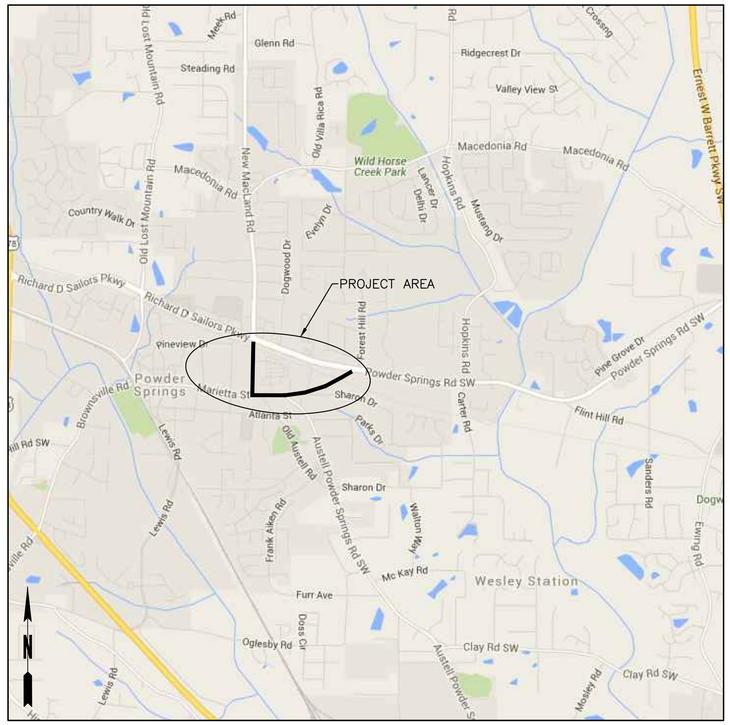
POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOTS 830, 871, 872, 873, 904, 905 OF THE 19TH DISTRICT, 2ND SECTION
COBB COUNTY COUNTY, GA
CITY OF POWDER SPRINGS

Sheet List Table

Sheet Number	Drawing Number	Sheet Title
1	C1	COVER
2	C2	OVERVIEW
3	C3	DESIGN STA 100+00 TO 105+00
4	C4	DESIGN STA 105+00 TO 110+50
5	C5	DESIGN STA 110+50 TO 201+50
6	C6	DESIGN STA 201+50 TO 207+50
7	C7	DESIGN STA 207+50 TO 213+00
8	C8	DESIGN STA 213+00 TO 219+00
9	C9	DESIGN STA 219+00 TO 225+00
10	C10	DESIGN STA 225+00 TO 228+50
11	C11	NEW MACLAND RD CROSS SECTOINS
12	C12	NEW MACLAND RD CROSS SECTOINS
13	C13	POWDER SPRINGS RD CROSS SECTOINS
14	C14	POWDER SPRINGS RD CROSS SECTOINS
15	C15	POWDER SPRINGS RD CROSS SECTOINS
16	C16	DESIGN DETAILS
17	C17	DESIGN DETAILS
18	ER1	EROSION STA 100+00 TO 105+00
19	ER2	EROSION STA 105+00 TO 110+50
20	ER3	EROSION STA 110+50 TO 201+50
21	ER4	EROSION STA 201+50 TO 207+50
22	ER5	EROSION STA 207+50 TO 213+00
23	ER6	EROSION STA 213+00 TO 219+00
24	ER7	EROSION STA 219+00 TO 225+00
25	ER8	EROSION STA 225+00 TO 228+50
26	ER9	EROSION DETAILS



LOCATION MAP 1" = 2000'

NOTES

1. CONTRACTOR TO INSTALL AND MAINTAIN ALL BMPS TO THE TOTAL SATISFACTION OF THE CITY OF POWDER SPRINGS PUBLIC WORKS DEPARTMENT DIRECTOR OR DESIGNEE.

2. CONTRACTOR TO BE RESPONSIBLE FOR FILING OF NOTICE OF INTENT AND NOTICE OF TERMINATION, AS NECESSARY.

3. EARTHWORK TO BE ON AN UNCLASSIFIED BASIS.

4. ALL WORK IS TO BE DONE IN STRICT ACCORDANCE WITH THE CITY OF POWDER SPRINGS DESIGN STANDARDS. WHEN SAID STANDARDS ARE NOT AVAILABLE, CONTRACTOR IS TO REFER TO GEORGIA DEPT. OF TRANSPORTATION DESIGN STANDARDS & DETAILS.

5. ALL UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR IS TO FIELD VERIFY LOCATION, SIZE, DEPTH, AND MATERIALS OF ALL UTILITIES, AND TO COORDINATE WORK WITH LOCAL UTILITY COMPANIES.

6. CONTRACTOR TO INSTALL AND MAINTAIN ALL TREE PROTECTION MEASURES TO THE TOTAL SATISFACTION OF THE CITY OF POWDER SPRINGS PUBLIC WORKS DEPARTMENT DIRECTOR OR DESIGNEE.

7. CONTRACTOR TO RELOCATE ALL CONFLICTING STREET SIGNS, UTILITY POLES, MAILBOXES, ETC., TO AN APPROPRIATE LOCATION WITHIN THE R/W.

8. CONTRACTOR TO COORDINATE INSTALLATION OF SIDEWALK WITH GEORGIA POWER. GEORGIA POWER SHALL BE RESPONSIBLE FOR INSTALLATION OF ALL PEDESTRIAN LIGHT POLES AND ASSOCIATED WIRING, ETC.

TOTAL DISTURBED AREA: 2.18 ACRES

REVISIONS

REVISION NUMBER	DATE	DESCRIPTION	SHEETS REVISED

GEORGIA811 Utilities Protection Center, Inc
Know what's below. Call before you dig.

CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC, NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT WRITTEN PERMISSION AND CONSENT.

THE CITY OF Powder Springs

OWNER/DEVELOPER:
CITY OF POWDER SPRINGS
4484 MARIETTA STREET
POWDER SPRINGS, GA 30127
TEL: (770) 943-1666

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC, NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT WRITTEN PERMISSION AND CONSENT.
Plotted by Phillip Krause using Design.ctb on 11/22/2016 5:14 PM

POWDER SPRINGS STREETSCAPE
NEW MACLAND & POWDER SPRING ROAD
LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

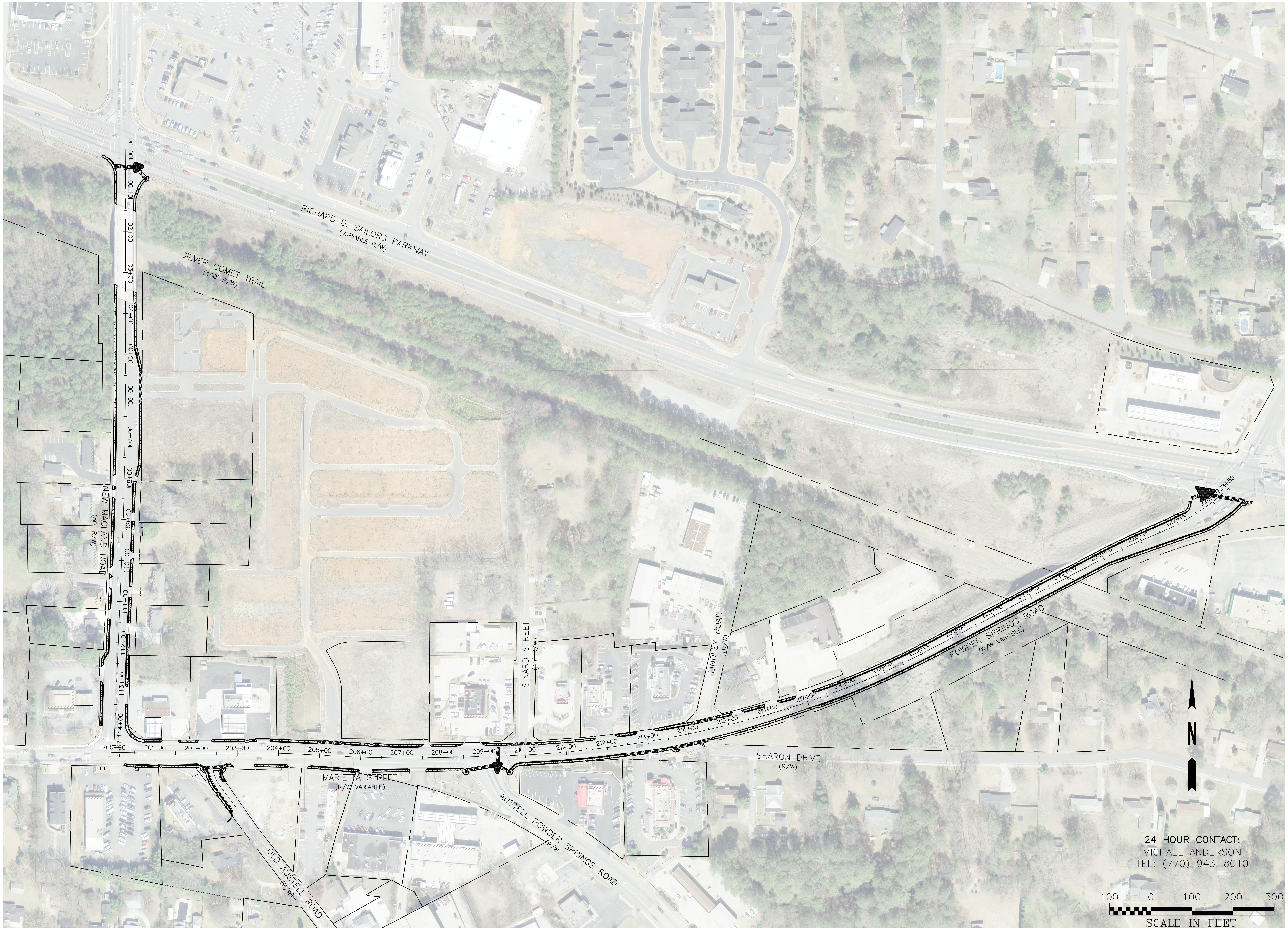
SHEET TITLE
COVER

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
AS SHOWN	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
C1

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC, NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT WRITTEN PERMISSION AND CONSENT.

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA PROFESSIONAL 38829 ENGINEER PATRICK T. LENTON

GSWCC CERT #58037

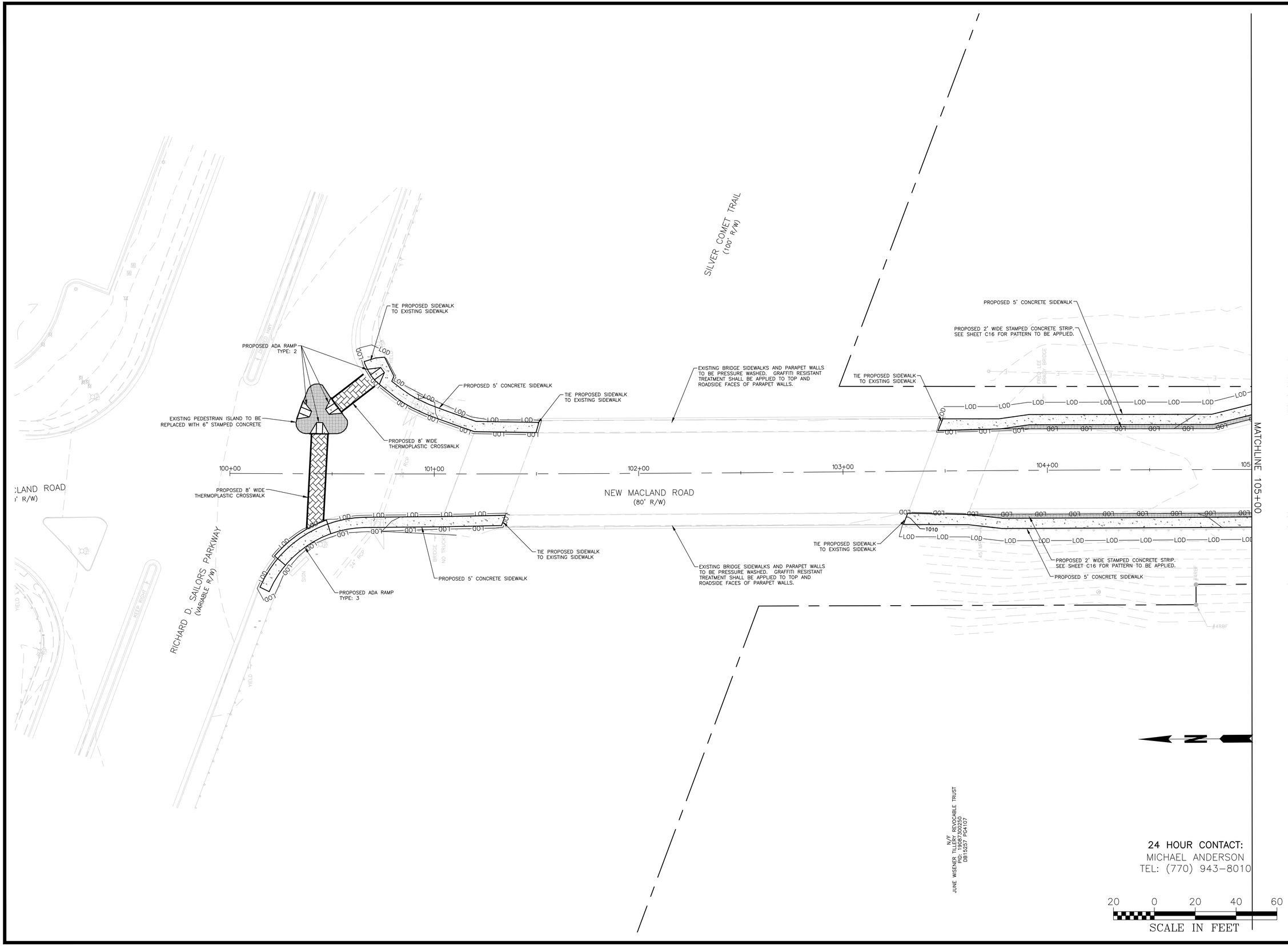
SHEET TITLE
OVERVIEW

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=100'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
C2

Plot Scale: 1"=100', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Phillip Krause on 11/22/2016, 5:14 PM
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
DESIGN STA 100+00
TO 105+00

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

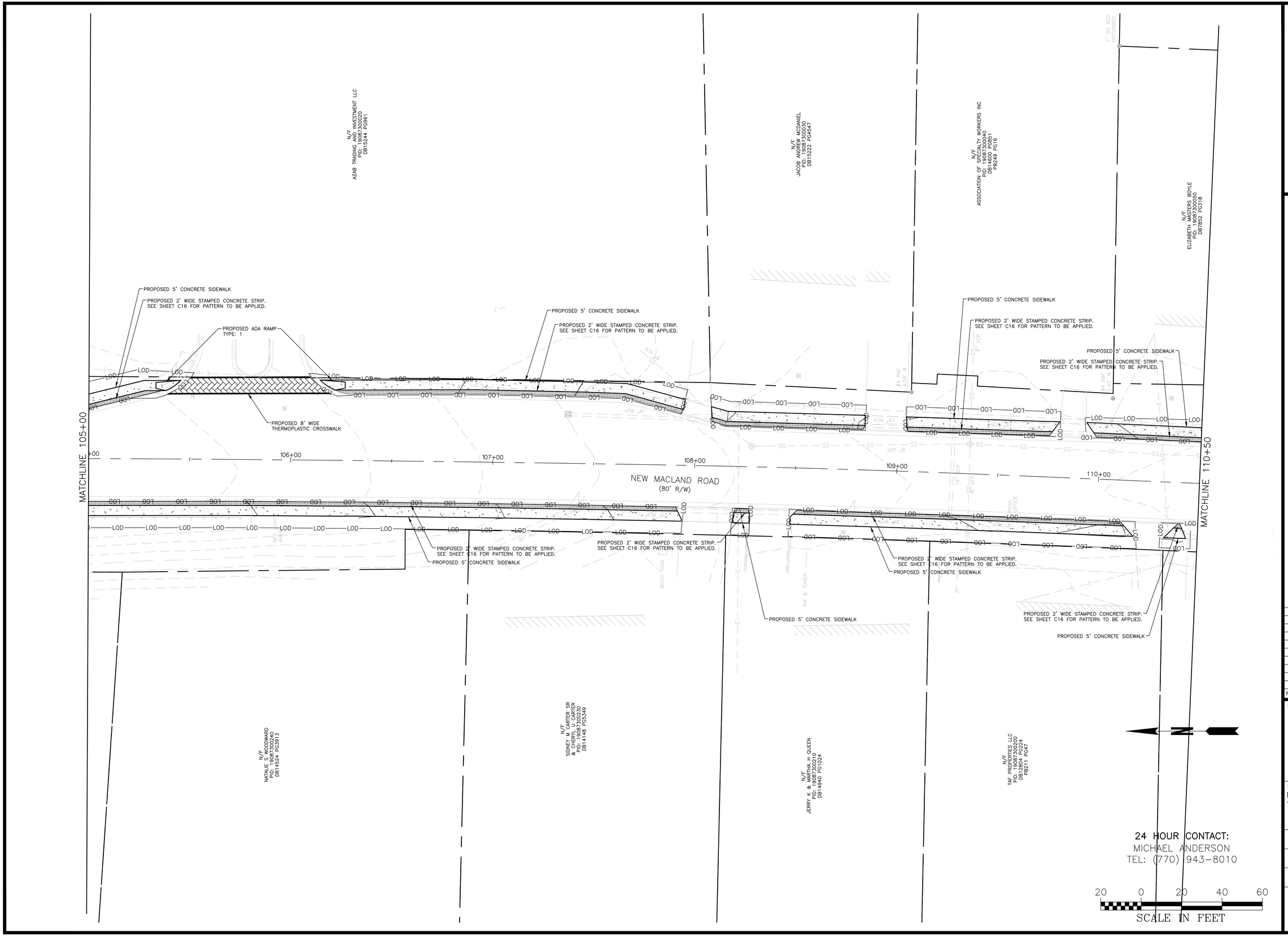
PROJECT NUMBER
1476.03

DRAWING NUMBER
C3

SHEET 3 of 26

Plot Scale: 1"=20'. Drawing Rotation: 90.3°. Plot Style: Design.ctb. Plotted By: Philip Krause on 11/22/2016, 5:14 PM

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC. ANY USE OF THESE DRAWINGS BY ANY THIRD PARTY IS PROHIBITED AND FORBIDDEN.

