AGENDA ITEM #9.2

City of Pequot Lakes

REPORT TO CITY COUNCIL

Report Prepared by: Tim Houle

Date: February 2, 2016

Subject: Pequot Boulevard Improvements

Report: Attached are the construction plans for re-paving a portion of Pequot Boulevard. Due to a drainage problem, we also included some new catch basins and storm sewer.

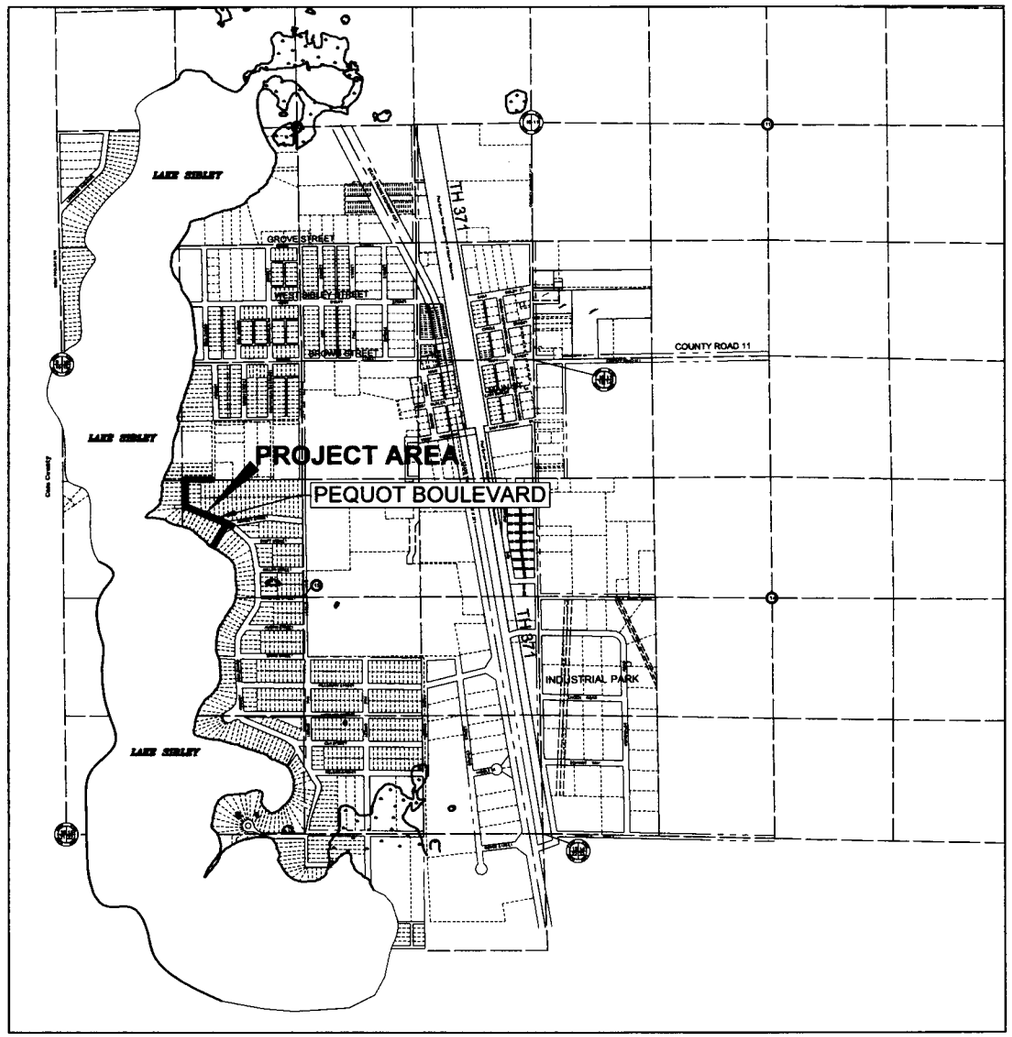
With the two City Council meetings in February, advertising deadlines, and wanting to give prospective bidders a reasonable time to bid the project, we are proposing the following schedule for publically bidding the project.

- Start advertising in the Echo Journal on Thursday, February 18, 2016. We will also advertise on QuestCDN, a website that construction contractors track for potential bid / projects.

- Open bids on Thursday, March 10th at 10:00 a.m. at City Hall.
- The City could then consider the bids and award the construction contract at their regular meeting on Tuesday, April 5, 2016.
- We could then work through legal construction contract items, get a pre-construction meeting scheduled, and get the construction contractor going after the school year has ended.

Council Action Requested: Council motion approving the construction plans for the Pequot Boulevard Improvements and advertising for public bids based on the timeline presented with bid consideration at the April 5, 2016 City Council Meeting.

2016 PEQUOT BOULEVARD IMPROVEMENTS
PEQUOT LAKES, MINNESOTA



GOVERNING SPECIFICATIONS

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

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12-18	ROADWAY CROSS SECTIONS

CITY OFFICIALS

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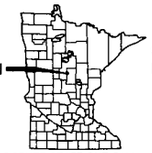
CITY COUNCIL	JERRY AKERSON GREG KARR RANDY LOUKOTA SCOTT PEDERSON
CITY ADMINISTRATOR	NANCY MALECHA
PUBLIC WORKS	MIKE LOVEN



GOPHER STATE ONE CALL
1-800-252-1166

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TIMOTHY M. HOULE DATE: MM/DD/YYYYC, NO. 25132

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: NOV., 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 0130B0056.00

2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA
TITLE SHEET

SHEET NO. 1
SHEET 1 OF 18

J:\0130B-City of Pequot Lakes\0130B0056-Pequot Boulevard Design\0130B0056.000-Pequot Boulevard Design\CADD\Civil\C-TS-0130B0056.000.dwg Plotted by:Brian Winskowski 1/21/2016 4:15:51 PM © 2015 WIDSETH SMITH NOLTING

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	REMARKS	SPEC. NO.	ITEM DESCRIPTION	UNIT	PROJECT TOTAL
1		2021.501	MOBILIZATION	LUMP SUM	1
2		2101.501	CLEARING	ACRE	0.10
3		2101.506	GRUBBING	ACRE	0.05
4		2104.501	REMOVE PIPE CULVERTS	LIN FT	32
5		2104.501	REMOVE CURB AND GUTTER	LIN FT	40
6		2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	3213
7		2104.509	REMOVE DRAINAGE STRUCTURE	EACH	1
8		2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	60
9		2105.501	COMMON EXCAVATION	CU YD	226
10		2118.501	AGGREGATE SURFACING CLASS 5	TON	10
11		2211.501	AGGREGATE BASE CLASS 5	TON	665
12		2360.501	TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)	TON	400
13		2501.515	12" RC PIPE APRON	EACH	1
14		2503.541	12" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	567
15		2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN F	LIN FT	6.45
16		2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN G	LIN FT	20.63
17		2506.516	CASTING ASSEMBLY	EACH	5
18		2511.501	RANDOM RIPRAP CLASS III	CU YD	4.4
19		2511.515	GEOTEXTILE FILTER TYPE IV	SQ YD	19.6
20		2531.501	CONCRETE CURB AND GUTTER DESIGN B612	LIN FT	40
21		2573.502	SILT FENCE, TYPE MS	LIN FT	190
22		2573.530	STORM DRAIN INLET PROTECTION	EACH	2
23		2573.533	SEDIMENT CONTROL LOG TYPE STRAW	LIN FT	120
24		2573.535	STABLILIZED CONSTRUCTION EXIT	LUMP SUM	1
25		2573.550	EROSION CONTROL SUPERVISOR	LUMP SUM	1
26		2574.508	FERTILIZER TYPE 1	POUND	58
27		2574.525	COMMON TOPSOIL BORROW	CU YD	82
28		2575.501	SEEDING	ACRE	0.15
29		2575.502	SEED MIXTURE 25-131	POUND	45
30		2575.502	SEED MIXTURE 25-141	POUND	3
31		2575.523	EROSION CONTROL BLANKETS CATEGORY 3	SQ YD	685

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2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

STATEMENT OF EST QUANTITIES

SHEET NO.
2

SHEET 2 OF 18

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SURVEY MONUMENTS

- BENCH MARK
- FOUND CIM
- FOUND CPNT.
- FOUND JLM
- FOUND LATH
- FOUND PIPE
- FOUND READING
- STAKED CIM
- STAKED CPNT.
- STAKED JLM
- STAKED PIPE

EXISTING TOPO SYMBOLS

- AC UNIT
- FENCE POST
- FLAG POLE
- GUARD POST
- GUY ANCHOR
- GUY POLE
- HANDICAP SYMBOL
- MAILBOX
- SHRUB
- SIGN DOUBLE POST
- SIGN SINGLE POST
- TREE CONIFER
- TREE DECIDUOUS
- TREE STUMP
- TV DISH
- WETLAND SYMBOL
- YARD LIGHT

EXISTING UTILITY MUNICIPAL SYMBOLS

- APRON
- LIFT STATION
- SANITARY CLEANOUT
- SANITARY MANHOLE
- STORM CATCH BASIN
- STORM INLET

EXISTING UTILITY MUNICIPAL SYMBOLS (cont.)

- STORM MANHOLE
- WATER CURB STOP
- WATER HANDHOLE
- WATER HYDRANT
- WATER MANHOLE
- WATER METER
- WATER VALVE
- WATER WELL
- UTILITY SIZE & TYPE

EXISTING UTILITY PRIVATE SYMBOLS

- ELEC GROUND LIGHT
- ELEC HANDHOLE
- ELEC LIGHT POLE
- ELEC MANHOLE
- ELEC METER
- ELEC PEDESTAL
- ELEC POLE
- ELEC SIGNAL
- ELEC TRANSFORMER BOX
- GAS METER
- GAS VALVE
- LP TANK
- TELE HANDHOLE
- TELE MANHOLE
- TELE PEDESTAL
- TELE POLE
- TV HANDHOLE
- TV PEDESTAL

SOIL BORING SYMBOLS

- LASER-INDUCED FLUORESCE BORING
- LYSIMETER
- MONITOR WELL
- PERC TEST
- PIEZOMETER
- RECOVERY WELL
- SOIL BORING
- SOIL VAPOR POINT
- VAPOR SURVEY POINT

PROPOSED UTILITY MUNICIPAL SYMBOLS

- APRON PROPOSED
- SANITARY CLEANOUT PROPOSED
- SANITARY LIFT STATION PROPOSED
- SANITARY LIFT STATION VALVE MANHOLE PROPOSED
- SANITARY MANHOLE PROPOSED
- SANITARY PLUG PROPOSED
- STORM CATCH BASIN PROPOSED
- STORM MANHOLE PROPOSED
- WATER 11 1/4° BEND PROPOSED
- WATER 22 1/2° BEND PROPOSED
- WATER 45° BEND PROPOSED
- WATER 90° BEND PROPOSED
- WATER CAP PROPOSED
- WATER CROSS PROPOSED
- WATER CURB STOP PROPOSED
- WATER HYDRANT PROPOSED
- WATER REDUCER PROPOSED
- WATER SLEEVE PROPOSED
- WATER TEE PROPOSED
- WATER VALVE PROPOSED

