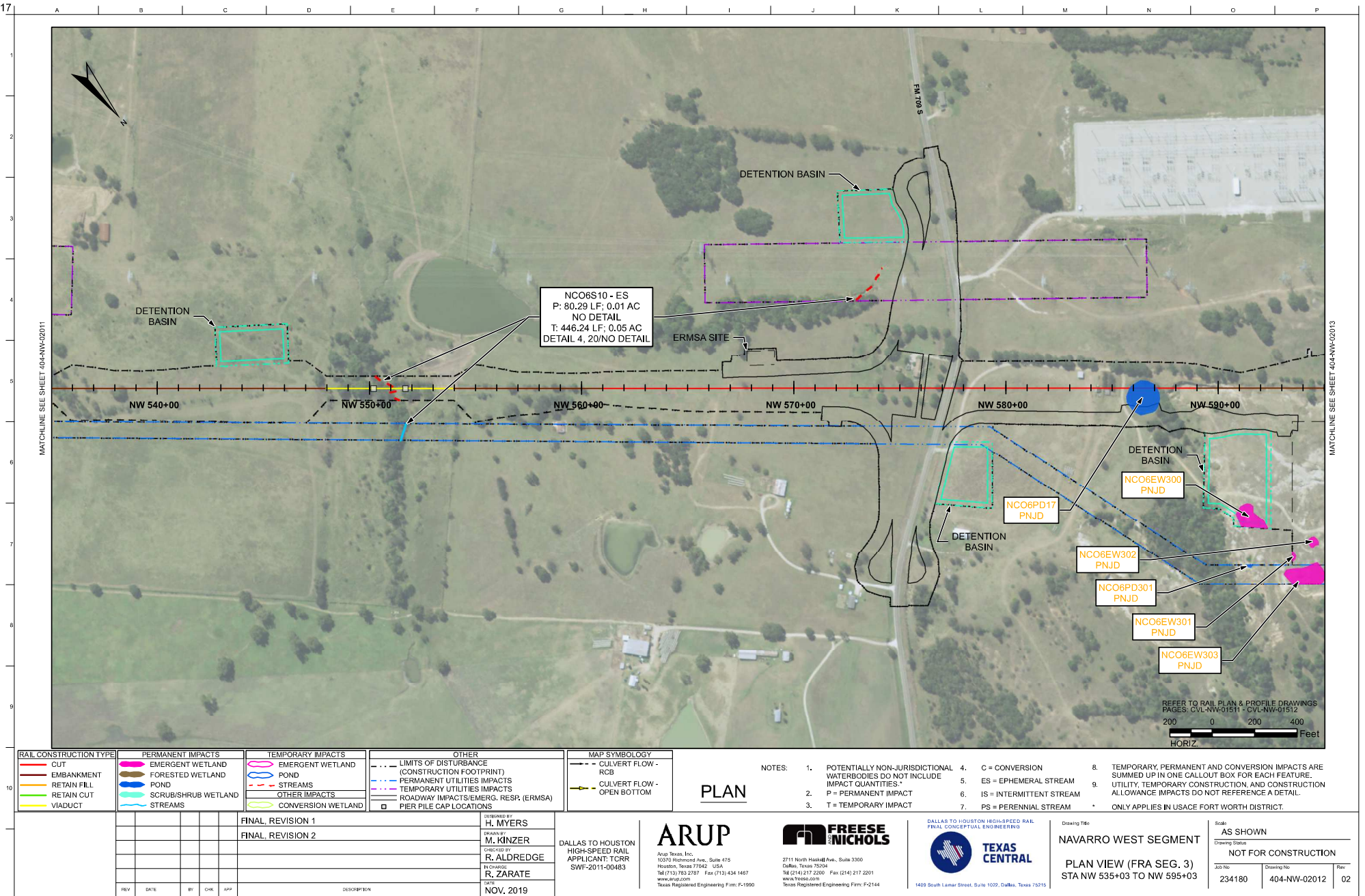
1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

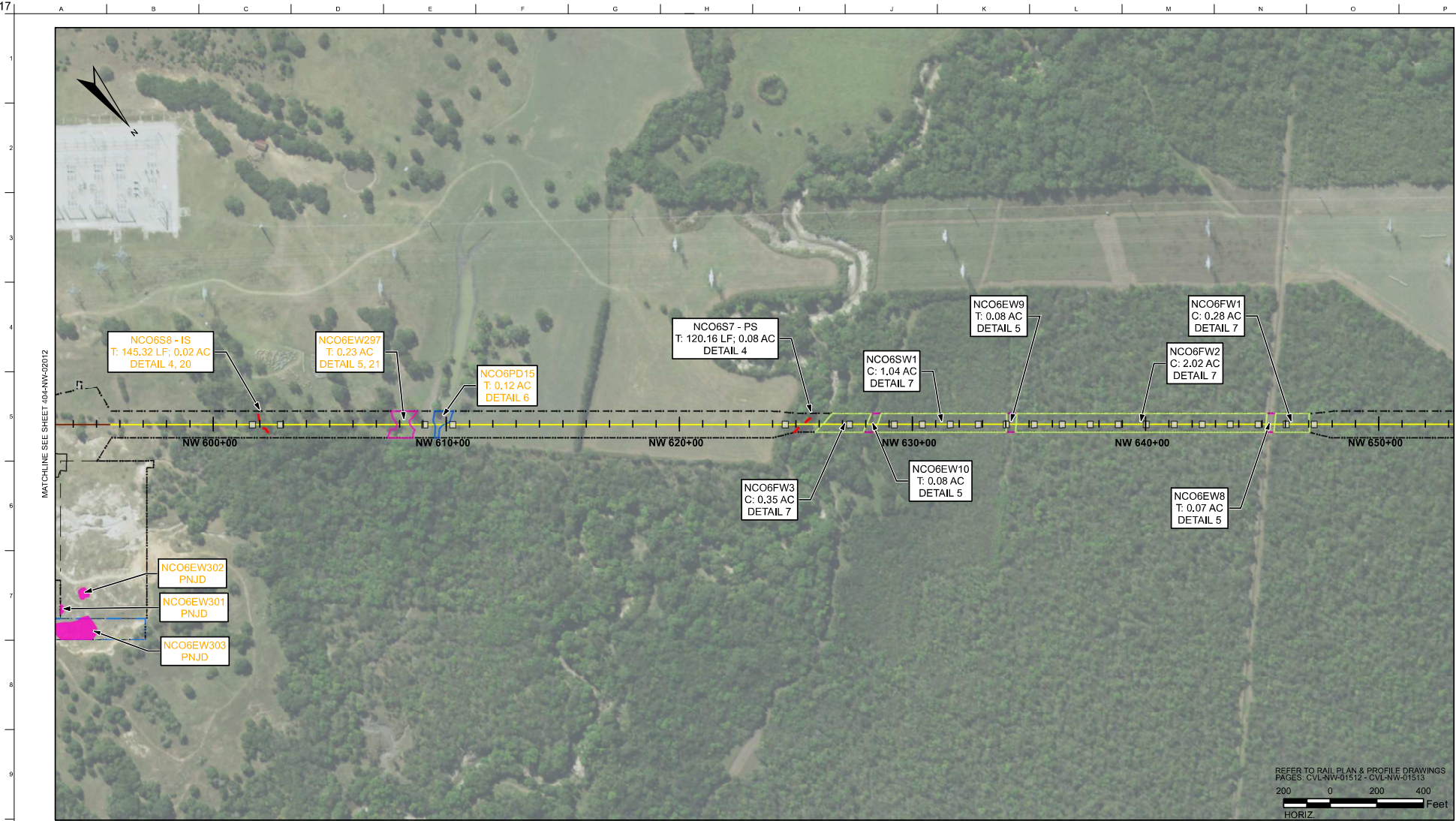
Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 476+82 TO NW 536+86Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JDD No 234180 Drawing No 404-NW-02011 Rev 02

- NOTES:
- POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.
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PLAN