Plot Scale: 1"=20' Drawing Rotation: 89.9° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:14 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
DESIGN STA 105+00 TO 110+50

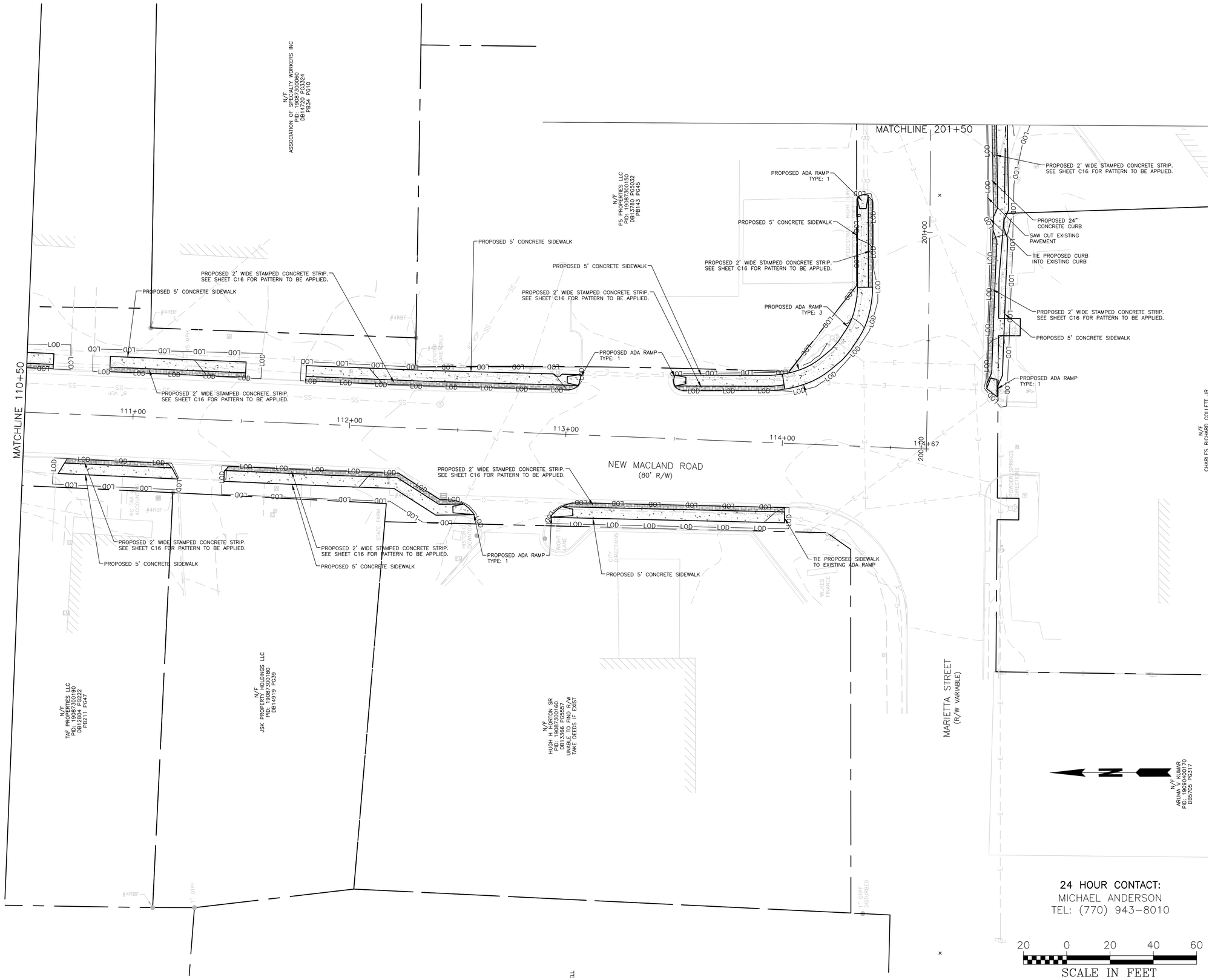
DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
C4

SHEET 4 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
DESIGN STA 110+50
TO 201+50

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

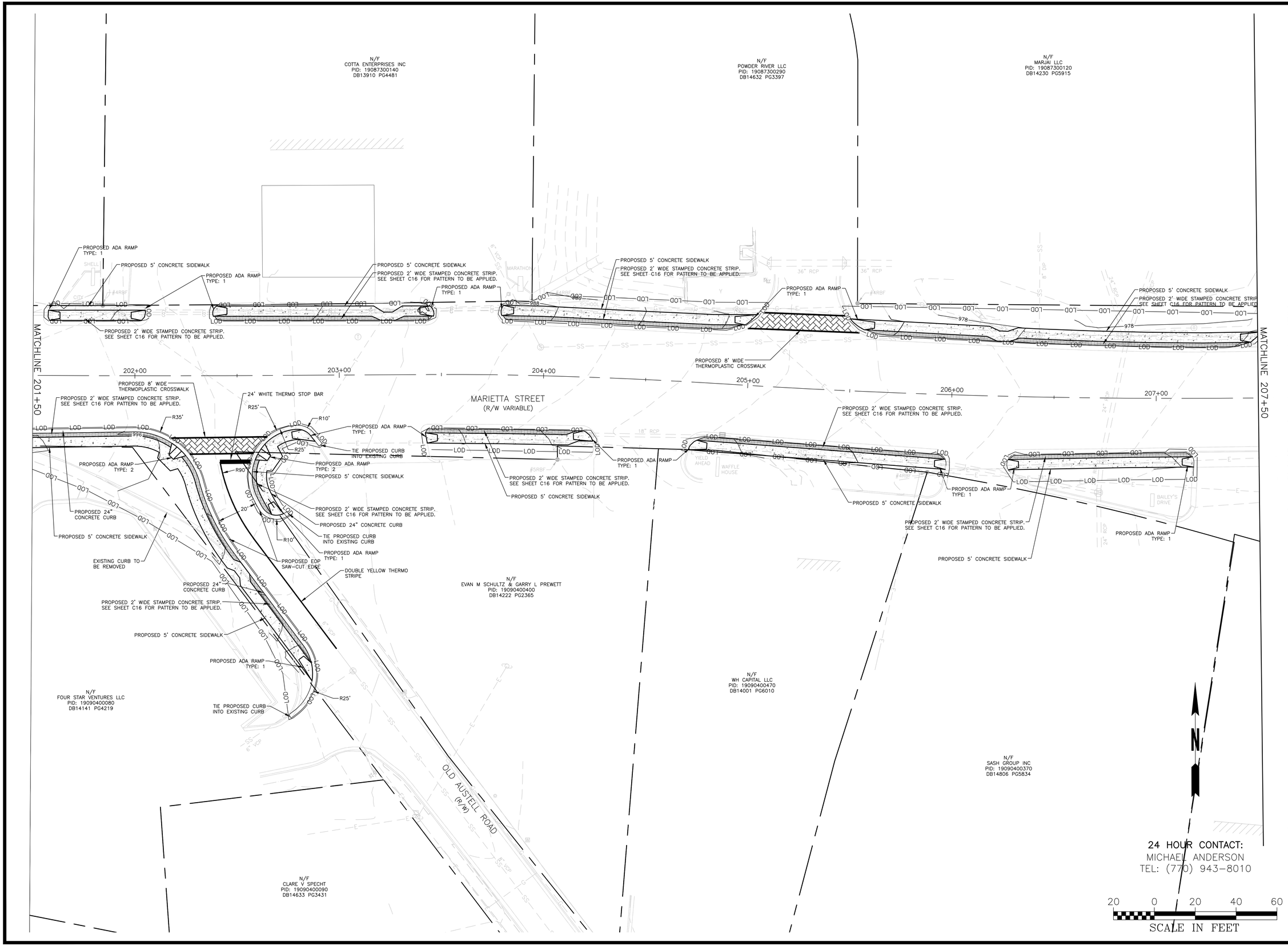
PROJECT NUMBER
1476.03

DRAWING NUMBER
C5

SHEET 5 of 26

Plot Scale: 1"=20'. Drawing Rotation: 90.0°. Plot Style: Design.ctb. Plotted By: Philip Krause on 11/22/2016, 5:14 PM

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC.

Plot Scale: 1"=20'; Drawing Rotation: 0.0°; Plot Style: Design.ctb; Plotted By: Phillip Krause on 11/22/2016, 5:14 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

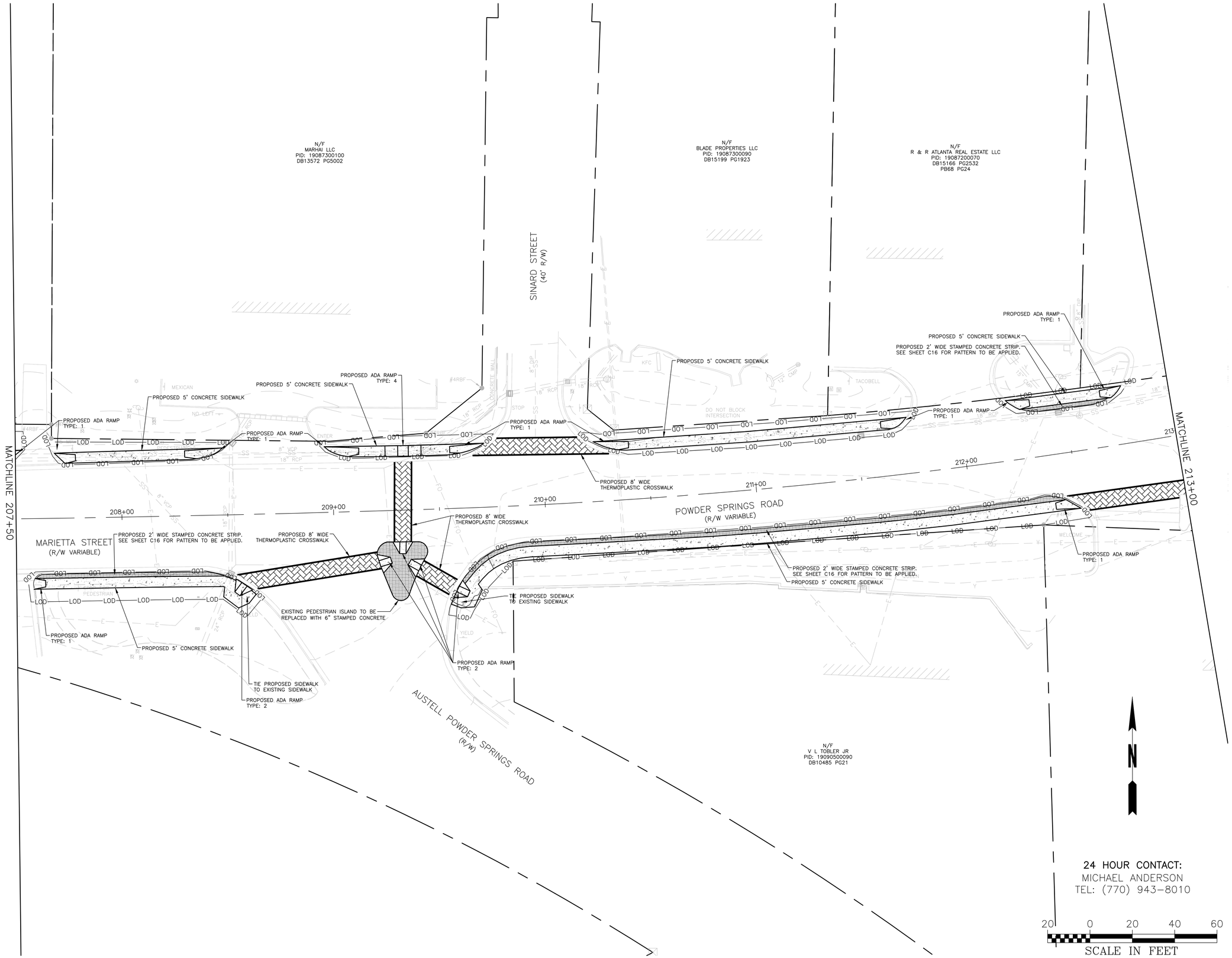
SHEET TITLE
DESIGN STA 201+50 TO 207+50

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
C6
SHEET 6 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC.