PROPOSED UTILITY PRIVATE SYMBOLS

- ELEC LIGHT POLE PROPOSED

EROSION CONTROL SYMBOLS

- SURFACE DRAINAGE ARROW
- STORM DRAIN INLET PROTECTION

TRAFFIC CONTROL DEVICES & SYMBOLS

- TRAFFIC CONTROL SIGN (1 POST)
- TRAFFIC CONTROL SIGN (2 POST)
- TYPE III BARRICADE
- DRUM CHANNELIZER
- FLASHING ARROW OR MESSAGE BOARD

EXISTING TOPOGRAPHIC LINES

- CENTER LINE
- EDGE OF WOODS
- FENCE BARB WIRE
- FENCE CHAIN LINK
- FENCE WOOD
- FORCEMAIN
- OVERHEAD CABLE TV
- OVERHEAD ELECTRIC
- OVERHEAD TELE
- RAILROAD
- RETAINING WALL
- SANITARY SEWER
- SANITARY SEWER SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- UNDERGROUND CABLE TV
- UNDERGROUND ELECTRIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND GAS
- UNDERGROUND TELE
- WATERMAIN
- WATERMAIN SERVICE
- WETLAND EDGE

R/W, LOT & EASEMENTS LINES

- BUILDING SETBACK LINE
- LOT LINE PROPOSED
- EASEMENT LINE
- EASEMENT LINE PROPOSED
- LOT LINE
- MNDOT CONTROLLED ACCESS LINE
- RIGHT OF WAY EXISTING
- RIGHT OF WAY PROPOSED

PROPOSED CONSTRUCTION LINES

- FENCE CHAIN LINK PROPOSED
- FENCE WOOD PROPOSED
- FENCE BARB WIRE PROPOSED
- FORCEMAIN PROPOSED
- SANITARY SEWER PROPOSED
- SANITARY SERVICE PROPOSED
- STORM SEWER PROPOSED
- STORM SEWER DRAIN TILE PROPOSED
- WATERMAIN PROPOSED
- WATERMAIN SERVICE PROPOSED

EROSION CONTROL LINES

- BALE CHECK
- BIO ROLL
- SILT FENCE
- SILT FENCE TYPE HEAVY DUTY
- SILT FENCE TYPE MACHINE SLICED
- SILT FENCE TYPE PREASSEMBLED
- FLOTATION SILT CURTAIN

HATCH PATTERN AND SHADING LEGEND

- RANDOM RIPRAP
- SOD
- SEED
- HYDRAULIC STABILIZER
- EROSION CONTROL BLANKET
- TEMP. ROCK CONSTRUCTION ENTRANCE
- BUILDING WALL HATCH
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- EASEMENT PATTERN

DOCUMENTATION SYMBOLS

A / 2A — SECTION ARROW - SECTION NUMBER TOP; PAGE OF SECTION BOTTOM

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2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

PLAN LEGEND

SHEET NO. 3

CONSTRUCTION NOTES

TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL

1. TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES SHOWN IN THE TABULATIONS AND PLAN SHEETS ARE FOR SUGGESTED LOCATIONS. THE ENGINEER, DURING THE TIME OF CONSTRUCTION, MAY ADJUST THESE LOCATIONS TO BEST SUIT THE PROJECT CONDITIONS. THIS DOES NOT HOWEVER, RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITIES AS SET FORTH IN THE MNDOT SPECIFICATIONS AND NPDES STORM WATER PERMIT FOR CONSTRUCTION ACTIVITY.

2. ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES SHALL BE IN PLACE PRIOR TO BEGINNING ANY CONSTRICTION ON THE PROJECT. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MONITORED AND MAINTAINED BY THE CONTRACTOR UNTIL FINAL TURF COVER HAS BEEN ESTABLISHED AND ACCEPTED BY THE CITY.

3. ALL EXPOSED SOIL AREAS THAT ARE NOT ACTIVELY BEING WORKED MUST HAVE TEMPORARY EROSION PROTECTION OR PERMANENT COVER WITHIN THE FOLLOWING TIME FRAME:

TYPE OF SLOPE	TIME
ALL SLOPES	14 DAYS

4. SEDIMENT TRACKED ONTO STREETS OFF OF THE PROJECT SITE SHALL BE REMOVED WITHIN 24-HOURS USING A STREET SWEEPER WITH A PICKUP BROOM.

5. DRAINAGE STRUCTURES SHALL BE PROTECTED WITH THE APPROPRIATE INLET PROTECTION DEVICE DURING ALL PHASES OF CONSTRUCTION. SEDIMENT ENTERING THE STORM SEWER SYSTEM AS A RESULT OF STORM WATER RUNOFF OR CONSTRUCTION ACTIVITY SHALL BE REMOVED BY THE CONTRACTOR AS SOON AS POSSIBLE.

UTILITY OWNERS:

WATER & SEWER-	
CITY OF PEQUOT LAKES	218-820-2125
ELECTRICAL -	
MINNESOTA POWER & LIGHT	218-568-4744
CROW WING COOP	218-568-4744
COMMUNICATIONS	
T O S TELECOM	218-568-2484
CHARTER COMMUNICATIONS	218-821-7672
NATURAL GAS -	
XCEL ENERGY	800-848-7558

UTILITY QUALITY LEVEL DEFINITIONS:

Utility quality level A: Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on plan documents. Accuracy is typically set to 15-mm vertical and to applicable horizontal survey and mapping accuracy as defined or expected by the project engineer.

Utility quality level B: Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality level B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

Utility quality level C: Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to quality level D information.

Utility quality level D: Information derived from existing records or oral recollections.

TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL

6. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL AND THE APPROPRIATE SEED MIXTURE AND MULCH AS SHOWN ON THE PLAN SHEETS.

7. ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES MUST BE REMOVED BY THE CONTRACTOR WHEN FINAL TURF COVER HAS BEEN ESTABLISHED AND ACCEPTABLE TO THE CITY. AREAS DISTURBED AS A RESULT OF THE REMOVAL PROCESS SHALL BE RE-SEED AND MULCHED WITH THE APPROPRIATE SEED MIXTURE AND MULCH MATERIAL. NO ADDITIONAL PAYMENT FOR RE-SEEDING AS A RESULT OF THE REMOVAL ACTIVITIES WILL BE MADE.

10. THE ENGINEER AND CONTRACTOR SHALL DETERMINE THE USE AND PLACEMENT OF TEMPORARY SEEDING BASED ON FIELD CONDITIONS AND CONSTRUCTION PHASING.

UTILITIES

1. THE ENGINEER HAS MADE AN ATTEMPT TO SHOW ALL PUBLIC UTILITIES WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. PUBLIC UTILITIES SHOWN ON THIS PLAN WERE DRAWN USING FIELD SURVEY INFORMATION AND MAPS PROVIDED TO THE ENGINEER BY THE UTILITY COMPANIES AS A RESULT OF A GOPHER STATE ONE CALL DESIGN LOCATE REQUEST. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THESE LOCATIONS PRIOR TO BIDDING AND CONSTRUCTING THE PROJECT.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION LOCATES AND SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES AT LEAST 48-HOURS BEFORE CONSTRUCTION.

3. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-.2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION FO EXISTING SUBSURFACE UTILITY DATA".

GENERAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY OWNER OF ANY DIFFERENCES BETWEEN THE FIELD AND PLAN.

2. UNLESS OTHERWISE NOTED, ALL MATERIALS, CONSTRUCTION TECHNIQUES AND TESTING SHALL CONFORM TO THE 2013 ED. OF THE "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL/SURFACE RESTORATION, WATERMAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PUBLISHED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA AND THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION AS PUBLISHED BY THE MINNESOTA DEPARTMENT OF TRANSPORTATION 2016 ED. THE CONTRACTOR SHALL REQUIRE ALL PROCEDURES AS OUTLINED BY THE LOCAL AGENCY.

3. THE CONTRACTOR SHALL RECEIVE THE NECESSARY PERMISSION/PERMITS FOR ALL WORK LOCATED OUTSIDE OF THE MUNICIPAL RIGHT-OF-WAY AND PROPERTY LIMITS.

4. THE CONTRACTOR SHALL VERIFY ALL EXISTING INVERT LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION.

REMOVALS AND DISPOSALS

1. ALL REMOVED PAVEMENT, STRUCTURES, ETC. (UNLESS SPECIFICALLY NOTED IN THE PLANS) SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED TO THE EXTENT ALLOWED OR DISPOSED OF IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS AND LOCAL REGULATIONS.

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE
3006G	GASKET JOINT FOR R.C. PIPE
3007E	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
4005M	MANHOLE OR CATCH BASIN PRECAST - DESIGN F
4006L	MANHOLE OR CATCH BASIN PRECAST - DESIGN G
4010H	CONCRETE SHORT CONE & ADJUSTING RING (SECTIONAL CONCRETE)
4011E	PRECAST CONCRETE BASE
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
4110F	COVER CASTING FOR MANHOLE
4180J	MANHOLE OR CATCH BASIN STEP
7100H	CONCRETE CURB AND GUTTER (DESIGN B)
7111J	INSTALLATION OF CATCH BASIN CASTINGS
8000I	STANDARD BARRICADES

BASIS FOR ESTIMATED QUANTITIES

BITUMINOUS WEARING COURSE	
BITUMINOUS MIXTURE	115 LBS./SQ.YD./INCH THICKNESS
BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL./SQ. YD.
AGGREGATE	
AGGREGATE BASE - CLASS 5	110 LBS./SQ.YD./INCH THICKNESS
AGGREGATE SURFACING - CLASS 5	110 LBS./SQ.YD./INCH THICKNESS
TURF ESTABLISHMENT	
SEED MIX 25-141	59 LBS/ACRE
SEED MIX 25-151	400 LBS/ACRE
COMMERCIAL FERTILIZER, TYPE 1 22-5-10	350 LBS/ACRE

STORM SEWER STRUCTURE SCHEDULE

DS. NO	STATION	LOCATION	PROPOSED TOP OF CASTING	OUTLET ELEV	DESIGN F	DESIGN G	CASTING ASSEMBLY	12" RCP	12" RC PIPE APRON	DRAINS TO STRUCTURE	% GRADE	INLET ELEV.	SEAL DRAINAGE STRUCTURE	REMARKS:
					LIN. FT.	LIN. FT.	EACH	LIN. FT.	EACH				EACH	
DS 1	2+60	CENTERLINE	1250.90	1245.90		5.12	B	19	1	OUTLET APRON	2.00	1245.50	1	2
DS 2	4+85	CENTERLINE	1259.45	1254.30		5.27	B	225		DS 1	3.89	1246.00	1	2
DS 3	7+53.8	CENTERLINE	1265.23	1258.90	6.45		B	269		DS 2	1.68	1254.40	1	2,3
DS 4	7+71.8	11' RT	1264.35	1259.35		5.12	A	19		DS 3	1.05	1259.00	1	1
DS 5	7+97.8	14.2' LT	1264.80	1259.80		5.12	A	36		DS 4	1.00	1259.45	1	1
			TOTAL		6.45	20.63		567	1				5	

