

Public Utilities

The existing utilities listed below and shown on these plans represent the best information available as obtained during field surveys. This information does not relieve the contractor of the responsibility to be satisfied as to its accuracy and the location of existing utilities.

Owner

NIPSCO
1039 Pennsylvania Ave.
South Bend, Indiana 46601
Phone: (574) 284-2214
Cell: (574) 220-3804
pmgriffin@NISource.com
Mr. Phil Griffin

AT & T
307 S. Main St.
South Bend, Indiana 46601
Phone: (574) 237-8380
db2741@att.com
Mr. Dennis Bunch

South Bend Engineering Department
227 W. Jefferson Blvd.
South Bend, Indiana 46601
Phone: (574) 235-9251
Mr. Tony Molnar

South Bend Water Works
830 N. Michigan St.
South Bend, Indiana 46601
Phone: (574) 235-5342
Mr. Ed Herman

St. Joseph Valley Metronet
130 S. Main St., Ste. 275
South Bend, Indiana 46601
Phone: (574) 968-5342
bhudson@metronetzing.org
Mr. Ben Hudson

AEP - Indiana Michigan Power (Distribution)
2929 Lathrop St.
South Bend, Indiana 46628
Phone: (574) 236-1651
amacias@aep.com
Mr. Antonio Macias

AEP - Indiana Michigan Power (Transmission)
700 Morrison Rd.
Gahanna, Ohio 43230
Phone: (614) 552-2147
Ms. Vivian Nguyen

Comcast Cable
1920 McKinley Ave.
Mishawaka, Indiana 46545
Phone: (847) 789-1039 Ext. 71039
jay-castello@cable.comcast.com
Mr. Jay Castello

Utility

Gas

Telephone

Sewer

Water

Fiber Optic Telecommunications

Electric

Electric

Telecommunications

General Notes:

- 1. All elevations referenced to NAVD 88 using NGS point U167 (PID ME0042). Elev.=808.30'
2. All items shown are existing unless otherwise indicated as required.
3. Locations and elevations shown for existing utilities are approximate. The contractor shall have all utilities located prior to beginning work, including the St. Joseph Valley Metronet. Contractor shall expose all existing utilities well in advance of crossing with storm sewer installation to allow for grade adjustments at no additional cost. If required after field verification, adjust alignment and grade of new pipeline as directed by engineer.
4. Any damage to access roads, bridges, private or public property, and to existing structures not specified to be altered and caused by the contractor during construction shall be repaired at the expense of the contractor.
5. If any change in site conditions or errors become apparent, they shall be brought to the attention of the engineer prior to construction so that clarification or redesign may occur.
6. The latest edition of the City of South Bend, Indiana Specifications and Design & Construction Standard, and INDOT Standard Specifications and Standard Drawings are to be used with these plans.
7. Driveways and street approaches in areas of cut or fill greater than 1' must be maintained with slopes not exceeding 15%.
8. All Traffic Signal and Equipment and Lighting Materials noted as salvagable should be transported to the City of South Bend, Traffic Lighting, (Ed Glecker (574) 245-6001) for storage and future use if required.

INDEX

Table with 2 columns: SHEET NO. and DRAWING INDEX. Rows include: 1 Cover Sheet, 2 Index and General Notes, 3-9 Typical Sections, 10 Plat No. 1, 11 Geometric Tie-Up, 12-26 Maintenance of Traffic, 27-32 Plan & Profile, 33-41 Construction Details, 42-46 Drainage Details, 47-48 Spot Elevations, 49 Joint Layout, 50 Signal Plan, 51-52 Lighting Plan, 53-54 Sign Plan, 55-58 Pavement Marking Detail, 59-62 Erosion Control Detail, 63-64 Roundabout Island Detail, 65-67 Landscape Detail, 68 Irrigation Detail, 69-71 Signing Detail, 72-77 Quantity Tables, 78-79 Structure Data Table, 80 Approach table, 81-97 Cross Sections

REVISIONS

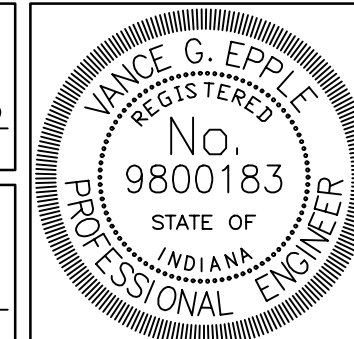
Table with 3 columns: SHEET NO., DATE, REVISED. Rows include: 35 & 49 1/15/2016 Added Concrete Inlay information, 51 1/15/2016 Conduit Revision, 27 1/20/2016 Earthwork Summary Table added, 49 1/20/2016 Joint Detail Deleted, 67 1/25/2016 Earthwork Calculations, 4, 10, 27, 31, 33, 34, 42, 43, 47, 50, 54, 55, 56, 59, 60, 74, 80 & 94 2/11/2016 HMA Sidewalk and Curb Revision, 93A 2/11/2016 Corss Section Sheet added

Holey Moley
Call before you dig 800-382-5544

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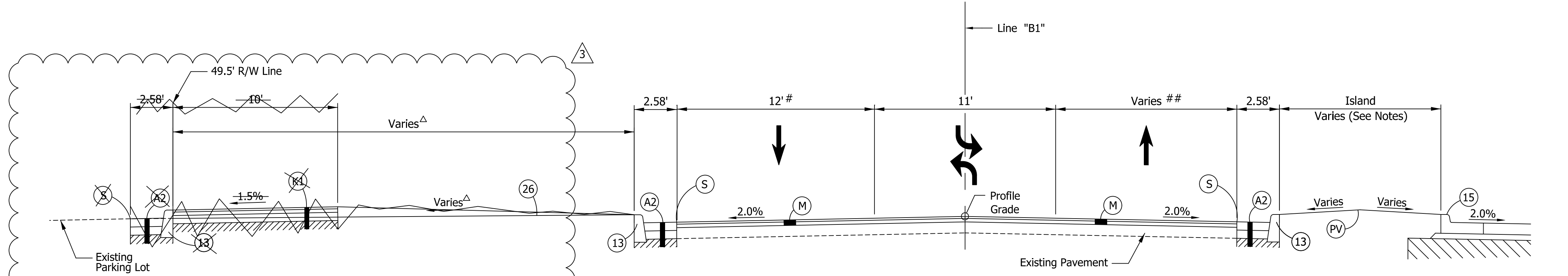
Plans Prepared By: BLN Beam, Longest and Neff, LLC Consulting Engineers, Land Surveyors, Land Planners & Landscape Architects. 8126 Castleton Road, Indianapolis, IN 46250 Phone: 317.849.5832 www.B-L-N.com Fax: 317.841.4281

Signature of Vance G. Epple, Registered Professional Engineer, No. 9800183, State of Indiana. Date: 12/17/2015.



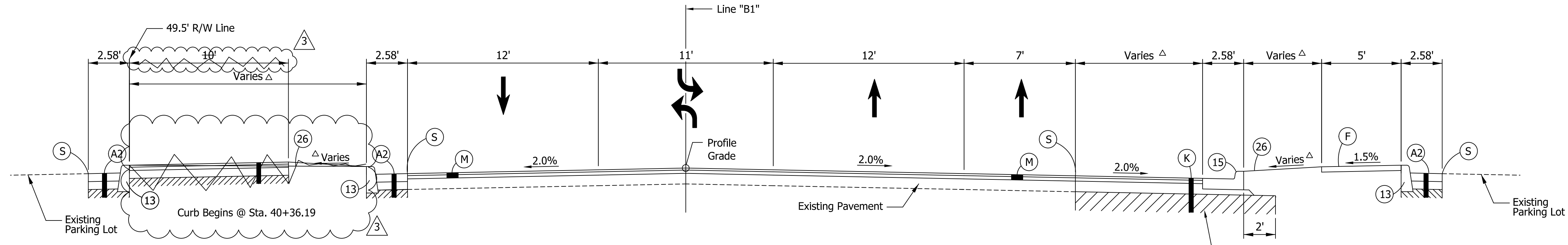
CITY OF SOUTH BEND, INDIANA
ROUNDAABOUT INTERSECTION AT MICHIGAN ST. AND CHIPPEWA AVE.
GENERAL NOTES

REVISIONS, HORIZONTAL SCALE, VERTICAL SCALE, PROJECT NUMBER 114-045, SHEETS 2 OF 97, DRAWN: CDD, CHECKED: AJD, DATE: Nov. 17, 2015



TYPICAL SECTION - LINE "B1"
Sta. 39+03.63 to Sta. 39+55.00

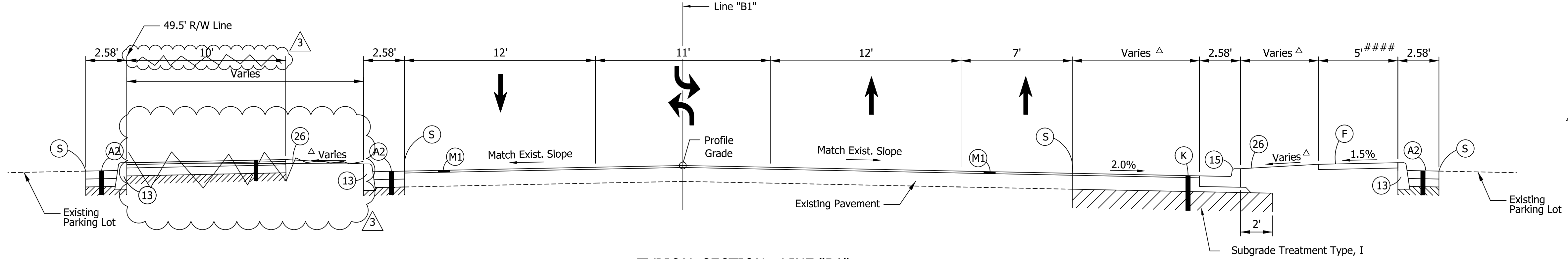
Varies: From 19.4' at Sta. 39+03.63 to 12.0' at Sta. 39+55.00



TYPICAL SECTION - LINE "B1"
Sta. 39+55.00 to Sta. 40+50.00

NOTE:
1. See Spot Elevations and Construction Details for Intersection and Island Details.

- LEGEND:
- (A2) PCCP, 6" on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment Type IC
 - (F) Sidewalk, Concrete, 4"
 - (K) 165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5mm on 275#/SYS QC/QA-HMA, 3, 70, Intermediate, 19.0mm on 880#/SYS QC/QA-HMA, 3, 64, Base, 25mm on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment, Type I
 - (K1) HMA for Sidewalk - 140#/SYS HMA, Surface, Type A on - 220#/SYS HMA, Intermediate, Type A on - 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment, Type III
 - (M1) Milling, Asphalt, 1-1/2"
 - (M) Milling, Profile 165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275#/SYS QC/QA-HMA, 3, 70, Intermediate 19.0mm
 - (PV) Brick Pavers (See Division B, Part 3 of 3 for Brick Paver Section and Pattern Details)
 - (S) Saw Cut
 - (13) Concrete Curb
 - (15) Curb and Gutter, Combined
 - (26) Sodding, Nursery
 - (Δ) See Construction Detail Sheets and Cross Sections For Additional Information



TYPICAL SECTION - LINE "B1"
Sta. 40+50.00 to Sta. 41+20.00

Proposed Sidewalk and Concrete Curb ends at Sta. 40+53.00

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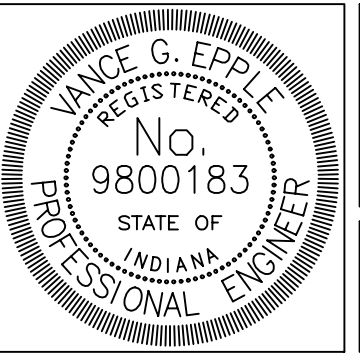
Plans Prepared By:

BLN Beam, Longest and Neff, LLC
Consulting Engineers, Land Surveyors,
Land Planners & Landscape Architects

8126 Castleton Road, Indianapolis, IN 46250
Phone: 317.849.5832

www.B-L-N.com
Fax: 317.841.4281

Vance G. Epple 12/17/2015
SIGNATURE DATE

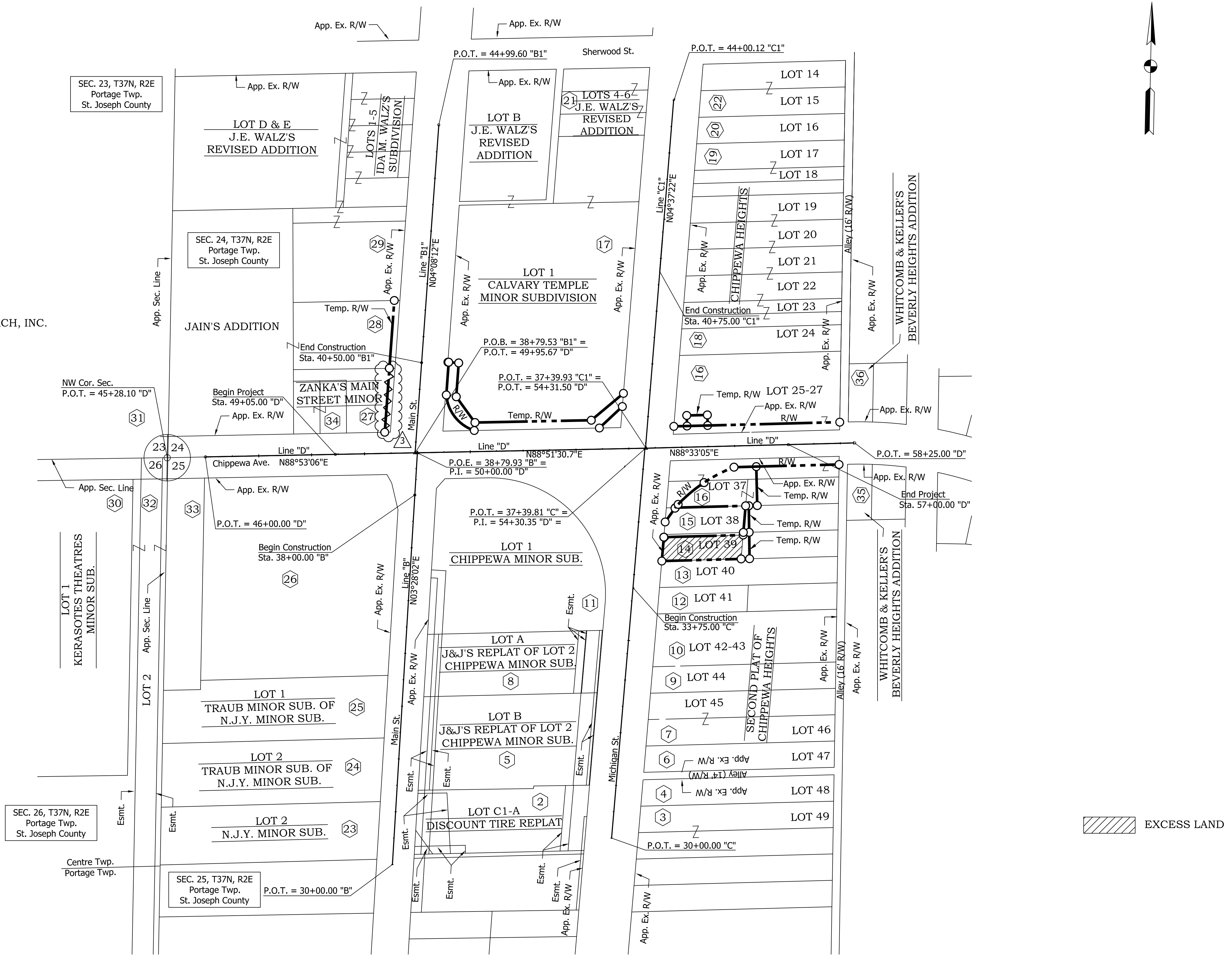


CITY OF SOUTH BEND, INDIANA
ROUNDAABOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

