

LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CPP
	CMP
	HDPE
	PVC
	RCP
	UNK
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - -
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING PIPELINE
	OH
	EXISTING OVERHEAD LINE
	EXISTING TREE
	EXISTING FENCE
	SOW_FLAG_NO
	STATE OPEN WATER FLAG
	PHOTO LOCATION (SEE REPORT)

I AM A DULY REGISTERED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW JERSEY AND I HEREBY CERTIFY THAT THE EXISTING CONDITIONS SHOWN WERE FIELD LOCATED AND PREPARED UNDER MY DIRECT SUPERVISION.

THOMAS D. STRONG
 PROFESSIONAL LAND SURVEYOR
 N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
 SIGNATURE DATE

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MICHAEL J. DENICHILO
 PROFESSIONAL ENGINEER
 N.J. LIC. NO. 24GE05078700

Michael J. Denichilo 08/01/2019
 SIGNATURE DATE



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 - CIVIL SURVEY CONDUCTED AND DRAWINGS PREPARED BY MOTT MACDONALD.

REFERENCE DRAWINGS		REVISIONS				APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DATE
000-03-07-007	* HDD EXHIBIT PLAN AND PROFILE	0	ISSUED FOR NJDEP PERMIT	7/20/19	RJP	KEK	MJD	7/20/19

PREPARED FOR

PREPARED BY

111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
 CERTIFICATE NO. 24GA28016600

CLIENT APPROVAL

DATE

DATE

DATE

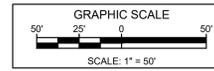
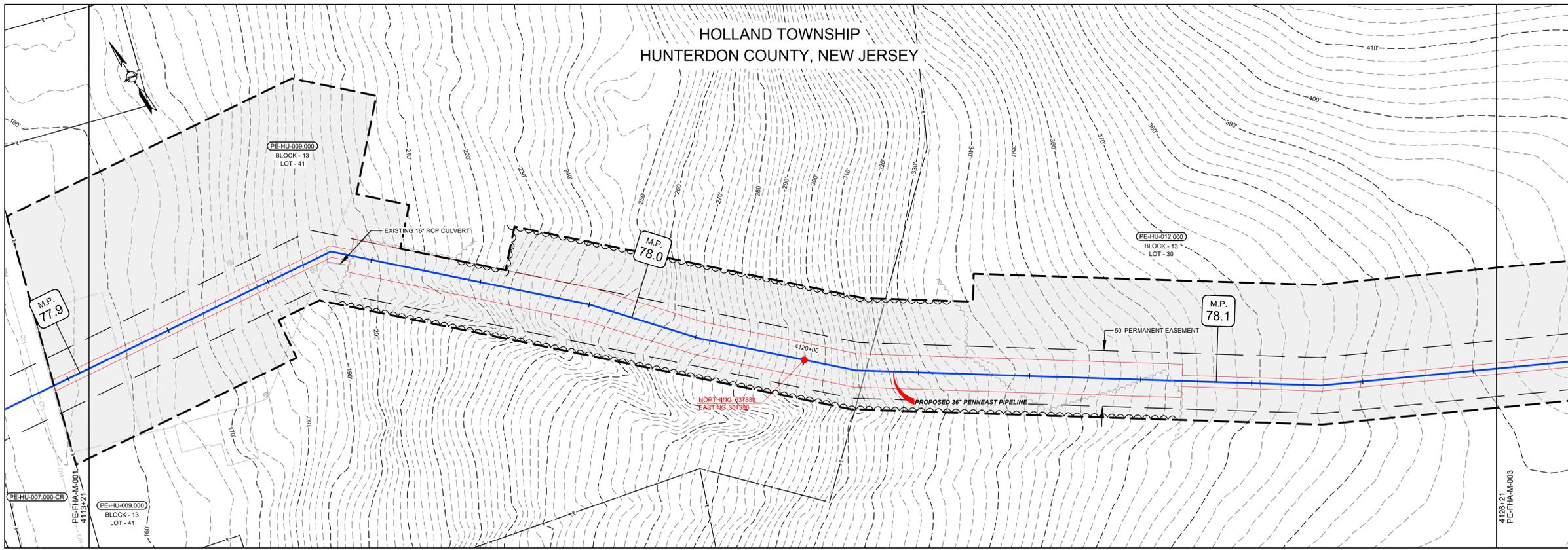
DATE

PENNEAST PIPELINE PROJECT

PENNEAST PIPELINE
 FLOOD HAZARD AREA PERMIT PLAN
 MP 77.7 - MP 77.9

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-001	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
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	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CORRUGATED PLASTIC PIPE
	CORRUGATED METAL PIPE
	HDPPE HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - - EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING PIPELINE
	OH EXISTING OVERHEAD LINE
	EXISTING TREE
	EXISTING FENCE
	STATE OPEN WATER FLAG
	PHOTO LOCATION (SEE REPORT)



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THOMAS D. STRONG
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
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MICHAEL J. DENICHILO
PROFESSIONAL ENGINEER
N.J. LIC. NO. 24GE05078700

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DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
		0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR

PREPARED BY

111 WOOD AVENUE SOUTH, ISELIN, N.J. 08830
CERTIFICATE NO. 24GA28016600

CLIENT APPROVAL

DATE

7/2019

DATE

7/2019

DATE

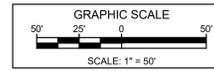
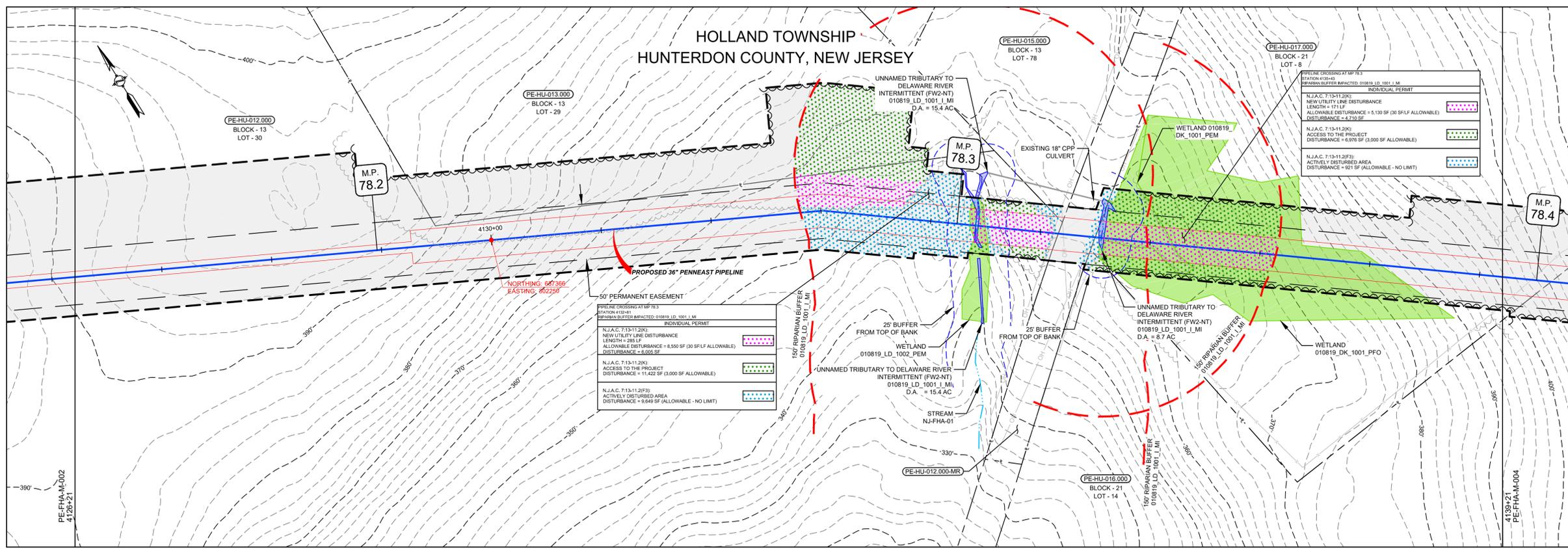
7/2019

PENNEAST PIPELINE PROJECT

**PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 77.9 - MP 78.1**

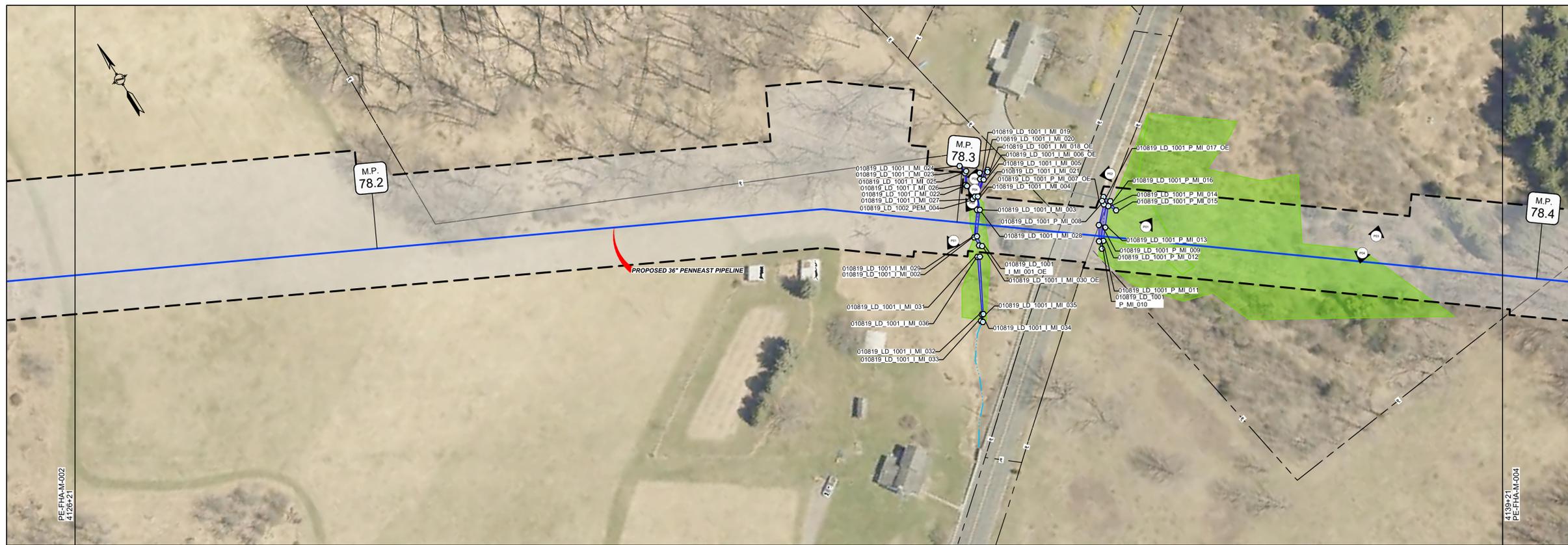
SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-002	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND

	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CPP CORROGATED PLASTIC PIPE
	CMP CORROGATED METAL PIPE
	HDPE HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - - EXISTING MAJOR CONTOURS
	- - - - - EXISTING MINOR CONTOURS
	- - - - - EXISTING PIPELINE
	- - - - - EXISTING OVERHEAD LINE
	● EXISTING TREE
	- - - - - EXISTING FENCE
	SOW_FLAG_NO EXISTING STATE OPEN WATER FLAG
	○ PHOTO LOCATION (SEE REPORT)



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N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
SIGNATURE DATE

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DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
PE-SSC-M-78.30	SUPPLEMENTAL STREAM CROSSING DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
PE-SSC-M-78.32	SUPPLEMENTAL STREAM CROSSING DETAIL							KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR

PREPARED BY

111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600

CLIENT APPROVAL

DATE

DATE

DATE

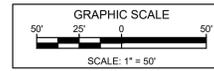
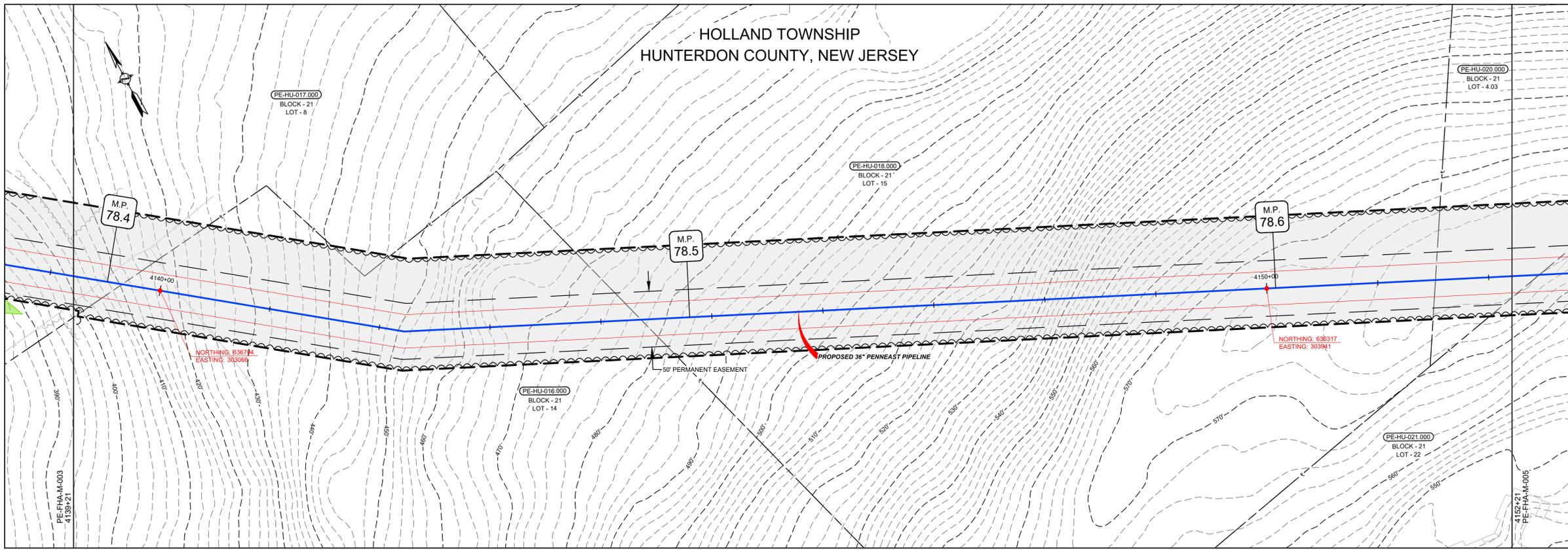
DATE

PENNEAST PIPELINE PROJECT

**PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 78.1 - MP 78.4**

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-003	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND

- PROPOSED PIPELINE
- LIMITS OF DISTURBANCE
- PROPOSED PERMANENT EASEMENT
- OPERATIONAL CORRIDOR
- PROPOSED TREE LINE
- EXISTING TREE LINE
- WETLAND (SURVEYED)
- WETLAND (PUBLIC)
- WATERBODY (SURVEYED)
- WATERBODY (PUBLIC)
- ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
- TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
- NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
- RIPARIAN BUFFER
- 25' BUFFER FROM STREAM TOP OF BANK
- STREAM CENTERLINE (SURVEYED)
- STREAM CENTERLINE (PUBLIC)
- LIMITS OF WETLAND DELINEATION
- PROPERTY LINE
- PARCEL ID WITH BLOCK AND LOT NUMBER
- EXISTING CULVERT
- CPP CORROGATED PLASTIC PIPE
- CMP CORROGATED METAL PIPE
- HDPE HIGH DENSITY POLYETHYLENE PIPE
- PVC POLYVINYL CHLORIDE PIPE
- RCP REINFORCED CONCRETE PIPE
- UNK UNKNOWN
- EXISTING FOREIGN UTILITY EASEMENT
- 1260' EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING PIPELINE
- OH EXISTING OVERHEAD LINE
- EXISTING TREE
- EXISTING FENCE
- STATE OPEN WATER FLAG
- PHOTO LOCATION (SEE REPORT)



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THOMAS D. STRONG
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 24GS03676100

Thomas D. Strong 08/01/2019
SIGNATURE DATE

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MICHAEL J. DENICHILO
PROFESSIONAL ENGINEER
N.J. LIC. NO. 24GE05078700

Michael J. Denichilo 08/01/2019
SIGNATURE DATE

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DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
		0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR

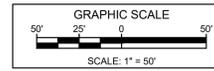
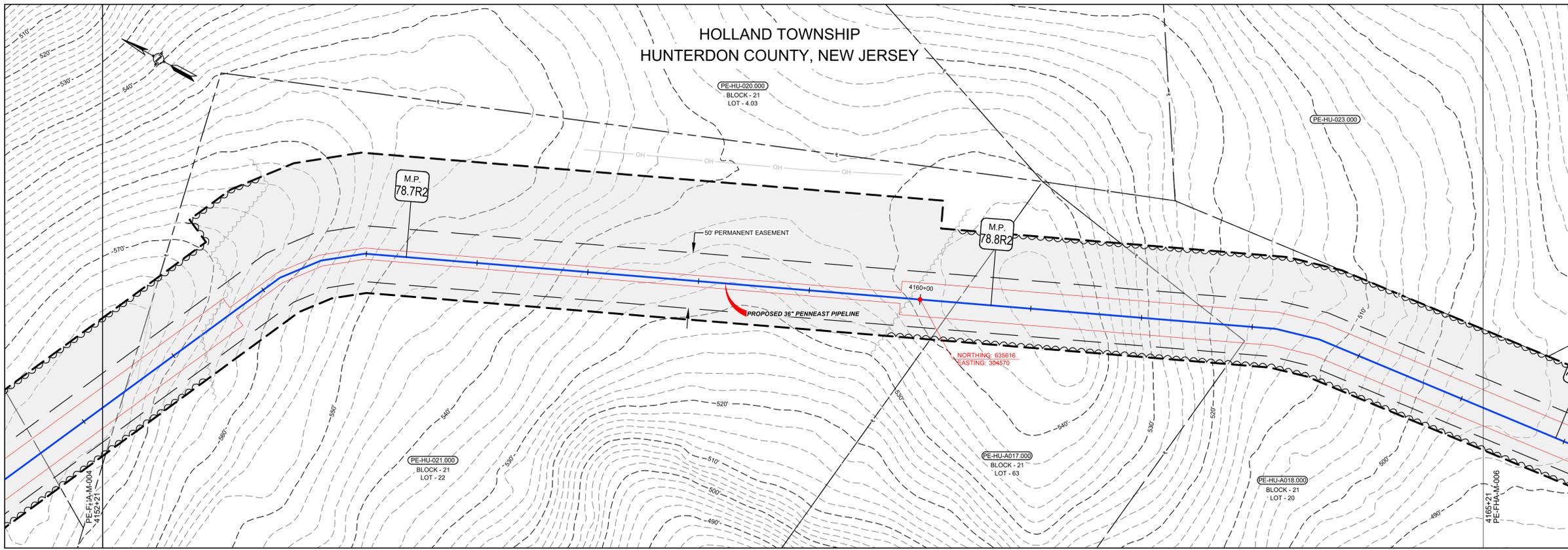
PREPARED BY **M M**
MOTT MACDONALD
111 WOOD AVENUE SOUTH, ISELIN, NJ, 08850
CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT

**PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 78.4 - MP 78.6**

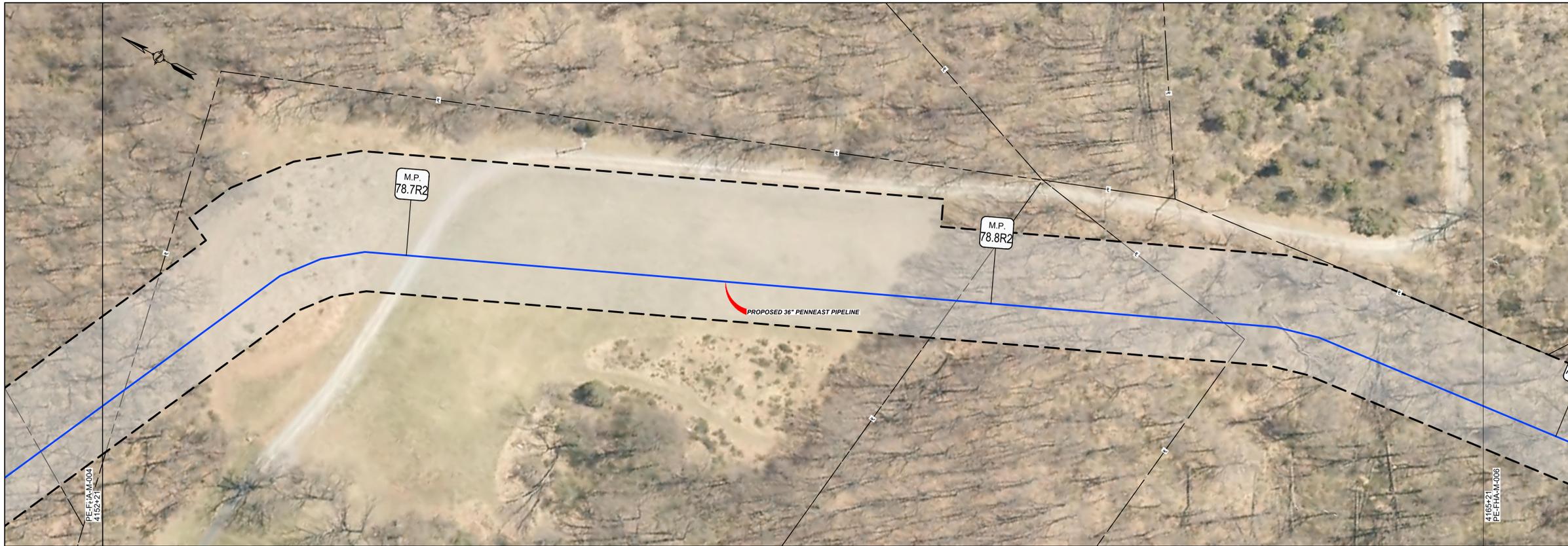
SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-004	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND

- PROPOSED PIPELINE
- LIMITS OF DISTURBANCE
- PROPOSED PERMANENT EASEMENT
- OPERATIONAL CORRIDOR
- PROPOSED TREE LINE
- EXISTING TREE LINE
- WETLAND (SURVEYED)
- WETLAND (PUBLIC)
- WATERBODY (SURVEYED)
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- ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
- TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
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- RIPARIAN BUFFER
- 25' BUFFER FROM STREAM TOP OF BANK
- STREAM CENTERLINE (SURVEYED)
- STREAM CENTERLINE (PUBLIC)
- LIMITS OF WETLAND DELINEATION
- PROPERTY LINE
- PARCEL ID WITH BLOCK AND LOT NUMBER
- EXISTING CULVERT
- CORRUGATED PLASTIC PIPE
- CORRUGATED METAL PIPE
- HIGH DENSITY POLYETHYLENE PIPE
- POLYVINYL CHLORIDE PIPE
- REINFORCED CONCRETE PIPE
- UNKNOWN
- EXISTING FOREIGN UTILITY EASEMENT
- 1260' EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD LINE
- EXISTING TREE
- EXISTING FENCE
- STATE OPEN WATER FLAG
- PHOTO LOCATION (SEE REPORT)



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								KEK	7/2019
								MJD	7/2019
								MW	7/2019

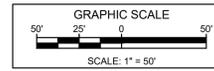
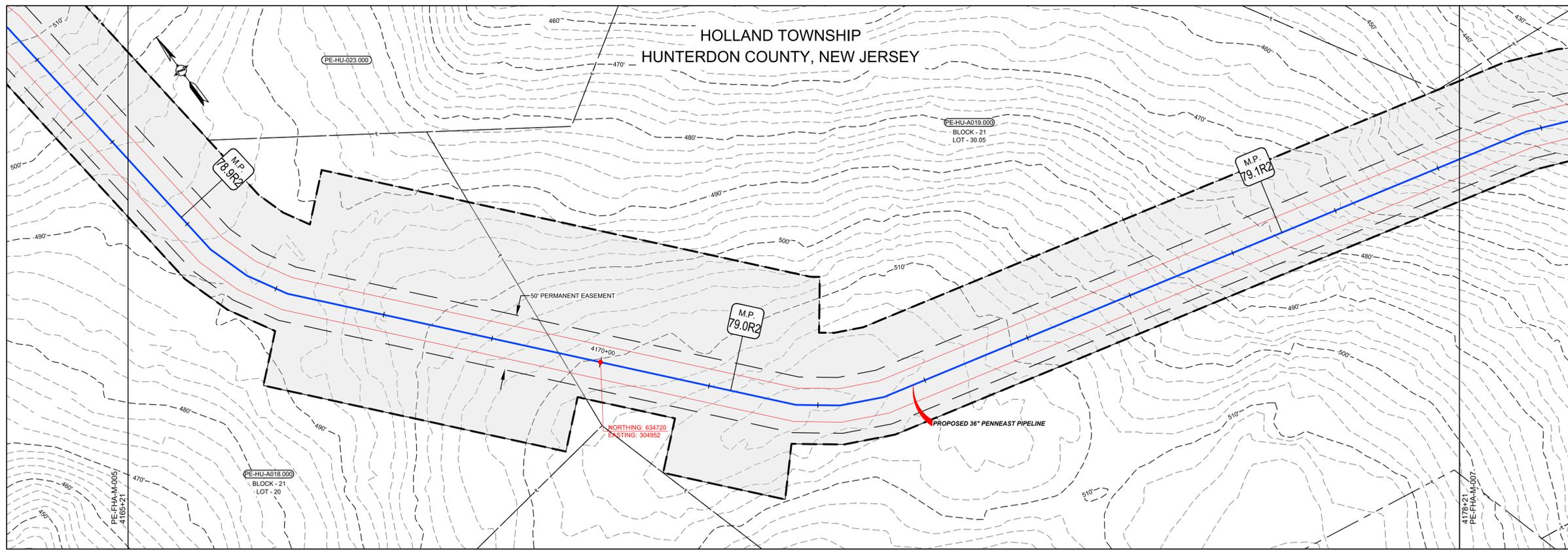
PREPARED FOR
PennEast PIPELINE

PREPARED BY
M M
MOTT MACDONALD
111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600

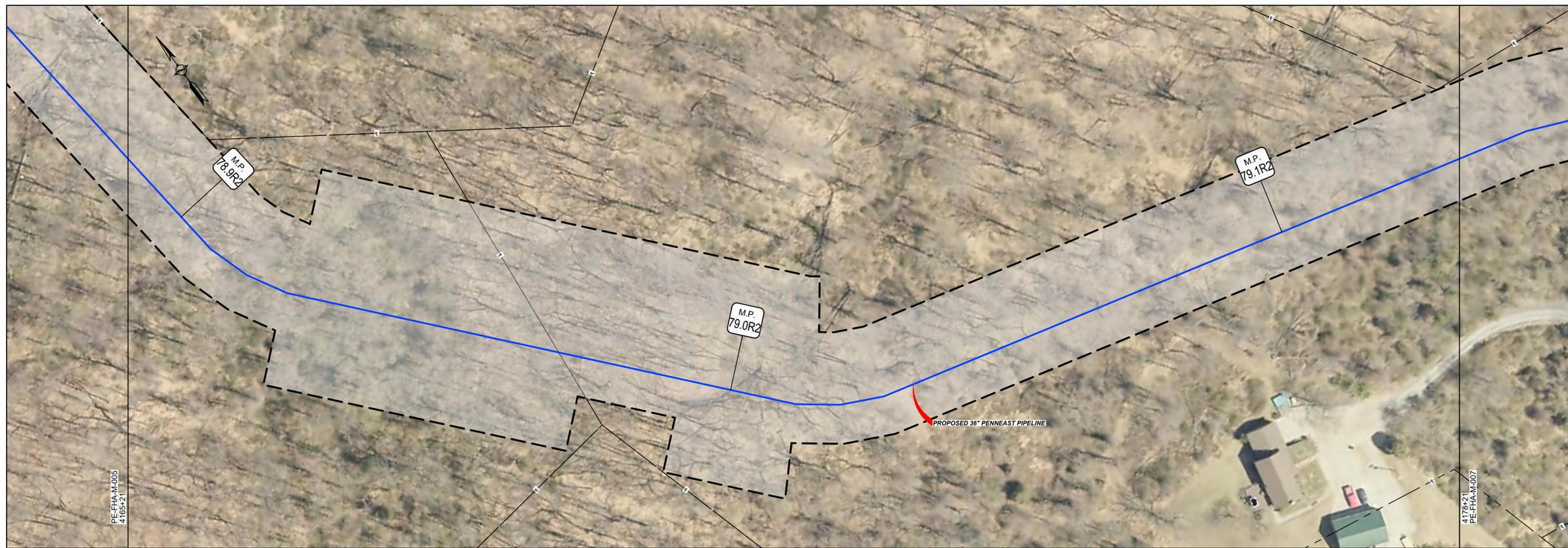
PENNEAST PIPELINE PROJECT

**PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 78.6 - MP 78.9R2**

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-005	0



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
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	WETLAND (PUBLIC)
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	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
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	CMP CORRUGATED METAL PIPE
	HDPE HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - - EXISTING MAJOR CONTOURS
	- - - - - EXISTING MINOR CONTOURS
	- - - - - EXISTING PIPELINE
	- - - - - OH EXISTING OVERHEAD LINE
	● EXISTING TREE
	- - - - - EXISTING FENCE
	SOW_FLAG_NO ○ STATE OPEN WATER FLAG
	⊙ PHOTO LOCATION (SEE REPORT)



