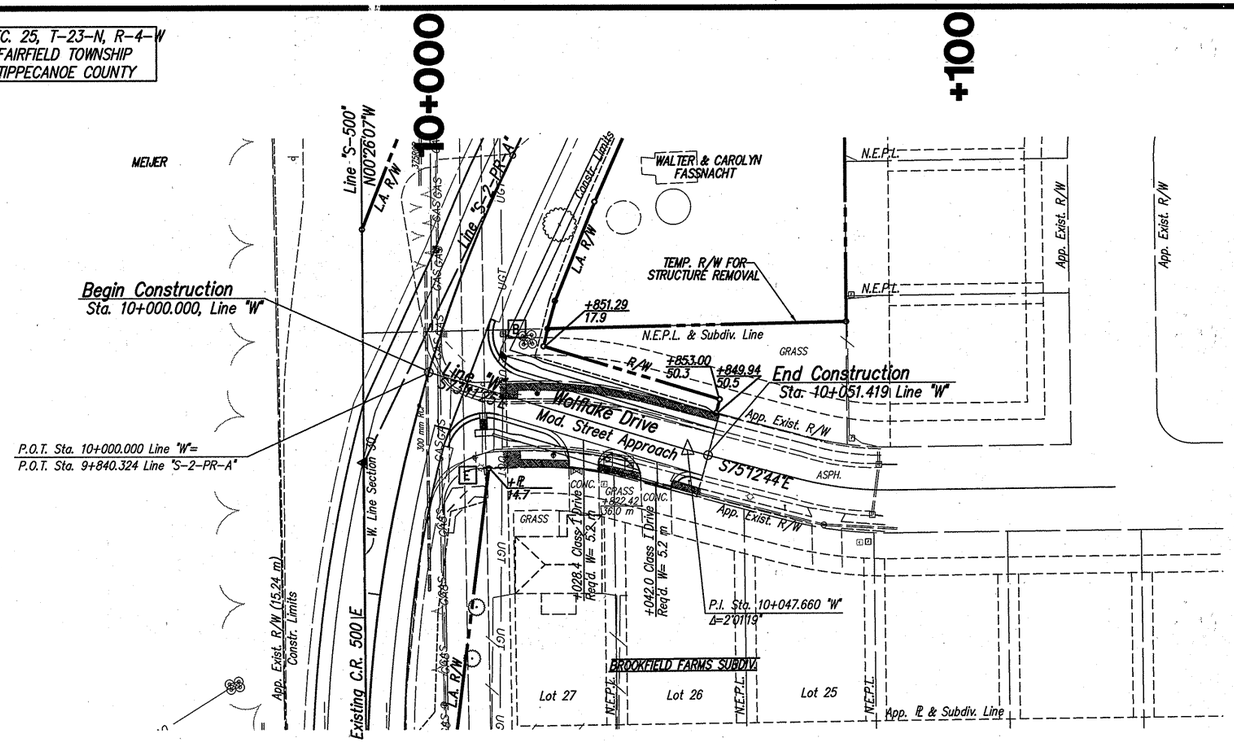
SEC. 25, T-23-N, R-4-W
FAIRFIELD TOWNSHIP
TIPPECANOE COUNTY

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

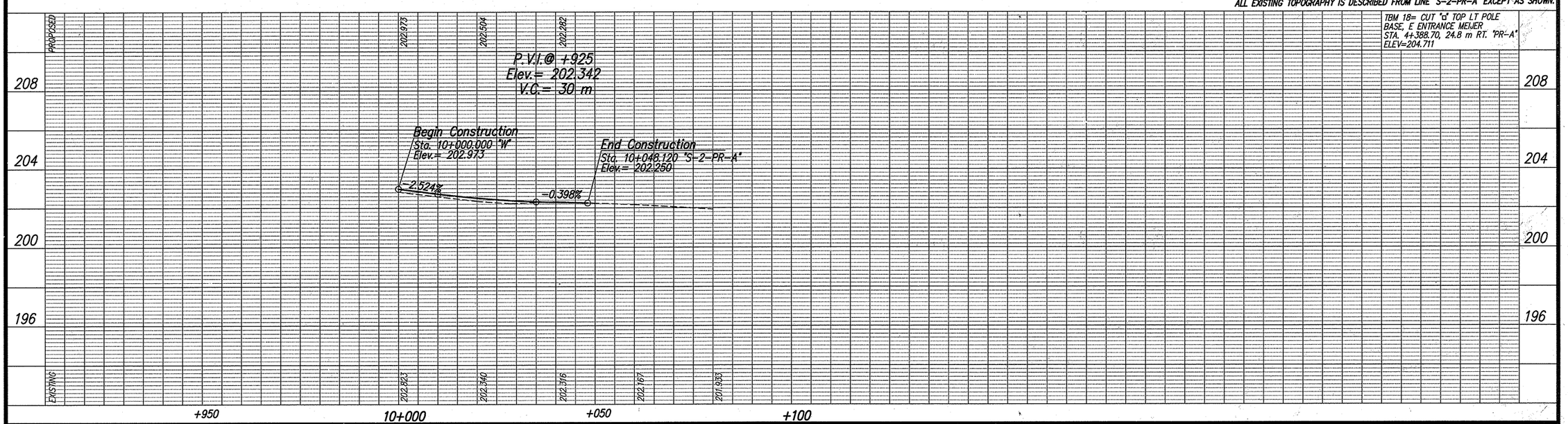


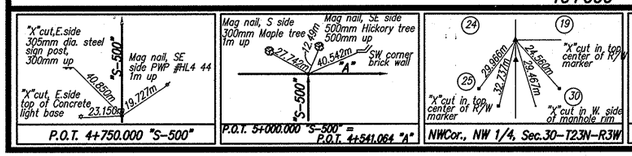
CURVE DATA
P.I. Sta. 10+047.660 "W"
Δ= 02°01'19"
No Curve

Legend
B Begin L.A. R/W
E End L.A. R/W

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "S-2-PR-A" EXCEPT AS SHOWN.
ALL EXISTING TOPOGRAPHY IS DESCRIBED FROM LINE "S-2-PR-A" EXCEPT AS SHOWN.

TBM 18= CUT "a" TOP LT POLE BASE, E ENTRANCE MEIJER STA. 4+388.70, 24.8 m RT. "PR-A" ELEV=204.711





KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: KEN HERCEG & ASSOCIATES, INC. — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: C.A.K./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
STA. 10+000 to 10+050 "W"

HORIZONTAL SCALE 1:500	BRIDGE FILE
VERTICAL SCALE 1:100	DESIGNATION 0200656
SURVEY BOOK 16519	SHEETS 51 of 131
CONTRACT R-28381	PROJECT NH-L540()

2 OF 3

IR-28381

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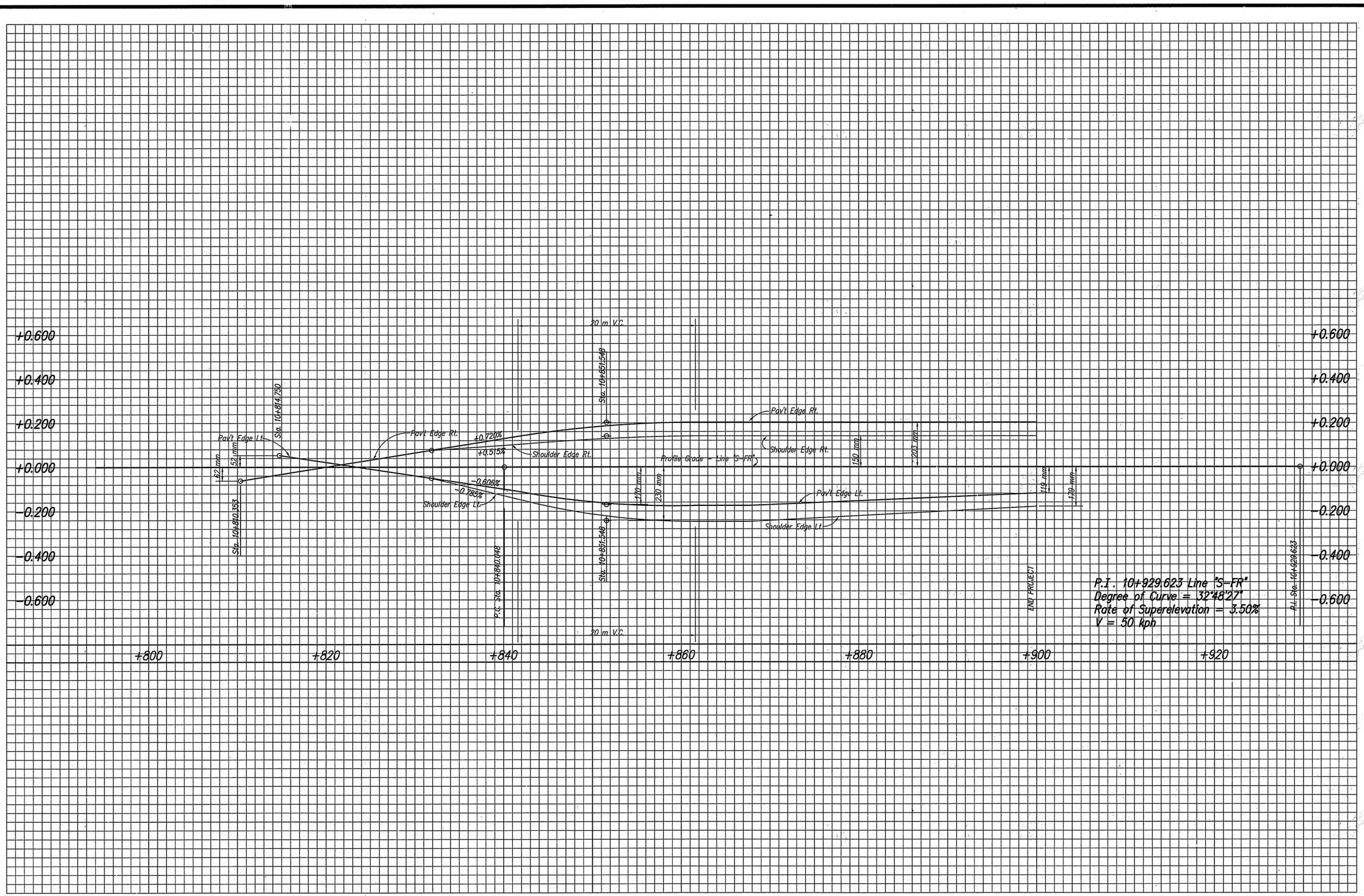

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: C.A.K. DRAWN: D.E.B.
CHECKED: R.J.F. CHECKED: J.J.B.

INDIANA DEPARTMENT OF TRANSPORTATION

SUPERELEVATION TRANSITION
LINE "S-FR"

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	
VERTICAL SCALE	DESIGNATION
	9134885
SURVEY BOOK	SHEETS
	52 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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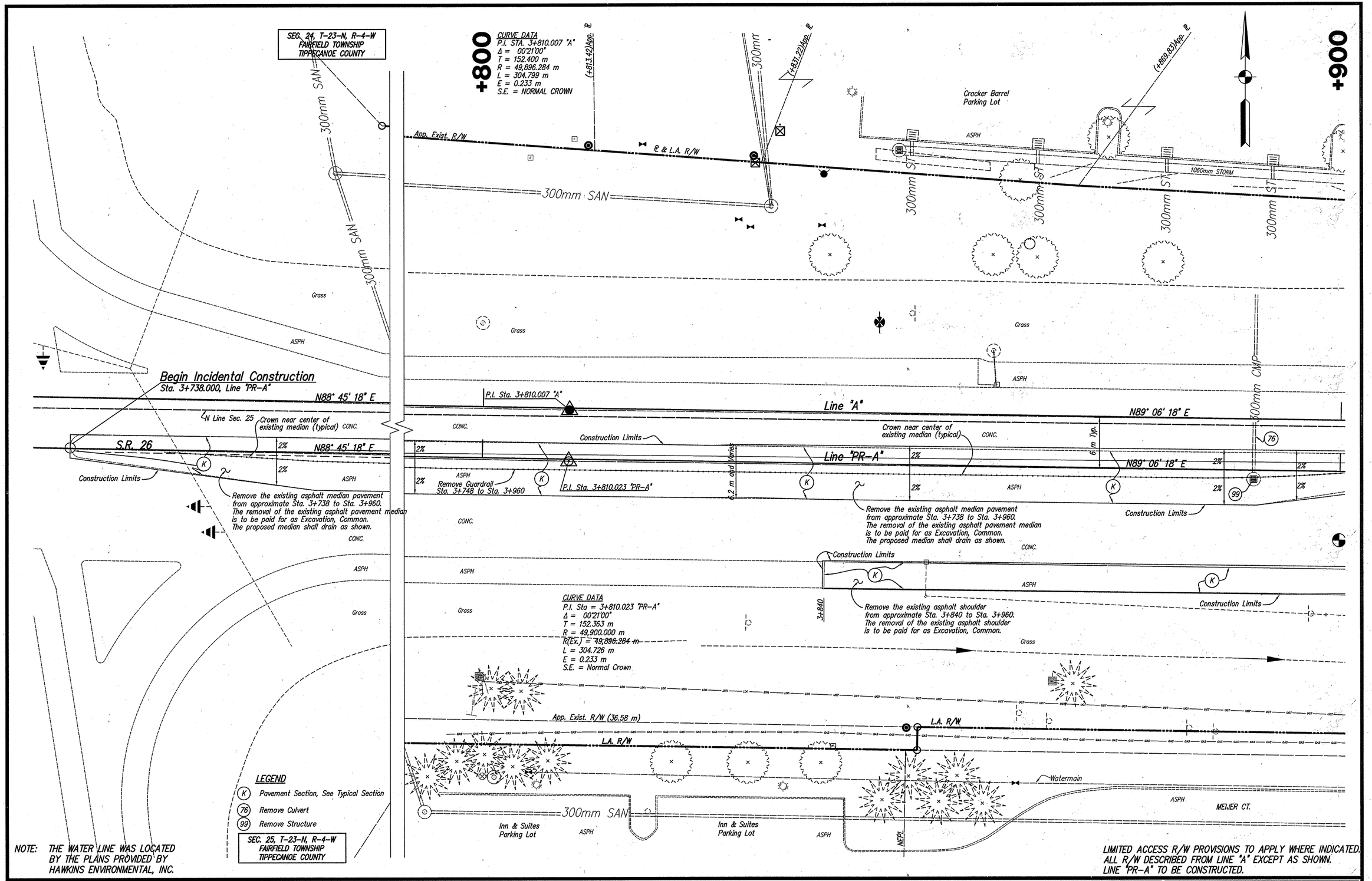

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
LINE "PR-A" TO BE CONSTRUCTED.

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Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
3+800 TO 3+900 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	53 of 131
CONTRACT	PROJECT
R-28381	9134885

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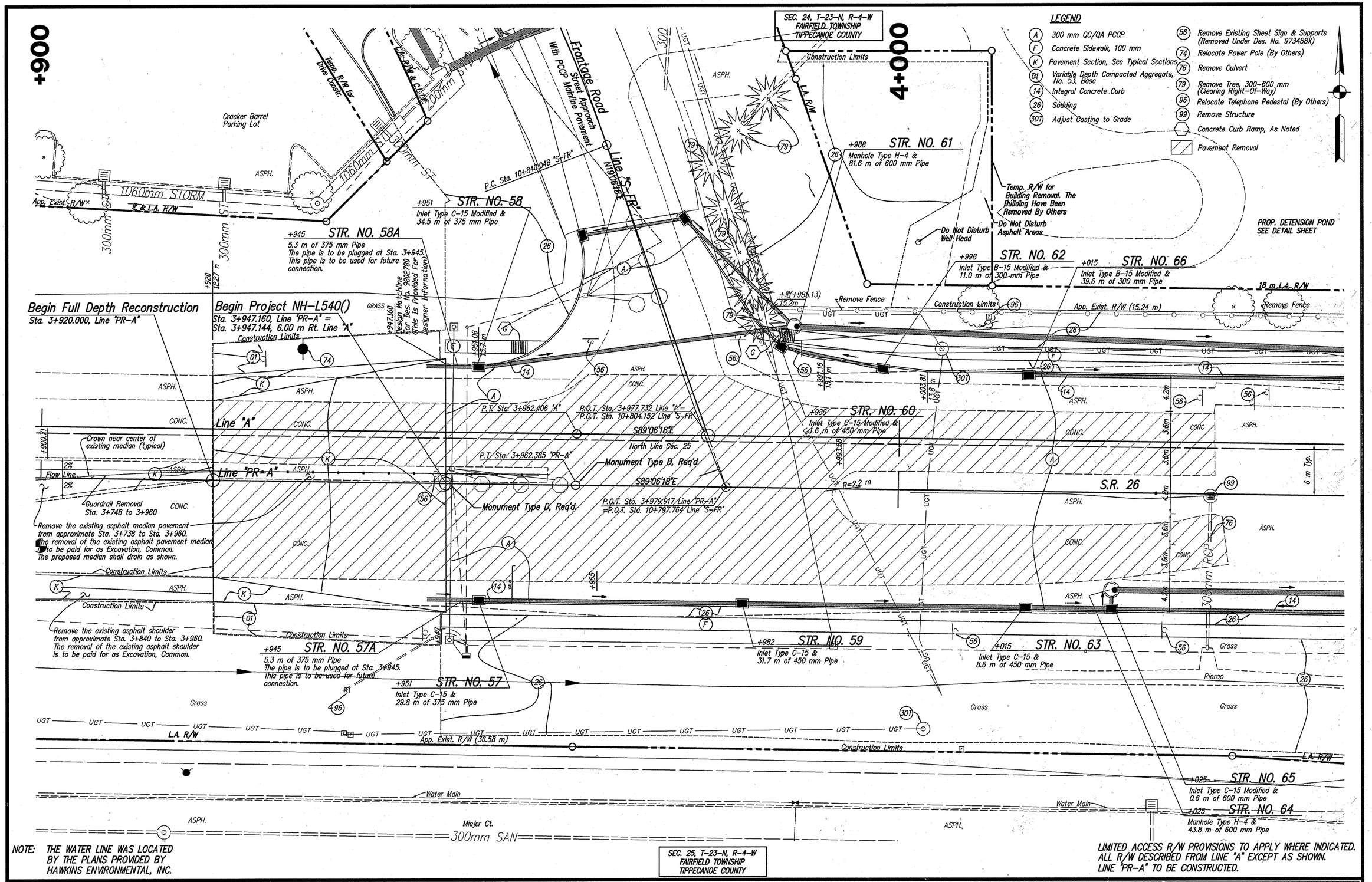

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN. LINE "PR-A" TO BE CONSTRUCTED.

HERCEG
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South Bend, Indiana 46601
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Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M. /R.O.N. | DRAWN: D.E.B./J.M.K./P.R.E.
CHECKED: R.J.F./R.O.N. | CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 3+900 TO 4+050 LINE "PR-A"

HORIZONTAL SCALE 1:200	BRIDGE FILE
VERTICAL SCALE N/A	DESIGNATION 9134885
SURVEY BOOK	SHEETS 54 of 131
CONTRACT R-28381	PROJECT NH-L540()

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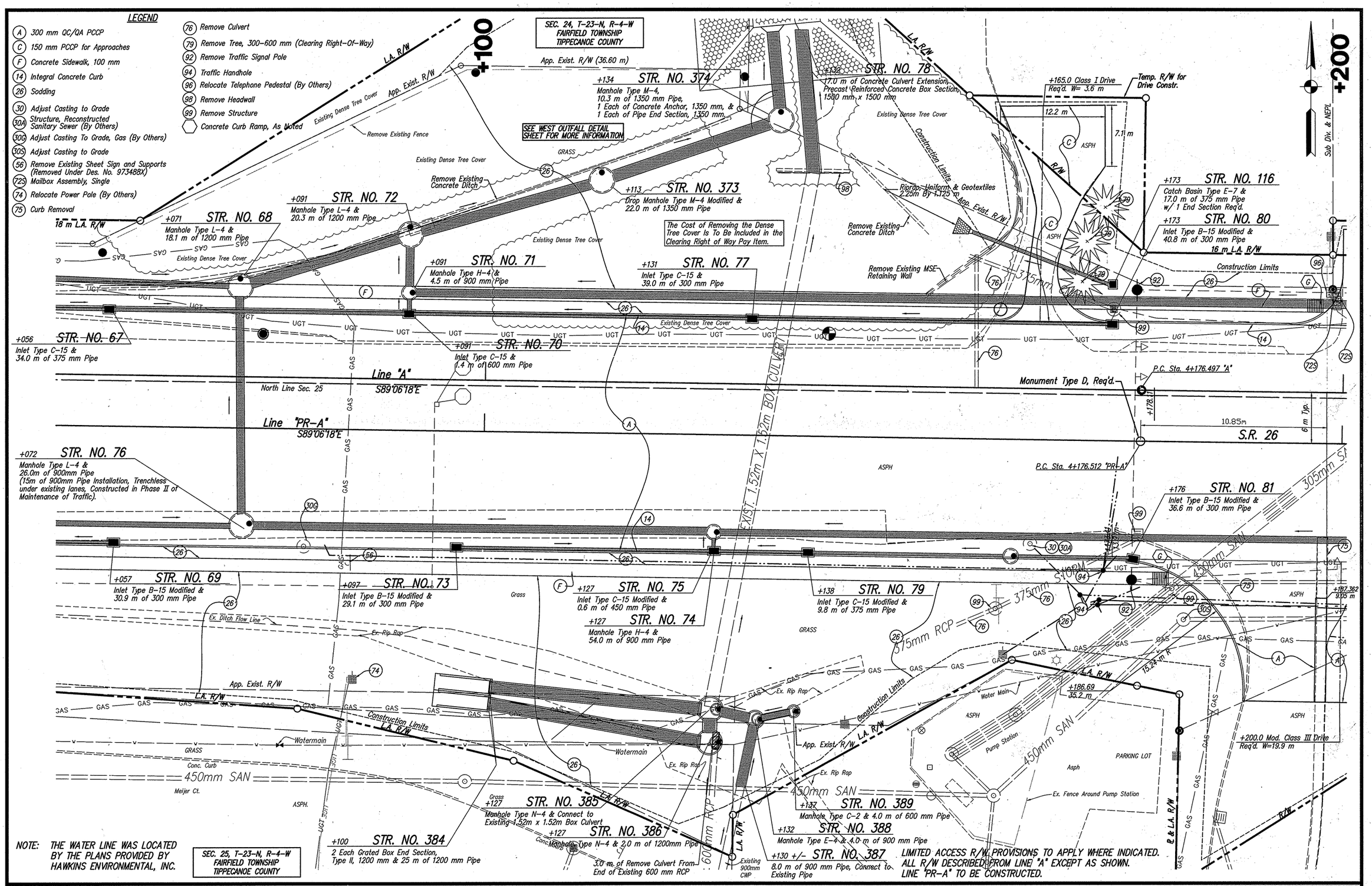
LEGEND

- (A) 300 mm QC/QA PCCP
- (C) 150 mm PCCP for Approaches
- (F) Concrete Sidewalk, 100 mm
- (14) Integral Concrete Curb
- (26) Sodding
- (30) Adjust Casting to Grade
- (30A) Structure, Reconstructed Sanitary Sewer (By Others)
- (30G) Adjust Casting To Grade, Gas (By Others)
- (30S) Adjust Casting to Grade
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 9734BBX)
- (72S) Mailbox Assembly, Single
- (74) Relocate Power Pole (By Others)
- (75) Curb Removal
- (76) Remove Culvert
- (79) Remove Tree, 300–600 mm (Clearing Right-Of-Way)
- (92) Remove Traffic Signal Pole
- (94) Traffic Handhole
- (96) Relocate Telephone Pedestal (By Others)
- (98) Remove Headwall
- (99) Remove Structure
- (G) Concrete Curb Ramp, As Noted



NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

SEC. 25, T-23-N, R-4-W
FAIRFIELD TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN. LINE "PR-A" TO BE CONSTRUCTED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E./J.M.K.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 4+050 TO 4+200 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	55 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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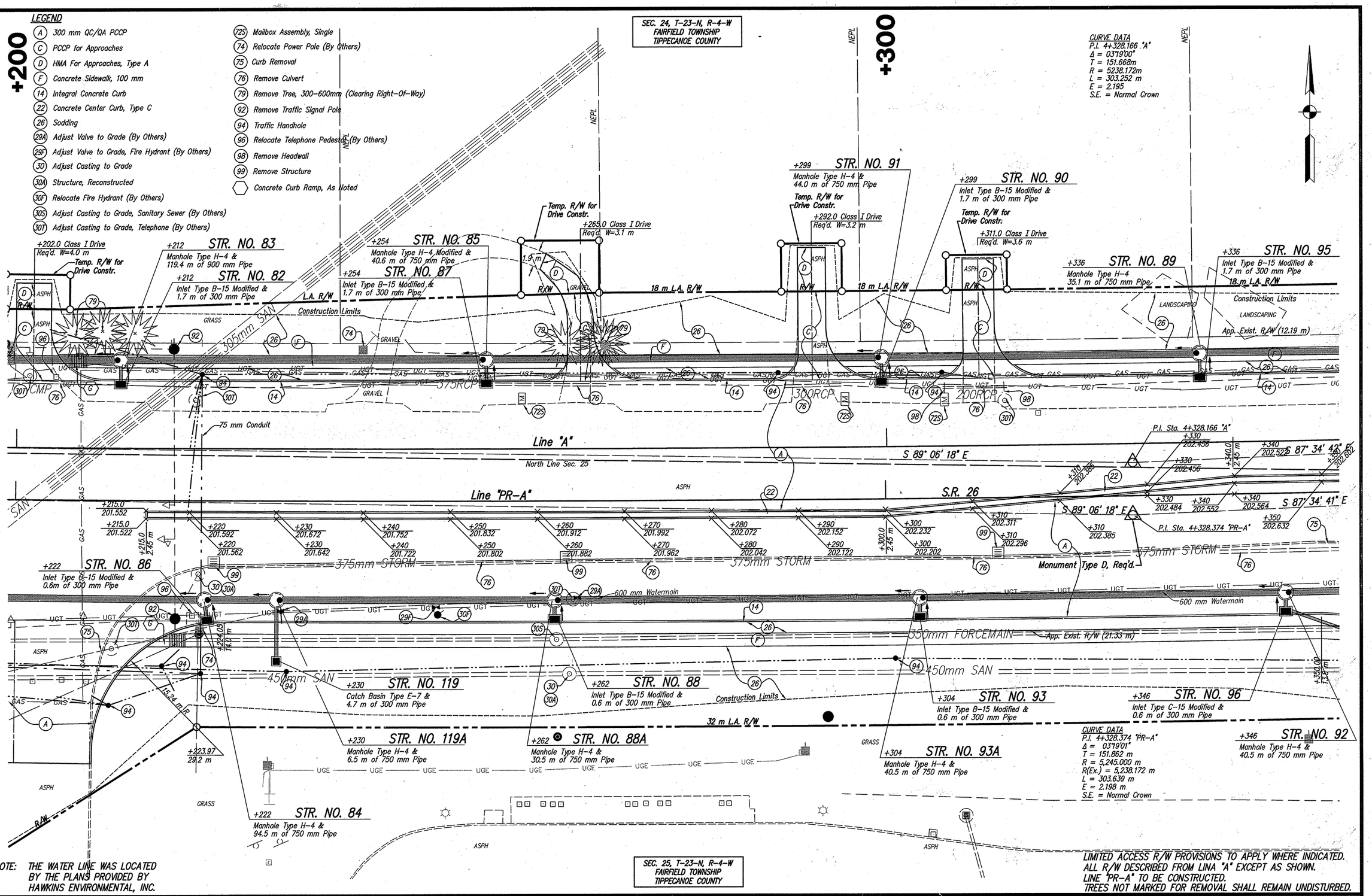

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINA "A" EXCEPT AS SHOWN.
LINE "PR-A" TO BE CONSTRUCTED.
TREES NOT MARKED FOR REMOVAL SHALL REMAIN UNDISTURBED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
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Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 4+200 TO 4+350 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	56 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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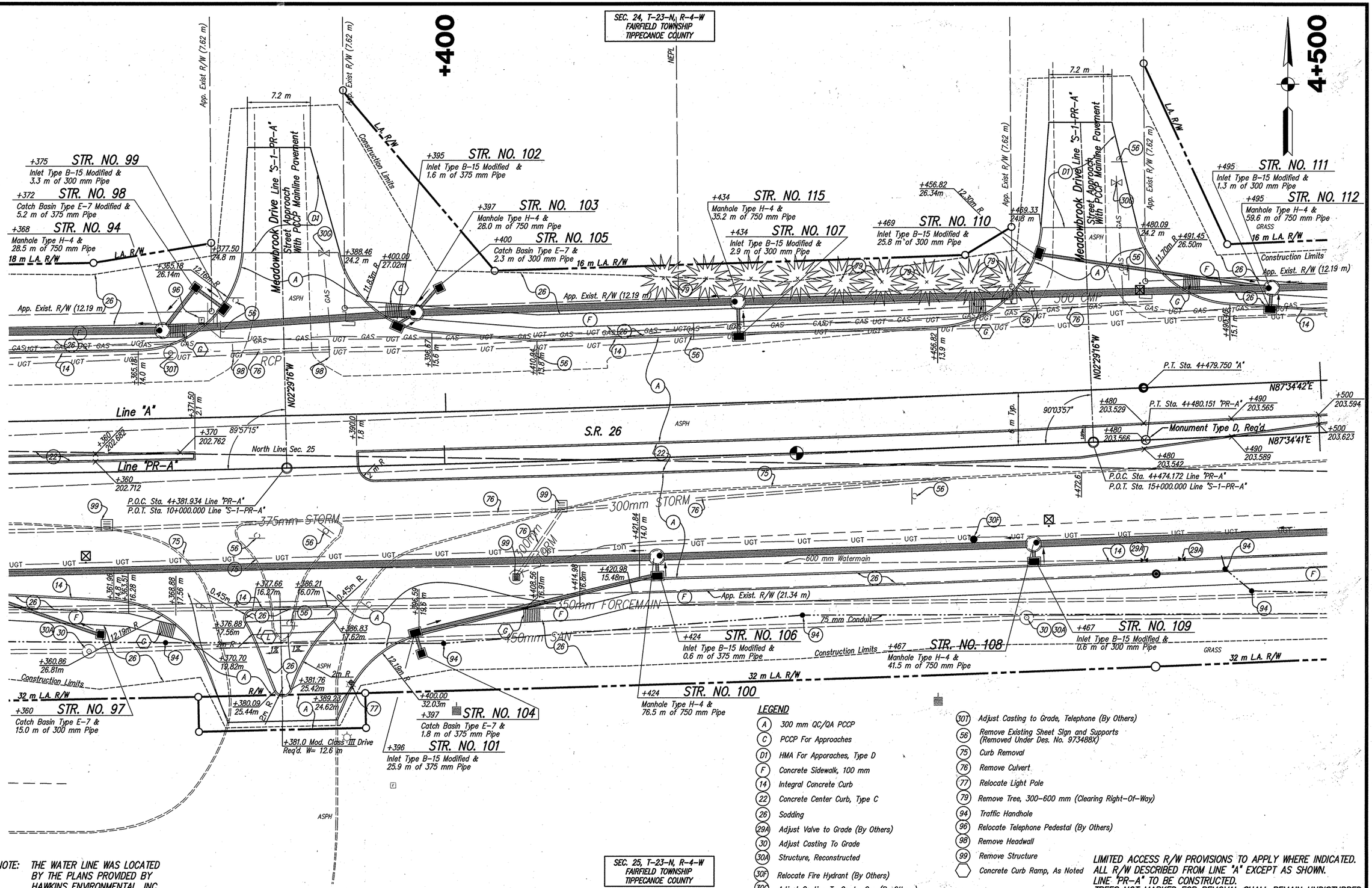
SEC. 24, T-23-N, R-4-W
FAIRFIELD TOWNSHIP
TIPPECANOE COUNTY



SEC. 25, T-23-N, R-4-W
FAIRFIELD TOWNSHIP
TIPPECANOE COUNTY

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LEGEND

- (A) 300 mm QC/QA PCCP
- (C) PCCP For Approaches
- (D1) HMA For Apporaches, Type D
- (F) Concrete Sidewalk, 100 mm
- (14) Integral Concrete Curb
- (22) Concrete Center Curb, Type C
- (26) Sodding
- (29A) Adjust Valve to Grade (By Others)
- (30) Adjust Casting To Grade
- (30A) Structure, Reconstructed
- (30F) Relocate Fire Hydrant (By Others)
- (30G) Adjust Casting To Grade, Gas (By Others)
- (30T) Adjust Casting to Grade, Telephone (By Others)
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (75) Curb Removal
- (76) Remove Culvert
- (77) Relocate Light Pole
- (79) Remove Tree, 300-600 mm (Clearing Right-Of-Way)
- (94) Traffic Handhole
- (96) Relocate Telephone Pedestal (By Others)
- (98) Remove Headwall
- (99) Remove Structure
- Concrete Curb Ramp, As Noted

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
LINE "PR-A" TO BE CONSTRUCTED.
TREES NOT MARKED FOR REMOVAL SHALL REMAIN UNDISTURBED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 4+350 TO 4+500 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	57 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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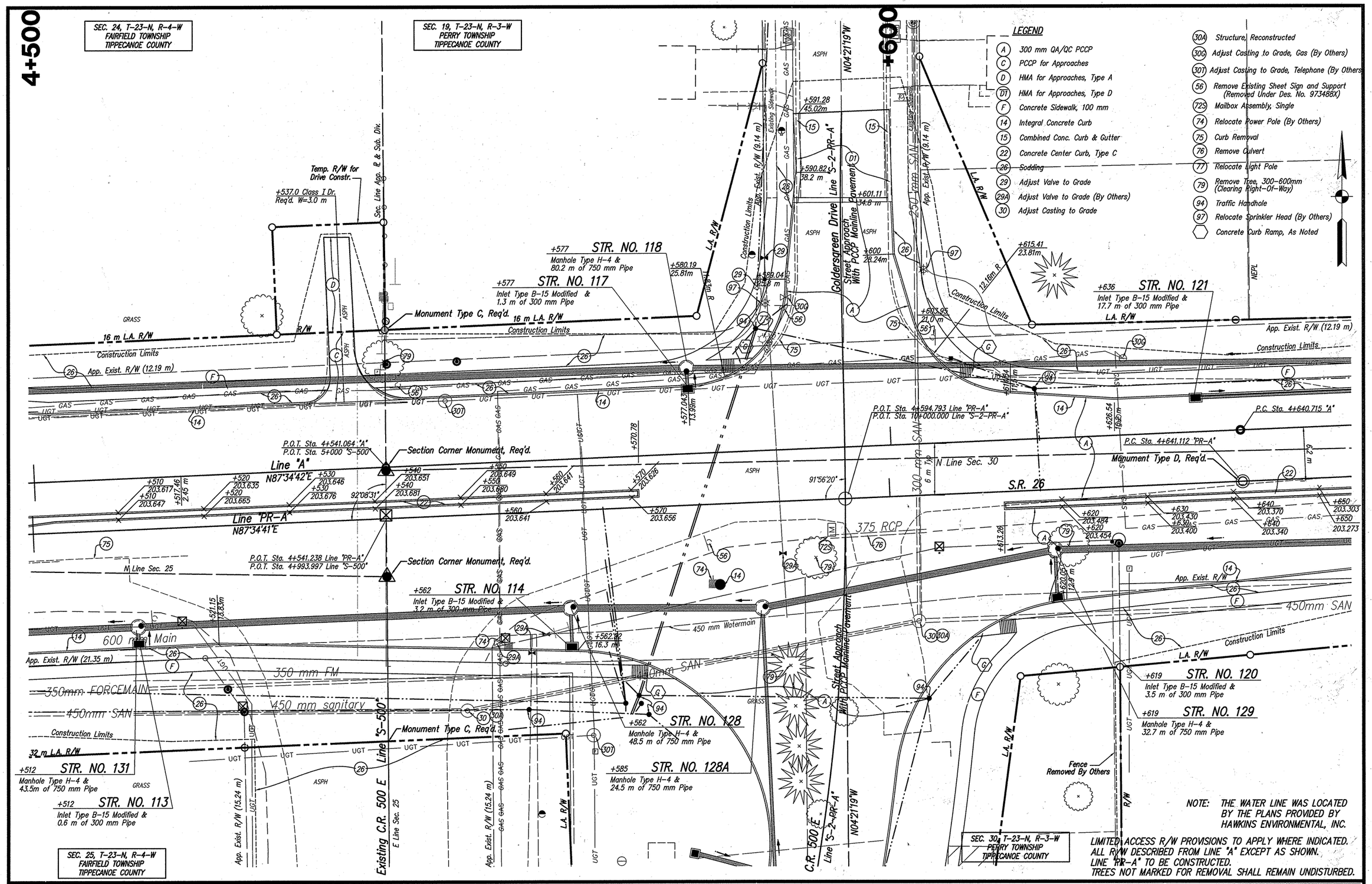

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
LINE "PR-A" TO BE CONSTRUCTED.
TREES NOT MARKED FOR REMOVAL SHALL REMAIN UNDISTURBED.