REMARKS

1. PAY HEIGHT = TOP OF CASTING - OUTLET ELEV + 0.70' - 0.81'
2. PAY HEIGHT = TOP OF CASTING - OUTLET ELEV + 0.70' - 0.58'
3. TYPE B CONE SECTION

CASTING ASSEMBLY SCHEDULE

ASSEMBLY	CASTING	GRATE	BOX	EACH
A	NEENAH R-3250-DVSP			2
B	700-7	716		3
TOTAL				5

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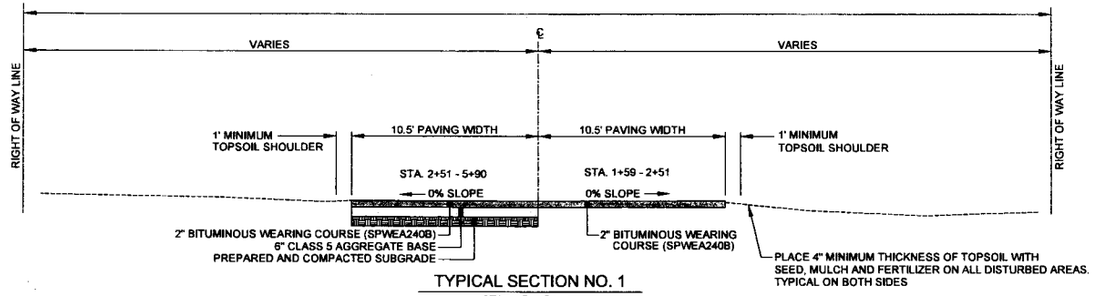
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

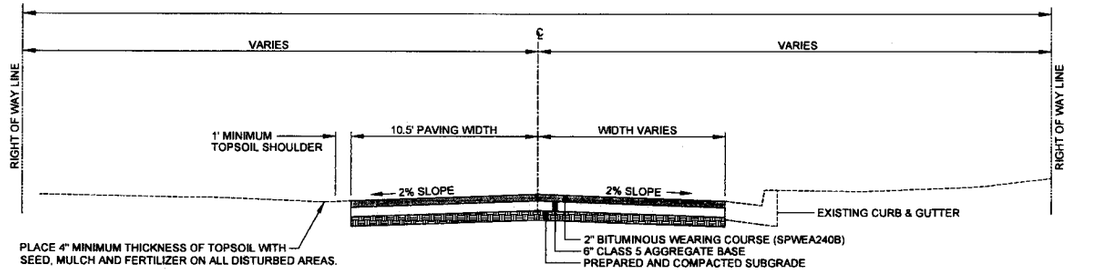
GENERAL NOTES, STD PLATES & STORM SEWER SCHEDULE

SHEET NO 4



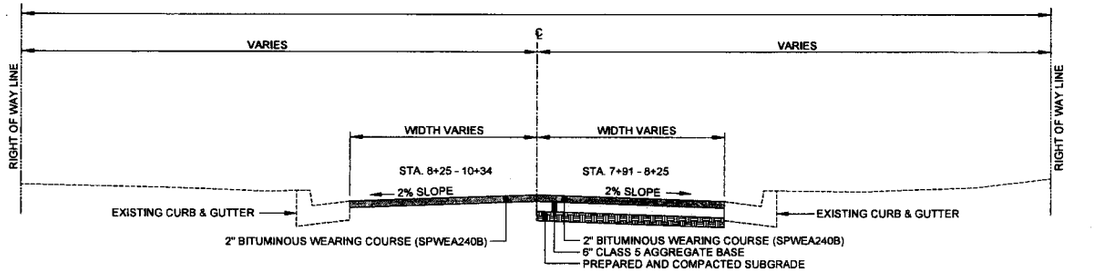
TYPICAL SECTION NO. 1

STA. 1+59 - 5+90



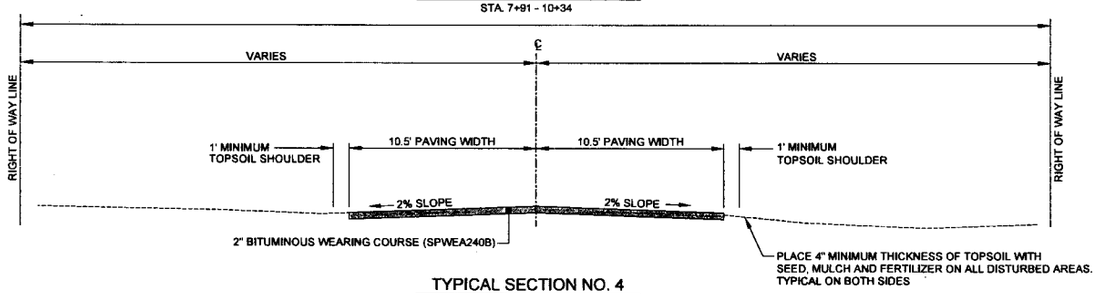
TYPICAL SECTION NO. 2

STA. 5+90 - 7+91
STA. 10+34 - 11+03



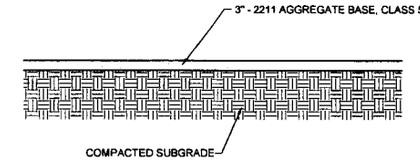
TYPICAL SECTION NO. 3

STA. 7+91 - 10+34



TYPICAL SECTION NO. 4

STA. 11+03 - 14+60



TYPICAL AGGREGATE SURFACING RESTORATION SECTION

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TIMOTHY M. HOULE DATE: MMSDDYYYDC, NO. 25132

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: NOV., 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 013080056.00

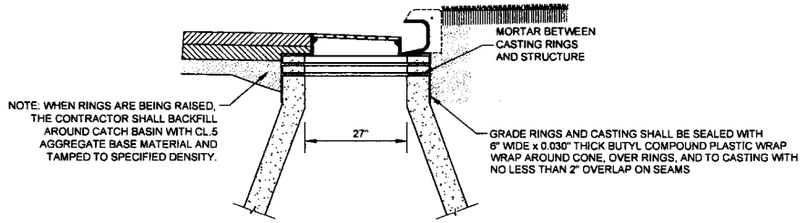
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

TYPICAL ROADWAY SECTIONS

SHEET NO. 5

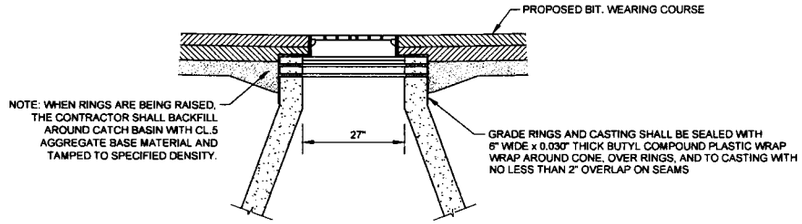
SHEET 5 OF 18

J:\0130B-City of Pequot Lakes\013080056-Pequot Boulevard Design\013080056.000-Pequot Boulevard Design\CADD\CIVIC-OT-013080056.000.dwg Plotted by:Brian Winskowski 1/21/2016 4:16:29 PM © 2016 WIDSETH SMITH NOLTING



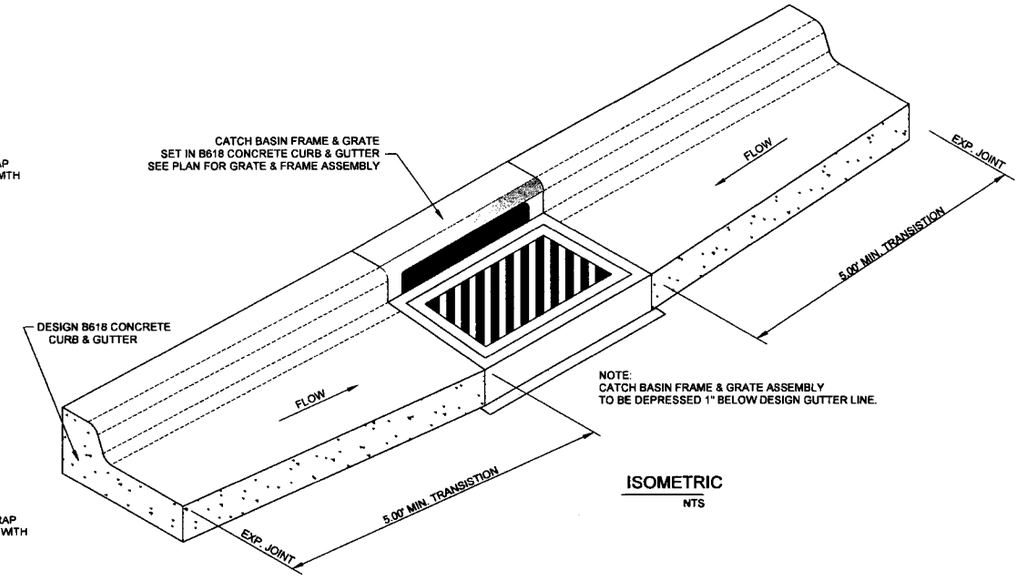
DRAINAGE STRUCTURE CASTING DETAIL

STORM SEWER CATCH BASINS - ROADWAYS



STORM AND SANITARY SEWER MANHOLE DETAIL

SANITARY & STORM SEWER MANHOLES - ROADWAYS



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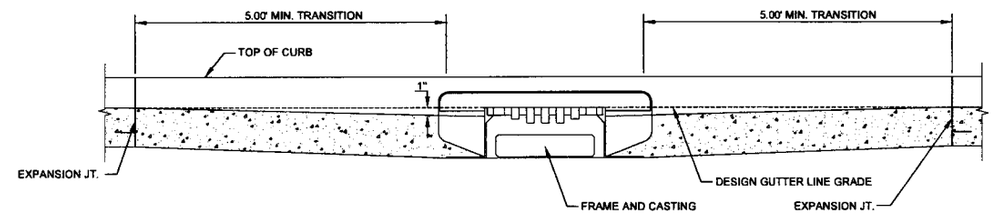
NTS



ELEVATION

NTS

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SMITH & HOLLE DATE: MARCH YYYYDC: HO, 2016