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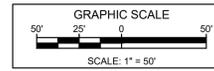
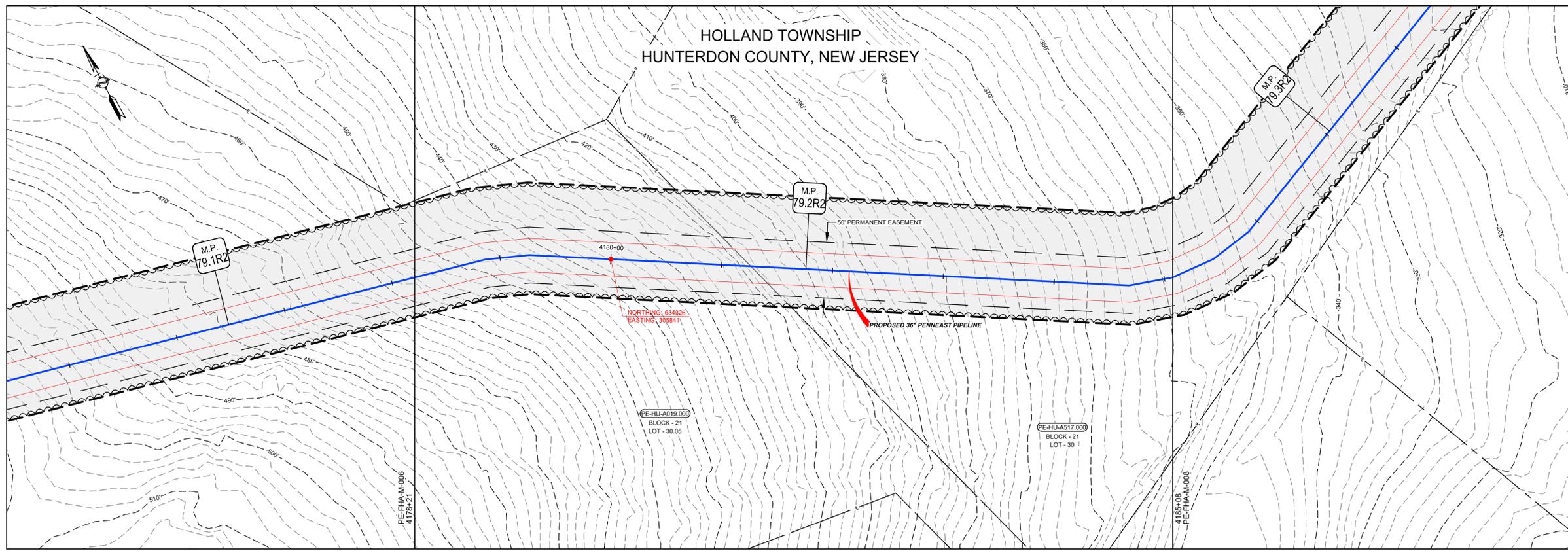
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REFERENCE DRAWINGS		REVISIONS					APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
		0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

APPROVALS		CLIENT APPROVAL	PREPARED BY
DRAWN BY	DATE		 MOTT MACDONALD 111 WOOD AVENUE SOUTH, ISELIN, NJ, 08850 CERTIFICATE NO. 24GA28016600
CHECKED BY	DATE		
ENG. APPROVAL	DATE		
P.M. APPROVAL	DATE		
MW	7/2019	7/2019	

PENNEAST PIPELINE PROJECT		
PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN MP 78.9R2 - MP 79.1R2		
SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-006	0



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CPP CORRUGATED PLASTIC PIPE
	CMP CORRUGATED METAL PIPE
	HDPE HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - - EXISTING MAJOR CONTOURS
	- - - - - EXISTING MINOR CONTOURS
	- - - - - EXISTING PIPELINE
	- - - - - OH EXISTING OVERHEAD LINE
	● EXISTING TREE
	- - - - - EXISTING FENCE
	- - - - - SOW_FLAG_NO STATE OPEN WATER FLAG
	- - - - - PHOTO LOCATION (SEE REPORT)



I AM A DULY REGISTERED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW JERSEY AND I HEREBY CERTIFY THAT EXISTING CONDITIONS SHOWN WERE FIELD LOCATED AND PREPARED UNDER MY DIRECT SUPERVISION.

THOMAS D. STRONG
 PROFESSIONAL LAND SURVEYOR
 N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
 SIGNATURE DATE

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MICHAEL J. DENICHILO
 PROFESSIONAL ENGINEER
 N.J. LIC. NO. 24GE05078700

Michael J. Denichilo 08/01/2019
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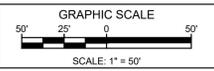
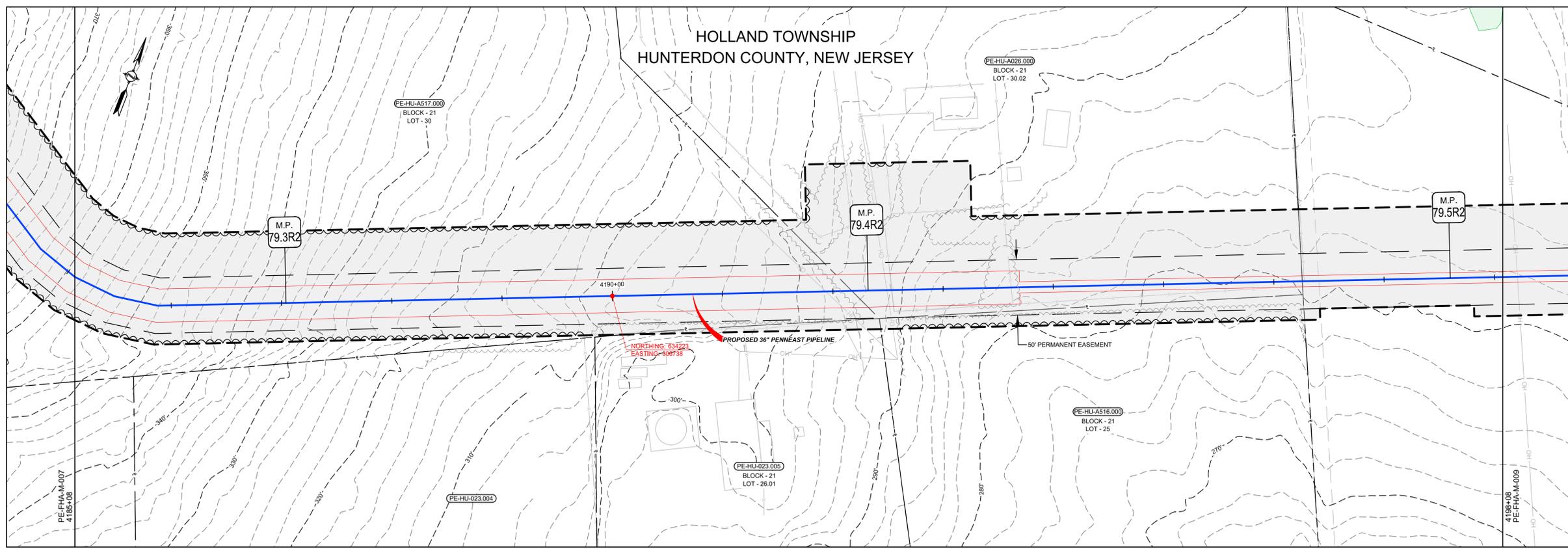
REFERENCE DRAWINGS		REVISIONS					APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
		0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR

PREPARED BY

 MOTT MACDONALD
 111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
 CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT		
PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN MP 79.1R2 - MP 79.3R2		
SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-007	0



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CORRUGATED PLASTIC PIPE
	CORRUGATED METAL PIPE
	HDPPE HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - - EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING PIPELINE
	OH EXISTING OVERHEAD LINE
	EXISTING TREE
	EXISTING FENCE
	STATE OPEN WATER FLAG
	PHOTO LOCATION (SEE REPORT)



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THOMAS D. STRONG
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 24G803676100

Thomas D. Strong 08/01/2019
SIGNATURE DATE

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MICHAEL J. DENICHILO
PROFESSIONAL ENGINEER
N.J. LIC. NO. 24GE05078700

Michael J. Denichilo 08/01/2019
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								KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR

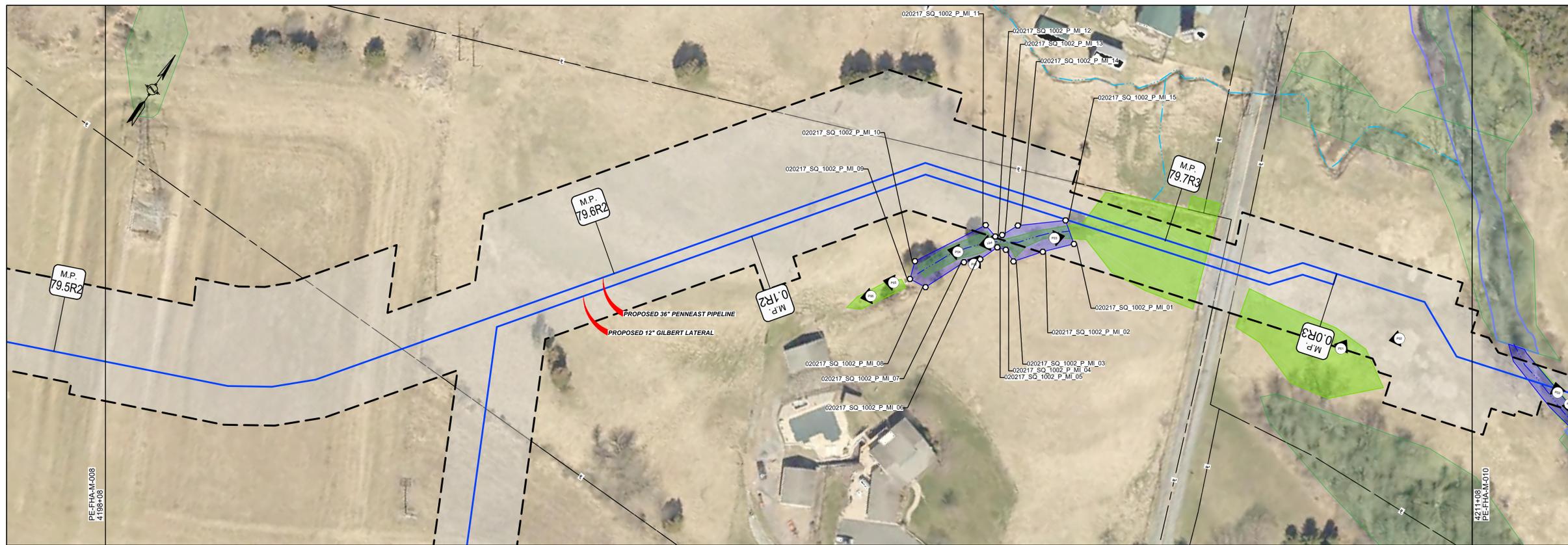
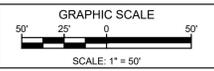
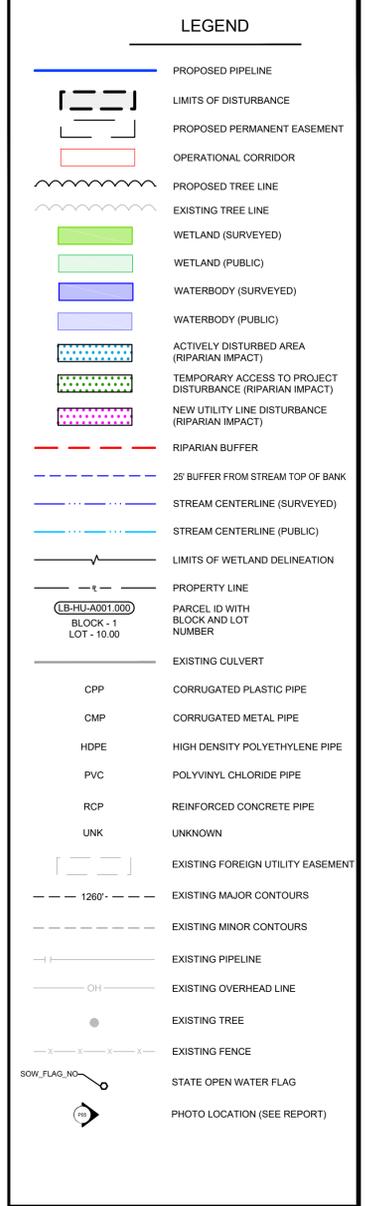
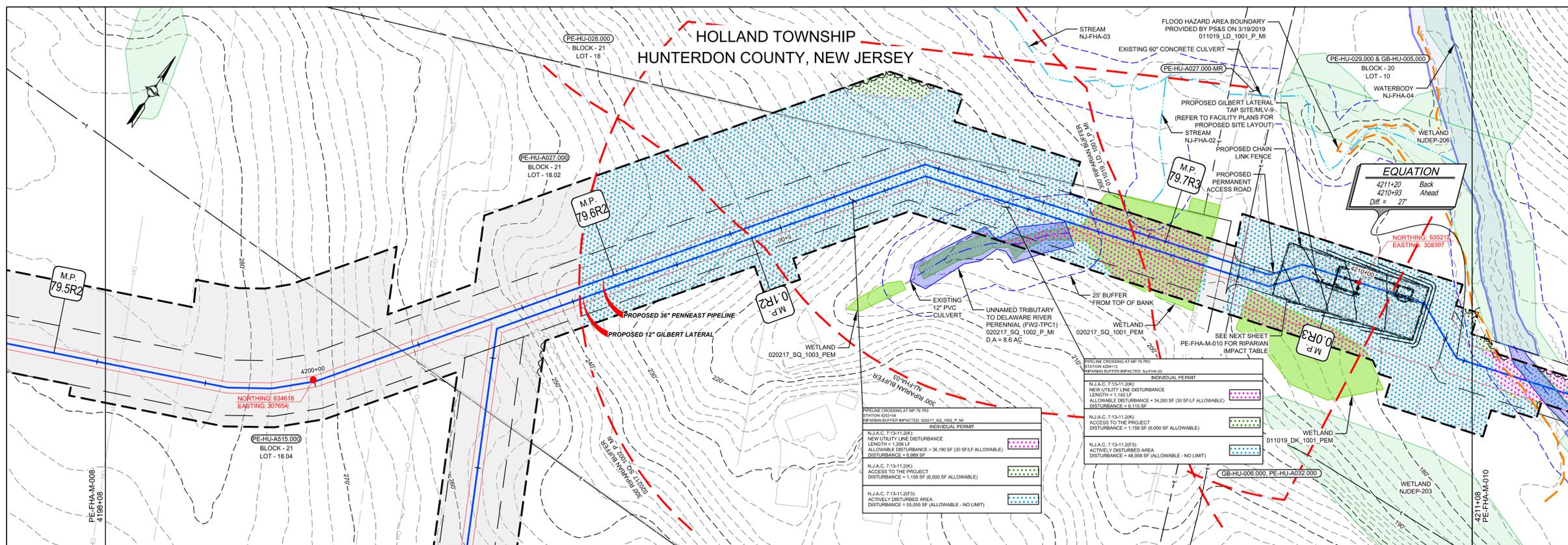
PREPARED BY

111 WOOD AVENUE SOUTH, ISELIN, NJ, 08850
CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT

PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 79.3R2 - MP 79.5R2

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-008	0



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THOMAS D. STRONG
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
SIGNATURE DATE

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REFERENCE DRAWINGS		REVISIONS					APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
025A-03-03	GILBERT LATERAL TAP SITE MAINLINE BLOCK VALVE 9	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR
PennEast PIPELINE