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KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
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Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 8/7/06 DATE

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 4+500 TO 4+650 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	58 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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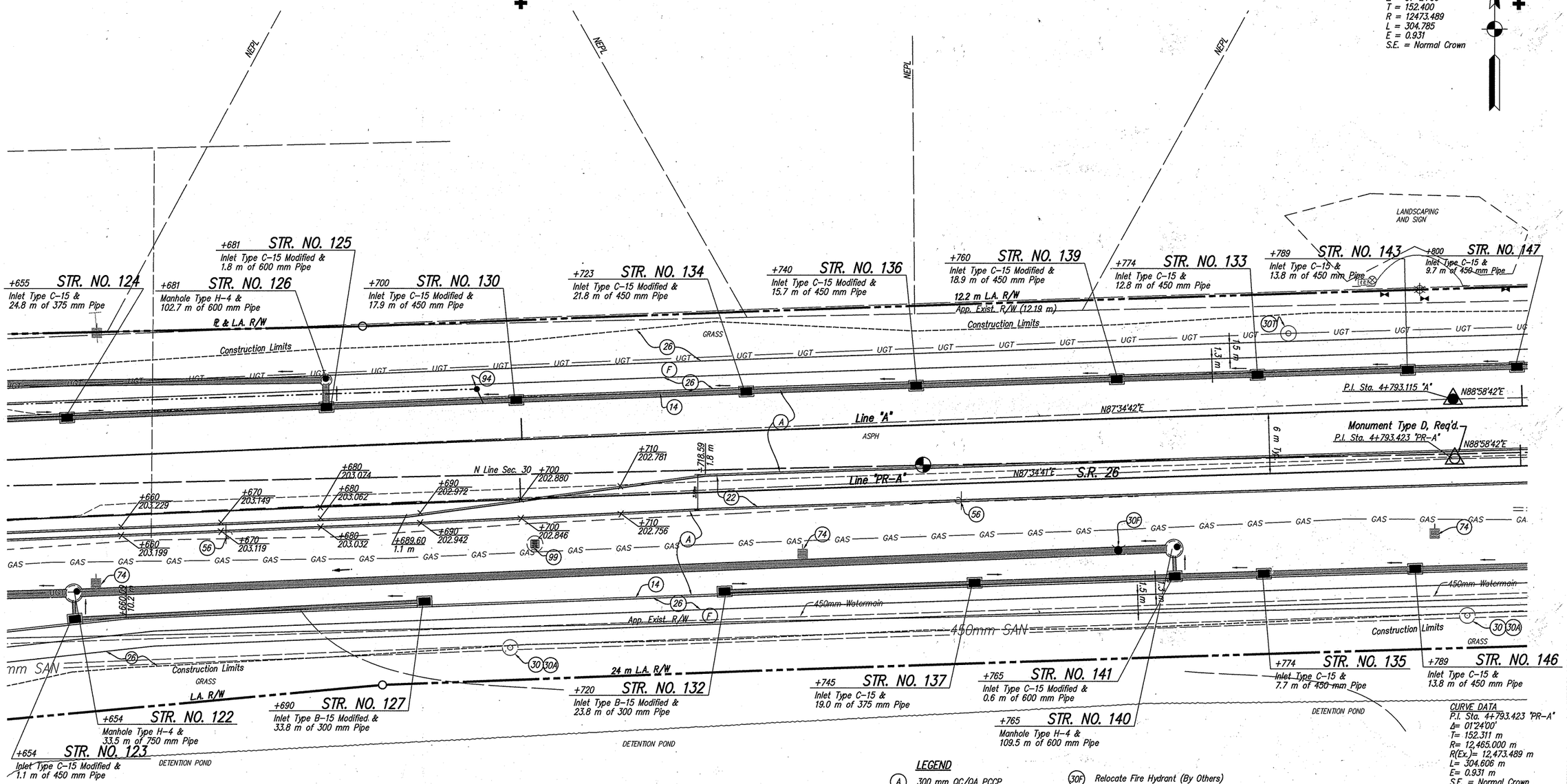
SEC. 19, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

+700

+800

CURVE DATA
P.I. Sta. 4+793.115 "A"
Δ = 01° 24'00"
T = 152.400
R = 12473.489
L = 304.785
E = 0.931
S.E. = Normal Crown



CURVE DATA
P.I. Sta. 4+793.423 "PR-A"
Δ= 01°24'00"
T= 152.311 m
R= 12,465.000 m
R(Ex.)= 12,473.489 m
L= 304.606 m
E= 0.931 m
S.E. = Normal Crown

LEGEND

A	300 mm QC/QA PCCP
F	Concrete Sidewalk, 100 mm
14	Integral Concrete Curb
22	Concrete Center Curb, Type C
26	Sodding
30	Adjust Casting to Grade
30A	Structure, Reconstructed
30F	Relocate Fire Hydrant (By Others)
30T	Adjust Casting to Grade, Telephone (By Others)
56	Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
74	Relocate Power Pole (By Others)
94	Traffic Handhole
99	Remove Structure

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
LINE "PR-A" TO BE CONSTRUCTED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/17/06 DATE

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E./J.M.K.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 4+650 TO 4+800 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	59 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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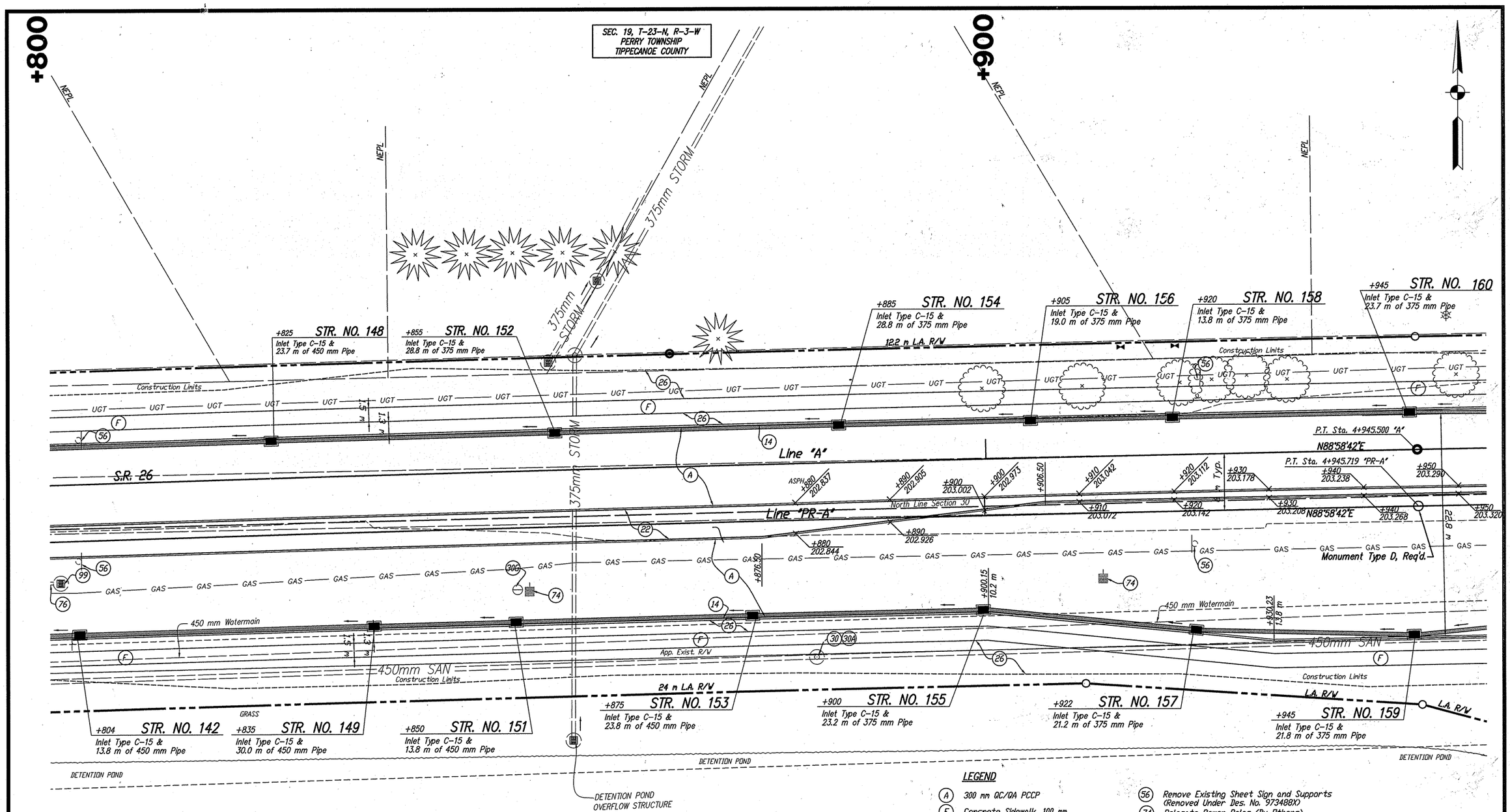

LEGEND

- (A) 300 mm QC/QA PCCP
- (F) Concrete Sidewalk, 100 mm
- (14) Integral Concrete Curb
- (22) Concrete Center Curb, Type C
- (26) Sodding
- (30) Adjust Casting to Grade
- (30A) Structure, Reconstructed
- (30G) Adjust Casting to Grade, Gas (By Others)
- (30T) Adjust Casting to Grade, Telephone (By Others)
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (74) Relocate Power Poles (By Others)
- (76) Remove Culvert
- (99) Remove Structure

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN. LINE "PR-A" TO BE CONSTRUCTED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
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Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: J.J.B./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 4+800 TO 4+950 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	60 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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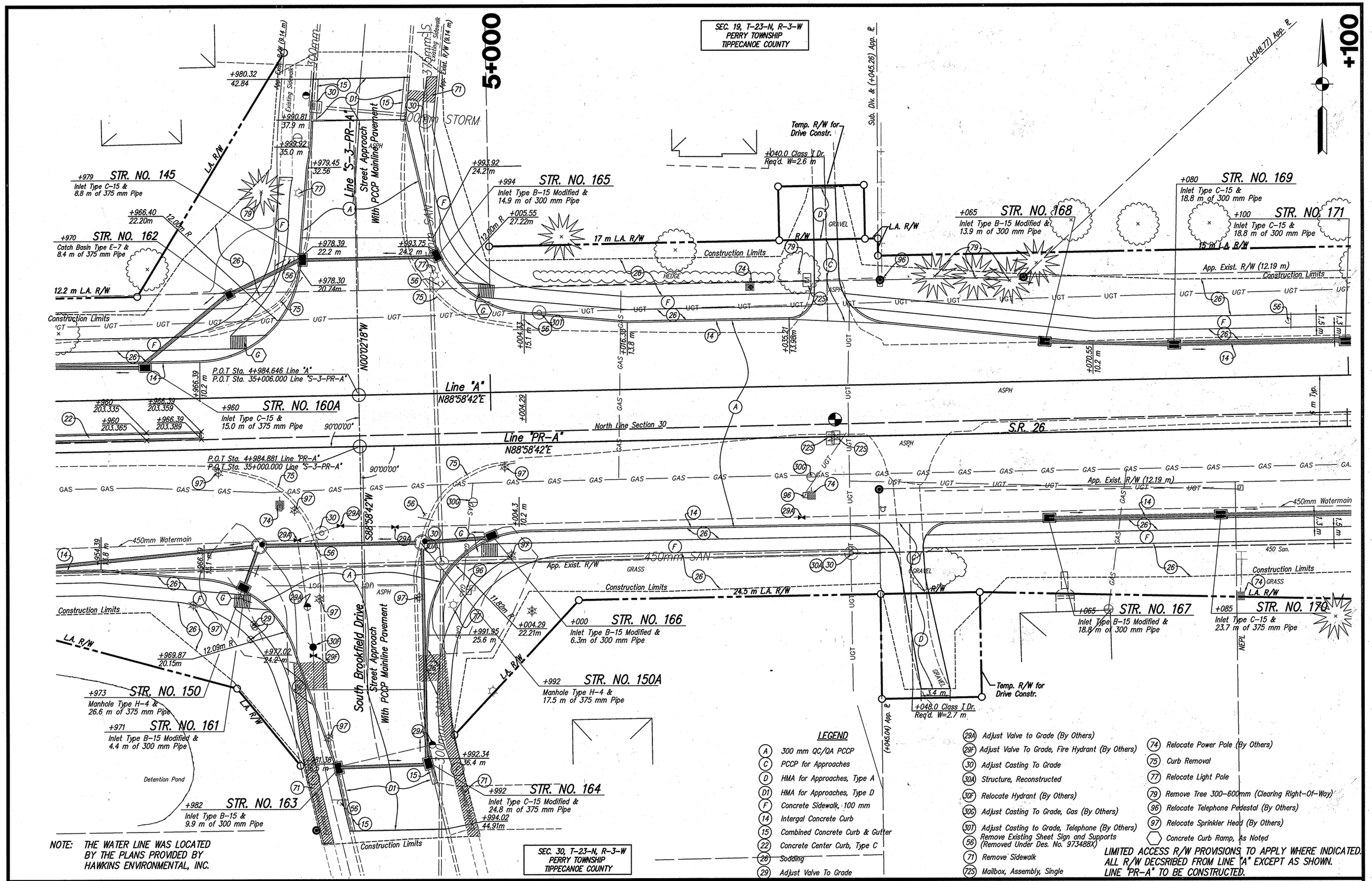

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LEGEND

- (A) 300 mm QC/QA PCCP
- (C) PCCP for Approaches
- (D) HMA for Approaches, Type A
- (D1) HMA for Approaches, Type D
- (F) Concrete Sidewalk, 100 mm
- (14) Intergal Concrete Curb
- (15) Combined Concrete Curb & Gutter
- (22) Concrete Center Curb, Type C
- (26) Sodding
- (29) Adjust Valve To Grade
- (29A) Adjust Valve to Grade (By Others)
- (29F) Adjust Valve To Grade, Fire Hydrant (By Others)
- (30) Adjust Casting To Grade
- (30A) Structure, Reconstructed
- (30F) Relocate Hydrant (By Others)
- (30G) Adjust Casting To Grade, Gas (By Others)
- (30T) Adjust Casting to Grade, Telephone (By Others)
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (71) Remove Sidewalk
- (72S) Mailbox, Assembly, Single
- (74) Relocate Power Pole (By Others)
- (75) Curb Removal
- (77) Relocate Light Pole
- (79) Remove Tree 300-600mm (Clearing Right-Of-Way)
- (96) Relocate Telephone Pedestal (By Others)
- (97) Relocate Sprinkler Head (By Others)
- (⬡) Concrete Curb Ramp, As Noted

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DECSRIBED FROM LINE "A" EXCEPT AS SHOWN. LINE "PR-A" TO BE CONSTRUCTED.

HERCEG
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Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 4+950 TO 5+100 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	61 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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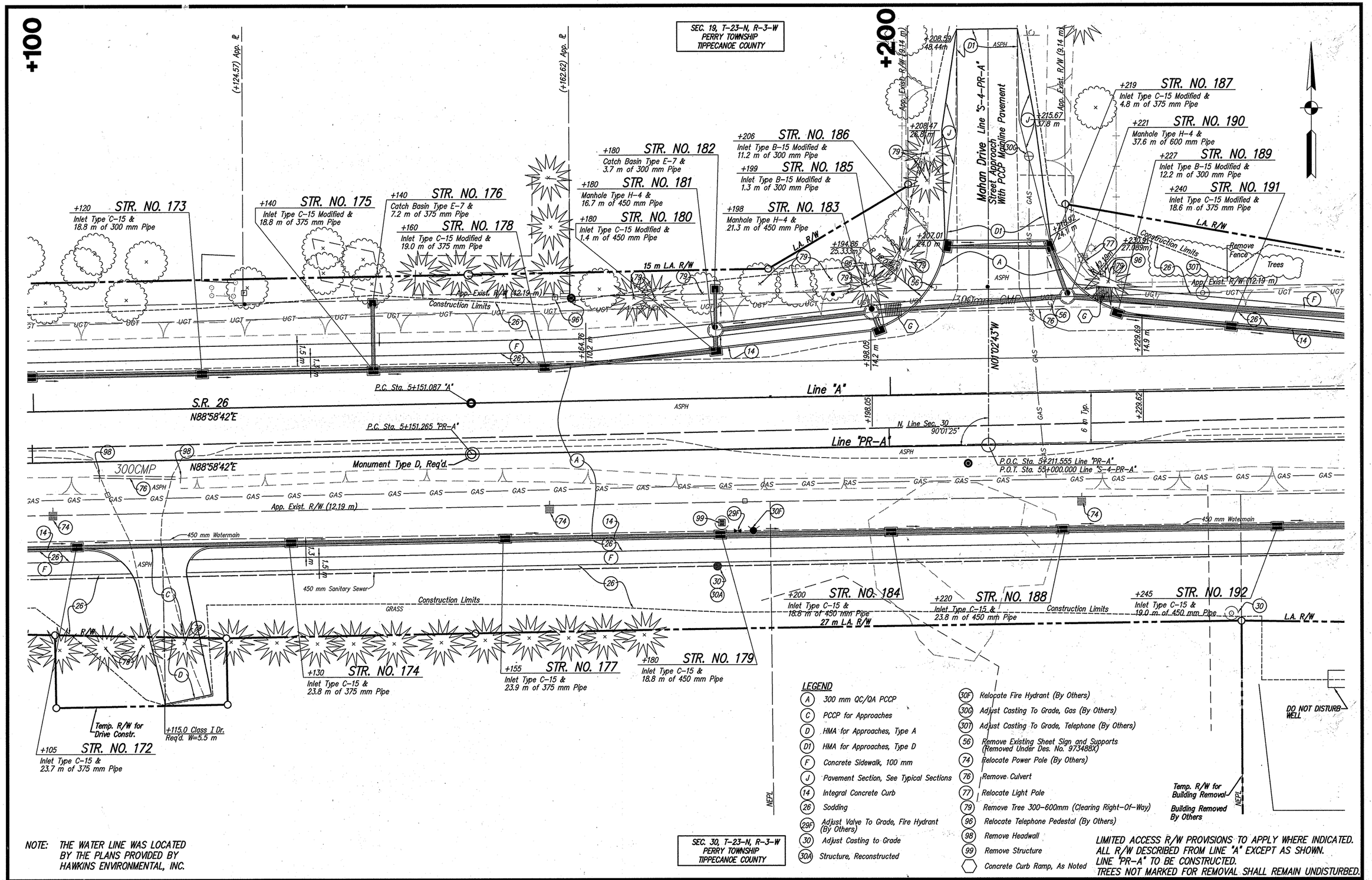

LEGEND

- (A) 300 mm QC/QA PCCP
- (C) PCCP for Approaches
- (D) HMA for Approaches, Type A
- (D1) HMA for Approaches, Type D
- (F) Concrete Sidewalk, 100 mm
- (J) Pavement Section, See Typical Sections
- (14) Integral Concrete Curb
- (26) Sodding
- (29F) Adjust Valve To Grade, Fire Hydrant (By Others)
- (30) Adjust Casting to Grade
- (30A) Structure, Reconstructed
- (30F) Relocate Fire Hydrant (By Others)
- (30G) Adjust Casting To Grade, Gas (By Others)
- (30T) Adjust Casting To Grade, Telephone (By Others)
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (74) Relocate Power Pole (By Others)
- (76) Remove Culvert
- (77) Relocate Light Pole
- (79) Remove Tree 300-600mm (Clearing Right-Of-Way)
- (96) Relocate Telephone Pedestal (By Others)
- (98) Remove Headwall
- (99) Remove Structure
- Concrete Curb Ramp, As Noted

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
LINE "PR-A" TO BE CONSTRUCTED.
TREES NOT MARKED FOR REMOVAL SHALL REMAIN UNDISTURBED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
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211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: C.A.K./R.O.N. DRAWN: D.E.B./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 5+100 TO 5+250 LINE "PR-A"

HORIZONTAL SCALE 1:200	BRIDGE FILE
VERTICAL SCALE N/A	DESIGNATION 9134885
SURVEY BOOK 16519	SHEETS 62 of 131
CONTRACT R-28381	PROJECT NH-L540()

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SEC. 19, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

+300 +400

CURVE DATA
P.I. Sta. 5+303.487 "A"
Δ= 01°10'00"
T= 152.400 m
R= 14,964.139 m
L= 304.789 m
E= 0.776 m
S.E. = Normal crown

CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF 25 mm WATERLINE & 32 mm FORCEMAIN PRIOR TO CONSTRUCTION

+260 STR. NO. 194
Manhole Type H-4 &
98.5 m of 600 mm Pipe

+260 STR. NO. 193
Inlet Type C-15 Modified &
1.5 m of 450 mm Pipe

+265 STR. NO. 195
Inlet Type C-15 &
8.1 m of 450 mm Pipe

+268 STR. NO. 198
Catch Basin Type E-7 &
49.0 m of 450 mm Pipe

+280 STR. NO. 196
Inlet Type B-15 Modified &
18.8 m of 300 mm Pipe

+282 STR. NO. 197
Inlet Type B-15 &
15.5 m of 300 mm Pipe

+300 STR. NO. 199
Inlet Type C-15 &
18.8 m of 375 mm Pipe

+310 STR. NO. 200
Inlet Type B-15 &
23.9 m of 300 mm Pipe

+320 STR. NO. 201
Inlet Type C-15 &
18.9 m of 375 mm Pipe

+327 STR. NO. 288
Catch Basin Type E-7 &
16.5 m of 450 mm Pipe

+335 STR. NO. 202
Inlet Type C-15 &
8.0 m of 375 mm Pipe

+335 STR. NO. 202A
Catch Basin Type E-7 &
29.5 m of 450 mm Pipe

+340 STR. NO. 204
Inlet Type C-15 &
18.8 m of 375 mm Pipe

+360 STR. NO. 205
Inlet Type B-15 &
24.0 m of 300 mm Pipe

+360 STR. NO. 207
Manhole Type H-4 &
70.0 m of 600 mm Pipe

+360 STR. NO. 208
Catch Basin Type E-7 &
2.1 m of 300 mm Pipe

+360 STR. NO. 206
Inlet Type C-15 &
2.2 m of 450 mm Pipe

+365 STR. NO. 215
Catch Basin Type E-7 &
66.8 m of 450 mm Pipe

+380 STR. NO. 209
Inlet Type B-15 Modified &
18.6 m of 300 mm Pipe

+385 STR. NO. 210
Inlet Type B-15 &
18.8 m of 375 mm Pipe

L.A. R/W
℄ & 12.2 m L.A. R/W
29 m L.A. R/W
R/W
Construction Limits
NEPL
P.I. Sta.5+303.487 "A"
Line "A"
N88°58'42"E
S89°51'18"E
Monument Type D, Req'd.
P.I. Sta. 5+303.661 "PR-A"
Line "PR-A"
N88°58'42"E
S89°51'16"E
App. Exist. R/W (12.19 m)
S.R. 26
N Line Sec. 30
6 m Typ.
+272.90
10.21 m
1.3 m
1.5 m
600CMP
375CMP
100PVC
375RCP
50RCP
450 mm Watermain
300 mm Forcemain
450 mm Sanitary Sewer
ASPH
GRAVEL
CONC
BRICK
GAS
UGT

+276.0 Class I Dr.
Req'd. W=4.3 m

DO NOT DISTURB GRAVEL DRIVE PAST 24m RIGHT OF LINE "PR-A"

DO NOT DISTURB WELL

DO NOT DISTURB GARAGE

DO NOT DISTURB FENCE LINE

FENCE LINE

DO NOT DISTURB SHED

SHED

+290.0 Class I Dr.
Req'd. W=5.8 m

Temp. R/W for Drive Constr.

(+283.39) App. ℄

TEMP. R/W FOR BUILDING REMOVAL.
THE BUILDING HAS BEEN REMOVED BY OTHERS

CURVE DATA
P.I. Sta. 5+303.661 "PR-A"
Δ= 01°10'02"
T= 152.396 m
R= 14,960.000 m
R(Ex.)= 14,964.139 m
L= 304.781 m
E= 0.776 m
S.E. = Normal Crown

+327.0 Class I Dr.
Req'd. W=5.1 m

Temp. R/W for Drive Constr.

+372.0 Class I Dr.
Req'd. W=3.8 m

Temp. R/W for Drive Constr.

Brick Pavement To Be Removed During Common Excavation

(+380.89) App. ℄

LEGEND

A	300 mm QC/QA PCCP
C	PCCP for Approaches
D	HMA For Approaches, Type A
F	Concrete Sidewalk, 100 mm
14	Integral Concrete Curb
26	Sodding
30	Adjust Casting To Grade
30A	Structure, Reconstructed
72S	Mailbox, Assembly, Single
74	Relocate Power Pole (By Others)
76	Remove Culvert
77	Relocate Light Pole
79	Remove Tree 300-600mm (Clearing Right-Of-Way)
96	Relocate Telephone Pedestal (By Others)
98	Remove Headwall

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
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KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: C.A.K./R.O.N. DRAWN: D.E.B./P.R.E./J.M.K.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 5+250 TO 5+400 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
16519	63 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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SEC. 19, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

+400

+500

+432 STR. NO. 217
Manhole Type H-4 &
27.1m of 750 mm Pipe

+432 STR. NO. 218
Inlet Type C-15 &
1.8 m of 300 mm Pipe

+420 STR. NO. 213
Inlet Type C-15 &
10.8 m of 300 mm Pipe

+400 STR. NO. 211
Inlet Type C-15 &
18.7 m of 300 mm Pipe

+460 STR. NO. 220
Inlet Type B-15 Modified &
4.3m of 300 mm Pipe

+459 STR. NO. 223
Manhole Type H-4 &
38.3m of 900 mm Pipe

+500 STR. NO. 227A
Manhole Type H-4 &
3.0 m of 900 mm Pipe

+478 STR. NO. 224
Inlet Type B-15 Modified &
20.5 m of 300 mm Pipe

+500 STR. NO. 228
2.3 m of 750 mm Pipe
w/1 End Section, Req'd

+500 STR. NO. 226
Inlet Type C-15 &
2.0 m of 375 mm Pipe

+505 STR. NO. 227
Manhole Type K-4 &
24.1 m of 900 mm Pipe

+537 STR. NO. 230A
Inlet Type B-15 Modified &
13.8 m of 300 mm Pipe

+479 STR. NO. 225
Inlet Type C-15 &
1 m of 450 mm Pipe

+537 STR. NO. 231A
Inlet Type B-15 Modified &
13.8 m of 300 mm Pipe

+405 STR. NO. 212
Inlet Type C-15 &
18.9 m of 450 mm Pipe

+425 STR. NO. 214
Inlet Type C-15 &
9.2 m of 450 mm Pipe

+479 STR. NO. 222A
Manhole Type K-4 &
14.2 m of 1200 mm Pipe

+465 STR. NO. 221
Inlet Type C-15 Modified &
13.5 m of 375 mm Pipe

+463 STR. NO. 222
Manhole Type K-4 &
15.2 m of 1200 mm Pipe

+505 STR. NO. 229A
Manhole Type K-4 &
24.1 m of 1200 mm Pipe

+500 STR. NO. 229
Inlet Type B-15 Modified &
19.6 m of 300 mm Pipe

CURVE DATA
P.I. Sta. 5+500.000 "PR-A"
Δ= 00°41'47"
T= 18.231 m
R= 3,000.000 m
L= 36.462 m
E= 0.055 m
S.E.= Normal Crown

C.R. 550 E
Street Approach
With PCCP Mainline Pavement

Line "S-550"
Street Approach
With PCCP Mainline Pavement

S.R. 26

Line "A"
S89°51'18"E

Line "PR-A"
S89°51'16"E

N00°51'18"E

N89°26'57"E

19 m L.A. R/W

25 m L.A. R/W

29 m L.A. R/W

L.A. R/W

App. Exist. R/W (12.19 m)

Construction Limits

Existing Sub Division Sign And Lighting To Be Relocated To Outside Of Right-Of-Way By Others

CULTIVATED FIELD

450CMP

200RCP

300 mm Forcemain

450 mm Watermain

50 mm Conduit

90°42'34"

P.T. Sta. 5+455.877 "A"

P.O.T. Sta. 5+481.695 Line "A"
=STA. 5+481.769, 6.000 m Lt Line "PR-A"

P.O.C. Sta. 5+447.689 Line "PR-A"
P.O.C. Sta. 9+994.000 Line "S-550"

P.T. Sta. 5+456.046 "PR-A"

P.C. Sta. 5+481.769 "PR-A"

P.I. Sta. 5+500.000 "PR-A"

P.T. Sta. 5+518.231 "PR-A"

Monument Type D, Req'd.

End of 300 mm Forcemain

+430.56 10.2 m
+455.18 11.7 m
+476.94 10.2 m
+478.55 10.2 m
+461.80 12.34m
+418.18 10.2 m
+405.18 11.5 m

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LEGEND

- (A) 300 mm QC/QA PCCP
- (F) Concrete Sidewalk, 100 mm
- (14) Integral Concrete Curb
- (26) Sodding
- (29A) Adjust Valve to Grade, (By Others)
- (29F) Adjust Valve to Grade, Fire Hydrant (By Others)
- (30F) Relocate Fire Hydrant (By Others)
- (30T) Adjust Casting To Grade, Telephone (By Others)
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (74) Relocate Power Pole (By Others)
- (76) Remove Culvert
- (79) Remove Tree 300-600mm (Clearing Right-Of-Way)
- Concrete Curb Ramp, As Noted

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
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CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 5+400 TO 5+550 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
16519	64 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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SEC. 19, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

+600

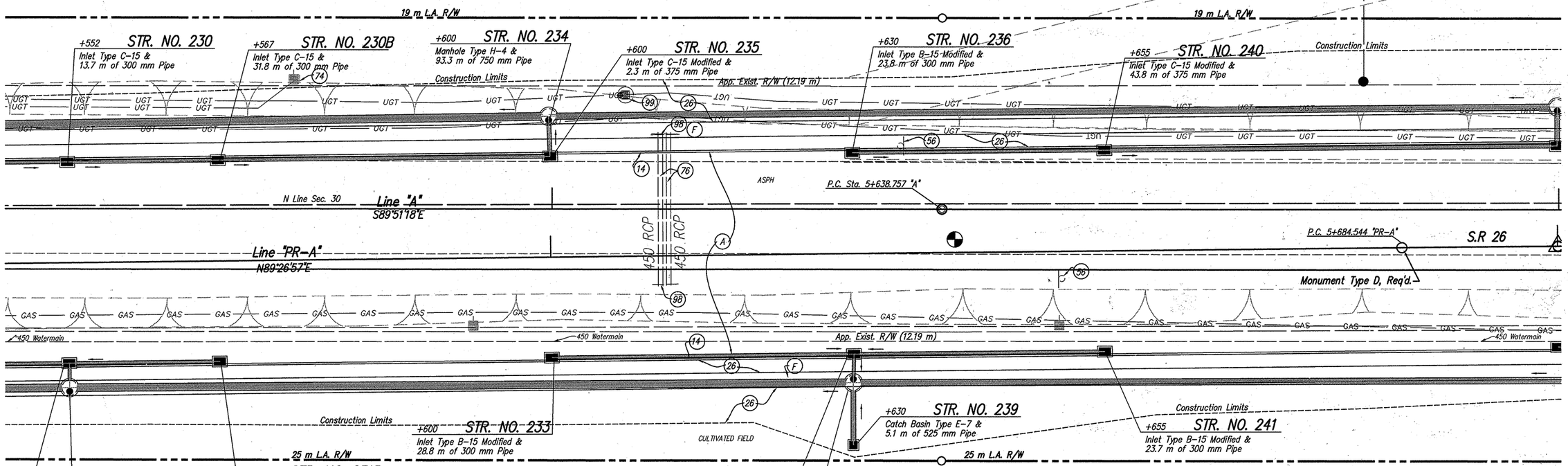
+700

Offset Table
Line "A" Perpendicular To Line "PR-A"

Sta. 5+481.695, 6.000m RT, Line "A" = Sta. 5+481.769, 0.000m, Line "PR-A"
Sta. 5+499.926, 5.943m RT, Line "A" = Sta. 5+500.000, 0.000m, Line "PR-A"
Sta. 5+519.925, 5.755m RT, Line "A" = Sta. 5+520.000, 0.000m, Line "PR-A"
Sta. 5+539.924, 5.513m RT, Line "A" = Sta. 5+540.000, 0.000m, Line "PR-A"
Sta. 5+559.922, 5.270m RT, Line "A" = Sta. 5+560.000, 0.000m, Line "PR-A"
Sta. 5+579.921, 5.027m RT, Line "A" = Sta. 5+580.000, 0.000m, Line "PR-A"
Sta. 5+599.919, 4.784m RT, Line "A" = Sta. 5+600.000, 0.000m, Line "PR-A"
Sta. 5+619.918, 4.541m RT, Line "A" = Sta. 5+620.000, 0.000m, Line "PR-A"
Sta. 5+639.916, 4.298m RT, Line "A" = Sta. 5+640.000, 0.000m, Line "PR-A"
Sta. 5+659.913, 4.059m RT, Line "A" = Sta. 5+660.000, 0.000m, Line "PR-A"
Sta. 5+679.911, 3.826m RT, Line "A" = Sta. 5+680.000, 0.000m, Line "PR-A"
Sta. 5+699.909, 3.640m RT, Line "A" = Sta. 5+700.000, 0.000m, Line "PR-A"
Sta. 5+719.907, 3.586m RT, Line "A" = Sta. 5+720.000, 0.000m, Line "PR-A"
Sta. 5+739.906, 3.580m RT, Line "A" = Sta. 5+740.000, 0.000m, Line "PR-A"
Sta. 5+759.905, 3.580m RT, Line "A" = Sta. 5+760.000, 0.000m, Line "PR-A"
Sta. 5+779.904, 3.552m RT, Line "A" = Sta. 5+780.000, 0.000m, Line "PR-A"
Sta. 5+799.902, 3.403m RT, Line "A" = Sta. 5+800.000, 0.000m, Line "PR-A"
Sta. 5+819.899, 3.127m RT, Line "A" = Sta. 5+820.000, 0.000m, Line "PR-A"
Sta. 5+839.894, 2.730m RT, Line "A" = Sta. 5+840.000, 0.000m, Line "PR-A"
Sta. 5+859.889, 2.303m RT, Line "A" = Sta. 5+860.000, 0.000m, Line "PR-A"
Sta. 5+879.884, 1.883m RT, Line "A" = Sta. 5+880.000, 0.000m, Line "PR-A"
Sta. 5+899.879, 1.470m RT, Line "A" = Sta. 5+900.000, 0.000m, Line "PR-A"
Sta. 5+919.874, 1.063m RT, Line "A" = Sta. 5+920.000, 0.000m, Line "PR-A"
Sta. 5+939.870, 0.662m RT, Line "A" = Sta. 5+940.000, 0.000m, Line "PR-A"
Sta. 5+959.867, 0.310m RT, Line "A" = Sta. 5+960.000, 0.000m, Line "PR-A"
Sta. 5+979.866, 0.089m RT, Line "A" = Sta. 5+980.000, 0.000m, Line "PR-A"
Sta. 5+999.865, 0.001m RT, Line "A" = Sta. 6+000.000, 0.000m, Line "PR-A"
Sta. 6+003.188, 0.000m , Line "A" = Sta. 6+003.014, 0.000m, Line "PR-A"

Offset Table
Line "PR-A" Perpendicular To Line "A"

Sta. 5+481.769, 6.000m LT, Line "PR-A" = Sta. 5+481.695, 0.000m, Line "A"
Sta. 5+500.110, 5.942m LT, Line "PR-A" = Sta. 5+500.000, 0.000m, Line "A"
Sta. 5+520.145, 5.754m LT, Line "PR-A" = Sta. 5+520.000, 0.000m, Line "A"
Sta. 5+540.143, 5.511m LT, Line "PR-A" = Sta. 5+540.000, 0.000m, Line "A"
Sta. 5+560.142, 5.268m LT, Line "PR-A" = Sta. 5+560.000, 0.000m, Line "A"
Sta. 5+580.140, 5.025m LT, Line "PR-A" = Sta. 5+580.000, 0.000m, Line "A"
Sta. 5+600.139, 4.783m LT, Line "PR-A" = Sta. 5+600.000, 0.000m, Line "A"
Sta. 5+620.137, 4.540m LT, Line "PR-A" = Sta. 5+620.000, 0.000m, Line "A"
Sta. 5+640.136, 4.297m LT, Line "PR-A" = Sta. 5+640.000, 0.000m, Line "A"
Sta. 5+660.134, 4.058m LT, Line "PR-A" = Sta. 5+660.000, 0.000m, Line "A"
Sta. 5+680.133, 3.825m LT, Line "PR-A" = Sta. 5+680.000, 0.000m, Line "A"
Sta. 5+700.113, 3.639m LT, Line "PR-A" = Sta. 5+700.000, 0.000m, Line "A"
Sta. 5+720.094, 3.586m LT, Line "PR-A" = Sta. 5+720.000, 0.000m, Line "A"
Sta. 5+740.094, 3.580m LT, Line "PR-A" = Sta. 5+740.000, 0.000m, Line "A"
Sta. 5+760.094, 3.580m LT, Line "PR-A" = Sta. 5+760.000, 0.000m, Line "A"
Sta. 5+780.111, 3.552m LT, Line "PR-A" = Sta. 5+780.000, 0.000m, Line "A"
Sta. 5+800.134, 3.402m LT, Line "PR-A" = Sta. 5+800.000, 0.000m, Line "A"
Sta. 5+820.154, 3.125m LT, Line "PR-A" = Sta. 5+820.000, 0.000m, Line "A"
Sta. 5+840.164, 2.727m LT, Line "PR-A" = Sta. 5+840.000, 0.000m, Line "A"
Sta. 5+860.160, 2.300m LT, Line "PR-A" = Sta. 5+860.000, 0.000m, Line "A"
Sta. 5+880.155, 1.880m LT, Line "PR-A" = Sta. 5+880.000, 0.000m, Line "A"
Sta. 5+900.151, 1.467m LT, Line "PR-A" = Sta. 5+900.000, 0.000m, Line "A"
Sta. 5+920.147, 1.060m LT, Line "PR-A" = Sta. 5+920.000, 0.000m, Line "A"
Sta. 5+940.143, 0.660m LT, Line "PR-A" = Sta. 5+940.000, 0.000m, Line "A"
Sta. 5+960.138, 0.308m LT, Line "PR-A" = Sta. 5+960.000, 0.000m, Line "A"
Sta. 5+980.135, 0.088m LT, Line "PR-A" = Sta. 5+980.000, 0.000m, Line "A"
Sta. 6+000.135, 0.001m LT, Line "PR-A" = Sta. 6+000.000, 0.000m, Line "A"
Sta. 6+003.014, 0.000m , Line "PR-A" = Sta. 6+003.188, 0.000m, Line "A"



LEGEND

- (A) 300 mm QC/QA PCCP
- (F) Concrete Sidewalk, 100 mm
- (14) Integral Concrete Curb
- (26) Sodding
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (74) Relocate Power Pole (By Others)
- (76) Remove Culvert
- (98) Remove Headwall
- (99) Remove Structure

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

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LINE "PR-A" TO BE CONSTRUCTED.

