

NOTES

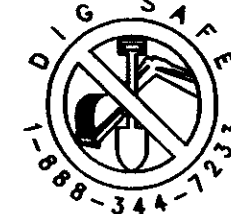
- THE PURPOSE OF THIS PLAN IS:
A. SUBDIVIDE CANDIA TAX MAP 414 LOT 152 (4.13 ACRES) INTO 1 SINGLE FAMILY HOUSE LOT (3.00 ACRES) LEAVING THE REMAINING 1.13 ACRES AS PART OF THE SHANNAN DRIVE RIGHT OF WAY. THE RIGHT OF WAY IN CANDIA WILL BE DEEDED TO THE TOWN OF CHESTER.
B. SUBDIVIDE CANDIA TAX MAP 414 LOT 152-10 (1.03 ACRES) INTO 2 NON BUILDABLE OPEN SPACE LOTS WITH THE REMAINING AREA (0.31 ACRES) AS PART OF THE SHANNAN DRIVE RIGHT OF WAY. THE RIGHT OF WAY IN CANDIA WILL BE DEEDED TO THE TOWN OF CHESTER.
C. COMBINE CHESTER TAX MAP 11 LOT 30-7 (2.06 ACRES) WITH LOT 30 (179.77 ACRES) AND SIMULTANEOUSLY SUBDIVIDE THE 181.83 ACRES AS AN OPEN SPACE SUBDIVISION WITH 60 SINGLE FAMILY HOUSE LOTS WITH 4 BEDROOMS OR LESS AND LEAVING TWO OPEN SPACE LOTS, TOTALING 110.69 ACRES.
- TOTAL LAND AREAS IN CANDIA & CHESTER = 8,145,568 SF. (187.00 ACRES)
- ALL LOTS WITHIN THIS SUBDIVISION WILL HAVE ON SITE WELLS AND WILL HAVE INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS. ALL LOTS IN CHESTER WILL HAVE ON SITE WELLS AND SEPTIC SYSTEMS IN ACCORDANCE WITH ARTICLE 4.3.4.3 OF THE CHESTER ZONING ORDINANCE. LOTS WITH 4K AREAS LOCATED ON SLOPES BETWEEN 15 & 20% SHALL HAVE A MAXIMUM WIDTH NO GREATER THAN 10 FEET IN ACCORDANCE WITH ARTICLE 4.3.4.3.
- A PORTION OF CHESTER TAX MAP 11 LOT 30 LIES WITHIN THE 100 YEAR FLOOD ZONE PER FEMA FLOOD INSURANCE RATE MAP FOR CHESTER, NEW HAMPSHIRE, ROCKINGHAM COUNTY, COMMUNITY PANEL NUMBER 3301SC0170E EFFECTIVE DATE: MAY 17, 2005.
- NHDES SUBDIVISION APPROVAL No. **PENDING**
NHDES WETLAND PERMIT **PENDING**
NHDES AOT PERMIT **PENDING**
- THIS PLAN CONTAINS A TOTAL OF 37 SHEETS. SHEETS 1 THROUGH 9 ARE ON FILE AT THE ROCKINGHAM COUNTY REGISTRY OF DEEDS. THE ENTIRE SET IS ON FILE AT THE TOWN OF CHESTER PLANNING DEPARTMENT, WHICH TOGETHER CONSTITUTE THE PLAN WHICH IS APPROVED BY THE CHESTER PLANNING BOARD. SHEETS 1, 2 AND 3 ARE ON FILE WITH CANDIA PLANNING BOARD.
- PRESENT ZONING: R1 - RESIDENTIAL
OPEN SPACE ZONING, PARENT TRACT
MINIMUM LOT AREA = 25 ACRES
MINIMUM ROAD FRONTAGE = 60'
MAXIMUM BUILDING HEIGHT = 33'
BUILDING SETBACKS
MINIMUM FRONT SETBACK
EXTERNAL = 50'
INTERNAL = 25'
MINIMUM SIDE AND REAR SETBACK
EXTERNAL = 50'
INTERNAL = 15' (MIN. 40' BETWEEN BLDGS.)
ALL SEPTIC SYSTEM MUST BE AT LEAST 75' FROM WETLANDS
WELLS TO HAVE A 100' PROTECTIVE RADIUS

	WETLANDS, POND & STREAMS	VERNAL POOLS
BUILDING SETBACKS	75 FT	100 FT
SEPTIC SYSTEM SETBACK	75 FT	100 FT
WELL	25 FT	25 FT
NO CLEAR BUFFER *	25 FT	50 FT

*WITHIN THE NO CLEAR BUFFER, CLEARING INCIDENTAL TO DRIVEWAY CONSTRUCTION IS ALLOWED AND NO MORE THAN 50 PERCENT OF THE BASAL AREA OF TREES AND VEGETATION CAN BE REMOVED ANNUALLY (PER ZONING ARTICLE 5, SECTION 7.2.7).

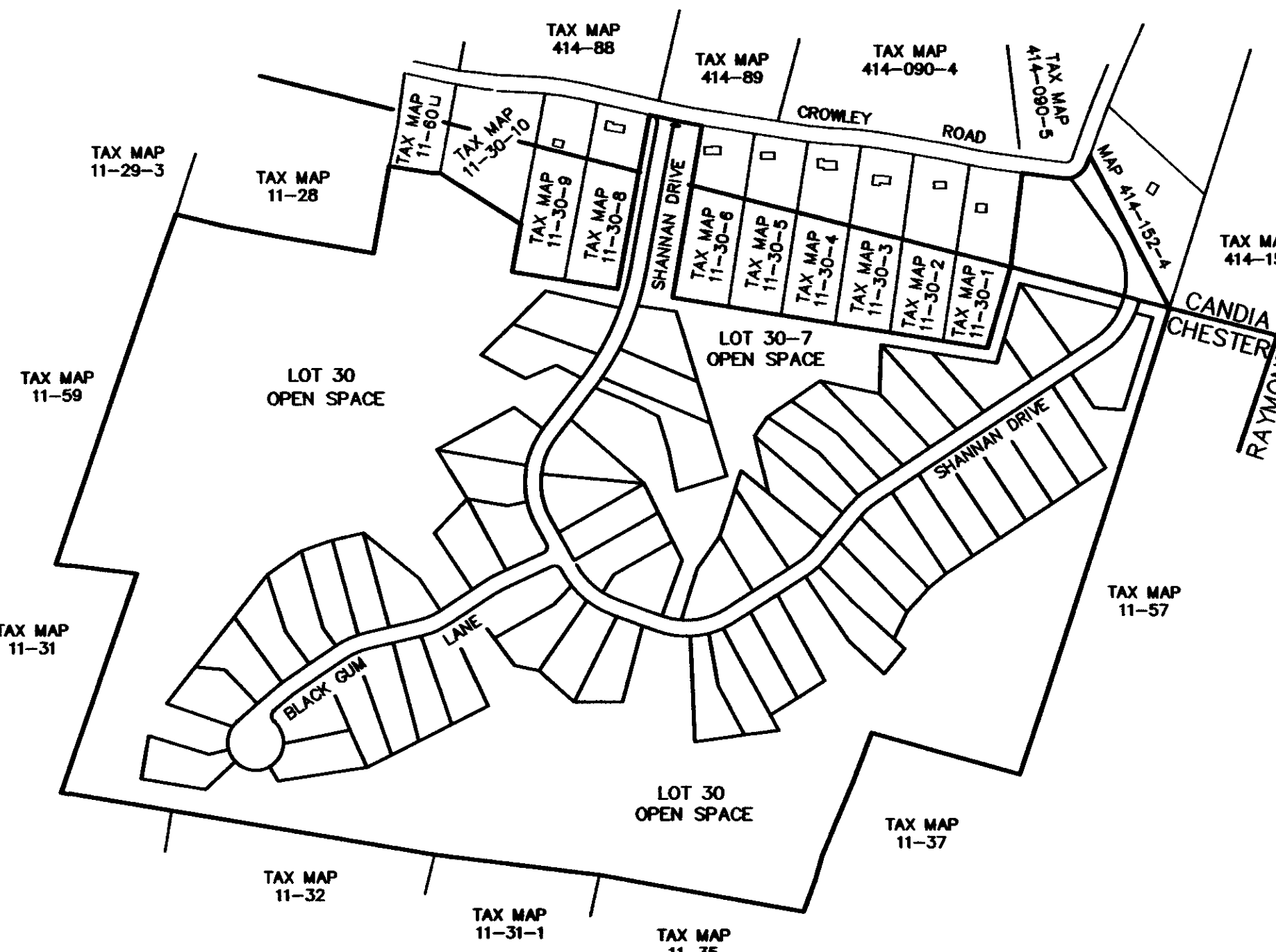
DENSITY CALCULATIONS (CHESTER LAND ONLY):
CONSTRAINED AREA:
WETLANDS AND SURFACE WATER = 23.22 Ac.
SLOPES OVER 25% = 2.40 Ac.
TOTAL CONSTRAINED AREA = 25.62 Ac.
UNCONSTRAINED AREA:
TOTAL AREA = 181.83 Ac.
LESS CONSTRAINED AREA = 25.62 Ac.
UNCONSTRAINED AREA = 156.21 Ac.
SINGLE FAMILY UNIT COUNT
156.21 Ac. / 3 Ac./UNIT = 52.07 UNITS
DENSITY BONUS FOR 60% OPEN SPACE IS 15%
52.07 X 1.15 = 59.88 UNITS USING 15% BONUS (60 UNITS)
BEDROOM COUNT:
60 UNITS X 3.5 BEDROOMS/UNIT = 210 BEDROOMS MAXIMUM TOTAL, USE 210 BEDROOMS. 30, 4 BEDROOM UNITS PLUS 30, 3 BEDROOM UNITS EQUALS 210 BEDROOMS TOTAL
MINIMUM CONSERVATION AREA DETERMINATION
181.83 Ac. x 0.60 = 109.10 Ac. (110.69 Ac. PROVIDED = 60.9% PROVIDED)
UNCONSTRAINED AREA IN CONSERVATION AREA
109.10 x 0.50 (MIN. 50%) = 54.55 Ac. (86.80 Ac. PROVIDED)
75% OF CONSERVATION AREA IS REQUIRED TO BE CONTIGUOUS AND AT LEAST 100 FEET WIDE
109.10 Ac. x 0.75 = 81.83 Ac. (95.52 Ac. PROVIDED)
CANDIA LOTS 15-10 (0.55 Ac.) & 152-10-1 (0.17 Ac.) ARE TO BE PART OF THE OVERALL OPEN SPACE BUT HAVE BEEN EXCLUDED FROM THE DENSITY CALCULATIONS.
- THE OWNER/CONTRACTOR SHALL BE AWARE OF HIS/HER RESPONSIBILITY TO CONTACT "DIG-SAFE" AT 11 UPTON DRIVE, WILMINGTON, MA. (1-888-344-7233) AT LEAST 72 WORKING HOURS PRIOR TO THE START OF ANY EXCAVATION.

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	C.H.
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	C.H.
REV.	DATE	DESCRIPTION	BY
REVISIONS			



NOTES CONTINUED

- ALL ABUTTERS TO THIS PROJECT IN CHESTER ARE LOCATED WITHIN THE R1-RESIDENTIAL ZONE. ABUTTERS TO THIS PROJECT IN CANDIA ARE LOCATED WITHIN THE RESIDENTIAL ZONE.
- ALL PROPOSED UTILITIES ARE TO BE UNDERGROUND.
- THE OPEN SPACE WILL BE DEEDED EITHER BY EASEMENT OR IN FEE TO THE TOWN OF CHESTER. THE INDIVIDUAL LOTS AND THE OPEN SPACE SHALL BE MARKED WITH SIGNAGE BEFORE RECORDING OF THE PLAN. THE OPEN SPACE AS WELL AS THE 50 FOOT WIDE AREAS THAT BUFFER THE LOTS IS TO REMAIN IN ITS NATURAL VEGETATED STATE AND ONLY THE TOWN IS ALLOWED TO CUT ANY OF THE VEGETATION UNDER A FORESTRY MANAGEMENT PLAN.
THE UNIT OWNERS WHO CLEAR OR OTHERWISE DESTROY THE VEGETATED BUFFER SHALL BE LIABLE FOR RESTORATION OF THE BUFFER PER SPECIFICATION LISTED IN ARTICLE 6.12.1.2.4 OF THE ZONING ORDINANCE, ALONG WITH, AT THE CHESTER PLANNING BOARD'S DISCRETION, BE LIABLE TO REIMBURSE THE TOWN FOR ANY AND ALL LEGAL COSTS INCURRED IN THE ENFORCEMENT OF THIS ORDINANCE.
- THERE SHALL BE NO FURTHER SUBDIVIDING OF THE LOTS PER ARTICLE 6.4.4 OF THE CHESTER ZONING ORDINANCE.
- THE PROPOSED PERMANENT BOUNDARY MARKERS AND PERMANENT STREET MARKERS SHALL CONFORM TO ARTICLES 4.3.8 & 4.5.2.12 OF THE CHESTER SUBDIVISION REGULATIONS.
- THERE SHALL BE NO IN-GROUND IRRIGATION SYSTEMS INSTALLED WITHIN THE TOWN ROAD RIGHT OF WAY.
- THIS IS A PHASED PROJECT. PHASE I IS UP TO STATION 23+40 ON SHANNAN DRIVE. PHASE II IS THE REMAINDER OF SHANNAN DRIVE. PHASE III IS BLACK GUM LANE.
- WITH THE APPROVAL OF THIS PLAN, THE PLANNING BOARD HAS GRANTED THE FOLLOWING WAIVERS TO THE FOLLOWING SECTIONS OF THE TOWN OF CHESTER REGULATIONS:
 - SUBDIVISION ARTICLE 3.11 - IMPACT STATEMENT TO NOT REQUIRE A TRAFFIC IMPACT STUDY.
 - SUBDIVISION ARTICLE 4.7.6.6 - TO PERMIT CAPE COD ASPHALT CURBING INSTEAD OF GRANITE.
 - SUBDIVISION ARTICLE 4.12.9.1 - TO PERMIT DRIVEWAYS TO SLOPE TOWARDS THE CURBED ROADWAY AT A MAXIMUM OF 2 PERCENT FOR TWENTY FEET.



U.S. FISH AND WILD SERVICE

PER DEPARTMENT OF THE ARMY REGULATORY DIVISION PERMIT NUMBER NAE-2017-01234 THE LAND OWNER SHALL NOT PERFORM ANY TREE LOGGING BETWEEN JUNE 1 AND JULY 31 IN ORDER TO PROTECT THE NORTHERN LONG-EARED BAT.

