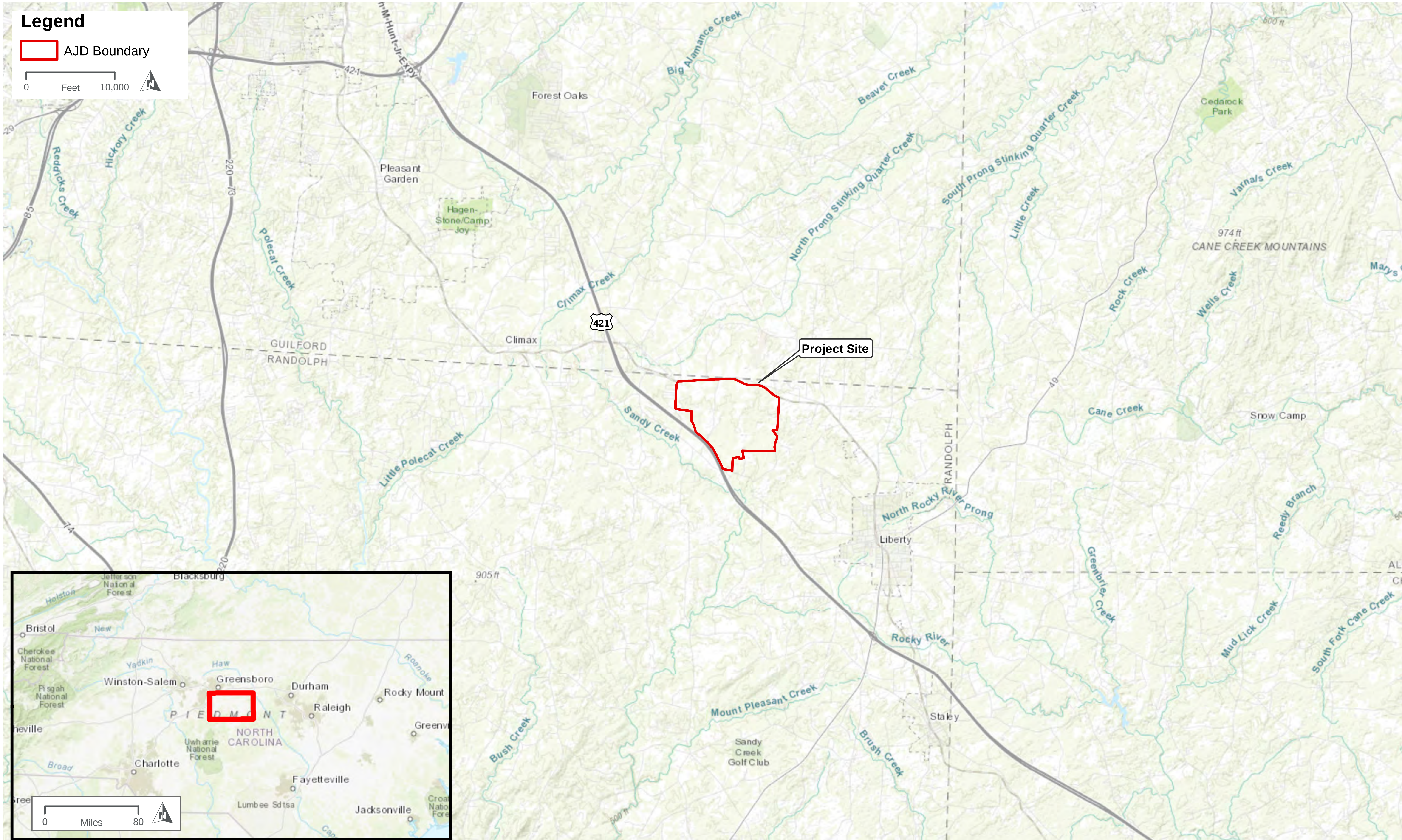
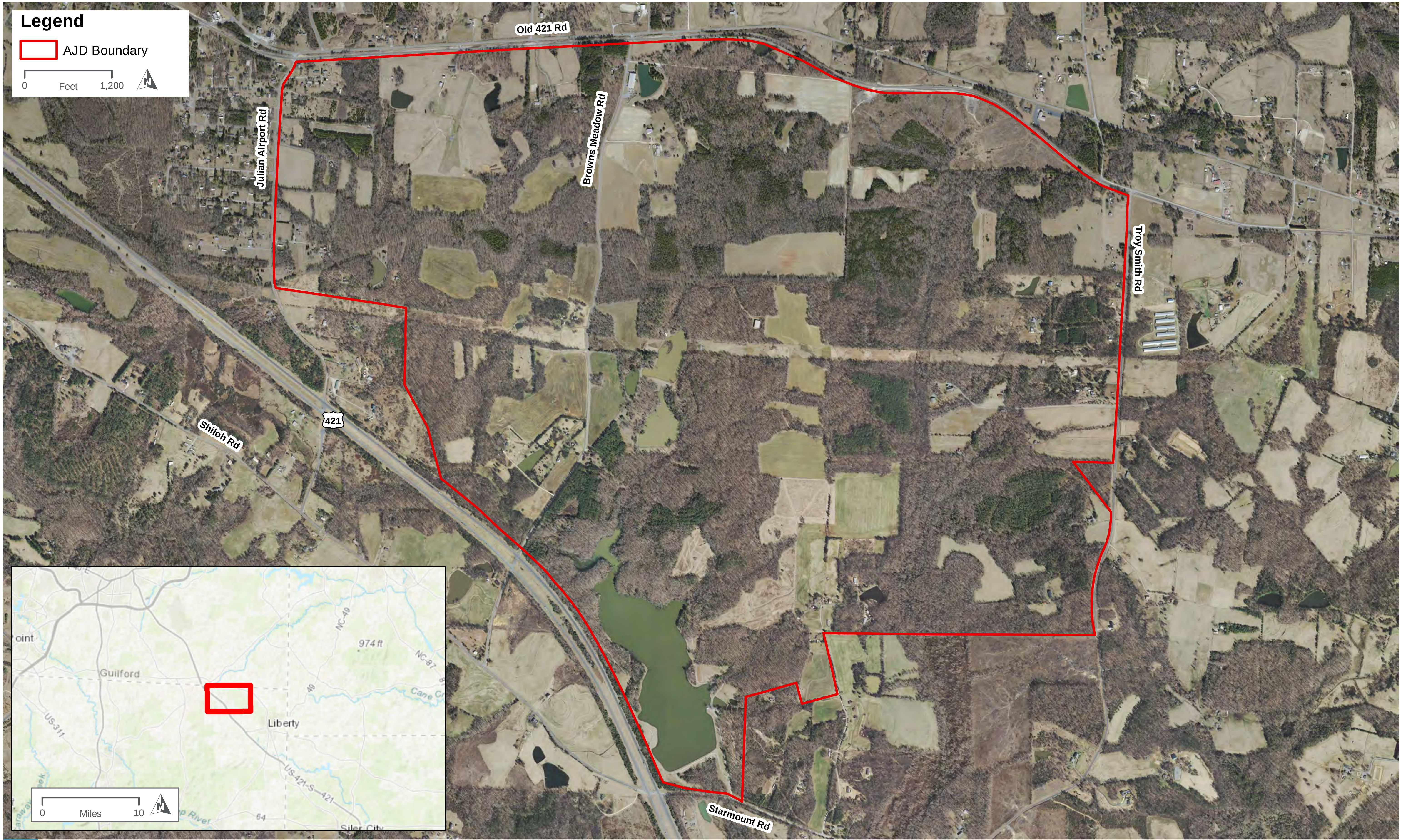


VICINITY MAP

FIGURE 1

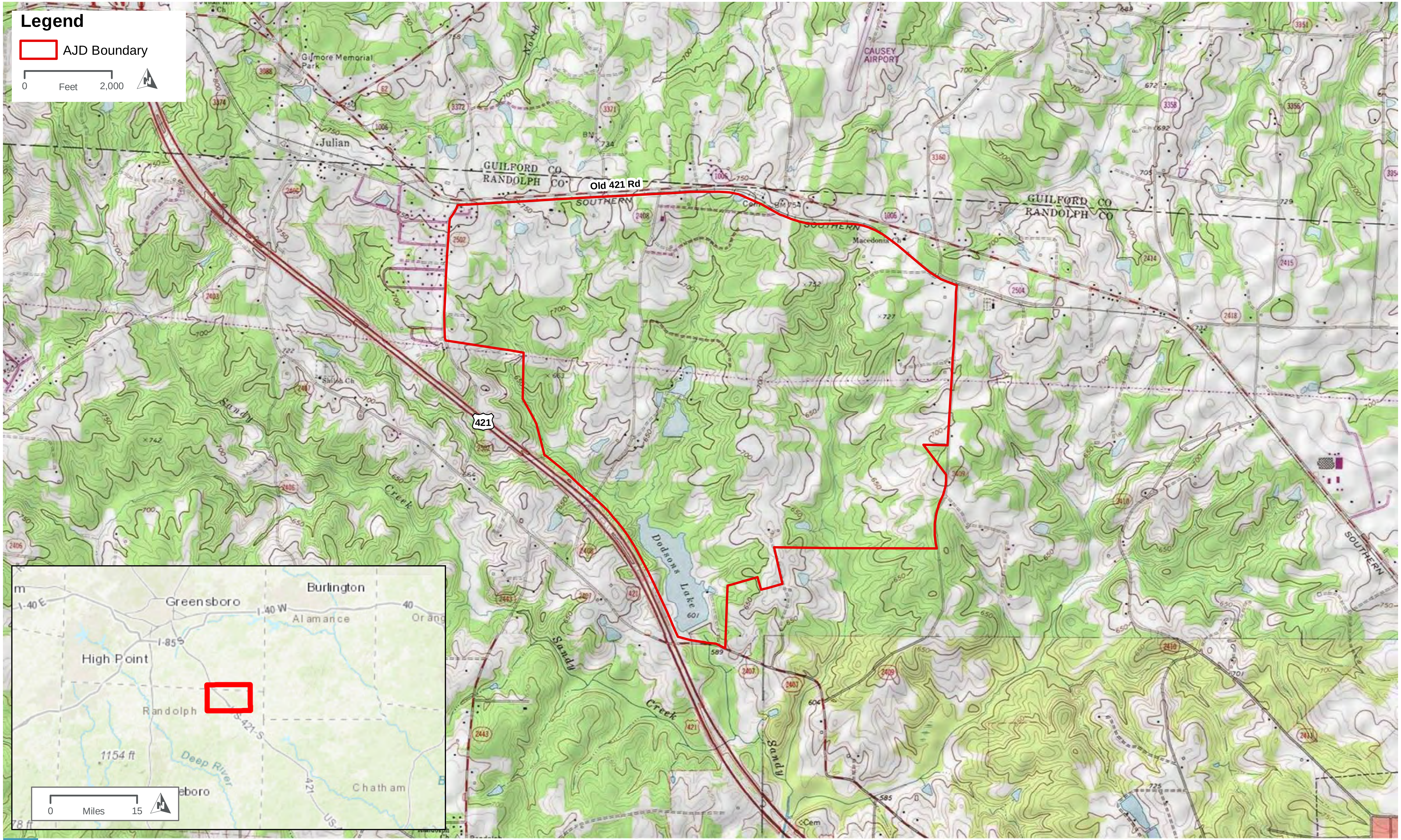
PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\AJD\FIG_1_GRMS_VICINITY_MAP_050118.MXD - USER: JGARVEY - DATE: 5/1/2018



AERIAL PHOTOGRAPHY MAP

FIGURE 2

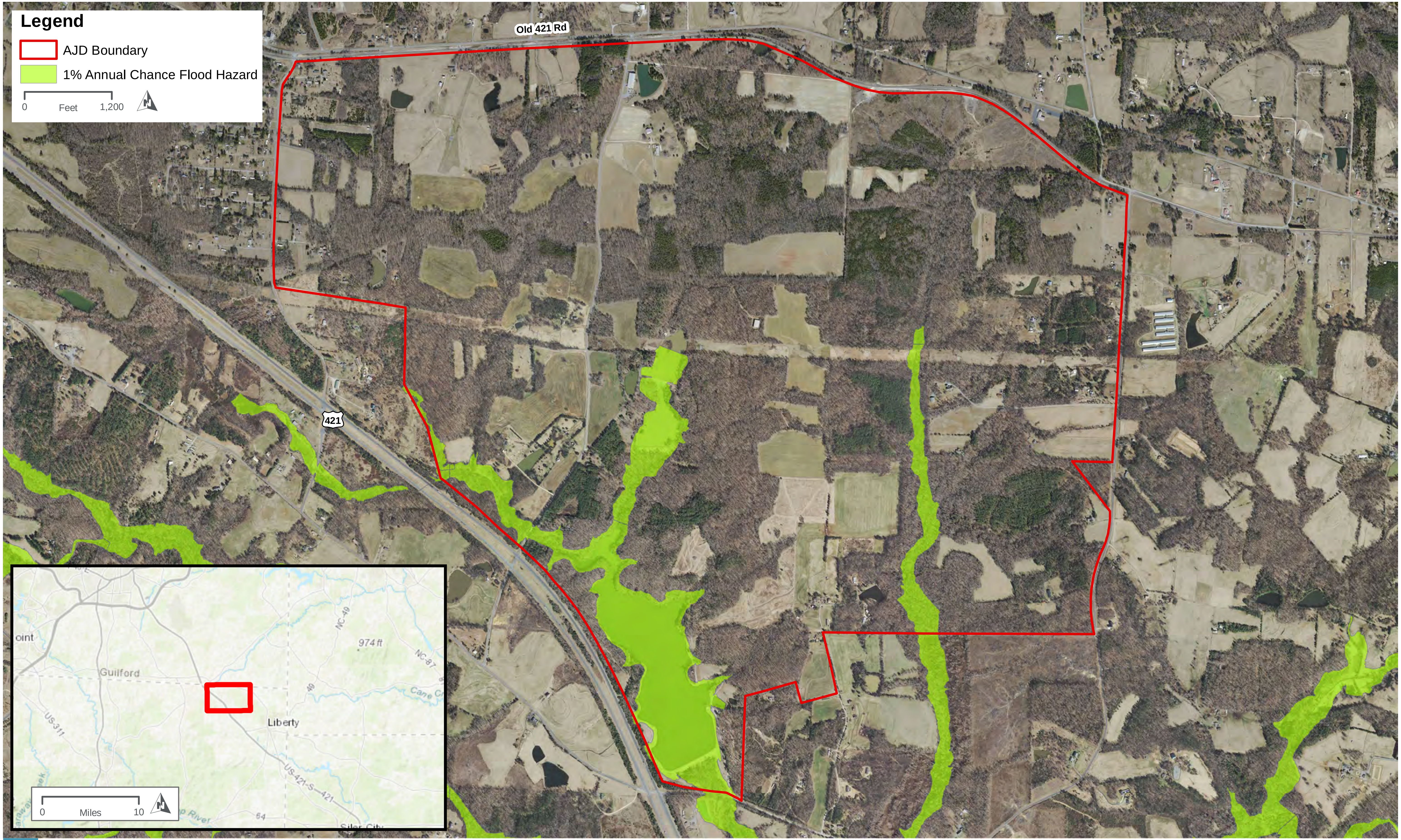
PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\AJD\FIG_2_GRMS_AERIAL_MAP_050118.MXD - USER: JGARVEY - DATE: 5/1/2018



USGS TOPOGRAPHIC MAP

FIGURE 3

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\AJD\FIG_3_GRMS_USGS_MAP_050118.MXD - USER: JGARVEY - DATE: 5/1/2018



FEMA FLOODPLAIN MAP

FIGURE 7

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\AJD\FIG_7_GRMS_FEMA_MAP_050118.MXD - USER: JGARVEY - DATE: 5/1/2018

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ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	VICKIE M. MILLER, AICP, PWS
PROJECT PRINCIPAL	PAUL MEEHAN, PE
PROJECT ENGINEER	DAVID BAKER, PE
DESIGN ENGINEER	
DRAWN BY	
CHECKED BY	
PROJECT NUMBER	

GREENSBORO RANDOLPH MEGASITE FOUNDATION

GREENSBORO RANDOLPH MEGASITE
RANDOLPH COUNTY, NORTH CAROLINA

OVERALL SITE PLAN

0 500' 1000'

FILENAME	01X-04.dwg
SCALE	1" = 600'

SHEET
01X-04

C:\pwworking\east01\d0394127\01X-04.dwg, Overall Site Plan, 11/9/2021 1:55:54 PM, JTURLEY

N

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT POND IMPACT
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT

0 2000' 4000'

SCALE: 1" = 2000'

HDR

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PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE 10/13/2021

SHEET 01X-01

Wetland Impacts

Impact Number	Sheet Number	Wetland ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Type of Wetland (Cowardin)	Area of Permanent Impact (acres)	Area of Temporary Impact (acres)
W5.1	5	W38	35.899726	-79.639533	Fill	PFO	0.03	0
W5.2	5	W40A	35.899484	-79.637939	Fill	PFO	0.04	0
W6.1	6	W5	35.900708	-79.631982	Fill	PFO	0.13	0
W6.2	6	W5	35.90116	-79.631542	Fill	PFO	0.19	0
W7.1	7	W22	35.899693	-79.621614	Fill	PFO	0.15	0
W8.1	8	W21	35.899757	-79.617328	Fill	PFO	0.24	0
W8.2	9	W23	35.899944	-79.619257	Fill	PFO	0.25	0
W9.1	9	W40A	35.899385	-79.637886	Fill	PFO	0.02	0
W9.2	9	W40B	35.89895	-79.637536	Fill	PFO	0.02	0
W9.3	9	W37	35.898692	-79.637031	Fill	PFO	0.14	0
W9.4	9	W43	35.898455	-79.638564	Fill	PFO	0.05	0
W9.5	9	W45	35.897286	-79.638822	Fill	PFO	0.01	0
W11.1	11	W6	35.895595	-79.628154	Fill	PFO	0.02	0
W11.2	11	W7	35.895927	-79.626777	Fill	PFO	0.06	0
W11.3	11	W8	35.896215	-79.626185	Fill	PFO	0.05	0
W11.4	11	W22	35.899311	-79.621553	Fill	PFO	0.16	0
W12.1	12	W22	35.899009	-79.620748	Fill	PFO	0.07	0
W12.2	12	W20	35.898556	-79.619025	Fill	PFO	0.10	0
W12.3	12	W21	35.899209	-79.618469	Fill	PFO	0.09	0
W12.4	12	W24	35.897575	-79.618322	Fill	PFO	0.22	0
W13.1	13	W18A	35.893583	-79.638916	Fill	PFO	0.13	0
W13.2	13	W19	35.893997	-79.63887	Fill	PFO	0.14	0
W13.3	13	WB	35.891922	-79.638696	Fill	PFO	0.07	0

Wetland Impacts

Impact Number	Sheet Number	Wetland ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Type of Wetland (Cowardin)	Area of Permanent Impact (acres)	Area of Temporary Impact (acres)
W14.1	14	W9	35.891063	-79.63342	Fill	PFO	0.34	0
W14.2	14	W12	35.892202	-79.631077	Fill	PFO	0.26	0
W15.1	15	W35	35.891018	-79.624455	Fill	PEM	0.25	0
W15.2	15	W25	35.893418	-79.622393	Fill	PFO	0.24	0
W16.1	16	W28	35.890797	-79.616121	Fill	PFO	0.05	0
W16.2	16	W31	35.892481	-79.615397	Fill	PFO	0.54	0
W16.3	16	HDR WG	35.890983	-79.620098	Fill	PEM	0.11	0
W16.4	16	HDR WH	35.892429	-79.619589	Fill	PFO	0.67	0
W17.1	17	W44	35.889785	-79.638849	Fill	PFO	0.03	0
W17.2	17	W3	35.888035	-79.636276	Fill	PFO	0.26	0
W18.1	18	W9	35.890581	-79.633293	Fill	PFO	0.07	0
W18.2	18	W10	35.889553	-79.63211	Fill	PFO	0.16	0
W18.3	18	W13	35.887305	-79.6319	Fill	PFO	0.14	0
W18.4	18	W3	35.888035	-79.636276	Fill	PFO	0.00	0
W19.1	19	W34	35.889395	-79.624701	Fill	PFO	0.24	0
W19.2	19	W14	35.888443	-79.625216	Fill	PFO	0.12	0
W19.3	19	HDR WF	35.888548	-79.621506	Fill	PFO	0.15	0
W20.1	20	W28	35.8901	-79.616452	Fill	PFO	0.78	0
W20.2	20	W32	35.88899	-79.618632	Fill	PFO	0.19	0
W20.3	20	HDR WE	35.888498	-79.619415	Fill	PFO	1.84	0
W23.1	23	WW	35.88402	-79.625738	Fill	PEM	0.15	0
W24.1	24	HDR WB	35.884777	-79.61877	Fill	PFO/PEM	0.12	0
						Total	9.07	0

NOTE:

1. ALL FEATURES ARE WITHIN DEEP RIVER WATERSHED.

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PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE 10/13/2021

SHEET 01X-02

Stream Impacts

Impact Number	Sheet Number	Stream ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Perennial (P) or Intermittent (I)	Average Stream Width (feet)	Permanent Impact Length (linear feet)	Temporary Impact Length (linear feet)	Impact Area (square feet)
S5.1	5	SK	35.900393	-79.636643	Fill	P	2	25	0	50
S5.2	5	S45	35.899868	-79.636795	Fill	P	4	492	0	1968
S5.3	6	S15	35.901476	-79.643903	Fill	P	5	34	39	195
S6.1	6	S7	35.899976	-79.631308	Fill	P	3	633	0	1899
S6.2	6	S1	35.900243	-79.629132	Fill	P	4	485	0	1939
S7.1	7	S5	35.899765	-79.627353	Fill	I	4	203	0	812
S8.1	8	S22	35.899567	-79.617489	Fill	P	3	79	0	237
S9.1	9	S43/S43B	35.898866	-79.63863	Fill	P	4	768	0	3072
S9.2	9	S45	35.898184	-79.63787	Fill	P	4	2363	0	9452
S9.3	9	S51	35.899288	-79.63773	Fill	I	3	81	0	243
S9.4	9	S48	35.898246	-79.643552	Fill	I	3	45	55	165
S10.1	10	S1	35.8963	-79.629804	Fill	P	4	2191	0	8762
S10.2	10	S7	35.898253	-79.630498	Fill	P	3	1092	0	3276
S10.3	10	S4	35.89849	-79.628489	Fill	P	4	65	0	260
S10.4	10	SA	35.897881	-79.628559	Fill	I	3	116	0	348
S10.5	10	S9	35.89546	-79.629054	Fill	I	4	601	0	2404
S10.6	10	S8	35.897307	-79.631058	Fill	I	3	588	0	1764
S11.1	11	S4	35.898854	-79.62792	Fill	P	4	323	0	1292
S11.1	11	S4	35.899	-79.6277	Fill	I	4	455	0	1820
S11.2	11	SA	35.897975	-79.628114	Fill	I	3	175	0	525
S11.3	11	S9	35.895803	-79.627567	Fill	I	4	758	0	3032
S11.4	11	S20	35.89911	-79.621146	Fill	P	3	124	0	372
S11.5	11	S5	35.899273	-79.62751	Fill	I	4	163	0	652
S12.1	12	S20	35.898865	-79.619771	Fill	P	3	949	0	2847
S12.2	12	S22	35.899087	-79.618008	Fill	P	3	330	0	990
S12.3	12	S21	35.896637	-79.618448	Fill	P	4	1689	0	6756
S12.4	12	S23	35.897961	-79.618066	Fill	I	3	76	0	228
S13.1	13	S45	35.892807	-79.639112	Fill	P	4	2140	0	8560
S13.2	13	SY	35.893981	-79.638491	Fill	I	3	107	0	321
S14.1	14	S1	35.893918	-79.630228	Fill	P	4	1419	0	5676

Stream Impacts

Impact Number	Sheet Number	Stream ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Perennial (P) or Intermittent (I)	Average Stream Width (feet)	Permanent Impact Length (linear feet)	Temporary Impact Length (linear feet)	Impact Area (square feet)
S15.1	15	S25	35.893404	-79.621706	Fill	P	3	410	0	1230
S15.2	15	S26	35.893629	-79.621324	Fill	I	3	163	0	489
S15.3	15	HDR S9	35.890773	-79.623656	Fill	I	3	222	0	666
S16.1	16	S25/S25R	35.893092	-79.620224	Fill	P	3	541	0	1623
S16.2	16	S35	35.891276	-79.615761	Fill	P	4	483	0	1932
S16.3	16	S21	35.892261	-79.619717	Fill	P	4	1918	0	7671
S17.1	17	S45	35.889256	-79.639931	Fill	P	4	861	65	260
S17.2	17	S44	35.889771	-79.639514	Fill	P	3	756	0	2268
S18.1	18	S12B	35.8868	-79.632719	Fill	P	3	162	0	486
S18.2	18	S1	35.886749	-79.63223	Fill	P	4	752	0	3009
S18.3	18	S11	35.887125	-79.631796	Fill	P	3	232	0	696
S19.1	19	HDR S9	35.888223	-79.624394	Fill	I	3	1484	0	4451
S20.1	20	S35	35.889298	-79.617801	Fill	P	4	1443	0	5772
S20.2	20	S21	35.890149	-79.619916	Fill	P	4	1728	0	6912
S20.3	20	HDR S9	35.88684	-79.619587	Fill	I	3	417	0	1251
S20.4	20	S30	35.887667	-79.616619	Fill	P	3	1708	45	135
S20.5	20	S31	35.888347	-79.614963	Fill	I	3	29	54	162
S20.5	20	S31	35.888347	-79.614963	Fill	P	3	187	0	561
S22.1	22	S1	35.885936	-79.633011	Fill	P	4	406	41	164
S23.1	23	S17	35.883641	-79.626236	Fill	P	3	572	55	165
S24.1	24	S21	35.885824	-79.619151	Fill	P	4	346	0	1384
S24.2	24	S30	35.884555	-79.619164	Fill	P	3	2240	40	120
S24.3	24	HDR S4	35.885421	-79.619586	Fill	I	4	450	0	1800
S24.4	24	HDR S3	35.884454	-79.618546	Fill	P	3	412	0	1236
S24.4	24	HDR S3	35.884454	-79.618546	Fill	I	3	422	0	1266
S24.5	24	HDR S5	35.884665	-79.619115	Fill	I	3	71	0	213
S26.1	26	HDR S2	35.881433	-79.618688	Fill	P	3	68	47	141
						Perennial Total		30,426	332	93,368
						Intermittent Total		6,626	109	22,612
						Stream Impact Total		37,052	441	115,980

NOTE:

1. ALL FEATURES ARE WITHIN DEEP RIVER WATERSHED.

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PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE 10/13/2021

SHEET 01X-03

Open Water Impacts

Impact Number	Sheet Number	Name of Waterbody	Lat. (decimal degrees)	Long. (decimal degrees)	Permanent (P) or Temporary (T)	Type of Impact	Waterbody Type	Impact Area (acres)
P5.1	5	P6	35.901573	-79.639568	P	Fill	Pond	0.17
P5.2	5	P7	35.900787	-79.639578	P	Fill	Pond	1.39
P5.3	5	P8	35.899457	-79.639504	P	Fill	Pond	0.02
P5.4	5	P2	35.9007	-79.643849	P	Fill	Pond	1.35
P6.1	6	P10	35.9015	-79.632445	P	Fill	Pond	2.02
P7.1	7	P11	35.899604	-79.626451	P	Fill	Pond	0.17
P9.1	9	P8	35.899102	-79.639228	P	Fill	Pond	0.42
P11.1	11	P11	35.899425	-79.626452	P	Fill	Pond	0.05
P13.1	13	P9	35.892186	-79.638263	P	Fill	Pond	0.20
P14.1	14	P13	35.891276	-79.631086	P	Fill	Pond	3.77
P16.1	16	PC	35.893643	-79.614573	P	Fill	Pond	0.81
P17.1	17	P16	35.887874	-79.636668	P	Fill	Pond	0.39
P17.2	17	P17	35.887099	-79.637608	P	Fill	Pond	1.37
P18.1	18	P13	35.890413	-79.631492	P	Fill	Pond	1.88
P18.2	18	P15	35.888409	-79.631574	P	Fill	Pond	6.32
P18.3	18	P14	35.890026	-79.633032	P	Fill	Pond	1.21
							Total	21.54

Indirect - Stream Impacts

Impact Number	Sheet Number	Stream ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Perennial (P) or Intermittent (I)	Average Stream Width (feet)	Permanent Impact Length (linear feet)	Temporary Impact Length (linear feet)	Impact Area (square feet)
S6.2	6	S1	35.9005	-79.629	Indirect	P	4	208	0	832
S6.3	6	S1	35.8971	-79.6295	Indirect	I	4	632	0	2528
S6.4	6	S2	35.9014	-79.6285	Indirect	I	3	256	0	768
S7.2	7	S2	35.9014	-79.6285	Indirect	I	3	378	0	1134
S5.3	5	S43A	35.9019	-79.6400	Indirect	I	3	212	0	636
							Total	1686	0	5898

Indirect - Open Water Impacts

Impact Number	Sheet Number	Name of Waterbody	Lat. (decimal degrees)	Long. (decimal degrees)	Permanent (P) or Temporary (T)	Type of Impact	Waterbody Type	Impact Area (acres)
P5.5	5	P5	35.9024	-79.6401	P	Indirect	Pond	0.09
P7.2	7	P12	35.9027	-79.627	P	Indirect	Pond	0.69
							Total	0.78

Indirect - Wetland Impacts

Impact Number	Sheet Number	Wetland ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Type of Wetland (Cowardin)	Area of Permanent Impact (acres)	Area of Temporary Impact (acres)
W7.2	7	WA	35.902	-79.6281	Indirect	PFO	0.01	0
W6.3	6	W1	35.9011	-79.6287	Indirect	PFO	0.07	0
W5.3	5	W39	35.9024	-79.6405	Indirect	PFO	0.29	0
						Total	0.37	0

NOTE:

1. ALL FEATURES ARE WITHIN DEEP RIVER WATERSHED.

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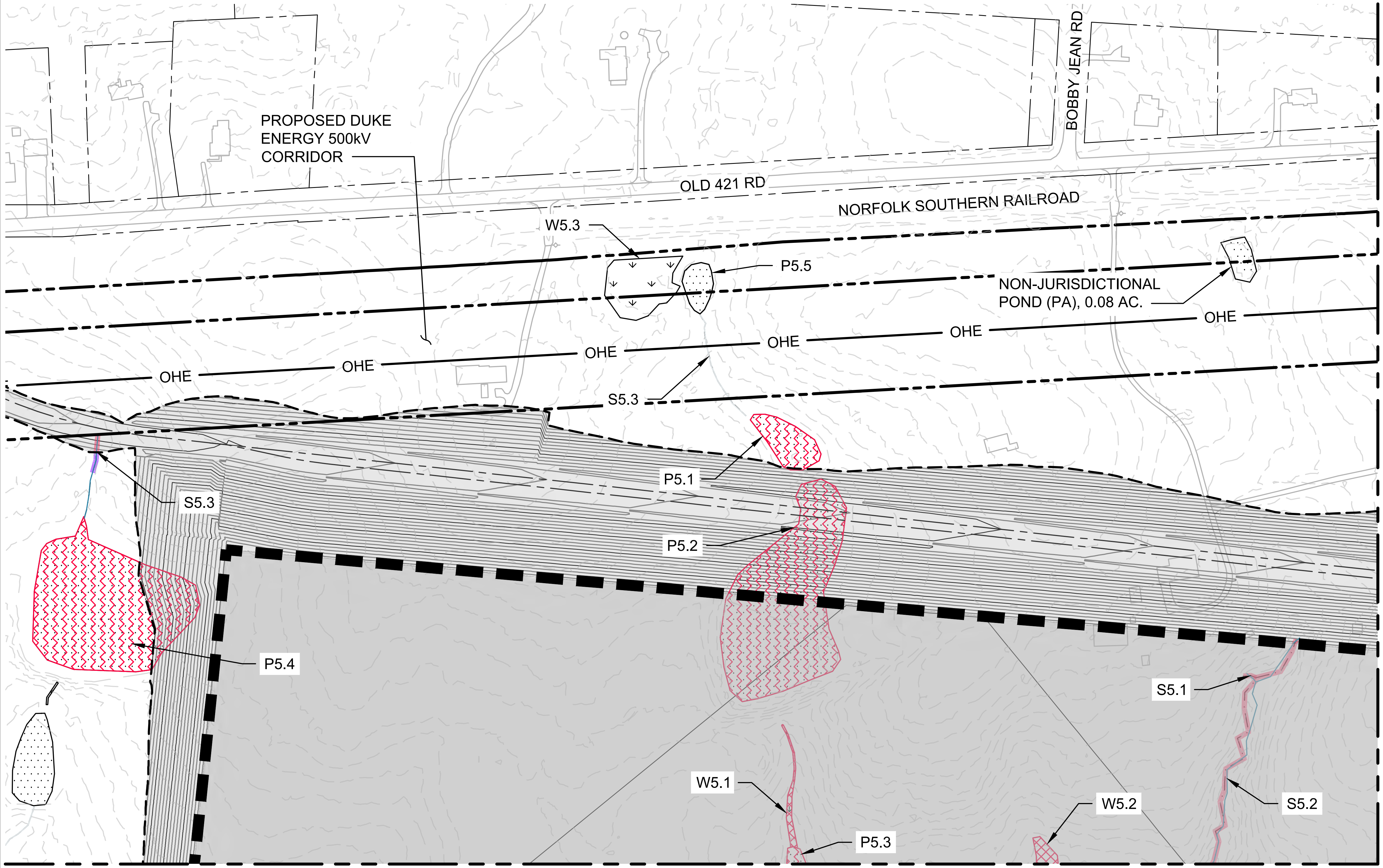
PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE 10/13/2021

SHEET 01X-04



GENERAL NOTES:

1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W5.1	W38	Fill	0.03	0
W5.2	W40A	Fill	0.04	0
		Total	0.07	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P5.1	P6	Fill	0.17
P5.2	P7	Fill	1.39
P5.3	P8	Fill	0.02
P5.4	P2	Fill	1.35
		Total	2.93

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S5.1	SK	Fill	25	0
S5.2	S45	Fill	492	0
S5.3	S15	Fill	34	39
		Total	551	39

Indirect - Open Water Impacts

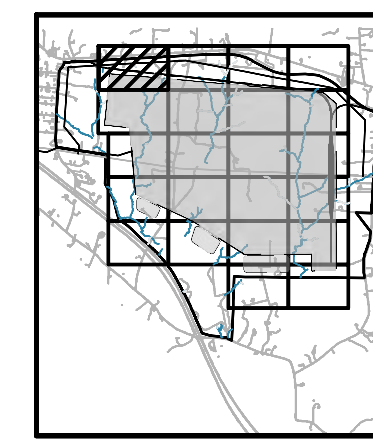
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
P5.5	P5	Indirect	0.09	0
		Total	0.09	0

Indirect - Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W5.3	W39	Indirect	0.29	0
		Total	0.29	0

Indirect - Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S5.3	S43A	Indirect	212	0
		Total	212	0



KEY MAP

NOT TO SCALE

0 200' 400'

SCALE: 1" = 200'

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PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE 10/13/2021

SHEET 01X-05

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GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W6.1	W5	Fill	0.13	0
W6.2	W5	Fill	0.19	0
		Total	0.32	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P6.1	P10	Fill	2.02
		Total	2.02

Perennial Stream Impacts

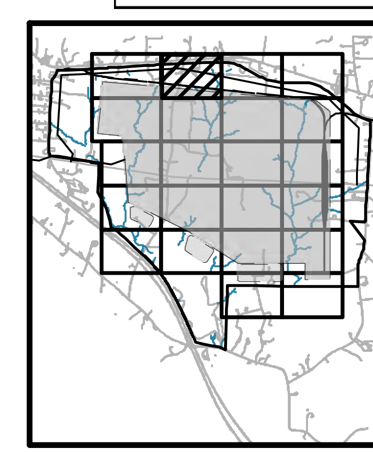
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S6.1	S7	Fill	633	0
S6.2	S1	Fill	485	0
		Total	1118	0

Indirect - Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S6.2	S1	Fill	208	0
S6.3	S1	Indirect	632	0
S6.4	S2	Indirect	256	0
Total			1096	0

Indirect - Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W6.3	W1	Indirect	0.07	0
Total			0.07	0



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
01X-06

N

GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W7.1	W22	Fill	0.15	0
		Total	0.15	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P7.1	P11	Fill	0.17
		Total	0.17

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S7.1	S5	Fill	203	0
		Total	203	0

Indirect - Stream Impacts

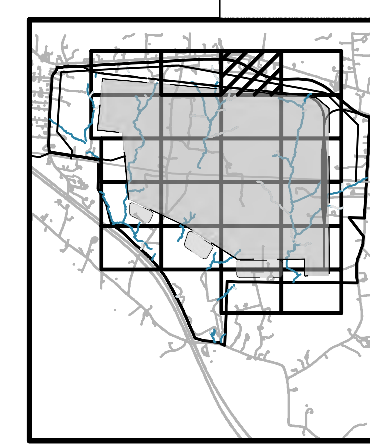
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S7.2	S2	Indirect	378	0
		Total	378	0

Indirect - Open Water Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
P7.2	P12	Indirect	0.69	0
		Total	0.69	0

Indirect - Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W7.2	WA	Indirect	0.01	0
		Total	0.01	0



KEY MAP
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SITE PLAN
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
01X-07

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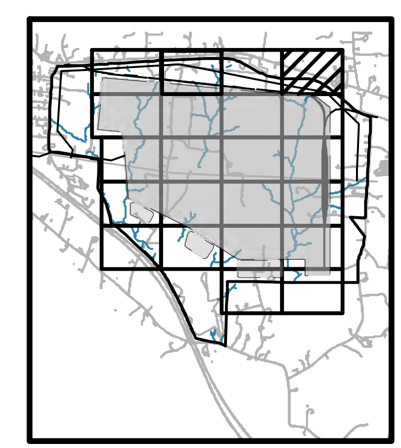
GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W8.1	W21	Fill	0.24	0
W8.2	W23	Fill	0.25	0
		Total	0.49	0

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S8.1	S22	Fill	79	0
		Total	79	0



KEY MAP
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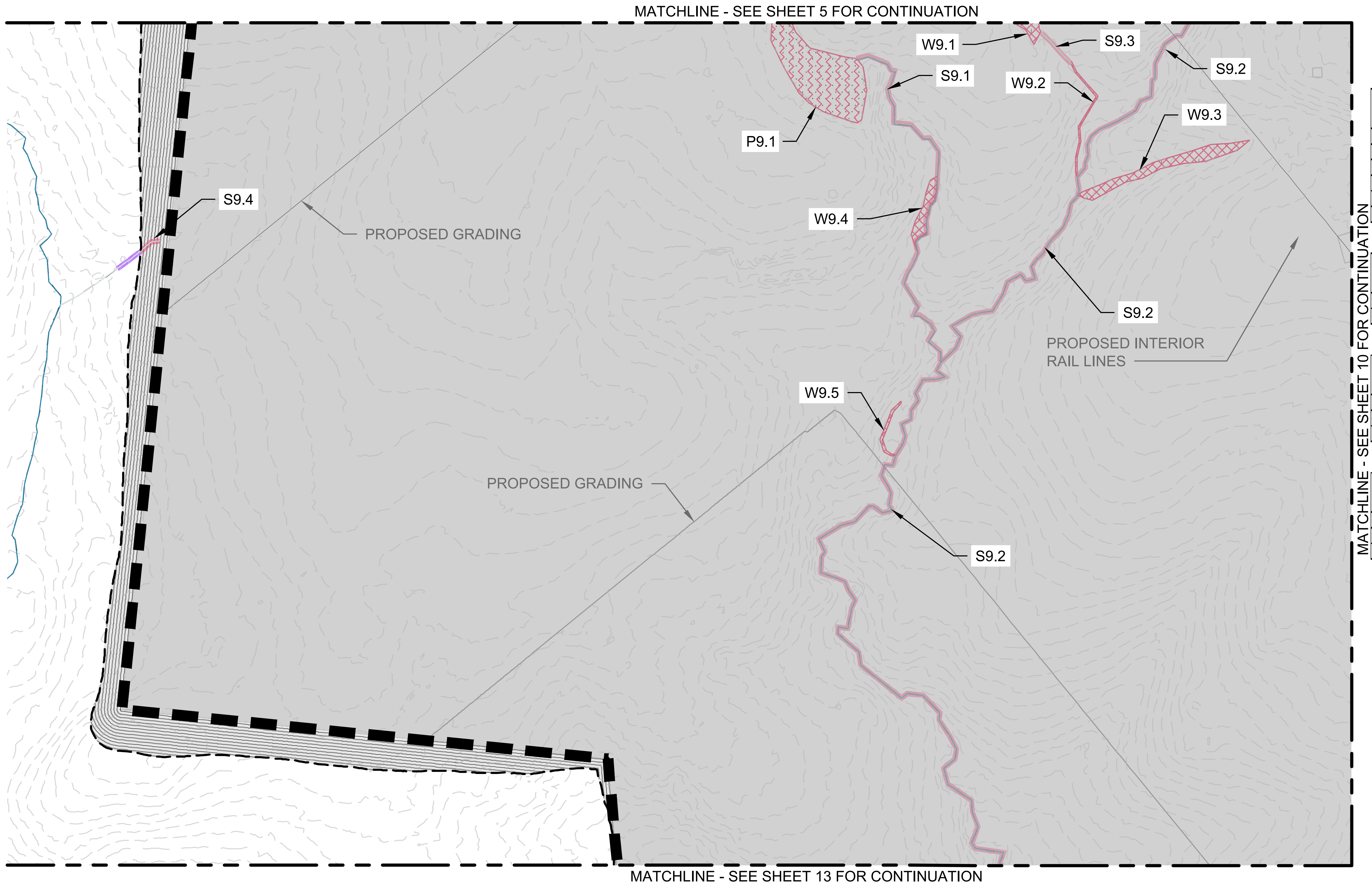
DATE 10/13/2021

SHEET 01X-08



GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W9.1	W40A	Fill	0.02	0
W9.2	W40B	Fill	0.02	0
W9.3	W37	Fill	0.14	0
W9.4	W43	Fill	0.05	0
W9.5	W45	Fill	0.01	0
		Total	0.24	0

Pond Impacts

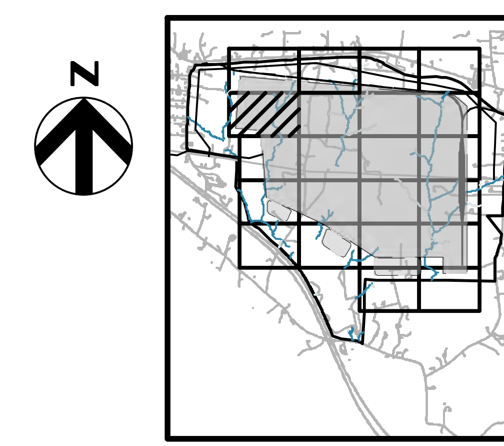
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P9.1	P8	Fill	0.42
		Total	0.42

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S9.1	S43/S43B	Fill	768	0
S9.2	S45	Fill	2363	0
		Total	3131	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S9.3	S51	Fill	81	0
S9.4	S48	Fill	45	55
		Total	126	55



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DATE
10/13/2021

SHEET
01X-09

MATCHLINE - SEE SHEET 6 FOR CONTINUATION

MATCHLINE - SEE SHEET 9 FOR CONTINUATION

MATCHLINE - SEE SHEET 11 FOR CONTINUATION

MATCHLINE - SEE SHEET 14 FOR CONTINUATION

N

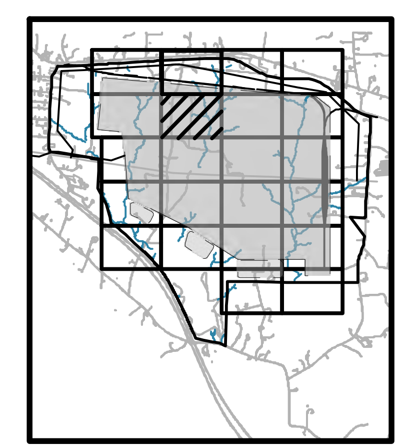
GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S10.1	S1	Fill	2191	0
S10.2	S7	Fill	1092	0
S10.3	S4	Fill	65	0
		Total	3348	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S10.4	SA	Fill	116	0
S10.5	S9	Fill	601	0
S10.6	S8	Fill	588	0
		Total	1305	



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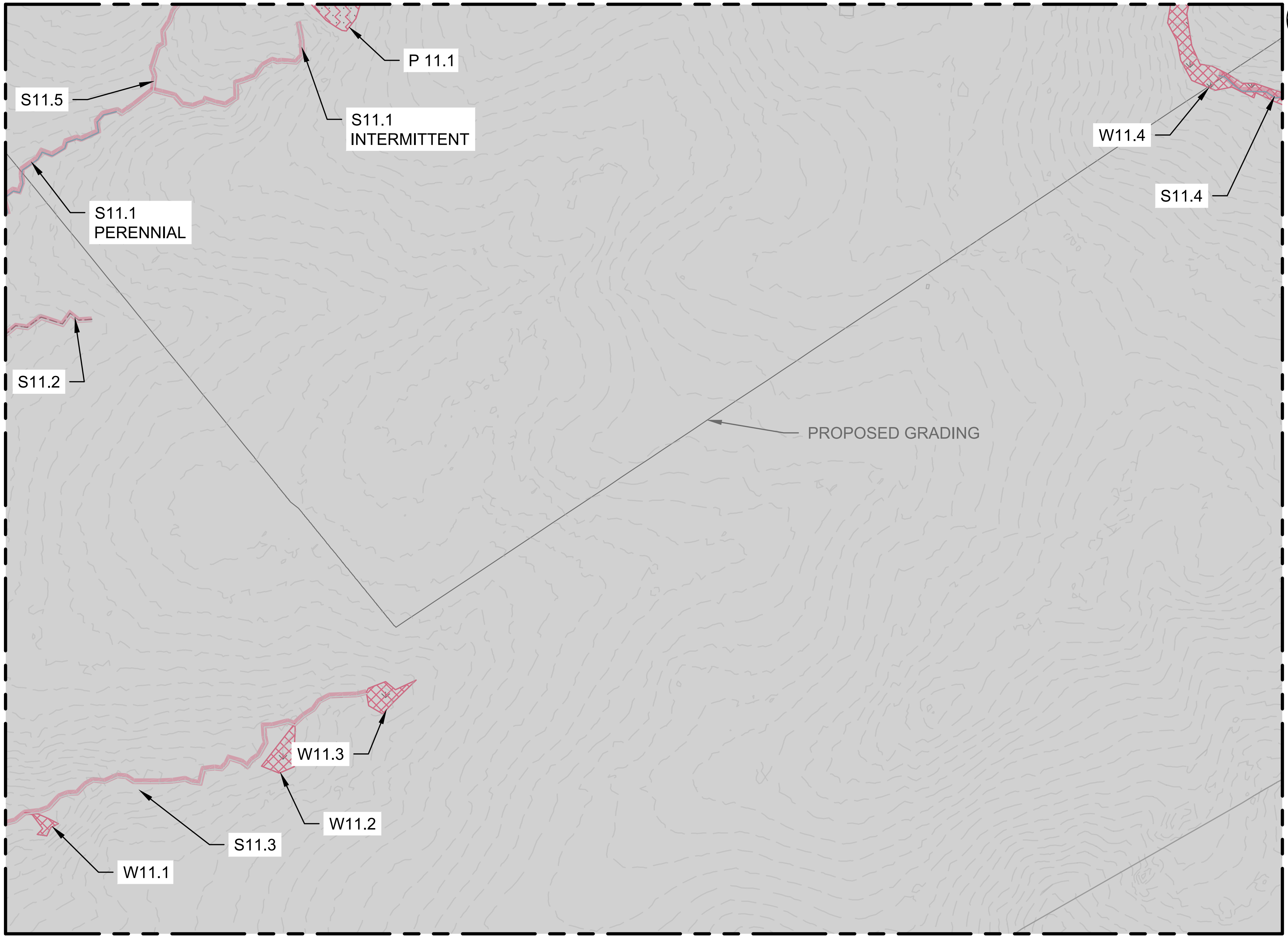
SHEET
01X-10

MATCHLINE - SEE SHEET 7 FOR CONTINUATION

MATCHLINE - SEE SHEET 10 FOR CONTINUATION



MATCHLINE - SEE SHEET 12 FOR CONTINUATION

MATCHLINE - SEE SHEET 15 FOR CONTINUATION

N

GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W11.1	W6	Fill	0.02	0
W11.2	W7	Fill	0.06	0
W11.3	W8	Fill	0.05	0
W11.4	W22	Fill	0.16	0
		Total	0.29	0

Pond Impacts

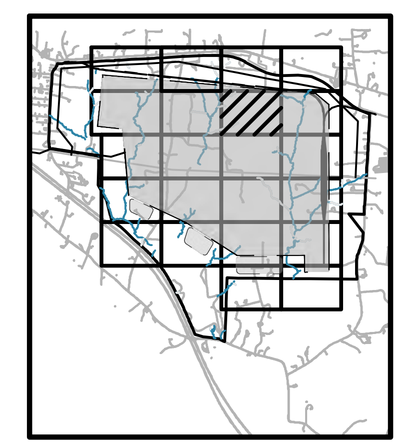
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P11.1	P11	Fill	0.05
		Total	0.05

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S11.1	S4	Fill	323	0
S11.4	S20	Fill	124	0
Total			447	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S11.1	S4	Fill	455	0
S11.2	SA	Fill	175	0
S11.3	S9	Fill	758	0
S11.5	S5	Fill	163	0
		Total	1551	0