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CHECKED: R.J.F./R.O.N. | CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 5+550 TO 5+700 LINE "PR-A"

HORIZONTAL SCALE 1:200	BRIDGE FILE
VERTICAL SCALE N/A	DESIGNATION 9134885
SURVEY BOOK	SHEETS 65 of 131
CONTRACT R-28381	PROJECT NH-L540()

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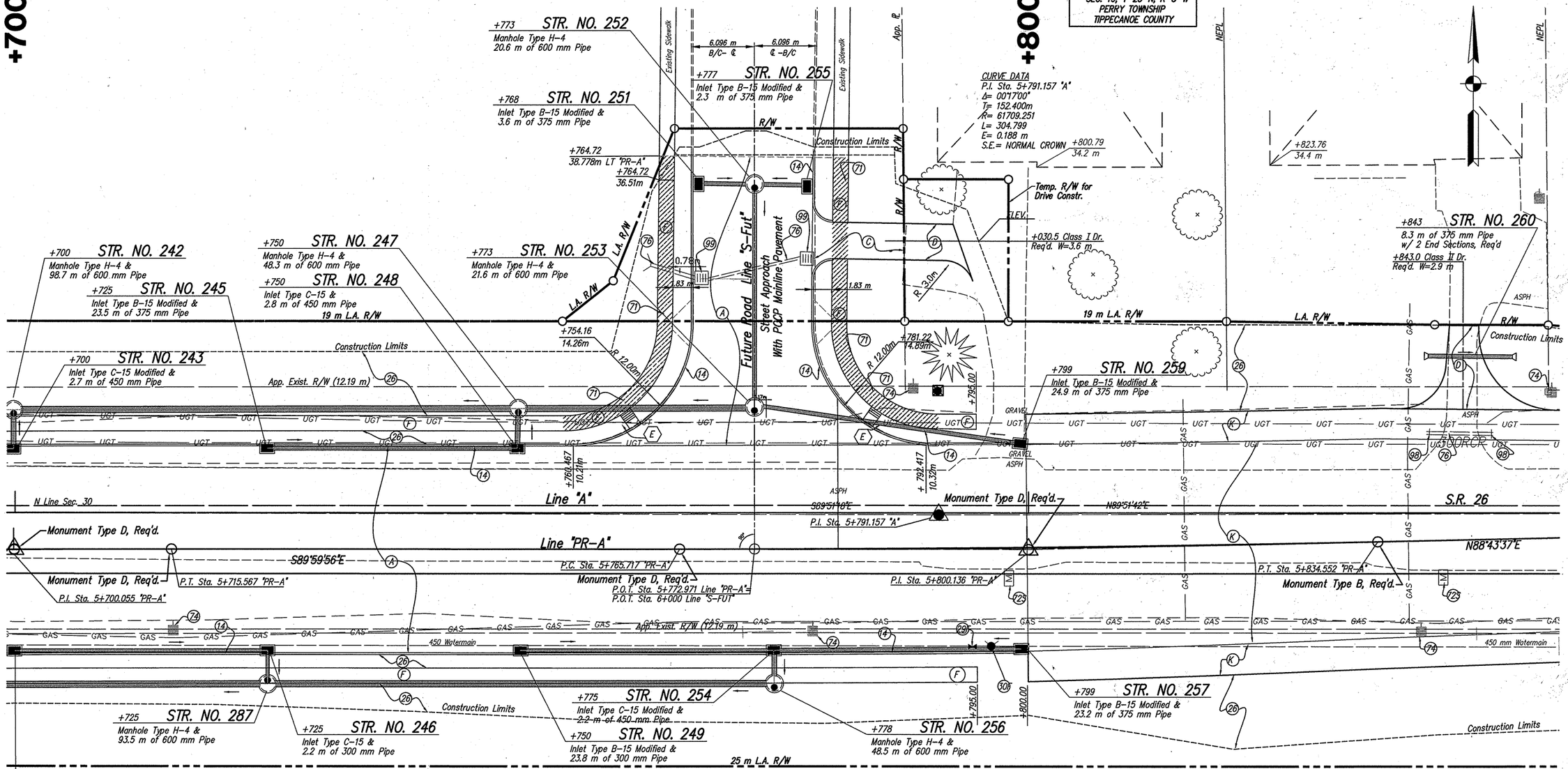

CURVE DATA
P.I. Sta. 5+700.055 "PR-A"
Δ = 00°35'33"
T = 15.511 m
R = 3,000.000 m
L = 31.023 m
E = 0.040 m
SE = NONE

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LEGEND

- (A) 300 mm QC/QA PCCP
- (C) PCCP for Approaches
- (D) HMA for Approaches, Type A
- (F) Concrete Sidewalk, 100 mm
- (K) Pavement Section, See Typical Section
- (14) Integral Concrete Curb
- (26) Sodding
- (29F) Adjust Valve To Grade, Fire Hydrant (By Others)
- (30F) Relocate Fire Hydrant (By Others)
- (71) Remove Sidewalk
- (72S) Mailbox, Assembly, Single
- (74) Relocate Power Pole (By Others)
- (76) Remove Culvert
- ⬡ Concrete Curb Ramp, As Noted
- (98) Remove Headwall
- (99) Remove Structure

CURVE DATA
P.I. STA. 5+800.136 "PR-A"
Δ = 01°18'53"
T = 34.419 m
R = 3,000.000 m
L = 68.835 m
E = 0.197 m
SE = NORMAL CROWN

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN. LINE "PR-A" TO BE CONSTRUCTED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./P.R.E./J.M.K.
CHECKED: J.J.B./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 5+700 TO 5+850 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	66 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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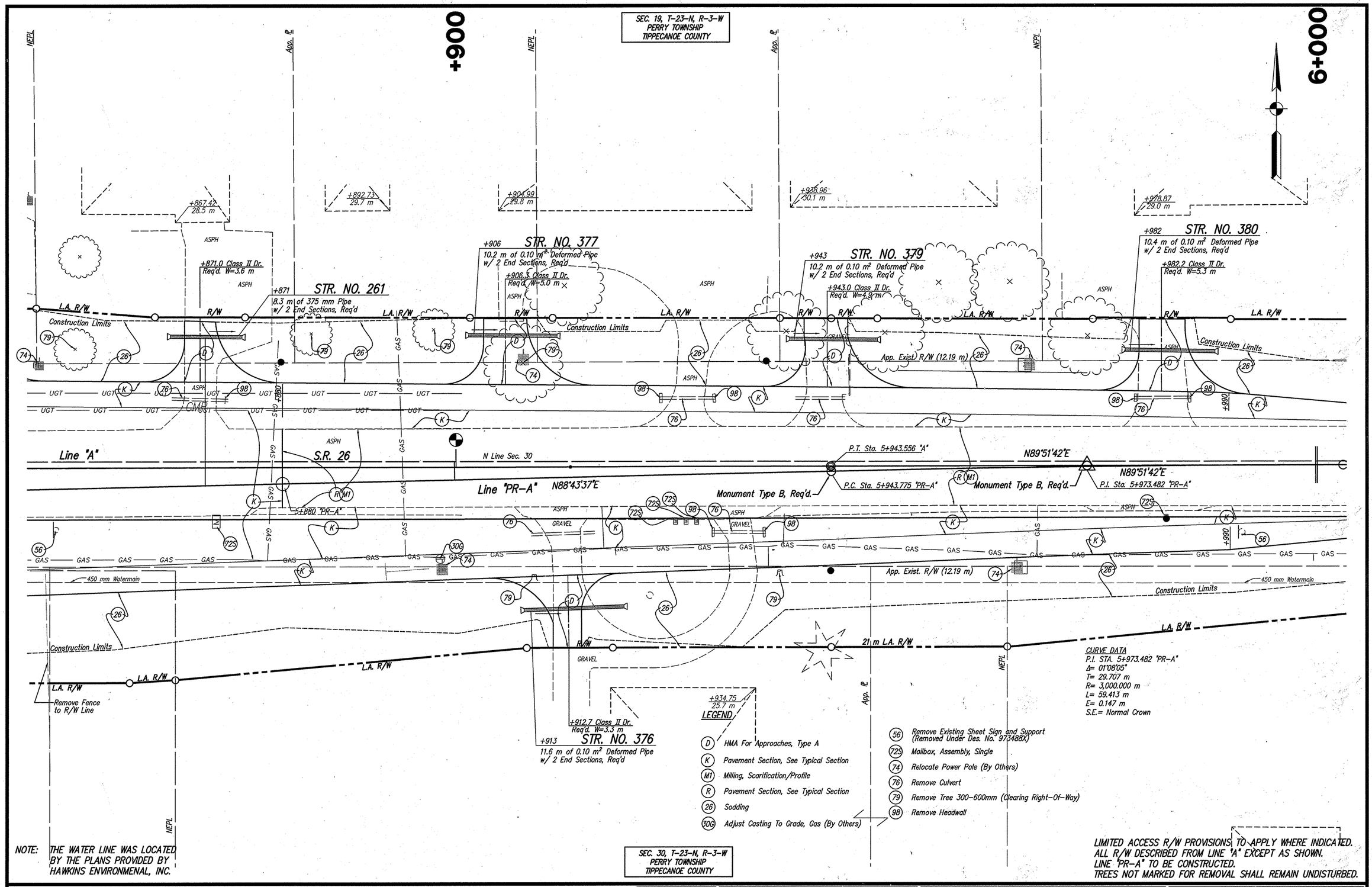

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENAL, INC.

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
LINE "PR-A" TO BE CONSTRUCTED.
TREES NOT MARKED FOR REMOVAL SHALL REMAIN UNDISTURBED.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
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Suite 2100
South Bend, Indiana 46601
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Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./J.M.K.
CHECKED: J.J.B./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 5+850 TO 6+000 LINE "PR-A"

HORIZONTAL SCALE 1:200	BRIDGE FILE
VERTICAL SCALE N/A	DESIGNATION 9134885
SURVEY BOOK	SHEETS 67 of 131
CONTRACT R-28381	PROJECT NH-L540()

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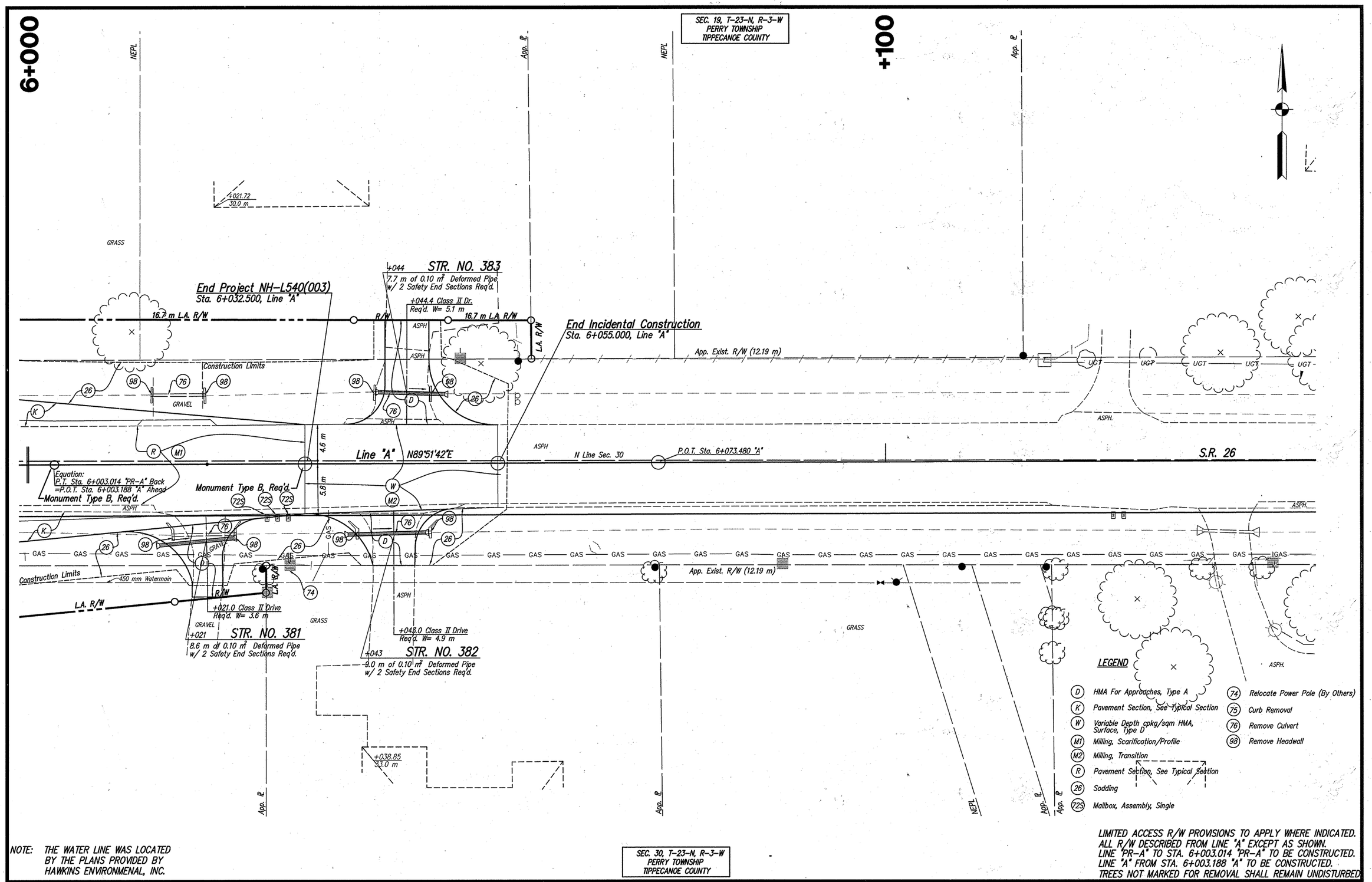

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENAL, INC.

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "A" EXCEPT AS SHOWN.
LINE "PR-A" TO STA. 6+003.014 "PR-A" TO BE CONSTRUCTED.
LINE "A" FROM STA. 6+003.188 "A" TO BE CONSTRUCTED.
TREES NOT MARKED FOR REMOVAL SHALL REMAIN UNDISTURBED

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KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./J.M.K.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 6+000 TO 6+150 LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	68 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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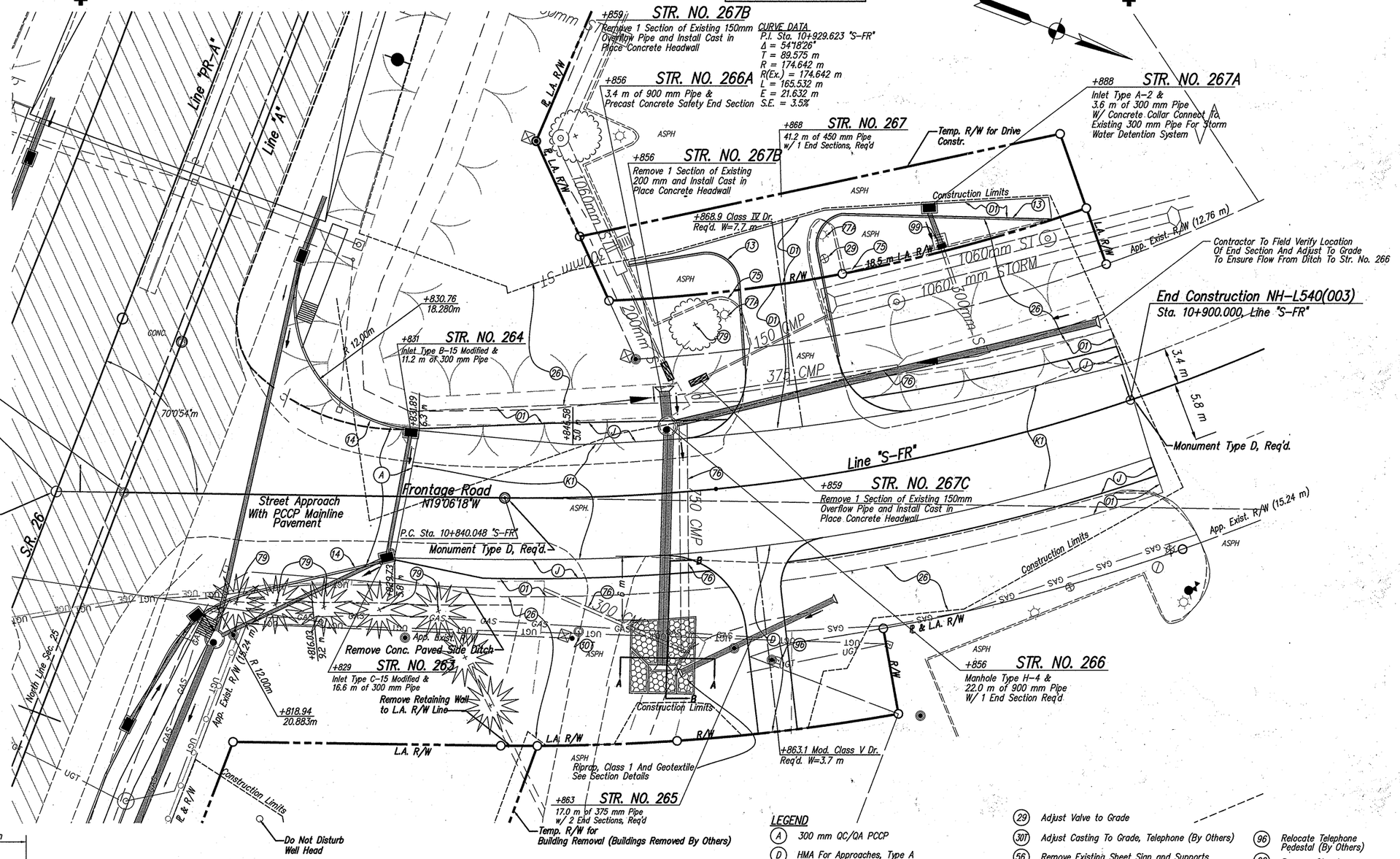
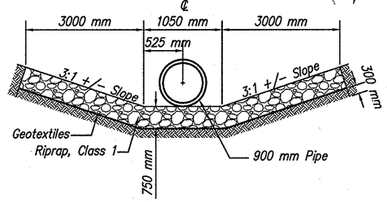
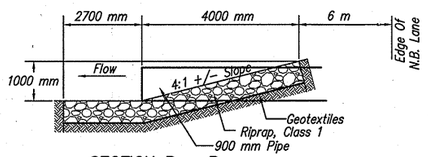
SEC. 25,T-23-N,R-4-W
FAIRFIELD TOWNSHIP
TIPPECANOE COUNTY

SEC. 24,T-23-N,R-4-W
FAIRFIELD TOWNSHIP
TIPPECANOE COUNTY





SECTION A – A



SECTION B – B

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

LEGEND

- (A) 300 mm QC/QA PCCP
- (D) HMA For Approaches, Type A
- (D1) HMA For Approaches, Type D
- (J) Pavement Section, See Typical Section
- (K1) Pavement Section, See Typical Section
- (01) Variable Depth Compacted Aggregate Base No. 53, Base
- (13) Standard Curb
- (14) Integral Concrete Curb
- (26) Sodding
- (29) Adjust Valve to Grade
- (301) Adjust Casting To Grade, Telephone (By Others)
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (75) Curb Removal
- (76) Remove Culvert
- (77A) Relocate Light Pole
- (79) Remove Tree 300 600 mm (Clearing Right-of-Way)
- (96) Relocate Telephone Pedestal (By Others)
- (99) Remove Structure
- Pavement Removal

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE "S-FR" EXCEPT AS SHOWN.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
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Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: L.R.D./R.O.N. DRAWN: D.E.B./J.M.K./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
10+797 to 10+900 LINE "S-FR"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	69 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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SEC. 25, T-23-N, R-4-W
FAIRFIELD TOWNSHIP
TIPPECANOE COUNTY

Temp. R/W for Drive Constr.
1.0m
Do Not Disturb Light Pole
+733.93 15.9 m R
29.79 m
Do Not Disturb Stop Sign
Do Not Disturb Electrical Loop Under the Drive Between the Light Pole and the Meijer Sign.
R+775.64 24.6 m
Do Not Disturb 375mm Pipe
375 mm RCP
ASPH
GRASS
+800
App. Exist. R/W
Construction Limits
P.I. Sta. 9+823.016 "S-2-PR-A"
+831.55 9.6 m
Line "S-500" Existing C.R. 500 E.
N00°26'07"W
L.A. R/W
P.O.T. Sta. 4+768.549 Line "S-500"=
P.O.C. Sta. 9+764.438 Line "S-2-PR-A"
W. Line Sec. 30
N00°26'01"W
P.C. Sta. 9+762.674
Monument Type D, Req'd.
Line "S-2-PR-A"
C.R. 500 E.
N25°20'33" E
P.O.C. Sta. 9+840.324 Line "S-2-PR-A"=
P.O.T. Sta. 10+000.000 Line "W"
+840.75 6.7 m
Begin Incidental Construction
Sta. 9+727.674 Line "S-2-PR-A"
Begin Construction
Sta. 9+775.636 Line "S-2-PR-A"
+775.64 6.6 m
+792.54 6.0 m
500 mm RCP
Construction Limits
App. Exist. R/W
Remove Sign
600mm Watermain
350mm Sanitary Forcemain
R/W
+848.17 11.52 m
+828.39 13.7 m
+852.77 15.2 m
Wolfdale Drive
Mod. Street Approach
Line "W"
S73°11'25"E
S75°12'44"E
+028.4 Class I Drive
Req'd. W= 5.2 m
+042.0 Class I Drive
Req'd. W= 5.2 m
CONC
Existing Sidewalk
R/W (10.2 m)
P.I. Sta. 10+047.660 "W"
Δ=2°01'19"
Monument Type D, Req'd.
CURVE DATA
P.I. Sta. 10+047.660 "W"
No Curve
Begin Construction
Sta. 10+051.419 Line "W"
CURVE DATA
P.I. Sta. 9+823.016 "S-2-PR-A"
Δ= 26°19'39"
T= 60.341 m
R= 258.000 m
R(Ex.)= None
L= 118.552 m
E= 6.962 m
S.E. = Normal Crown
CONC FND.
CURVE DATA
P.I. Sta. 10+047.660 "W"
Δ= 02°01'19"
No Curve
CONC FND.

LEGEND

- (C) PCCP For Approaches
- (D) HMA for Approaches, Type A
- (D1) HMA for Approaches, Type D
- (F) Concrete Sidewalk, 100 mm
- (J) Pavement Section, See Typical Section
- (K1) Pavement Section, See Typical Section
- (M2) Milling, Transition
- (01) Variable Depth Compacted Aggregate, No. ~~53~~ Base
- (R) Variable Depth (90 kg/sqm) HMA Type D, Surface
- (13) Concrete Curb
- (15) Concrete Curb and Gutter
- (26) Sodding
- (29) Adjust Valve to Grade
- (30) Adjust Casting to Grade
- (30F) Relocate Fire Hydrant (By Others)
- (56) Remove Existing Sheet Support and Sign (Removed Under Des. No. 973488X)
- (71) Remove Sidewalk
- (72S) Mailbox, Assembly, Single
- (74) Relocate Power Pole (By Others)
- (75) Curb Removal
- (76) Remove Culvert
- (77) Relocate Light Pole
- (96) Relocate Telephone Pedestal (By Others)
- Concrete Curb Ramp, As Noted

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

SEC. 30, T-23-N, R-4-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED. ALL R/W DESCRIBED FROM LINE "S-2-PR-A" EXCEPT AS SHOWN.

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M./R.O.N. DRAWN: D.E.B./J.M.K./P.R.E.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 9+725 TO 9+850 "S-2-PR-A""

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	0200656
SURVEY BOOK	SHEETS
16519	70 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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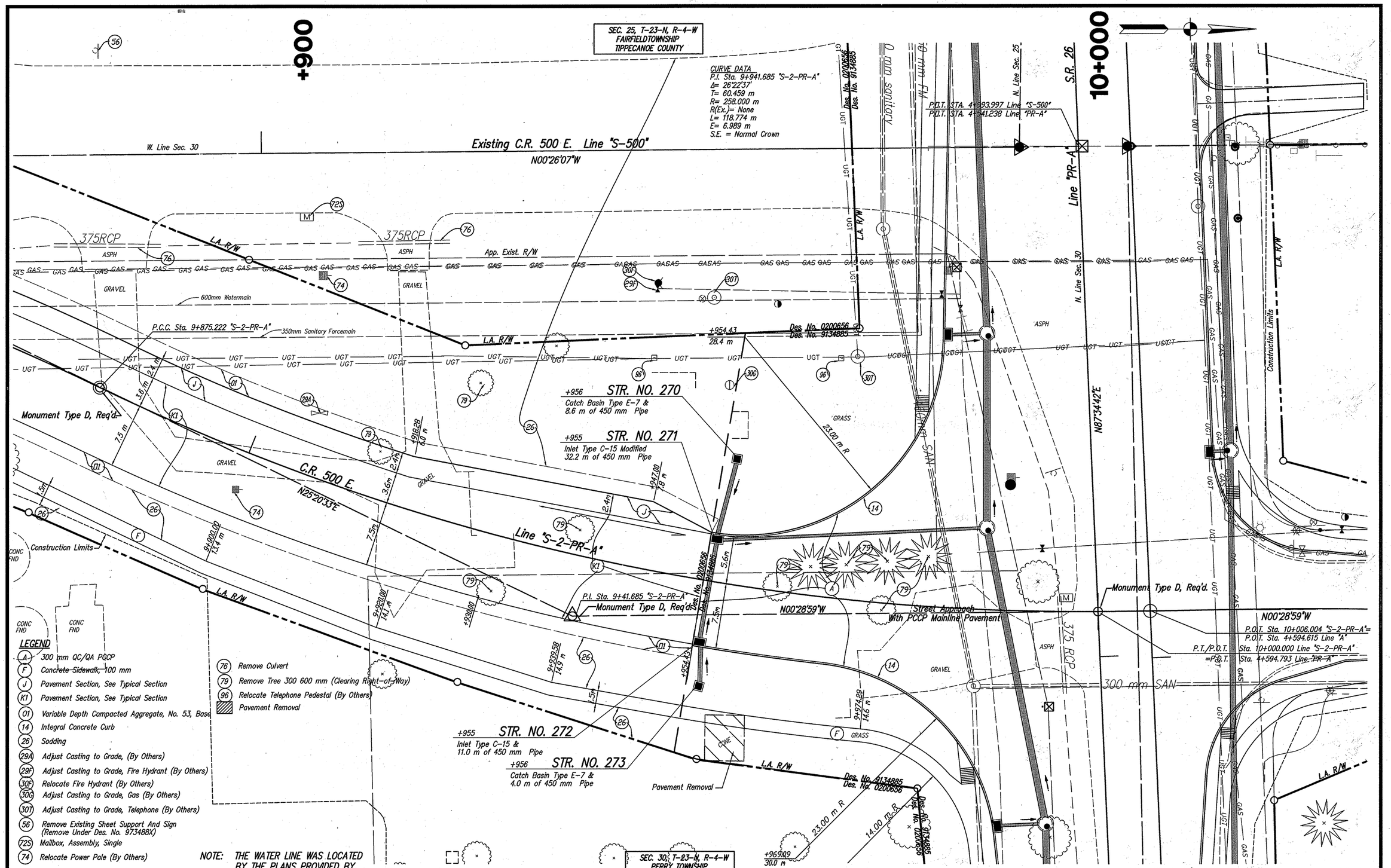

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS

211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH R. HERCEG
REGISTERED
No. 15423
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: D.N.M. DRAWN: D.E.B./J.M.K.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 9+850 TO 10+000 "S-2-PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885/0200656
SURVEY BOOK	SHEETS
16519	71 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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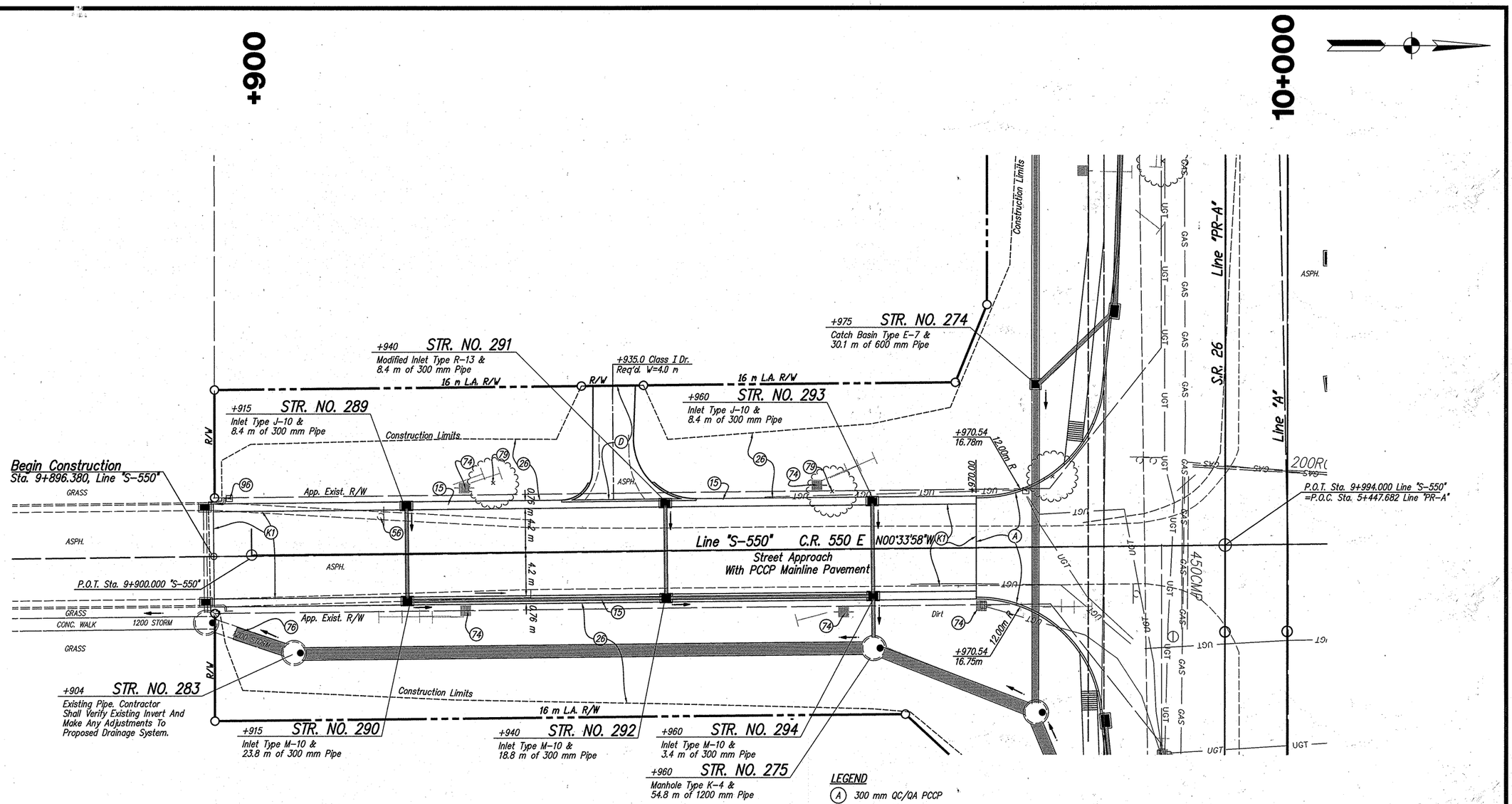

LEGEND

- (A) 300 mm QC/QA PCCP
- (D) HMA For Approaches, Type A
- (K1) Pavement Section, See Typical Section
- (15) Concrete Curb & Gutter
- (26) Sodding
- (56) Remove Existing Sheet Sign and Supports (Removed Under Des. No. 973488X)
- (74) Relocate Power Pole (By Others)
- (76) Remove Culvert
- (79) Remove Tree 300 – 600 mm (Clearing Right-Of-Way)
- (96) Relocate Telephone Pedestal(By Others)

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

SEC. 30, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "S-550" EXCEPT AS SHOWN

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4560
Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: C.A.K./R.O.N. DRAWN: D.E.B./J.M.K.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 9+896 to 10+000 LINE "S-550"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
16519	72 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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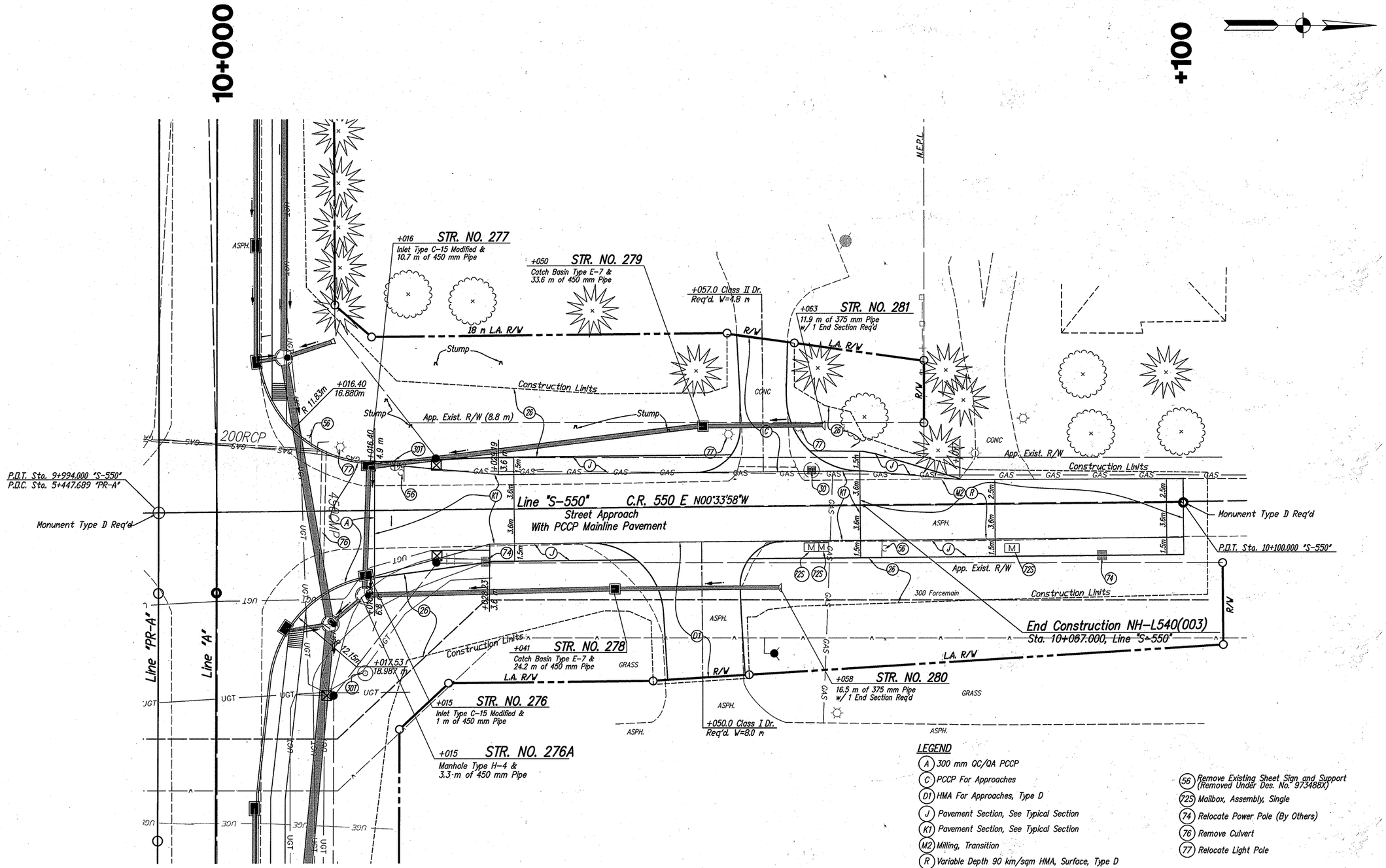

LEGEND

- (A) 300 mm QC/QA PCCP
- (C) PCCP For Approaches
- (D1) HMA For Approaches, Type D
- (J) Pavement Section, See Typical Section
- (K1) Pavement Section, See Typical Section
- (M2) Milling, Transition
- (R) Variable Depth 90 km/sqm HMA, Surface, Type D
- (26) Sodding
- (30) Adjust Casting to Grade
- (301) Adjust Casting To Grade, Telephone (By Others)
- (56) Remove Existing Sheet Sign and Support (Removed Under Des. No. 973488X)
- (725) Mailbox, Assembly, Single
- (74) Relocate Power Pole (By Others)
- (76) Remove Culvert
- (77) Relocate Light Pole

NOTE: THE WATER LINE WAS LOCATED BY THE PLANS PROVIDED BY HAWKINS ENVIRONMENTAL, INC.