Plot Scale: 1"=20' Drawing Rotation: 0.0° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:15 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. L. EVITON

GSWCC CERT #58037

SHEET TITLE
DESIGN STA 207+50
TO 213+00

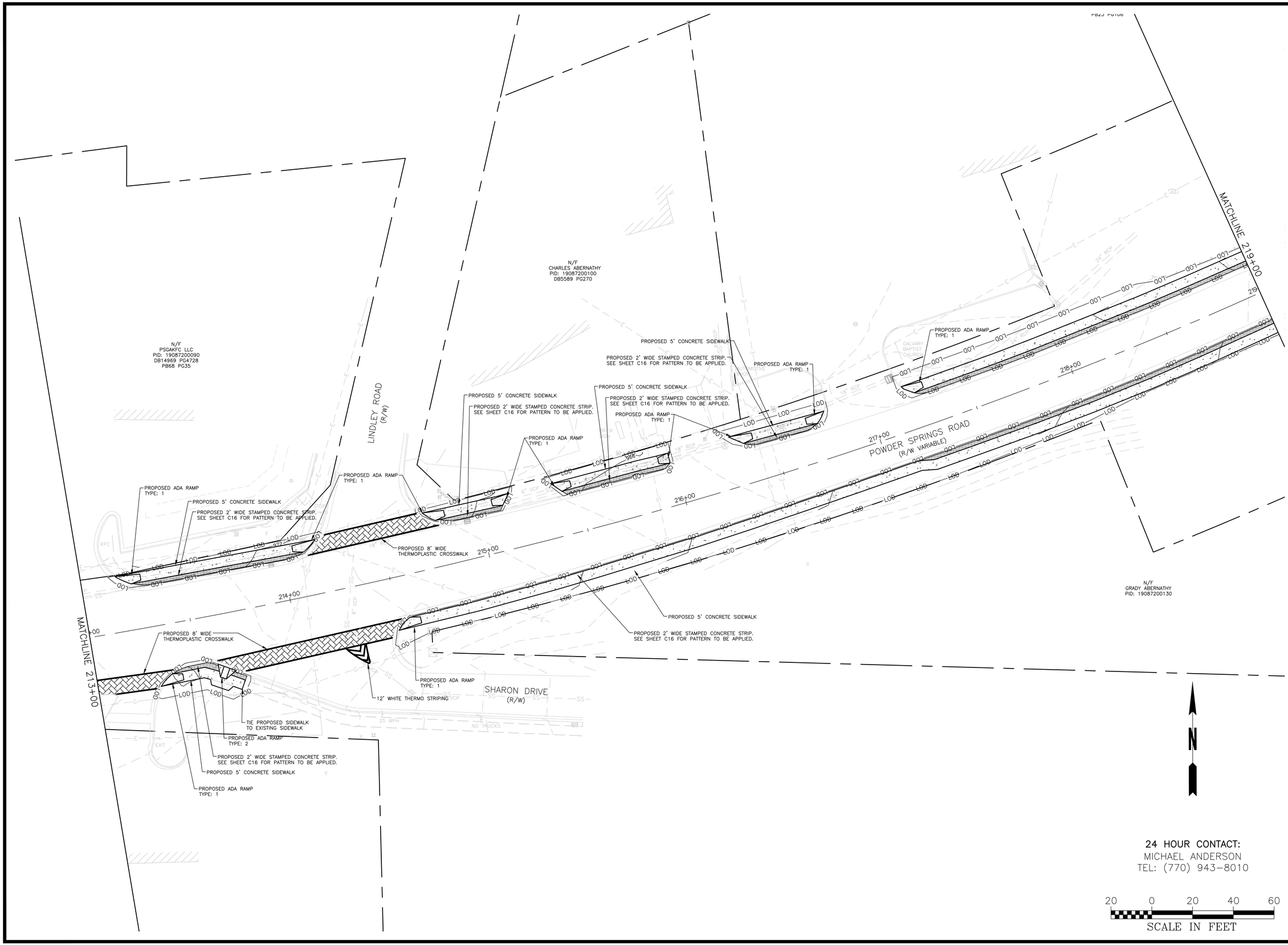
DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
C7

SHEET 7 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

20 0 20 40 60
SCALE IN FEET

CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
DESIGN STA 213+00
TO 219+00

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

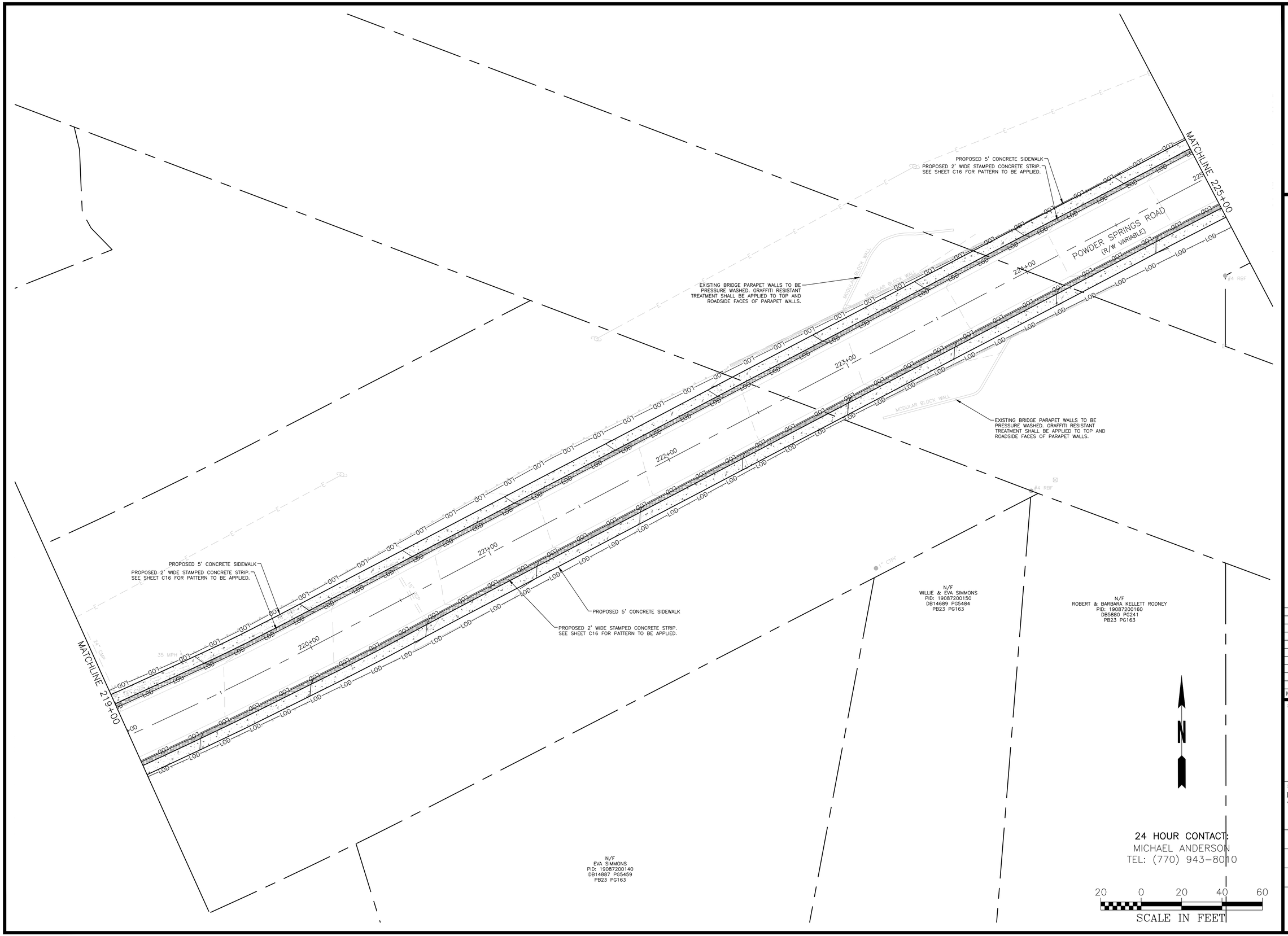
PROJECT NUMBER
1476.03

DRAWING NUMBER
C8

SHEET 8 of 26

Plot Scale: 1"=20', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Philip Krause on 11/22/2016, 5:15 PM

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
DESIGN STA 219+00
TO 225+00

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
C9

SHEET 9 of 26

Plot Scale: 1"=20', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Philip Krause on 11/22/2016, 5:15 PM

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg

CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
DESIGN STA 225+00
TO 228+50

DRAWN BY	CHECKED BY
PEK	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

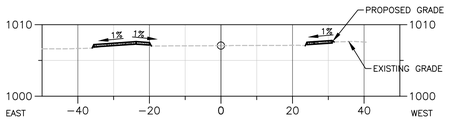
PROJECT NUMBER
1476.03

DRAWING NUMBER
C10

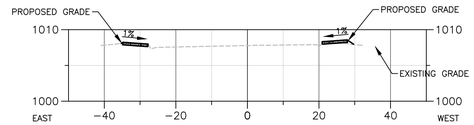
SHEET 10 of 26

Plot Scale: 1"=20', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Phillip Krause on 11/22/2016, 5:15 PM

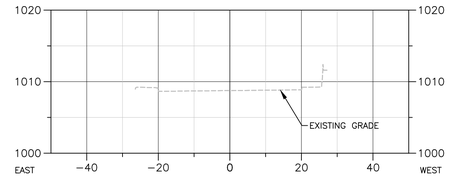
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



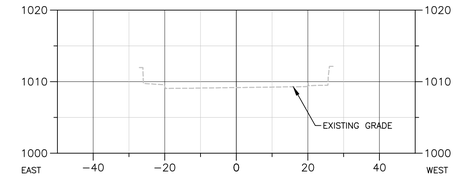
NEW MACLAND RD STA. 100+50.00



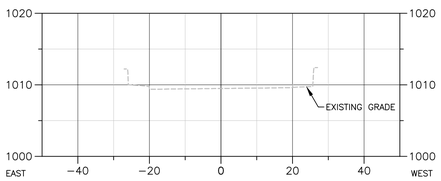
NEW MACLAND RD STA. 101+00.00



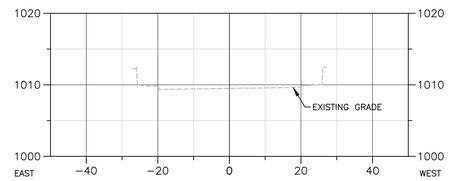
NEW MACLAND RD STA. 101+50.00



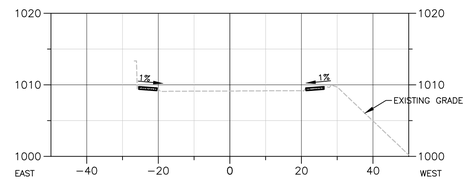
NEW MACLAND RD STA. 102+00.00



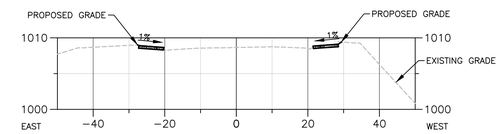
NEW MACLAND RD STA. 102+50.00



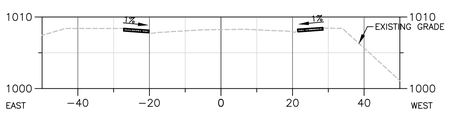
NEW MACLAND RD STA. 103+00.00



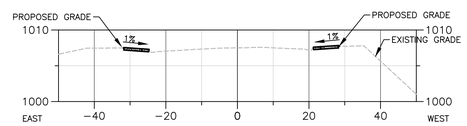
NEW MACLAND RD STA. 103+50.00



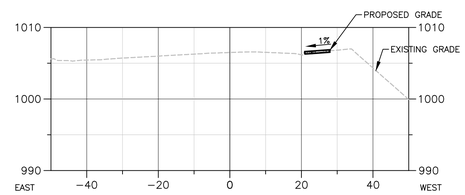
NEW MACLAND RD STA. 104+00.00



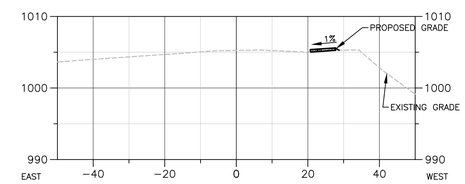
NEW MACLAND RD STA. 104+50.00



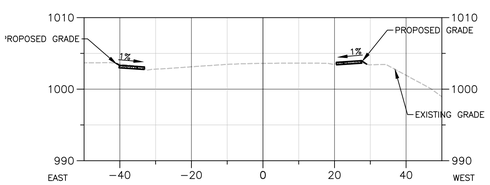
NEW MACLAND RD STA. 105+00.00



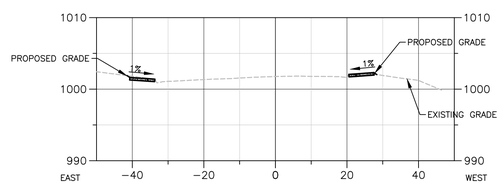
NEW MACLAND RD STA. 105+50.00



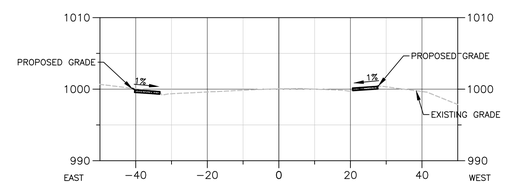
NEW MACLAND RD STA. 106+00.00



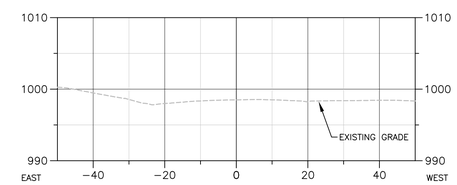
NEW MACLAND RD STA. 106+50.00



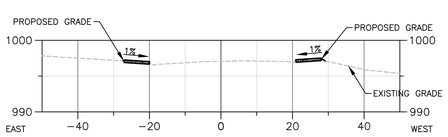
NEW MACLAND RD STA. 107+00.00



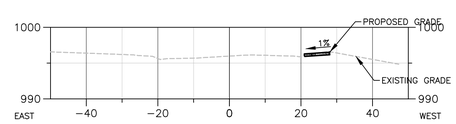
NEW MACLAND RD STA. 107+50.00



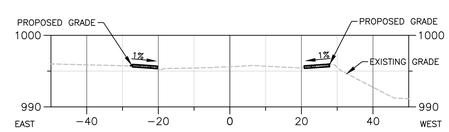
NEW MACLAND RD STA. 108+00.00



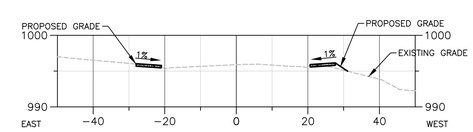
NEW MACLAND RD STA. 108+50.00



NEW MACLAND RD STA. 109+00.00



NEW MACLAND RD STA. 109+50.00



NEW MACLAND RD STA. 110+00.00

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC. ©2016 CROY ENGINEERING, LLC ALL RIGHTS ARE RESERVED

Plot Scale: 1"=20' Drawing Rotation: ###° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:15 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
NEW MACLAND RD
CROSS SECTOINS

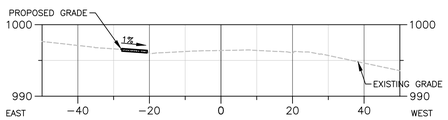
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

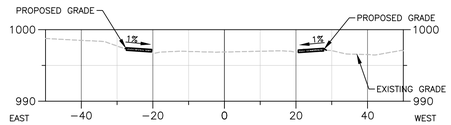
DRAWING NUMBER
C11

SHEET 11 of 26

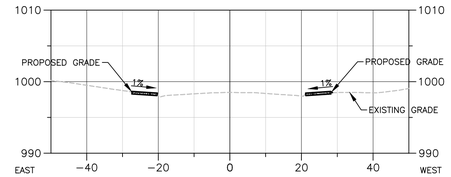
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



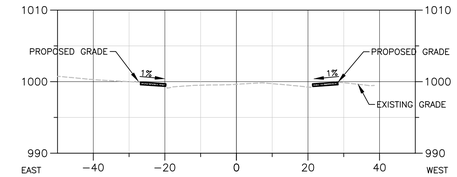
NEW MACLAND RD STA. 110+50.00



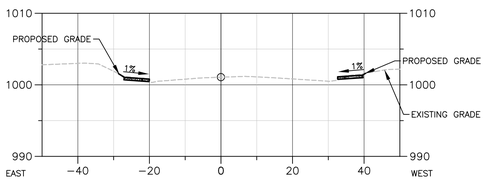
NEW MACLAND RD STA. 111+00.00



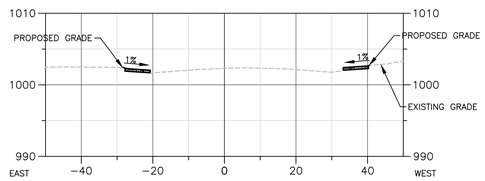
NEW MACLAND RD STA. 111+50.00



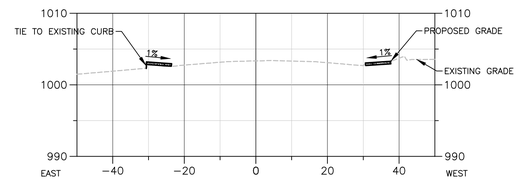
NEW MACLAND RD STA. 112+00.00



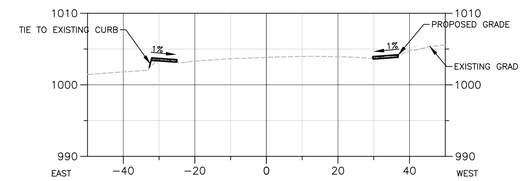
NEW MACLAND RD STA. 112+50.00



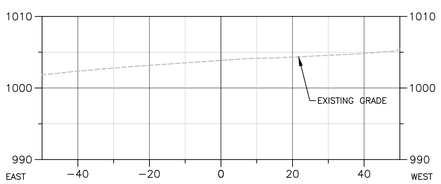
NEW MACLAND RD STA. 113+00.00



NEW MACLAND RD STA. 113+50.00



NEW MACLAND RD STA. 114+00.00



NEW MACLAND RD STA. 114+50.00

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
NEW MACLAND RD
CROSS SECTOINS

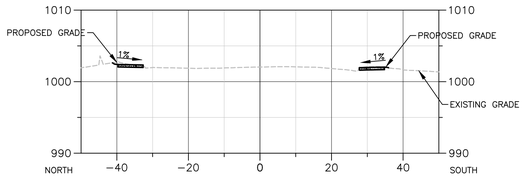
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