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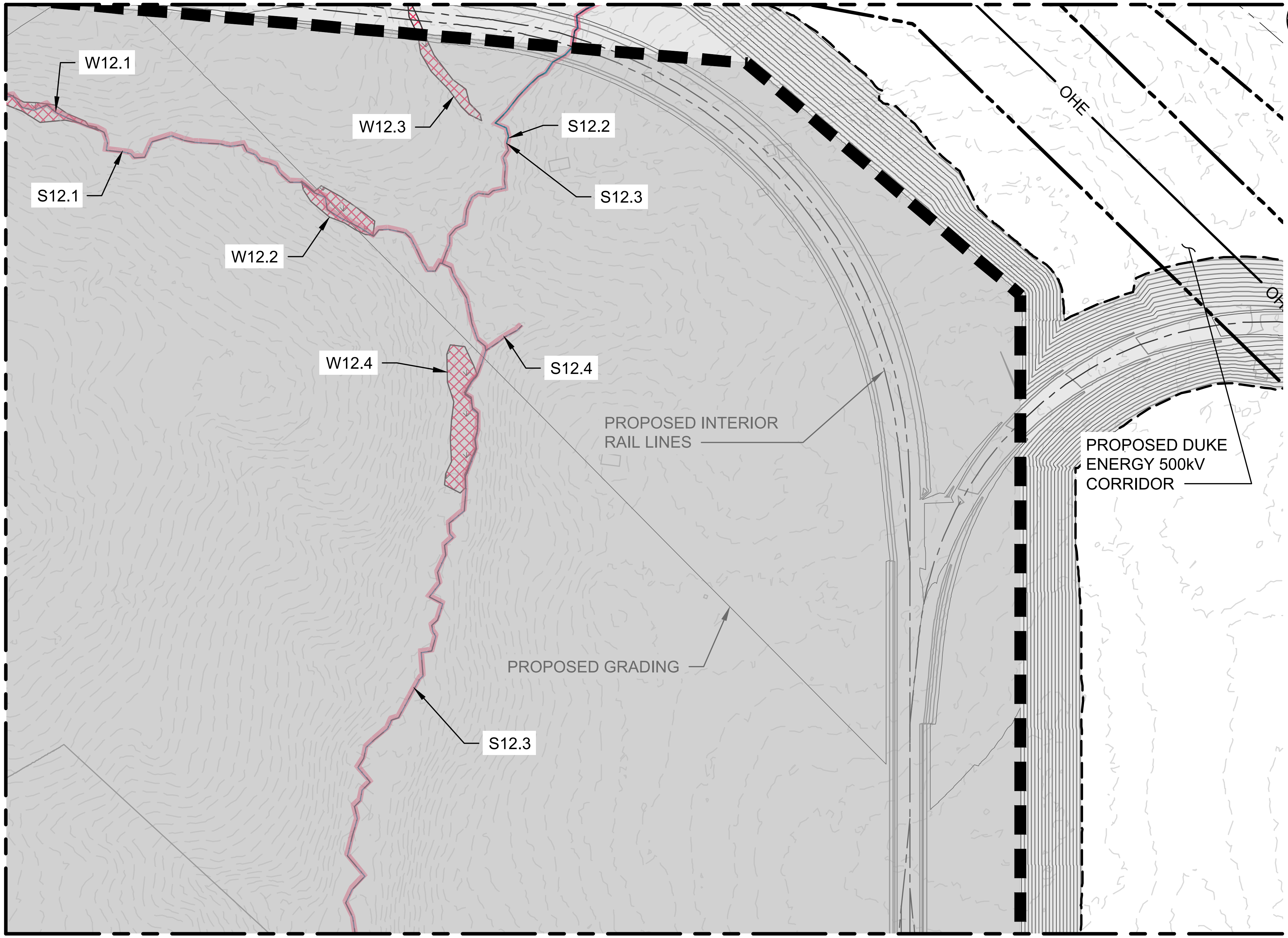
DATE
10/13/2021

SHEET
01X-11

MATCHLINE - SEE SHEET 8 FOR CONTINUATION



MATCHLINE - SEE SHEET 11 FOR CONTINUATION

MATCHLINE - SEE SHEET 16 FOR CONTINUATION

GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

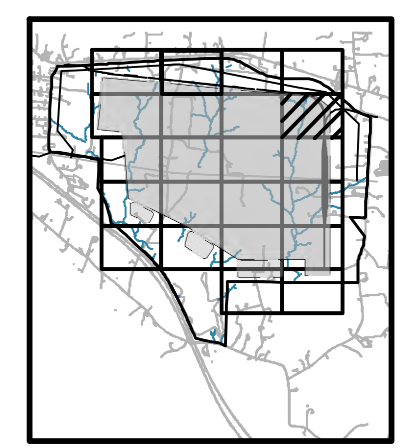
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W12.1	W22	Fill	0.07	0
W12.2	W20	Fill	0.10	0
W12.3	W21	Fill	0.09	0
W12.4	W24	Fill	0.22	0
		Total	0.47	0

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S12.1	S20	Fill	949	0
S12.2	S22	Fill	330	0
S12.3	S21	Fill	1689	0
		Total	2968	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S12.4	S23	Fill	76	0
		Total	76	0



KEY MAP
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SHEET 01X-12

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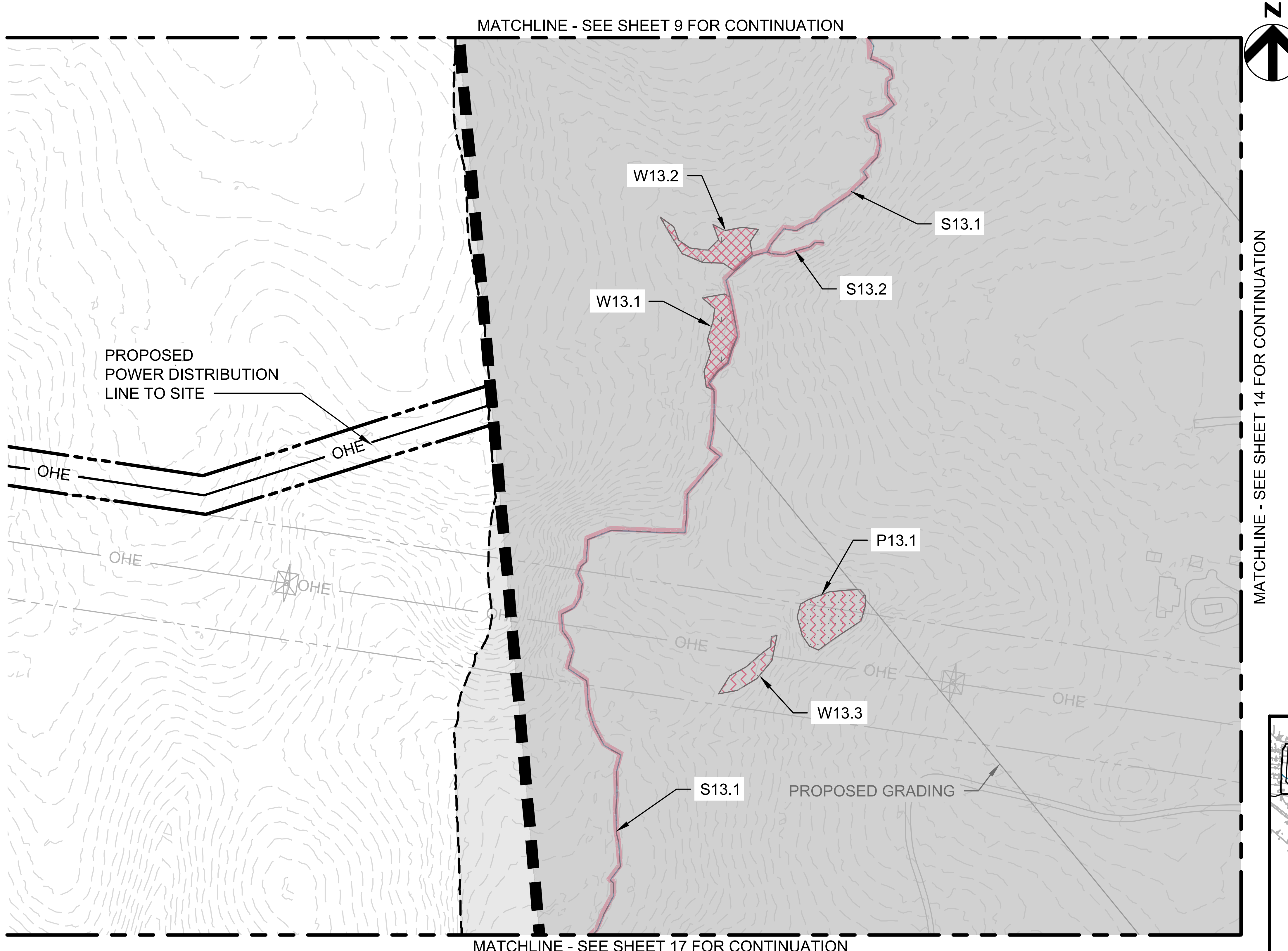
GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP



Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W13.1	W18A	Fill	0.13	0
W13.2	W19	Fill	0.14	0
W13.3	WB	Fill	0.07	0
		Total	0.34	0

Pond Impacts

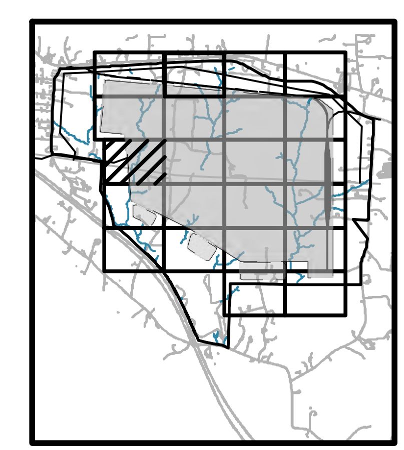
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P13.1	P9	Fill	0.20
		Total	0.20

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S13.1	S45	Fill	2140	0
		Total	2140	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S13.2	SY	Fill	107	0
		Total	107	0



KEY MAP
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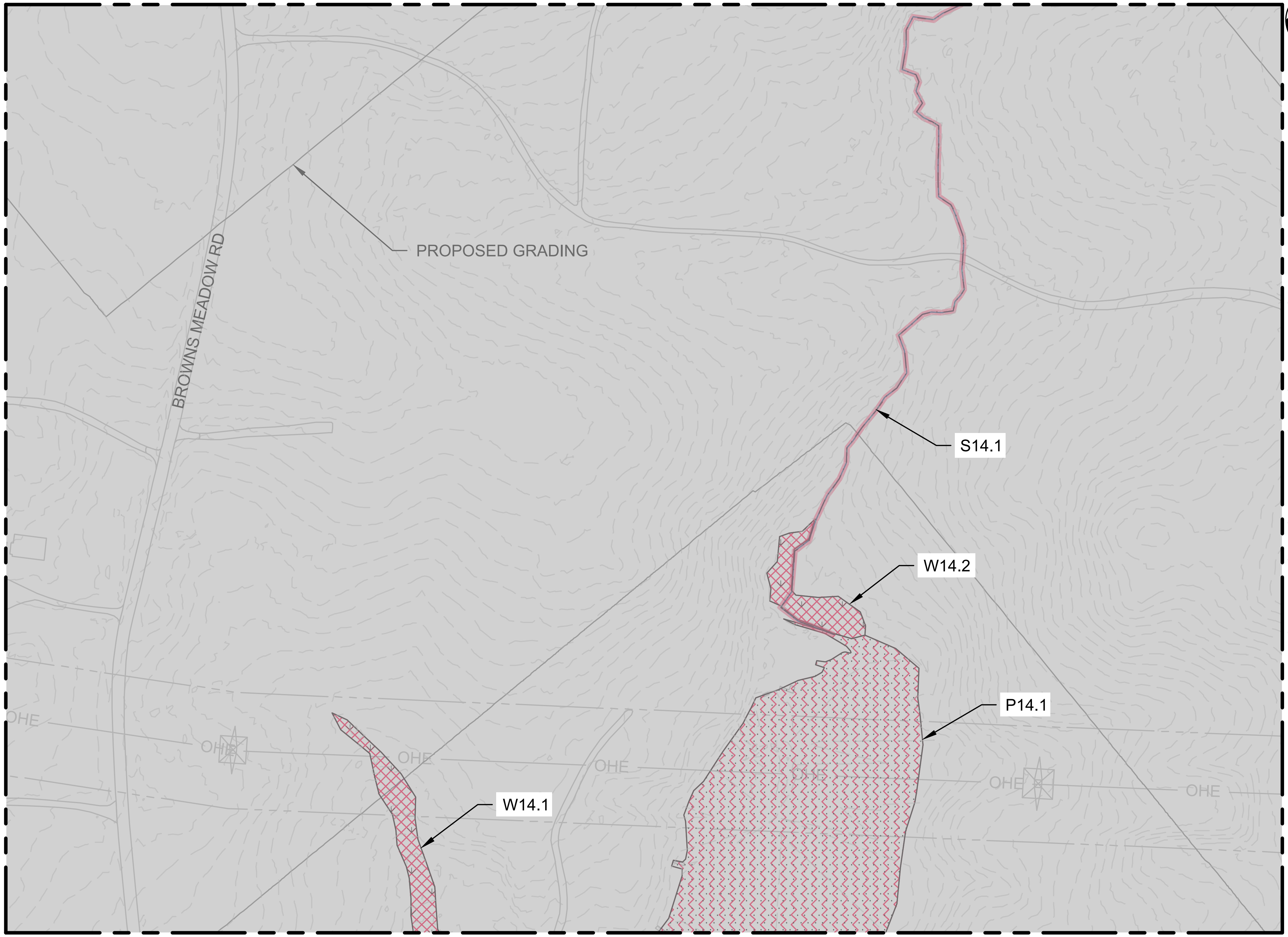
JURISDICTIONAL IMPACTS

DATE 10/13/2021

SHEET 01X-13

MATCHLINE - SEE SHEET 10 FOR CONTINUATION

MATCHLINE - SEE SHEET 13 FOR CONTINUATION



MATCHLINE - SEE SHEET 15 FOR CONTINUATION

MATCHLINE - SEE SHEET 18 FOR CONTINUATION

N

GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

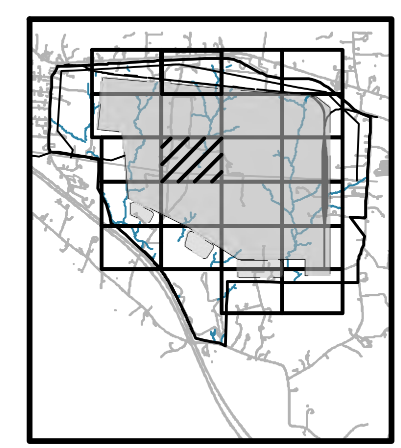
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W14.1	W9	Fill	0.34	0
W14.2	W12	Fill	0.26	0
		Total	0.60	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P14.1	P13	Fill	3.77
		Total	3.77

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S14.1	S1	Fill	1419	0
		Total	1419	0



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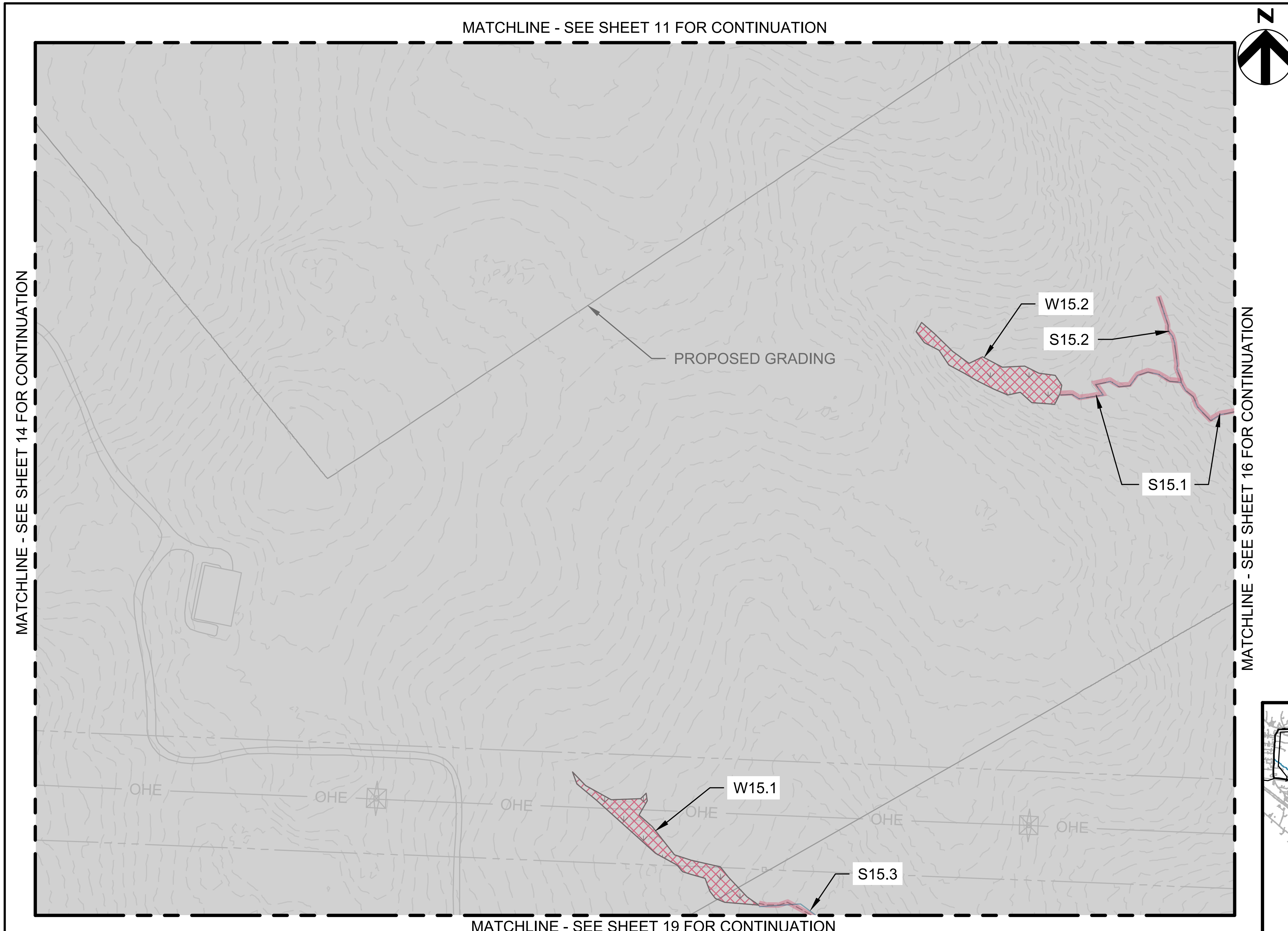
SHEET
01X-14



GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

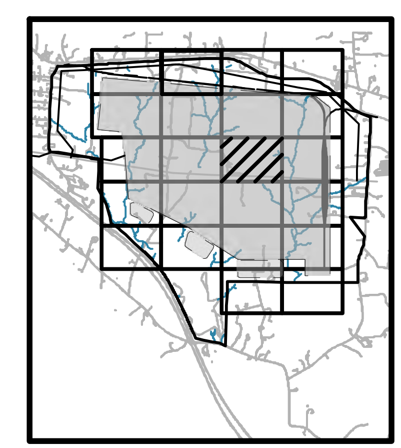
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W15.1	W35	Fill	0.25	0
W15.2	W25	Fill	0.24	0
		Total	0.49	0

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S15.1	S25	Fill	410	0
Total			410	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S15.3	HDR S9	Fill	222	0
S15.2	S26	Fill	163	0
		Total	385	0



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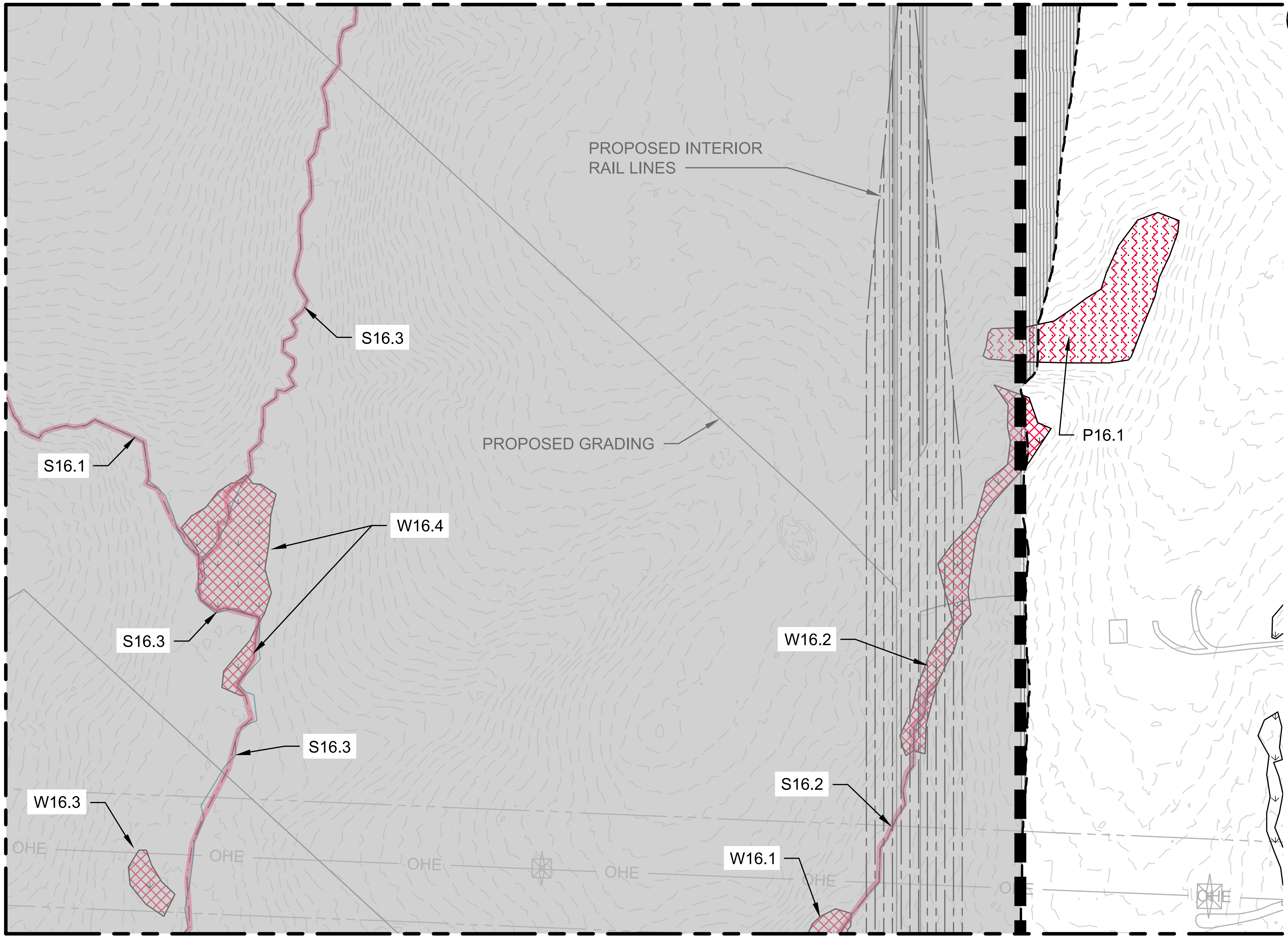
DATE 10/13/2021

SHEET 01X-15

MATCHLINE - SEE SHEET 12 FOR CONTINUATION

MATCHLINE - SEE SHEET 15 FOR CONTINUATION



MATCHLINE - SEE SHEET 20 FOR CONTINUATION

N

GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

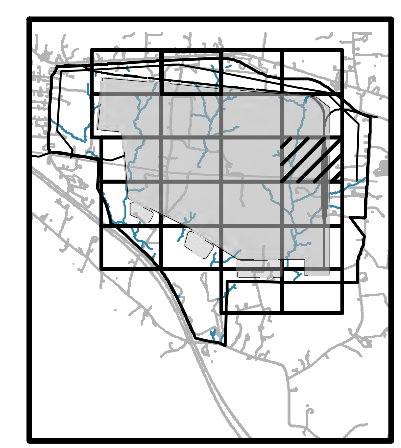
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W16.1	W28	Fill	0.05	0
W16.2	W31	Fill	0.54	0
W16.3	HDR WG	Fill	0.11	0
W16.4	HDR WH	Fill	0.67	0
		Total	1.37	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P16.1	PC	Fill	0.81
		Total	0.81

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S16.1	S25/S25R	Fill	541	0
S16.2	S35	Fill	483	0
S16.3	S21	Fill	1918	0
		Total	2942	0



KEY MAP
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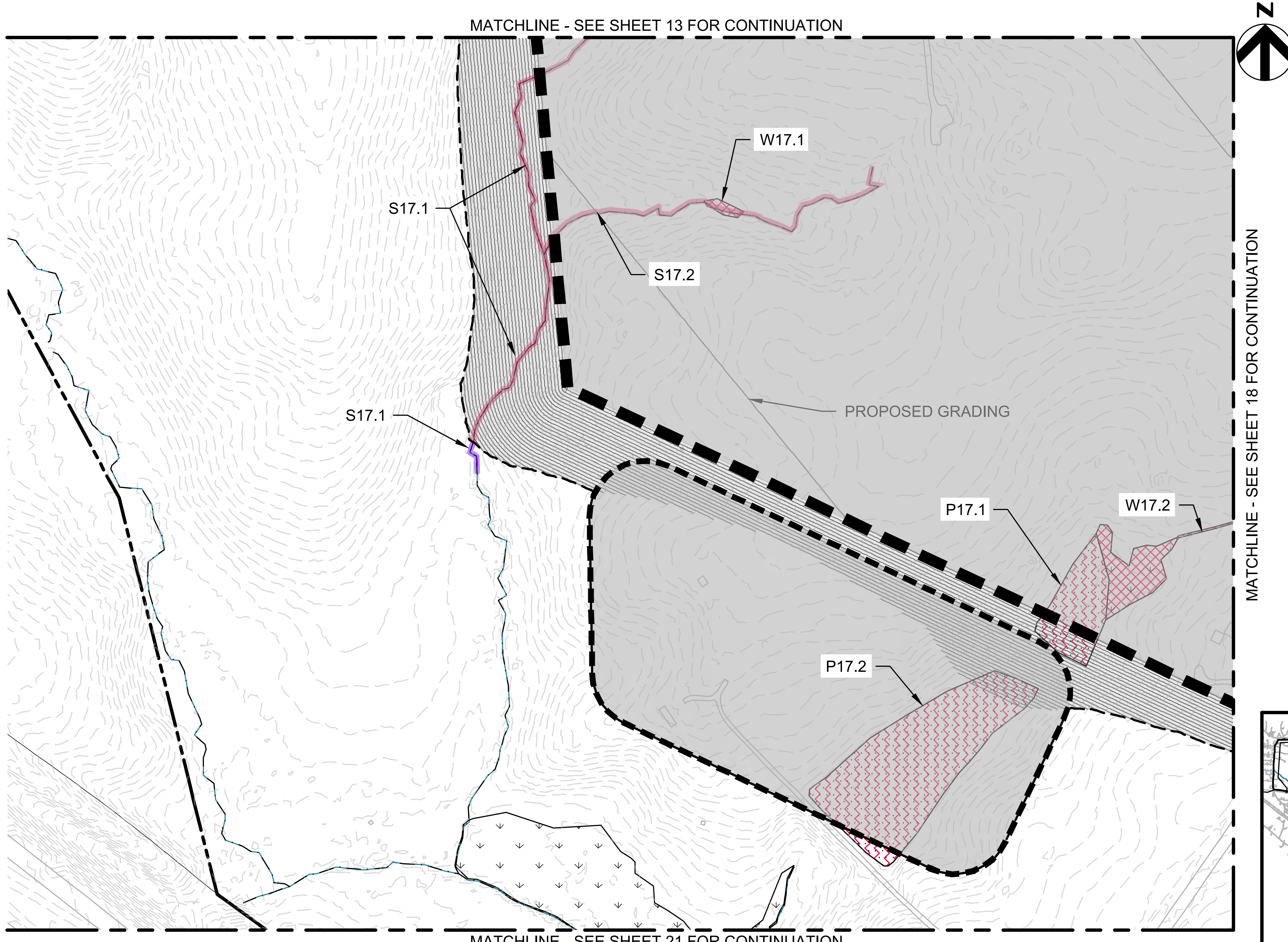


GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

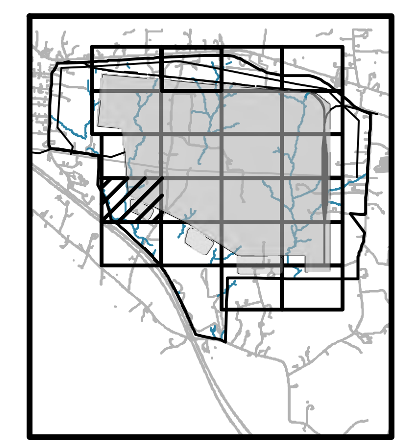
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W17.1	W44	Fill	0.03	0
W17.2	W3	Fill	0.26	0
		Total	0.29	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P17.1	P16	Fill	0.39
P17.2	P17	Fill	1.37
		Total	1.76

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S17.1	S45	Fill	861	65
S17.2	S44	Fill	756	0
		Total	1617	65



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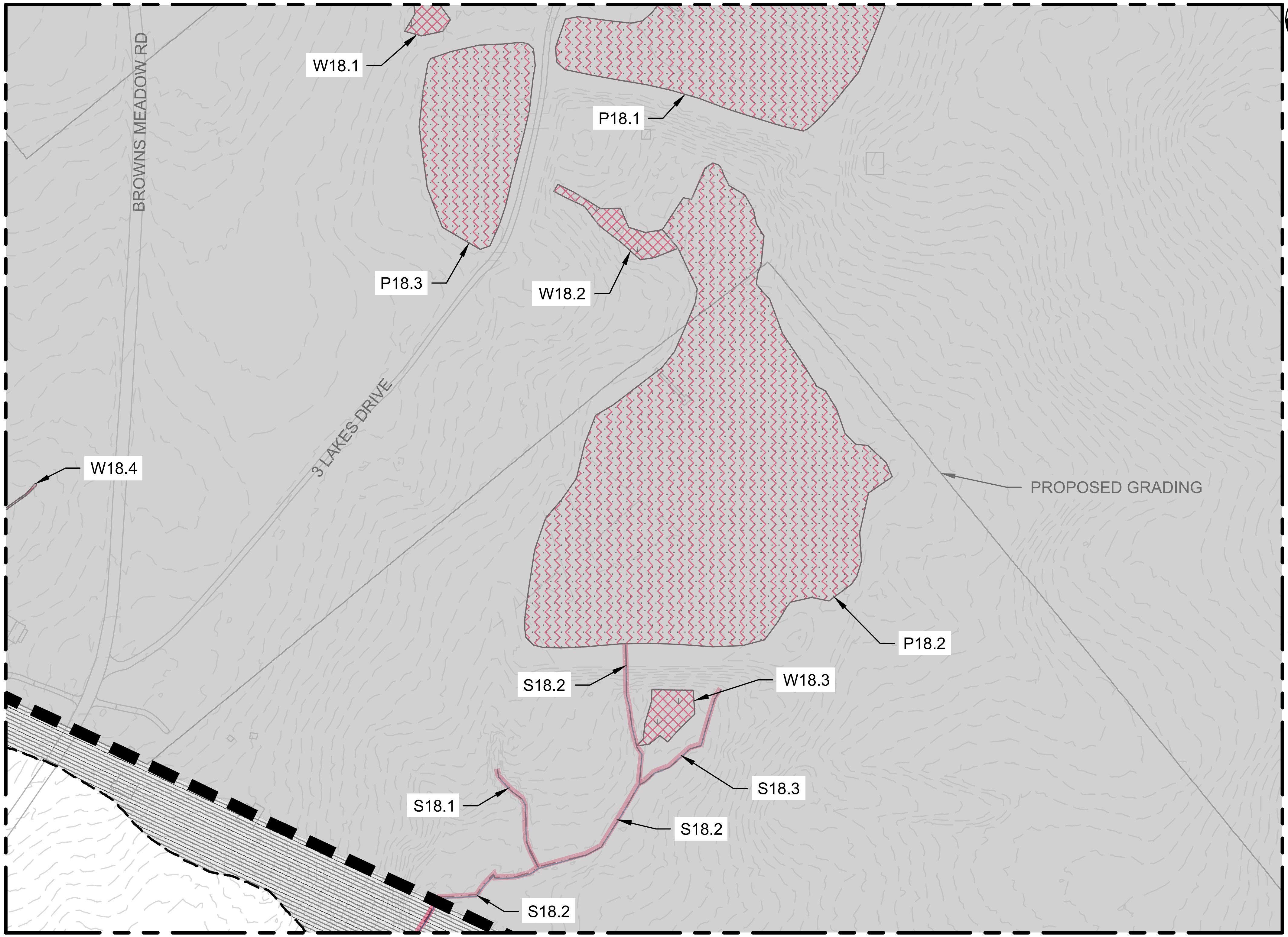
SHEET 01X-17

MATCHLINE - SEE SHEET 14 FOR CONTINUATION



MATCHLINE - SEE SHEET 17 FOR CONTINUATION

MATCHLINE - SEE SHEET 19 FOR CONTINUATION

MATCHLINE - SEE SHEET 22 FOR CONTINUATION

N

GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

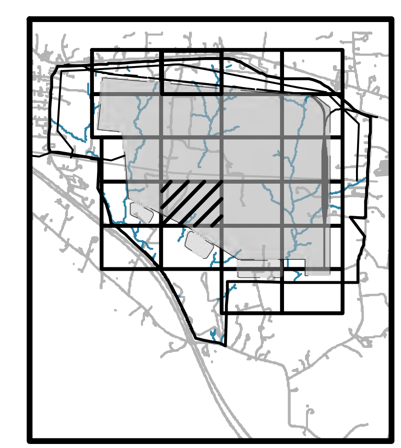
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W18.1	W9	Fill	0.07	0
W18.2	W10	Fill	0.16	0
W18.3	W13	Fill	0.14	0
W18.4	W3	Fill	0.005	0
		Total	0.37	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
P18.1	P13	Fill	1.88
P18.2	P15	Fill	6.32
P18.3	P14	Fill	1.21
		Total	9.41

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S18.1	S12B	Fill	162	0
S18.2	S1	Fill	752	0
S18.3	S11	Fill	232	0
		Total	1146	0



KEY MAP
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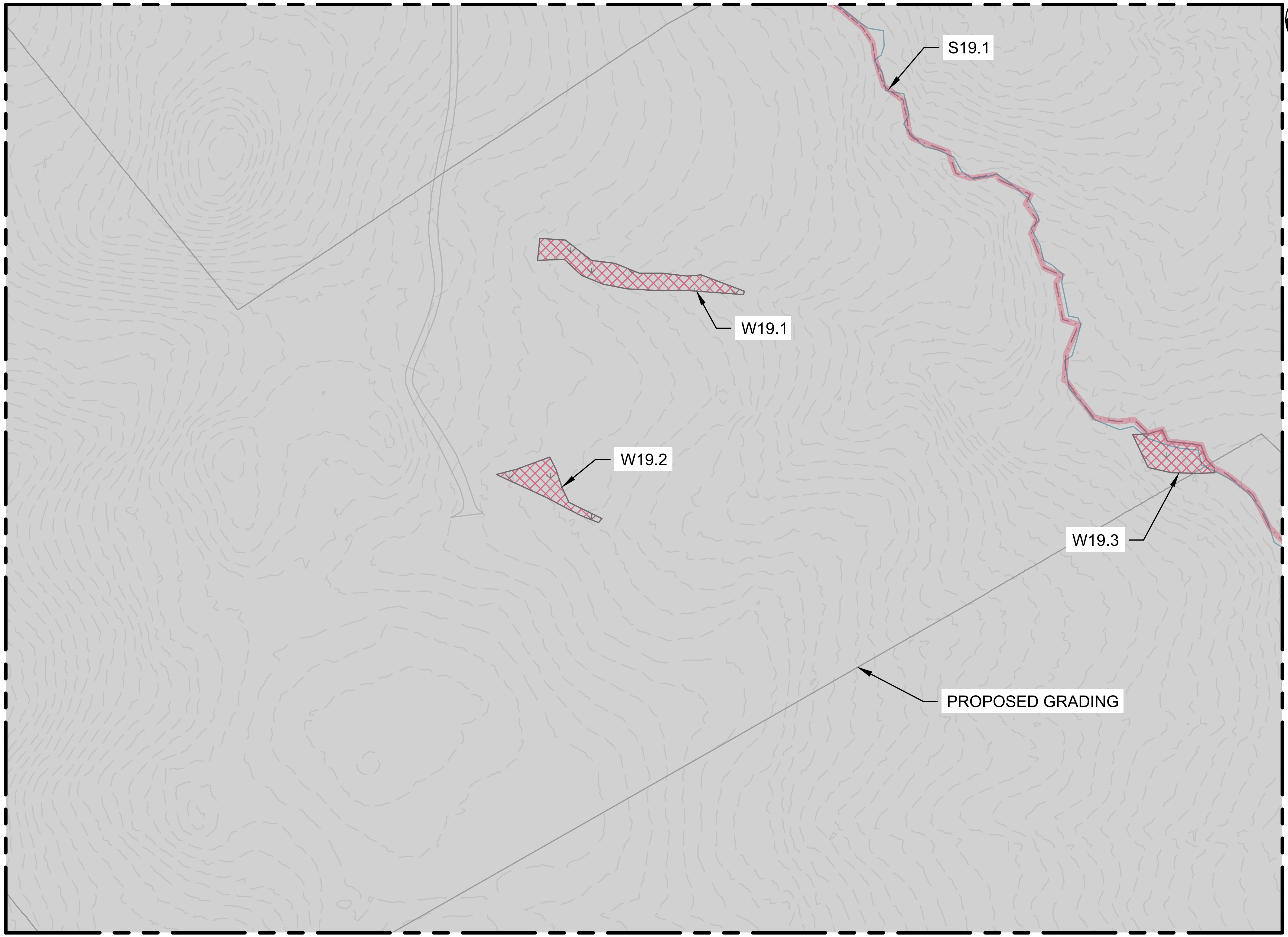
SHEET
01X-18

MATCHLINE - SEE SHEET 15 FOR CONTINUATION

MATCHLINE - SEE SHEET 18 FOR CONTINUATION



MATCHLINE - SEE SHEET 20 FOR CONTINUATION

MATCHLINE - SEE SHEET 23 FOR CONTINUATION

N

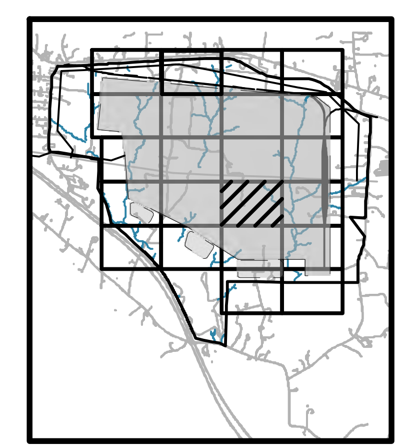
GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W19.1	W34	Fill	0.24	0
W19.2	W14	Fill	0.12	0
W19.3	HDR WF	Fill	0.15	0
		Total	0.51	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S19.1	HDR S9	Fill	1484	0
		Total	1484	0



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

C:\pwworking\east01\d0378831\02X-00.dwg, 19, 10/15/2021 5:05:25 PM, JTURLEY

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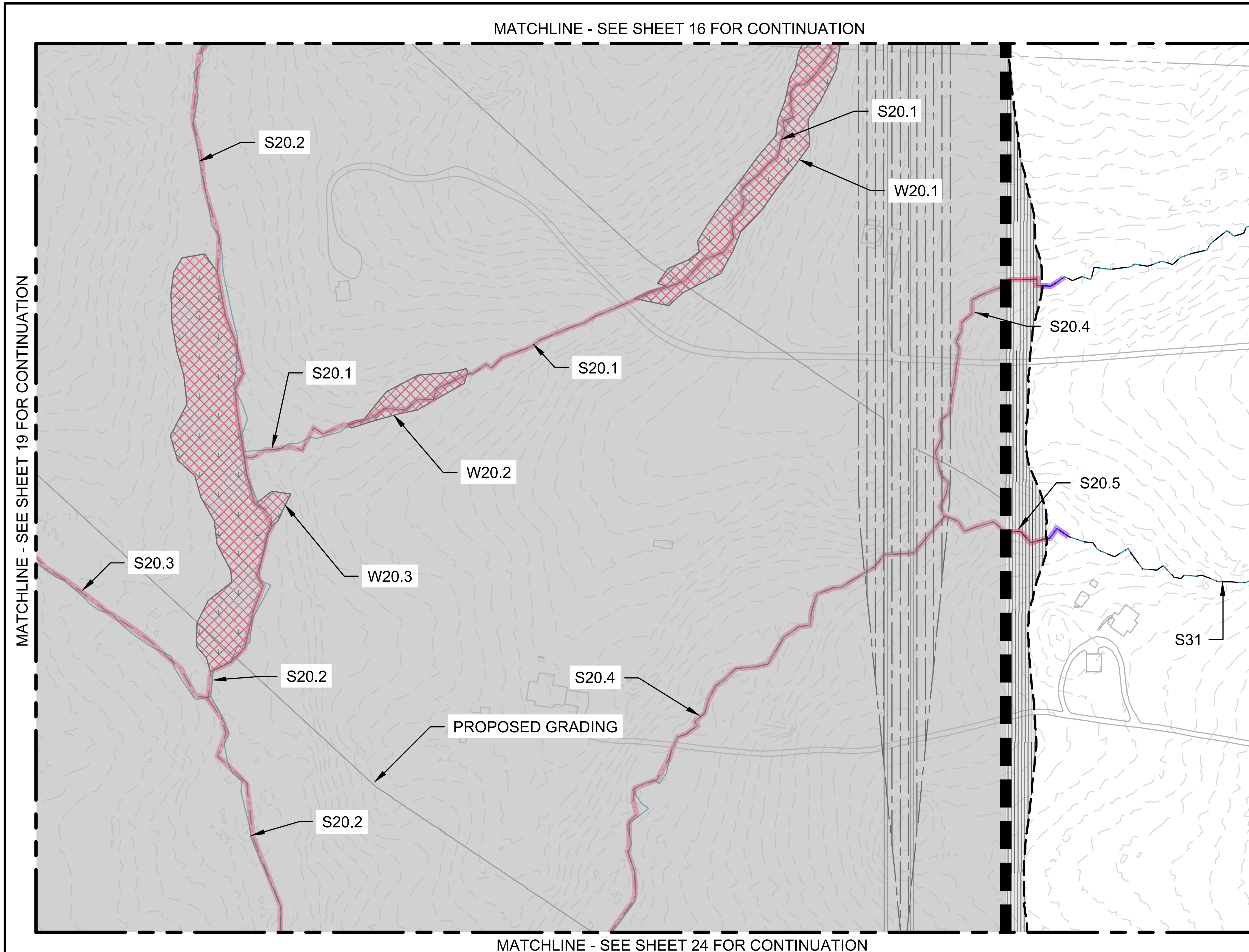
PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
01X-19



GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

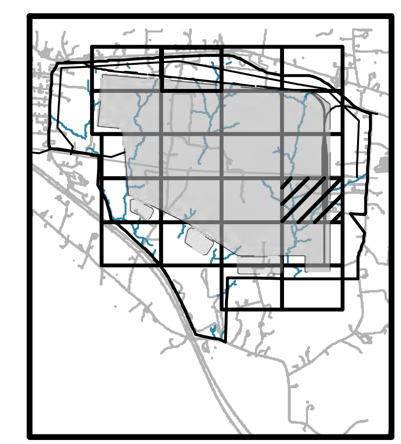
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W20.1	W28	Fill	0.78	0
W20.2	W32	Fill	0.19	0
W20.3	HDR WE	Fill	1.84	0
		Total	2.80	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S20.3	HDR S9	Fill	417	0
S20.5	S31	Fill	29	54
		Total	446	54

Perennial Stream Impacts

Site	from PJD	Type	Impact Length	Impact Length
S20.1	S35	Fill	1443	0
S20.2	S21	Fill	1728	0
S20.4	S30	Fill	1708	45
S20.5	S31	Fill	187	0
		Total	5066	45



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
01X-20

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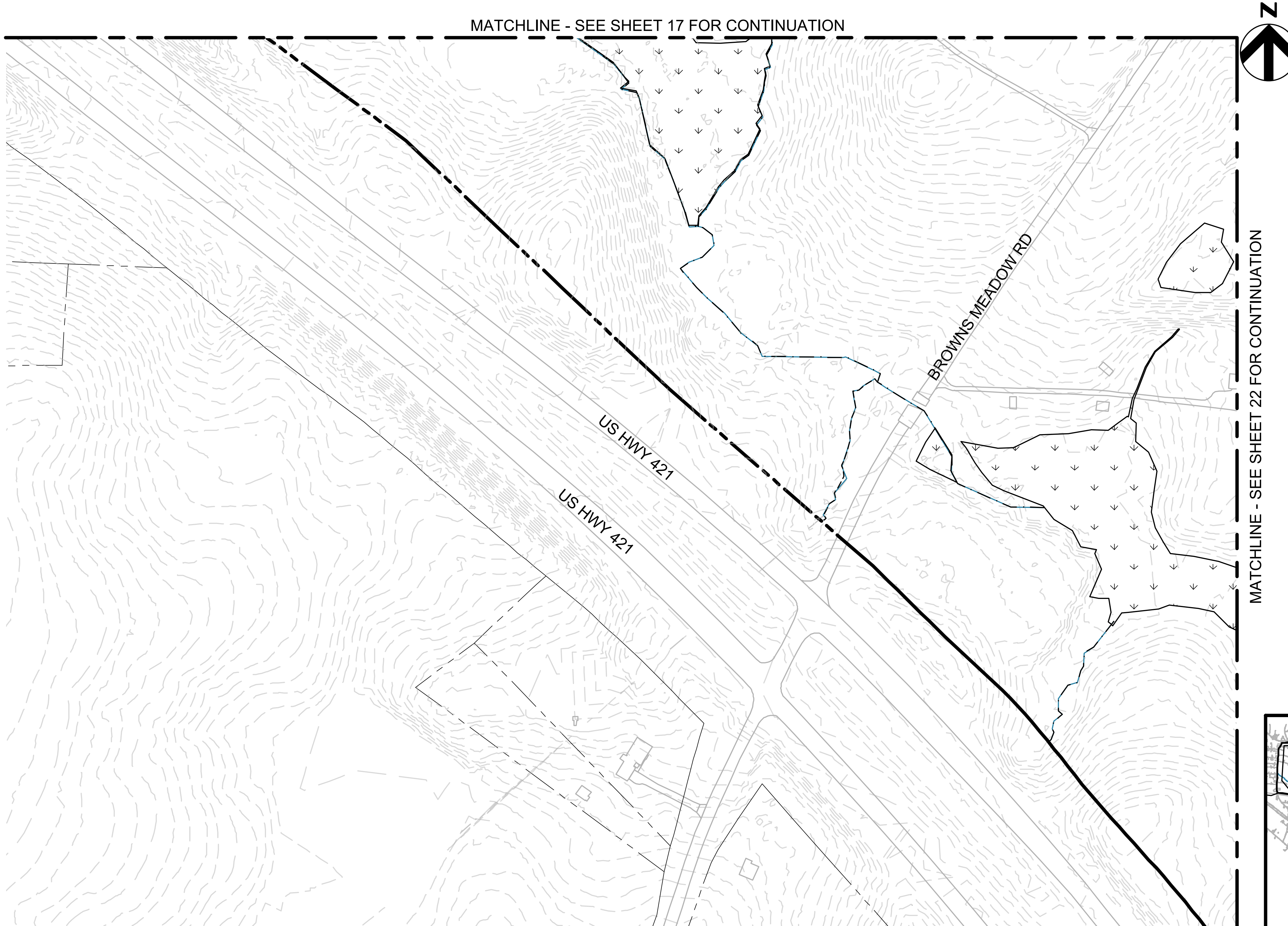
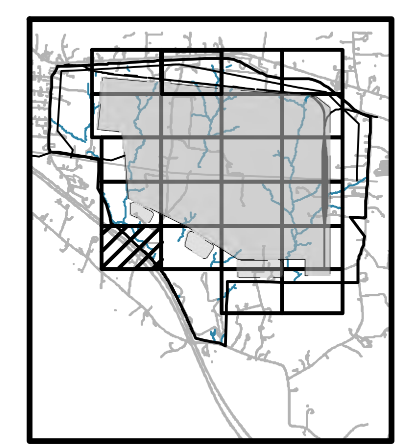


GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP
2) NO JURISDICTIONAL IMPACTS THIS SHEET



KEY MAP
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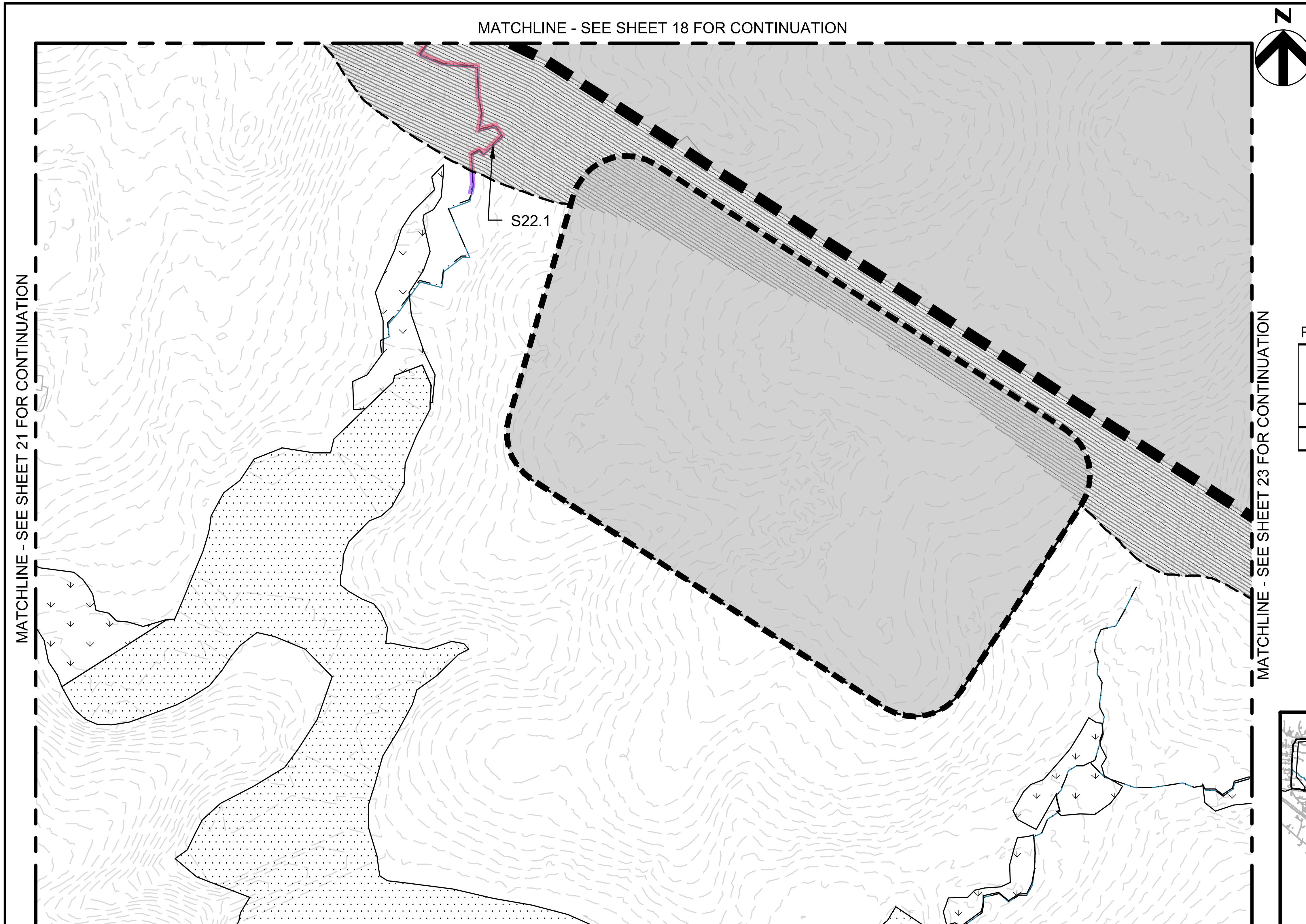
JURISDICTIONAL IMPACTS