TYPICAL SECTIONS
LINES "B1"

REVISIONS	HORIZONTAL SCALE 1/4" = 1'-0"	PROJECT NUMBER 114-045
	VERTICAL SCALE 1/4" = 1'-0"	
DRAWN: CDD	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	4 OF 97

- 2 HALLE PROPERTIES, LLC
- 3 JOANN SCHOSKER
- 4 ROBERT E. AND MARY A. HIVELY
- 5 JEFFREY L. NICKERSON
- 6 DOROTHY J. RANDALL
- 7 CAROL L. AND DONALD A. HEILMAN, JR.
- 8 FRICK, LLC
- 9 SHARKEY, LLC
- 10 MARY H. AND JERRY D. WATKINS
- 11 MILCO MANAGEMENT, INC.
- 12 JUAN MACIAS & PAULINO MARGARIT
- 13 HIROSHI C. BOWMAN AND MORAG S. FULTON
- 14 SANDRA V. CASE
- 15 K.R. AND KERRY R. PALMER
- 16 PALMER FUNERAL HOMES INC.
- 17 CALVARY TEMPLE
- 18 INDIANA NORTH DISTRICT OF THE WESLEYAN CHURCH, INC.
- 19 CRAIG D. PARMLEE
- 20 CHRISTINA & TRENT W. MCCARTHY
- 21 ROOSEVELT COBB, JR.
- 22 JOHN E. YOST
- 23 B & N ENTERPRISES
- 24 MORRIS GROUP, LLC
- 25 RICHARD & KATHLEEN ARGANOS
- 26 PWS INVESTMENT PROPERTY, LLC
- 27 SANDRA A. ZANKA
- 28 XB REAL ESTATE
- 29 MITTLER SUPPLY, INC.
- 30 KERASOTES THEATRES, INC.
- 31 MUNICIPAL CITY WATER WORKS
- 32 TIC SHOWPLACE 1-5 AND 7-19, LLC
- 33 XB REAL ESTATE, LP
- 34 KJOR, LLC
- 35 JANICE M. BUWA
- 36 DAVID L. HILLIARD, JR.



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8126 Castleton Road, Indianapolis, IN 46250 www.B-L-N.com
 Phone: 317.849.5832 Fax: 317.841.4281

Centre Twp. Portage Twp. St. Joseph County

SEC. 25, T37N, R2E Portage Twp. St. Joseph County P.O.T. = 30+00.00 "B"

SEC. 26, T37N, R2E Portage Twp. St. Joseph County

LOT 1 KERASOTES THEATRES MINOR SUB.

LOT 2 TRAUB MINOR SUB. OF N.J.Y. MINOR SUB.

LOT 1 TRAUD MINOR SUB. OF N.J.Y. MINOR SUB.

LOT 2 TRAUB MINOR SUB. OF N.J.Y. MINOR SUB.

LOT 1 CHIPPEWA MINOR SUB.

LOT 1 J&J'S REPLAT OF LOT 2 CHIPPEWA MINOR SUB.

LOT B J&J'S REPLAT OF LOT 2 CHIPPEWA MINOR SUB.

LOT C1-A DISCOUNT TIRE REPLAT

LOT 1 CALVARY TEMPLE MINOR SUBDIVISION

LOT B J.E. WALZ'S REVISED ADDITION

LOT D & E J.E. WALZ'S REVISED ADDITION

LOT 14 LOT 15 LOT 16 LOT 17 LOT 18 LOT 19 LOT 20 LOT 21 LOT 22 LOT 23 LOT 24

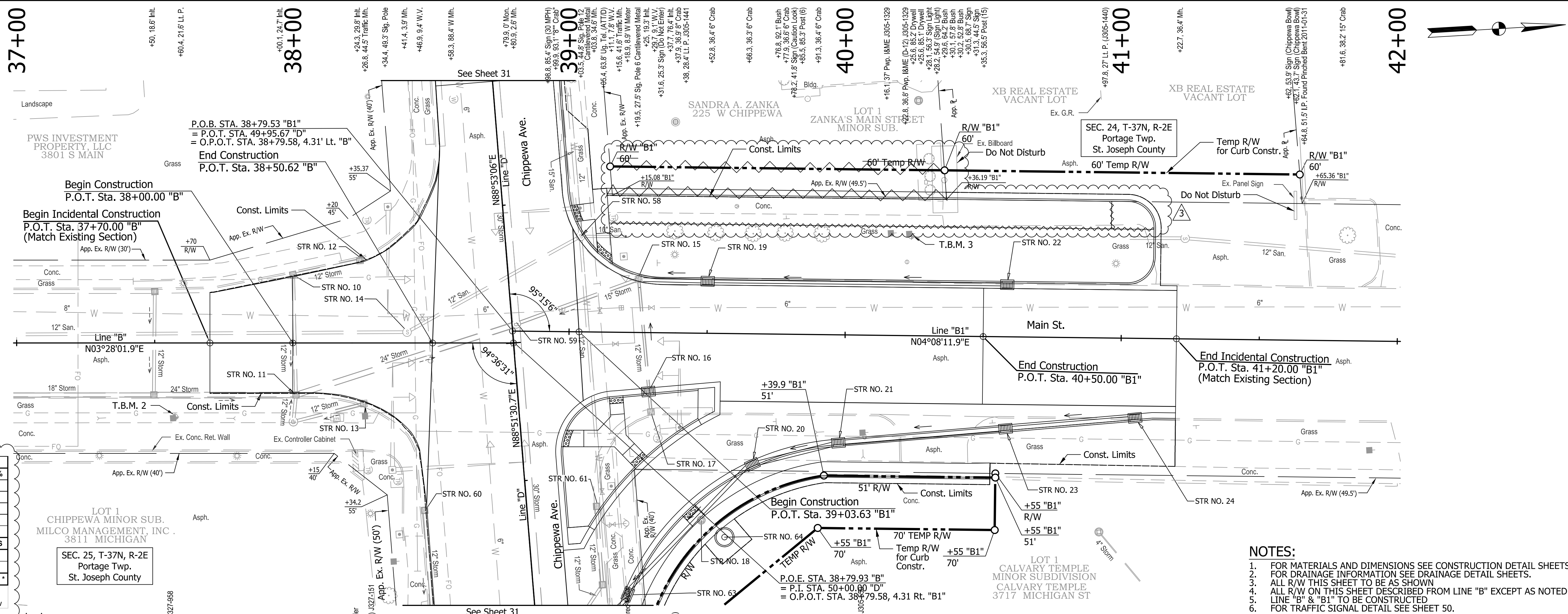
LOT 37 LOT 38 LOT 39 LOT 40 LOT 41 LOT 42-43 LOT 44 LOT 45 LOT 46 LOT 47 LOT 48 LOT 49

Vance G. Epple 12/17/2015
 SIGNATURE DATE

CITY OF SOUTH BEND, INDIANA
ROUNDBOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

PLAT NO. 1

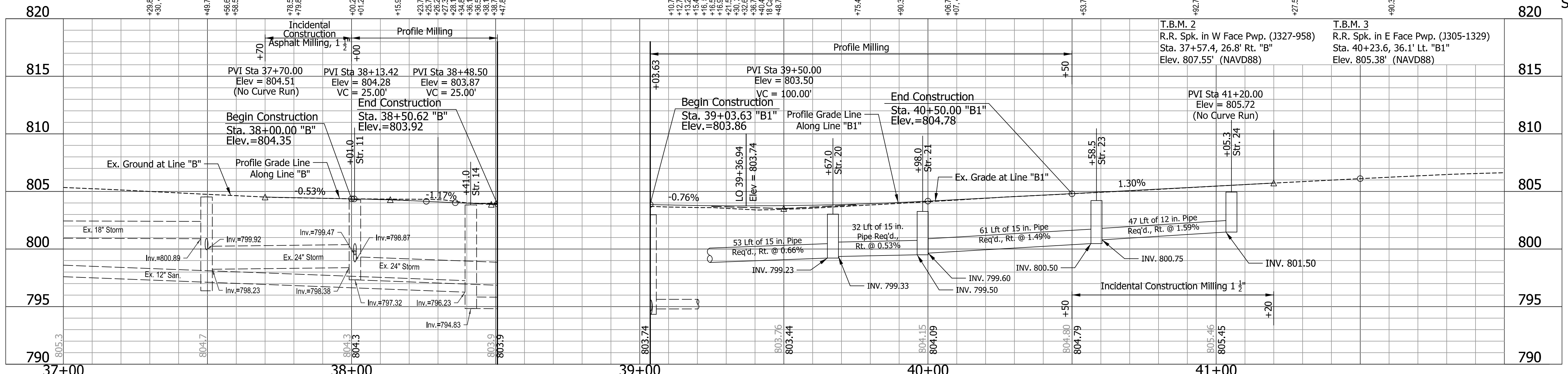
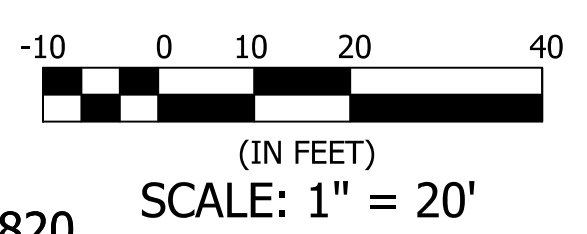
REVISIONS	HORIZONTAL SCALE 1" = 100'	PROJECT NUMBER 114-045
DRAWN: JJP	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	10 OF 97



Earthwork Summary		
Line "B1"	Cut	Fill + 15%
Line "B1"	190 CYS	135 CYS
Line "C"	1,034 CYS	139 CYS
Line "C1"	761 CYS	181 CYS
Line "D"	1,110 CYS	469 CYS
Roundabout	1,068 CYS	925 CYS
Sub-Total	4,163 CYS	1,849 CYS
Pavement Removal	-2,772 CYS	
TOTAL	1,391 CYS	
USE	1,400 CYS	1,800 CYS*

* Undistributed Quantity Assuming No Excavation Will Be Suitable For Use As Borrow

- NOTES:**
- FOR MATERIALS AND DIMENSIONS SEE CONSTRUCTION DETAIL SHEETS.
 - FOR DRAINAGE INFORMATION SEE DRAINAGE DETAIL SHEETS.
 - ALL R/W THIS SHEET TO BE AS SHOWN
 - ALL R/W ON THIS SHEET DESCRIBED FROM LINE "B" EXCEPT AS NOTED.
 - LINE "B" & "B1" TO BE CONSTRUCTED
 - FOR TRAFFIC SIGNAL DETAIL SEE SHEET 50.



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 Fax: 317.841.4281

3 N. = 2327483.3390
 E. = 168101.3815

949 N. = 2327339.2863
 E. = 168122.0371

950 N. = 2327339.2021
 E. = 168117.7093

Sta. 40+22.10, 26.68 Lt. "B1"

P.O.T. = 38+79.93 "B" =
 P.I. = 50+00.00 "D"

P.O.T. = 38+79.53 "B1" =
 P.O.T. = 49+95.67 "D"

Vance G. Epple
 SIGNATURE DATE 12/17/2015

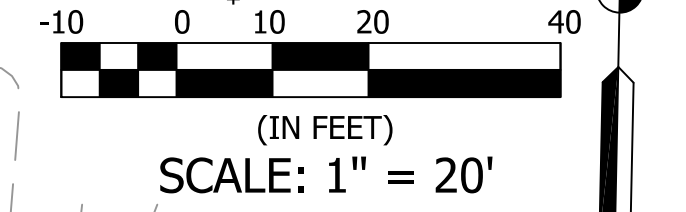
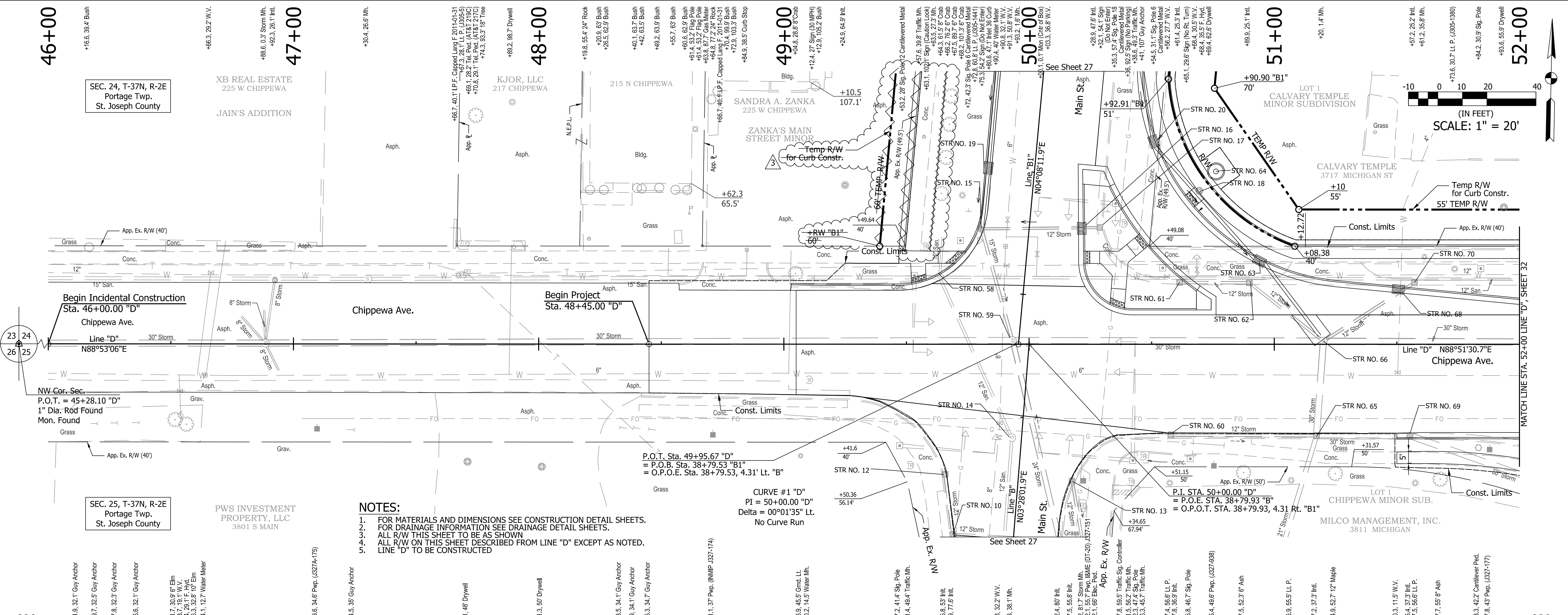
VANCE G. EPPLE
 REGISTERED
 No. 9800183
 STATE OF INDIANA
 PROFESSIONAL ENGINEER

CITY OF SOUTH BEND, INDIANA
ROUNDBOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