REFER TO RAIL PLAN & PROFILE DRAWINGS
PAGES: CVL-NW-01510 - CVL-NW-01511
200 0 200 400
Feet
HORIZ





RAIL CONSTRUCTION TYPE
CUT
EMBANKMENT
RETAIN FILL
RETAIN CUT
VIADUCT

PERMANENT IMPACTS
EMERGENT WETLAND
FORESTED WETLAND
POND
SCRUB/SHRUB WETLAND
STREAMS

TEMPORARY IMPACTS
EMERGENT WETLAND
POND
STREAMS
OTHER IMPACTS
CONVERSION WETLAND

OTHER
LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
PERMANENT UTILITIES IMPACTS
TEMPORARY UTILITIES IMPACTS
ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
PIER PILE CAP LOCATIONS

MAP SYMBOLOLOGY
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

PLAN

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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING



1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 593+23 TO NW 653+23

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION

JOB No	Drawing No	Rev
234180	404-NW-02013	02

11x17

MATCHLINE SEE SHEET 404-NW-02013

MATCHLINE SEE SHEET 404-NW-02015



REFER TO RAIL PLAN & PROFILE DRAWINGS
PAGES: CVL-NW-01513 - CVL-NW-01514

200 0 200 400
Feet
HORIZ

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS

FINAL, REVISION 1	DESIGNED BY H. MYERS
FINAL, REVISION 2	DRAWN BY M. KINZER
	CHECKED BY R. ALDREDGE
	IN CHARGE R. ZARATE
	DATE NOV. 2019

REV	DATE	BY	CHK	APP	DESCRIPTION

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING

**TEXAS
CENTRAL**

1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT

Scale
AS SHOWN

Drawing Status
NOT FOR CONSTRUCTION

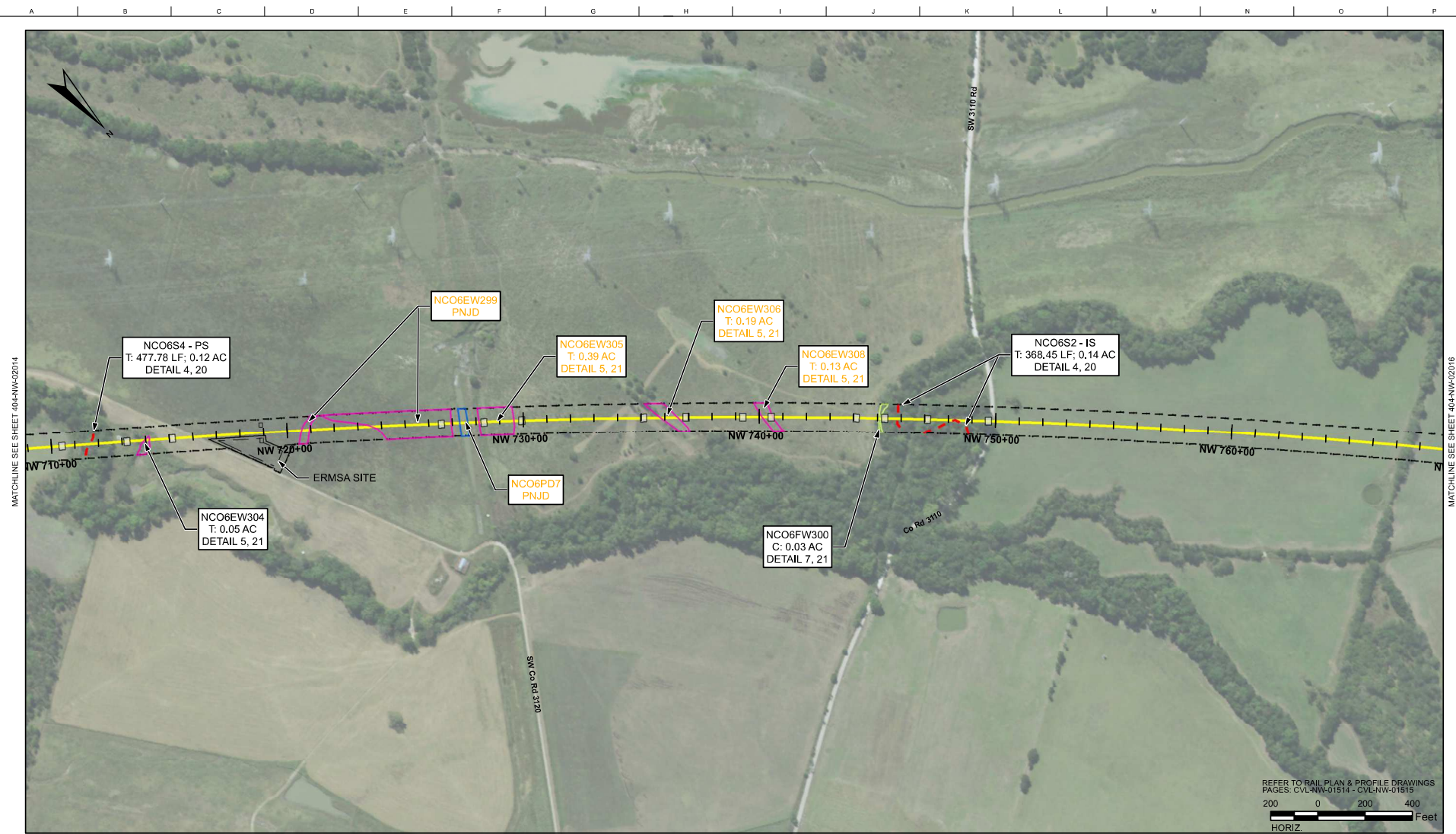
PLAN VIEW (FRA SEG. 3)
STA NW 651+17 TO NW 711+17

Scale
AS SHOWN

Drawing Status
NOT FOR CONSTRUCTION

JOB No. 234180 Drawing No. 404-NW-02014 Rev. 02

11x17



RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS

FINAL, REVISION 1	DESIGNED BY H. MYERS
FINAL, REVISION 2	DRAWN BY M. KINZER
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	IN CHARGE R. ZARATE
	DATE NOV. 2019

REV	DATE	BY	CHK	APP	DESCRIPTION

MAP SYMBOLS
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

PLAN

- NOTES:
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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 708+91 TO NW 768+99

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION

JOB No	Drawing No	Rev
234180	404-NW-02015	02



NOTES: 1. POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.* 2. P = PERMANENT IMPACT 3. T = TEMPORARY IMPACT 4. C = CONVERSION 5. ES = EPHEMERAL STREAM 6. IS = INTERMITTENT STREAM 7. PS = PERENNIAL STREAM 8. TEMPORARY, PERMANENT AND CONVERSION IMPACTS ARE SUMMED UP IN ONE CALLOUT BOX FOR EACH FEATURE. 9. UTILITY, TEMPORARY CONSTRUCTION, AND CONSTRUCTION ALLOWANCE IMPACTS DO NOT REFERENCE A DETAIL. * ONLY APPLIES IN USACE FORT WORTH DISTRICT.