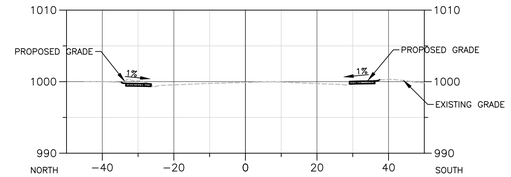
DRAWING NUMBER
C12

SHEET 12 of 26

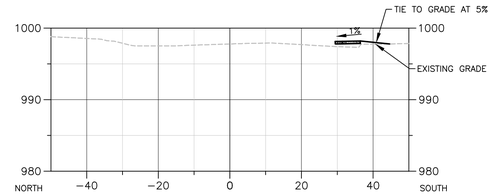
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg
Plot Scale: 1"=20'. Drawing Rotation: ###°. Plot Style: Design.ctb. Plotted By: Philip Krause on 11/22/2016, 5:15 PM



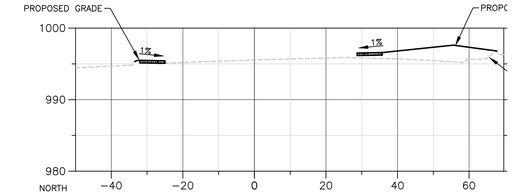
MARIETTA ST STA. 200+50.00



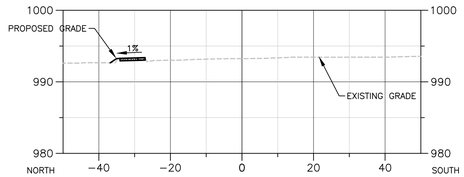
MARIETTA ST STA. 201+00.00



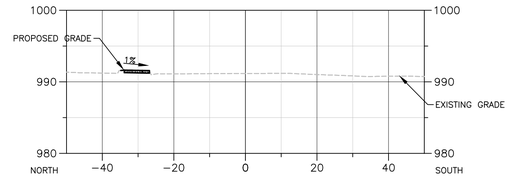
MARIETTA ST STA. 201+50.00



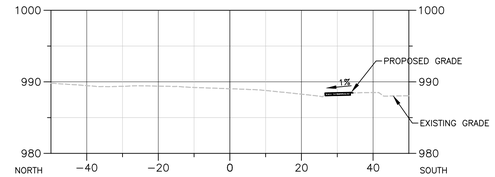
MARIETTA ST STA. 202+00.00



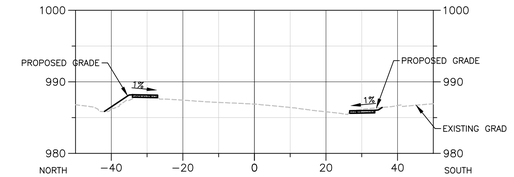
MARIETTA ST STA. 202+50.00



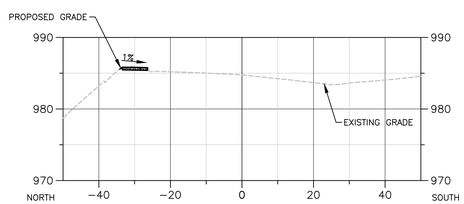
MARIETTA ST STA. 203+00.00



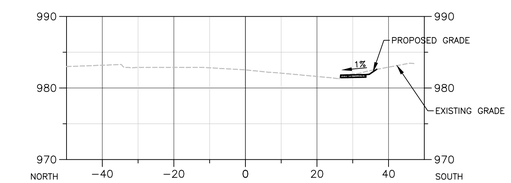
MARIETTA ST STA. 203+50.00



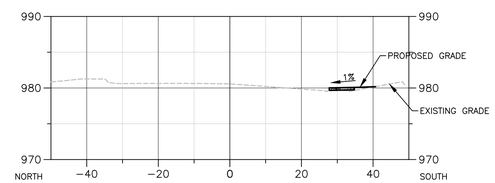
MARIETTA ST STA. 204+00.00



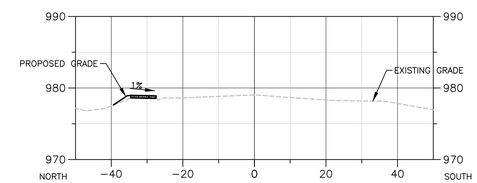
MARIETTA ST STA. 204+50.00



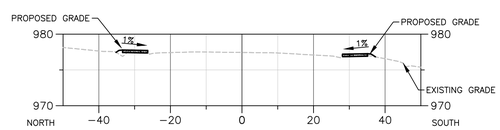
MARIETTA ST STA. 205+00.00



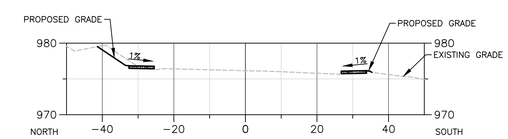
MARIETTA ST STA. 205+50.00



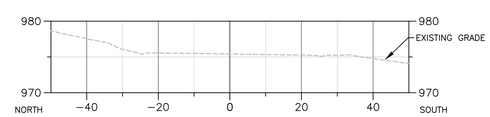
MARIETTA ST STA. 206+00.00



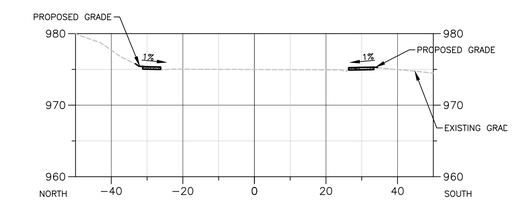
MARIETTA ST STA. 206+50.00



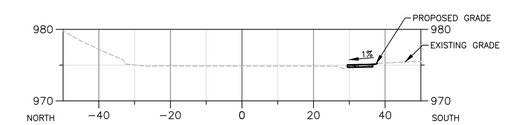
MARIETTA ST STA. 207+00.00



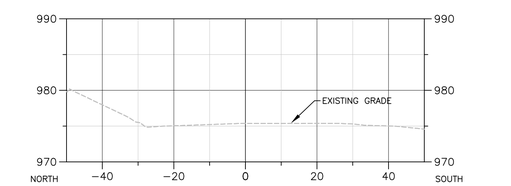
MARIETTA ST STA. 207+50.00



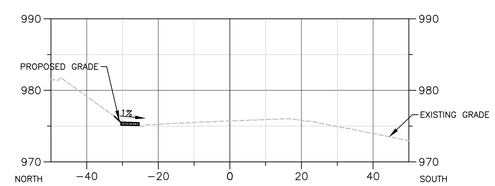
MARIETTA ST STA. 208+00.00



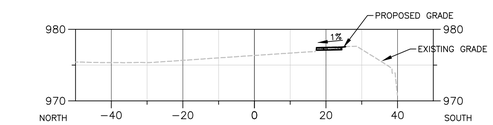
MARIETTA ST STA. 208+50.00



MARIETTA ST STA. 209+00.00



MARIETTA ST STA. 209+50.00



MARIETTA ST STA. 210+00.00

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC. ANY USE OR REUSE BY OTHERS WITHOUT SUCH PERMISSION AND CONSENT IS PROHIBITED.

Plot Scale: 1"=20' Drawing Rotation: ###° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:15 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
POWDER SPRINGS RD
CROSS SECTOINS

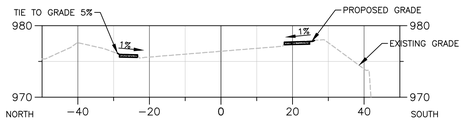
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

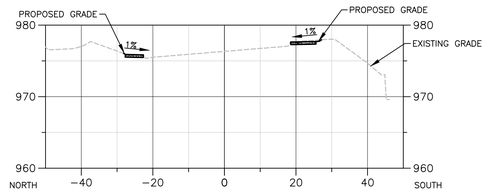
DRAWING NUMBER
C13

SHEET 13 of 26

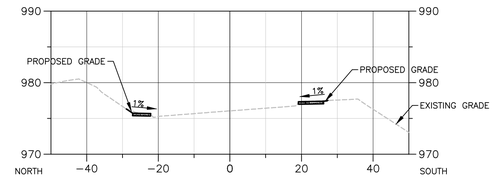
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



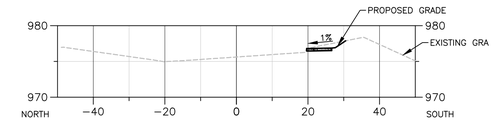
MARIETTA ST STA. 210+50.00



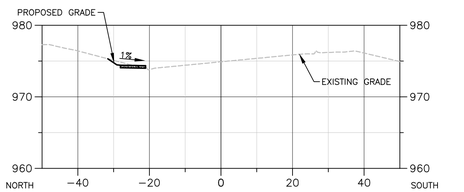
MARIETTA ST STA. 211+00.00



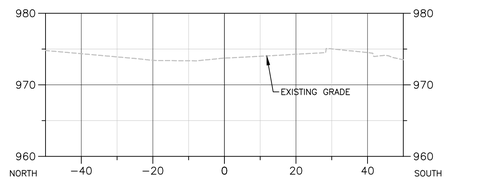
MARIETTA ST STA. 211+50.00



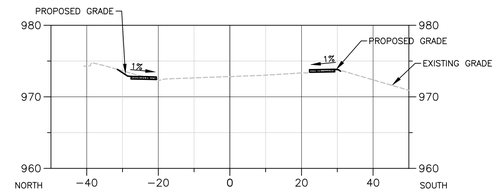
MARIETTA ST STA. 212+00.00



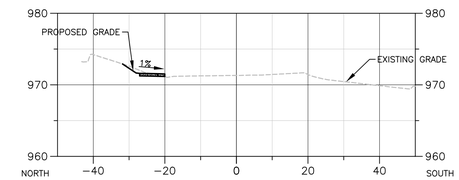
MARIETTA ST STA. 212+50.00



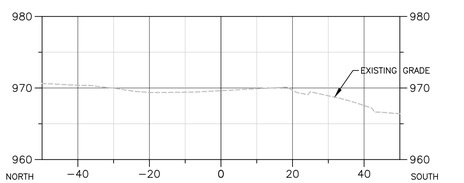
MARIETTA ST STA. 213+00.00



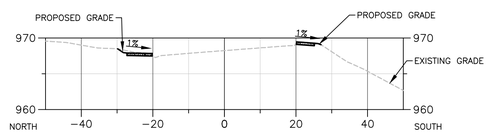
MARIETTA ST STA. 213+50.00



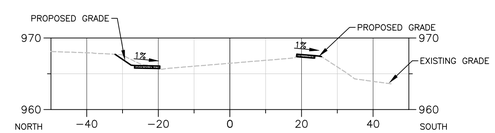
MARIETTA ST STA. 214+00.00



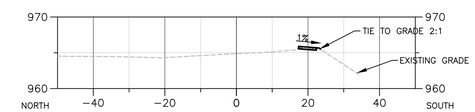
MARIETTA ST STA. 214+50.00



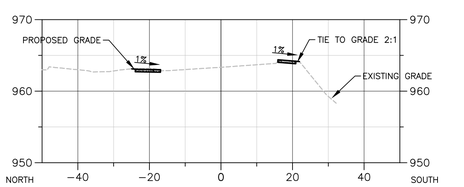
MARIETTA ST STA. 215+00.00



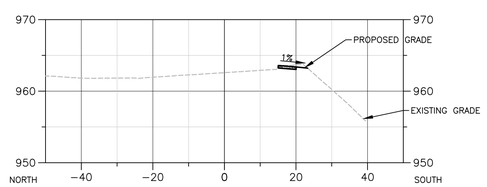
MARIETTA ST STA. 215+50.00



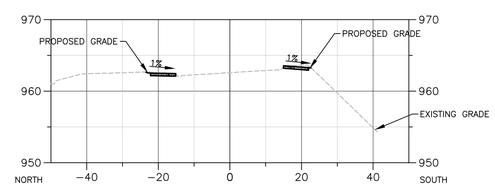
MARIETTA ST STA. 216+00.00



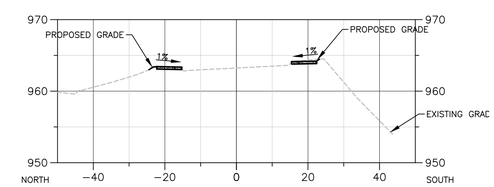
MARIETTA ST STA. 216+50.00



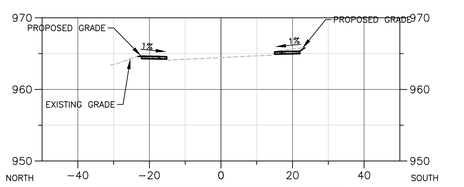
MARIETTA ST STA. 217+00.00



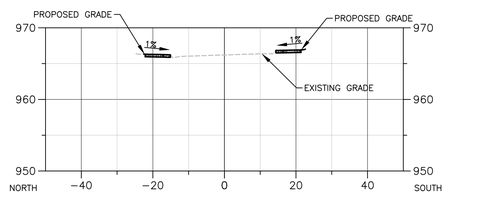
MARIETTA ST STA. 217+50.00



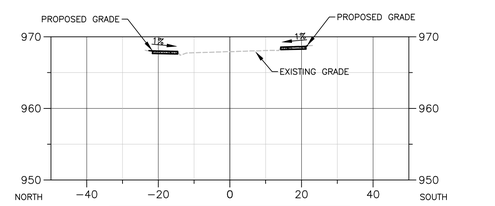
MARIETTA ST STA. 218+00.00



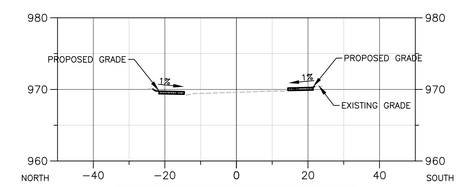
MARIETTA ST STA. 218+50.00



MARIETTA ST STA. 219+00.00



MARIETTA ST STA. 219+50.00



MARIETTA ST STA. 220+00.00

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

Engineers
Planners
Surveyors

CROY ENGINEERING

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE ANY PARTS THEREOF TO BE ADDED TO OR TAKEN FROM IT WITHOUT THE WRITTEN CONSENT OF CROY ENGINEERING, LLC, AND NO OTHER PERSON MAY USE THIS DRAWING AND DESIGN

Plot Scale: 1"=20' Drawing Rotation: ###° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:15 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
POWDER SPRINGS RD
CROSS SECTOINS

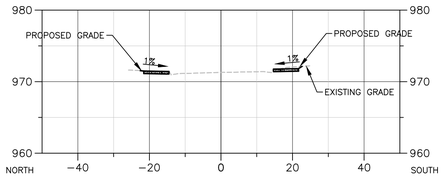
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

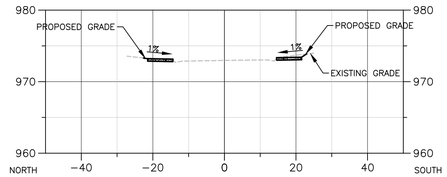
DRAWING NUMBER
C14

SHEET 14 of 26

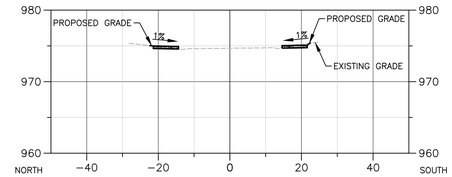
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