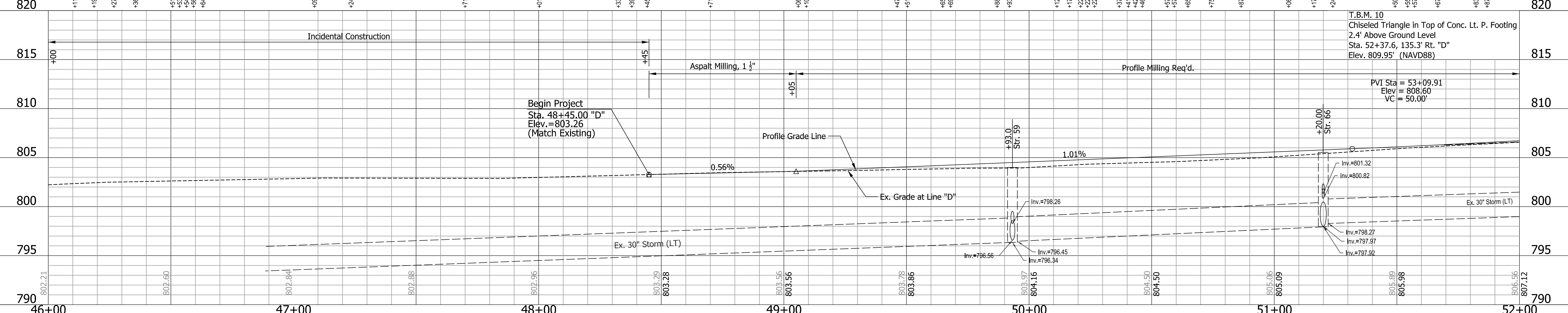
PLAN AND PROFILE- LINE "B" AND "B1"
 STA. 37+00 TO STA. 42+00

REVISIONS	HORIZONTAL SCALE 1" = 20'	PROJECT NUMBER 114-045
	VERTICAL SCALE 1" = 5'	SHEETS
DRAWN: JJP	SURVEY BOOK	27 OF 97
CHECKED: AJD	DATE Nov. 17, 2015	

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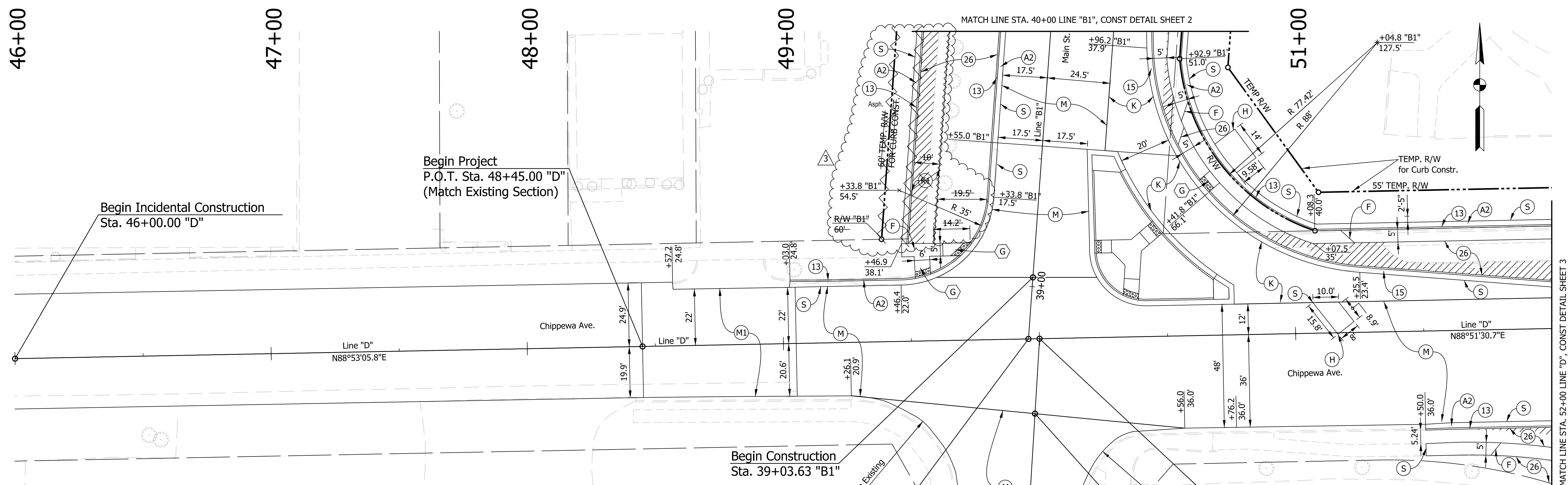


- NOTES:**
1. FOR MATERIALS AND DIMENSIONS SEE CONSTRUCTION DETAIL SHEETS.
 2. FOR DRAINAGE INFORMATION SEE DRAINAGE DETAIL SHEETS.
 3. ALL R/W THIS SHEET TO BE AS SHOWN
 4. ALL R/W ON THIS SHEET DESCRIBED FROM LINE "D" EXCEPT AS NOTED.
 5. LINE "D" TO BE CONSTRUCTED



<p>Plans Prepared By:</p> <p>BLN Beam, Longest and Neff, LLC Consulting Engineers, Land Surveyors, Land Planners & Landscape Architects</p> <p>8126 Castleton Road, Indianapolis, IN 46250 Phone: 317.849.5832</p> <p>www.B-L-N.com Fax: 317.841.4281</p>	<p>949 N. = 2327339.2863 E. = 168122.0371</p> <p>950 N. = 2327339.2021 E. = 168117.7093</p> <p>955 N. = 2327330.1030 E. = 167650.2250</p>	<p>Signature: <i>Vance G. Epple</i> DATE: 12/17/2015</p> <p>Professional Engineer Seal: VANCE G. EPPLE, No. 9800183, STATE OF INDIANA</p>	<p>CITY OF SOUTH BEND, INDIANA ROUNDBOUT INTERSECTION AT MICHIGAN ST. AND CHIPPEWA AVE.</p> <p>PLAN AND PROFILE- LINE "D" STA. 46+00 TO STA. 52+00</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>REVISIONS</td> <td>HORIZONTAL SCALE 1" = 20'</td> <td>PROJECT NUMBER 114-045</td> </tr> <tr> <td>DRAWN: JJP</td> <td>VERTICAL SCALE 1" = 5'</td> <td>SHEETS 31 OF 97</td> </tr> <tr> <td>CHECKED: AJD</td> <td>SURVEY BOOK</td> <td>DATE Nov. 17, 2015</td> </tr> </table>	REVISIONS	HORIZONTAL SCALE 1" = 20'	PROJECT NUMBER 114-045	DRAWN: JJP	VERTICAL SCALE 1" = 5'	SHEETS 31 OF 97	CHECKED: AJD	SURVEY BOOK	DATE Nov. 17, 2015
REVISIONS	HORIZONTAL SCALE 1" = 20'	PROJECT NUMBER 114-045											
DRAWN: JJP	VERTICAL SCALE 1" = 5'	SHEETS 31 OF 97											
CHECKED: AJD	SURVEY BOOK	DATE Nov. 17, 2015											

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LEGEND:

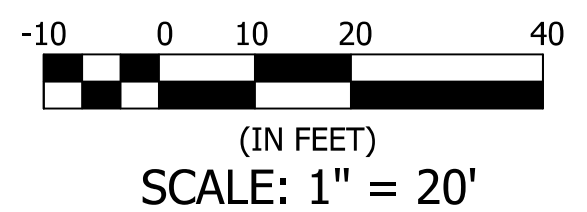
- (A2) PCCP, 6" on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment Type IC
- (F) Sidewalk, Concrete, 4"
- (H) HMA for Structure Installation, Type A 165#/SYS HMA, Surface, Type A on 275#/SYS HMA, Intermediate, Type A on 880#/SYS HMA, Base, Type A
- (K) 165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5mm on 275#/SYS QC/QA-HMA, 3, 70, Intermediate, 19.0mm on 880#/SYS QC/QA-HMA, 3, 64, Base, 25mm on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment, Type I
- (K1) HMA for Sidewalk 140#/SYS HMA, Surface, Type A on 220#/SYS HMA, Intermediate, Type A on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment, Type III
- (M1) Milling, Asphalt, 1-1/2" 165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5mm
- (M) Milling, Profile 165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275#/SYS QC/QA-HMA, 3, 70, Intermediate 19.0mm
- (S) Sawcut
- (13) Curb, Concrete
- (15) Curb and Gutter, Combined
- (26) Sodding, Nursery
- (-) Curb Ramp, Concrete (INDOT Type as Indicated by Letter Inside Hexagon)
- [Hatched Box] Pavement and Curb Removal

NOTES:

1. FOR PROFILE INFORMATION SEE PLAN & PROFILE AND SPOT ELEVATION DETAIL SHEETS.
2. FOR DRAINAGE INFORMATION SEE DRAINAGE DETAIL SHEETS.
3. ALL R/W THIS SHEET TO BE AS SHOWN.
4. FOR R/W INFORMATION SEE PLAN & PROFILE SHEETS.
5. ALL STATIONS AND OFFSETS FROM LINE "D" EXCEPT AS NOTED.
6. LINE "B", "B1" AND "D" TO BE CONSTRUCTED.
7. FOR TRAFFIC SIGNAL INFORMATION SEE SIGNAL DETAIL SHEET.
8. FOR RIGHT TURN ISLAND DETAILS SEE DETAIL SHEET 5.

P.O.B. Sta. 49+95.67 "D"
 = P.O.B. Sta. 38+79.53 "B1"
 = O.P.O.E. Sta. 38+79.58 "B", 4.31' Lt.
 Begin Incidental Construction
 Sta. 37+70.00 "B"
 (Match Existing Section)

P.I. Sta. 50+00.00 "D"
 P.O.E. Sta. 38+79.93 "B"
 O.P.O.B. Sta. 38+79.93 "B1", 4.31' RT.
 End Construction
 Sta. 38+50.62 "B"
 Begin Construction
 Sta. 38+00.00 "B"



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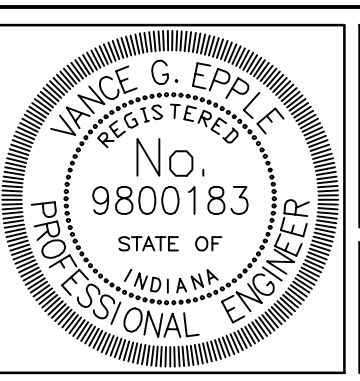
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Vance G. Epple
 SIGNATURE

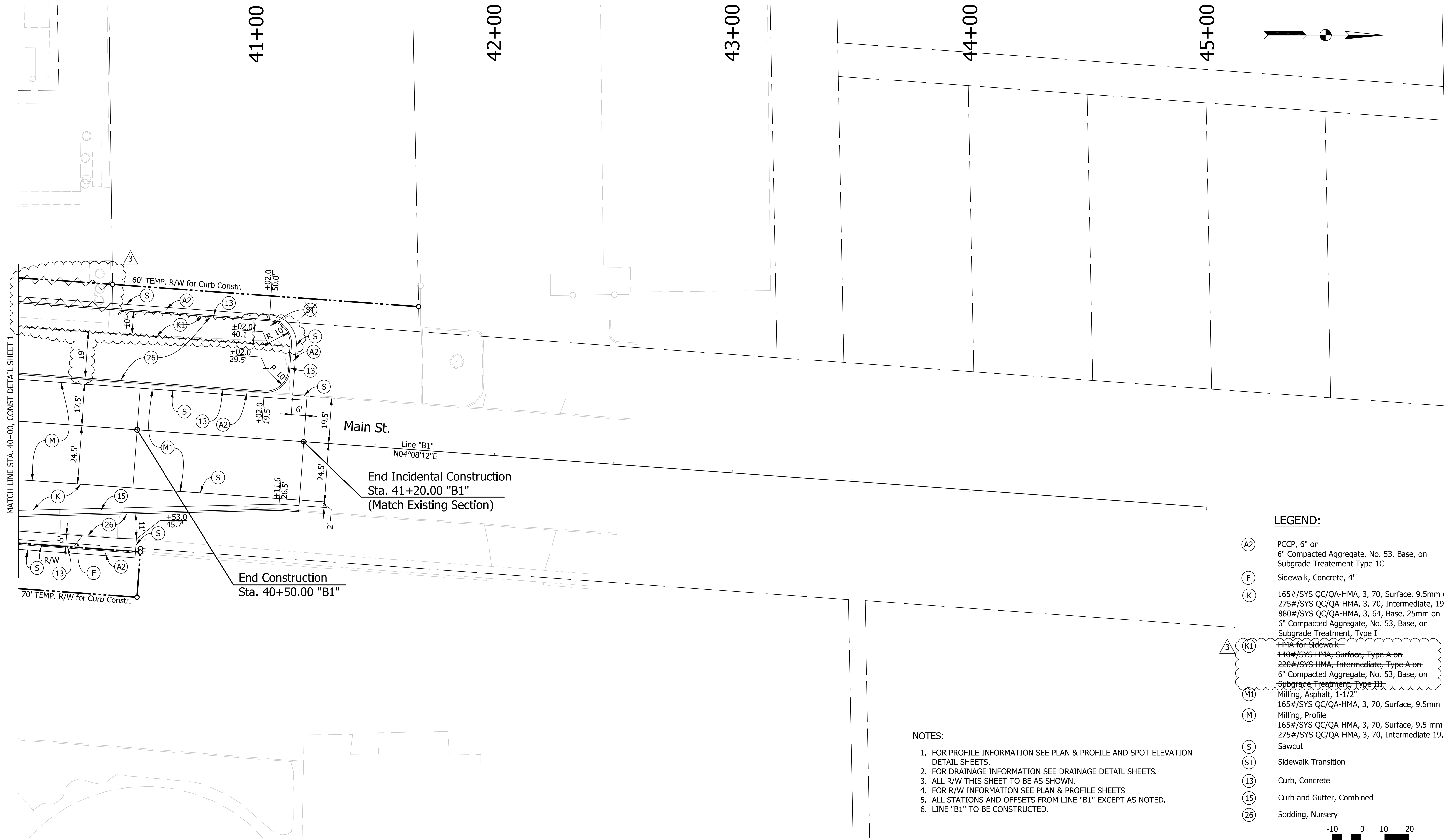
12/17/2015
 DATE



CITY OF SOUTH BEND, INDIANA
ROUNDBOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

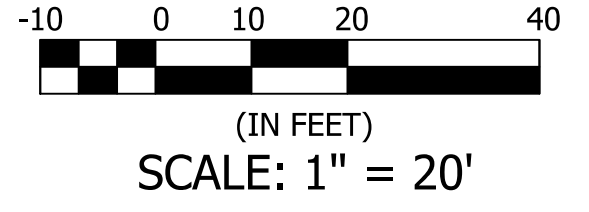
CONSTRUCTION DETAIL #1
 BEGIN TO STA. 52+00
 LINE "D", LINE "B", AND "B1"

REVISIONS	HORIZONTAL SCALE 1" = 20' VERTICAL SCALE	PROJECT NUMBER 114-045
DRAWN: CDD	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	33 OF 97



- LEGEND:**
- (A2) PCCP, 6" on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment Type 1C
 - (F) Sidewalk, Concrete, 4"
 - (K) 165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5mm on 275#/SYS QC/QA-HMA, 3, 70, Intermediate, 19.0mm on 880#/SYS QC/QA-HMA, 3, 64, Base, 25mm on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment, Type I
 - (K1) HMA for Sidewalk
140#/SYS HMA, Surface, Type A on 220#/SYS HMA, Intermediate, Type A on 6" Compacted Aggregate, No. 53, Base, on Subgrade Treatment, Type III
 - (M1) Milling, Asphalt, 1-1/2"
 - (M) 165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5mm Milling, Profile
165#/SYS QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275#/SYS QC/QA-HMA, 3, 70, Intermediate 19.0mm
 - (S) Sawcut
 - (ST) Sidewalk Transition
 - (13) Curb, Concrete
 - (15) Curb and Gutter, Combined
 - (26) Sodding, Nursery

- NOTES:**
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 2. FOR DRAINAGE INFORMATION SEE DRAINAGE DETAIL SHEETS.
 3. ALL R/W THIS SHEET TO BE AS SHOWN.
 4. FOR R/W INFORMATION SEE PLAN & PROFILE SHEETS
 5. ALL STATIONS AND OFFSETS FROM LINE "B1" EXCEPT AS NOTED.
 6. LINE "B1" TO BE CONSTRUCTED.