PREPARED BY
MOTT MACDONALD
111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600

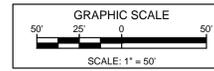
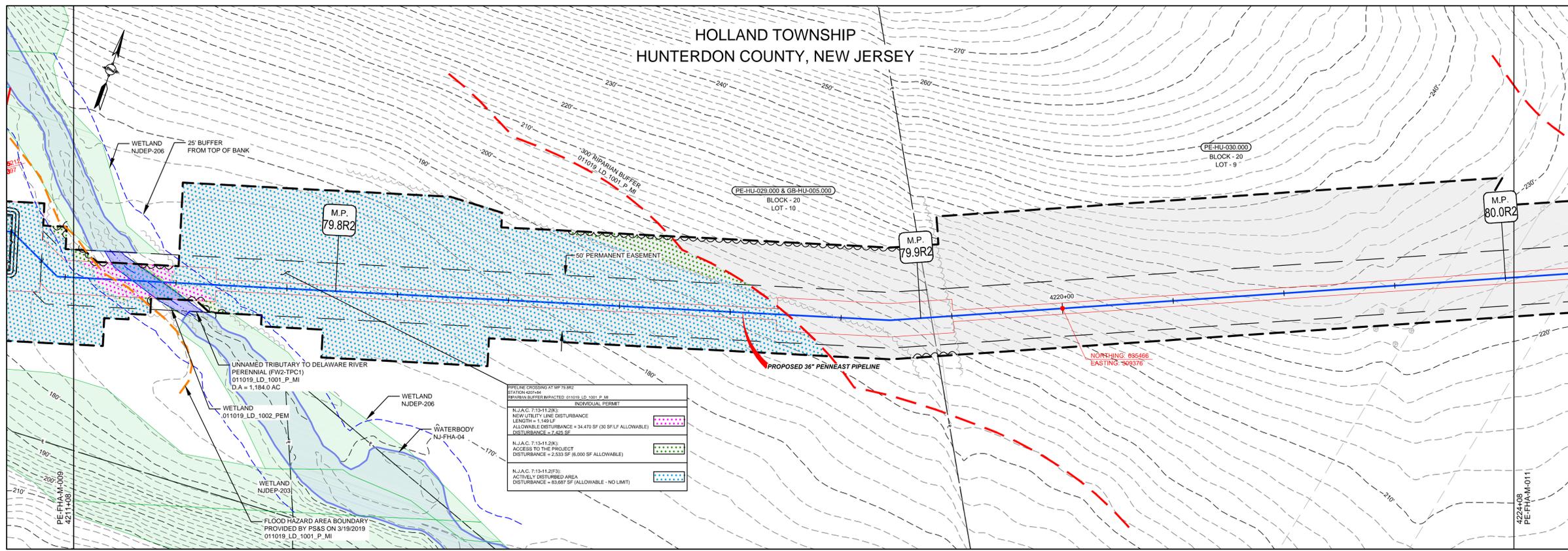
CLIENT APPROVAL
DATE

DATE

PENNEAST PIPELINE PROJECT
PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN
MP 79.5R2 - MP 79.8R2

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-009	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
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	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CORRUGATED PLASTIC PIPE
	CORRUGATED METAL PIPE
	HIGH DENSITY POLYETHYLENE PIPE
	POLYVINYL CHLORIDE PIPE
	REINFORCED CONCRETE PIPE
	UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING PIPELINE
	EXISTING OVERHEAD LINE
	EXISTING TREE
	EXISTING FENCE
	STATE OPEN WATER FLAG
	PHOTO LOCATION (SEE REPORT)

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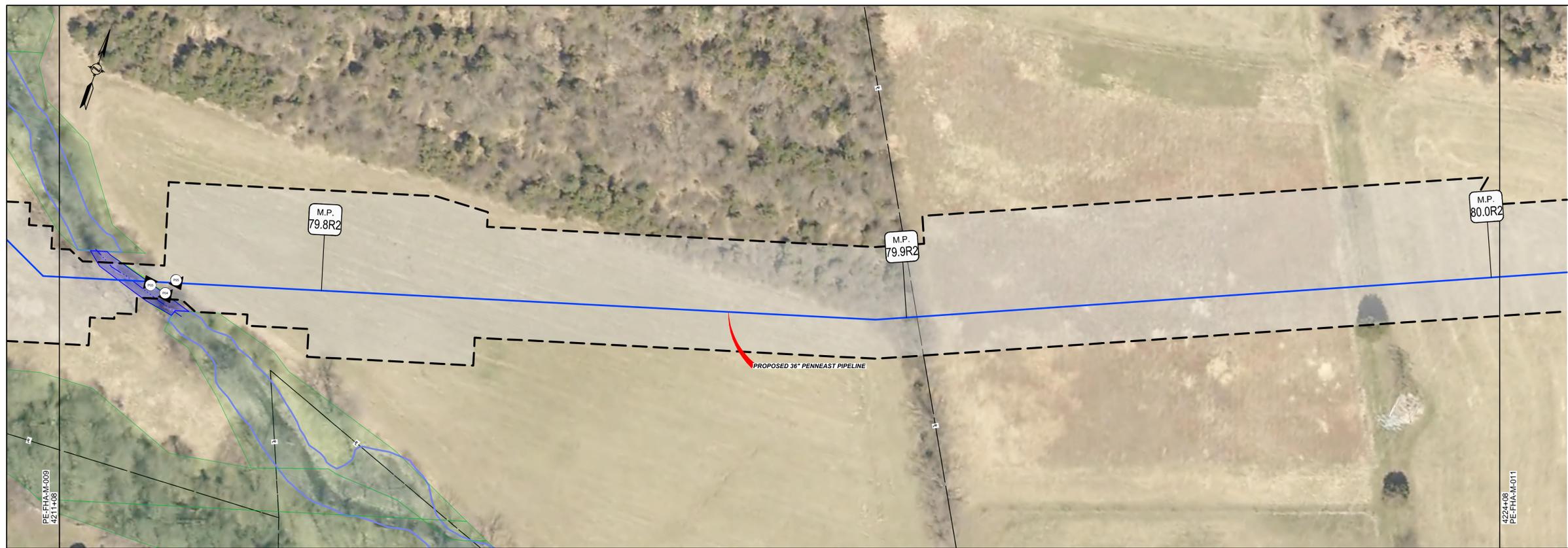
THOMAS D. STRONG
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 24GS03676100

Thomas D. Strong 08/01/2019
SIGNATURE DATE

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REFERENCE DRAWINGS		REVISIONS				APPROVALS		
DWG. NO.	TITLE	NO.	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
PE-SSC-M-79.77R2	SUPPLEMENTAL STREAM CROSSING DETAIL	0	7/2019	RJP	KEK	MJD	RJP	7/2019
							KEK	7/2019
							MJD	7/2019
							MW	7/2019

APPROVALS		CLIENT APPROVAL
DRAWN BY	DATE	
RJP	7/2019	
CHECKED BY	DATE	
KEK	7/2019	
ENG. APPROVAL	DATE	
MJD	7/2019	
P.M. APPROVAL	DATE	
MW	7/2019	

PREPARED FOR
PennEast
PIPELINE

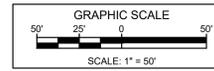
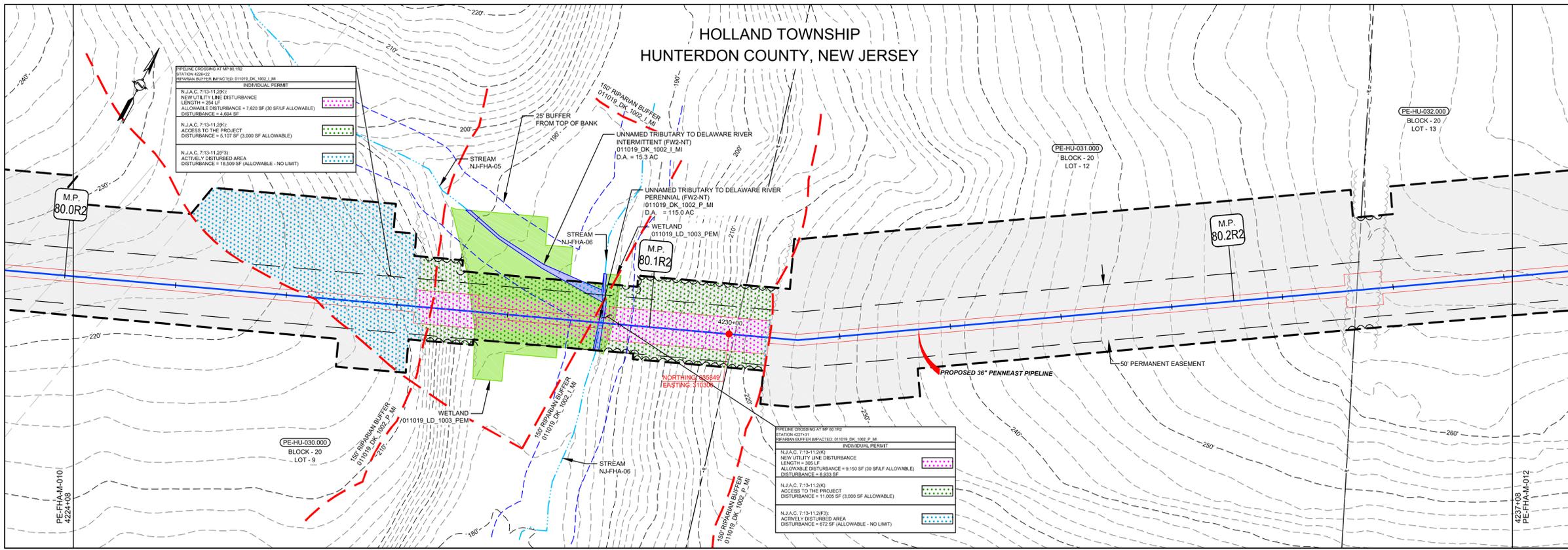
PREPARED BY
M M
MOTT
MACDONALD
111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT

**PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 79.8R2 - MP 80.0R2**

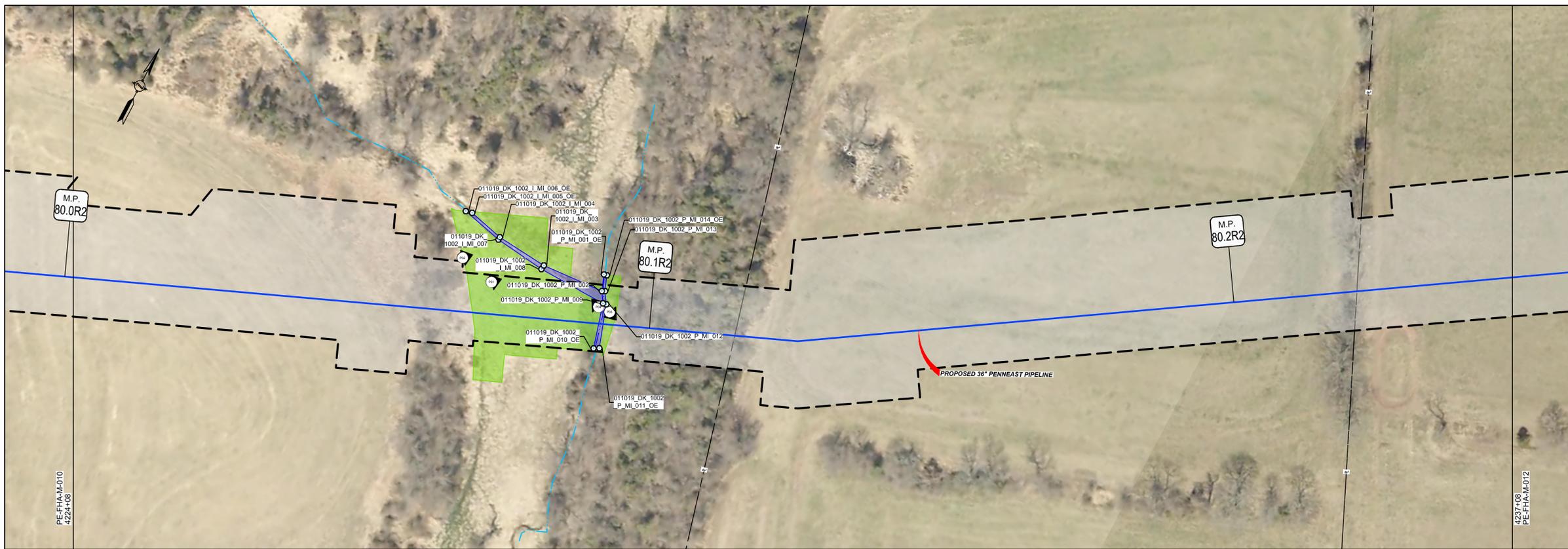
SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-010	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND

- PROPOSED PIPELINE
- LIMITS OF DISTURBANCE
- PROPOSED PERMANENT EASEMENT
- OPERATIONAL CORRIDOR
- PROPOSED TREE LINE
- EXISTING TREE LINE
- WETLAND (SURVEYED)
- WETLAND (PUBLIC)
- WATERBODY (SURVEYED)
- WATERBODY (PUBLIC)
- ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
- TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
- NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
- RIPARIAN BUFFER
- 25' BUFFER FROM STREAM TOP OF BANK
- STREAM CENTERLINE (SURVEYED)
- STREAM CENTERLINE (PUBLIC)
- LIMITS OF WETLAND DELINEATION
- PROPERTY LINE
- PARCEL ID WITH BLOCK AND LOT NUMBER
- EXISTING CULVERT
- CPP CORRUGATED PLASTIC PIPE
- CMP CORRUGATED METAL PIPE
- HDPE HIGH DENSITY POLYETHYLENE PIPE
- PVC POLYVINYL CHLORIDE PIPE
- RCP REINFORCED CONCRETE PIPE
- UNK UNKNOWN
- EXISTING FOREIGN UTILITY EASEMENT
- 1200' - - - - - EXISTING MAJOR CONTOURS
- - - - - EXISTING MINOR CONTOURS
- - - - - EXISTING PIPELINE
- OH - - - - - EXISTING OVERHEAD LINE
- EXISTING TREE
- - - - - EXISTING FENCE
- SOW_FLAG_No EXISTING STATE OPEN WATER FLAG
- EXISTING PHOTO LOCATION (SEE REPORT)



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REFERENCE DRAWINGS		REVISIONS				APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DATE
PE-SSC-M-80.0R2	SUPPLEMENTAL STREAM CROSSING DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	7/2019

APPROVALS		CLIENT APPROVAL	
DRAWN BY	DATE	SIGNATURE	DATE
RJP	7/2019		
CHECKED BY	DATE		
KEK	7/2019		
ENG. APPROVAL	DATE		
MJD	7/2019		
P.M. APPROVAL	DATE		
MW	7/2019		