NH FISH & GAME DEPT. NOTES:

PERSONNEL WORKING ON THE JOB SITE AND ALL EMPLOYEES SHOULD BE MADE AWARE OF THE POTENTIAL TO ENCOUNTER THE STATE ENDANGERED BLANDING TURTLE, ESPECIALLY DURING TURTLE NESTING SEASON WHICH EXTENDS FROM LATE MAY THROUGH THE END OF JUNE. IF BLANDING'S OR SPOTTED TURTLES ARE FOUND LAYING EGGS IN THE WORK AREA, PLEASE CONTACT KIM TUTTLE AT 271-6544 OR MIKE MARCH AND AT 271-3016 FOR FURTHER INSTRUCTIONS

WETLAND NOTES:

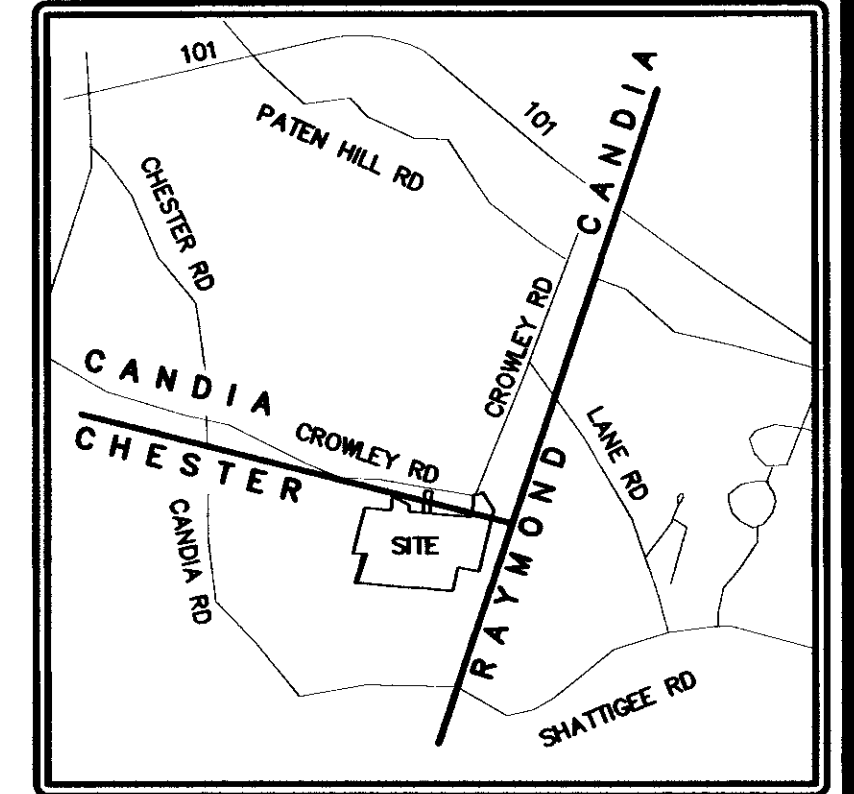
THE WETLAND DELINEATION WAS PERFORMED BY TIM FERWERDA OF MERIDIAN LAND SERVICES IN APRIL OF 2003 AND REMAPPED AT THE WETLAND CROSSINGS BY BRUCE GILDAY OF BAG LAND CONSULTANTS IN DECEMBER OF 2015. I CERTIFY THAT THE WETLANDS SHOWN HEREON HAVE BEEN DELINEATED ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, 1987, US ARMY CORPS OF ENGINEERS.

PLAN REFERENCES

- "PROPOSED RESIDENTIAL DEVELOPMENT "CROWLEY WOODS" TAX MAP 414, PARCEL 152 TAX MAP 11, PARCEL 30 & 36 CROWLEY ROAD, CHESTER & CANDIA, NEW HAMPSHIRE PREPARED FOR OWNER: JREH PROPERTY INVESTMENT, LLC" AUGUST 12, 2004 LAST REVISED 6/22/05, LAND SURVEY PROVIDED BY BROWN ENGINEERING, PITTSFIELD, NH AND ENGINEERING DESIGN PROVIDED BY GRECSAK ENGINEERING, INC. CHESTER, NH. R.C.R.D. PLAN #D-33026.
- "SUBDIVISION PLAN "TANGLEWOOD" CANDIA TAX MAP 414 LOTS 152 & 152-10 CROWLEY ROAD, CANDIA, NH OWNER OF RECORD: DAR BUILDERS LLC, DATED MAY 18, 2017" PREPARED BY THIS OFFICE AND CURRENTLY UNDER REVIEW BY THE CANDIA PLANNING DEPARTMENT.

SHEET INDEX

SHEET 1	COVER SHEET
SHEETS 2 - 9	SUBDIVISION PLAN
SHEET 10	TRACT RESOURCE MAP
SHEETS 11-17	NHDES & TOWN BUILDABLE AREA PLAN
SHEETS 18-26	ROADWAY PLAN & PROFILE
SHEETS 27-28	SIGHT DISTANCE PLAN AND PROFILE
SHEET 29	STREAM BY PASS PLAN
SHEETS 30-33	CONSTRUCTION DETAILS
SHEETS 34-36	EROSION CONTROL DETAILS
SHEET 37	CISTERN DETAILS



APPROVED BY THE CANDIA, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

OTHER MEMBERS: _____

OTHER MEMBERS: _____

SECRETARY: _____

APPROVED BY THE CHESTER, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

SECRETARY: _____

COVER SHEET

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC
305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017

SCALE: 1" = 500'

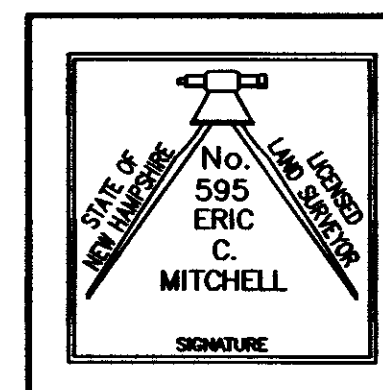
PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

OWNER OF RECORD:

DAR BUILDERS, LLC
305 MASSABESIC STREET
MANCHESTER, NH 03104
RCRD VOL. 5800 PG. 2566

AUTHORIZED SIGNATURE



ERIC C. MITCHELL L.L.S. NO. 595

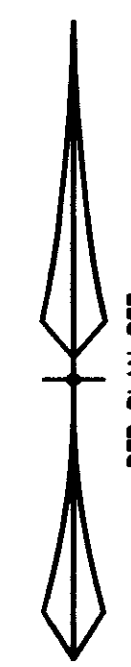
DATE

I CERTIFY THAT THIS PLAN IS THE RESULT OF A PARTIAL FIELD SURVEY MADE ON THE GROUND DURING JULY 2014 BY THIS OFFICE AND AS SHOWN ON PLAN REFERENCE #1 WHICH HAS A RELATIVE ERROR OF CLOSURE NO GREATER THAN ONE PART IN TEN THOUSAND.

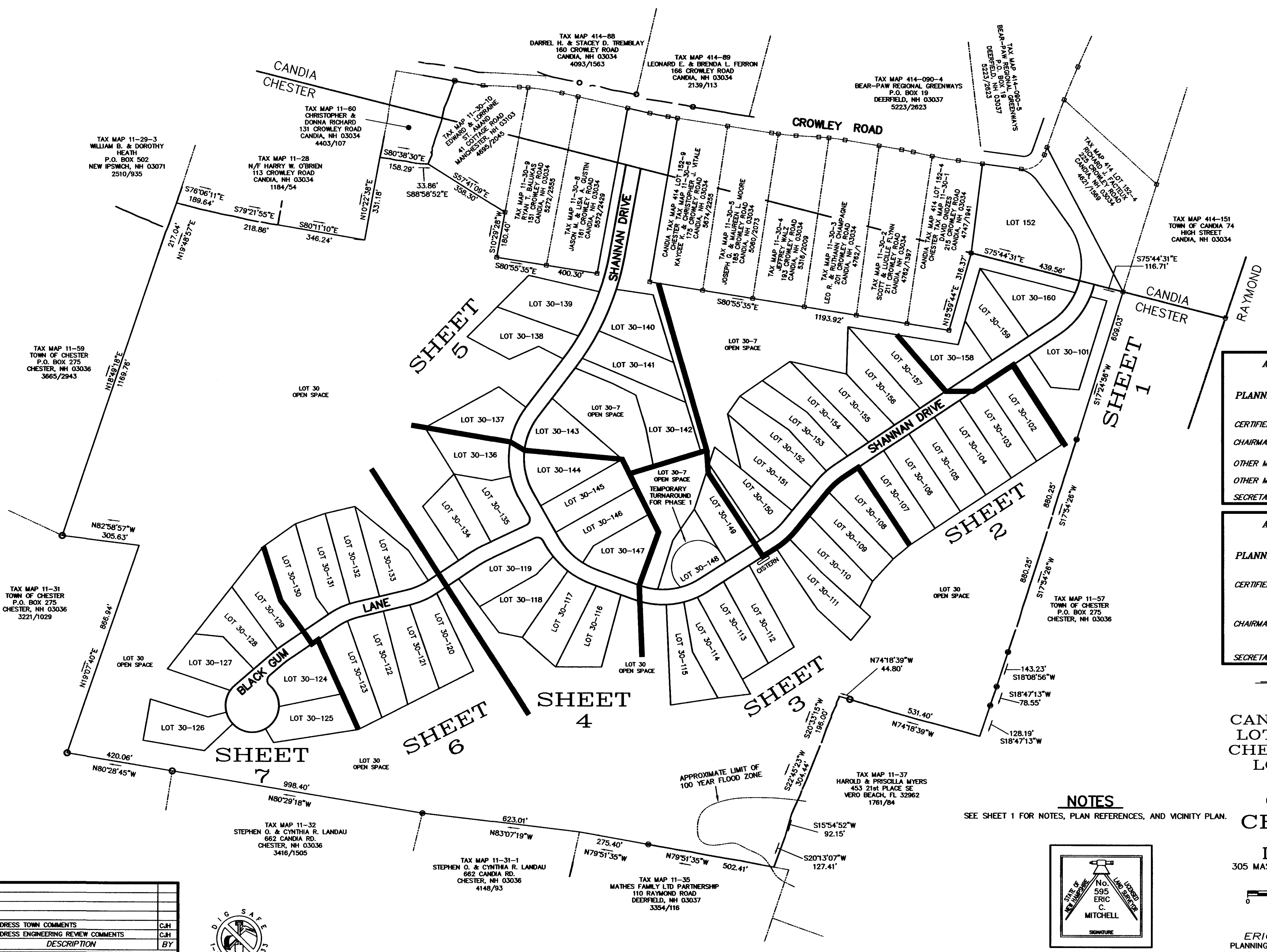
LEGEND

- IRON PIPE/PIN
- DRILL HOLE
- GRANITE BOUND
- STONE WALL

N



PER PLAN REF.



APPROVED BY THE CANIDA, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

OTHER MEMBERS: _____

OTHER MEMBERS: _____

SECRETARY: _____

APPROVED BY THE CHESTER, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

SECRETARY: _____

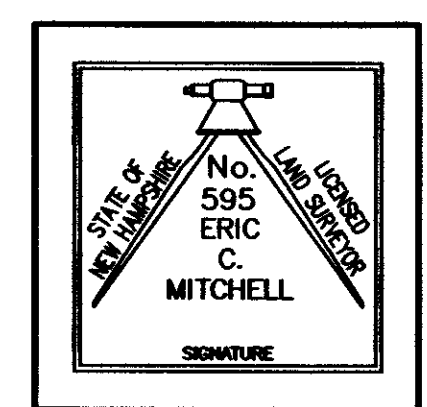
SUBDIVISION PLAN OF LAND
"TANGLEWOOD"
CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA & CHESTER NH

OWNER OF RECORD:
DAR BUILDERS LLC
305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017

SCALE: 1" = 200'
PREPARED BY:
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NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.



REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	C.H.
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	C.H.
REV.	DATE	DESCRIPTION	BY
REVISIONS			



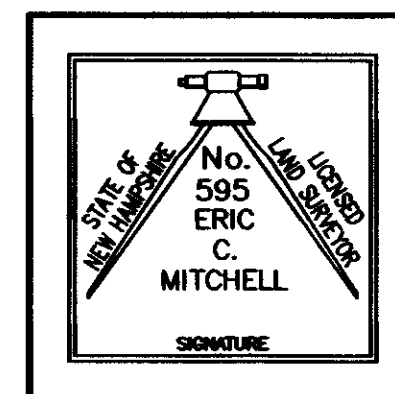


PER PLAN REF.

