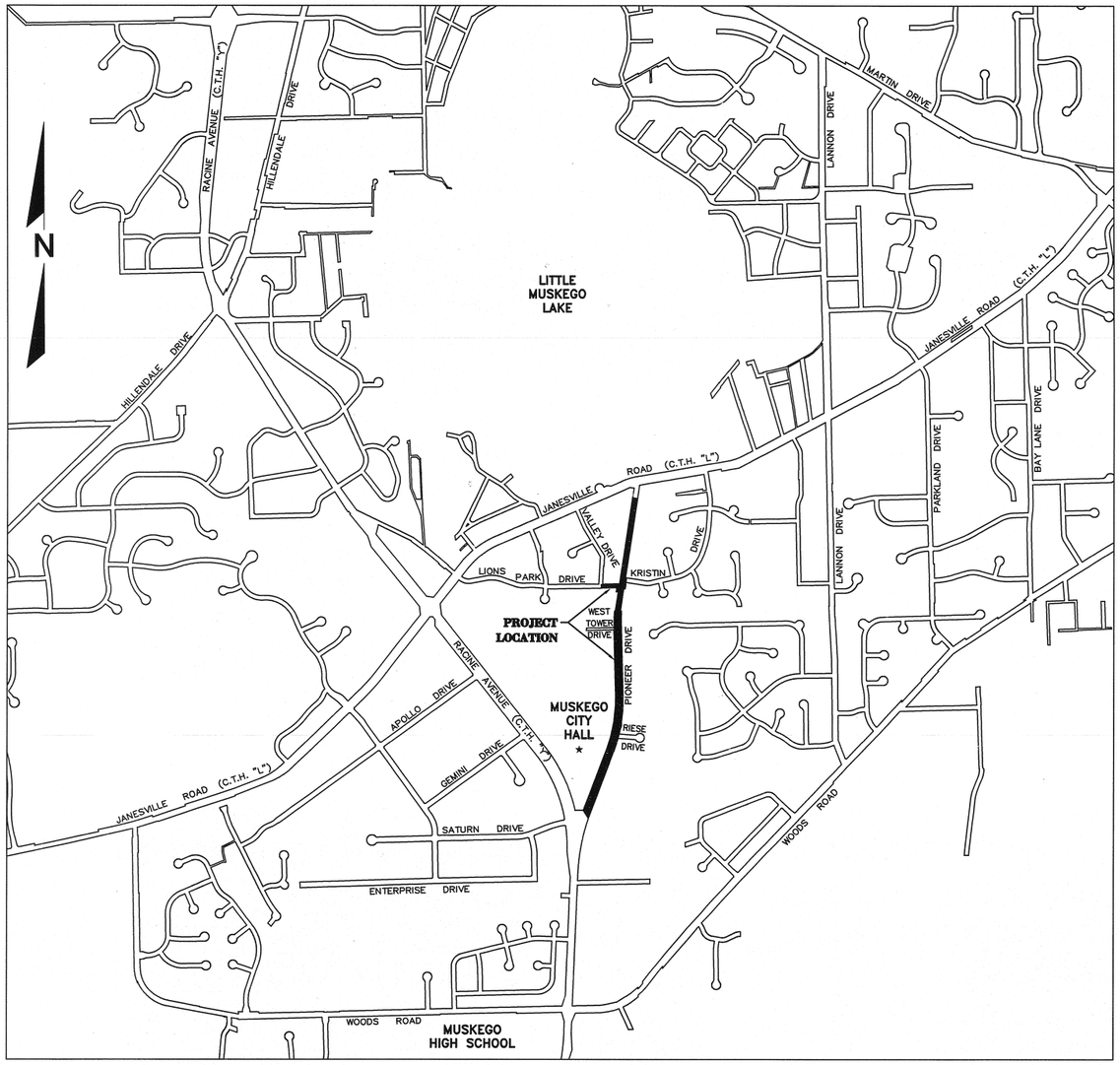
CITY OF MUSKEGO
PIONEER DRIVE RECONSTRUCTION PROJECT
IN: PIONEER DRIVE
FROM: RACINE AVENUE (C.T.H. "Y")
TO: 230' SOUTH OF JANESVILLE ROAD (C.T.H. "L")
AND VARIOUS OTHER LOCATIONS



VICINITY MAP

LEGEND

- BENCHMARK
- SECTION CORNER
- FLAGPOLE
- MAILBOX
- SIGN
- BILLBOARD
- CONTROL BOX
- TRAFFIC SIGNAL
- RAILROAD CROSSING SIGNAL
- CABLE PEDESTAL
- POWER POLE
- GUY POLE
- GUY WIRE
- LIGHT POLE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- GAS VALVE
- GAS METER
- STORM MANHOLE
- ROUND INLET
- SQUARE INLET
- STORM SEWER END SECTION
- SANITARY MANHOLE
- SANITARY CLEANOUT OR SEPTIC VENT
- SANITARY INTERCEPTOR MANHOLE
- MISCELLANEOUS MANHOLE
- WATER VALVE
- HYDRANT
- WATER SERVICE CURB STOP
- WATER MANHOLE
- WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- CONIFEROUS TREE
- DECIDUOUS TREE
- SHRUB

- —EDGE OF TREES
- S —SANITARY SEWER
- STO —STORM SEWER
- W —WATER MAIN
- G —MARKED GAS MAIN
- E —MARKED ELECTRIC
- OHW —OVERHEAD WIRES
- B —BUREAU ELEC. SERV.
- T —MARKED TELEPHONE
- TV —MARKED CABLE TV LINE
- FO —MARKED FIBER OPTIC

PLAN INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	PIONEER DRIVE PAVING PLAN & PROFILE
3	PIONEER DRIVE PAVING PLAN & PROFILE
4	PIONEER DRIVE PAVING PLAN & PROFILE
5	LIONS PARK DRIVE SIDEWALK PLAN
6	CITY PROPERTY GRADING EXHIBIT
7	PIONEER DRIVE STORM SEWER PLAN & PROFILE
8	PIONEER DRIVE STORM SEWER PLAN & PROFILE
9	PIONEER DRIVE STORM SEWER PLAN & PROFILE
10	PIONEER DRIVE WATER MAIN PLAN & PROFILE
11	PIONEER DRIVE WATER SYSTEM REPAIRS
12	PIONEER DRIVE RECREATIONAL TRAIL PLAN & PROFILE
13	PIONEER DRIVE RECREATIONAL TRAIL PLAN & PROFILE
14	PIONEER DRIVE RECREATIONAL TRAIL PLAN & PROFILE
15	PIONEER DRIVE RECREATIONAL TRAIL PLAN & PROFILE
16	PIONEER DRIVE RECREATIONAL TRAIL PLAN & PROFILE
17	PIONEER DRIVE RECREATIONAL TRAIL PLAN & PROFILE
18	PAVEMENT MARKING & SIGNING PLAN
19	PAVEMENT MARKING & SIGNING PLAN
20	DETOUR & TRAFFIC CONTROL PLAN
21	PROJECT DETAILS
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28	PIONEER DRIVE STREETSCAPING PLAN
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33	PIONEER DRIVE CROSS SECTIONS
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35	PIONEER DRIVE CROSS SECTIONS
36	RECREATIONAL TRAIL CROSS SECTIONS
37	RECREATIONAL TRAIL CROSS SECTIONS
38	RECREATIONAL TRAIL CROSS SECTIONS
39	RECREATIONAL TRAIL CROSS SECTIONS
40	RECREATIONAL TRAIL CROSS SECTIONS
41	RECREATIONAL TRAIL CROSS SECTIONS

the City of MUSKEGO

DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

COVER SHEET

WISCONSIN TIMOTHY G. BARBEAU S-2652 WAUWATOSA, WI 4/19/12 PROFESSIONAL ENGINEER

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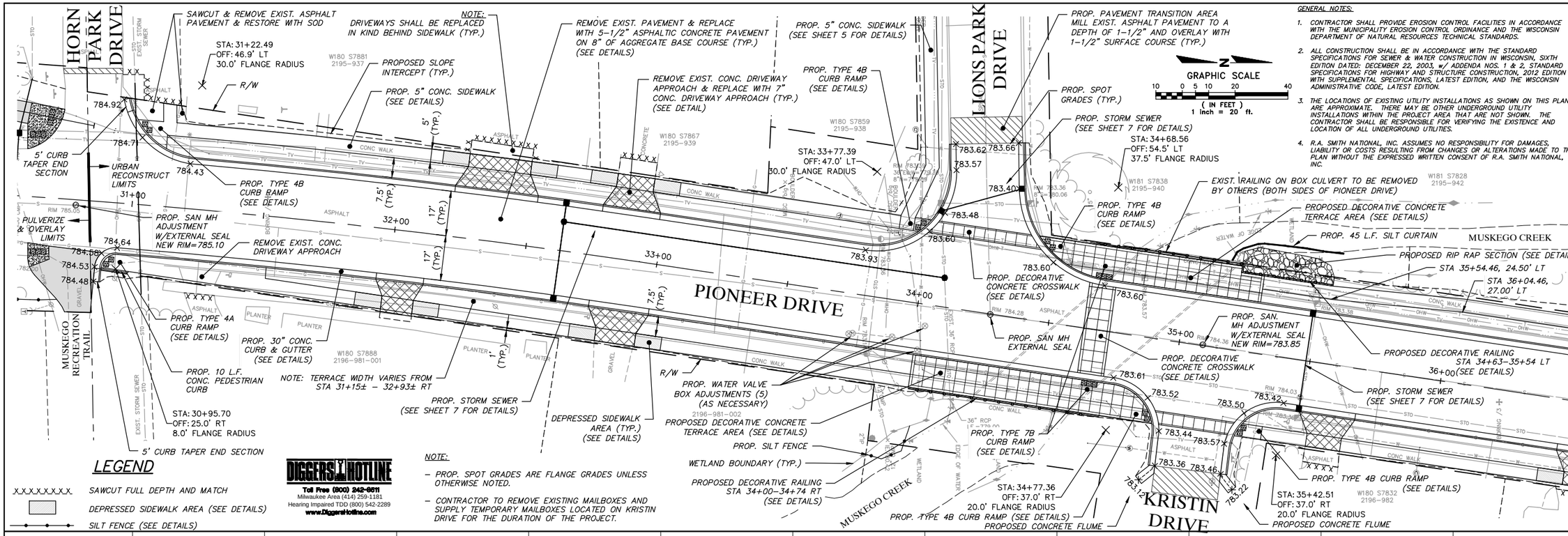
R.A. Smith National, Inc.

DATE: 4-18-12
SCALE: 1"=1000'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
1



LEGEND

- SAWCUT FULL DEPTH AND MATCH
- DEPRESSED SIDEWALK AREA (SEE DETAILS)
- SILT FENCE (SEE DETAILS)

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

NOTE:

- PROP. SPOT GRADES ARE FLANGE GRADES UNLESS OTHERWISE NOTED.
- CONTRACTOR TO REMOVE EXISTING MAILBOXES AND SUPPLY TEMPORARY MAILBOXES LOCATED ON KRISTIN DRIVE FOR THE DURATION OF THE PROJECT.

GENERAL NOTES:

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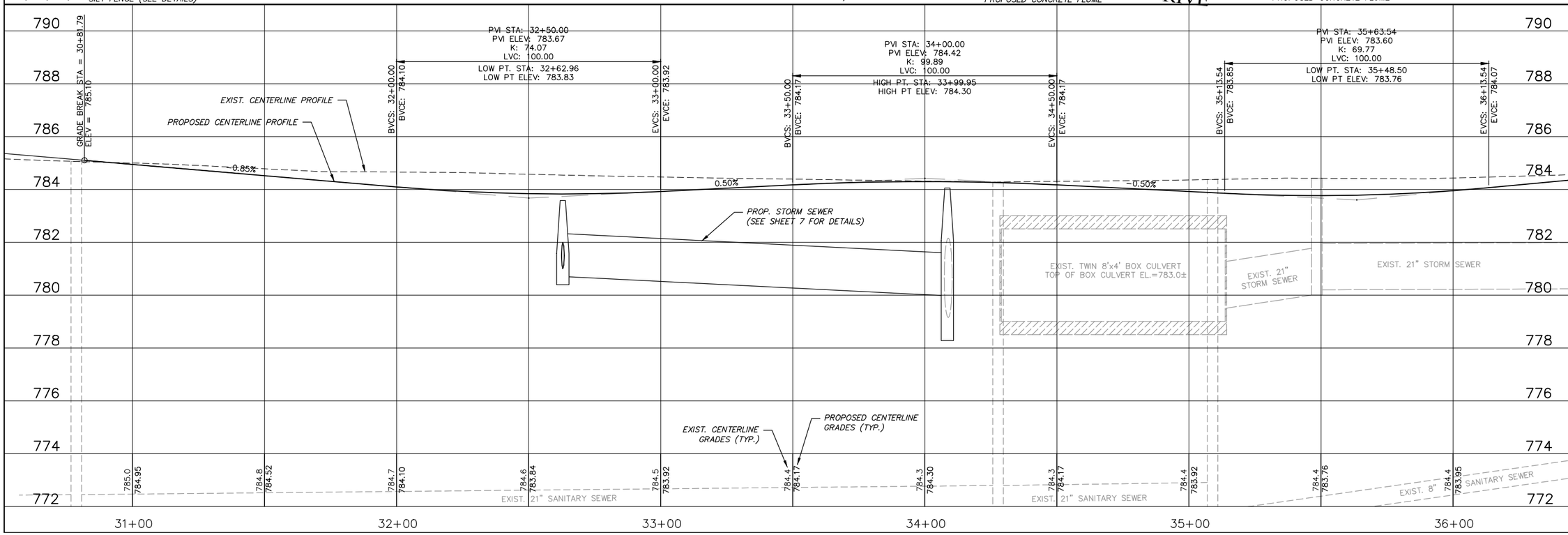

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262-781-1650 Fax 262-781-8466 www.rasmithnational.com
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
PLAN & PROFILE

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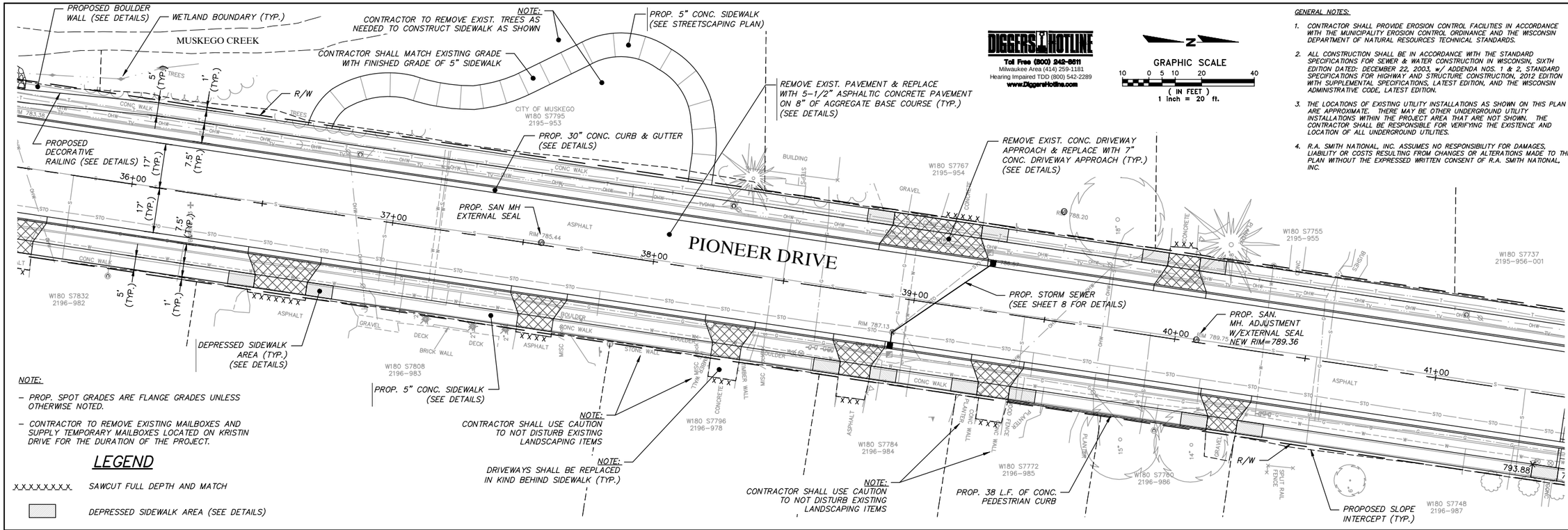
R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
2



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GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 20 ft.

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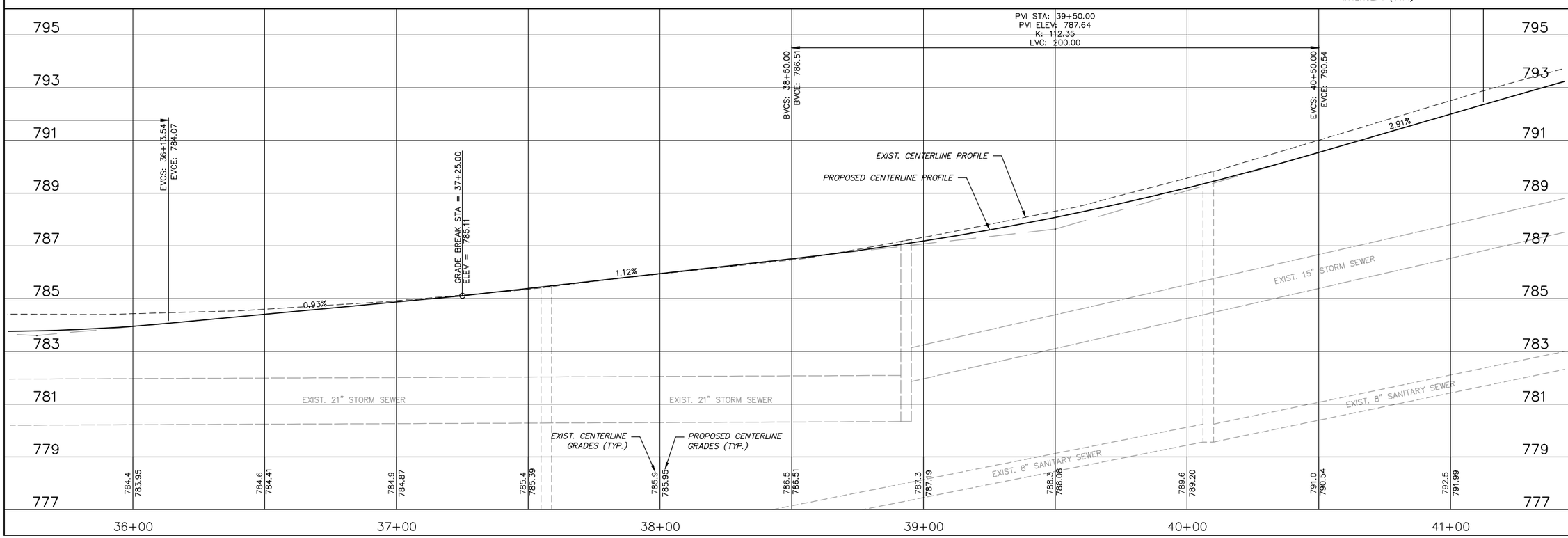
LEGEND

XXXXXXXX SAWCUT FULL DEPTH AND MATCH

DEPRESSED SIDEWALK AREA (SEE DETAILS)



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15745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1500 Fax 262-781-8466 www.rasmithnational.com
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
3

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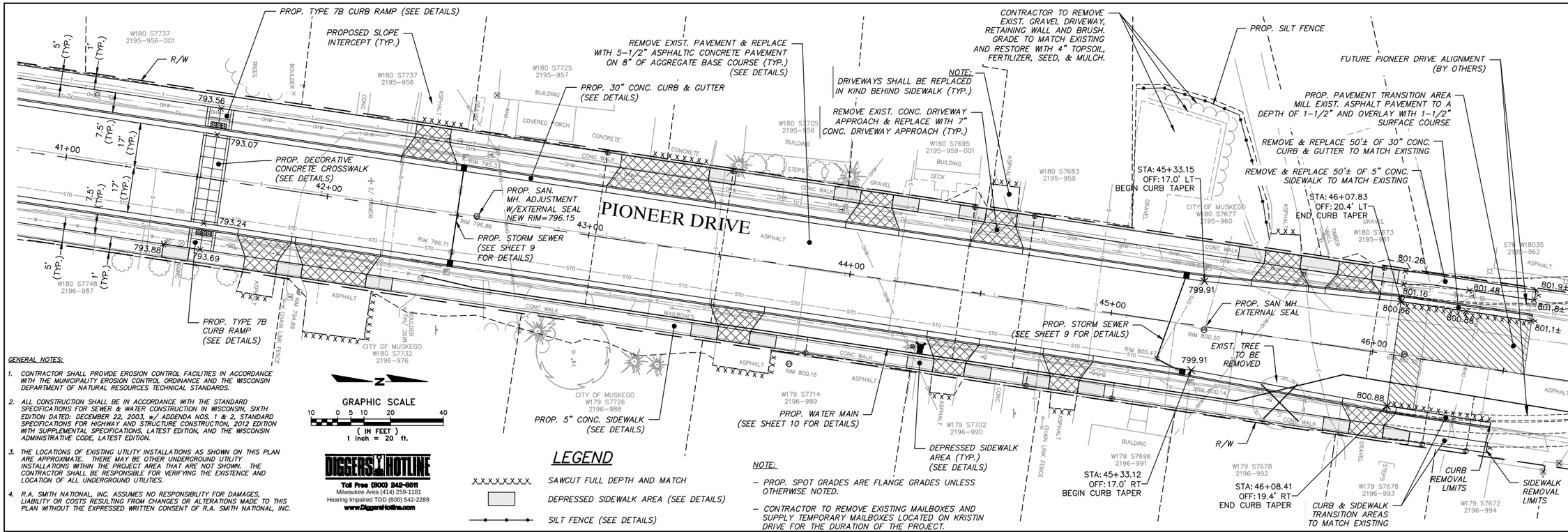

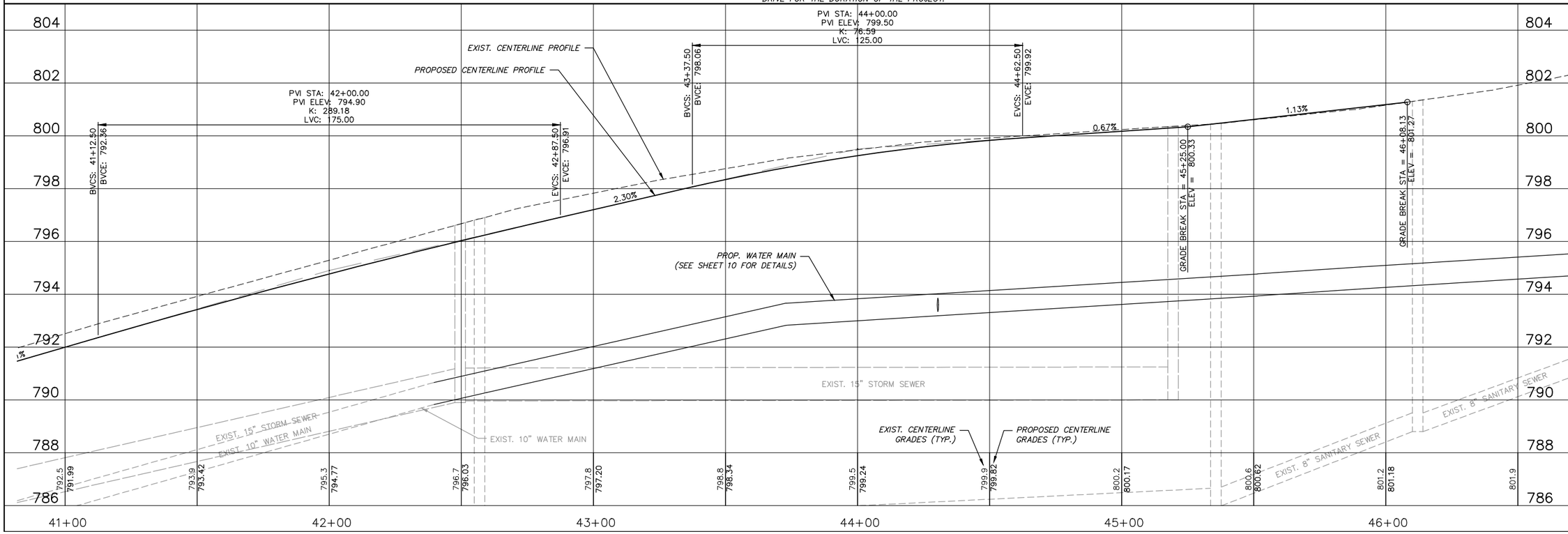

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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
PLAN & PROFILE

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DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
4

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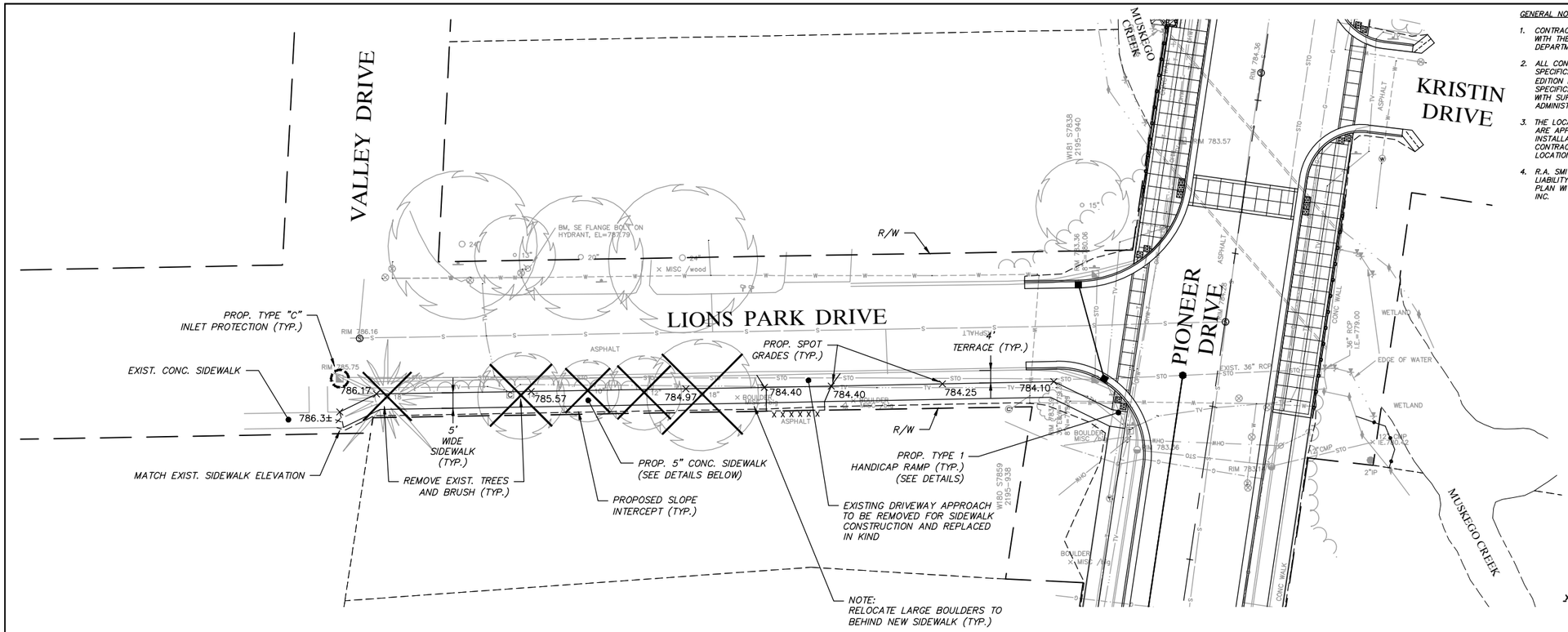

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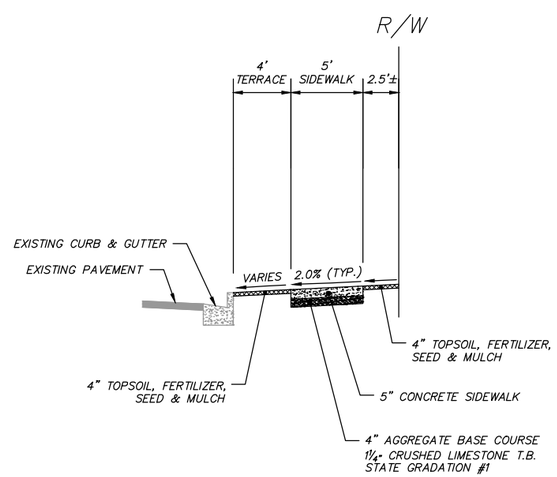

TYPICAL SIDEWALK SECTION

(LIONS PARK DRIVE)

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R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

LIONS PARK DRIVE
SIDEWALK PLAN

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
5

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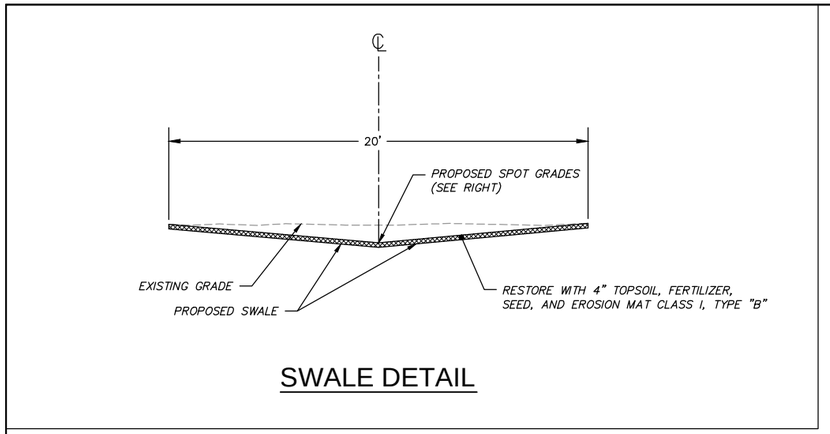
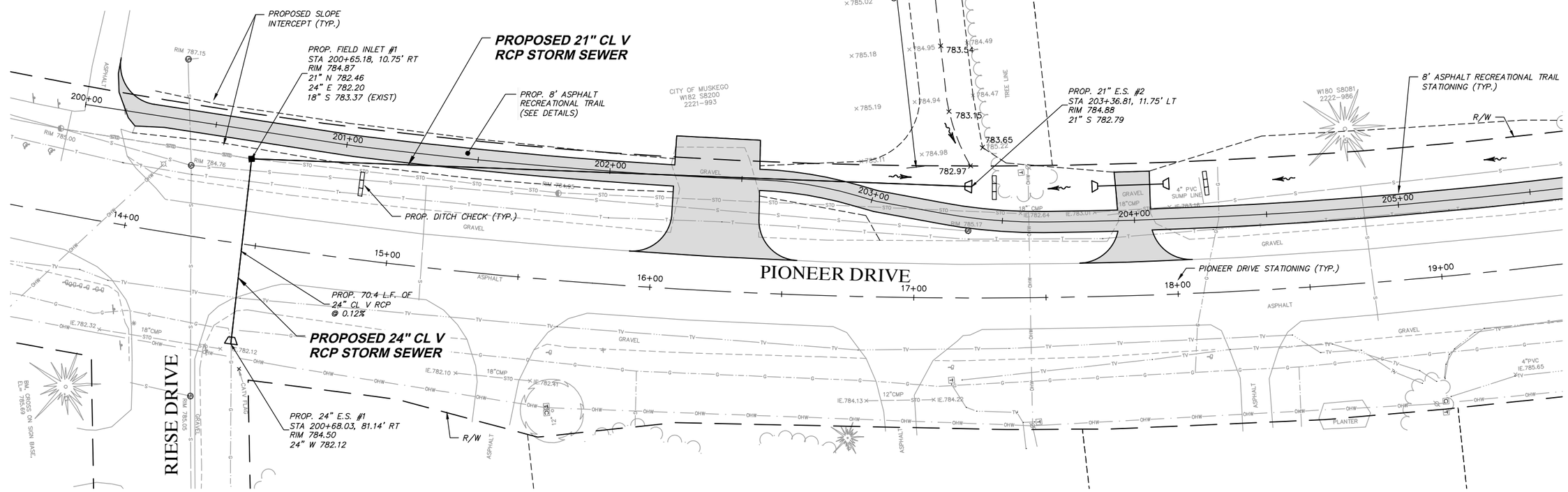


SWALE DETAIL



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 20 ft.

DIGGERS HOTLINE
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LEGEND

SURFACE WATER FLOW

DITCH CHECK

NOTE:

- PIPE LENGTHS INCLUDE LENGTH OF END SECTIONS.
- STATION AND OFFSETS FOR END SECTIONS ARE TO END OF END SECTION.
- ALL UTILITY EXCAVATIONS IN PUBLIC R/W SHALL BE BACKFILLED WITH CRUSHED STONE SCREENINGS AND MECHANICALLY COMPACTED.
- ALL RESTORATION SHALL BE 4" TOPSOIL, FERTILIZER, SEED, & EROSION MAT CLASS 1, TYPE "B"

DATE	DESCRIPTION
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R.A. Smith National
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262-781-1000 Fax 262-781-8466 www.rasmithnational.com
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
CITY PROPERTY GRADING EXHIBIT

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R.A. Smith National, Inc.

DATE: 4-17-12

SCALE: 1" = 20'

JOB NO. 1117701

PROJECT MANAGER:
TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: RMM

CHECKED BY: TGB

SHEET NUMBER
6

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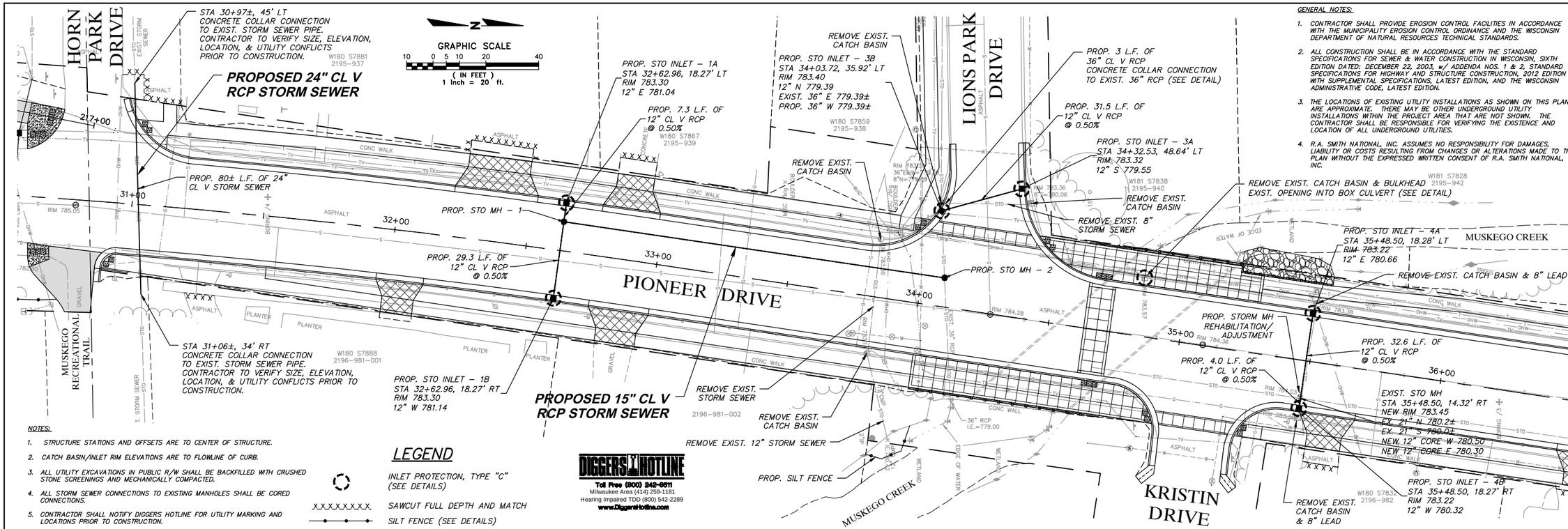

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NOTES:

1. STRUCTURE STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE.
2. CATCH BASIN/INLET RIM ELEVATIONS ARE TO FLOWLINE OF CURB.
3. ALL UTILITY EXCAVATIONS IN PUBLIC R/W SHALL BE BACKFILLED WITH CRUSHED STONE SCREENINGS AND MECHANICALLY COMPACTED.
4. ALL STORM SEWER CONNECTIONS TO EXISTING MANHOLES SHALL BE CORED CONNECTIONS.
5. CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE FOR UTILITY MARKING AND LOCATIONS PRIOR TO CONSTRUCTION.