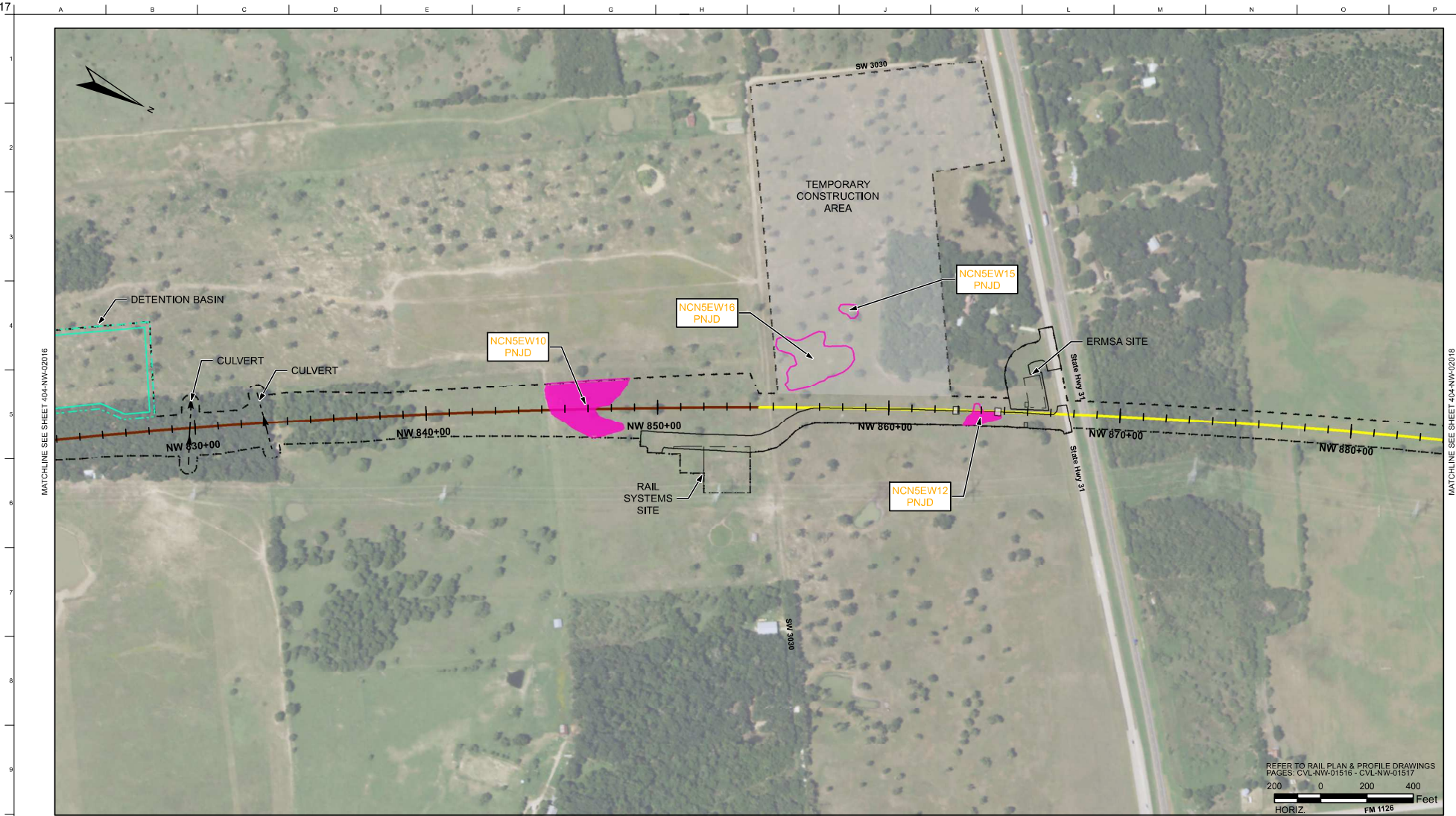
DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCRR
SWF-2011-00483

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www.freese.com
Texas Registered Engineering Firm: F-2144

Drawing Title

Scale
AS SHOWN



RAIL CONSTRUCTION TYPE	
CUT	
EMBANKMENT	
RETAIN FILL	
RETAIN CUT	
VIADUCT	

PERMANENT IMPACTS	
EMERGENT WETLAND	
FORESTED WETLAND	
POND	
SCRUB/SHRUB WETLAND	
STREAMS	

TEMPORARY IMPACTS	
EMERGENT WETLAND	
POND	
STREAMS	
OTHER IMPACTS	
CONVERSION WETLAND	

OTHER	
LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	
PERMANENT UTILITIES IMPACTS	
TEMPORARY UTILITIES IMPACTS	
ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
PIER PILE CAP LOCATIONS	

MAP SYMBOLOLOGY	
CULVERT FLOW - ROB	
CULVERT FLOW - OPEN BOTTOM	

PLAN

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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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Texas Registered Engineering Firm: F-2144

DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

TEXAS
CENTRAL

Drawing Title
NAVARRO WEST SEGMENT

PLAN VIEW (FRA SEG. 3)
STA NW 823+92 TO NW 884+01

Scale
AS SHOWN

NOT FOR CONSTRUCTION

JOB No. 234180 Drawing No. 404-NW-02017 Rev. 02



NOTES:	1. POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.*	4. C = CONVERSION	8. TEMPORARY, PERMANENT AND CONVERSION IMPACTS ARE SUMMED UPIN ONE CALLOUT BOX FOR EACH FEATURE.
	2. P = PERMANENT IMPACT	5. ES = EPHEMERAL STREAM	9. UTILITY, TEMPORARY CONSTRUCTION, AND CONSTRUCTION ALLOWANCE IMPACTS DO NOT REFERENCE A DETAIL.
	3. T = TEMPORARY IMPACT	6. IS = INTERMITTENT STREAM	
		7. PS = PERENNIAL STREAM	* ONLY APPLIES IN USAGE FORT WORTH DISTRICT.

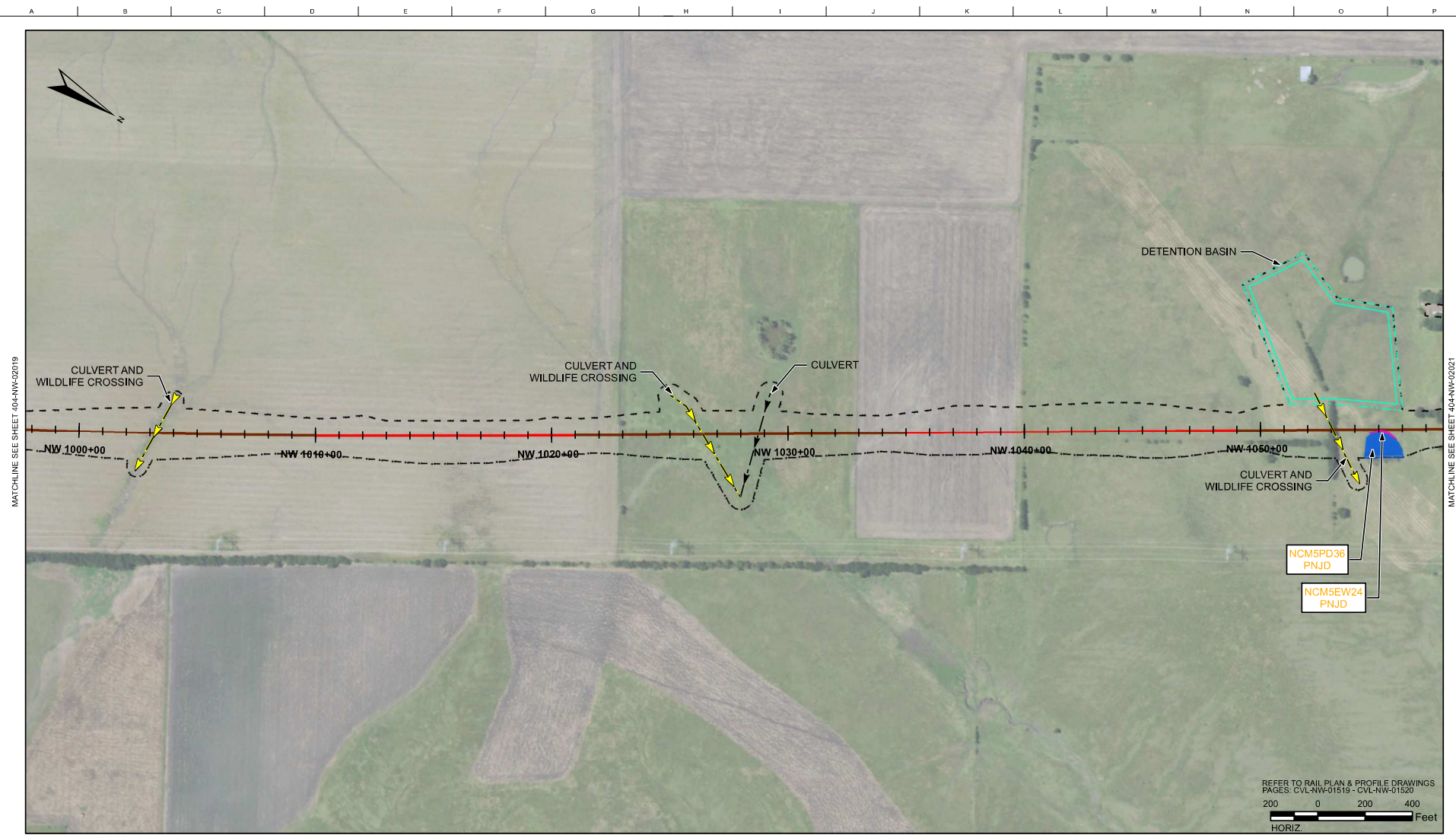
DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCRR
SWF-2011-00483