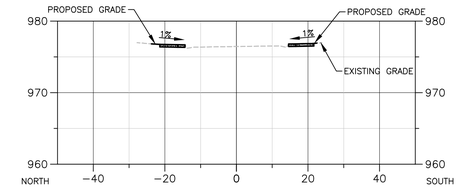
MARIETTA ST STA. 220+50.00



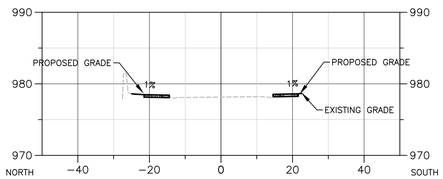
MARIETTA ST STA. 221+00.00



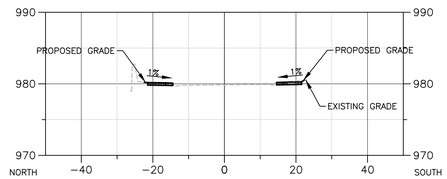
MARIETTA ST STA. 221+50.00



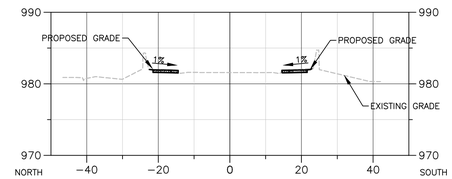
MARIETTA ST STA. 222+00.00



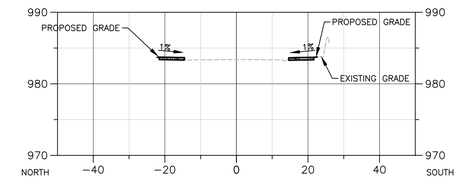
MARIETTA ST STA. 222+50.00



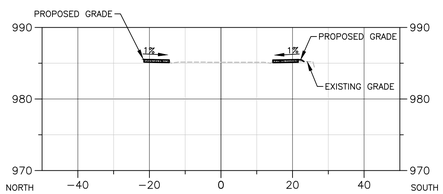
MARIETTA ST STA. 223+00.00



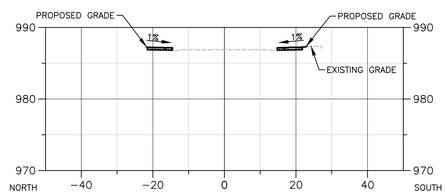
MARIETTA ST STA. 223+50.00



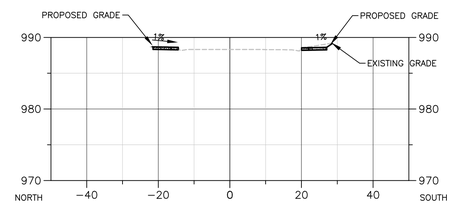
MARIETTA ST STA. 224+00.00



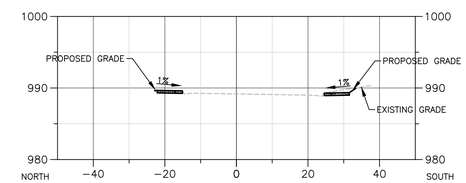
MARIETTA ST STA. 224+50.00



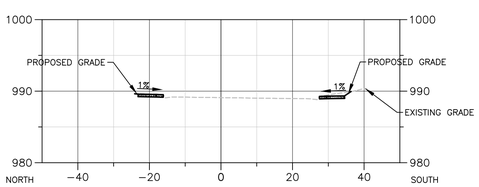
MARIETTA ST STA. 225+00.00



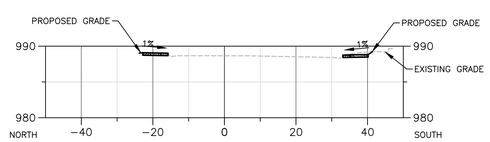
MARIETTA ST STA. 225+50.00



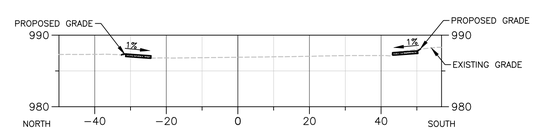
MARIETTA ST STA. 226+00.00



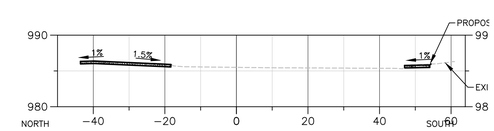
MARIETTA ST STA. 226+50.00



MARIETTA ST STA. 227+00.00



MARIETTA ST STA. 227+50.00



MARIETTA ST STA. 228+00.00

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC. ©2016 CROY ENGINEERING, LLC ALL RIGHTS ARE RESERVED

Plot Scale: 1"=20' Drawing Rotation: 0.00° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:15 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
POWDER SPRINGS RD
CROSS SECTOINS

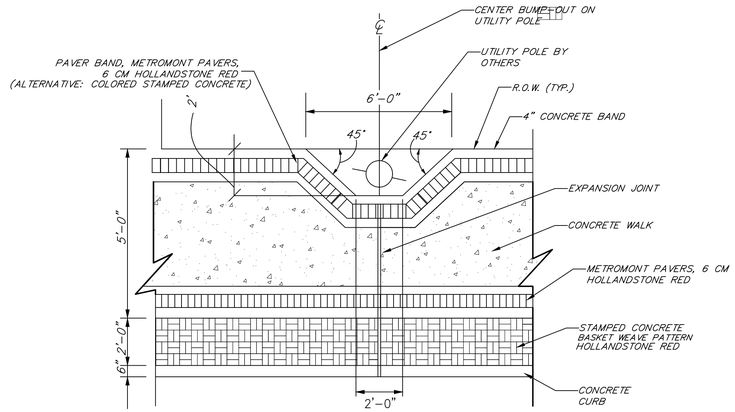
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

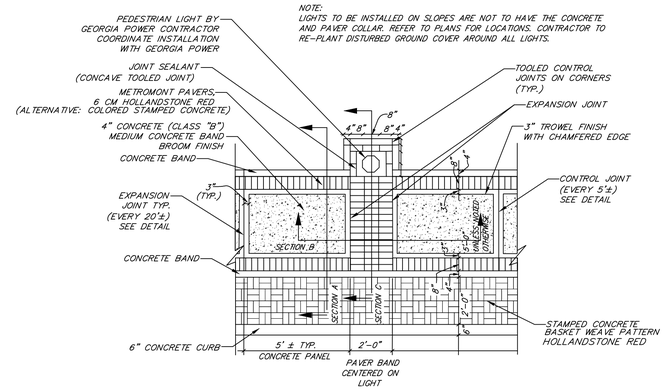
DRAWING NUMBER
C15

SHEET 15 of 26

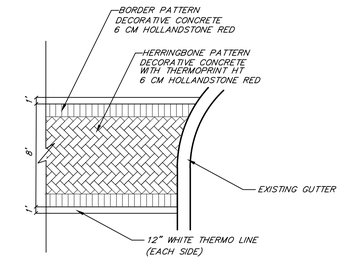
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



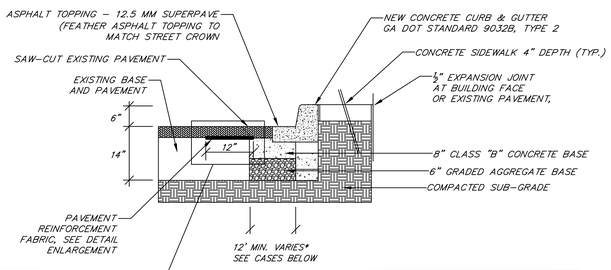
UTILITY POLE SIDEWALK BUMP OUT
N.T.S.

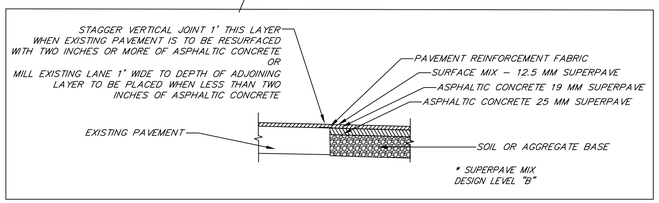


SIDEWALK PLAN
N.T.S.



THERMOPLASTIC CROSSWALK PLAN
N.T.S.



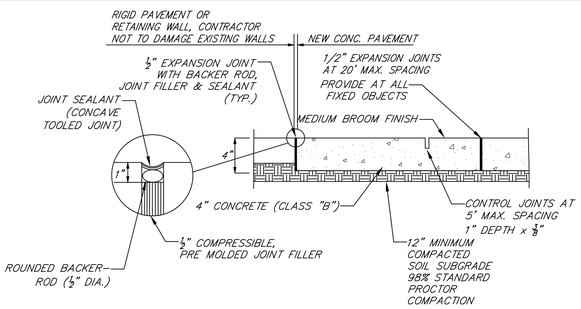


CASE 1*:
IN EXCAVATED AREAS 4'–0" OR LESS IN WIDTH BETWEEN THE EXISTING PAVING AND NEW CURB AND GUTTER, CLASS "B" CONCRETE SHALL BE PLACED IN LIEU OF THE BASE AND PAVING SPECIFIED BY THE TYPICAL SECTION. PAYMENT WILL BE MADE UNDER "CLASS B CONCRETE BASE AND PAVEMENT WIDENING".

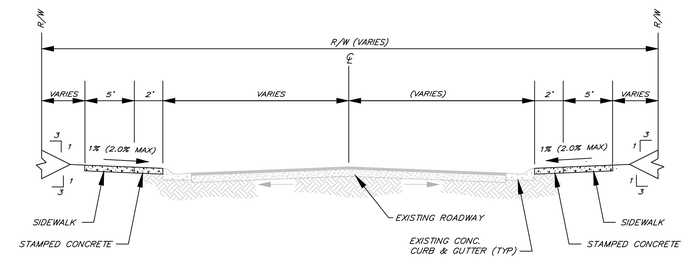
CASE 2*:
IN EXCAVATED AREAS BETWEEN THE EXISTING PAVING AND NEW CURB AND GUTTER GREATER THAN 4'–0" BUT NO MORE THAN 5'–0" IN WIDTH, THE CONTRACTOR MAY PLACE CLASS "B" IN LIEU OF THE BASE AND PAVING SPECIFIED. IN THESE AREAS, PAYMENT WILL NOT BE MADE FOR CLASS "B" CONCRETE, BUT PAYMENT FOR THE ENTIRE WIDTH WILL BE MADE AT THE PRICES BID FOR THE EQUIVALENT BASE AND PAVING QUANTITIES OTHERWISE REQUIRED.

CASE 3*:
IN EXCAVATED AREAS GREATER THAN 5'–0" IN WIDTH THE CONTRACTOR SHALL PLACE BASE AND PAVING AS SPECIFIED IN THE TYPICAL SECTION.

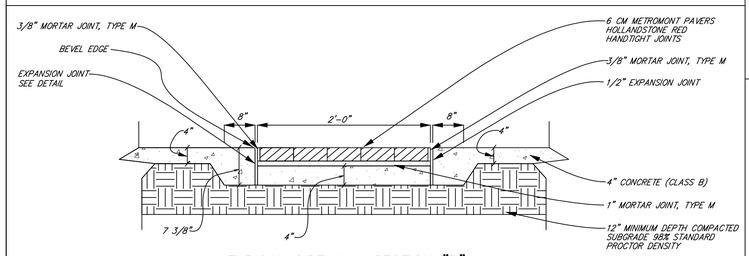
STANDARD CONCRETE CURB WITH STREET PATCH DETAIL
N.T.S.



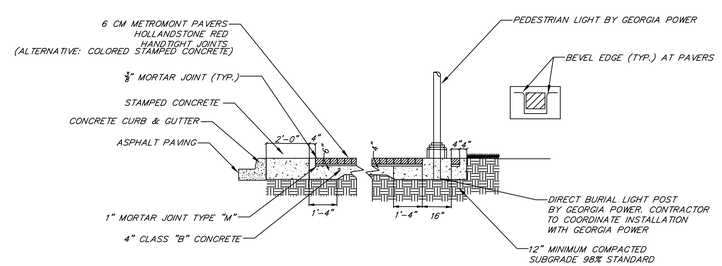
CONCRETE PAVING SECTION
N.T.S.



TYPICAL RIGHT OF WAY CROSS SECTION
N.T.S.

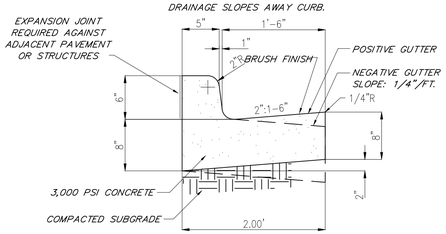


TYPICAL SIDEWALK SECTION "B"
N.T.S.



TYPICAL SIDEWALK SECTION "C" THROUGH PAVER BAND
N.T.S.

NOTE: USE POSITIVE GUTTER WHERE DRAINAGE SLOPES TOWARD CURB AND NEGATIVE GUTTER WHERE DRAINAGE SLOPES AWAY CURB.



24" CONCRETE CURB & GUTTER
N.T.S.

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943–8010

CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC AND ALL FEES PAID TO THAT PARTY BY REASON HEREOF.

Plot Scale: 1"=###', Drawing Rotation: ###°, Plot Style: Design.ctb, Plotted By: Phillip Krause on 11/22/2016, 5:15 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD
LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

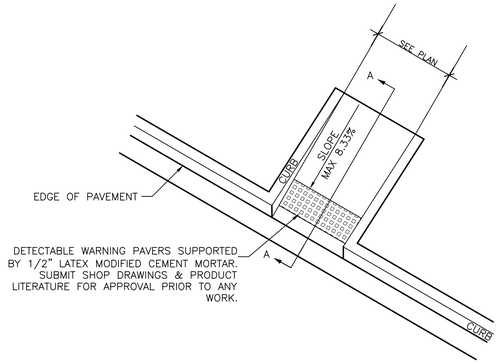
SHEET TITLE
DESIGN DETAILS

DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
N.T.S.	11/22/16

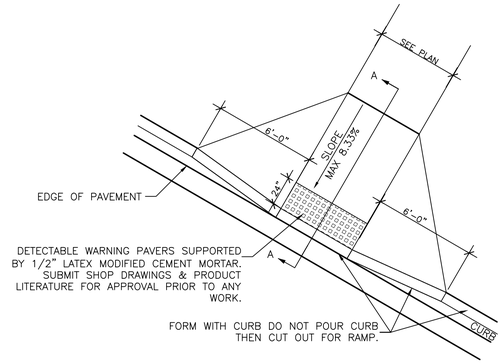
PROJECT NUMBER
1476.03

DRAWING NUMBER
C16
SHEET 16 of 26

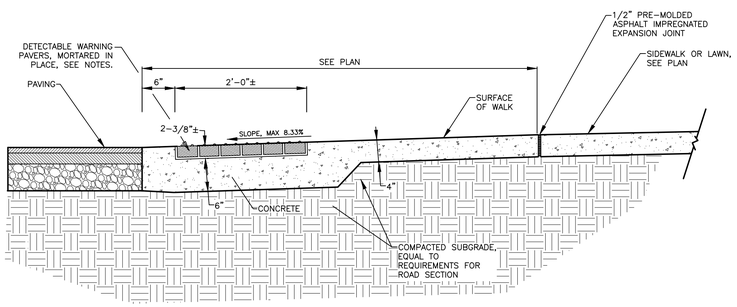
Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



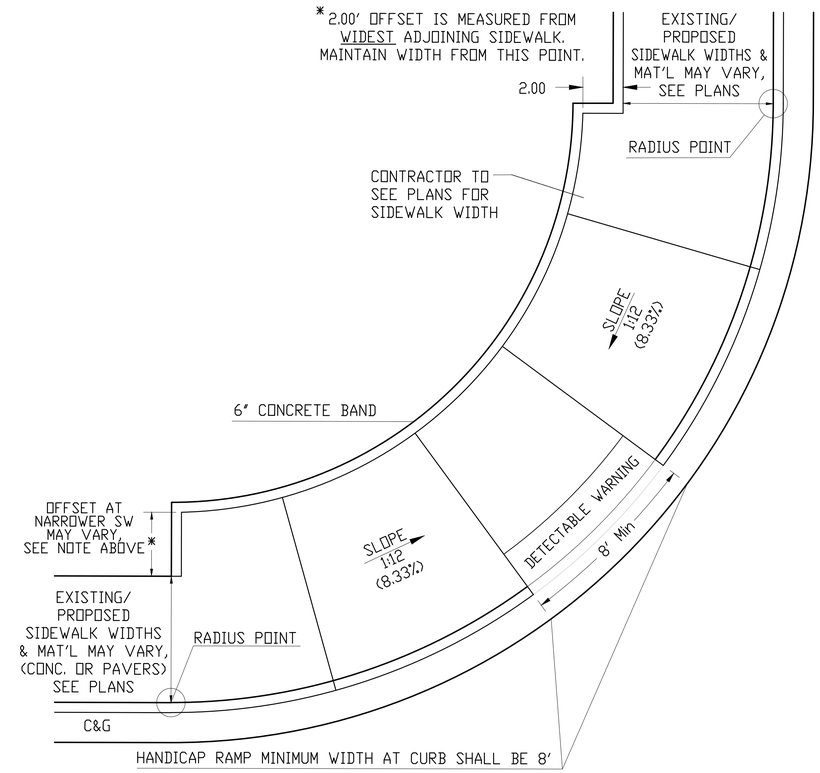
ADA RAMP TYPE: 1
N.T.S.