TAX MAP 414-88
DARREL H. & STACEY D. TREMBLAY
160 CROWLEY ROAD
CANDIA, NH 03034
4093/1563

TAX MAP 414-89
LEONARD E. & BRENDA L. FERRON
166 CROWLEY ROAD
CANDIA, NH 03034
2139/113

TAX MAP 414-090-5
BEAR-PAW REGIONAL GREENWAYS
P.O. BOX 18
DEERFIELD, NH 03037
5223/2623



LEGEND

- IRON PIPE/PIN
- DRILL HOLE
- GRANITE BOUND
- GRANITE BOUND TO BE SET
- IRON PIN TO BE SET
- LIMIT OF MAPPED WETLANDS
- 25' NO CUT BUFFER
- MINIMUM BUILDING SETBACK (TYP.)
- STONE WALL
- PROPOSED SLOPE EASEMENT
- PROPOSED DRAINAGE EASEMENT
- POORLY DRAINED
- VPD - VERY POORLY DRAINED

NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.
SEE SHEET 11 FOR TOPOGRAPHY

APPROVED BY THE CANDIA, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

OTHER MEMBERS: _____

OTHER MEMBERS: _____

SECRETARY: _____

APPROVED BY THE CHESTER, NH

PLANNING BOARD ON: _____

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SECRETARY: _____

SUBDIVISION PLAN OF LAND

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

SCALE: 1" = 50'

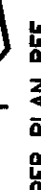
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SHEET 3 OF 37 [REV: E] [DWG: D15038WA REVISED ENTRANCE] [FLD: BK/PG:] [JOB NO. (2)15-38]

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	C.H.
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	C.H.
REVISIONS			





TAX MAP 11-30-2
SCOTT & LUCILLE FLYNN
211 CROWLEY ROAD
CANDIA, NH 03034
4762/1397

●	IRON PIPE/PIN
⊙	DRILL HOLE
□	GRANITE BOUND
■	GRANITE BOUND TO BE SET
●	IRON PIN TO BE SET
	LIMIT OF MAPPED WETLANDS
---	25' NO CUT BUFFER
----	MINIMUM BUILDING SETBACK (TYP.)
	STONE WALL
-----	PROPOSED SLOPE EASEMENT
-----	PROPOSED DRAINAGE EASEMENT
- PD ----	POORLY DRAINED
- VPD ----	VERY POORLY DRAINED

SECRETARY:



E	1/29/18	ADDRESS TOWN COMMENTS	CJH
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJH
REV.	DATE	DESCRIPTION	BY

REVISIONS

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.
SEE SHEET 12 FOR TOPOGRAPHY

ERIC C. MITCHELL & ASSOC. INC.
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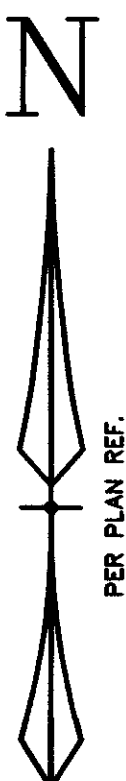
SHEET 4 OF 37

REV: E	DWG: D15038WA REVISED ENTRANCE	FLD. BK/PG:	JOB NO. (2)15-38
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LEGEND

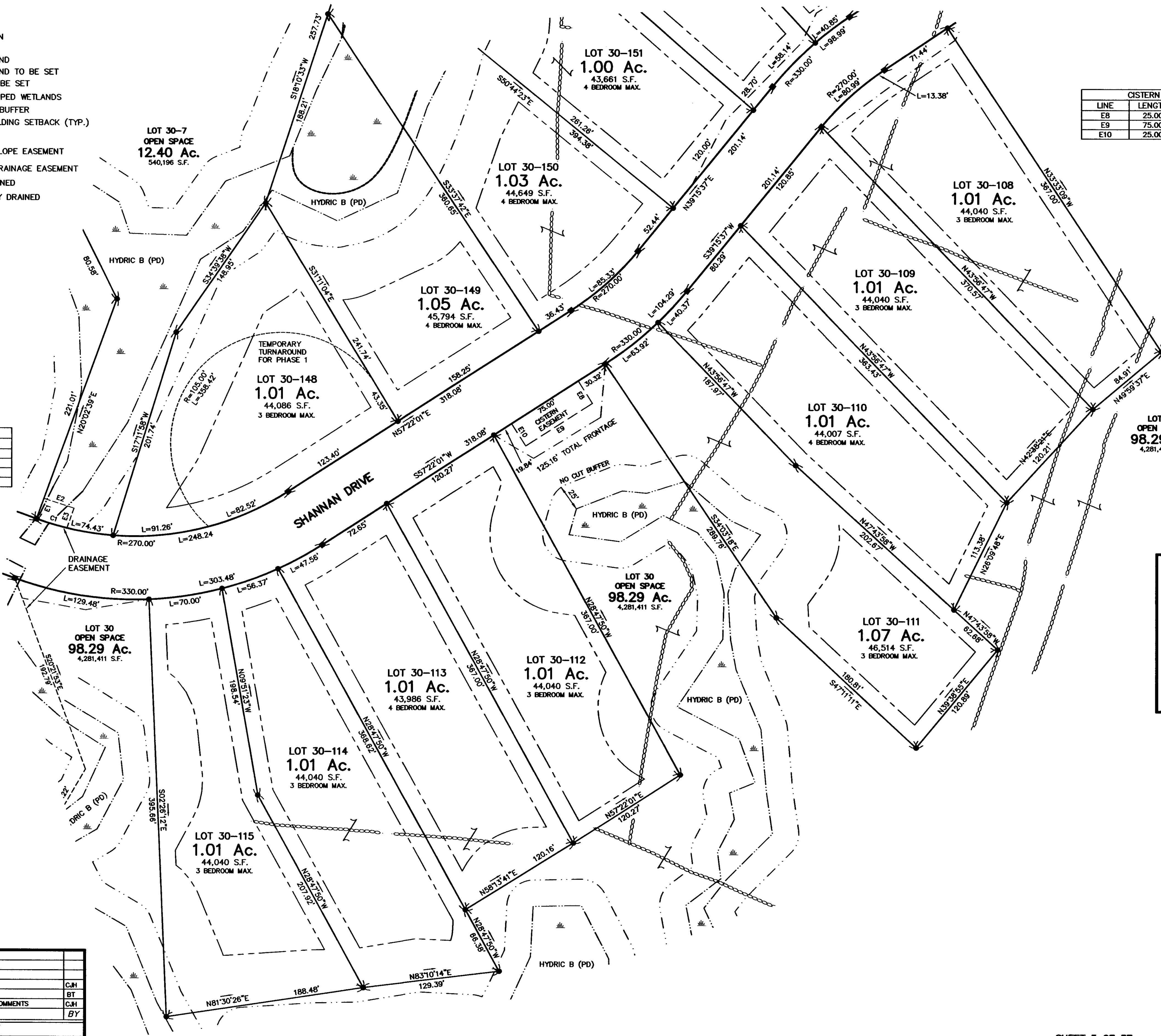
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- PD POORLY DRAINED
- VPD VERY POORLY DRAINED

DRAINAGE EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
E1	20.48	N20°02'39"E
E2	30.00	S72°14'18"E
E3	20.00	S19°58'34"W
C1	30.06	R=270.00'

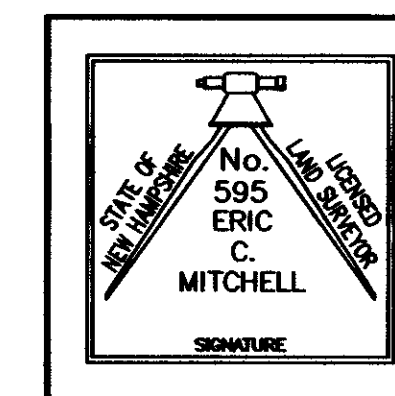


REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	CJM
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJM

REVISIONS



CISTERN EASEMENT		
LINE	LENGTH	BEARING
E8	25.00	S32°37'59"E
E9	75.00	S57°22'01"W
E10	25.00	N32°37'59"W



NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.
SEE SHEET 13 FOR TOPOGRAPHY

APPROVED BY THE CHESTER, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

SECRETARY: _____

SUBDIVISION PLAN OF LAND

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

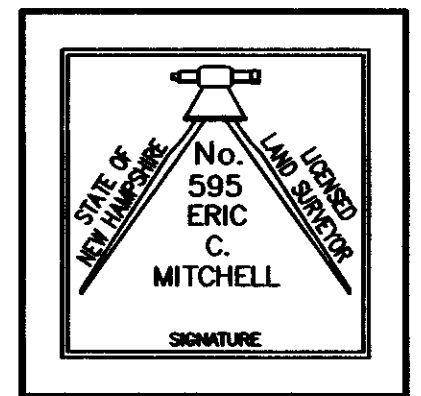
SCALE: 1" = 50'

PREPARED BY:

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PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
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LEGEND

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NOTES

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SEE SHEET 14 FOR TOPOGRAPHY

APPROVED BY THE CHESTER, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

SECRETARY: _____

SUBDIVISION PLAN OF LAND

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7

CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

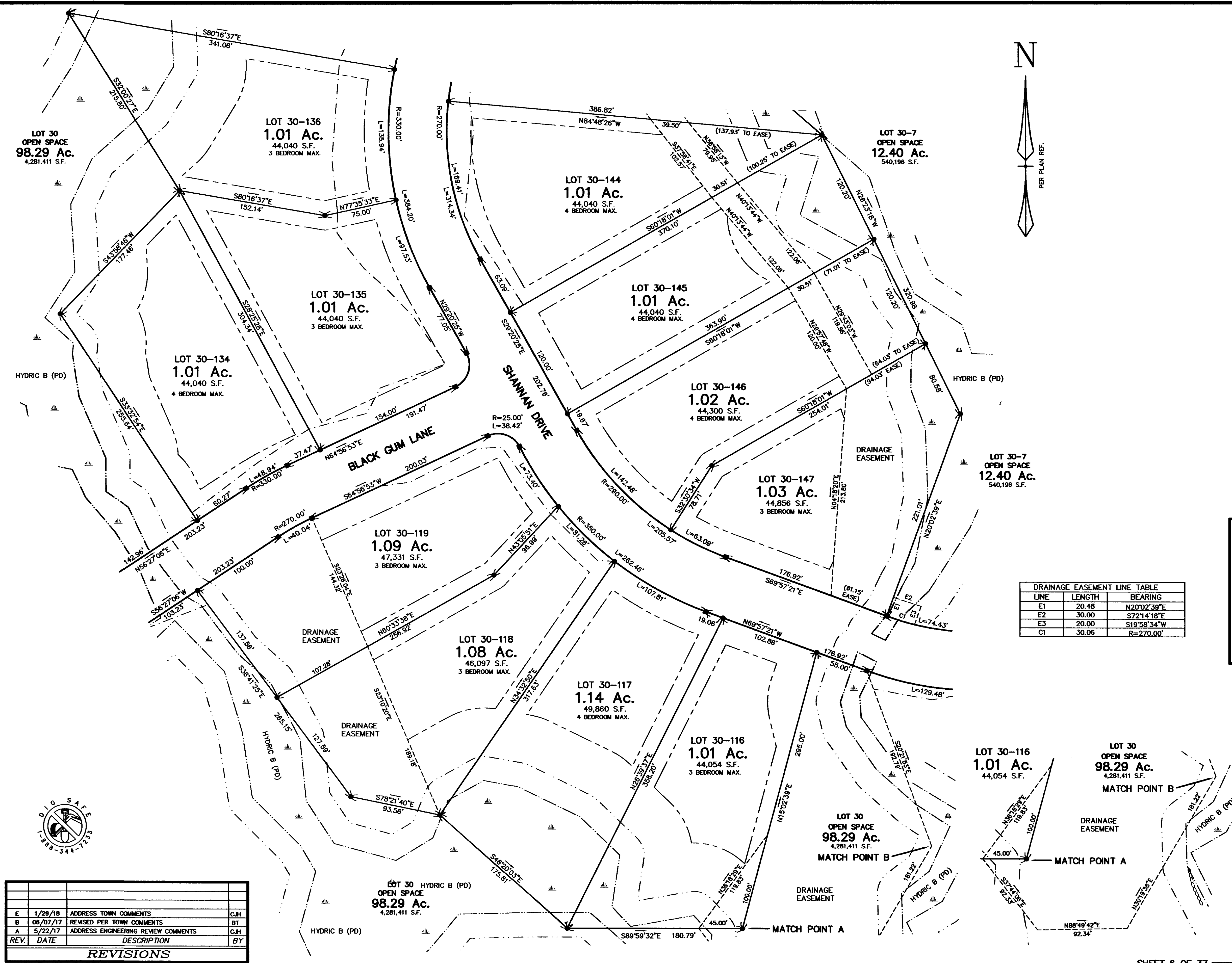
0 25 50 100 150 200 FEET

SCALE: 1" = 50'

PREPARED BY:

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SHEET 6 OF 37 REV: E DWG: D15038WA REVISED ENTRANCE FLD. BK/PG. JOB NO. (2)15-38



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E	1/29/18	ADDRESS TOWN COMMENTS	C.H.
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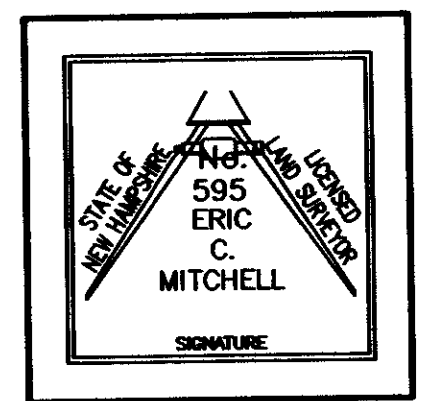
REVISIONS



PER PLAN REF.

LEGEND

- IRON PIPE/PIN
- DRILL HOLE
- GRANITE BOUND
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- VPD VERY POORLY DRAINED



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SEE SHEET 15 FOR TOPOGRAPHY

APPROVED BY THE CHESTER, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

SECRETARY: _____

SUBDIVISION PLAN OF LAND

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

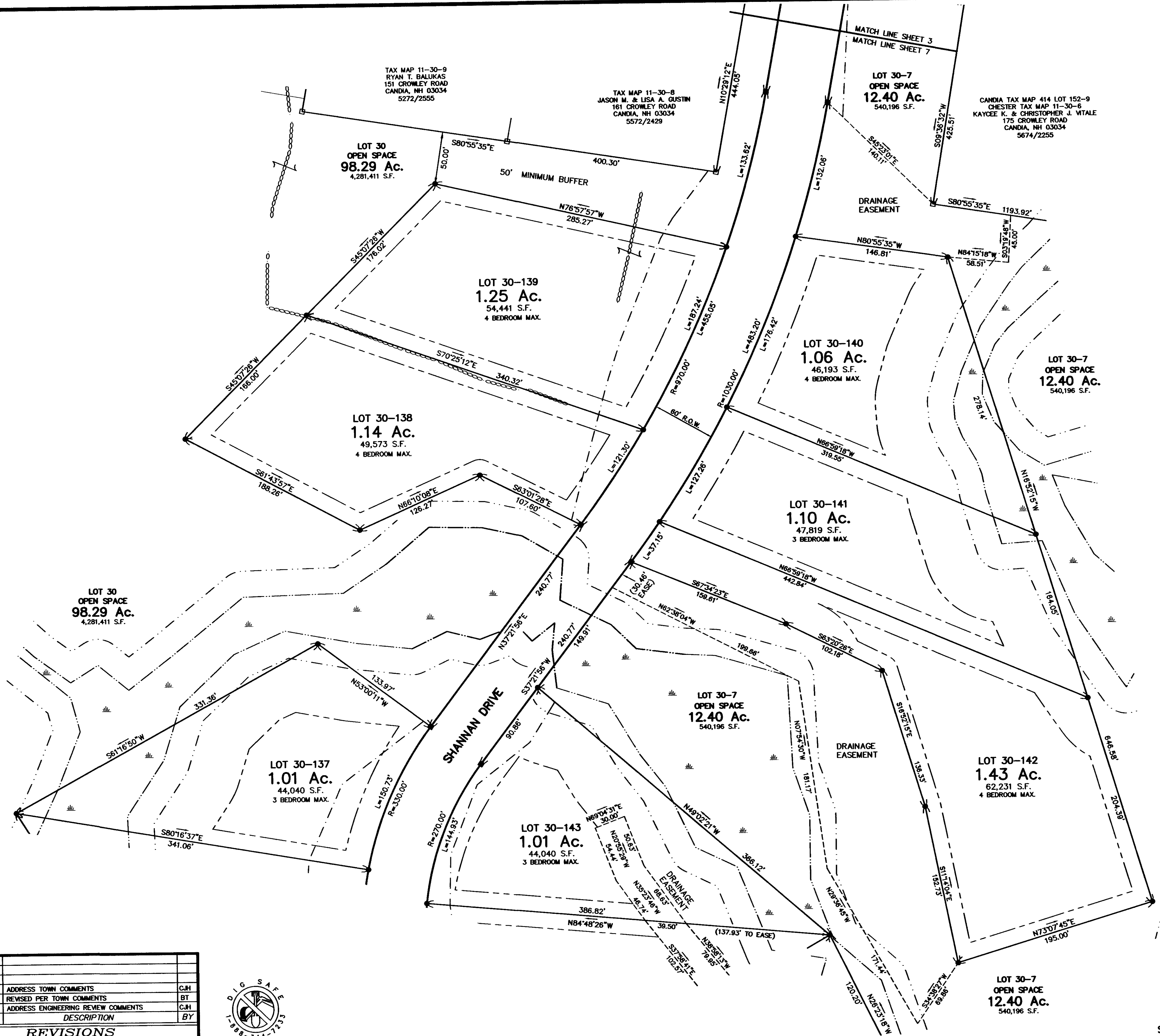
SCALE: 1" = 50'

PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

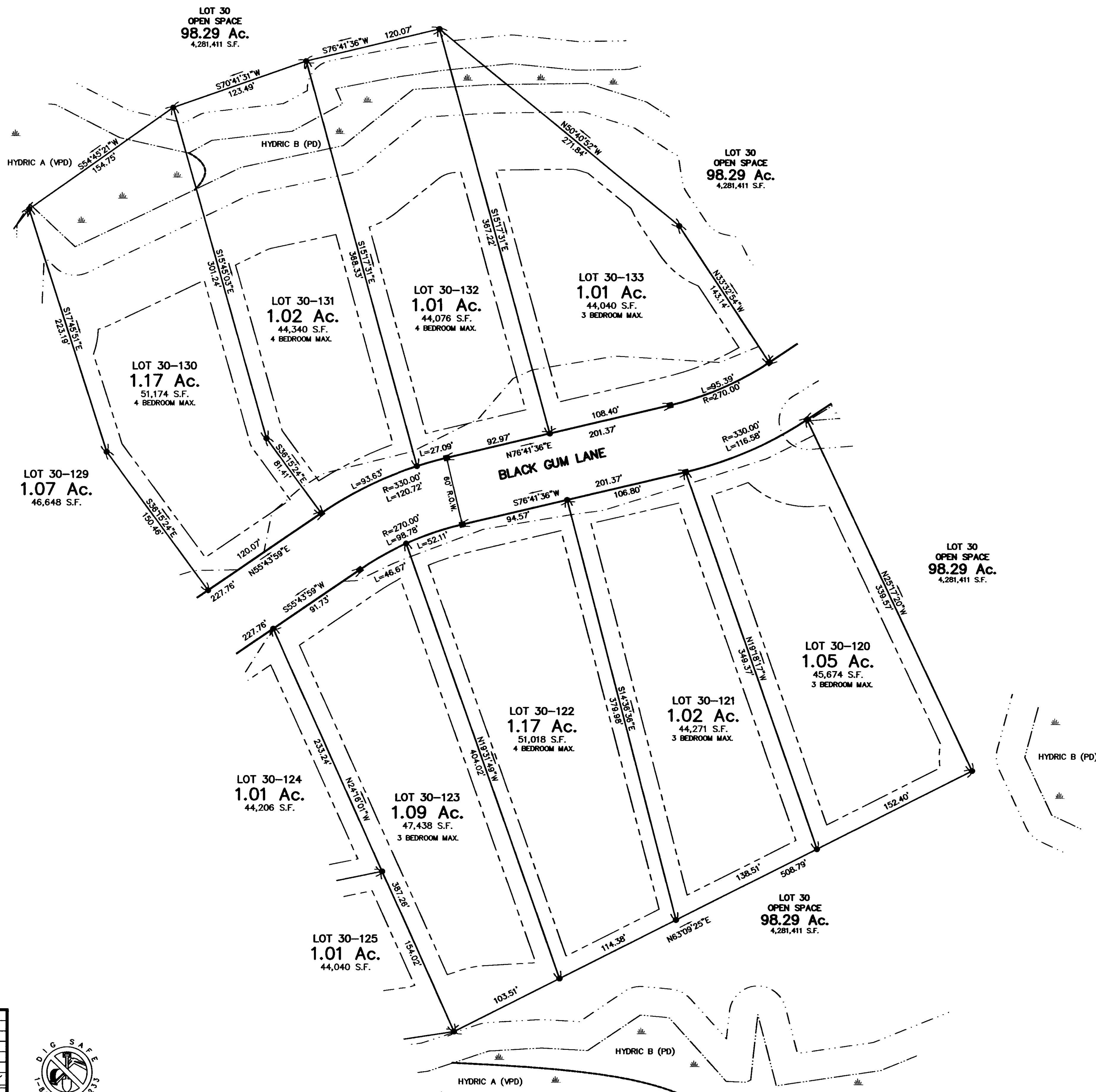
SHEET 7 OF 37 [REV: E] [DWS: D15038WA REVISED ENTRANCE.FLD. BK/PG:] [JOB NO. (2)15-38]

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	C.H.
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	C.H.
REVISIONS			



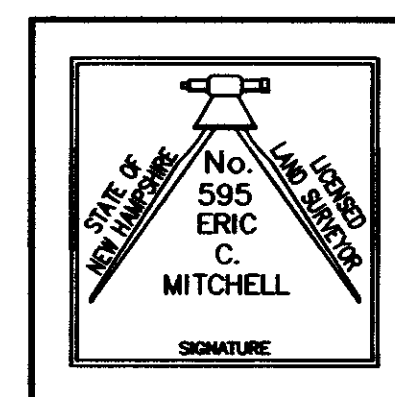


PER PLAN REF.



LEGEND

- IRON PIPE/PIN
- DRILL HOLE
- GRANITE BOUND
- GRANITE BOUND TO BE SET
- IRON PIN TO BE SET
- LIMIT OF MAPPED WETLANDS
- 25' NO CUT BUFFER
- MINIMUM BUILDING SETBACK (TYP.)
- STONE WALL
- PROPOSED SLOPE EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PD --- POORLY DRAINED
- VPD --- VERY POORLY DRAINED



NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.
SEE SHEET 16 FOR TOPOGRAPHY

APPROVED BY THE CHESTER, NH

PLANNING BOARD ON: _____

CERTIFIED BY: _____

CHAIRMAN: _____

SECRETARY: _____

SUBDIVISION PLAN OF LAND

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7

CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

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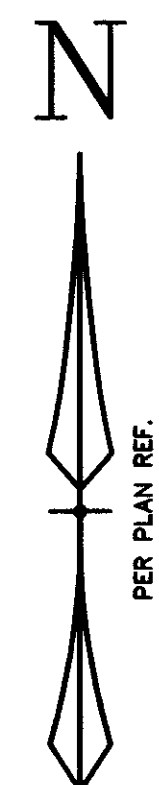
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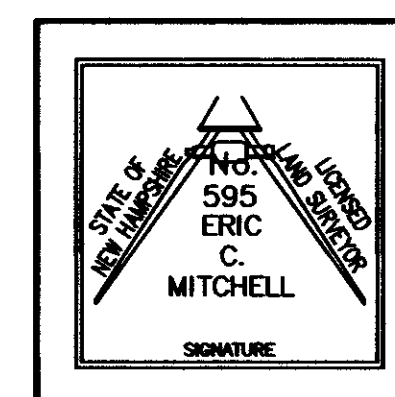
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REVISIONS





- LEGEND**
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 - LIMIT OF MAPPED WETLANDS
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"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7

CROWLEY ROAD

**CANDIA &
CHESTER NH**

OWNER OF RECORD:

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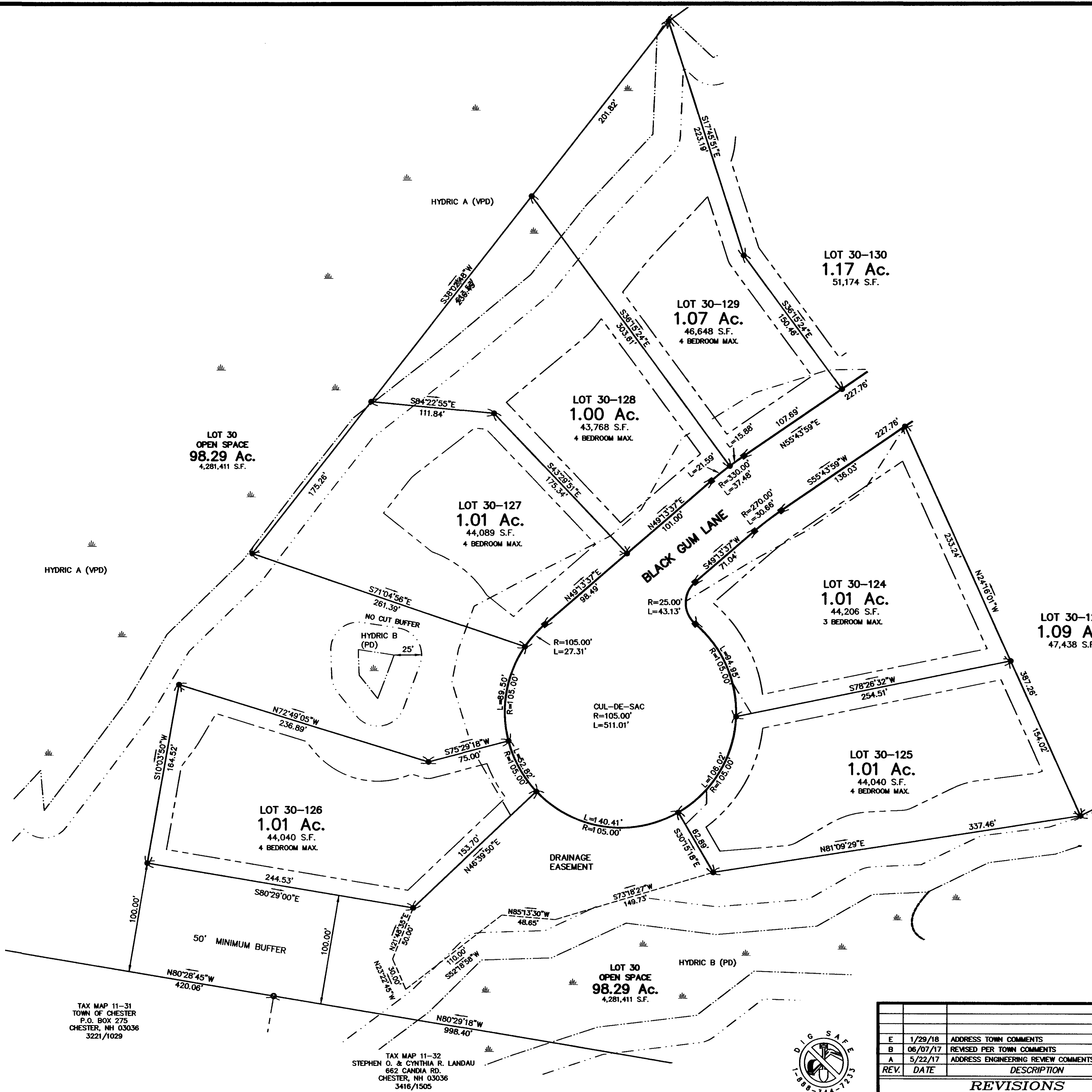
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REVISIONS			



TAX MAP 11-31
TOWN OF CHESTER
P.O. BOX 275
CHESTER, NH 03036
3221/1029

TAX MAP 11-32
STEPHEN O. & CYNTHIA R. LANDAU
662 CANDIA RD.
CHESTER, NH 03036
3416/1505

○ IRON PIPE/PIN
● DRILL HOLE

LIMIT OF MAPPED WETLANDS

GRAVEL

STONE WALL

TREE LINE

TRAIL

DOORLY, DRA

VERY POORLY DRAINED

TAX MAP 11-29-3
WILLIAM B. & DOROTHY
HEATH
P.O. BOX 502
NEW IPSWICH, NH 03071
2510/935

TAX MAP 11-28
N/F HARRY W. O'BRIEN
113 CROWLEY ROAD
CANDIA, NH 03034
1184/54

TAX MAP 11-60
CHRISTOPHER &
DONNA RICHARD
131 CROWLEY ROAD
CANDIA, NH 0303
4403/107

TAX MAP 414-88
DARREL H. & STACEY D. TREMBLAY
160 CROWLEY ROAD
CANDIA, NH 03034
4093/1563

TAX MAP 414-89
ARD E. & BRENDA L. FERRON
166 CROWLEY ROAD
CANDIA, NH 03034
2139/113

TAX MAP 414-090-4
BEAR-PAW REGIONAL GREENWAYS
P.O. BOX 19
DEERFIELD, NH 03037
5223/2623

TAX MAP 414-080
BEAR-PAW REGIONAL GREENWAYS
P.O. BOX 19
DEERFIELD, NH 03037
5223/2023

TAX MAP 414-151
TOWN OF CANDIA 7
HIGH STREET
CANDIA, NH 03034

TAX MAP 11-59
TOWN OF CHESTER
P.O. BOX 275
CHESTER, NH 03036
3665/2943

447B TAX MAP 11-31
TOWN OF CHESTER
P.O. BOX 275
CHESTER, NH 03034
3221/1029

TAX MAP 11-32
STEPHEN O. & CYNTHIA R. LANDAU
662 CANDIA RD.
CHESTER, NH 03036
3416/1505

TAX MAP 11-31-1
STEPHEN O. & CYNTHIA R. LA
662 CANDIA RD.
CHESTER, NH 03036
4148/93

447B TAX MAP 11-35
MATHES FAMILY LTD PARTNERSHIP
110 RAYMOND ROAD
DEERFIELD, NH 03037
3354/116

TAX MAP 11-37
ROLD & PRISCILLA MYERS
453 21st PLACE SE
VERO BEACH, FL 32962
1761/84

TOWN OF CHESTER
P.O. BOX 275
CHESTER, NH 03036

NOTES (CHESTER LAND ONLY)