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PLAN VIEW (FRA SEG. 3)

NOT FOR CONSTRUCTION		
Job No	Drawing No	Rev



RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLS
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - ROB
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS	
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS	

DESIGNED BY	H. MYERS
DRAWN BY	M. KINZER
CHECKED BY	R. ALDREDGE
IN CHARGE	R. ZARATE
DATE	NOV. 2019

FINAL, REVISION 1	
FINAL, REVISION 2	

REV	DATE	BY	CHK	APP	DESCRIPTION

PLAN

- NOTES:
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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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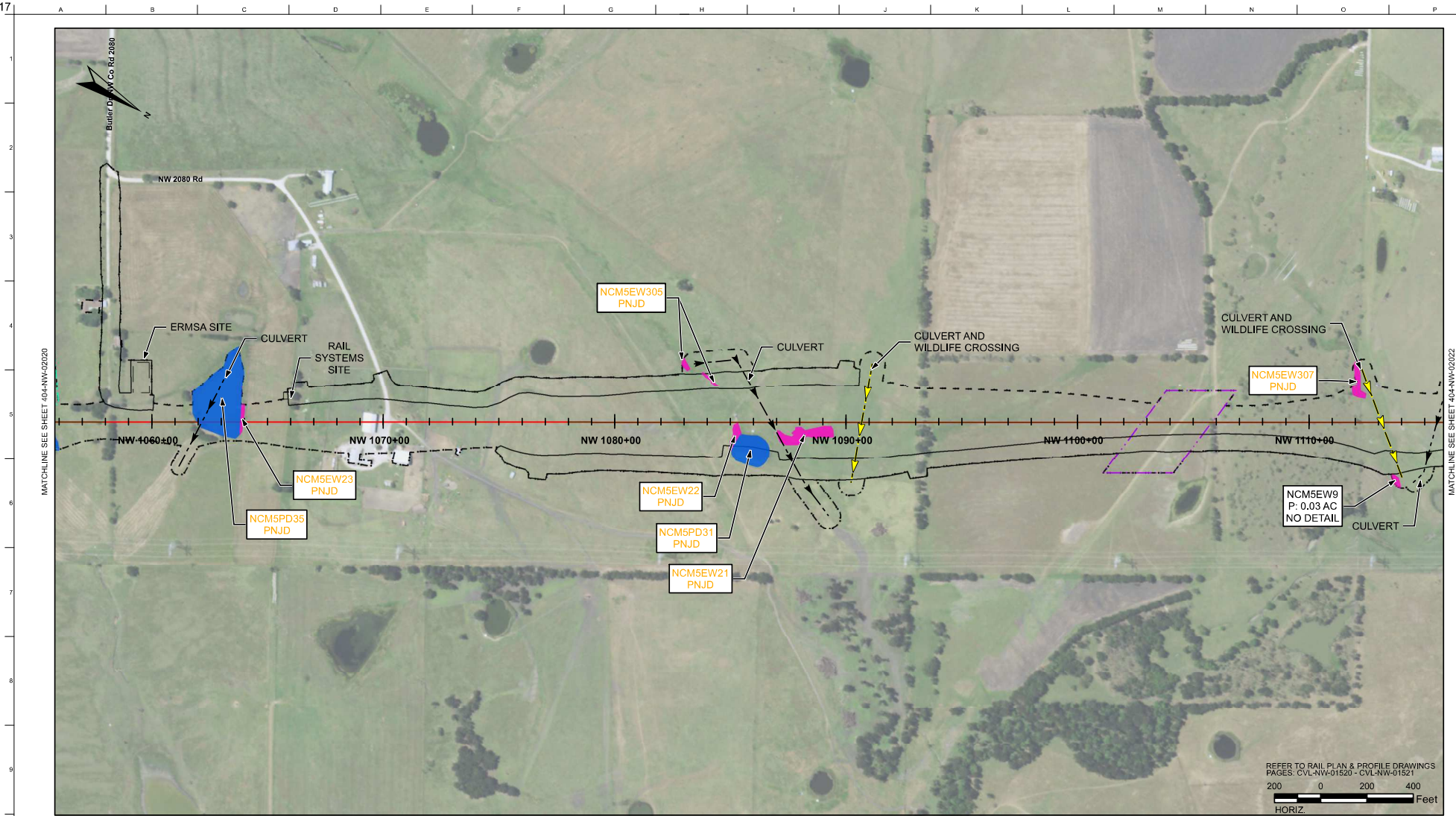
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2711 North Haskell Ave., Suite 3300
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Texas Registered Engineering Firm: F-2144



Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 997+73 TO NW 1057+74

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02020 Rev. 02



RAIL CONSTRUCTION TYPE		PERMANENT IMPACTS				TEMPORARY IMPACTS				OTHER			
— CUT		— EMERGENT WETLAND				— EMERGENT WETLAND				- - - LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)			
— EMBANKMENT		— FORESTED WETLAND				— POND				- - - PERMANENT UTILITIES IMPACTS			
— RETAIN FILL		— POND				— STREAMS				- - - TEMPORARY UTILITIES IMPACTS			
— RETAIN CUT		— SCRUB/SHRUB WETLAND				— OTHER IMPACTS				- - - ROADWAY IMPACTS/EMERG. RESP. (ERMSA)			
— VIADUCT		— STREAMS				— CONVERSION WETLAND				□ PIER PILE CAP LOCATIONS			
						FINAL, REVISION 1				DESIGNED BY H. MYERS			
						FINAL, REVISION 2				DRAWN BY M. KINZER			
										CHECKED BY R. ALDREDGE			
										IN CHARGE R. ZARATE			
										DATE NOV. 2019			
REV		DATE		BY	CHK	APP	DESCRIPTION						

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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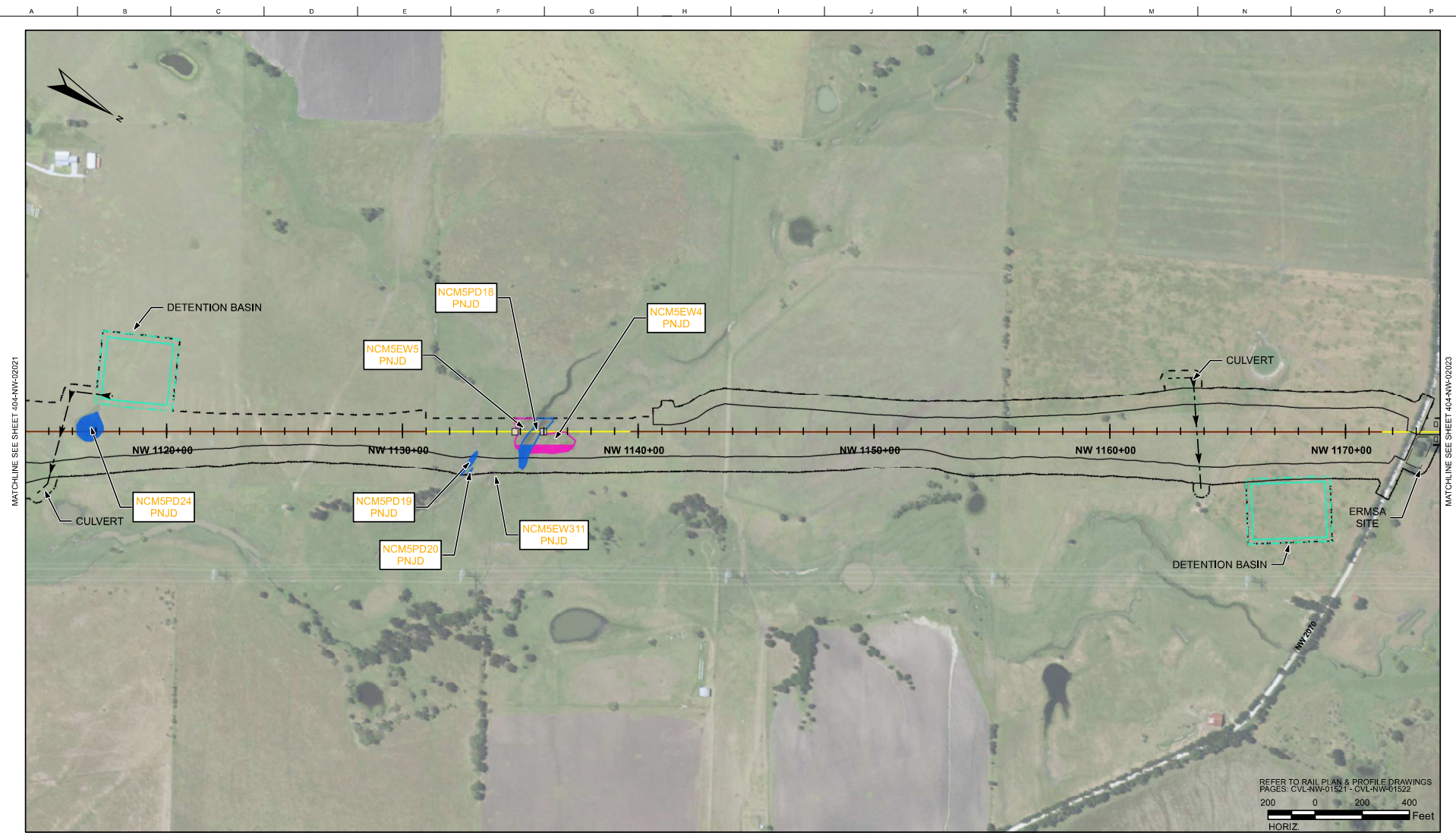
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DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING

TEXAS CENTRAL
1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1055+82 TO NW 1115+82

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02021 Rev. 02



RAIL CONSTRUCTION TYPE
CUT
EMBANKMENT
RETAIN FILL
RETAIN CUT
VIADUCT

PERMANENT IMPACTS
EMERGENT WETLAND
FORESTED WETLAND
POND
SCRUB/SHRUB WETLAND
STREAMS

TEMPORARY IMPACTS
EMERGENT WETLAND
POND
STREAMS
OTHER IMPACTS
CONVERSION WETLAND

OTHER
LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
PERMANENT UTILITIES IMPACTS
TEMPORARY UTILITIES IMPACTS
ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
PIER PILE CAP LOCATIONS

MAP SYMBOLOLOGY
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

PLAN

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REV	DATE	BY	CHK	APP	DESCRIPTION
					FINAL, REVISION 1
					FINAL, REVISION 2

DESIGNED BY H. MYERS
DRAWN BY M. KINZER
CHECKED BY R. ALDREDGE
IN CHARGE R. ZARATE
DATE NOV. 2019

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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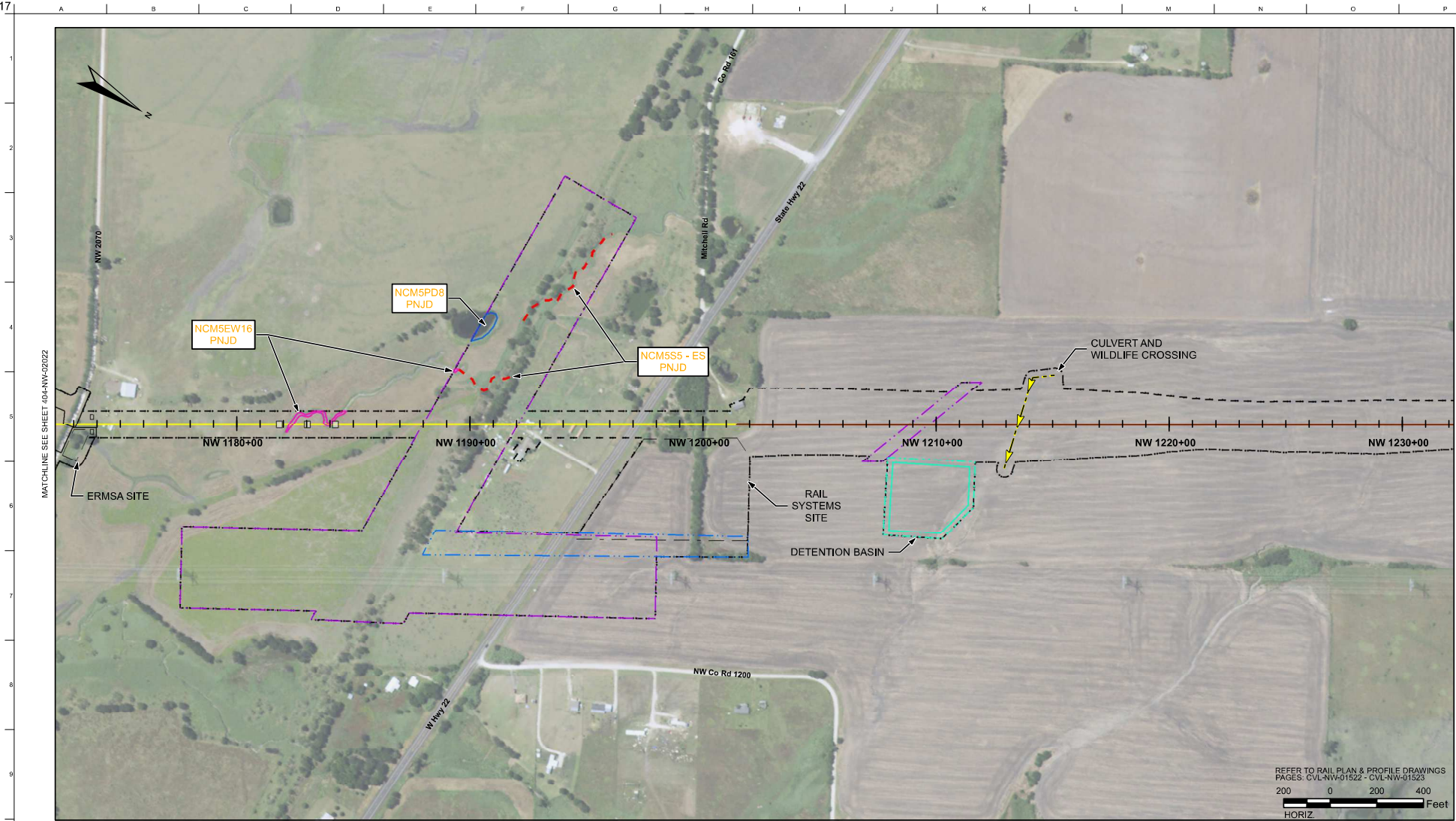
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DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

TEXAS CENTRAL

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1114+02 TO NW 1174+02

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JDD No. 234180 Drawing No. 404-NW-02022 Rev. 02



RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSEA)
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS

FINAL, REVISION 1	DESIGNED BY H. MYERS
FINAL, REVISION 2	DRAWN BY M. KINZER
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	IN CHARGE R. ZARATE
	DATE NOV. 2019

REV	DATE	BY	CHK	APP	DESCRIPTION

MAP SYMBOLOLOGY
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

PLAN

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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING

TEXAS
CENTRAL

1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1172+22 TO NW 1232+22

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02023 Rev. 02



RAIL CONSTRUCTION TYPE
CUT
EMBANKMENT
RETAIN FILL
RETAIN CUT
VIADUCT

PERMANENT IMPACTS
EMERGENT WETLAND
FORESTED WETLAND
POND
SCRUB/SHRUB WETLAND
STREAMS

TEMPORARY IMPACTS
EMERGENT WETLAND
POND
STREAMS
OTHER IMPACTS
CONVERSION WETLAND

OTHER
LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
PERMANENT UTILITIES IMPACTS
TEMPORARY UTILITIES IMPACTS
ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
PIER PILE CAP LOCATIONS