DATE
10/13/2021

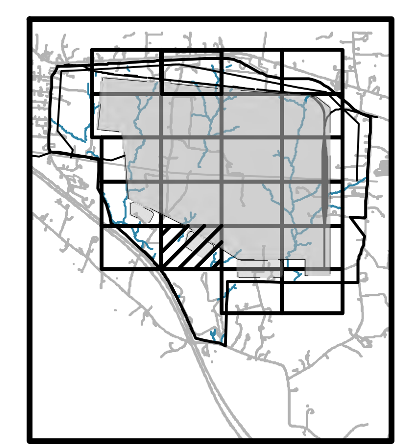
SHEET
01X-21



GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S22.1	S1	Fill	406	41
		Total	406	41



KEY MAP
NOT TO SCALE

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SCALE: 1" = 200'

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PROJECT GRMS
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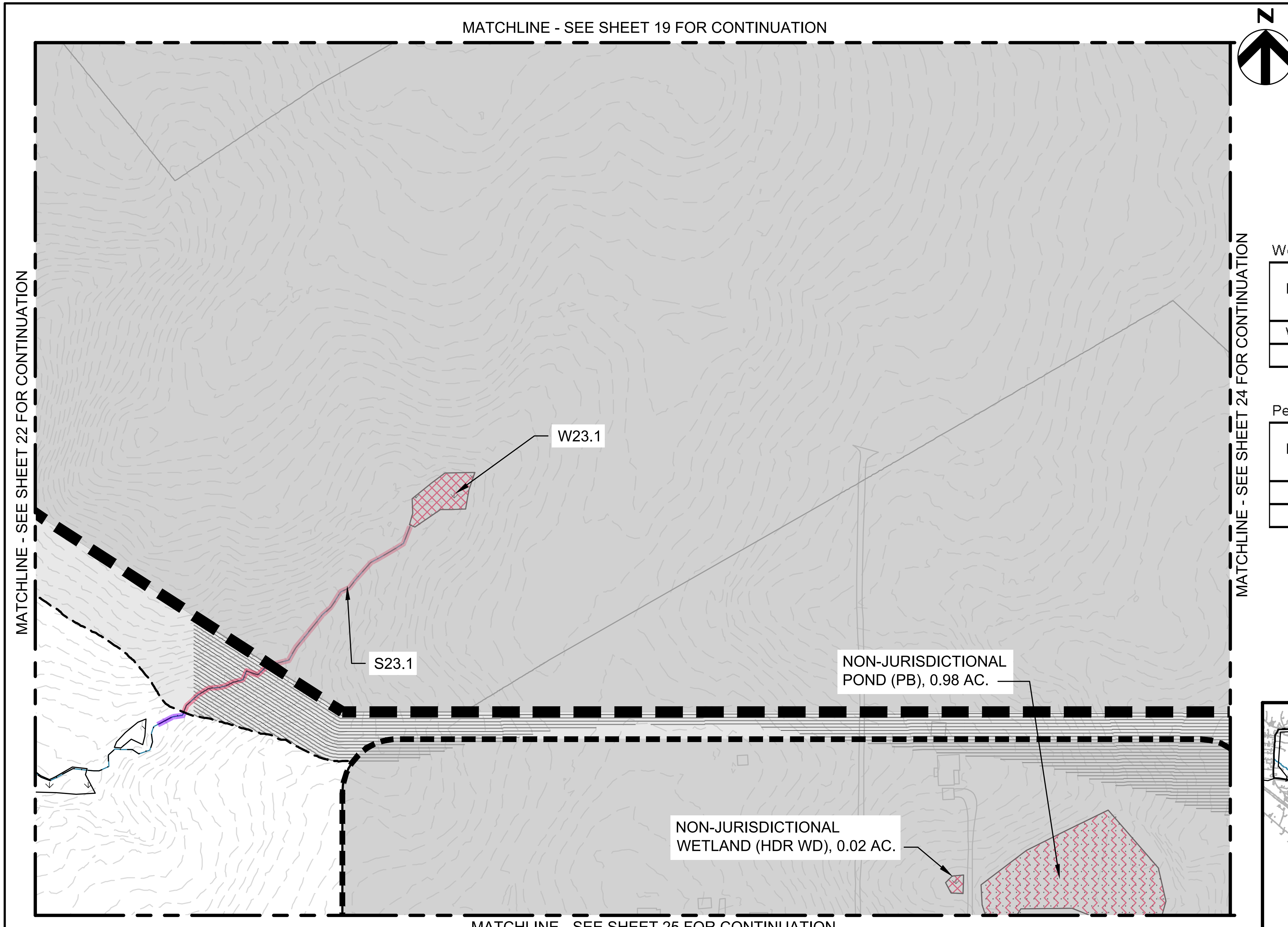
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
01X-22



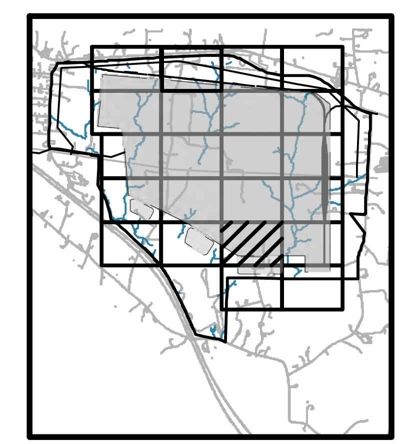
GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W23.1	WW	Fill	0.15	0
		Total	0.15	0.00

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S23.1	S17	Fill	573	55
		Total	573	55



KEY MAP
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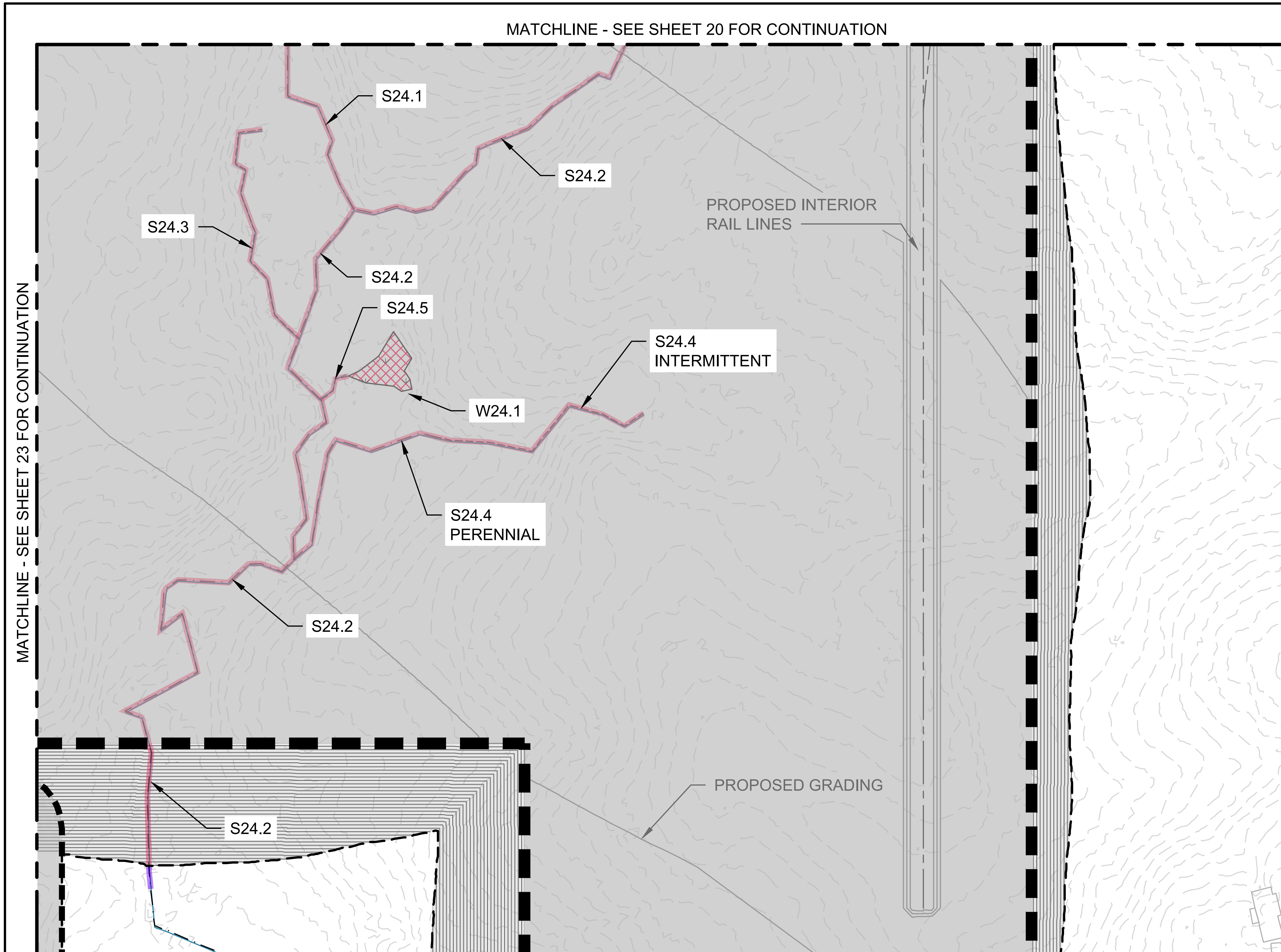
PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
01X-23



GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP

Wetland Impacts

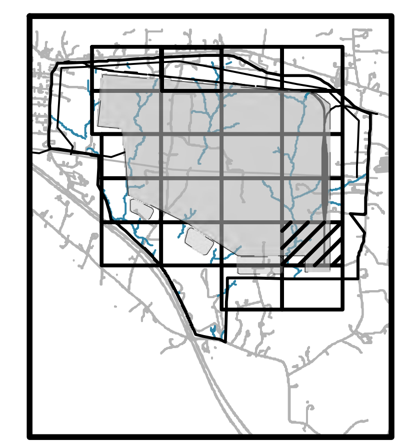
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
W24.1	HDR WB	Fill	0.12	0
		Total	0.12	0

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S24.1	S21	Fill	347	0
S24.2	S30	Fill	2240	40
S24.4	HDR S3	Fill	412	0
		Total	2999	40

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S24.3	HDR S4	Fill	450	0
S24.4	HDR S3	Fill	422	0
S24.5	HDR S5	Fill	71	0
		Total	943	0



KEY MAP
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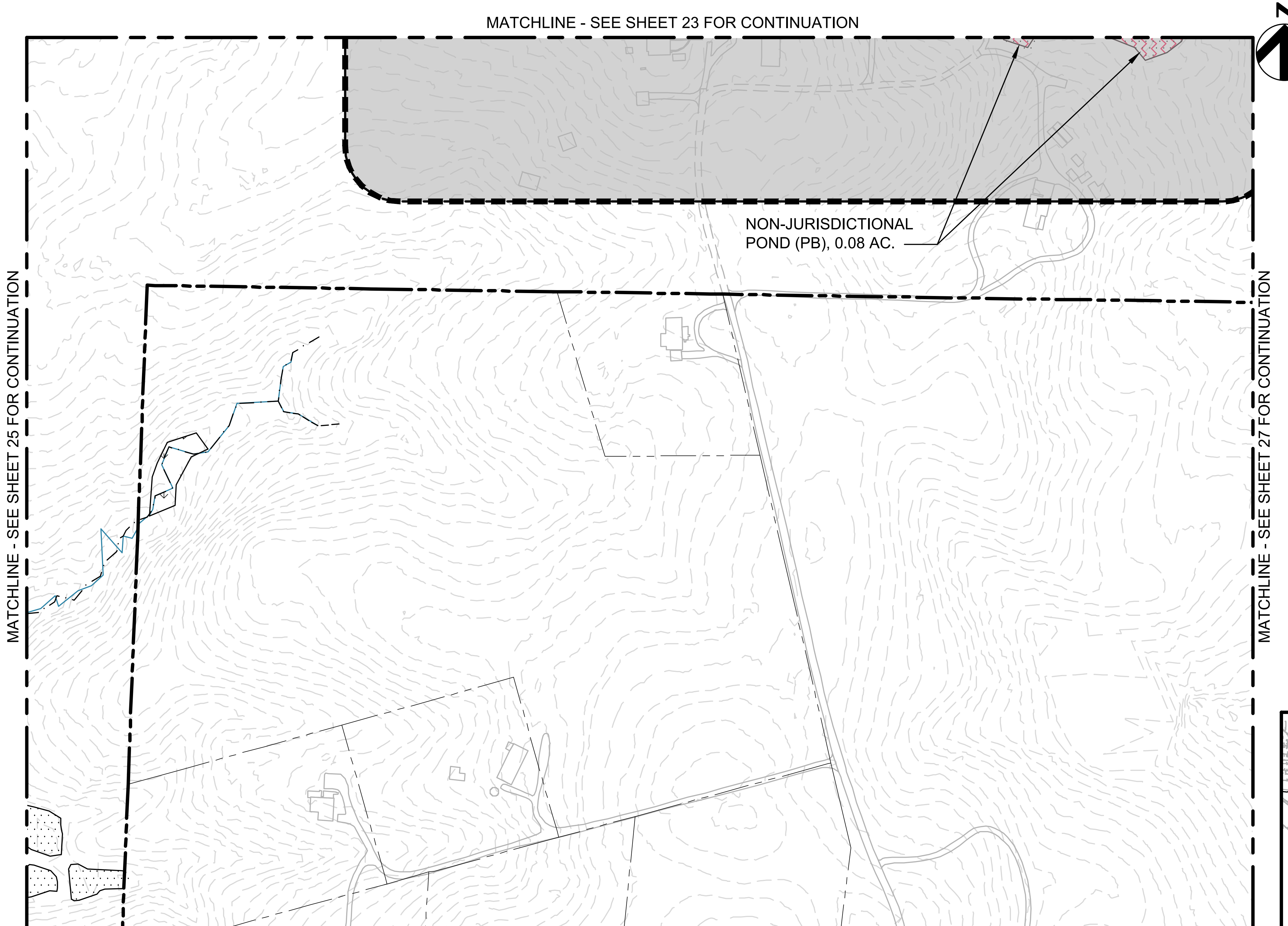
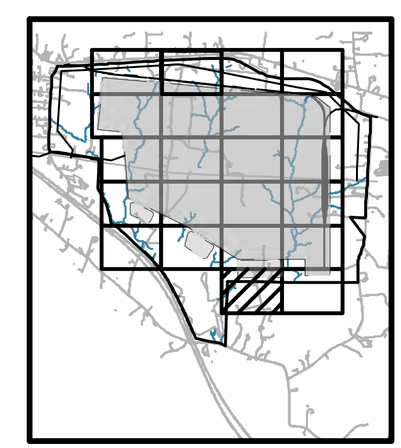
SITE PLAN
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
01X-24



GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP



KEY MAP
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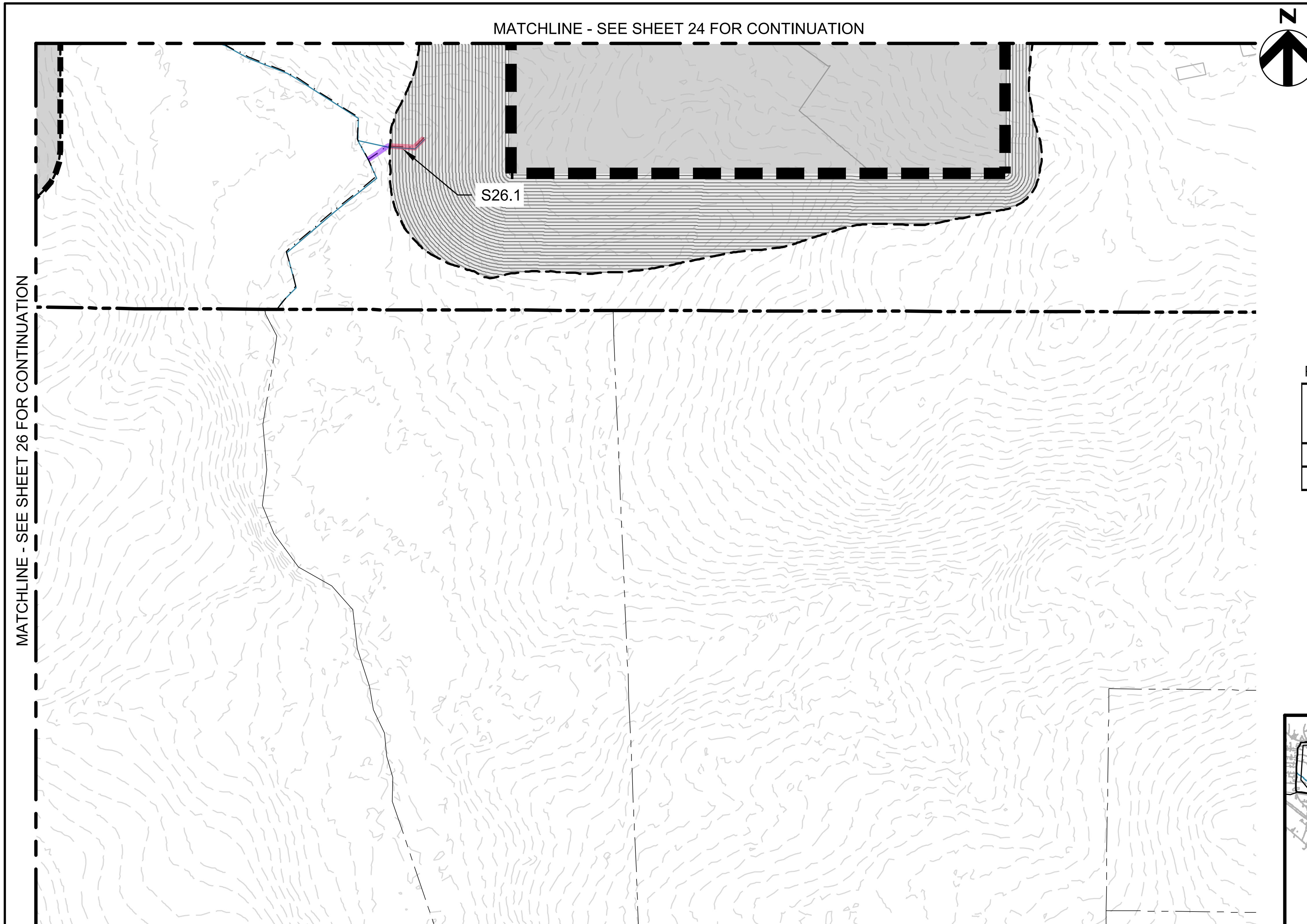
PROJECT GRMS
SITE PLAN
JURISDICTIONAL IMPACTS

DATE
10/13/2021

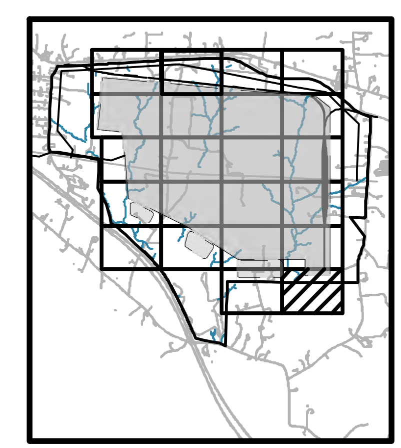
SHEET
01X-25



GENERAL NOTES:
1) SEE SHEET 1 FOR LEGEND AND KEY MAP
2) NO JURISDICTIONAL IMPACTS THIS SHEET

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
S26.1	HDR S2	Fill	68	47
Total			68	47



KEY MAP
NOT TO SCALE

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SCALE: 1" = 200'

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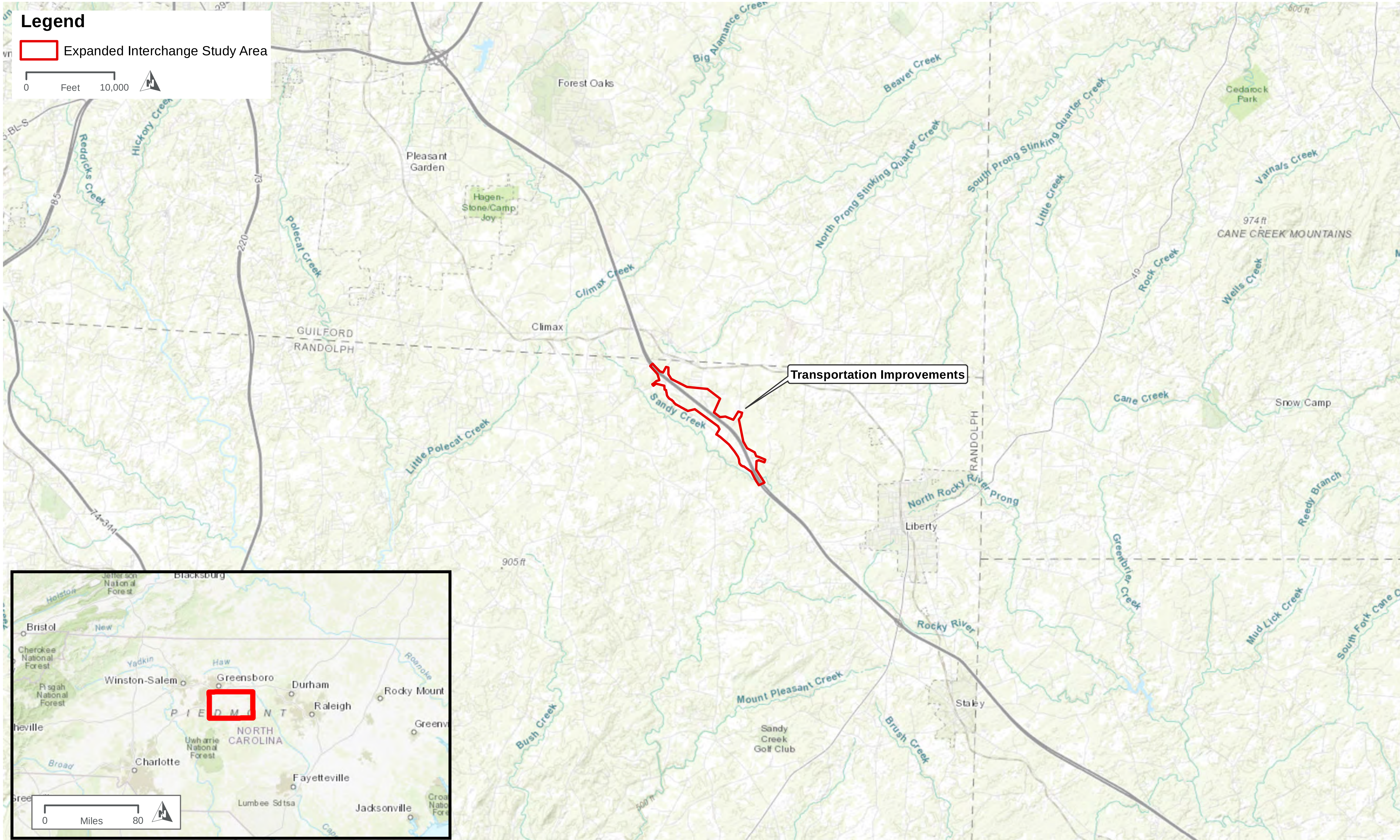
JURISDICTIONAL IMPACTS

DATE
10/13/2021

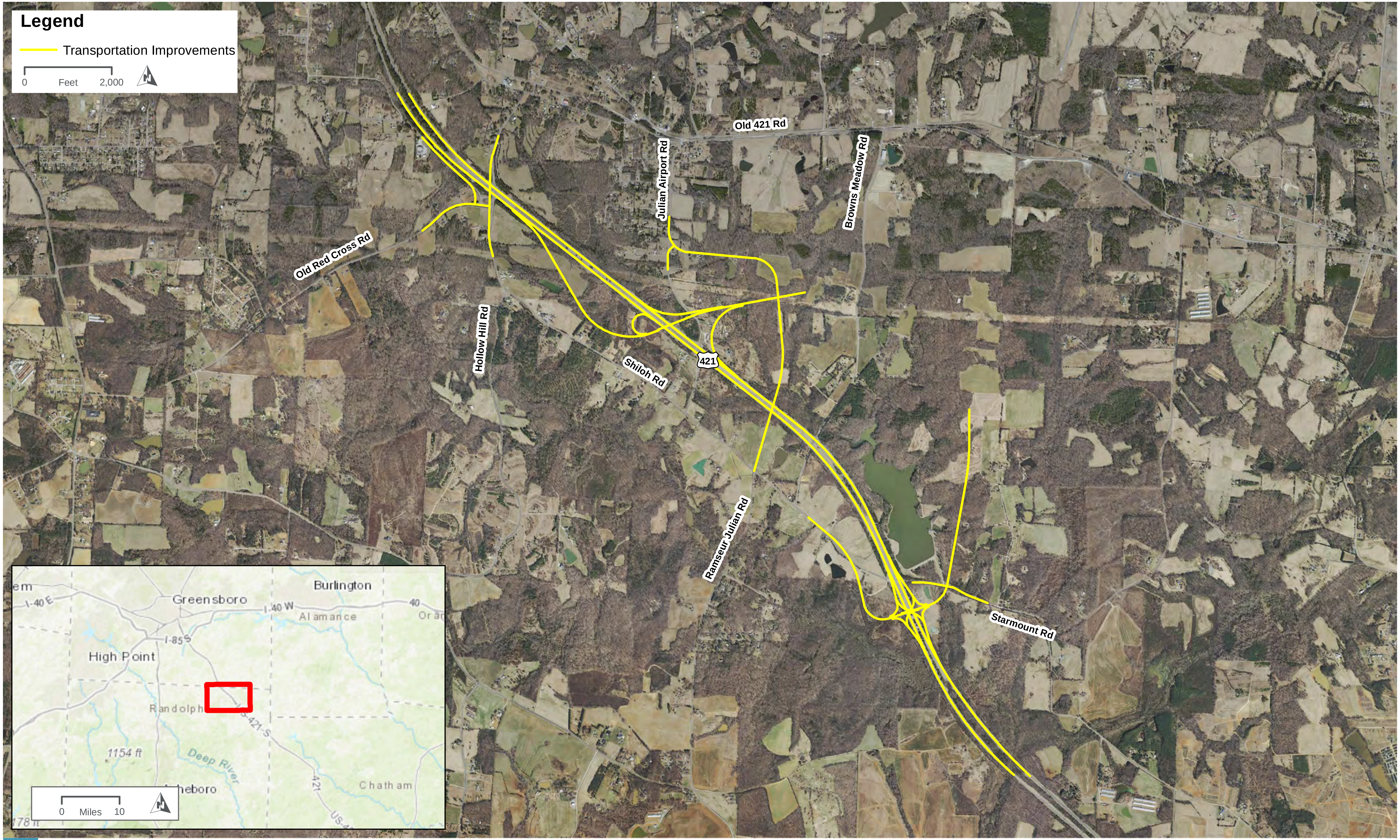
SHEET
01X-26



VICINITY MAP

FIGURE 1

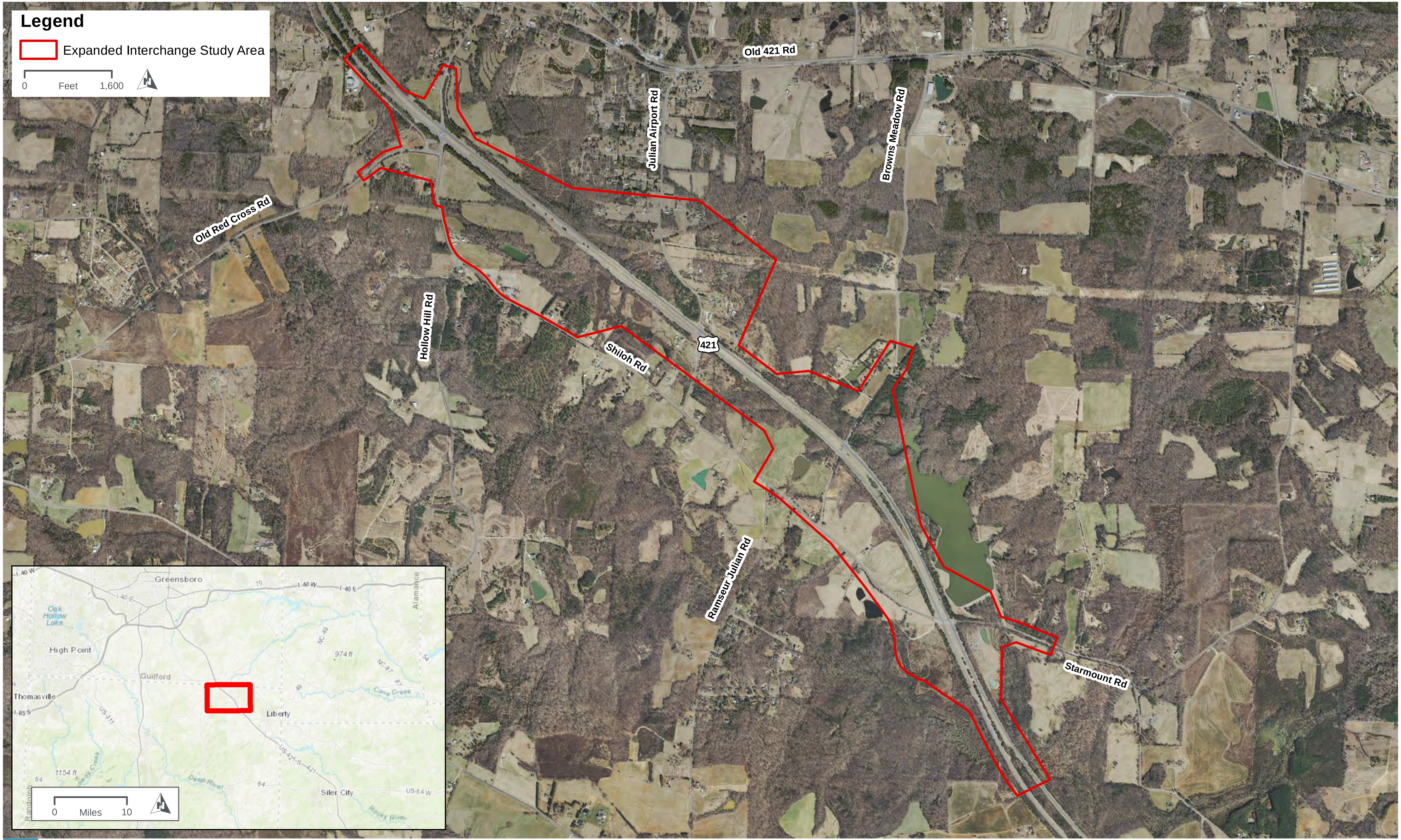
PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\TRANSPORTATION\FIG_1_ROADWAY_VICINITY_MAP.MXD - USER: JGARVEY - DATE: 11/15/2017



ROADWAY PLAN MAP

FIGURE 2

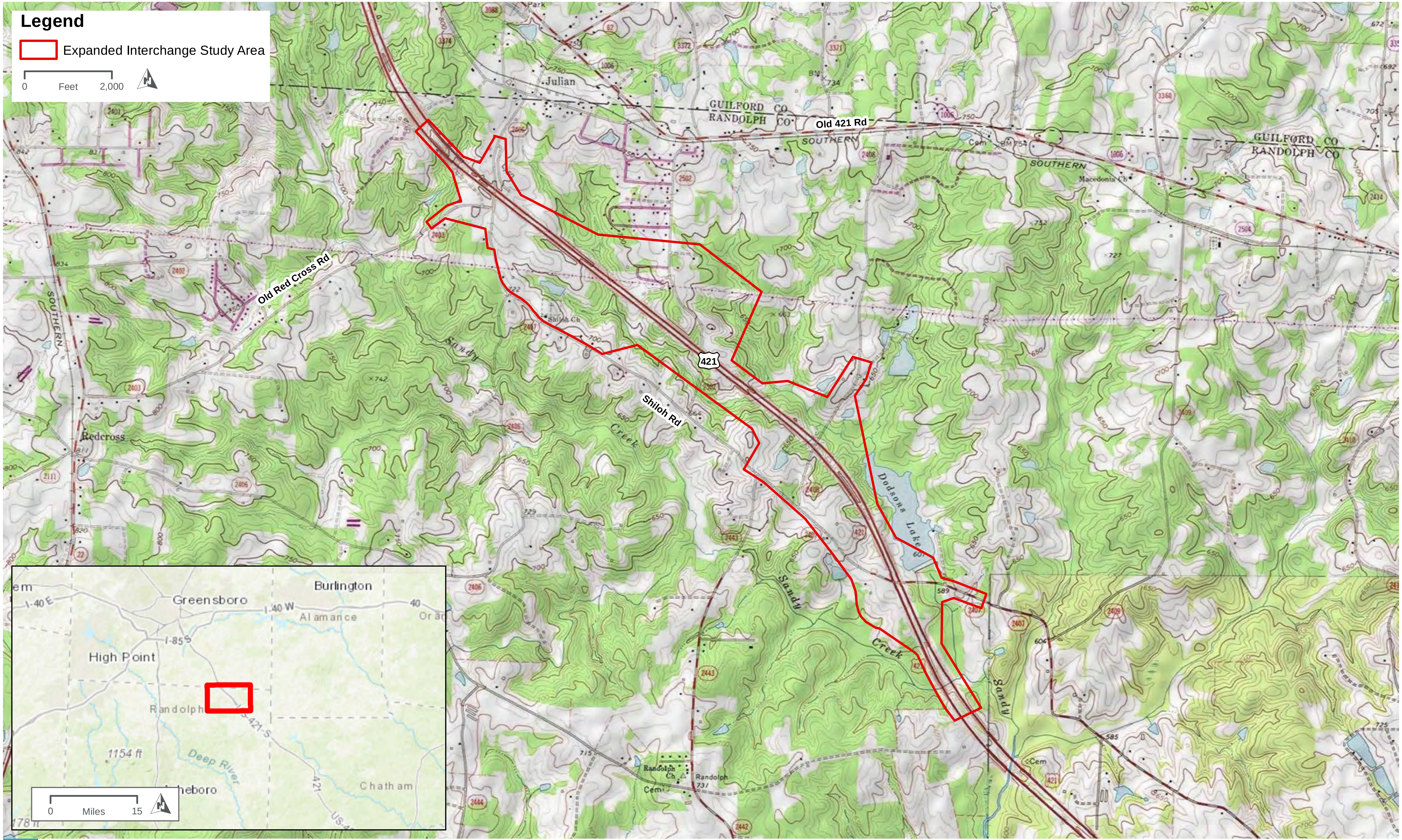
PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\TRANSPORTATION\FIG_2_ROADWAY_PLAN_MAP.MXD - USER: JGARVEY - DATE: 11/30/2017



AERIAL PHOTOGRAPHY MAP

FIGURE 3

PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\TRANSPORTATION\FIG_3_ROADWAY_AERIAL_MAP.MXD - USER: JGARVEY - DATE: 11/15/2017

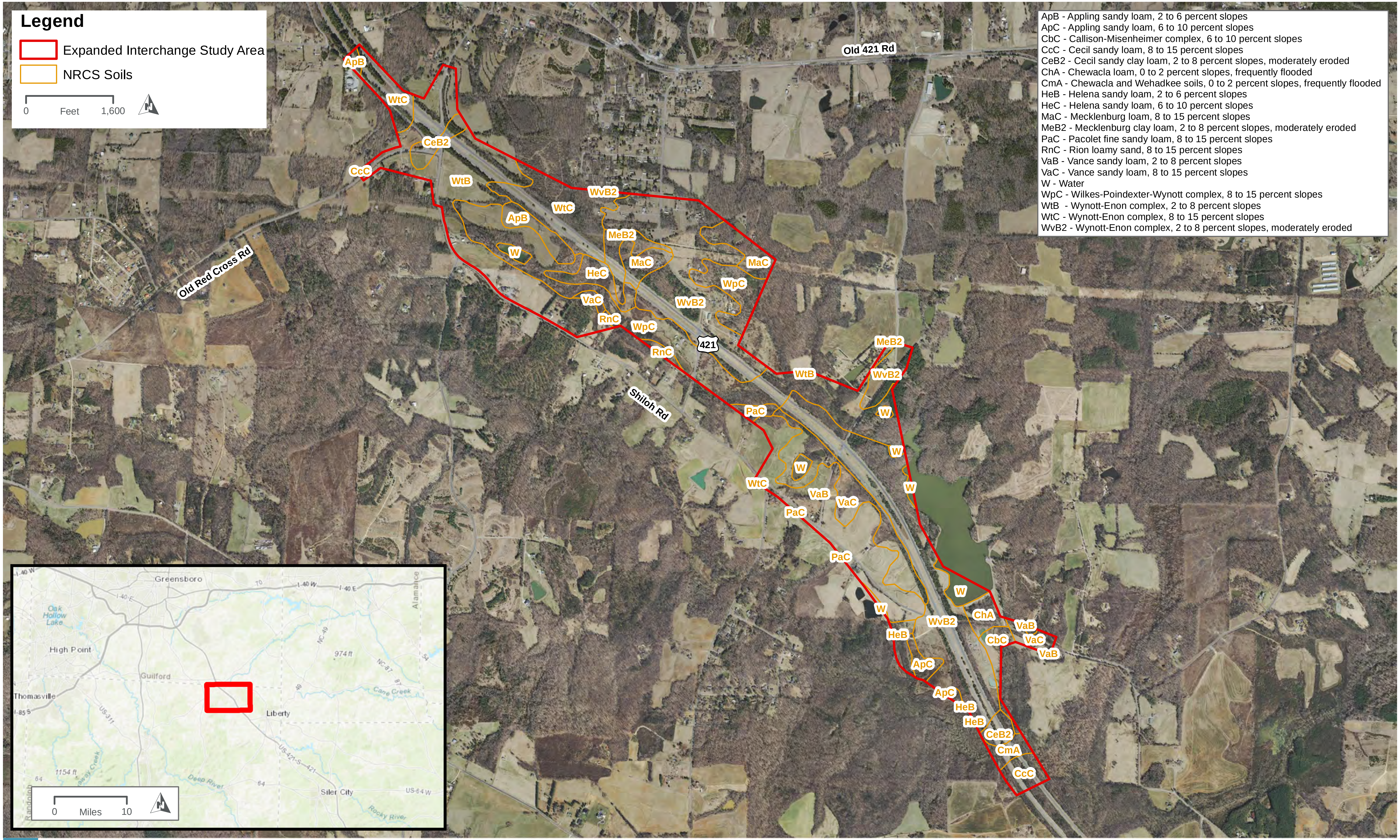


USGS TOPOGRAPHIC MAP

HDR

FIGURE 4

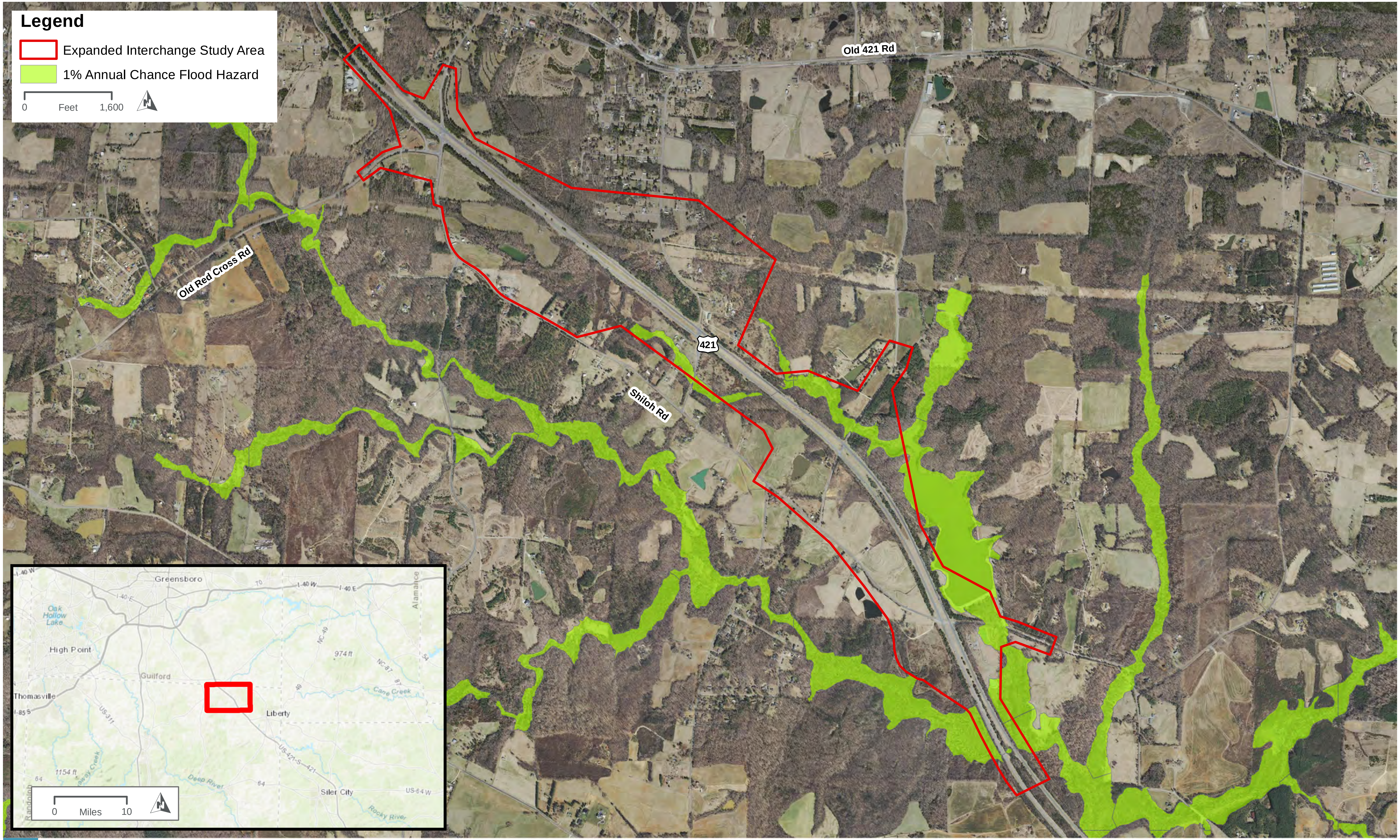
PATH: \\CLTSMAIN\GIS_DATA\GIS\PROJECTS\06770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\TRANSPORTATION\FIG_4_ROADWAY_USGS_MAP.MXD - USER: JGARVEY - DATE: 11/15/2017



NRCS SOILS MAP

FIGURE 7

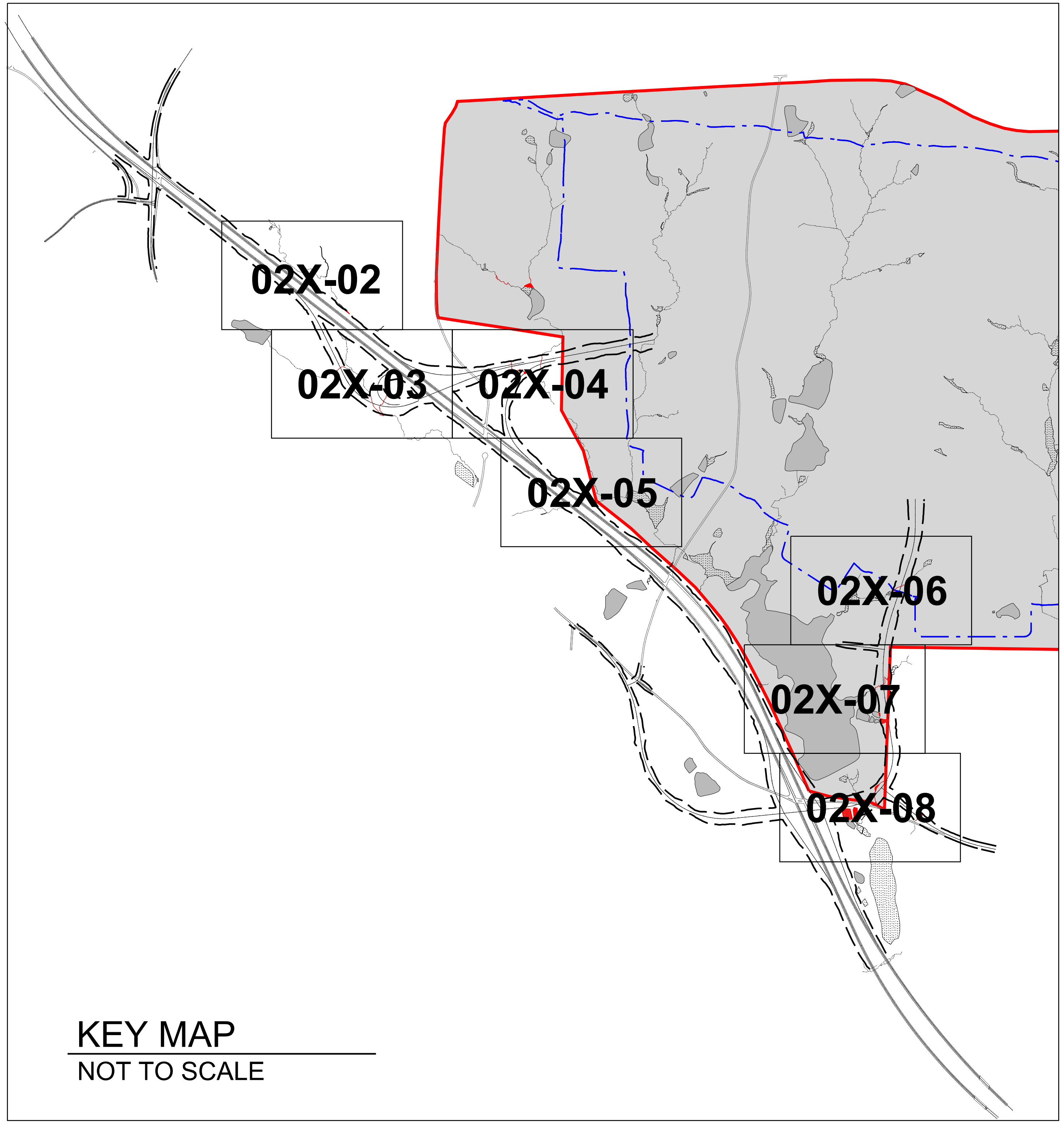
PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\TRANSPORTATION\FIG_7_ROADWAY_NRCS_MAP.MXD - USER: JGARVEY - DATE: 11/29/2017



FEMA FLOODPLAIN MAP

FIGURE 8

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\TRANSPORTATION\FIG_8_ROADWAY_FEMA_MAP.MXD - USER: JGARVEY - DATE: 11/30/2017



N

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT POND IMPACT
- PERMANENT STREAM IMPACT
- TEMPORARY STREAM IMPACT
- TRANSPORTATION COORIDOR BOUNDARY

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PROJECT GRMS
TRANSPORTATION FACILITIES
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
02X-01

Wetland Impacts

Impact Number	Sheet Number	Wetland ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Type of Wetland (Cowardin)	Area of Permanent Impact (acres)	Area of Temporary Impact (acres)
WT2.1	2	WB	35.89383	-79.6541203	Fill	PFO	0.018	0
WT4.1	4	WO	35.89289	-79.6543259	Fill	PFO	0.0004	0
WT8.1	8	WH	35.87717	-79.6327779	Fill	PFO	0.0004	0
WT8.2	8	HDR WC	35.87958	-79.6275104	Fill	PEM	0.003	0
WT9.1	9	WSA	35.8751	-79.6281868	Fill	PEM	0.035	0
WT9.2	9	WS	35.87448	-79.6284527	Fill	PFO	0.014	0
WT9.3	9	WK	35.8741	-79.6292021	Fill	PEM	0.168	0
WT9.4	9	WN	35.87394	-79.6260799	Fill	PFO	0.066	0
						Total	0.305	0

Stream Impacts

Impact Number	Sheet Number	Stream ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Perennial (PER) or Intermittent (INT)	Average Stream Width (feet)	Permanent Impact Length (linear feet)	Temporary Impact Length (linear feet)	Impact Area (square feet)
ST2.1	2	SE	35.894183	-79.6546671	Culvert	PER	6	32	0	190
ST4.1	4	SE	35.892565	-79.6541181	Culvert	PER	10	584	0	5,845
ST4.2	4	SE1	35.891597	-79.6543983	Culvert	PER	5	170	0	850
ST4.3	4	SW	35.890681	-79.6520941	Culvert	INT	4	727	0	2,908
ST5.1	5	SJ	35.891874	-79.6446361	Culvert	PER	3	210	0	629
ST5.2	5	SK	35.891585	-79.6460359	Culvert	INT	3	395	0	1,185
ST6.2	6	SE	35.886469	-79.6414069	Culvert	PER	10	21	0	210
ST6.3	6	SE	35.886031	-79.6434009	Culvert	PER	10	8	0	83
ST7.1	7	S17	35.883069	-79.6270705	Culvert	PER	3	309	0	927
ST8.1	8	HDR S6	35.879249	-79.6278092	Culvert	PER	3	469	0	1,406
ST9.1	9	SX	35.875076	-79.6281908	Culvert	PER	3	416	0	1,247
ST9.2	9	SQ	35.874564	-79.6288686	Culvert	PER	5	391	0	1,957
ST9.3	9	SS	35.874564	-79.6288686	Culvert	INT	3	168	0	505
				Perennial		Sub-Total		2,609		13342.08
				Intermittent		Sub-Total		1,290		4598.00
						Grand-Total		3,900	0	17,940

Open Water Impacts

Impact Number	Sheet Number	Open Water ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Waterbody Type	Area of Impact (acres)
PT8.1	8	P18	35.8777355	-79.6078387	Fill	Pond	0.1101
PT8.2	8	P19	35.8780052	-79.6280614	Fill	Pond	0.0066
PT9.1	9	PB	35.8740277	-79.6296036	Fill	Pond	0.38
						Total	0.50