DATE	REV#	REVISION DESCRIPTION	BY

DATE: NOV. 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 013080056.00

2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

MISCELLANEOUS DETAILS

SHEET NO. 6

SHEET 6 OF 18

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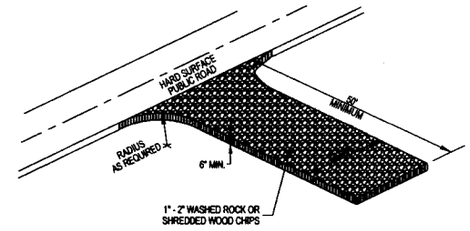
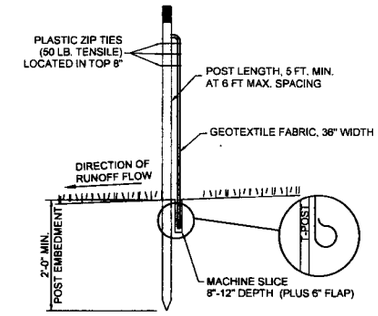
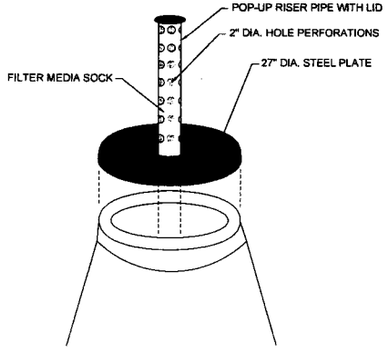


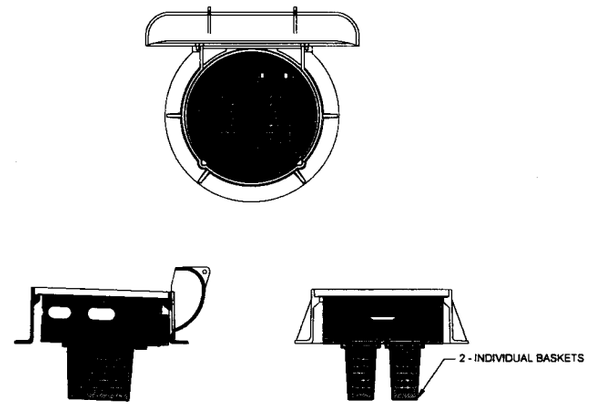
CONSTRUCTION ENTRANCE
NTS



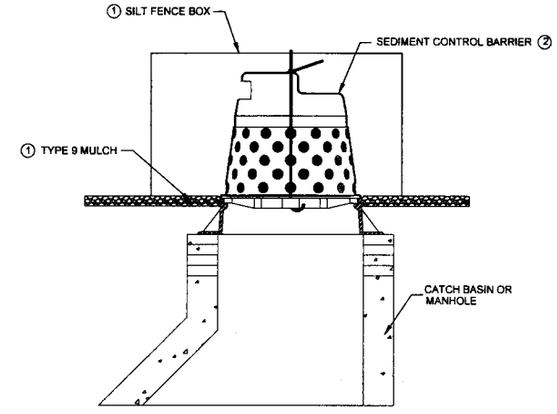
SILT FENCE DETAIL
STANDARD MACHINE SLICED



STORM DRAIN INLET PROTECTION
POP-UP HEAD



STORM DRAIN INLET PROTECTION
FILTER BAG INSERT



NOTES:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHELENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.

① USE INLET PROTECTION TYPE A OR TYPE 9 MULCH, AS DIRECTED BY THE ENGINEER.

② PAID FOR AS SEDIMENT CONTROL BARRIER.

STORM DRAIN INLET PROTECTION
SEDIMENT CONTROL HAT

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TIMOTHY M. HOULE DATE: MM/DD/YYYY/SC. NO. 25132

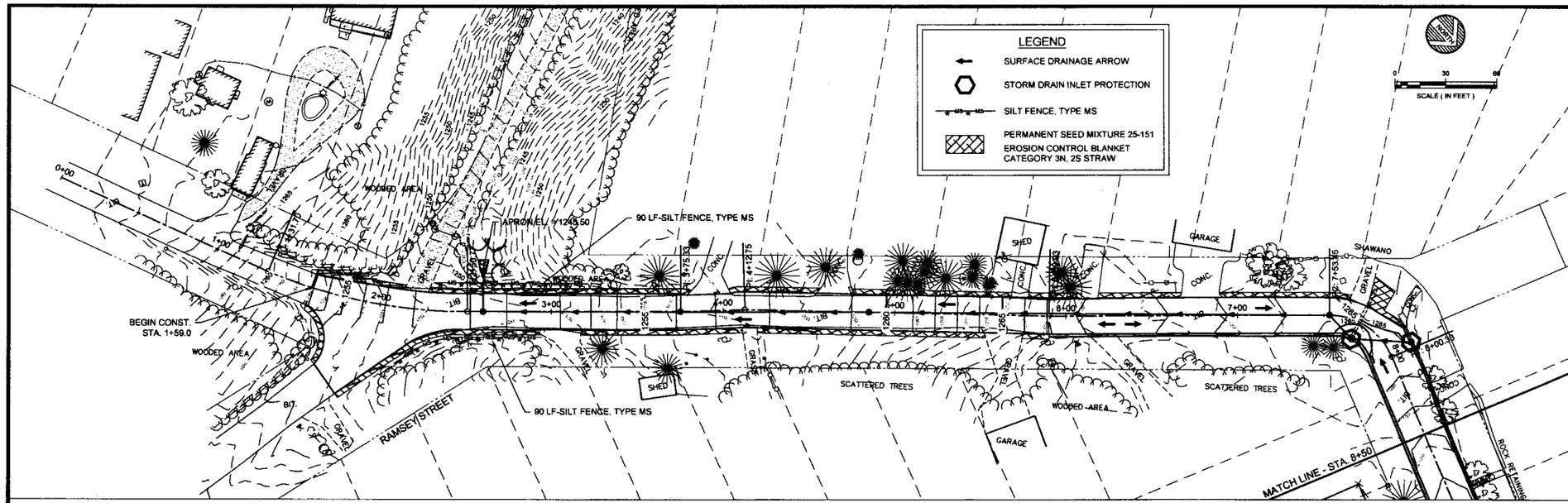
DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: NOV., 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 0130B0056.00

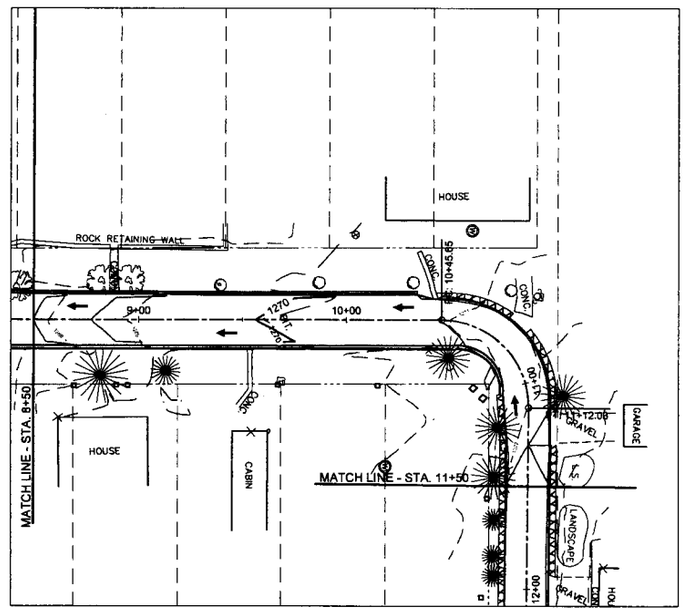
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

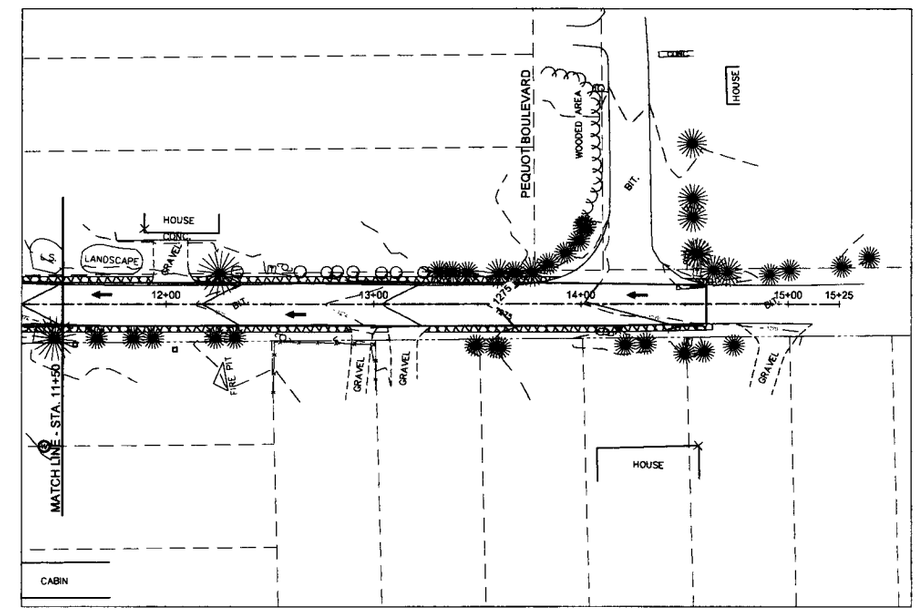
EROSION CONTROL DETAILS

SHEET NO. 7



PEQUOT BOULEVARD





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TIMOTHY M. HOULE — DATE: MARCH/YYYY REG. NO. 25122

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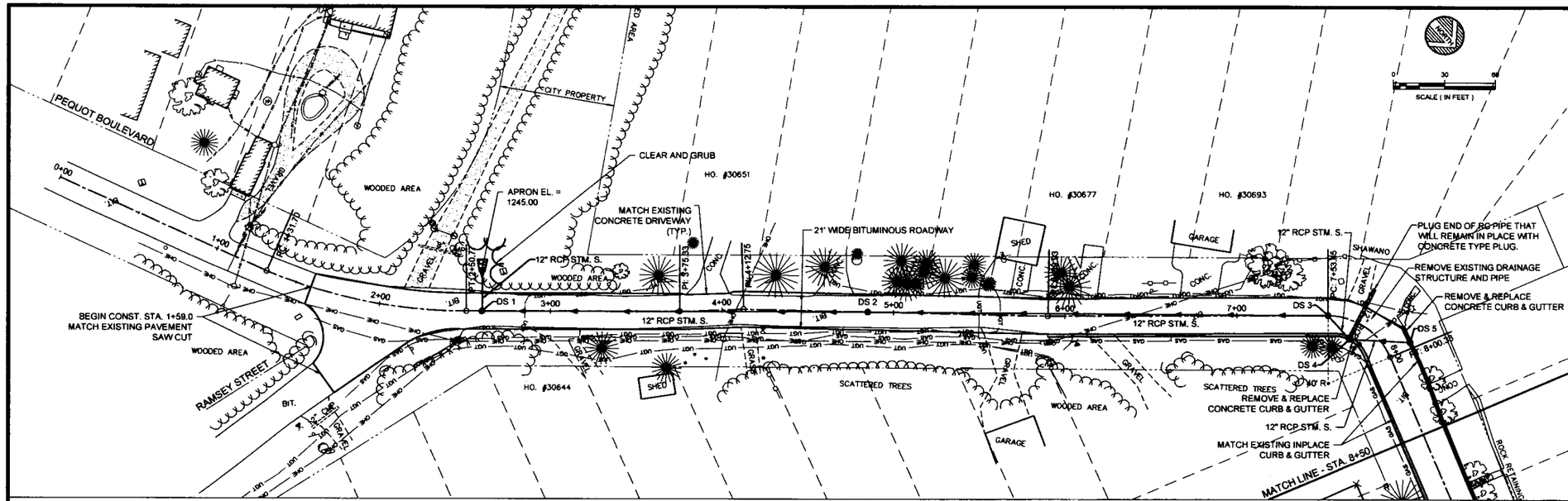
DATE: NOV. 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 013380056.00