MAP SYMBOLLOGY
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

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PLAN

REV	DATE	BY	CHK	APP	DESCRIPTION

FINAL, REVISION 1
FINAL, REVISION 2

DESIGNED BY
H. MYERS
DRAWN BY
M. KINZER
CHECKED BY
R. ALDREDGE
IN CHARGE
R. ZARATE
DATE
NOV. 2019

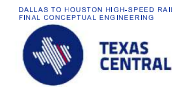
DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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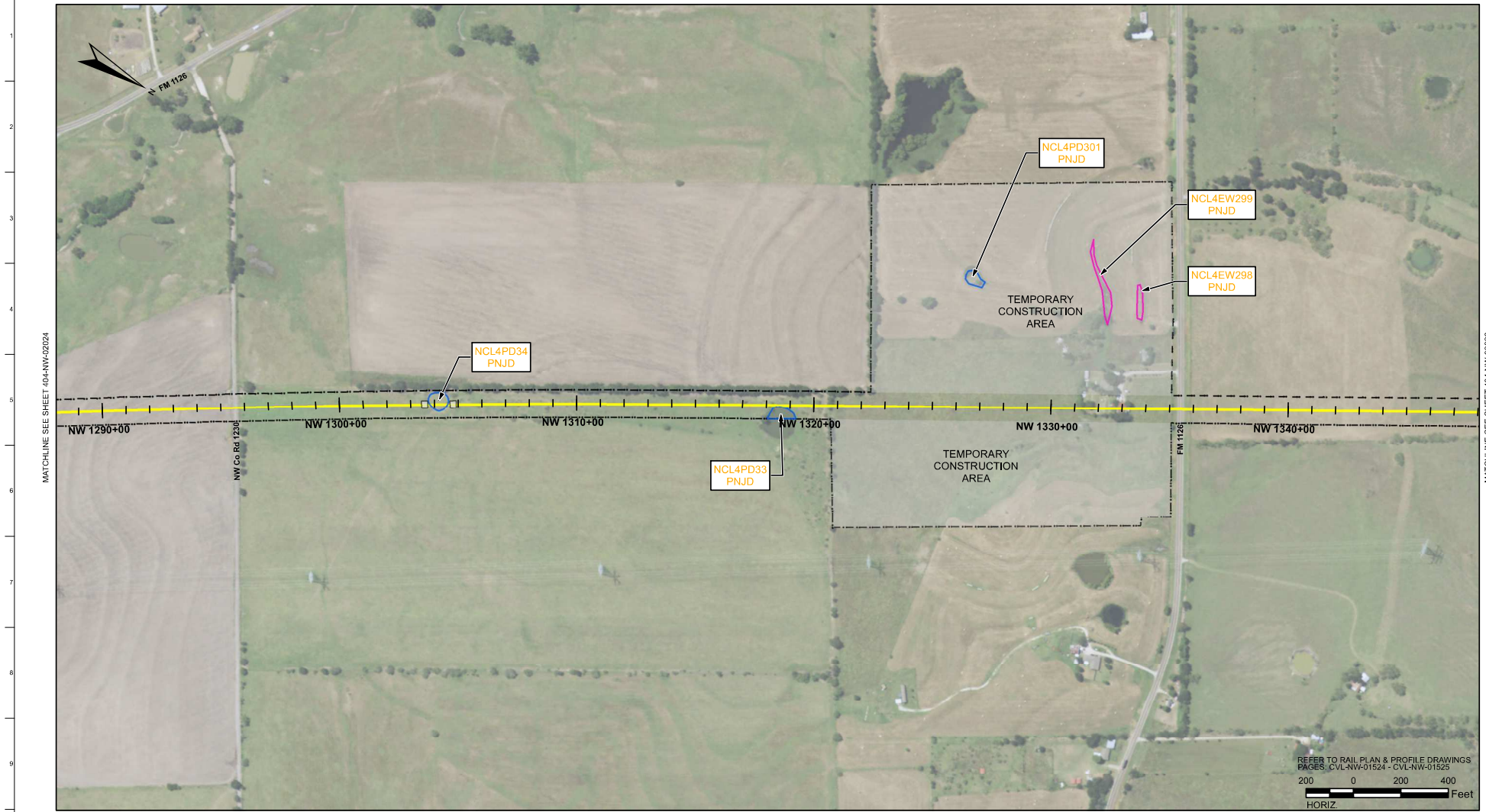
Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1230+16 TO NW 1290+16

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02024 Rev. 02

11x17

MATCHLINE SEE SHEET 404-NW-002024

MATCHLINE SEE SHEET 404-NW-002026

PLOT TIME: 10/2/2019 4:00:17 PM
PLOT BY: 0027

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLS	NOTES:
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - RO	1. POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM	2. P = PERMANENT IMPACT
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS		3. T = TEMPORARY IMPACT
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)		4. C = CONVERSION
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS		5. ES = EPHEMERAL STREAM
					6. IS = INTERMITTENT STREAM
					7. PS = PERENNIAL STREAM
					8. TEMPORARY, PERMANENT AND CONVERSION IMPACTS ARE SUMMED UP IN ONE CALLOUT BOX FOR EACH FEATURE.
					9. UTILITY, TEMPORARY CONSTRUCTION AND CONSTRUCTION ALLOWANCE IMPACTS DO NOT REFERENCE A DETAIL.
					* ONLY APPLIES IN USACE FORT WORTH DISTRICT.

PLAN

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Texas Registered Engineering Firm: F-1990

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Tel (214) 217 2200 Fax (214) 217 2201
www.freesenichols.com
Texas Registered Engineering Firm: F-2144

TEXAS CENTRAL
DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING
1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1288+05 TO NW 1348+06

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION

JOB No.	Drawing No.	Rev.
234180	404-NW-02025	02

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Arup Texas Inc.

11x17

MATCHLINE SEE SHEET 404-NW-02025

MATCHLINE SEE SHEET 404-NW-02027

RAIL CONSTRUCTION TYPE		PERMANENT IMPACTS		TEMPORARY IMPACTS		OTHER	
CUT		EMERGENT WETLAND		EMERGENT WETLAND		LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	
EMBANKMENT		FORESTED WETLAND		POND		PERMANENT UTILITIES IMPACTS	
RETAIN FILL		POND		STREAMS		TEMPORARY UTILITIES IMPACTS	
RETAIN CUT		SCRUB/SHRUB WETLAND		OTHER IMPACTS		ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
VIADUCT		STREAMS		CONVERSION WETLAND		PIER PILE CAP LOCATIONS	