1. **CONSTRAINED AREA:**
WETLANDS AND SURFACE WATER = 23.22 Ac.
SLOPES OVER 25% = 2.40 Ac.
TOTAL CONSTRAINED AREA = 25.62 Ac.
2. **UNCONSTRAINED AREA:**
TOTAL AREA = 181.83 Ac.
LESS CONSTRAINED AREA = -25.62 Ac.
UNCONSTRAINED AREA = 156.21 Ac.
3. **SINGLE FAMILY UNIT COUNT**
156.21 Ac. / 3 Ac./UNIT = 52.07 UNITS
DENSITY BONUS FOR 60% OPEN SPACE IS 15%
52.07 X 1.15 = 59.88 UNITS USING 15% BONUS OR 65 UNITS
4. **BEDROOM COUNT:**
60 UNITS X 3.5 BEDROOMS/UNIT = 210 BEDROOMS MAXIMUM TOTAL, USE
210 BEDROOMS / 4 BEDROOM UNITS PLUS 30, 3 BEDROOM UNITS EQUALS
210 BEDROOMS TOTAL
5. **MINIMUM CONSERVATION AREA DETERMINATION**
181.83 Ac. X 0.60 = 109.10 Ac. (110.69 Ac. PROVIDED = 60.9% PROVIDED)
UNCONSTRAINED AREA IN CONSERVATION AREA
109.10 X 0.50 (MIN. 50%) = 54.55 Ac. (86.80 Ac. PROVIDED)
75% OF CONSERVATION AREA IS REQUIRED TO BE CONTIGUOUS AND AT
LEAST 100 FEET WIDE
109.10 Ac. X 0.75 = 81.83 Ac. (95.52 Ac. PROVIDED)
6. **CANDIA LOTS 15-10 (0.55 Ac.) & 152-10-1 (0.17 Ac.) ARE TO BE PART OF THE OVERALL OPEN SPACE BUT HAVE BEEN EXCLUDED FROM THE DENSITY CALCULATIONS.**

TRACT RESOURCE MAP

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

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SOIL LEGEND

- 43B - CANTON GRAVELLY FINE SANDY LOAM, 3 TO 8 % SLOPES, VERY STONY
43C - CANTON GRAVELLY FINE SANDY LOAM, 8 TO 15 % SLOPES, VERY STONY
97 - GREENWOOD AND OSSPEE SOILS, PONDED
140C - CHATFIELD-HOLLIS-CANTON COMPLEX, 8 TO 15 % SLOPES, VERY STONY.
447B - SCITUATE-NEWFIELDS COMPLEX, 3 TO 8% SLOPES, VERY STONY
547B - WALPOLE 3 TO 8 % SLOPES. VERY STONY

SOILS INFORMATION TAKEN FROM "GRANITE"
[HTTP://MAPPER.GRANITE.UNH.EDU](http://MAPPER.GRANITE.UNH.EDU)

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<i>REVISIONS</i>			

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SHEET 10 OF 37	REV: E	DWG: D15038WA REVISED ENTRANCE	FLD. BK/PG:	JOB NO. (2)15-38
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PER PLAN REF.

TAX MAP 11-30-8
JASON M. & LISA A. GUSTIN
CANDIA, NH 03034
5072/2429

LOT 50
OPEN SPACE
98.29 Ac.
4,281,411 S.F.

TO BECOME PART OF
SHANNAN DRIVE RIGHT
OF WAY IN CANDIA,
TO BE DEEDED TO
THE TOWN OF
CHESTER

140C

43C

CANDIA

CHESTER

LOT 30-7

OPEN SPACE

12.40 Ac.

540,196 S.F.

CANDIA TAX MAP 414 LOT 152-4
CHESTER TAX MAP 11-30-1
DAVID ONDZES
215 CROWLEY ROAD
CANDIA, NH 03034
4747/1941

CANDIA TAX MAP 414 LOT 152-4
CHESTER TAX MAP 11-30-1
DAVID ONDZES
215 CROWLEY ROAD
CANDIA, NH 03034
4747/1941

CANDIA TAX MAP 414 LOT 152-4
CHESTER TAX MAP 11-30-1
DAVID ONDZES
215 CROWLEY ROAD
CANDIA, NH 03034
4747/1941

LOT 30-7
OPEN SPACE
12.40 Ac.
540,196 S.F.

244.91'

LOT 30-158
1.01 Ac.
43,040 S.F.

LOT 30-159
1.01 Ac.
43,796 S.F.

LOT 30-160
1.02 Ac.
44,284 S.F.

LOT 30-101
1.20 Ac.
52,378 S.F.

LOT 30
OPEN SPACE
98.29 Ac.
4,281,411 S.F.

LOT 30-101
1.20 Ac.
52,378 S.F.

LOT 30-101
1.20 Ac.
52,378 S.F.

LOT 30-101
1.20 Ac.
52,378 S.F.

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- PROPOSED DRAINAGE EASEMENT
- PD POORLY DRAINED
- VPD VERY POORLY DRAINED
- PERC TEST
- TEST PIT
- 4000 S.F. AREA SUITABLE FOR SEPTIC
- POSSIBLE HOUSE LOCATIONS
- .3 ACRE UNCONSTRAINED, BUILDABLE AREA
- STEEP SLOPES, > 25%

SOIL LEGEND

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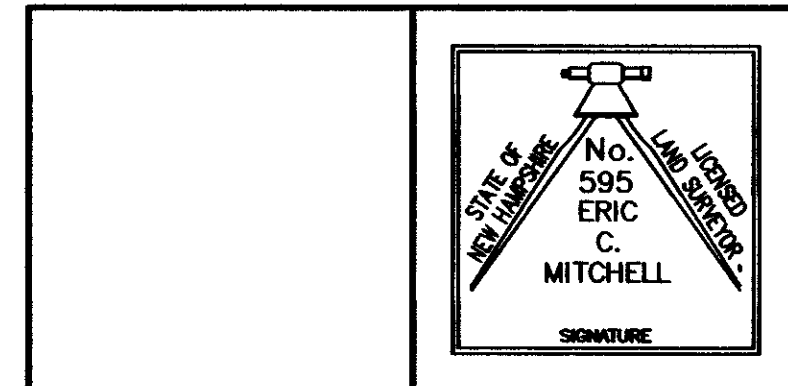
NOTES

SEE SHEET 19 FOR DRAINAGE AND GRADING
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WETLAND NOTE

THE WETLAND DELINEATION WAS PERFORMED BY TIM FERWERDA
OF MERIDIAN LAND SERVICES IN APRIL OF 2003 AND
REMAPPED AT THE WETLAND CROSSINGS BY BRUCE GILDY OF
BAG LAND CONSULTANTS IN DECEMBER OF 2015.
I CERTIFY THAT THE WETLANDS SHOWN HEREON HAVE BEEN
DELINEATED IN ACCORDANCE WITH ENV-WQ 1014.03

ERIC C. MITCHELL ~ PERMIT. No. 709



NHDES & TOWN BUILDABLE AREA PLAN

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD

CANDIA &
CHESTER NH

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SHEET 11 OF 37

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TAX MAP 11-30-4
 JEFFREY WALZ
 193 CROWLEY ROAD
 CANDIA, NH 03034
 5316/2009

TAX MAP 11-30-3
 LEO R. & RUTHANN CHAMPAGNE
 201 CROWLEY ROAD
 CANDIA, NH 03034
 4762/1

TAX MAP 11-30-2
 SCOTT & LUCILLE FLYNN
 211 CROWLEY ROAD
 CANDIA, NH 03034
 4762/1397

NOTES

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- 4000 S.F. AREA SUITABLE FOR SEPTIC
- POSSIBLE HOUSE LOCATIONS
- .3 ACRE UNCONSTRAINED, BUILDABLE AREA
- ▲ STEEP SLOPES, > 25%



PER PLAN REF.

LOT 30-7
 OPEN SPACE
 12.40 Ac.
 540,196 S.F.

LOT 30-153
 1.03 Ac.
 45,047 S.F.

LOT 30-152
 1.00 Ac.
 43,707 S.F.

LOT 30-151
 1.00 Ac.
 43,661 S.F.

LOT 30-150
 1.03 Ac.
 44,649 S.F.

LOT 30-154
 1.04 Ac.
 45,438 S.F.

LOT 30-155
 1.01 Ac.
 44,116 S.F.

LOT 30-156
 1.01 Ac.
 43,877 S.F.

LOT 30-157
 1.01 Ac.
 44,040 S.F.

LOT 30-104
 1.01 Ac.
 44,040 S.F.

LOT 30-105
 1.01 Ac.
 44,040 S.F.

LOT 30-106
 1.01 Ac.
 44,040 S.F.

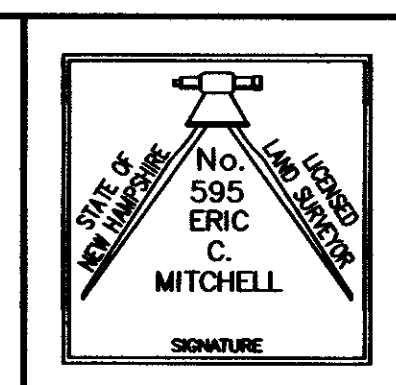
LOT 30-107
 1.01 Ac.
 44,040 S.F.

LOT 30-102
 1.01 Ac.
 44,040 S.F.

LOT 30-103
 1.01 Ac.
 44,040 S.F.

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NHDES & TOWN BUILDABLE AREA PLAN

"TANGLEWOOD"

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 LOTS 152 & 152-10
 CHESTER TAX MAP 11
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TEMPORARY TURNAROUND EASEMENT		
LINE	LENGTH	BEARING
E4	50.00	S42°24'49"E
E5	50.00	S48°17'39"W
E6	50.00	N42°24'49"W
C2	50.08	R=270.00'

LEGEND

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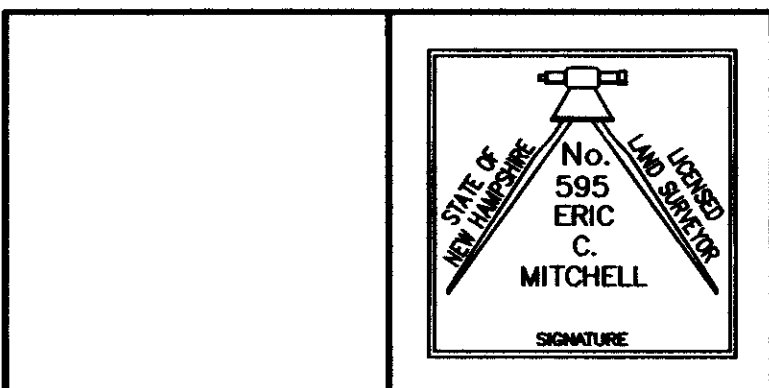
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 CHESTER NH

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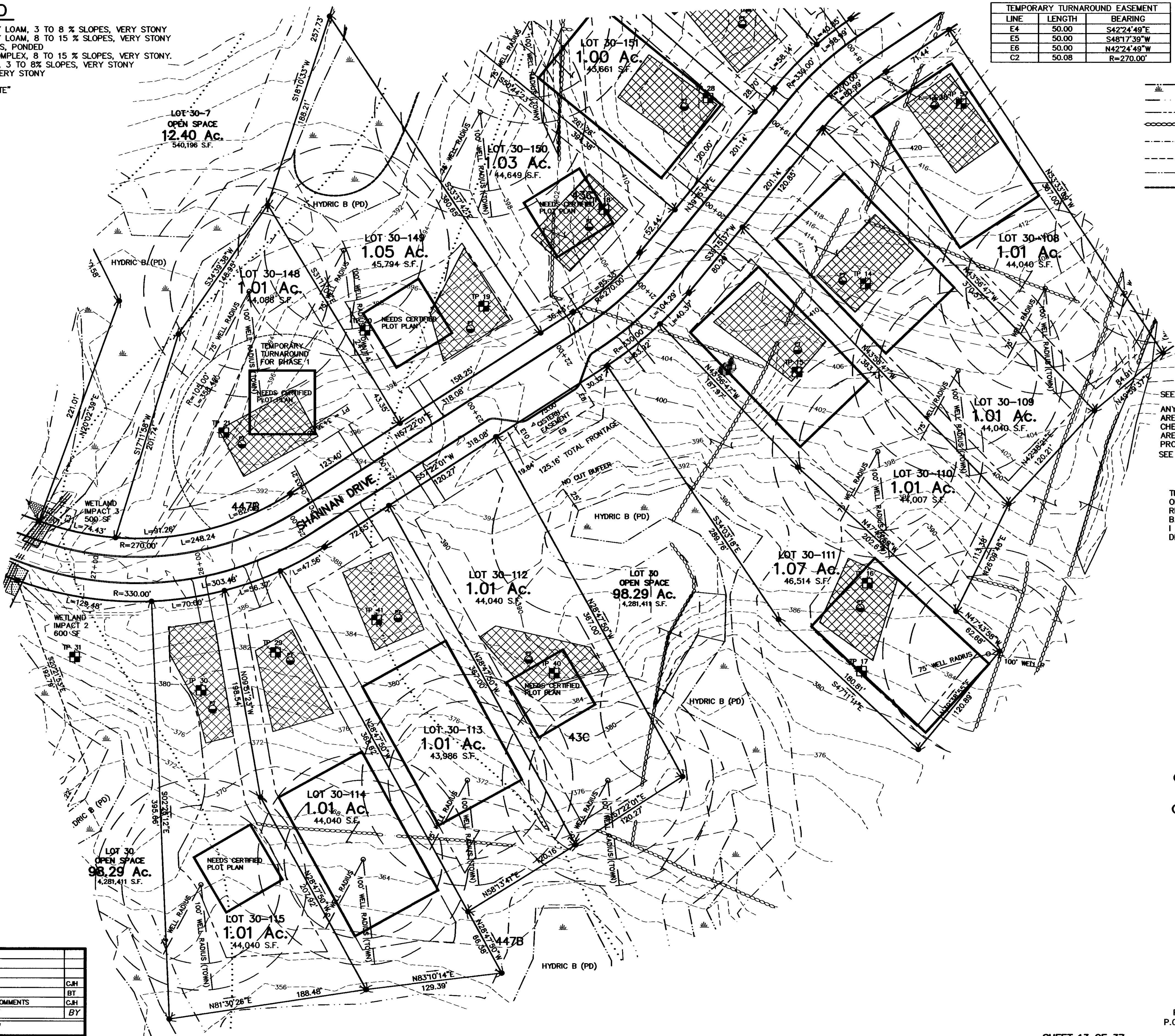
ERIC C. MITCHELL & ASSOC. INC.
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 P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
 PH. (603) 627-1181

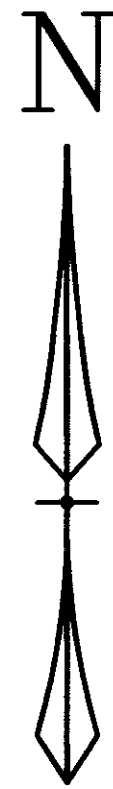
SHEET 13 OF 37

REV: E DWG: D15038WA REVISED ENTRANCE FLD. BK/PG: JOB NO. (2)15-38



REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	CJM
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJM
REV.	DATE	DESCRIPTION	BY
REVISIONS			





PER PLAN REF.