LEGEND

INLET PROTECTION, TYPE "C" (SEE DETAILS)

XXXXXXXXX SAWCUT FULL DEPTH AND MATCH

SILT FENCE (SEE DETAILS)

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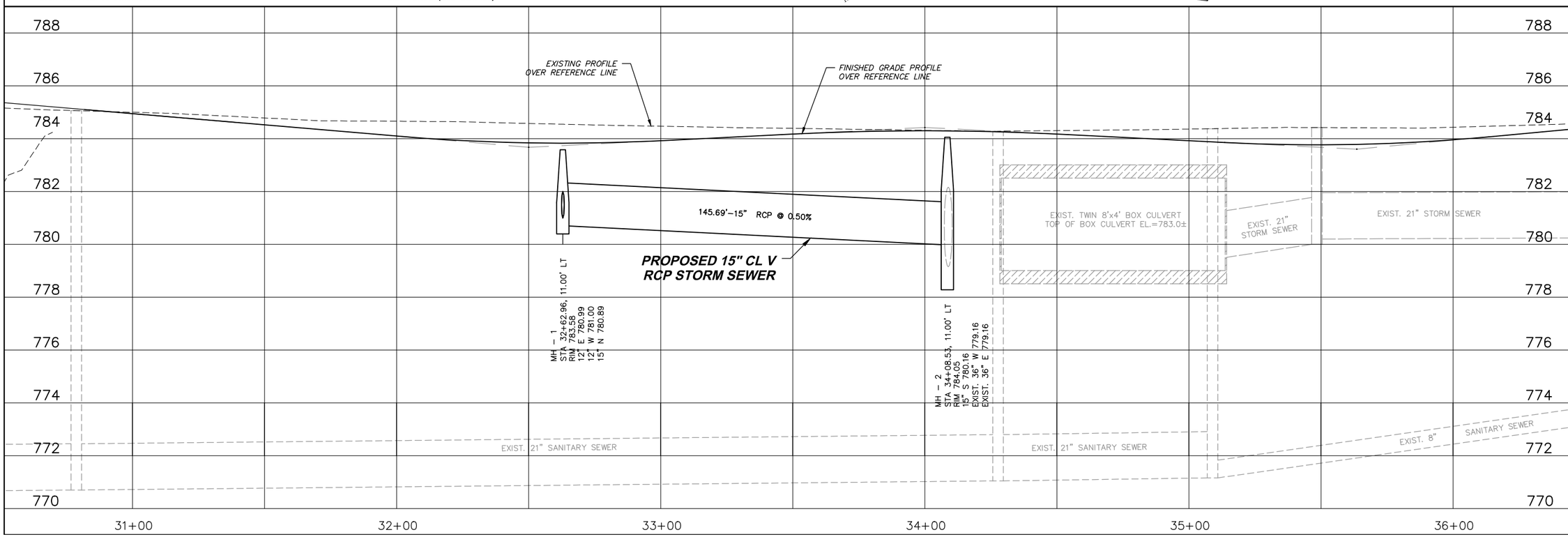

DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1800 Fax 262-781-8466 www.rasmithnational.com
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
STORM SEWER PLAN & PROFILE

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DATE: 4–17–12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
7

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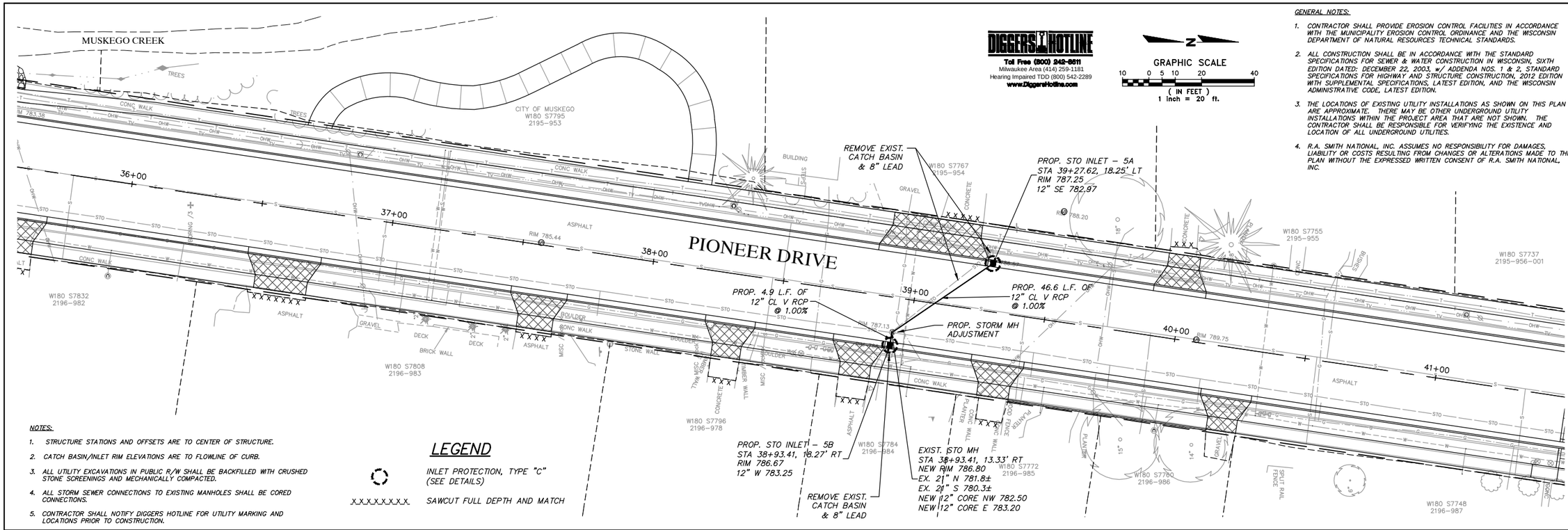

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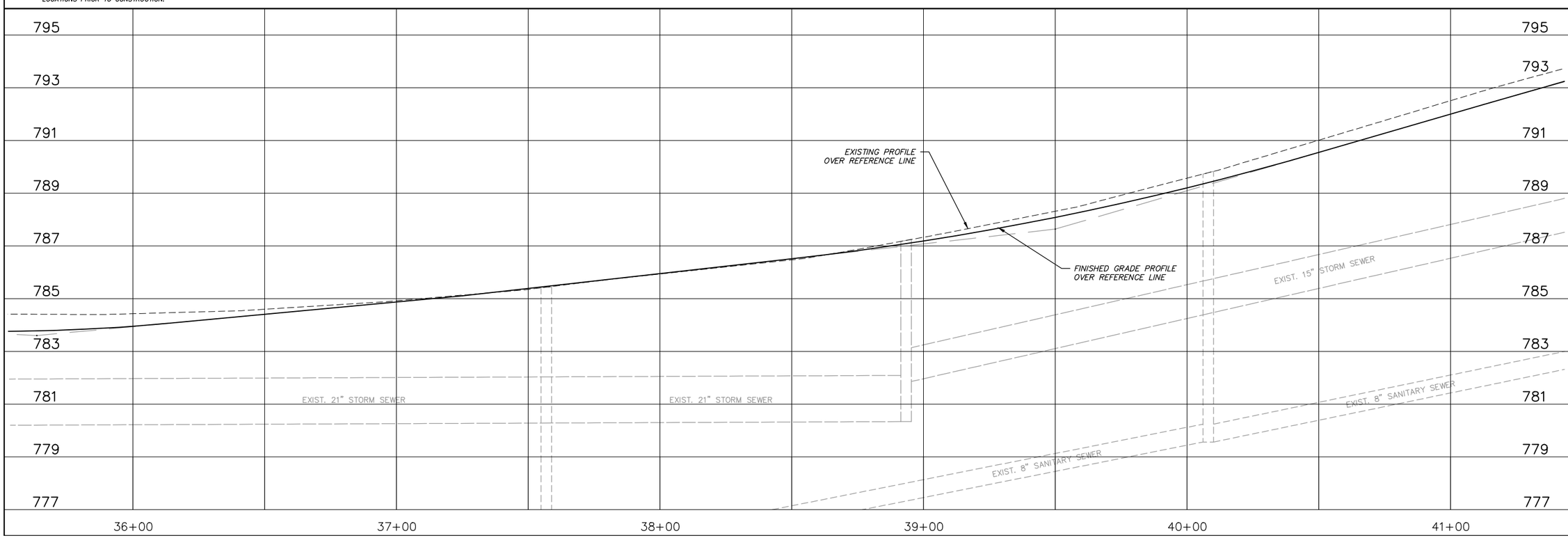
LEGEND

INLET PROTECTION, TYPE "C" (SEE DETAILS)

XXXXXXXXX SAWCUT FULL DEPTH AND MATCH



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R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
STORM SEWER PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
8

H:\1117701\Dwg\UPR02D20.dwg, UPR02D20, 4/17/2012 10:37:55 AM, rmm

NOTES:

1. STRUCTURE STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE.
2. CATCH BASIN/INLET RIM ELEVATIONS ARE TO FLOWLINE OF CURB.
3. ALL UTILITY EXCAVATIONS IN PUBLIC R/W SHALL BE BACKFILLED WITH CRUSHED STONE SCREENINGS AND MECHANICALLY COMPACTED.
4. ALL STORM SEWER CONNECTIONS TO EXISTING MANHOLES SHALL BE CORED CONNECTIONS.
5. CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE FOR UTILITY MARKING AND LOCATIONS PRIOR TO CONSTRUCTION.

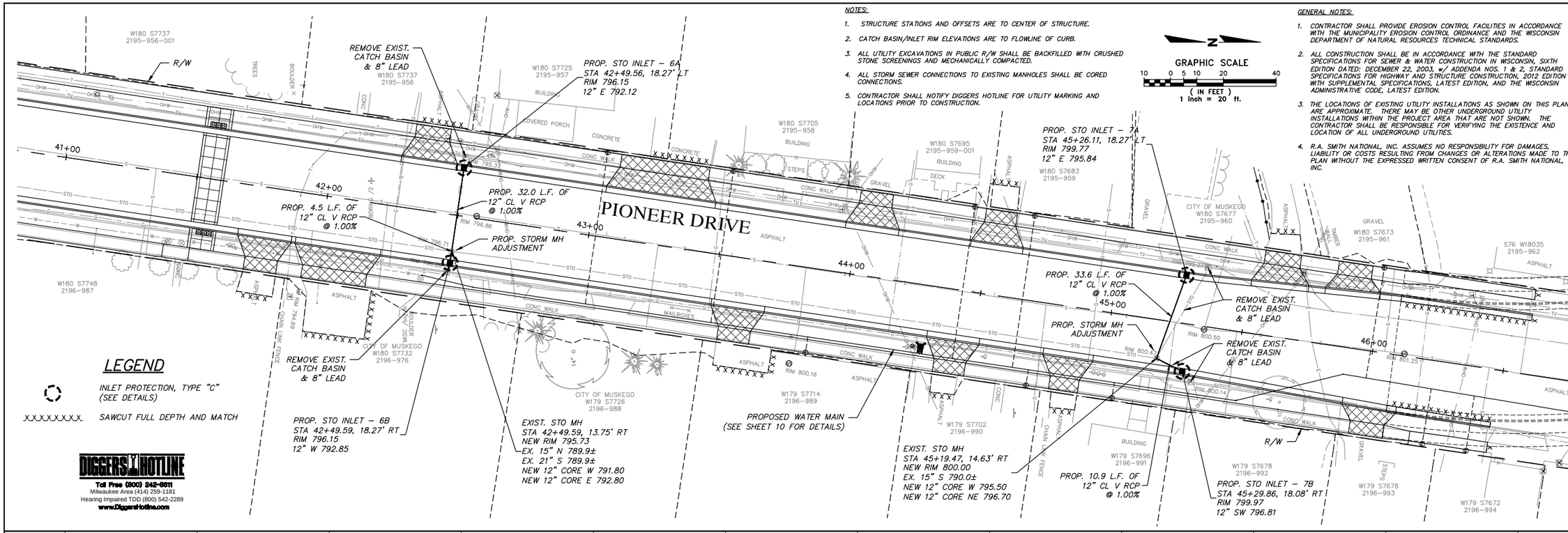
GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 20 ft.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN, SIXTH EDITION DATED: DECEMBER 22, 2003, w/ ADDENDA NOS. 1 & 2, STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, 2012 EDITION WITH SUPPLEMENTAL SPECIFICATIONS, LATEST EDITION, AND THE WISCONSIN ADMINISTRATIVE CODE, LATEST EDITION.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES.
4. R.A. SMITH NATIONAL, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A. SMITH NATIONAL, INC.

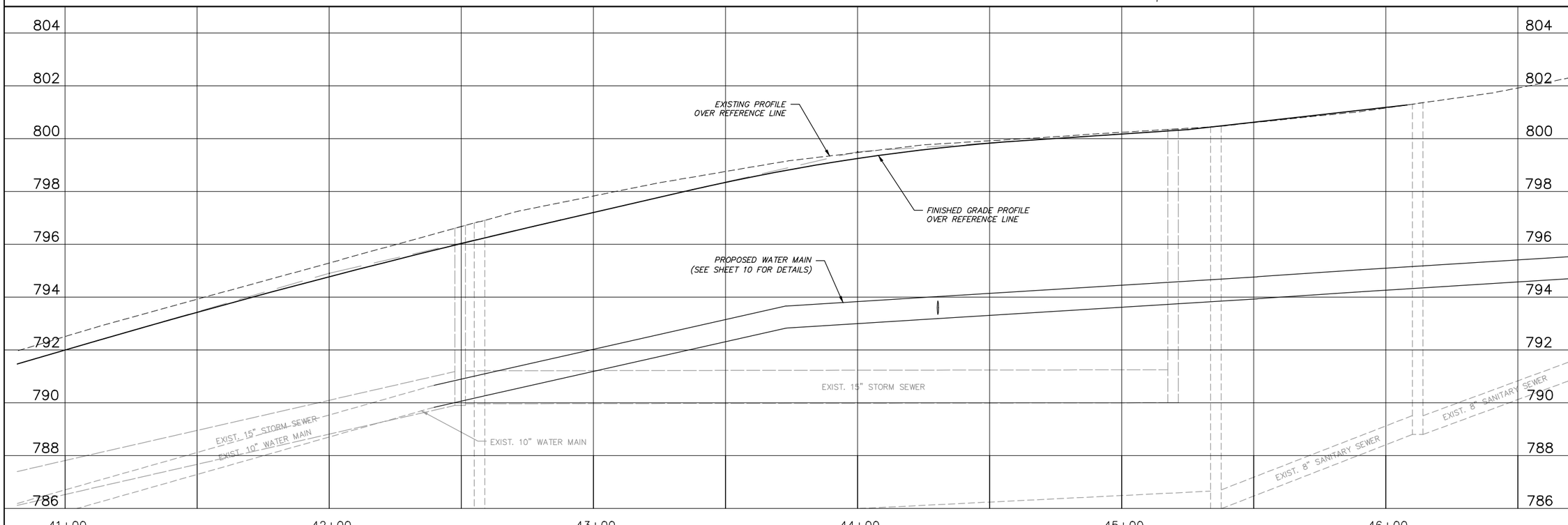


LEGEND

INLET PROTECTION, TYPE "C" (SEE DETAILS)

XXXXXXXX SAWCUT FULL DEPTH AND MATCH

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com



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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
STORM SEWER PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4–17–12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
9

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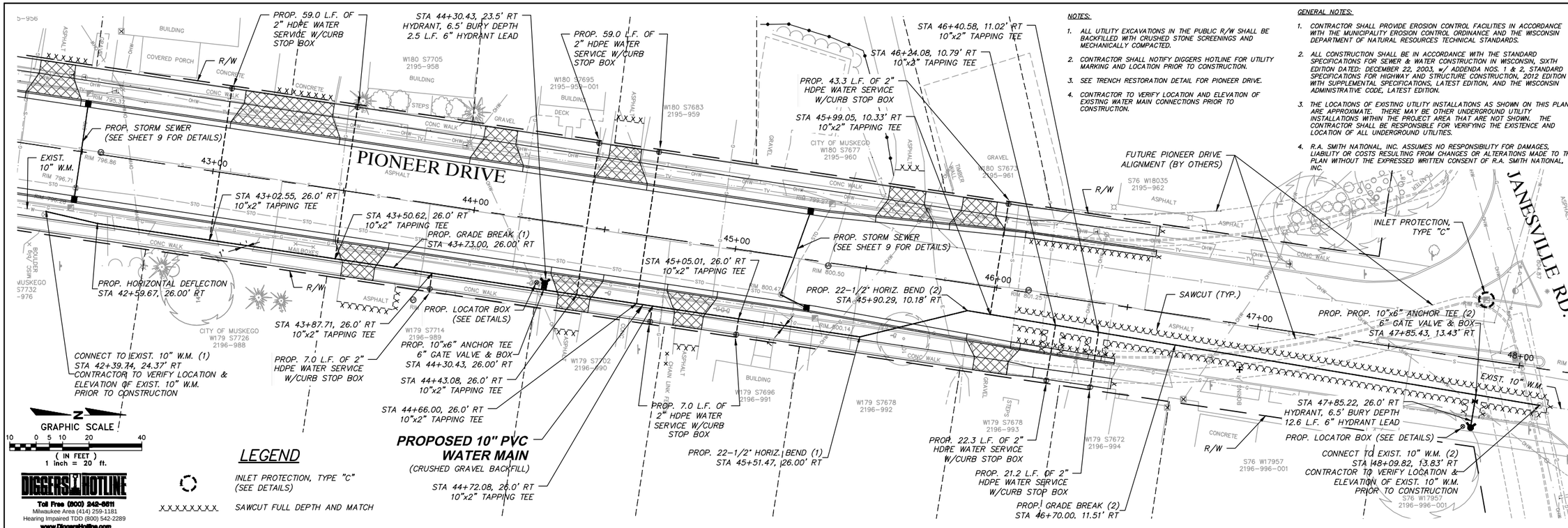

NOTES:

1. ALL UTILITY EXCAVATIONS IN THE PUBLIC R/W SHALL BE BACKFILLED WITH CRUSHED STONE SCREENINGS AND MECHANICALLY COMPACTED.
2. CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE FOR UTILITY MARKING AND LOCATION PRIOR TO CONSTRUCTION.
3. SEE TRENCH RESTORATION DETAIL FOR PIONEER DRIVE.
4. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING WATER MAIN CONNECTIONS PRIOR TO CONSTRUCTION.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
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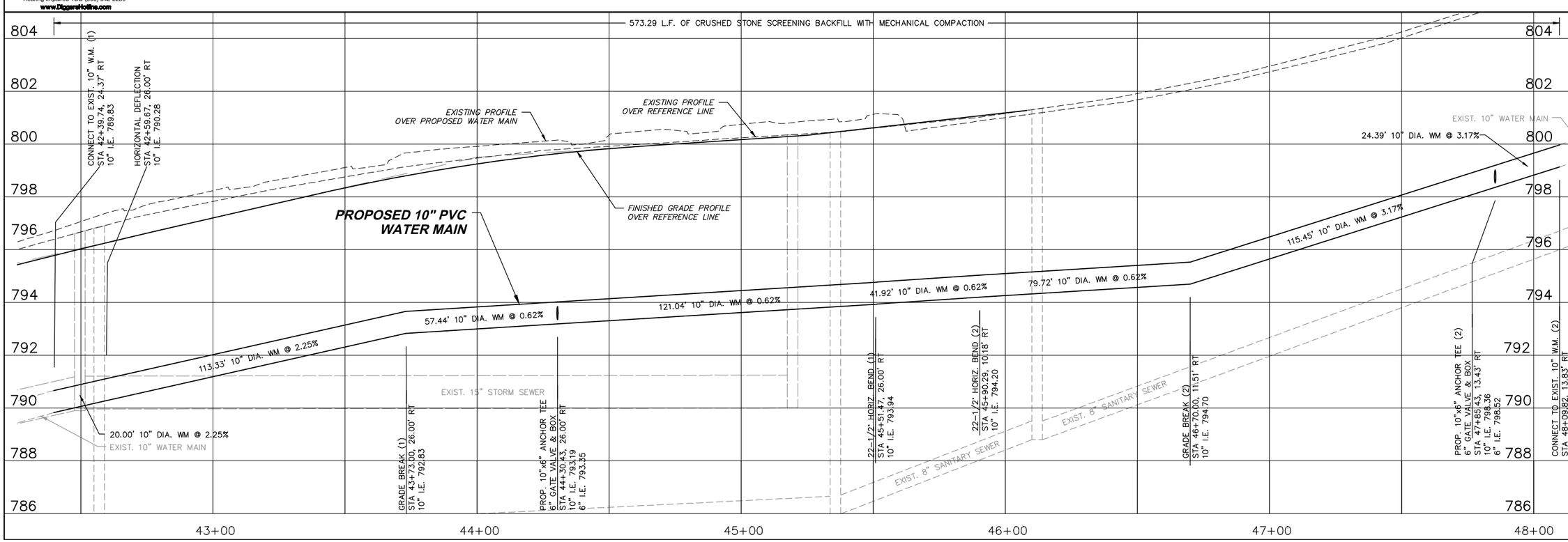
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1650 Fax 262-781-8466 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA



CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
WATER MAIN PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
10

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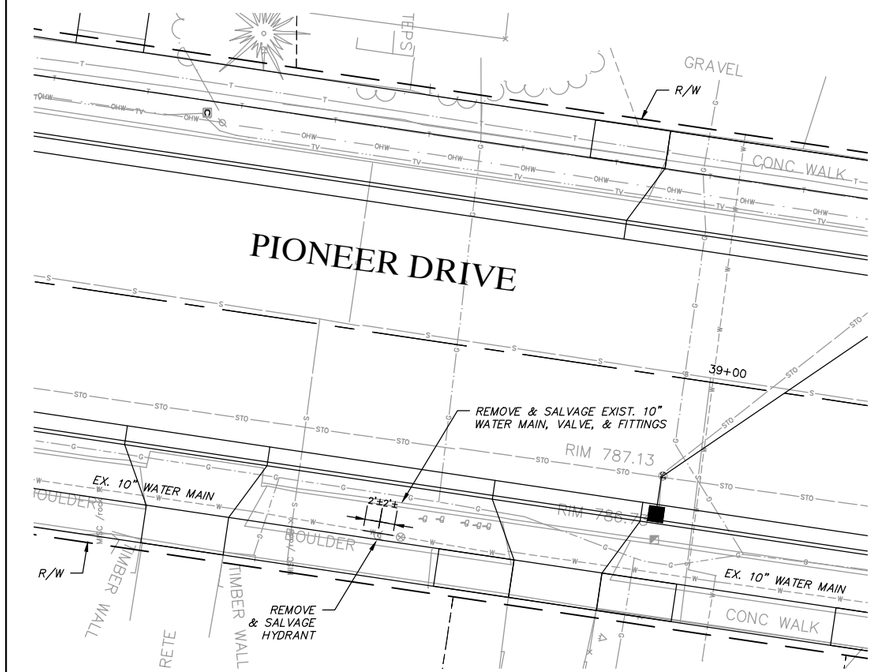
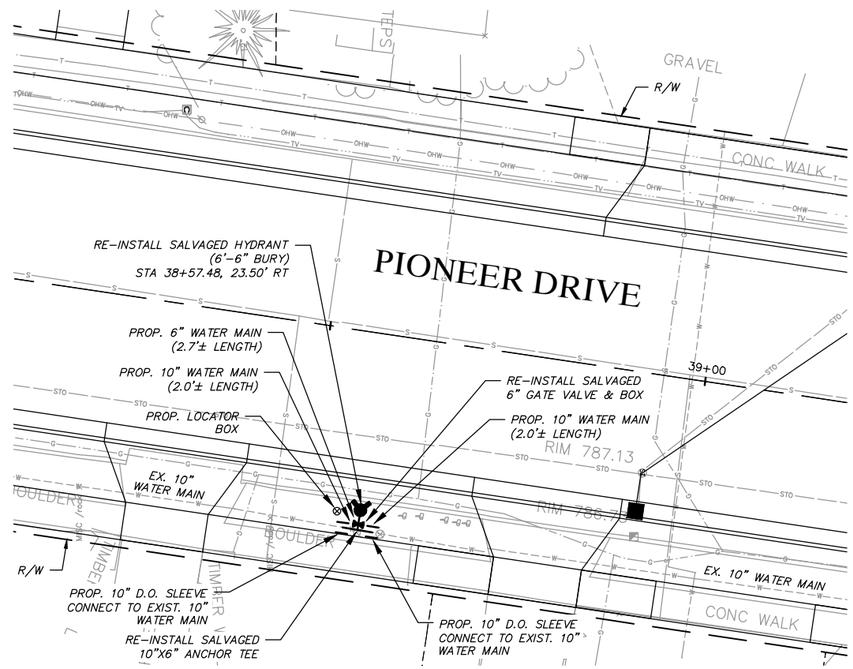
REMOVALS

STA 38+57.48



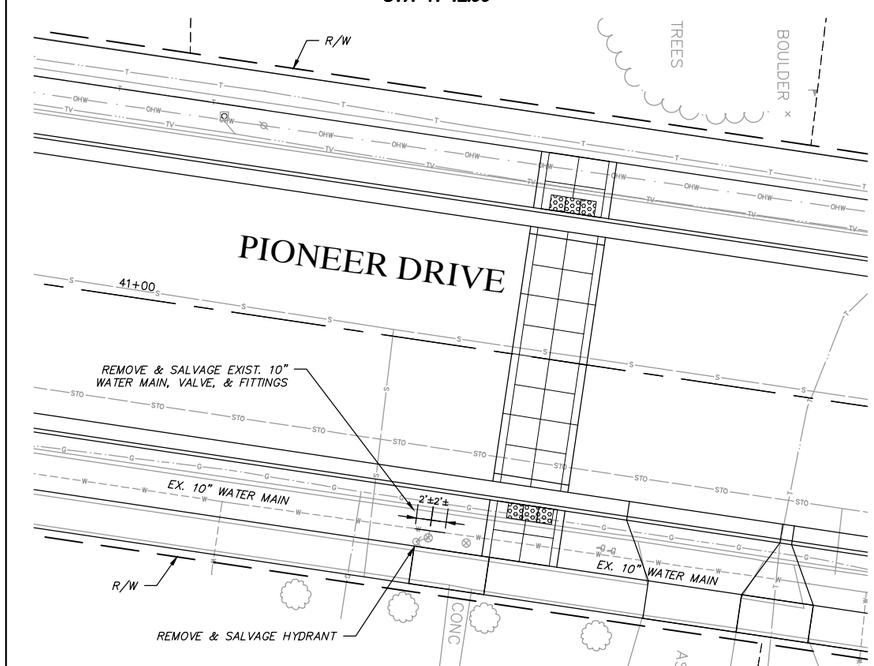
PROPOSED

STA 38+57.48



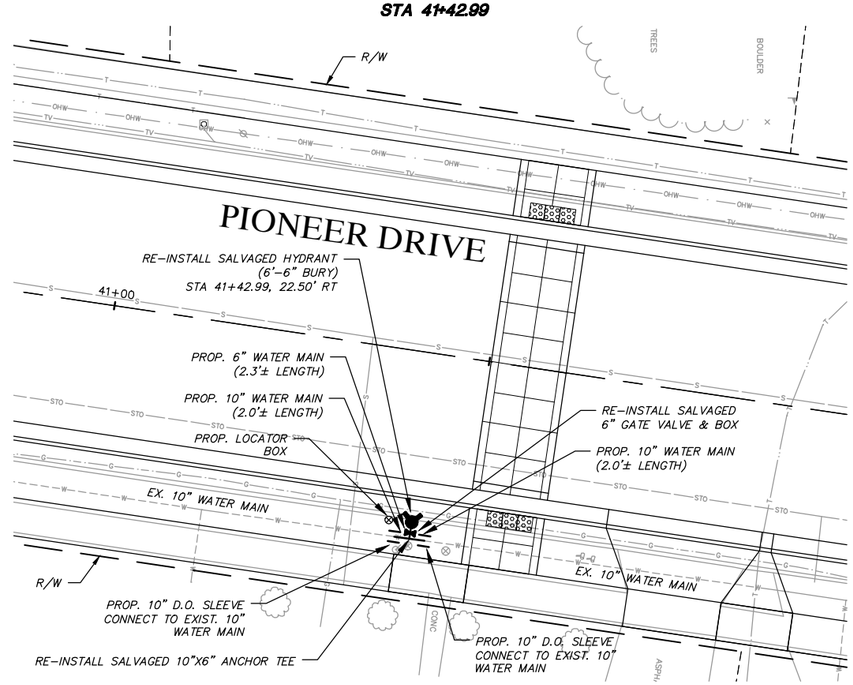
REMOVALS

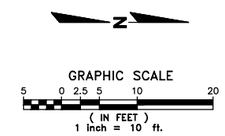
STA 41+42.99



PROPOSED

STA 41+42.99





NOTE:

ALL WATER MAIN CONSTRUCTION IN THE PUBLIC RIGHT OF WAYS SHALL HAVE CRUSHED STONE SCREENINGS BACKFILL WITH MECHANICAL COMPACTION.

NOTES:

1. ALL PROP. WATER MAIN MATERIALS SHALL BE DOUBLE POLYETHYLENE PLASTIC WRAPPED AND TAPED.
2. CRUSHED STONE BEDDING AND CRUSHED STONE SCREENINGS BACKFILL REQUIRED.
3. CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE FOR UTILITY MARKING AND LOCATIONS.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN, SIXTH EDITION DATED: DECEMBER 22, 2003, w/ ADDENDA NOS. 1 & 2.
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4. R.A. SMITH NATIONAL, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A. SMITH NATIONAL, INC.