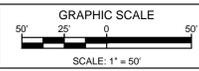
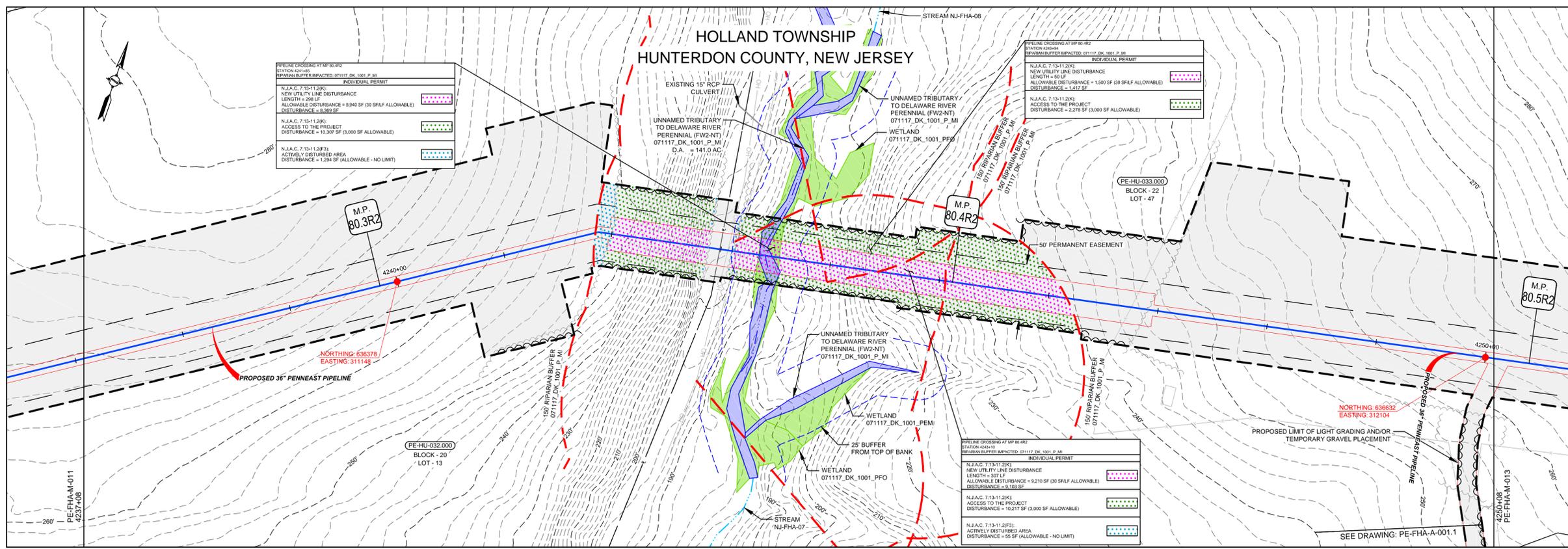
PREPARED FOR
PennEast PIPELINE

PREPARED BY
MOTT MACDONALD
111 WOOD AVENUE SOUTH, ISELIN, NJ, 08850
CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT

**PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 80.0R2 - MP 80.2R2**

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-011	0



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
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	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
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	CORRUGATED PLASTIC PIPE
	HDPPE
	HIGH DENSITY POLYETHYLENE PIPE
	PVC
	POLYVINYL CHLORIDE PIPE
	RCP
	REINFORCED CONCRETE PIPE
	UNK
	UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - -
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING PIPELINE
	EXISTING OVERHEAD LINE
	EXISTING TREE
	EXISTING FENCE
	STATE OPEN WATER FLAG
	PHOTO LOCATION (SEE REPORT)

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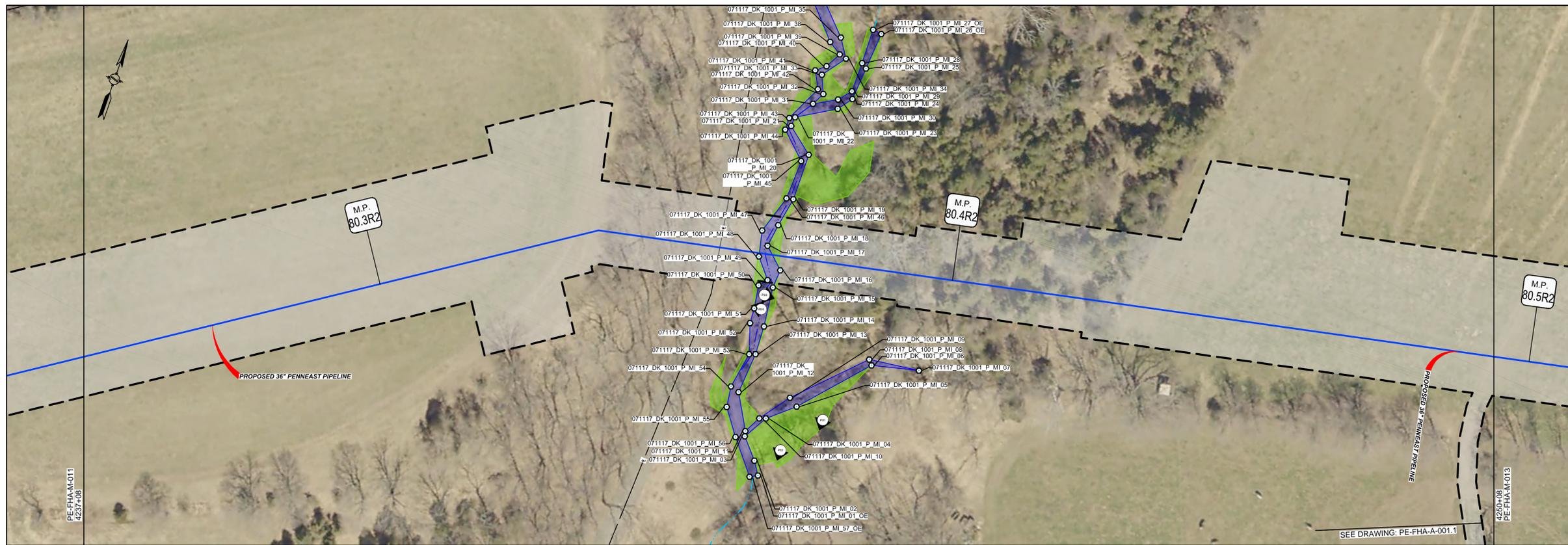
THOMAS D. STRONG
 PROFESSIONAL LAND SURVEYOR
 N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
 SIGNATURE DATE

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MICHAEL J. DENICHILO
 PROFESSIONAL ENGINEER
 N.J. LIC. NO. 24G605078700

Michael J. Denichilo 08/01/2019
 SIGNATURE DATE



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 - CIVIL SURVEY CONDUCTED AND DRAWINGS PREPARED BY MOTT MACDONALD.

REFERENCE DRAWINGS		REVISIONS				APPROVALS			
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
000-03-03-059	* ACCESS ROAD DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
PE-SSC-M-80.37R2	SUPPLEMENTAL STREAM CROSSING DETAIL							KEK	7/2019
								MJD	7/2019
								MW	7/2019

APPROVALS		CLIENT APPROVAL	
DRAWN BY	DATE	DATE	DATE
RJP	7/2019		
KEK	7/2019		
MJD	7/2019		
MW	7/2019		

PREPARED FOR

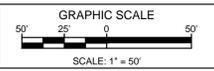
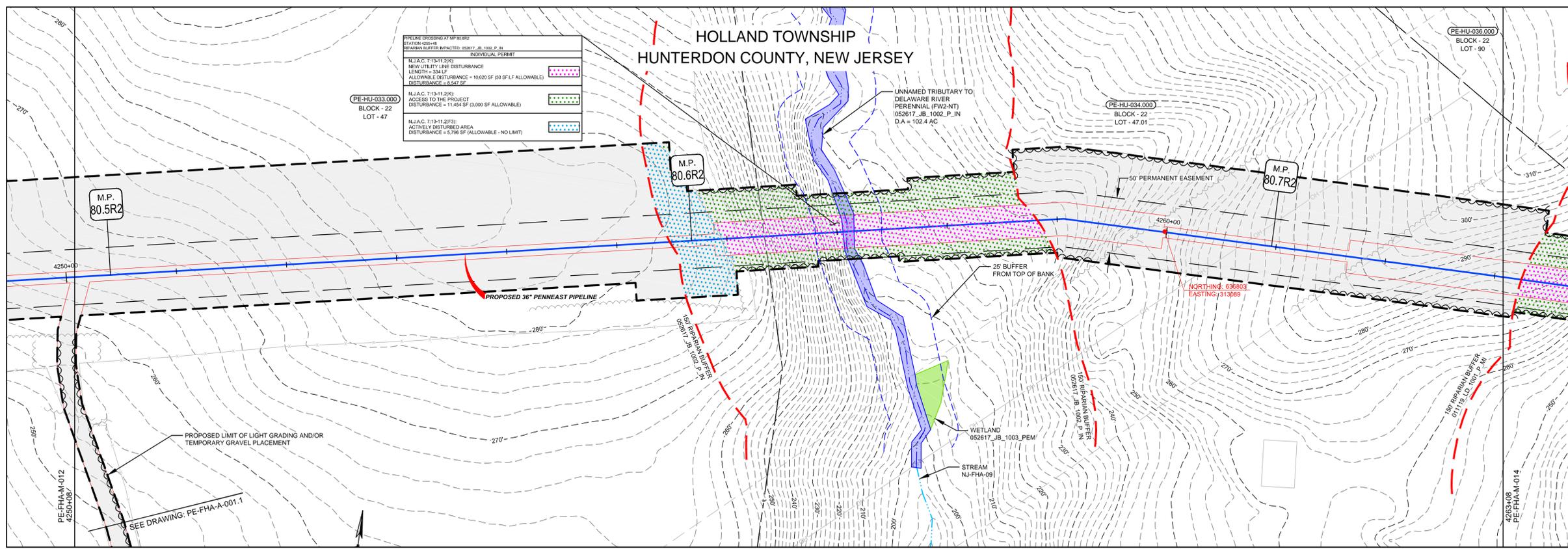
PREPARED BY

111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
 CERTIFICATE NO. 24G28016600

PENNEAST PIPELINE PROJECT

PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN
 MP 80.2R2 - MP 80.5R2

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-012	0

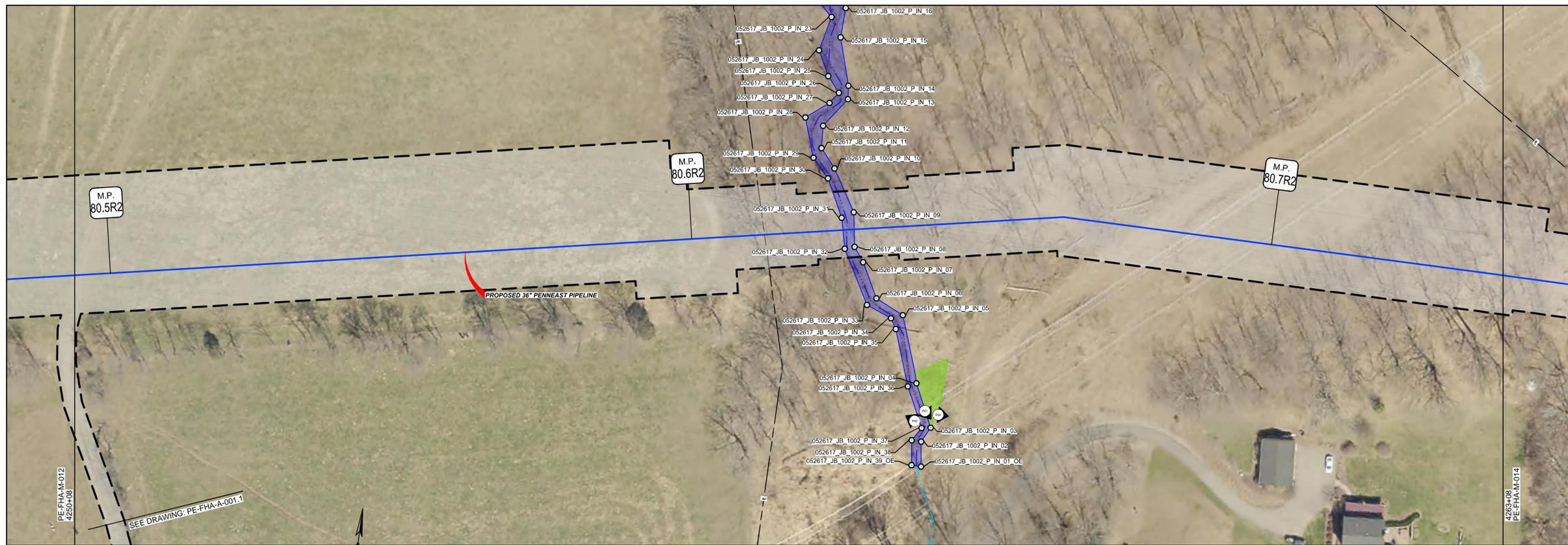


LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CPP
	CMP
	HDPE
	PVC
	RCP
	UNK
	EXISTING FOREIGN UTILITY EASEMENT
	1260'
	EXISTING MINOR CONTOURS
	EXISTING PIPELINE
	OH
	EXISTING TREE
	EXISTING FENCE
	STATE OPEN WATER FLAG
	PHOTO LOCATION (SEE REPORT)

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THOMAS D. STRONG
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
SIGNATURE DATE



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MICHAEL J. DENICHILO
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N.J. LIC. NO. 24G505078700

Michael J. Denichilo 08/01/2019
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REFERENCE DRAWINGS		REVISIONS				APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DATE
000-03-059	* ACCESS ROAD DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	7/2019
PE-SSC-M-80.63R2	SUPPLEMENTAL STREAM CROSSING DETAIL							

APPROVALS		CLIENT APPROVAL	
DRAWN BY	DATE		DATE
RJP	7/2019		
CHECKED BY	DATE		
KEK	7/2019		
ENG. APPROVAL	DATE		
MJD	7/2019		
P.M. APPROVAL	DATE		
MW	7/2019		