SEC. 19, T-23-N, R-3-W
PERRY TOWNSHIP
TIPPECANOE COUNTY

LIMITED ACCESS R/W PROVISIONS TO APPLY WHERE INDICATED.
ALL R/W DESCRIBED FROM LINE "S-550" EXCEPT AS SHOWN

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 7/10/06

DESIGNED: D.N.M. DRAWN: D.E.B.
CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 10+000 to 10+100 LINE "S-550"

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	73 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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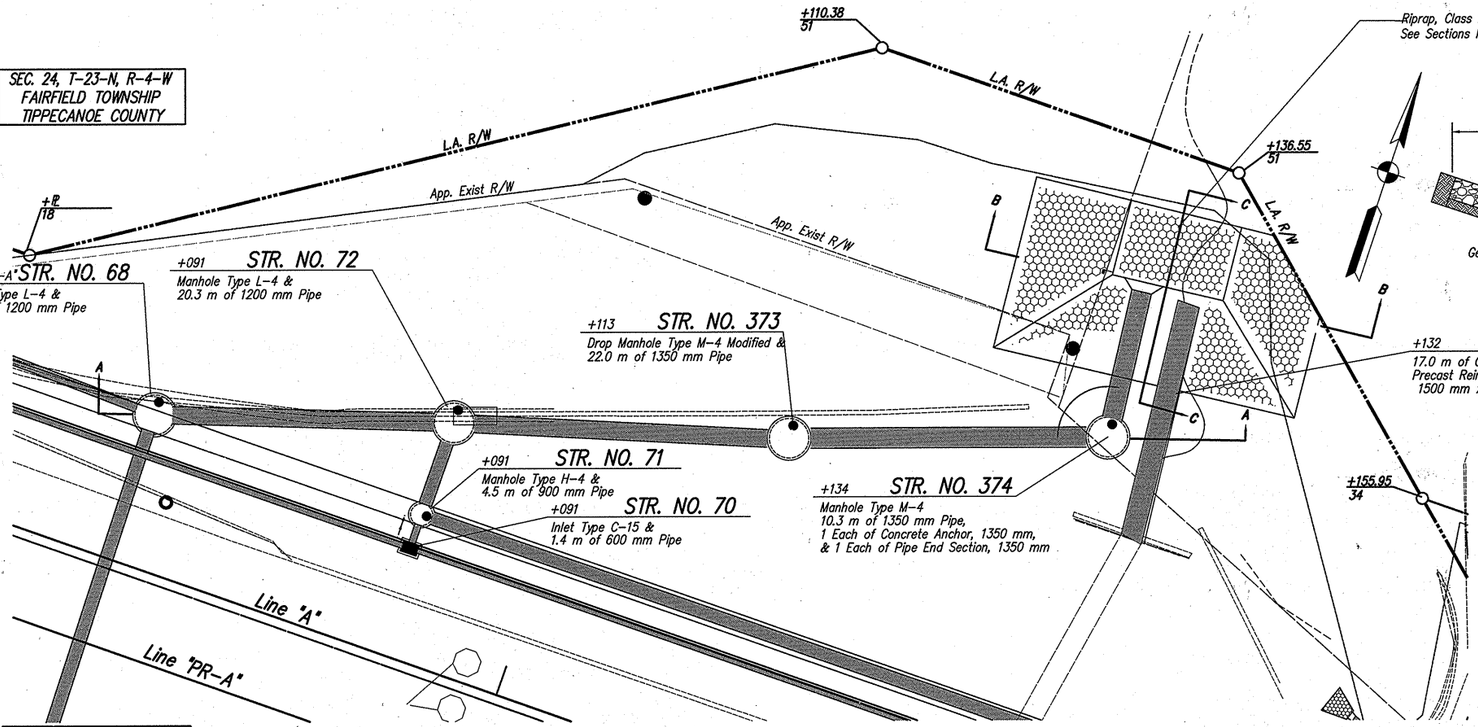
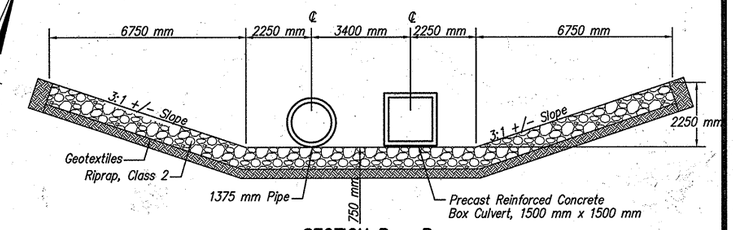
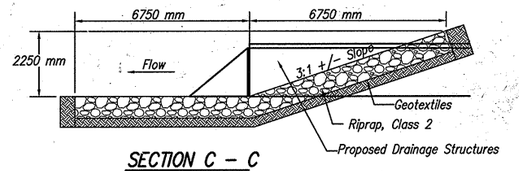


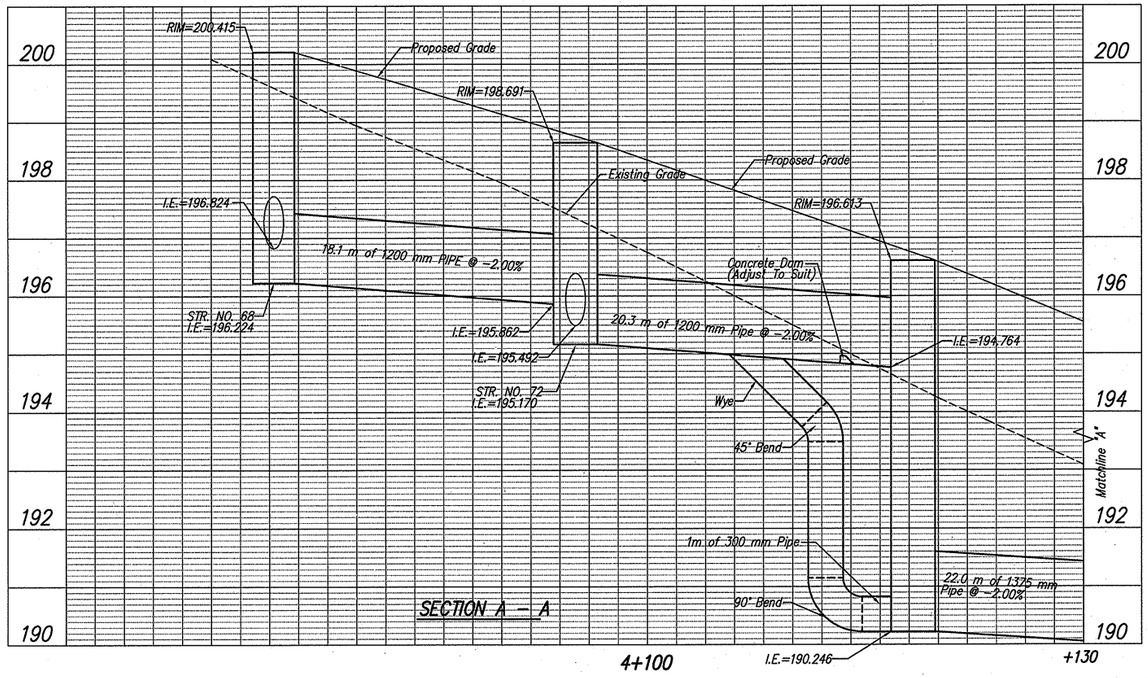
WEST END OUTFALL DETAIL
SCALE 1:200



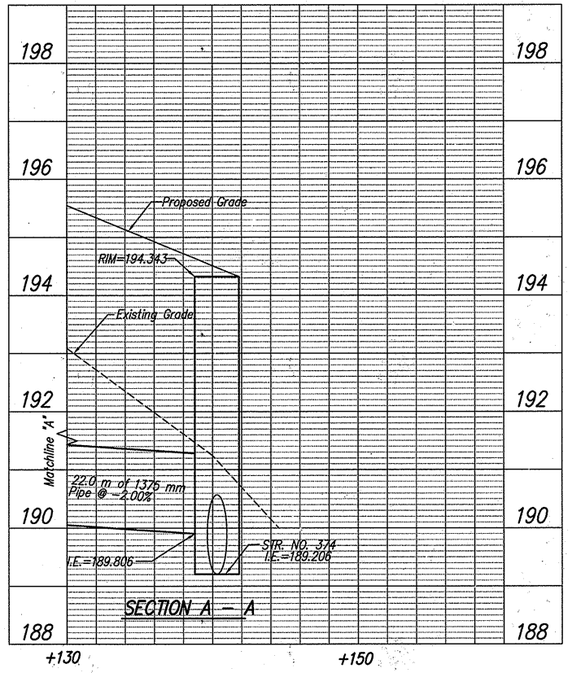
SECTION B – B
Note: All Dimensions are in Millimeters
Unless Otherwise Noted.



SECTION C – C
Note: All Dimensions are in Millimeters
Unless Otherwise Noted.



SECTION A – A



SECTION A – A

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	8/7/06 DATE
DESIGNED: D.N.M./R.O.N.	DRAWN: D.E.B./P.R.E./J.M.K.	
CHECKED: R.J.F./R.O.N.	CHECKED: C.A.K./R.O.N.	

INDIANA
DEPARTMENT OF TRANSPORTATION

WEST OUTFALL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1:200	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
	74 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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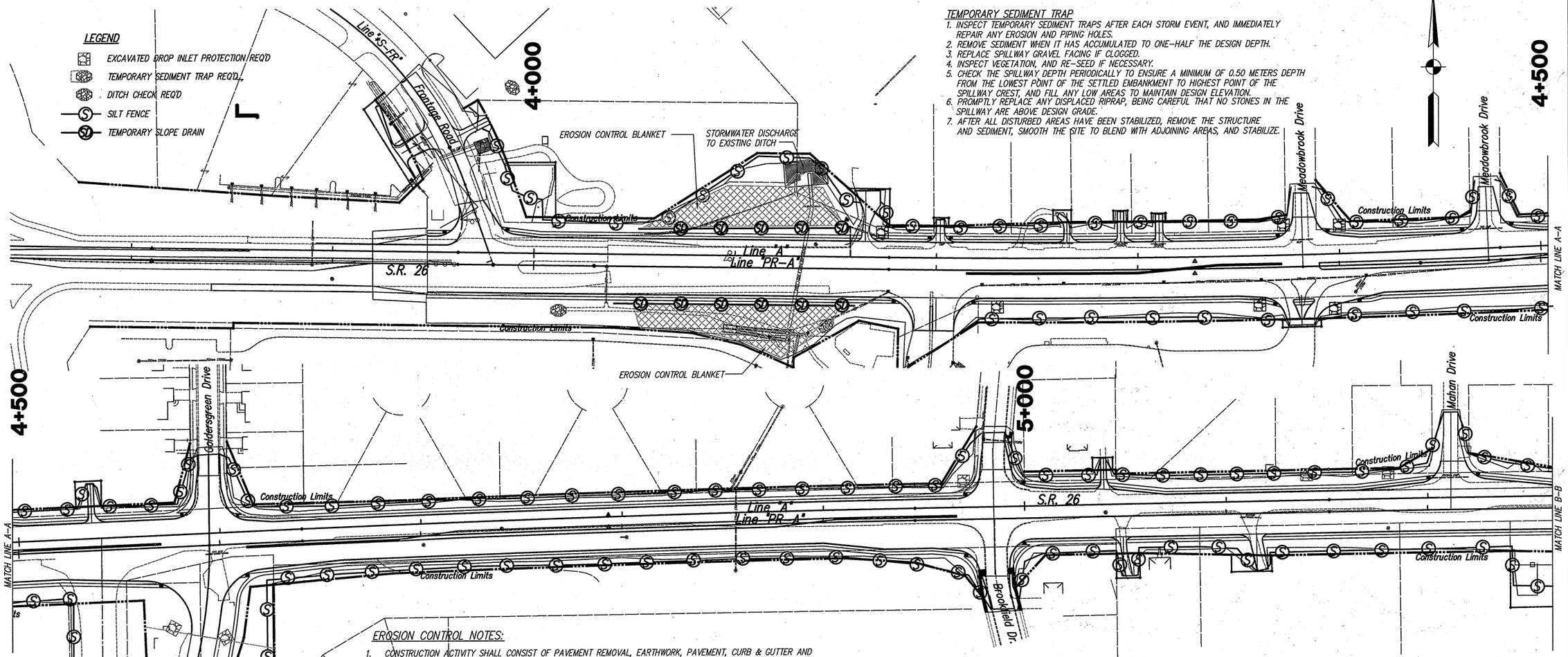

TEMPORARY SEDIMENT TRAP

1. INSPECT TEMPORARY SEDIMENT TRAPS AFTER EACH STORM EVENT, AND IMMEDIATELY REPAIR ANY EROSION AND PIPING HOLES.
2. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH.
3. REPLACE SPILLWAY GRAVEL FACING IF CLOGGED.
4. INSPECT VEGETATION, AND RE-SEED IF NECESSARY.
5. CHECK THE SPILLWAY DEPTH PERIODICALLY TO ENSURE A MINIMUM OF 0.50 METERS DEPTH FROM THE LOWEST POINT OF THE SETTLED EMBANKMENT TO HIGHEST POINT OF THE SPILLWAY CREST, AND FILL ANY LOW AREAS TO MAINTAIN DESIGN ELEVATION.
6. PROMPTLY REPLACE ANY DISPLACED RIPRAP, BEING CAREFUL THAT NO STONES IN THE SPILLWAY ARE ABOVE DESIGN GRADE.
7. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, REMOVE THE STRUCTURE AND SEDIMENT, SMOOTH THE SITE TO BLEND WITH ADJOINING AREAS, AND STABILIZE.

EROSION CONTROL NOTES:

1. CONSTRUCTION ACTIVITY SHALL CONSIST OF PAVEMENT REMOVAL, EARTHWORK, PAVEMENT, CURB & GUTTER AND STORM SEWER.
2. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING EROSION AND SEDIMENT MIGRATION FROM THE SITE.
3. THE CONTRACTOR SHALL USE SILT FENCES AS SHOWN ON THE PLANS AND WHERE DEEMED NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
4. TEMPORARY OR PERMANENT SURFACE STABILIZATION IS REQUIRED ON ANY BARE OR THINLY VEGETATED AREA THAT IS SCHEDULED OR LIKELY TO REMAIN INACTIVE FOR A PERIOD OF 15 DAYS OR MORE. PERMANENT SEEDING SHALL BE INDOT TYPE "R" MIX.
5. ~~THE CONTRACTOR SHALL TAKE MEASURES NECESSARY TO PREVENT SEDIMENT RUNOFF FROM ENTERING THE STORM SEWERS.~~
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SEDIMENT THAT HAS LEFT THE SITE AND FOR CLEANING ALL SEDIMENT FROM DRAINAGE STRUCTURES.
7. ADJACENT LAND USE TO THE SITE IS URBAN RESIDENTIAL ON THE EAST AND NORTHEAST PORTION OF THE SITE AND IT IS URBAN COMMERCIAL FOR THE WEST AND SOUTHEAST PORTION OF THE SITE.
8. ENTIRE SITE CONSISTS OF LOAM SOIL.
9. RIPRAP IS PLANNED AROUND ALL PROPOSED STORMWATER OUTFALLS AND AROUND EXISTING OUTFALLS WHERE SIGNIFICANT BANK SCOURING HAS OCCURRED.
10. EXISTING VEGETATIVE COVER SHALL BE PRESERVED IN AREAS NOT DISTURBED BY CONSTRUCTION ACTIVITY.
11. ALL EXCESS SOIL SHALL BE STOCKPILED. CONTRACTOR SHALL CONTACT THE LOCAL SOIL AND WATER CONSERVATION DISTRICT WITH LOCATIONS OF PROPOSED SOIL STOCKPILES, BORROW, AND/OR DISPOSAL SITES UNLESS THE AREA IS LOCATED AT A COMMERCIALLY OPERATED FACILITY OFF-SITE.
12. BORROW SHALL BE BROUGHT FROM OFF-SITE.
13. ALL APPLICABLE EROSION CONTROL MEASURES SHALL BE PLACED BEFORE ANY LAND DISTURBING ACTIVITIES. PERMANENT SEEDING AND/OR INSTALLATION OF EROSION CONTROL BLANKETS IS TO OCCUR IMMEDIATELY AFTER FINAL GRADING. SEDIMENT CONTROL MEASURES MAY BE REMOVED ONCE PERMANENT VEGETATION HAS BECOME FULLY ESTABLISHED.
14. TEMPORARY SEEDING SHALL BE INDIANA DEPARTMENT OF TRANSPORTATION (INDOT) TYPE "T", CONVENTIONAL MIX.
15. ~~TEMPORARY OR PERMANENT SURFACE~~ STABILIZATION IS REQUIRED ON ANY BARE OR THINLY VEGETATED AREA THAT IS SCHEDULED OR LIKELY TO REMAIN INACTIVE FOR A PERIOD OF 15 DAYS OR MORE.
16. EARTHWORK SHALL BE PERFORMED BY APPROPRIATE EXCAVATING EQUIPMENT TAKING CARE NOT TO DAMAGE ANY TREES NOT IDENTIFIED FOR REMOVAL.
17. WOOD CELLULOSE FIBER MULCH SHALL BE APPLIED AND ANCHORED AT 4.5 MG/HA EXCEPT IN AREAS WHERE AN EROSION CONTROL BLANKET IS USED. WOOD CELLULOSE FIBER SHALL BE APPLIED BY HAND OR MACHINE.
18. THIS AREA IS NOT LOCATED WITHIN THE 100 YEAR FLOOD PLAIN.
19. CONTRACTOR SHALL FOLLOW MANUFACTURER'S REQUIREMENTS FOR EROSION CONTROL MEASURES WHERE THEY EXCEED THE REQUIREMENTS OF THESE PLANS.
20. THE IMPLEMENTATION AND MAINTENANCE REQUIREMENTS FOR EROSION CONTROL TECHNIQUES SHOWN ON THIS EROSION CONTROL SHEET ARE SUPPLEMENTED BY THE INDOT STANDARD DRAWINGS AND 2006 SPECIFICATIONS. FOR LOCATIONS OF EROSION CONTROL DEVICES, SEE THE TABLES AND PLAN DRAWING SHOWN ON THE EROSION CONTROL SHEET.
21. ALL STORMWATER RUNOFF WILL EVENTUALLY DISCHARGE INTO WILDCAT CREEK.

(CONTINUED ON NEXT EROSION CONTROL SHEET)

SILT FENCE MAINTENANCE REQUIREMENTS

1. INSPECT THE SILT FENCE, SLOPE DRAINS, & BLANKETS PERIODICALLY AND AFTER EACH STORM EVENT.
2. IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY.
3. REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
4. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEAN OUT.
5. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED REMOVE THE FENCE AND SEDIMENT DEPOSITS, BRING THE DISTURBED AREA TO GRADE, AND STABILIZE.

RIPRAP MAINTENANCE REQUIREMENTS

1. INSPECT PERIODICALLY FOR DISPLACED ROCK MATERIAL, SLUMPING, AND EROSION AT EDGES, ESPECIALLY DOWNSTREAM OR DOWNSLOPE.

INLET PROTECTION

1. INSPECT THE INLET PROTECTION AFTER STORM EVENTS, AND MAKE NEEDED REPAIRS IMMEDIATELY.
2. REMOVE SEDIMENT FROM THE POOL AREA TO PROVIDE STORAGE FOR THE NEXT STORM.
3. WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE AND PROPERLY DISPOSE OF ALL CONSTRUCTION MATERIAL AND SEDIMENT, GRADE THE AREA TO THE ELEVATION OF THE TOP OF THE INLET, THEN STABILIZE.

EROSION CONTROL BLANKET (SURFACE APPLIED) MAINTENANCE REQUIREMENTS

1. DURING INSTALLATION BE CERTAIN THAT BLANKET MAKES 100% CONTACT WITH THE STABILIZED AREA.
2. DURING VEGETATIVE ESTABLISHMENT INSPECT AFTER STORM EVENTS FOR ANY EROSION BELOW THE BLANKET.
3. IF ANY AREA SHOWS EROSION PULL BACK THAT PORTION OF THE BLANKET COVERING IT, ADD SOIL, AND RE-LAY AND STAPLE THE BLANKET.
4. AFTER VEGETATIVE ESTABLISHMENT CHECK THE TREATED AREA PERIODICALLY.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE MAINTENANCE REQUIREMENTS

1. INSPECT ENTRANCE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER STORM EVENTS OR HEAVY USE.
2. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
3. TOPDRESS WITH CLEAN STONE AS NEEDED.
4. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING.
5. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY.

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CHECKED: R.J.F. CHECKED: C.A.K.

INDIANA DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAIL

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	
VERTICAL SCALE	DESIGNATION
	9134885
SURVEY BOOK	SHEETS
16519	75 of 131
CONTRACT	PROJECT
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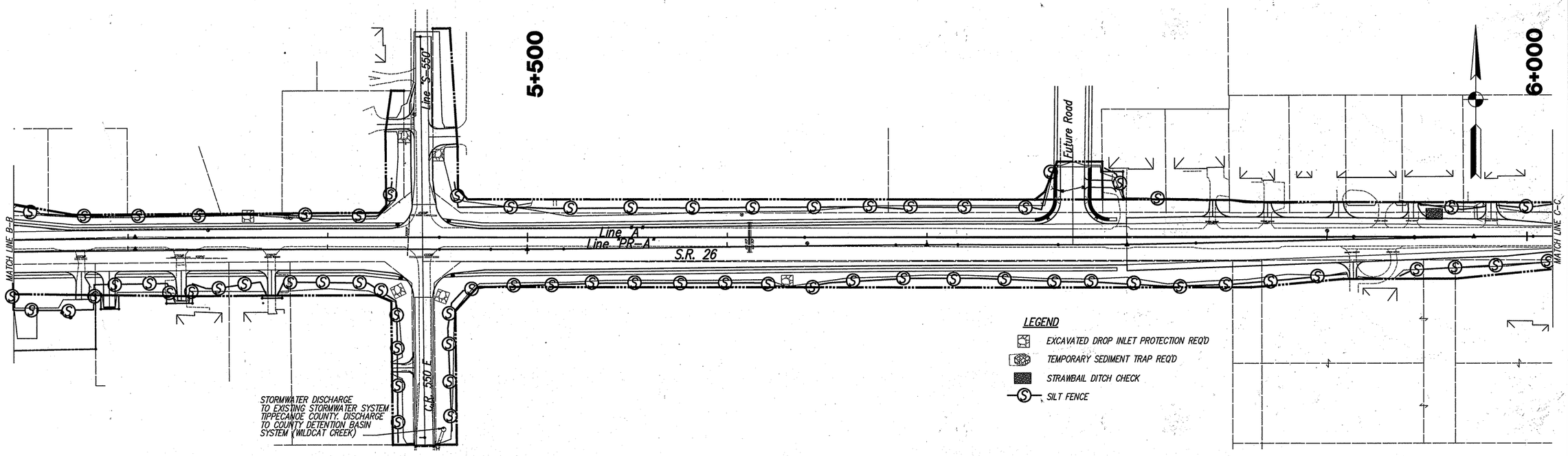

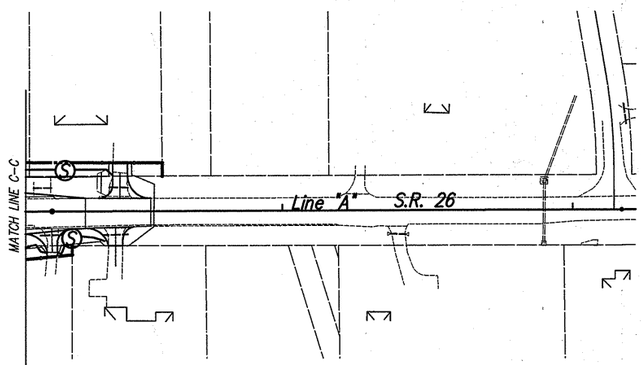

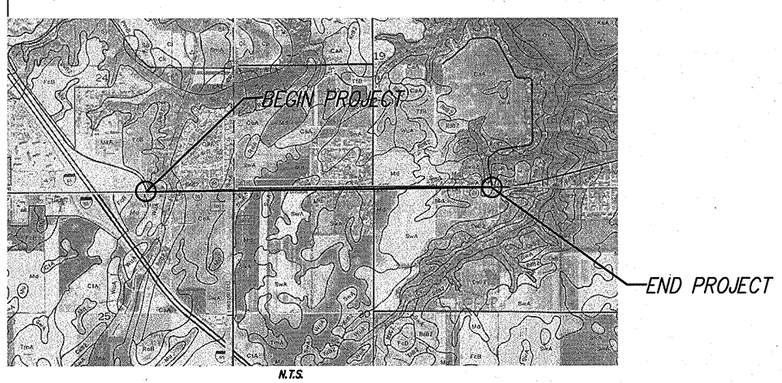

N.T.S.

TEMP. CHECK DAM, STRAW BALE

LINE "PR-A"	
5+800 TO 6+020. LT.	220 m

DITCH SEDIMENT TRAP

LINE "PR-A"	
3+950	201.6 Mg

TEMPORARY CHECK DAM, RIPRAP

FROM	TO	LT./RT.	LENGTH (m)	RIPRAP(Mg)
LINE "PR-A"				
3+830	3+950	LT.	120	104
3+830	4+370	RT.	540	250
LINE "S-FR"				
10+880	10+900	LT.	20	107
10+870	10+900	RT.	30	61
TOTAL				522 Mg

EXCAVATED DROP INLET PROTECTION

LOCATION	EACH
STR. 97	1
STR. 98	1
STR. 104	1
STR. 105	1
STR. 116	1
STR. 119	1
STR. 162	1
STR. 176	1
STR. 182	1
STR. 208	1
STR. 239	1
STR. 270	1
STR. 273	1
STR. 274	1
STR. 278	1
STR. 279	1
STR. 282	1
TOTAL =	17 EACH

TEMPORARY EROSION AND SEDIMENT CONTROL SILT FENCES

FROM	TO	LT./RT.	LENGTH (m)
LINE "PR-A"			
3+990	6+040	LT.	2,095
4+215	6+040	RT.	1,820
LINE "S-FR"			
3+810	3+860	RT.	50
LINE "S-2-PR-A"			
9+770	9+985	LT.	190
9+770	9+985	RT.	230
LINE "S-550"			
9+895	9+975	LT.	80
9+895	9+975	RT.	80
TOTALS =			4,545 m

SOIL TYPES:

CaA – CAMDEN SILT-LOAM, 0 TO 2% SLOPES
CwB2 – CROSBY-MIAMI COMPLEX, 2 TO 6% SLOPES, ERODED
FcB – FINCASTLE-CROSBY COMPLEX, 1 TO 3% SLOPES
Md – MAHASVILLE SILTY CLAY LOAM, GRAVELY SUBSTRATUM
SwA – STARKS-FINCASTLE COMPLEX, 0 TO 2% SLOPES
SyF – STRAWN-RODMAN COMPLES, 18 TO 50% SLOPES
RdB2 – RICHARDVILLE SILT LOAM, 2 TO 6% SLOPES, ERODED
WuA – WHITAKER LOAM, TILL SUBSTRATUM, 0 TO 2% SLOPES

EROSION CONTROL NOTES:

(CONTINUED FROM PREVIOUS EROSION CONTROL SHEET)

22. HYDROLOGIC UNIT CODES = 52120107050010 & 051200107040140
23. NO KNOWN OFF SITE CONSTRUCTION ACTIVITIES ARE ASSOCIATED WITH THIS PROJECT.
24. POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES ARE PRIMARILY EXPOSED SOILS. ALL OTHER POLLUTANT SOURCES ARE ASSOCIATED WITH CONSTRUCTION EQUIPMENT AND ARE CONSIDERED MINIMAL. CONTRACTOR SHALL MAINTAIN EQUIPMENT AND AVOID FUEL SPILLAGE AND LEAKAGES. ADVERSE EFFECTS OF EXPOSED SOIL SHALL BE MINIMIZED BY APPROPRIATE MEASURES SHOWN IN THESE PLANS AND INDOT STANDARD DRAWINGS AND SPECIFICATIONS.
25. IN THE EVENT OF SPILLS ON SITE, CONTRACTOR SHALL CLEAN THE EFFECTED AREA BY APPROVED METHODS. CONTACT IDEM OFFICE OF LAND QUALITY (1-888-672-8323) FOR DETAILS. CONTRACTOR SHALL BE REQUIRED TO FOLLOW INDOT SPECIFICATION 108.03 FOR ALL POLLUTANTS, INCLUDING BUT NOT LIMITED TO FUELS, LUBRICANTS, ASPHALTS, RAW SEWAGE & CONCRETE WASTE.
26. THE PROJECT SITE OWNER OR THEIR REPRESENTATIVE, KNOWLEDGABLE IN EROSION AND SEDIMENT CONTROL, SHALL INSPECT THE SITE FOR STORMWATER POLLUTION PREVENTION DEFICIENCIES AT LEAST WEEKLY AND AGAIN WITHIN 24 HOURS OF EVERY RAIN EVENT EQUAL TO OR IN EXCESS OF 1/2 INCH.
27. THE PROJECT SITE OWNER OR THEIR REPRESENTATIVE, KNOWLEDGEABLE IN EROSION AND SEDIMENT CONTROL SHALL BE RESPONSIBLE FOR COMPLIANCE TO 327-IAC-15-5-6.5-8A.
28. POTENTIAL POST CONSTRUCTION POLLUTANTS ASSOCIATED WITH THIS PROJECT INCLUDE, BUT ARE NOT LIMITED TO: DEICING AGENTS, OIL, GREASE, ANTIFREEZE, BREAK FLUID, BREAK DUST, RUBBER FRAGMENTS, GASOLINE, DIESEL FUEL AND OTHER HYDROCARBONS, METALS FROM VEHIGULAR AND OTHER SOURCES, GRIT FROM WEARING OF THE ROAD SURFACE AND FALLING OFF OF VEHICLES, TRASH (INCLUDING BACTERIA AND OTHER BIOLOGICAL AGENTS CONTAINED IN THE TRASH) FROM LITTERING AND OTHER TYPES OF IMPROPER DISPOSAL OR STORAGE, AND ELEVATED RECEIVING WATER TEMPERATURES FROM STORMWATER RUNOFF CONTACT WITH IMPERVIOUS SURFACES.
29. THE IMPLEMENTATION AND MAINTENANCE OF POST-CONSTRUCTION STORMWATER QUALITY MEASURES SHALL BECOME THE RESPONSIBILITY OF THE TIPPECANOE COUNTY MS4 OPERATORS UPON COMPLETION OF CONSTRUCTION ACTIVITIES.
30. THERE ARE NO APPARENT AREAS NEAR THE PROJECT WHERE STORMWATER MAY DIRECTLY ENTER THE GROUNDWATER.
31. PEAK DISCHARGE FOR A 10 YEAR RETURN PERIOD, 1 HOUR DURATION STORM IS 13.4 CFS FOR PRE-CONSTRUCTION CONDITIONS & 13.8 CFS FOR POST-CONSTRUCTION CONDITIONS.
32. ALL APPLICABLE EROSION CONTROL MEASURES SHALL BE PLACED BEFORE ANY LAND DISTURBING ACTIVITIES. SODDING AND/OR INSTALLATION OF EROSION CONTROL BLANKETS IS TO OCCUR IMMEDIATELY AFTER FINAL GRADING. SEDIMENT CONTROL MEASURES MAY BE REMOVED ONCE PERMANENT VEGETATION HAS BECOME FULLY ESTABLISHED.
33. PER THE INDOT ENVIROMENTAL REPORT FOR THIS PROJECT, THE FOLLOWING WATER FEATURES WERE DISCOVERED:
    A. NO WETLANDS ARE EXPECTED TO BE ADVERSELY AFFECTED BY THE PROJECT.
34. STORM SEWER WILL DISCHARGE AT STA. 4+150 INTO EXISTING DITCH, AND AT STA. 5+450 INTO TIPPECANOE COUNTY DETENTION BASIN SYSTEM.
35. NO WETLANDS, LAKES, OR WATERCOURSES ARE ON OR ADJACENT TO THE PROJECT SITE.
36. NO STATE OR FEDERAL WATER QUALITY PERMITS ARE NEEDED.

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CHECKED: R.J.F. CHECKED: C.A.K.