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R.A. Smith National
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16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1800 Fax 262-781-8466 www.rasmithnational.com
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
WATER SYSTEM REPAIRS

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
11

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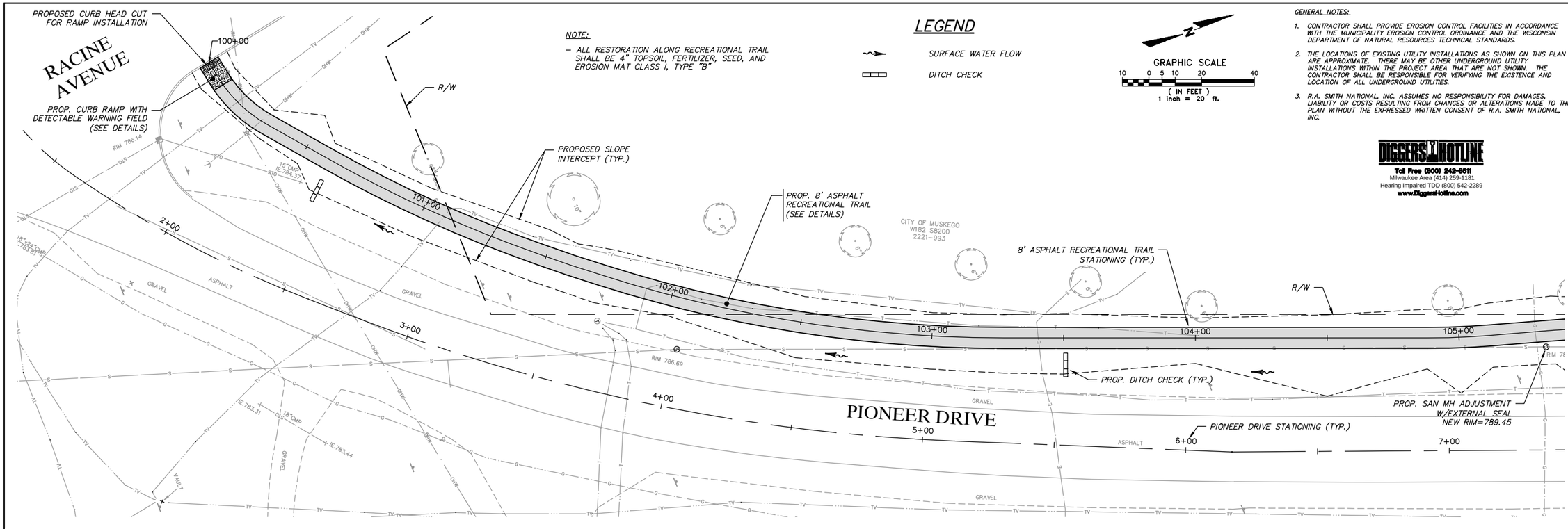

NOTE:

– ALL RESTORATION ALONG RECREATIONAL TRAIL SHALL BE 4" TOPSOIL, FERTILIZER, SEED, AND EROSION MAT CLASS I, TYPE "B"

LEGEND

SURFACE WATER FLOW

DITCH CHECK

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 20 ft.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
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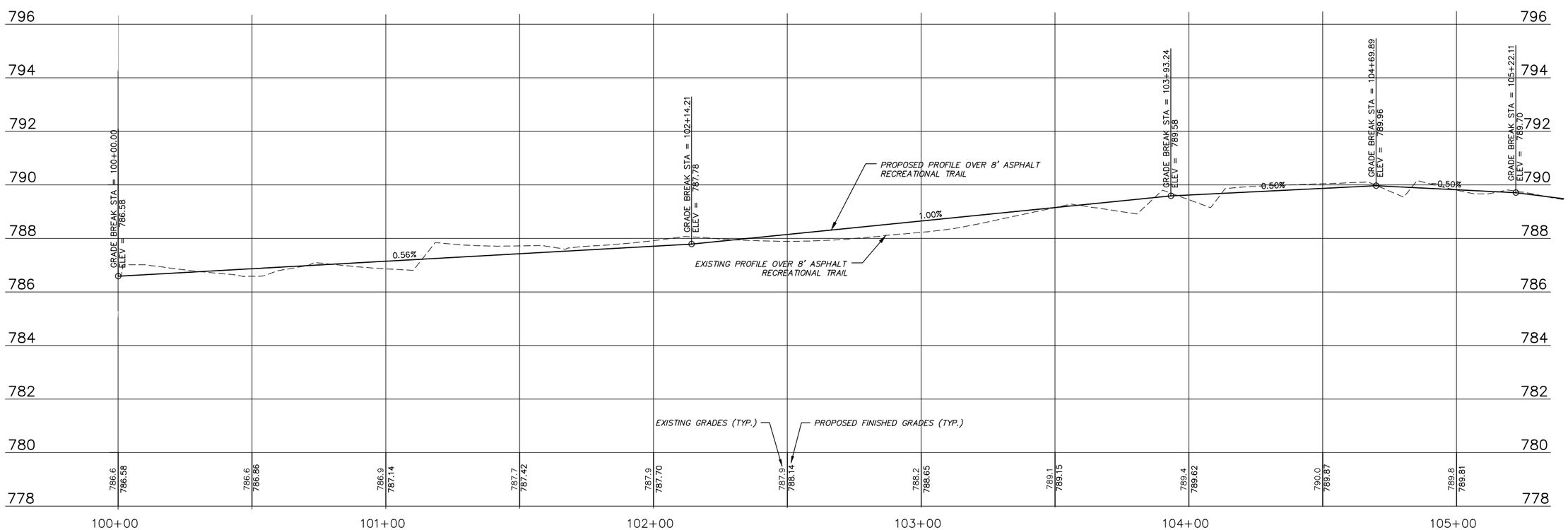

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R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466 www.rasmithnational.com
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
REC TRAIL PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
12

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GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
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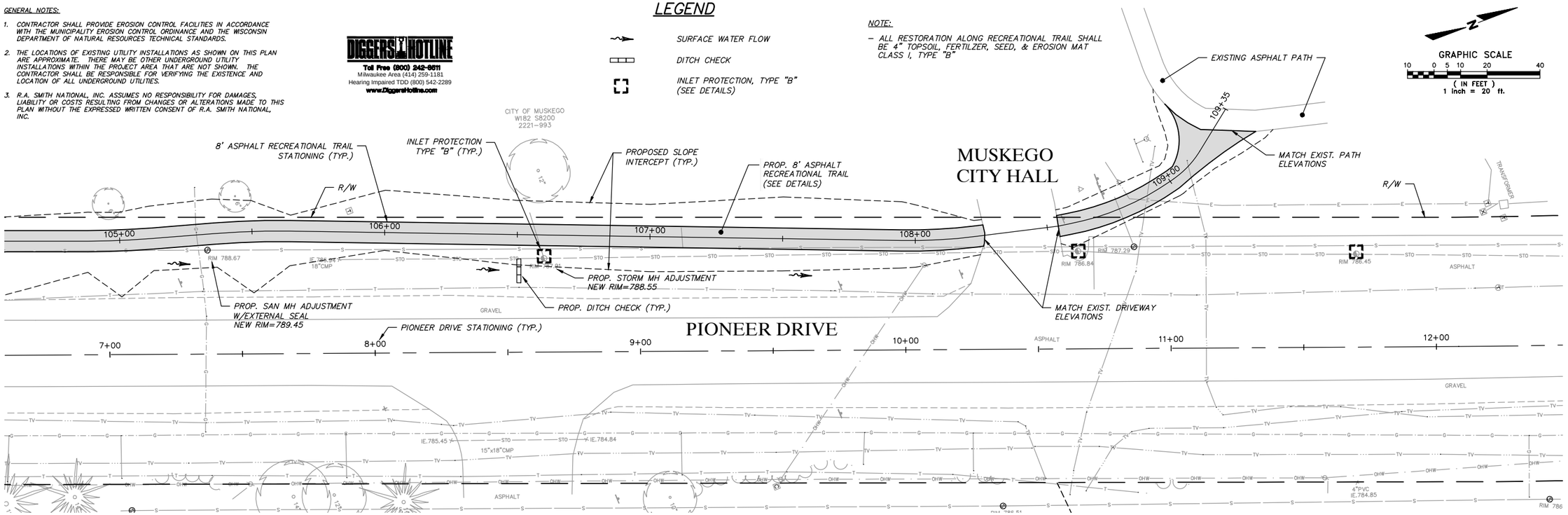
LEGEND

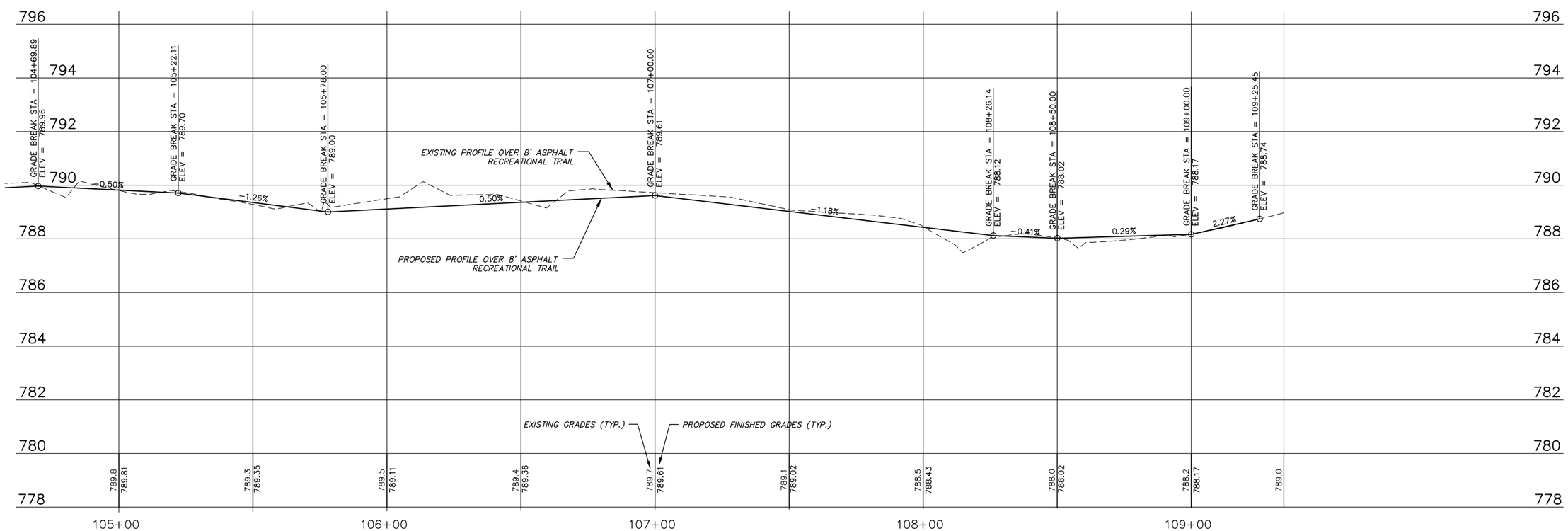
- SURFACE WATER FLOW
- DITCH CHECK
- INLET PROTECTION, TYPE "B" (SEE DETAILS)

NOTE:

- ALL RESTORATION ALONG RECREATIONAL TRAIL SHALL BE 4" TOPSOIL, FERTILZER, SEED, & EROSION MAT CLASS I, TYPE "B"

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 20 ft.





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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
REC TRAIL PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
13

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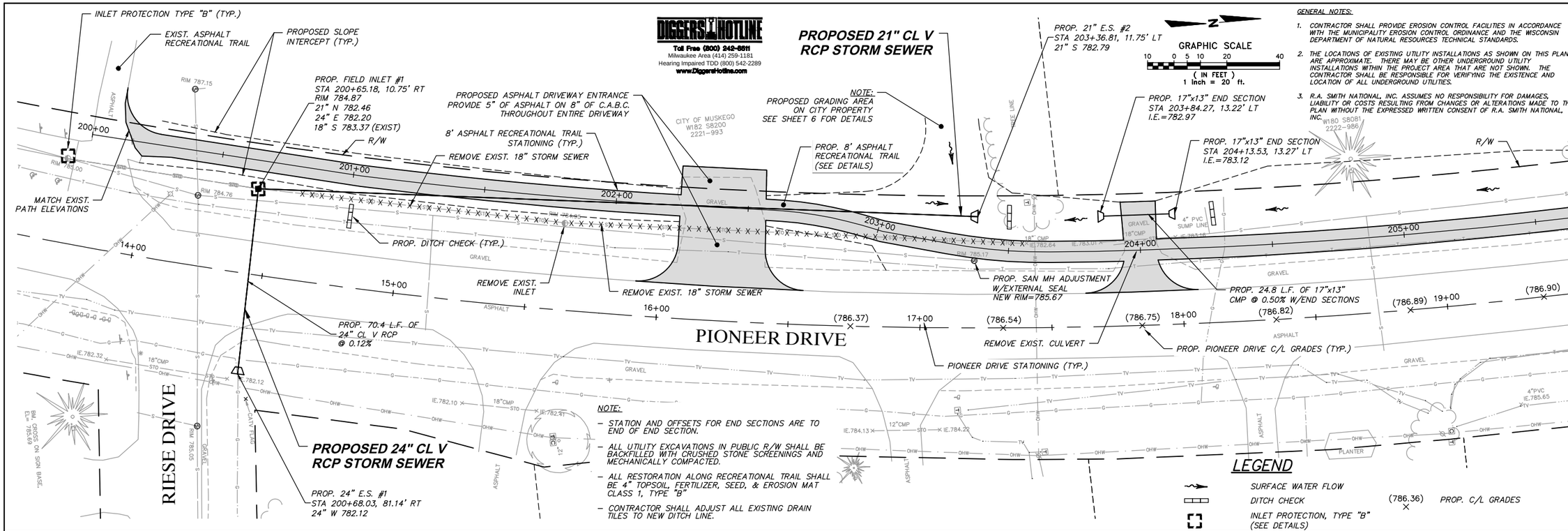

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES.
3. R.A. SMITH NATIONAL, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A. SMITH NATIONAL, INC.

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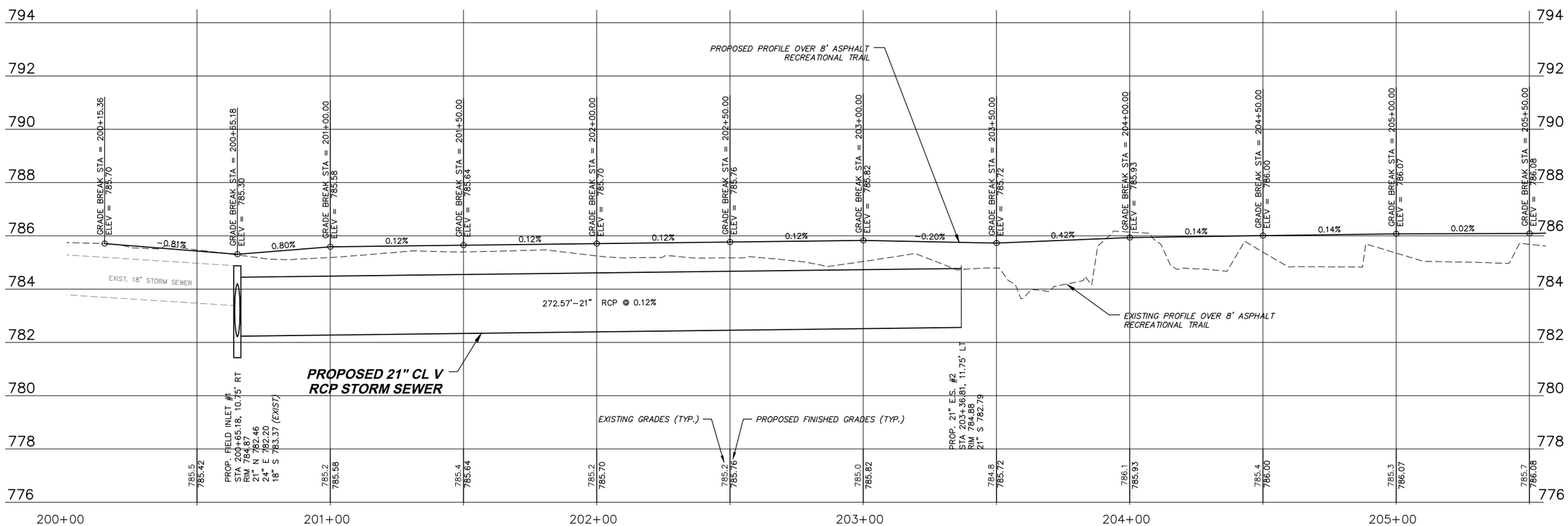

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
REC TRAIL PLAN & PROFILE

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DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
14

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LEGEND

- SILT FENCE (SEE DETAILS)
- SURFACE WATER FLOW
- DITCH CHECK
- XXXXXXXXX SAWCUT FULL DEPTH AND MATCH
- (786.90) × PROP. C/L GRADES

NOTE:

- STATION AND OFFSETS FOR END SECTIONS ARE TO END OF END SECTION.
- ALL UTILITY EXCAVATIONS IN PUBLIC R/W SHALL BE BACKFILLED WITH CRUSHED STONE SCREENINGS AND MECHANICALLY COMPACTED.
- ALL RESTORATION ALONG RECREATIONAL TRAIL SHALL BE 4" TOPSOIL, FERTILIZER, SEED, & EROSION MAT CLASS 1, TYPE "B"
- CONTRACTOR SHALL ADJUST ALL EXISTING DRAIN TILES TO NEW DITCH LINE.

DIGGERS HOTLINE
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Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 20 ft.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
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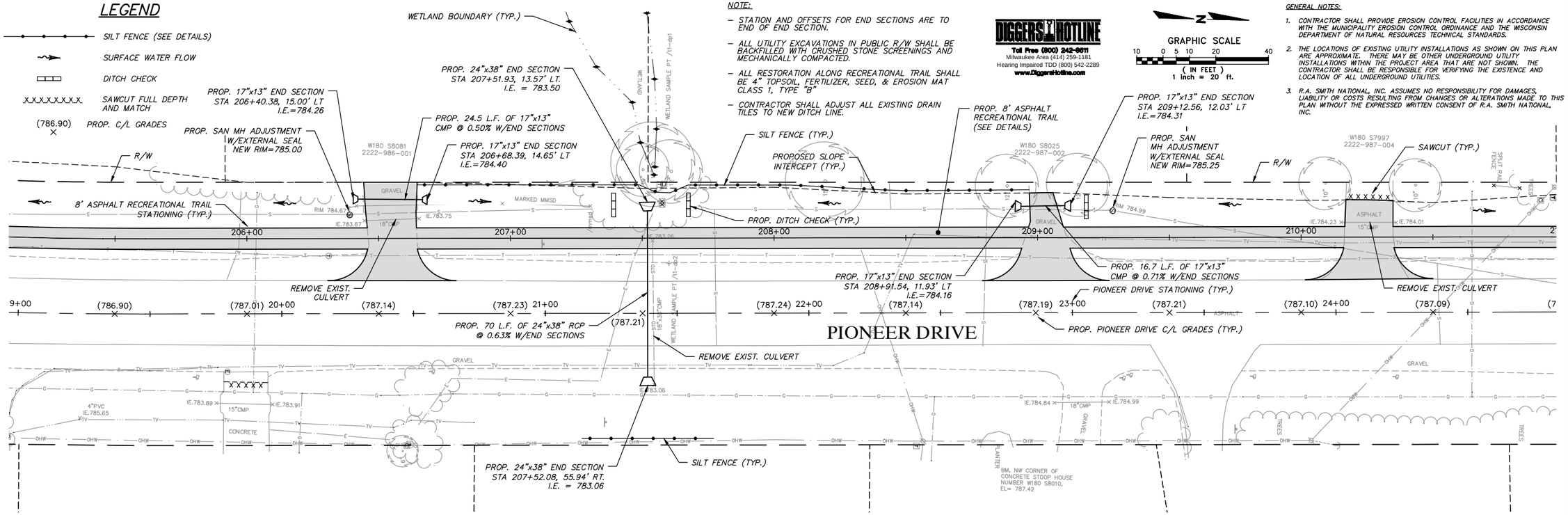

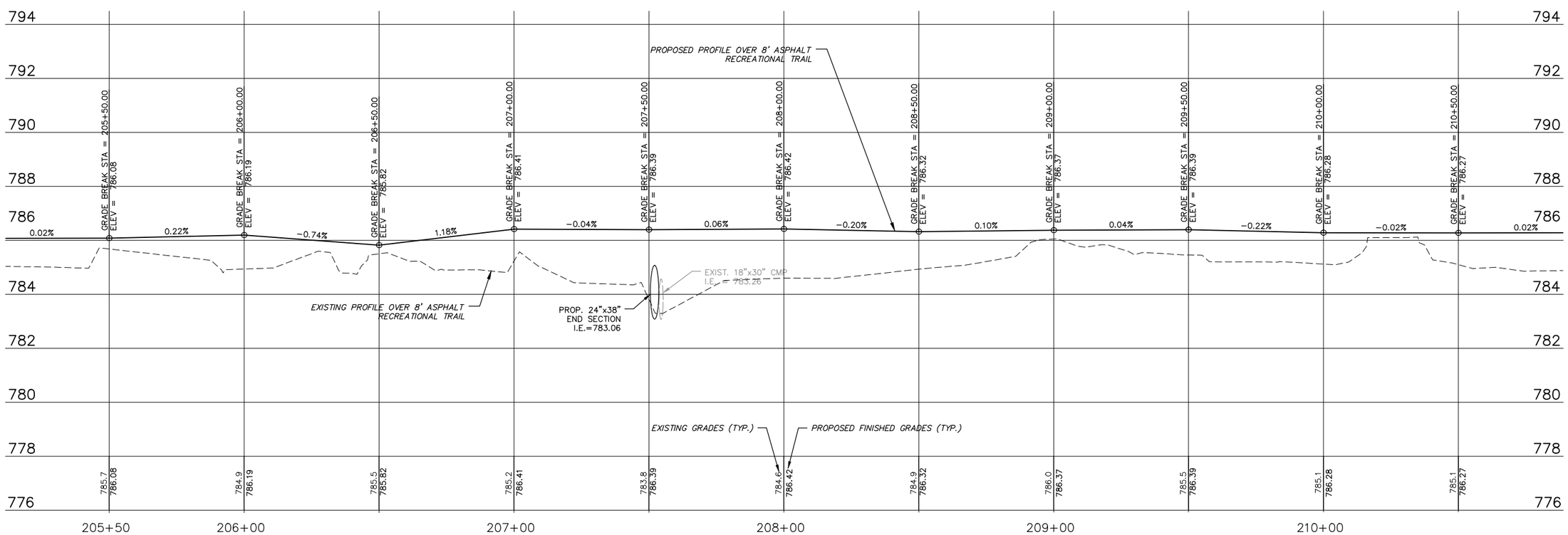

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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
REC TRAIL PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
15

H:\1117701\Dwg\BPP04D20.dwg, BPP04D20, 4/17/2012 10:44:09 AM, rmm

LEGEND

- SURFACE WATER FLOW
- DITCH CHECK
- XXXXXXXX SAWCUT FULL DEPTH AND MATCH
- (786.90) × PROP. C/L GRADES

NOTE:

- STATION AND OFFSETS FOR END SECTIONS ARE TO END OF END SECTION.
- ALL UTILITY EXCAVATIONS IN PUBLIC R/W SHALL BE BACKFILLED WITH CRUSHED STONE SCREENINGS AND MECHANICALLY COMPACTED.
- ALL RESTORATION ALONG RECREATIONAL TRAIL SHALL BE 4" TOPSOIL, FERTILIZER, SEED, & EROSION MAT CLASS 1, TYPE "B"
- CONTRACTOR SHALL ADJUST ALL EXISTING DRAIN TILES TO NEW DITCH LINE.

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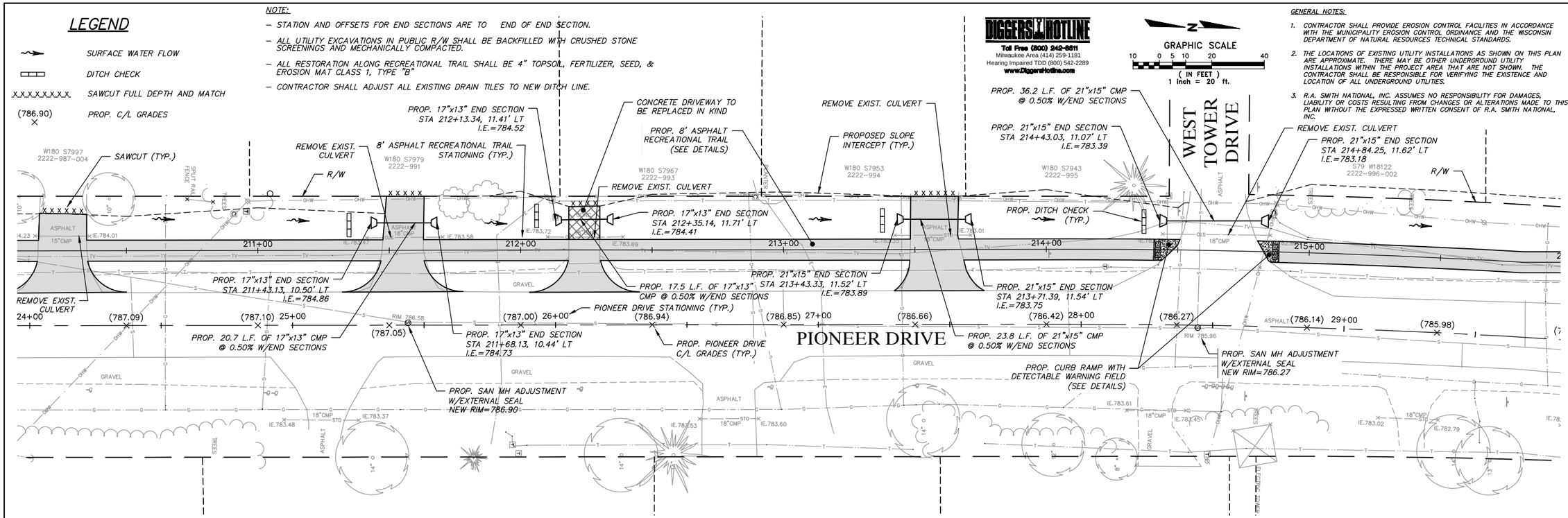
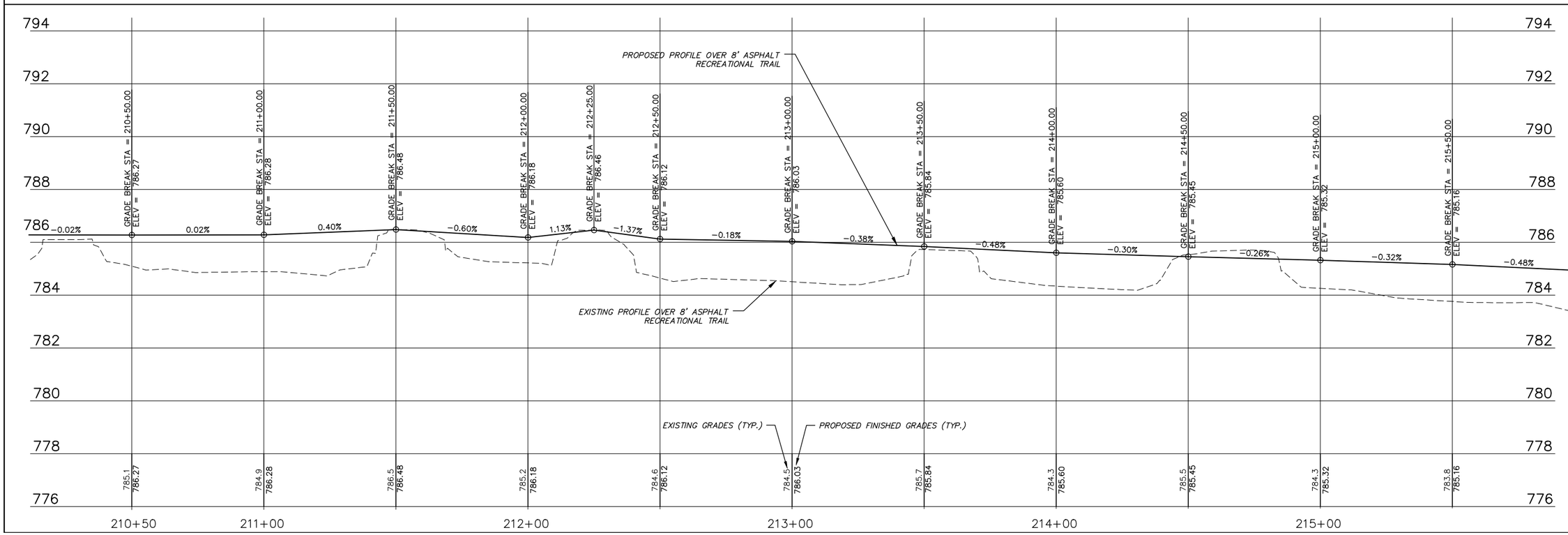
GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 20 ft.

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES.
3. R.A. SMITH NATIONAL, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A. SMITH NATIONAL, INC.





DATE	DESCRIPTION
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R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
REC TRAIL PLAN & PROFILE

© COPYRIGHT 2012
R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
16

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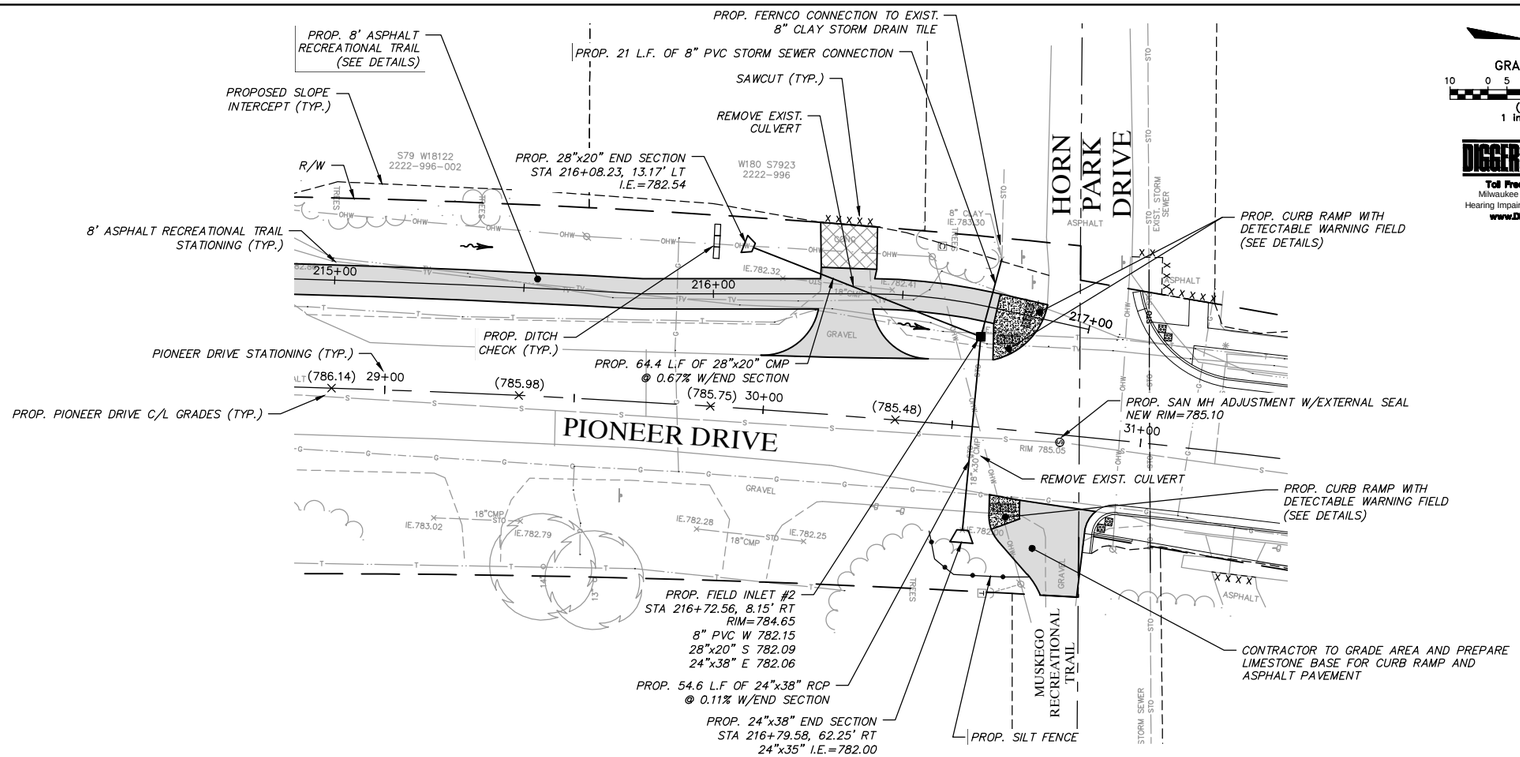

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 20 ft.

DIGGERS HOTLINE
Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL FACILITIES IN ACCORDANCE WITH THE MUNICIPALITY EROSION CONTROL ORDINANCE AND THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES TECHNICAL STANDARDS.
2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THIS PLAN ARE APPROXIMATE. THERE MAY BE OTHER UNDERGROUND UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES.
3. R.A. SMITH NATIONAL, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A. SMITH NATIONAL, INC.

LEGEND

—•—•—•—	SILT FENCE (SEE DETAILS)
~~►	SURFACE WATER FLOW
▭▭▭	DITCH CHECK
XXXXXXXXX	SAWCUT FULL DEPTH AND MATCH
(786.90) ×	PROP. C/L GRADES

NOTE:

- STATION AND OFFSETS FOR END SECTIONS ARE TO END OF END SECTION.
- ALL UTILITY EXCAVATIONS IN PUBLIC R/W SHALL BE BACKFILLED WITH CRUSHED STONE SCREENINGS AND MECHANICALLY COMPACTED.
- ALL RESTORATION ALONG RECREATIONAL TRAIL SHALL BE 4" TOPSOIL, FERTILIZER, SEED, & EROSION MAT CLASS 1, TYPE "B"
- CONTRACTOR SHALL ADJUST ALL EXISTING DRAIN TILES TO NEW DITCH LINE.

DATE	DESCRIPTION
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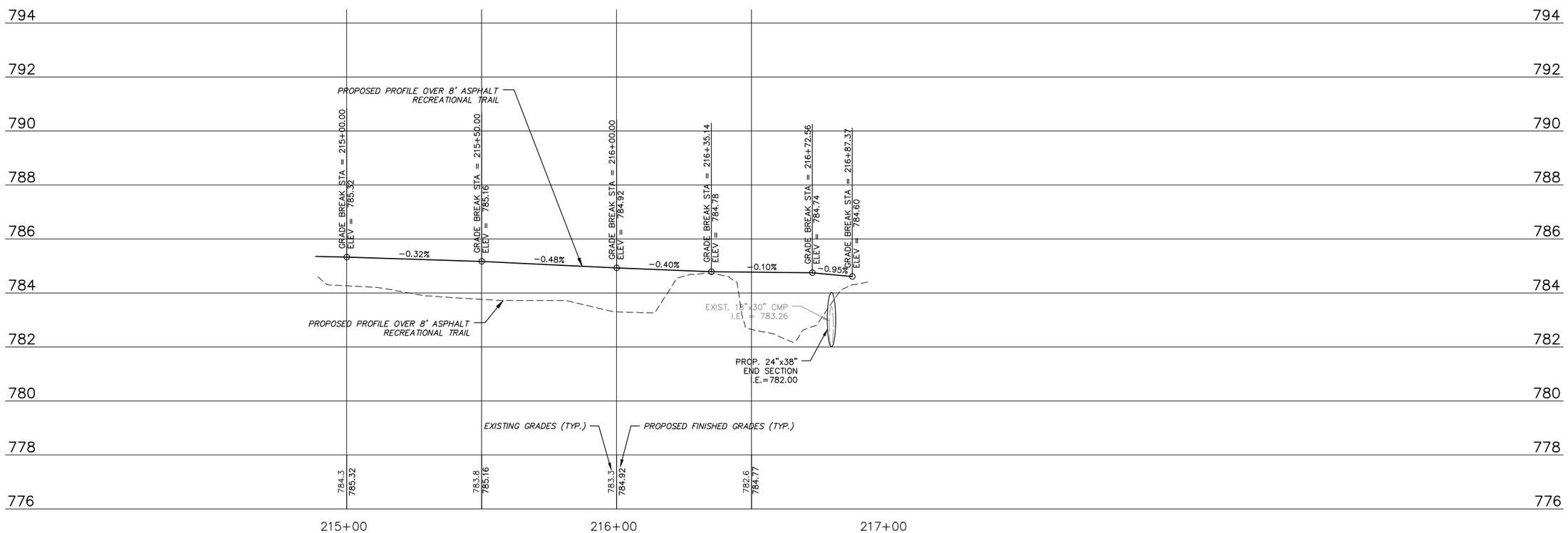
262-781-1000 Fax 262-781-8466 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA



CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
REC TRAIL PLAN & PROFILE

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 20'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
17

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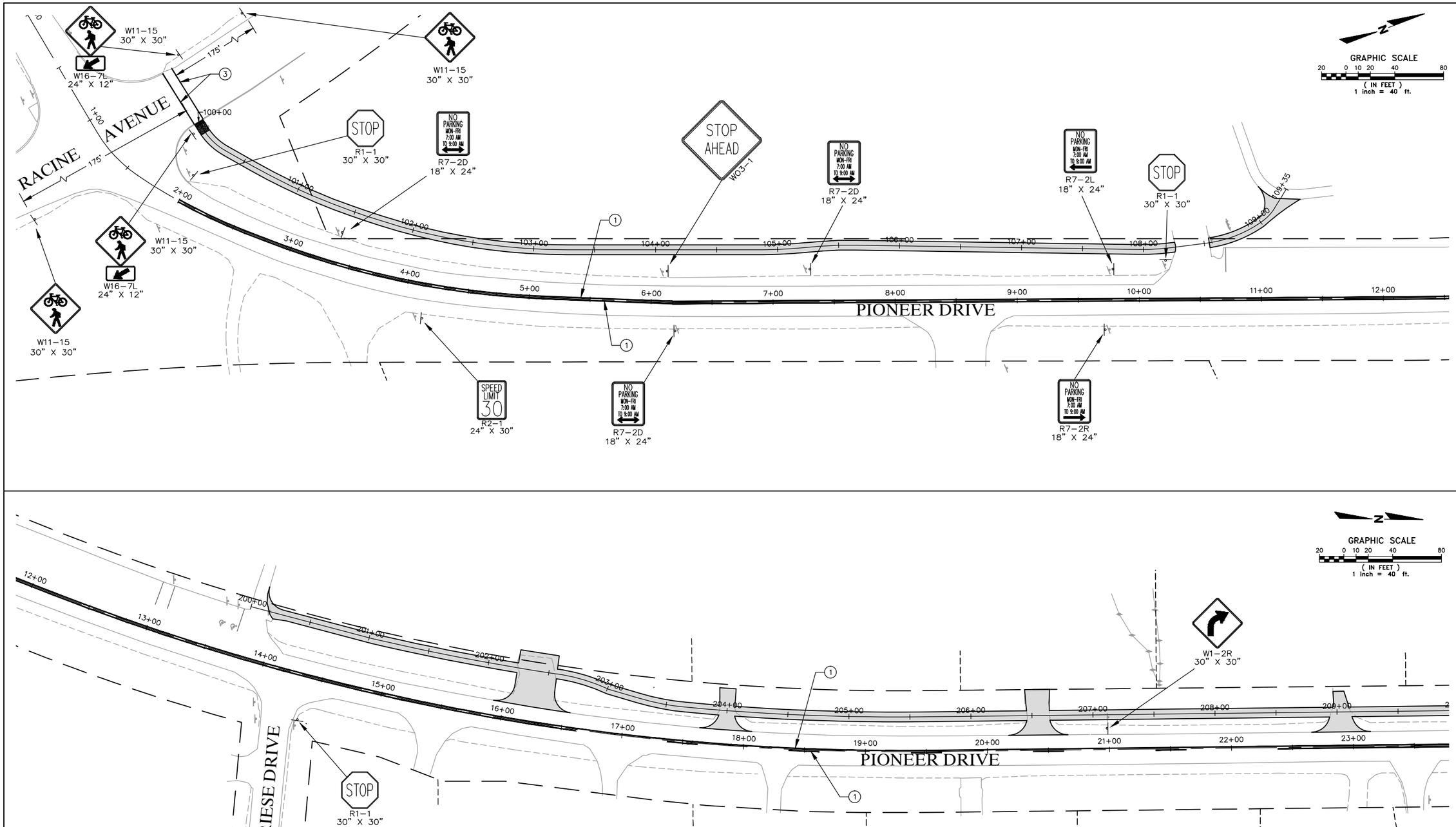

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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
PAVEMENT MARKING & SIGNING PLAN

LEGEND

1. PAVEMENT MARKING, 4-INCH, EPOXY, YELLOW
2. PAVEMENT MARKING, STOP LINE, 18-INCH, EPOXY, WHITE
3. PAVEMENT MARKING, CROSSWALK, 6-INCH, EPOXY, WHITE

PROPOSED SIGN MOUNTED ON POST

NOTES:

- *CONTRACTOR TO REMOVE ALL EXISTING SIGNS IN WORK AREA AND RETURN TO THE CITY OF MUSKEGO DPW YARD.*

R.A.SMITH NATIONAL, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES, LIABILITY OR COSTS RESULTING FROM CHANGES OR ALTERATIONS MADE TO THIS PLAN WITHOUT THE EXPRESSED WRITTEN CONSENT OF R.A.SMITH NATIONAL.