PREPARED FOR

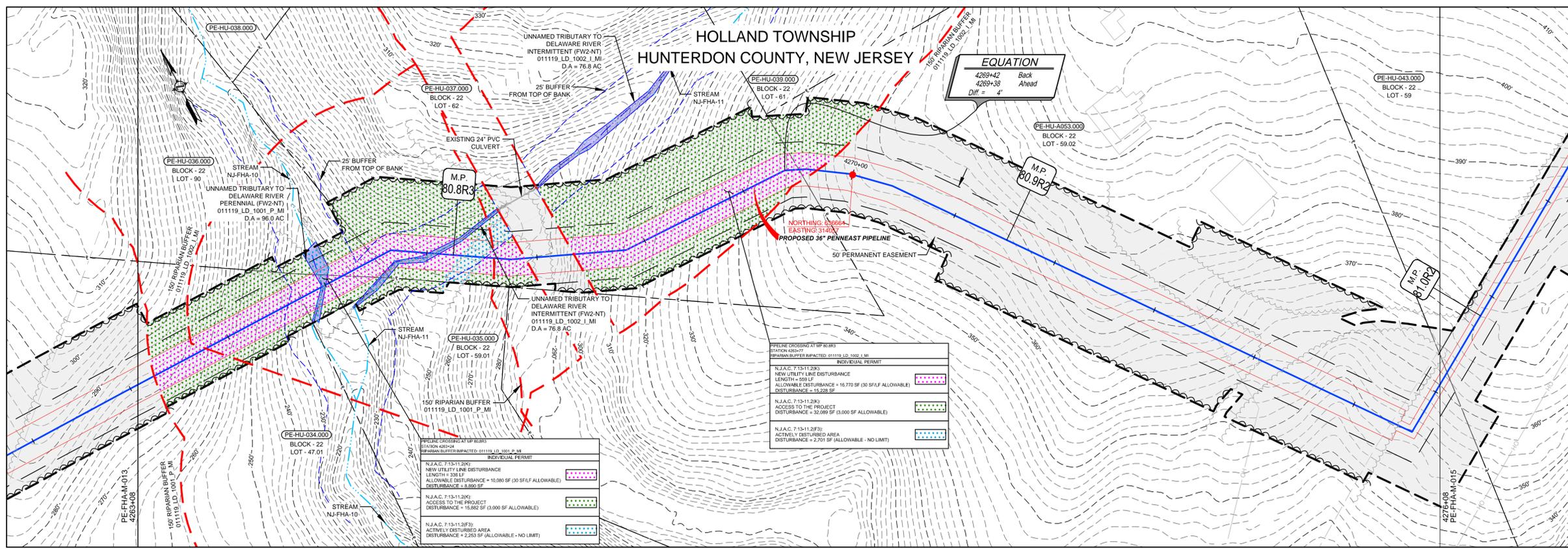
PREPARED BY

111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT

**PENNEAST PIPELINE
FLOOD HAZARD AREA PERMIT PLAN
MP 80.5R2 - MP 80.7R2**

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-013	0



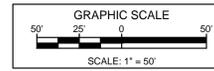
EQUATION
 4269+42 Back
 4269+38 Ahead
 Diff. = 4'

PIPELINE CROSSING AT M.P. 80.8R3
 STATION 4269+42
 RIPARIAN BUFFER IMPACTED: 011119 LD 1001 P MI
 INDIVIDUAL PERMIT

N.J.A.C. 7:15-11.2K1 NEW UTILITY LINE DISTURBANCE LENGTH = 326 LF ALLOWABLE DISTURBANCE = 10,000 SF (30 SF/LF ALLOWABLE) DISTURBANCE = 1,100 SF	
N.J.A.C. 7:15-11.2K1 ACCESS TO THE PROJECT DISTURBANCE = 15,882 SF (3,000 SF ALLOWABLE)	
N.J.A.C. 7:15-11.2F3 ACTIVELY DISTURBED AREA DISTURBANCE = 2,253 SF (ALLOWABLE - NO LIMIT)	

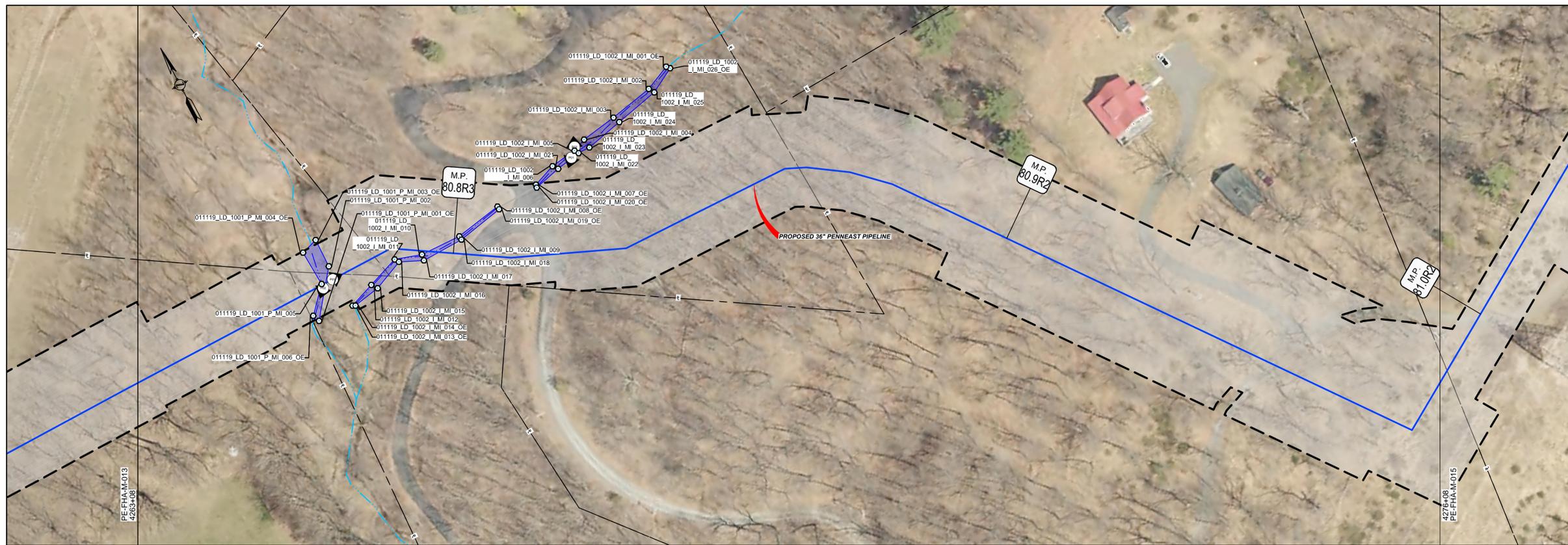
PIPELINE CROSSING AT M.P. 80.8R3
 STATION 4270+00
 RIPARIAN BUFFER IMPACTED: 011119 LD 1002 I MI
 INDIVIDUAL PERMIT

N.J.A.C. 7:15-11.2K1 NEW UTILITY LINE DISTURBANCE LENGTH = 593 LF ALLOWABLE DISTURBANCE = 16,770 SF (30 SF/LF ALLOWABLE) DISTURBANCE = 15,228 SF	
N.J.A.C. 7:15-11.2K1 ACCESS TO THE PROJECT DISTURBANCE = 32,088 SF (3,000 SF ALLOWABLE)	
N.J.A.C. 7:15-11.2F3 ACTIVELY DISTURBED AREA DISTURBANCE = 2,701 SF (ALLOWABLE - NO LIMIT)	



LEGEND

- PROPOSED PIPELINE
- LIMITS OF DISTURBANCE
- PROPOSED PERMANENT EASEMENT
- OPERATIONAL CORRIDOR
- PROPOSED TREE LINE
- EXISTING TREE LINE
- WETLAND (SURVEYED)
- WETLAND (PUBLIC)
- WATERBODY (SURVEYED)
- WATERBODY (PUBLIC)
- ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
- TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
- NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
- RIPARIAN BUFFER
- 25' BUFFER FROM STREAM TOP OF BANK
- STREAM CENTERLINE (SURVEYED)
- STREAM CENTERLINE (PUBLIC)
- LIMITS OF WETLAND DELINEATION
- PROPERTY LINE
- PARCEL ID WITH BLOCK AND LOT NUMBER
- EXISTING CULVERT
- CORRUGATED PLASTIC PIPE
- CORRUGATED METAL PIPE
- HDPPE
- HIGH DENSITY POLYETHYLENE PIPE
- PVC
- POLYVINYL CHLORIDE PIPE
- REINFORCED CONCRETE PIPE
- UNKNOWN
- EXISTING FOREIGN UTILITY EASEMENT
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD LINE
- EXISTING TREE
- EXISTING FENCE
- STATE OPEN WATER FLAG
- PHOTO LOCATION (SEE REPORT)



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THOMAS D. STRONG
 PROFESSIONAL LAND SURVEYOR
 N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
 SIGNATURE DATE

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MICHAEL J. DENICHILO
 PROFESSIONAL ENGINEER
 N.J. LIC. NO. 24G50578700

Michael J. Denichilo 08/01/2019
 SIGNATURE DATE

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REFERENCE DRAWINGS		REVISIONS				APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DATE
PE-SSC-M-80.7R2	SUPPLEMENTAL STREAM CROSSING DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	
PE-SSC-M-80.7R2	SUPPLEMENTAL STREAM CROSSING DETAIL							

APPROVALS		CLIENT APPROVAL	
DRAWN BY	DATE	DRAWN BY	DATE
RJP	7/2019		
CHECKED BY	DATE		
KEK	7/2019		
ENG. APPROVAL	DATE		
MJD	7/2019		
P.M. APPROVAL	DATE		
MW	7/2019		

PREPARED FOR

 PENNEAST PIPELINE

PREPARED BY

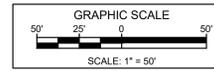
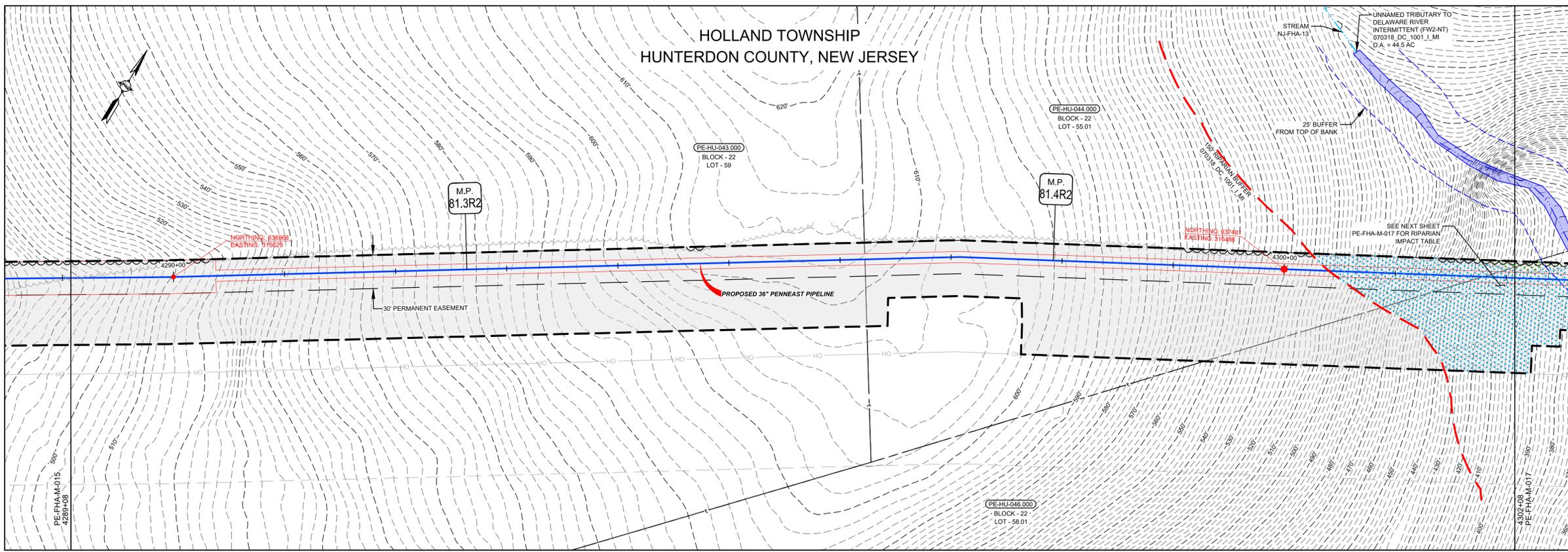
 MOTT MACDONALD
 111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
 CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT

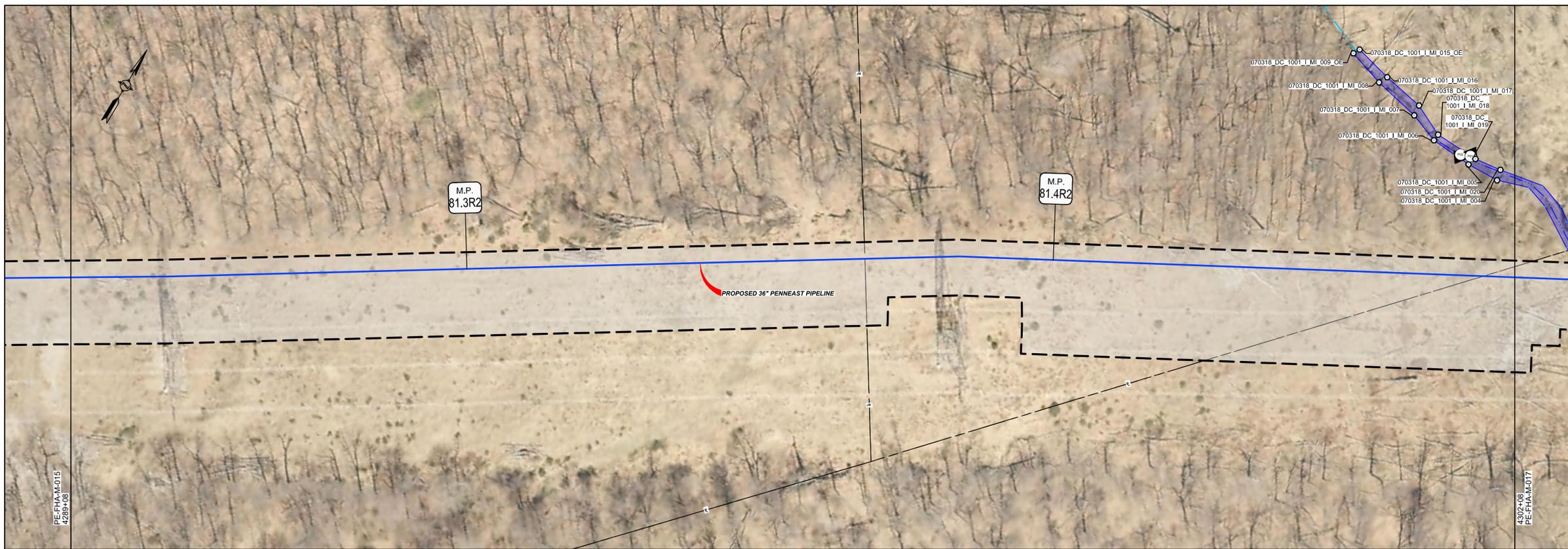
**PENNEAST PIPELINE
 FLOOD HAZARD AREA PERMIT PLAN
 MP 80.7R2 - MP 81.0R2**

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-014	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CPP CORRUGATED PLASTIC PIPE
	CMP CORRUGATED METAL PIPE
	HDPE HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1200' - - - - - EXISTING MAJOR CONTOURS
	- - - - - EXISTING MINOR CONTOURS
	- - - - - EXISTING PIPELINE
	- - - - - EXISTING OVERHEAD LINE
	● EXISTING TREE
	- - - - - EXISTING FENCE
	SOW_FLAG_NO
	PHOTO LOCATION (SEE REPORT)



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THOMAS D. STRONG
PROFESSIONAL LAND SURVEYOR
N.J. LIC. NO. 24GS03676100

Thomas D. Strong 08/01/2019
SIGNATURE DATE

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PROFESSIONAL ENGINEER
N.J. LIC. NO. 24GE05078700

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DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
		0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