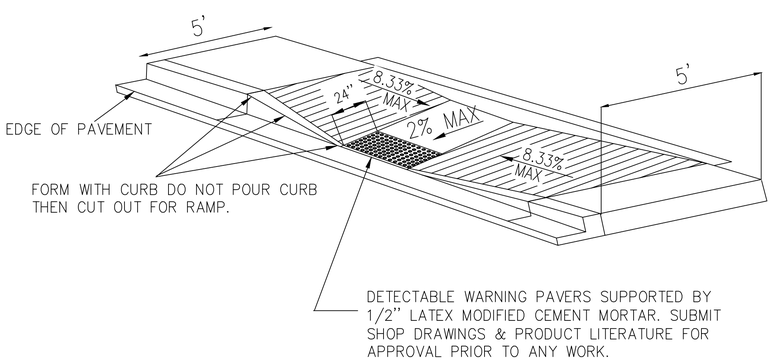
ADA RAMP TYPE: 2
N.T.S.



SECTION A–A FOR ADA RAMP TYPE: 1 & 2
N.T.S.



ADA RAMP TYPE: 3
N.T.S.



ADA RAMP TYPE: 4
N.T.S.

DETECTABLE WARNING NOTES

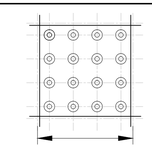
(TO COMPLY WITH GDOT CONSTRUCTION DETAILS A-3 & A-4, i.e. ADA COMPLIANT)

SIZE:
DETECTABLE WARNINGS SHALL BE 24 INCHES (610mm) IN THE DIRECTION OF PEDESTRIAN TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.

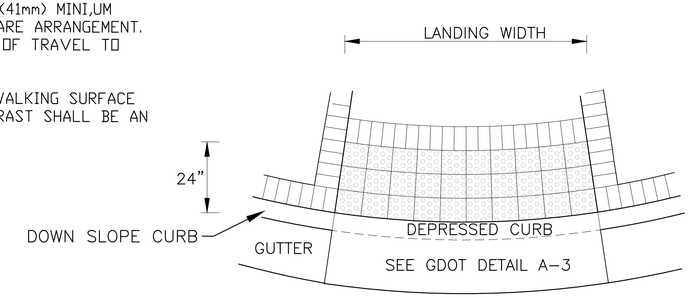
LOCATION:
THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES (150mm to 180mm) FROM THE CURB LINE OR OTHER POTENTIAL HAZARD, SUCH AS A REFLECTING POOL EDGE OR THE DYNAMIC ENVELOPE OF RAIL OPERATIONS.

DOME SIZE AND SPACING:
TRUNCATED DOMES SHALL HAVE A BASE DIAMETER OF 0.9 INCH TO 1.4 INCH (23mm - 36mm) AT THE BOTTOM, A DIAMETER OF 0.45 INCH TO 0.91 INCH (11mm - 23mm) AT THE TOP , THE TOP DIAMETER SHALL BE A MINIMUM OF 50% AND A MAXIMUM OF 65% BASE DIAMETER, A HEIGHT OF 0.2 INCH (5.1mm) AND A CENTER-TO-CENTER SPACING OF 2.40 INCHES (61mm) DESIRABLE 1.60 INCHES (41mm) MINI,UM MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT. DOMES SHALL HAVE A SQUARE ARRANGEMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

VISUAL CONTRAST:
DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE LIGHT-ON-DARK OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE.
COLOR - USE CHARCOAL (DARK GRAY) FOR BRICK SIDEWALK
- USE BRICK RED FOR CONCRETE SIDEWALKS



DETECTABLE WARNING PAVER WIDTH APPROX. 8"
SEE NOTES FOR DIMENSIONS



DETECTABLE WARNING SURFACE
N.T.S.

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC AND ALSO THE EXPRESS WRITTEN CONSENT OF THE ENGINEER OF RECORD.

Plot Scale: 1"=###', Drawing Rotation: ###°, Plot Style: Design.ctb, Plotted By: Phillip Krause on 11/22/2016, 5:16 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD
LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL
GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON
GSWCC CERT #58037

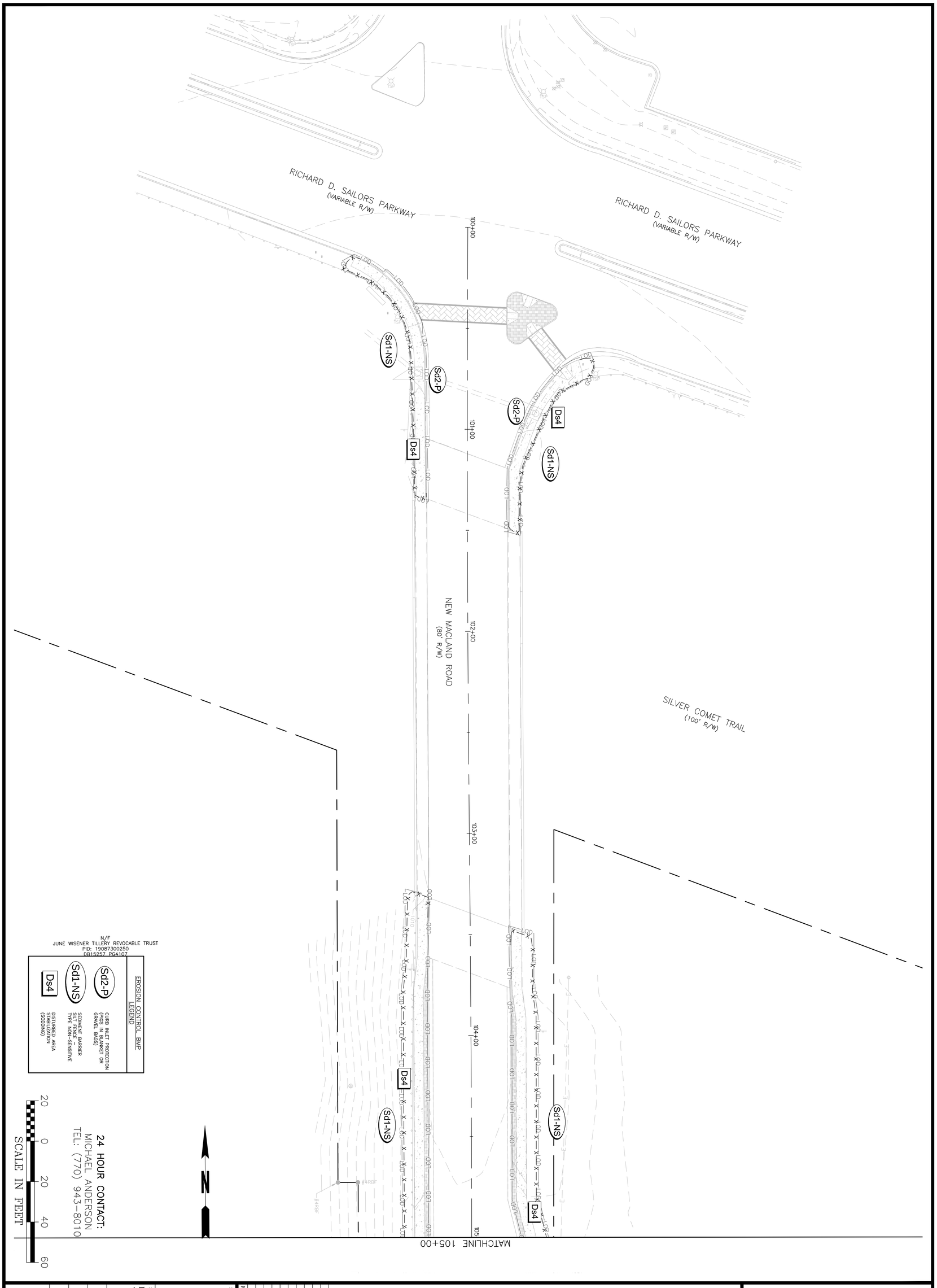
SHEET TITLE
DESIGN DETAILS

DRAWN BY	CHECKED BY
	PTL
SCALE N.T.S.	ISSUE DATE 11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
C17
SHEET 17 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Design.dwg



POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

CROY ENGINEERING
Engineers
Planners
Surveyors

200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC, NOR ARE THEY TO BE ASSIGNED TO ANY PARTY WITHOUT WRITTEN PERMISSION AND CONSENT.

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
EROSION STA 100+00
TO 105+00

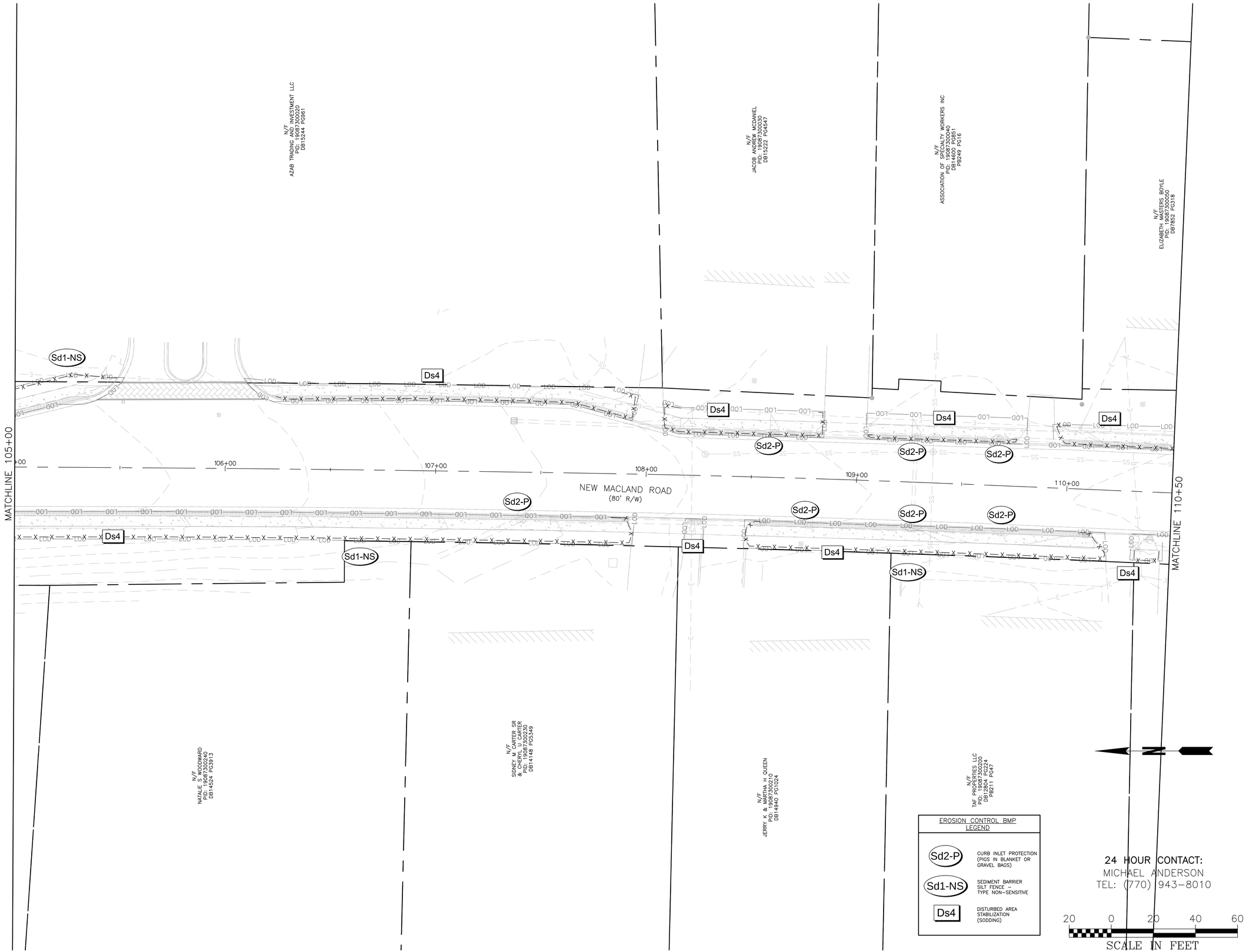
DRAWN BY	CHECKED BY
	PTL
SCALE 1" = 20'	ISSUE DATE 11/22/16
PROJECT NUMBER 1476.03	
DRAWING NUMBER EC1	

SHEET 18 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg

Plot Scale: 1"=20', Drawing Rotation: 90.3°, Plot Style: Design.ctb, Plotted By: Phillip Krause on 11/22/2016, 5:16 PM

NOT ISSUED FOR CONSTRUCTION



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC. AS PER OCGA 10-1-372 THE ORIGINAL PLAN AND ANY COPY THEREOF BELONGS TO THE ENGINEER AND OWNER.

Plot Scale: 1"=20' Drawing Rotation: 89.9° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:18 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LEWTON

GSWCC CERT #58037

SHEET TITLE
EROSION STA 105+00
TO 110+50

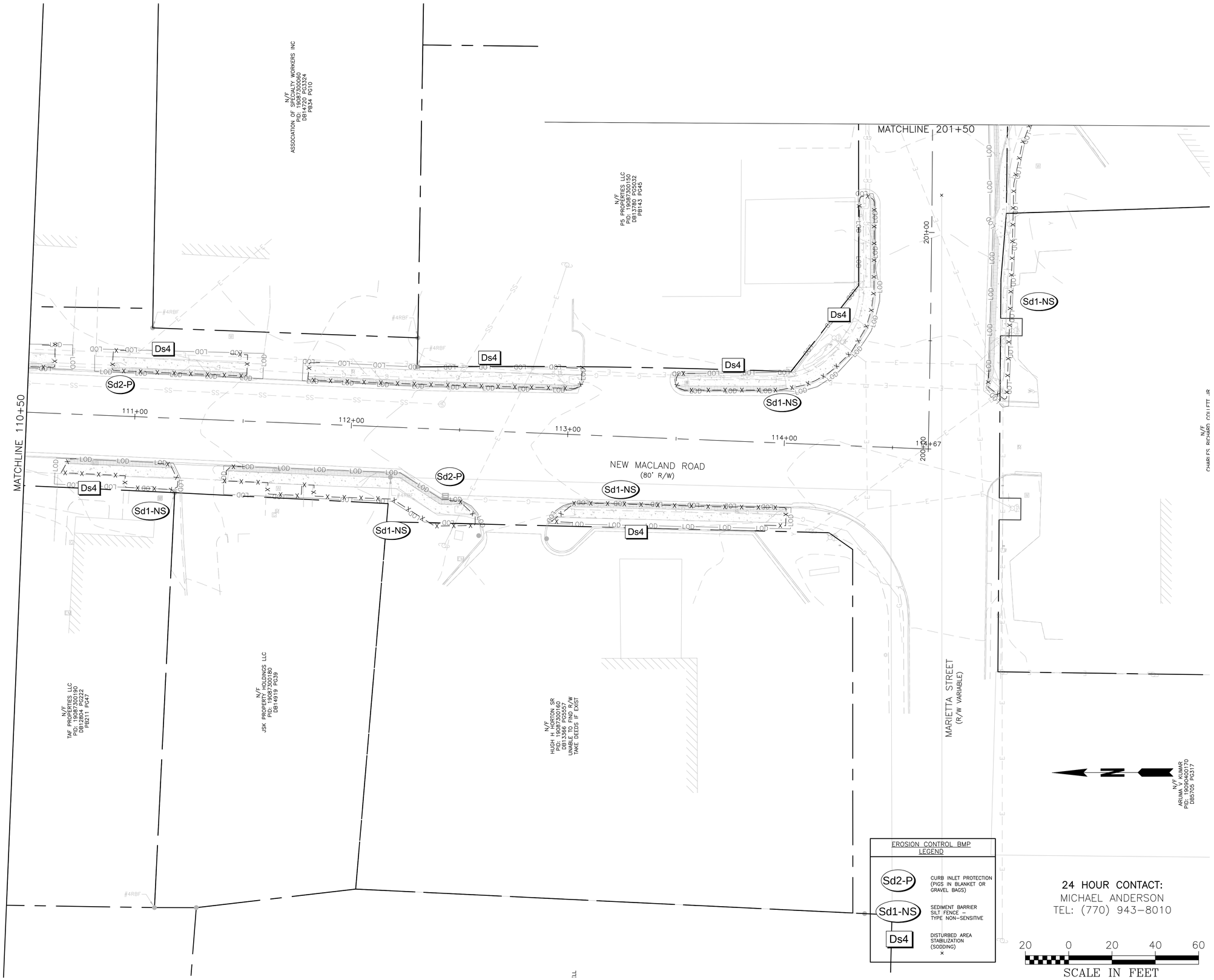
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC2

SHEET 19 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC.