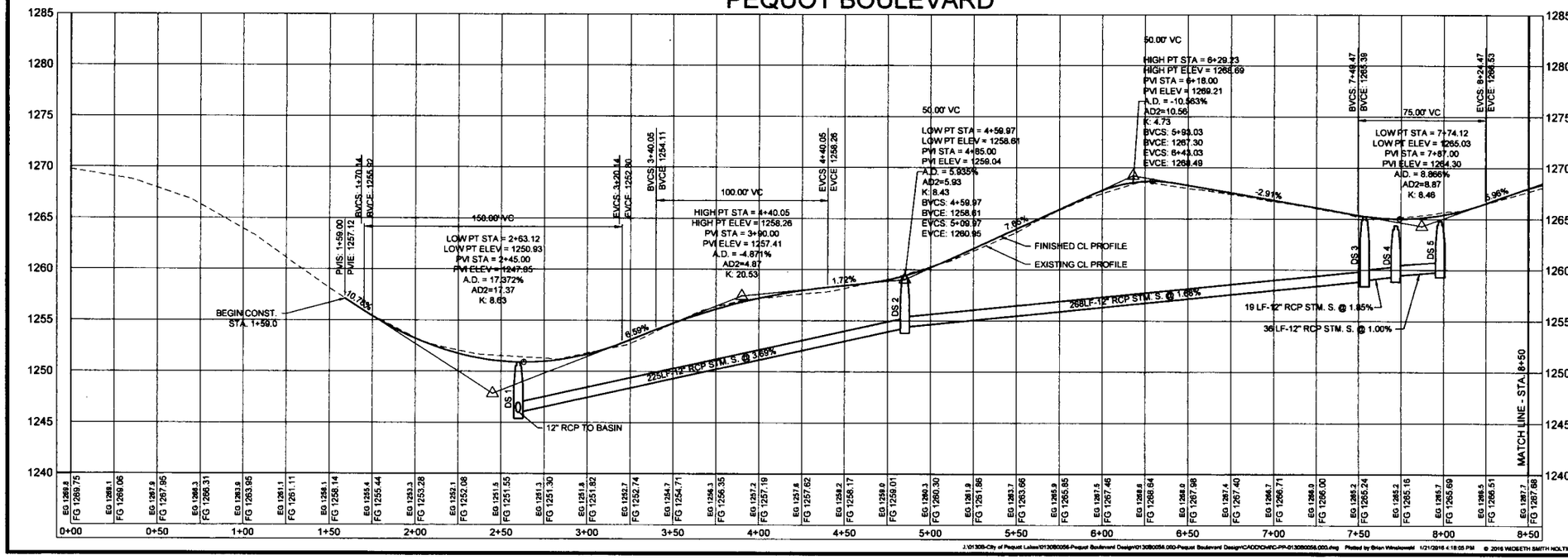
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

EROSION CONTROL PLAN - PEQUOT BOULEVARD

SHEET NO. 8



PEQUOT BOULEVARD



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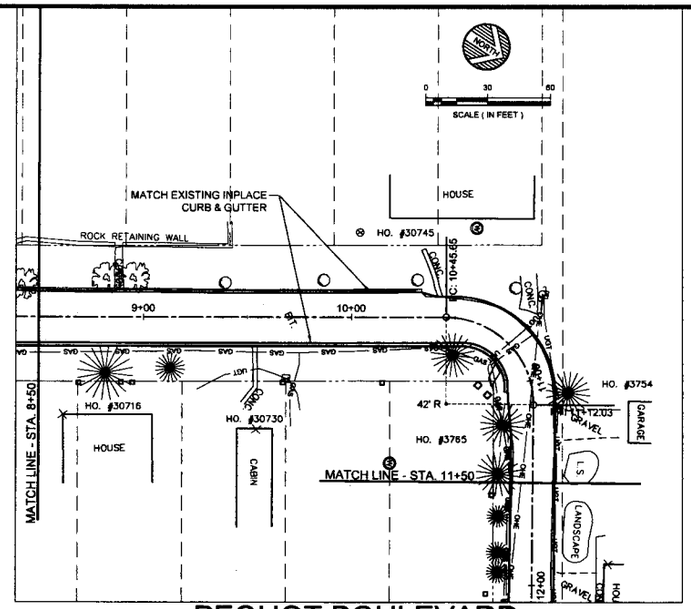
TIMOTHY A. HOULE — DATE: WADOWYYYYMD, MD 20148

DATE: NOV. 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
CR NUMBER: 013080056.00

2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

PLAN & PROFILE - PEQUOT BOULEVARD

SHEET NO. 9



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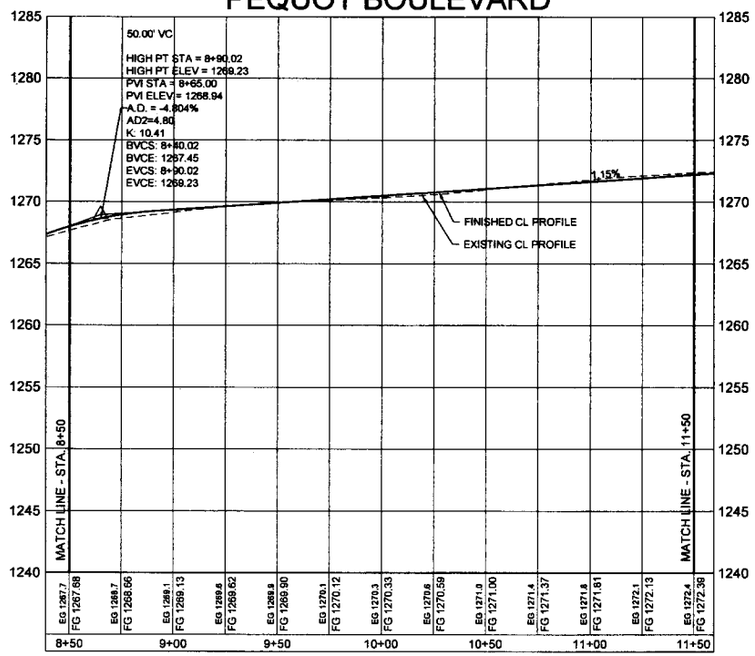

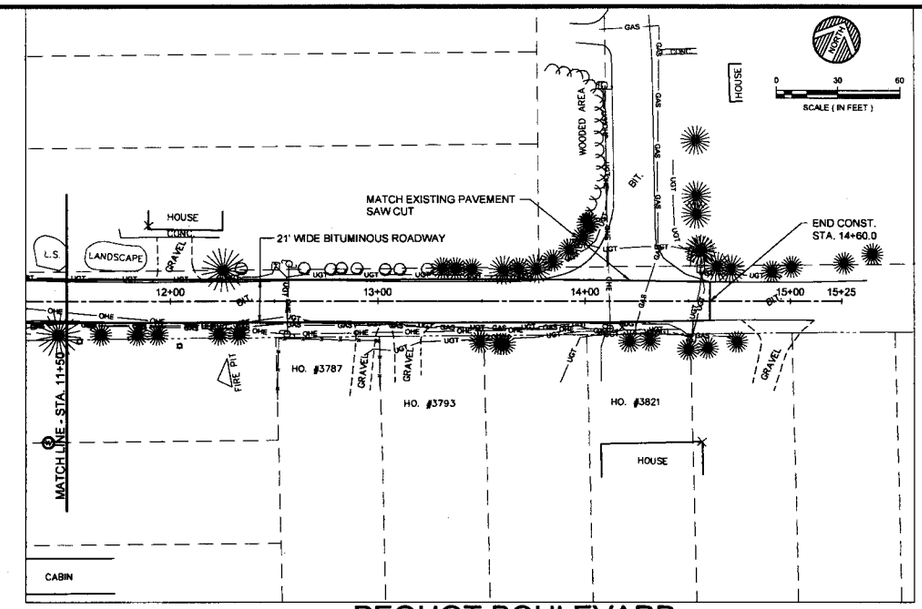

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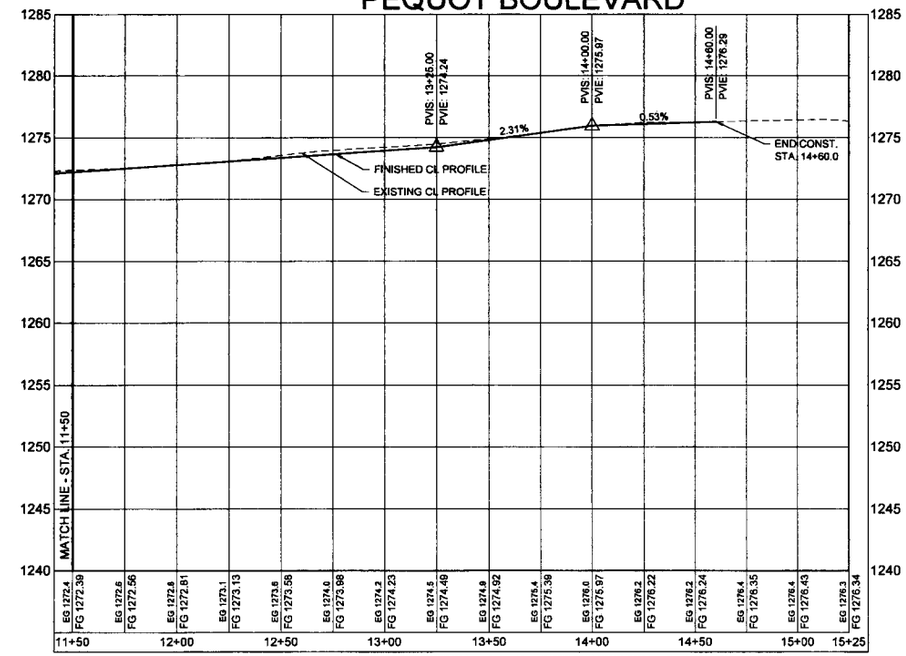