INDIANA DEPARTMENT OF TRANSPORTATION

EROSION CONTROL DETAIL

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	
VERTICAL SCALE	DESIGNATION
	9134885
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
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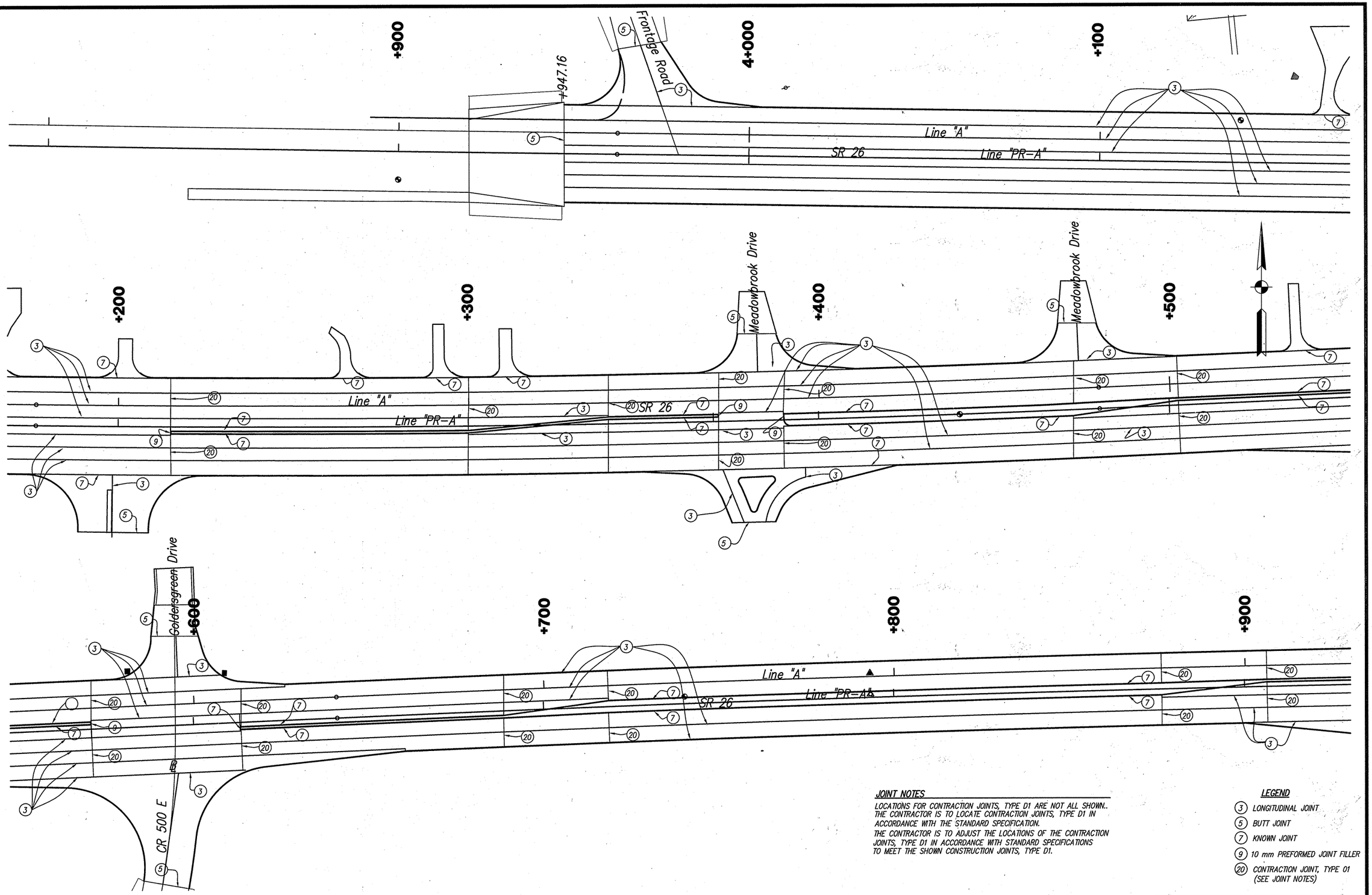

JOINT NOTES

LOCATIONS FOR CONTRACTION JOINTS, TYPE D1 ARE NOT ALL SHOWN. THE CONTRACTOR IS TO LOCATE CONTRACTION JOINTS, TYPE D1 IN ACCORDANCE WITH THE STANDARD SPECIFICATION.

THE CONTRACTOR IS TO ADJUST THE LOCATIONS OF THE CONTRACTION JOINTS, TYPE D1 IN ACCORDANCE WITH STANDARD SPECIFICATIONS TO MEET THE SHOWN CONSTRUCTION JOINTS, TYPE D1.

LEGEND

- (3) LONGITUDINAL JOINT
- (5) BUTT JOINT
- (7) KNOWN JOINT
- (9) 10 mm PREFORMED JOINT FILLER
- (20) CONTRACTION JOINT, TYPE 01 (SEE JOINT NOTES)

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INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT JOINT DETAIL
STA. 3+800 TO STA. 4+925 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
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VERTICAL SCALE	DESIGNATION
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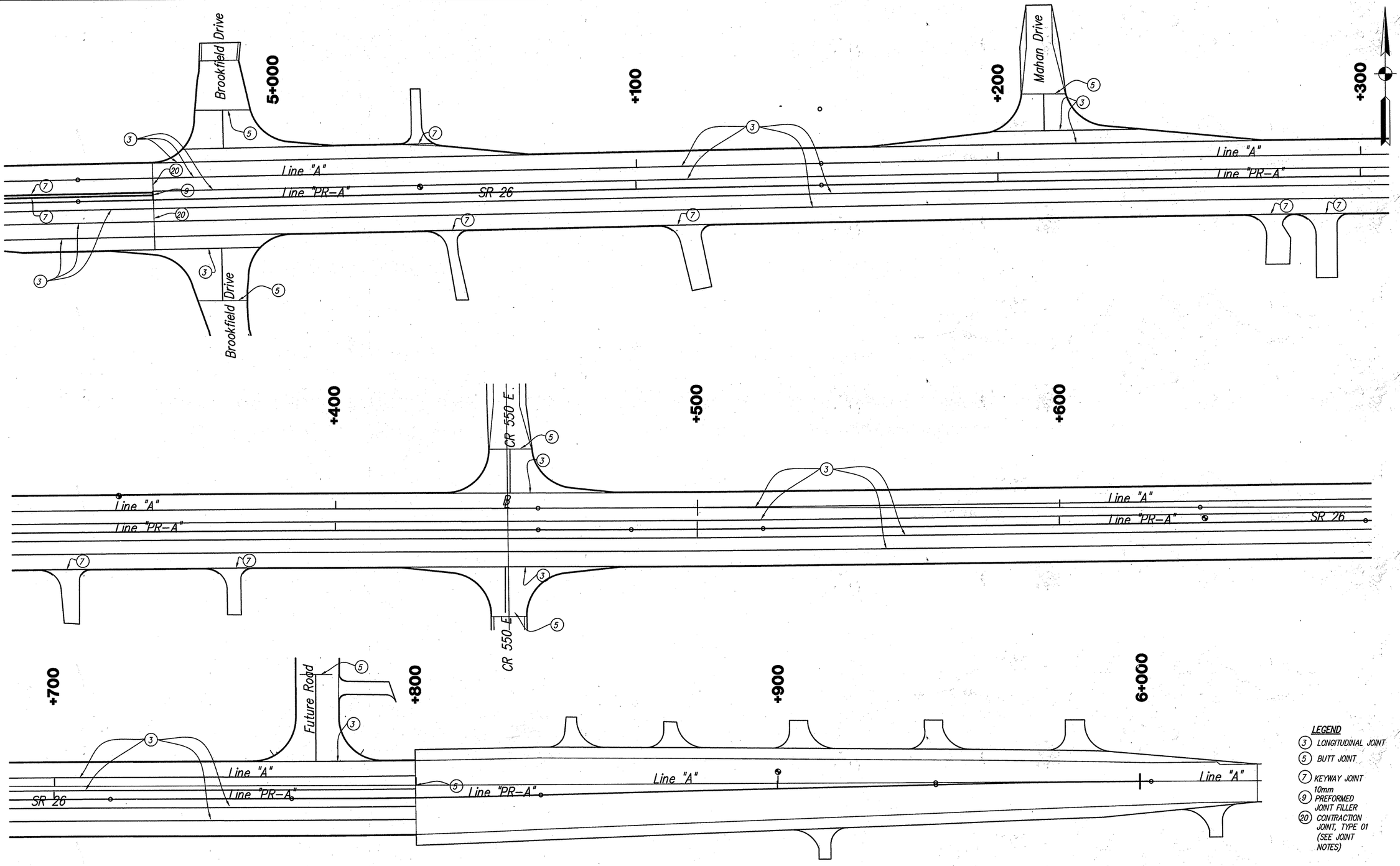

LEGEND

- (3) LONGITUDINAL JOINT
- (5) BUTT JOINT
- (7) KEYWAY JOINT
- (9) 10mm PREFORMED JOINT FILLER
- (20) CONTRACTION JOINT, TYPE 01 (SEE JOINT NOTES)

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INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE PAVEMENT JOINT DETAIL
STA. 4+925 TO STA. 6+000 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
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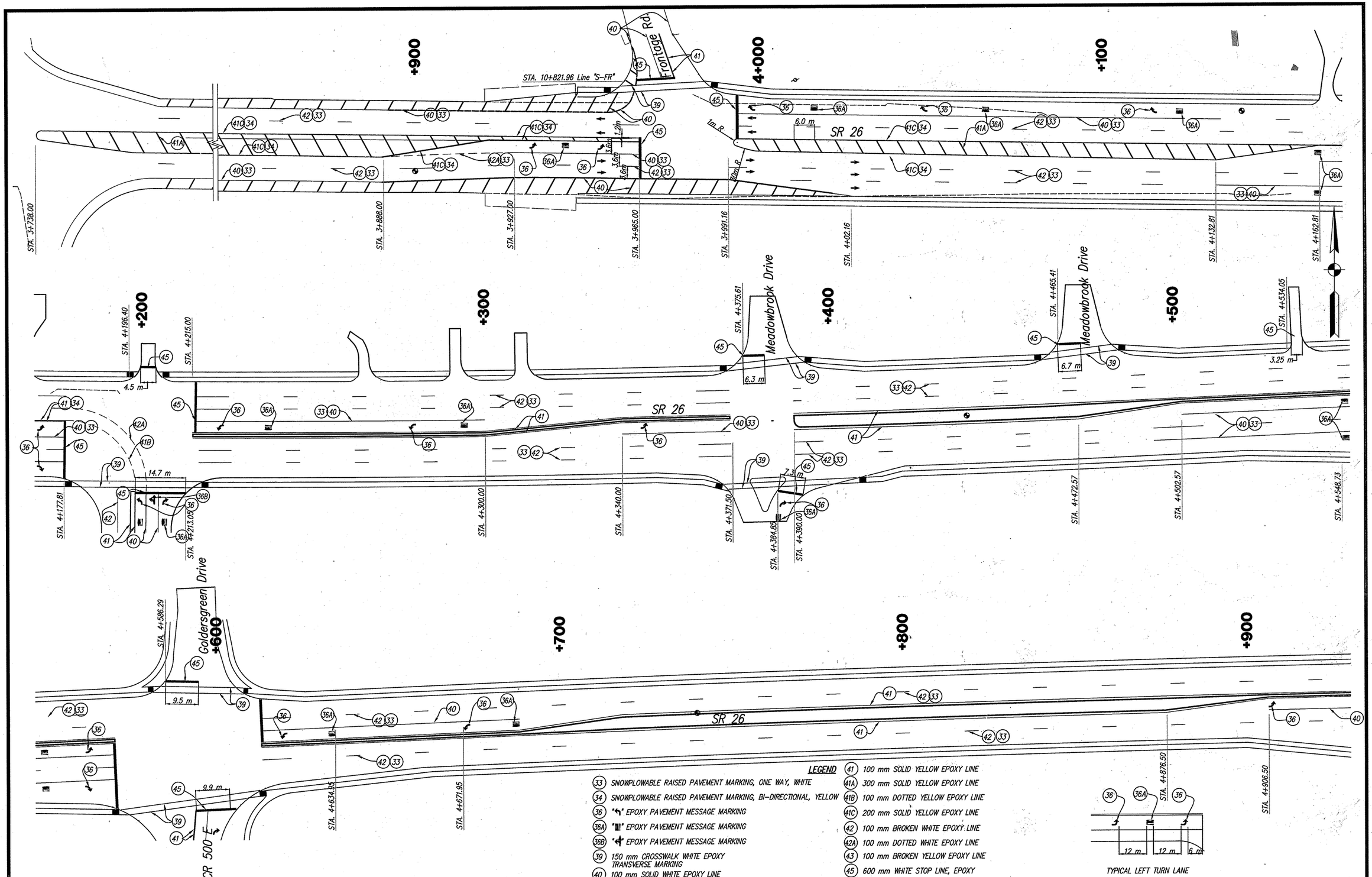

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INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING DETAIL
STA. 3+800 TO STA. 4+925 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	
VERTICAL SCALE	DESIGNATION
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CONTRACT	PROJECT
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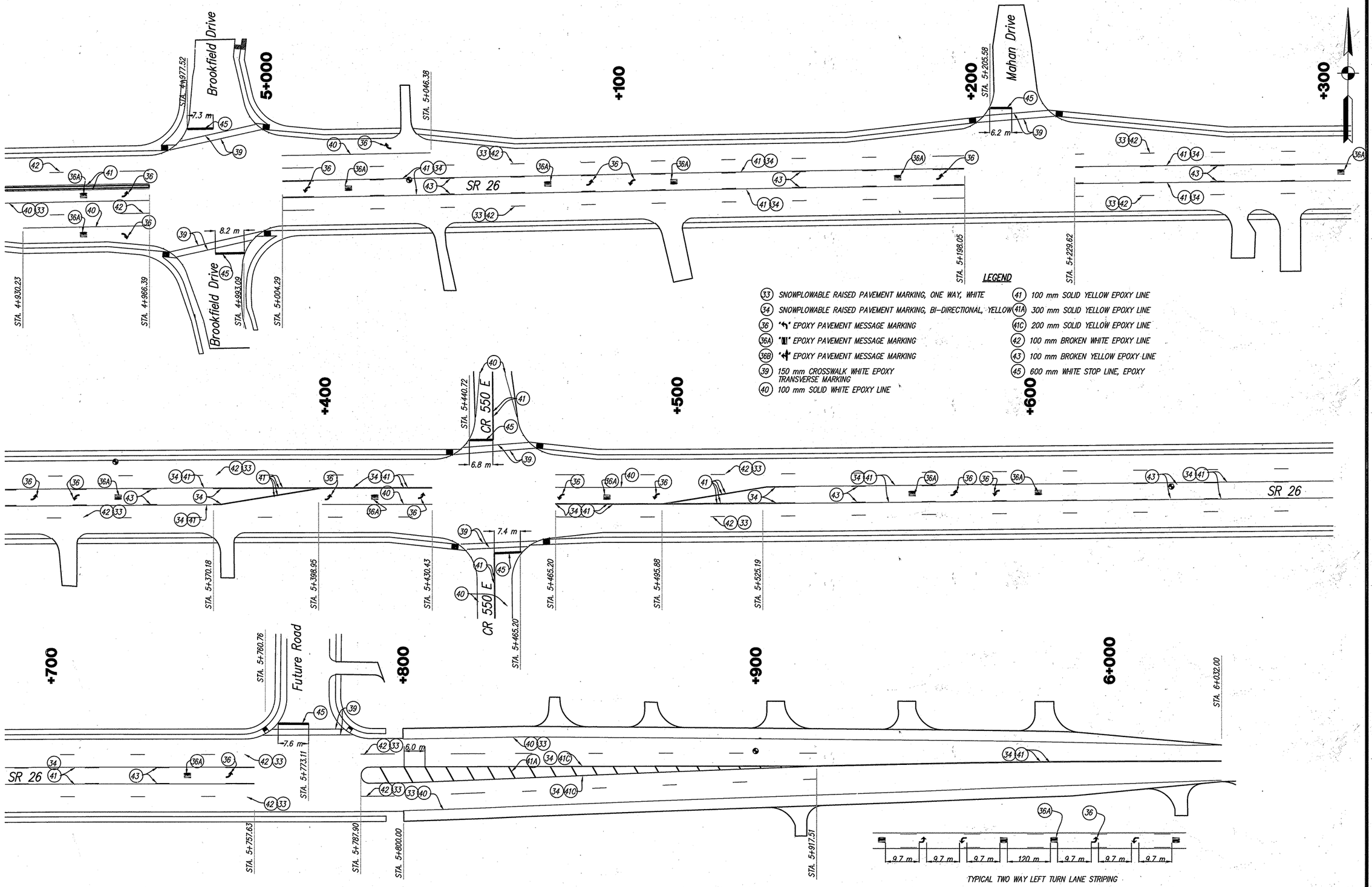

LEGEND

- (33) SNOWPLOWABLE RAISED PAVEMENT MARKING, ONE WAY, WHITE
- (34) SNOWPLOWABLE RAISED PAVEMENT MARKING, BI-DIRECTIONAL, YELLOW
- (36) "↰" EPOXY PAVEMENT MESSAGE MARKING
- (36A) "⅃" EPOXY PAVEMENT MESSAGE MARKING
- (36B) "↱" EPOXY PAVEMENT MESSAGE MARKING
- (39) 150 mm CROSSWALK WHITE EPOXY TRANSVERSE MARKING
- (40) 100 mm SOLID WHITE EPOXY LINE
- (41) 100 mm SOLID YELLOW EPOXY LINE
- (41A) 300 mm SOLID YELLOW EPOXY LINE
- (41C) 200 mm SOLID YELLOW EPOXY LINE
- (42) 100 mm BROKEN WHITE EPOXY LINE
- (43) 100 mm BROKEN YELLOW EPOXY LINE
- (45) 600 mm WHITE STOP LINE, EPOXY

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PAVEMENT MARKING DETAIL
STA. 4+925 TO STA. 6+032 "PR-A"

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VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	SHEETS
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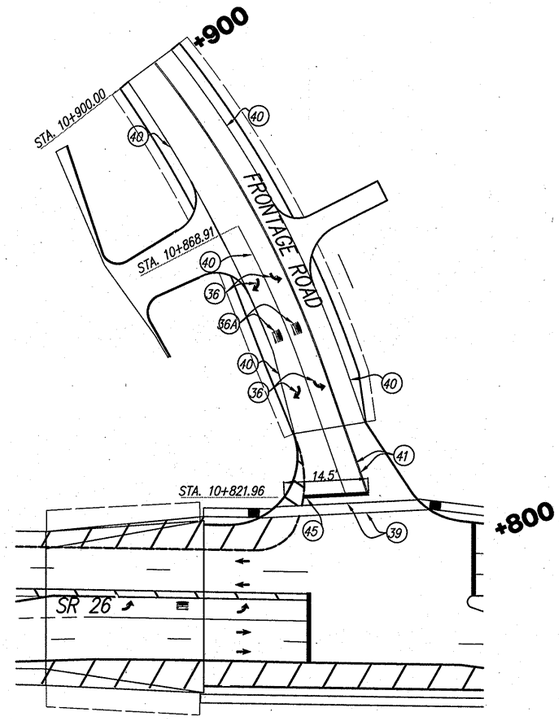

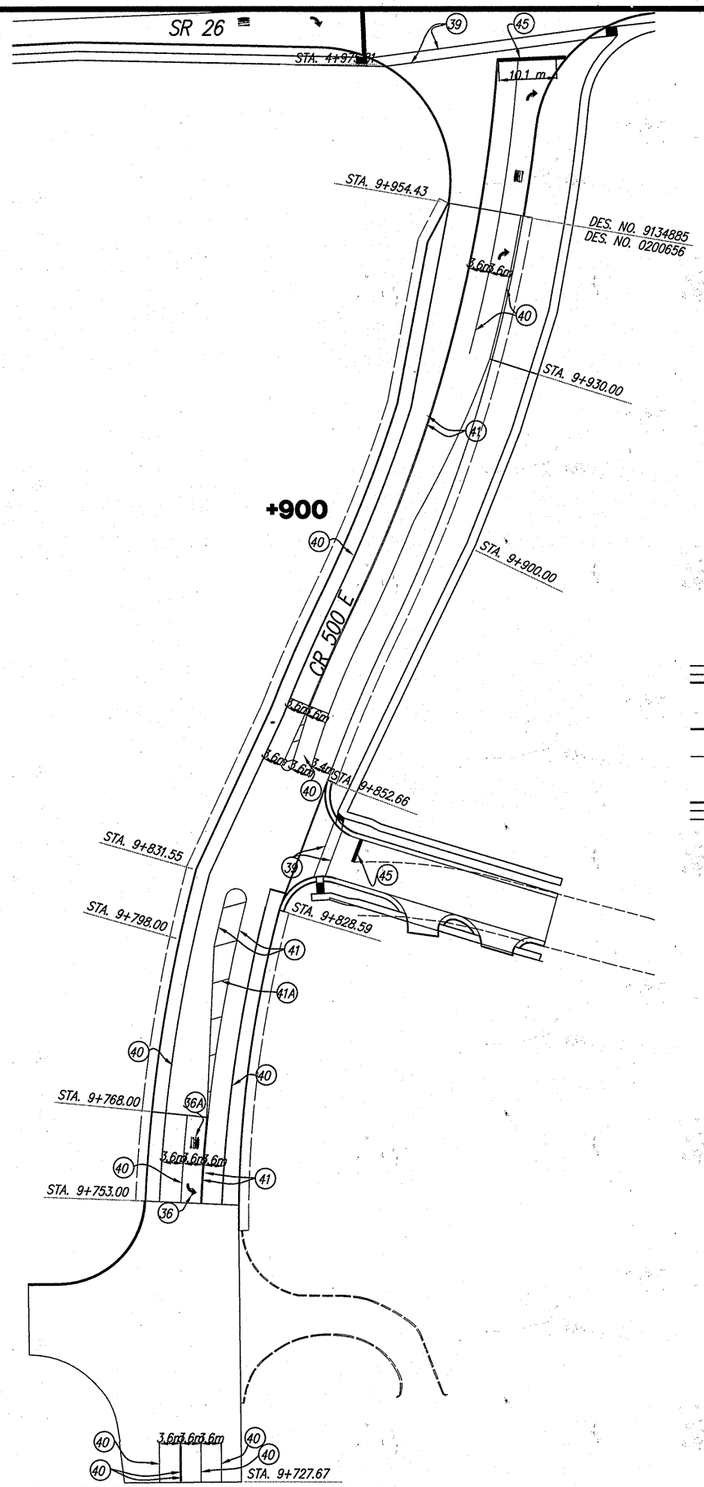

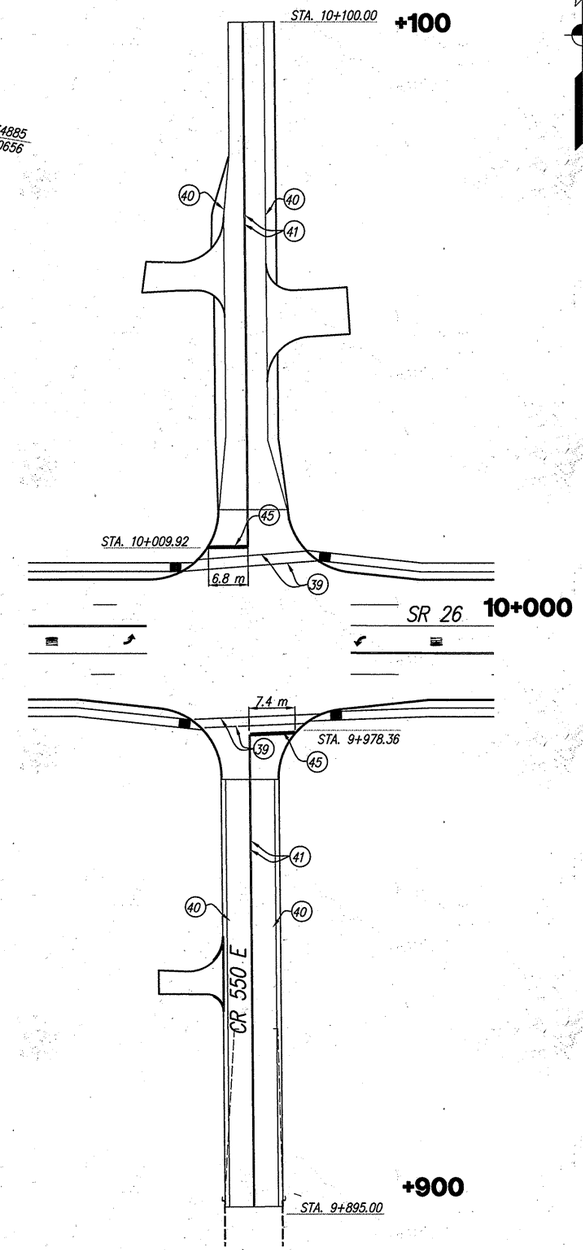

LEGEND

(33) SNOWPLOWABLE RAISED PAVEMENT MARKING	(40) 100 mm SOLID WHITE EPOXY LINE
(36) "↰" EPOXY PAVEMENT MESSAGE MARKING	(41) 100 mm SOLID YELLOW EPOXY LINE
(36A) "◨" EPOXY PAVEMENT MESSAGE MARKING	(41A) 300 mm SOLID YELLOW EPOXY LINE
(36B) "↰" EPOXY PAVEMENT MESSAGE MARKING	(42) 100 mm BROKEN WHITE EPOXY LINE
(39) 150 mm CROSSWALK WHITE EPOXY TRANSVERSE MARKING	(43) 100 mm BROKEN YELLOW EPOXY LINE
	(45) 600 mm WHITE STOP LINE, EPOXY

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DESIGNED: D.N.M. DRAWN: D.E.B.

CHECKED: R.J.F./R.O.N. CHECKED: C.A.K./R.O.N.

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING
LINES "S-FR", "S-500" & "S-550"

HORIZONTAL SCALE	N.T.S.
VERTICAL SCALE	
BRIDGE FILE	
DESIGNATION	9134885/0200656
SURVEY BOOK	16519
SHEETS	81 of 131
CONTRACT	R-28381
PROJECT	NH-L540()

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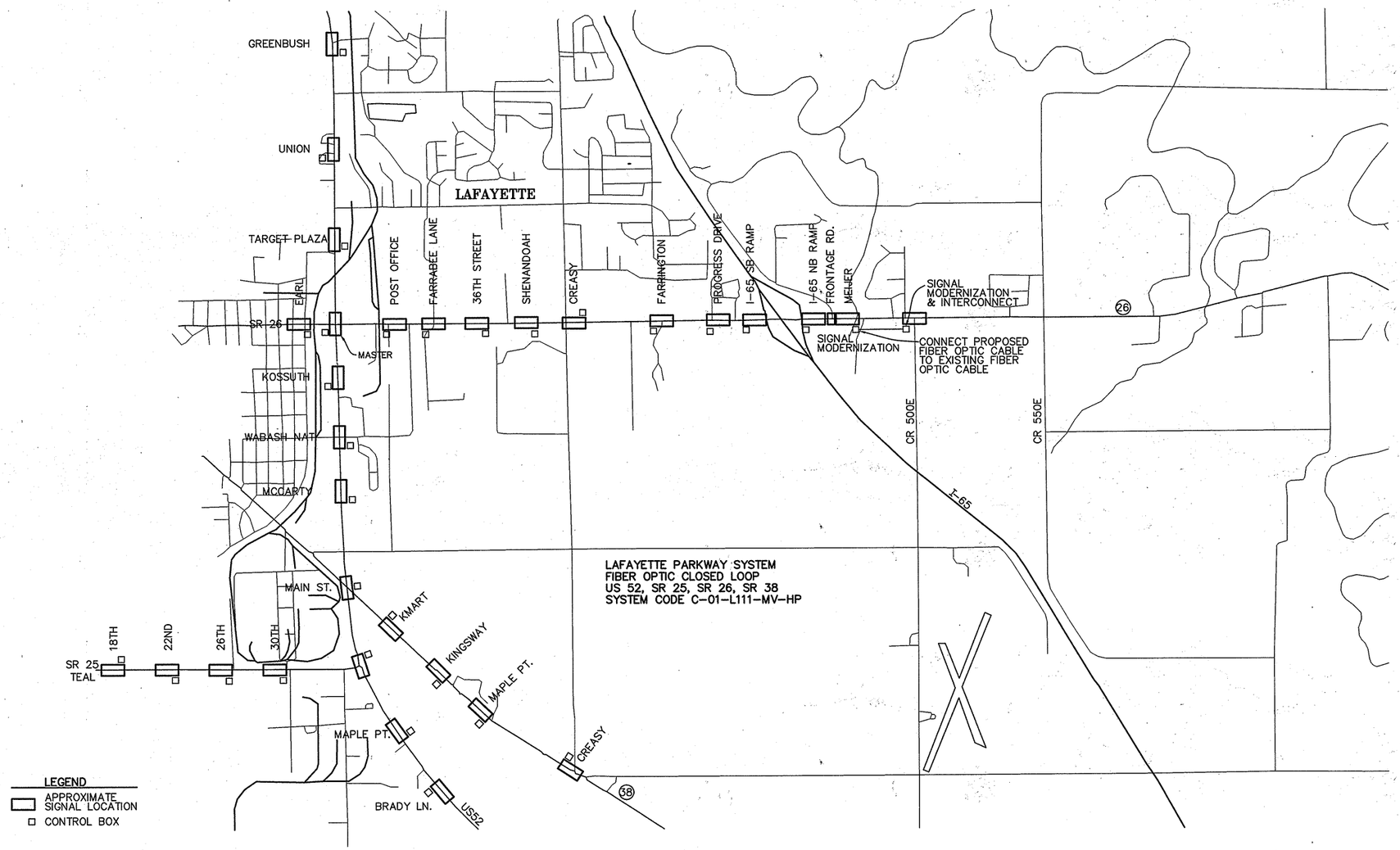

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: D.N.M. | DRAWN: D.E.B./J.M.K.
CHECKED: R.J.F. | CHECKED: J.J.B.

INDIANA DEPARTMENT OF TRANSPORTATION

SIGNALIZATION MASTER PLAN

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
	9134885
SURVEY BOOK	SHEETS
16519	82 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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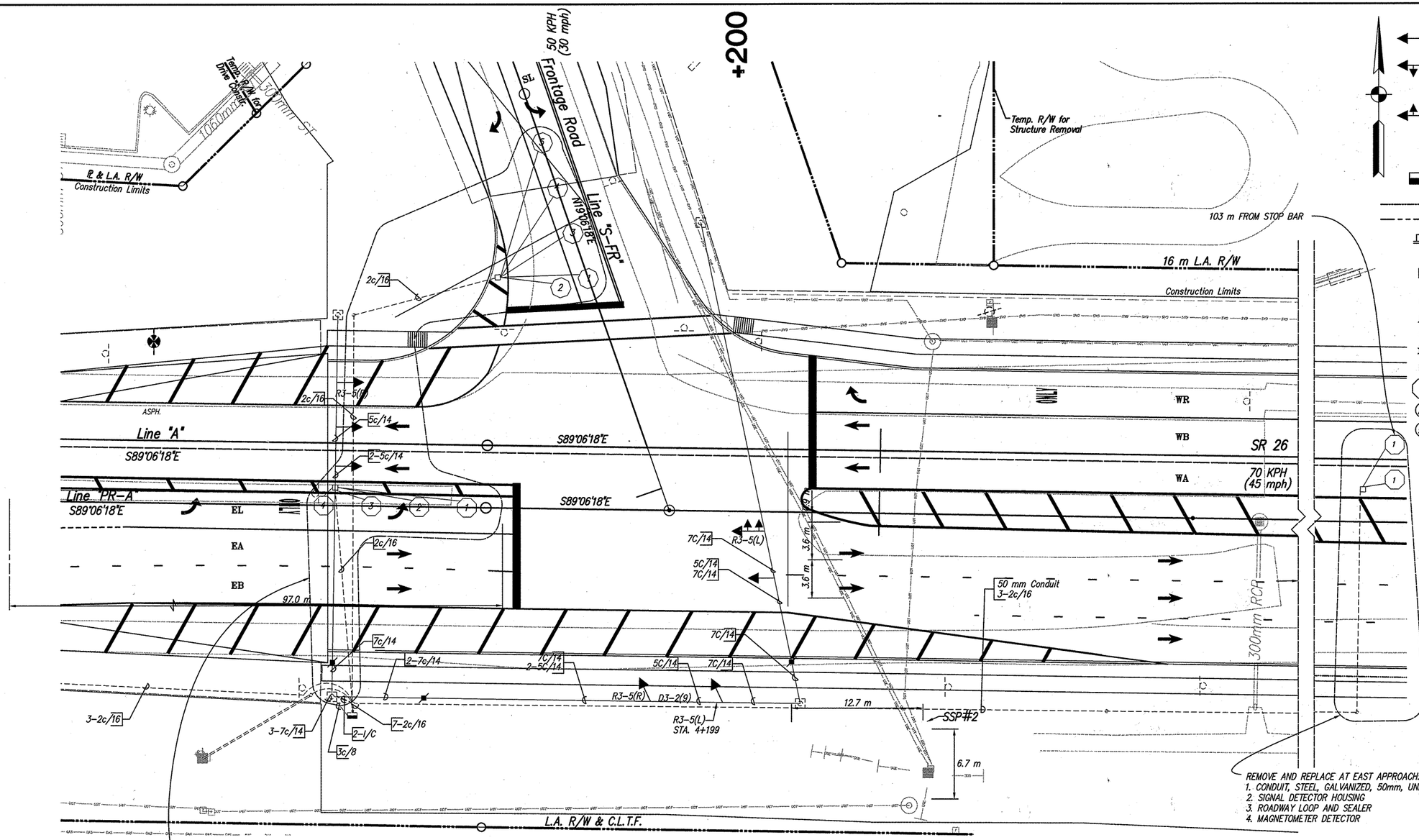

REMOVE AND REPLACE AT NORTH AND WEST APPROACHES:
1. CONDUIT, STEEL, GALVANIZED, 50mm, UNDERGROUND
2. SIGNAL DETECTOR HOUSING.
3. ROADWAY LOOP AND SEALER
4. MAGNETOMETER DETECTOR

REMOVE AND REPLACE AT EAST APPROACH:
1. CONDUIT, STEEL, GALVANIZED, 50mm, UNDERGROUND
2. SIGNAL DETECTOR HOUSING
3. ROADWAY LOOP AND SEALER
4. MAGNETOMETER DETECTOR

LEGEND

- 1-WAY, 3 SECTION HEAD (300mm LED RED, 300mm AMBER 300mm LED GREEN) SIGNAL INDICATION
- 3 SECTION HEAD, LEFT TURN-SINGLE ARROW W/ SINGLE PERPENDICULAR CROSSING ACCESS (300mm LED RED, 300mm AMBER ARROW, 300mm LED GREEN ARROW) SIGNAL INDICATION
- 5 SECTION HEAD, SINGLE ARROW W/ TWO PERPENDICULAR CROSSING ACCESS (300mm LED RED, 300mm AMBER, 300 mm LED GREEN, 300 mm AMBER ARROW, 300 mm LED GREEN ARROW) SIGNAL INDICATION
- 8-PHASE MENU-DRIVEN SECONDARY CONTROLLER & CABINET ON 'P-1' FOUNDATION
- 50 mm GALVANIZED STEEL CONDUIT
- 75 mm GALVANIZED STEEL CONDUIT
- PEDESTRIAN POLE AND FOUNDATION WITH 450 mm WALK-DON'T WALK INDICATOR W/ PUSH BUTTON ACTIVATOR
- STEEL STRAIN POLE, ANCHOR BOLTS AND FOUNDATION, 11 m
- DETECTOR HOUSING
- AERIAL DISCONNECT
- HANDHOLE
- EXISTING LIGHT POLE
- POWER POLE
- 1800 mm Octagonal Loop, 4 Turn Series
- (AC) SPAN, CATENARY & TETHER
- (92) REMOVE TRAFFIC SIGNAL POLE

LOOP TAGGING TABLE

LANE	TAG	NUMBER
EA	EA6	- 1
EB	EB6	- 1
EC	EC6	- 1
EL	EL1	- 1,2,3,4
SL	SL8	- 1,2,3,4,5
WA	WA2	- 1
WB	WB2	- 1
WR	WR2	- 1

PHASE DIAGRAM

ϕ1	ϕ2	ϕ3	ϕ4
ϕ5	ϕ6	ϕ7	ϕ8

SR 26 is preferential
SR 26 flashes amber
Frontage Road flashes red

GENERAL NOTES:

1. SIGNS TO BE INSTALLED UNDER DES. #973488X.
2. THIS SIGNAL WAS DESIGNED FOR THE PAVEMENT AND LANE CONFIGURATION OF DES. NO. 9134885. THIS SIGNAL WAS INSTALLED BY OTHERS AND IS NOW EXISTING.
3. THE WORK FOR THIS SIGNAL INVOLVES THE REMOVAL AND REPLACEMENT OF THE LOOPS AND ASSOCIATED ITEMS INCLUDING ADJSTMENTS TO THE CONTROLLER.

DESIGNED BY: _____ DATE: _____

R3-5(L) R3-5(R) R3-6 (L) D3-2(9) R10-12

FOUNDATION SCHEDULE

FOUNDATION	LINE	STATION	OFFSET
SSP#1	'PR-A'	4+218.75	22.1 m
SSP#2	'PR-A'	4+216.62	20.7 m
SSP#3	'PR-A'	4+174.27	20.7 m
SSP#4	'PR-A'	4+173.50	20.8 m
CONTROLLER	'PR-A'	4+215.40	18.9 m

COMM. NO. 01-079-128

INDIANA DEPARTMENT OF TRANSPORTATION
DIVISION OF DESIGN

DESIGN ENGINEER 8/7/06 DATE

KENNETH P. HERGER REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

TRAFFIC SIGNAL MODERNIZATION
SR 26 & FRONTAGE ROAD
TIPPECANOE COUNTY
CRAWFORDSVILLE DISTRICT

CONTRACT NO. R-28381 SCALE = N.T.S.