Plot Scale: 1"=20' Drawing Rotation: 90.00° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:18 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

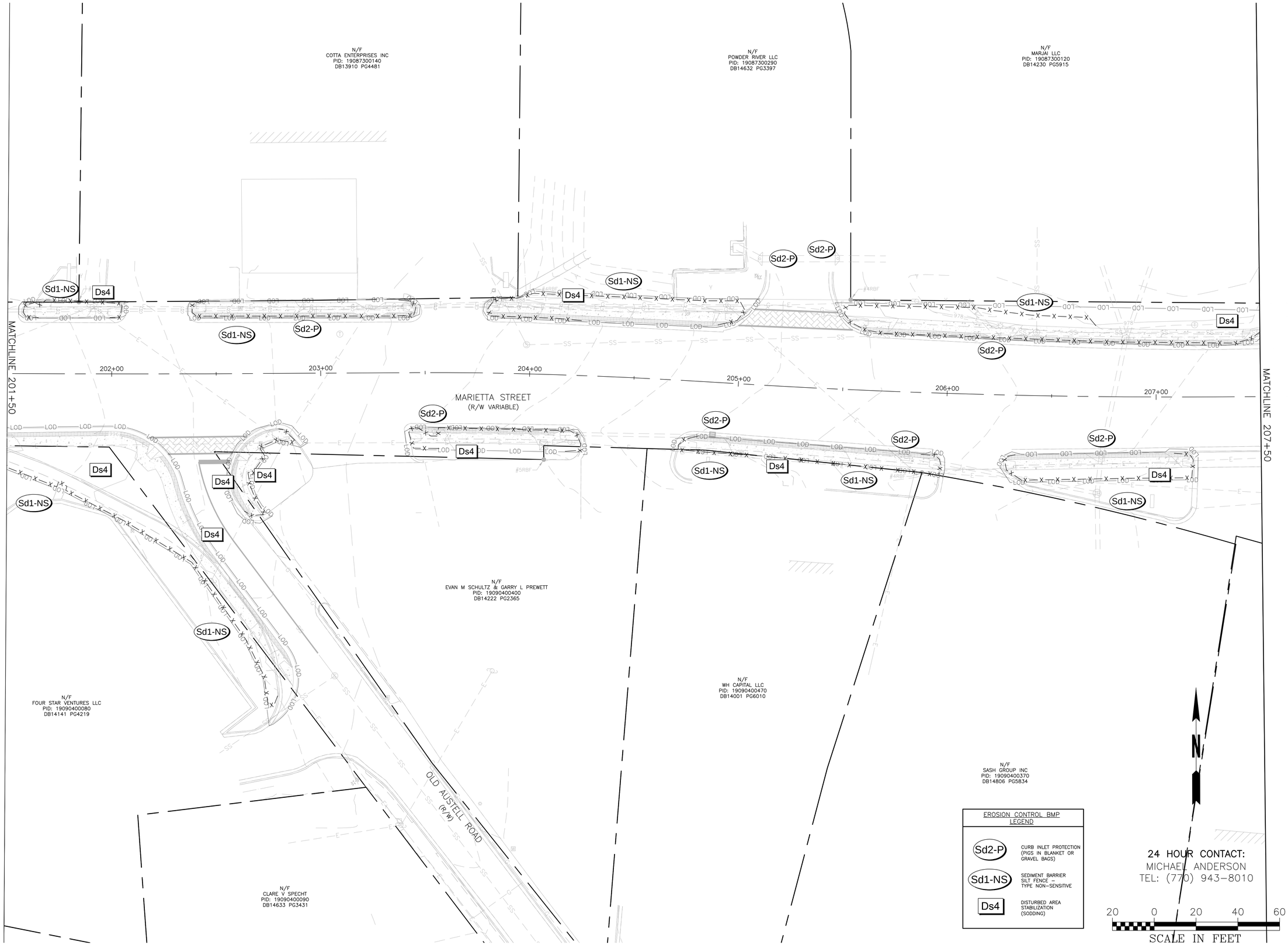
SHEET TITLE
EROSION STA 110+50
TO 201+50

DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC3

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg



EROSION CONTROL BMP LEGEND

Sd2-P	CURB INLET PROTECTION (PICS IN BLANKET OR GRAVEL BAGS)
Sd1-NS	SEDIMENT BARRIER SILT FENCE – TYPE NON–SENSITIVE
Ds4	DISTURBED AREA STABILIZATION (SODDING)

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943–8010

CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC. AS WELL AS THE ASSOCIATED FEE FOR THE DESIGNER'S WORK PRODUCT.

Plot Scale: 1=20'; Drawing Rotation: 0.00°; Plot Style: Design.ctb; Plotted By: Phillip Krause on 11/22/2016, 5:18 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
EROSION STA 201+50 TO 207+50

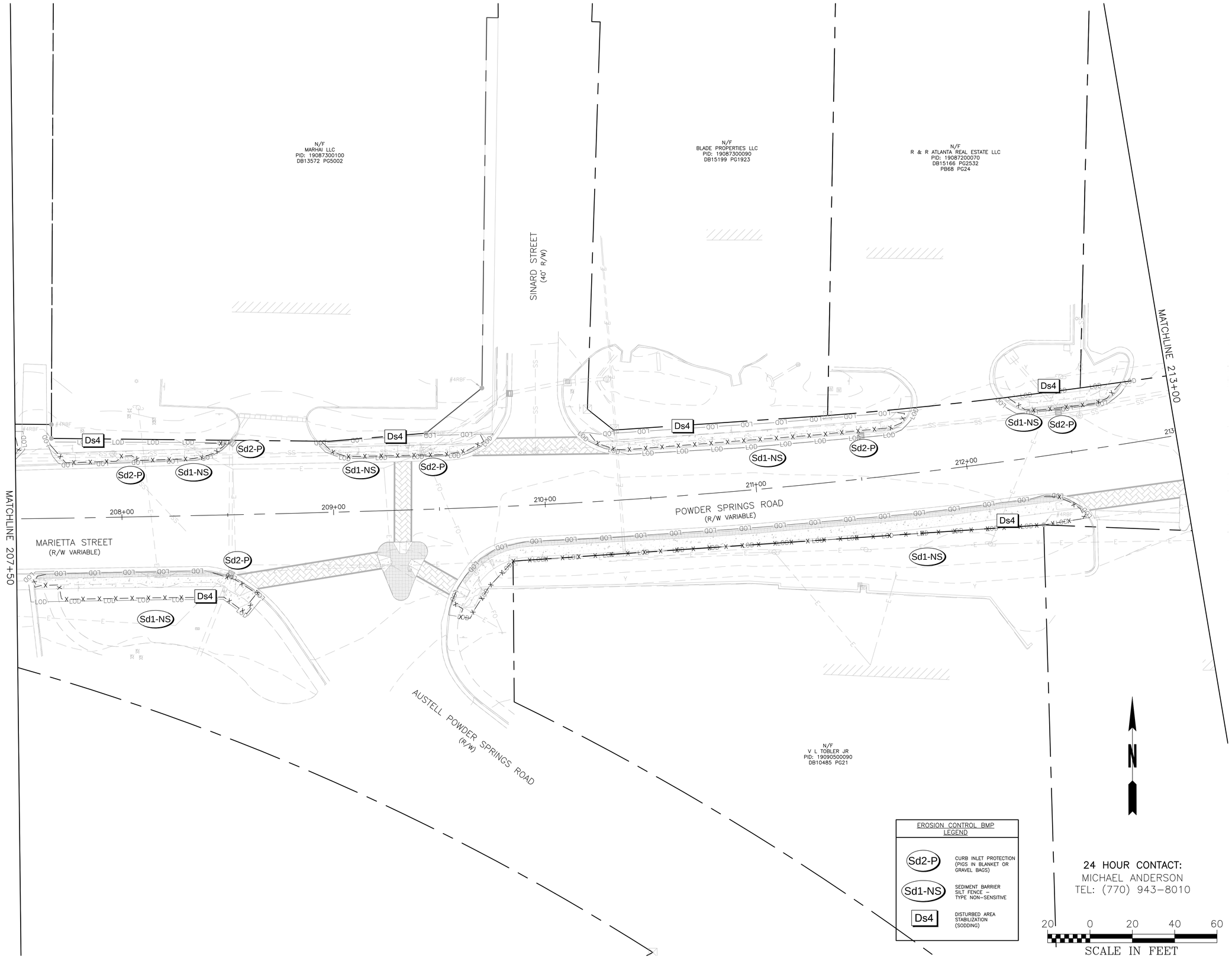
DRAWN BY	CHECKED BY
	PTL
SCALE 1"=20'	ISSUE DATE 11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC4

SHEET 21 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC.

Plot Scale: 1"=20' Drawing Rotation: 0.00° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:18 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
EROSION STA 207+50
TO 213+00

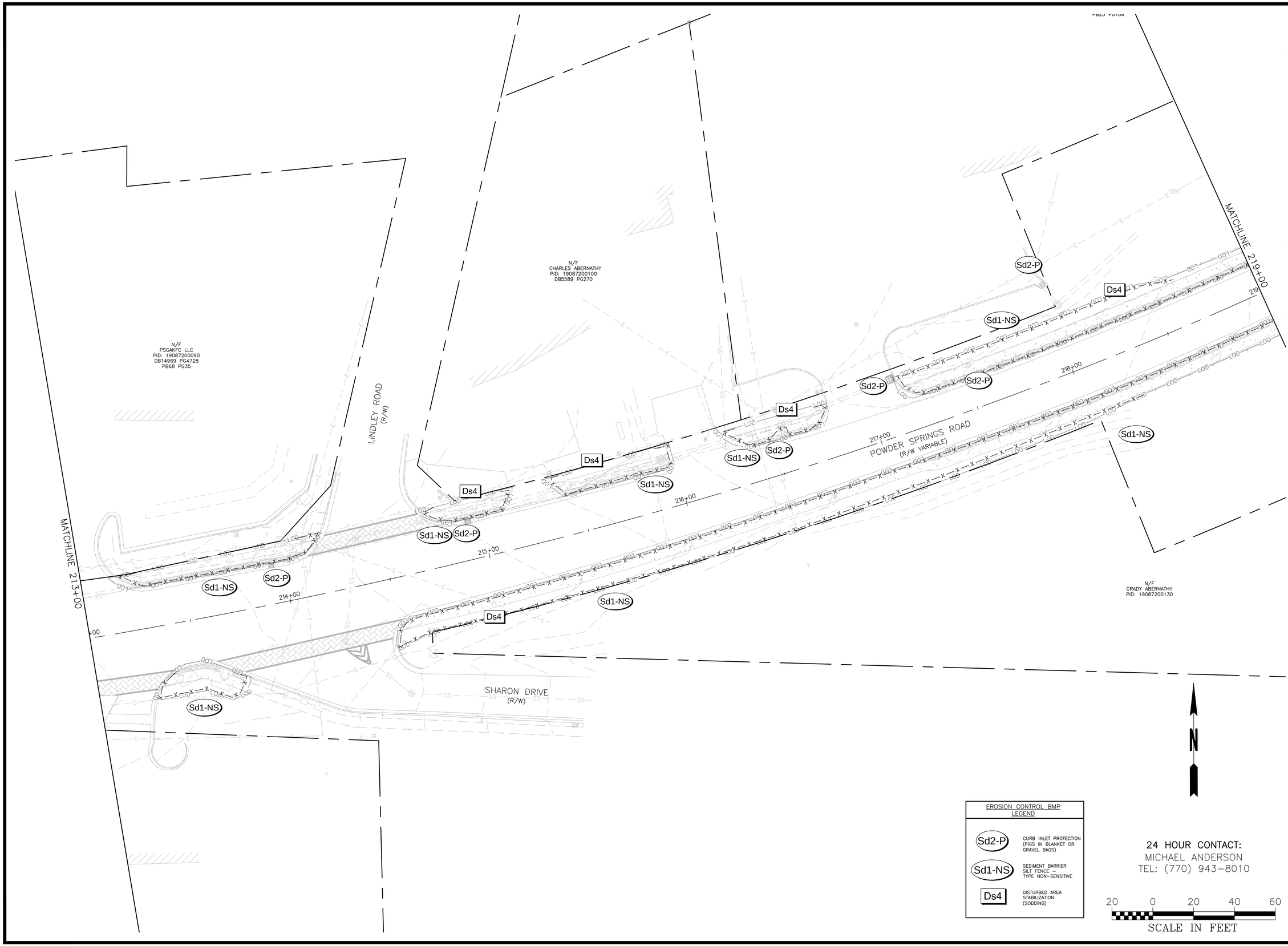
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC5

SHEET 22 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg



EROSION CONTROL BMP LEGEND

Sd2-P	CURB INLET PROTECTION (PIGS IN BLANKET OR GRAVEL BAGS)
Sd1-NS	SEDIMENT BARRIER SILT FENCE – TYPE NON-SENSITIVE
Ds4	DISTURBED AREA STABILIZATION (SODDING)

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

20 0 20 40 60
SCALE IN FEET

CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THESE PLANS AND DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC. NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT PRIOR WRITTEN PERMISSION AND CONSENT.

Plot Scale: 1"=20', Drawing Rotation: 0.0°, Plot Style: Design.ctb, Plotted By: Philip Krause on 11/22/2016, 5:16 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
EROSION STA 213+00 TO 219+00

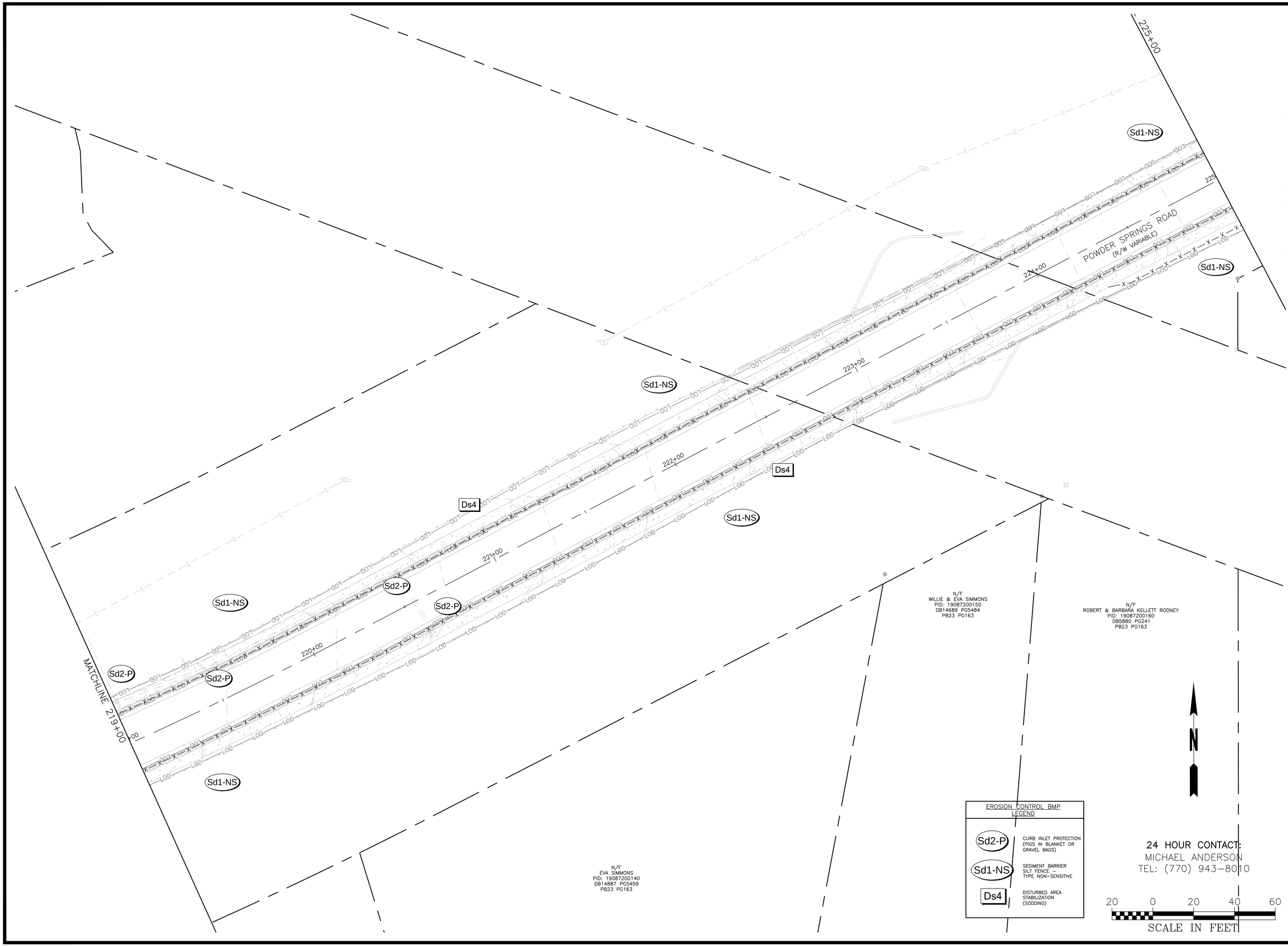
DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC6

SHEET 23 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE PART OF THE STORMCOS, OWNED BY CROY ENGINEERING, LLC AND ARE TO BE USED ONLY FOR THE PURPOSE AND PROJECT FOR WHICH THEY WERE PREPARED AND PROVIDED. ANY OTHER USE OR REUSE WITHOUT WRITTEN CONSENT OF CROY ENGINEERING, LLC IS AN VIOLATION OF THE LAW.