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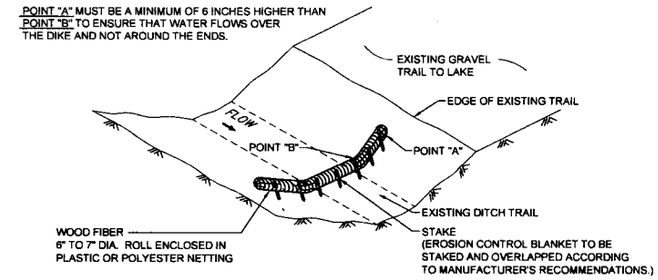
TIMOTHY M. HOULE DATE: MARCH/TYREC, NO. 51131

DATE: NOV. 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 013080056.00

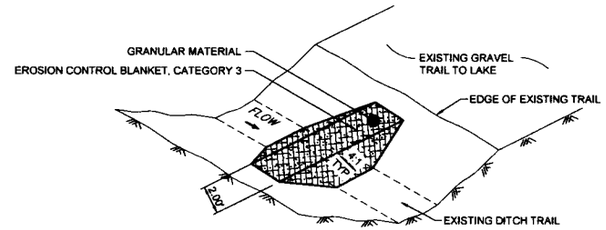
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

PLAN & PROFILE - PEQUOT BOULEVARD 2

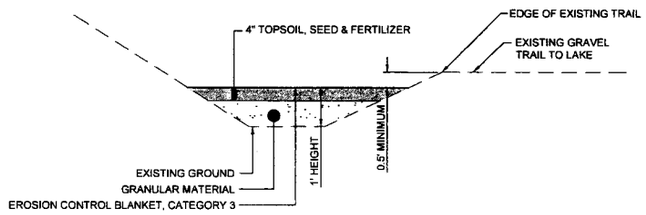
SHEET NO.
10



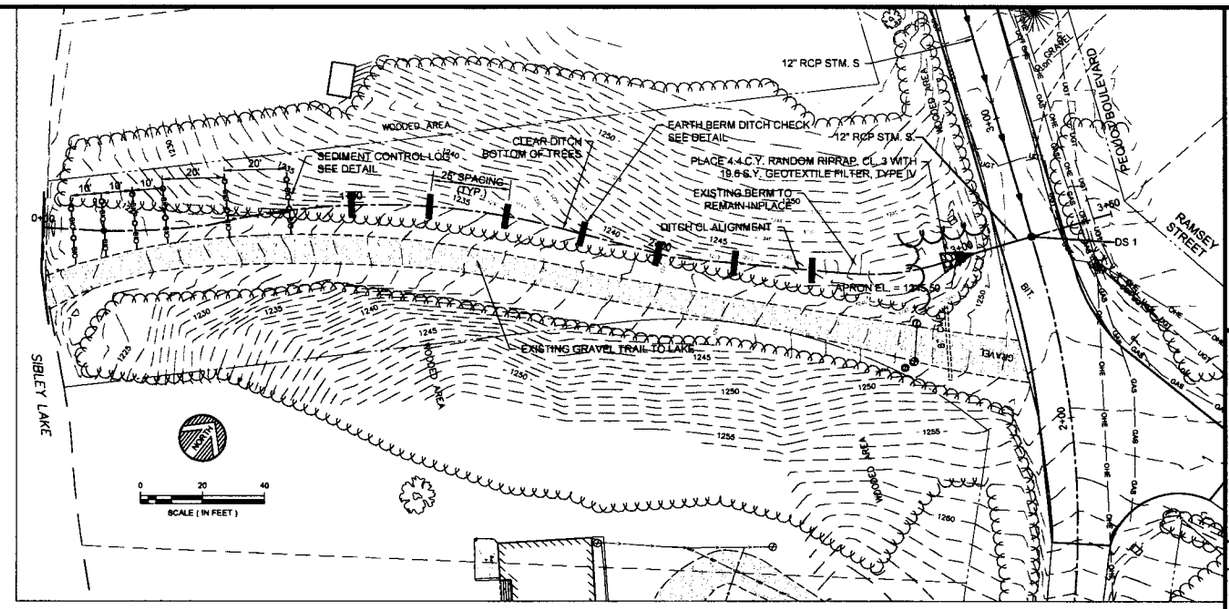
BIOROLL CHECK DETAIL



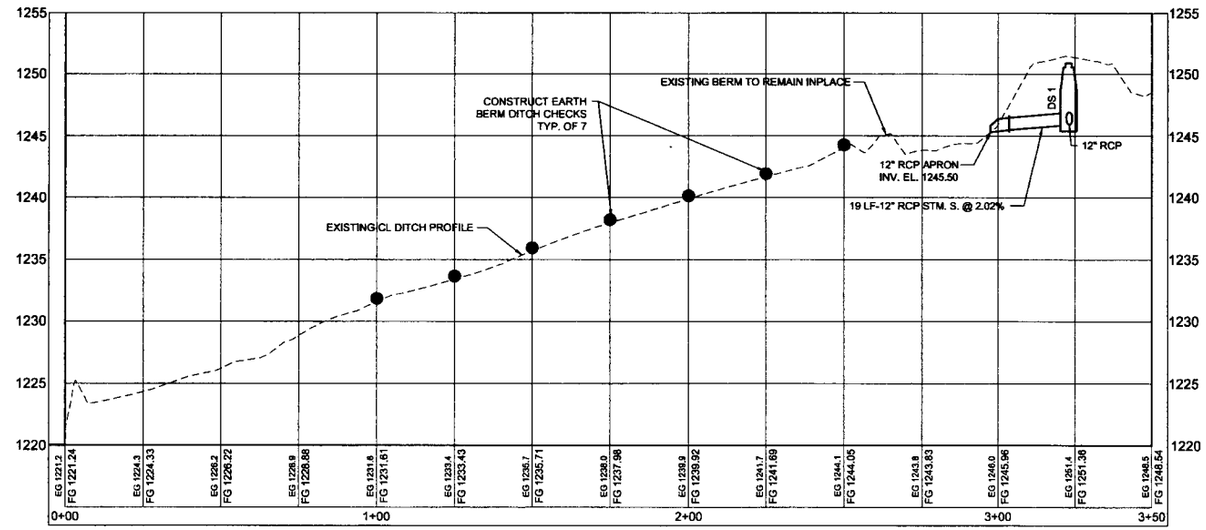
EARTH BERM DITCH CHECK DETAIL - PLAN



EARTH BERM DITCH CHECK DETAIL - ELEVATION



DRAINAGE DITCH



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TIMOTHY M. HOULE DATE: MM/DD/YYYY/CL NO. 25132

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DATE: NOV. 2015
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2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA
DRAINAGE DITCH CHECKS PLAN

SHEET NO.
11

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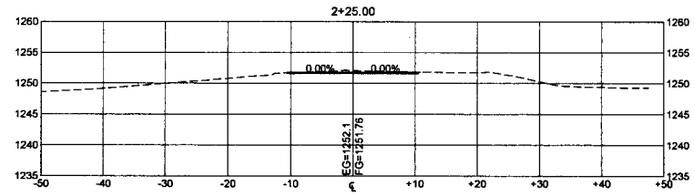

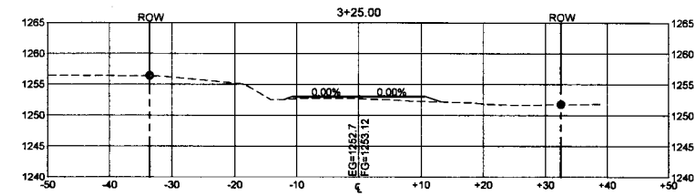

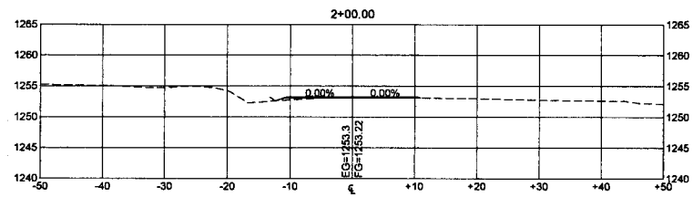

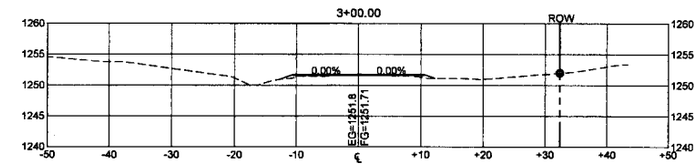

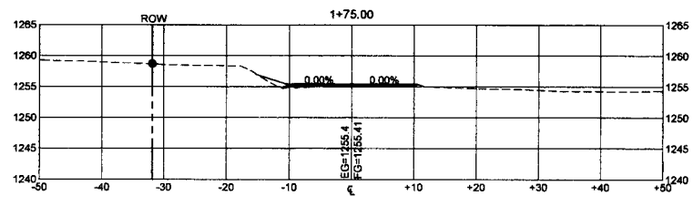

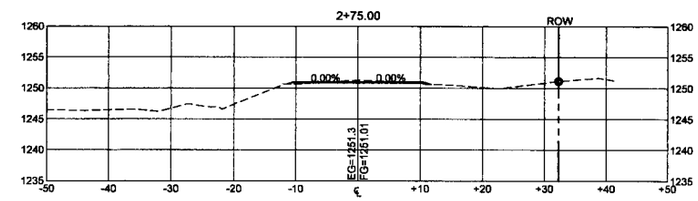

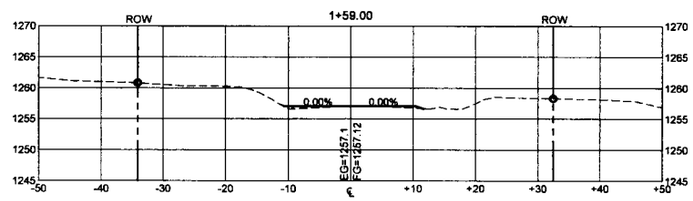

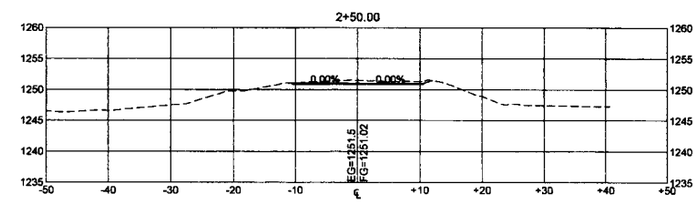

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TIMOTHY M. HOULE DATE: MM/DD/YYYY/SC. NO. 25132

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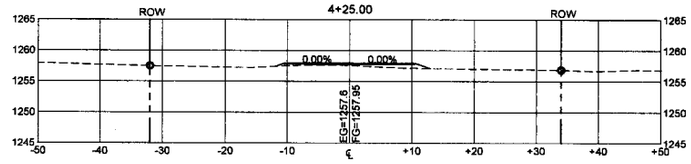
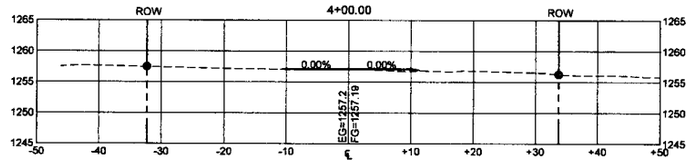
CHECKED BY: TMH
JOB NUMBER: 01308005B.00