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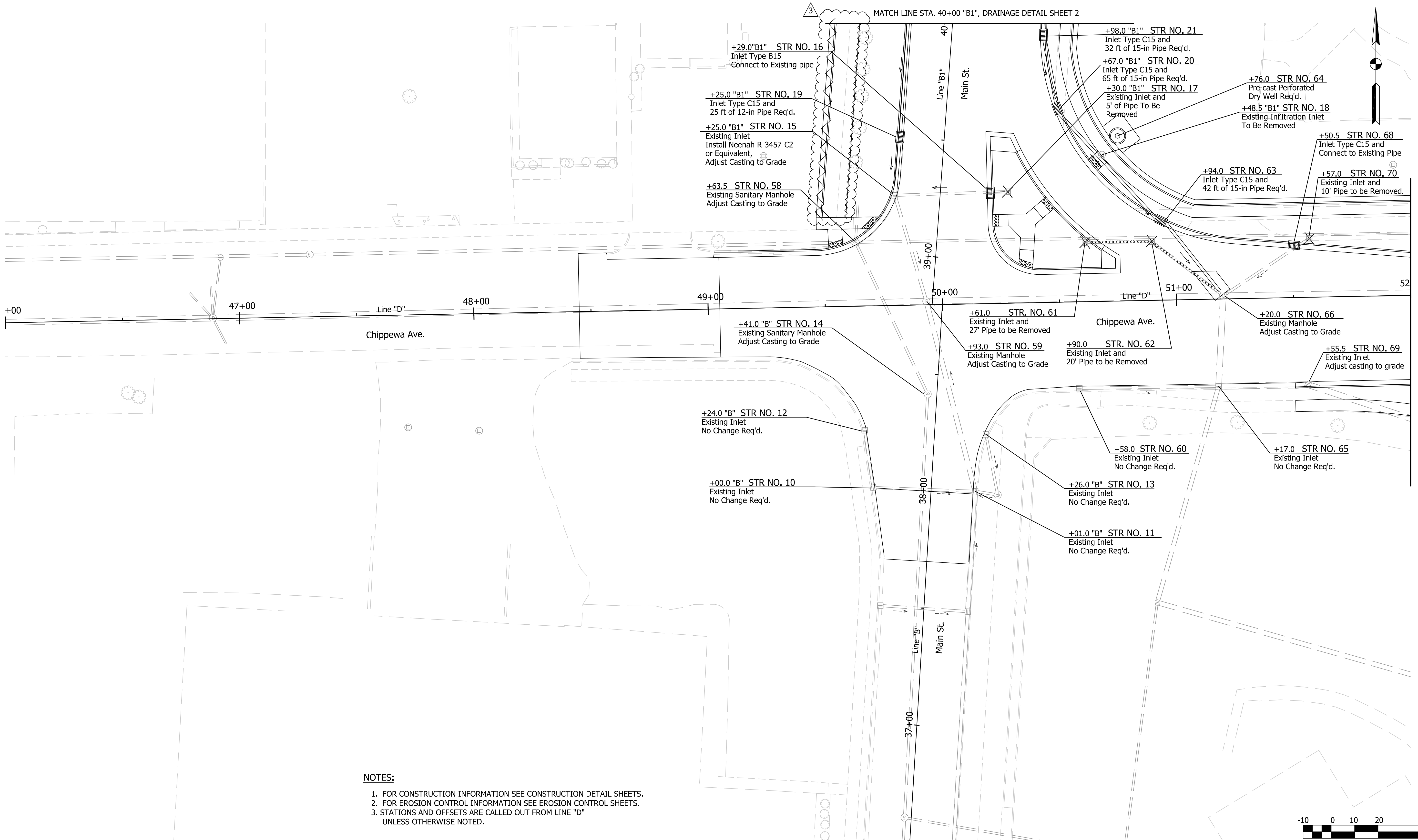
Vance G. Epple 12/17/2015
SIGNATURE DATE



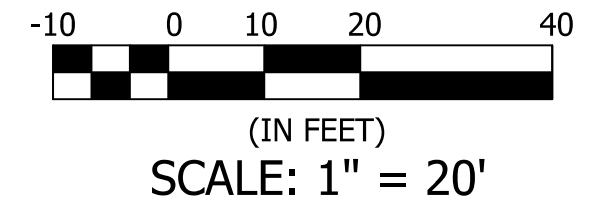
CITY OF SOUTH BEND, INDIANA
ROUNDAABOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

CONSTRUCTION DETAIL #2
STA. 40+00 TO STA. 45+00 LINE "B1"

REVISIONS	HORIZONTAL SCALE 1" = 20'	PROJECT NUMBER 114-045
DRAWN: CDD	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	34 OF 97



- NOTES:**
1. FOR CONSTRUCTION INFORMATION SEE CONSTRUCTION DETAIL SHEETS.
 2. FOR EROSION CONTROL INFORMATION SEE EROSION CONTROL SHEETS.
 3. STATIONS AND OFFSETS ARE CALLED OUT FROM LINE "D" UNLESS OTHERWISE NOTED.



I:\140109 - Chippewa Ave Roundabout\06 Road\DCN\Plans\140109_24.DWG Detail.01.dgn 1/4/2016 4:20:03 PM

Plans Prepared By:

Beam, Longest and Neff, LLC
 Consulting Engineers, Land Surveyors,
 Land Planners & Landscape Architects

8126 Castleton Road, Indianapolis, IN 46250
 Phone: 317.849.5832

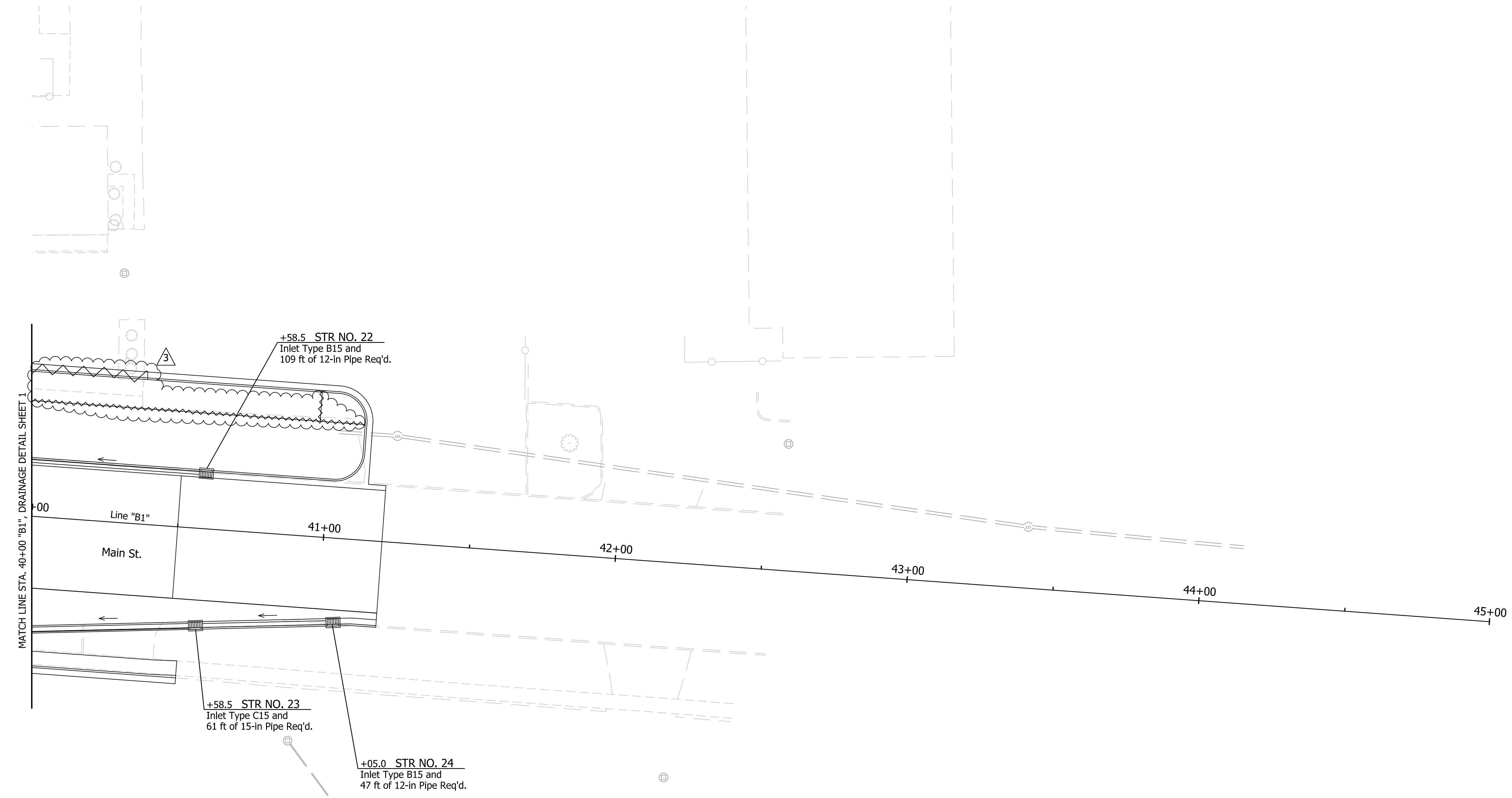
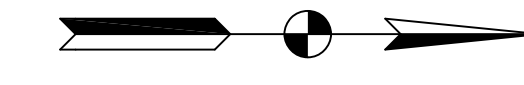
www.B-L-N.com
 Fax: 317.841.4281

Vance G. Epple 12/17/2015
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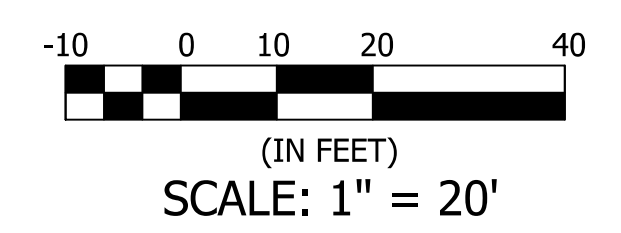
CITY OF SOUTH BEND, INDIANA
ROUNDBOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

DRAINAGE DETAIL SHEET 1
 STA. 46+00 TO STA. 52+00 LINE "D"

REVISIONS	HORIZONTAL SCALE 1" = 20'	PROJECT NUMBER 114-045
	VERTICAL SCALE	
DRAWN: JJP	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	42 OF 97



- NOTES:**
1. FOR CONSTRUCTION INFORMATION SEE CONSTRUCTION DETAIL SHEETS.
 2. FOR EROSION CONTROL INFORMATION SEE EROSION CONTROL SHEETS.



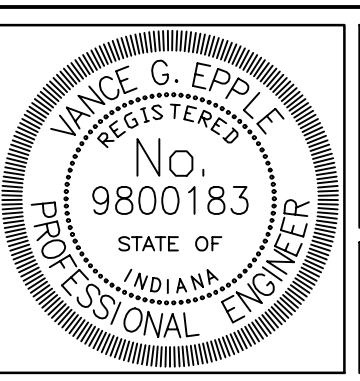
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Vance G. Epple 12/17/2015
 SIGNATURE DATE

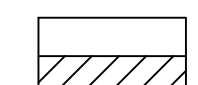
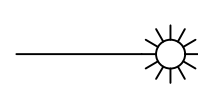

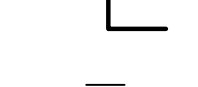

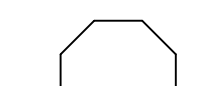
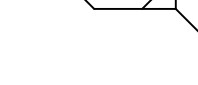

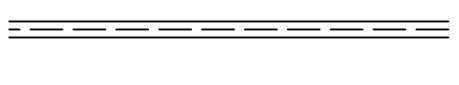



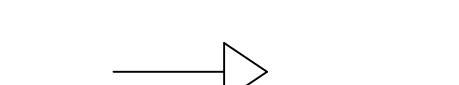





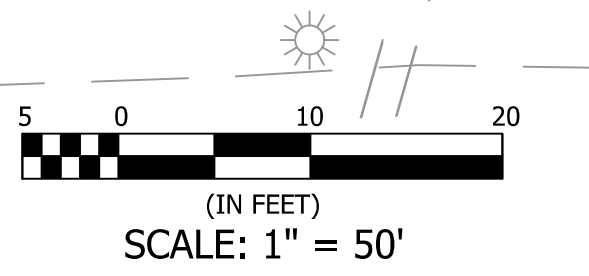
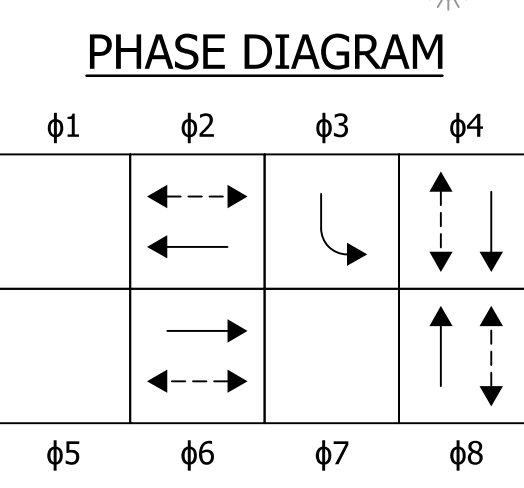
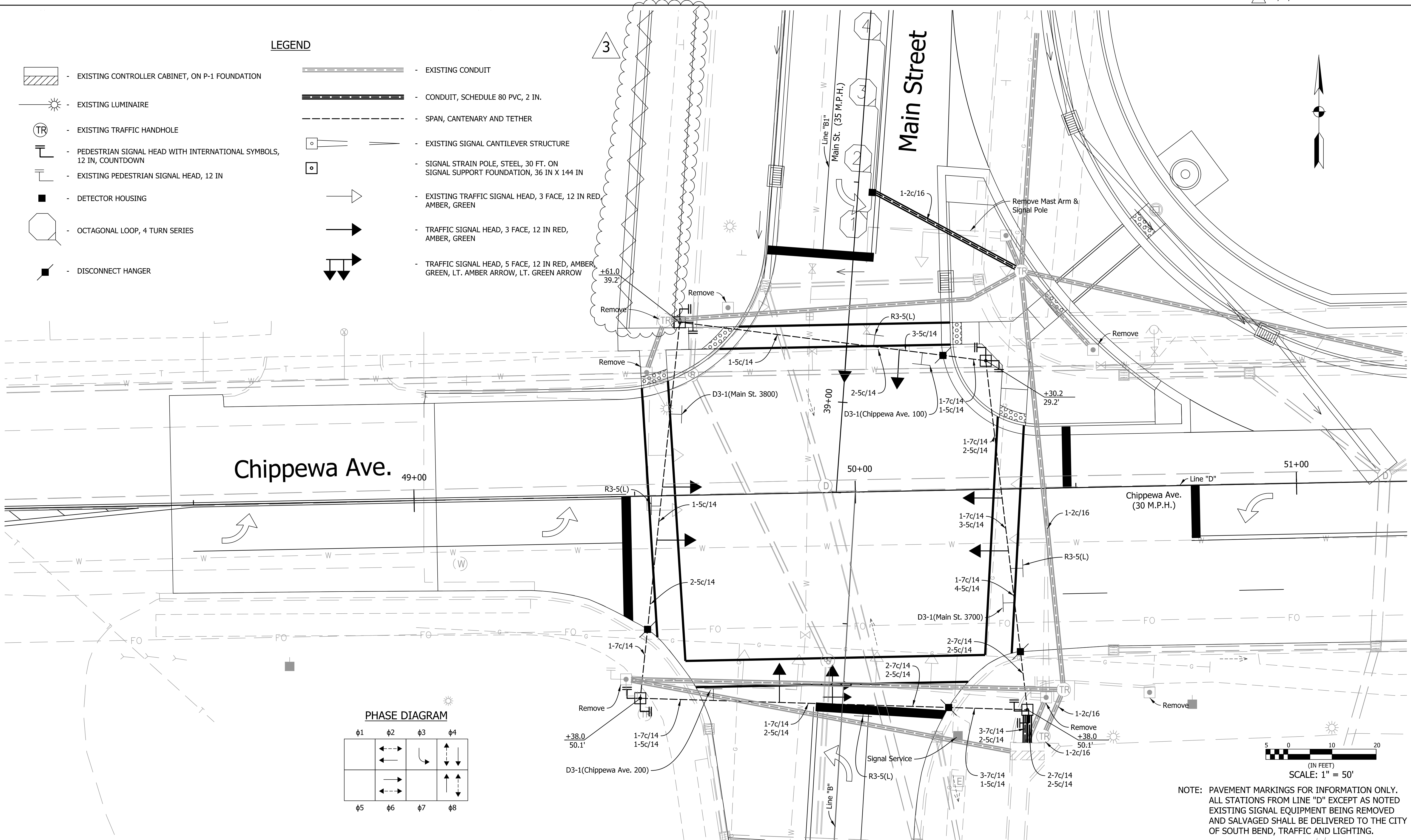
**CITY OF SOUTH BEND, INDIANA
 ROUNDABOUT INTERSECTION AT
 MICHIGAN ST. AND CHIPPEWA AVE.**