DES. NO.	PROJECT NO.	YEAR	SHEET	TOTAL
9711520	NH-L540()	2003	83	131

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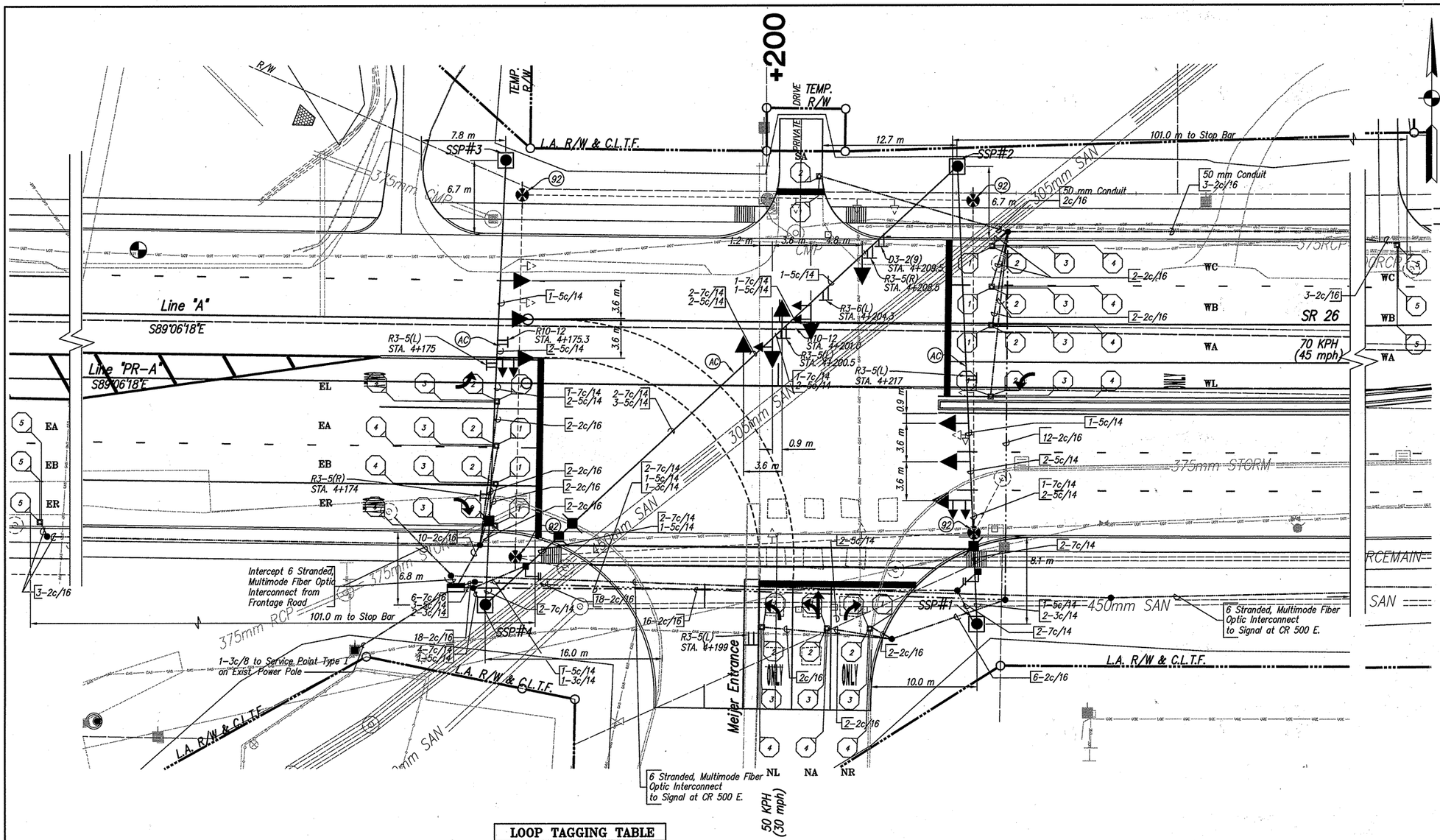

LEGEND

- 1-WAY, 3 SECTION HEAD (300mm LED RED, 300mm AMBER 300mm LED GREEN) SIGNAL INDICATION
- 3 SECTION HEAD, LEFT TURN-SINGLE ARROW W/ SINGLE PERPENDICULAR CROSSING ACCESS (300mm LED RED, 300mm AMBER ARROW, 300mm LED GREEN ARROW) SIGNAL INDICATION
- 5 SECTION HEAD, SINGLE ARROW W/ TWO PERPENDICULAR CROSSING ACCESS (300mm LED RED, 300mm AMBER, 300 mm LED GREEN, 300 mm AMBER ARROW, 300 mm LED GREEN ARROW) SIGNAL INDICATION
- 8-PHASE MENU-DRIVEN SECONDARY CONTROLLER & TS2-TYPE 1 CABINET ASSEMBLIES ON "P-1" FOUNDATION
- 50 mm GALVANIZED STEEL CONDUIT
- 75 mm GALVANIZED STEEL CONDUIT
- PEDESTRIAN POLE AND FOUNDATION WITH 450 mm WALK-DON'T WALK INDICATOR W/ PUSH BUTTON ACTIVATOR
- STEEL STRAIN POLE, ANCHOR BOLTS AND FOUNDATION, 11 m
- DETECTOR HOUSING
- AERIAL DISCONNECT
- HANDHOLE
- EXISTING LIGHT POLE
- POWER POLE
- PREFORMED INDUCTIVE LOOP (CIRCULAR)
- (AC) SPAN, CATENARY & TETHER
- (92) REMOVE TRAFFIC SIGNAL POLE

LOOP TAGGING TABLE

LANE	TAG	NUMBER
NL	NL7	1,2,3,4
NA	NA4	1,2,3,4
NR	NR4	1,2,3,4
WL	WL5	1,2,3,4
WA	WA2	1,2,3,4
WA	WA2	5
WB	WB2	1,2,3,4
WB	WB2	5
WC	WC2	1,2,3,4
WC	WC2	5
SA	SA8	1,2
EL	EL6	1,2,3,4
EA	EA6	1,2,3,4
EA	EA6	5
EB	EB6	1,2,3,4
EB	EB6	5
ER	ER6	1,2,3,4
ER	ER6	5

PHASE DIAGRAM

ø1	ø2	ø3	ø4
ø5	ø6	ø7	ø8

SR 26 is preferential
SR 26 flashes amber
Meijer Entrance flashes red

FOUNDATION SCHEDULE

FOUNDATION	LINE	STATION	OFFSET
SSP#1	PR-A	4+218.75	22.1 m
SSP#2	PR-A	4+216.62	20.7 m
SSP#3	PR-A	4+174.27	20.7 m
SSP#4	PR-A	4+173.50	20.8 m
CONTROLLER	PR-A	4+215.40	18.9 m

R3-5(L) R3-5(R) R3-6 (L) D3-2(9) R10-12

GENERAL NOTES:

1. SIGNS TO BE INSTALLED UNDER DES. #973488X.
2. FIBER OPTIC INTERCONNECT IS TO GO FROM CONTROLLER TO CONTROLLER WITHOUT SPLICES.

DESIGNED BY: _____ DATE: _____

COMM. NO. 01-079-102

INDIANA DEPARTMENT OF TRANSPORTATION
DIVISION OF DESIGN

DESIGN ENGINEER — DATE 8/7/06

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

TRAFFIC SIGNAL MODERNIZATION
SR 26 & MAIN MEIJER ENTRANCE
TIPPECANOE COUNTY
CRAWFORDSVILLE DISTRICT

CONTRACT NO. R-28381 — SCALE = N.T.S.

DES. NO.	PROJECT NO.	YEAR	SHEET	TOTAL
9711520	NH-L540()	2003	84	131

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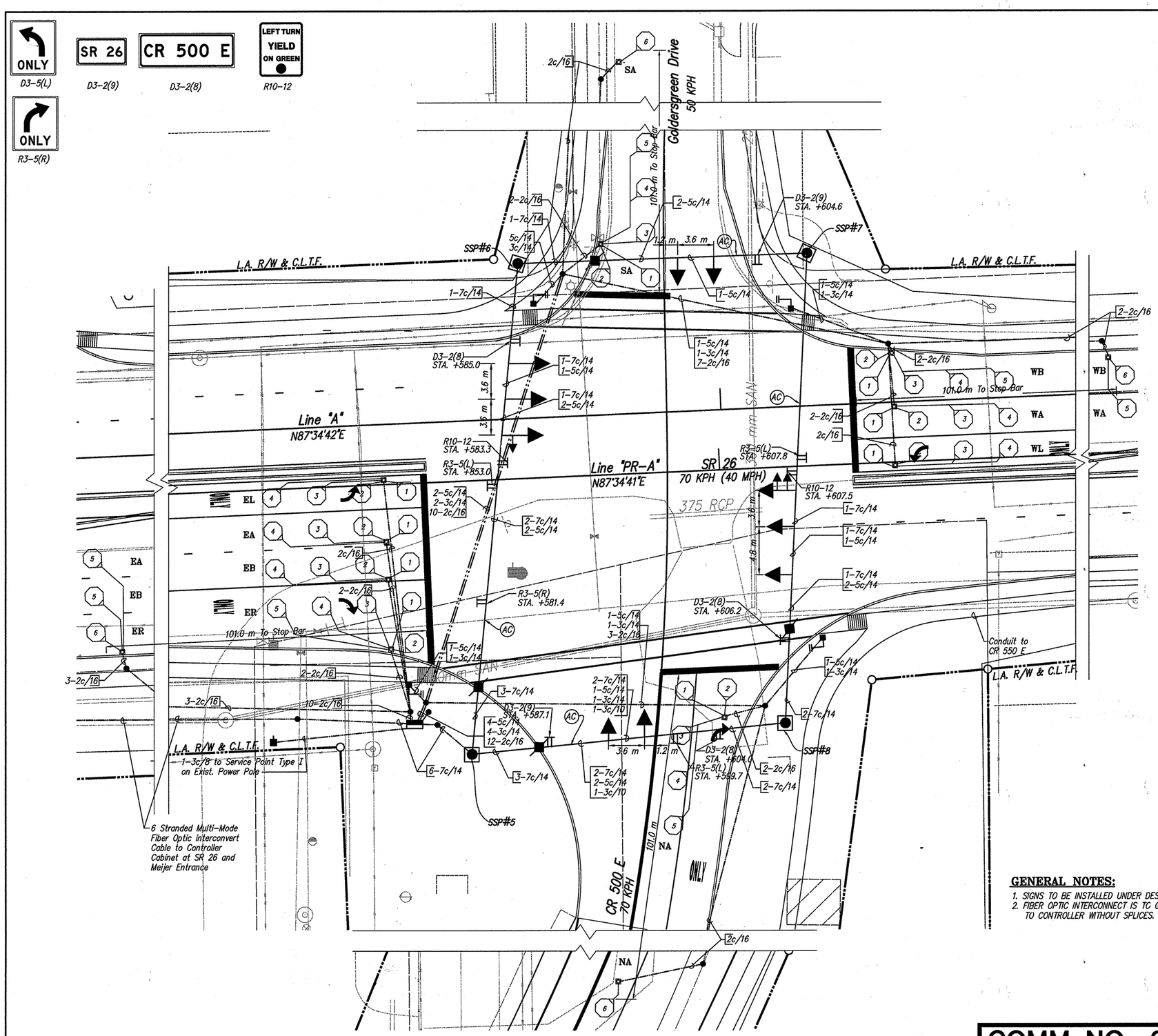

LEGEND

- 1-WAY, 3 SECTION HEAD (300mm LED RED, 300mm AMBER, 300mm LED GREEN) SIGNAL INDICATION
- 3 SECTION HEAD, LEFT TURN-SINGLE ARROW W/ SINGLE PERPENDICULAR CROSSING ACCESS (300mm LED RED, 300mm AMBER ARROW, 300mm LED GREEN ARROW) SIGNAL INDICATION
- 5 SECTION HEAD, SINGLE ARROW W/ TWO PERPENDICULAR CROSSING ACCESS (300mm LED RED, 300mm AMBER, 300 mm LED GREEN, 300 mm AMBER ARROW, 300 mm LED GREEN ARROW) SIGNAL INDICATION
- 8-PHASE MENU-DRIVEN SECONDARY CONTROLLER & CABINET ON "P-1" FOUNDATION
- 50 mm GALVANIZED STEEL CONDUIT
- 75 mm GALVANIZED STEEL CONDUIT
- STEEL STRAIN POLE, ANCHOR BOLTS AND FOUNDATION, 11 m
- DETECTOR HOUSING
- AERIAL DISCONNECT
- HANDHOLE
- EXISTING LIGHT POLE
- POWER POLE
- PREFORMED INDUCTIVE LOOP (CIRCULAR)
- PEDESTRIAN POLE & FOUNDATION WITH 450 mm WALK-DON'T WALK INDICATOR W/ PUSH BUTTON ACTIVATOR
- (AC) SPAN, CATENARY & TETHER

LOOP TAGGING TABLE

LANE	TAG	NUMBER
NA	NA4	– 1,2,3,4,5
NA	NA4	– 6
WL	WL5	– 1,2,3,4
WA	WA2	– 1,2,3,4
WA	WA2	– 5
WB	WB2	– 1,2,3,4,5
WB	WB2	– 6
SA	SA8	– 1,2,3,4,5
SA	SA8	– 6
EL	EL1	– 1,2,3,4
EA	EA6	– 1,2,3,4
EA	EA6	– 5
EB	EB6	– 1,2,3,4
EB	EB6	– 5
ER	ER6	– 1,2,3,4,5
ER	ER6	– 6

PHASE DIAGRAM

ø 1	ø 2	ø 3	ø 4
ø 5	ø 6	ø 7	ø 8

SR 26 IS PREFERENTIAL
SR 26 FLASHES AMBER
CR 500 E FLASHES RED

FOUNDATION SCHEDULE

FOUNDATION	LINE	STATION	OFFSET
SSP#5	PR-A	4+574.15	27.3 m
SSP#6	PR-A	4+580.78	21.5 m
SSP#7	PR-A	4+609.62	21.2 m
SSP#8	PR-A	4+605.49	25.5 m
CONTROLLER	PR-A	4+510.93	20.7 m

GENERAL NOTES:

1. SIGNS TO BE INSTALLED UNDER DES. # 973488X.
2. FIBER OPTIC INTERCONNECT IS TO GO FROM CONTROLLER TO CONTROLLER WITHOUT SPLICES.

DESIGNED BY: _____ DATE: _____

INDIANA DEPARTMENT OF TRANSPORTATION
DIVISION OF DESIGN

DESIGN ENGINEER 8/7/06 DATE

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

TRAFFIC SIGNAL MODERNIZATION
SR 26 & CR 500 E
TIPPECANOE COUNTY
CRAWFORDSVILLE DISTRICT

CONTRACT NO. R-28381

SCALE = N.T.S.

DES. NO.	PROJECT NO.	YEAR	SHEET	TOTAL
9711530	NH-L540()	2003	85	131

COMM. NO. 01-079-122

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PAVEMENT QUANTITIES AND APPROACH TABLE

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADII	DISTANCE BEYOND R/W LINE	SURFACE BEYOND R/W LINE: COMPACTED AGGREGATE BASE	SURFACE BEYOND R/W LINE: HMA	SURFACE BEYOND R/W LINE: CONCRETE	GRADE	EXCAVATION: CUT	EXCAVATION: FILL	CLEAR ZONE AT DRIVE	HMA FOR APPROACHES kg/m^2: 90	HMA FOR APPROACHES kg/m^2: 150	HMA FOR APPROACHES kg/m^2: 510		HMA MATERIALS kg/m: SURFACE 9.5 mm M-LINE 90		HMA MATERIALS kg/m: INTERMED. 19.0 mm M-LINE 150		HMA MATERIALS kg/m: BASE 25.0 mm M-LINE 270	HMA MATERIALS kg/m: BASE 510	HMA MATERIALS kg/m: BASE 750	HMA BASE 25 mm M-LINE	SEAL COAT TYPE 2	SEAL COAT TYPE 5	ASPHALT MATERIAL FOR PRIME COAT	ASPHALT MATERIAL FOR TACK COAT	COMPACTED AGGREGATE FOR BASE NO. 53 DEPTH 150	COMPACTED AGGREGATE FOR BASE NO. 53 DEPTH 200	COMPACTED AGGREGATE FOR BASE NO. 53 DEPTH 160		COMPACTED AGGREGATE FOR SURFACE NO. 73 DEPTH		150mm PCCP FOR APPROACHES	300mm QA/QC PCCP	REMARKS
		m	m	m	m	m^2	m^2	m^2	%	m^2	m^2	m	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	Mg	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2	
S.R. 26																																					
4+165.0 "PR-A", Lt.	Class I	3.6	25.1	3.0,6.0	6.5			83.1	2.0,-6.0,-10.8	25.8	86.0																								88.7		
4+200.0 "PR-A", Rt.	Mod. Class III	19.9	16.4	15.24					2.0, 0.1	279.7	0																									430	
4+202.0 "PR-A", Lt.	Class I	4.0	11.0	3.0,6.0	3.0		11.8		2.0,-2.2	9.1	0																								49.1		
4+265.0 "PR-A", Lt.	Class I	3.1	14.7	3.0,6.0	4.6		11.8		2.0, 8.3, 10.7	38.9	0																								41.0		
4+292.0 "PR-A", Lt.	Class I	3.2	15.2	3.0,6.0	5.0		16.1		2.0, 8.3, 8.6	38.7	0																								43.2		
4+311.0 "PR-A", Lt.	Class I	3.6	13.7	3.0,6.0	3.5		12.7		2.0, 8.3, 11.2	57.3	0																								46.3		
4+381.0 "PR-A", Rt.	Mod. Class III	12.6	15.1	12.19	3.0			33.4	2.0, 5.0	243.6	0																									328.3	
4+381.9 "PR-A", Lt.	Type "C"	7.2	22.8	12					2.4	127.2	0		110.6	110.6	110.6													110.6		110.6						183.1	
4+474.2 "PR-A", Lt.	Type "C"	7.2	22.7	12					-0.6	76.6	0		109.4	109.4	109.4													109.4		109.4						178.1	
4+537.0 "PR-A", Lt.	Class I	3.0	19.2	3.0,6.0	11.0		32.8		2.0,-3.5	10.1	3.4																								34.8		
4+594.8 "PR-A", Lt.	Type "C"	10.8	32.5	12					-1.0, -0.5	235.7	0		119.3	119.3	119.3													119.3		119.3						273.6	
4+594.8 "PR-A", Rt.	Type "C"	13.1	32.6	23			0			*	*																									675.2	
4+984.9 "PR-A", Lt.	Type "C"	10.6	32.6	12					-2.2	61.2	0		49.1	49.1	49.1													49.1		49.1						358.6	
4+984.9 "PR-A", Rt.	Type "C"	10.9	32.6	12					-3.0	23.5	0		109.5	109.5	109.5													109.5		109.5						360.5	
5+040.0 "PR-A", Lt.	Class I	2.6	15.5	3.0,6.0	6.0		16.1		2.0,-6.1	8.0	26.5																								37.6		
5+048.0 "PR-A", Rt.	Class I	2.7	19.3	6.0,3.0	11.1		34.6		2.0,-5.4	10.3	41.1																								34.1		
5+115.0 "PR-A", Rt.	Class I	5.5	18.4	6.0,3.0	7.3		41.8		2.0,-6.1	17.4	81.4																								74.4		
5+211.6 "PR-A", Lt.	Type "C"	7.1	38.3	12					-2.3	263.1	0		208.5	208.5	208.5													208.5		208.5						450.9	
5+276.0 "PR-A", Rt.	Class I	4.3	13.9	6.0,3.0	2.2		14.6		2.0,-4.3	13.7	9.1																								76.8		
5+290.0 "PR-A", Rt.	Class I	5.8	17.8	6.0,3.0	5.8		33.7		2.0,-3.8	16.9	22.6																								79.1		
5+327.0 "PR-A", Rt.	Class I	5.1	14.9	6.0,3.0	2.2			9.8	2.0,-3.8	12.4	16.5																								74.1		
5+372.0 "PR-A", Rt.	Class I	3.8	12.9	6.0,3.0	0.2			9.6	2.0,-2.8	10.3	13.8																								59.0		
5+773.0 "PR-A", Lt.	Type "C"	8.6	28.3	12,13.7	16.2				-0.3	263.1	0																									404.7	
5+843.0 "PR-A", Lt.	Class II	2.9	8.0	4.6,7.7					-4.0, 5.0	13.6	0		45.4	45.4														43.7		43.7							
5+871.0 "PR-A", Lt.	Class II	3.6	7.1	4.6,7.7					-4.0, 0.6	8.5	0		42.8	42.8														42.8		42.8							
5+906.3 "PR-A", Lt.	Class II	5.0	7.7	4.6,7.7					-4.0,-5.5	8.5	11.3		56.4	56.4														56.4		56.4							
5+912.7 "PR-A", Rt.	Class II	3.3	5.5	7.7,4.6					-4.0,-5.8	11.2	4.5		43.5	43.5														43.5		43.5							
5+943.0 "PR-A", Lt.	Class II	4.9	5.9	4.6,7.7					-4.0,-8.2	8.5	5.7		56.0	56.0														56.0		56.0							
5+982.0 "PR-A", Lt.	Class II	5.3	8.4	4.6,7.7					-4.0,-7.8	9.3	15.5		62.3	62.3														62.3		62.3							
6+021.0 "PR-A", Rt.	Class II	3.6	6.8	7.7,4.6					-4.0,-5.3	9.7	4.9		48.7	48.7														48.7		48.7							
6+043.0 "PR-A", Rt.	Class II	4.9	6.3	7.7,4.6					Match Existing	7.2	0		47.5	47.5														47.5		47.5							
6+044.4 "PR-A", Lt.	Class II	5.1	7.6	4.6,7.7					Match Existing	7.1	0		71.7	71.7														71.7		71.7							
"PR-A"	TRAVEL LANES																											349.1								41450	
"PR-A"	SHOULDER																											1334.1									
																	1578.5	1578.5																			
3+979.917 "PR-A", Lt.	Type "B" Frontage	10.8	87.8	12					-1.9,2.2,1.2	99.8	0																									332.5	
5+447.682 "PR-A" Rt.	Type "B" CR 550 E	7.2	83.8	12					-0.3,-0.2,2.0	36.8	18.4																									184.4	
5+447.682 "PR-A" Lt.	Type "B" CR 550 E	7.2	95.8	12					-2.0,0.5	23.0	0																									230.0	
9+840.3 "S-2-PR-A"	Mod. St. Approach	7.8	41.7	7.7,7.7					-1.3	53.0	0		353.3	353.3	353.3													353.3		353.3							
Frontage Road																																					
10+863.1 "S-FR", Rt.	Class V	3.7	17.5	7.7,4.6					-4.0,-7.1, 0.8	16.5	20.6		82.4	82.4	82.4													82.4		82.4							
10+868.9 "S-FR", Lt.	Class IV	7.7	17.5	6.0,6.0	5.6		78.5		-4.0, 5.0	54.3	0		132.8	132.8	132.8													132.8		132.8							
"S-FR"	TRAVEL LANES																738.1		738.1			738.1						738.1								332.48	References Approach 3+979 On "PR-A"
"S-FR"	SHOULDER																170.5				170.5							170.5									
C.R. 550E																																					
9+935.0 "S-550", Lt.	Class I	4.0	9.4	3.0,6.0					-1.3	8.0	2.7		53.3	53.3														53.3		53.3							
10+050.0 "S-550", Rt.	Class I	8.0	7.3	7.7,4.6					-4.0,1.0	19.1	0		127.0	127.0														127.0		127.0							
10+057.0 "S-550", Lt.	Class II	4.8	8.3	4.6,7.7					4.0, 6.8, 2.6	17.0	0																								85.0		
"S-550"	TRAVEL LANES																1221.5		1221.5			1221.5						1221.5								414.4	References Approach 5+447 On "PR-A"
"S-550"	SHOULDER																162.4				162.4							162.4			162.4						
FUTURE ROAD																																					
6+030.5 "S-FUT", Rt.	Class I	3.6	7.2	6.0,3.0	5.4		23.7		0.10	42.0	0																								34.9		
"S-FUT"	TRAVEL LANES												279.8	279.8																						404.7	References Approach 5+773 On "PR-A"
Wolflake Drive																																					
10+028.4 "W", Rt.	Class I	5.2	8.8	6.0,2.5					1.0,-9.9	5.0	0																								33.1		Skew 18°
10+042.0 "W", Rt.	Class I	5.2	7.9	5.5,3.0					4.0, 2.0, 2.5	4.1	0																								27.3		Skew 18°
													354.40																								

* Included in Cross Sections

HERCEG

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KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS

KENNETH P. HERCEG — REGISTERED No. 15423 — STATE OF INDIANA — PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: C.A.K. DRAWN: D.E.B.
CHECKED: R.J.F. CHECKED: D.N.M.

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT QUANTITIES AND APPROACH TABLE

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	86 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

PAVED SIDE DITCH, RIPRAP DITCH AND SODDING SUMMARY TABLE

LOCATION					PAVED SIDE DITCH								RIPRAP DITCH			SODDING						
								TOTAL EQUIVALENT PAY LENGTHS TYPE														
FROM STATION	TO STATION	LEFT	MEDIAN	RIGHT	ACTUAL LENGTH	CUT OFF WALLS (2.5 m EQUIVAL. LENGTH EACH)	LUGS (2.5 m EQUIVAL. LENGTH EACH)	TYPE "M"					REVETMENT RIPRAP, CLASS 1	RIPRAP, CLASS 2	GEOTEXTILES	FOR PAVED SIDE DITCHES	FOR DITCHES	FOR MEDIAN	FOR SHOULDER BREAK	SODDING AT BRIDGE CONE	TOTAL SODDING	NURSERY SODDING FOR LAWNS
					m	EACH	EACH	m	m	m	m	m	Mg	Mg	m^2	m^2	m^2	m^2	m^2	m^2	m^2	m^2
3+920	3+960 PR-A	X			40												481					
3+920	3+960 PR-A			X	40												492					
3+960	4+020 PR-A			X	60												663					
4+120	4+140 PR-A			X	20			20														
4+127	4+146 PR-A	X			19								415		493							
4+220	4+560 PR-A			X	340												1754					
5+800	6+016 PR-A			X	216												1015					
5+800	5+843 PR-A	X			43												345					
5+843	6+040 PR-A	X			197												1320					
10+825	10+856 S-FR	X			31												397					
10+851	10+863 S-FR			X	12								68		89							
10+879	10+900 S-FR	X			21												306					
9+785	9+950 S-2-PR-A	X			165												1395					
9+850	9+950 S-2-PR-A			X	100												541					
9+940	9+970 S-550	X			30												152					
9+940	9+970 S-550			X	30												142					
TOTALS								20					2185.5		2325		11193					42455

MAILBOX TABLE

LOCATION				
STATION	LEFT	CENTER	RIGHT	ITEMS
4+199 LINE "PR-A"	X			3
4+259 LINE "PR-A"	X			1
4+296 LINE "PR-A"	X			1
4+307 LINE "PR-A"	X			1
4+593 LINE "PR-A"			X	1
5+038 LINE "PR-A"	X			1
5+040 LINE "PR-A"		X		2
5+272 LINE "PR-A"		X		1
5+331 LINE "PR-A"		X		1
5+366 LINE "PR-A"		X		1
5+798 LINE "PR-A"			X	1
5+841 LINE "PR-A"			X	1
5+872 LINE "PR-A"			X	1
5+925 LINE "PR-A"			X	1
5+926 LINE "PR-A"			X	1
5+927 LINE "PR-A"			X	1
6+028 LINE "PR-A"			X	1
6+029 LINE "PR-A"			X	1
6+030 LINE "PR-A"			X	1
9+900 LINE "S-2-PR-A"	X			1
10+060 LINE "S-550"			X	2
10+080 LINE "S-550"			X	1
TOTALS				26

MONUMENT TABLE

LOCATION	MONUMENT TYPE			
STATION	B	C	D	SECTION CORNER
3+947.160 "LINE PR-A"			X	
3+962.385 LINE "PR-A"			X	
4+176.512 LINE "PR-A"			X	
4+328.374 LINE "PR-A"			X	
4+480.151 LINE "PR-A"			X	
4+541.064 LINE "A" / 5+000.000 LINE "S-550"				X
4+541.238 LINE "PR-A" / 4+993.997 LINE "S-550"				X
4+541.238 LINE "PR-A" (RT)/ 4+993.997 LINE "S-550"		X		
4+541.238 LINE "PR-A" (LT)/ 4+993.997 LINE "S-550"		X		
4+641.112 LINE "PR-A"			X	
4+793.423 LINE "PR-A"			X	
4+945.719 LINE "PR-A"			X	
5+151.265 LINE "PR-A"			X	
5+303.661 LINE "PR-A"			X	
5+456.046 LINE "PR-A"			X	
5+481.769 LINE "PR-A"			X	
5+500.000 LINE "PR-A"			X	
5+518.231 LINE "PR-A"			X	
5+684.544 LINE "PR-A"			X	
5+700.055 LINE "PR-A"			X	
5+715.567 LINE "PR-A"			X	
5+765.717 LINE "PR-A"			X	
5+800.136 LINE "PR-A"			X	
5+834.552 LINE "PR-A"	X			
5+943.775 LINE "PR-A"	X			
5+973.482 LINE "PR-A"	X			
6+003.014 LINE "PR-A" / 6+003.188 LINE "A"	X			
6+032.500 LINE "A"	X			
10+797.764 LINE "S-FR" / 3+979.917 LINE "PR-A"			X	
10+840.048 LINE "S-FR"			X	
10+900.000 LINE "S-FR"			X	
4+594.793 LINE "PR-A" / 10+000.000 LINE "S-2-PR-A"			X	
5+447.689 LINE "PR-A" / 9+994.000 LINE "S-550"			X	
10+000.000 LINE "S-550"			X	
TOTALS	5		25	2

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KENNETH R. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/10/06 DATE

DESIGNED: C.A.K. DRAWN: D.E.B.

CHECKED: R.J.F. CHECKED: D.N.M.

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD SUMMARY OF QUANTITIES

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	87 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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UNDERDRAIN TABLE - SOUTH SIDE - EASTBOUND

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 100 mm (m)	Type 4 Pipe 150 mm (m)	Geotextile for Underdrains (m^2)	Aggregate for Underdrains (m^3)	HMA for Underdrains (Mg)	Special Grade (%)	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	150 mm Outlet Pipe (m)	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	Structure Backfill (m^3)	HMA for underdrains (Mg)	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
3+831							199.433	N																			
4+015		184	840.9	49.13			199.980	Y			1	0.15	4+015	199.980			63	198.722									
4+015							199.980	Y			1	0.15	4+015	199.980			63	198.722									
4+025		10	45.7	2.67			199.983	N																			
4+025							198.983	Y			1	0.15	4+025	198.983			65	198.592									
4+127		102	466.1	27.23			199.417	N																			
4+127							199.417	Y			1	0.15	4+127	199.417			75	198.843									
4+222		95	434.2	25.37			200.177	N																			
4+222							200.177	Y			1	0.15	4+222	200.177			86	199.509									
4+346		124	566.7	33.11			201.168	Y			1	0.15	4+346	201.168			96	199.709									
4+346							201.168	Y			1	0.15	4+346	201.168			96	200.472									
4+424		78	356.5	20.83			201.793	N																			
4+424							201.793	Y			2	3.80	4+424	201.781			100	199.820									
4+467		43	196.5	11.48			202.065	N																			
4+467							202.065	Y			2	1.80	4+467	202.059			108	199.885									
4+512		45	205.7	12.02			202.209	N																			
4+512							202.209	Y			1	0.15	4+512	202.209			113	201.839									
4+542		30	137.1	8.01			202.568	N																			
4+542							202.568	N																			
4+562		20	91.4	5.34			202.252	Y			2	1.80	4+562	202.246			128	200.038									
4+562							202.252	N																			
4+619		57	260.5	15.22			202.108	Y			2	2.20	4+619	202.101			129	200.118									
4+619							202.108	N																			
4+654		35	160.0	9.35			201.942	Y			1	0.15	4+654	201.942			123	201.255									
4+654							201.942	N																			
4+765		111	507.3	29.64			201.153	Y			1	0.15	4+765	201.942			141	200.845									
4+765							201.153	N																			
4+774		9	41.1	2.40			201.133	Y			1	0.15	4+774	201.133			135	200.898									
4+774							201.133	Y			1	0.15	4+774	201.133			135	200.898									
4+945		171	781.5	45.66			201.873	N																			
4+945							201.873	Y			1	0.15	4+945	201.873			159	201.697									
5+017		72	329.0	19.22			202.165	N																			
5+017							202.165	N																			
5+130		113	516.4	30.17			201.800	Y			1	0.15	5+130	201.800			174	201.616									
5+130							201.800	Y			1	0.15	5+130	201.800			174	201.616									
5+282		152	694.6	40.58			201.116	Y			2	1.80	5+282	201.110			198	200.025									
5+282							201.116	N																			
5+335		53	242.2	14.15			200.878	Y			1	0.15	5+335	200.878			202	200.715									
5+335							200.878	N																			
5+425		90	411.3	24.03			200.465	Y			1	0.15	5+425	200.465			214	200.255									
5+425							200.465	N																			
5+465		40	182.8	10.68			200.259	Y			1	0.15	5+465	200.259			221	199.818									
5+465							200.259	N																			
5+552		87	397.6	23.23			199.974	Y			1	0.15	5+552	199.974			231	199.049									
5+552							199.974	Y			1	0.15	5+552	199.974			231	199.049									
5+630		78	356.5	20.83			200.175	N																			
		1799	8221.4	480.3								14.4															

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KENNETH P. HERCEG REGISTERED NO. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ 8/7/06
DESIGN ENGINEER DATE

DESIGNED: JJB DRAWN: DEB
CHECKED: CAK CHECKED: JJB

INDIANA
DEPARTMENT OF TRANSPORTATION

ROAD SUMMARY OF QUANTITIES
UNDERDRAIN TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	88 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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UNDERDRAIN TABLE - SOUTH SIDE - EASTBOUND

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe		Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required	Connect Underdrain Pipe to Structure No. __	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	150 mm Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. __	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. __	Structure Invert Elevation	Structure Backfill	HMA for underdrains	Outlet Protector No. __	Outlet Protector Type	Location				Remarks
	100 mm	150 mm																					Outside Left	Median Left	Median Right	Outside Right	
	m	m	m^2	m^3	Mg	%		(Y/N)				m							m^3	Mg							
5+630							200.175	Y			1	0.15	5+630	200.175			237	199.860									
5+672		42	191.9	11.21			200.213	N																			
5+672							200.213	N																			
5+725		53	242.2	14.15			200.151	Y			1	0.15	5+725	200.151			246	199.982									
5+725							200.151	N																			
5+775		50	226.5	13.35			200.045	Y			1	0.15	5+775	200.045			254	199.668									
5+775							200.045	N																			
5+799		24	109.7	6.41			199.994	Y			1	0.15	5+799	199.994			257	199.818									
		169	772.3	45.1								0.6															

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RECOMMENDED FOR APPROVAL _____ 8/7/06
DESIGN ENGINEER DATE

DESIGNED: JJB DRAWN: DEB
CHECKED: CAK CHECKED: JJB

INDIANA
DEPARTMENT OF TRANSPORTATION

ROAD SUMMARY OF QUANTITIES
UNDERDRAIN TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	89 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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UNDERDRAIN TABLE - NORTH SIDE - WESTBOUND

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 100 mm	Type 4 Pipe 150 mm	Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	150 mm Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	Structure Backfill	HMA for underdrains	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
	m	m	m^2	m^3	Mg	%		(Y/N)				m							m^3	Mg							
3+831							199.479	N																			
3+946		115	525.6	30.71			199.123	Y			1	0.15	3+946	199.123			58	198.788									
3+946							199.123	N																			
3+998		52	237.6	13.88			198.972	Y			1	0.15	3+998	198.972			62	198.687									
3+998							198.972	N																			
4+091		93	425.0	24.83		*	198.828	Y			1	0.15	4+091	198.828			70	198.618									* -.20 % STATION 4+015 TO STATION 4+091
4+091							199.182	Y			1	0.15	4+091	199.182			70	198.618									
4+212		121	553.0	32.31			200.097	Y			1	0.15	5+799	200.097			82	199.521									
4+212							200.097	Y			1	0.15	4+212	200.097			82	199.521									
4+254		42	191.9	11.21			200.463	N																			
4+254							200.463	Y			2	1.70	4+254	200.457			85	198.637									
4+299		45	205.7	12.02			200.792	N																			
4+299							200.792	Y			2	1.70	4+299	200.786			91	199.209									
4+336		37	169.1	9.88			201.088	N																			
4+336							201.088	Y			2	1.70	4+336	201.082			89	199.266									
4+434		98	447.9	26.17			201.867	N																			
4+434							201.867	Y			1	0.15	4+434	201.867			107	201.711									
4+542		108	493.6	28.84			202.568	N																			
4+542							202.568	N																			
4+577		35	160.0	9.35			202.210	Y			2	1.30	4+577	202.206			118	199.644									
4+577							202.210	N																			
4+681		104	475.3	27.77			201.736	Y			1	0.15	4+681	201.736			125	200.023									
4+681							201.736	N																			
4+789		108	493.6	28.84			201.125	Y			1	0.15	4+789	201.125			143	200.949									
4+789							201.125	Y			1	0.15	4+789	201.125			143	200.949									
4+945		156	712.9	41.65			201.978	Y			1	0.15	4+945	201.978			160	201.684									
4+945							201.978	Y			1	0.15	4+945	201.978			160	201.684									
5+017		72	329.0	19.22			202.094	N																			
5+017							202.094	N																			
5+120		103	470.7	27.50			201.845	Y			1	0.15	5+120	201.845			173	201.669									
5+120							201.845	N																			
5+140		20	91.4	5.34			201.755	Y			1	0.15	5+140	201.755			175	201.001									
5+140							201.755	N																			
5+180		40	182.8	10.68			201.545	Y			1	0.15	5+180	201.545			180	200.767									
5+180							201.545	N																			
5+199		19	86.8	5.07			201.389	Y			2	2.20	5+199	201.382			183	200.167									
5+199							201.389	N																			
5+260		61	278.8	16.29			201.187	Y			1	0.15	5+260	201.187			193	200.592									
5+260							201.187	N																			
5+360		100	457.0	26.70			200.765	Y			1	0.15	5+360	200.765			206	200.560									
5+360							200.765	N																			
5+432		72	329.0	19.22			200.441	Y			2	1.80	5+432	200.435			217	199.349									
5+432							200.441	N																			
5+500		68	310.8	18.16			200.135	Y			1	0.15	5+500	200.135			226	199.959									
5+500							200.135	N																			
5+600		100	457.0	26.70		*	199.878	Y			1	0.15	5+600	199.878			235	199.563									* -.20% STATION 5+552 TO STATION 5+600
		1769	8084.3	472.3								13.3															