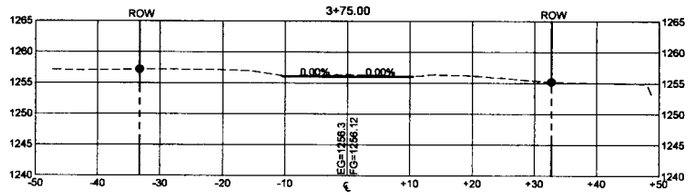
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

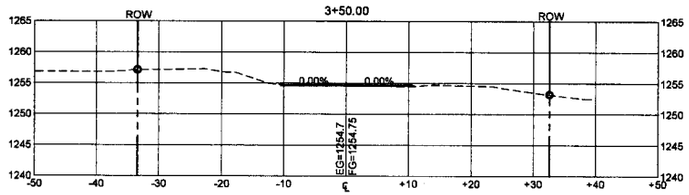
CROSS SECTIONS

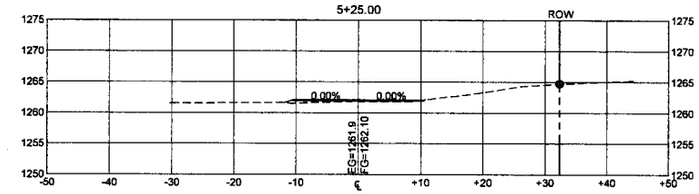
SHEET NO.
12

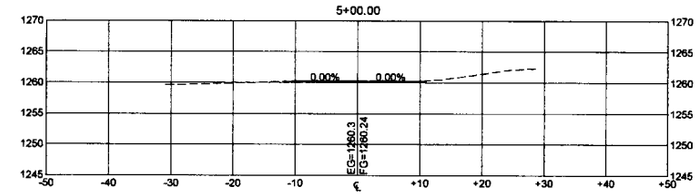


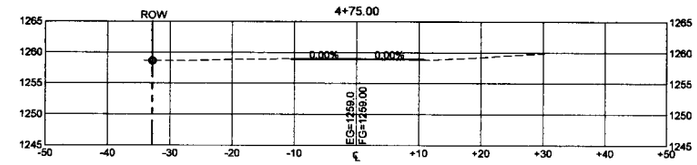


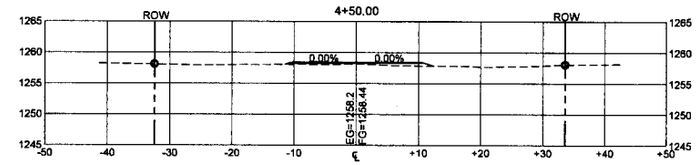


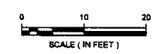












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TIMOTHY M. HOULE DATE: MM/DD/YYYY/SC. NO. 25132

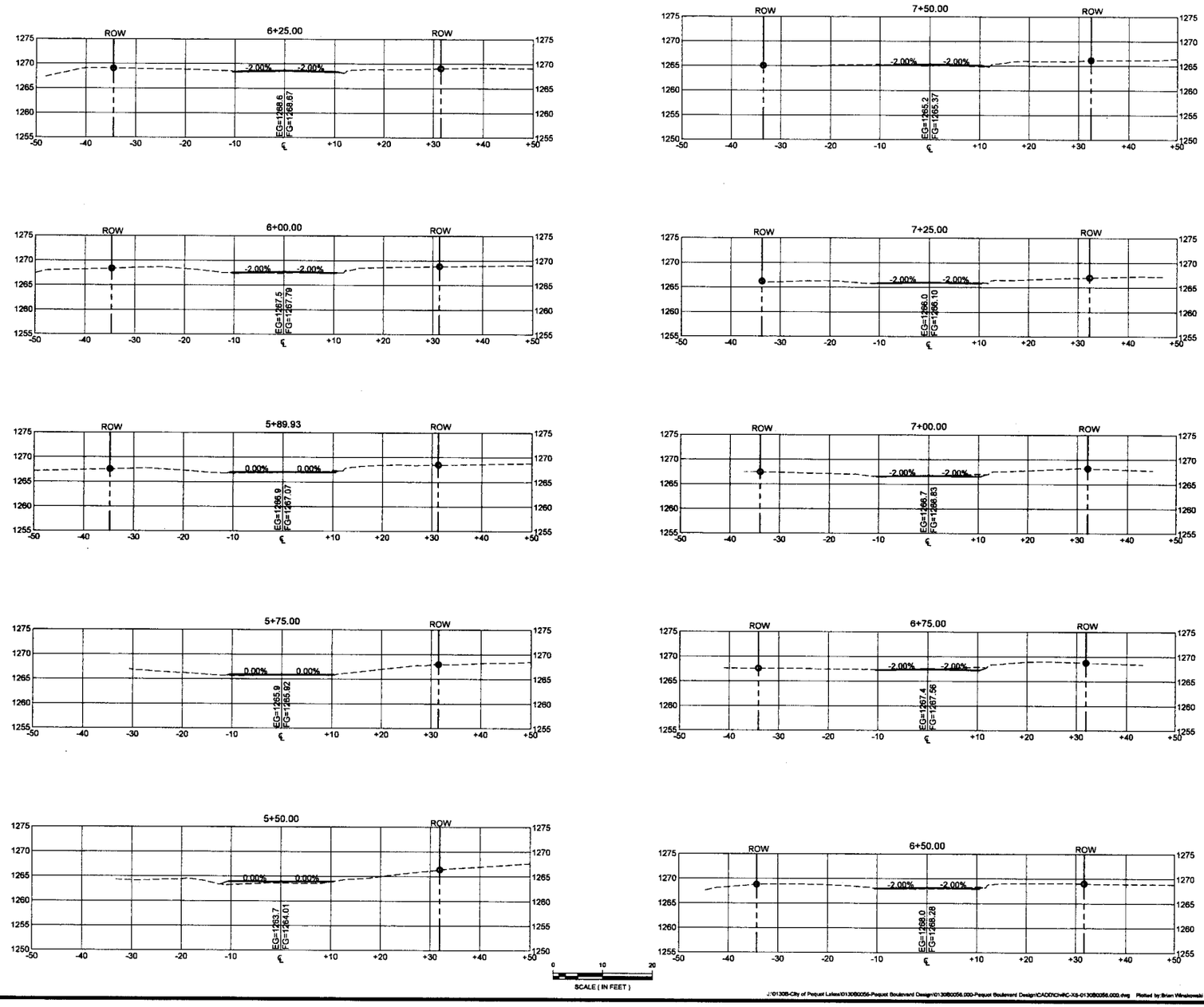
DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: NOV., 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 0130B0056.00

2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

CROSS SECTIONS

SHEET NO.
13



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DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: NOV. 2015
SCALE: AS SHOWN
DRAWN BY: PMS
CHECKED BY: TMH
JOB NUMBER: 01308O056.00

2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

CROSS SECTIONS

SHEET NO.
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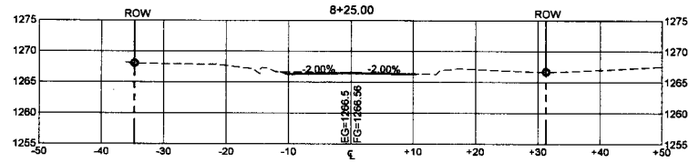

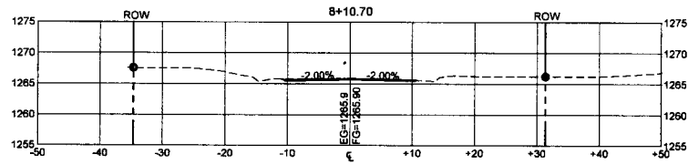

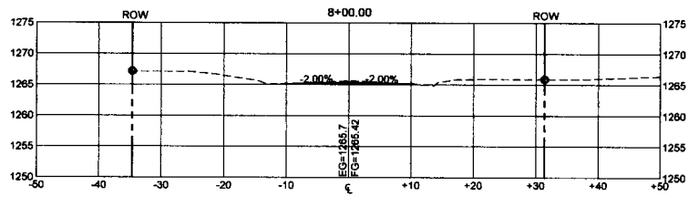

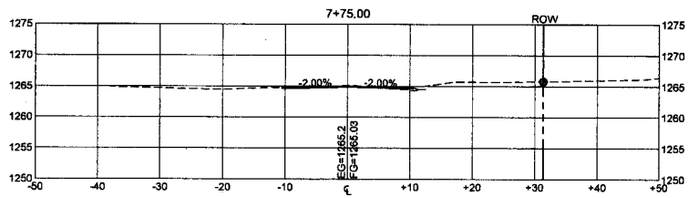

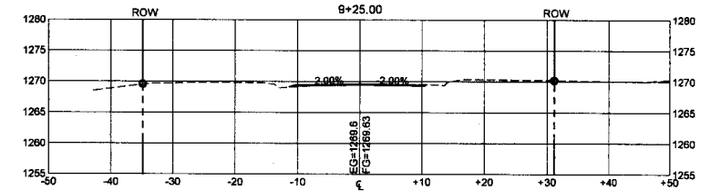

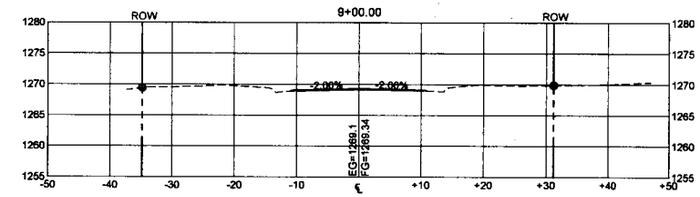

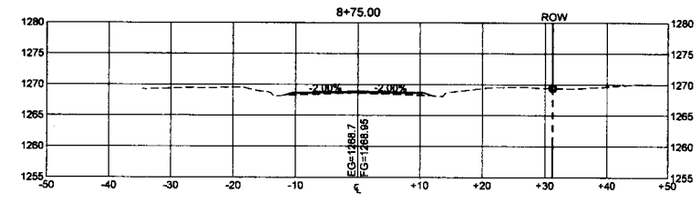

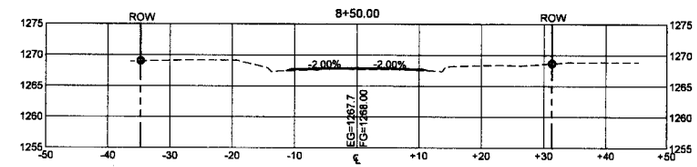

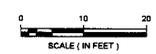

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TIMOTHY M. HOULE DATE: MMDDYYYYDD, NO. 25132