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R.A. Smith National, Inc.

DATE: **4-17-12**

SCALE: **1" = 40'**

JOB NO. **11177701**

PROJECT MANAGER:
TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: **RMM**

CHECKED BY: **TGB**

SHEET NUMBER

18

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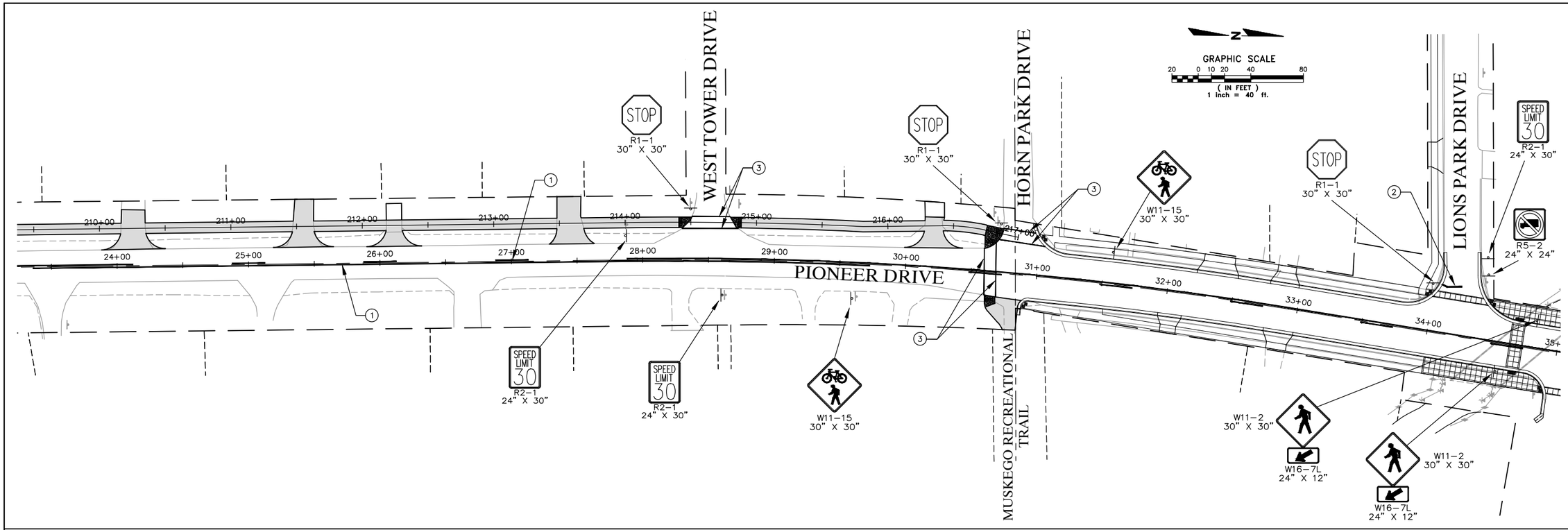

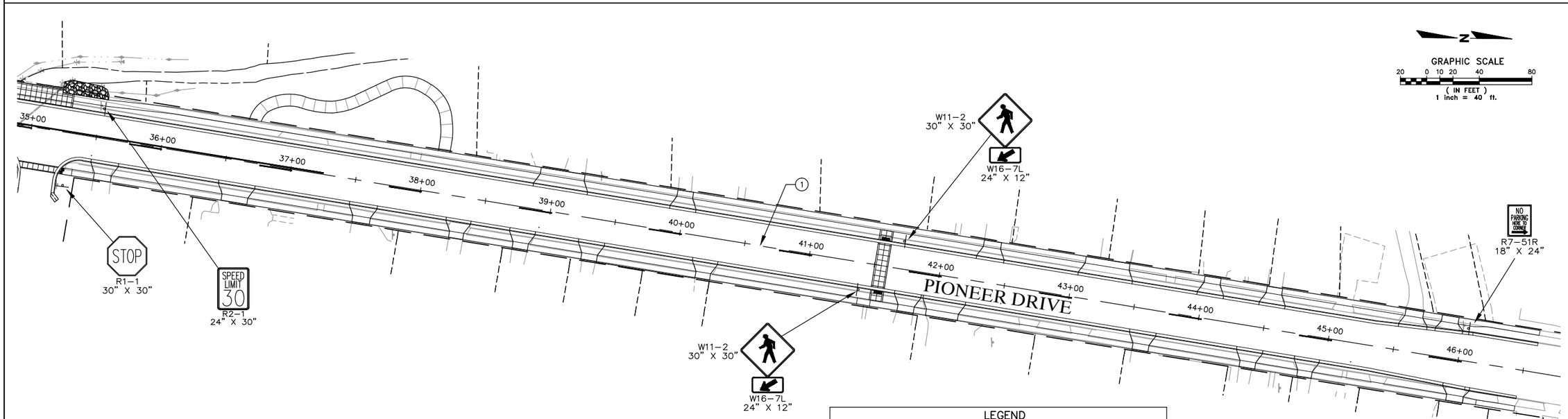

LEGEND

1. PAVEMENT MARKING, 4-INCH, EPOXY, YELLOW
2. PAVEMENT MARKING, STOP LINE, 18-INCH, EPOXY, WHITE
3. PAVEMENT MARKING, CROSSWALK, 6-INCH, EPOXY, WHITE

PROPOSED SIGN MOUNTED ON POST

NOTES:

- *CONTRACTOR TO REMOVE ALL EXISTING SIGNS IN WORK AREA AND RETURN TO THE CITY OF MUSKEGO DPW YARD.*

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DATE	DESCRIPTION
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262-781-1000 Fax 262-781-8466 www.rasmithnational.com
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
PAVEMENT MARKING & SIGNING PLAN

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R.A. Smith National, Inc.

DATE: **4-17-12**

SCALE: **1" = 40'**

JOB NO. **1117701**

PROJECT MANAGER:
TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: **RMM**

CHECKED BY: **TGB**

SHEET NUMBER

19

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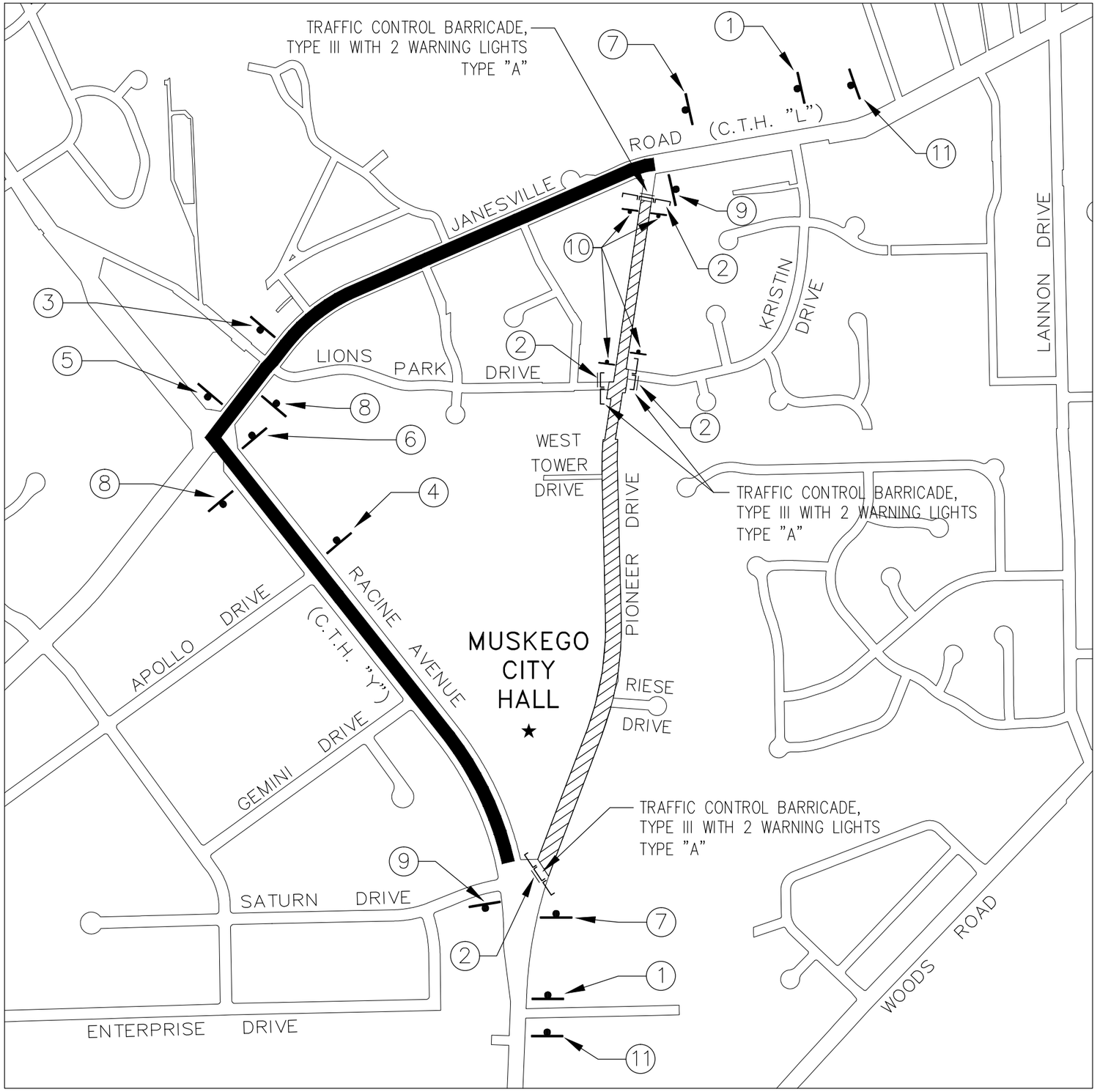

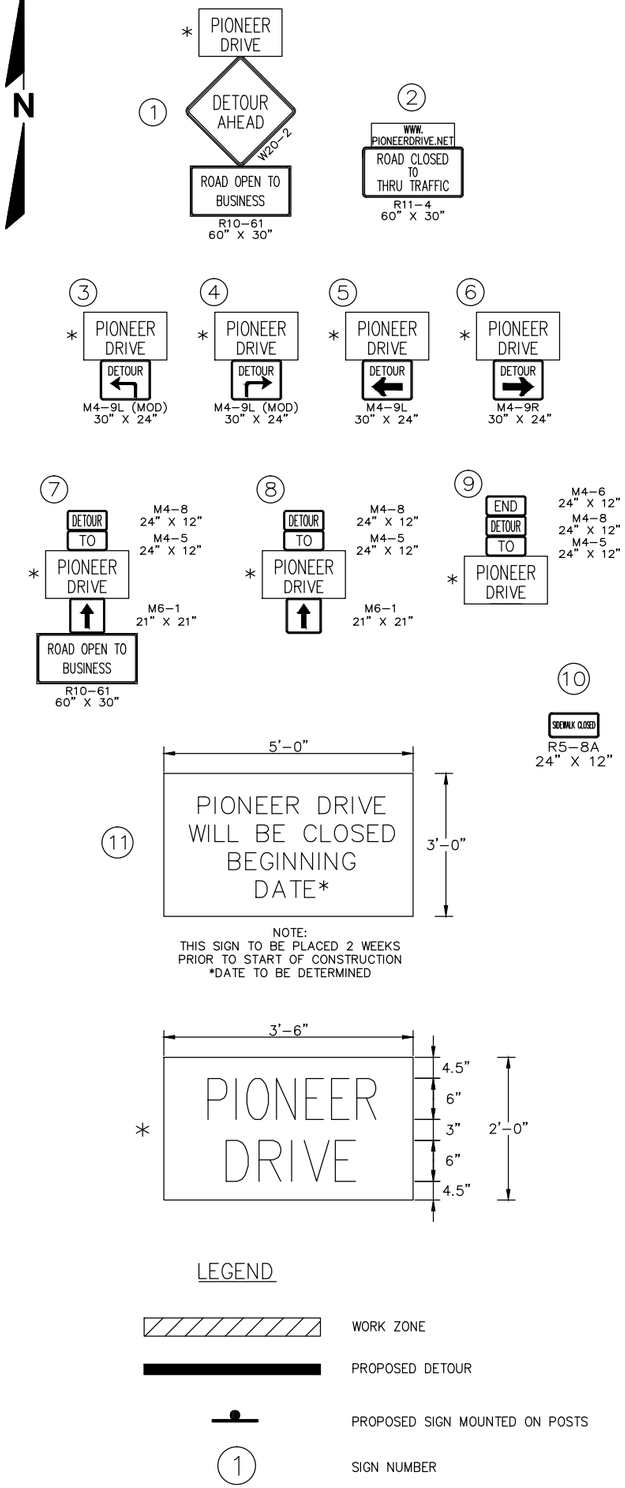

LEGEND

	WORK ZONE
	PROPOSED DETOUR
	PROPOSED SIGN MOUNTED ON POSTS
1	SIGN NUMBER

DATE	DESCRIPTION

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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

DETOUR & TRAFFIC CONTROL PLAN

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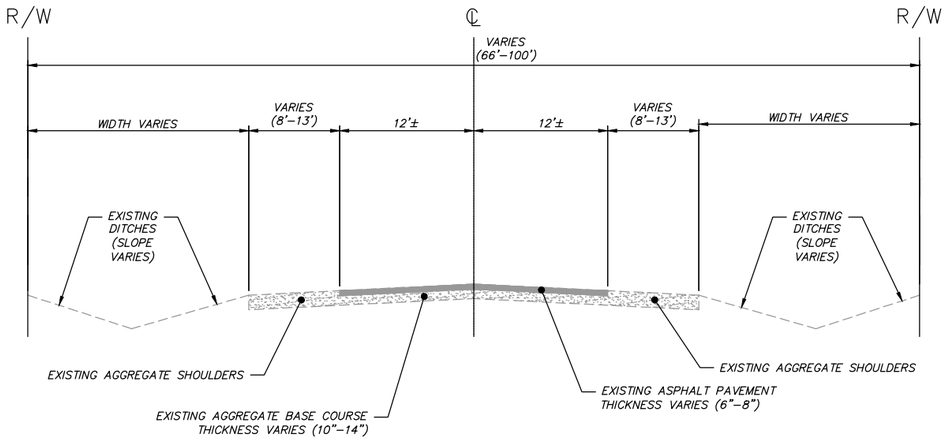
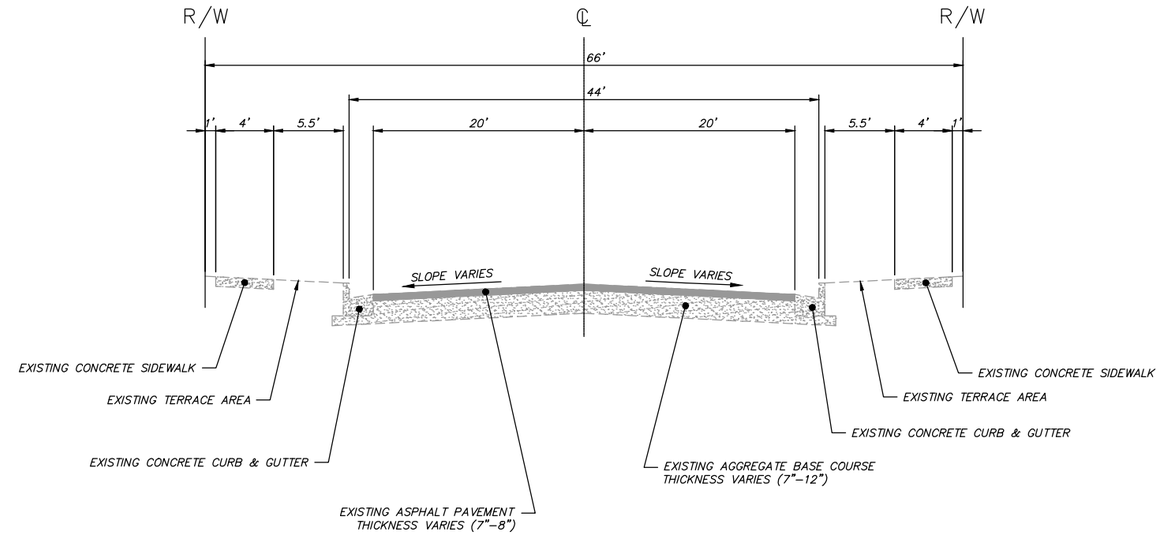
DATE: **4-18-12**
SCALE: **N.T.S.**
JOB NO. **1117701**
PROJECT MANAGER: **TIMOTHY G. BARBEAU, P.E.**
DESIGNED BY: **RMM**
CHECKED BY: **TGB**

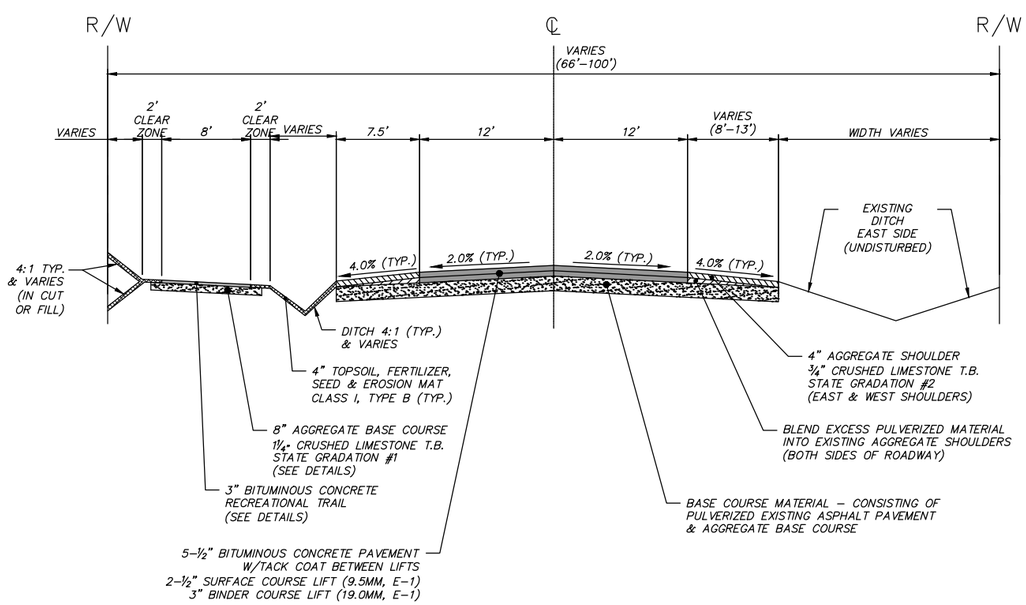
SHEET NUMBER
20



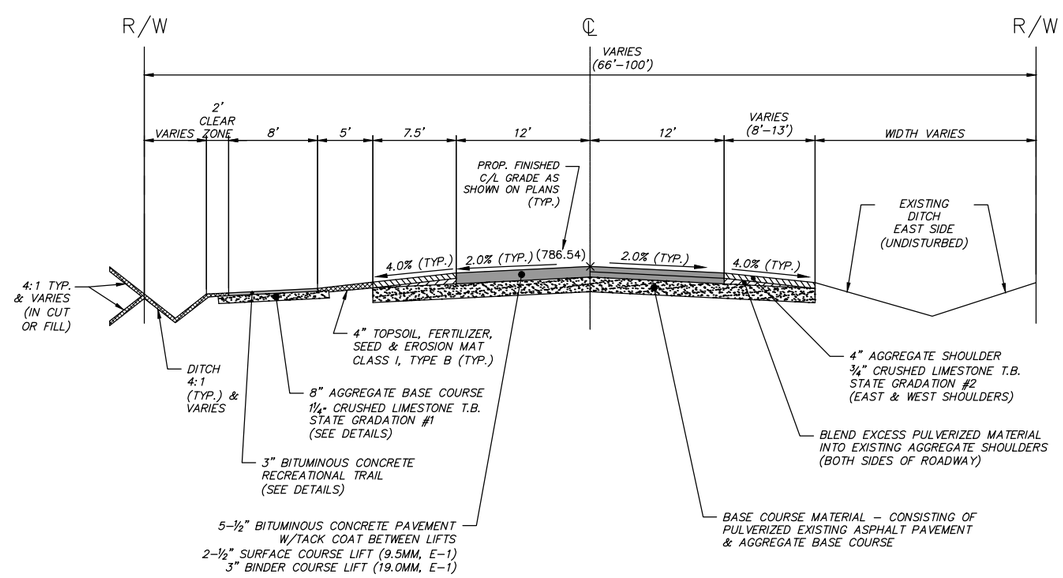
TYPICAL EXISTING SECTION
(RACINE AVENUE TO HORN PARK DRIVE)



TYPICAL EXISTING SECTION
(HORN PARK DRIVE TO JANESVILLE ROAD)



PROPOSED PIONEER DRIVE RURAL TYPICAL SECTION
(RACINE AVENUE TO HORN PARK DRIVE)
(STA 2+00 - 17+35)



PROPOSED PIONEER DRIVE RURAL TYPICAL SECTION
(RACINE AVENUE TO HORN PARK DRIVE)
(STA 17+35 - 30+81)

DATE	DESCRIPTION

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WAUKESHA COUNTY, WISCONSIN

PROJECT DETAILS

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DATE: 4–17–12
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JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
21

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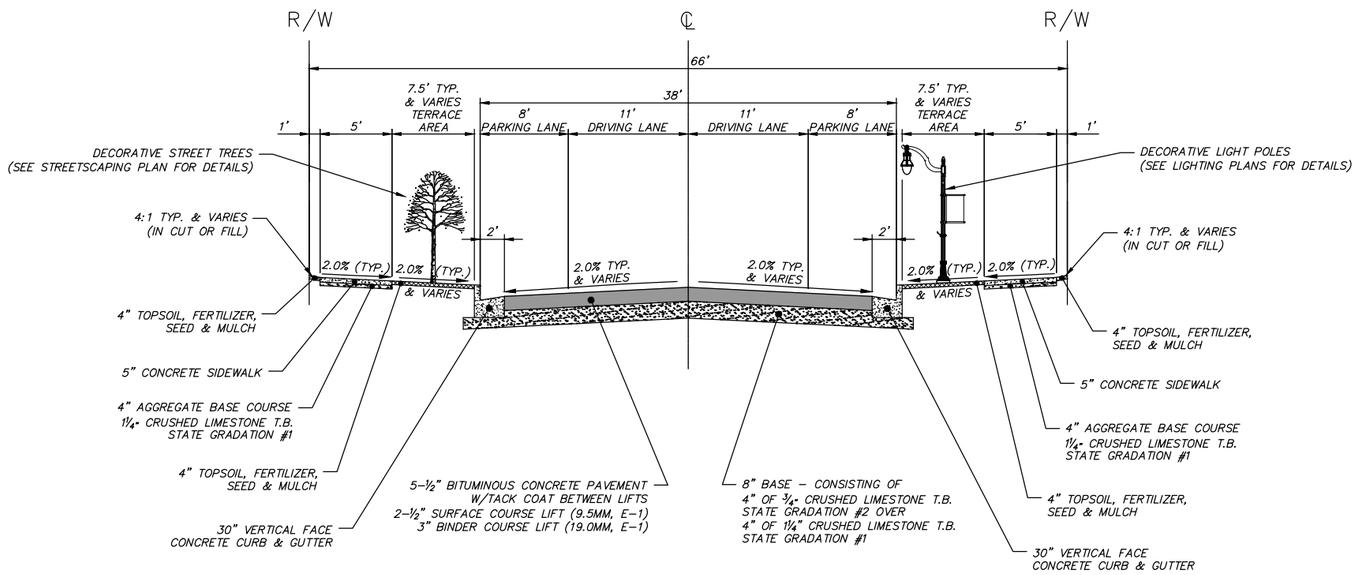
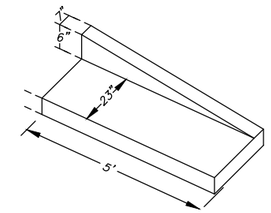
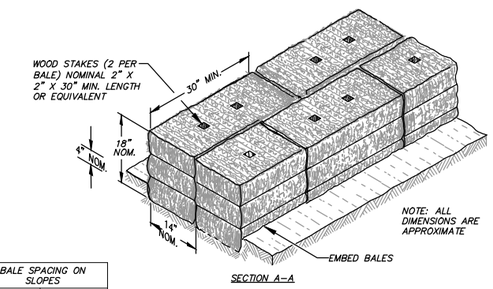


PROPOSED PIONEER DRIVE URBAN TYPICAL SECTION

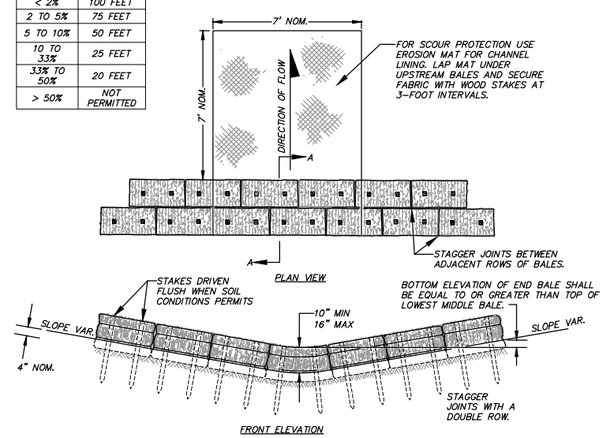
(HORN PARK DRIVE TO 230'± SOUTH OF JANESVILLE ROAD)



30" CONCRETE CURB & GUTTER END SECTION DETAIL



BALE SPACING ON SLOPES	
< 2%	100 FEET
2 TO 5%	75 FEET
5 TO 10%	50 FEET
10 TO 33%	25 FEET
33% TO 50%	20 FEET
> 50%	NOT PERMITTED



NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION AND WDNR TECHNICAL STANDARD 1062.
2. TEMPORARY DITCH CHECKS OF A SINGLE ROW OF EROSION BALES ARE NOT PERMITTED.
3. SEDIMENT BALE BARRIERS SHALL, AT A MINIMUM, BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.
4. DAMAGED OR DECOMPOSED SEDIMENT BALE BARRIERS, AND UNDERCUTTING, OR FLOW CHANNELS AROUND THE END OF THE SEDIMENT BALE BARRIERS SHALL BE REPAIRED.
5. SEDIMENT SHALL BE PROPERLY DISPOSED OF ONCE THE DEPOSITS REACH ONE-HALF THE HEIGHT OF THE SEDIMENT BALE BARRIER.
6. SEDIMENT BALE BARRIERS AND ANCHORING DEVICES SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.
7. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SEDIMENT BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
8. EFFECTIVENESS OF BALES IS LESS THAN 3 MONTHS.

TEMPORARY DITCH CHECK DETAIL

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

TYPE B SHALL BE USED AFTER THE CASTING AND GRATE ARE IN PLACE.

TYPE C SHALL BE USED ON STREET INLETS WITH CURB HEADS.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

MAINTENANCE

REMOVE INLET PROTECTION DEVICES ONCE THE CONTRIBUTING DRAINAGE AREA IS STABILIZED WITH APPROPRIATE VEGETATION OR IMPERVIOUS AREA.

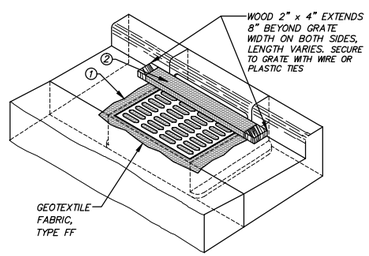
INLET PROTECTION SHALL BE, AT A MINIMUM, INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EVERY PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.

SEDIMENT DEPOSITS SHALL BE REMOVED AND THE INLET PROTECTION DEVICE RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED BETWEEN 1/3 TO 1/2 THE DESIGN DEPTH OF THE DEVICE, OR WHEN THE DEVICE IS NO LONGER FUNCTIONING AS DESIGNED. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND STABILIZED.

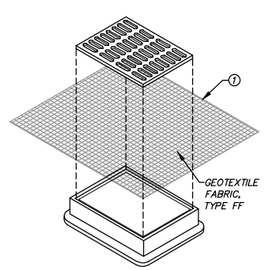
WHEN REMOVING OR MAINTAINING INLET PROTECTION, DUE CARE SHALL BE TAKEN TO ENSURE SEDIMENT DOES NOT FALL INTO THE INLET AND IMPEDE THE INTENDED FUNCTION OF THE DEVICE. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

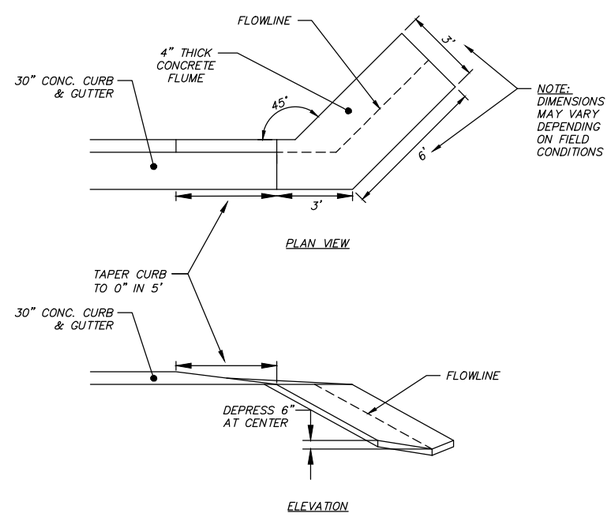


INLET PROTECTION, TYPE C
(WITH CURB BOX)



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)

STORM DRAIN INLET PROTECTION TYPE "C" & TYPE "B" DETAIL



CONCRETE FLUME DETAIL

(LOCATED ON KRISTIN DRIVE)

DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PROJECT DETAILS

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R.A. Smith National, Inc.

DATE: 4-17-12

SCALE: N.T.S.

JOB NO. 1117701

PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: RMM

CHECKED BY: TGB

SHEET NUMBER

22

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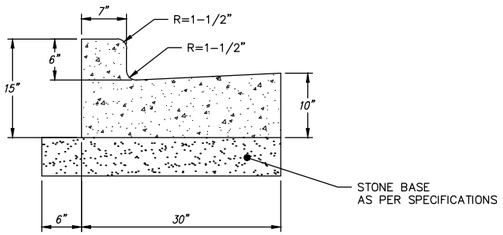
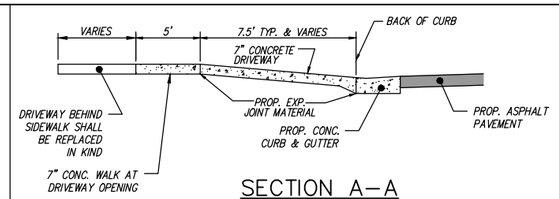
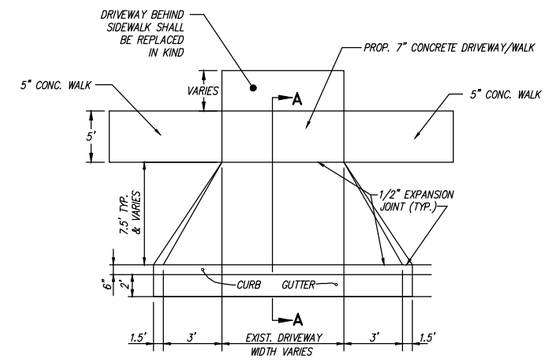


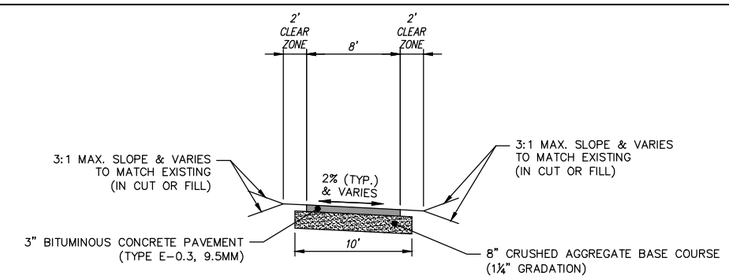
30" STANDARD VERTICAL FACE CONCRETE CURB & GUTTER DETAIL



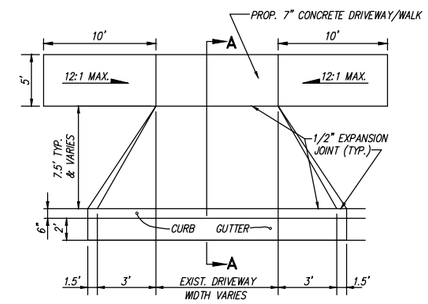
SECTION A–A



URBAN DRIVEWAY APPROACH DETAIL



8' WIDE RECREATIONAL TRAIL DETAIL



DEPRESSED SIDEWALK DETAIL

NOTES:

1. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITY AND/OR WITHIN 24 HOURS OF CONSTRUCTING DITCHES, DIVERSIONS, OR OTHER CHANNELS.

2. SILT FENCE FABRIC SHALL HAVE THE FOLLOWING PROPERTIES:
   A. GRAB TENSILE STRENGTH: 100 LBS (MIN.) IN THE CROSS-MACHINE DIRECTION. (ASTM D-4632)
   B. GRAB TENSILE STRENGTH: 120 LBS (MIN.) IN THE MACHINE DIRECTION. (ASTM D-4632)
   D. MAXIMUM APPARENT OPENING SIZE: NO. 30 (ASTM D-4751)
   E. MINIMUM PERMITTIVITY: 0.05 (ASTM D-4491)
   F. ULTRAVIOLET RADIATION STABILITY OF 70% (ASTM D-4355)
   G. FABRIC CONSISTS OF EITHER WOVEN OR NON-WOVEN POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYL CHLORIDE. NON-WOVEN FABRIC MAY BE NEEDLE-PUNCHED, HEAT BONDED, RESIN BONDED, OR COMBINATIONS THEREOF.
   H. SILT FENCE SHALL HAVE A MAXIMUM FLOW RATE OF 10GAL/MIN./SQUARE FOOT AT 50MM CONSTANT HEAD (ASTM D-4491)

3. SILT FENCE SHALL BE PLACED ON THE CONTOUR AND NOT PERPENDICULAR TO THE CONTOUR. THE ENDS SHALL BE EXTENDED UPSLOPE TO PREVENT WATER FROM FLOWING AROUND THE ENDS OF THE FENCE.