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**PROJECT GRMS
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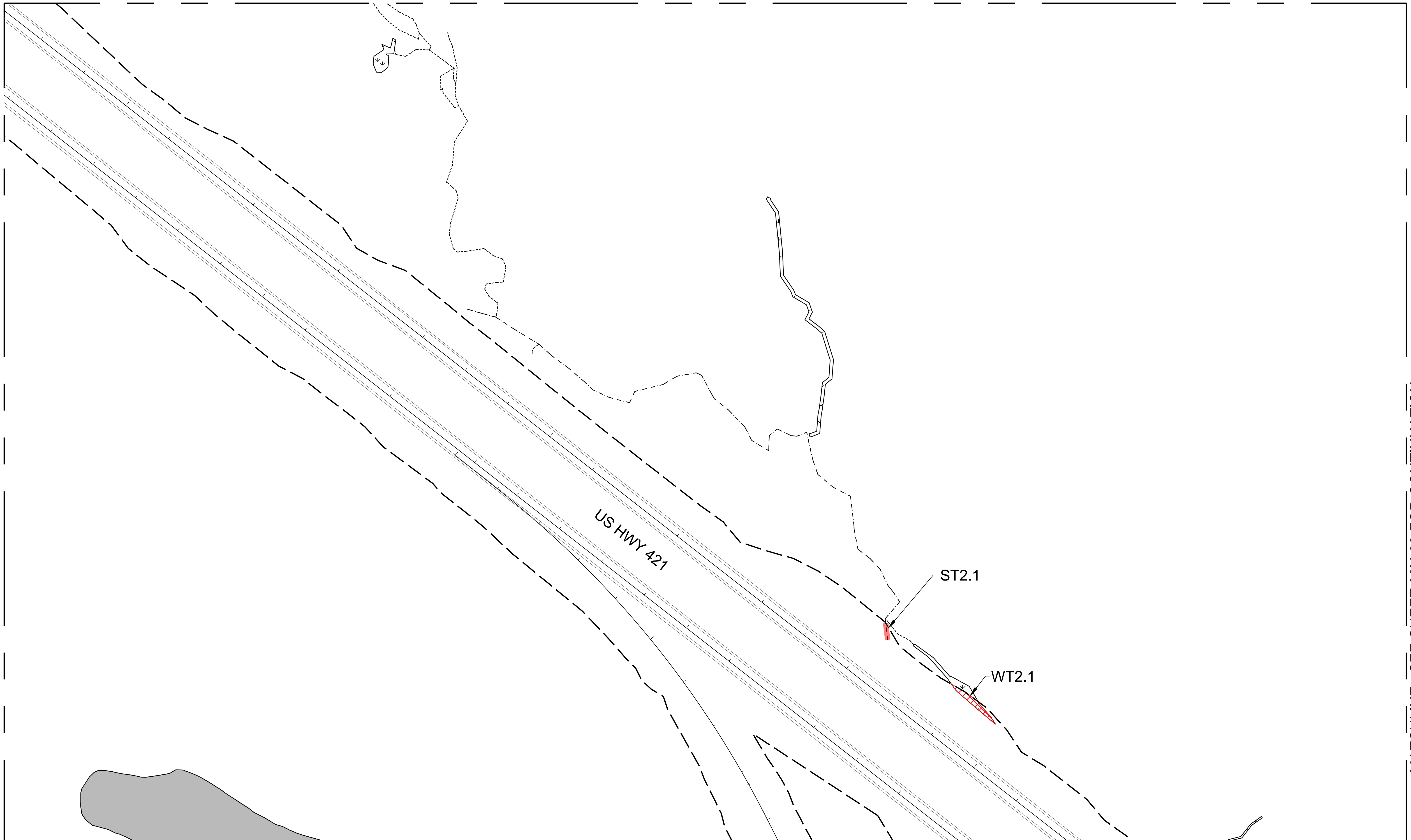
JURISDICTIONAL IMPACTS**

DATE 10/13/2021

SHEET 02X-01A



MATCHLINE - SEE SHEET 02X-03 FOR CONTINUATION

MATCHLINE - SEE SHEET 02X-04 FOR CONTINUATION

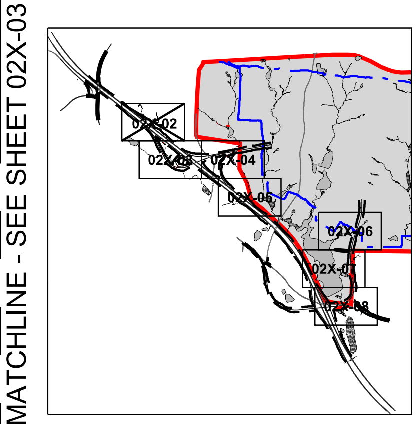
N

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WT2.1	WB	Fill	0.018	0
				0
				0
		Total	0.018	0

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST2.1	SE	Culvert	32	0
		Total	32	0



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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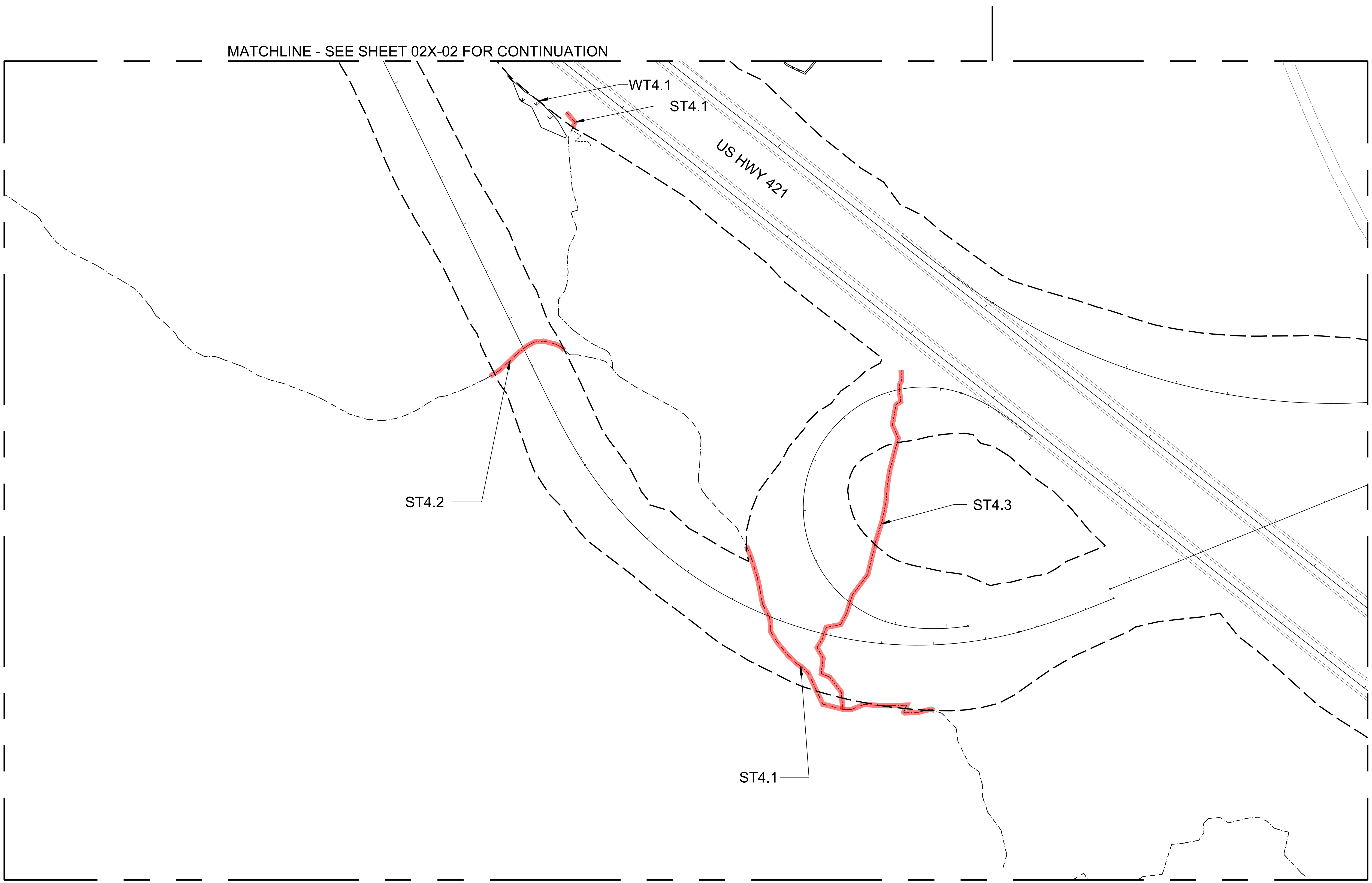
PROJECT GRMS
TRANSPORTATION FACILITIES
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
02X-02



Wetland Impacts

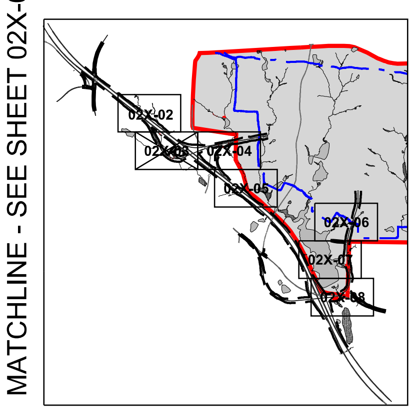
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WT4.1	WO	Fill	0.0004	0
		Total	0.0004	0

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST4.1	SE	Culvert	584	0
ST4.2	SE1	Culvert	727	
		Total	1312	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST4.3	SW	Culvert	506	0
		Total	506	0



KEY MAP
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SCALE: 1" = 200'

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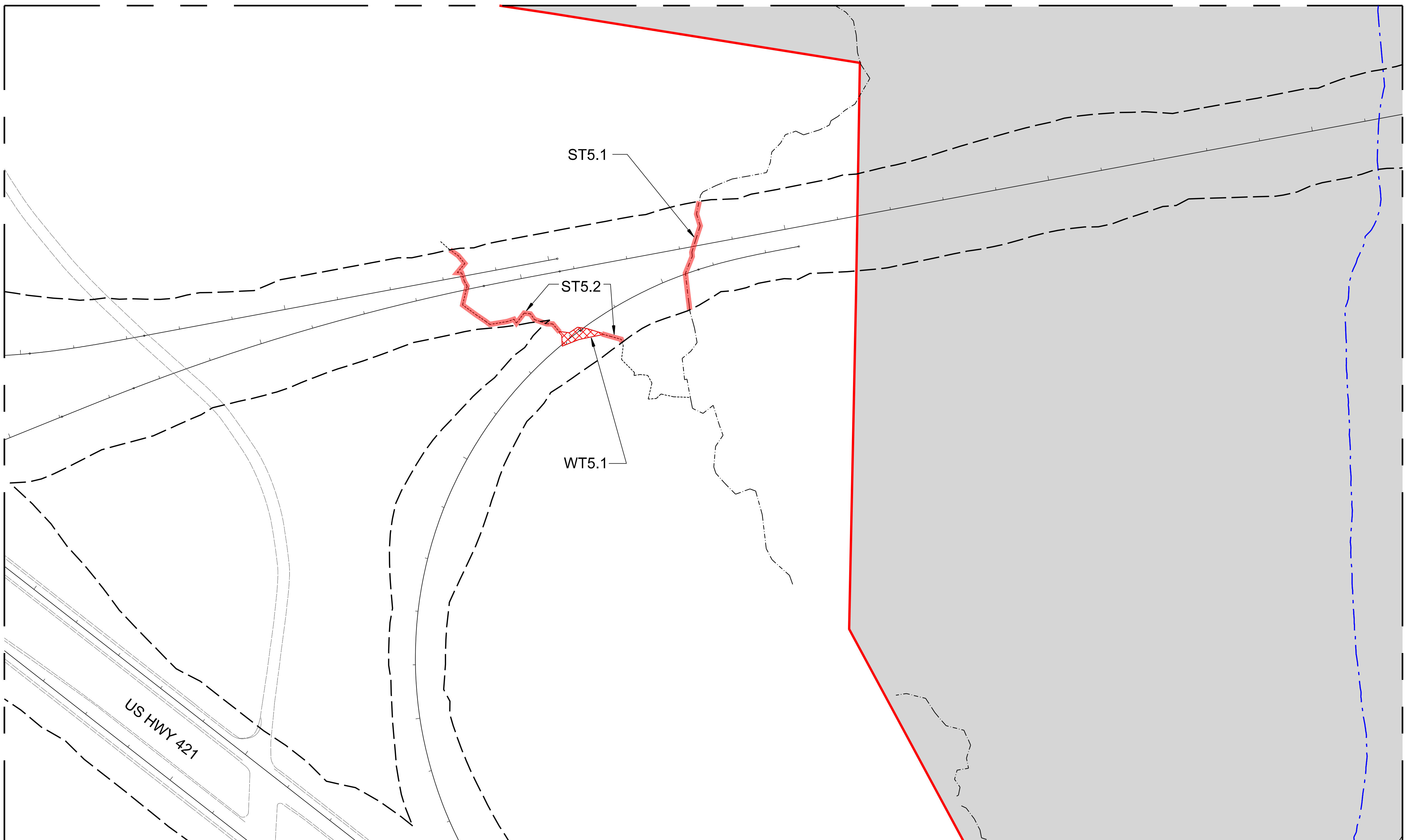
DATE
10/13/2021

SHEET
02X-03

MATCHLINE - SEE SHEET 02X-03 FOR CONTINUATION



MATCHLINE - SEE SHEET 02X-05 FOR CONTINUATION

N

Wetland Impacts

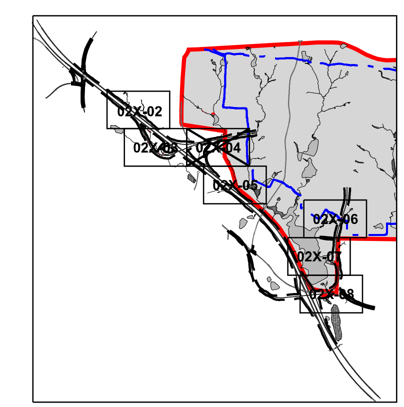
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WT5.1	WD	Fill	0.03	0
		Total	0.03	0

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST5.1	SJ	Culvert	210	0
		Total	210	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST5.2	SK	Culvert	395	0
		Total	395	0



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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919.232.6600

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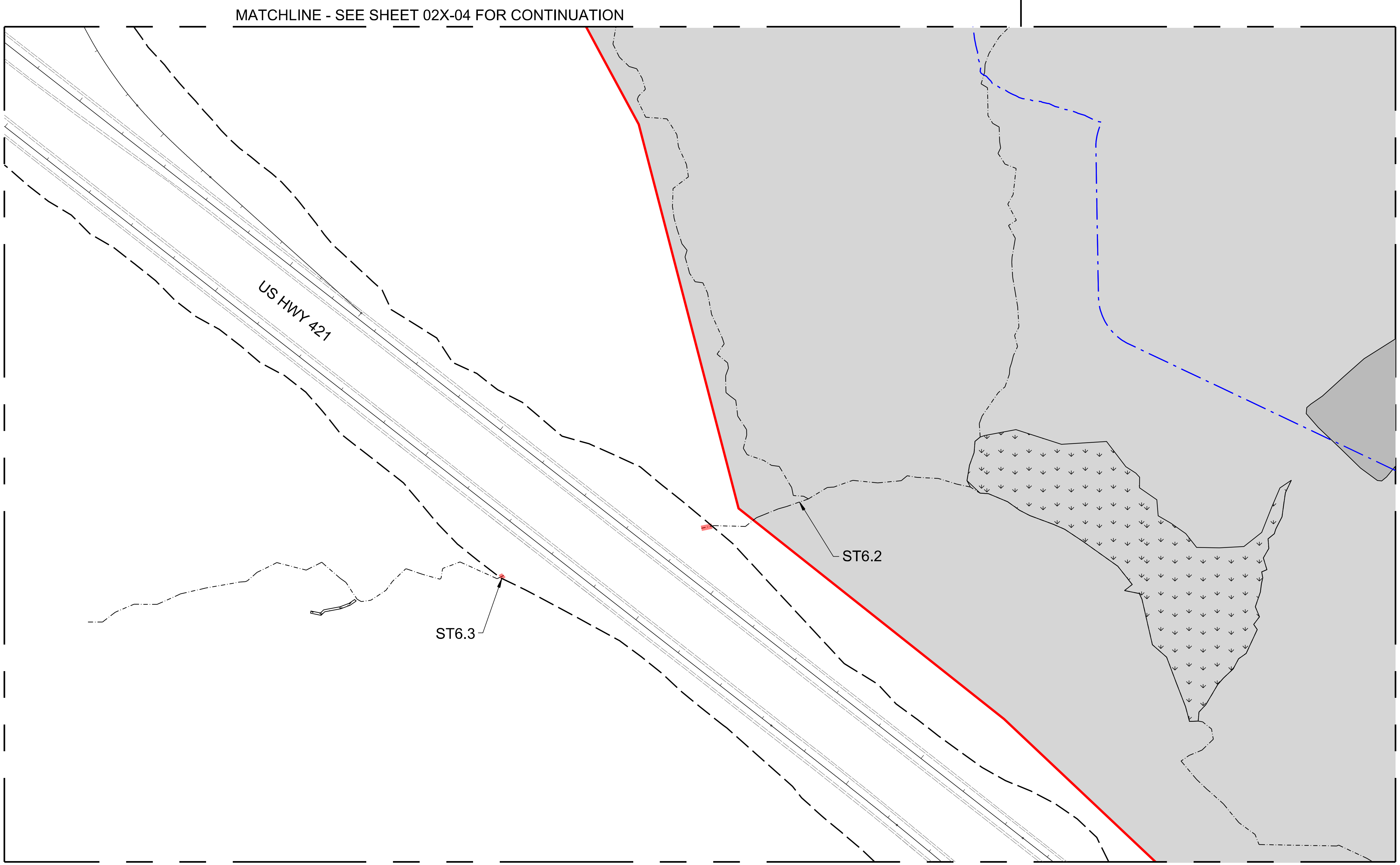
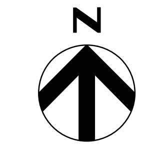
PROJECT GRMS
TRANSPORTATION FACILITIES
JURISDICTIONAL IMPACTS

DATE
10/13/2021

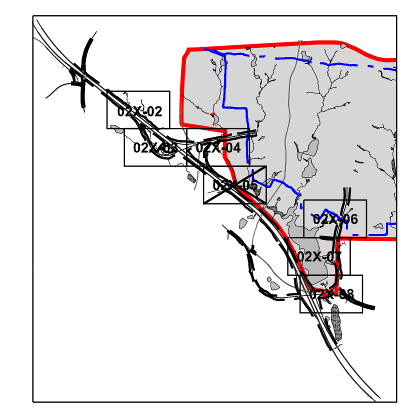
SHEET
02X-04





Perennial Stream Impacts

Impact Site	Feature ID fom PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST6.2	SE	Culvert	21	
ST6.3	SE	Culvert	8	
		Total	29	0



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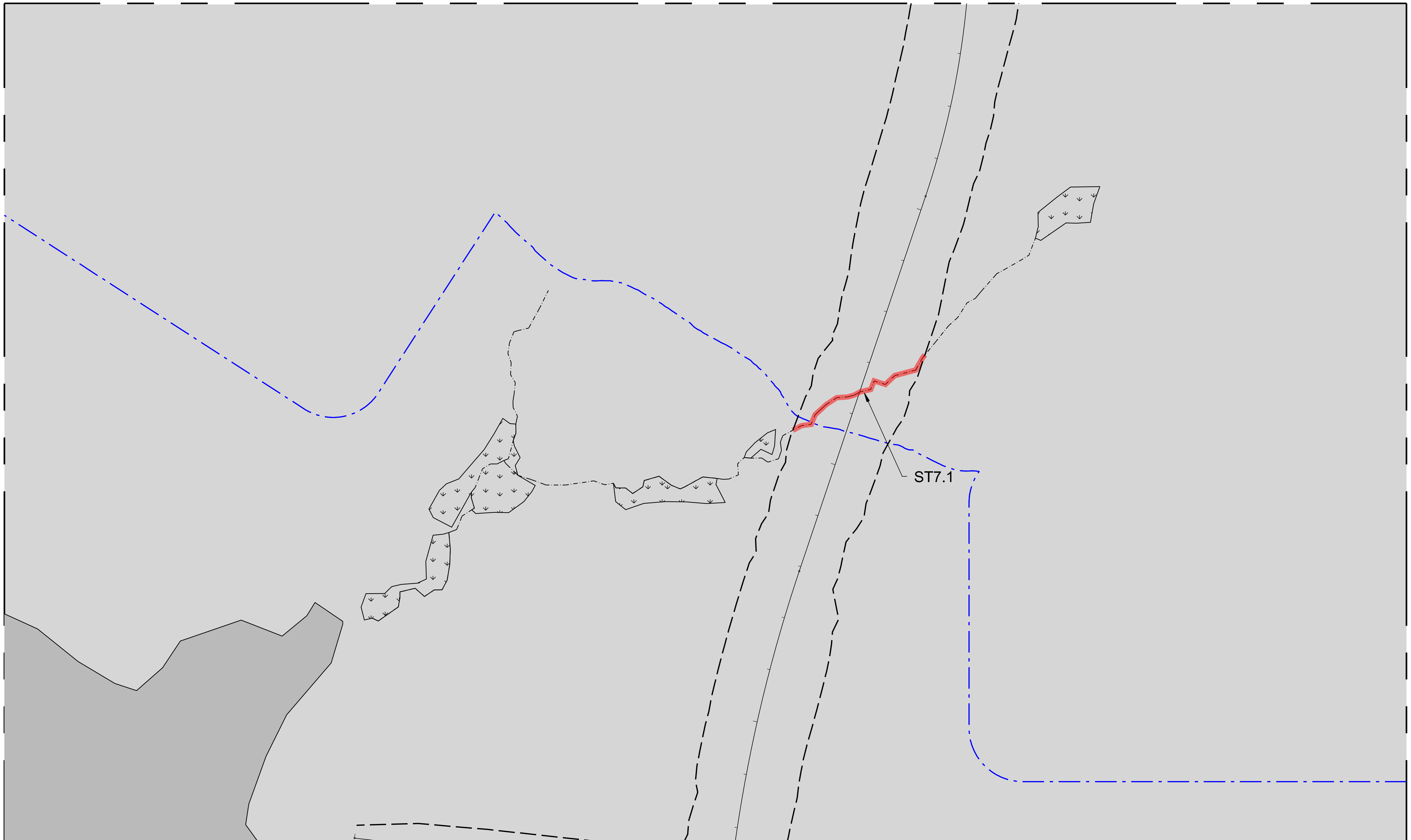
DATE
10/13/2021

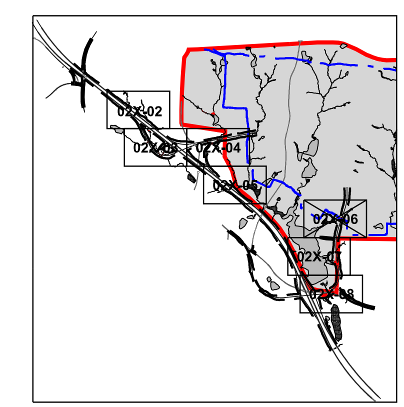
SHEET
02X-05

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST7.1	S17	Culvert	309	0
		Total	309	0



MATCHLINE - SEE SHEET 02X-07 FOR CONTINUATION



KEY MAP
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SCALE: 1" = 200'

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TRANSPORTATION FACILITIES
JURISDICTIONAL IMPACTS

DATE
10/13/2021

SHEET
02X-06

MATCHLINE - SEE SHEET 02X-06 FOR CONTINUATION

MATCHLINE - SEE SHEET 02X-08 FOR CONTINUATION

Wetland Impacts

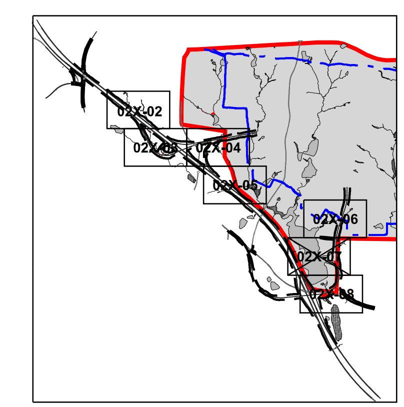
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WT8.1	WH	Fill	0.0004	0
WT8.2	HDR WC	Fill	0.003	0
		Total	0.00	0

Pond Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
PT8.1	P18	Fill	0.11
PT8.2	P19	Fill	0.01
		Total	0.12

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST8.1	HDR S6	Culvert	469	0
		Total	469	0



KEY MAP
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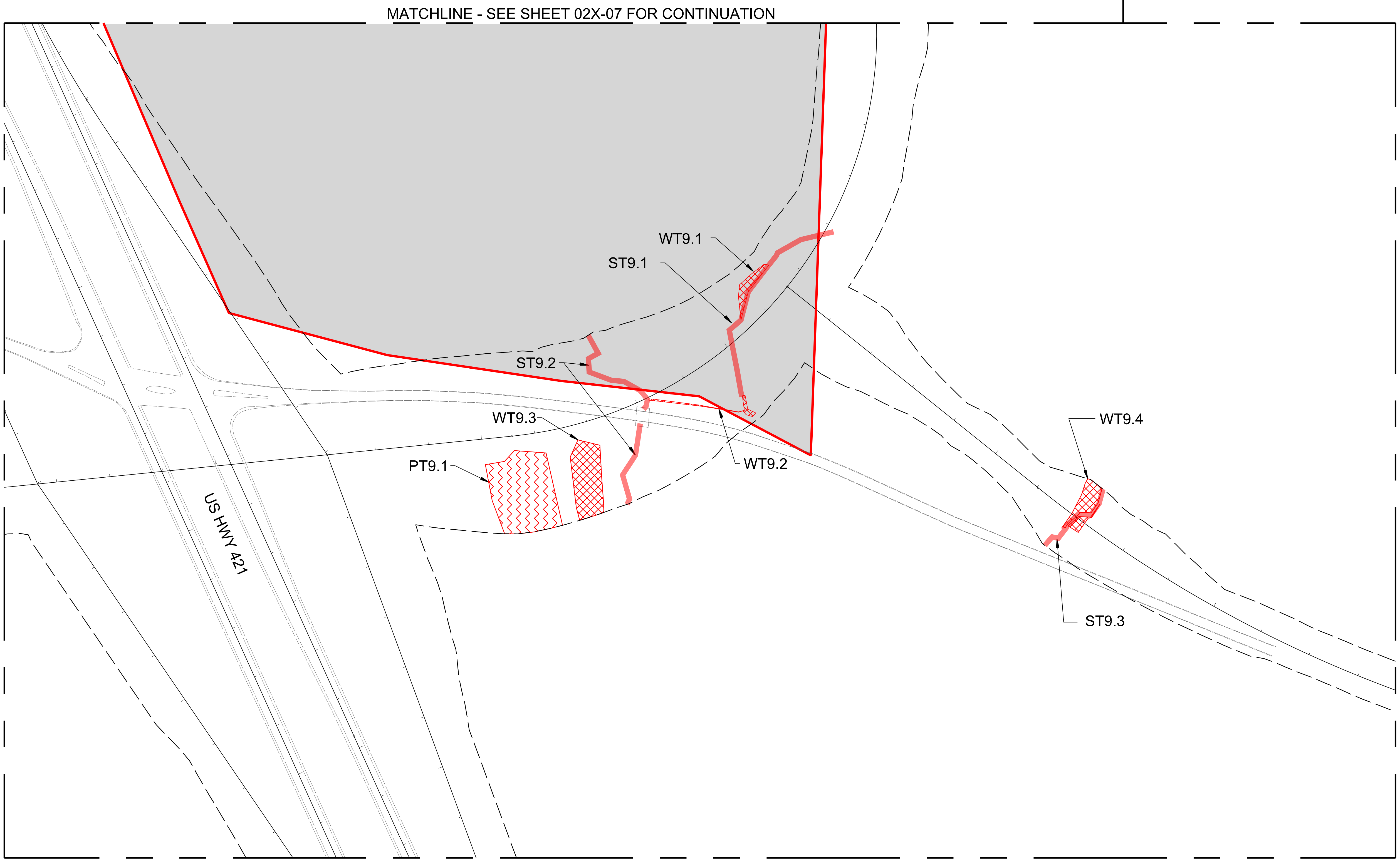
10/13/2021

SHEET
02X-07



Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WT9.1	WSA	Fill	0.04	0
WT9.2	WS	Fill	0.01	
WT9.3	WK	Fill	0.17	
WT9.4	WN	Fill	0.07	
		Total	0.28	0

Pond Impacts

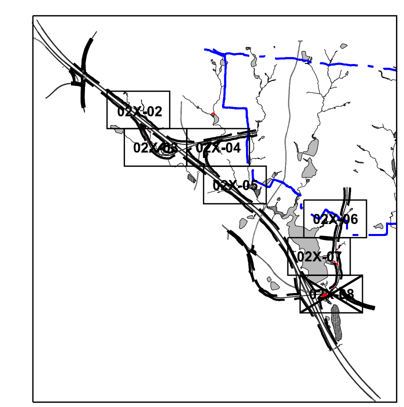
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)
PT9.1	PB	Fill	0.38
		Total	0.38

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST9.1	SX	Culvert	416	0
ST9.2	SQ	Culvert	391	
		Total	807	0

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
ST9.3	SS	Culvert	168	0
		Total	168	0



KEY MAP
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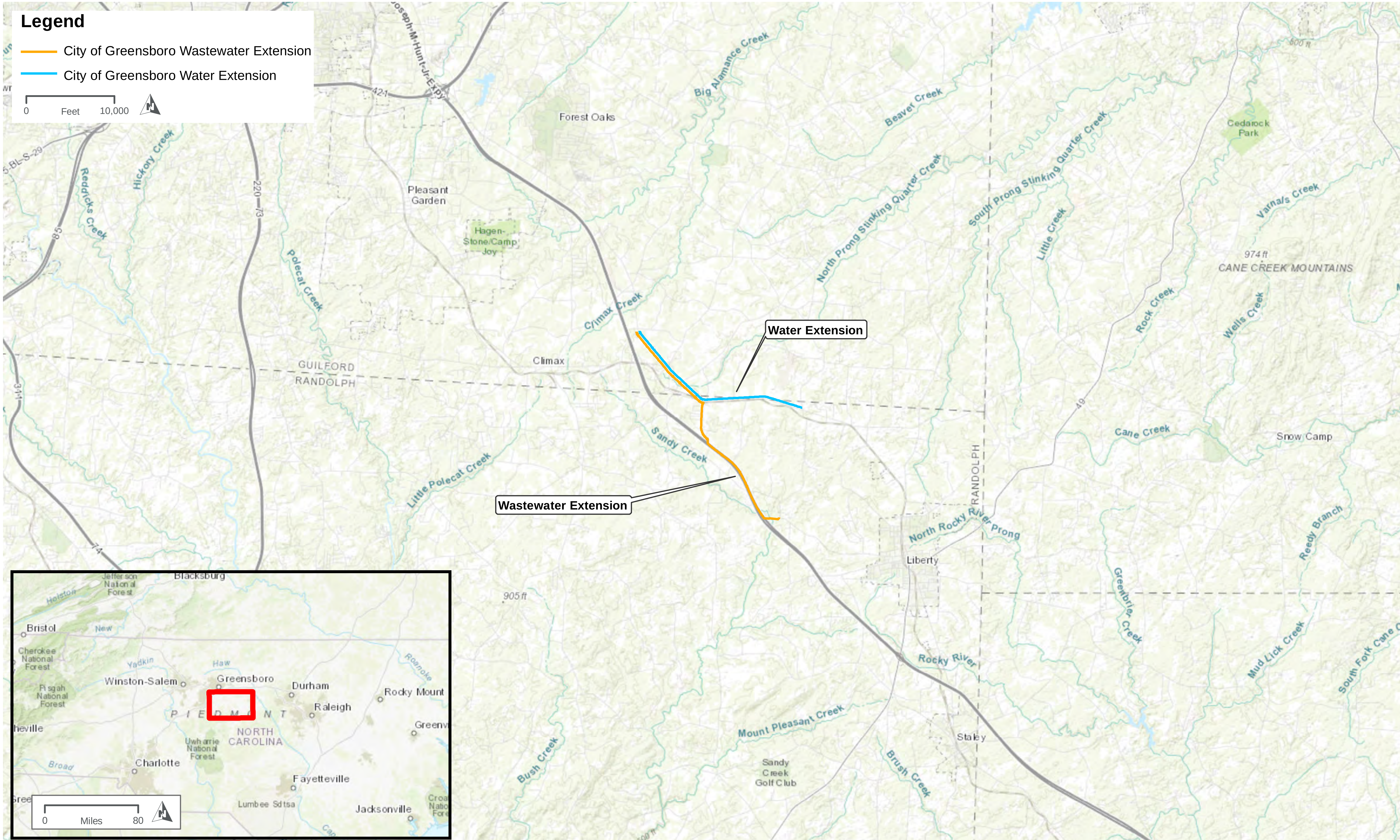
DATE
10/13/2021

SHEET
02X-08

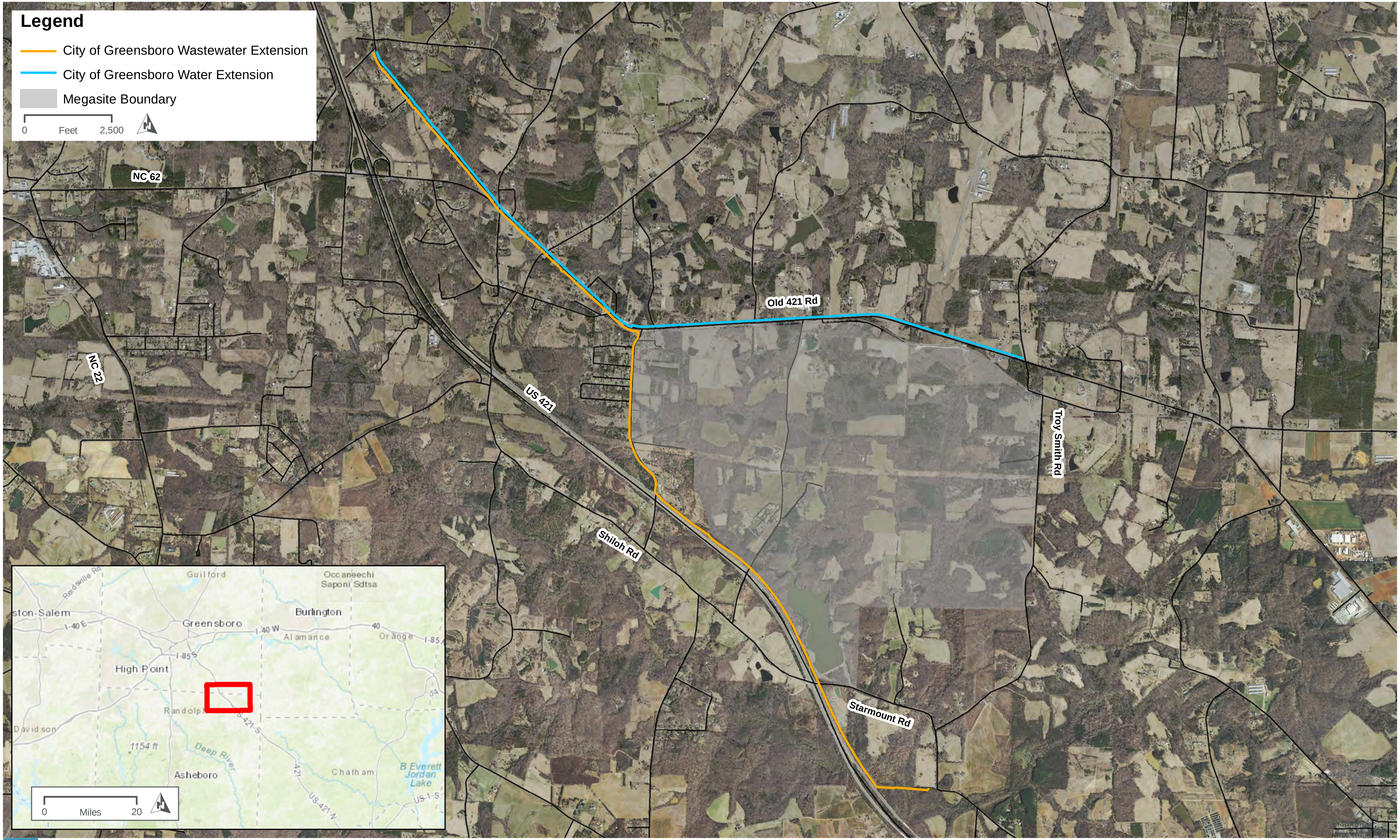


VICINITY MAP

PROPOSED WATER MAIN AND FORCE MAIN SEWER

FIGURE 1

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIG_060118\WATER_SEWER_GRMS_PORTION\FIG_1_WS_VICINITY_MAP_052518.MXD - USER: JGARVEY - DATE: 5/25/2018



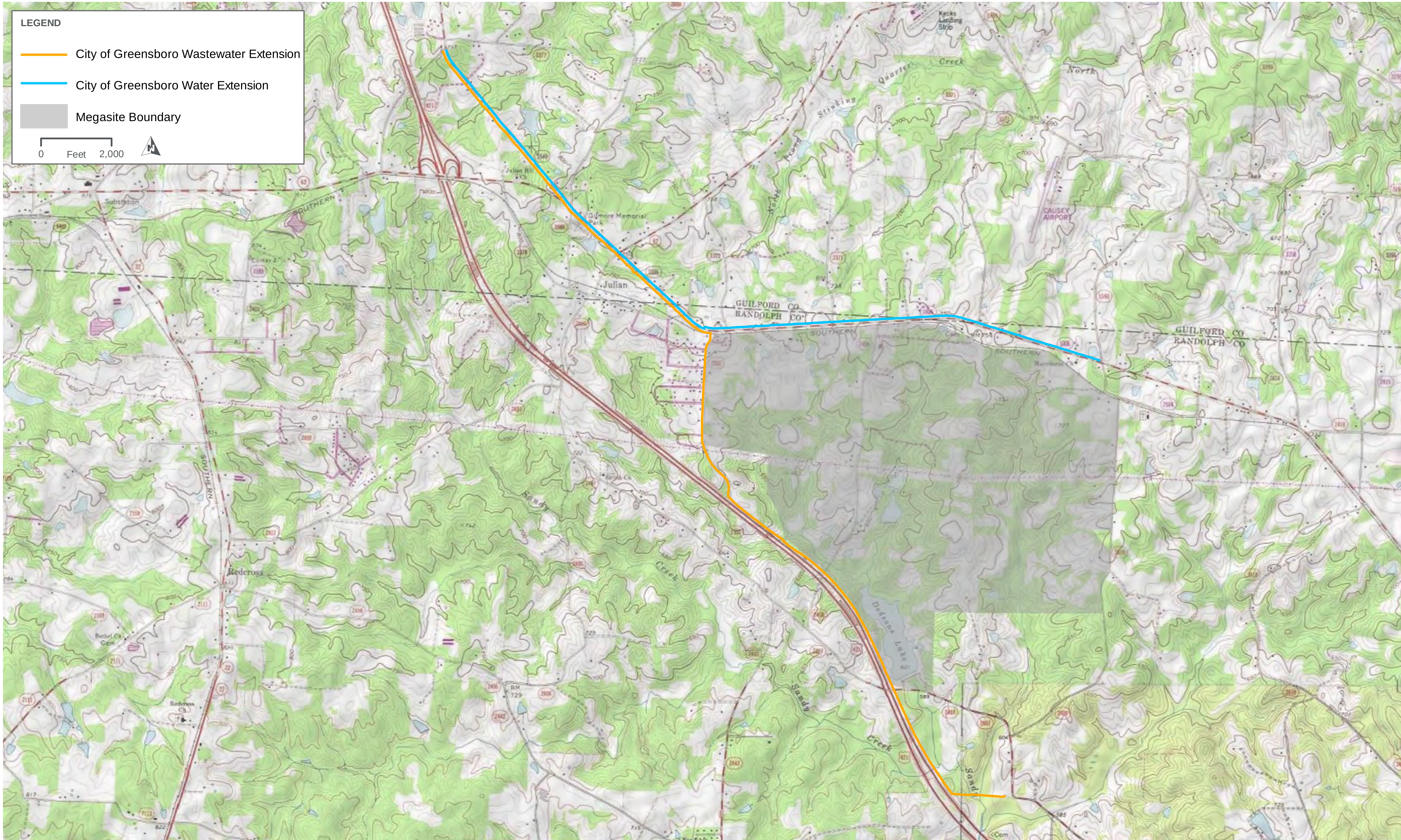
HDR

AERIAL PHOTOGRAPHY MAP

PROPOSED WATER MAIN AND FORCE MAIN SEWER

FIGURE 2

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIG_060118\WATER_SEWER_GRMS_PORTION\FIG_2_WS_AERIAL_MAP_052218.MXD - USER: JGARVEY - DATE: 5/25/2018

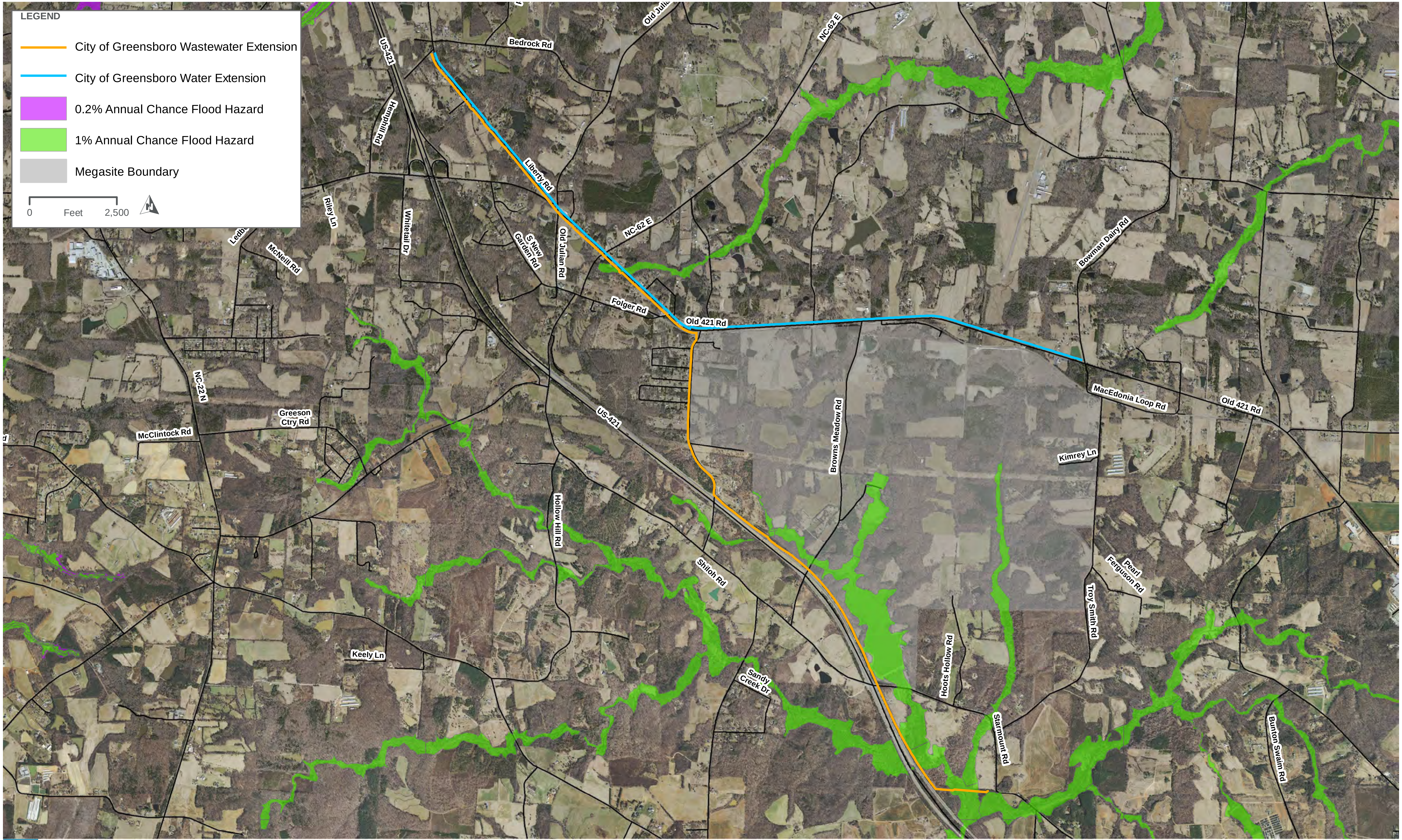


USGS QUANDRANGLES: CLIMAX, KIMESVILLE, GRAY'S CHAPEL AND LIBERTY

PROPOSED WATER MAIN AND FORCE MAIN SEWER

FIGURE 3

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIG_060118\WATER_SEWER_GRMS_PORTION\FIG_3_WS_USGS_MAP_052518.MXD - USER: JGARVEY - DATE: 5/25/2018

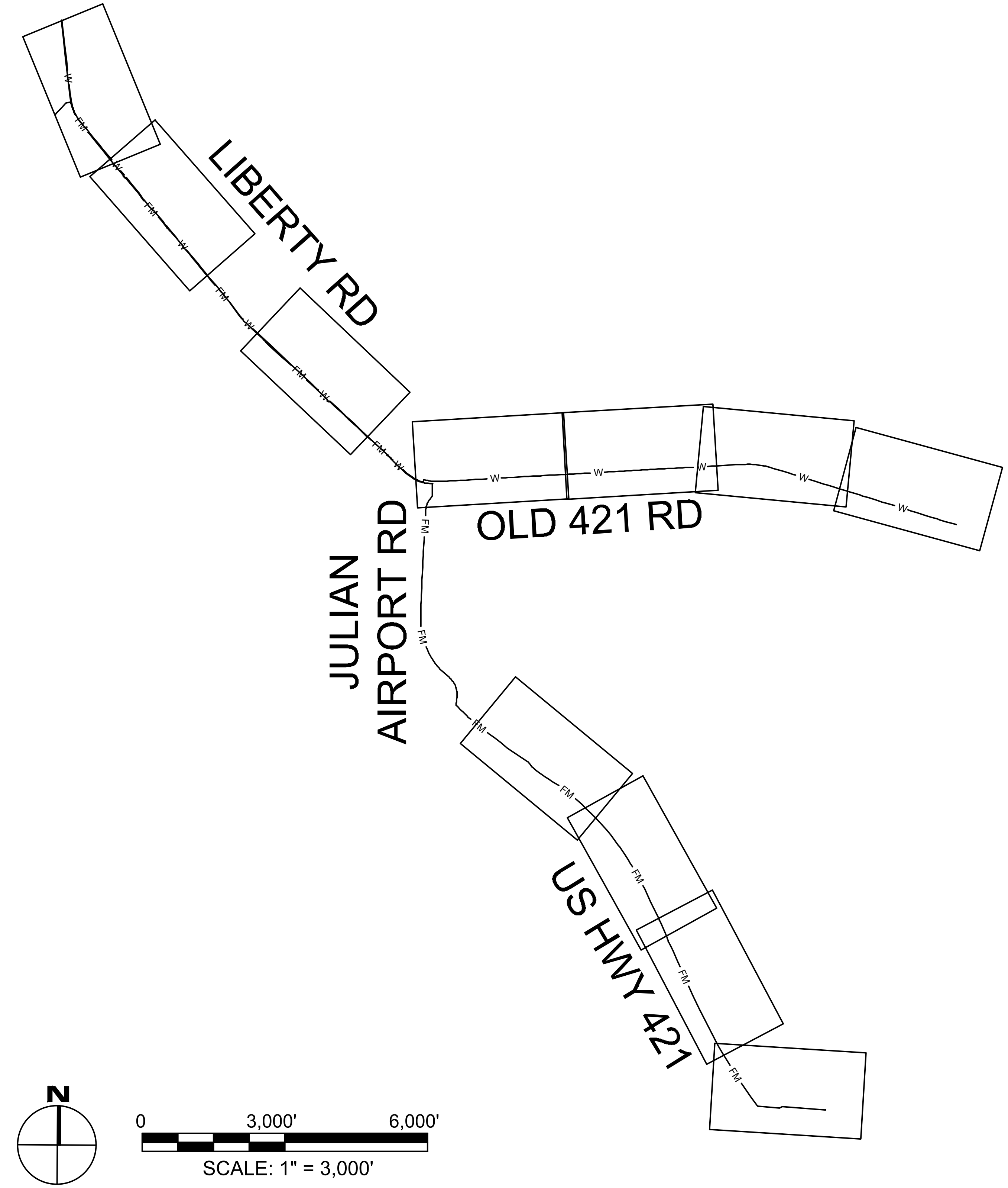


FEMA FLOODPLAIN MAP

PROPOSED WATER MAIN AND FORCE MAIN SEWER

FIGURE 6

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIG_060118\WATER_SEWER_GRMS_PORTION\FIG_6_WS_FEMA_MAP_052518.MXD - USER: JGARVEY - DATE: 5/25/2018



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PROJECT NE□ □ORLD
JURISDICTIONAL IMPACTS

DATE
05□31□2018

SHEET
03X-00

Wetland Impacts

Impact Number	Sheet Number	Wetland ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Type of Wetland (Cowardin)	Area of Permanent Impact (acres)	Area of Temporary Impact (acres)
WS5.1	5	W-A-190-1	35.869143	-79.627752	CLEARING	PFO	0.11	0.00
WS6.1	6	W-B-181-6	35.870524	-79.628747	CLEARING	PEM	0.00	0.07
WS6.2	6	W-B-181-6	35.870986	-79.629054	CLEARING	PEM	0.00	0.05
WS8.1	8	W-C-183-3	35.883935	-79.638183	CLEARING	PSS	0.00	0.01
WS9.1	9	W-D-182-2	35.902671	-79.649545	CLEARING	PSS	0.00	0.07
WS9.2	9	W-E-182-3	35.902626	-79.646441	CLEARING	PEM/PSS	0.00	0.08
WS9.3	9	W-B-183-1	35.902961	-79.639914	CLEARING	PEM	0.00	0.01
WS10.1	10	W-B-183-2	35.903147	-79.636891	CLEARING	PEM	0.00	0.01
WS10.2	10	W-D-183-2	35.90319	-79.635919	CLEARING	PEM	0.00	0.01
WS11.1	11	W-D-182-4	35.902781	-79.622182	CLEARING	PSS	0.00	0.01
WS12.1	12	W-A-182-5	35.901815	-79.618279	CLEARING	PEM	0.00	0.01
WS12.2	12	W-A-182-2	35.900386	-79.612446	CLEARING	PFO/PEM	0.01	0.00
WS13.1	13	W-C-182-2	35.905386	-79.654074	CLEARING	PFO	0.01	0.00
WS14.1	14	W-E-182-2	35.917792	-79668686	CLEARING	PFO	0.02	0.00
WS15.1	15	W-E-182-1	35.923044	-79.674129	CLEARING	PFO	0.04	0.00
						Total	0.19	0.33

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DATE
05□31□2018

SHEET
03X-01

Stream Impacts

Impact Number	Sheet Number	Stream ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Perennial (P) or Intermittent (I)	Average Stream Width (feet)	Permanent Impact Length (linear feet)	Temporary Impact Length (linear feet)	Impact Area (square feet)
SS5.1	5	S-A-190-4	35.866464	-79.622251	STABILIZATION	I	6	20	20	240
SS5.2	5	S-A-190-4	35.866488	-79.622650	STABILIZATION	I	6	20	20	240
SS5.3	5	S-A-190-2	35.866531	-79.623971	STABILIZATION	P	15	21	21	630
SS5.4	5	S-A-190-1	35.868492	-79.627243	STABILIZATION	P	15	20	20	600
SS7.1	7	S-A-183-2	35.789130	-79.633727	STABILIZATION	I	4	32	21	212
SS7.2	7	S-A-183-3	35.882835	-79.636832	STABILIZATION	P	4	21	25	184
SS8.1	8	S-C-183-1	35.883935	-79.638183	STABILIZATION	I	4	0	41	164
SS8.2	8	S-D-183-4	35.886291	-79.641971	STABILIZATION	P	7	21	22	301
SS10.1	10	S-D-183-2	35.903195	-79.635911	STABILIZATION	I	3	13	0	39
SS13.1	13	S-B-182-4	35.907172	-79.656435	STABILIZATION	I	4	0	43	172
SS13.2	13	S-E-182-3	35.910407	-79.660758	STABILIZATION	I	4	25	20	180
SS14.1	14	S-E-182-1	35.919983	-79.670978	STABILIZATION	P	6	0	38	228
							Total	193	291	3,190

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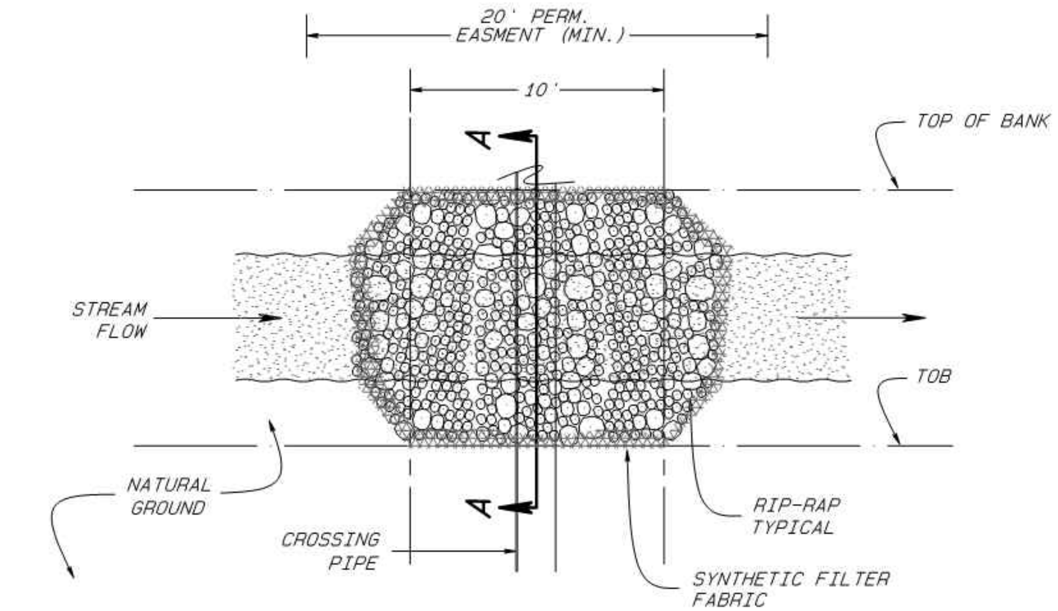
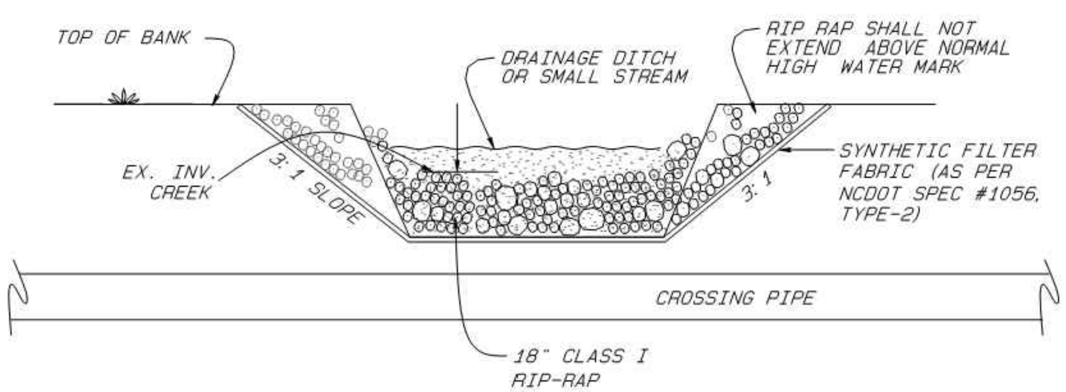
SHEET
03X-02

DIGITAL FILE 23 May 2005



PLAN



SECTION A-A

NOTES:

1) PERMANENT CROSSING FOR VEHICLE MAINTENANCE EQUIPMENT.
2) CLASS I RIP-RAP TO BE LAID MIN. 18 INCHES THICK OVER ENTIRE AREA OF DISTURBANCE (AS DIRECTED BY ENGINEER).
3) CLASS II RIP-RAP USED IN LARGER STREAMS (AS DIRECTED BY ENGINEER).
4) AS PROJECT IS STABILIZED PLACE SYNTHETIC FILTER FABRIC & SPREAD ALL EXISTING EROSION STONE INTO PERMANENT LINER AS SHOWN. ADD STONE AS NEEDED.
5) ANY REQUIRED ARMORING ABOVE NORMAL HIGH WATER MARK SHALL CONSIST OF MATTING OR APPROVED VEGETATIVE COVER.