APPROVALS		CLIENT APPROVAL	
DRAWN BY	DATE	SIGNATURE	DATE
RJP	7/2019		
KEK	7/2019		
MJD	7/2019		
MW	7/2019		

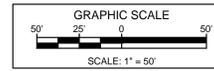
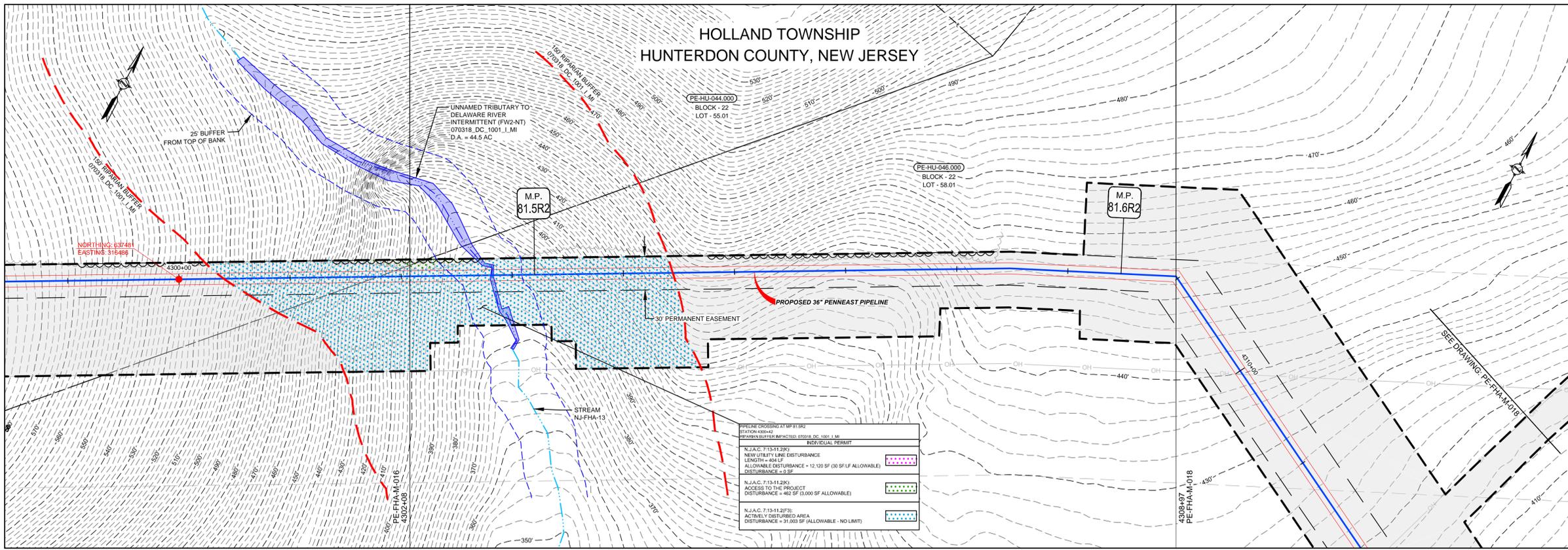
PREPARED FOR
PennEast PIPELINE

PREPARED BY
MOTT MACDONALD
111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600

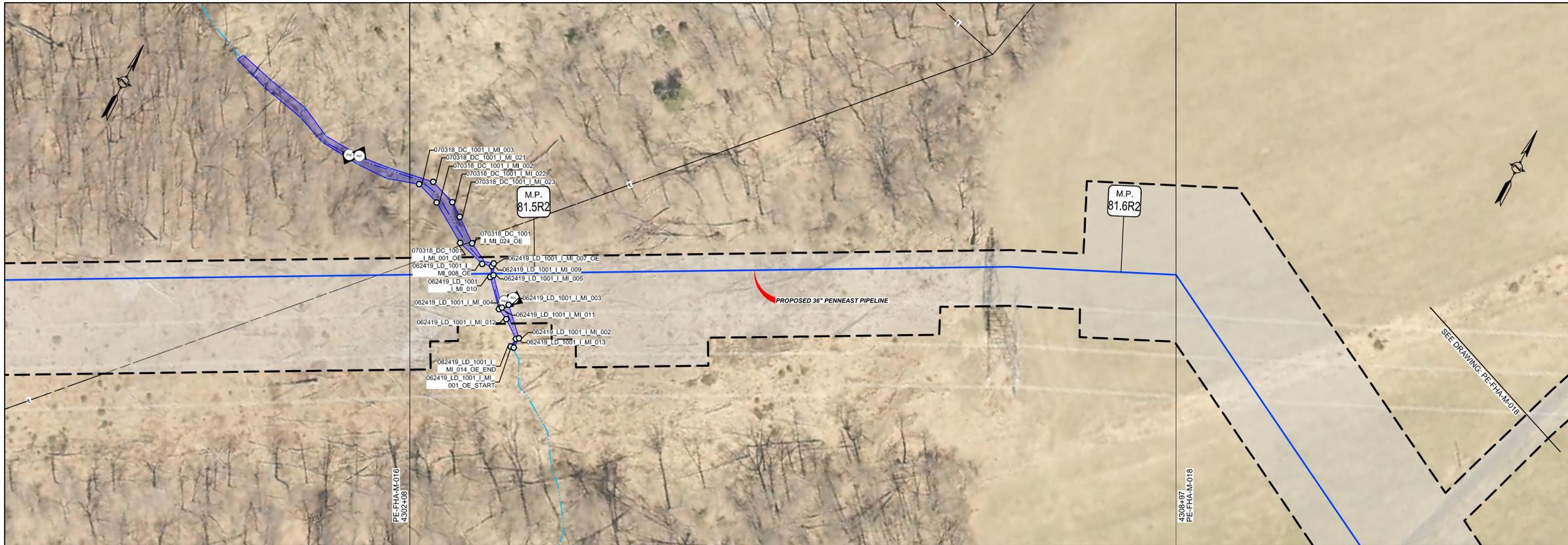
PENNEAST PIPELINE PROJECT
PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN
MP 81.2R2 - MP 81.5R2

SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-016	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
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	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
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	LIMITS OF WETLAND DELINEATION
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	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CPP CORRUGATED PLASTIC PIPE
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	HDPE HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - - EXISTING MAJOR CONTOURS
	- - - - - EXISTING MINOR CONTOURS
	- - - - - EXISTING PIPELINE
	- - - - - EXISTING OVERHEAD LINE
	- - - - - EXISTING TREE
	- - - - - EXISTING FENCE
	- - - - - STATE OPEN WATER FLAG
	- - - - - PHOTO LOCATION (SEE REPORT)



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REFERENCE DRAWINGS		REVISIONS					APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
PE-SSC-M-81.49R2	SUPPLEMENTAL STREAM CROSSING DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR
PennEast PIPELINE

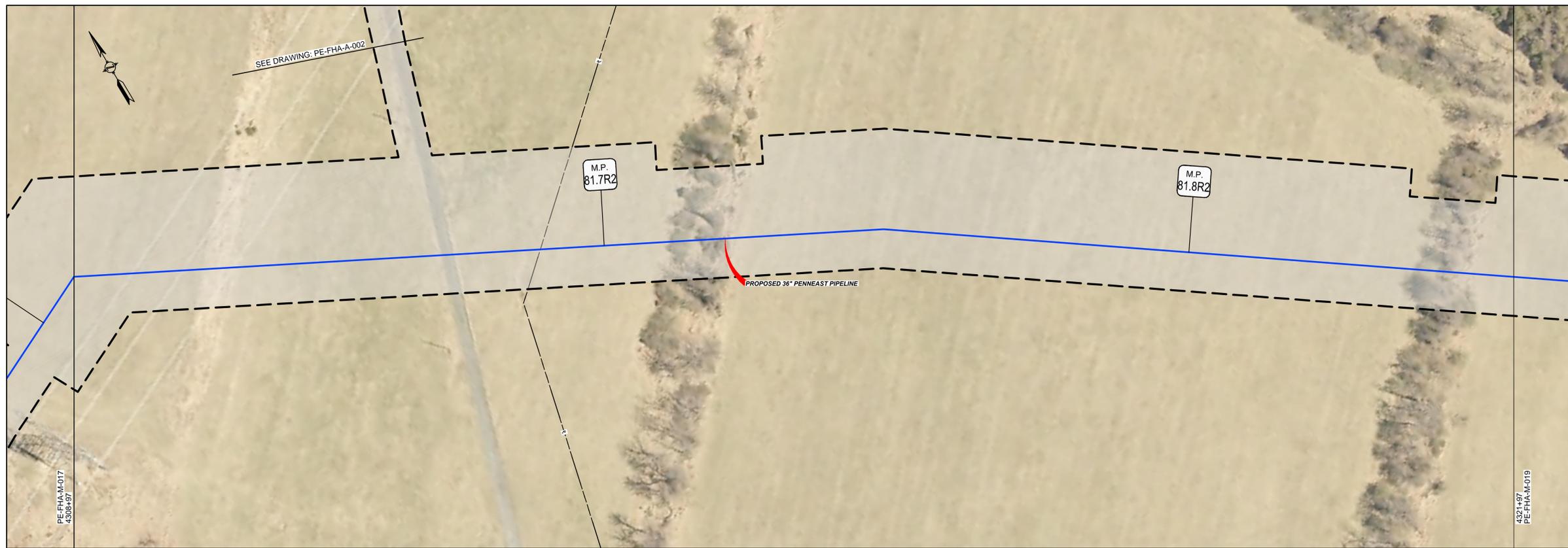
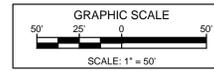
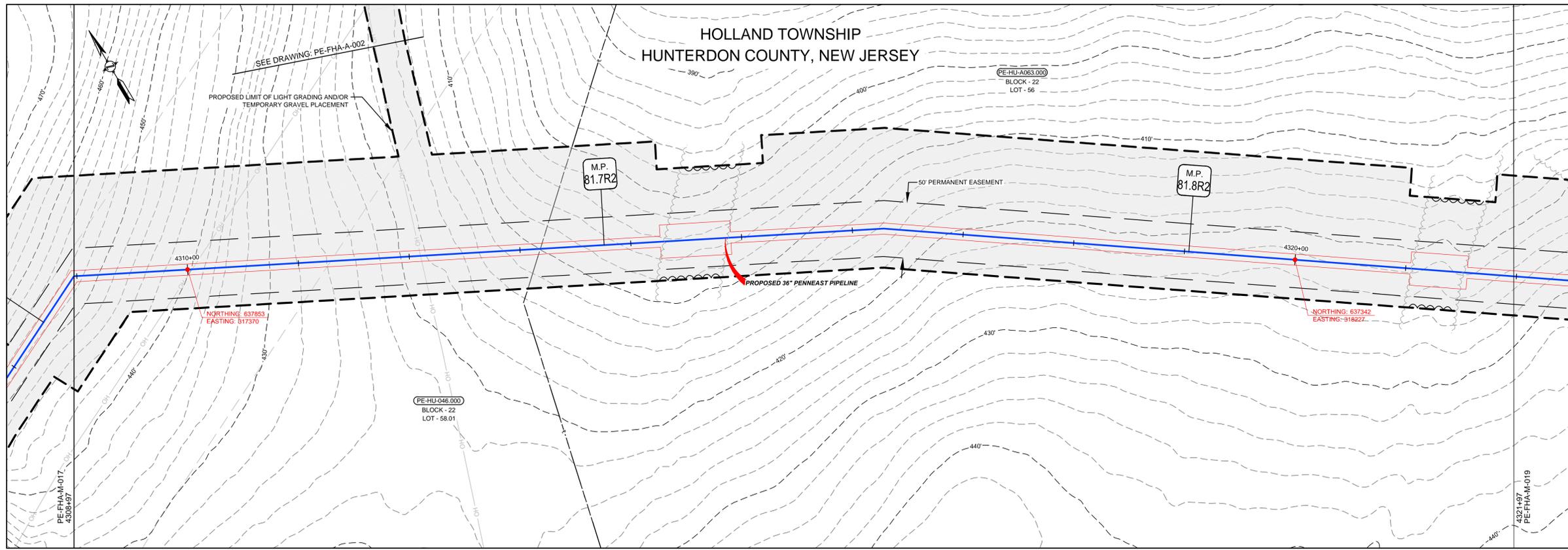
PREPARED BY
MOTT MACDONALD
111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600

CLIENT APPROVAL
DATE: 7/2019

PREPARED BY
DATE: 7/2019

PENNEAST PIPELINE PROJECT
PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN
MP 81.5R2 - MP 81.6R2

SCALE: 1" = 50'
DRAWING NO.: PE-FHA-M-017
REVISION: 0



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
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	RIPARIAN BUFFER
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	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CORRUGATED PLASTIC PIPE
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	HIGH DENSITY POLYETHYLENE PIPE
	POLYVINYL CHLORIDE PIPE
	REINFORCED CONCRETE PIPE
	UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	EXISTING MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING OVERHEAD LINE
	EXISTING TREE
	EXISTING FENCE
	STATE OPEN WATER FLAG
	PHOTO LOCATION (SEE REPORT)

I AM A DULY REGISTERED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEW JERSEY AND I HEREBY CERTIFY THAT THE EXISTING CONDITIONS SHOWN WERE FIELD LOCATED AND PREPARED UNDER MY DIRECT SUPERVISION.

THOMAS D. STRONG
 PROFESSIONAL LAND SURVEYOR
 N.J. LIC. NO. 24G503676100

Thomas D. Strong 08/01/2019
 SIGNATURE DATE

I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW JERSEY AND I HEREBY CERTIFY THAT THE PROPOSED ENVIRONMENTAL DISTURBANCES SHOWN ARE ACCURATE AND CORRESPOND WITH THE DETAILED ENGINEERING DRAWINGS.

MICHAEL J. DENICHILO
 PROFESSIONAL ENGINEER
 N.J. LIC. NO. 24GE05078700

Michael J. Denichilo 08/01/2019
 SIGNATURE DATE

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 - PHOTO LOCATIONS PROVIDED BY AMY S. GREENE ENVIRONMENTAL CONSULTANTS.
 - RIPARIAN ZONES AND WETLAND TRANSITION AREAS PROVIDED BY PAULUS, SOKOLOWSKI AND SARTOR (PS&S).
 - CIVIL SURVEY CONDUCTED AND DRAWINGS PREPARED BY MOTT MACDONALD.