REV	DATE	BY	CHK	APP	DESCRIPTION
					FINAL, REVISION 1
					FINAL, REVISION 2

DESIGNED BY	H. MYERS
DRAWN BY	M. KINZER
CHECKED BY	R. ALDREDGE
IN CHARGE	R. ZARATE
DATE	NOV. 2019

DALLAS TO HOUSTON HIGH-SPEED RAIL APPLICANT: TORR SWF-2011-00483

MAP SYMBOLOLOGY
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

PLAN

- NOTES:
- POTENTIALLY NON-JURISDICTIONAL WATERBODIES DO NOT INCLUDE IMPACT QUANTITIES.
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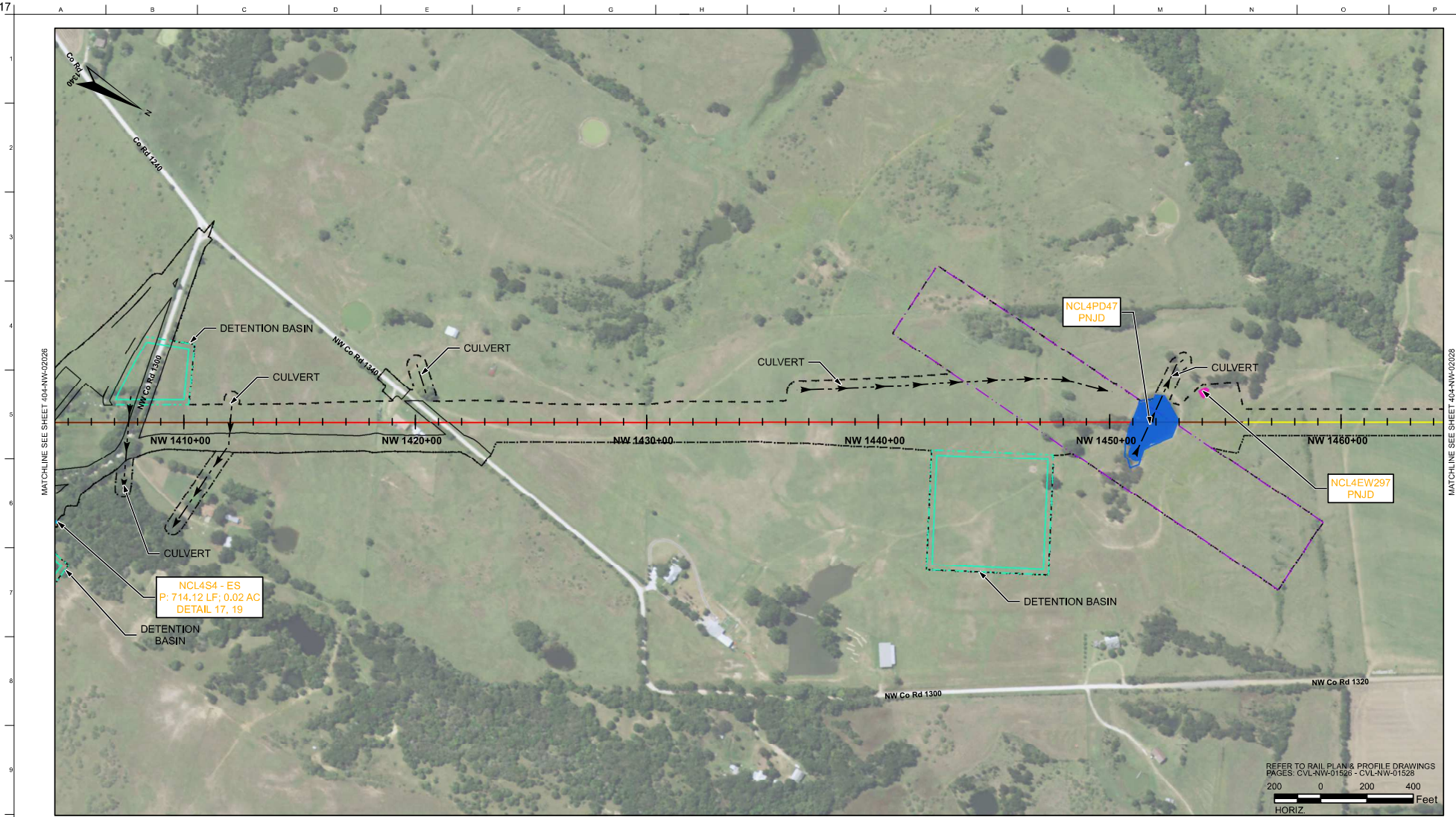
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www.frese-nichols.com
Texas Registered Engineering Firm: F-2144

TEXAS CENTRAL

DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING
1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1346+22 TO NW 1406+22

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JDD No 234180 Drawing No 404-NW-02026 Rev 02



RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLS
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - RCB
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS	
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS	

REV	DATE	BY	CHK	APP	DESCRIPTION
					FINAL, REVISION 1
					FINAL, REVISION 2

DRAWN BY	H. MYERS
CHECKED BY	M. KINZER
IN CHARGE	R. ALDREDGE
DATE	NOV. 2019

DALLAS TO HOUSTON HIGH-SPEED RAIL APPLICANT: TCR
SWF-2011-00483

PLAN

- NOTES:
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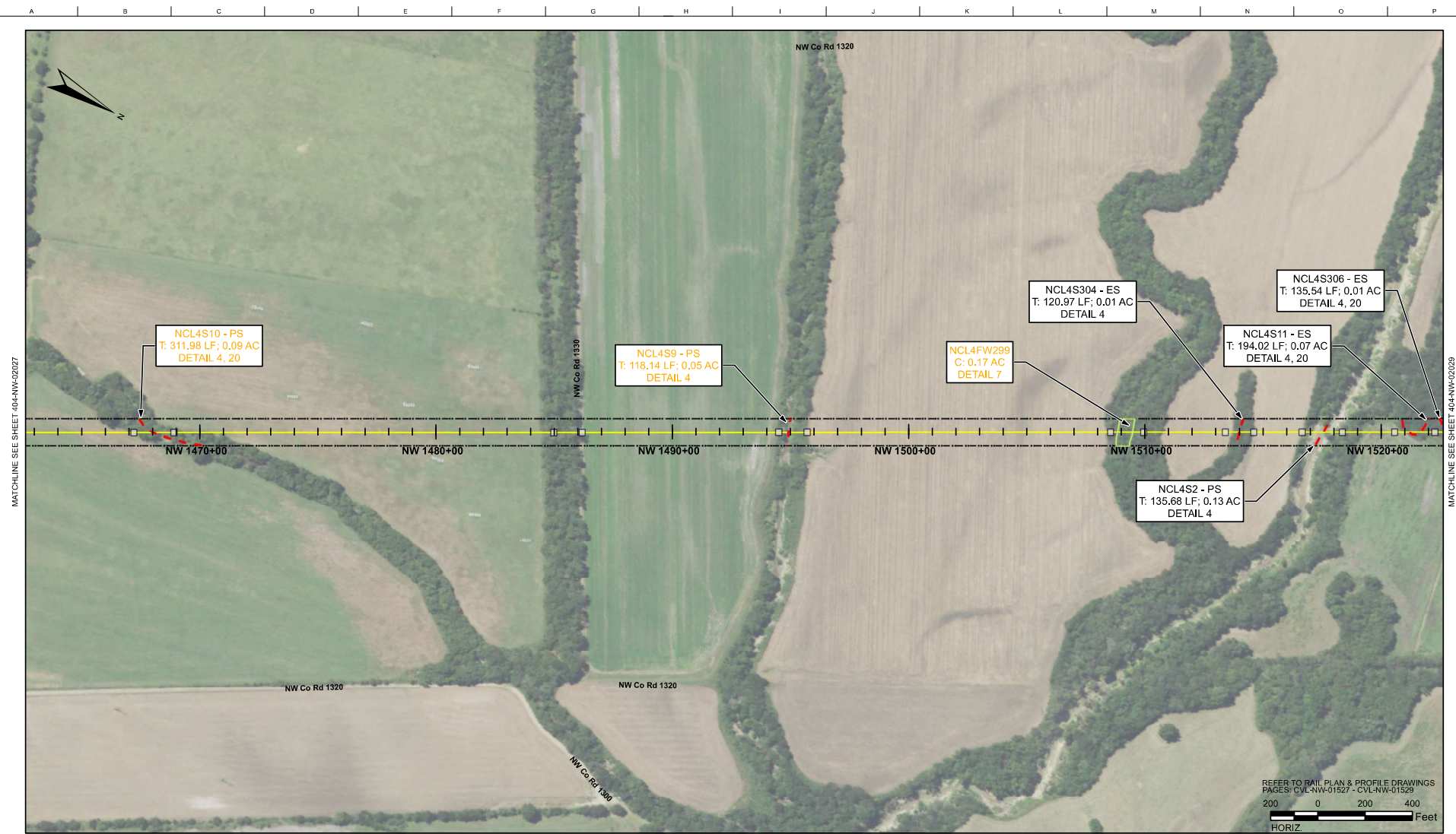
2711 North Haskell Ave., Suite 3300
Dallas, Texas 75204
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Texas Registered Engineering Firm: F-2144



Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1404+42 TO NW 1464+42

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02027 Rev. 02

11x17



REFER TO RAIL PLAN & PROFILE DRAWINGS
PAGES: CVL-NW-01527 - CVL-NW-01529

200 0 200 400 Feet

HORIZ

RAIL CONSTRUCTION TYPE	PERMANENT IMPACTS	TEMPORARY IMPACTS	OTHER	MAP SYMBOLS
CUT	EMERGENT WETLAND	EMERGENT WETLAND	LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)	CULVERT FLOW - ROB
EMBANKMENT	FORESTED WETLAND	POND	PERMANENT UTILITIES IMPACTS	CULVERT FLOW - OPEN BOTTOM
RETAIN FILL	POND	STREAMS	TEMPORARY UTILITIES IMPACTS	
RETAIN CUT	SCRUB/SHRUB WETLAND	OTHER IMPACTS	ROADWAY IMPACTS/EMERG. RESR. (ERMSA)	
VIADUCT	STREAMS	CONVERSION WETLAND	PIER PILE CAP LOCATIONS	

FINAL, REVISION 1	DESIGNED BY H. MYERS
FINAL, REVISION 2	DRAWN BY M. KINZER
	CHECKED BY R. ALDREDGE
	IN CHARGE R. ZARATE
	DATE NOV. 2019

REV	DATE	BY	CHK	APP	DESCRIPTION

PLAN

- NOTES:
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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TORR
SWF-2011-00483

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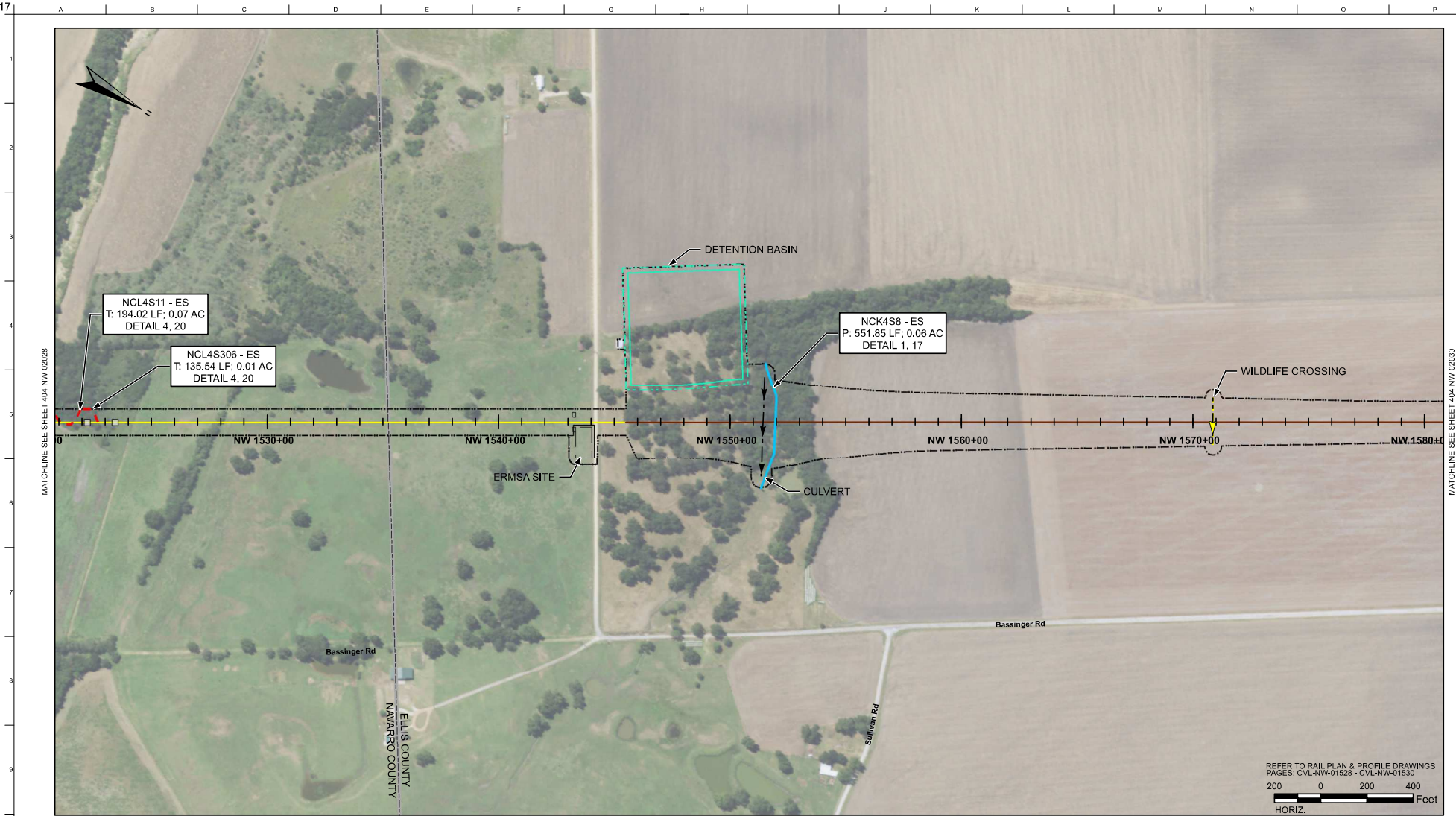
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Texas Registered Engineering Firm: F-2144



Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1462+62 TO NW 1522+62

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02028 Rev. 02

11x17



RAIL CONSTRUCTION TYPE

CUT

EMBANKMENT

RETAIN FILL

RETAIN CUT

VIADUCT

PERMANENT IMPACTS

EMERGENT WETLAND

FORESTED WETLAND

POND

SCRUB/SHRUB WETLAND

STREAMS

TEMPORARY IMPACTS

EMERGENT WETLAND

POND

STREAMS

OTHER IMPACTS

CONVERSION WETLAND

OTHER

LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)

PERMANENT UTILITIES IMPACTS

TEMPORARY UTILITIES IMPACTS

ROADWAY IMPACTS/EMERG. RESP. (ERMSA)

PIER PILE CAP LOCATIONS

MAP SYMBOLOLOGY

CULVERT FLOW - RCB

CULVERT FLOW - OPEN BOTTOM

PLAN

NOTES:

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DESIGNED BY
H. MYERS

DRAWN BY
M. KINZER

CHECKED BY
R. ALDREDGE

IN CHARGE
R. ZARATE

NOV. 2019

DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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DALLAS TO HOUSTON HIGH-SPEED RAIL
FINAL CONCEPTUAL ENGINEERING

TEXAS CENTRAL

1400 South Lamar Street, Suite 1002, Dallas, Texas 75215

Drawing Title

NAVARRA WEST SEGMENT

PLAN VIEW (FRA SEG. 3)
STA NW 1520+82 TO NW 1580+82

Scale

AS SHOWN

Drawing Status

NOT FOR CONSTRUCTION

Job No

234180

Drawing No

404-NW-02029

REV	DATE	BY	CHK	APP	DESCRIPTION

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Arup Texas Inc.

11x17

MATCHLINE SEE SHEET 404-NW-02029



RAIL CONSTRUCTION TYPE
CUT
EMBANKMENT
RETAIN FILL
RETAIN CUT
VIADUCT

PERMANENT IMPACTS
EMERGENT WETLAND
FORESTED WETLAND
POND
SCRUB/SHRUB WETLAND
STREAMS

TEMPORARY IMPACTS
EMERGENT WETLAND
POND
STREAMS
OTHER IMPACTS
CONVERSION WETLAND

OTHER
LIMITS OF DISTURBANCE (CONSTRUCTION FOOTPRINT)
PERMANENT UTILITIES IMPACTS
TEMPORARY UTILITIES IMPACTS
ROADWAY IMPACTS/EMERG. RESR. (ERMSA)
PIER PILE CAP LOCATIONS

MAP SYMBOLOLOGY
CULVERT FLOW - ROB
CULVERT FLOW - OPEN BOTTOM

PLAN

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DALLAS TO HOUSTON
HIGH-SPEED RAIL
APPLICANT: TCR
SWF-2011-00483

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DALLAS TO HOUSTON HIGH-SPEED RAIL
RAIL CONCEPTUAL ENGINEERING

TEXAS
CENTRAL

Drawing Title
NAVARRO WEST SEGMENT
PLAN VIEW (FRA SEG. 3)
STA NW 1579+02 TO NW 1638+12

Scale
AS SHOWN
Drawing Status
NOT FOR CONSTRUCTION
JOB No. 234180 Drawing No. 404-NW-02030 Rev. 02