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CITY OF GREENSBORO		
STANDARD PERMANENT CREEK STABILIZATION WITH MAINTENANCE CROSSING	STD. NO. 214	REV. 01-91 06-05 03-97 03-05

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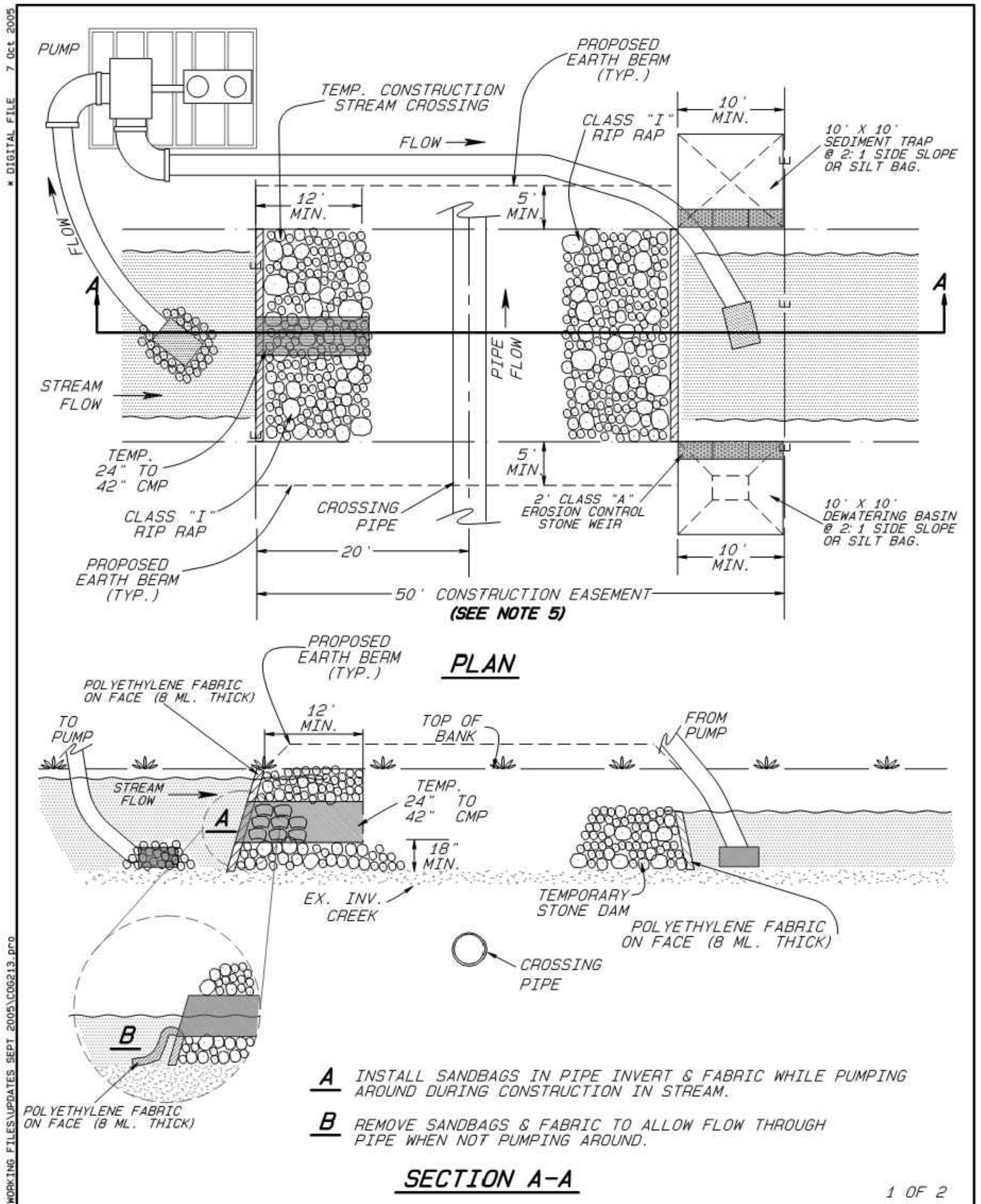
05□31□2018

SHEET
03X-03



1 OF 2

CITY OF GREENSBORO

STANDARD TEMPORARY CREEK CROSSING DURING CONSTRUCTION	STD. NO.	REV.
	213	01-91 06-05 03-97 09-05 03-05

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NOTES:

1) EROSION STONE TO BE "CLASS I" RIP-RAP UNLESS DESIGNATED DIFFERENTLY ON CONSTRUCTION PLAN.

2) PIPE SIZE AND AMOUNT NEEDED TO BE DETERMINED BY ENGINEER ON CONSTRUCTION PLAN.

3) TEMPORARY STREAM CROSSING TO BE CONVERTED TO COG #214 UPON PROJECT CONSTRUCTION COMPLETION IF CALLED FOR ON THE CONSTRUCTION PLANS.

4) PUMP AND LINE SIZE TO BE DETERMINED BY THE CONTRACTOR USING THE BASE FLOW SHOWN ON THE CONSTRUCTION PLANS.

5) WIDTH OF CONSTRUCTION EASEMENT SHALL BE MINIMIZED BASED UPON FIELD CONDITIONS. ANY DISTURBANCE(S) EXCEEDING 40' MAY REQUIRE ADDITIONAL WATER QUALITY PERMITTING OR MITIGATION.

CONSTRUCTION SEQUENCE FOR STREAM CROSSING

1) INSTALL PUMP AND LINE TO PUMP FLOW FROM AREA UPSTREAM OF TEMPORARY STREAM CROSSING TO AREA DOWNSTREAM OF CONSTRUCTION AREA. BEGIN PUMPING AND CONTINUING PUMPING WHILE WORKING WITHIN THE STREAM.

2) INSTALL UPSTREAM DAM, FILTER FABRIC, AND TEMPORARY CMP. COVER PIPE INLET WITH FABRIC AND SAND BAGS AS SHOWN IN INSET "A" WHILE WORKING IN THE STREAM. ALLOW STREAM FLOW THROUGH CMP AS SHOWN IN INSET "B" WHEN NOT WORKING WITHIN THE STREAM.

3) INSTALL DOWNSTREAM TEMPORARY STONE DAM AND FILTER FABRIC TO PREVENT BACK FLOW INTO CONSTRUCTION AREA.

4) INSTALL PROPOSED EARTH BERMS ALONG TOP OF BANK ON EACH SIDE OF THE CONSTRUCTION AREA.

5) INSTALL DEWATERING BASIN OR SILT BAG AT TOP OF BANK. DEWATER CONSTRUCTION AREA BETWEEN TEMPORARY DAM USING THIS BASIN.

6) INSTALL THE 10' X 10' SEDIMENT TRAP OR SILT BAG.

7) UPON CONSTRUCTION COMPLETION, REMOVE TEMPORARY DAMS, FILTER FABRIC, AND TEMPORARY CMP. DEPRESS TEMPORARY DAM BOTTOMS INTO STREAM BED UNTIL TOP OF RIP RAP IS LEVEL WITH STREAM BOTTOM. CONVERT TO COG STANDARD #214 IF CALLED FOR IN THE CONSTRUCTION PLANS.

8) UPON STABILIZATION OF CLEARED AREAS, REMOVE TEMPORARY EARTH BERM, SEDIMENT TRAP, AND DEWATERING BASIN.

2 OF 2

CITY OF GREENSBORO

STANDARD TEMPORARY CREEK CROSSING DURING CONSTRUCTION	STD. NO.	REV.
	213	01-91 06-05 03-97 09-05 03-05

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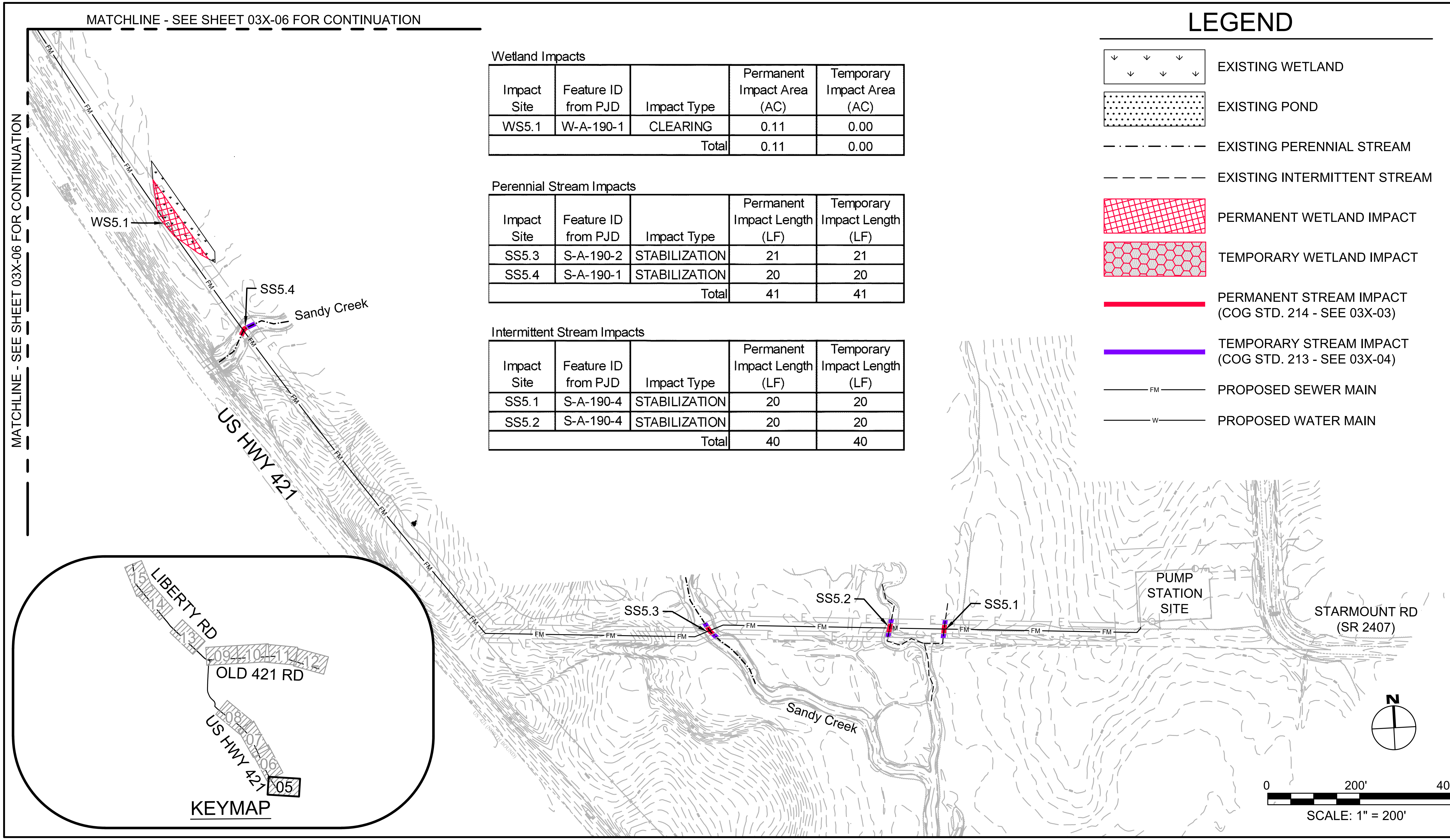
SHEET
03X-04



Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS5.1	W-A-190-1	CLEARING	0.11	0.00
		Total	0.11	0.00

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS5.3	S-A-190-2	STABILIZATION	21	21
SS5.4	S-A-190-1	STABILIZATION	20	20
		Total	41	41

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS5.1	S-A-190-4	STABILIZATION	20	20
SS5.2	S-A-190-4	STABILIZATION	20	20
		Total	40	40

LEGEND

EXISTING WETLAND
EXISTING POND
EXISTING PERENNIAL STREAM
EXISTING INTERMITTENT STREAM
PERMANENT WETLAND IMPACT
TEMPORARY WETLAND IMPACT
PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
FM PROPOSED SEWER MAIN
W PROPOSED WATER MAIN

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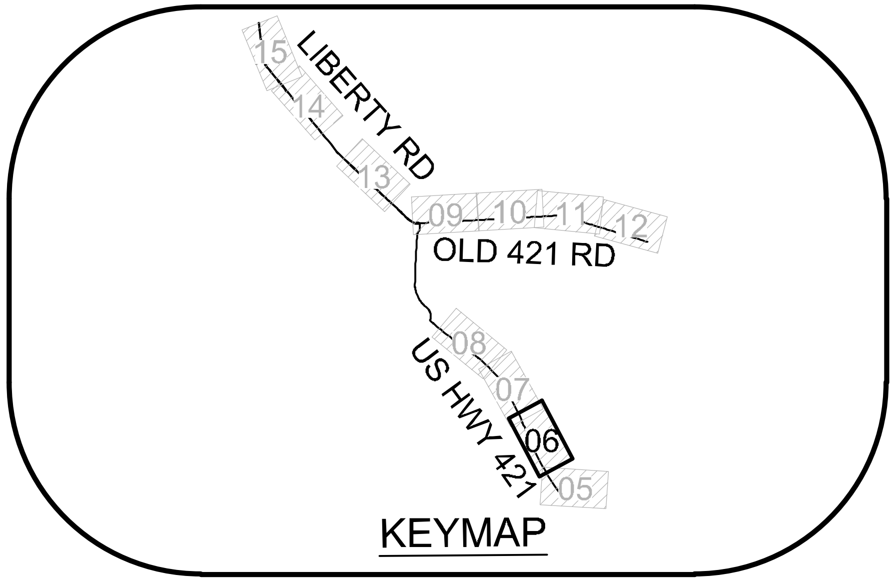
DATE 05□31□2018

SHEET 03X-05

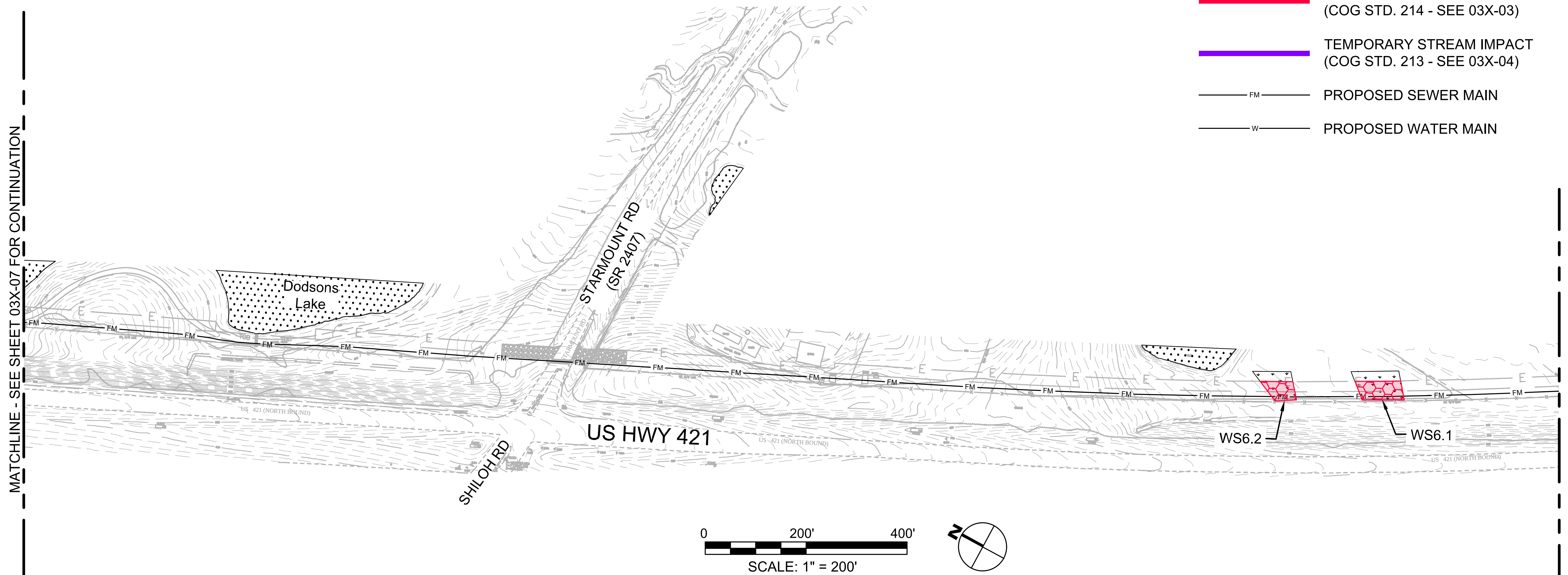


Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS6.1	W-B-181-6	CLEARING	0.00	0.07
WS6.2	W-B-181-6	CLEARING	0.00	0.05
		Total	0.00	0.12

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- FM — PROPOSED SEWER MAIN
- W — PROPOSED WATER MAIN



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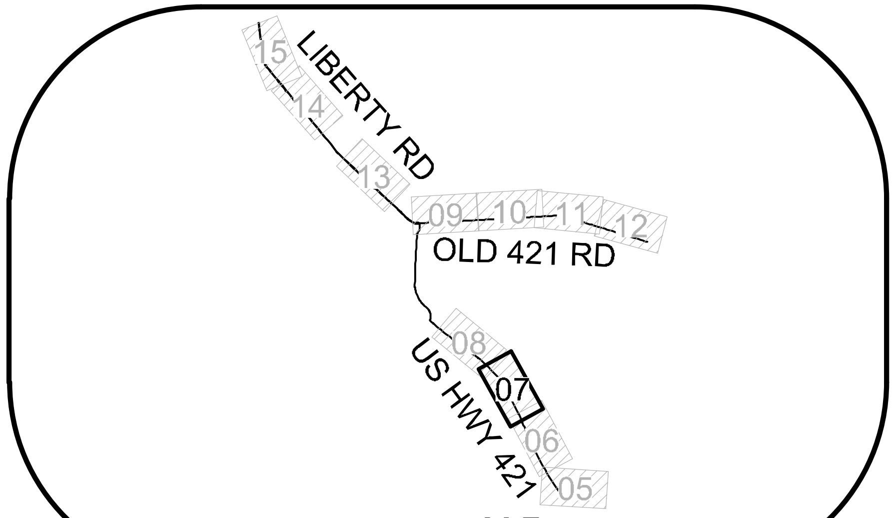
PROJECT NE□ □ORLD
JURISDICTIONAL IMPACTS

DATE
05□31□2018

SHEET
03X-06



KEYMAP

Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS7.2	S-A-183-3	STABILIZATION	21	25
		Total	21	25

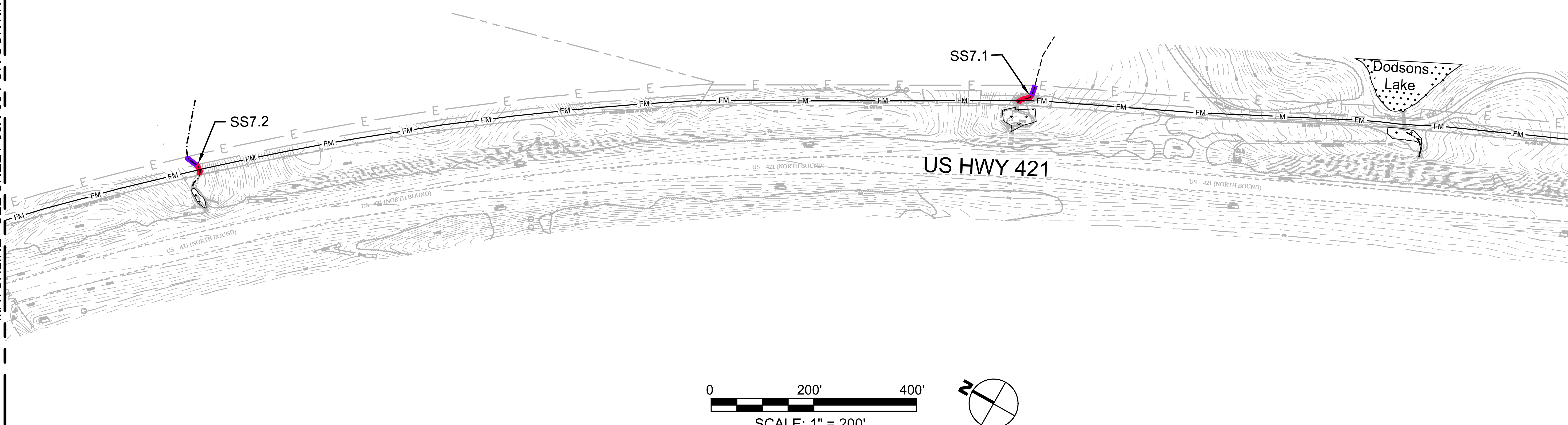
Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS7.1	S-A-183-2	STABILIZATION	32	21
		Total	32	21

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- FM — PROPOSED SEWER MAIN
- W — PROPOSED WATER MAIN

MATCHLINE - SEE SHEET 03X-08 FOR CONTINUATION



MATCHLINE - SEE SHEET 03X-06 FOR CONTINUATION

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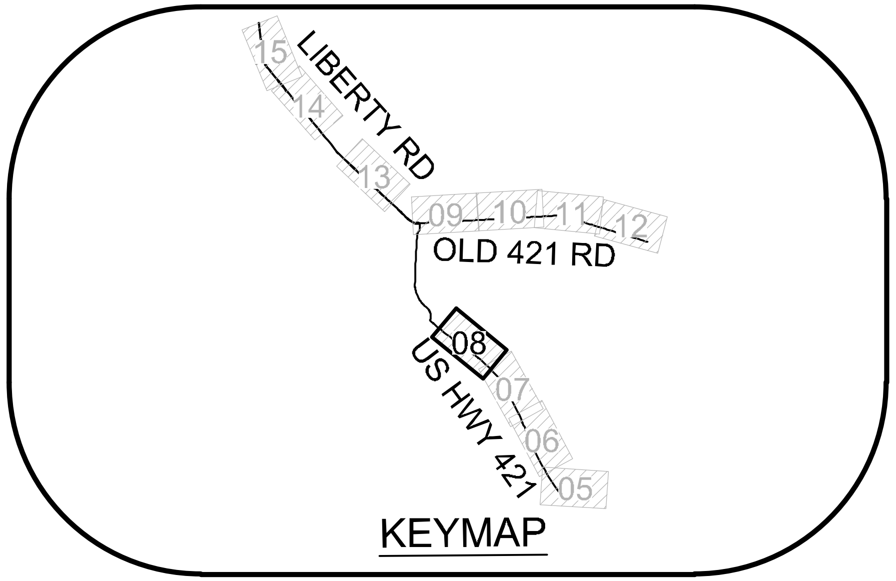
JURISDICTIONAL IMPACTS

DATE 05□31□2018

SHEET 03X-07



Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS8.1	W-C-183-3	CLEARING	0.00	0.01
		Total	0.00	0.01

Perennial Stream Impacts

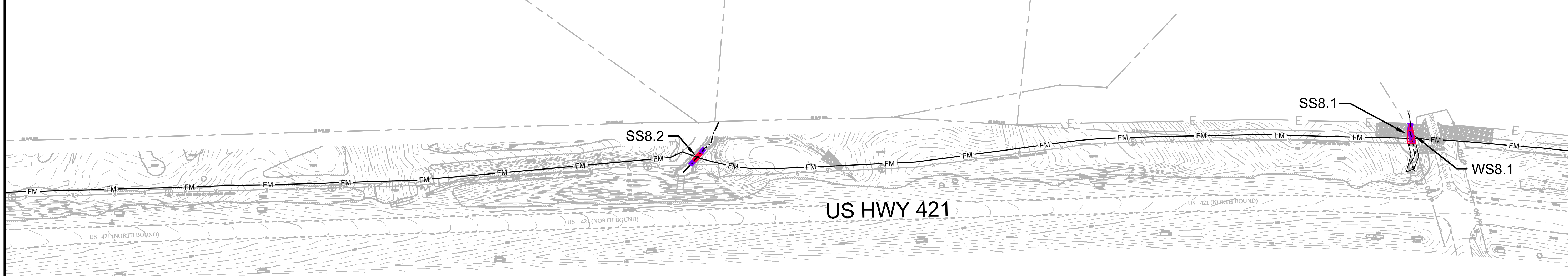
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS8.2	S-D-183-4	STABILIZATION	21	22
		Total	21	22

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS8.1	S-C-183-1	STABILIZATION	0	41
		Total	0	41

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- PROPOSED SEWER MAIN
- PROPOSED WATER MAIN



MATCHLINE - SEE SHEET 03X-07 FOR CONTINUATION

0 200' 400'
SCALE: 1" = 200'

N

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[illegible]1[illegible].232.6600

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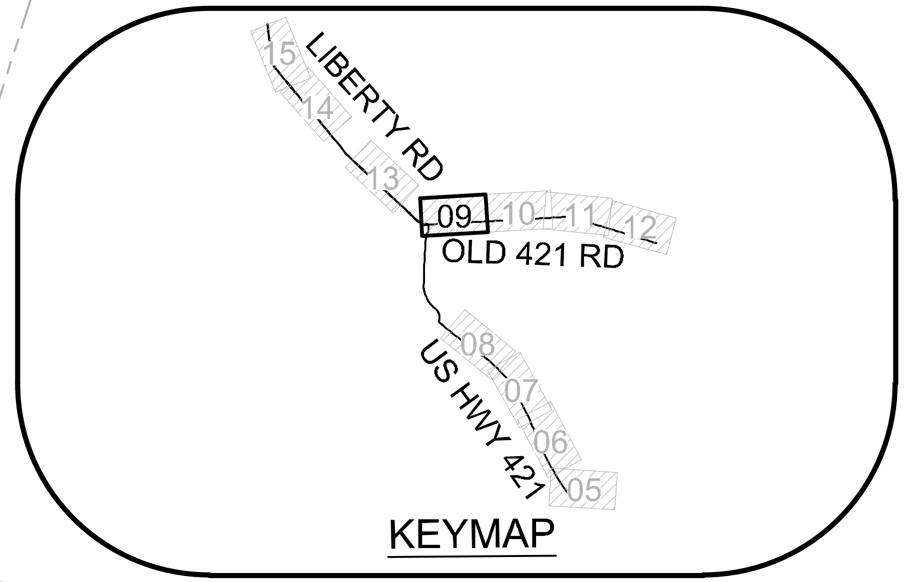
PROJECT NE[illegible] [illegible]ORLD
JURISDICTIONAL IMPACTS

DATE
05[illegible]31[illegible]2018

SHEET
03X-08



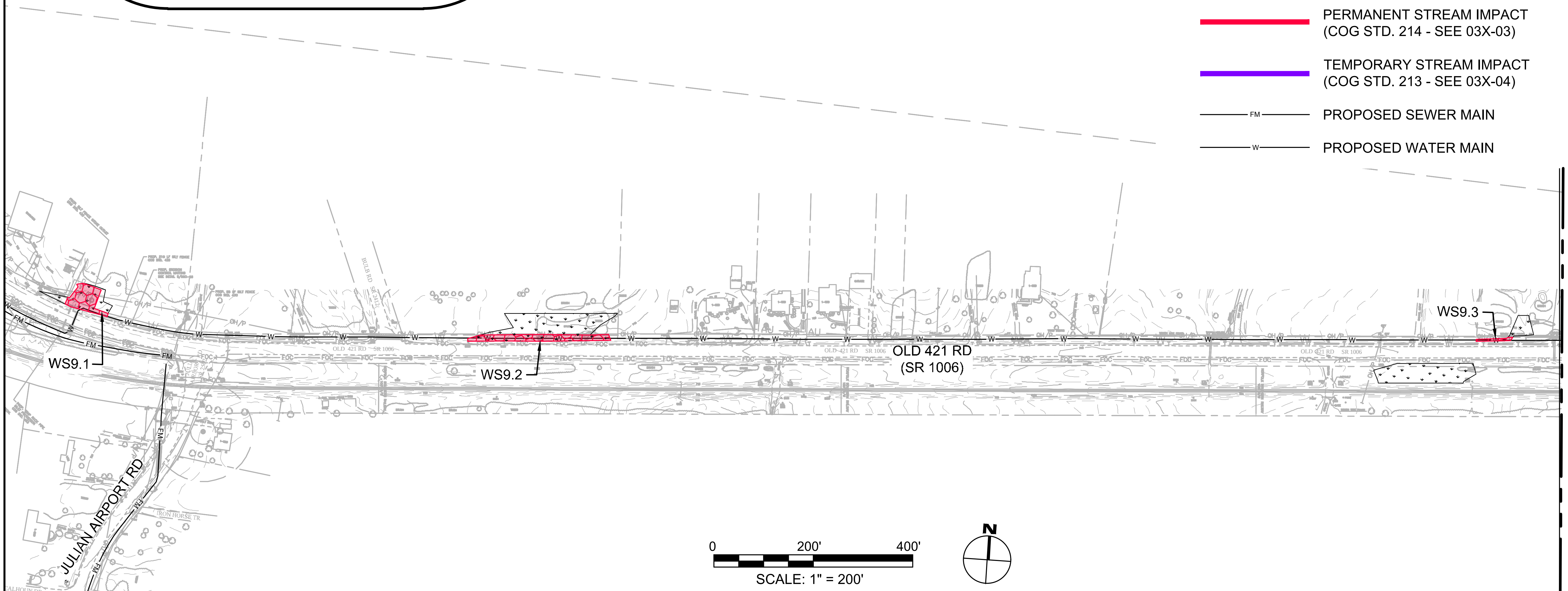
Impacts on this sheet are within the Haw River Subasin (Cape Fear 02)

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS9.1	W-D-182-2	CLEARING	0.00	0.07
WS9.2	W-E-182-3	CLEARING	0.00	0.08
WS9.3	W-B-183-1	CLEARING	0.00	0.01
		Total	0.00	0.16

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- FM PROPOSED SEWER MAIN
- W PROPOSED WATER MAIN



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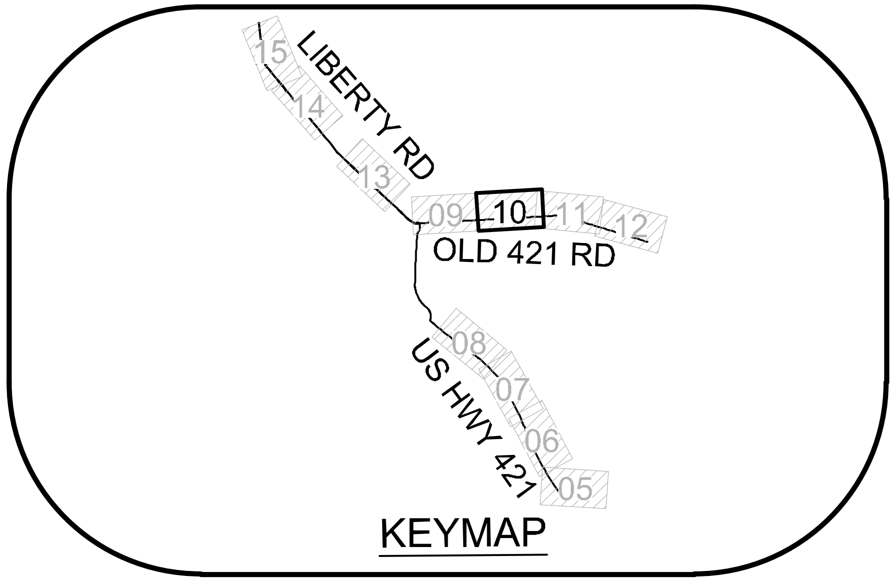
JURISDICTIONAL IMPACTS

DATE
05□31□2018

SHEET
03X-0□

Impacts on this sheet are within the Haw River Subasin (Cape Fear 02)



Wetland Impacts

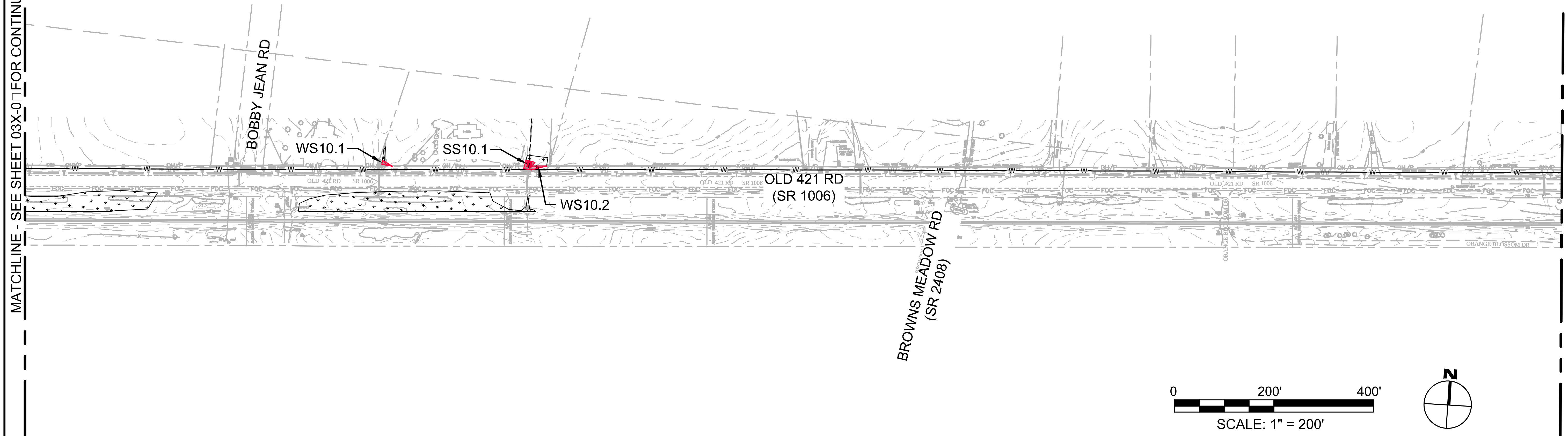
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS10.1	W-B-183-2	CLEARING	0.00	0.01
WS10.2	W-D-183-2	CLEARING	0.00	0.01
		Total	0.00	0.02

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS10.1	S-D-183-2	STABILIZATION	13	0
		Total	13	0

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- FM PROPOSED SEWER MAIN
- W PROPOSED WATER MAIN



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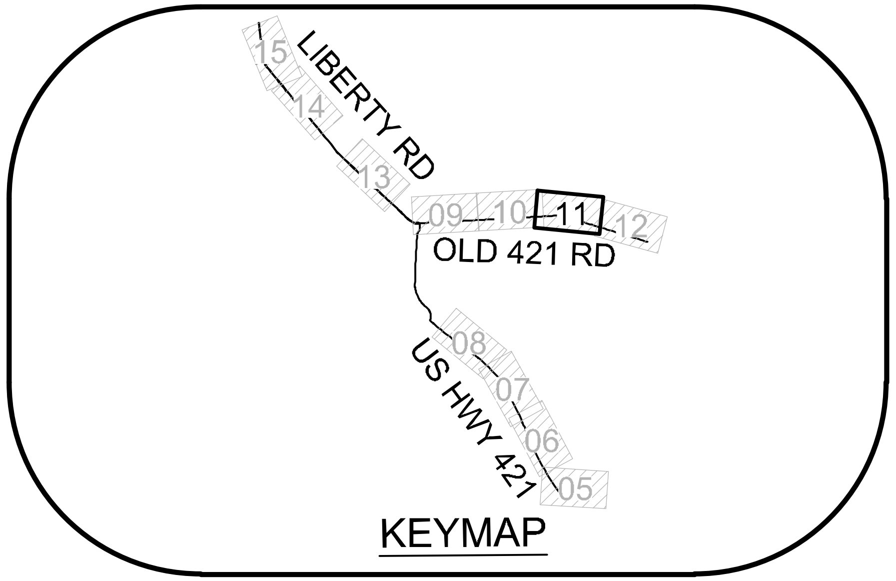
JURISDICTIONAL IMPACTS

DATE
05□31□2018

SHEET
03X-10



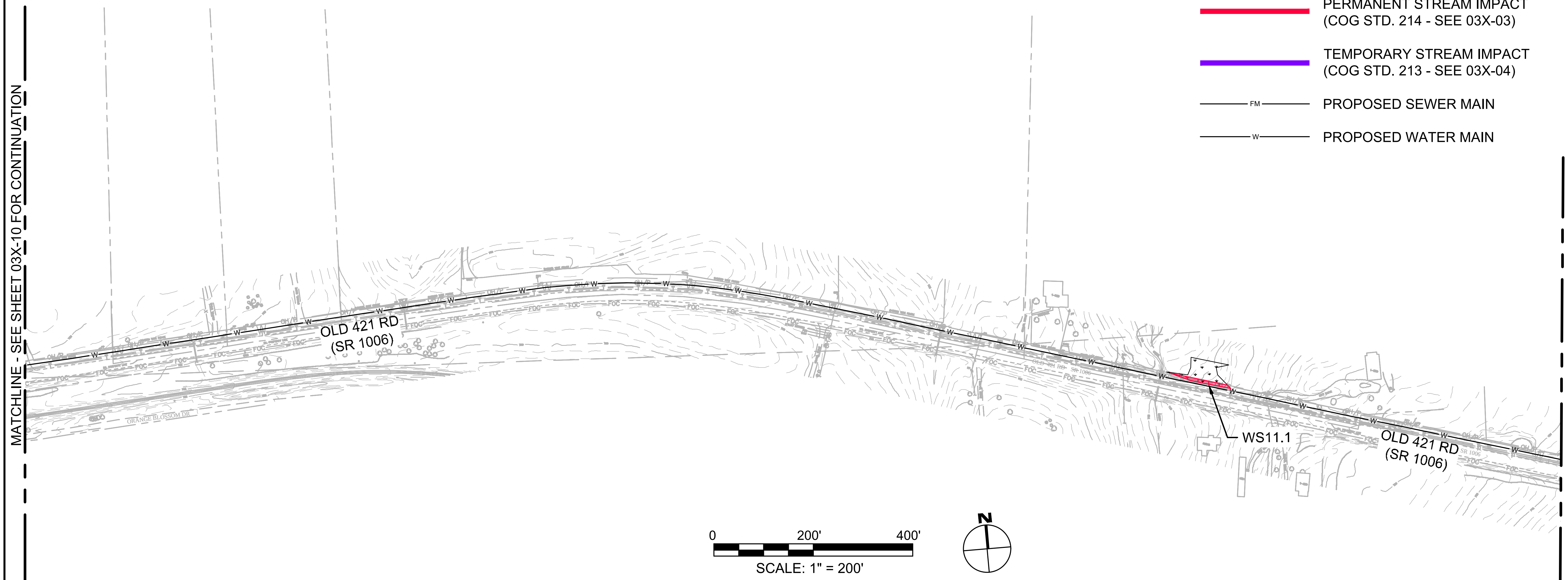
Impacts on this sheet are within the
Haw River Subasin (Cape Fear 02)

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS11.1	W-D-182-4	CLEARING	0.00	0.01
		Total	0.00	0.01

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- PROPOSED SEWER MAIN
- PROPOSED WATER MAIN



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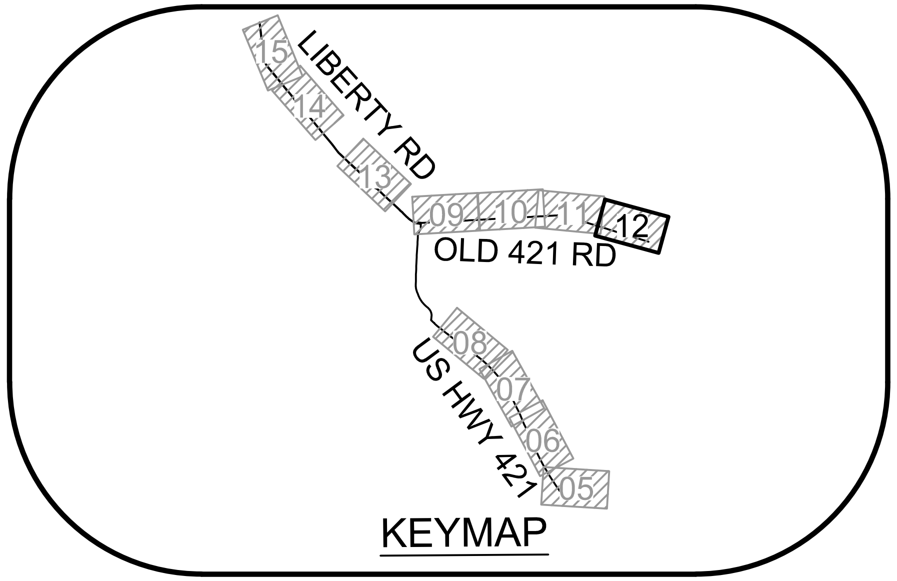
JURISDICTIONAL IMPACTS

DATE 05□31□2018

SHEET 03X-11



Impacts on this sheet are within the Haw River Subasin (Cape Fear 02)

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS12.1	W-A-182-5	CLEARING	0.00	0.01
WS12.2	W-A-182-2	CLEARING	0.01	0.00
		Total	0.01	0.01

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- FM PROPOSED SEWER MAIN
- W PROPOSED WATER MAIN

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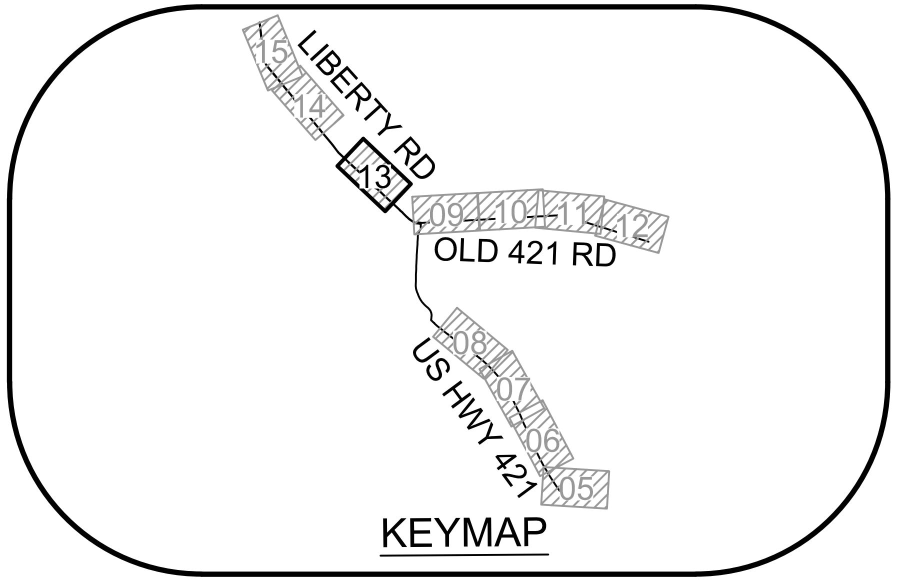
JURISDICTIONAL IMPACTS

DATE
05□31□2018

SHEET
03X-12



Impacts on this sheet are within the Haw River Subasin (Cape Fear 02)

Wetland Impacts

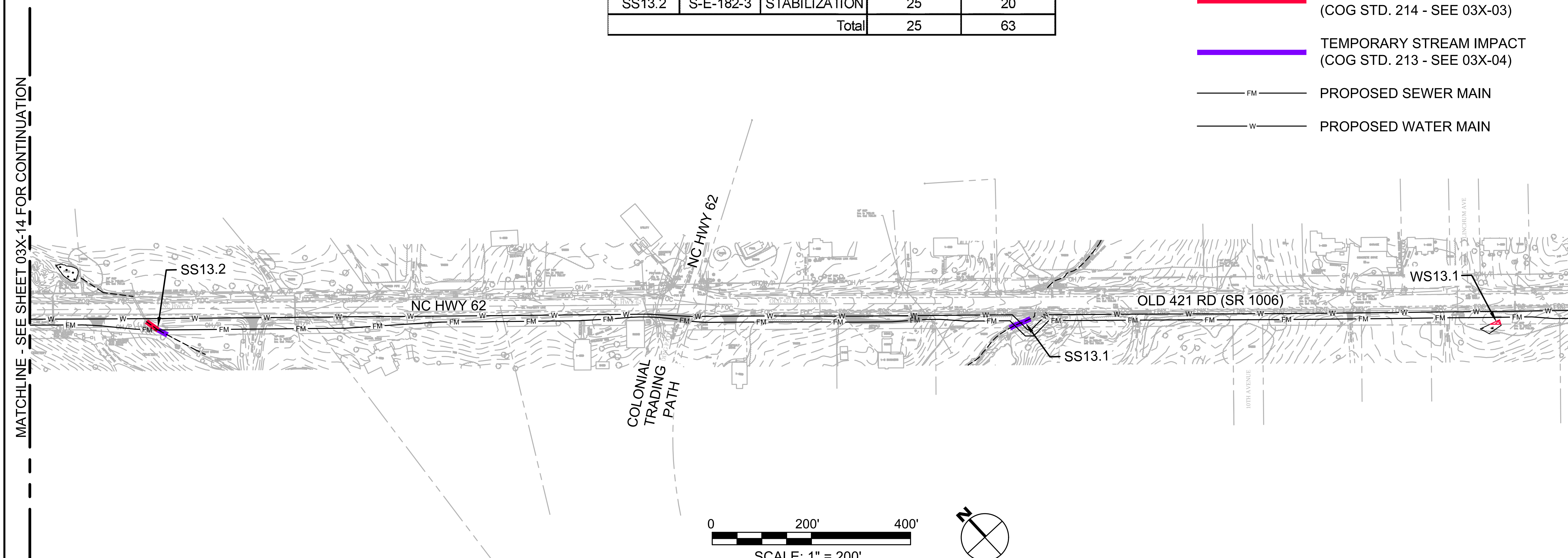
Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS13.1	W-C-182-2	CLEARING	0.01	0.00
		Total	0.01	0.00

Intermittent Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS13.1	S-B-182-4	STABILIZATION	0	43
SS13.2	S-E-182-3	STABILIZATION	25	20
		Total	25	63

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- PROPOSED SEWER MAIN
- PROPOSED WATER MAIN



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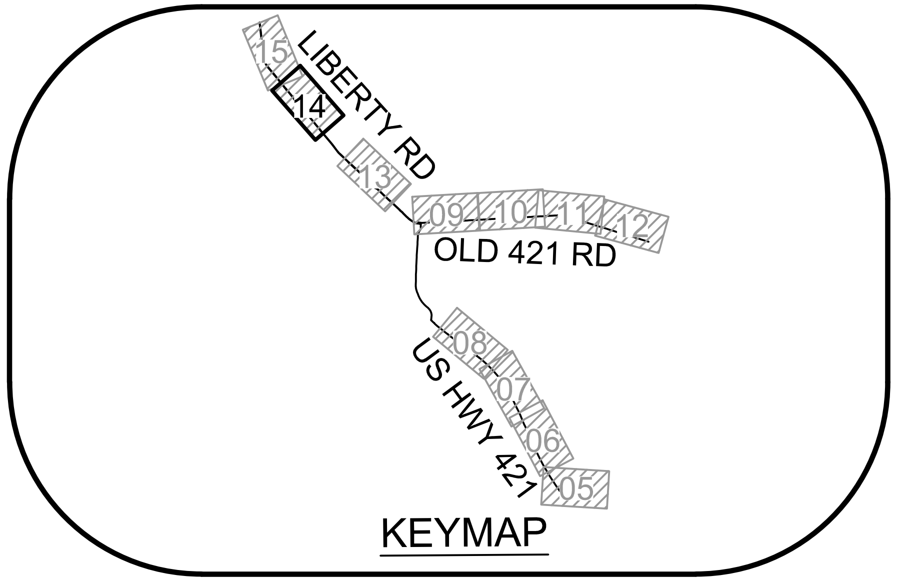
PROJECT NE□ □ORLD
JURISDICTIONAL IMPACTS