DRAINAGE EASEMENT LINE TABLE		
LINE	LENGTH	BEARING
E1	20.48	N20°02'39"E
E2	30.00	S72°14'18"E
E3	20.00	S19°58'34"W
C1	30.06	R=270.00'

LEGEND

- IRON PIPE/PIN
- DRILL HOLE
- GRANITE BOUND
- GRANITE BOUND TO BE SET
- IRON PIN TO BE SET
- LIMIT OF MAPPED WETLANDS
- 25' NO CUT BUFFER
- MINIMUM BUILDING SETBACK (TYP.)
- STONE WALL
- PROPOSED SLOPE EASEMENT
- PROPOSED DRAINAGE EASEMENT
- POORLY DRAINED
- VERY POORLY DRAINED
- PERC TEST
- TEST PIT
- 4000 S.F. AREA SUITABLE FOR SEPTIC
- POSSIBLE HOUSE LOCATIONS
- .3 ACRE UNCONSTRAINED, BUILDABLE AREA
- STEEP SLOPES, > 25%

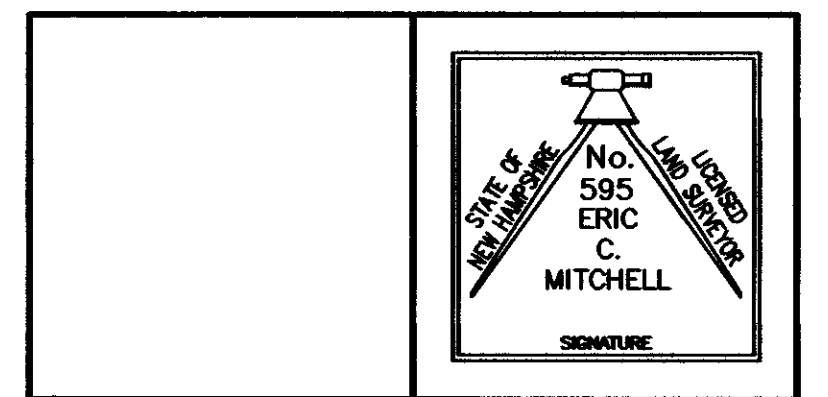
NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.
ANY 75 FOOT WELL RADII THAT OVERLAPS ONTO ABUTTING LOTS ARE PRECLUDED FROM SEPTIC DEVELOPMENT PER THE TOWN OF CHESTER ZONING REGULATIONS. IF ANY PROTECTIVE WELL RADII ARE NOT PRECLUDED FROM DEVELOPMENT, EASEMENTS WILL BE PROVIDED.
SEE SHEETS 21, 22, 23 & 25 FOR DRAINAGE AND GRADING

WETLAND NOTE

THE WETLAND DELINEATION WAS PERFORMED BY TIM FERWERDA OF MERIDIAN LAND SERVICES IN APRIL OF 2003 AND REMAPPED AT THE WETLAND CROSSINGS BY BRUCE GILDAY OF BAG LAND CONSULTANTS IN DECEMBER OF 2015.
I CERTIFY THAT THE WETLANDS SHOWN HEREON HAVE BEEN DELINEATED IN ACCORDANCE WITH ENV-WQ 1014.03

ERIC C. MITCHELL ~ PERMIT. No. 709



NHDES & TOWN BUILDABLE AREA PLAN

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7

CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

SCALE: 1" = 50'

PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

SHEET 14 OF 37 REV. E DWG. D15038WA REVISED ENTRANCE FLD. BK/PG. JOB NO. (2)15-38

SOIL LEGEND

- 43B - CANTON GRAVELLY FINE SANDY LOAM, 3 TO 8 % SLOPES, VERY STONY
- 43C - CANTON GRAVELLY FINE SANDY LOAM, 8 TO 15 % SLOPES, VERY STONY
- 97 - GREENWOOD AND OSSISPEE SOILS, PONDED
- 140C - CHATFIELD-HOLLIS-CANTON COMPLEX, 8 TO 15 % SLOPES, VERY STONY
- 447B - SCITUATE-NEWFIELDS COMPLEX, 3 TO 8 % SLOPES, VERY STONY
- 547B - WALPOLE 3 TO 8 % SLOPES, VERY STONY

SOILS INFORMATION TAKEN FROM "GRANITE"
HTTP://MAPPER.GRANITE.UNH.EDU

REV.	DATE	DESCRIPTION	BY
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJH
REV.	DATE	DESCRIPTION	BY

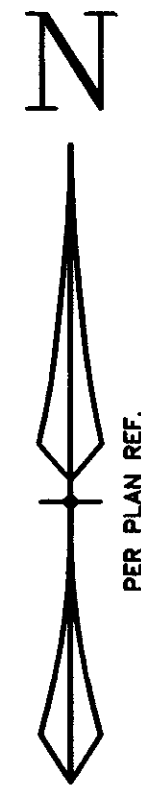
REVISIONS



SOIL LEGEND

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SOILS INFORMATION TAKEN FROM "GRANITE"
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LEGEND

- IRON PIPE/PIN
- ⊙ DRILL HOLE
- ⊞ GRANITE BOUND
- ⊞ GRANITE BOUND TO BE SET
- IRON PIN TO BE SET
- LIMIT OF MAPPED WETLANDS
- 25' NO CUT BUFFER
- MINIMUM BUILDING SETBACK (TYP.)
- STONE WALL
- PROPOSED SLOPE EASEMENT
- PROPOSED DRAINAGE EASEMENT
- PD POORLY DRAINED
- VPD VERY POORLY DRAINED
- PERC TEST
- ⊙ TEST PIT
- ⊞ 4000 S.F. AREA SUITABLE FOR SEPTIC
- POSSIBLE HOUSE LOCATIONS
- .3 ACRE UNCONSTRAINED, BUILDABLE AREA
- ⚡ STEEP SLOPES, > 25%

NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

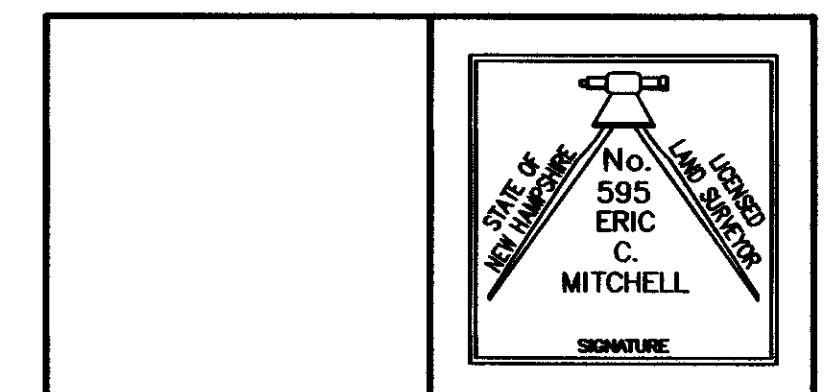
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SEE SHEET 23 & 24 FOR DRAINAGE AND GRADING

WETLAND NOTE

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NHDES & TOWN BUILDABLE AREA PLAN

"TANGLEWOOD"

CANDIA TAX MAP 414
 LOTS 152 & 152-10
 CHESTER TAX MAP 11
 LOTS 30 & 30-7

CROWLEY ROAD
 CANDIA &
 CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

SCALE: 1" = 50'

PREPARED BY:

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SHEET 15 OF 37 REV. E DWG: D15038WA REVISED ENTRANCE FLD. BK/PG: JOB NO. (2)15-38

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	C.H.
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REV.	DATE	DESCRIPTION	BY

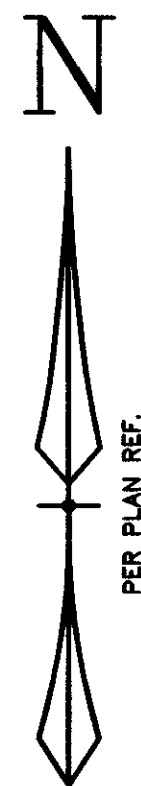
REVISIONS



SOIL LEGEND

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SOILS INFORMATION TAKEN FROM "GRANITE"
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LEGEND

- IRON PIPE/PIN
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- GRANITE BOUND TO BE SET
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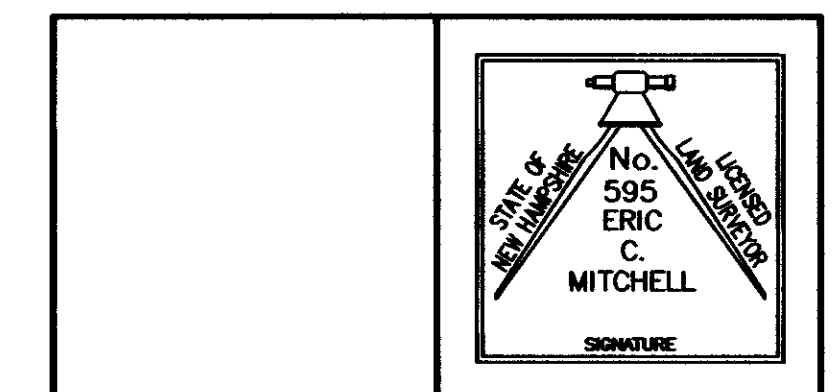
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NHDES & TOWN BUILDABLE AREA PLAN

"TANGLEWOOD"

CANDIA TAX MAP 414
 LOTS 152 & 152-10
 CHESTER TAX MAP 11
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CROWLEY ROAD
 CANDIA &
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OWNER OF RECORD:

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305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

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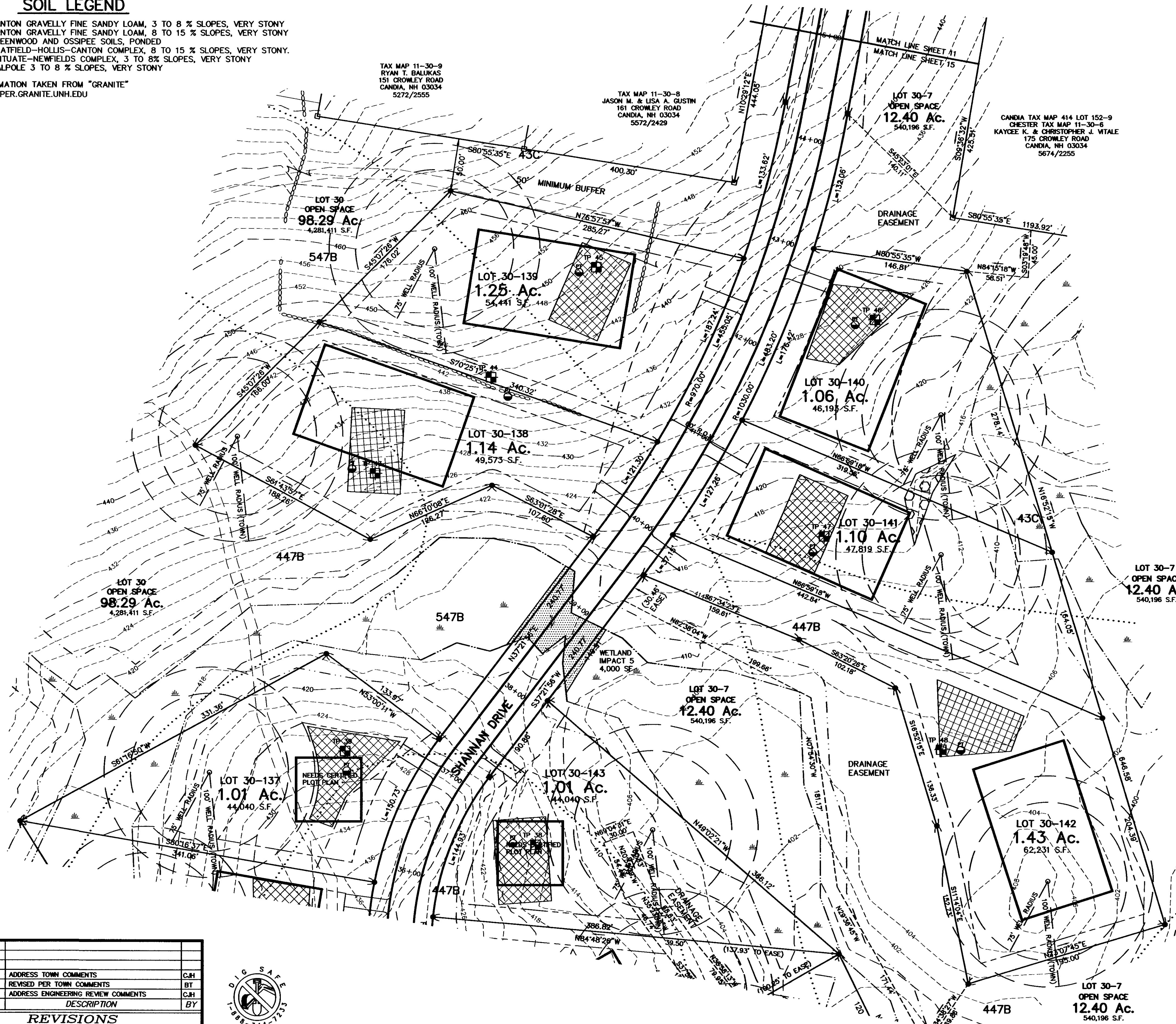
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SHEET 15 OF 37 REV: E DWG: D15038WA REVISED ENTRANCE (LD, BK/PG: JOB NO. (2)15-38

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	C.H.
B	06/07/17	REVISED PER TOWN COMMENTS	BT
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REV.	DATE	DESCRIPTION	BY

REVISIONS





PER PLAN REF.