4. WHEN SILT FENCE IS INSTALLED ON A SLOPE, THE PARALLEL SPACING SHALL NOT EXCEED THE REQUIREMENTS IN THE TABLE BELOW:

SLOPE	FENCE SPACING
< 2%	100 FEET
2 TO 5%	75 FEET
5 TO 10%	50 FEET
10 TO 33%	25 FEET
> 33%	20 FEET

5. INSTALLED SILT FENCES SHALL BE MINIMUM 14 INCHES HIGH AND A MAXIMUM OF 28 INCHES IN HEIGHT MEASURED FROM THE INSTALLED GROUND ELEVATION.

6. SILT FENCE SHALL BE SUPPORTED BY EITHER WOOD OR STEEL SUPPORTS AS SPECIFIED BELOW:

   A. WOOD – 1 1/8" X 1 1/8" AIR OR KILN DRIED OAK OR HICKORY; FABRIC SHALL BE STAPLED USING 1/2-INCHMINIMUM STAPLES TO THE UPSLOPE SIDE OF THE FENCE IN AT LEAST 3 PLACES; POSTS SHALL BE A MINIMUM OF 3 FEET LONG FOR 24-INCH FENCE AND 4 FEET LONG FOR 36-INCH FENCE.

   B. STEEL – MINIMUM 5 FEET IN LENGTH WITH STRENGTH OF 1.33 LBS/FT AND HAVE PROJECTIONS FOR FASTENERS; FABRIC SHALL BE ATTACHED IN AT LEAST THREE PLACES ON THE UPSLOPE SIDE WITH 50LB. PLASTIC TIE STRAPS OR WIRE FASTENERS.

7. MAXIMUM SPACING OF POSTS FOR NON-WOVEN SILT FENCE SHALL BE 3 FEET AND 8 FEET FOR WOVEN FABRIC.

8. A MINIMUM OF 20 INCHES OT THE POST SHALL EXTEND INTO THE GROUND AFTER INSTALLATION.

9. SILT FENCE SHALL BE ANCHORED BY SPREADING AT LEAST 8 INCHES OF THE FABRIC IN A 4-INCH TRENCH WIDE BY 6-INCH DEEP TRENCH, OR 6-INCH V-TRENCH ON THE UPSLOPE SIDE OF THE FENCE. TRENCH SHALL BE BACKFILLED AND COMPACTED. TRENCHES SHALL NOT BE EXCAVATED WIDER THAN NECESSARY FOR PROPER INSTALLATION.

10. SILT FENCE SHALL AT A MINIMUM BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH PRECIPITATION EVENT THAT PRODUCES 0.5 INCHES OF RAIN OR MORE DURING A 24-HOUR PERIOD.

11. DAMAGED OR DECOMPOSED FENCES, UNDERCUTTING, OR FLOW CHANNELS AROUND THE END OF BARRIERS SHALL BE REPAIRED OR CORRECTED.

12. SEDIMENT SHALL BE PROPERLY DISPOSED OF ONCE THE DEPOSITS REACH ONE HALF THE HEIGHT OF THE FENCE.

13. SILT FENCES SHALL BE REMOVED ONCE THE DISTURBED AREA IS PERMANENTLY STABILIZED AND IS NO LONGER SUSCEPTIBLE TO EROSION.

GENERAL NOTES:

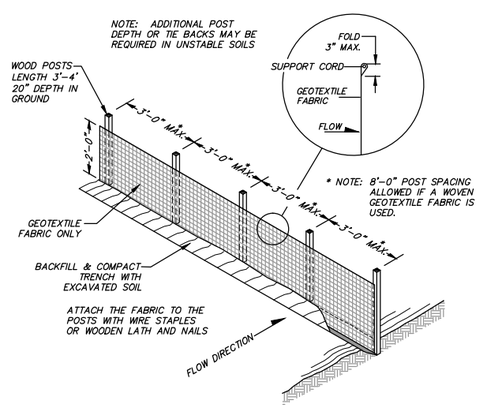
1. TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

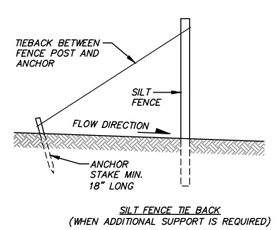
2. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

3. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS:

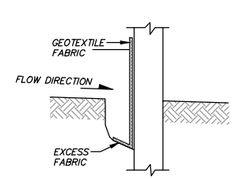
   A) TWIST METHOD--OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES.

   B) HOOK METHOD--HOOK THE END OF EACH SILT FENCE LENGTH.

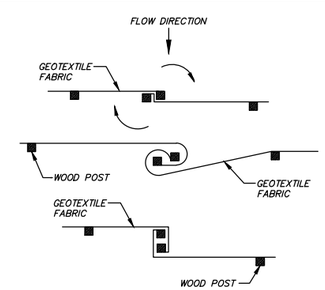




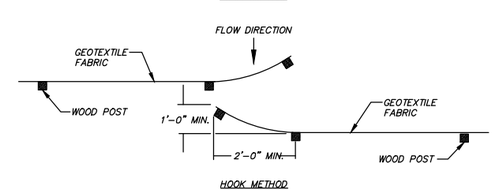
SILT FENCE TIE BACK
(WHEN ADDITIONAL SUPPORT IS REQUIRED)



TRENCH DETAIL



TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE

SILT FENCE DETAIL

DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PROJECT DETAILS

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DATE: 4-17-12
SCALE: N.T.S.
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
23

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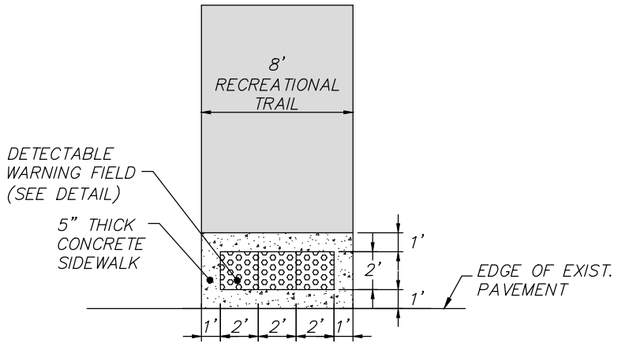
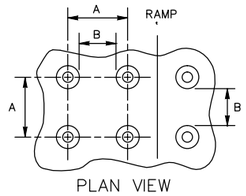


RECREATIONAL TRAIL WITH DETECTABLE WARNING FIELD DETAIL

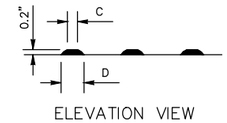
(WEST TOWER DRIVE & HORN PARK DRIVE LOCATIONS)



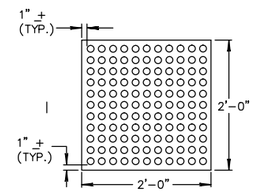
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



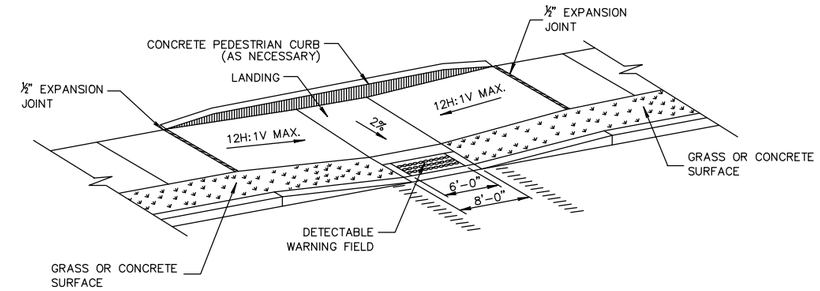
ELEVATION VIEW



PLAN VIEW

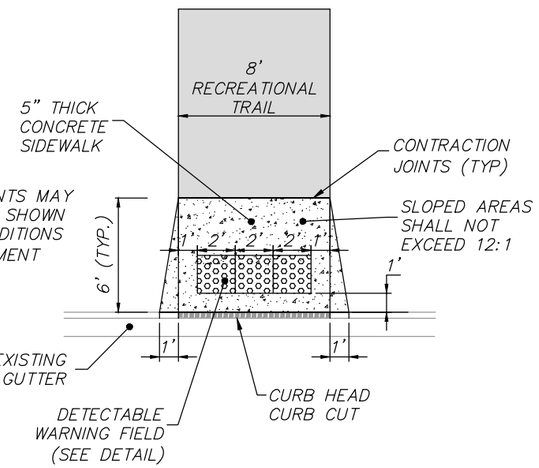
DETECTABLE WARNING FIELD DETAIL

(TRUNCATED DOMES)



CURB RAMP TYPE 7B DETAIL

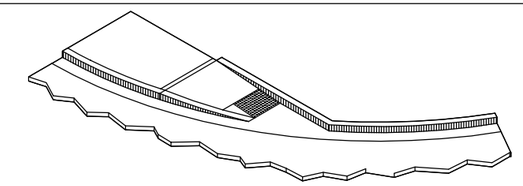
(MID BLOCK CROSSING LOCATIONS)
(STA 34+68 & 41+55)



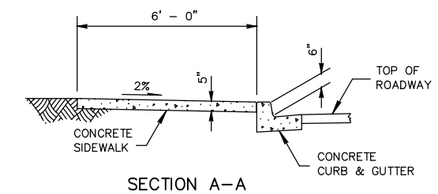
NOTE: LOCATION OF JOINTS MAY BE VARIED FROM THOSE SHOWN TO BETTER FIT SITE CONDITIONS AND/OR LOCAL GOVERNMENT PREFERENCE.

RECREATIONAL TRAIL WITH DETECTABLE WARNING FIELD DETAIL

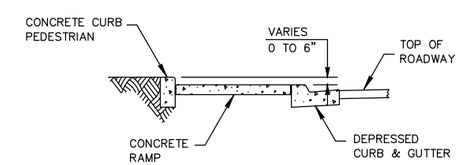
(RACINE AVENUE LOCATION)



ISOMETRIC VIEW



SECTION A–A



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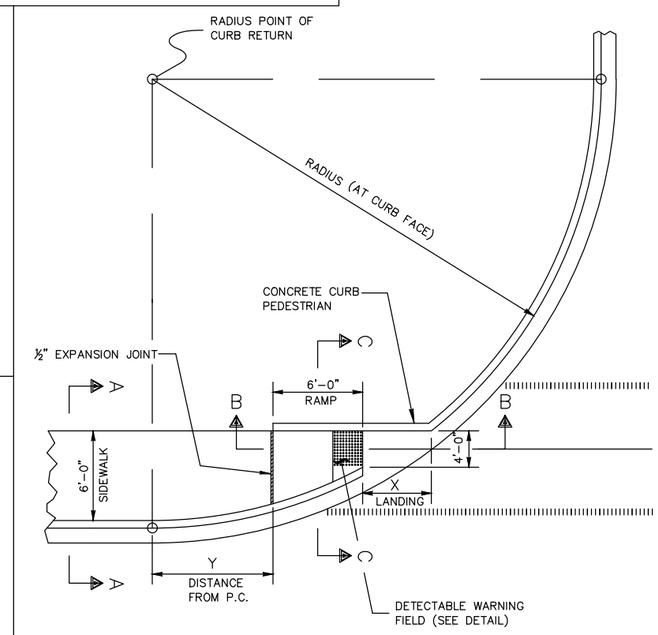
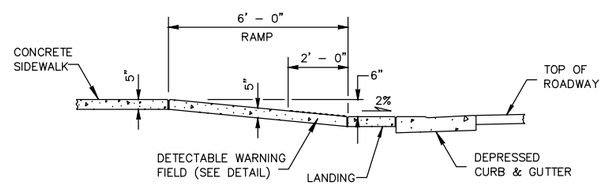


PLAN VIEW

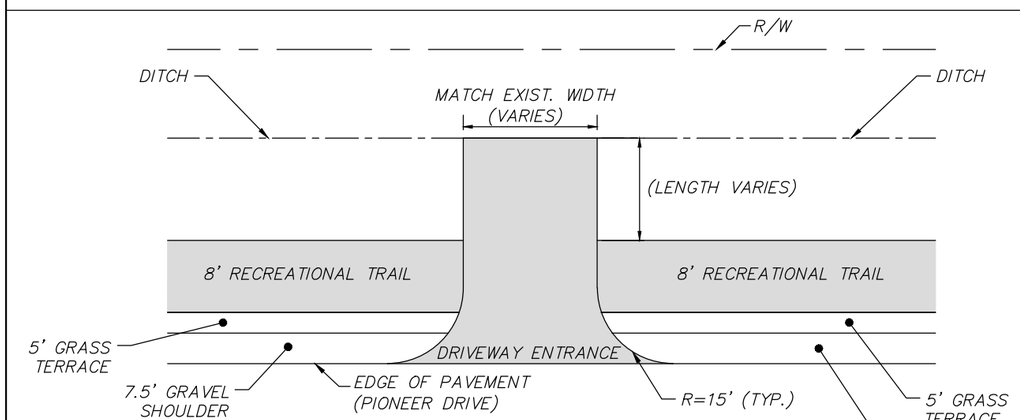
RADIUS (AT CURB FACE)	X	Y
20 FEET	6'–1¾"	2'–7¼"
30 FEET	7'–11¾"	4'–8¼"
40 FEET	9'–5¼"	6'–5"
50 FEET	10'–8¾"	7'–11¼"
60 FEET	11'–10¼"	9'–3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION B–B

CURB RAMP TYPE 4A DETAIL



DRIVEWAY ENTRANCE PAVING DETAILS
REMOVE EXIST. DRIVE MATERIALAND REPLACE WITH:
– 3" BIT. CONC. SURFACE (E–0.3 9.5MM)
– OR 7" CONCRETE, WHERE REQUIRED

RECREATIONAL TRAIL WITH DRIVEWAY ENTRANCE DETAIL

(STA 203+50 - 216+87)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.
SIDEWALK CROSS SLOPE SHALL NOT BE EXCEED 2%.

LEGEND

- ½" EXPANSION JOINT–SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PROJECT DETAILS

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DATE: 4–17–12
SCALE: N.T.S.
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
24

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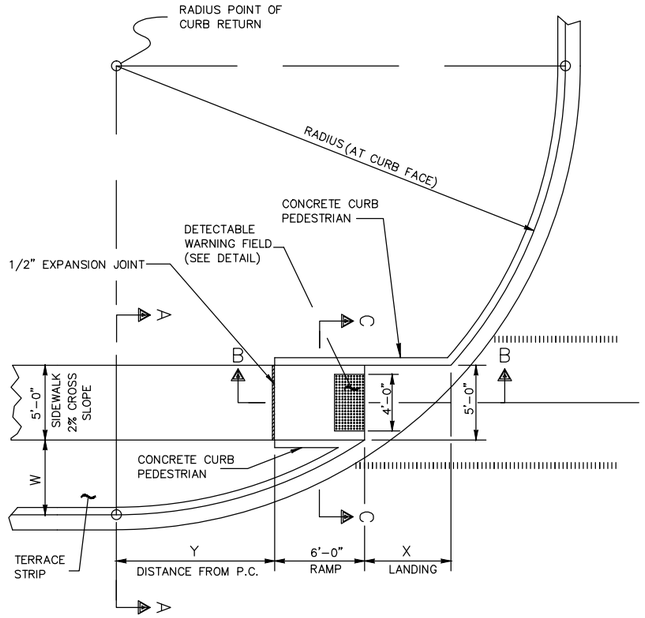


CURB RAMP TYPE 4B
PLAN VIEW

RADIUS (AT CURB FACE)	W = 3' – 0"		W = 4' – 0"		W = 5' – 0"		W = 6' – 0"		W = 7' – 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'–5½"	4'–6½"	4'–8½"	6'–0"	4'–1"	7'–2¾"	3'–7"	8'–3½"	3'–1½"	9'–2½"
30 FEET	7'–3¼"	7'–1"	6'–5½"	8'–11½"	5'–9¼"	10'–7"	5'–2½"	12'–0"	4'–8¾"	13'–3¼"
40 FEET	8'–9½"	9'–2½"	7'–10"	11'–5¼"	7'–1"	13'–4½"	6'–5¾"	15'–¾"	5'–11½"	16'–7¼"
50 FEET	10'–¾"	11'–¾"	9'–¼"	13'–7¼"	8'–2½"	15'–9½"	7'–6½"	17'–9"	6'–11¾"	19'–6¼"
60 FEET	11'–2½"	12'–8¾"	10'–¾"	15'–6½"	9'–2¼"	17'–11¾"	8'–5¾"	20'–1¾"	7'–10½"	22'–1½"
70 FEET	12'–2¾"	14'–3¼"	11'–¼"	17'–4"	10'–1"	19'–11¾"	9'–3¾"	22'–4¼"	8'–8¼"	24'–6¼"
80 FEET	13'–2"	15'–8½"	11'–10½"	18'–11¾"	10'–10¾"	21'–10"	10'–1"	24'–4¾"	9'–5"	26'–8¾"
90 FEET	14'–½"	17'–½"	12'–8¼"	20'–6½"	11'–7¾"	23'–7"	10'–9¾"	26'–3¾"	10'–1¼"	28'–9½"
100 FEET	14'–10½"	18'–3¾"	13'–5½"	22'–0"	12'–4¼"	25'–2¾"	11'–5¾"	28'–1½"	10'–9"	30'–9"

INTERMEDIATE RADII CAN BE INTERPOLATED

LEGEND

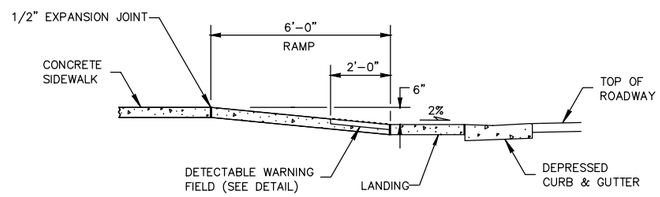
- 1/2" EXPANSION JOINT–SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

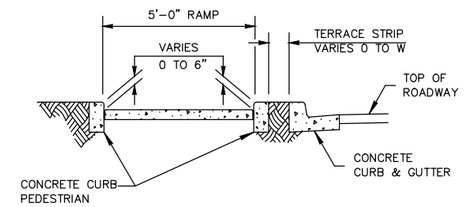
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.



SECTION B–B



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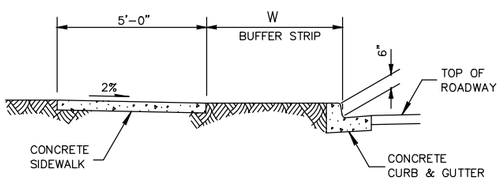
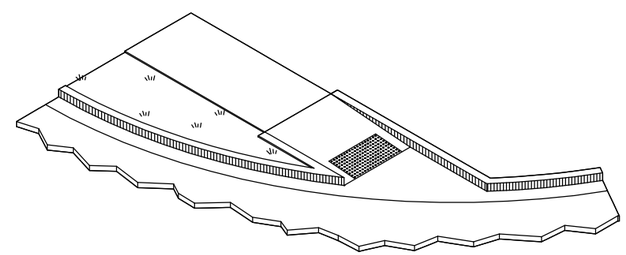
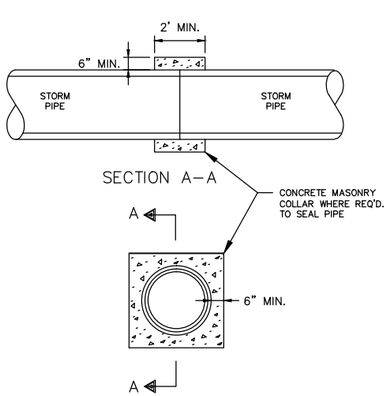


SECTION A–A

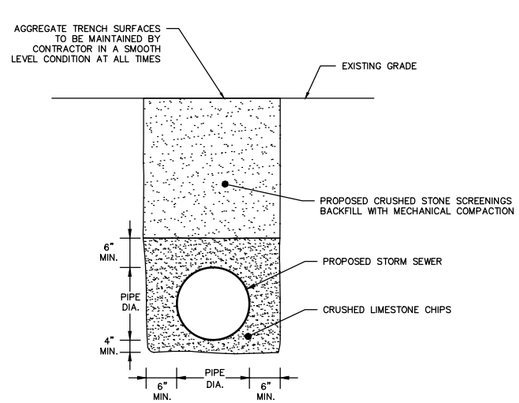


ISOMETRIC VIEW

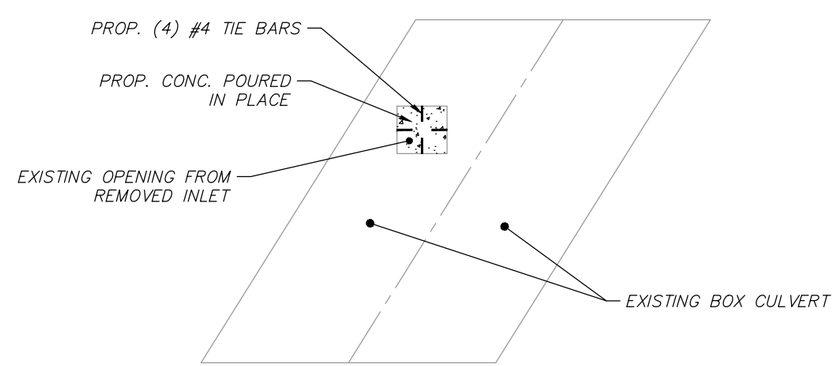
CURB RAMP TYPE 4B DETAIL



CONCRETE COLLAR DETAIL



STORM SEWER TRENCH DETAIL



BOX CULVERT BULKHEAD DETAIL
(STA 34+83 LT)

DATE	DESCRIPTION

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Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PROJECT DETAILS

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DATE: 4–17–12
SCALE: N.T.S.
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
25

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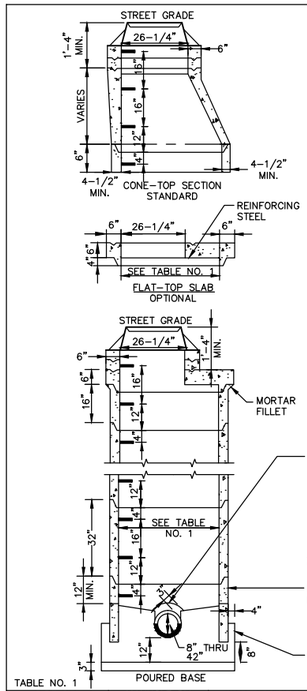
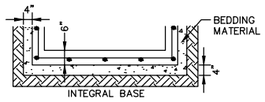


TYPE 1 FRAME/CHIMNEY JOINT REQUIRED ON ALL SANITARY MANHOLES UNLESS OTHERWISE SPECIFIED. TYPE III JOINT REQUIRED ON ALL STORM MANHOLES.



FLAT TOP SLAB MAY BE USED FOR 5'-0" AND 6'-0" DIA. MANHOLES.

ADJUST FRAME TO GRADE WITH BRICK OR CONCRETE RINGS OF VARIABLE THICKNESS, MAXIMUM RING HEIGHT=6", MINIMUM RING HEIGHT=2". CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY RINGS SHALL BE GROOVED TO RECEIVE STEP.

CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS.

JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING MORTAR OR BUTYL RUBBER GASKETS FOR STORM AND BUTYL RUBBER GASKETS FOR SANITARY MANHOLES.

AREA OF CIRCUMFERENTIAL STEEL=0.12 SQ. INCH PER LINEAL FOOT.

SPACE BETWEEN PIPE AND PRECAST MANHOLE WALL TO BE FILLED WITH BRICK AND MORTARED IN PLACE EXCEPT THAT AN APPROVED FLEXIBLE WATERTIGHT PIPE TO MANHOLE SEAL IS REQUIRED FOR ALL FLEXIBLE SANITARY SEWER CONNECTIONS. THE ANNULAR SPACE BETWEEN THE PIPE AND MANHOLE WALL SHALL BE FILLED WITH FLEXIBLE BUTYL RUBBER GASKET MATERIAL BELOW SURFACE OF BENCH OF SPRINGLINE.

3" STONE CUSHION UNDER BASE IS REQUIRED ONLY ON WET SUB-GRADE.

PROVIDE A MINIMUM 1/2" DIA. HOLE FOR LEAKAGE TEST, NOT GREATER THAN 2' ABOVE LOWEST PIPE.

BENCH SLOPE-STORM MANHOLE 1" PER FOOT
SANITARY MANHOLE 2" PER FOOT

CLASS "D" CONCRETE

REF: CHAP. 3.5.0

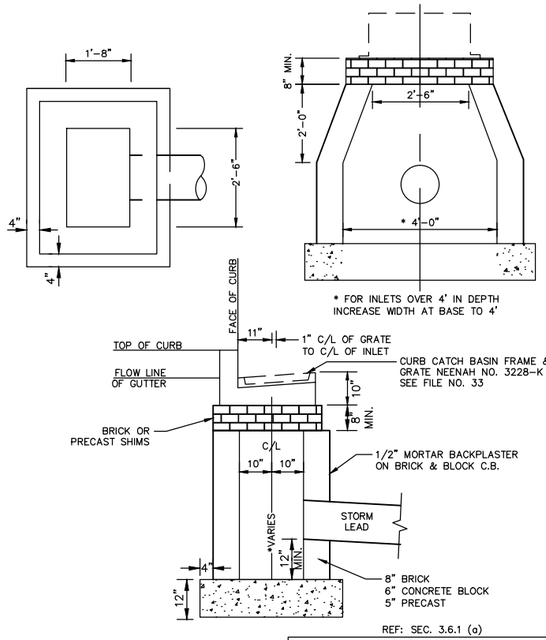
TABLE NO. 1

PIPE DIA.	MANHOLE DIA.	WALL THICKNESS
8" THRU 27"	3'-6"	4 1/2"
30"	4'-0"	5"
36"	5'-0"	6"
42"	6'-0"	7"

PRECAST MANHOLE

NOT TO SCALE
JAN. 2, 1992

FILE NO. 12



* FOR INLETS OVER 4' IN DEPTH INCREASE WIDTH AT BASE TO 4'

11" 1" C/L OF GRATE TO C/L OF INLET

CURB CATCH BASIN FRAME & GRATE NEENAH NO. 3228-K SEE FILE NO. 33

10" MIN.

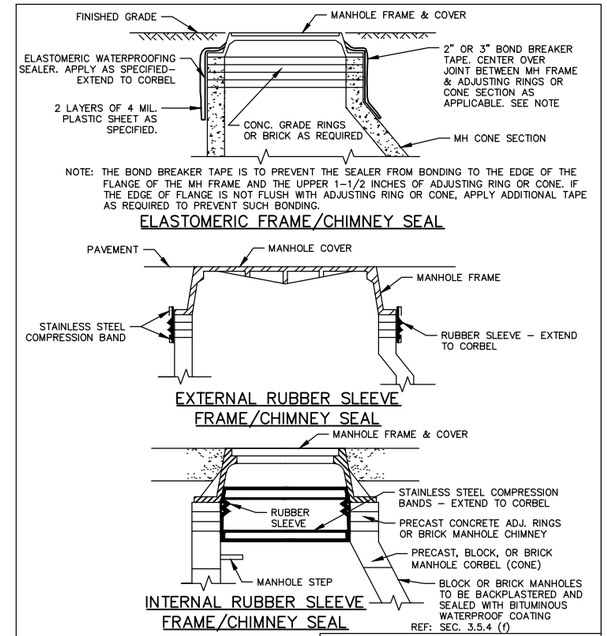
REF: SEC. 3.6.1 (a)

STRUCTURE FOOTING TO BE CLASS "D" CONCRETE

STANDARD CATCH BASIN (MASONRY OR PRECAST)

NOT TO SCALE

FILE NO. 25

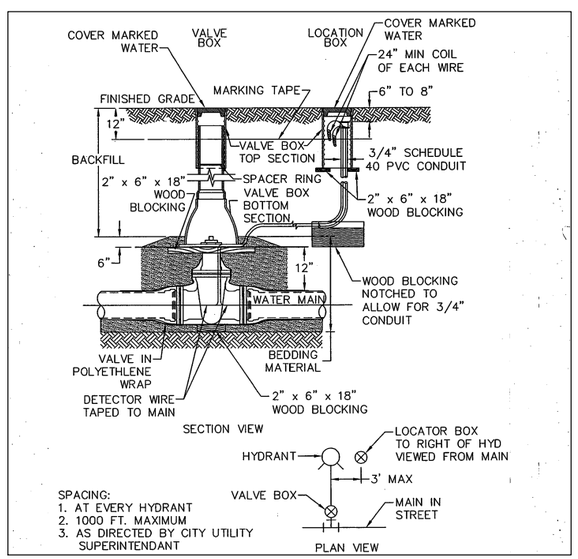


REF: SEC. 3.5.4 (f)

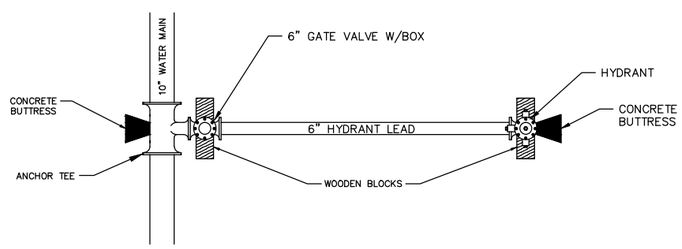
FLEXIBLE WATERTIGHT FRAME/CHIMNEY SEALS

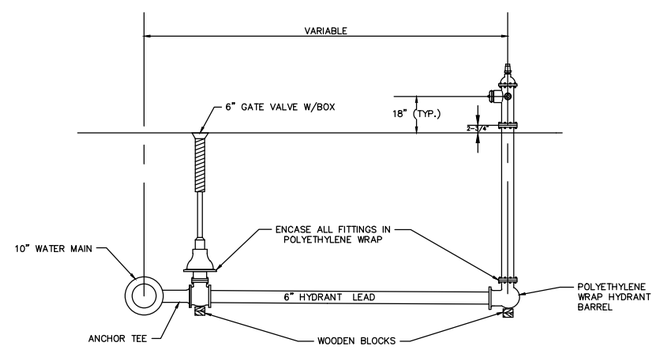
NOT TO SCALE
JAN. 2, 1992

FILE NO. 12A

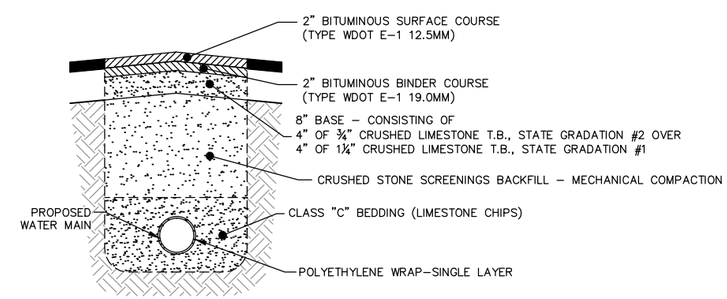


DETECTOR WIRE & LOCATOR BOX DETAIL



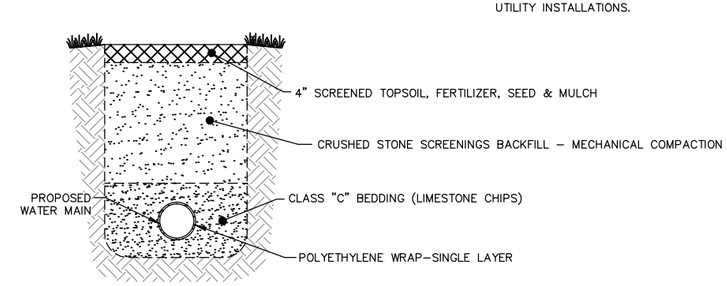


HYDRANT DETAIL



ASPHALT PAVEMENT AREAS

NOTE:
UTILITY CONTRACTOR TO RESTORE ALL PAVEMENT & GRASS AREAS DISTURBED BY UTILITY INSTALLATIONS.