DATE 05□31□2018

SHEET 03X-13



Impacts on this sheet are within the
Haw River Subasin (Cape Fear 02)

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS14.1	W-E-182-2	CLEARING	0.02	0.00
		Total	0.02	0.00

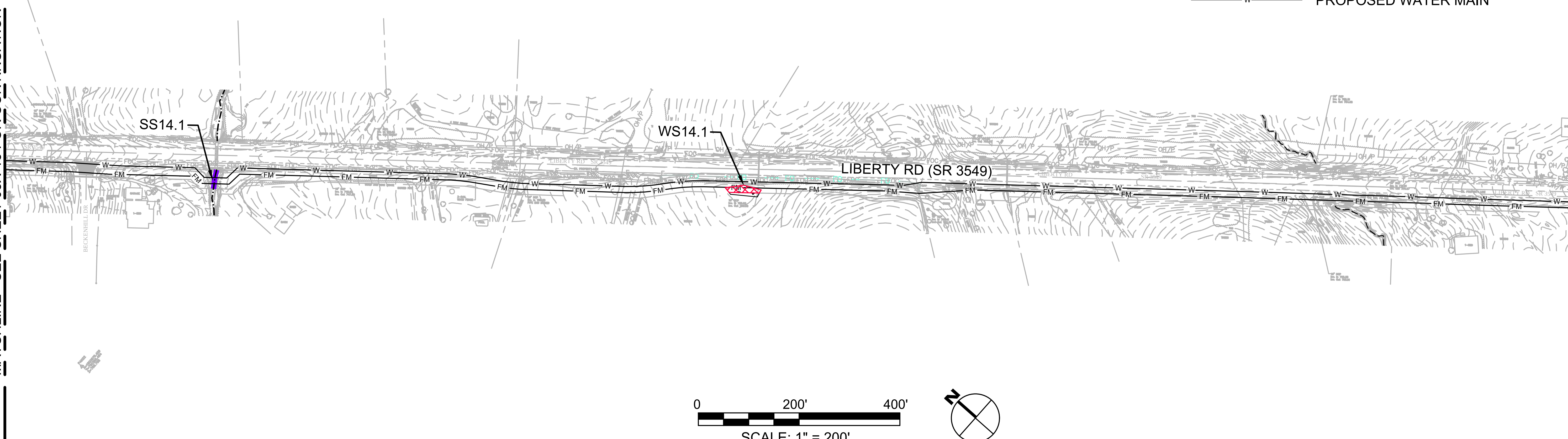
Perennial Stream Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Length (LF)	Temporary Impact Length (LF)
SS14.1	S-E-182-1	STABILIZATION	0	38
		Total	0	38

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- PROPOSED SEWER MAIN
- PROPOSED WATER MAIN

MATCHLINE - SEE SHEET 03X-15 FOR CONTINUATION



0 200' 400'
SCALE: 1" = 200'

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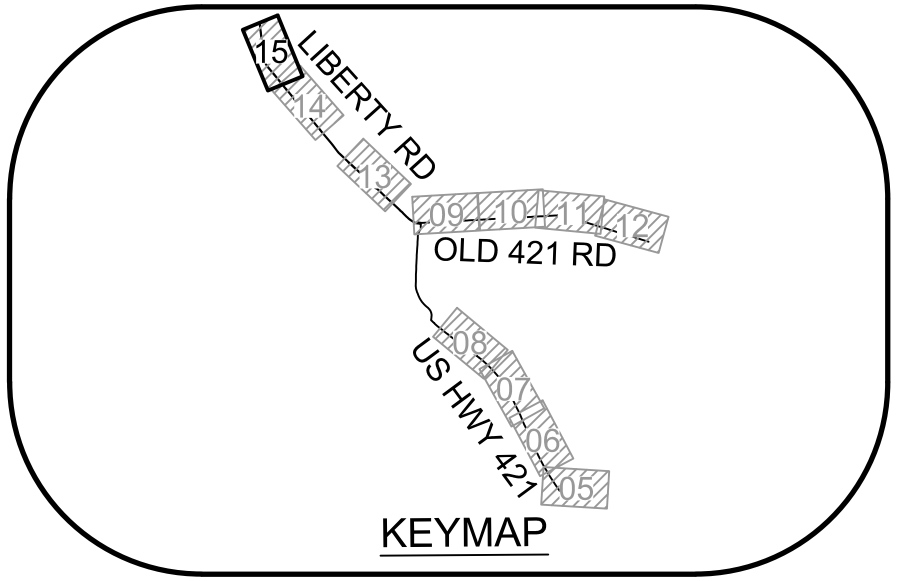
JURISDICTIONAL IMPACTS

DATE 05□31□2018

SHEET 03X-14



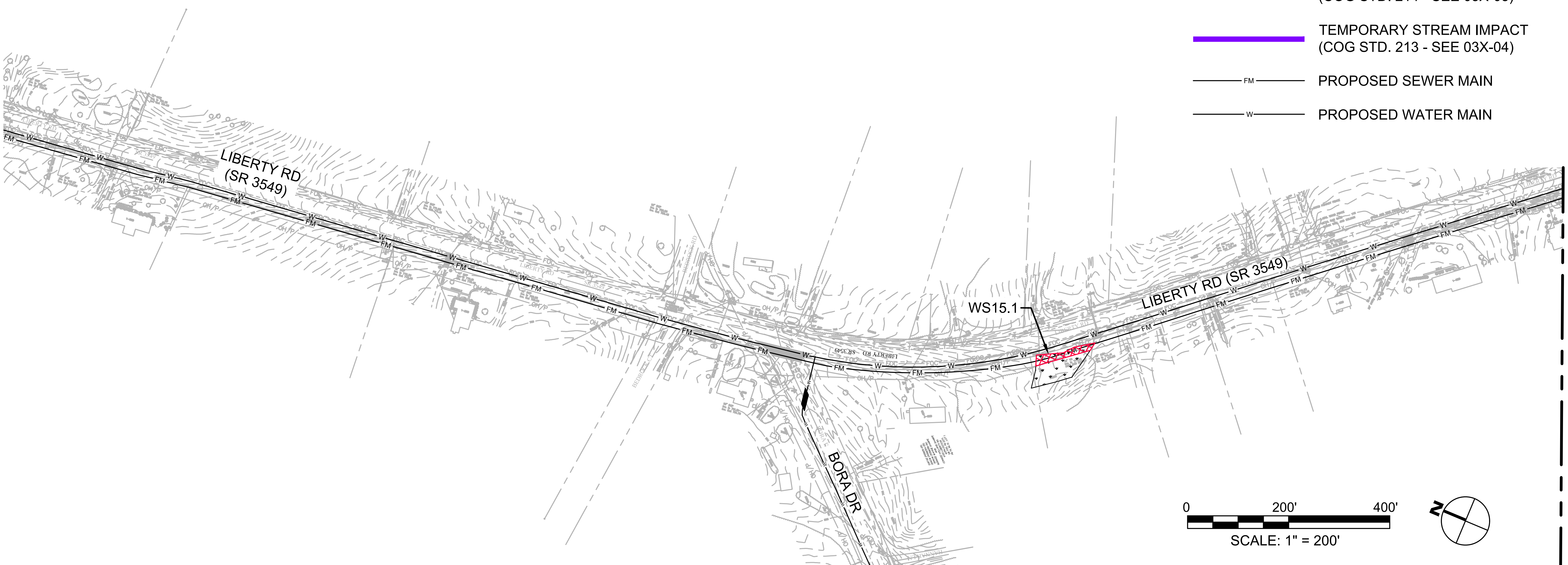
Impacts on this sheet are within the Haw River Subasin (Cape Fear 02)

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WS15.1	W-E-182-1	CLEARING	0.04	0.00
		Total	0.04	0.00

LEGEND

- EXISTING WETLAND
- EXISTING POND
- EXISTING PERENNIAL STREAM
- EXISTING INTERMITTENT STREAM
- PERMANENT WETLAND IMPACT
- TEMPORARY WETLAND IMPACT
- PERMANENT STREAM IMPACT (COG STD. 214 - SEE 03X-03)
- TEMPORARY STREAM IMPACT (COG STD. 213 - SEE 03X-04)
- FM PROPOSED SEWER MAIN
- W PROPOSED WATER MAIN



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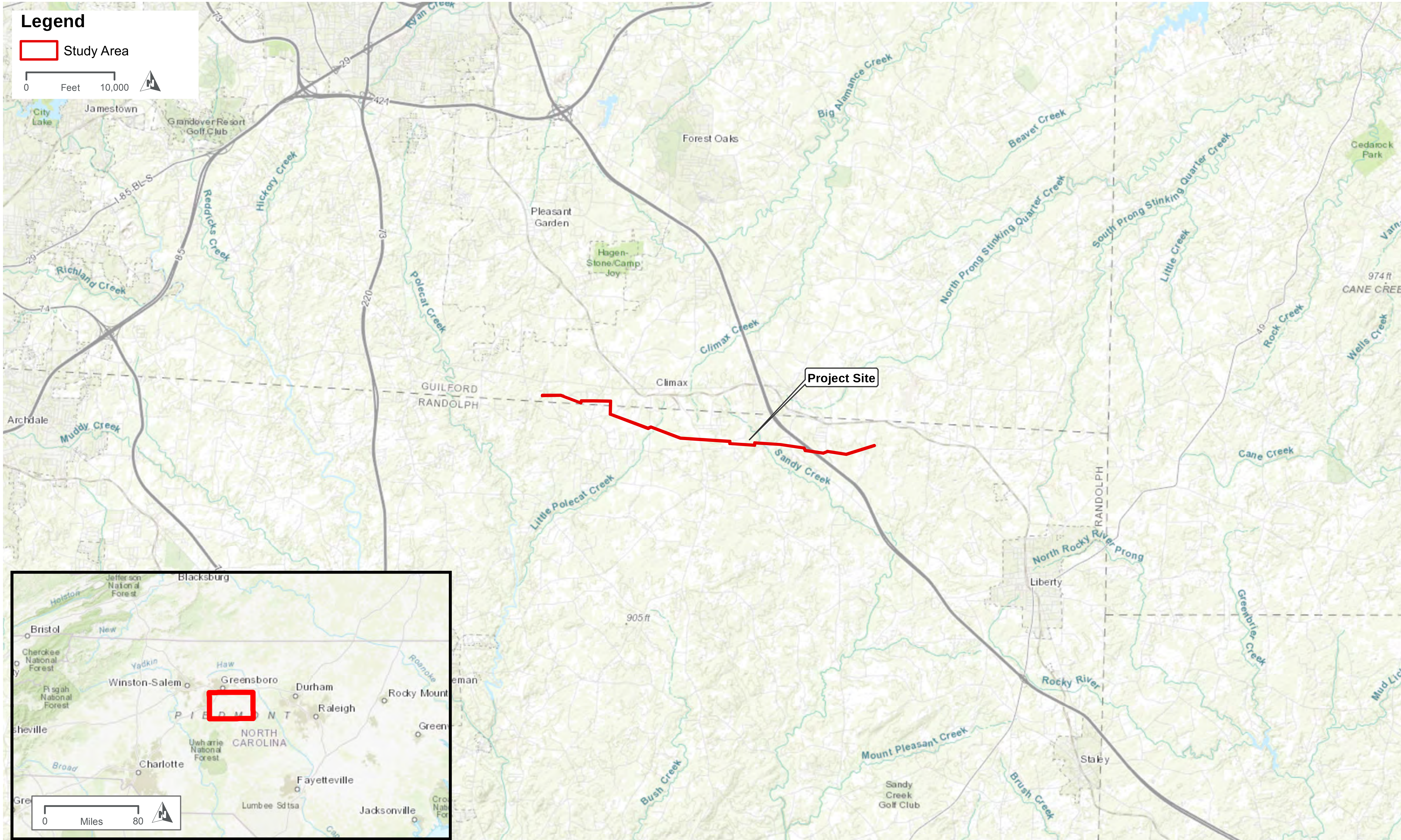
PROJECT NE□ □ORLD
JURISDICTIONAL IMPACTS

DATE
05□31□2018

SHEET
03X-15

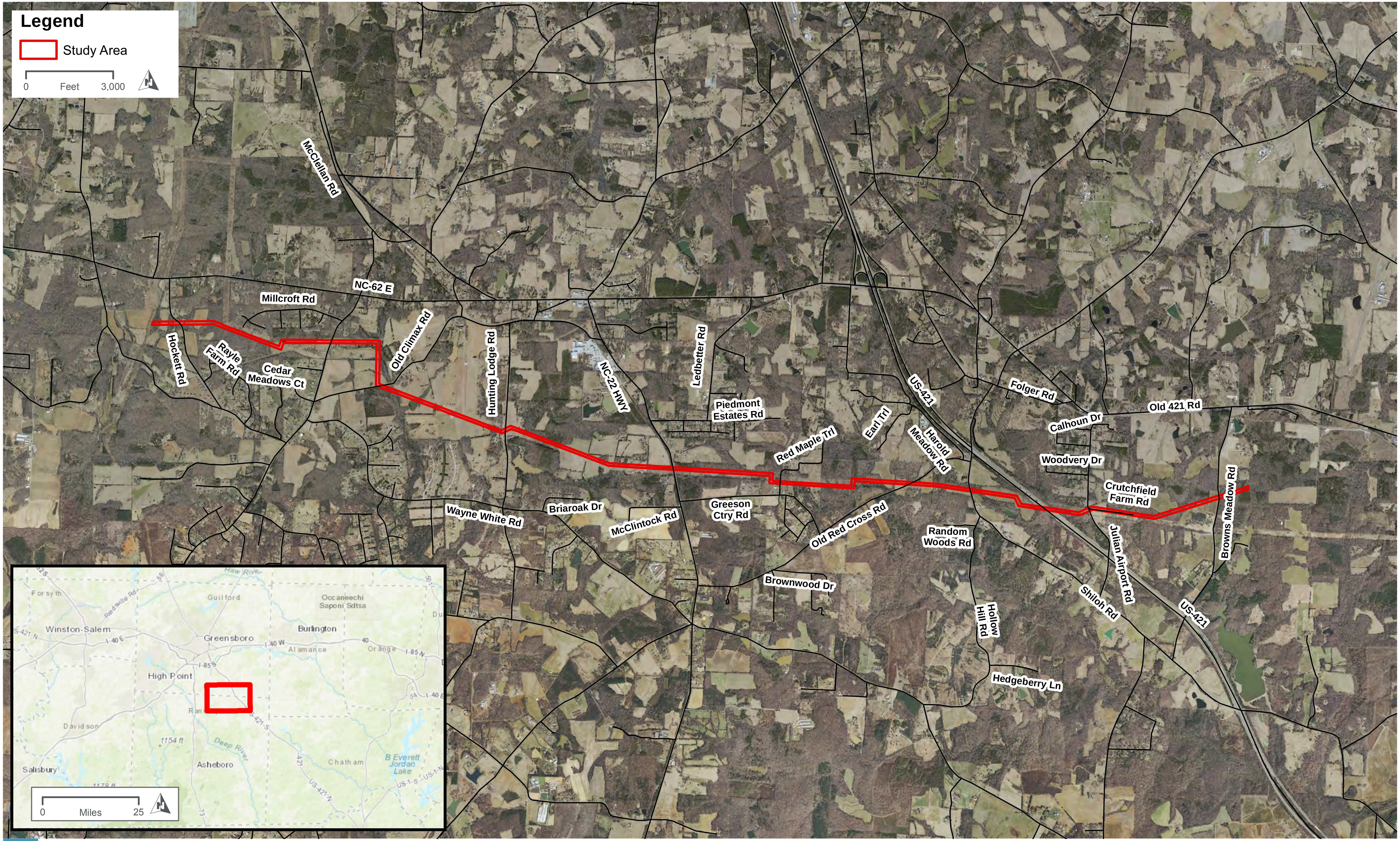


VICINITY MAP

DUKE ENERGY 100KV TRANSMISSION LINE STUDY AREA

FIGURE 1

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\DUKE\FIG_1_DUKE_VICINITY_MAP.MXD - USER: JGARVEY - DATE: 11/30/2017

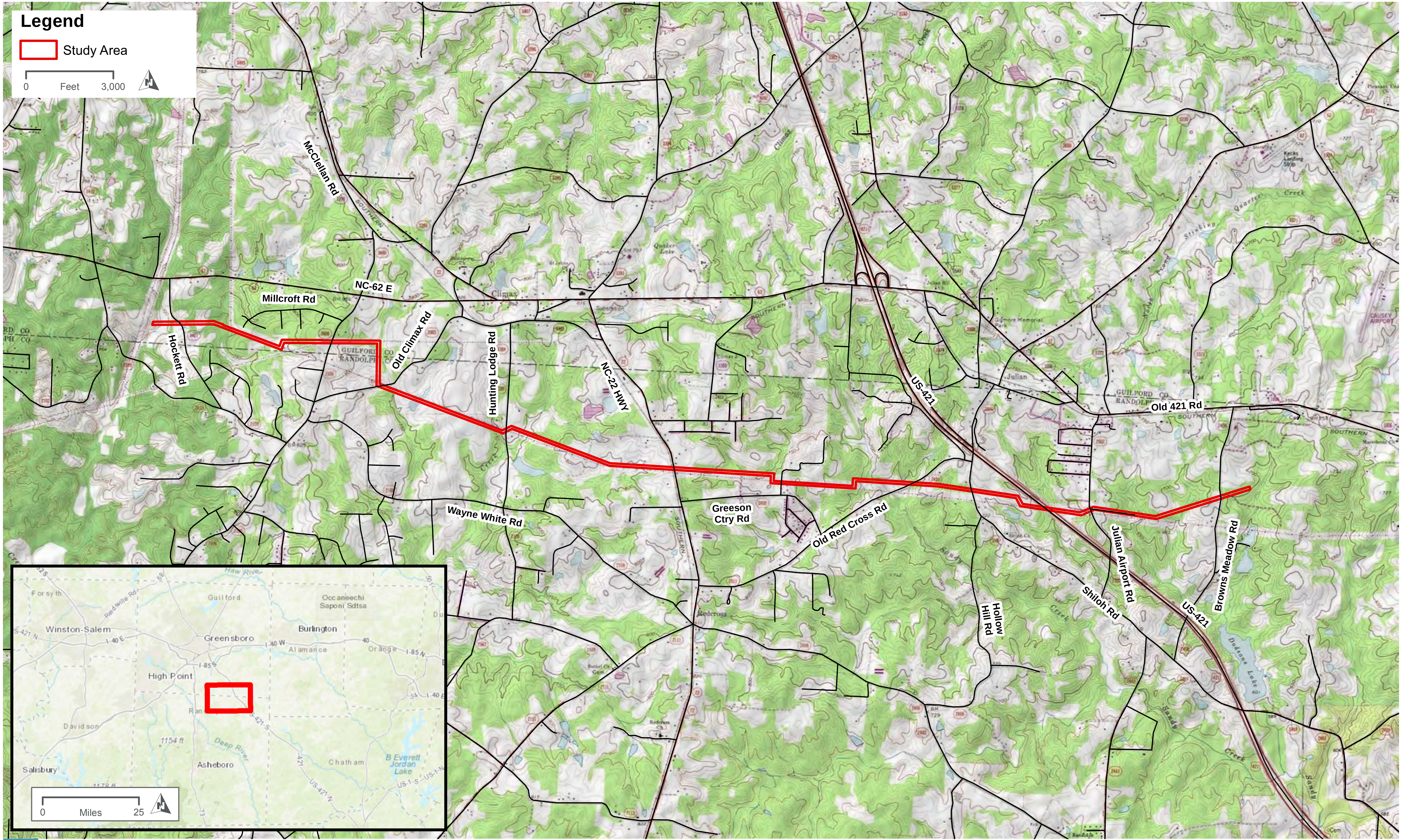


AERIAL MAP

DUKE ENERGY 100KV TRANSMISSION LINE STUDY AREA

FIGURE 2

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\DUKE\FIG_2_DUKE_AERIAL_MAP.MXD - USER: JGARVEY - DATE: 11/30/2017

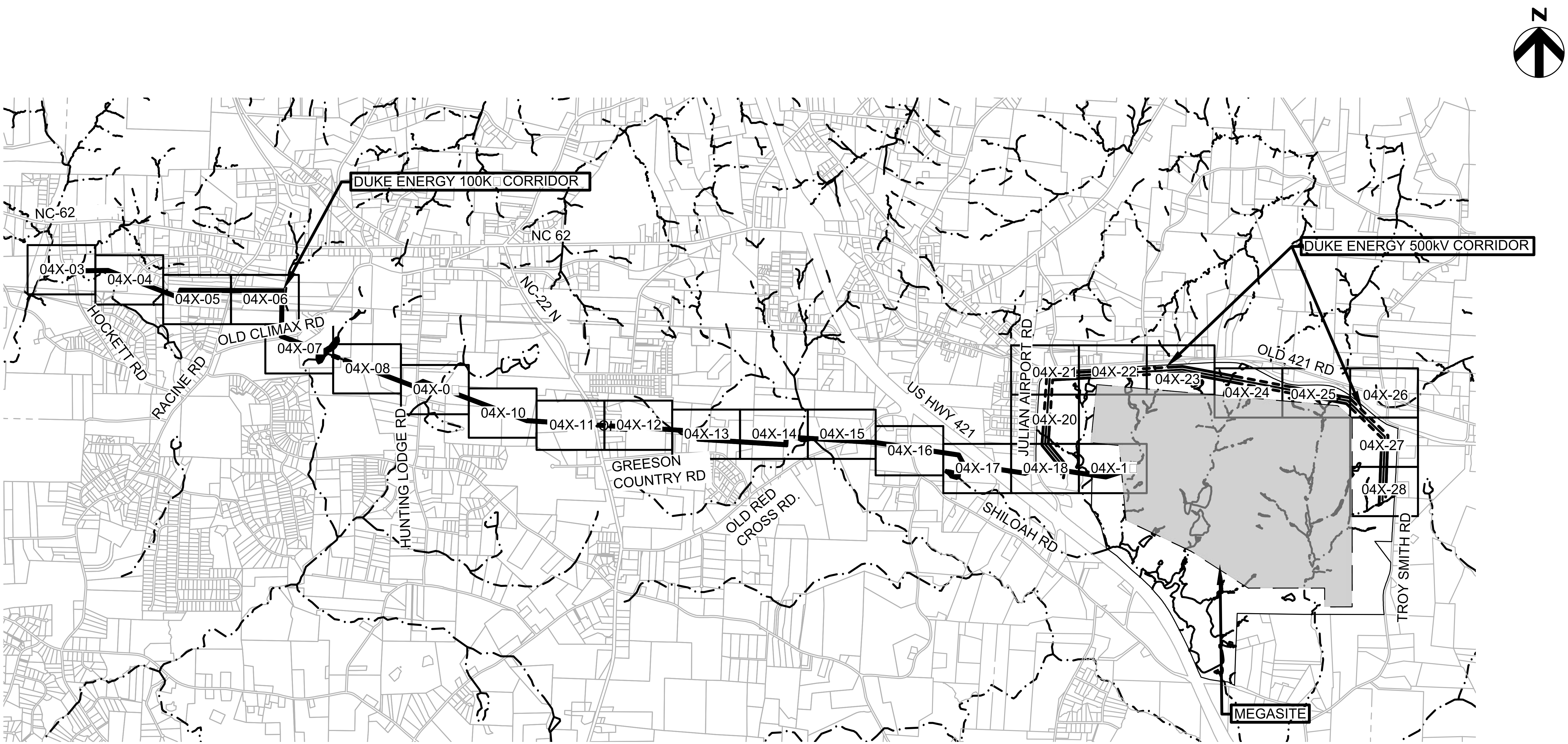


USGS TOPOGRAPHIC MAP

DUKE ENERGY 100KV TRANSMISSION LINE STUDY AREA

FIGURE 3

PATH: Z:\GIS\PROJECTS\006770_CITYOFGREENSBORO\0259114_GBOROMSWATER-SEWERENVIRO\MAP_DOCS\MXD\GRMS_NEPA\PERMIT_FIGURES\FIG_3_DUKE_USGS_MAP.MXD - USER: JGARVEY - DATE: 11/30/2017



KEY MAP
NOT TO SCALE

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PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-01

LEGEND

EXISTING WETLAND

EXISTING POND

EXISTING PERENNIAL STREAM

EXISTING INTERMITTENT STREAM

PERMANENT WETLAND IMPACT

TEMPORARY WETLAND IMPACT

PERMANENT POND IMPACT

PERMANENT STREAM IMPACT

TEMPORARY STREAM IMPACT

Wetland Impacts

Impact Number	Sheet Number	Wetland ID	Lat. (decimal degrees)	Long. (decimal degrees)	Type of Impact	Type of Wetland (Cowardin)	Area of Permanent Impact (acres)	Area of Temporary Impact (acres)
WP6.1	6	WA	35.9088	-79.7334	Clearing	PEM1E	0.00	0.04
WP9.1	9	WB	35.9005	-79.7184	Clearing	PEM1E/PSS1E	0.00	0.02
WP10.1	10	WG	35.8974	-79.7048	Clearing	PEM1E	0.00	0.02
WP11.1	11	WF	35.8972	-79.7035	Clearing	PEM1E	0.00	0.01
WP11.2	11	WC	35.8971	-79.7003	Clearing	PSS	0.00	0.01
WP12.1	12	WH	35.8967	-79.6916	Clearing	PEM1E/PSS1B	0.00	0.01
WP13.1	13	WI	35.8957	-79.6835	Clearing	PEM1E	0.00	0.01
WP22.1	22	W39	35.9023	-79.6405	Clearing	PFO	0.08	0.00
						Total	0.08	0.12

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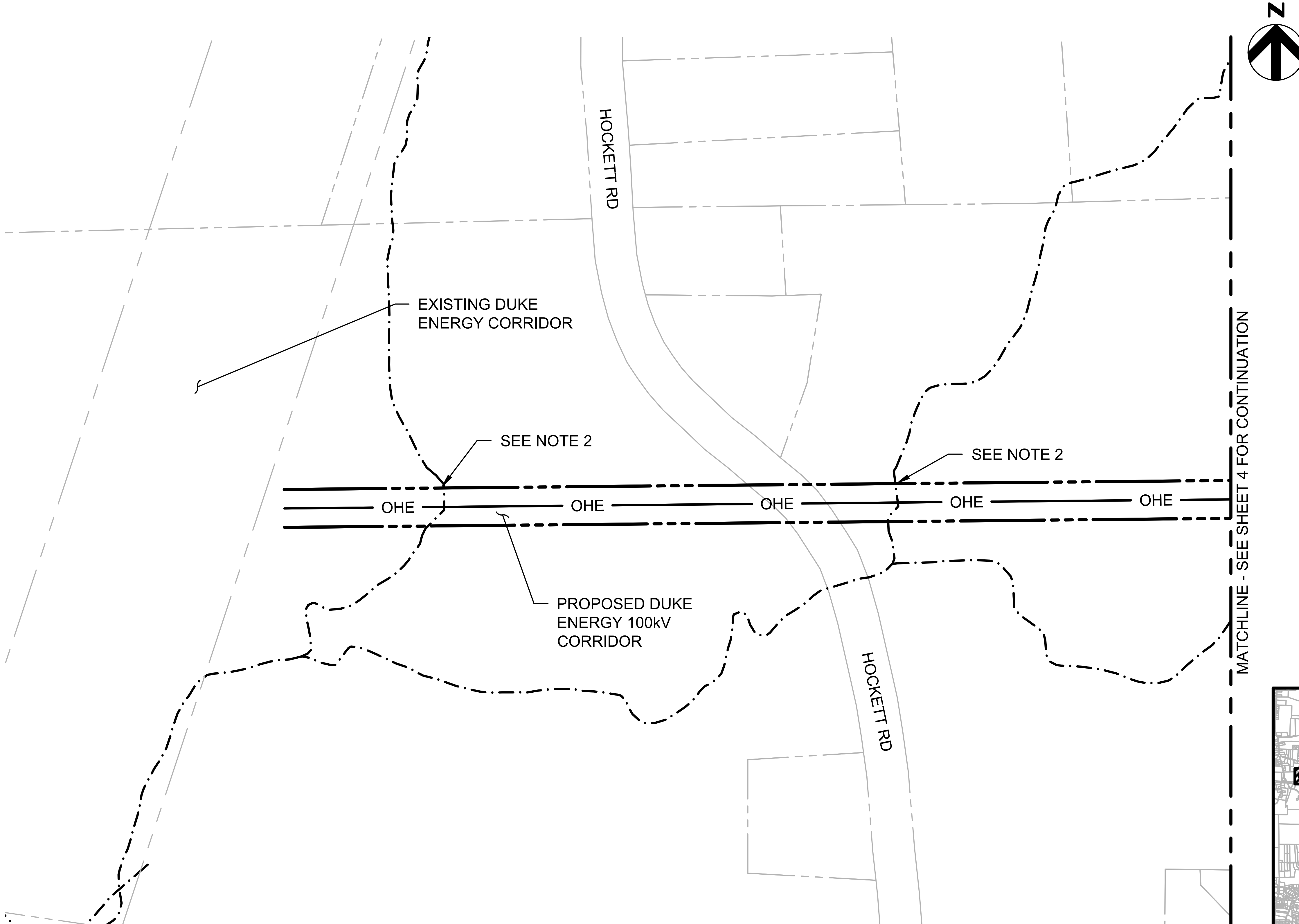
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

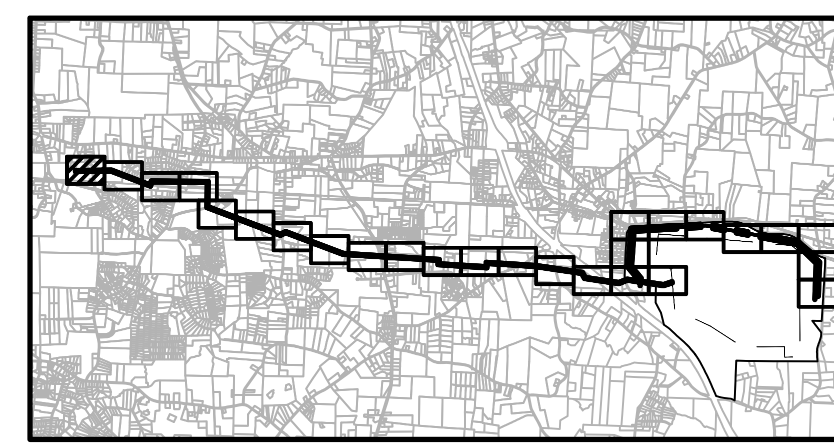
DATE
05□25□2018

SHEET
04X-02



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILIZED FOR CROSSINGS IF NECESSARY.



KEY MAP
NOT TO SCALE

0 200' 400'

SCALE: 1" = 200'

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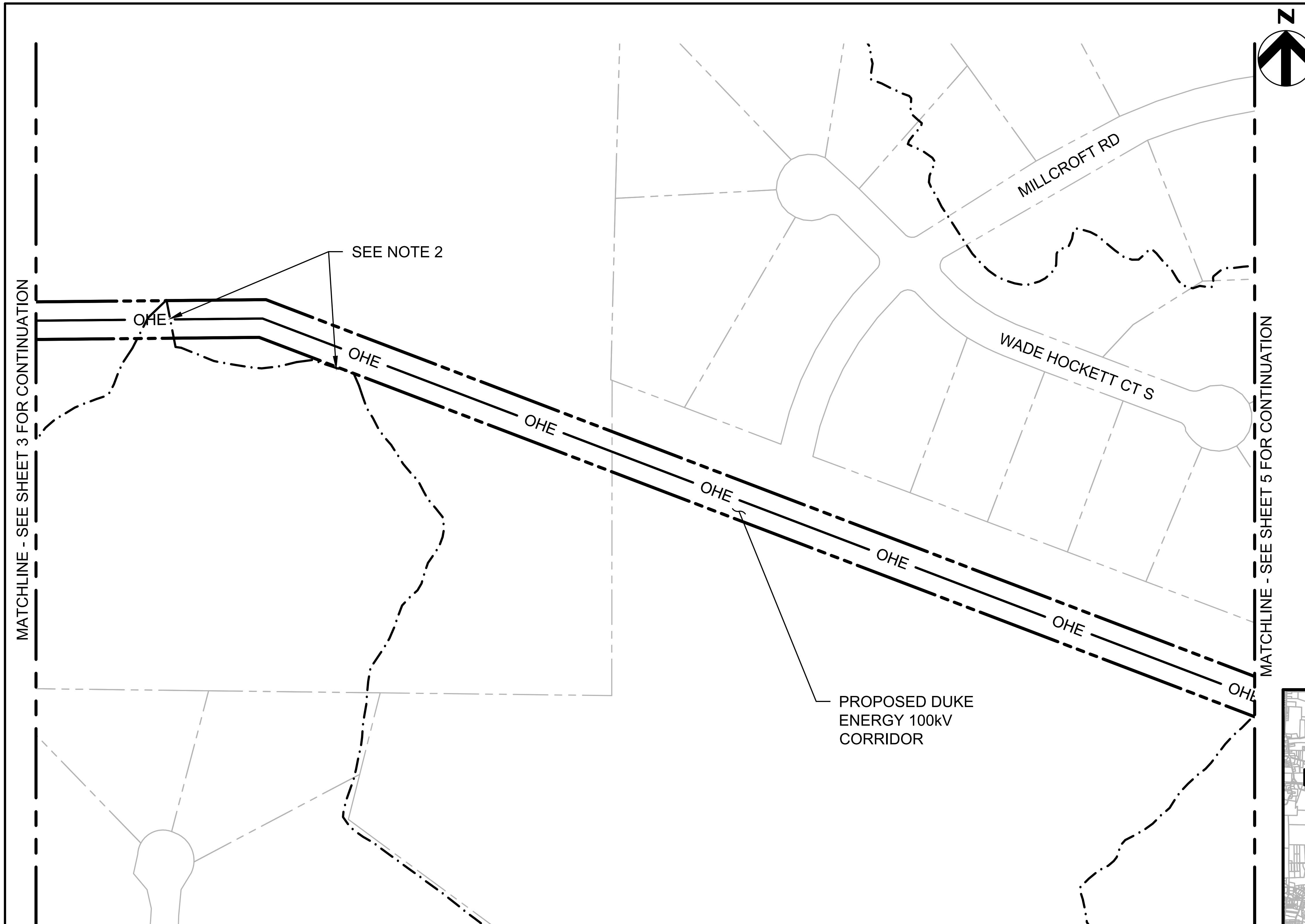
PROJECT GRMS
DUKE ENERGY CORRIDORS
JURISDICTIONAL IMPACTS

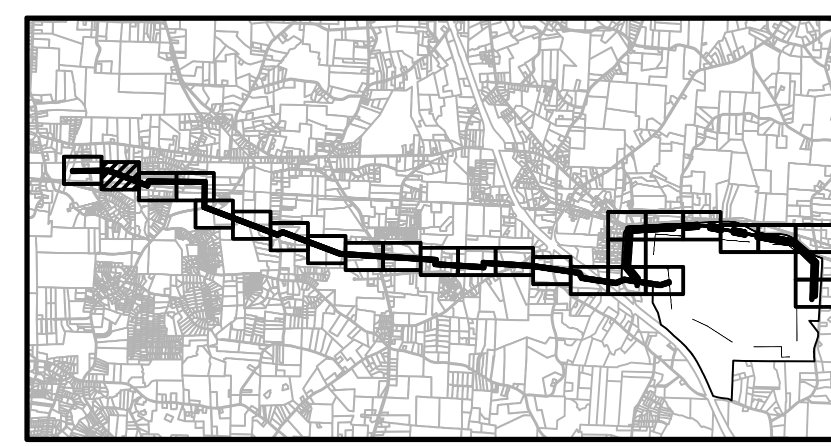
DATE 05/25/2018

SHEET 04X-03



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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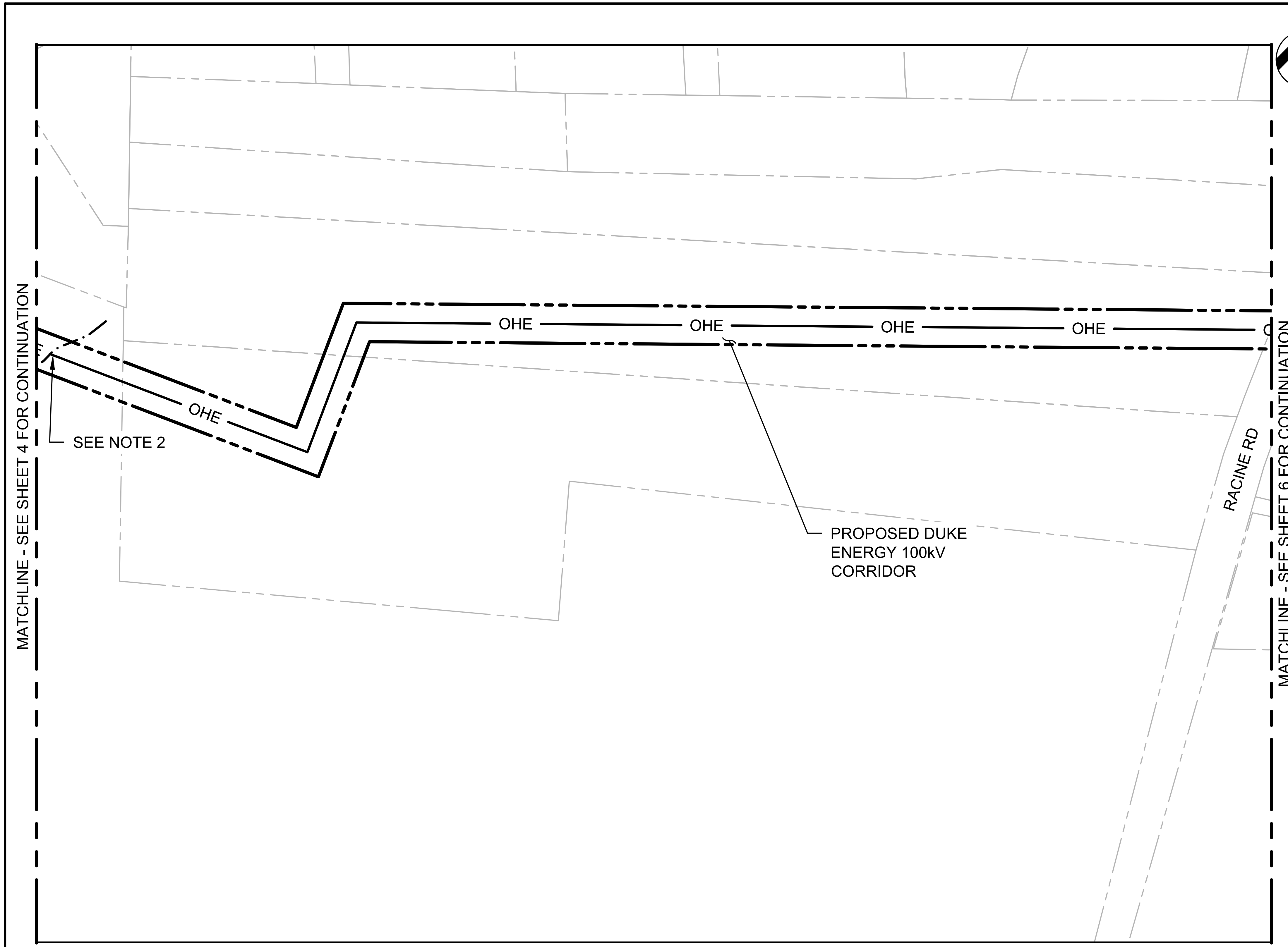
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

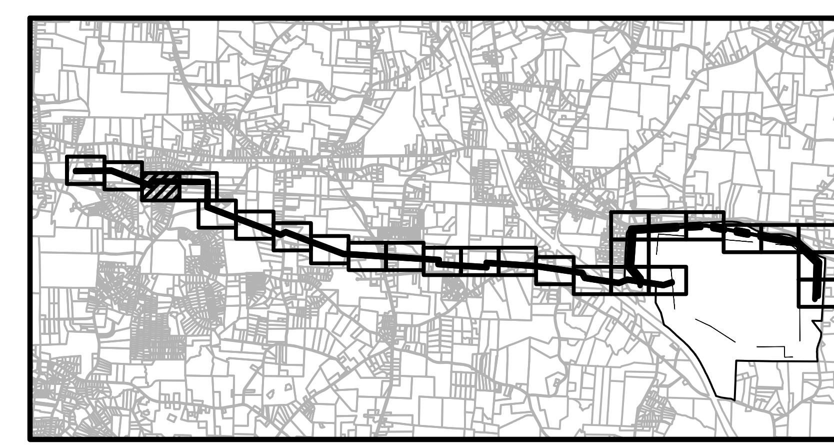
DATE
05□25□2018

SHEET
04X-04



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

HDR

HDR Engineering Inc.
of the Carolinas

555 Fa□ette□ille Street, Suite □00
Raleigh, NC 27601
□1□.232.6600

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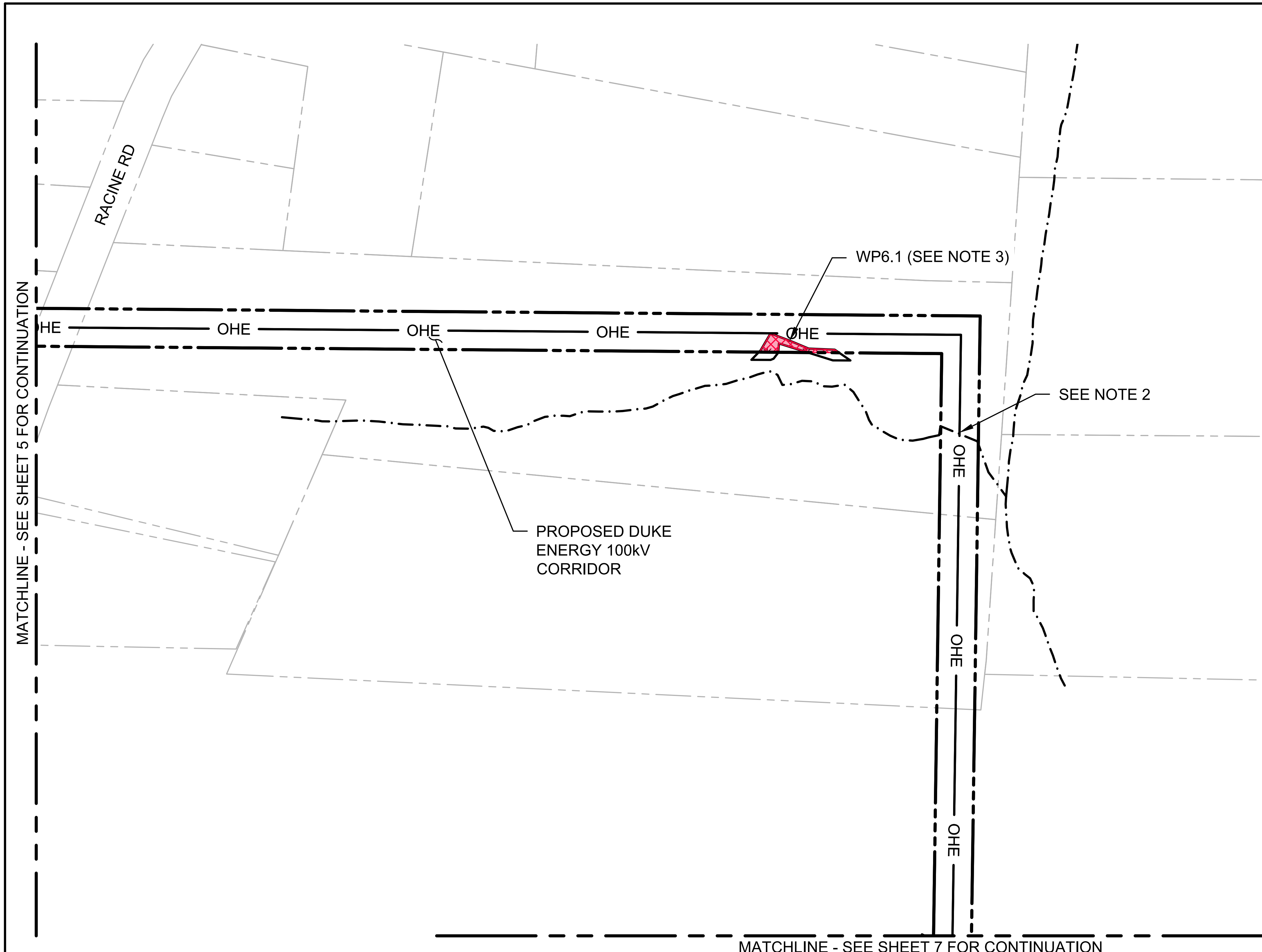
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-05

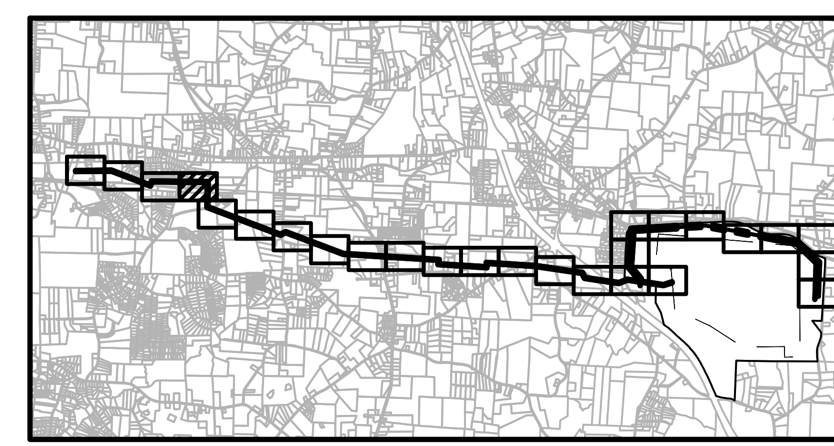


GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.
3. WETLANDS IN THE PROPOSED DUKE ENERGY CORRIDOR WILL BE HAND CLEARED.

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WP6.1	WA	CLEARING	0.00	0.04
		Total	0.00	0.04



KEY MAP
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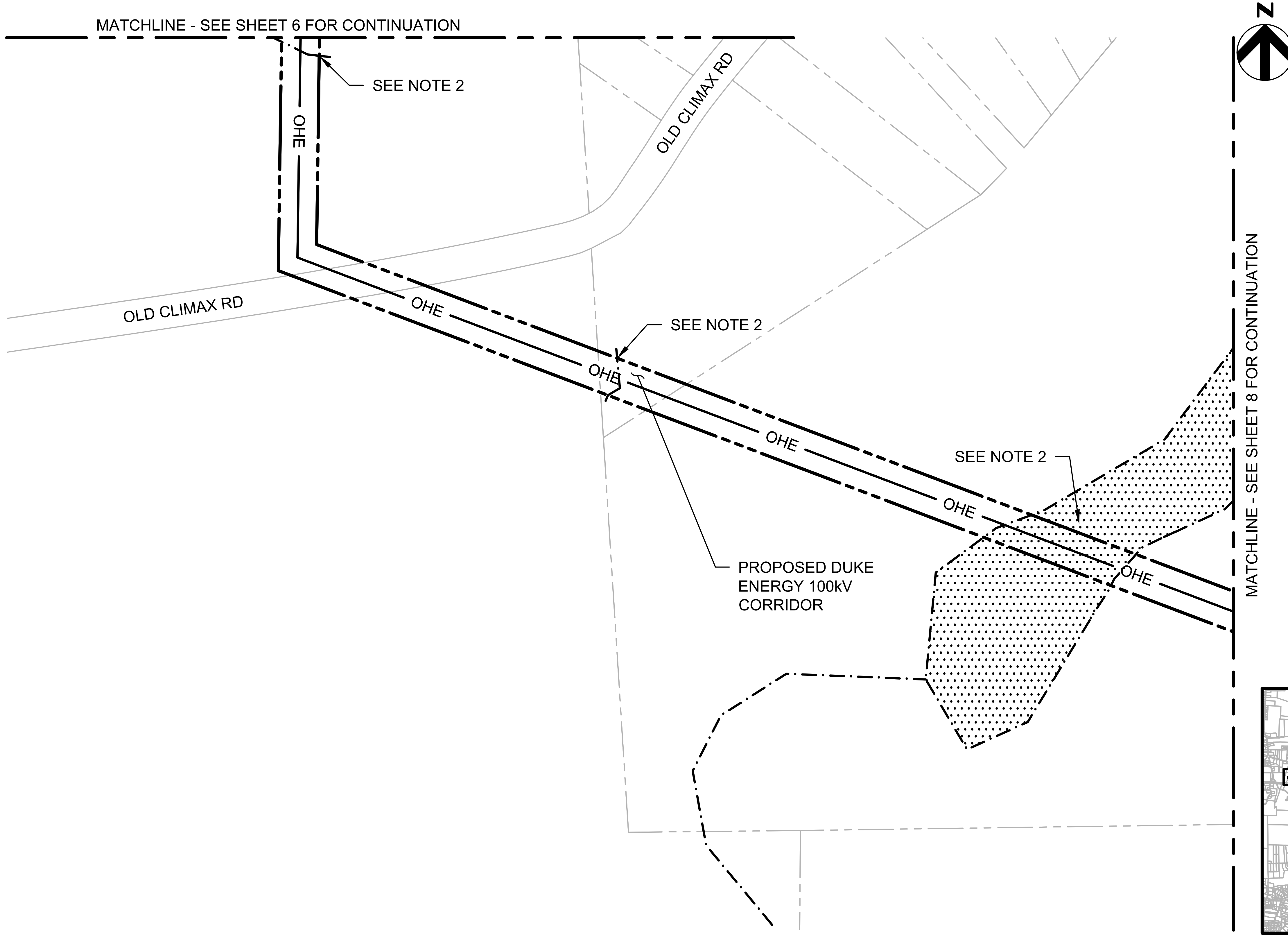
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

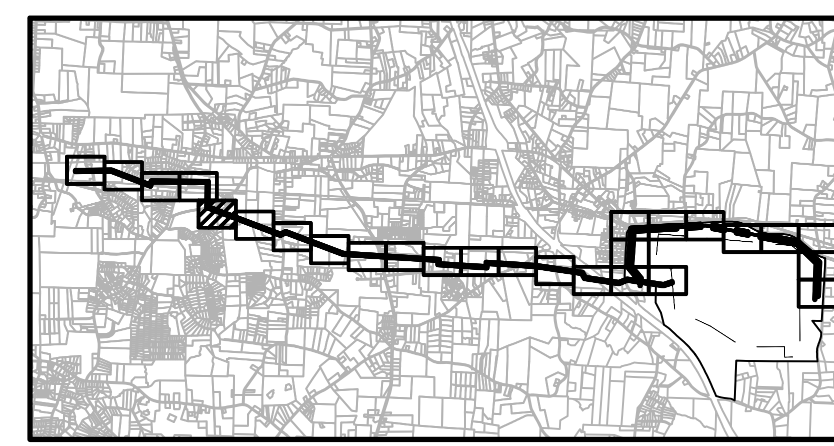
DATE
05□25□2018

SHEET
04X-06



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.