**DRAINAGE DETAIL SHEET 2
 STA. 40+00 TO STA. 45+00 LINE "B1"**

REVISIONS	HORIZONTAL SCALE 1" = 20'	PROJECT NUMBER 114-045
	VERTICAL SCALE	
DRAWN: JJP	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	43 OF 97

LEGEND

-  - EXISTING CONTROLLER CABINET, ON P-1 FOUNDATION
-  - EXISTING LUMINAIRE
-  - EXISTING TRAFFIC HANDHOLE
-  - PEDESTRIAN SIGNAL HEAD WITH INTERNATIONAL SYMBOLS, 12 IN, COUNTDOWN
-  - EXISTING PEDESTRIAN SIGNAL HEAD, 12 IN
-  - DETECTOR HOUSING
-  - OCTAGONAL LOOP, 4 TURN SERIES
-  - DISCONNECT HANGER
-  - EXISTING CONDUIT
-  - CONDUIT, SCHEDULE 80 PVC, 2 IN.
-  - SPAN, CANTENARY AND TETHER
-  - EXISTING SIGNAL CANTILEVER STRUCTURE
-  - SIGNAL STRAIN POLE, STEEL, 30 FT. ON SIGNAL SUPPORT FOUNDATION, 36 IN X 144 IN
-  - EXISTING TRAFFIC SIGNAL HEAD, 3 FACE, 12 IN RED, AMBER, GREEN
-  - TRAFFIC SIGNAL HEAD, 3 FACE, 12 IN RED, AMBER, GREEN
-  - TRAFFIC SIGNAL HEAD, 5 FACE, 12 IN RED, AMBER, GREEN, LT. AMBER ARROW, LT. GREEN ARROW



NOTE: PAVEMENT MARKINGS FOR INFORMATION ONLY. ALL STATIONS FROM LINE "D" EXCEPT AS NOTED EXISTING SIGNAL EQUIPMENT BEING REMOVED AND SALVAGED SHALL BE DELIVERED TO THE CITY OF SOUTH BEND, TRAFFIC AND LIGHTING.

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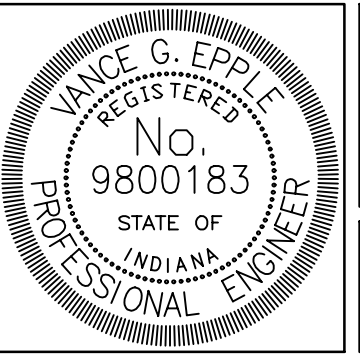
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Vance G. Epple 12/17/2015
 SIGNATURE DATE



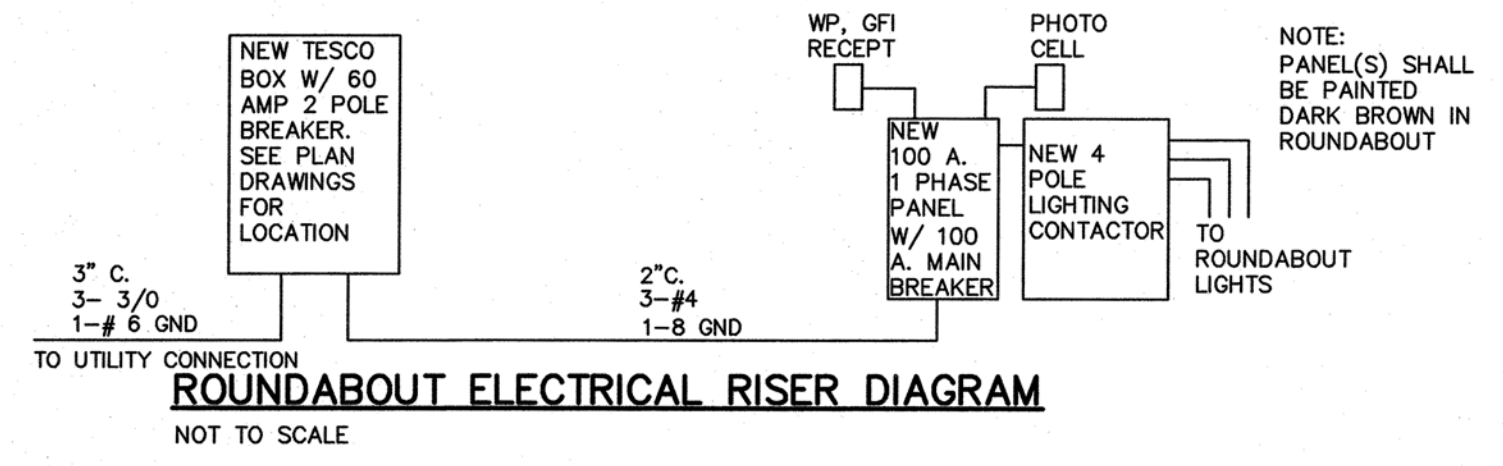
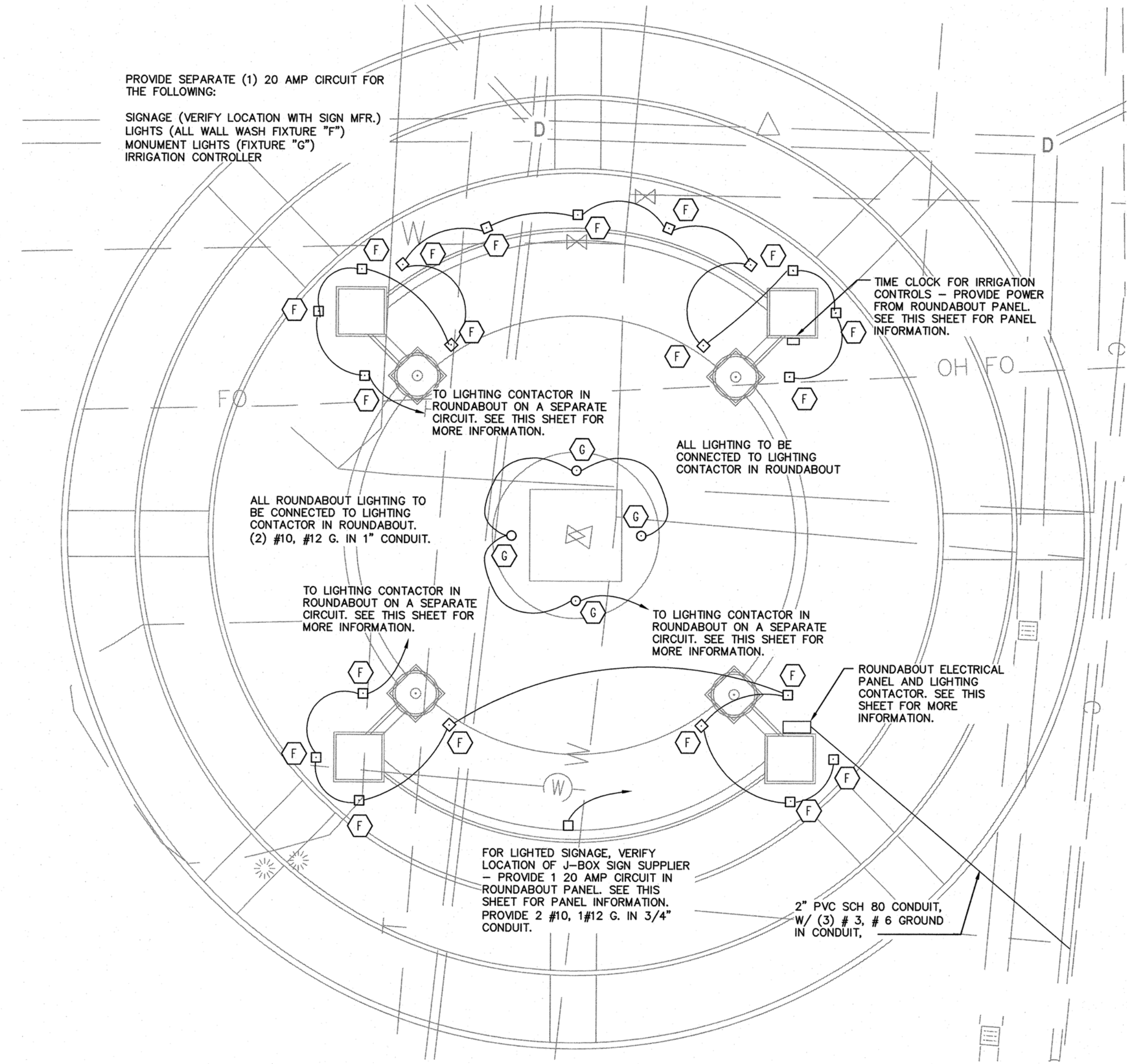
CITY OF SOUTH BEND, INDIANA
ROUNDBOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

SIGNAL DETAIL
 MAIN STREET AND CHIPPEWA

REVISIONS	HORIZONTAL SCALE 1" = 10'	PROJECT NUMBER 114-045
DRAWN: CDD	VERTICAL SCALE	SHEETS
CHECKED: AJD	SURVEY BOOK	50 OF 97
	DATE Nov. 17, 2015	

LIGHTING SCHEDULE - DENOTED BY					
MARK	QTY	MANUFACTURER*	CATALOG NO.	LAMP	NOTES
F	21	KIM LIGHTING	EL21BF3-BL3KUV-BL SM18-BL-P	LED 3,000K MICRO FLOOD LIGHT	DIE-CAST ALUMINUM LED MICRO FLOOD 955 LUMENS. COLOR BLACK STANCHION MOUNT - CAST ALUMINUM WITH 1/2" NPSM FIXTURE MOUNT, COLOR BLACK. SEE DETAIL ON THIS SHEET FOR POST INSTALLATION.
G	4	BEACON (FIXTURE) KIM LIGHTING (BASE)	ODT/24NB/55/3K/5x3/UNV/BBT/HV SM18/BL/P	LED 3,000K CADET FLOOD LIGHT	BEACON DIE-CAST ALUMINUM LED NARROW SPOT 5,000 LUMENS. COLOR BLACK. KIM LIGHTING STANCHION MOUNT - CAST ALUMINUM WITH 1/2" NPSM FIXTURE MOUNT, COLOR BLACK. SEE DETAIL ON THIS SHEET FOR POST INSTALLATION.

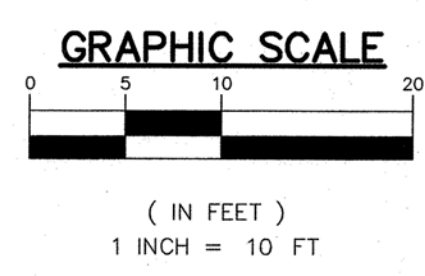
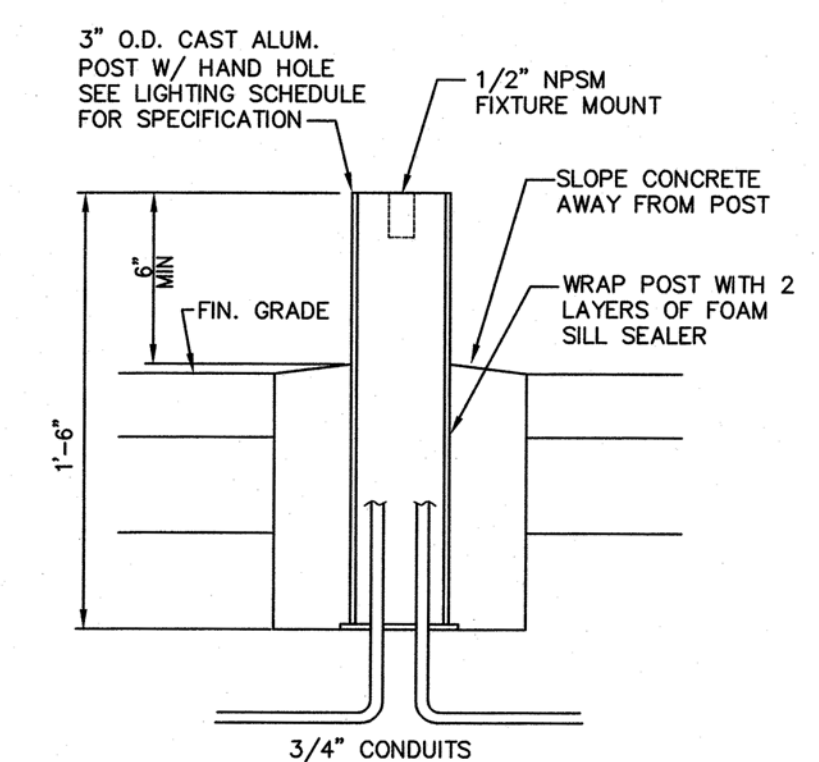
*NOTE: LIGHTING MANUFACTURER SHALL BE PER PLANS, OR APPROVED EQUAL. CONTRACTOR TO NOTE LEAD TIMES FOR THESE FIXTURES MAY BE LONG. CONTRACTOR MAY HAVE TO START ORDERING PROCESS AS SOON AS CONTRACTS ARE SIGNED.
AT NO TIME CAN ALL OF THE STREET LIGHTS BE NOT WORKING. COORDINATE WITH AEP.