GRASS AREAS

WATER MAIN TRENCH RESTORATION DETAIL

DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PROJECT DETAILS

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DATE: 4-17-12
SCALE: N.T.S.
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
26

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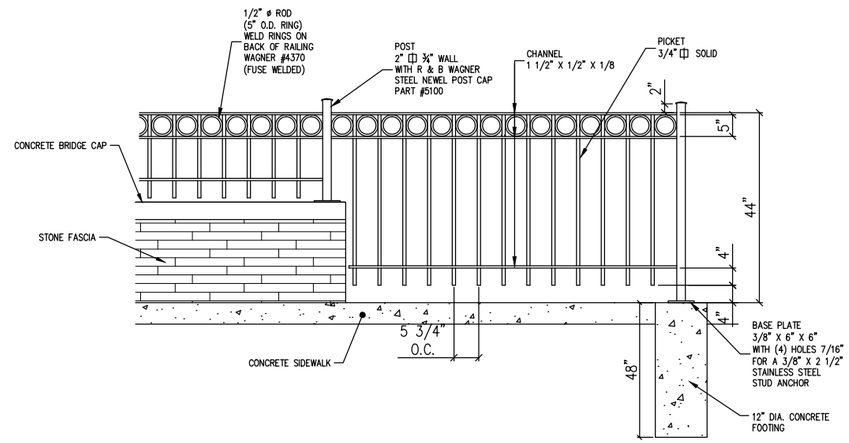

TYPICAL DECORATIVE RAIL CONSTRUCTION

SHOP PAINT:
HOT DIP GALVANIZE
BRUSH BLAST + EPOXY PRIME
BLACK URETHANE ENAMEL

Rev.	Date

BADGER RAILING
3884 N. MILWAUKEE ROAD
MILWAUKEE, WI 53209
414.672.6900
414.672.6700 (FAX)

Customer CITY OF MUSKEGO
Project PIONEER DRIVE BRIDGE RAILING

Job No
Date
Drawn TJS Appr
Sheet 1 of 1

DATE	DESCRIPTION

R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PROJECT DETAILS

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DATE: 4-17-12
SCALE: N.T.S.
JOB NO. 1117701
PROJECT MANAGER:
TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
27

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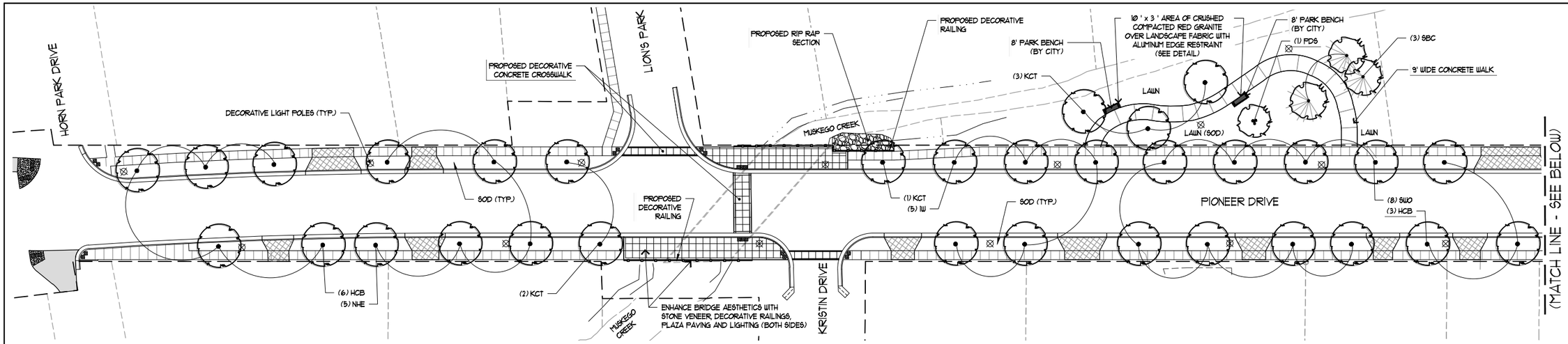
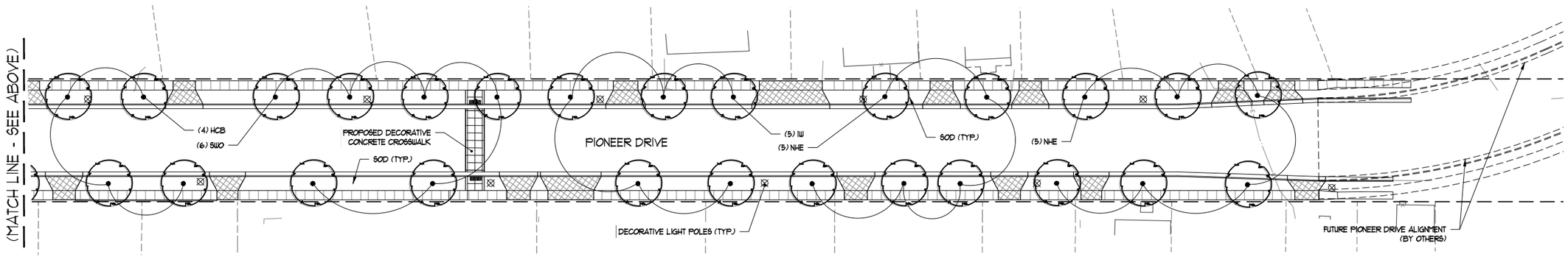
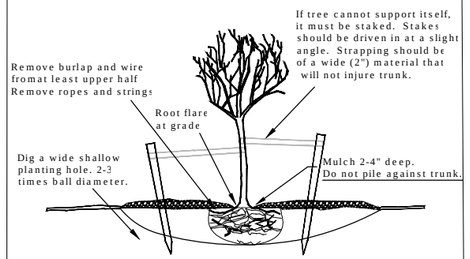




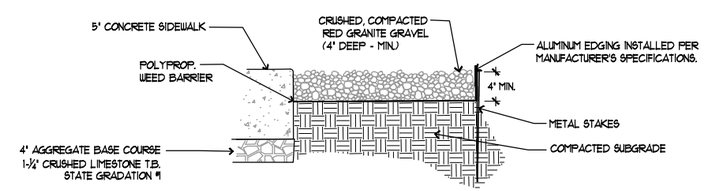
PLANT MATERIAL SCHEDULE

SYM	AMT.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT	REMARKS
HCB	12	HACKBERRY	CELTIS OCCIDENTALIS	2 1/2" CAL	BB	FULL, MATCHING HEADS
IW	10	IRONWOOD	OSTRYA VIRGINIANA	2 1/2" CAL	BB	UNIFORMLY BRANCHED CROWNS
KCT	6	KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICA	2 1/2" CAL	BB	FULL, MATCHING HEADS
NHE	15	NEW HORIZONS ELM	ULMUS 'NEW HORIZONS'	2 1/2" CAL	BB	FULL, MATCHING HEADS
PDS	1	'PRINCESS DIANA' SERVICEBERRY	AMELANCHIER GRANDIFLORA 'PRINCESS DIANA'	7' HT.	BB	MULTI STEM, 5 STEM MIN. SPECIMEN
SBC	3	'SHAWNEE BRAVE' BALD CYPRESS	'SHAWNEE BRAVE' TAXODIUM DISTICHUM	2 1/2" CAL	BB	FULL MATCHING HEADS
SWO	14	SWAMP WHITE OAK	QUERCUS BICOLOR	2 1/2" CAL	BB	FULL, MATCHING HEADS

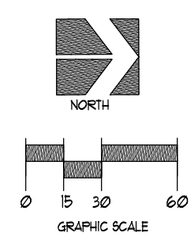
CITY OF MUSKEGO TREE PLANTING DIAGRAM



NOTES:
Root flare must be visible at grade. Any adventitious or girdling roots are to be pruned off. Burlap, ropes, and wire must be cut away from at least the upper half of ball so outward root growth is not impeded. A wide "ring" of mulch (2"to4") is to be placed around the tree, but no more than 1" in contact with the trunk. If staked, strapping is to be removed after one complete growing season.



CRUSHED COMPACTED RED GRANITE DETAIL
NOT TO SCALE



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BROOKFIELD, WI 53005

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Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
STREETSCAPING PLAN

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R.A. Smith National, Inc.

DATE: 4-17-12
SCALE: 1" = 30'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: TM
CHECKED BY: TM

SHEET NUMBER
28

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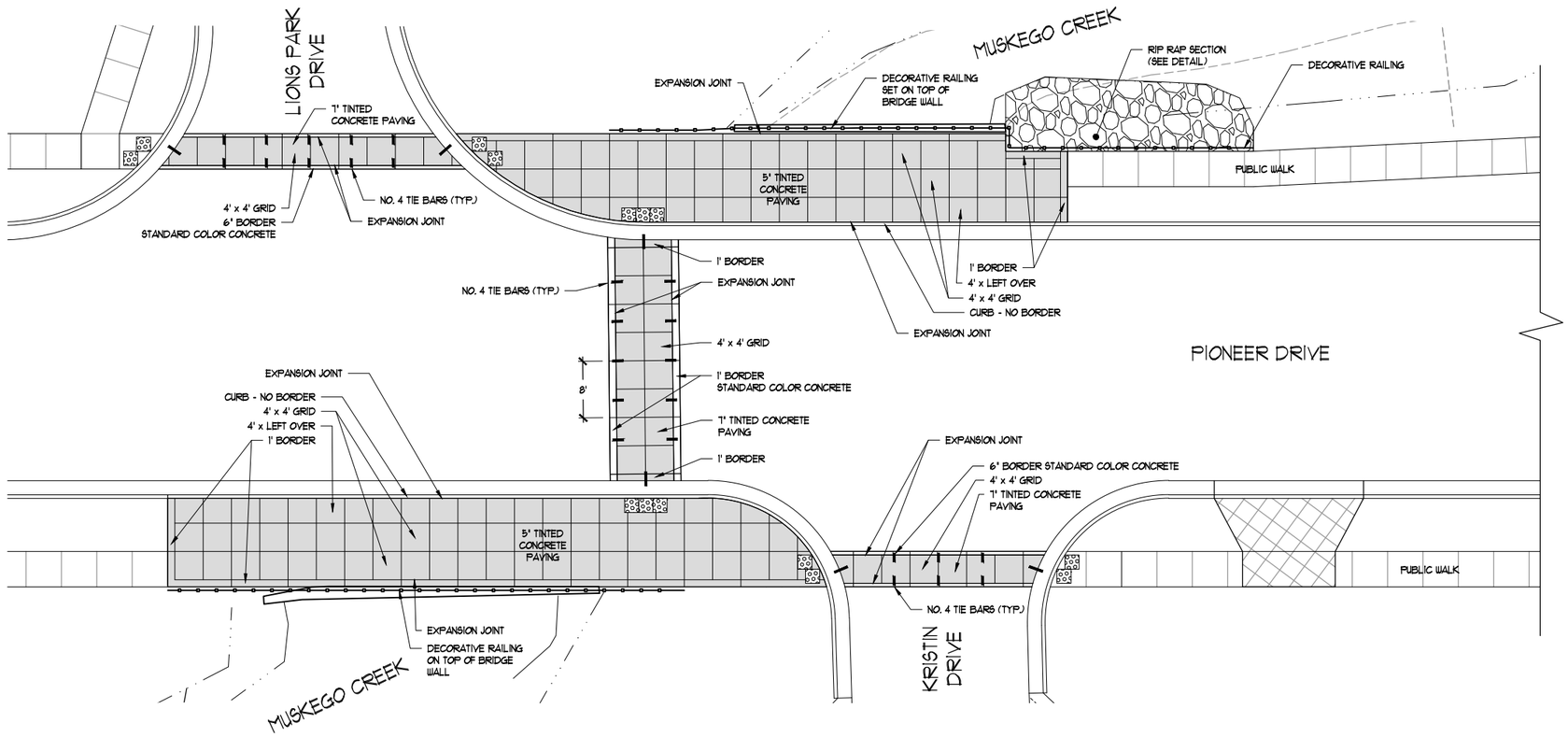
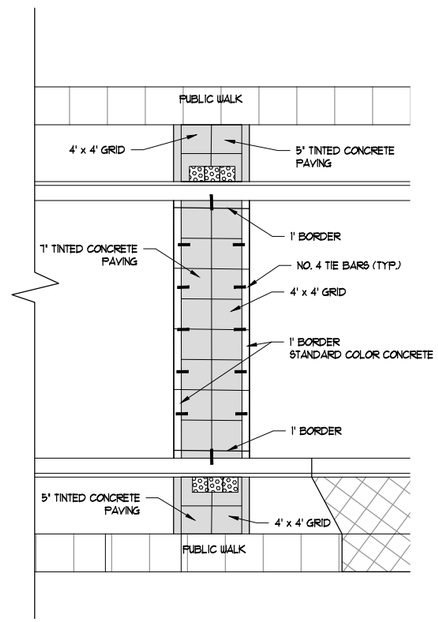
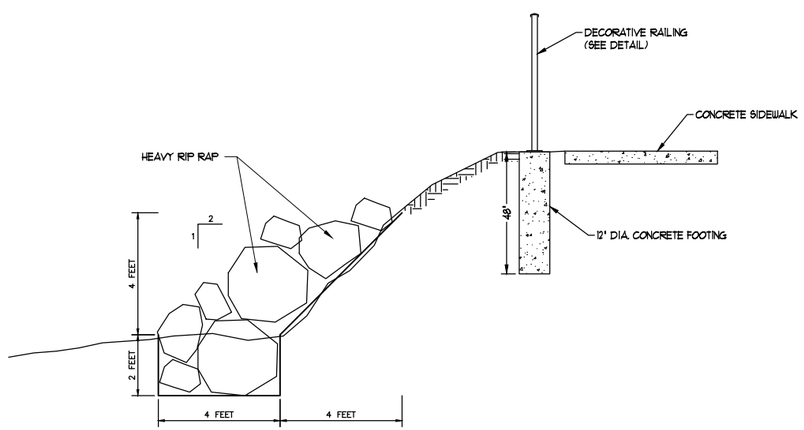


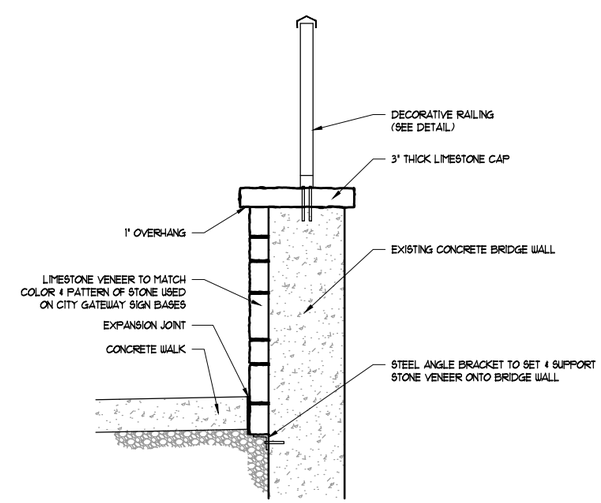
INTERSECTION DETAIL



MID-BLOCK DETAIL
(STA 41+55)



RIP RAP SECTION DETAIL
N.T.S.



BRIDGE WALL CROSS SECTION - N.T.S.
NOTE: SHOWN FOR DESIGN INTENT ONLY

NORTH

0 5 10 20
GRAPHIC SCALE

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BROOKFIELD, WI 53005

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16745 W. Bluemound Road, Brookfield, WI 53005-6938
262-781-1000 Fax 262-781-8466 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
STREETSCAPE DETAILS

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DATE: 4-17-12
SCALE: 1" = 10'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: TM
CHECKED BY: TM

SHEET NUMBER
29

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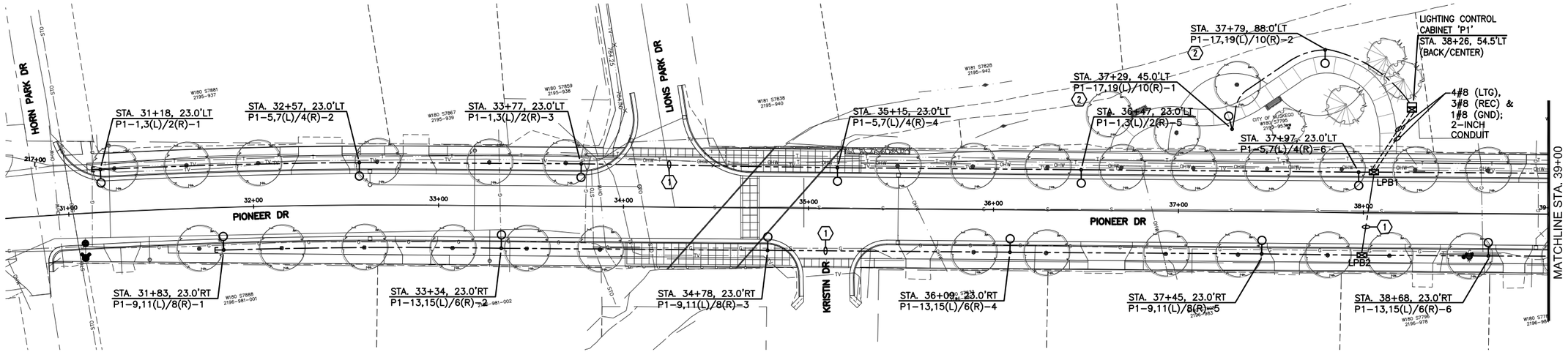

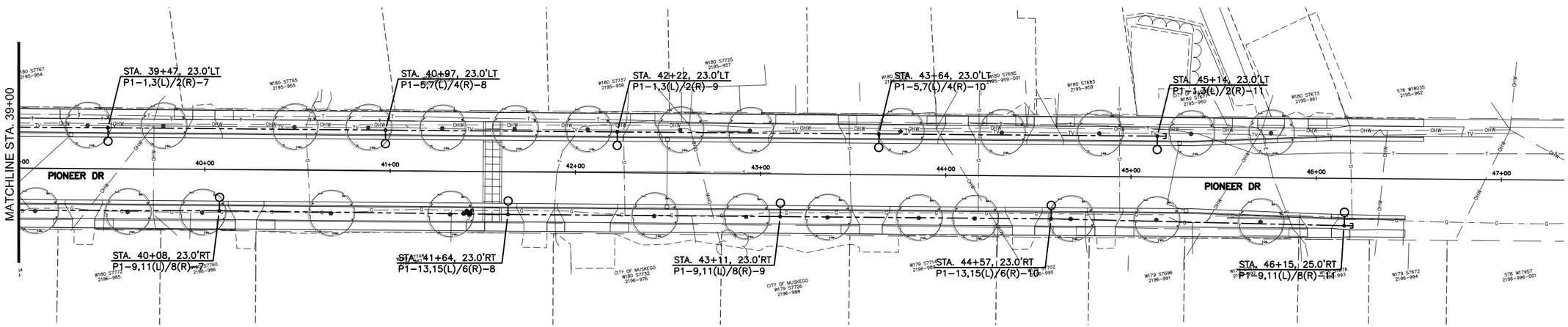

LEGEND

- DECORATIVE LIGHTING UNIT
- CONDUCTORS IN CONDUIT: 2-8AWG (LTG), 2-8AWG (REC) & 1#8AWG (GROUND) IN 2-INCH NONMETALLIC SCHEDULE 40 CONDUIT
- CONDUCTORS IN CONDUIT: 4-8AWG (LTG), 3-8AWG (REC) & 1#8AWG (GROUND) IN 2-INCH NONMETALLIC SCHEDULE 40 CONDUIT
- CONDUCTORS IN NONMETALLIC SCHEDULE 40 CONDUIT AS NOTED
- CAP CONDUIT STUB-OUT: 2-INCH NONMETALLIC SCHEDULE 40
- LIGHTING PULL BOX

STA. 24+00, 8'RT — STATION (LOCATION)
P1-1,3(L)/2(R)-3
- POLE NUMBER
- RECEPTACLE CIRCUIT (120V)
- LUMINAIRE CIRCUITS (240V.)
- CONTROL CABINET (SOURCE)

LTG	LIGHTING
REC	RECEPTACLE
GND	GROUND

KEYED NOTE

1. DIRECTIONAL BORE CONDUIT.
2. PROVIDE "PARK LIGHTING UNIT" (I.E. NO FLAG POLE HOLDER OR BANNER ARMS).

WISCONSIN GREG W. SADOWSKI E-29334 EAGLE, WI PROFESSIONAL ENGINEER
4-6-12

N
0' 15' 30' 60'

Powrtek Engineering,Inc.
20711 WATERTOWN RD., SUITE C
WAUKESHA, WI 53186
VOICE: 262-827-9575
FAX: 262-827-9615

DATE	DESCRIPTION
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16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

LIGHTING PLAN

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DATE: 04-06-12
SCALE: 1" = 30'-0"
JOB NO. ----
PROJECT MANAGER: GWS
DESIGNED BY: GWS
CHECKED BY: GWS
SHEET NUMBER
E1

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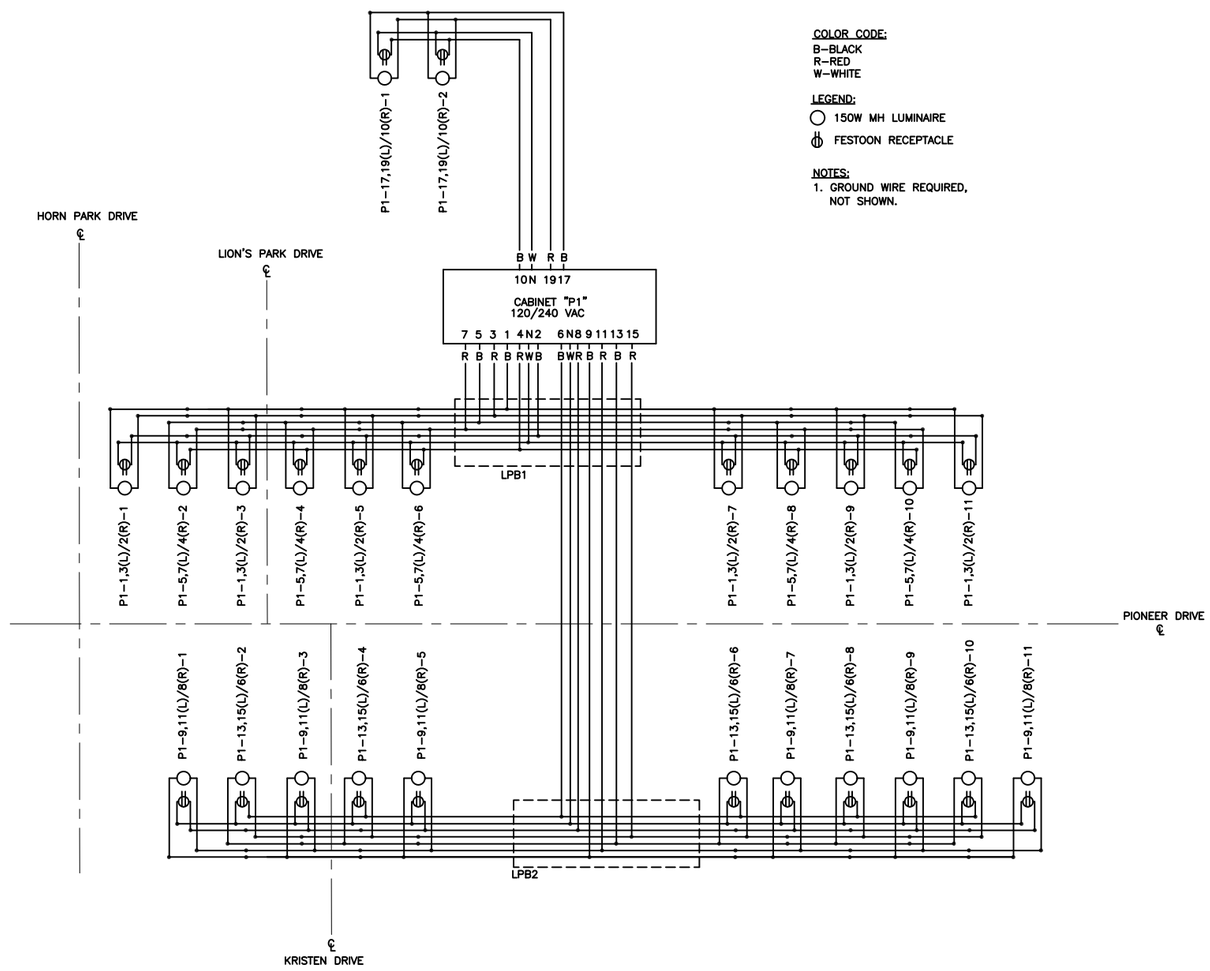

COLOR CODE:
B–BLACK
R–RED
W–WHITE

LEGEND:
150W MH LUMINAIRE
FESTOON RECEPTACLE

NOTES:
1. GROUND WIRE REQUIRED, NOT SHOWN.

FIELD WIRING DIAGRAM
NO SCALE

WISCONSIN
GREG W. SADOWSKI
E-28334
EAGLE, WI
PROFESSIONAL ENGINEER
4-6-12

Powrtek Engineering,Inc.
20711 WATERTOWN RD., SUITE C
WAUKESHA, WI 53186
VOICE: 262-827-9575
FAX: 262-827-9615

DATE	DESCRIPTION
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262-781-1000 Fax 262-781-8466 www.rasmithnational.com
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WAUKESHA COUNTY, WISCONSIN

FIELD WIRING DIAGRAM

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DATE: 04–06–12
SCALE: 1" = 30'–0"
JOB NO. ----
PROJECT MANAGER: GWS
DESIGNED BY: GWS
CHECKED BY: GWS
SHEET NUMBER
E2

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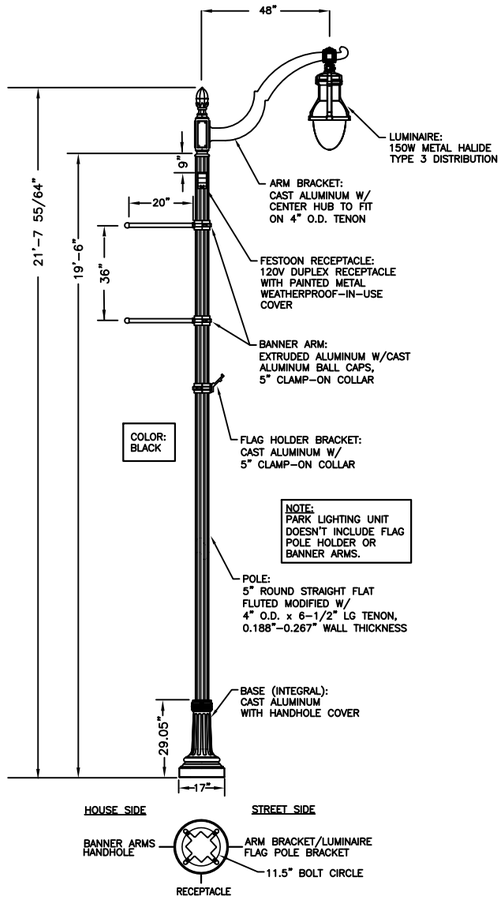
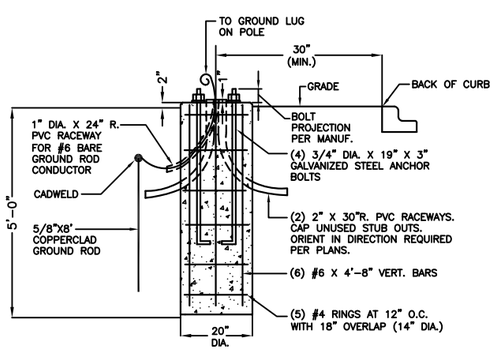


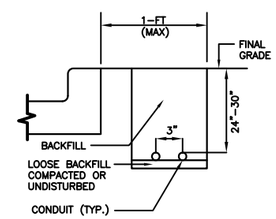


GENERAL NOTES:

1. PROVIDE 1" CHAMFER AROUND TOP EDGE AND FORM TOP 12" OF CONCRETE BASES. REMOVE FORMS AFTER CONCRETE IS SET.
2. EXACT LOCATION OF BANNER ARMS AND FLAGPOLE HOLDER TO BE COORDINATED WITH OWNER PRIOR TO INSTALLATION.

DECORATIVE LIGHTING UNIT

NO SCALE

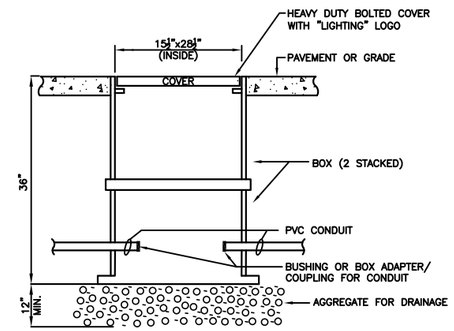


NOTES:

1. CONDUIT SHALL BE DIRECTIONAL BORED AS REQUIRED.

CONDUIT TRENCH DETAIL

NO SCALE

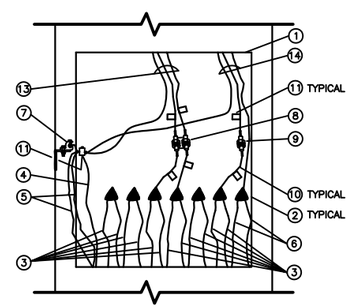


NOTES:

1. SHIM BETWEEN SECTIONS AS REQUIRED SO BOX IS LEVEL WITH FINAL GRADE/PAVEMENT.

LIGHTING PULL BOX

NO SCALE



1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED CONDUCTORS
4. #6 CONDUCTOR TO GROUND ROD
5. SYSTEM GROUNDING CONDUCTORS
6. GROUNDED CONDUCTOR (NEUTRAL)
7. HANDHOLE GROUNDING LUG
8. INLINE 2-POLE FUSE ASSEMBLY AND 5A KTK FUSES. WEATHERPROOF BOOTS.
9. INLINE 1-POLE FUSE ASSEMBLY AND 5A KTK FUSES. WEATHERPROOF BOOTS.
10. 12" PIGTAIL BETWEEN SPLICE AND FUSE ASSEMBLY
11. CIRCUIT TAG
12. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTION (NOT INSULATED)
13. 3#12 RHW/USE (XLP) TO LUMINAIRE
14. 3#12 RHW/USE (XLP) TO RECEPTACLE

POLE WIRING DETAIL

NO SCALE

WISCONSIN
GREG W. SADOWSKI
E-29334
EAGLE, WI
PROFESSIONAL ENGINEER
4-6-12

Powrtek Engineering,Inc.
20711 WATERTOWN RD., SUITE C
WAUKESHA, WI 53186
VOICE: 262-827-9575
FAX: 262-827-9615

DATE	DESCRIPTION
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16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

DETAILS

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DATE: 04-06-12
SCALE: NO SCALE
JOB NO. ----
PROJECT MANAGER: GWS
DESIGNED BY: GWS
CHECKED BY: GWS
SHEET NUMBER
E3

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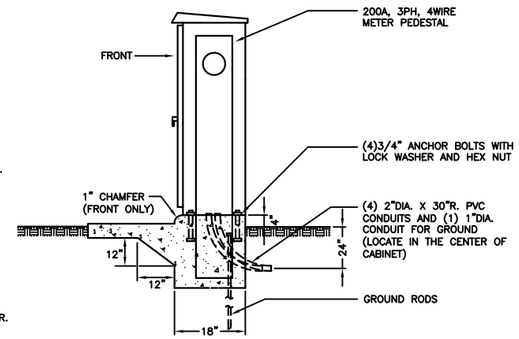
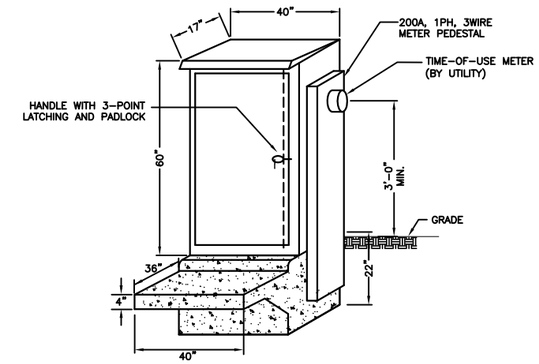
NOTES:

1. ALL CONTROL WIRING SHALL BE COLOR CODED #12 AWG, XLP UNLESS OTHERWISE NOTED.
2. ALL POWER AND CONTROL WIRING SHALL BE NEATLY ROUTED, LABELED AND SUPPORTED.
3. THE LIGHTING CONTROL CABINET SHALL BE COMPLETELY WIRED UP TO THE FIELD WIRING TERMINATION STRIP IN THE CONTRACTORS SHOP AND TESTED PRIOR TO INSTALLATION AT THE SITE.
4. A COPY OF THIS SHEET WITH AS-BUILT (RECORD) CONDITIONS SHALL BE PUT IN A PLASTIC PROTECTOR IN THE CABINET.
5. THE CONTRACTOR SHALL COMPLY WITH UTILITY INSTALLATION REQUIREMENTS.
6. USE #10 AWG XLP CONDUCTORS FROM THE 30A CB'S TO THE FIELD WIRING TERMINATION STRIP. PROVIDE A GROUND WIRE AND NEUTRAL WIRE TO FIELD WIRING TERMINATION STRIP FROM PANELBOARD FOR EACH UNDERGROUND CABLE RUN AS REQUIRED.
7. CIRCUITS 2, 4, 6, 8 & 10 SHALL BE RUN THROUGH THE "RECEPTACLE" CONTACTOR.
8. CIRCUITS 1, 3, 5, 7, 9, 11, 13, 15, 17, 19 SHALL BE RUN THROUGH THE "LIGHTING" CONTACTOR.



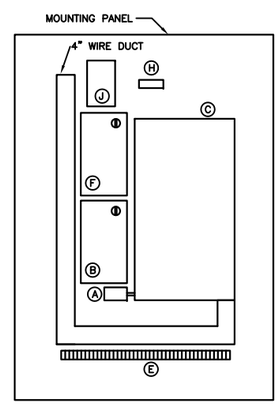
SIDE VIEW



FRONT VIEW

EQUIPMENT:

- (A) SURGE ARRESTOR.
- (B) 12 POLE. 30A 600V ELECTRICALLY HELD "LIGHTING" CONTACTOR, 120V CONTROL COIL, H-O-A SWITCH, NEMA 1 ENCLOSURE.
- (C) 100A MCB. 120/240V, 1PH. 3W. 30CKT., PANELBOARD WITH BOLT-ON BRANCH BREAKERS, 22000 A RMS INTERRUPTING CAPACITY.
- (D) BUTTON TYPE PHOTOCELL, 120V.
- (E) FIELD WIRING TERMINATION STRIP (24 BLOCKS).
- (F) 8 POLE, 30A 600V ELECTRICALL HELD "RECEPTACLE" CONTACTOR, 120V CONTROL COIL, H-O-A SWITCH, NEMA 1 ENCLOSURE.
- (G) 200A, 120/240V, 1PH, 3W METER PEDESTAL.
- (H) CONTROL TERMINAL BLOCK.
- (J) TIMECLOCK.



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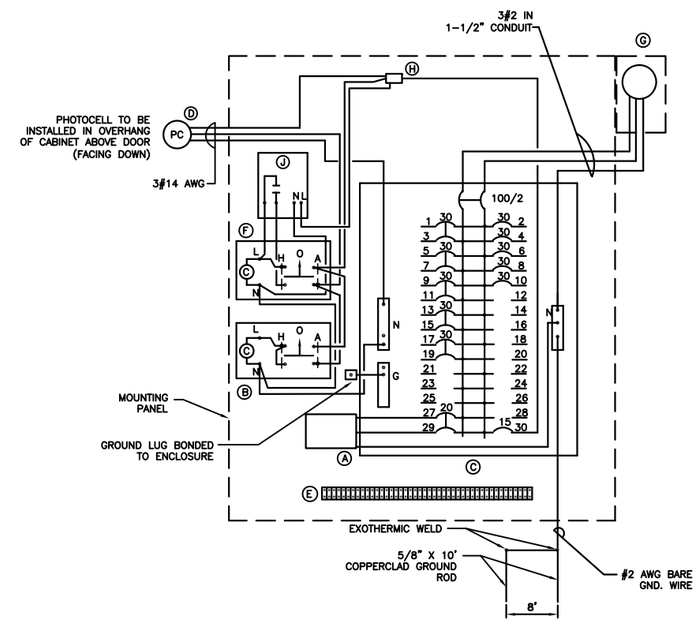

CONTROL DIAGRAM

LIGHTING CONTROL CABINET
N.T.S.