Plot Scale: 1"=20' Drawing Rotation: 0.00° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:17 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

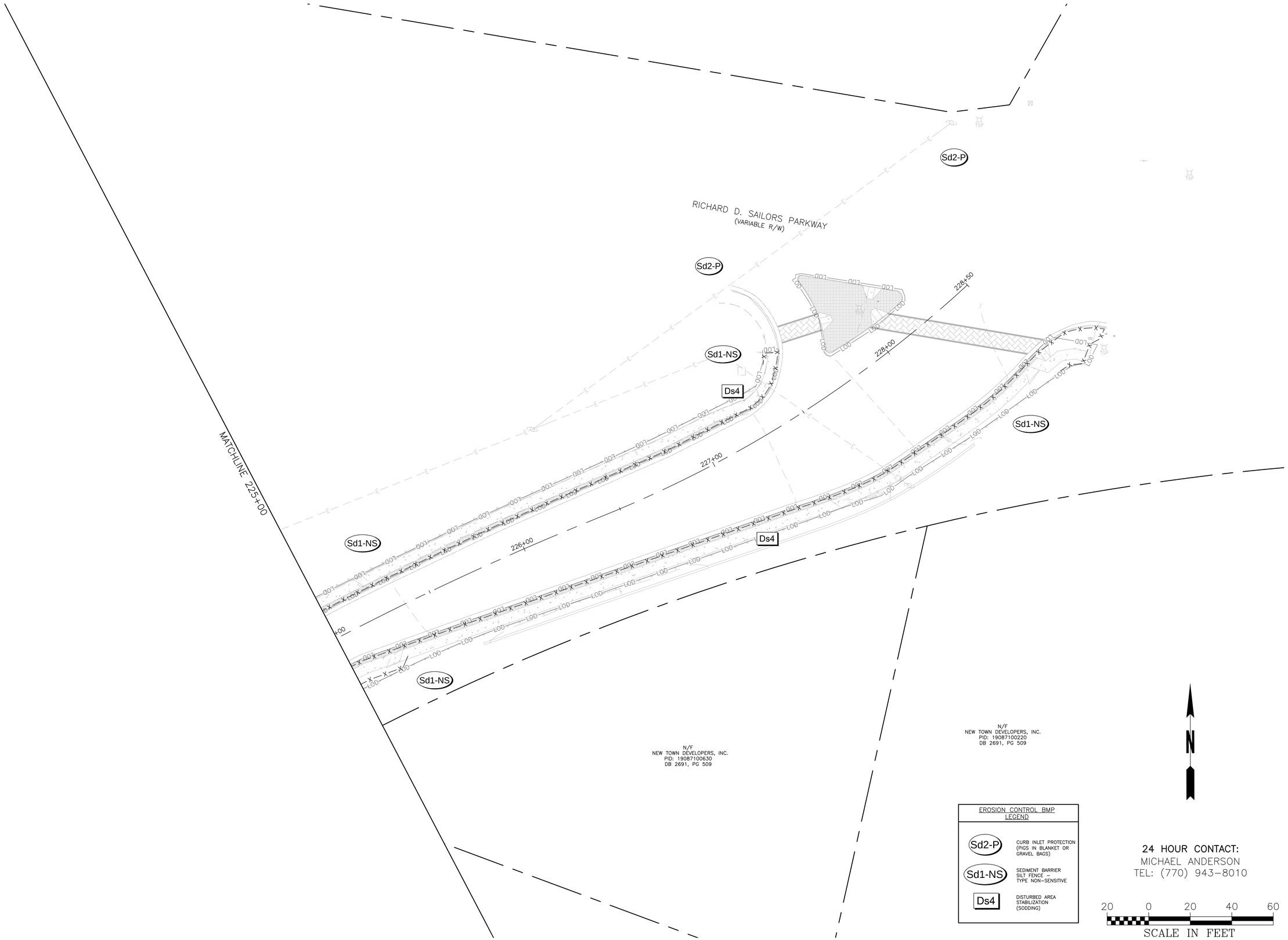
SHEET TITLE
EROSION STA 219+00
TO 225+00

DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC7
SHEET 24 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg



CROY ENGINEERING
Engineers
Planners
Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING AND ANY TO BE PRODUCED, CHANGED OR REPRODUCED IN ANY FORM OR MANNER WHATSOEVER WITHOUT PRIOR WRITTEN PERMISSION OF CROY ENGINEERING, LLC IS ALSO PROHIBITED. ANY REPRODUCTION OF THIS DRAWING IS FOR REVIEW AND COMMENT.

Plot Scale: 1"=20' Drawing Rotation: 0.0° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:17 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL ENGINEER 38829 PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
EROSION STA 225+00
TO 228+50

DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
1"=20'	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC8
SHEET 25 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg

Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

N.T.S.

SPECIFICATIONS

Mulching Without Seeding

This standard applied to grades or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation

1. Grade to permit the use of equipment for applying and anchoring mulch.
2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers.
3. Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials

Select one of the following materials and apply at the depth indicated:

1. *Dry straw or hay* shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application.
2. *Wood waste* (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion control costs.
3. *Cutback asphalt* (slow curing) shall be applied at 1200 gallons per acre (or ¼ gallon per sq. yd.).
4. *Polyethylene film* shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused.

Applying Mulch

When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

1. *Dry straw or hay mulch* and *wood chips* shall be applied uniformly by hand or by mechanical equipment.
2. If the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
3. Cutback asphalt shall be applied uniformly. Care should be taken in areas of pedestrian traffic due to problems of 'tracking in' or damage to shoes, clothing, etc.
4. Apply polyethylene film on exposed areas.

Anchoring Mulch

1. *Straw* or *hay mulch* can be pressed into the soil with a disk harrow with the disk set straight or with a special 'packer disk'. Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. **Straw or hay mulch shall be anchored immediately after application.**

   Straw or hay mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use 100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Tackifiers and binders can be substituted for emulsified asphalt. Please refer to specification **Tackifiers and binders**. Plastic mush or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.
2. Netting of the appropriate size shall be used to anchor *wood waste*. Openings of the netting shall not be larger than the average size of the wood waste chips.
3. *Polyethylene film* shall be anchor trenched at the top as well as incrementally as necessary.

Sd1-A SEDIMENT BARRIER TYPE A SILT FENCE

N.T.S.

This 36-inch wide filter fabric shall be used on developments where the life of the project is greater than or equal to six months.

CONSTRUCTION SPECIFICATIONS

The manufacturer shall have either an approved color mark yarn in the fabric or label the fabricated silt fence with both the manufacturer and fabric name every 100 feet.

The temporary silt fence shall be installed according to this specification, as shown on the plans or as directed by the engineer. For installation of the fabric, see the figures below.

Post installation shall start at the center of the low-point (if applicable) with remaining posts spaced 6 feet apart. Type A silt fences can be used with both wood and steel posts. For post size requirements, see Table 1 below. Fasteners for wood posts are listed in Table 2.

MAINTENANCE

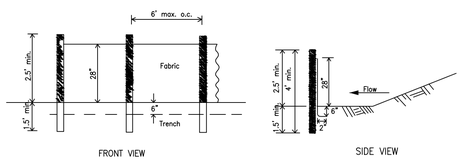
Sediment shall be removed once it has accumulated to one-half the original height of the barrier. Filter fabric shall be replaced whenever it has deteriorated to such an extent that the effectiveness of the fabric is reduced (approximately six months). Temporary sediment barriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulated at the barrier shall be removed and properly disposed of before the barrier is removed.

TABLE 1

Minimum Length	Type of Post	Size of Post
	Soft wood	3" dia. or 2 x 4
4'	Oak	1.5" x 1.5"
	Steel	1.3 lb./ft. minimum

TABLE 2

	Gauge	Crown	Legs	Staples/Post
Wire Staples	17 min.	3/4" wide	1/2" long	5 min.
	Gauge	**Length**	**Button Heads**	**Nail/Post**
Nails	14 min.	1"	3/4"	4 min.



NOTE:
Use 36" D.O.T. approved fabric.
Use wood or steel posts

SILT FENCE – TYPE A

Ds4 DISTURBED AREA STABILIZATION (WITH SODDING)

N.T.S.

CONSTRUCTION SPECIFICATIONS - INSTALLATION

Soil preparation

Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to surfaces only and not frozen surfaces, or gravel type soils.

Topsoil properly applied will help guarantee a stand. Don't use topsoil recently treated with herbicides or soil sterilants.

Mix fertilizer into soil surface. Fertilize based on soil tests or table:

Fertilizer Type	Fertilizer Rate (lbs/acre)	Fertilizer Rate (lbs/sq ft)	Season
10-10-10	1000	0.025	Fall

Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

Installation

Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod.

On slopes steeper than 3:1, sod should be anchored with pins or other approved methods. Installed sod should be rolled or tamped to provide good contact between sod and soil.

Irrigate sod and soil to a depth of 4" immediately after installation.

Sod should not be cut or spread in extremely wet or dry weather. Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

Sod Planting Requirements

Grass		Resource Area	Growing Season
Bermudagrass	Common Tifway Tifgreen Tiflawn	M-L,P,C P,C P,C P,C	Warm Weather
Bahiagrass	Pensacola	P,C	Warm Weather
Centipede	-	P,C	Warm Weather
St. Augustine	Common Bitterblue Raleigh	C	Warm Weather
Zoysia	Emerald Myer	P,C	Warm Weather
Tall Fescue	Kentucky	M-L,P	Cool Weather

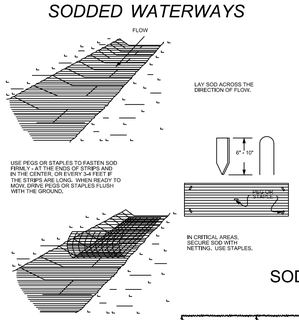
MAINTENANCE

Re-sod areas where an adequate stand of sod is not obtained. New sod should be mowed sparingly. Grass height should not be cut less than 2"-3" or as specified.

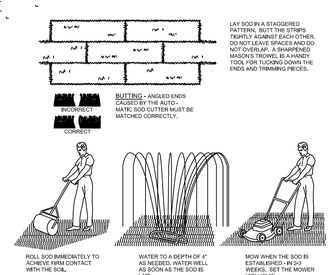
Apply one ton of agricultural lime as indicated by soil test or every 4-6 years. Fertilize grasses in accordance with soil tests or table:

Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs/acre)	Nitrogen Top Dressing Rate (lbs/acre)
Cool season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 1000 400	50-100 --- 30
Warm season grasses	First Second Maintenance	6-12-12 6-12-12 10-10-10	1500 800 400	50-100 50-100 30

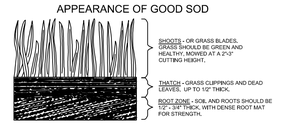
SODDED WATERWAYS



SODDING

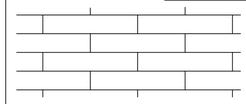


APPEARANCE OF GOOD SOD



SOD MAINTENANCE AND INSTALLATION

SOD LAYOUT AND PREPARATION



LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

BUTTING: ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

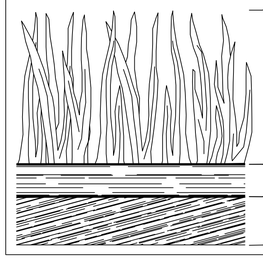
DIRECTIONS FOR INITIAL MAINTENANCE

Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL

Step 2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

Step 3. MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

APPEARANCE OF GOOD SOD



SHOOTS OR GRASS BLADES: GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"-3" CUTTING HEIGHT.

THATCH: GRASS CLIPPINGS AND DEAD LEAVES (UP TO 1/2" THICK).

ROOT ZONE: SOIL AND ROOTS. SHOULD BE 1/2"-3/4" THICK WITH DENSE ROOT MAT FOR STRENGTH.

Sd2-P INLET SEDIMENT TRAP CURB INLET PROTECTION

N.T.S.

DESIGN CRITERIA

Many sediment filtering devices can be designed to serve as temporary sediment traps. Sediment traps must be self-draining unless they are otherwise protected in an approved fashion that will not present a safety hazard. *The drainage area entering the inlet sediment trap shall be no greater than one acre.*

If runoff may bypass the protected inlet, a temporary dike should be constructed on the down slope side of the structure. Also, a stone filter ring may be used on the up slope side of the inlet to slow runoff and filter large soil particles. Refer to **Fr - Stone Filter Ring.**

CONSTRUCTION SPECIFICATIONS

Once pavement has been installed, a curb inlet filter shall be installed on inlets receiving runoff from disturbed areas. **This method of inlet protection shall be removed if a safety hazard is created.**

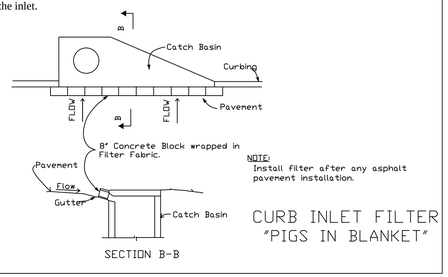
One method of curb inlet protection uses "pigs-in-a-blanket" - 8 inch concrete blocks wrapped in filter fabric. See the figure below. Another method uses gravel bags constructed by wrapping DOT #57 stone with filter fabric, wire, plastic mesh, or equivalent material. A gap of approximately 4 inches shall be left between the inlet filter and the inlet to allow for overflow and prevent hazardous ponding in the roadway. *Proper installation and maintenance are crucial due to possible ponding in the roadway, resulting in a hazardous condition.*

Several other methods are available to prevent the entry of sediment into storm drain inlets.

MAINTENANCE

The trap shall be inspected daily and after each rain and repairs made as needed. Sediment shall be removed from curb inlet protection immediately. **Sediment shall not be washed into the inlet.** It shall be removed from the sediment trap and disposed of and stabilized so that it will not enter the inlet, again.

When the contributing drainage area has been permanently stabilized, all materials and any sediment shall be removed, and either salvaged or disposed of properly. The disturbed area shall be brought to proper grade, then smoothed and compacted. Appropriately stabilize all disturbed areas around the inlet.



NOTE:
Install filter after any asphalt pavement installation.

CURB INLET FILTER
"PIGS IN BLANKET"

24 HOUR CONTACT:
MICHAEL ANDERSON
TEL: (770) 943-8010

CROY ENGINEERING
Engineers Planners Surveyors
200 NORTH COBB PARKWAY, BLDG. 400, SUITE 413
MARIETTA, GA 30062
PHONE: (770) 971-5407 FAX: (770) 971-0620

THIS PLAN AND DRAWING ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF CROY ENGINEERING, LLC.

Plot Scale: 1"=###' Drawing Rotation: ###° Plot Style: Design.ctb Plotted By: Phillip Krause on 11/22/2016, 5:17 PM

POWDER SPRINGS STREETSCAPE

NEW MACLAND & POWDER SPRING ROAD

LAND LOT(S) 830, 871, 872, 873, 904, 905
OF THE 19TH DISTRICT, 2ND SECTION
CITY OF POWDER SPRINGS, COBB COUNTY COUNTY, GA

NOT ISSUED FOR CONSTRUCTION

NO.	REVISION REFERENCE	DATE

SEAL

GEORGIA PROFESSIONAL 38829 ENGINEER PATRICK T. LENTON

GSWCC CERT #58037

SHEET TITLE
EROSION DETAILS

DRAWN BY	CHECKED BY
	PTL
SCALE	ISSUE DATE
N.T.S.	11/22/16

PROJECT NUMBER
1476.03

DRAWING NUMBER
EC9

SHEET 26 of 26

Drawing Location: A:\1476.03 Powder Spring Streetscape\02-Engineering\Design\1476.03 Erosion.dwg