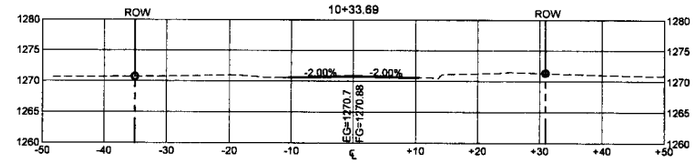
DATE	REV#	REVISIONS DESCRIPTION	BY

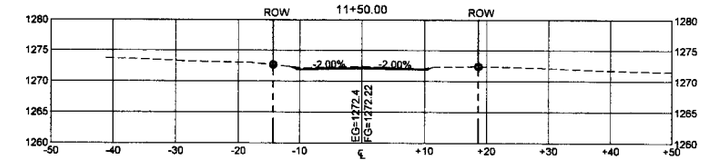
DATE: NOV., 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 013080056.00

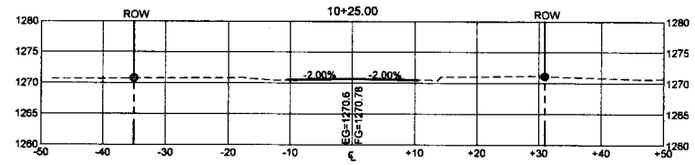
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

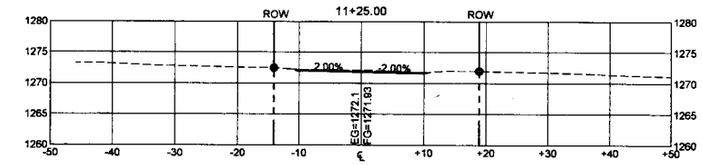
CROSS SECTIONS

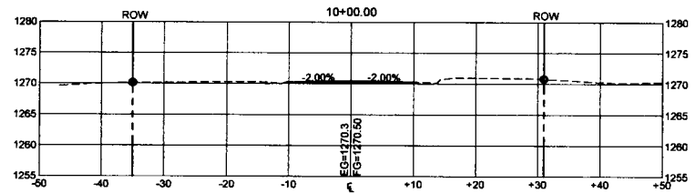
SHEET NO.
15

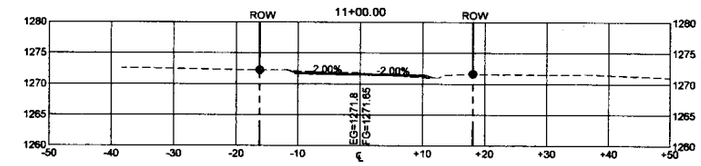


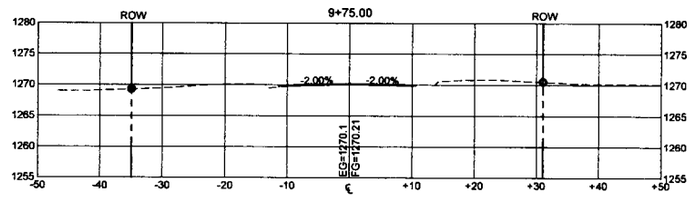


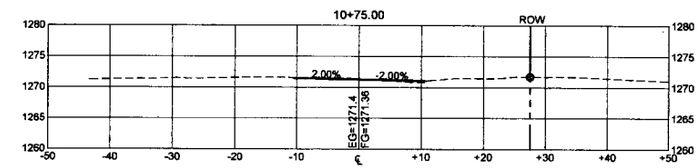


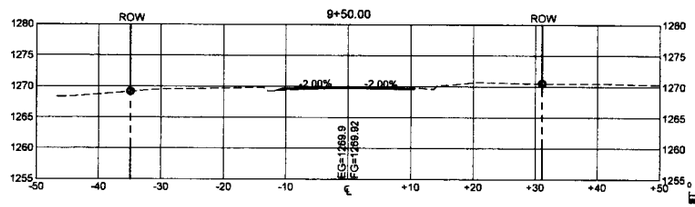


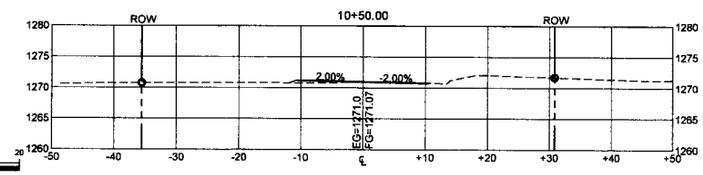












SCALE (IN FEET)

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TIMOTHY K. KOLLE DATE 1/21/2016 LIC. NO. 26132

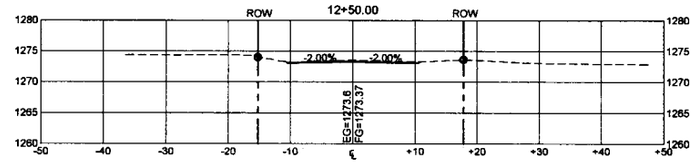
DATE	REV#	REVISION DESCRIPTION	BY

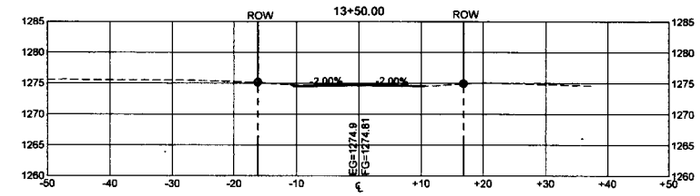
DATE: NOV. 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TKH
JOB NUMBER: 013080056.00

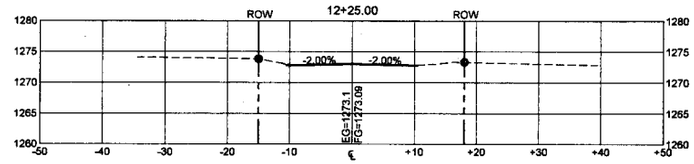
2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

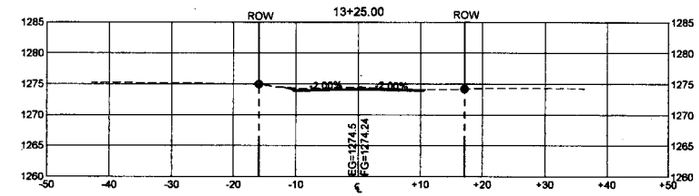
CROSS SECTIONS

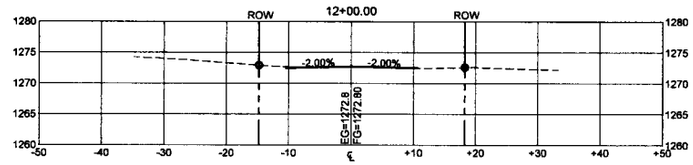
SHEET NO.
16

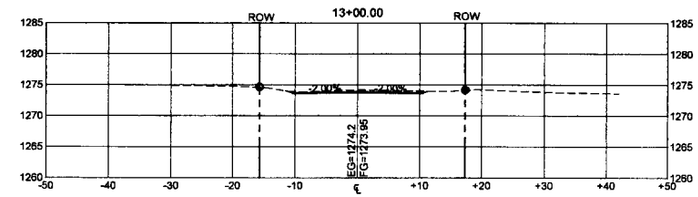


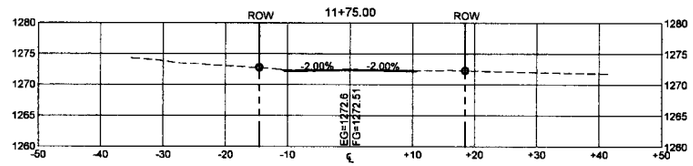


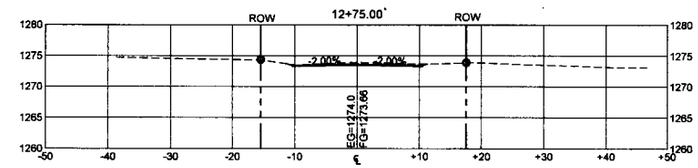












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SCALE (IN FEET)

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TIMOTHY M. HOULE DATE: MARCH YYYY, NO. 21132

DATE	REVISIONS DESCRIPTION	BY

DATE: NOV. 2015
SCALE: AS SHOWN
DRAWN BY: PMB
CHECKED BY: TMH
JOB NUMBER: 013OB0056.00

2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA
CROSS SECTIONS

SHEET NO.
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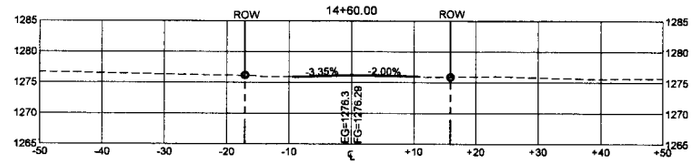

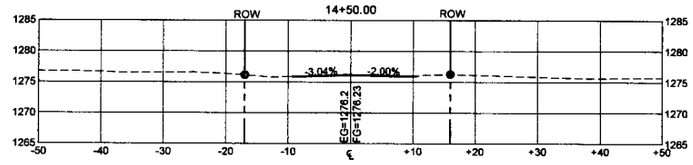

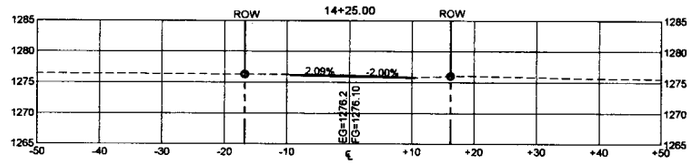

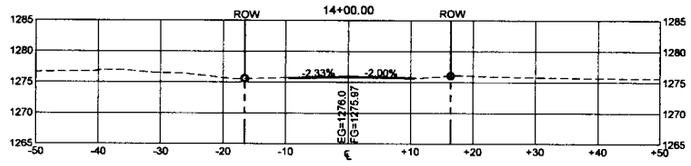

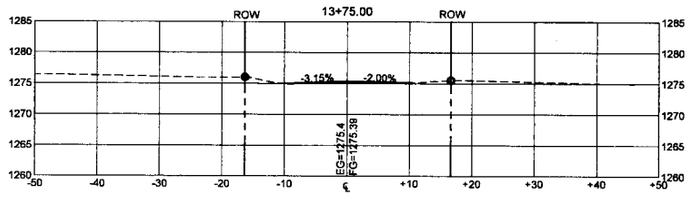

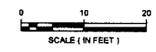

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TIMOTHY M. HOULE DATE: MM/DD/YYYY/SC. NO. 26132

DATE	REV#	REVISIONS DESCRIPTION	BY

DATE: NOV., 2015
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DRAWN BY: PMB
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JOB NUMBER 0130B0056.00

2016 PEQUOT BOULEVARD IMPROVEMENTS
CITY OF PEQUOT LAKES
PEQUOT LAKES, MINNESOTA

CROSS SECTIONS

SHEET NO.
18