WISCONSIN GREG W. SADOWSKI E-29334 EAGLE, WI PROFESSIONAL ENGINEER
4-6-12

Powrtek Engineering,Inc.
20711 WATERTOWN RD., SUITE C
WAUKESHA, WI 53186
VOICE: 262-827-9575
FAX: 262-827-9615

DATE	DESCRIPTION
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R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1000 Fax 262-781-8466, www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

DETAILS

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DATE: 04-06-12
SCALE: NO SCALE
JOB NO. ----
PROJECT MANAGER: GWS
DESIGNED BY: GWS
CHECKED BY: GWS
SHEET NUMBER
E4

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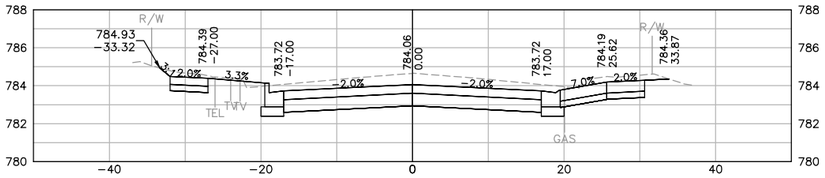

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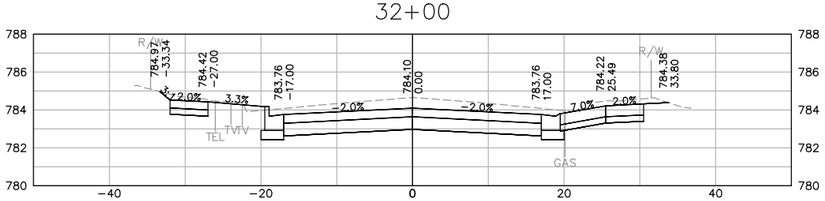

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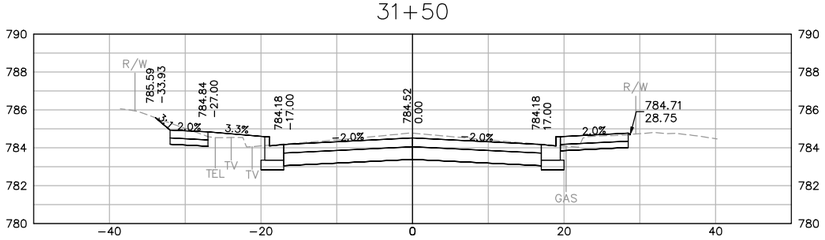

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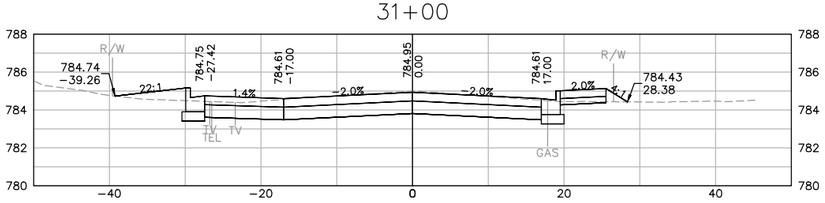

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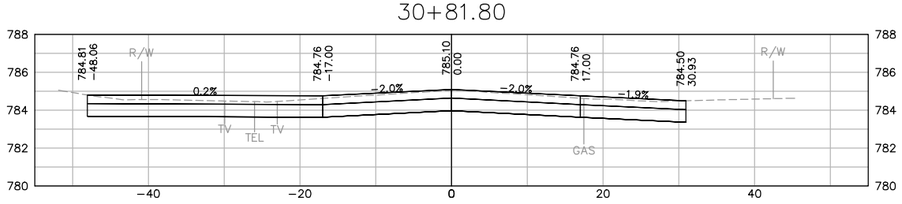

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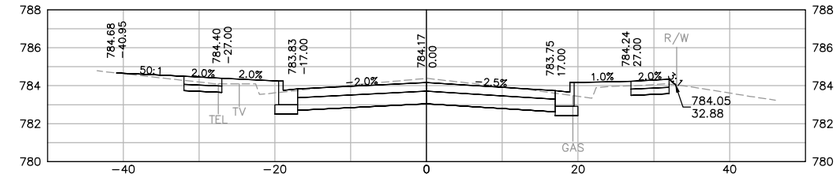

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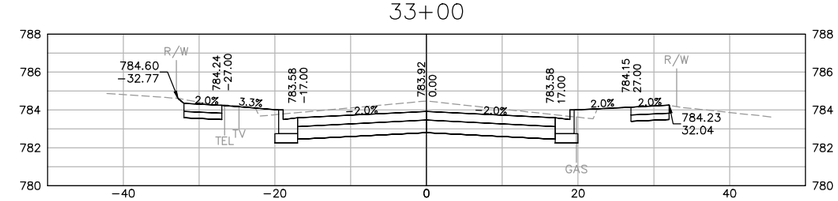

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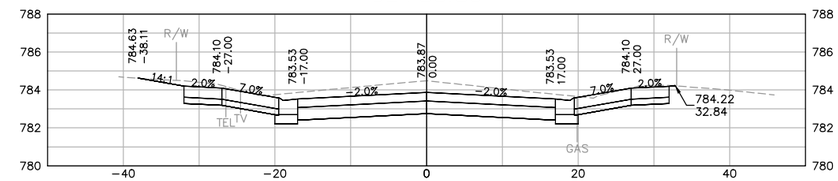

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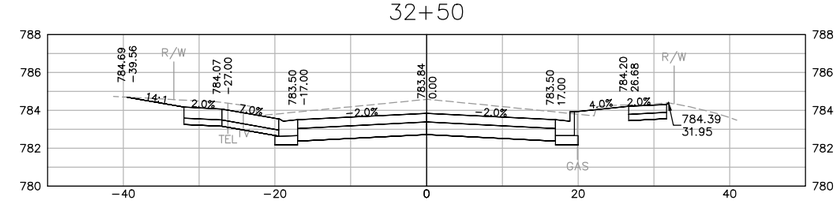

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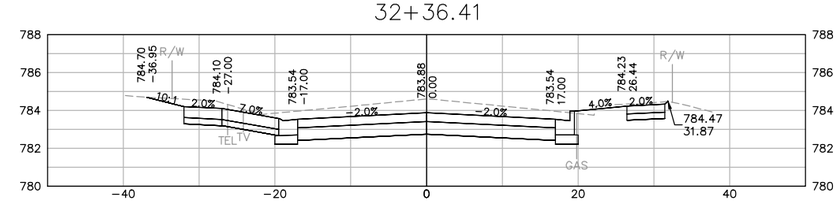

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16745 W. Bluemound Road, Brookfield, WI 53005-5938
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CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
CROSS SECTIONS

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DATE: 4-17-12
SCALE: 1"=10'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
30

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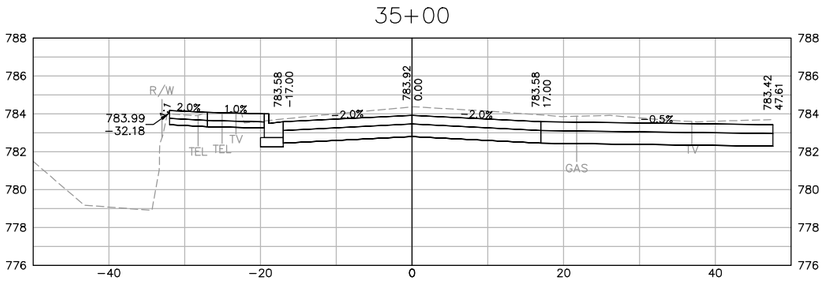

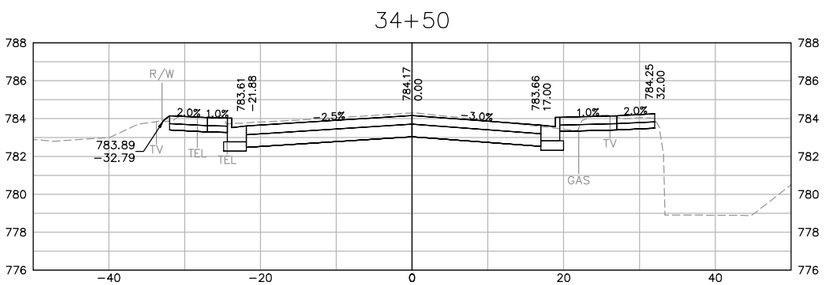

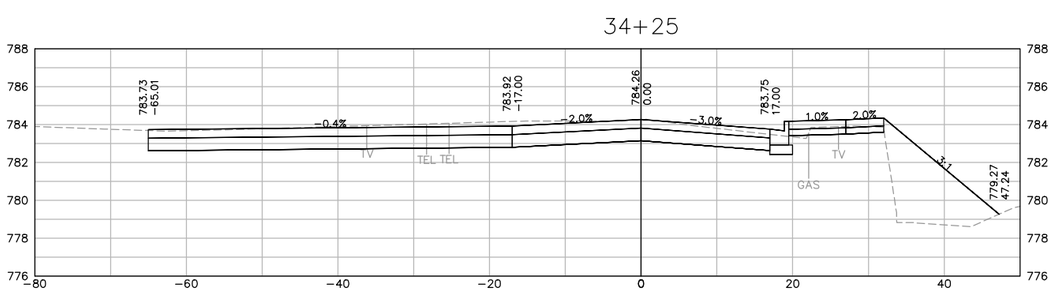

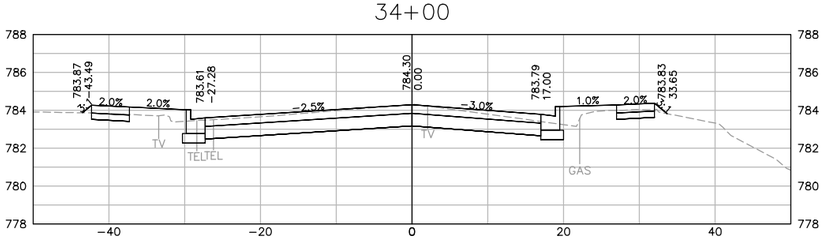

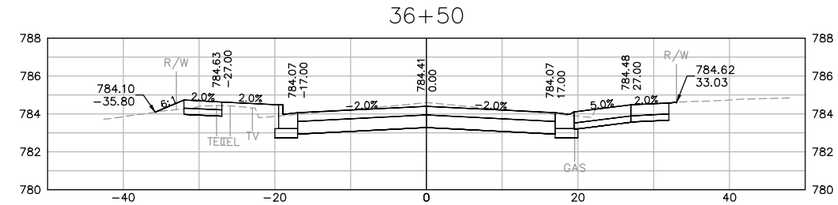

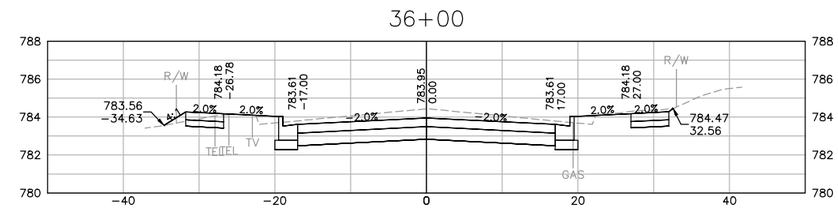

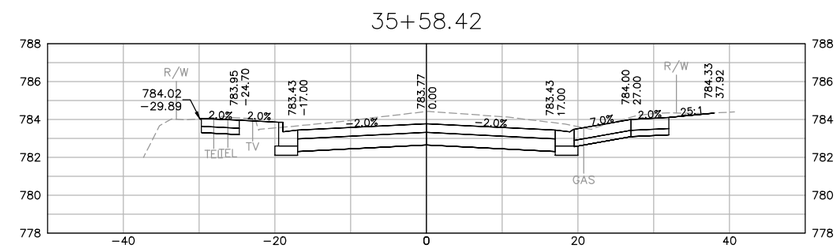

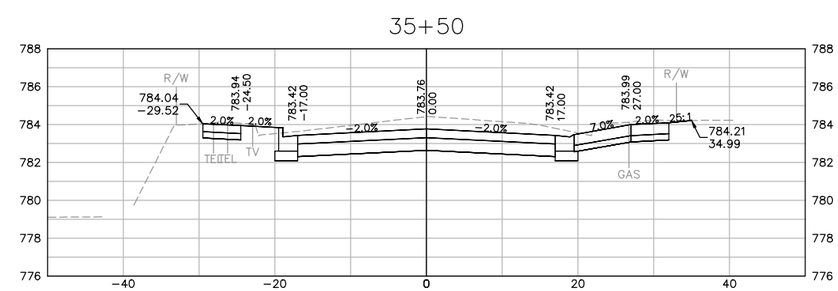

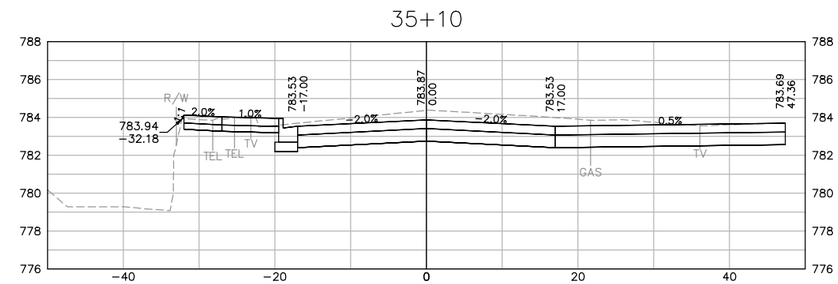

DATE	DESCRIPTION
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CROSS SECTIONS

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DATE: 4-17-12

SCALE: 1"=10'

JOB NO. 1117701

PROJECT MANAGER:
TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: RMM

CHECKED BY: TGB

SHEET NUMBER

31

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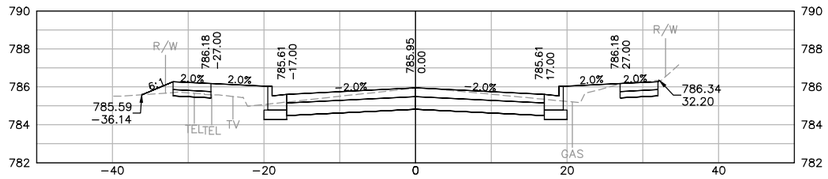

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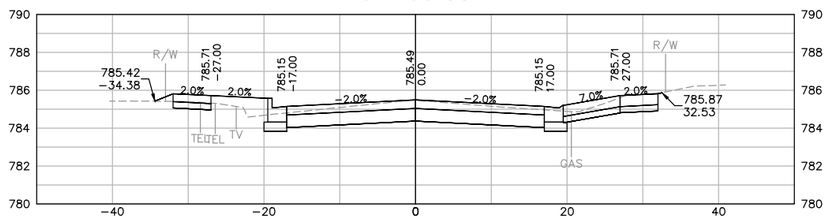

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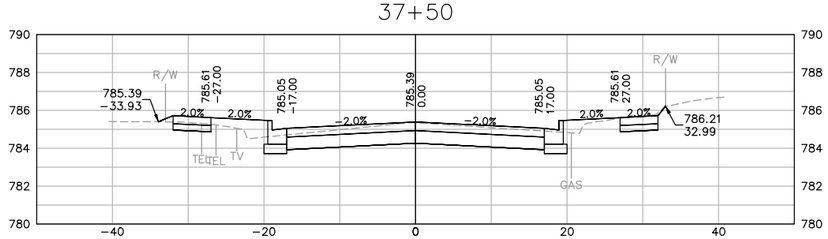

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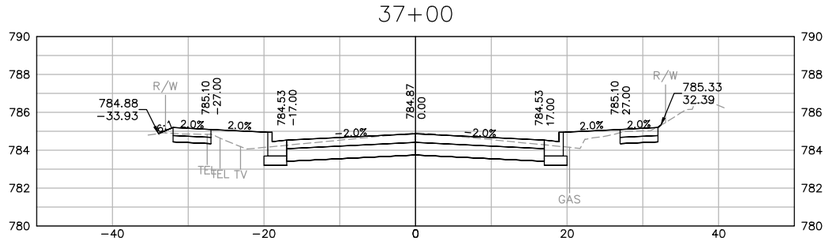

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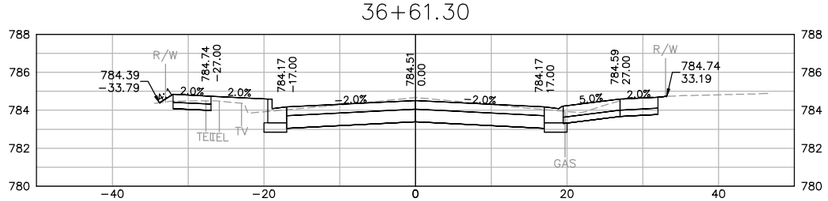

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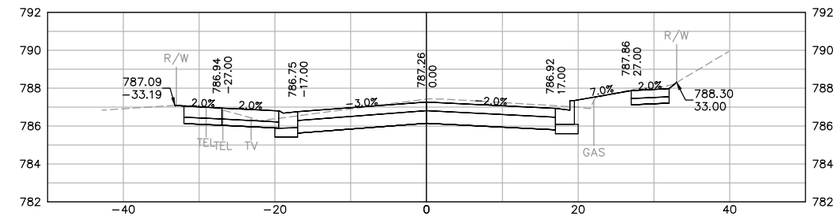

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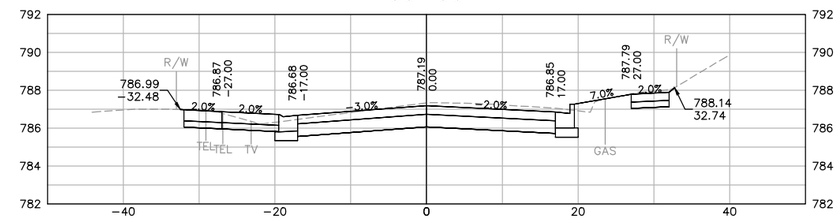

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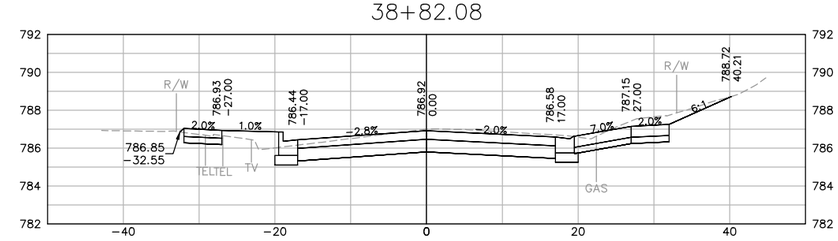

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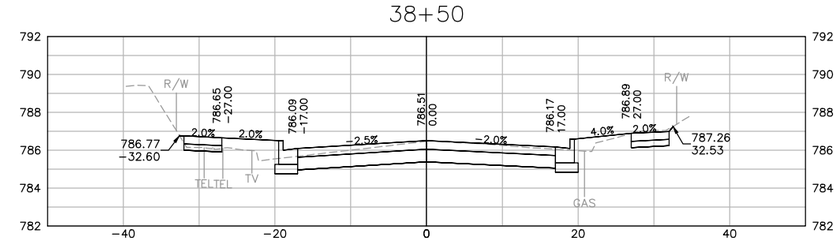

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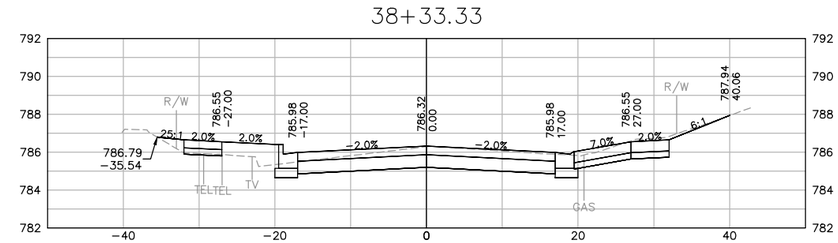

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WAUKESHA COUNTY, WISCONSIN

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DATE: 4-17-12
SCALE: 1"=10'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
32

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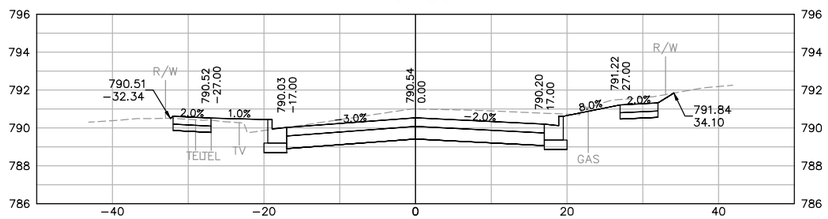

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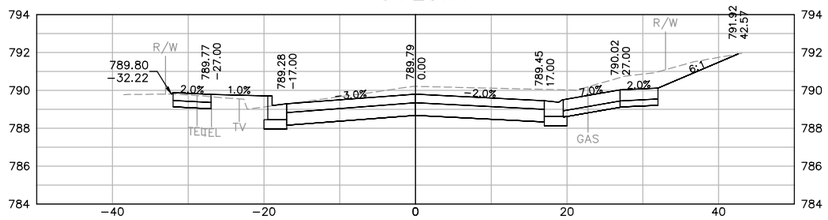

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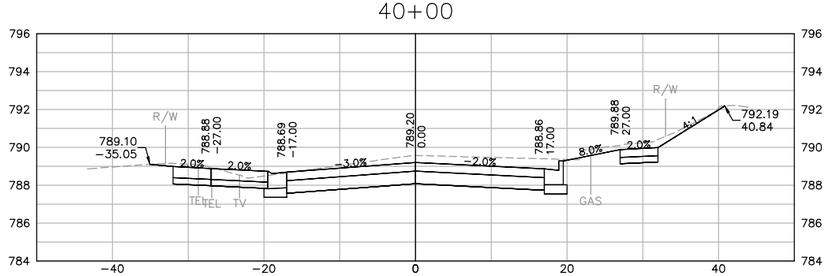

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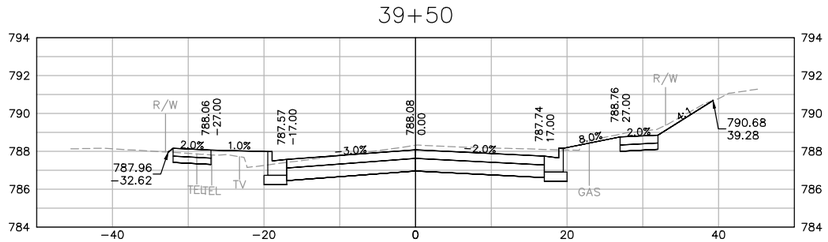

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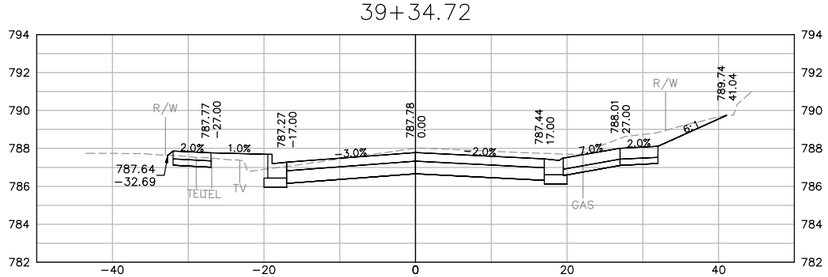

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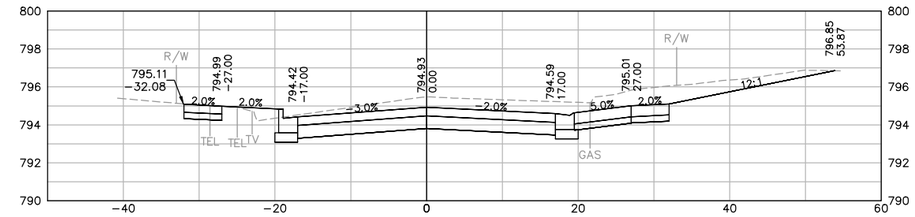

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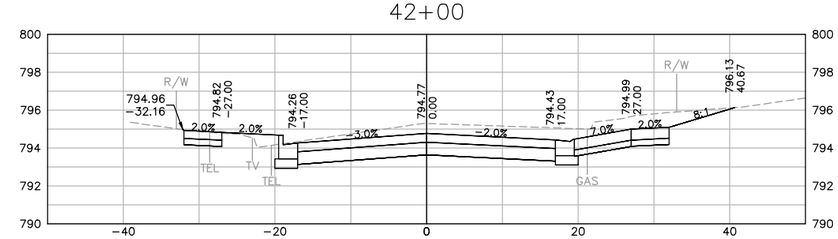

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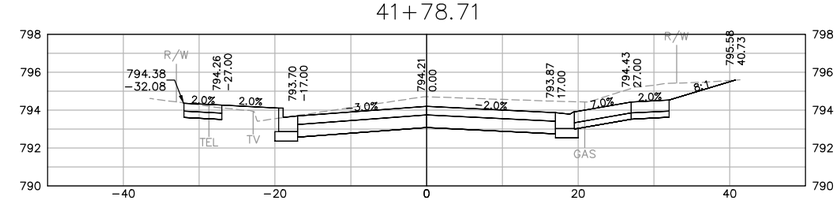

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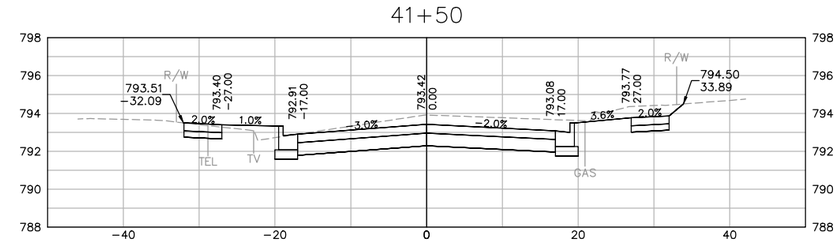

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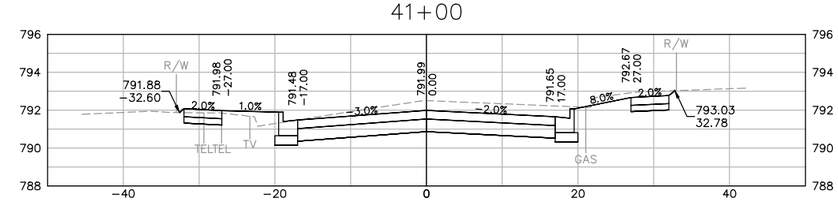

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PIONEER DRIVE
CROSS SECTIONS

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DATE: 4-17-12

SCALE: 1"=10'

JOB NO. 1117701

PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: RMM

CHECKED BY: TGB

SHEET NUMBER

33

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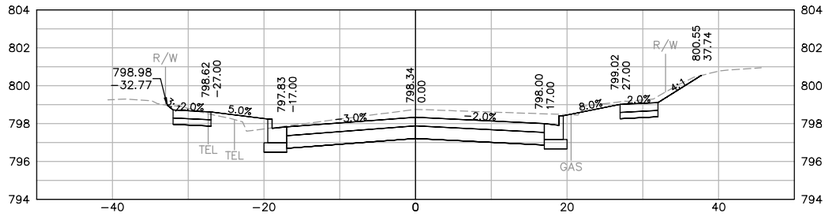

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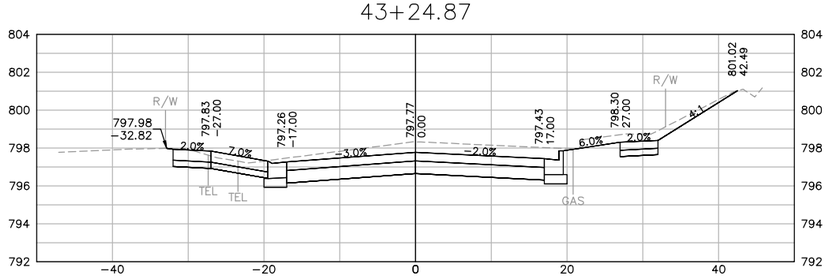

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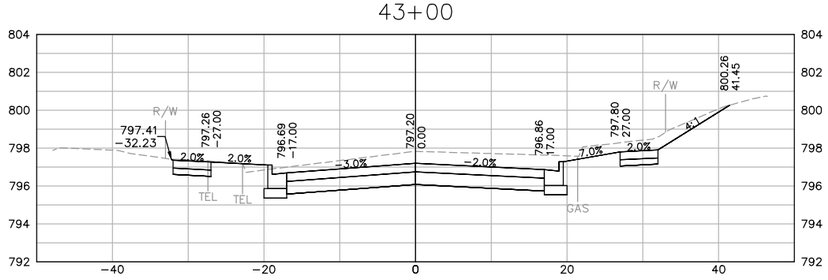

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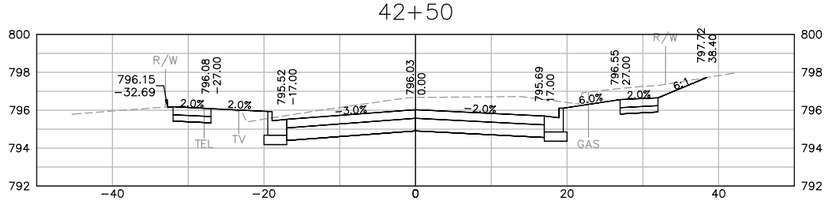

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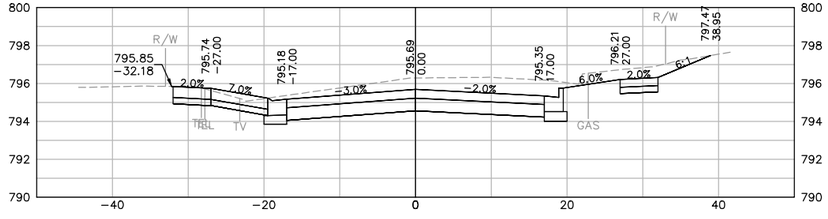

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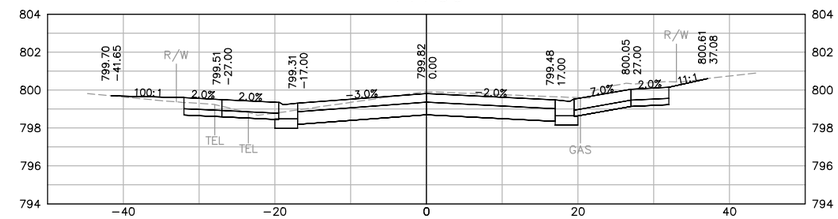

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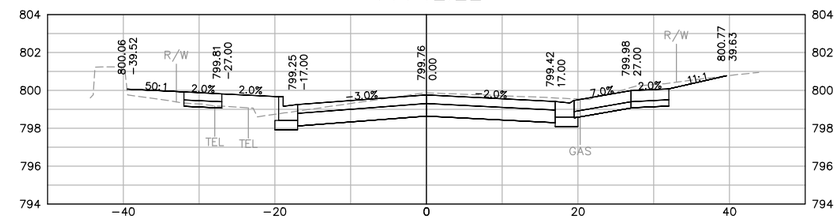

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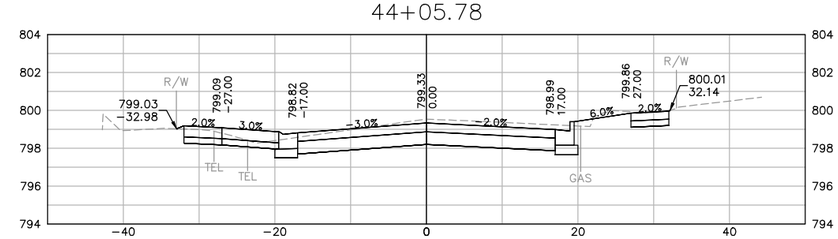

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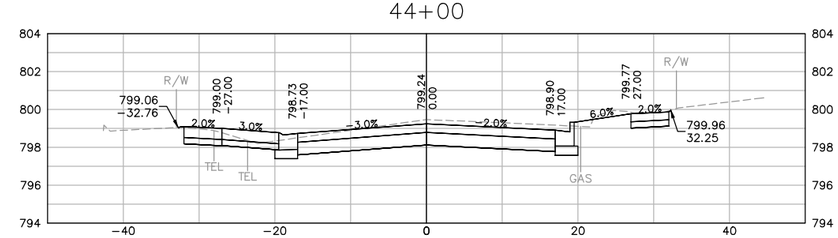

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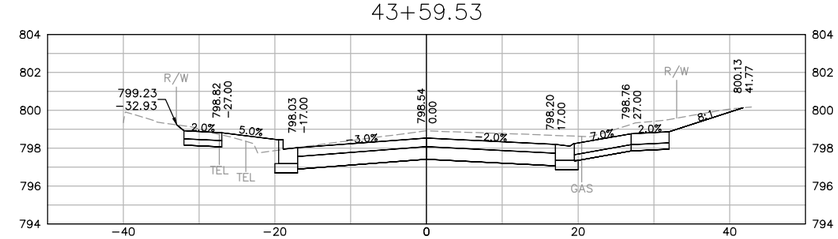

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PIONEER DRIVE
CROSS SECTIONS

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DATE: 4-17-12

SCALE: 1"=10'

JOB NO. 1117701

PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: RMM

CHECKED BY: TGB

SHEET NUMBER

34

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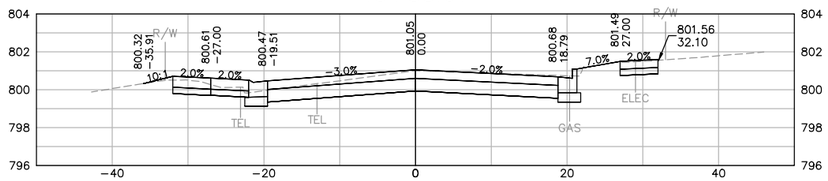

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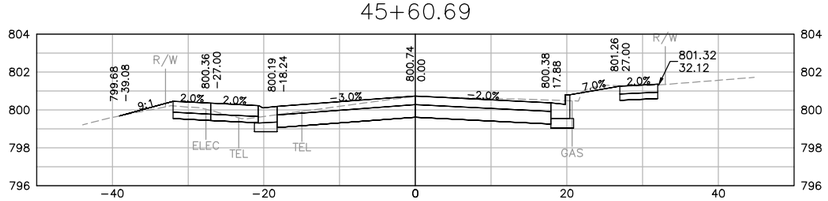

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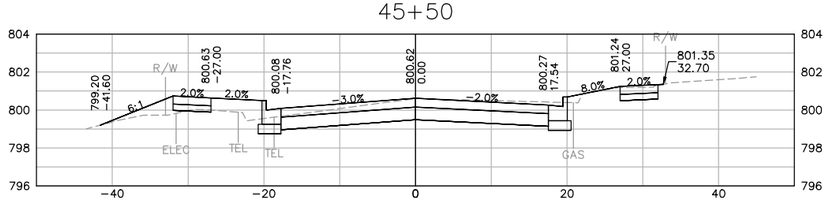

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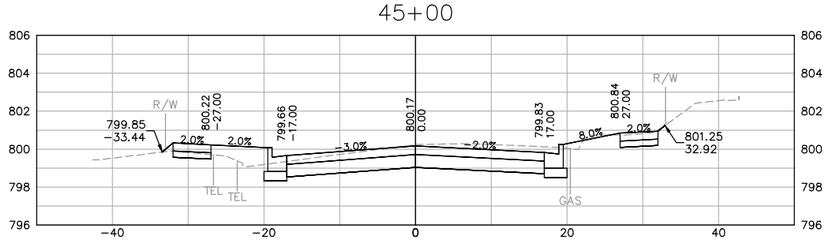

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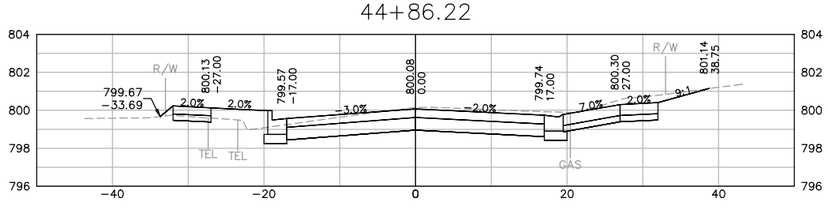

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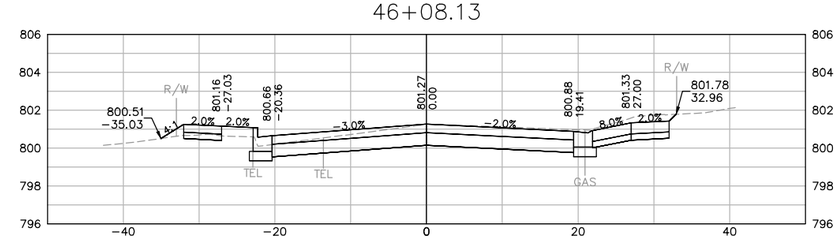

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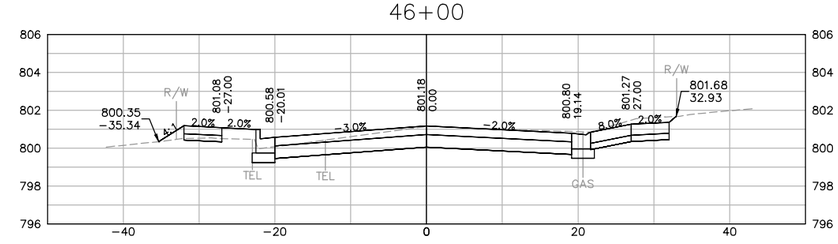

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DATE: 4-17-12
SCALE: 1"=10'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
35