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KENNETH P. HERCEG REGISTERED NO. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: JJB | DRAWN: DEB
CHECKED: CAK | CHECKED: JJB

INDIANA
DEPARTMENT OF TRANSPORTATION

ROAD SUMMARY OF QUANTITIES
UNDERDRAIN TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	90 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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UNDERDRAIN TABLE - NORTH SIDE - WESTBOUND

	UNDERDRAIN PIPE										OUTLET PIPE										OUTLET PROTECTORS						
	Type 4 Pipe																						Location				
Underdrain Pipe Limits	100 mm	150 mm	Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required	Connect Underdrain Pipe to Structure No. __	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	150 mm Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. __	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. __	Structure Invert Elevation	Structure Backfill	HMA for underdrains	Outlet Protector No. __	Outlet Protector Type	Outside Left	Median Left	Median Right	Outside Right	Remarks
	m	m	m^2	m^3	Mg	%		(Y/N)				m							m^3	Mg							
5+600							200.101	Y			1	0.15	5+600	200.101			235	199.563									
5+672		72	329.0	19.22			200.213	N																			
5+672							200.213	N																			
5+700		28	128.0	7.48			200.195	Y			1	0.15	5+700	200.195			243	199.633									
5+700							200.195	N																			
5+750		50	228.5	13.35			200.098	Y			1	0.15	5+750	200.098			248	199.822									
5+750							200.098	N																			
5+799		49	223.9	13.08			199.994	Y			1	0.15	5+799	199.994			259	199.818									
		199	909.4	53.1								0.6															

HERCEG
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS
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KENNETH P. HERCEG REGISTERED NO. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: JJB DRAWN: DEB
CHECKED: CAK CHECKED: JJB

INDIANA
DEPARTMENT OF TRANSPORTATION

ROAD SUMMARY OF QUANTITIES
UNDERDRAIN TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	91 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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STRUCTURE DATA

STRUCTURE NUMBER	LOCATION: STATION	LOCATION: OFFSET	SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH	SKEW	COVER	FLOW LINE: UP STREAM	FLOW LINE: DOWN STREAM	SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STR. BACKFILL	REVETMENT RIPRAP	CONCRETE, CLASS A, FOR STRUCTURES	PIPE END SECTION	GRATED BOX END SECTION: TYPE	GRATED BOX END SECTION: SLOPE	GRATED BOX END SECTION: EA.	SAFETY METAL END SECTION: SLOPE	SAFETY METAL END SECTION: EA.	CONNECT TO STR. NO.	REMARKS
						m		m	ELEV.	ELEV.	YR.				m^3	Mg	m^3	EA.	TYPE	SLOPE	EA.	SLOPE	EA.		
57	3+951	13.800m RT	375 mm	2	INLET TYPE C-15	29.8		0.482	199.068	198.946	75	N	7.0	1	25.6									59	RIM ELEVATION = 200.251
57A	3+945	13.800m RT	375 mm	2	PIPE	5.3		0.482	199.070	199.068	75	N	7.0	1	4.5										PLUG AT STA. 3+945
58	3+951	13.800m LT	375 mm	2	INLET TYPE C-15, MODIFIED	34.5		0.785	198.622	198.621	75	N	7.0	1	41.9									61	RIM ELEVATION = 200.248
58A	3+945	13.800m LT	375 mm	2	PIPE	5.3			198.624	198.622	75	N	7.0	1	1.7										PLUG AT STA. 3+945
59	3+982	13.800m RT	450 mm	2	INLET TYPE C-15	31.7		0.520	198.871	198.772	75	N	7.0	1	32.4									63	RIM ELEVATION = 200.141
60	3+986	16.700m LT	450 mm	2	INLET TYPE C-15, MODIFIED	1.6		0.718	198.626	198.618	75	N	7.0	1	2.0									61	RIM ELEVATION = 200.094
61	3+988	18.600m LT	600 mm	2	MANHOLE TYPE H-4	81.6		1.166	198.481	198.314	75	N	7.0	2	22.0									68	RIM ELEVATION = 200.247
62	3+998	14.400m LT	300 mm	2	INLET TYPE B-15, MODIFIED	11.0		0.810	198.687	198.626	75	N	7.0	1	12.1									60	RIM ELEVATION = 200.097
63	4+015	13.800m RT	450 mm	2	INLET TYPE C-15	8.6		0.577	198.772	198.742	75	N	7.0	1	9.4									65	RIM ELEVATION = 200.105
64	4+025	11.400m RT	600 mm	2	MANHOLE TYPE H-4	43.8		1.566	198.137	198.001	75	N	7.0	1	128.8									76	RIM ELEVATION = 200.201
65	4+025	13.800m RT	600 mm	2	INLET TYPE C-15, MODIFIED	0.6		0.616	198.592	198.590	75	N	7.0	1	0.9									64	RIM ELEVATION = 200.108
66	4+015	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	39.6		0.300	199.208	199.053	75	N	7.0	1	22.1									67	RIM ELEVATION = 200.105
67	4+056	13.800m LT	375 mm	2	INLET TYPE C-15	34.0		0.436	199.053	198.843	75	N	7.0	1	27.4									70	RIM ELEVATION = 200.164
68	4+071	16.200m LT	1200 mm	2	MANHOLE TYPE L-4	18.1		2.691	196.224	195.862	75	N	7.0	1	175.0									72	RIM ELEVATION = 200.415
69	4+057	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	30.9		0.515	199.052	198.892	75	N	7.0	1	24.2									65	RIM ELEVATION = 200.167
70	4+091	13.800m LT	600 mm	2	INLET TYPE C-15	1.4		0.789	198.618	198.608	75	N	7.0	1	2.4									71	RIM ELEVATION = 200.307
71	4+091	16.000m LT	900 mm	2	MANHOLE TYPE H-4	4.5		1.568	198.031	197.994	75	N	7.0	2	2.5									72	RIM ELEVATION = 200.499
72	4+091	22.400m LT	1200 mm	2	MANHOLE TYPE L-4	20.3		2.321	195.170	194.764	75	N	7.0	2	19.3									373	RIM ELEVATION = 198.691
73	4+097	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	29.1		0.567	199.143	198.993	75	N	7.0	1	24.4									75	RIM ELEVATION = 200.340
74	4+127	11.400m RT	900 mm	2	MANHOLE TYPE H-4	54.0		1.935	197.762	197.697	75	N	7.0	1	289.5									76	RIM ELEVATION = 200.664
75	4+127	13.800m RT	450 mm	2	INLET TYPE C-15, MODIFIED	0.6		0.950	198.843	198.840	75	N	7.0	1	0.9									74	RIM ELEVATION = 200.542
76	4+072	11.400m RT	900 mm	2	MANHOLE TYPE L-4	26.0		2.642	196.866	196.824	75	N	7.0	1	183.4									68	RIM ELEVATION = 200.387
77	4+131	13.800m LT	300 mm	2	INLET TYPE C-15	39.0		0.600	199.374	199.198	75	N	7.0	1	34.0									70	RIM ELEVATION = 200.574
78	4+132	46.200m LT	1500mmX1500mm	2	CONCRETE CULVERT EXTENSION,PRECAST PRECAST REINFORCED CULVERT BOX SECTION	17.0	10		189.550	189.130	75	N	7.0			*									
79	4+138	13.800m RT	375 mm	2	INLET TYPE C-15, MODIFIED	9.8		0.992	198.962	198.918	75	N	7.0	1	14.4									75	RIM ELEVATION = 200.629
80	4+173	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	40.8		0.426	199.584	199.374	75	N	7.0	1	28.1									77	RIM ELEVATION = 201.910
81	4+176	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	36.6		1.183	199.151	198.962	75	N	7.0	1	55.8									79	RIM ELEVATION = 200.934
82	4+212	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	1.7		1.301	199.521	199.499	75	N	7.0	1	2.8									83	RIM ELEVATION = 201.222
83	4+212	16.000m LT	900 mm	2	MANHOLE TYPE H-4	119.4		1.946	198.571	198.366	75	N	7.0	2	65.7									71	RIM ELEVATION = 201.417
84	4+222	11.400m RT	750 mm	2	MANHOLE TYPE H-4	94.5		2.551	198.056	197.914	75	N	7.0	1	539.5									74	RIM ELEVATION = 201.286
85	4+254	16.000m LT	750 mm	2	MANHOLE TYPE H-4, MODIFIED	40.6		2.369	198.637	198.571	75	N	7.0	2	16.2									83	RIM ELEVATION = 201.756
86	4+222	13.800m RT	300 mm	2	INLET TYPE C-15, MODIFIED	0.6		1.195	199.509	199.505	75	N	7.0	1	0.9									84	RIM ELEVATION = 201.302
87	4+254	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	1.7		0.691	200.377	200.363	75	N	7.0	1	1.6									85	RIM ELEVATION = 201.588
88	4+262	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	0.6		1.313	199.709	199.705	75	N	7.0	1	1.0									93A	RIM ELEVATION = 201.622
88A	4+262	11.400m RT	750 mm	2	MANHOLE TYPE H-15	30.5		2.147	199.093	199.048	75	N	7.0	1	148.4									119A	RIM ELEVATION = 201.968
89	4+336	16.000m LT	750 mm	2	MANHOLE TYPE H-4	35.1		2.396	199.266	199.209	75	N	7.0	2	14.0									91	RIM ELEVATION = 202.412
90	4+299	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	1.7		0.600	200.717	200.703	75	N	7.0	1	1.5									91	RIM ELEVATION = 201.917
91	4+299	16.000m LT	750 mm	2	MANHOLE TYPE H-4	44.0		2.157	199.209	199.137	75	N	7.0	2	17.6									85	RIM ELEVATION = 202.116
92	4+346	11.400m LT	750 mm	2	MANHOLE TYPE H-4	40.5		2.321	199.223	199.153	75	N	7.0	1	211.6									88A	RIM ELEVATION = 202.549
93	4+304	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	0.6		0.600	200.757	200.754	75	N	7.0	1	0.5									93A	RIM ELEVATION = 201.957
93A	4+304	11.400m RT	750 mm	2	MANHOLE TYPE H-4	40.5		1.875	199.153	199.093	75	N	7.0	1	174.6									88A	RIM ELEVATION = 202.029
94	4+368	16.000m LT	750 mm	2	MANHOLE TYPE H-4	28.5		1.974	199.316	199.266	75	N	7.0	1	128.5									89	RIM ELEVATION = 202.043
95	4+336	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	1.7		0.600	201.013	200.999	75	N	7.0	1	1.5									89	RIM ELEVATION = 202.213
96	4+346	13.800m RT	300 mm	2	INLET TYPE C-15, MODIFIED	0.6		1.221	200.472	200.469	75	N	7.0	1	0.9									92	RIM ELEVATION = 202.293
97	4+360	18.600m RT	300 mm	2	CATCH BASIN TYPE E-7	15.0		0.900	201.347	201.273	75	N	7.0	1	18.0									96	RIM ELEVATION = 202.547
98	4+372	20.800m LT	375 mm	2	CATCH BASIN TYPE E-7, MODIFIED	5.2		0.843	201.166	201.140	75	N	7.0	2	0.8									94	RIM ELEVATION = 202.520
99	4+375	18.600m LT	300 mm	2	INLET TYPE B-15, MODIFIED	3.3		0.599	201.182	201.166	75	N	7.0	1	2.9									98	RIM ELEVATION = 202.381
100	4+424	11.400m RT	750 mm	2	MANHOLE TYPE H-4	76.5		2.031	199.820	199.702	75	N	7.0	1	353.9									92	RIM ELEVATION = 203.135
101	4+396	19.500m RT	375 mm	2	INLET TYPE B-15, MODIFIED	25.9		1.441	200.800	200.690	75	N	7.0	1	52.9									106	RIM ELEVATION = 202.805
102	4+395	16.000m LT	375 mm	2	INLET TYPE B-15, MODIFIED	1.6		0.574	201.440	201.427	75	N	7.0	1	1.5									103	RIM ELEVATION = 202.614
103	4+397	17.400m LT	750 mm	2	MANHOLE TYPE H-4	28.0		2.337	199.364	199.316	75	N	7.0	1	147.2									94	RIM ELEVATION = 202.811

* SEE WEST OUTFALL DETAILS SHEET AND/OR CONSTRUCTION DETAILS SHEET

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RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M. DRAWN: D.E.B./BAB

CHECKED: J.J.B. CHECKED: C.A.K.

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA SHEET

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	92 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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STRUCTURE DATA

STRUCTURE NUMBER	LOCATION STATION	LOCATION OFFSET	SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH m	SKEW	COVER m	FLOW LINE UP STREAM ELEV.	FLOW LINE DOWN STREAM ELEV.	SERVICE LIFE YR.	SITE DESIGNATION	pH	BACKFILL METHOD	STR. BACKFILL m^3	REVETMENT RIPRAP Mg	CONCRETE, CLASS A, FOR STRUCTURES m^3	PIPE END SECTION EA.	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION SLOPE	GRATED BOX END SECTION EA.	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EA.	CONNECT TO STR. NO.	REMARKS
104	4+397	21.600m RT	375 mm	2	CATCH BASIN TYPE E-7	1.8		1.191	200.850	200.800	75	N	7.0	1	3.1									101	RIM ELEVATION = 202.576
105	4+400	20.200m LT	300 mm	2	CATCH BASIN TYPE E-7	2.3		0.900	201.352	201.336	75	N	7.0	2	0.3									103	RIM ELEVATION = 202.552
106	4+424	13.800m RT	375 mm	2	INLET TYPE B-15, MODIFIED	0.6		1.578	200.690	200.640	75	N	7.0	1	1.3									100	RIM ELEVATION = 202.918
107	4+434	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	2.9		0.681	201.711	201.691	75	N	7.0	1	2.8									115	RIM ELEVATION = 202.992
108	4+467	11.400m RT	750 mm	2	MANHOLE TYPE H-4	41.5		2.330	199.885	199.820	75	N	7.0	1	217.6									100	RIM ELEVATION = 203.226
109	4+467	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	0.6		0.385	202.199	202.160	75	N	7.0	1	0.41									108	RIM ELEVATION = 203.190
110	4+469	21.900m LT	300 mm	2	INLET TYPE B-15, MODIFIED	25.8		0.600	201.728	201.594	75	N	7.0	1	22.5									112	RIM ELEVATION = 202.928
111	4+495	14.600m LT	300 mm	2	INLET TYPE B-15, MODIFIED	1.3		0.625	202.077	202.065	75	N	7.0	1	1.2									112	RIM ELEVATION = 203.302
112	4+495	16.000m LT	750 mm	2	MANHOLE TYPE H-4	59.6		3.242	199.516	199.420	75	N	7.0	2	23.8									115	RIM ELEVATION = 203.508
113	4+512	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	0.6		0.899	201.839	201.831	75	N	7.0	1	0.7									131	RIM ELEVATION = 203.334
114	4+562	16.000m RT	300 mm	2	INLET TYPE B-15, MODIFIED	3.2		0.664	202.169	202.057	75	N	7.0	1	3.0									128	RIM ELEVATION = 203.377
115	4+434	16.000m LT	750 mm	2	MANHOLE TYPE H-4	35.2		2.838	199.420	199.364	75	N	7.0	2	14.1									103	RIM ELEVATION = 203.148
116	4+173	18.000m LT	375 mm	2	CATH BASIN TYPE E-7	17.0		0.575	199.340	198.200	75	N	7.0	2	2.7	2.1		1							RIM ELEVATION = 200.290
117	4+577	13.800m RT	300 mm	2	INLET TYPE B-15, MODIFIED	1.3		0.600	202.135	202.123	75	N	7.0	1	1.1									118	RIM ELEVATION = 203.335
118	4+577	16.000m LT	750 mm	2	MANHOLE TYPE H-4	80.2		3.131	199.644	199.516	75	N	7.0	2	32.1									112	RIM ELEVATION = 203.525
119	4+230	18.400m RT	300 mm	2	CATCH BASIN TYPE E-7	4.7		0.443	200.594	200.570	75	N	7.0	1	3.3									119A	RIM ELEVATION = 201.194
119A	4+230	11.400m RT	750 mm	2	MANHOLE TYPE H-4	6.5		1.278	199.048	199.038	75	N	7.0	1	20.4									84	RIM ELEVATION = 201.456
120	4+619	13.000m RT	300 mm	2	INLET TYPE B-15, MODIFIED	3.5		0.609	201.966	201.942	75	N	7.0	1	3.1									129	RIM ELEVATION = 203.233
121	4+636	10.200m LT	300 mm	2	INLET TYPE B-15, MODIFIED	17.7		0.603	202.000	201.905	75	N	7.0	1	15.5									124	RIM ELEVATION = 203.203
122	4+654	7.800m RT	750 mm	2	MANHOLE TYPE H-4	33.5		2.022	200.168	200.120	75	N	7.0	1	154.4									129	RIM ELEVATION = 203.131
123	4+654	10.200m RT	450 mm	2	INLET TYPE C-15, MODIFIED	1.1		1.096	201.255	201.251	75	N	7.0	1	2.0									122	RIM ELEVATION = 203.067
124	4+655	10.200m LT	375 mm	2	INLET TYPE C-15	24.8		0.570	201.830	201.727	75	N	7.0	1	23.8									125	RIM ELEVATION = 203.075
125	4+681	10.200m LT	600 mm	2	INLET TYPE C-15, MODIFIED	1.8		1.938	200.023	200.015	75	N	7.0	1	6.4									126	RIM ELEVATION = 202.861
126	4+681	12.400m LT	600 mm	2	MANHOLE TYPE C-4	102.7		2.143	200.015	199.794	75	N	7.0	2	27.7									118	RIM ELEVATION = 203.058
127	4+690	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	33.8		0.600	201.580	201.405	75	N	7.0	1	29.5									123	RIM ELEVATION = 202.780
128	4+562	11.400m RT	750 mm	2	MANHOLE TYPE H-4	48.5		2.374	200.038	199.960	75	N	7.0	1	258.8									131	RIM ELEVATION = 203.413
128A	4+585	11.400m RT	750 mm	2	MANHOLE TYPE H-4	24.5		2.304	200.072	200.038	75	N	7.0	1	127.1									128	RIM ELEVATION = 203.404
129	4+619	7.800m RT	750 mm	2	MANHOLE TYPE H-4	32.7		2.227	200.118	200.071	75	N	7.0	1	164.5									128A	RIM ELEVATION = 203.340
130	4+700	10.200m LT	450 mm	2	INLET TYPE C-15, MODIFIED	17.9		1.336	200.604	200.510	75	N	7.0	1	37.7									125	RIM ELEVATION = 202.690
131	4+512	11.400m RT	750 mm	2	MANHOLE TYPE H-4	43.5		2.358	199.958	199.884	75	N	7.0	1	230.6									108	RIM ELEVATION = 203.432
132	4+720	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	23.8		0.566	201.350	201.225	75	N	7.0	1	19.9									137	RIM ELEVATION = 202.516
133	4+774	10.200m LT	450 mm	2	INLET TYPE C-15	12.8		0.607	200.901	200.864	75	N	7.0	1	14.5									139	RIM ELEVATION = 202.258
134	4+723	10.200m LT	450 mm	2	INLET TYPE C-15, MODIFIED	21.8		1.024	200.719	200.604	75	N	7.0	1	36.6									130	RIM ELEVATION = 202.493
135	4+774	10.200m RT	450 mm	2	INLET TYPE C-15	7.7		0.610	200.898	200.870	75	N	7.0	1	8.8									141	RIM ELEVATION = 202.258
136	4+740	10.200m LT	450 mm	2	INLET TYPE C-15, MODIFIED	15.7		0.827	200.804	200.719	75	N	7.0	1	22.3									134	RIM ELEVATION = 202.381
137	4+745	10.200m RT	375 mm	2	INLET TYPE C-15	19.0		0.530	201.150	201.070	75	N	7.0	1	17.4									141	RIM ELEVATION = 202.355
138	N.I.C.																								
139	4+760	10.200m LT	450 mm	2	INLET TYPE C-15, MODIFIED	18.9		0.679	200.864	200.804	75	N	7.0	1	23.2									136	RIM ELEVATION = 202.293
140	4+765	7.800m RT	600 mm	2	MANHOLE TYPE H-4	109.5		1.168	200.538	200.316	75	N	7.0	1	251.5									122	RIM ELEVATION = 202.258
141	4+765	10.200m RT	600 mm	2	INLET TYPE C-15, MODIFIED	0.6		0.494	200.845	200.843	75	N	7.0	1	0.8									140	RIM ELEVATION = 202.218
142	4+804	10.200m RT	450 mm	2	INLET TYPE C-15	13.8		0.419	201.090	201.043	75	N	7.0	1	12.4									146	RIM ELEVATION = 202.259
143	4+789	10.200m LT	450 mm	2	INLET TYPE C-15	13.8		0.551	200.949	200.901	75	N	7.0	1	14.7									133	RIM ELEVATION = 202.250
145	4+979	21.900m LT	375 mm	2	INLET TYPE C-15	8.8		0.453	201.827	201.789	75	N	7.0	1	7.3									162	RIM ELEVATION = 202.955
146	4+789	10.200m RT	450 mm	2	INLET TYPE C-15	13.8		0.564	200.945	200.898	75	N	7.0	1	14.9									135	RIM ELEVATION = 202.259
147	4+800	10.200m LT	450 mm	2	INLET TYPE C-15	9.7		0.368	201.128	201.093	75	N	7.0	1	8.1									143	RIM ELEVATION = 202.246
148	4+825	10.200m LT	450 mm	2	INLET TYPE C-15	23.7		0.368	201.203	201.128	75	N	7.0	1	19.8									147	RIM ELEVATION = 202.321
149	4+835	10.200m RT	450 mm	2	INLET TYPE C-15	30.0		0.432	201.186	201.090	75	N	7.0	1	27.4									142	RIM ELEVATION = 202.368
150	4+973	11.400m RT	375 mm	2	MANHOLE TYPE H-4	26.6		0.668	201.809	201.697	75	N	7.0	1	28.6									159	RIM ELEVATION= 203.193

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Fax (574) 288-0195
KEN HERCEG & ASSOCIATES, INC.
ENGINEERS, ARCHITECTS & LAND SURVEYORS

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 8/7/06

DESIGNED: D.N.M. DRAWN: D.E.B./BAB

CHECKED: J.J.B. CHECKED: C.A.K.

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA SHEET

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	93 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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STRUCTURE DATA

STRUCTURE NUMBER	LOCATION: STATION	LOCATION: OFFSET	SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH	SKEW	COVER	FLOW LINE: UP STREAM	FLOW LINE: DOWN STREAM	SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STR. BACKFILL	REVETMENT RIPRAP	CONCRETE, CLASS A, FOR STRUCTURES	PIPE END SECTION	GRATED BOX END SECTION: TYPE	GRATED BOX END SECTION: SLOPE	GRATED BOX END SECTION: EA.	SAFETY METAL END SECTION: SLOPE	SAFETY METAL END SECTION: EA.	CONNECT TO STR. NO.	REMARKS
						m		m	ELEV.	ELEV.	YR.				m³	Mg	m³	EA.							
150A	4+992	11.400m RT	375 mm	2	MANHOLE TYPE H-4	17.5		0.625	202.023	202.809	75	N	7.0	1	17.9									150	RIM ELEVATION = 203.240
151	4+850	10.200m RT	450 mm	2	INLET TYPE C-15	13.8		0.471	201.239	201.186	75	N	7.0	1	13.3									149	RIM ELEVATION= 202.460
152	4+855	10.200m LT	375 mm	2	INLET TYPE C-15	28.8		0.497	201.323	201.420	75	N	7.0	1	25.2									148	RIM ELEVATION= 202.495
153	4+875	10.200m RT	450 mm	2	INLET TYPE C-15	23.8		0.551	201.451	201.401	75	N	7.0	1	25.3									151	RIM ELEVATION= 202.635
154	4+885	10.200m LT	375 mm	2	INLET TYPE C-15	28.8		0.587	201.554	201.473	75	N	7.0	1	28.2									152	RIM ELEVATION= 202.705
155	4+900	10.200m RT	375 mm	2	INLET TYPE C-15	23.2		0.620	201.537	201.454	75	N	7.0	1	23.6									153	RIM ELEVATION= 202.810
156	4+905	10.200m LT	375 mm	2	INLET TYPE C-15	19.0		0.646	201.607	201.554	75	N	7.0	1	19.9									154	RIM ELEVATION= 202.845
157	4+922	12.800m RT	375 mm	2	INLET TYPE C-15	21.2		0.608	201.616	201.537	75	N	7.0	1	21.3									155	RIM ELEVATION= 202.888
158	4+920	10.200m LT	375 mm	2	INLET TYPE C-15	13.8		0.691	201.646	201.607	75	N	7.0	1	15.2									156	RIM ELEVATION= 202.950
159	4+945	13.800m RT	375 mm	2	INLET TYPE C-15	21.8		0.626	201.697	201.616	75	N	7.0	1	22.4									157	RIM ELEVATION= 202.998
160	4+945	10.200m LT	375 mm	2	INLET TYPE C-15	23.7		0.744	201.712	201.646	75	N	7.0	1	27.6									158	RIM ELEVATION= 203.103
160A	4+960	10.200m LT	375 mm	2	INLET TYPE C-15	15.0		0.742	201.754	201.712	75	N	7.0	1	17.5									160	RIM ELEVATION= 203.168
161	4+971	16.400m RT	300 mm	2	INLET TYPE B-15, MODIFIED	4.4		0.505	201.915	201.887	75	N	7.0	1	3.4									150	RIM ELEVATION= 203.020
162	4+970	17.600m RT	375 mm	2	CATCH BASIN TYPE E-7	8.4		0.436	201.789	201.754	75	N	7.0	1	6.8									160A	RIM ELEVATION= 202.600
163	4+982	37.500m RT	300 mm	2	INLET TYPE B-15, MODIFIED	9.9		0.600	202.181	202.140	75	N	7.0	1	8.6									164	RIM ELEVATION= 203.381
164	4+992	37.500m RT	375 mm	2	INLET TYPE C-15, MODIFIED	24.8		1.711	202.140	202.023	75	N	7.0	1	59.6									150A	RIM ELEVATION= 203.451
165	4+994	21.900m LT	300 mm	2	INLET TYPE B-15, MODIFIED	14.9		0.450	201.905	201.827	75	N	7.0	1	10.6									145	RIM ELEVATION= 202.955
166	5+000	11.400m RT	300 mm	2	INLET TYPE B-15, MODIFIED	6.3		0.609	202.056	202.023	75	N	7.0	1	5.6									150A	RIM ELEVATION= 203.256
166	5+000	11.400m RT	300 mm	2	INLET TYPE B-15, MODIFIED	6.3		0.609	202.056	202.023	75	N	7.0	1	16.8									150A	RIM ELEVATION= 203.256
166	5+000	11.400m RT	300 mm	2	INLET TYPE B-15, MODIFIED	6.3		0.609	202.056	202.023	75	N	7.0	1	12.0									150A	RIM ELEVATION= 203.256
169	5+080	10.200m LT	300 mm	2	INLET TYPE C-15	18.8		0.636	201.914	201.808	75	N	7.0	1	17.1									171	RIM ELEVATION= 203.150
170	5+085	10.200m RT	300 mm	2	INLET TYPE C-15	18.8		0.637	201.891	201.791	75	N	7.0	1	19.5									172	RIM ELEVATION= 203.128
171	5+100	10.200m LT	300 mm	2	INLET TYPE C-15	18.8		0.652	201.808	201.701	75	N	7.0	1	17.4									173	RIM ELEVATION= 203.060
172	5+105	10.200m RT	375 mm	2	INLET TYPE C-15	23.7		0.647	201.716	201.616	75	N	7.0	1	24.9									174	RIM ELEVATION= 203.038
173	5+120	10.200m LT	375 mm	2	INLET TYPE C-15	18.8		0.701	201.669	201.562	75	N	7.0	1	18.4									175	RIM ELEVATION= 202.970
174	5+130	10.200m RT	375 mm	2	INLET TYPE C-15	23.8		0.634	201.616	201.516	75	N	7.0	1	24.6									177	RIM ELEVATION= 202.925
175	5+140	10.200m LT	375 mm	2	INLET TYPE C-15, MODIFIED	18.8		1.204	201.001	200.922	75	N	7.0	1	32.6									178	RIM ELEVATION= 202.880
176	5+140	17.000m LT	375 mm	2	CATCH BASIN TYPE E-7	7.2		0.375	201.033	201.001	75	N	7.0	2	1.2									175	RIM ELEVATION= 201.783
177	5+155	10.200m RT	375 mm	2	INLET TYPE C-15	23.9		0.622	201.516	201.416	75	N	7.0	1	24.4									179	RIM ELEVATION= 202.813
178	5+160	10.200m LT	375 mm	2	INLET TYPE C-15, MODIFIED	19.0		1.193	200.922	200.842	75	N	7.0	1	32.7									180	RIM ELEVATION= 202.790
179	5+180	10.200m RT	450 mm	2	INLET TYPE C-15	18.8		0.609	201.341	201.281	75	N	7.0	1	21.4									184	RIM ELEVATION= 202.700
180	5+180	11.700m LT	450 mm	2	INLET TYPE C-15, MODIFIED	1.4		1.153	200.767	200.759	75	N	7.0	1	2.6									181	RIM ELEVATION= 202.670
181	5+180	13.800m LT	450 mm	2	MANHOLE TYPE H-4	16.7		2.185	200.224	200.167	75	N	7.0	2	3.2									183	RIM ELEVATION= 202.859
182	5+180	19.000m LT	300 mm	2	CATCH BASIN TYPE E-7	3.7		0.364	201.008	200.982	75	N	7.0	2	0.5									181	RIM ELEVATION= 201.672
183	5+198	15.800m LT	450 mm	2	MANHOLE TYPE H-4	21.3		2.128	200.167	200.096	75	N	7.0	1	69.6									190	RIM ELEVATION= 202.745
184	5+200	10.200m RT	450 mm	2	INLET TYPE C-15	18.8		0.579	201.281	201.221	75	N	7.0	1	20.6									188	RIM ELEVATION= 202.610
185	5+199	13.800m LT	300 mm	2	INLET TYPE B-15, MODIFIED	1.3		0.665	201.249	201.237	75	N	7.0	1	1.2									183	RIM ELEVATION= 202.514
186	5+206	23.300m LT	300 mm	2	INLET TYPE B-15, MODIFIED	11.2		0.822	200.750	200.691	75	N	7.0	1	12.5									187	RIM ELEVATION= 202.172
187	5+219	23.300m LT	375 mm	2	INLET TYPE C-15, MODIFIED	4.8		0.833	200.616	200.591	75	N	7.0	1	6.1									190	RIM ELEVATION= 202.124
188	5+220	10.200m RT	450 mm	2	INLET TYPE C-15	23.8		0.549	201.221	201.146	75	N	7.0	1	25.2									192	RIM ELEVATION= 202.520
189	5+227	15.400m LT	300 mm	2	INLET TYPE B-15, MODIFIED	12.2		0.872	200.883	200.821	75	N	7.0	1	14.3									191	RIM ELEVATION= 202.355
190	5+221	17.300m LT	600 mm	2	MANHOLE TYPE H-4	37.6		1.529	199.946	199.863	75	N	7.0	2	10.2									194	RIM ELEVATION= 202.375
191	5+240	13.800m LT	375 mm	2	INLET TYPE C-15, MODIFIED	18.6		0.939	200.746	200.667	75	N	7.0	1	26.1									193	RIM ELEVATION= 202.360
192	5+245	10.200m RT	450 mm	2	INLET TYPE C-15	19.0		0.512	200.995	200.934	75	N	7.0	1	19.3									195	RIM ELEVATION= 202.408
193	5+260	11.600m LT	450 mm	2	INLET TYPE C-15, MODIFIED	1.5		0.970	200.592	200.584	75	N	7.0	1	2.4									194	RIM ELEVATION= 202.312
194	5+260	13.800m LT	600 mm	2	MANHOLE TYPE H-4	98.5		2.041	199.863	199.651	75	N	7.0	2	26.6									207	RIM ELEVATION= 202.504
195	5+265	10.200m RT	450 mm	2	INLET TYPE C-15	8.1		0.482	200.070	200.044	75	N	7.0	1	7.9									198	RIM ELEVATION= 202.318
196	5+280	10.200m LT	300 mm	2	INLET TYPE B-15, MODIFIED	18.8		0.600	201.050	200.950	75	N	7.0	1	16.4									199	RIM ELEVATION= 202.250
197	5+282	10.200m RT	300 mm	2	INLET TYPE B-15	15.5		0.471	201.041	200.963	75	N	7.0	1	14.9									195	RIM ELEVATION= 202.241

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16519	94 of 131
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R-28381	NH-L540()