KEY MAP
NOT TO SCALE

0 200' 400'

SCALE: 1" = 200'

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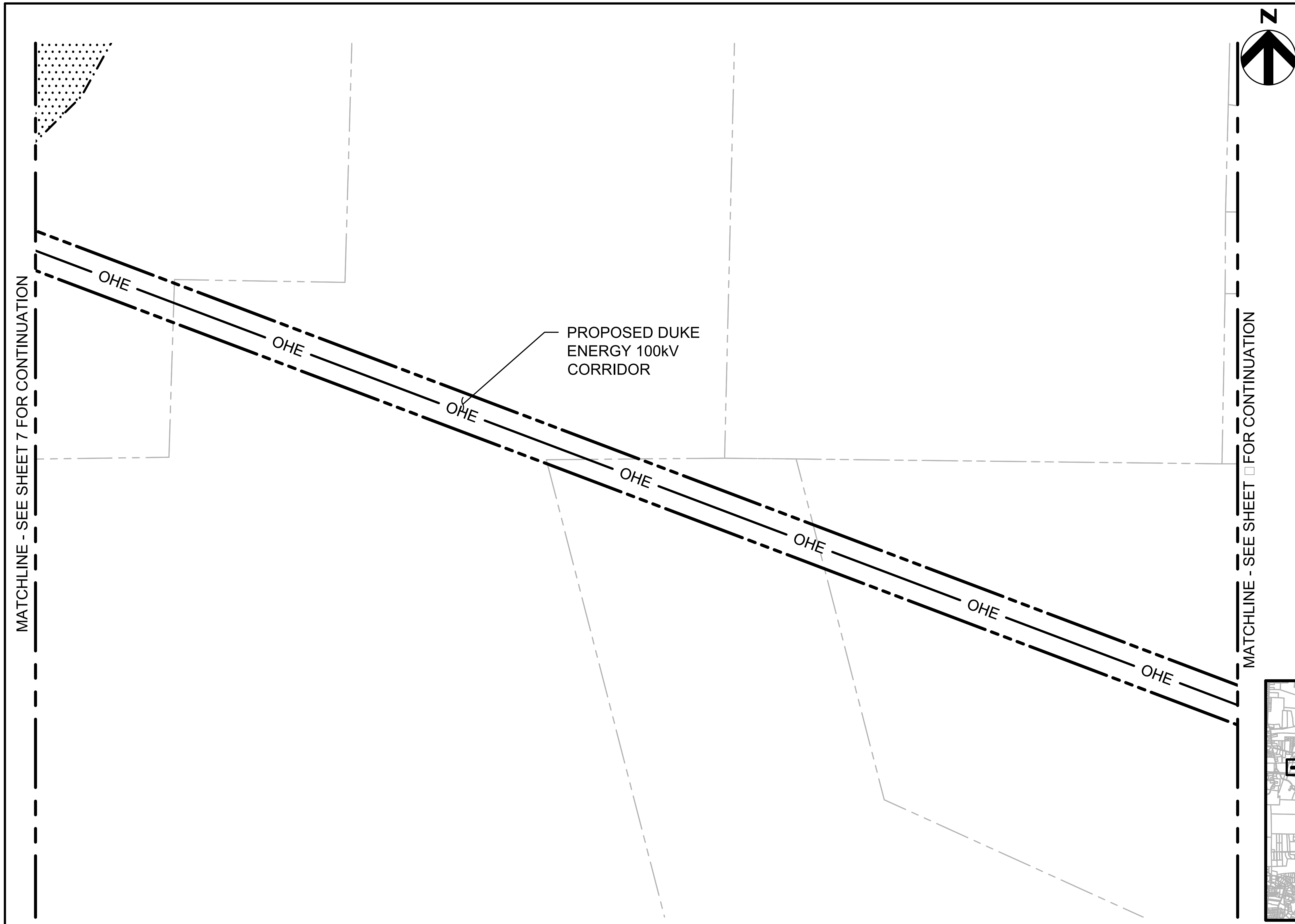
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

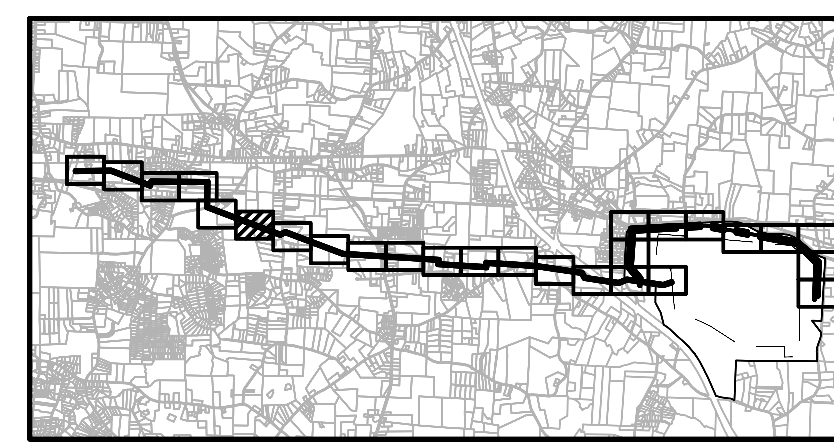
DATE 05□25□2018

SHEET 04X-07



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET.



KEY MAP
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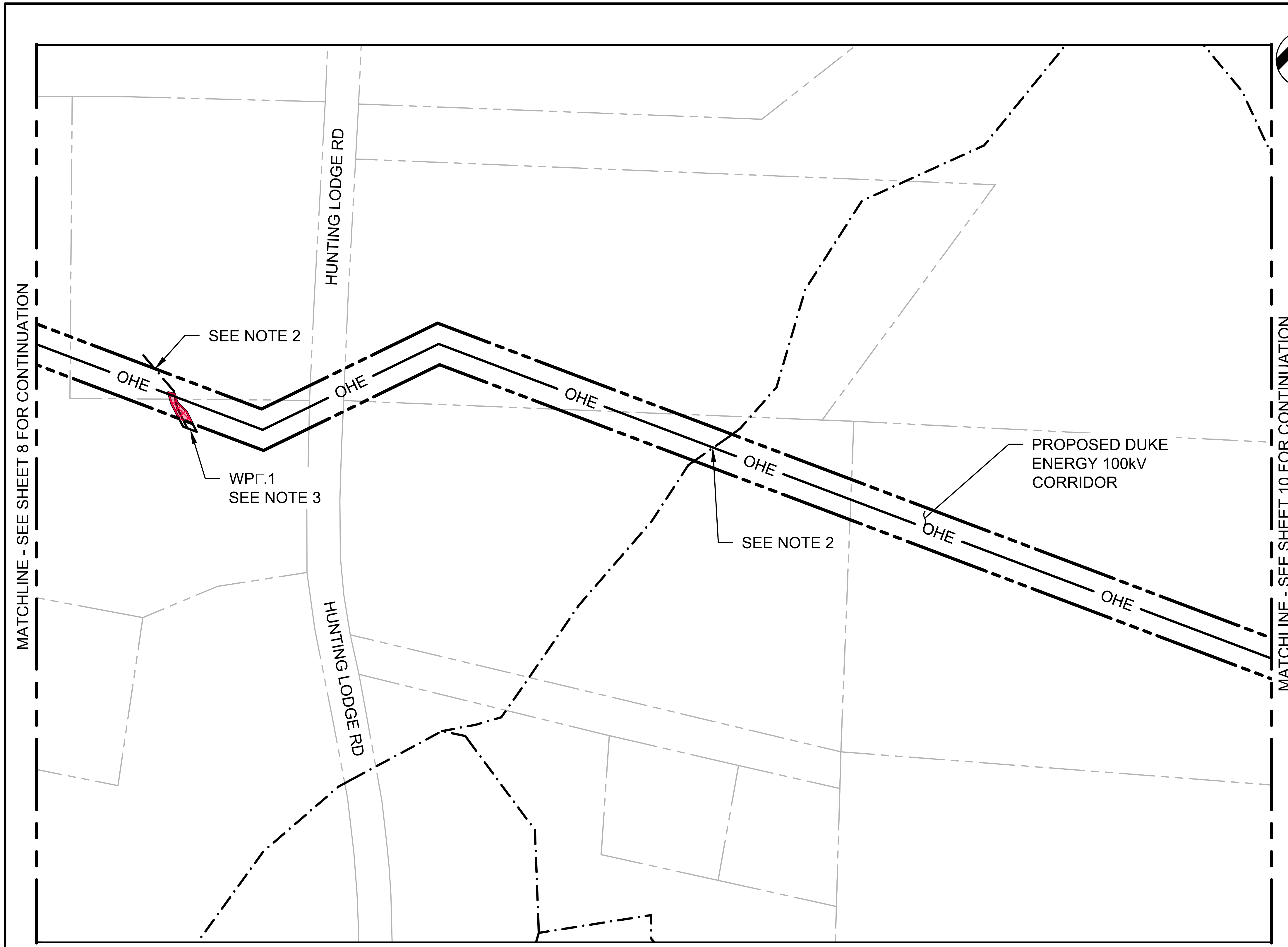
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-08

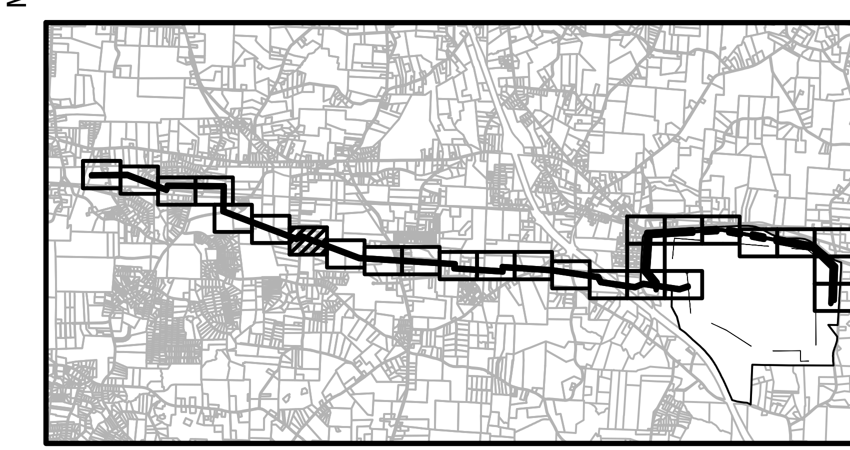


GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILIZED FOR CROSSINGS IF NECESSARY.
3. WETLANDS IN THE PROPOSED DUKE ENERGY CORRIDOR WILL BE HAND CLEARED.

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WP9.1	WB	CLEARING	0.00	0.02
		Total	0.00	0.02



KEY MAP
NOT TO SCALE

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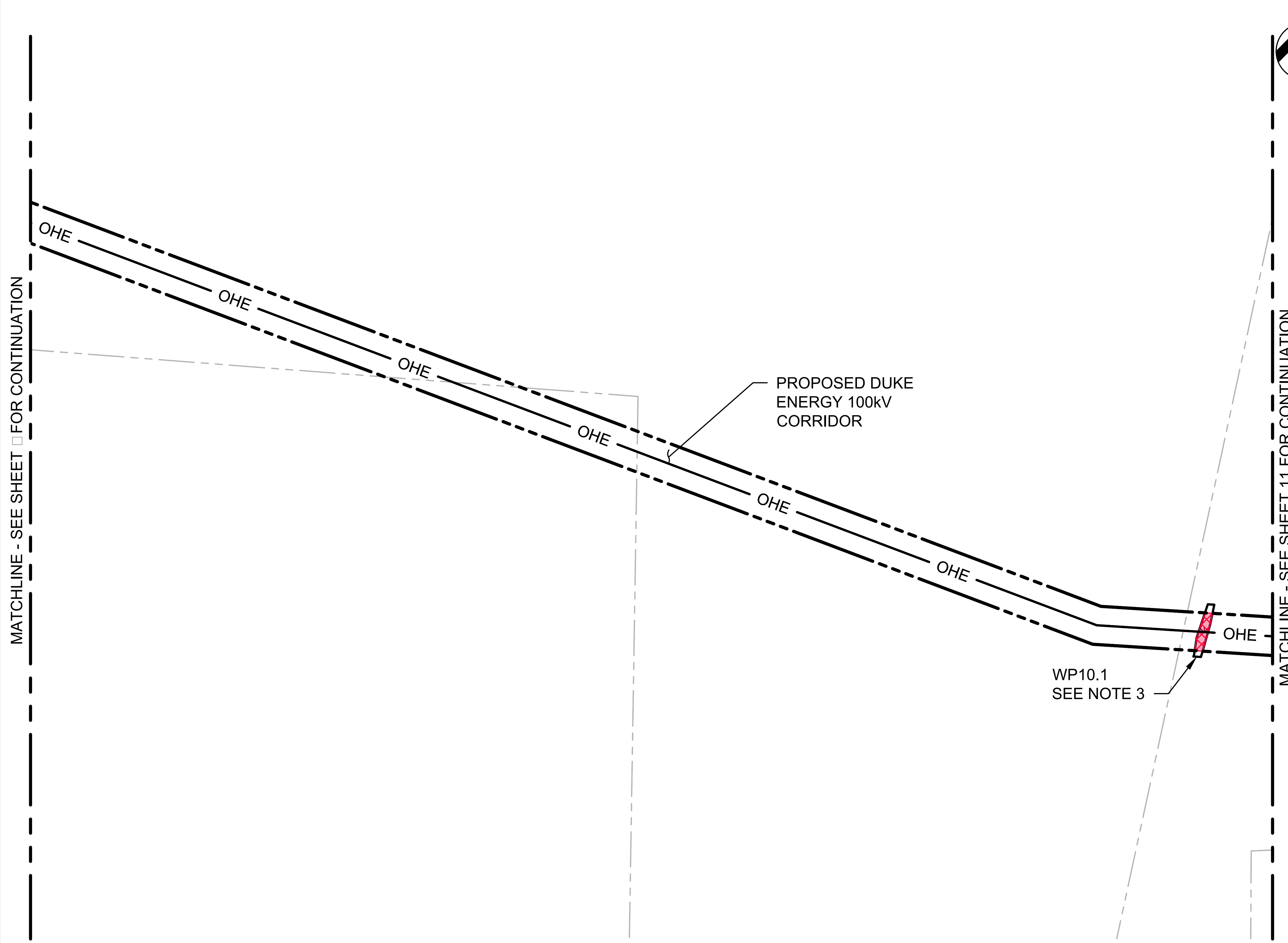
PROJECT GRMS
DUKE ENERGY CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05/25/2018

SHEET
04X-0□

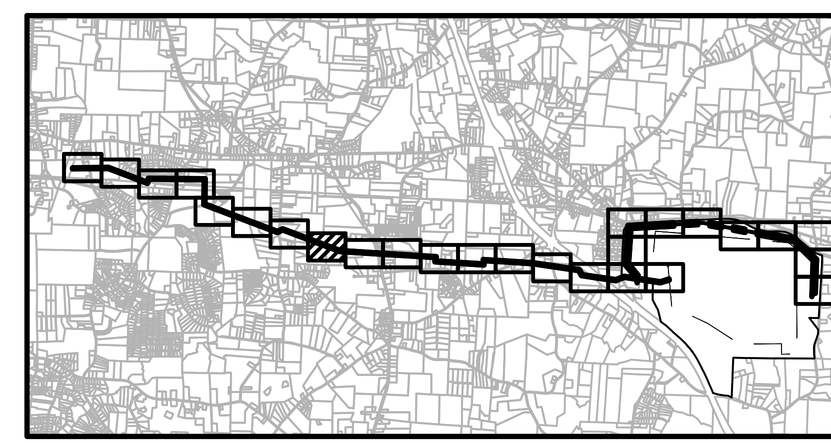


GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.
3. WETLANDS IN THE PROPOSED DUKE ENERGY CORRIDOR WILL BE HAND CLEARED.

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WP10.1	WG	CLEARING	0.00	0.02
		Total	0.00	0.02



KEY MAP
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0 200' 400'
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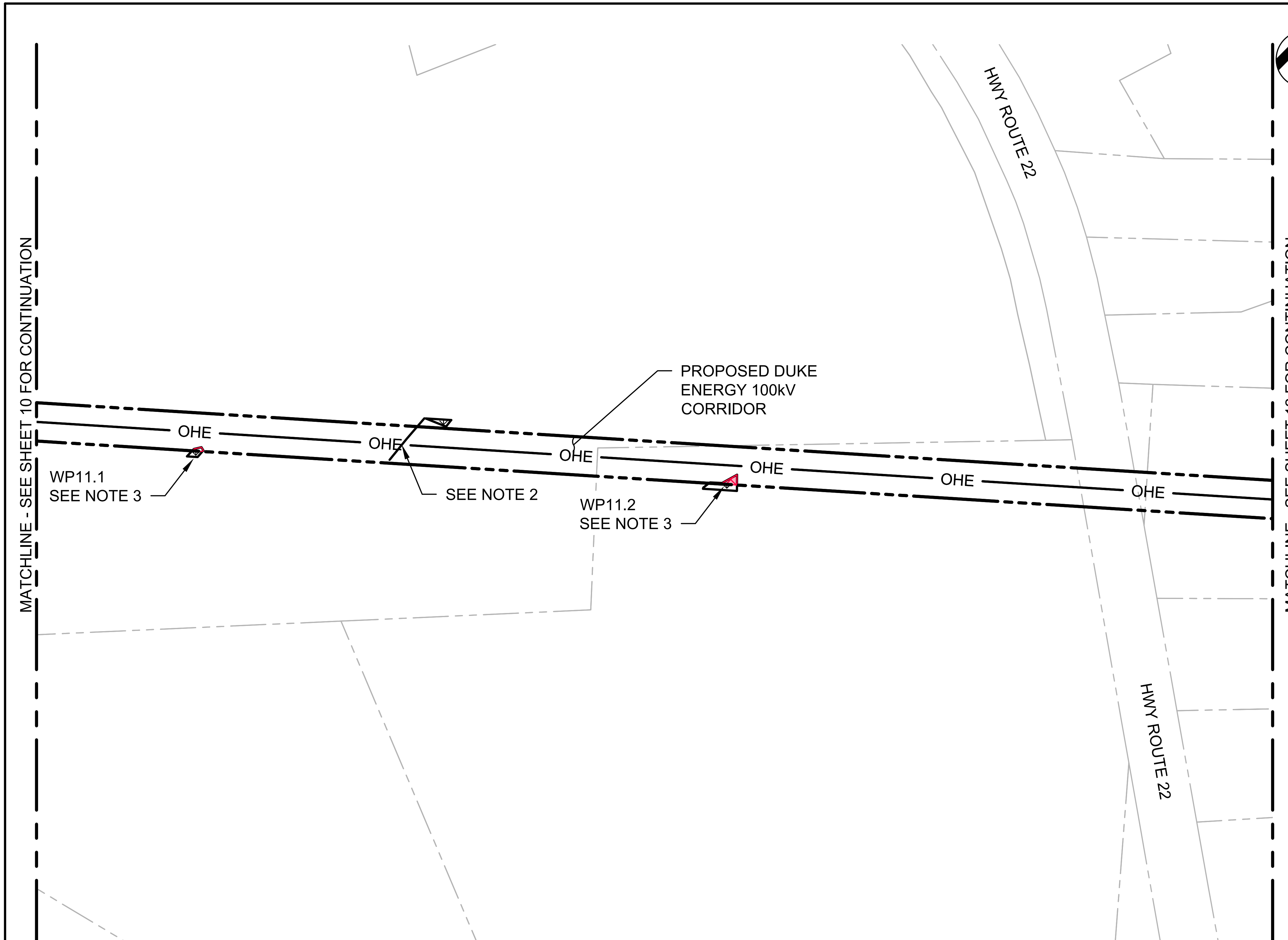
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE 05□25□2018

SHEET 04X-10

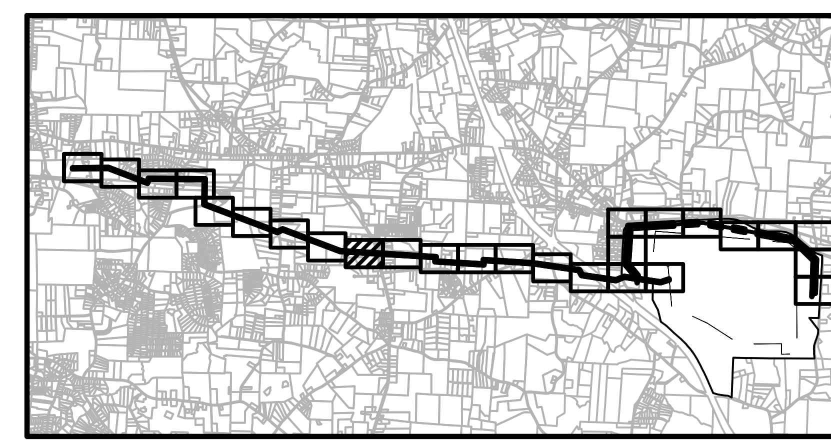


GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.
3. WETLANDS IN THE PROPOSED DUKE ENERGY CORRIDOR WILL BE HAND CLEARED.

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WP11.1	WF	CLEARING	0.00	0.01
WP11.2	WC	CLEARING	0.00	0.01
		Total	0.00	0.02



KEY MAP
NOT TO SCALE

0 200' 400'
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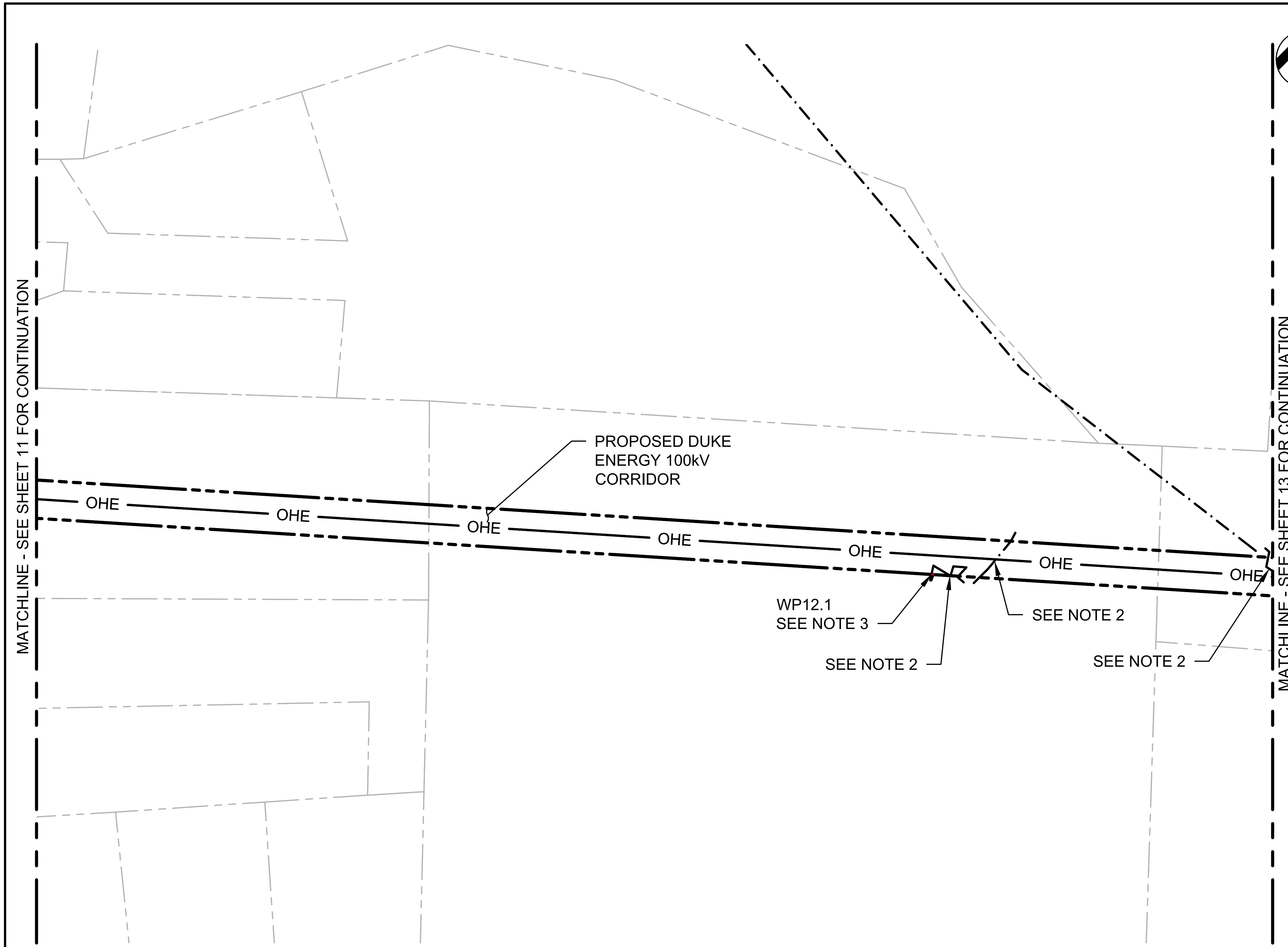
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-11

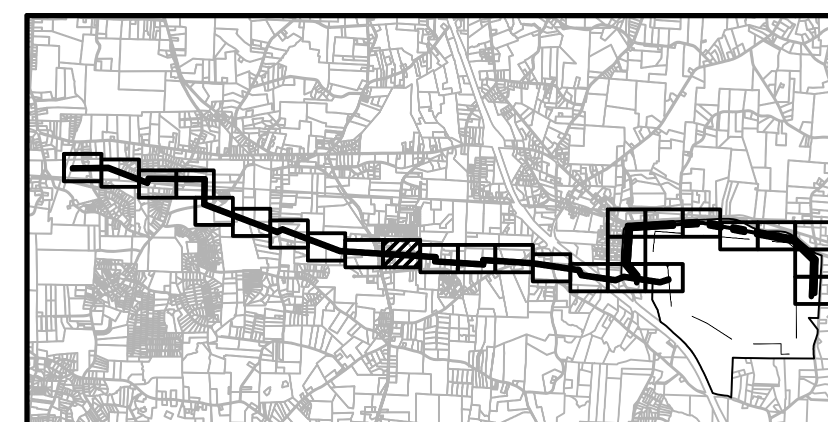


GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.
3. WETLANDS IN THE PROPOSED DUKE ENERGY CORRIDOR WILL BE HAND CLEARED

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WP12.1	WH	CLEARING	0.00	0.01
		Total	0.00	0.01



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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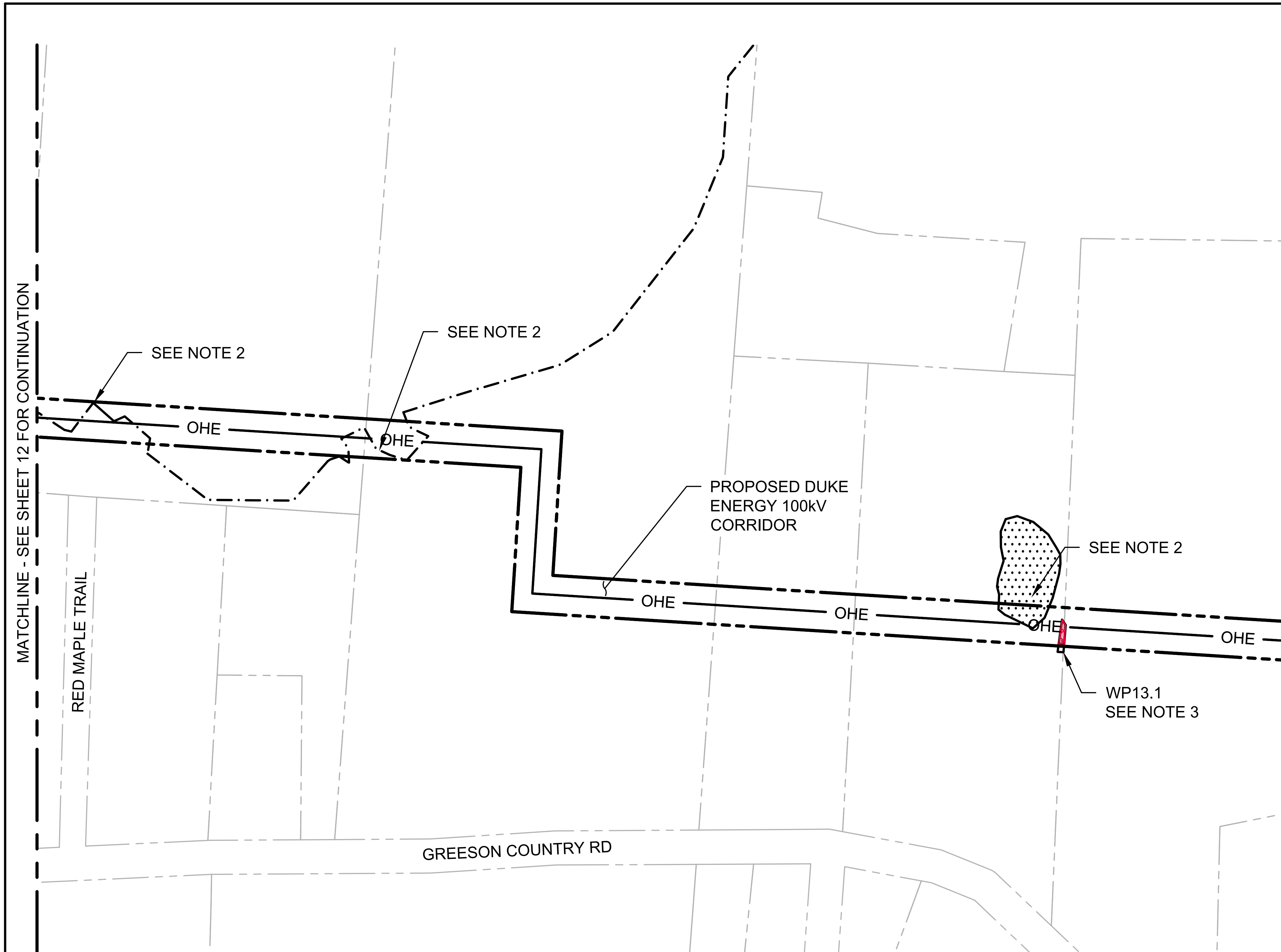
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-12

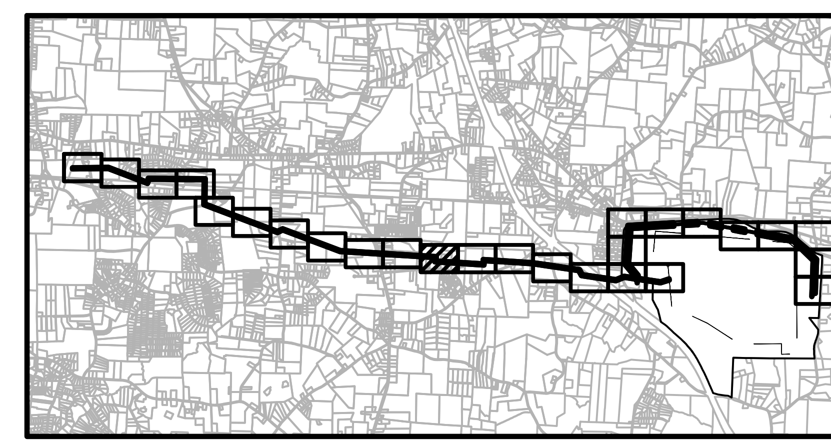


GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY. PONDS WILL BE SPANNED.
3. WETLANDS IN THE PROPOSED DUKE ENERGY CORRIDOR WILL BE HAND CLEARED.

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WP13.1	WI	CLEARING	0.00	0.01
		Total	0.00	0.01



KEY MAP
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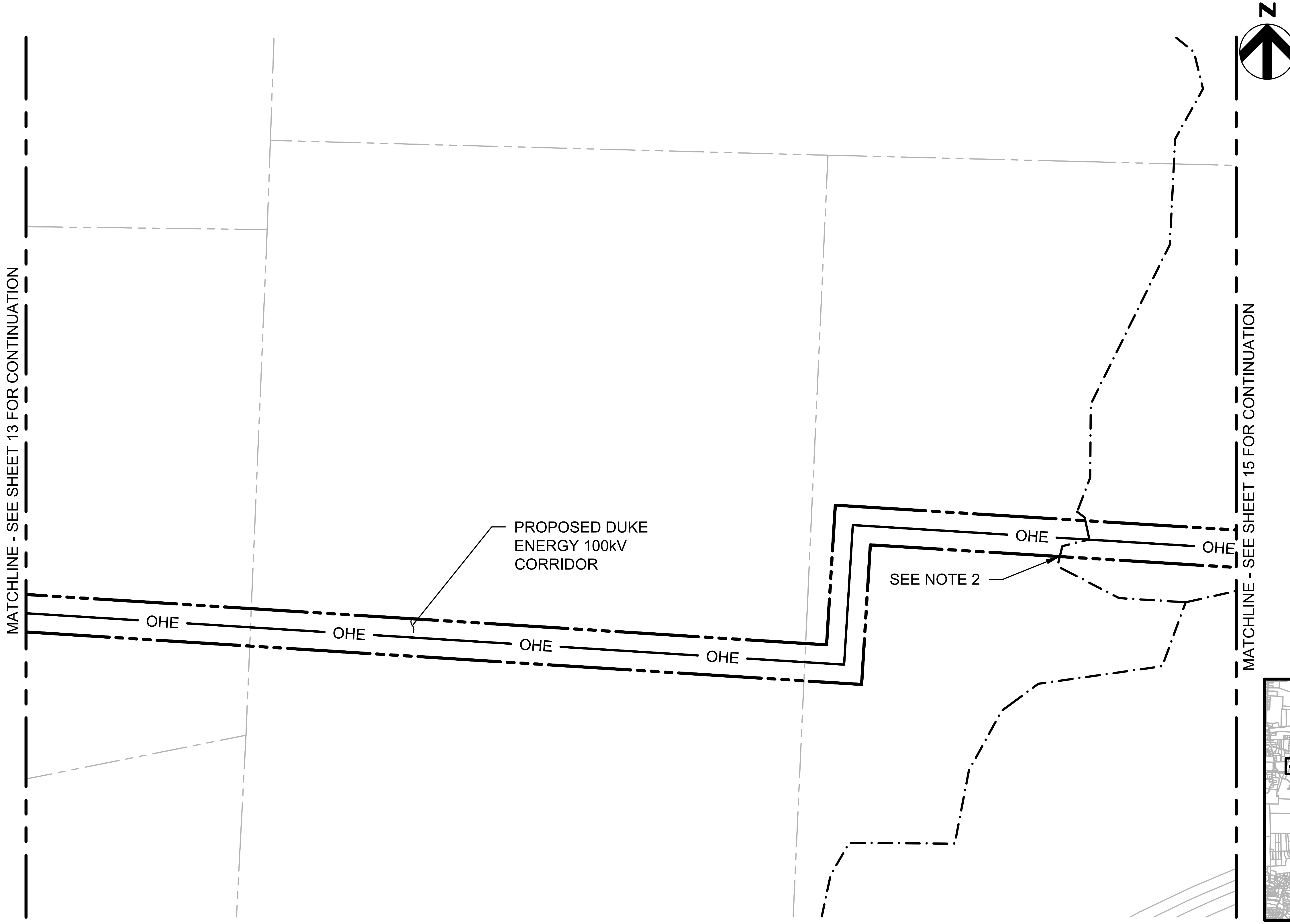
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-13



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.

KEY MAP
NOT TO SCALE

0 200' 400'
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Raleigh, NC 27601
□1□.232.6600

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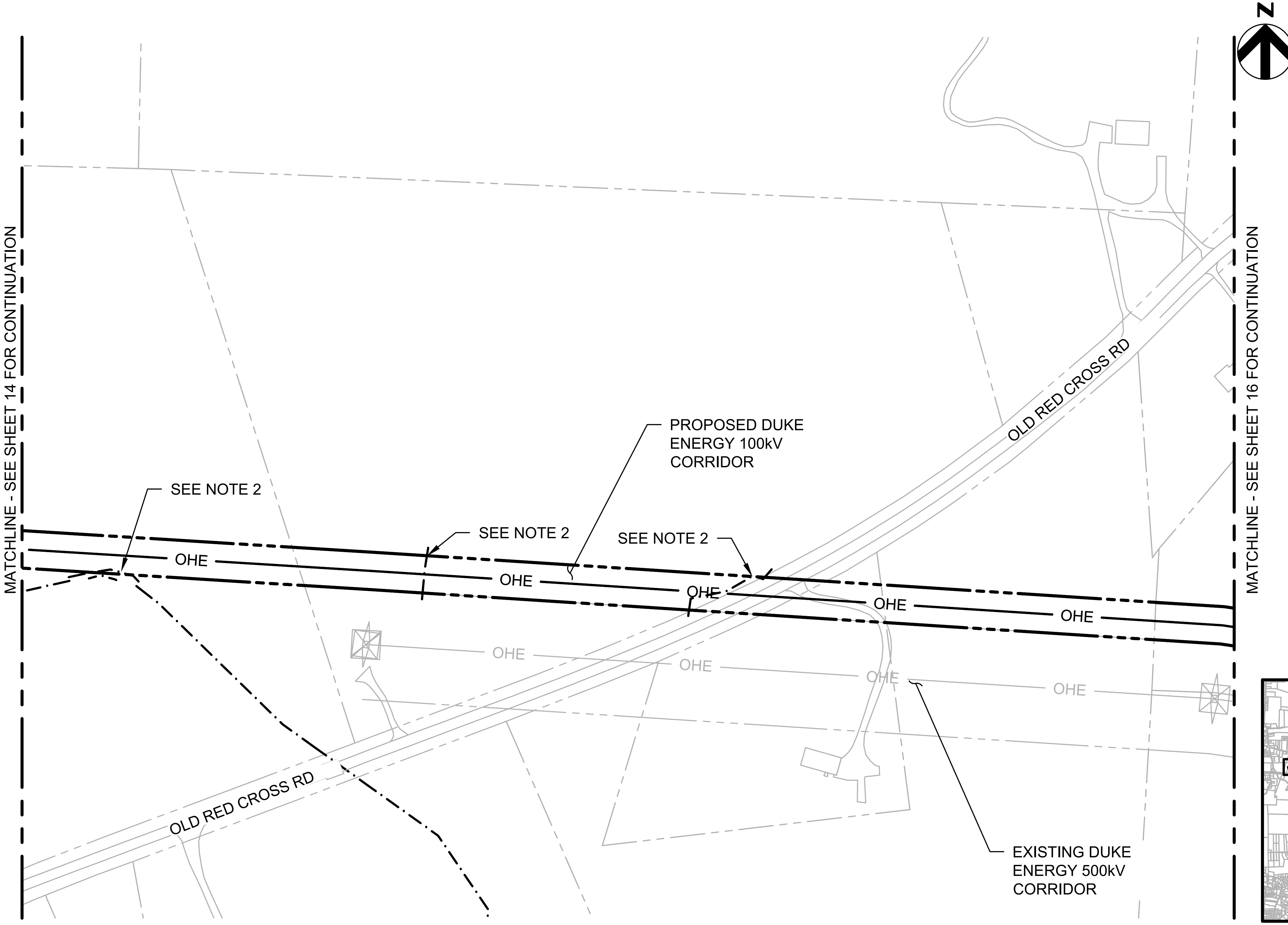
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

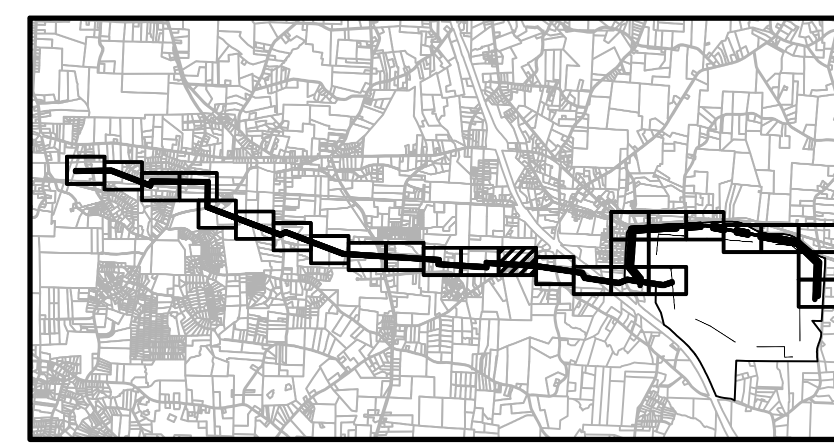
DATE
05□25□2018

SHEET
04X-14



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.



KEY MAP
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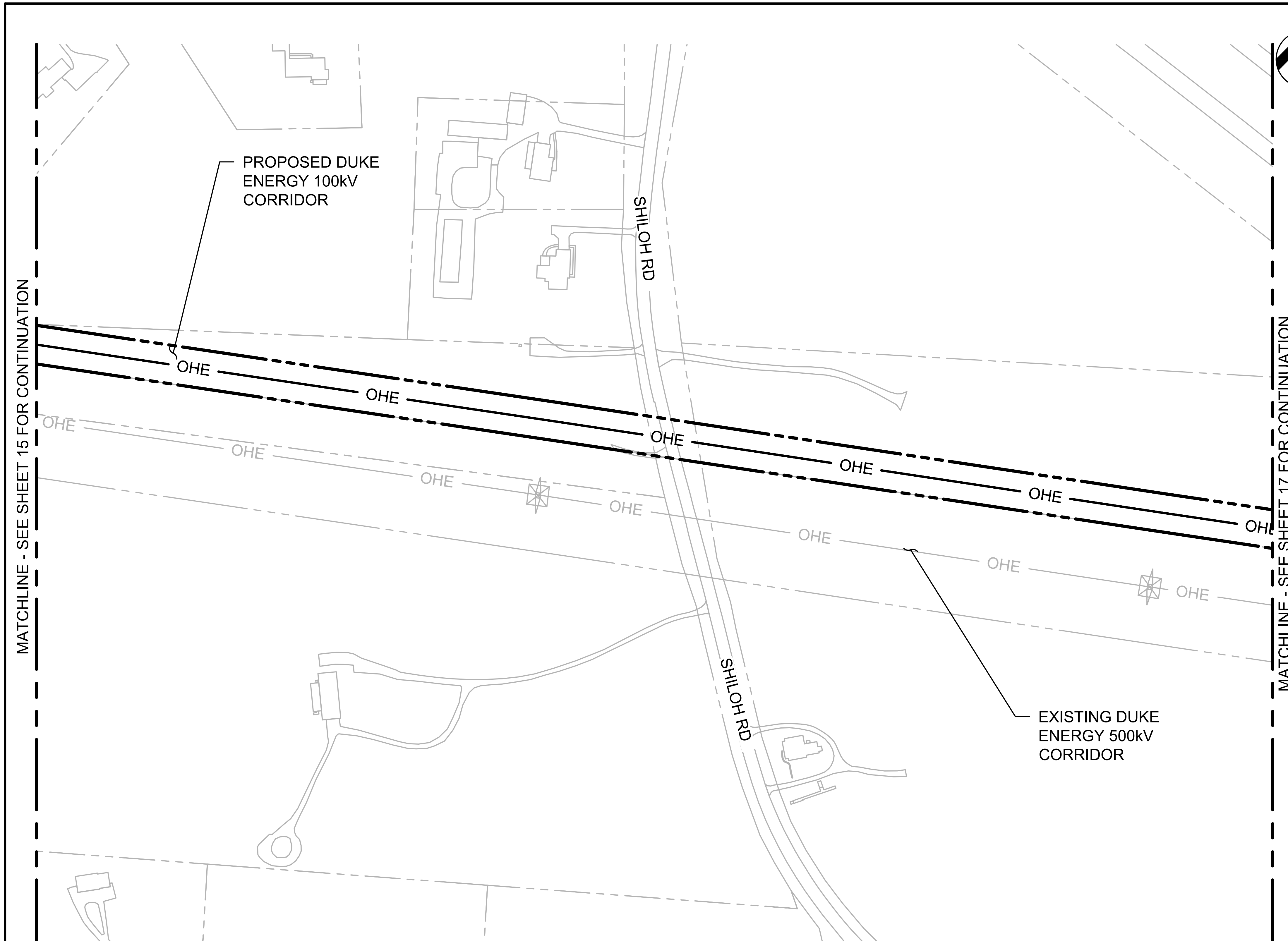
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

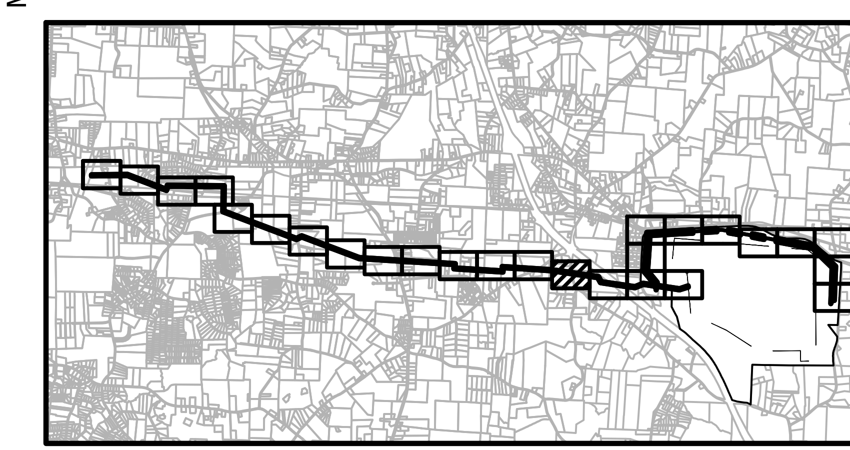
DATE 05□25□2018

SHEET 04X-15



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET.



KEY MAP
NOT TO SCALE

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SCALE: 1" = 200'

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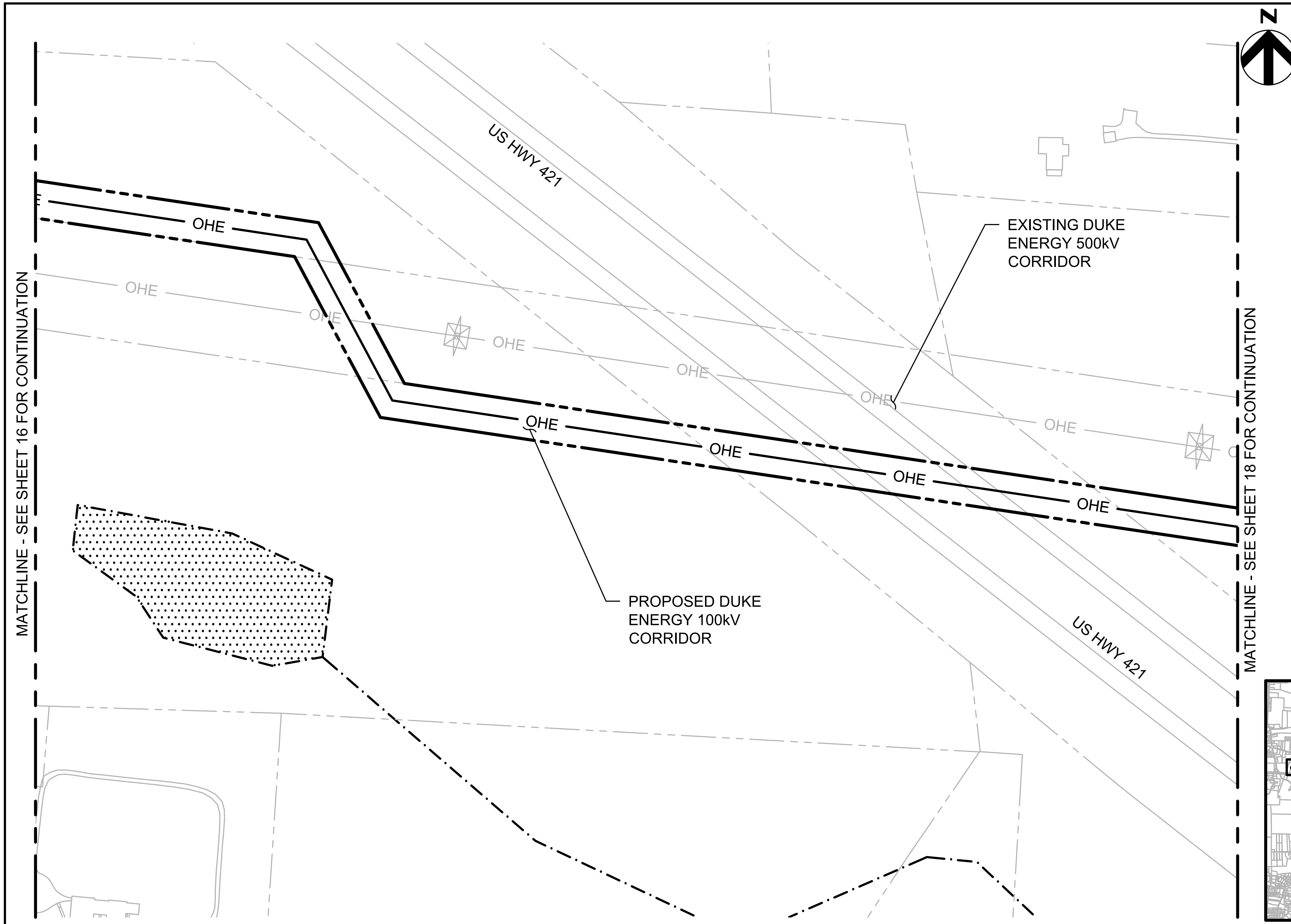
PROJECT GRMS
DUKE ENERGY CORRIDORS
JURISDICTIONAL IMPACTS

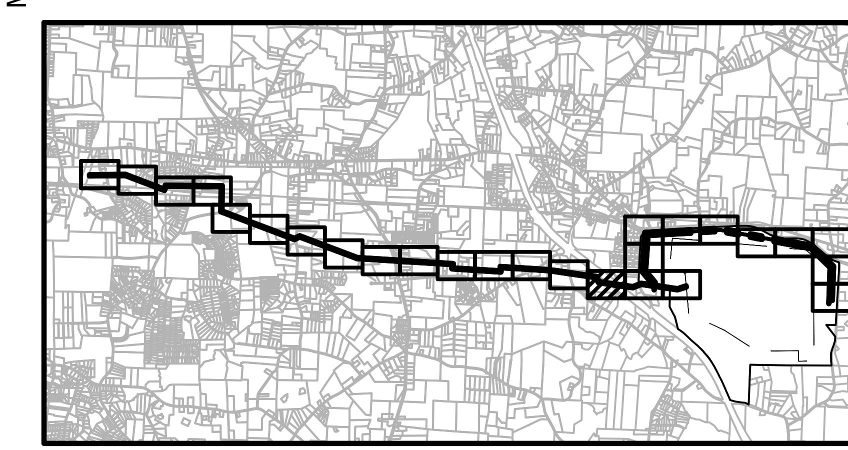
DATE
05/25/2018

SHEET
04X-16



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET.