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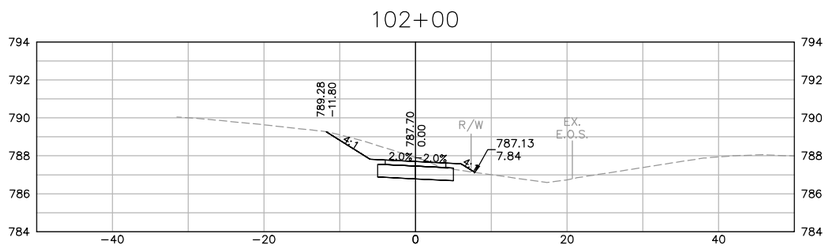

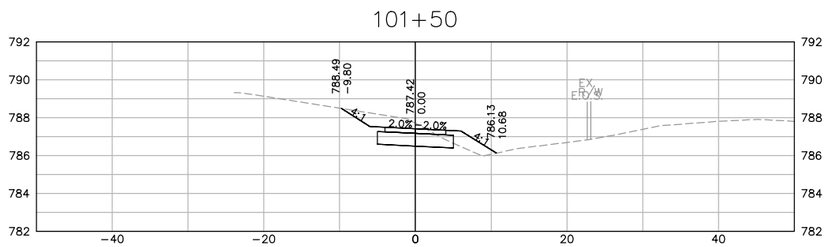

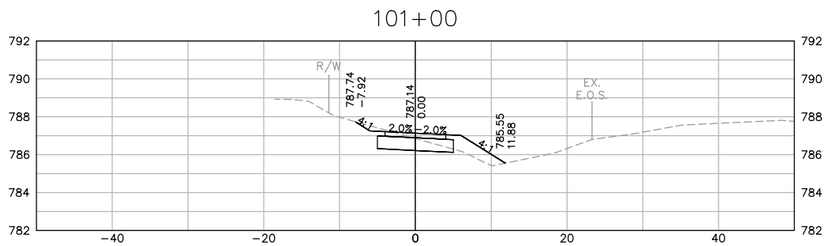

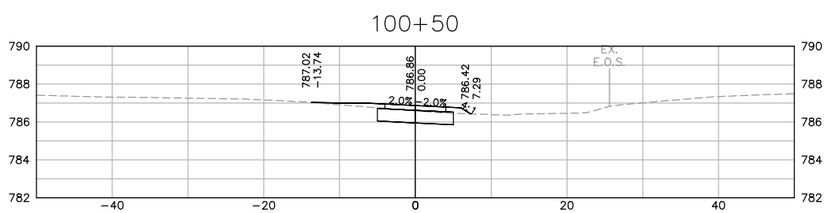

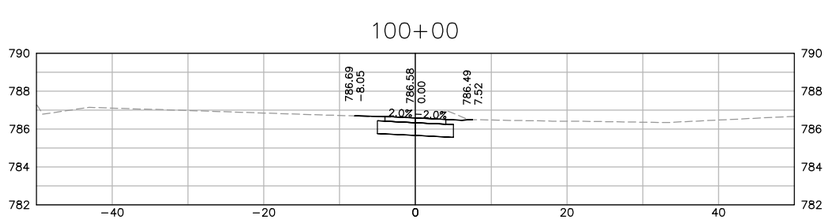

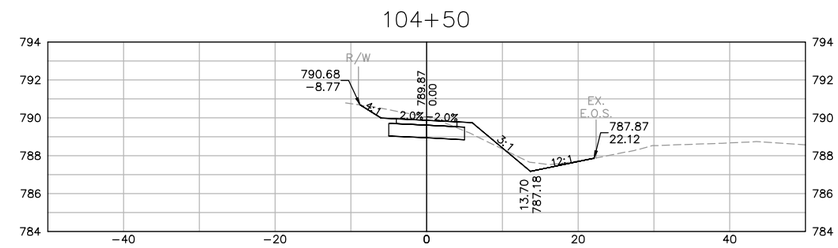

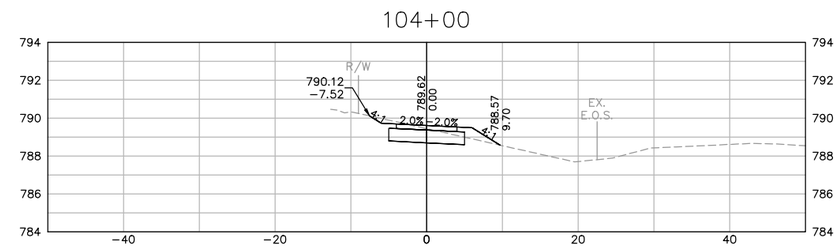

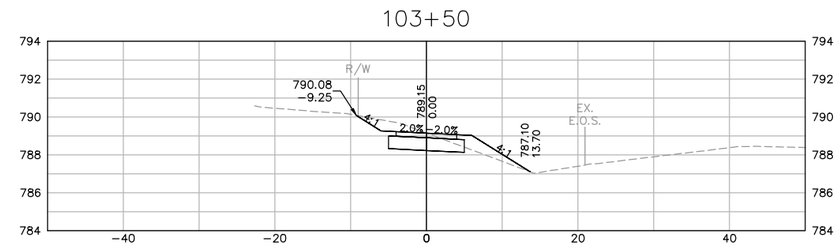

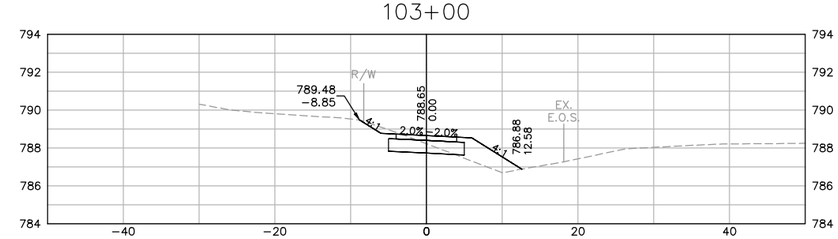

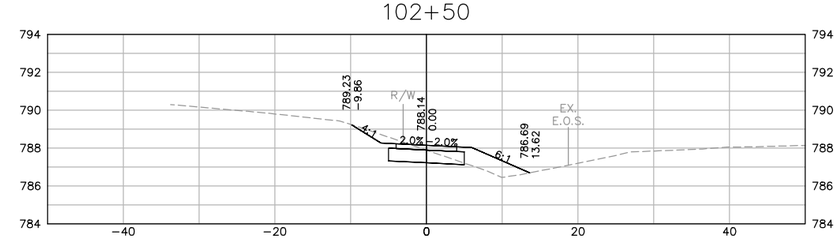

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DATE: **4-17-12**

SCALE: **1"=10'**

JOB NO. **1117701**

PROJECT MANAGER:
TIMOTHY G. BARBEAU, P.E.

DESIGNED BY: **RMM**

CHECKED BY: **TGB**

SHEET NUMBER

36

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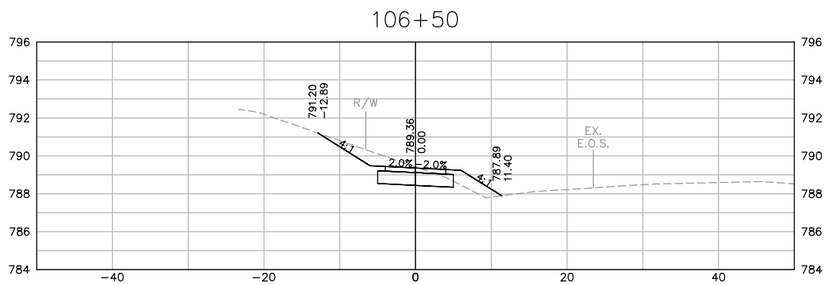

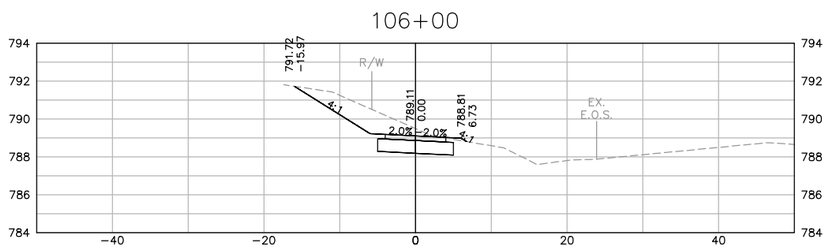

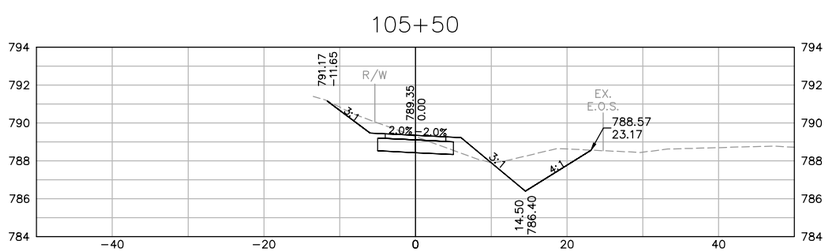

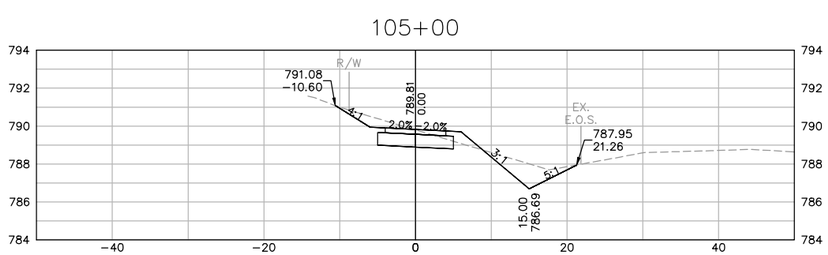

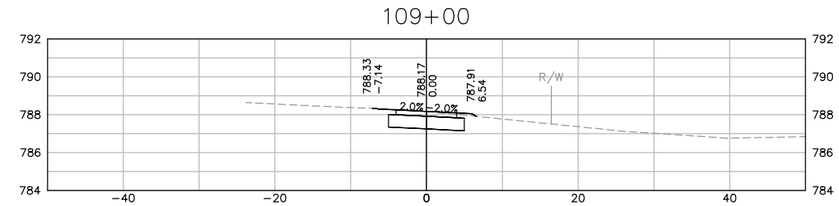

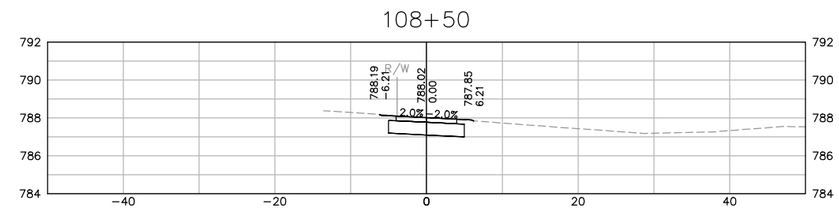

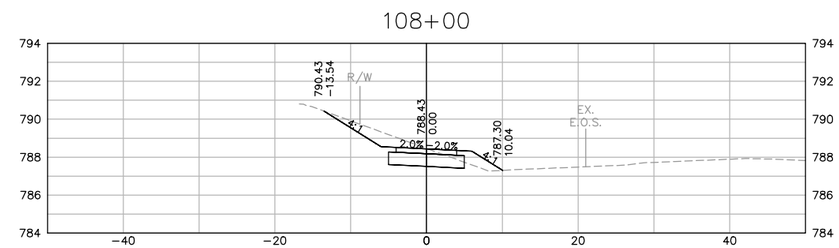

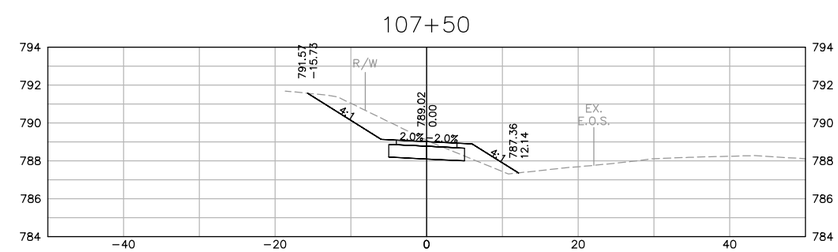

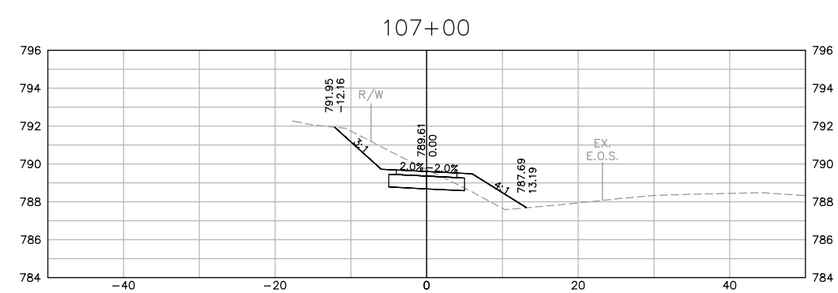

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DATE: 4-17-12
SCALE: 1" = 10'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
37

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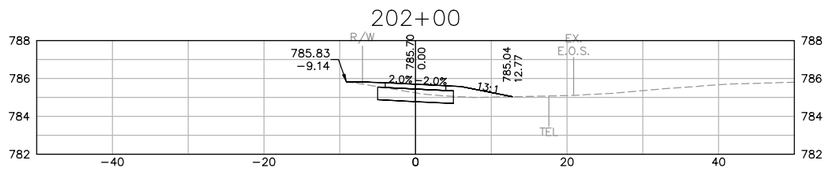

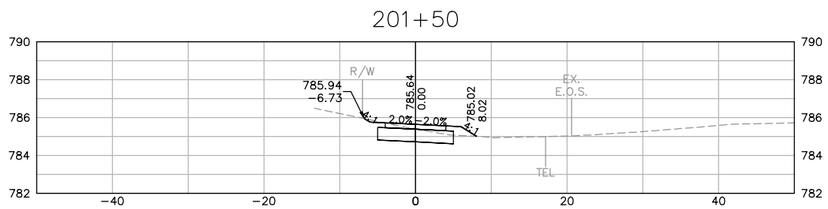

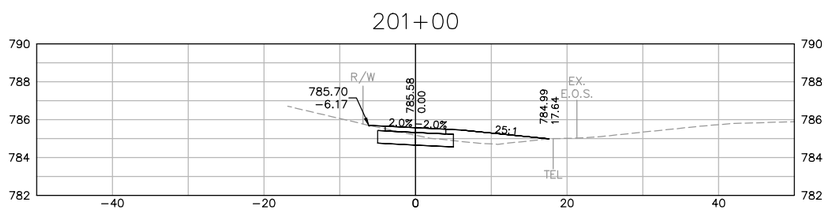

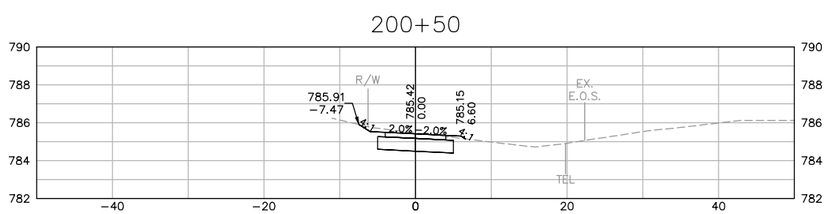

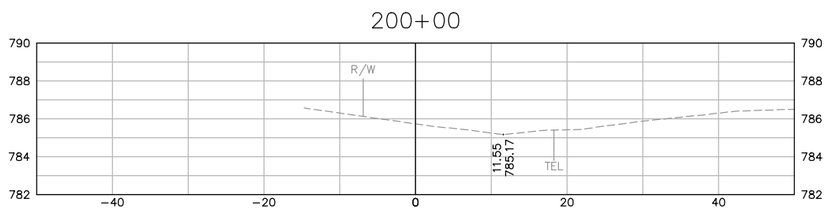

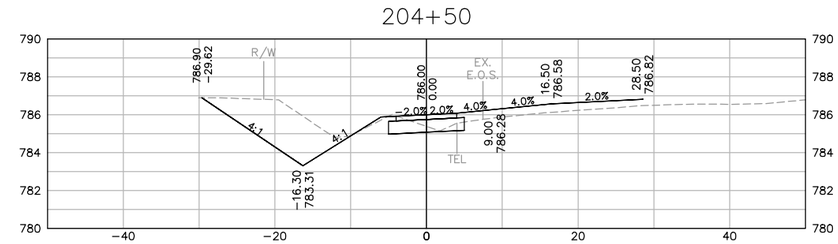

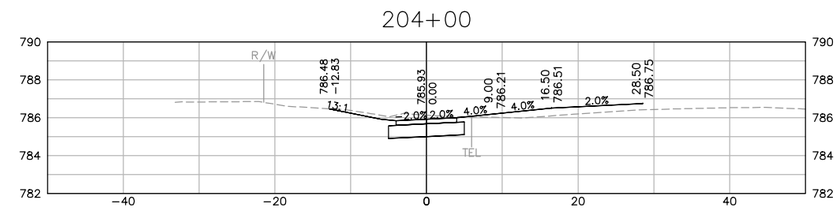

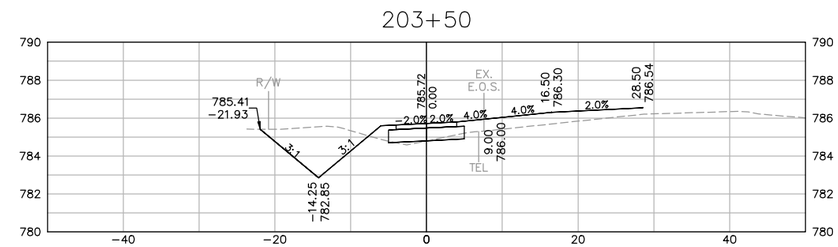

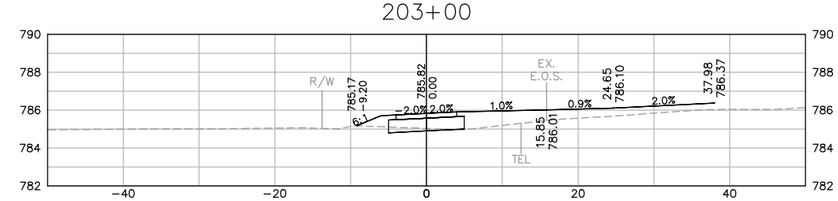

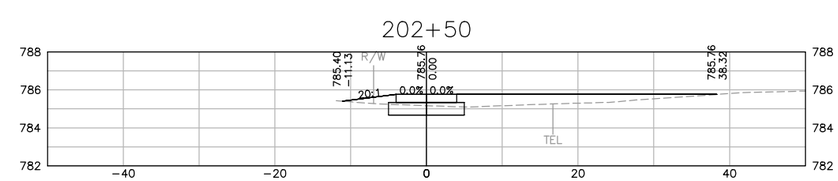

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DATE: 4-17-12
SCALE: 1" = 10'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
38

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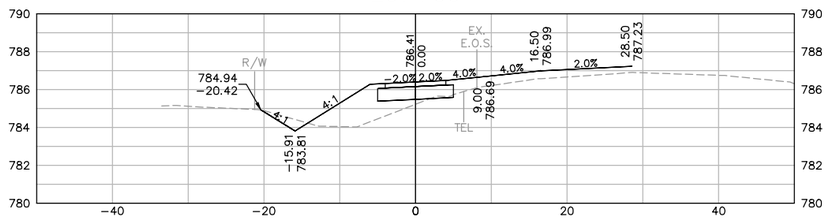

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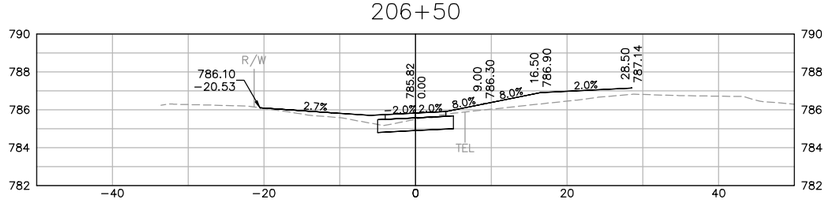

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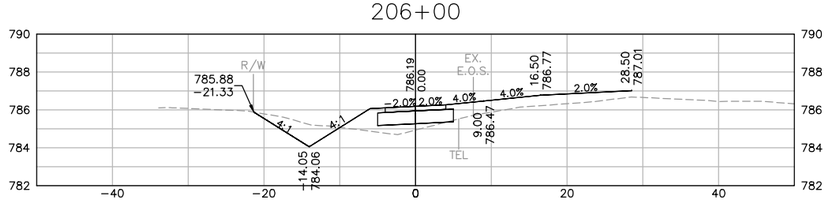

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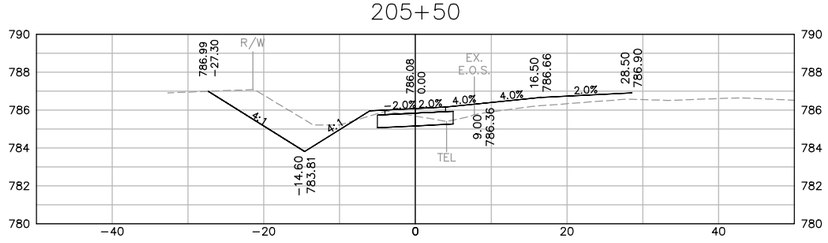

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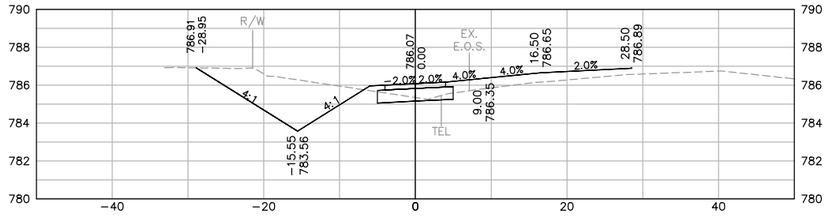

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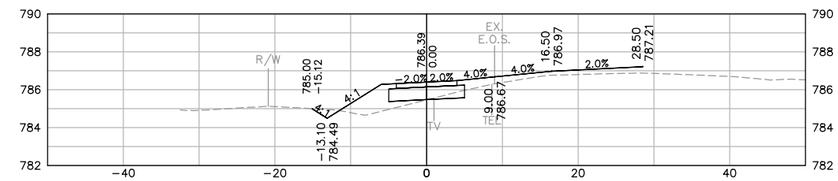

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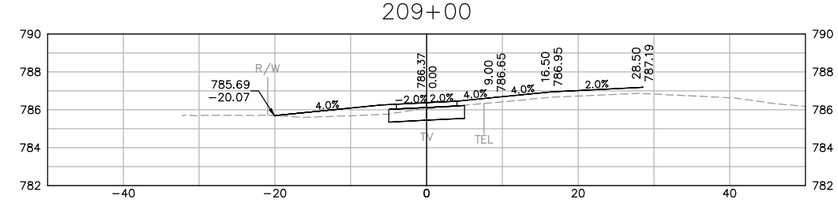

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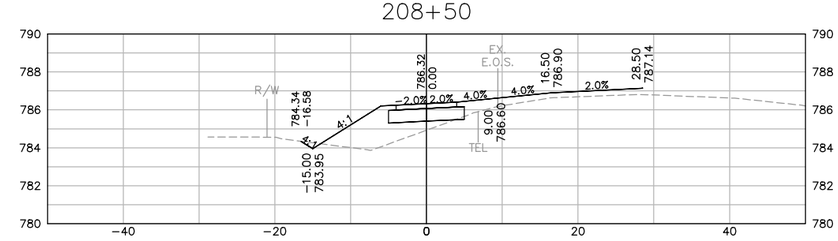

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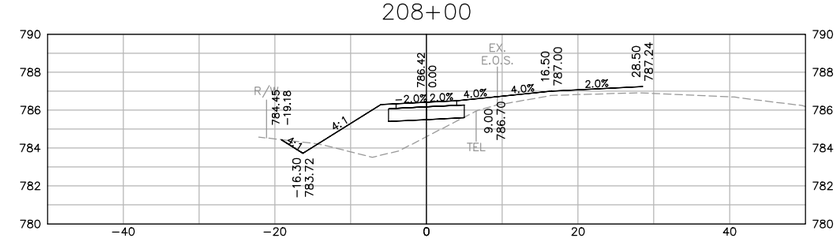

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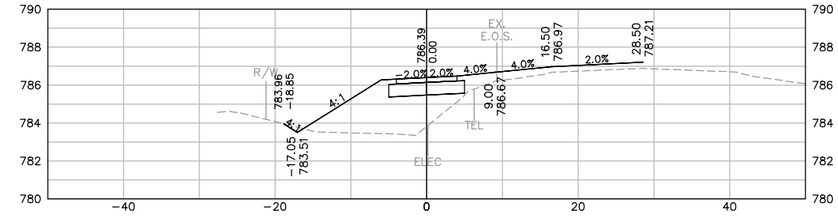

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R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield, WI 53005-5938
262-781-1500 Fax 262-781-8466 www.rasmithnational.com
Appleton, WI Orange County, CA Pittsburgh, PA

CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN

PIONEER DRIVE
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DATE: 4-17-12
SCALE: 1" = 10'
JOB NO. 1117701
PROJECT MANAGER: TIMOTHY G. BARBEAU, P.E.
DESIGNED BY: RMM
CHECKED BY: TGB

SHEET NUMBER
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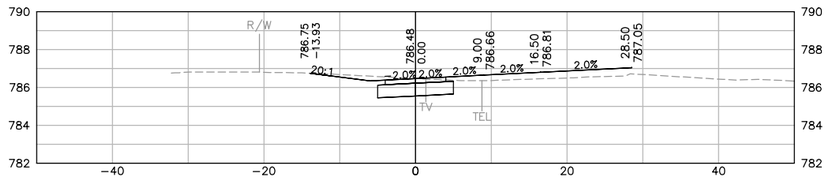

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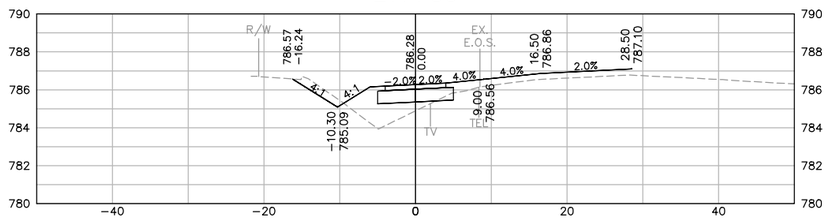

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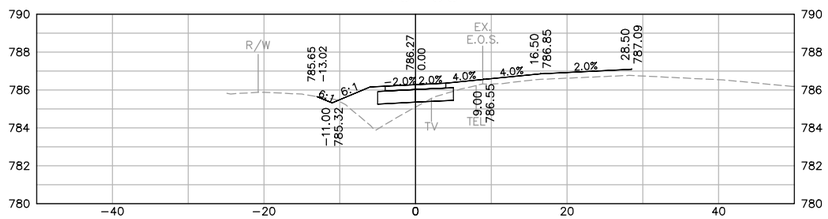

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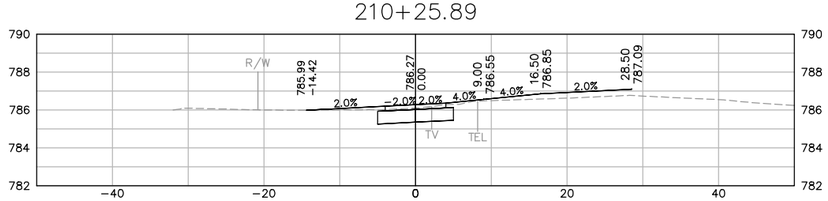

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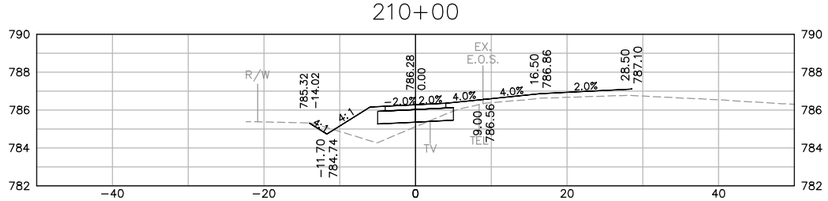

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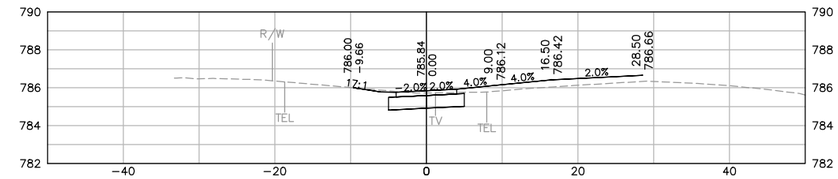

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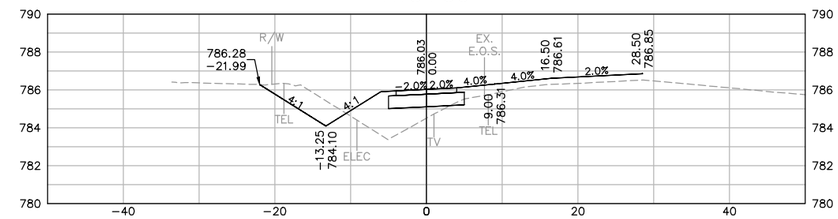

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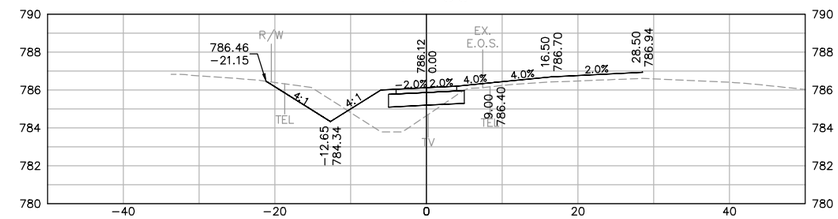

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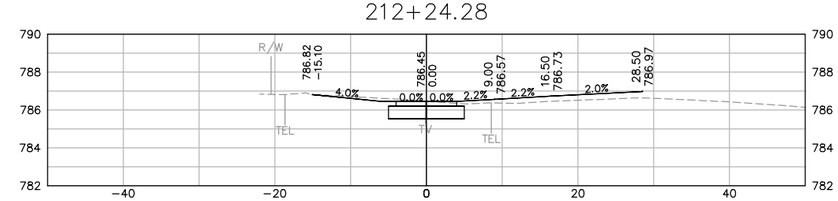

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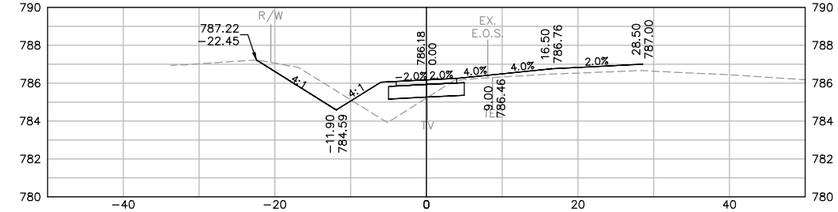

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SHEET NUMBER
40

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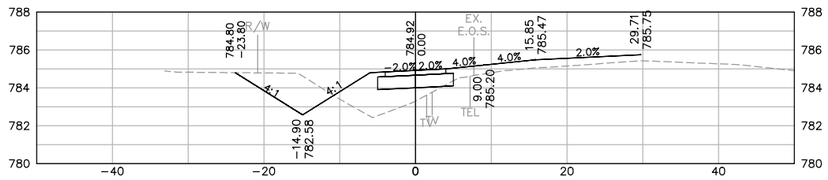

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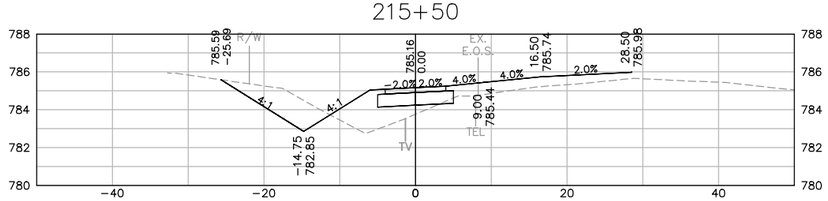

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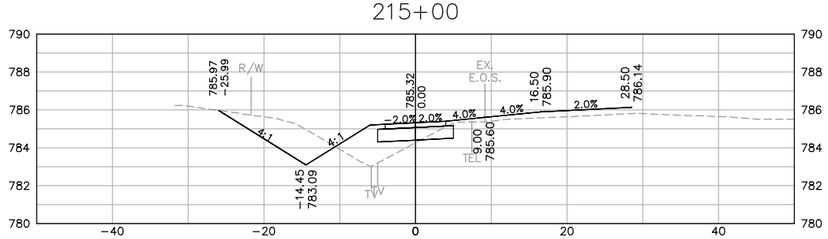

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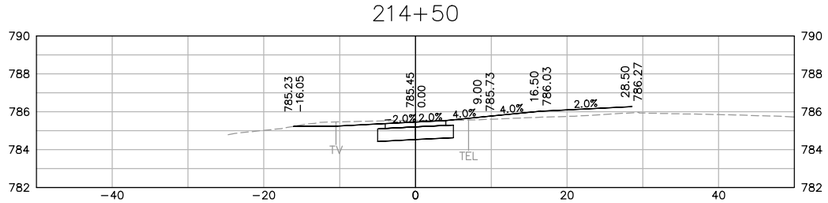

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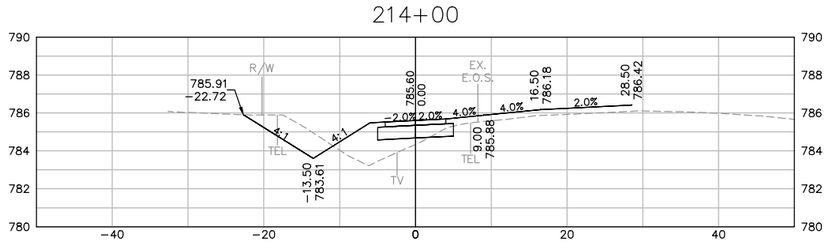

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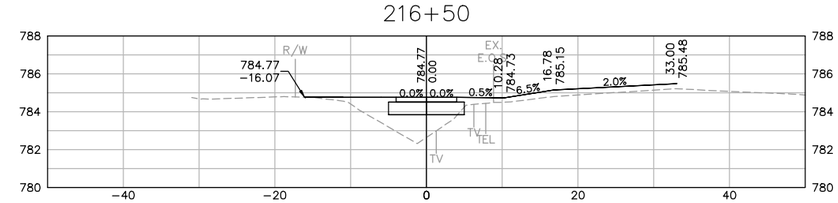

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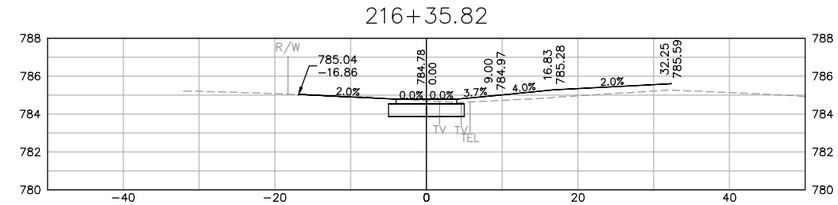

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41

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