ROUNDABOUT NEW ELECTRICAL PANEL									
CONDUCTORS (3) #5 CU, # 8 CU GROUND					MAINS: 100 AMP MAIN BUSS MAIN BREAKER 100 AMP MAIN BREAKER VOLTAGE: 120/240V, 1 PH, 3W, 60 HZ				
LOAD	W	G	CCT	VOLTS-AMPS	CCT	G	W	LOAD	
SIGN LIGHTING	#10	29	1	200	2	20	#12	IRRIGATION SYSTEM	
MONUMENT SIGN	#10	29	3	50	4	20	#12	ELECTRIC EYE	
SPACE			5					SPACE	
RECEPTACLE	#10	20	7	200	8	20	#10	WALL WASH LIGHT	
SPACE			9	250				SPACE	
SPACE			11					SPACE	
DESIGN TOTAL:		SUB-TOTAL WATTAGE		700	600				
1,300 WATTS		= 5.5 AMPS		AMPS	6	5			
240 VOLTS		= 5.5 AMPS							
5.5 AMPS (ACTUAL)		= 7 AMPS							
0.8 (SAFETY FACTOR)									
USE 100 AMP MAIN BREAKER IN NEW PANEL IN NEW TESCO BOX									

PLAN GENERAL NOTES:
1. PROVIDE NEMA 3R JUNCTION BOX FOR EXTERIOR SIGNAGE. COORDINATE EXACT LOCATION OF BOX PRIOR TO INSTALLATION.

ROUNDABOUT ELECTRICAL PANEL
NOT TO SCALE



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p: 574.293.7762 p: 574.232.4388 p: 260.422.2522



St. Wendling 2.11.16
SIGNATURE DATE

CITY OF SOUTH BEND, INDIANA
ROUNDABOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

**ROUNDABOUT LANDSCAPING
ELECTRICAL PLAN**

REVISIONS 3 ADDED SHEET 02/11/2016	HORIZONTAL SCALE	PROJECT NUMBER 114-045
DRAWN: RJH	VERTICAL SCALE	SHEETS 51-1 OF 97
CHECKED: CRC	SURVEY BOOK DATE Oct. 15, 2015	

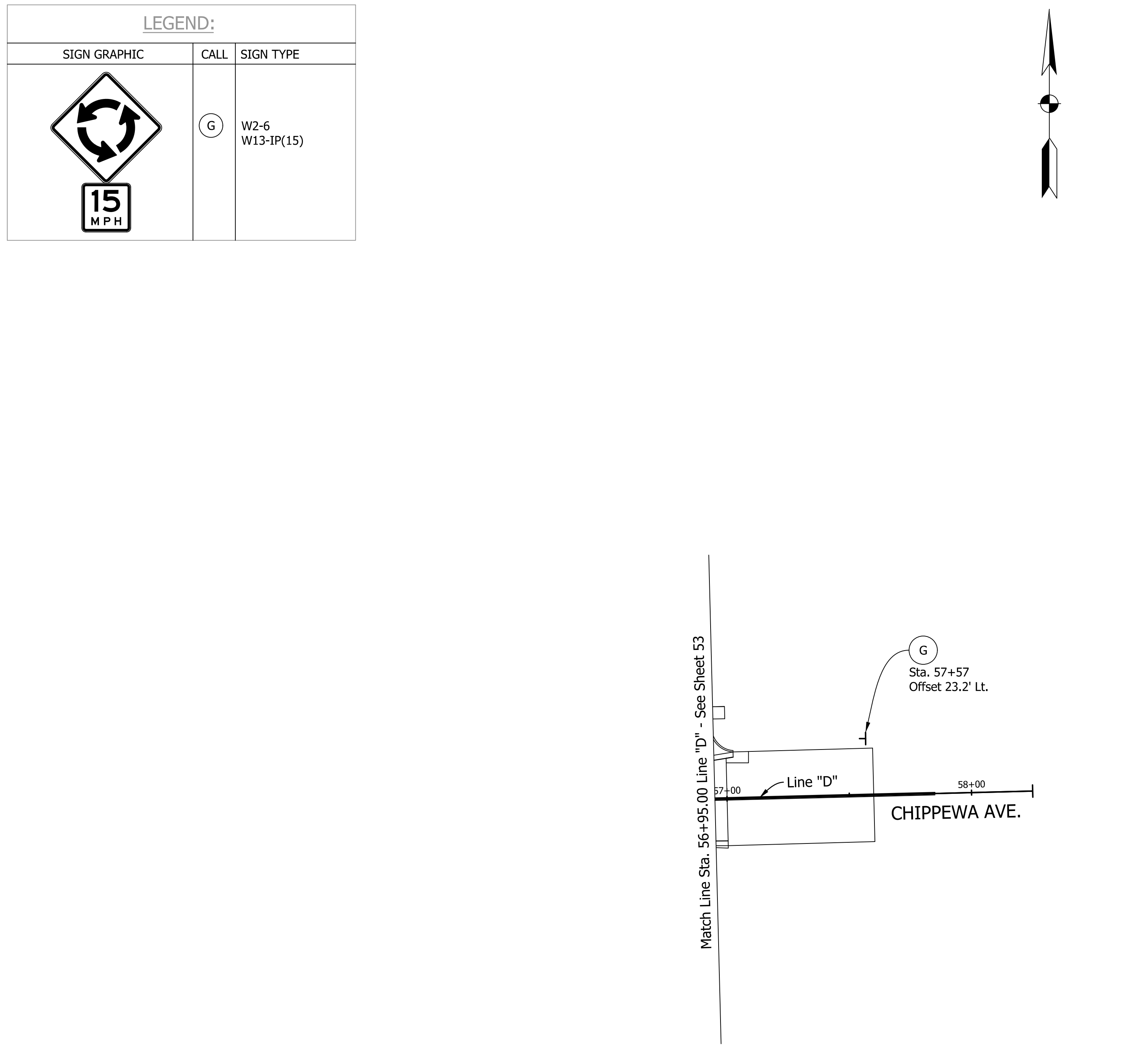
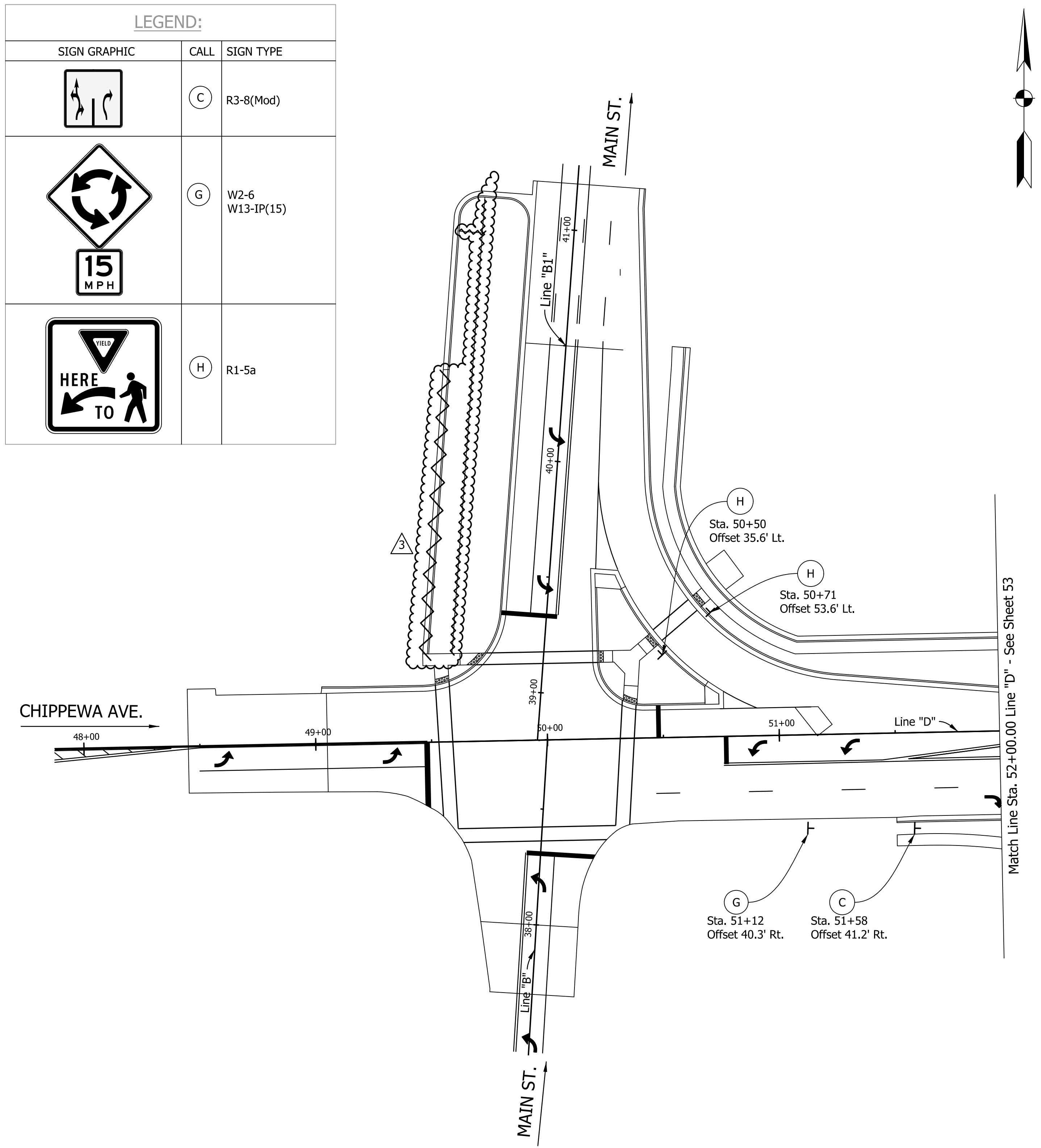
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LEGEND:

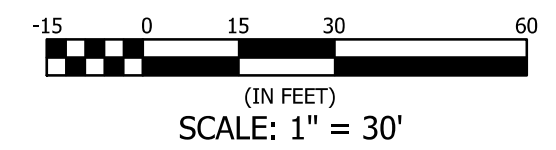
SIGN GRAPHIC	CALL	SIGN TYPE
	C	R3-8 (Mod)
	G	W2-6 W13-IP(15)
	H	R1-5a

LEGEND:

SIGN GRAPHIC	CALL	SIGN TYPE
	G	W2-6 W13-IP(15)



NOTE: PAVEMENT MARKINGS FOR INFORMATION ONLY.
STATION AND OFFSET FROM LINE "D" UNLESS OTHERWISE NOTED.



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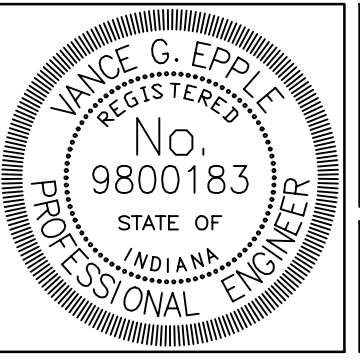
Plans Prepared By:

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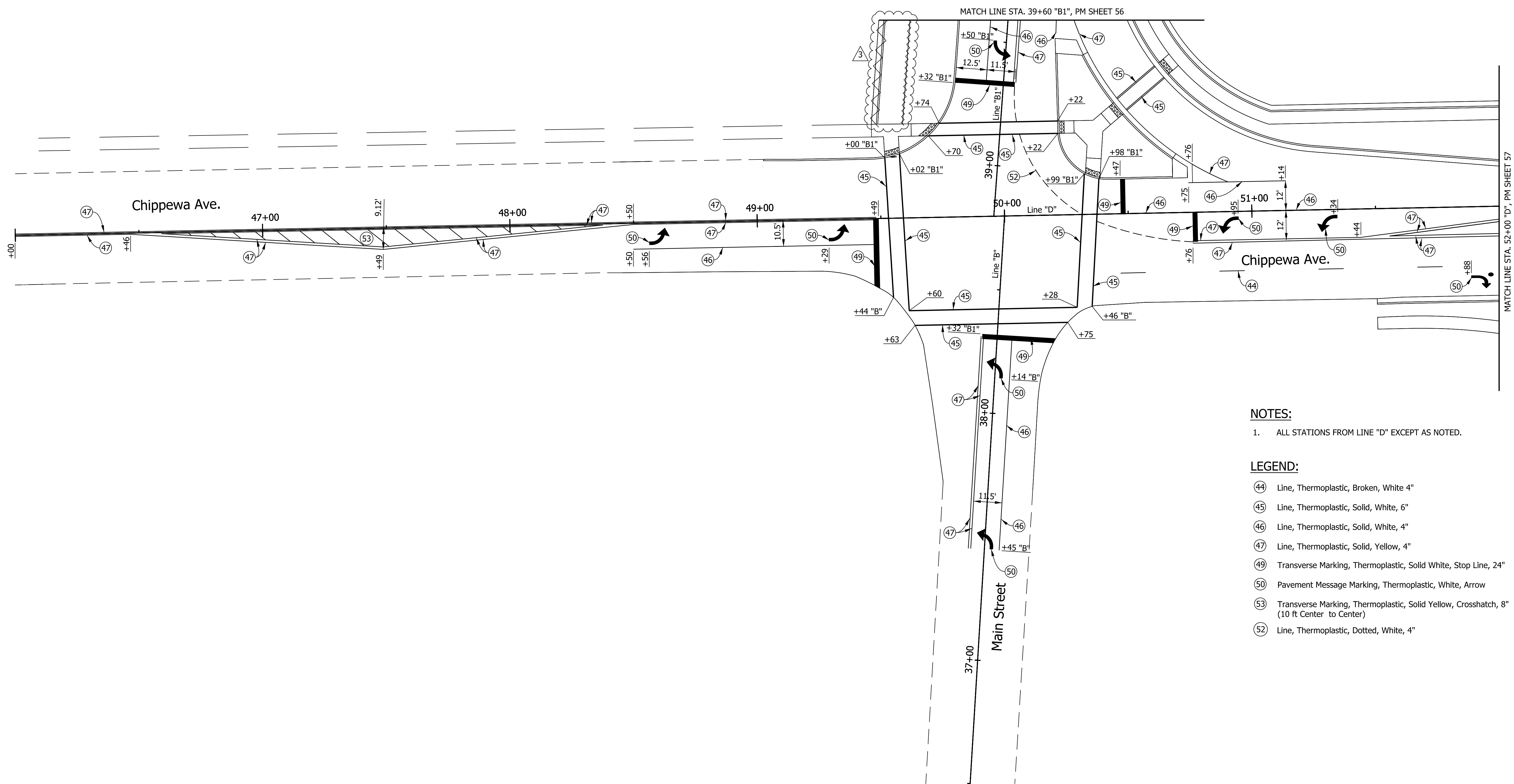
Vance G. Epple 12/17/2015
SIGNATURE DATE



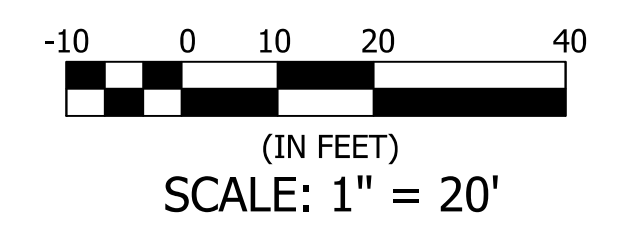
CITY OF SOUTH BEND, INDIANA
ROUNDBOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

SIGNING DETAIL

REVISIONS	HORIZONTAL SCALE 1" = 30' VERTICAL SCALE	PROJECT NUMBER 114-045
DRAWN: CDD	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	54 OF 97



- NOTES:**
- ALL STATIONS FROM LINE "D" EXCEPT AS NOTED.
- LEGEND:**
- (44) Line, Thermoplastic, Broken, White, 4"
 - (45) Line, Thermoplastic, Solid, White, 6"
 - (46) Line, Thermoplastic, Solid, White, 4"
 - (47) Line, Thermoplastic, Solid, Yellow, 4"
 - (49) Transverse Marking, Thermoplastic, Solid White, Stop Line, 24"
 - (50) Pavement Message Marking, Thermoplastic, White, Arrow
 - (53) Transverse Marking, Thermoplastic, Solid Yellow, Crosshatch, 8" (10 ft Center to Center)
 - (52) Line, Thermoplastic, Dotted, White, 4"