REFERENCE DRAWINGS		REVISIONS				APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DATE
000-03-03-060	* ACCESS ROAD DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	

APPROVALS		CLIENT APPROVAL	PREPARED BY
DRAWN BY	DATE		
RJP	7/2019		MOTT MACDONALD
KEK	7/2019		
ENG. APPROVAL	DATE		MOTT MACDONALD
MJD	7/2019		
P.M. APPROVAL	DATE		
MW	7/2019	7/2019	

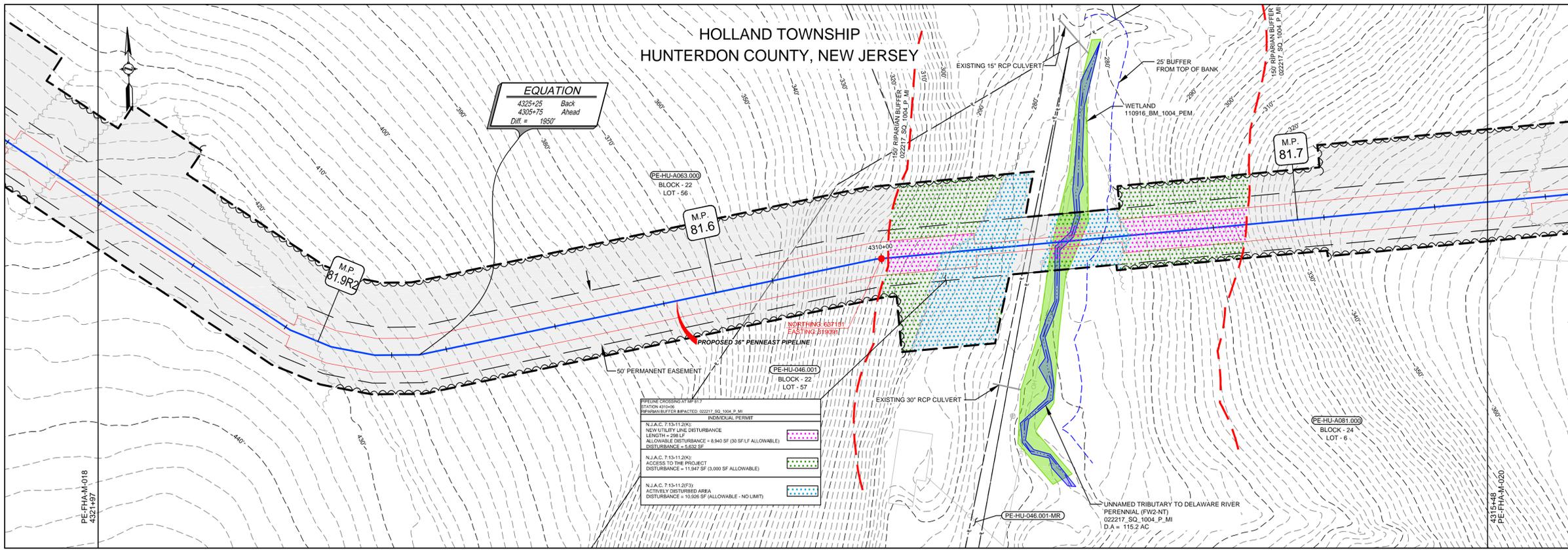
PREPARED FOR

PREPARED BY

111 WOOD AVENUE SOUTH, ISELIN, NJ, 08850
 CERTIFICATE NO. 24GA28016600

PENNEAST PIPELINE PROJECT		
PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN MP 81.6R2 - MP 81.9R2		
SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-018	0

HOLLAND TOWNSHIP
HUNTERDON COUNTY, NEW JERSEY



EQUATION
4325+25 Back
4305+75 Ahead
Diff. = 1850'

PE-HU-A063.000
BLOCK - 22
LOT - 56

M.P.
81.6

PE-HU-046.001
BLOCK - 22
LOT - 57

PE-HU-046.001-MR

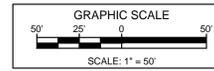
M.P.
81.7

PE-HU-A081.000
BLOCK - 24
LOT - 6

PE-FHAM-018
4321+97

PE-FHAM-020
4315+48

REFLINE CROSSCUT BY PERMITS STATION 4310+06 PERMANENTLY IMPACTED 022217_SQ_1004_P_MI	INDIVIDUAL PERMIT
N.J.A.C. 7-15-11.20(3) NEW UTILITY LINE DISTURBANCE LENGTH = 288 LF ALLOWABLE DISTURBANCE = 8,840 SF (30 SF/LF ALLOWABLE) DISTURBANCE = 6,632 SF	
N.J.A.C. 7-15-11.20(4) ACCESS TO THE PROJECT DISTURBANCE = 11,947 SF (3,000 SF ALLOWABLE)	
N.J.A.C. 7-15-11.20(3) ACTIVELY DISTURBED AREA DISTURBANCE = 10,936 SF ALLOWABLE - NO LIMIT	



LEGEND

- PROPOSED PIPELINE
- LIMITS OF DISTURBANCE
- PROPOSED PERMANENT EASEMENT
- OPERATIONAL CORRIDOR
- PROPOSED TREE LINE
- EXISTING TREE LINE
- WETLAND (SURVEYED)
- WETLAND (PUBLIC)
- WATERBODY (SURVEYED)
- WATERBODY (PUBLIC)
- ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
- TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
- NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
- RIPARIAN BUFFER
- 25' BUFFER FROM STREAM TOP OF BANK
- STREAM CENTERLINE (SURVEYED)
- STREAM CENTERLINE (PUBLIC)
- LIMITS OF WETLAND DELINEATION
- PROPERTY LINE
- PARCEL ID WITH BLOCK AND LOT NUMBER
- EXISTING CULVERT
- CORRUGATED PLASTIC PIPE (CPP)
- CORRUGATED METAL PIPE (CMP)
- HIGH DENSITY POLYETHYLENE PIPE (HDPE)
- POLYVINYL CHLORIDE PIPE (PVC)
- REINFORCED CONCRETE PIPE (RCP)
- UNKNOWN (UNK)
- EXISTING FOREIGN UTILITY EASEMENT
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- EXISTING PIPELINE
- EXISTING OVERHEAD LINE
- EXISTING TREE
- EXISTING FENCE
- STATE OPEN WATER FLAG
- PHOTO LOCATION (SEE REPORT)



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Michael J. Denichilo 08/01/2019
SIGNATURE DATE

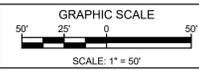
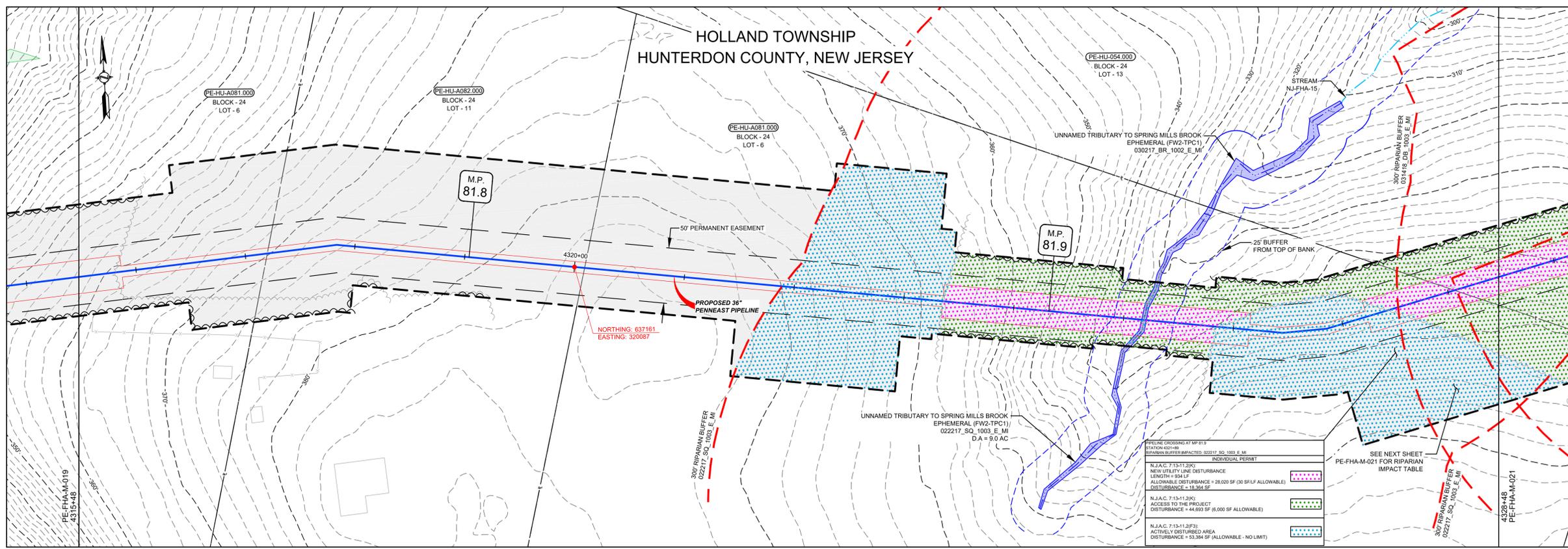
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REFERENCE DRAWINGS		REVISIONS					APPROVALS		
DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE
PE-SSC-M81.66	SUPPLEMENTAL STREAM CROSSING DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019
								KEK	7/2019
								MJD	7/2019
								MW	7/2019

PREPARED FOR		PREPARED BY	
CLIENT APPROVAL		DATE	
DATE		DATE	
DATE		DATE	
DATE		DATE	

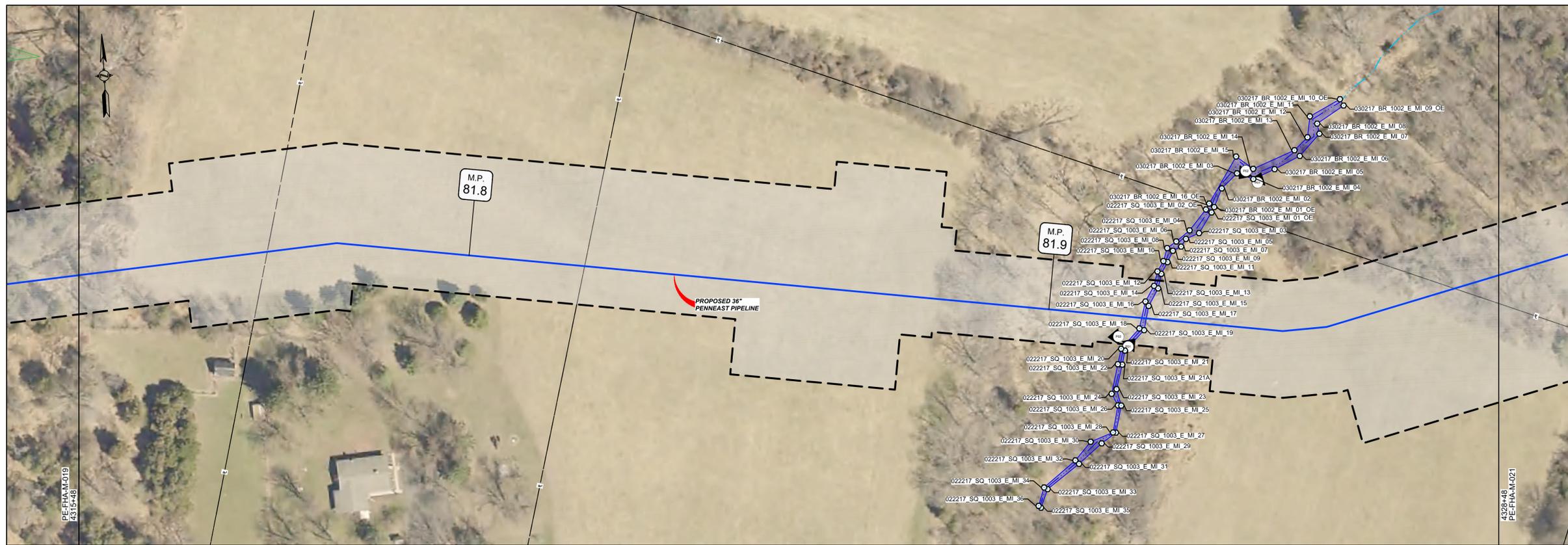
PENNEAST PIPELINE PROJECT		
PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN MP 81.9R2 - MP 81.7		
SCALE	DRAWING NO.	REVISION
1" = 50'	PE-FHA-M-019	0

111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830
CERTIFICATE NO. 24GA28016600



LEGEND	
	PROPOSED PIPELINE
	LIMITS OF DISTURBANCE
	PROPOSED PERMANENT EASEMENT
	OPERATIONAL CORRIDOR
	PROPOSED TREE LINE
	EXISTING TREE LINE
	WETLAND (SURVEYED)
	WETLAND (PUBLIC)
	WATERBODY (SURVEYED)
	WATERBODY (PUBLIC)
	ACTIVELY DISTURBED AREA (RIPARIAN IMPACT)
	TEMPORARY ACCESS TO PROJECT DISTURBANCE (RIPARIAN IMPACT)
	NEW UTILITY LINE DISTURBANCE (RIPARIAN IMPACT)
	RIPARIAN BUFFER
	25' BUFFER FROM STREAM TOP OF BANK
	STREAM CENTERLINE (SURVEYED)
	STREAM CENTERLINE (PUBLIC)
	LIMITS OF WETLAND DELINEATION
	PROPERTY LINE
	PARCEL ID WITH BLOCK AND LOT NUMBER
	EXISTING CULVERT
	CPP CORROGATED PLASTIC PIPE
	CMP CORROGATED METAL PIPE
	HDP HIGH DENSITY POLYETHYLENE PIPE
	PVC POLYVINYL CHLORIDE PIPE
	RCP REINFORCED CONCRETE PIPE
	UNK UNKNOWN
	EXISTING FOREIGN UTILITY EASEMENT
	1260' - - - - - EXISTING MAJOR CONTOURS
	- - - - - EXISTING MINOR CONTOURS
	- - - - - EXISTING PIPELINE
	OH - - - - - EXISTING OVERHEAD LINE
	● EXISTING TREE
	- - - - - EXISTING FENCE
	SOW_FLAG_NO EXISTING STATE OPEN WATER FLAG
	● EXISTING PHOTO LOCATION (SEE REPORT)

INDIVIDUAL PERMIT	
N.J.A.C. 7:13-11.2(K): NEW UTILITY LINE DISTURBANCE LENGTH 194 LF	ALLOWABLE DISTURBANCE = 28,020 SF (00 SF LF ALLOWABLE); DISTURBANCE = 19,384 SF
N.J.A.C. 7:13-11.2(K): ACCESS TO THE PROJECT	DISTURBANCE = 44,893 SF (6,000 SF ALLOWABLE)
N.J.A.C. 7:13-11.2(F): ACTIVELY DISTURBED AREA	DISTURBANCE = 53,304 SF (ALLOWABLE - NO LIMIT)



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DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK	APPR	DRAWN BY	DATE	
PE-SSC-M81-92	SUPPLEMENTAL STREAM CROSSING DETAIL	0	ISSUED FOR NJDEP PERMIT	7/2019	RJP	KEK	MJD	RJP	7/2019	
								KEK	7/2019	
								MJD	7/2019	
								MW	7/2019	

APPROVALS		CLIENT APPROVAL		PREPARED FOR	
DRAWN BY	DATE				
RJP	7/2019				PENNEAST PIPELINE FLOOD HAZARD AREA PERMIT PLAN MP 81.7 - MP 82.0
KEK	7/2019				
MJD	7/2019				SCALE: 1" = 50' DRAWING NO.: PE-FHA-M-020 REVISION: 0
MW	7/2019			111 WOOD AVENUE SOUTH, ISELIN, NJ, 08830 CERTIFICATE NO. 24GA28016600	