KEY MAP

NOT TO SCALE

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SCALE: 1" = 200'

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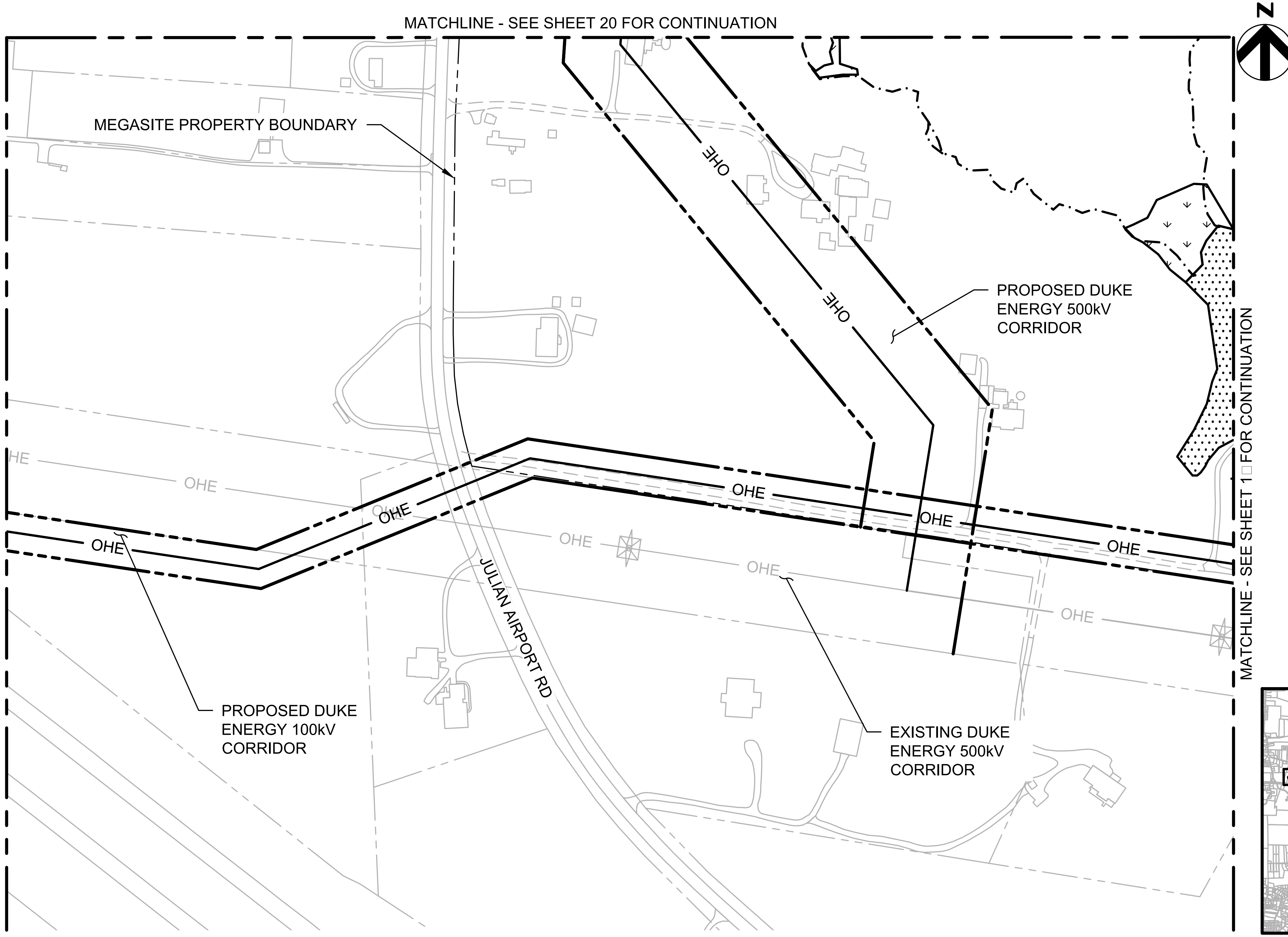
PROJECT GRMS
DUKE ENERGY CORRIDORS
JURISDICTIONAL IMPACTS

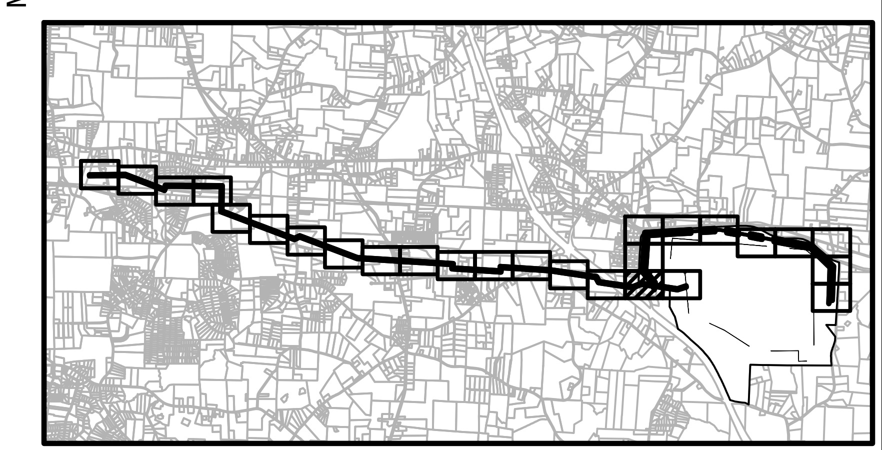
DATE
05/25/2018

SHEET
04X-17



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET.



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

HDR

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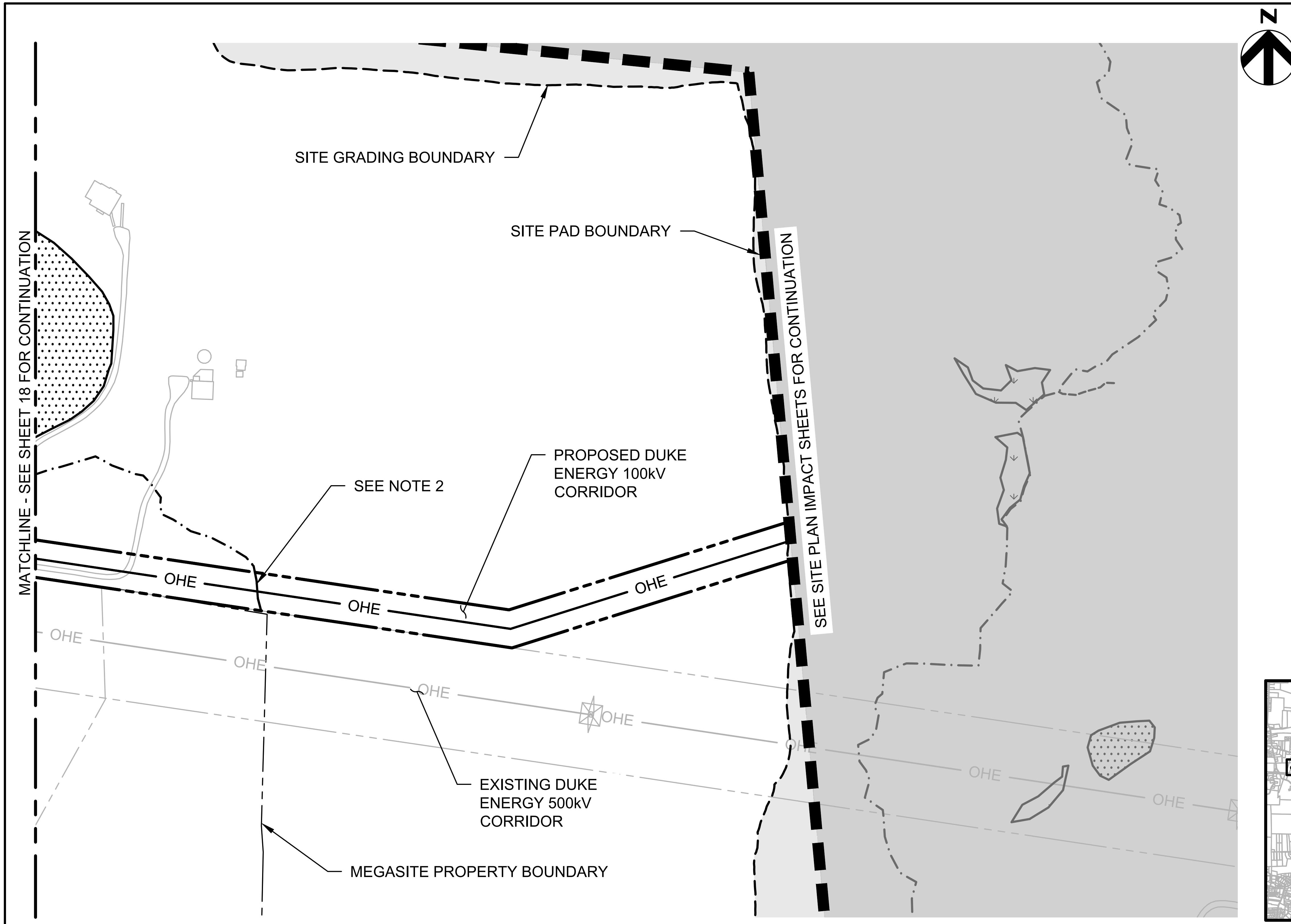
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

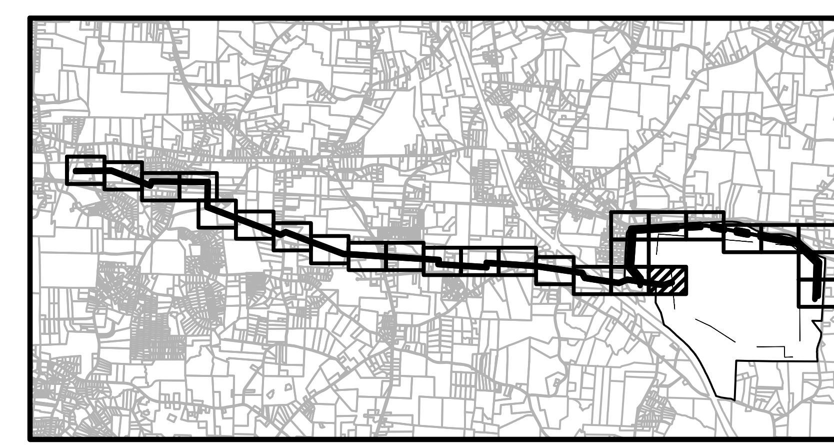
DATE
05□25□2018

SHEET
04X-18



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.



KEY MAP
NOT TO SCALE

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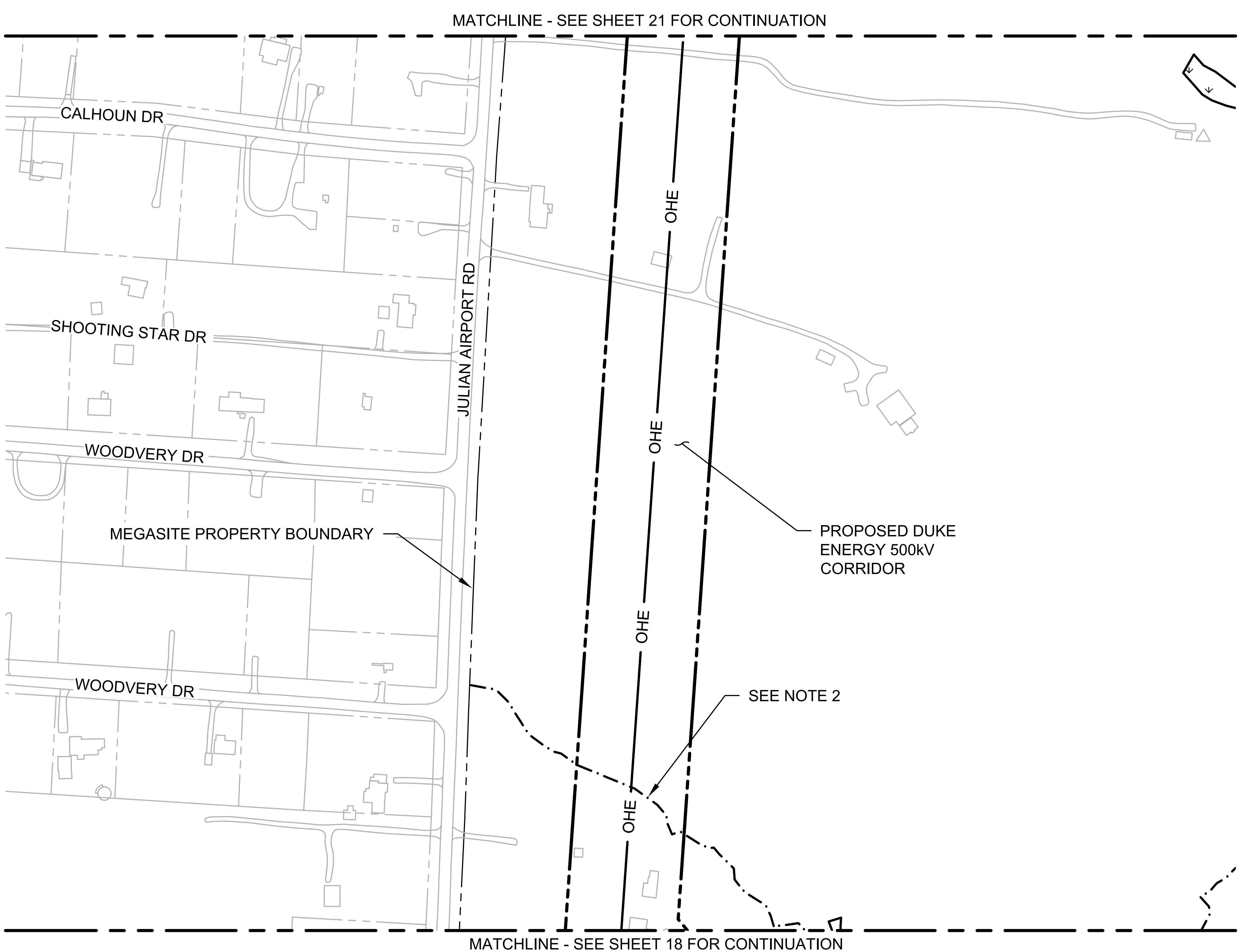
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-1□



GENERAL NOTES:

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2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.

KEY MAP
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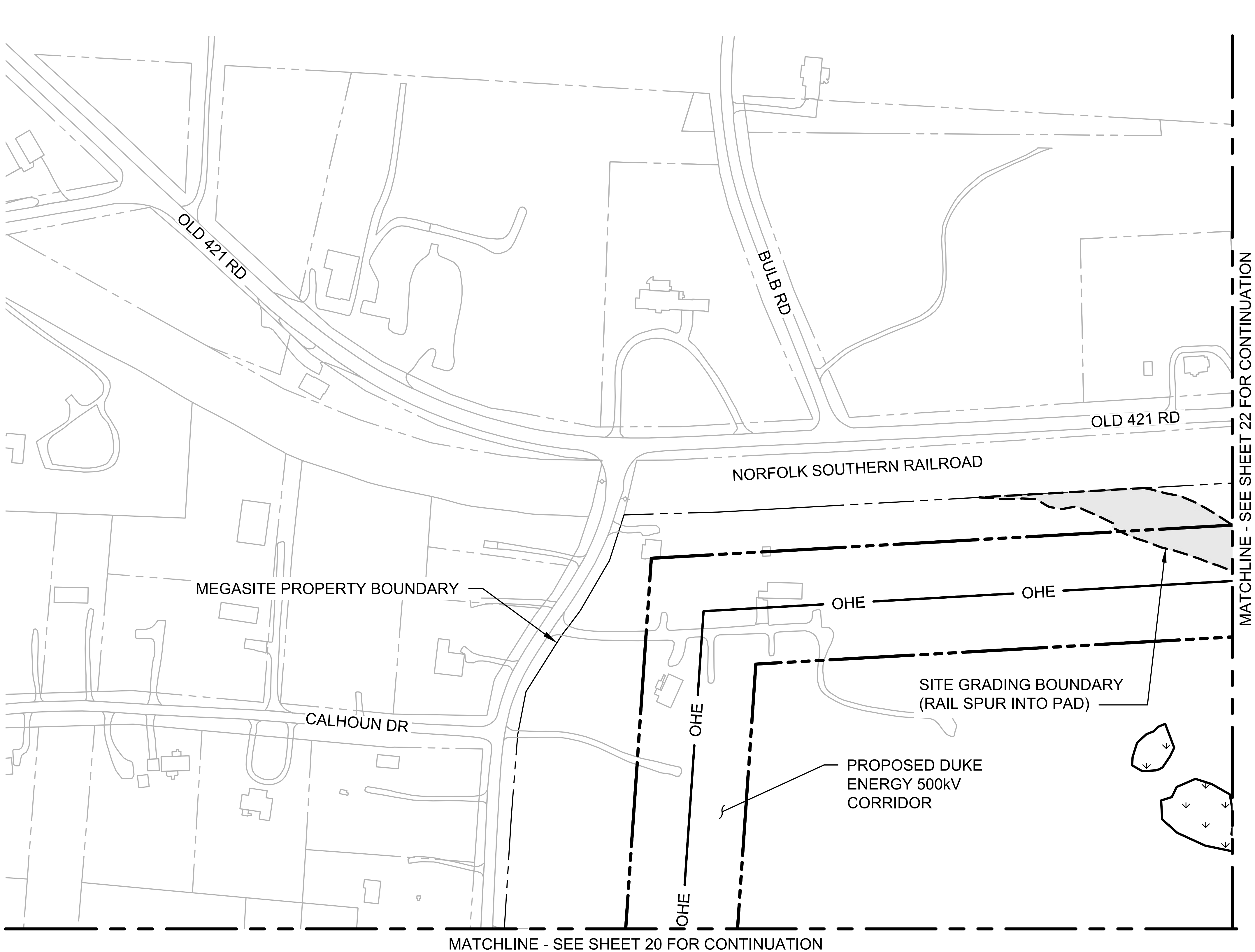
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-20



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET.

KEY MAP
NOT TO SCALE

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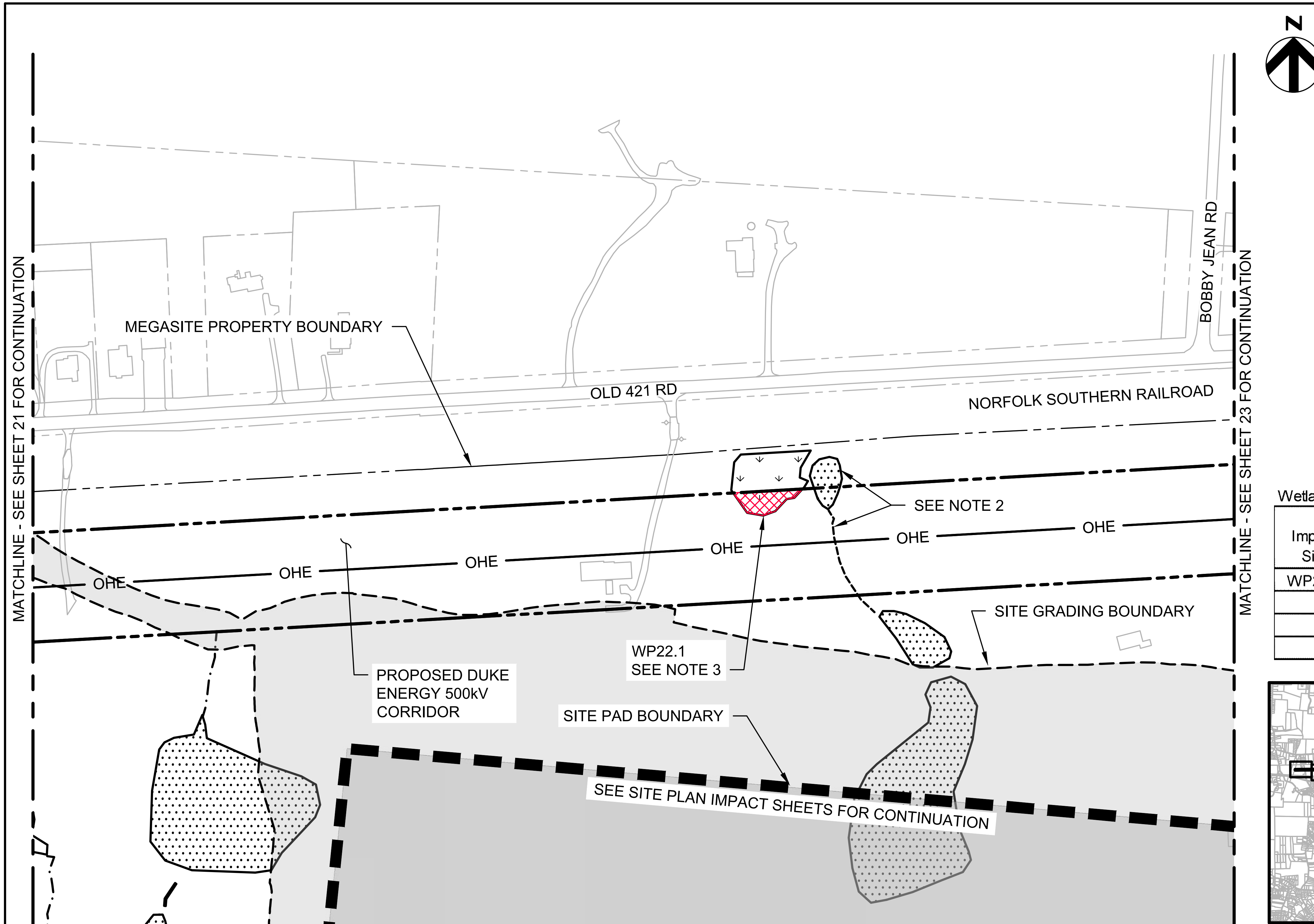
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-21

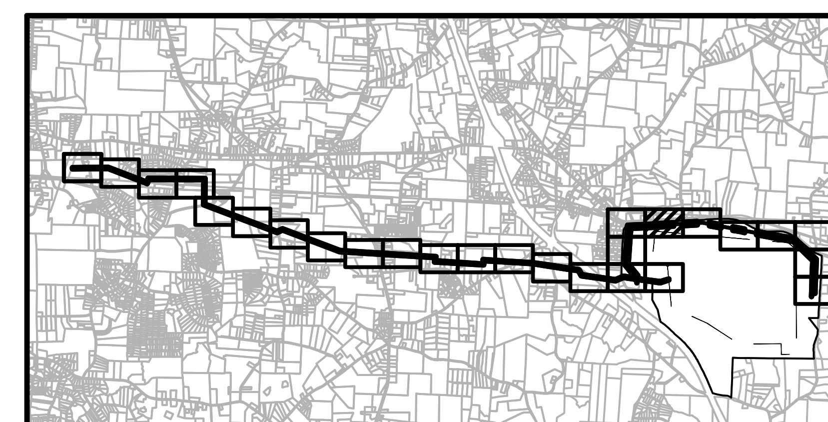


GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY. PONDS WILL BE SPANNED.
3. WETLANDS IN THE PROPOSED DUKE ENERGY CORRIDOR WILL BE HAND CLEARED.

Wetland Impacts

Impact Site	Feature ID from PJD	Impact Type	Permanent Impact Area (AC)	Temporary Impact Area (AC)
WP22.1	W39	CLEARING	0.08	0.00
		Total	0.08	0.00



KEY MAP
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Raleigh, NC 27601
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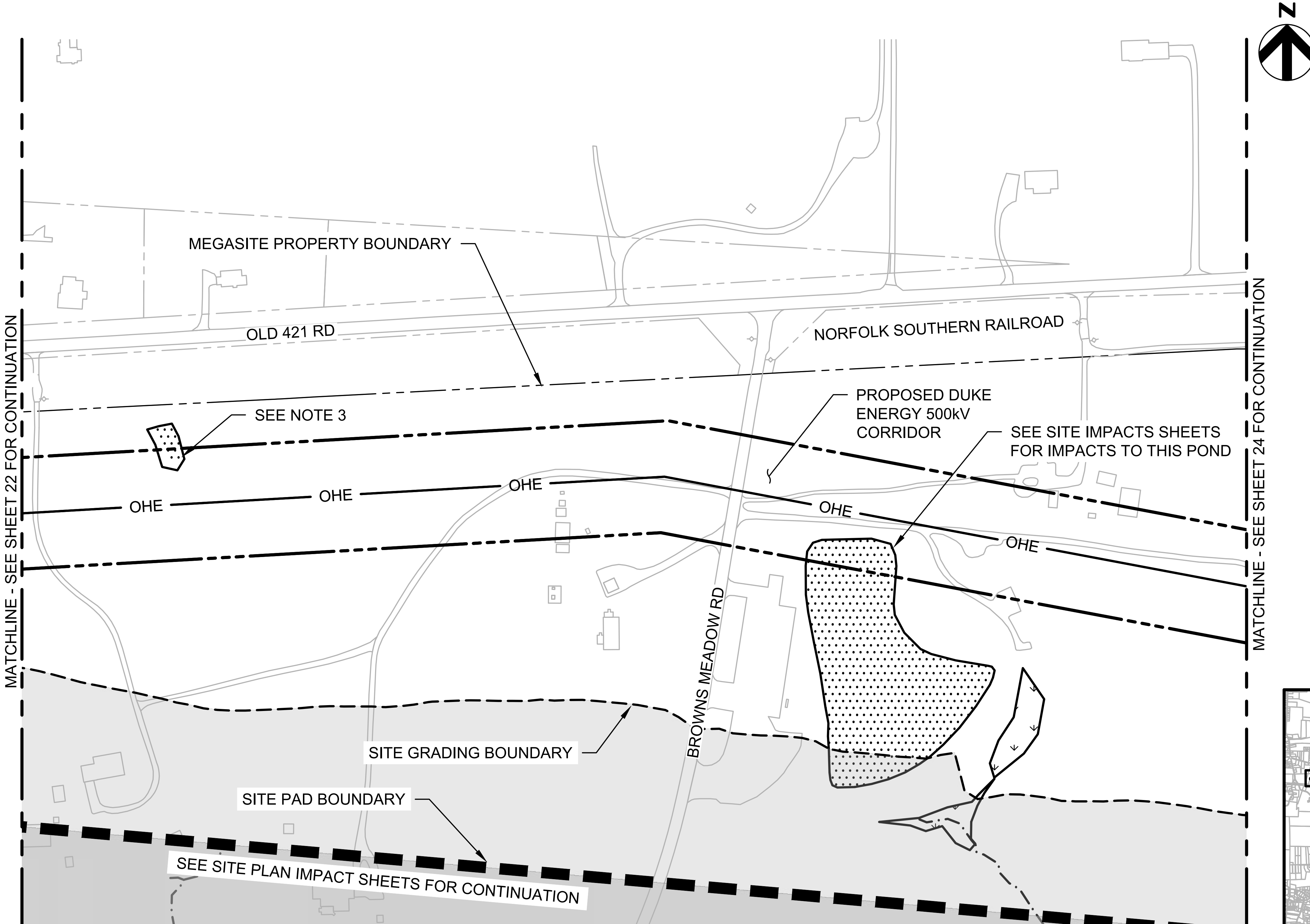
N.C.B.E.L.S. License Number: F-0116

PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE 05□25□2018

SHEET 04X-22



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET.
3. POND IS NON-JURISDICTIONAL.

KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

HDR

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Raleigh, NC 27601
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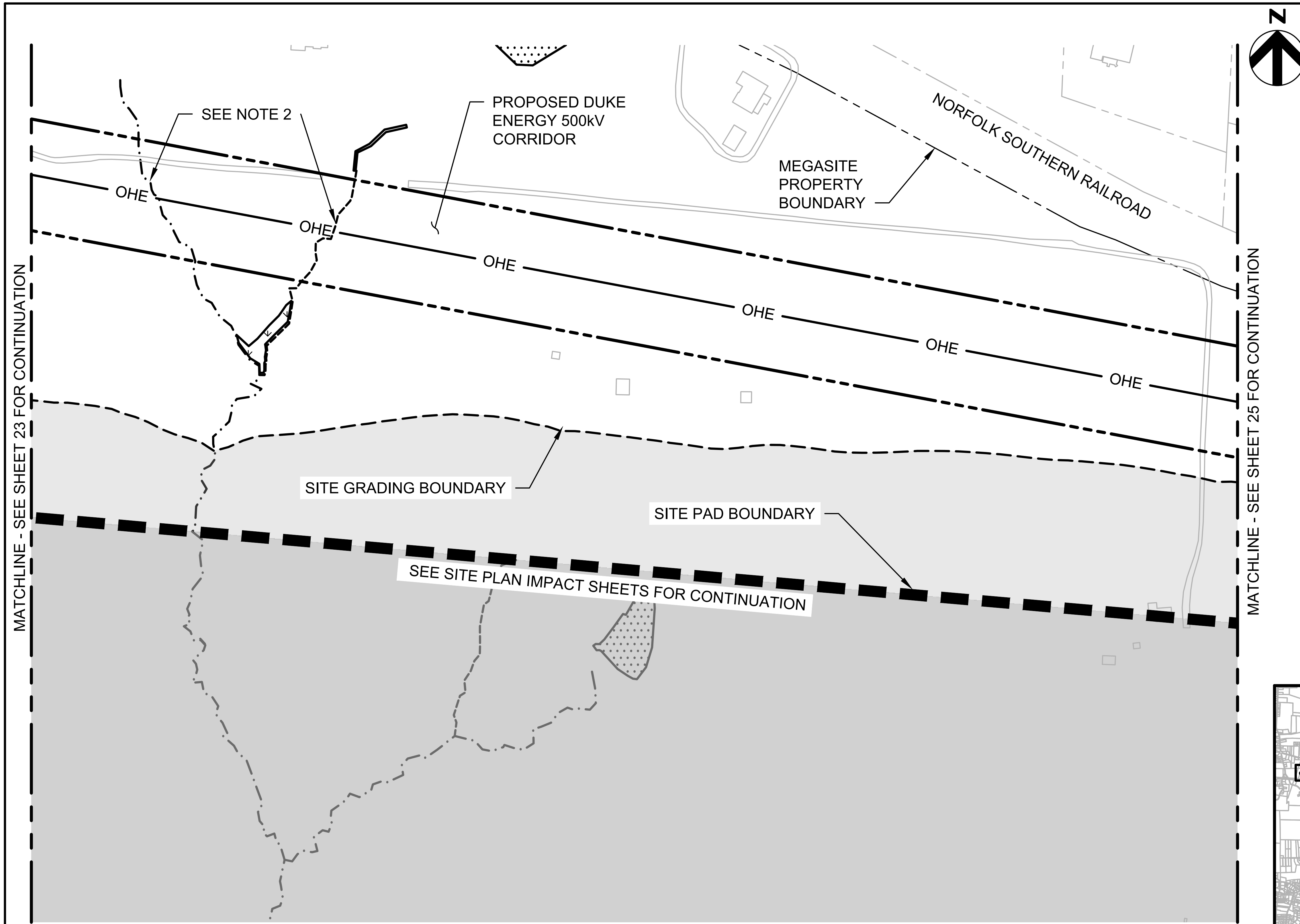
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

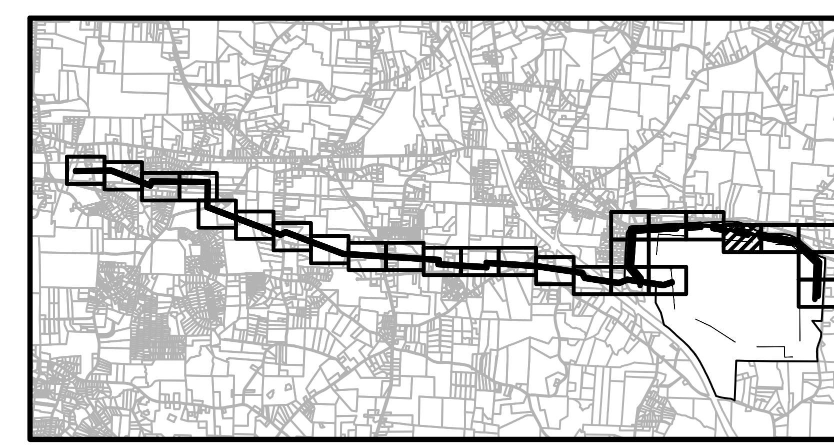
DATE
05□25□2018

SHEET
04X-23



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILIZED FOR CROSSINGS IF NECESSARY.



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

HDR

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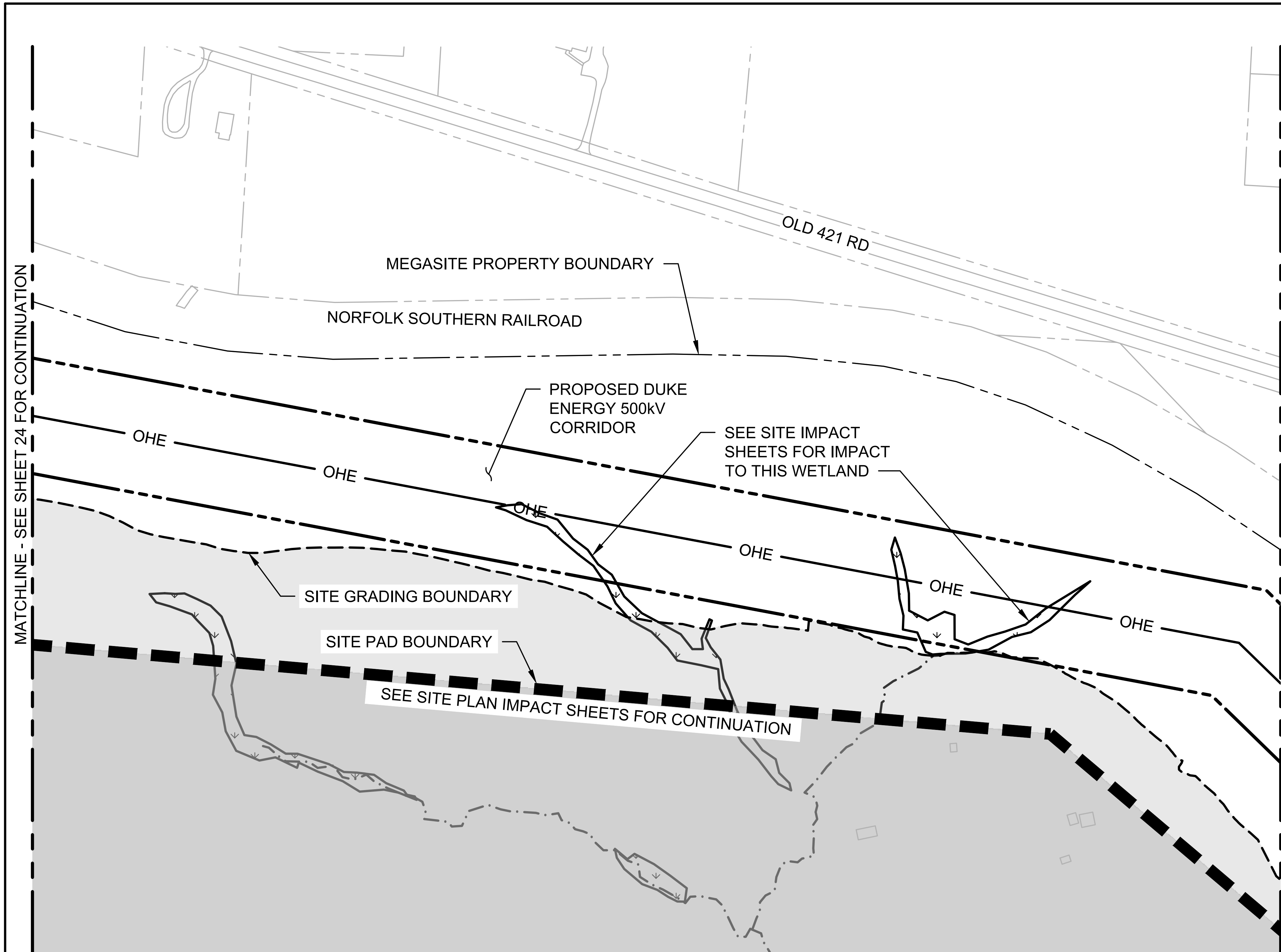
PROJECT GRMS
DUKE ENERGY CORRIDORS
JURISDICTIONAL IMPACTS

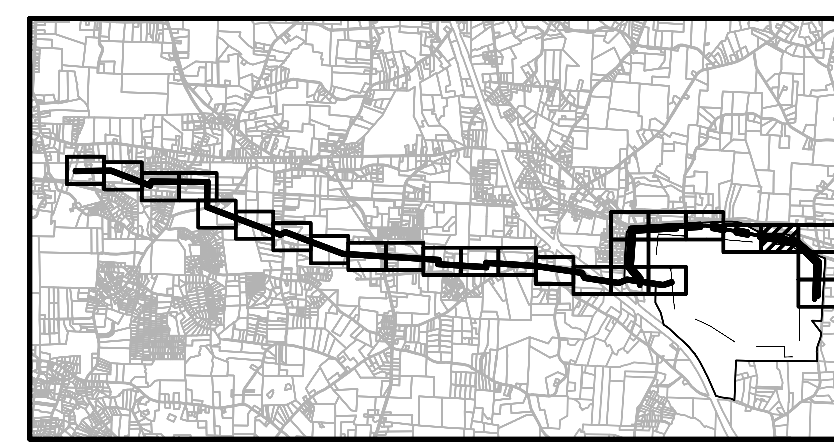
DATE
05/25/2018

SHEET
04X-24



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET.



KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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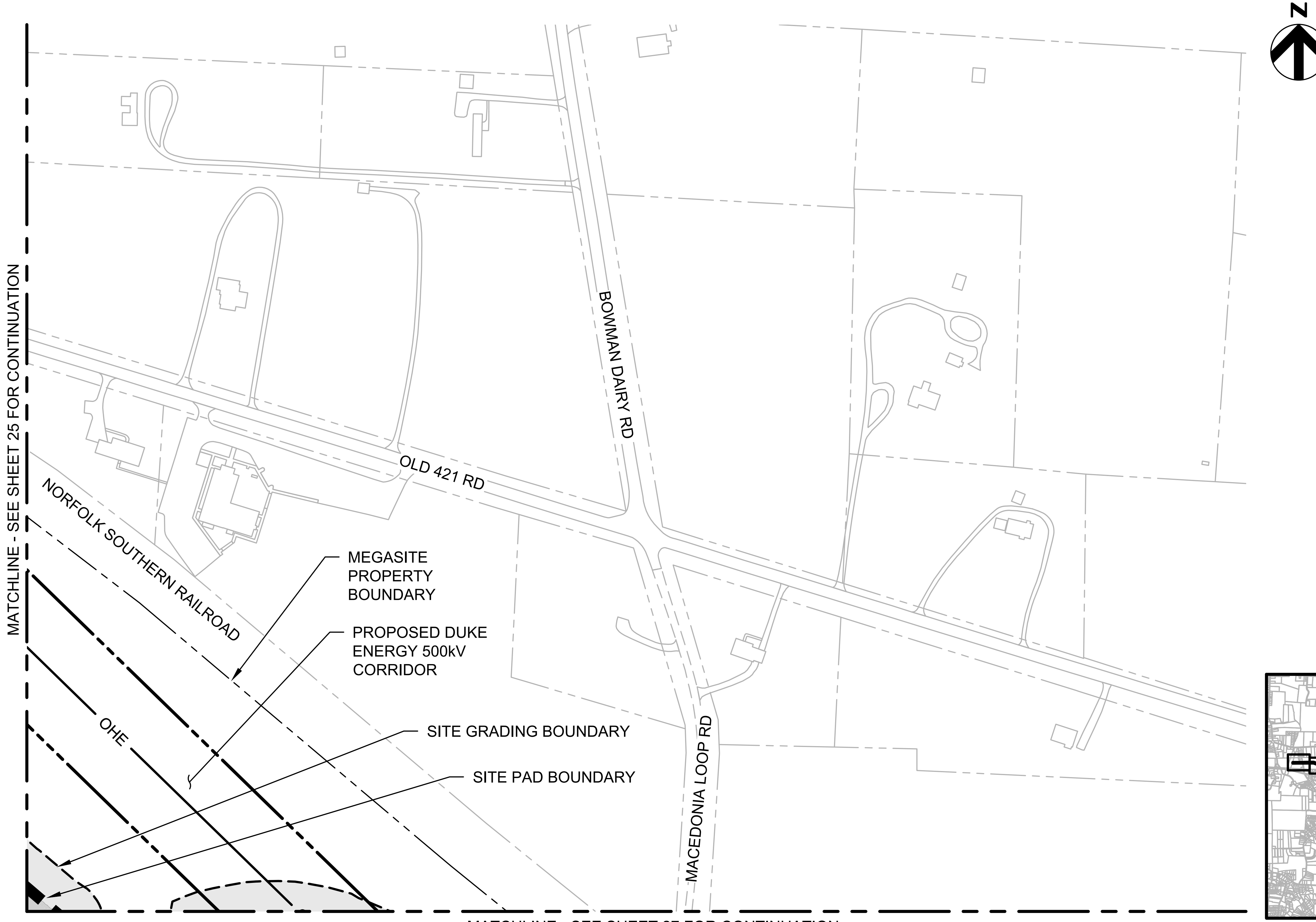
PROJECT GRMS
DUKE ENERGY CORRIDORS
JURISDICTIONAL IMPACTS

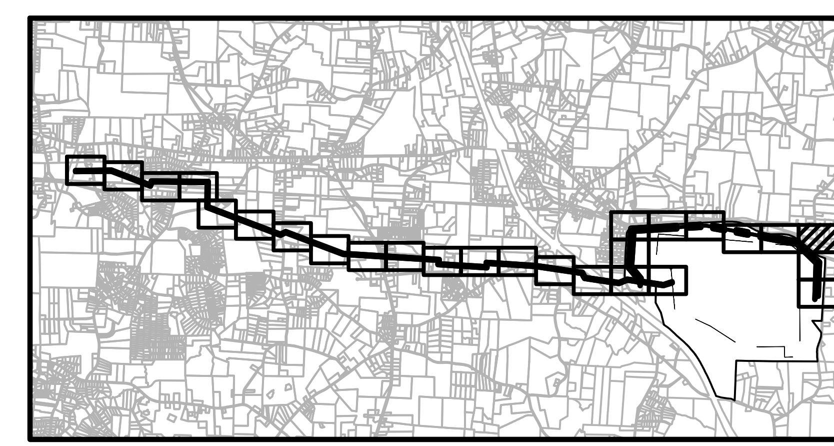
DATE
05/25/2018

SHEET
04X-25



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL STREAMS ON THIS SHEET.



KEY MAP
NOT TO SCALE

0 200' 400'

SCALE: 1" = 200'

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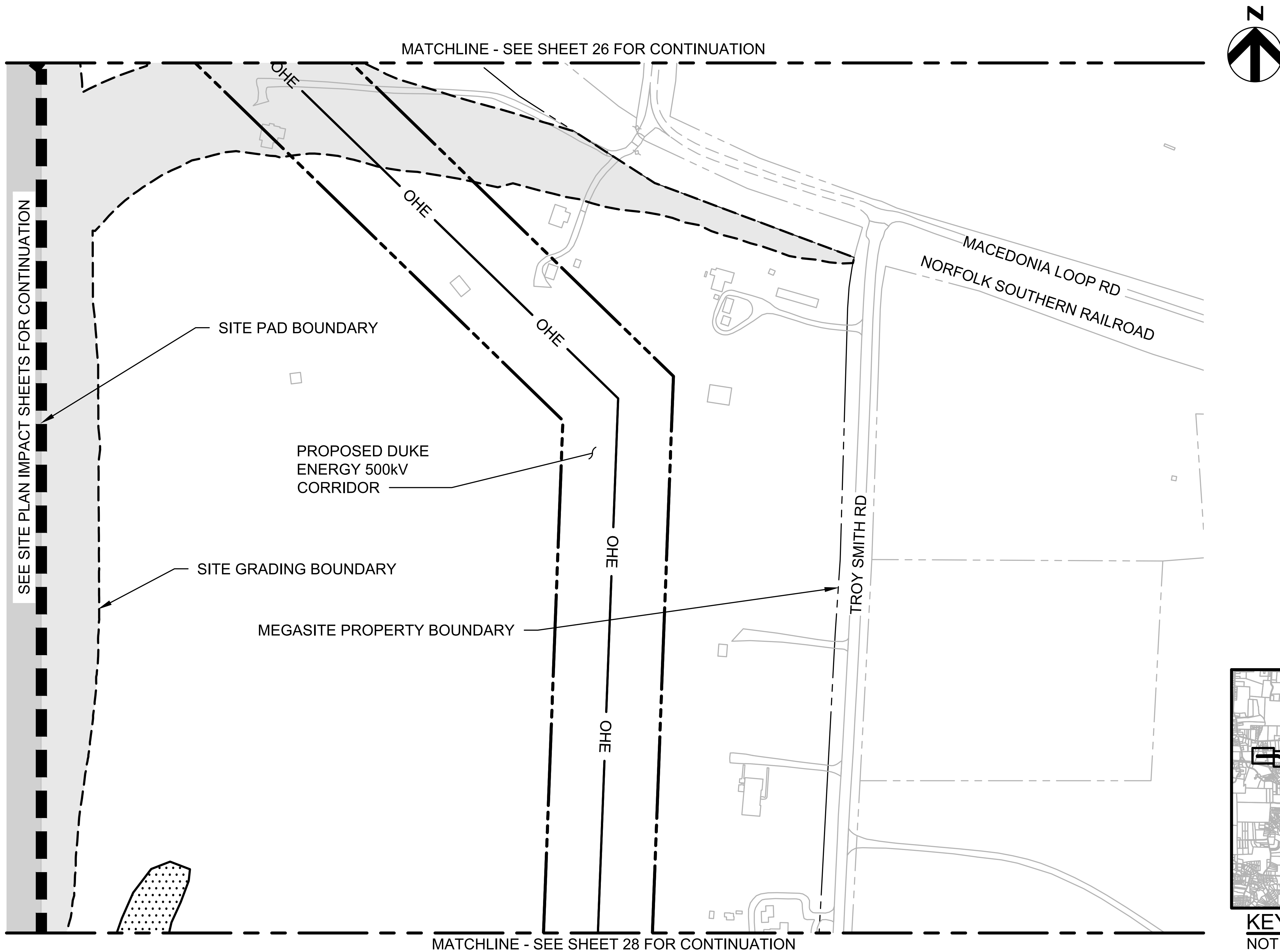
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-26



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET.

KEY MAP
NOT TO SCALE

0 200' 400'
SCALE: 1" = 200'

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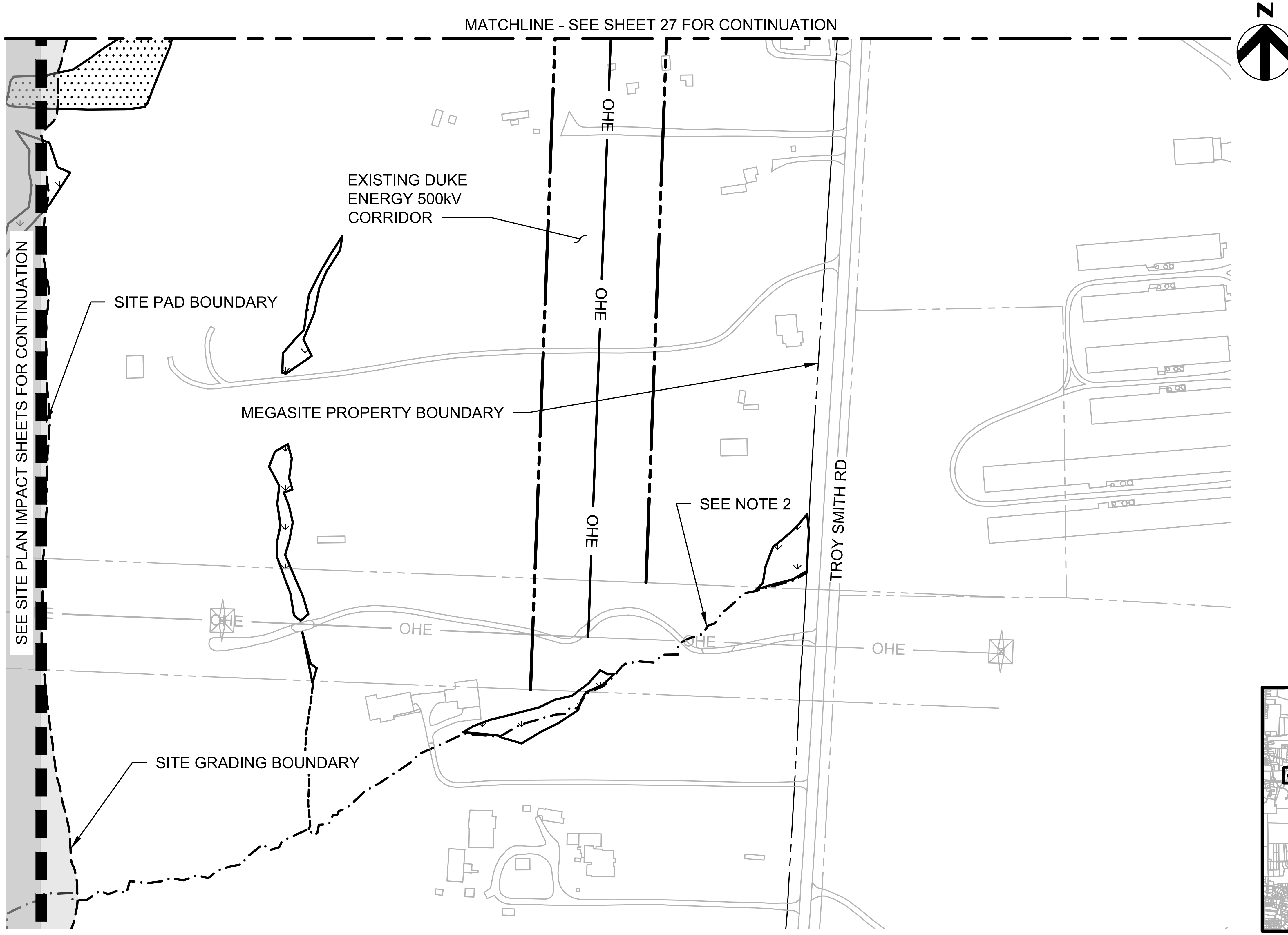
PROJECT GRMS
DU□E ENERG□ CORRIDORS
JURISDICTIONAL IMPACTS

DATE
05□25□2018

SHEET
04X-27



GENERAL NOTES:

1. SEE SHEET 04X-02 FOR LEGEND.
2. NO IMPACTS TO JURISDICTIONAL RESOURCES ON THIS SHEET. STREAM CROSSINGS WILL BE HAND CLEARED AND SPAN BRIDGES WILL BE UTILI□ED FOR CROSSINGS IF NECESSARY.

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PROJECT GRMS
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DATE
05□25□2018

SHEET
04X-28