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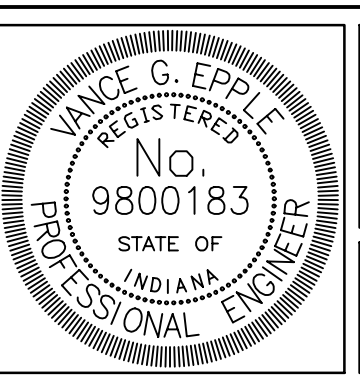
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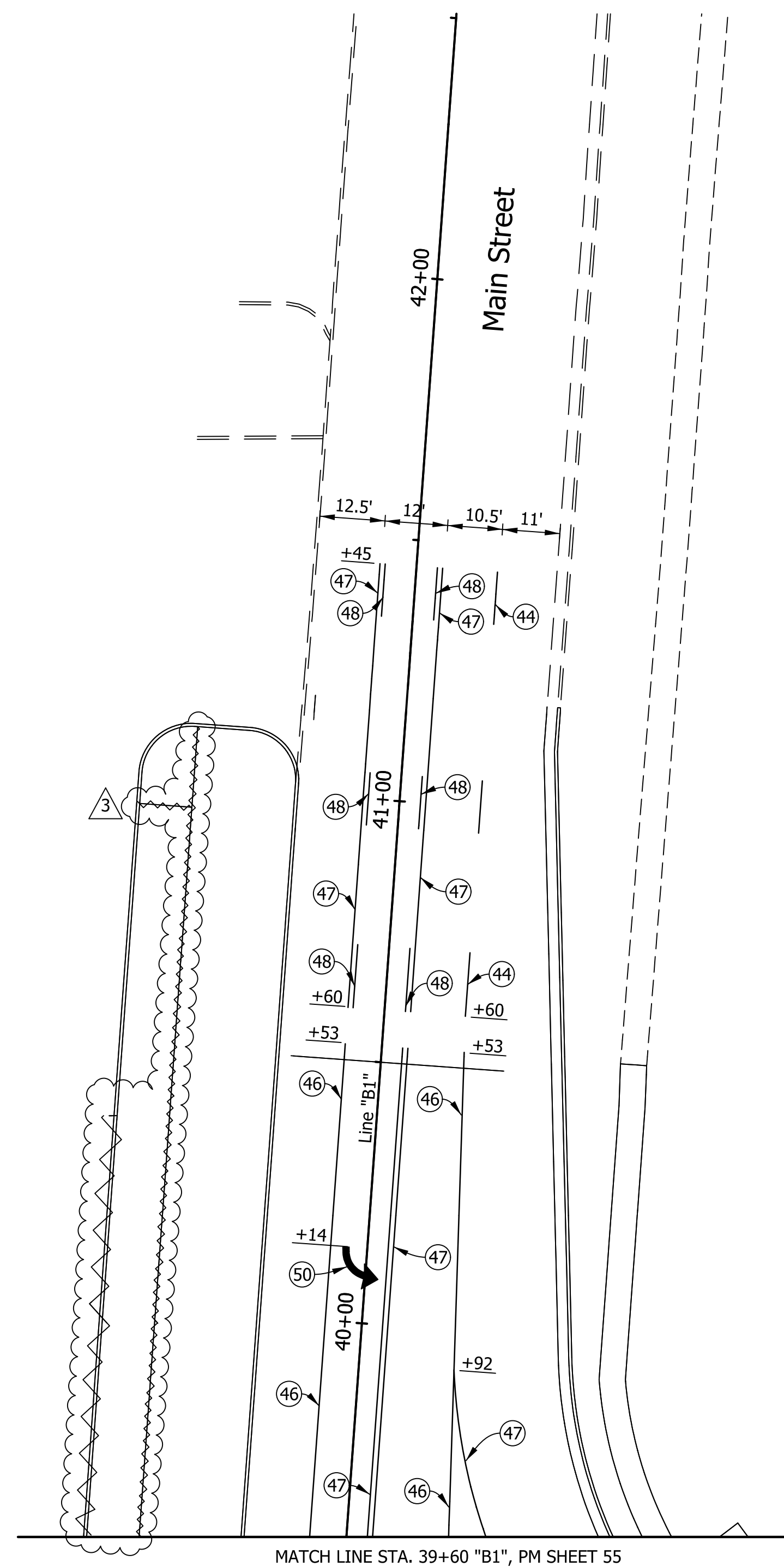
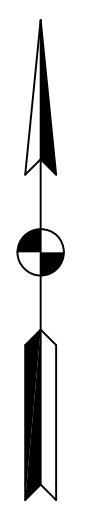
Vance G. Epple 12/17/2015
 SIGNATURE DATE



CITY OF SOUTH BEND, INDIANA
ROUNDAABOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

PAVEMENT MARKING SHEET 1
 STA. 46+00 TO STA. 52+00 LINE "D"

REVISIONS	HORIZONTAL SCALE 1" = 20' VERTICAL SCALE	PROJECT NUMBER 114-045
DRAWN: CDD	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	55 OF 97



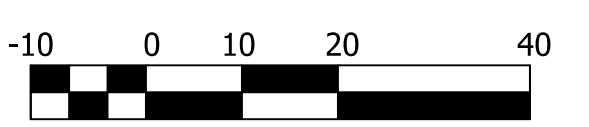
MATCH LINE STA. 39+60 "B1", PM SHEET 55

NOTES:

- 1. ALL STATIONS FROM LINE "B1" EXCEPT AS NOTED.

LEGEND:

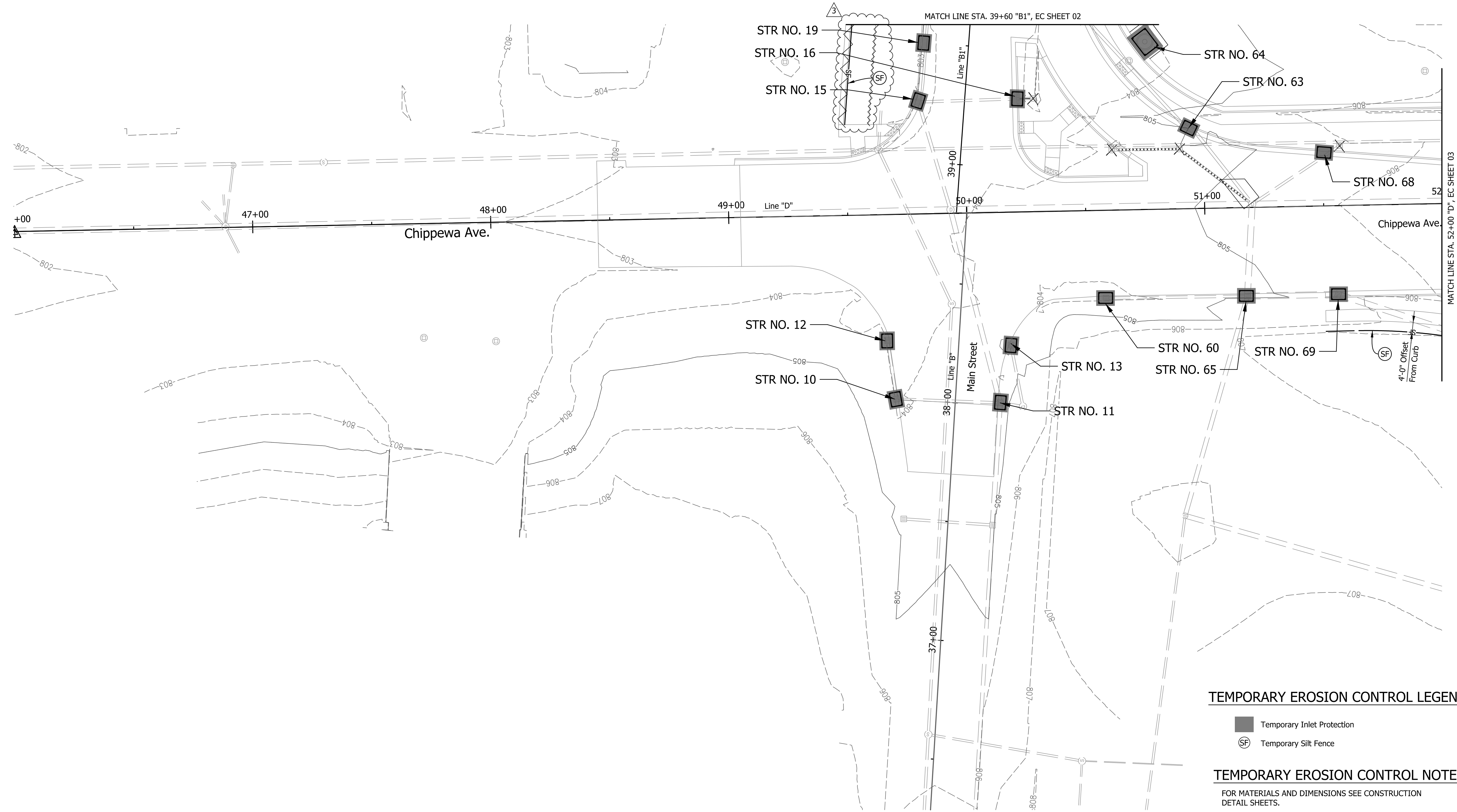
- ④④ Line, Thermoplastic, Broken, White 4"
- ④⑤ Line, Thermoplastic, Solid, White, 6"
- ④⑥ Line, Thermoplastic, Solid, White, 4"
- ④⑦ Line, Thermoplastic, Solid, Yellow, 4"
- ④⑧ Line, Thermoplastic, Broken, Yellow, 4"
- ⑤⑩ Pavement Message Marking, Thermoplastic, White, Arrow



(IN FEET)
SCALE: 1" = 20'

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<p>Plans Prepared By:</p> <p>Beam, Longest and Neff, LLC Consulting Engineers, Land Surveyors, Land Planners & Landscape Architects</p> <p style="font-size: small;">8126 Castleton Road, Indianapolis, IN 46250 Phone: 317.849.5832 www.B-L-N.com Fax: 317.841.4281</p>		<p><i>Vance G. Epple</i> 12/17/2015 SIGNATURE DATE</p>		<p>CITY OF SOUTH BEND, INDIANA ROUNDAABOUT INTERSECTION AT MICHIGAN ST. AND CHIPPEWA AVE.</p>	<p>REVISIONS</p>	<p>HORIZONTAL SCALE 1" = 20' VERTICAL SCALE</p>	<p>PROJECT NUMBER 114-045</p>
				<p>PAVEMENT MARKING SHEET 2 STA. 39+60 TO STA. 42+50 LINE "B1"</p>	<p>DRAWN: CDD CHECKED: AJD</p>	<p>SURVEY BOOK DATE Nov. 17, 2015</p>	<p>SHEETS 56 OF 97</p>



MATCH LINE STA. 52+00 "D", EC SHEET 03

MATCH LINE STA. 39+60 "B1", EC SHEET 02

TEMPORARY EROSION CONTROL LEGEND

- Temporary Inlet Protection
- SF Temporary Silt Fence

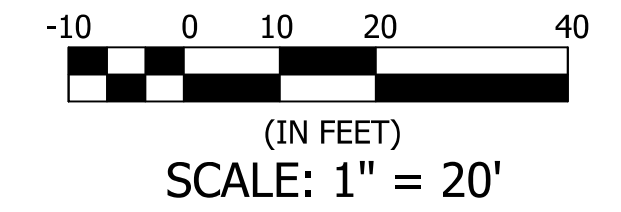
TEMPORARY EROSION CONTROL NOTES

FOR MATERIALS AND DIMENSIONS SEE CONSTRUCTION DETAIL SHEETS.

FOR PROFILE INFORMATION SEE SPOT ELEVATION DETAILS AND PLAN AND PROFILE SHEETS.

FOR DRAINAGE INFORMATION SEE DRAINAGE DETAIL SHEETS.

ALL STATIONS AND OFFSETS FROM LINE D EXCEPT AS NOTED.



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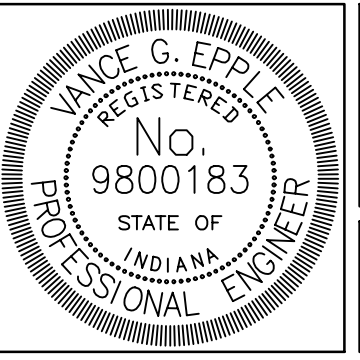
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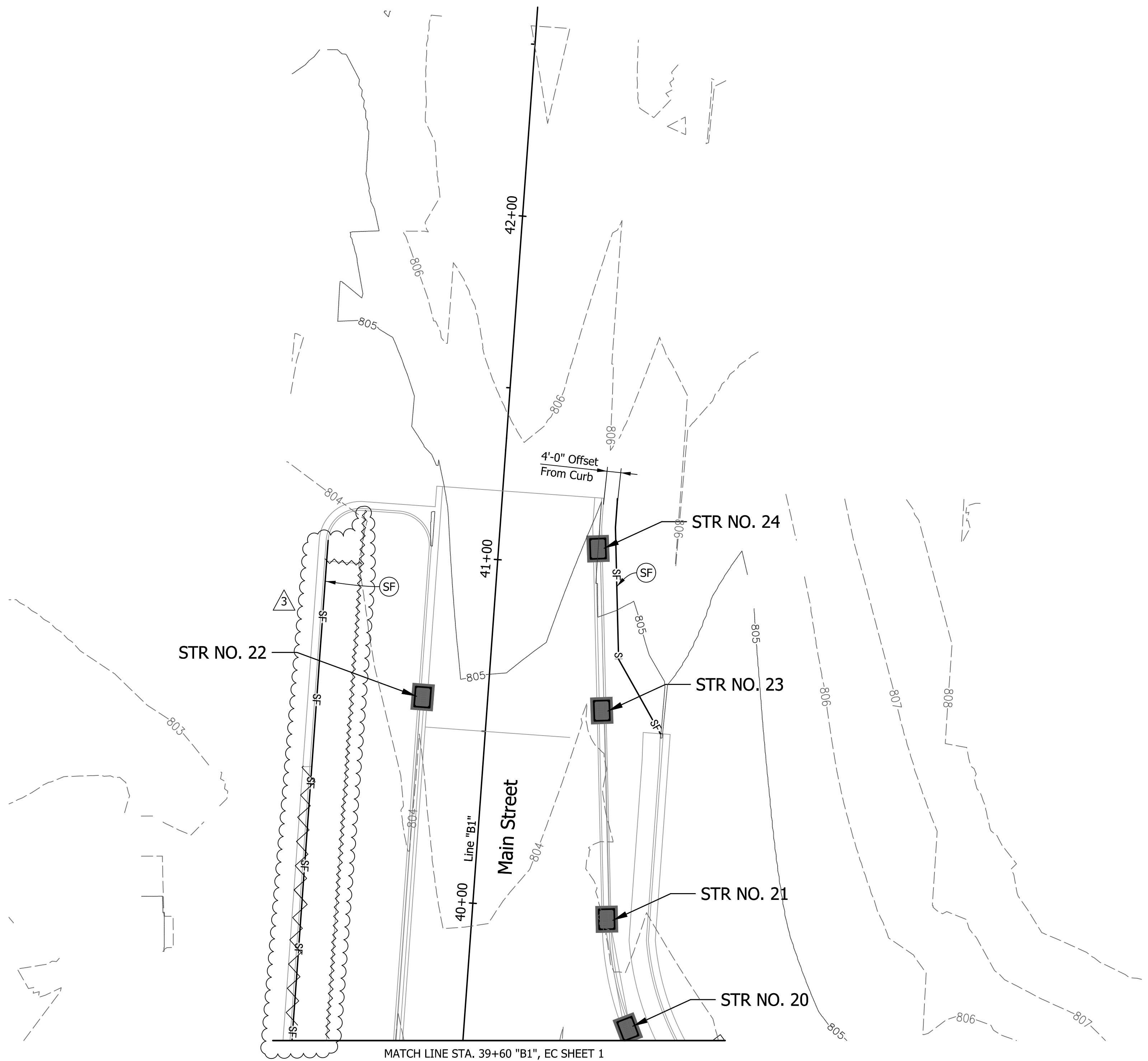
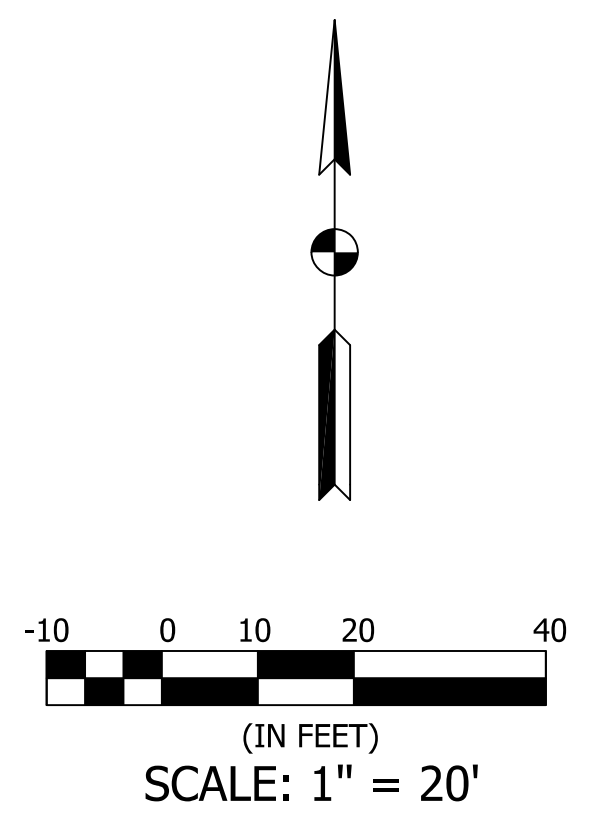
Vance G. Epple 12/17/2015
SIGNATURE DATE