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STRUCTURE DATA

STRUCTURE NUMBER	LOCATION STATION	LOCATION OFFSET	SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH (m)	SKEW	COVER (m)	FLOW LINE UP STREAM ELEV.	FLOW LINE DOWN STREAM ELEV.	SERVICE LIFE (YR.)	SITE DESIGNATION	pH	BACKFILL METHOD	STR. BACKFILL (m^3)	REVETMENT RIPRAP (Mg)	CONCRETE, CLASS A, FOR STRUCTURES (m^3)	PIPE END SECTION (EA.)	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION SLOPE	GRATED BOX END SECTION EA.	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EA.	CONNECT TO STR. NO.	REMARKS
198	5+268	18.200m RT	450 mm	2	CATCH BASIN TYPE E-7	49.0		1.810	200.044	199.865	75	N	7.0	2	13.2									288	RIM ELEVATION = 200.794
199	5+300	10.200m LT	375 mm	2	INLET TYPE C-15	18.8		0.610	200.875	200.795	75	N	7.0	1	18.9									201	RIM ELEVATION = 202.160
200	5+310	10.200m RT	300 mm	2	INLET TYPE B-15	23.9		0.600	201.115	200.818	75	N	7.0	1	20.8									202	RIM ELEVATION = 202.115
201	5+320	10.200m LT	375 mm	2	INLET TYPE C-15	18.9		0.600	200.795	200.714	75	N	7.0	1	18.8									204	RIM ELEVATION = 202.070
202	5+335	10.200m RT	375 mm	2	INLET TYPE C-15	8.0		0.613	200.818	200.553	75	N	7.0	1	8.1									202A	RIM ELEVATION = 202.003
202A	5+335	18.200m RT	450 mm	2	CATCH BASIN TYPE E-7	29.5			199.803	199.685	75	N	7.0	2	33.7									215	RIM ELEVATION = 200.569
203	N.I.C.																								
204	5+340	10.200m LT	375mm	2	INLET TYPE C-15	18.8		0.591	200.714	200.635	75	N	7.0	1	18.5									206	RIM ELEVATION = 201.980
205	5+360	10.200m RT	300 mm	2	INLET TYPE B-15	24.0		0.600	200.890	200.818	75	N	7.0	1	20.9									202	RIM ELEVATION = 201.890
206	5+360	10.200m LT	450 mm	2	INLET TYPE C-15	2.2		0.580	200.560	200.550	75	N	7.0	1	2.4									207	RIM ELEVATION = 201.890
207	5+360	13.200m LT	600 mm	2	MANHOLE TYPE H-4	70.0		1.824	199.651	199.499	75	N	7.0	2	18.9									217	RIM ELEVATION = 202.075
208	5+360	14.000m LT	300 mm	2	CATCH BASIN TYPE E-7	2.1		0.450	200.371	200.354	75	N	7.0	2	0.3									207	RIM ELEVATION = 201.121
209	5+380	10.200m LT	300 mm	2	INLET TYPE B-15, MODIFIED	18.6		0.600	200.600	200.492	75	N	7.0	1	16.2									211	RIM ELEVATION = 201.800
210	5+385	10.200m RT	375 mm	2	INLET TYPE B-15	18.8		0.613	200.494	200.410	75	N	7.0	1	19.0									212	RIM ELEVATION = 201.778
211	5+400	10.200m LT	300 mm	2	INLET TYPE C-15	18.7		0.618	200.492	200.386	75	N	7.0	1	16.7									213	RIM ELEVATION = 201.710
212	5+405	10.200m RT	450 mm	2	INLET TYPE C-15	18.9		0.603	200.335	200.255	75	N	7.0	1	21.3									214	RIM ELEVATION = 201.688
213	5+420	10.200m LT	300 mm	2	INLET TYPE C-15	10.8		0.634	200.386	200.322	75	N	7.0	1	9.8									218	RIM ELEVATION = 201.620
214	5+425	11.000m RT	450 mm	2	INLET TYPE C-15	9.2		0.585	200.255	200.216	75	N	7.0	1	10.2									274	RIM ELEVATION = 201.590
215	5+365	18.200m RT	450 mm	2	CATCH BASIN TYPE E-7	66.8		1.638	199.685	199.418	75	N	7.0	1	169.6									274	RIM ELEVATION = 200.451
216	N.I.C.																								
217	5+432	13.200m LT	750 mm	2	MANHOLE TYPE H-4	27.1		1.671	199.349	199.298	75	N	7.0	1	105.8									223	RIM ELEVATION = 201.770
218	5+432	10.200m LT	300 mm	2	INLET TYPE C-15	1.8		0.644	200.322	200.307	75	N	7.0	1	1.7									217	RIM ELEVATION = 201.566
219	N.I.C.																								
220	5+460	13.200m LT	300 mm	2	INLET TYPE B-15, MODIFIED	4.3		0.472	200.178	200.150	75	N	7.0	1	3.2									223	RIM ELEVATION = 201.374
221	5+465	11.700m RT	375 mm	2	INLET TYPE C-15, MODIFIED	13.5		0.672	200.094	199.951	75	N	7.0	1	14.6									225	RIM ELEVATION = 201.384
222	5+463	18.200m RT	1200 mm	2	MANHOLE TYPE K-4	15.2		1.713	198.168	198.150	75	N	7.0	2	14.4									275	RIM ELEVATION = 201.585
222A	5+479	13.200m RT	1200 mm	2	MANHOLE TYPE K-4	14.2		1.988	198.182	198.168	75	N	7.0	2	13.5									222	RIM ELEVATION = 201.440
223	5+459	17.800m LT	900 mm	2	MANHOLE TYPE H-4	38.3		0.477	199.303	199.253	75	N	7.0	2	21.1									227A	RIM ELEVATION = 200.497
224	5+478	10.200m LT	300 mm	2	INLET TYPE B-15, MODIFIED	20.5		0.906	200.153	200.038	75	N	7.0	1	24.7									226	RIM ELEVATION = 201.359
225	5+479	10.200m RT	450 mm	2	INLET TYPE C-15	1.0		0.996	199.951	199.895	75	N	7.0	1	1.5									227A	RIM ELEVATION = 201.354
226	5+500	10.200m LT	375 mm	2	INLET TYPE C-15	2.0		0.981	199.959	199.953	75	N	7.0	1	2.9									227A	RIM ELEVATION = 201.260
227	5+505	13.200m LT	900 mm	2	MANHOLE TYPE K-4	24.1		1.198	198.613	198.582	75	N	7.0	2	13.3									229A	RIM ELEVATION = 201.462
227A	5+500	14.100m LT	900 mm	2	MANHOLE TYPE H-4	3.0		1.310	199.253	199.249	75	N	7.0	2	1.7									227	RIM ELEVATION = 201.462
228	5+500	17.000m LT	750 mm	2	PIPE	2.3		1.198	200.428	200.423	75	N	7.0	2	0.9			1						227A	
229	5+500	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	19.6		0.905	200.055	199.951	75	N	7.0	1	23.6									225	RIM ELEVATION = 201.260
229A	5+505	13.200m RT	1200 mm	2	MANHOLE TYPE K-4	24.1		1.490	198.200	198.182	75	N	7.0	2	22.9									222A	RIM ELEVATION = 200.894
230	5+552	10.200m LT	300 mm	2	INLET TYPE C-15	13.7		0.905	199.894	199.814	75	N	7.0	1	16.5									230B	RIM ELEVATION = 201.099
230A	5+537	10.200m LT	300 mm	2	INLET TYPE B-15 , MODIFIED	13.8		0.839	199.975	199.894	75	N	7.0	1	15.6									230	RIM ELEVATION = 201.114
230B	5+567	10.200m LT	300 mm	2	INLET TYPE C-15	31.8		1.001	199.814	199.638	75	N	7.0	1	41.8									235	RIM ELEVATION = 201.115
231	5+552	10.200m RT	450 mm	2	INLET TYPE C-15, MODIFIED	1.3		1.755	199.049	199.025	75	N	7.0	1	3.5									232	RIM ELEVATION = 201.099
231A	5+537	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	13.8		1.770	199.526	199.424	75	N	7.0	1	30.9									231	RIM ELEVATION = 201.114
231B	5+567	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	13.8		1.685	199.526	199.424	75	N	7.0	1	29.4									231	RIM ELEVATION = 201.115
232	5+552	12.400m RT	750 mm	2	MANHOLE TYPE H-4	45.0		1.063	198.725	198.650	75	N	7.0	2	18.0									229A	RIM ELEVATION = 201.293
233	5+600	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	28.8		0.906	200.020	199.860	75	N	7.0	1	34.8									237	RIM ELEVATION = 201.226
234	5+600	14.000m LT	750 mm	2	MANHOLE TYPE H-4	93.3		0.877	198.915	198.763	75	N	7.0	2	37.3									227	RIM ELEVATION = 201.265
235	5+600	10.200m LT	375 mm	2	INLET TYPE C-15, MODIFIED	2.3		1.288	199.563	199.547	75	N	7.0	1	4.2									234	RIM ELEVATION = 201.226
236	5+630	10.200m LT	300 mm	2	INLET TYPE B-15, MODIFIED	23.8		0.905	200.095	199.962	75	N	7.0	1	28.7									240	RIM ELEVATION = 201.300
237	5+630	10.200m RT	300 mm	2	INLET TYPE C-15, MODIFIED	1.7		1.140	199.860	199.844	75	N	7.0	1	2.5									238	RIM ELEVATION = 201.300
238	5+630	12.400m RT	750 mm	2	MANHOLE TYPE H-4	76.4		1.085	199.067	198.942	75	N	7.0	2	30.6									232	RIM ELEVATION = 201.502
239	5+630	19.000m RT	525 mm	2	CATCH BASIN TYPE E-7	5.1		0.375	199.500	199.481	75	N	7.0	2	1.1									238	RIM ELEVATION = 200.400

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STRUCTURE DATA

STRUCTURE NUMBER	LOCATION STATION	LOCATION OFFSET	SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH m	SKEW	COVER m	FLOW LINE UP STREAM ELEV.	FLOW LINE DOWN STREAM ELEV.	SERVICE LIFE YR.	SITE DESIGNATION	pH	BACKFILL METHOD	STR. BACKFILL m^3	REVETMENT RIPRAP Mg	CONCRETE, CLASS A, FOR STRUCTURES m^3	PIPE END SECTION EA.	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION SLOPE	GRATED BOX END SECTION EA.	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EA.	CONNECT TO STR. NO.	REMARKS
240	5+655	10.200m LT	375 mm	2	INLET TYPE C-15, MODIFIED	43.8		1.070	199.887	199.708	75	N	7.0	1	68.6									243	RIM ELEVATION = 201.332
241	5+655	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	23.7		0.905	200.127	199.994	75	N	7.0	1	28.6									237	RIM ELEVATION = 201.332
242	5+700	13.800m LT	600 mm	2	MANHOLE TYPE H-4	98.7		0.825	199.266	199.065	75	N	7.0	2	26.6									234	RIM ELEVATION = 201.105
243	5+700	10.200m LT	450 mm	2	INLET TYPE C-15, MODIFIED	2.7		1.257	199.633	199.621	75	N	7.0	1	5.4									242	RIM ELEVATION = 201.320
244	5+700	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	23.8		0.905	200.115	199.982	75	N	7.0	1	28.7									246	RIM ELEVATION = 201.320
245	5+725	10.200m LT	375 mm	2	INLET TYPE B-15 MODIFIED	23.5		0.906	199.995	199.897	75	N	7.0	1	32.0									248	RIM ELEVATION = 201.276
246	5+725	10.200m RT	300 mm	2	INLET TYPE C-15	2.2		0.994	199.982	199.964	75	N	7.0	1	2.9									287	RIM ELEVATION = 201.276
247	5+750	13.800m LT	600 mm	2	MANHOLE TYPE H-4	48.3		0.728	199.364	199.266	75	N	7.0	2	13.0									242	RIM ELEVATION= 200.974
248	5+750	10.200m LT	450 mm	2	INLET TYPE C-15	2.8		0.951	199.822	199.810	75	N	7.0	1	4.4									247	RIM ELEVATION= 201.223
249	5+750	10.200m RT	300 mm	2	INLET TYPE B-15, MODIFIED	23.8		0.905	200.018	199.885	75	N	7.0	1	28.7									254	RIM ELEVATION= 201.223
250	N.I.C.																								
251	5+768	36.000m LT	375 mm	2	INLET TYPE B-15, MODIFIED	3.6		0.911	199.705	199.686	75	N	7.0	1	4.9									252	RIM ELEVATION= 200.991
252	5+773	36.000m LT	600 mm	2	MANHOLE TYPE H-4	20.6		1.030	199.461	199.415	75	N	7.0	1	42.9									253	RIM ELEVATION= 201.091
253	5+773	13.800m LT	600 mm	2	MANHOLE TYPE H-4	21.6		0.600	199.415	199.364	75	N	7.0	1	33.7									247	RIM ELEVATION= 201.077
254	5+775	10.200m RT	450 mm	2	INLET TYPE C-15, MODIFIED	2.2		1.052	199.668	199.658	75	N	7.0	1	3.8									256	RIM ELEVATION= 201.170
255	5+777	36.000m LT	375 mm	2	INLET TYPE B-15, MODIFIED	2.3		0.931	199.705	199.691	75	N	7.0	1	3.2									252	RIM ELEVATION= 201.011
256	5+778	13.200m RT	600 mm	2	MANHOLE TYPE H-4	48.5		0.632	199.507	199.409	75	N	7.0	2	13.1									287	RIM ELEVATION= 201.323
257	5+799	10.200m RT	375 mm	2	INLET TYPE B-15, MODIFIED	23.2		0.926	199.818	199.721	75	N	7.0	1	32.2									254	RIM ELEVATION= 201.119
258	N.I.C.																								
259	5+799	10.200m LT	375 mm	2	INLET TYPE B-15, MODIFIED	24.9		0.926	199.818	199.721	75	N	7.0	1	34.5									253	RIM ELEVATION= 201.119
260	5+843	18,200m LT	375 mm	3	PIPE	8.3		0.483	200.115	200.028	75	A	7.0	2	1.3			2							
261	5+871	17,300m LT	375 mm	3	PIPE	8.3		0.377	199.994	199.980	75	A	7.0	2	1.3			2							
262	N.I.C.																								
263-7	SEE NEXT SHEET																								
268	N.I.C.																								
269	N.I.C.																								
270-9	SEE NEXT SHEET																								
280-3	SEE NEXT SHEET																								
284-6	N.I.C.																								
287	5+725	13.200m RT	600 mm	2	MANHOLE TYPE H-4	93.5		0.638	199.409	199.217	75	N	7.0	2	25.2									238	RIM ELEVATION= 201.480
288	5+318	18.200m RT	450 mm	2	CATCH BASIN TYPE E-7	16.5		1.684	199.865	199.803	75	N	7.0	2	3.1									202A	RIM ELEVATION= 200.616
373	4+113	29.000m LT	1350 mm	2	MANHOLE TYPE M-4, MODIFIED	22.0		1.019	190.246	189.806	75	N	7.0	2	26.2									374	RIM ELEVATION= 196.613
374	4+134	36.000m LT	1350 mm	2	MANHOLE TYPE M-4	10.3		3.762	189.206	189.200	75	N	7.0	2	12.3	*		1							RIM ELEVATION= 194.343 1 EACH OF CONCRETE ANCHOR, 1350mm
376	5+913	15,200m RT	0.10 m^2	3	DEFORMED PIPE	11.6		0.300	200.143	200.090	75	A	7.0	2	1.2			2							
377	5+906	16,700m LT	0.10 m^2	3	DEFORMED PIPE	10.2		0.350	199.936	199.918	75	A	7.0	2	0.8			2							
378	N.I.C.																								
379	5+943	15,400m LT	0.10 m^2	3	DEFORMED PIPE	10.2		0.300	199.872	199.855	75	A	7.0	2	1.0			2							
380	5+982	13,400m LT	0.10 m^2	3	DEFORMED PIPE	10.4		0.350	199.805	199.787	75	A	7.0	2	1.0			2							
381	6+021	8.900m RT	0.10 m^2	3	DEFORMED PIPE	8.6		0.300	199.925	199.910	75	A	7.0	2	0.9							6:1	2		
382	6+043	8.100m RT	0.10 m^2	3	DEFORMED PIPE	9.0		0.300	199.885	199.860	75	A	7.0	2	0.9							6:1	2		
383	6+044	8.300m LT	0.10 m^2	3	DEFORMED PIPE	7.7		0.300	199.698	199.680	75	A	7.0	2	0.8							6:1	2		
384	4+100	34m+/- RT	1200mm	2	TWIN CULVERT PIPES	25.0		0.000	197.500	195.031	75	A	7.0	2	0.0				2					385/386	CONNECT CULVERT PIPES TO STR. 385 & STR. 386
386	4+127	36.00m RT	1200 mm	2	MANHOLE TYPE N-4	2.0		0.000	195.031	194.731	75	A	7.0	2	0.0									Exist.	RIM ELEVATION = 197.750 CONNECT TO 1.52m x 1.52m BOX CULVERT
386	4+127	36.00m RT	1200 mm	2	MANHOLE TYPE N-4	2.0		0.000	195.031	194.731	75	A	7.0	2	0.0									385	RIM ELEVATION = 197.750
387	4+130 +/-	0.000m RT	900 mm	2	PIPE	8.0		0.000	Match Exist.	195.331	75	A	7.0	2	0.0									388	CONNECT TO EXIST. PIPE w/ CONC. PIPE COLLAR
388	4+132	33.30m RT	900 mm	2	MANHOLE TYPE E-4	4.0		0.000	195.100	194.900	75	A	7.0	2	0.0									385	RIM ELEVATION = 197.250
389	4+137	33.00m RT	600 mm	2	MANHOLE TYPE C-2	4.0		0.000	195.952	195.718	75	A	7.0	2	0.0									388	RIM ELEVATION = 197.250

* SEE WEST OUTFALL DETAILS SHEET AND/OR CONSTRUCTION DETAILS SHEET

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KENNETH P. HERCEG ★ REGISTERED ★ No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: D.N.M. DRAWN: D.E.B.
CHECKED: J.J.B. CHECKED: C.A.K.

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA SHEET

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	96 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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STRUCTURE DATA

STRUCTURE NUMBER	LOCATION STATION	LOCATION OFFSET	SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH m	SKEW	COVER m	FLOW LINE UP STREAM ELEV.	FLOW LINE DOWN STREAM ELEV.	SERVICE LIFE YR.	SITE DESIGNATION	pH	BACKFILL METHOD	STR. BACKFILL m^3	REVETMENT RIPRAP Mg	CONCRETE, CLASS A, FOR STRUCTURES m^3	PIPE END SECTION EA.	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION SLOPE	GRATED BOX END SECTION EA.	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EA.	CONNECT TO STR. NO.	REMARKS
	LINE "S-FR"																								
263	10+829	6.300m RT	300 mm	2	INLET TYPE C-15, MODIFIED	16.6		0.648	198.727	198.637	75	A	7.0	1	15.3									61	RIM ELEVATION= 199.975
264	10+831	6.300m LT	300 mm	2	INLET TYPE B-15, MODIFIED	11.2		0.596	198.787	198.727	75	N	7.0	1	9.7									263	RIM ELEVATION= 199.983
265	10+863	13.600m RT	375 mm	3	PIPE	17.0		0.347	199.508	199.276	75	A	7.0	2	2.7			2							
266	10+856	6.300m LT	900 mm	2	MANHOLE TYPE H-4	22.0		0.587	198.350	198.045	75	N	7.0	1	52.1			1							RIM ELEVATION= 201.000
266A	10+856	10.100m LT	900 mm	2	PIPE	3.4		1.300	198.800	198.500	75	N	7.0	1	13.3			1						266	MATCH END SECTION TO FLOWLINE
267	10+868	8.000m LT	450 mm	2	PIPE	41.2		1.166	199.200	198.400	75	N	7.0	1	77.2			1						266	MATCH END SECTION TO DITCH FLOWLINE
267A	10+888	23.100m LT	300 mm	2	INLET TYPE A-2	*3.6		*1.0	*FIELD VERIFY	*FIELD VERIFY	75	A	7.0	2	*0.5										*CONTRACTOR TO FIELD VERIFY LOCATION & INVERTS
267B	10+866	11.600m LT			CAST IN PLACE CONCRETE HEADWALL																				
267C	10+869	10+300m LT			CAST IN PLACE CONCRETE HEADWALL																				
	LINE "S-2-PR-A"																								
270	9+956	14.500m LT	450 mm	2	CATCH BASIN TYPE E-7	8.6		0.975	200.458	200.413	75	N	7.0	2	1.6									271	RIM ELEVATION= 201.759
271	9+955	5.400m LT	450 mm	2	INLET TYPE C-15, MODIFIED	32.2		2.128	200.505	200.329	75	N	7.0	1	105.2									128A	RIM ELEVATION= 203.186
272	9+955	7.500m RT	450 mm	2	INLET TYPE C-15	11.0		2.082	200.554	200.505	75	N	7.0	1	35.2									271	RIM ELEVATION= 203.186
273	9+956	12.500m RT	450 mm	2	CATCH BASIN TYPE E-7	4.0		1.029	200.588	200.554	75	N	7.0	2	0.8									272	RIM ELEVATION= 202.067
	LINE "S-550"																								
274	9+975	16.100m LT	600 mm	2	CATCH BASIN TYPE E-7	30.1		0.450	198.899	198.772	75	A	7.0	1	21.5									222	RIM ELEVATION= 200.204
275	9+960	9.500m RT	1200 mm	2	MANHOLE TYPE K-4	54.8		1.638	198.150	198.100	75	A	7.0	2	52.1									283	RIM ELEVATION= 200.558
276	10+015	7.100m RT	450 mm	2	INLET TYPE C-15, MODIFIED	1.0		0.783	199.600	199.597	75	A	7.0	1	1.4									276A	RIM ELEVATION= 201.166
276A	10+015	8.800m RT	450 mm	2	INLET TYPE H-4, MODIFIED	3.3		0.475	199.575	199.569	75	N	7.0	1	3.2									223	RIM ELEVATION= 200.497
277	10+016	4.900m LT	450 mm	2	INLET TYPE C-15, MODIFIED	10.7		0.806	199.635	199.600	75	A	7.0	1	14.9									276	RIM ELEVATION= 201.191
278	10+041	8.400m RT	450 mm	2	CATCH BASIN TYPE E-7	24.2		0.300	199.882	199.800	75	N	7.0	2	4.6									276A	RIM ELEVATION= 201.026
279	10+050	8.400m LT	450 mm	2	CATCH BASIN TYPE E-7	33.6		0.300	199.852	199.635	75	N	7.0	2	6.4									277	RIM ELEVATION= 200.996
280	10+058	8.400m RT	375 mm	3	PIPE	16.5		0.300	200.033	199.957	75	N	7.0	2	2.6			1						278	
281	10+063	8.400m LT	375 mm	3	PIPE	11.9		0.300	200.118	199.927	75	N	7.0	2	1.9			1						279	
282	N.I.C.																								
283	9+904	9.500m RT	1200 mm		EXISTING PIPE				198.100	-------															VERIFY INVERT ELEVATION
289	9+915	5.000m LT	300 mm	1	INLET TYPE J-10	8.4		0.300	200.258	200.216	75	N	7.0	1	4.7									290	RIM ELEVATION= 201.008
290	9+915	5.000m RT	300 mm	2	INLET TYPE M-10	23.8		0.342	200.216	200.091	75	N	7.0	1	3.1									292	RIM ELEVATION= 201.008
291	9+940	5.000m LT	300 mm	1	MODIFIED INLET TYPE R-13	8.4		0.300	200.209	200.167	75	N	7.0	1	4.7									292	RIM ELEVATION= 200.959
292	9+940	5.000m RT	300 mm	2	INLET TYPE M-10	18.8		0.418	200.091	199.991	75	N	7.0	1	2.4									294	RIM ELEVATION= 200.959
293	9+960	5.000m LT	300 mm	1	INLET TYPE J-10	8.4		0.300	200.298	200.256	75	N	7.0	1	4.7									294	RIM ELEVATION= 201.048
294	9+960	5.000m RT	300 mm	2	INLET TYPE M-10	3.4		0.607	199.991	199.964	75	N	7.0	1	0.4									275	RIM ELEVATION= 201.048

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KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 8/7/06 DATE

DESIGNED: D.N.M. DRAWN: D.E.B.
CHECKED: J.J.B. CHECKED: C.A.K.

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA SHEET

HORIZONTAL SCALE	BRIDGE FILE
NONE	
VERTICAL SCALE	DESIGNATION
NONE	9134885
SURVEY BOOK	SHEETS
16519	97 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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	STRUCTURE NUMBER																		
	66, 119	69, 73, 77, 90, 93, 95, 99	110, 114, 117, 121, 127, 132, 161,	165, 166, 168, 196, 197, 200, 205, 208,	209, 220, 249, 264, 267A, 294	109	57, 57A, 101, 102, 106, 145, 221	58, 58A, 79, 98, 150, 150A, 155, 156	158–160A, 164, 170, 172, 174, 175, 177	187, 191, 199, 202 210, 226	235, 240, 245, 251 255, 257, 259	59, 63, 133, 143, 146, 151, 153, 179	184, 188, 192, 195, 206, 212, 214	60,75,123,130,134–6, 139, 180, 181, 183	193, 198, 202A, 215, 231, 243, 248, 254	225, 237, 271, 272, 273, 276, 277	61, 64, 65, 70, 125, 126, 140, 190, 194,	207,242, 247, 252, 256, 274, 287,	270, 288
PIPE TYPE / SHAPE	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C
SMOOTH PIPE SIZE	300mm	300mm	300mm	300mm	300mm	300mm	375mm	375mm	375mm	375mm	375mm	450mm	450mm	450mm	450mm	450mm	600mm	600mm	450mm
CORRUGATED PIPE SIZE							375mm	375mm	375mm	375mm	375mm	450mm	450mm	450mm	450mm	450mm	600mm	600mm	450mm
RCP / RCHEP (S) — CLASS	III	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II
RCP / RCHEP (S) — $D_{0.3}$ RATING	75.0	50.0	50.0	50.0	50.0	60.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)		Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CORRUGATED PE PIPE, TYPE S (S)*							Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y
RIBBED PE PIPE (S)*														Y	Y	Y	Y	Y	Y
SMOOTH WALL PE PIPE (S)* / MAXIMUM DR								Y/26	Y/26	Y/26	Y/26			Y/26	Y/26	Y/26	Y/26	Y/26	Y/26
PROFILE WALL PVC PIPE (S)								Y	Y	Y	Y			Y	Y	Y	Y	Y	Y
SMOOTH WALL PVC PIPE (S)*								Y	Y	Y	Y			Y	Y	Y	Y	Y	Y
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CORRUGATED STEEL PIPE / PIPE-ARCH: FULLY BIT. PAVED & LINED (S) — CORR. PROFILE							68x13	68x13	68x13	68x13	68x13	68x13	68x13	68x13	68x13	68x13	68x13	68x13	68x13
FULLY BIT. PAVED & LINED (S) — THICKNESS							2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm
ZINC COATED (C) — CORR. PROFILE																			
ZINC COATED (C) — THICKNESS																			
ZINC COATED W/ BPI (C) — CORR. PROFILE																			
ZINC COATED W/ BPI (C) — THICKNESS																			
ALUM. COATED TYPE 2 (C) — CORR. PROFILE																			
ALUM. COATED TYPE 2 (C) — THICKNESS																			
ALUM. COATED TYPE 2 W/ BPI (C) — CORR. PROFILE																			
ALUM. COATED TYPE 2 W/ BPI (C) — THICKNESS																			
POLYMER PRECOATED GALVANIZED (C) — CORR. PROFILE																			
POLYMER PRECOATED GALVANIZED (C) — THICKNESS																			
POLYMER PRECOATED GALVANIZED W/ BPI (C) — CORR. PROFILE																			
POLYMER PRECOATED GALVANIZED W/ BPI (C) — THICKNESS																			
FIBER BONDED BITUMINOUS COATED (C) — CORR. PROFILE																			
FIBER BONDED BITUMINOUS COATED (C) — THICKNESS																			
FIBER BONDED BITUMINOUS COATED W/ BPI (C) — CORR. PROFILE																			
FIBER BONDED BITUMINOUS COATED W/ BPI (C) — THICKNESS																			
CORRUGATED ALUM. ALLOY PIPE (C) — CORR. PROFILE																			
CORRUGATED ALUM. ALLOY PIPE (C) — THICKNESS																			
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C) — CORR. PROFILE																			
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C) — THICKNESS																			
STR. PLATE ALUMINUM ALLOY PIPE (C) — CORR. PROFILE																			
STR. PLATE ALUMINUM ALLOY PIPE (C) — THICKNESS																			
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C) — CORR. PROFILE																			
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C) — THICKNESS																			
STR. PLATE STEEL PIPE (C) — CORR. PROFILE																			
STR. PLATE STEEL PIPE (C) — THICKNESS **																			
STR. PLATE STEEL PIPE W/ CFP (C) — CORR. PROFILE																			
STR. PLATE STEEL PIPE W/ CFP (C) — THICKNESS **																			

	STRUCTURE NUMBER														
	62, 81, 82, 86–88 96, 97, 105, 107,	111, 113, 120, 163 167, 169	171, 173, 185, 186, 189, 211, 213, 218,	224, 229, 230, 230A, 230B, 231A, 231B,	233, 236, 237, 241, 244, 246, 263	67, 104, 116, 124, 137, 152, 154, 162	201, 204	68,72,222,222A,229A 275,283,384,386	71, 74, 83	80	84, 85, 88A, 89, 91, 92, 93A, 94, 100, 103	108, 115, 119A, 122, 128, 128A, 129, 131,	217, 228, 232, 234, 238	112, 118	141, 253, 389
PIPE TYPE / SHAPE	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C	2/C
SMOOTH PIPE SIZE	300mm	300mm	300mm	300mm	300mm	375mm	375mm	1200mm	900mm	300mm	750mm	750mm	750mm	750mm	600mm
CORRUGATED PIPE SIZE						375mm	375mm	1200mm	900mm		750mm	750mm	750mm	750mm	600mm
RCP / RCHEP (S) — CLASS	II	II	II	II	II	II	II	II	II	II	II	II	II	II	II
RCP / RCHEP (S) — $D_{0.3}$ RATING	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	60.0	50.0	50.0	50.0	60.0	50.0
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y		Y
CORRUGATED PE PIPE, TYPE S (S)*	Y	Y	Y	Y	Y				Y		Y	Y	Y	Y	
RIBBED PE PIPE (S)*									Y		Y	Y	Y	Y	
SMOOTH WALL PE PIPE (S)* / MAXIMUM DR	Y/26	Y/26	Y/26	Y/26	Y/26				Y/26		Y/26	Y/26	Y/26	Y/26	
PROFILE WALL PVC PIPE (S)	Y	Y	Y	Y	Y				Y		Y	Y	Y	Y	
SMOOTH WALL PVC PIPE (S)*	Y	Y	Y	Y	Y										
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
CORRUGATED STEEL PIPE / PIPE-ARCH: FULLY BIT. PAVED & LINED (S) — CORR. PROFILE						68x13	68x13	68x13	68x13		68x13	68x13	68x13	68x13	68x13
FULLY BIT. PAVED & LINED (S) — THICKNESS						2.77 mm	2.77 mm	2.77 mm	2.77 mm		2.77 mm	2.77 mm	2.77 mm	2.77 mm	2.77 mm
ZINC COATED (C) — CORR. PROFILE															
ZINC COATED (C) — THICKNESS															
ZINC COATED W/ BPI (C) — CORR. PROFILE															
ZINC COATED W/ BPI (C) — THICKNESS															
ALUM. COATED TYPE 2 (C) — CORR. PROFILE															
ALUM. COATED TYPE 2 (C) — THICKNESS															
ALUM. COATED TYPE 2 W/ BPI (C) — CORR. PROFILE															
ALUM. COATED TYPE 2 W/ BPI (C) — THICKNESS															
POLYMER PRECOATED GALVANIZED (C) — CORR. PROFILE															
POLYMER PRECOATED GALVANIZED (C) — THICKNESS															
POLYMER PRECOATED GALVANIZED W/ BPI (C) — CORR. PROFILE															
POLYMER PRECOATED GALVANIZED W/ BPI (C) — THICKNESS															
FIBER BONDED BITUMINOUS COATED (C) — CORR. PROFILE															
FIBER BONDED BITUMINOUS COATED (C) — THICKNESS															
FIBER BONDED BITUMINOUS COATED W/ BPI (C) — CORR. PROFILE															
FIBER BONDED BITUMINOUS COATED W/ BPI (C) — THICKNESS															
CORRUGATED ALUM. ALLOY PIPE (C) — CORR. PROFILE															
CORRUGATED ALUM. ALLOY PIPE (C) — THICKNESS															
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C) — CORR. PROFILE															
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C) — THICKNESS															
STR. PLATE ALUMINUM ALLOY PIPE (C) — CORR. PROFILE															
STR. PLATE ALUMINUM ALLOY PIPE (C) — THICKNESS															
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C) — CORR. PROFILE															
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C) — THICKNESS															
STR. PLATE STEEL PIPE (C) — CORR. PROFILE															
STR. PLATE STEEL PIPE (C) — THICKNESS **															
STR. PLATE STEEL PIPE W/ CFP (C) — CORR. PROFILE															
STR. PLATE STEEL PIPE W/ CFP (C) — THICKNESS **															

LEGEND

- RCP– REINFORCED CONCRETE PIPE
- RCHEP– REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE
- PE– POLYETHYLENE
- DR– DIMENSION RATIO
- PVC– POLYVINYL CHLORIDE
- BIT– BITUMINOUS
- CORR– CORRUGATION
- BPI– BITUMINOUS PAVED INVERT
- ALUM– ALUMINUM
- STR– STRUCTURAL
- CFP– CONCRETE FIELD PAVING
- CIR– CIRCULAR PIPE
- DEF– DEFORMED PIPE
- (S)– SMOOTH PIPE MATERIAL
- (C) CORRUGATED PIPE MATERIAL
- OK– ACCEPTABLE FOR USE
- (LS)– LOCK SEAM PIPE REQUIRED
- *– REFER TO STANDARD DRAWING 715–PHCL–18 OR 19 FOR NOMINAL DIAMETER APPROPRIATE FOR PAY ITEM DIAMETER
- **– TABULATED THICKNESS REFERS TO TOP & SIDE PLATES. BOTTOM PLATES SHALL BE OF NEXT GREATER AVAILABLE THICKNESS

HERCEG

KEN HERCEG & ASSOCIATES, INC.

ENGINEERS, ARCHITECTS & LAND SURVEYORS

211 West Washington Street
Suite 2100
South Bend, Indiana 46601
Phone (574) 288-4580
Fax (574) 288-0195

KENNETH P. HERCEG REGISTERED No. 15423 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 8/7/06 DATE

DESIGNED: C.A.K. | DRAWN: D.E.B.

CHECKED: R.J.F. | CHECKED: J.J.B.

INDIANA DEPARTMENT OF TRANSPORTATION

PIPE MATERIAL SHEET

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
16519	98 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

STRUCTURE NUMBER

		142, 147, 148, 276A, 278, 279	149	157	176	182, 290	223, 387, 388	239	260	261, 265	76, 266, 266A	280, 281	373	374	227, 227A	289, 291, 293	292	376, 377, 379, 380, 381, 382, 383		
PIPE TYPE / SHAPE		2/C	2/C	2/C	2/C	2/C	2/C	2/C	3/C	3/C	2/C	3/C	2/C	2/C	2/C	1/C	2/C	2/C		
SMOOTH PIPE SIZE		450mm	450mm	375mm	375mm	300mm	900mm	525mm	375mm	375mm	900mm	375mm	1350mm	1350mm	900mm	300mm	300mm	Min. Area 0.10m^2		
CORRUGATED PIPE SIZE		450mm	450mm	375mm	375mm		900mm	525mm					1350mm	1350mm				Min. Area 0.10m^2		
RCP / RCHEP (S)	CLASS	II	II	II	II	II	II	II	II	II	IV	II	II	II	II	III	II	II		
	$D_{0.3}$ RATING	50.0	50.0	50.0	50.0	60.0	50.0	50.0	50.0	50.0	60.0	60.0	50.0	60.0	50.0	75.0	60.0	50.0		
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)				Y					Y						Y		Y	Y		
CORRUGATED PE PIPE, TYPE S (S)*															Y					
RIBBED PE PIPE (S)*															Y					
SMOOTH WALL PE PIPE (S)* / MAXIMUM DR															Y/26			Y/26		
PROFILE WALL PVC PIPE (S)															Y			Y		
SMOOTH WALL PVC PIPE (S)*																				
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)			Y	Y			Y		Y						Y		Y	Y		
CORRUGATED STEEL PIPE / PIPE-ARCH: FULLY BIT. PAVED & LINED (S)	CORR. PROFILE	68x13	68x13	68x13	68x13		68x13	68x13					68x13	68x13						
	THICKNESS	2.77 mm	2.77 mm	2.77 mm	2.77 mm		2.77 mm	2.77 mm					2.77 mm	2.77 mm						
ZINC COATED (C)	CORR. PROFILE																			
	THICKNESS																			
ZINC COATED W/ BPI (C)	CORR. PROFILE																			
	THICKNESS																			
ALUM. COATED TYPE 2 (C)	CORR. PROFILE																			
	THICKNESS																			
ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE																			
	THICKNESS																			
POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE																			
	THICKNESS																			
POLYMER PRECOATED GALVANIZED W/ BPI (C)	CORR. PROFILE																			
	THICKNESS																			
FIBER BONDED BITUMINOUS COATED (C)	CORR. PROFILE																			
	THICKNESS																			
FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE																			
	THICKNESS																			
CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE																			
	THICKNESS																			
CORRUGATED ALUM. ALLOY PIPE W/ BPI (C)	CORR. PROFILE																			
	THICKNESS																			
STR. PLATE ALUMINUM ALLOY PIPE (C)	CORR. PROFILE																			
	THICKNESS																			
STR. PLATE ALUMINUM ALLOY PIPE W/ CFP (C)	CORR. PROFILE																			
	THICKNESS																			
STR. PLATE STEEL PIPE (C)	CORR. PROFILE																			
	THICKNESS **																			
STR. PLATE STEEL PIPE W/ CFP (C)	CORR. PROFILE																			
	THICKNESS **																			

STRUCTURE NUMBER

PIPE TYPE / SHAPE																
SMOOTH PIPE SIZE																
CORRUGATED PIPE SIZE																
RCP / RCHEP (S)	CLASS															
	$D_{0.3}$ RATING															
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)																
CORRUGATED PE PIPE, TYPE S (S)*																
RIBBED PE PIPE (S)*																
SMOOTH WALL PE PIPE (S)* / MAXIMUM DR																
PROFILE WALL PVC PIPE (S)																
SMOOTH WALL PVC PIPE (S)*																
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)																
CORRUGATED STEEL PIPE / PIPE-ARCH: FULLY BIT. PAVED & LINED (S)	CORR. PROFILE															
	THICKNESS															
ZINC COATED (C)	CORR. PROFILE															
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	THICKNESS															
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	THICKNESS															
ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE															
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POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE															
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FIBER BONDED BITUMINOUS COATED (C)	CORR. PROFILE															
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FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE															
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CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE															
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	THICKNESS **															

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N/A	
VERTICAL SCALE	DESIGNATION
N/A	9134885
SURVEY BOOK	SHEETS
16519	99 of 131
CONTRACT	PROJECT
R-28381	NH-L540()

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