CITY OF SOUTH BEND, INDIANA
ROUNDBOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

EROSION CONTROL SHEET 1
STA. 46+00 TO STA. 52+00 LINE "D"

REVISIONS	HORIZONTAL SCALE 1" = 20' VERTICAL SCALE	PROJECT NUMBER 114-045
DRAWN: JJP	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	59 OF 97



TEMPORARY EROSION CONTROL LEGEND

- Temporary Inlet Protection
- Temporary Silt Fence

TEMPORARY EROSION CONTROL NOTES

FOR MATERIALS AND DIMENSIONS SEE CONSTRUCTION DETAIL SHEETS.

FOR PROFILE INFORMATION SEE SPOT ELEVATION DETAILS AND PLAN AND PROFILE SHEETS.

FOR DRAINAGE INFORMATION SEE DRAINAGE DETAIL SHEETS.

ALL STATIONS AND OFFSETS FROM LINE D EXCEPT AS NOTED.

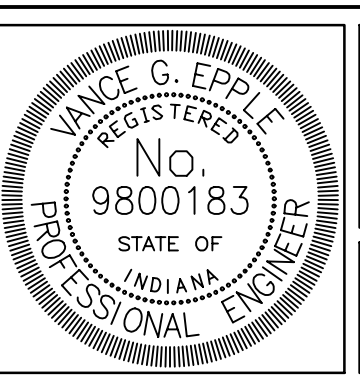
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Vance A. Epple 12/17/2015
 SIGNATURE DATE



CITY OF SOUTH BEND, INDIANA
ROUNDAABOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

EROSION CONTROL SHEET 2
 STA. 39+60 TO STA. 43+00 LINE "B1"

REVISIONS	HORIZONTAL SCALE 1" = 20'	PROJECT NUMBER 114-045
DRAWN: JJP	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	60 OF 97

SODDING SUMMARY TABLE

LOCATION					ACTUAL LENGTH	NURSERY SODDING FOR LAWNS
FROM STATION	TO STATION	LEFT	CROSS	RIGHT		
					LFT	SYS
38+15 "B1"	41+12 "B1"	X			297	671
39+46 "B1"	41+20 "B1"			X	174	184
50+68 "D"	52+88 "D"	X			220	330
51+50 "D"	52+77 "D"			X	127	172
51+50 "D"	33+75 "C"			X	410	683
52+78 "D"	35+49 "C"			X	145	274
52+94 "D"	54+06 "D"	X			112	131
53+26 "D"	39+75 "C1"	X			225	250
54+56 "D"	55+20 "D"	X			64	196
54+30 "D"	35+58 "C"			X	150	125
55+35 "D"	56+03 "D"			X	68	42
55+04 "D"	55+37 "D"	X			33	55
55+39 "D"	55+94 "D"	X			55	131
55+82 "D"	56+28 "D"	X			46	110
33+15 "C"	35+43 "C"	X			168	127
33+15 "C"	34+60 "C"			X	145	81
33+75 "C"	34+67 "C"			X	92	56
34+89 "C"	35+51 "C"			X	62	90
34+89 "C"	35+64 "C"			X	75	46
37+84 "C1"	38+81 "C1"			X	97	97
38+31 "C1"	38+79 "C1"			X	48	117
38+30 "C1"	39+75 "C1"	X			145	153
39+00 "C1"	39+20 "C1"			X	20	44
39+29 "C1"	41+35 "C1"			X	206	298
39+75 "C1"	41+35 "C1"	X			160	302
TOTALS						4765

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Plans Prepared By:

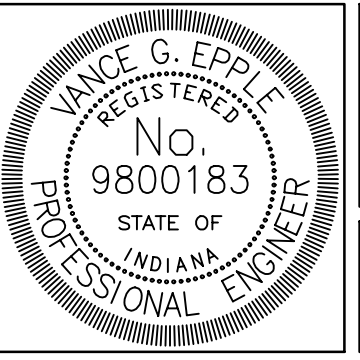


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8126 Castleton Road, Indianapolis, IN 46250
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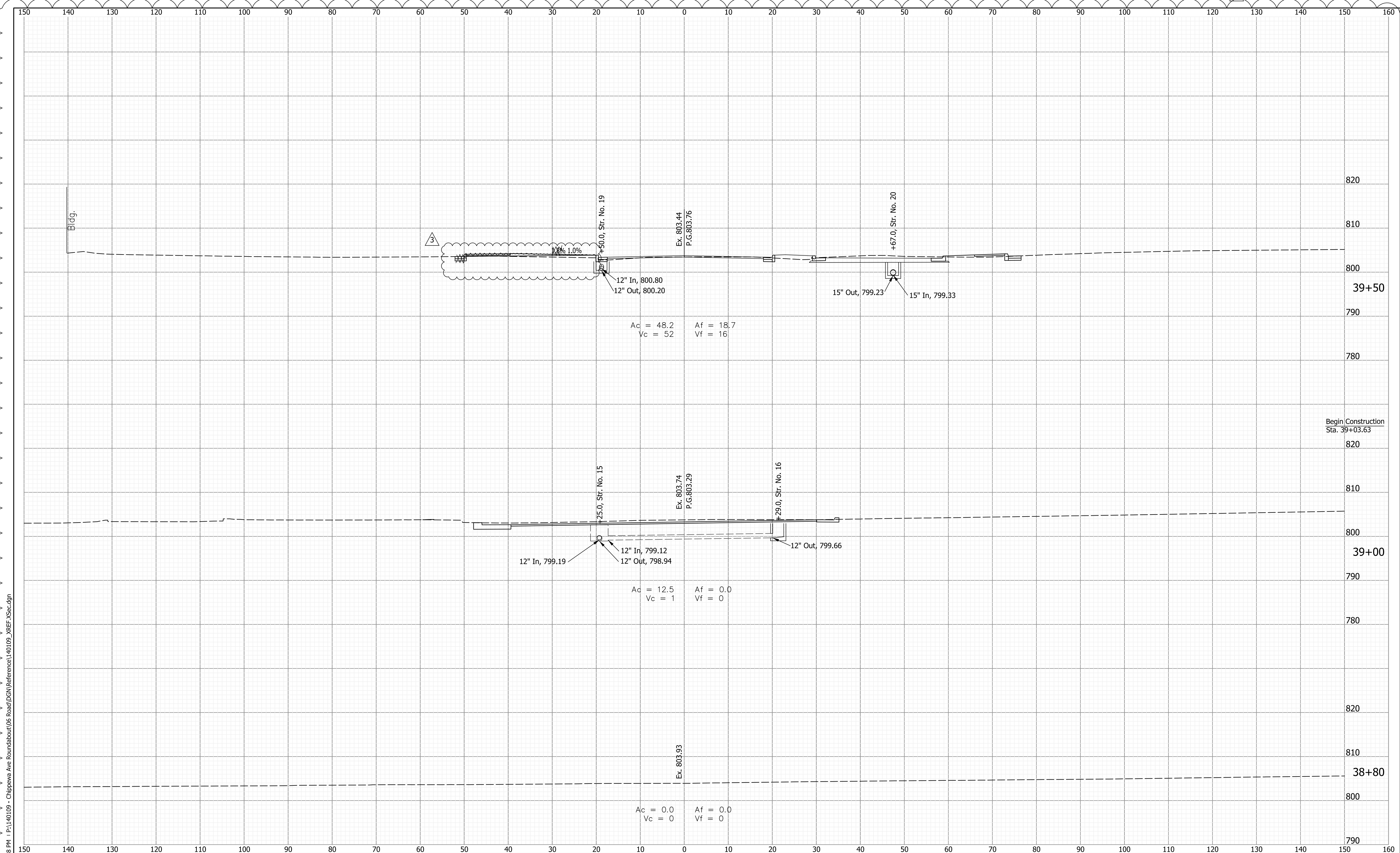
Vance A. Epple 12/17/2015
 SIGNATURE DATE



CITY OF SOUTH BEND, INDIANA
ROUNDAABOUT INTERSECTION AT
MICHIGAN ST. AND CHIPPEWA AVE.

SOD/SEEDING TABLE

REVISIONS	HORIZONTAL SCALE NTS	PROJECT NUMBER 114-045
	VERTICAL SCALE	
DRAWN: NLC	SURVEY BOOK	SHEETS
CHECKED: AJD	DATE Nov. 17, 2015	74 OF 97



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Plans Prepared By:

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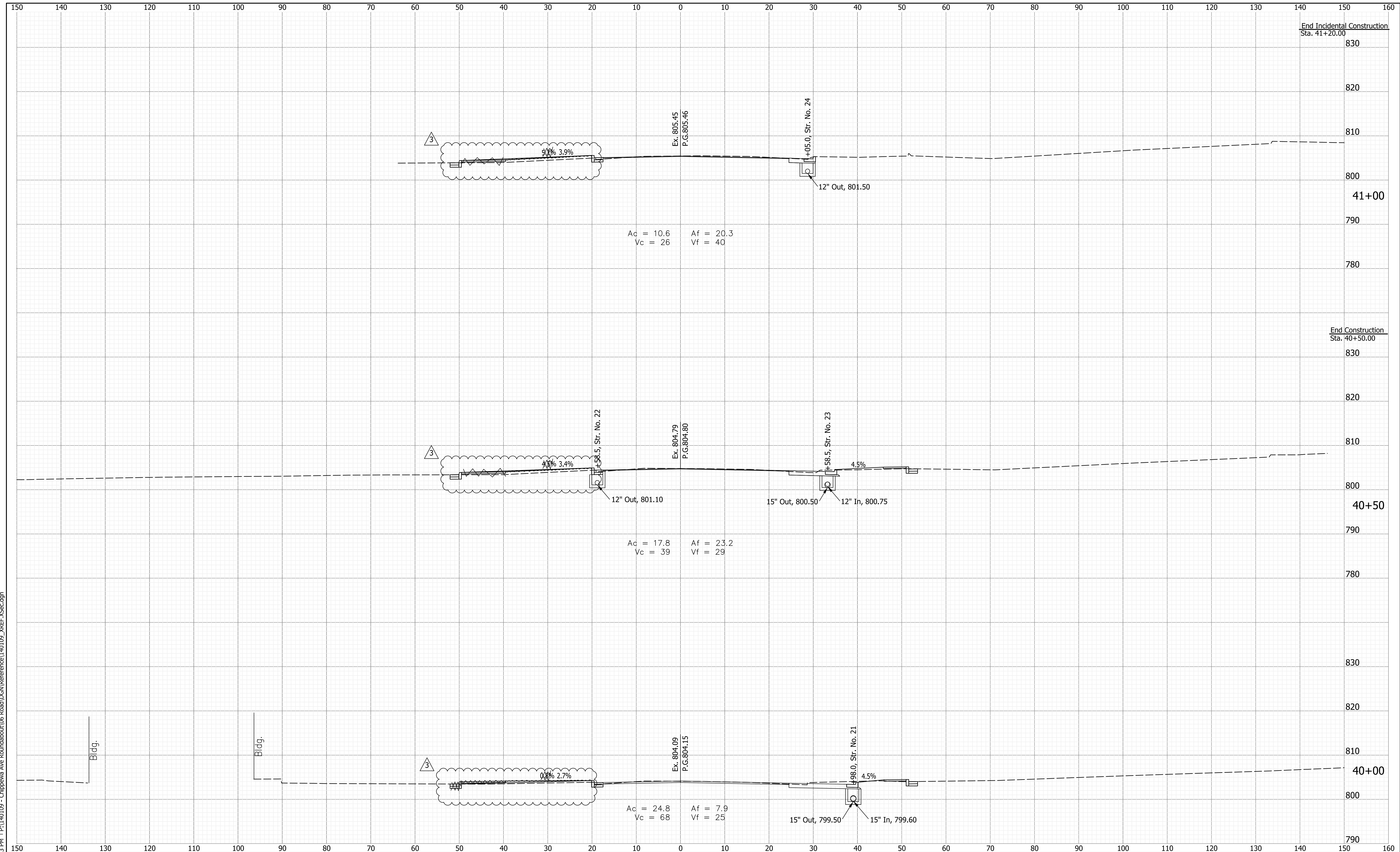
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 Phone: 317.849.5832 Fax: 317.841.4281

SIGNATURE	DATE

**CITY OF SOUTH BEND, INDIANA
 ROUNDABOUT INTERSECTION AT
 MICHIGAN ST. AND CHIPPEWA AVE.**

**CROSS SECTIONS
 STA. 38+80 TO STA. 39+50 "B1"**

REVISIONS	HORIZONTAL SCALE 1" = 5'	PROJECT NUMBER 114-045
	VERTICAL SCALE 1" = 5'	SHEETS
DRAWN: <u>AJS</u>	SURVEY BOOK	93A OF 97
CHECKED: <u>AJD</u>	DATE Nov. 17, 2015	



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SIGNATURE	DATE

**CITY OF SOUTH BEND, INDIANA
 ROUNDABOUT INTERSECTION AT
 MICHIGAN ST. AND CHIPPEWA AVE.**

CROSS SECTIONS
 STA. 40+00 TO STA. 41+00 "B1"

REVISIONS	HORIZONTAL SCALE 1" = 5'	PROJECT NUMBER 114-045	
	VERTICAL SCALE 1" = 5'	SHEETS	
DRAWN: <u>AJS</u>	SURVEY BOOK	94	OF 97
CHECKED: <u>AJD</u>	DATE Nov. 17, 2015		