SOIL LEGEND

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REV.	DATE	DESCRIPTION	BY
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A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJM
REVISIONS			



LEGEND

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- DRILL HOLE
- GRANITE BOUND
- GRANITE BOUND TO BE SET
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- 25' NO CUT BUFFER
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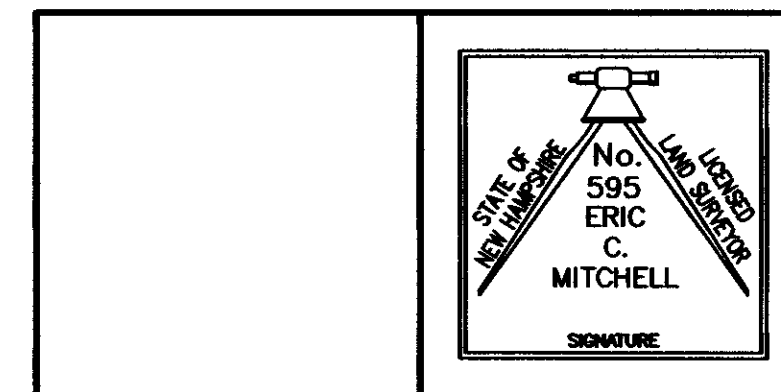
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SEE SHEET 25 & 26 FOR DRAINAGE AND GRADING

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NHDES & TOWN BUILDABLE AREA PLAN

"TANGLEWOOD"

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CROWLEY ROAD

CANDIA &
CHESTER NH

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FEBRUARY 7, 2017

SCALE: 1" = 50'

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SHEET 16 OF 37

REV: E DWG: D15038WA REVISED ENTRANCE #4g NHDES6. 28/2018 12:21 PM

JOB NO. (2)15-38



PER PLAN REF.

SOIL LEGEND

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SOILS INFORMATION TAKEN FROM "GRANITE"
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LEGEND

- IRON PIPE/PIN
● DRILL HOLE
□ GRANITE BOUND
■ GRANITE BOUND TO BE SET
● IRON PIN TO BE SET
--- LIMIT OF MAPPED WETLANDS
--- 25' NO CUT BUFFER
--- MINIMUM BUILDING SETBACK (TYP.)
--- STONE WALL
--- PROPOSED SLOPE EASEMENT
--- PROPOSED DRAINAGE EASEMENT
--- PD POORLY DRAINED
--- VPD VERY POORLY DRAINED
● PERC TEST
● TP-6 TEST PIT
■ 4000 S.F. AREA SUITABLE FOR SEPTIC
□ POSSIBLE HOUSE LOCATIONS
□ .3 ACRE UNCONSTRAINED, BUILDABLE AREA
--- STEEP SLOPES, > 25%

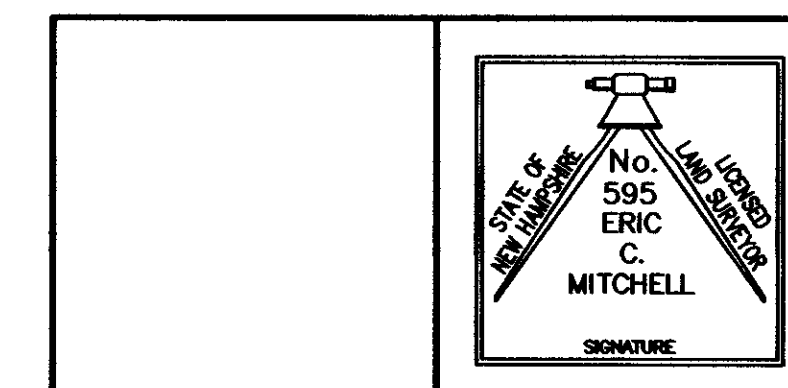
NOTES

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SEE SHEET 26 FOR DRAINAGE AND GRADING

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NHDES & TOWN BUILDABLE AREA PLAN

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

SCALE: 1" = 50'

PREPARED BY:

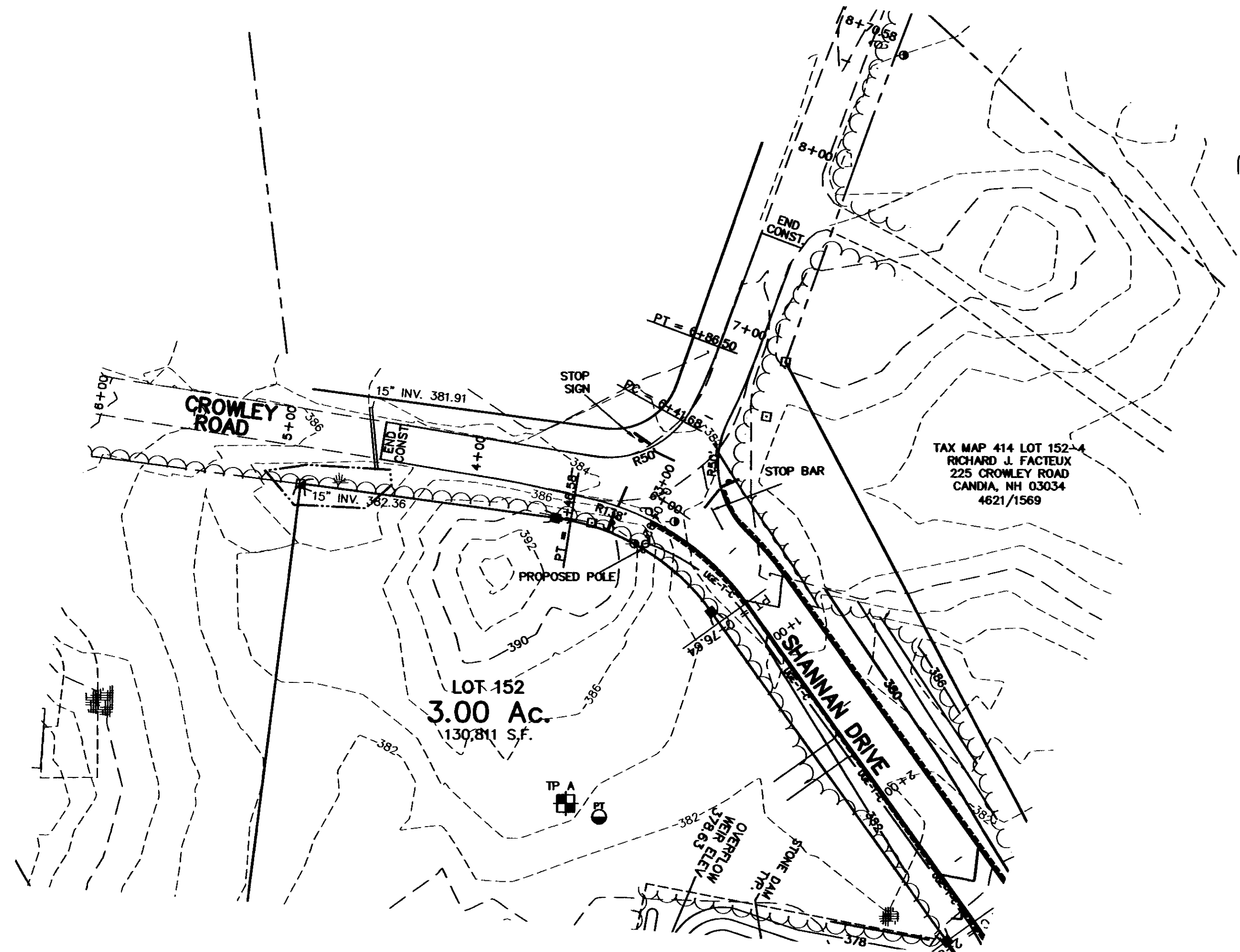
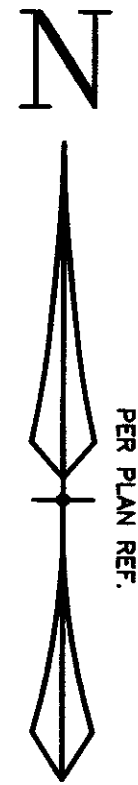
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REV.	DATE	DESCRIPTION	BY
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B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJM
REVISIONS			



TAX MAP 11-31
TOWN OF CHESTER
P.O. BOX 275
CHESTER, NH 03036
3221/1029

TAX MAP 11-32
STEPHEN O. & CYNTHIA R. LANDAU
662 CANDIA RD.
CHESTER, NH 03036
3416/1505



CROWLEY ROAD INTERSECTION RECONSTRUCTION

NOTES:

CROWLEY ROAD PAVEMENT TO BE REMOVED WITHIN THE LIMITS SHOWN SHIMMED AND PAVED.

ROADWAY MATERIALS AND CONSTRUCTION SHALL MEET THE LATEST EDITION OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION BY THE NH DEPARTMENT OF TRANSPORTATION. THE DENSITY OF SELECT MATERIALS AND SUBGRADE PREPARATION SHALL NOT BE LESS THAN 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH NHDOT SPECIFICATIONS.

REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER ROAD FOUNDATION MATERIAL WITHIN 3' OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL MATERIAL. COMPACTION TO BE AT LEAST 95% OF THE DRY WEIGHT AS DETERMINED BY MODIFIED TESTING (ASTM 1557).

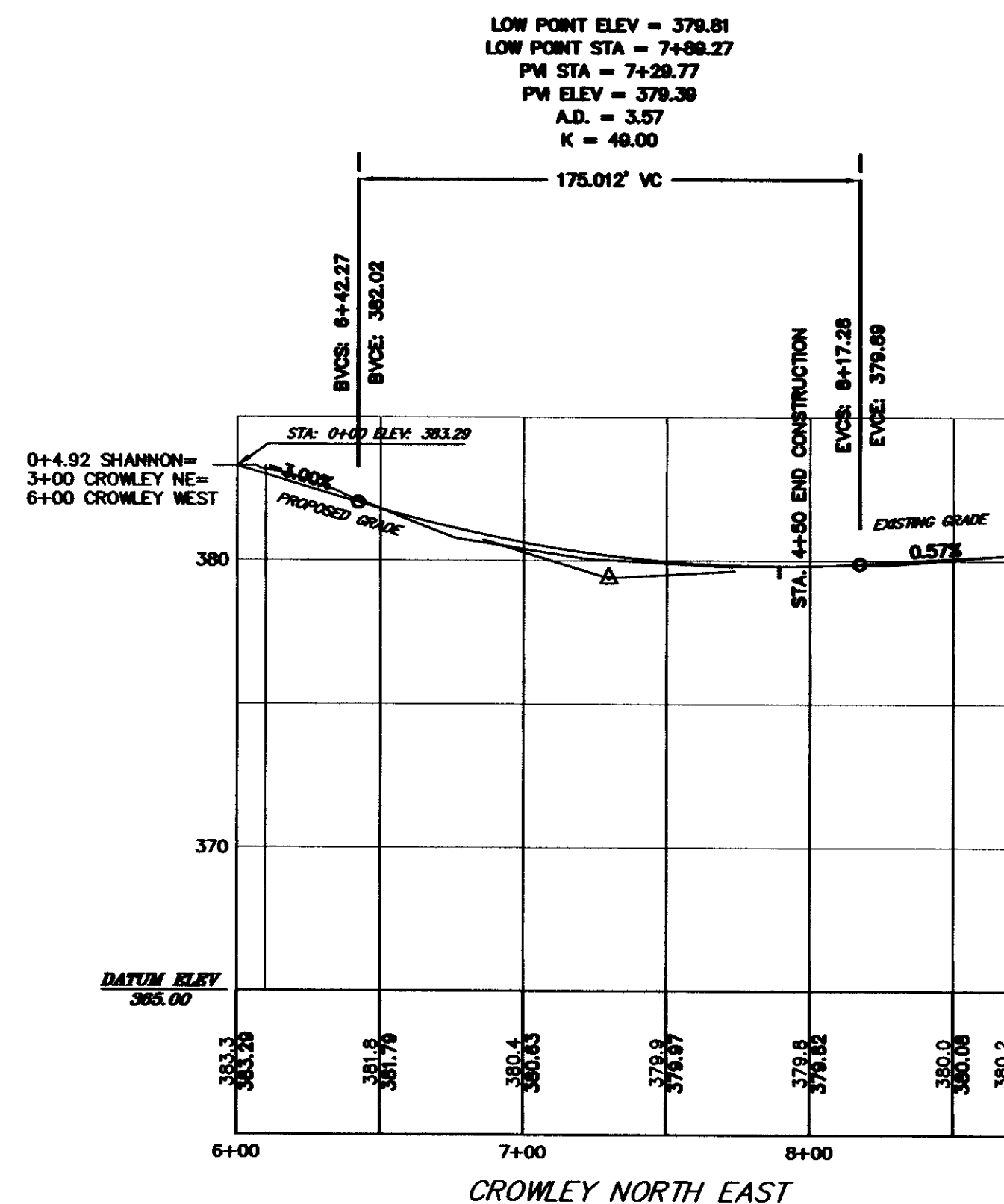
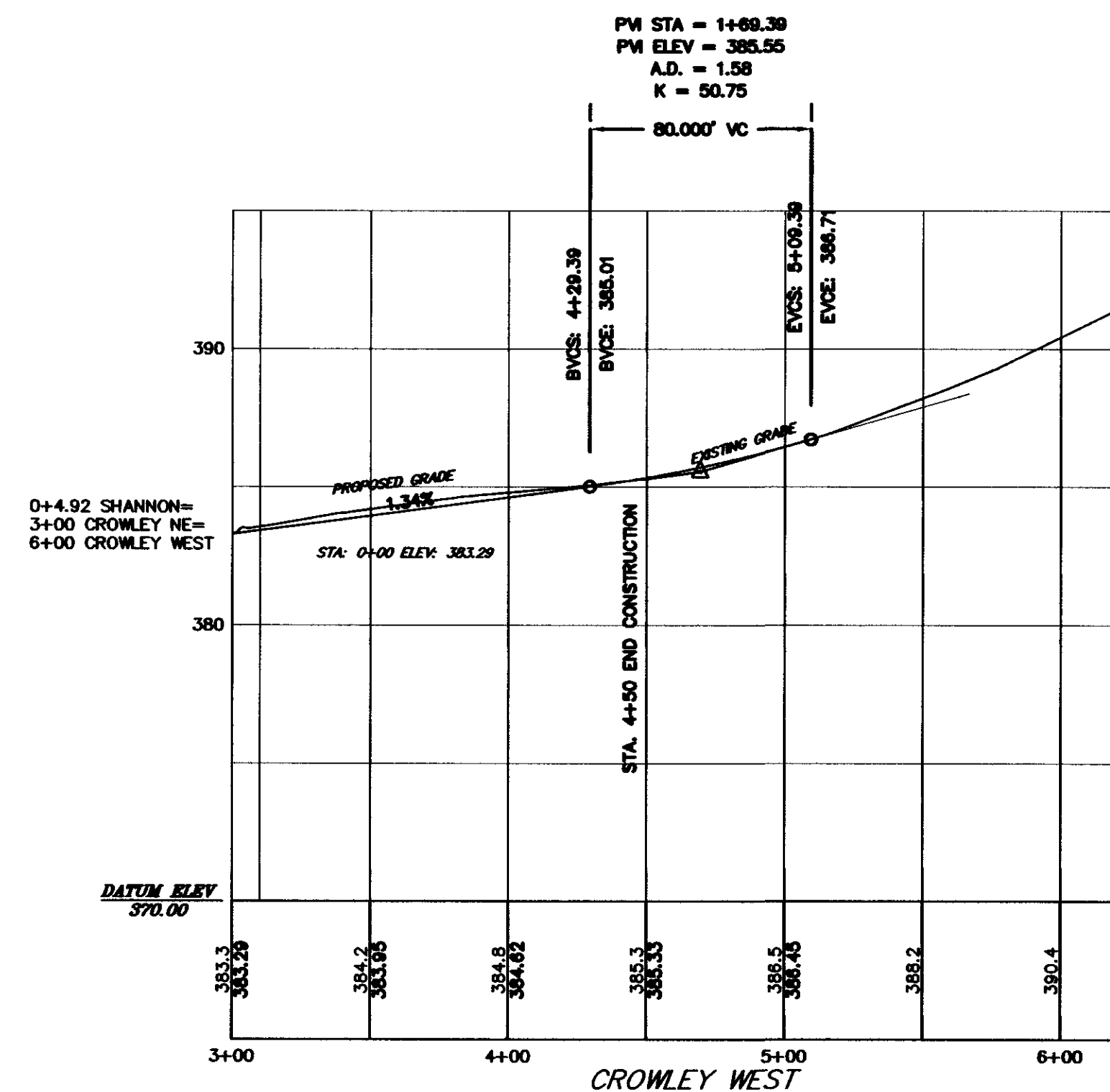
THE CONTRACTOR/HOMEOWNER SHALL BE AWARE OF HIS RESPONSIBILITY TO CONTACT "DIG-SAFE" AT 11 UPTON DRIVE, WILMINGTON, MA. (1-888-344-7233; WWW.DIGSAFE.COM) AT LEAST 72 WORKING HOURS PRIOR TO THE START OF ANY EXCAVATION.

ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

"I certify that any additional runoff incident to development on this site shall have no adverse effects on any open or closed, public or private, downstream drainage facilities"

NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.



REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT

REVISIONS

PLAN & PROFILE
SHANNAN DRIVE STA 0+00 TO 11+00

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD

CANDIA &
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FEBRUARY 7, 2017

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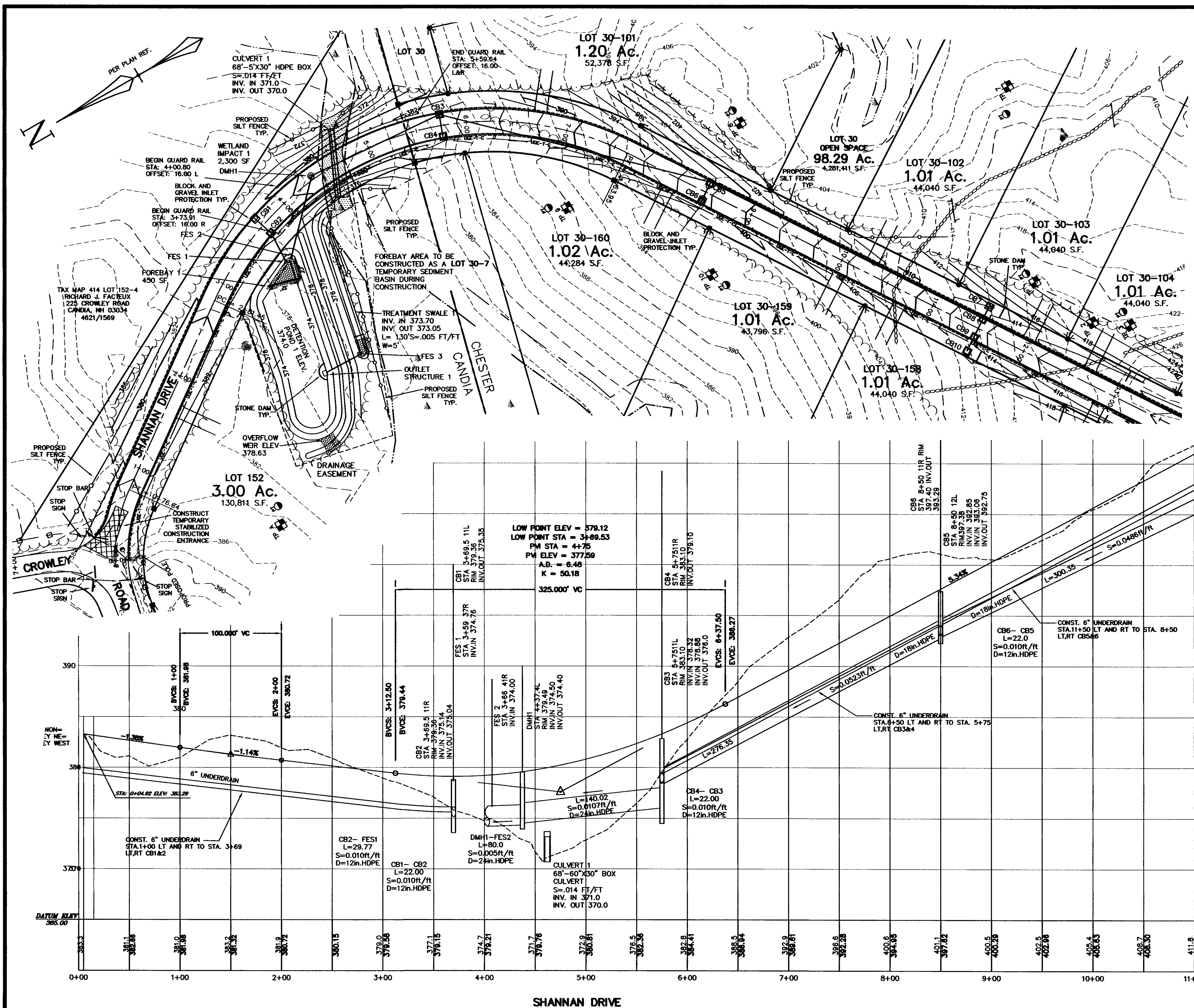
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SHEET 18 OF 37

REV: E [DWS: D15038WA REVISED ENTRANCE] FLD. BK/PG:

JOB NO. (2)15-38



Horizontal Alignment Station and Curve Report
Alignment: 1-25-17 final loop (SHANNAN DRIVE)
Desc: Desc. Station Spiral/curve Data Northing Easting

Tangent Data		Northing		Easting	
0+00	2+81.45	188990.5648	1091918.4194	1092082.6689	
Length: 281.45		Course: S 35-42-11 E			
Circular Curve Data		Northing		Easting	
PC	2+81.45	188762.0120	1092082.6689	1091839.0528	
RP	7+63.95	188586.9372	1091839.0528	1092004.8636	
PT	7+63.95	188336.9236	1092004.8636		
Delta: 92-09-01		Type: RIGHT			
Radius: 300.00		DOC: 19-05-55			
Length: 482.50		Tangent: 311.48			
Tangent Data		Northing		Easting	
7+63.95	17+85.05	188336.9236	1092004.8636	1091153.8961	
Length: 1021.11		Course: S 56-26-51 W			
Circular Curve Data		Northing		Easting	
PC	17+85.05	187772.5557	1091153.8961	1091319.7069	
RP	18+75.05	187522.5422	1091319.7069	1091087.4229	
PT	18+75.05	187712.3951	1091087.4229		
Delta: 17-11-14		Type: LEFT			
Radius: 300.00		DOC: 19-05-55			
Length: 89.99		Tangent: 45.34			
Tangent Data		Northing		Easting	
18+75.05	20+76.18	187712.3951	1091087.4229	1090860.1347	
Length: 201.14		Course: S 39-15-37 W			
Circular Curve Data		Northing		Easting	
PC	20+76.18	187556.6588	1090860.1347	1090727.8507	
RP	21+70.99	187446.5117	1090727.8507	1090889.6275	
PT	21+70.99	187493.8691	1090889.6275		
Delta: 18-06-24		Type: RIGHT			
Radius: 300.00		DOC: 19-05-55			
Length: 94.81		Tangent: 47.80			
Tangent Data		Northing		Easting	
21+70.99	24+89.07	187493.8691	1090889.6275	1090621.7594	
Length: 318.08		Course: S 57-22-01 W			
Circular Curve Data		Northing		Easting	
PC	24+89.07	187322.3429	1090621.7594	1090459.9826	
RP	27+64.89	187574.9854	1090459.9826	1090357.1592	
PT	27+64.89	187293.1569	1090357.1592		
Delta: 52-40-38		Type: RIGHT			
Radius: 300.00		DOC: 19-05-55			
Length: 275.82		Tangent: 148.52			
Tangent Data		Northing		Easting	
27+64.89	29+41.81	187293.1569	1090357.1592	1090190.9563	
Length: 176.92		Course: N 69-57-21 W			

SEE SHEET 19 FOR REMAINDER

"I certify that any additional runoff incident to development on this site shall have no adverse effects on any open or closed, public or private, downstream drainage facilities"

NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJH

REVISIONS

PLAN & PROFILE
SHANNAN DRIVE STA 0+00 TO 11+00

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7

CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

SCALE: 1" = 50'

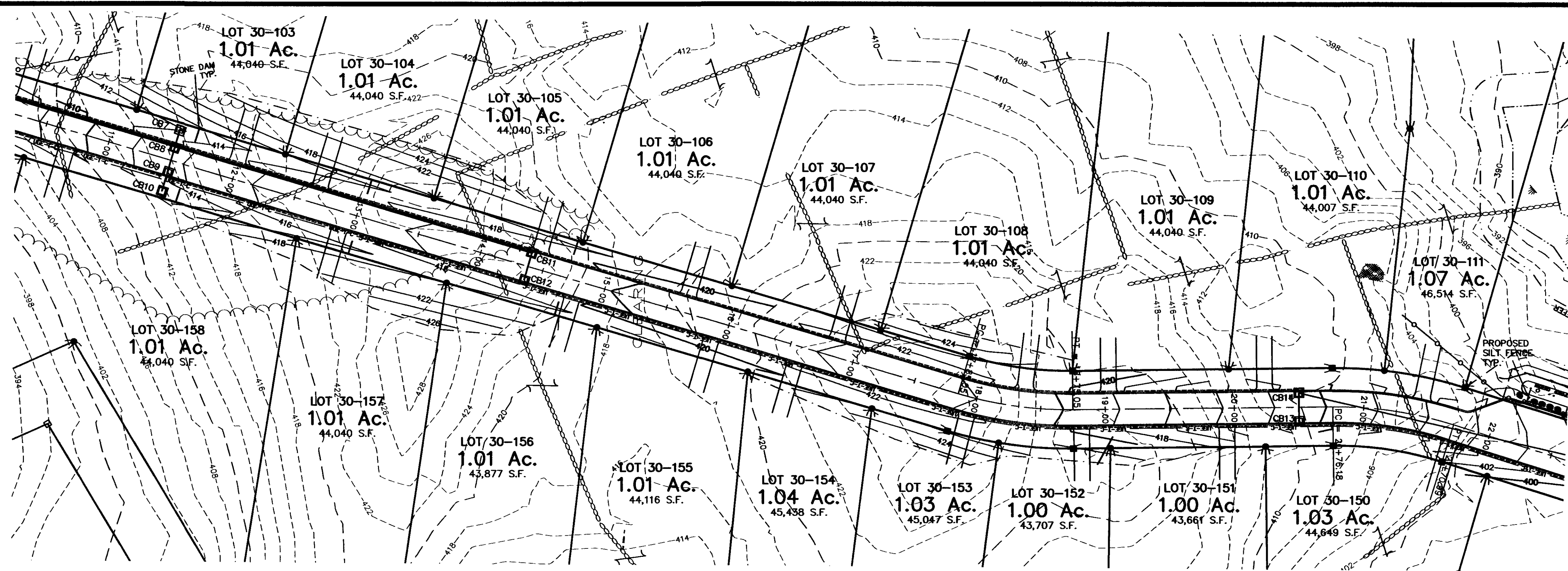
PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

SHEET 19 OF 37

REV: E DWG: D15038WA REVISED ENTRANCE FLD. BK/PG:

JOB NO. (2)15-38

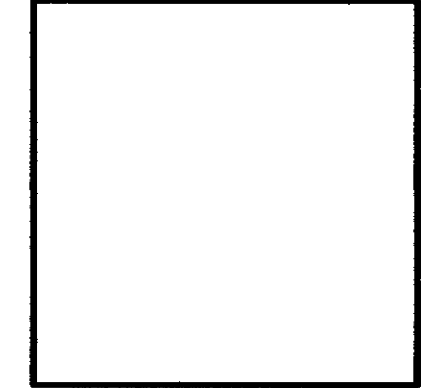


CONTINUED FROM SHEET 18				
Horizontal Alignment Station and Curve Report				
Alignment: 1-25-17 final loop (SHANNAN DRIVE)				
Desc.	Station	Spiral/Curve Data	Northing	Easting
Tangent Data				
	27+64.89		187293.1569	1090357.1592
	29+41.81		187353.7950	1090190.9563
Length:	176.92	Course:	N 69-57-21 W	
Circular Curve Data				
PC	29+41.81		187353.7950	1090190.9563
RP			187654.4121	1090300.6346
PT	31+68.64		187497.6131	1090021.6829
Delta:	40-36-56	Type:	RIGHT	
Radius:	320.00	DOC:	17-54-18	
Length:	226.84	Tangent:	118.42	
Tangent Data				
	31+68.64		187497.6131	1090021.6829
	33+71.40		187674.3639	1089922.3311
Length:	202.76	Course:	N 29-20-25 W	
Circular Curve Data				
PC	33+71.40		187674.3639	1089922.3311
RP			187821.3630	1090183.8483
PT	37+20.68		188003.4326	1089945.4145
Delta:	66-42-22	Type:	RIGHT	
Radius:	300.00	DOC:	19-05-55	
Length:	349.27	Tangent:	197.46	
Tangent Data				
	37+20.68		188003.4326	1089945.4145
	39+61.45		188194.7908	1090091.5369
Length:	240.77	Course:	N 37-21-56 E	
Circular Curve Data				
PC	39+61.45		188194.7908	1090091.5369
RP			188801.6894	1089296.7576
PT	44+30.57		188619.6835	1090280.0551
Delta:	26-52-44	Type:	LEFT	
Radius:	1000.00	DOC:	05-43-46	
Length:	469.13	Tangent:	238.96	
Tangent Data				
	44+30.57		188619.6835	1090280.0551
	50+42.54		188221.4347	1090391.4377
Length:	611.97	Course:	N 10-29-12 E	

NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

I certify that any additional runoff incident to development on this site shall have no adverse effects on any open or closed, public or private, downstream drainage facilities"



REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJM

REVISIONS

PLAN & PROFILE
SHANNAN DRIVE STA 11+00 TO 22+00

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

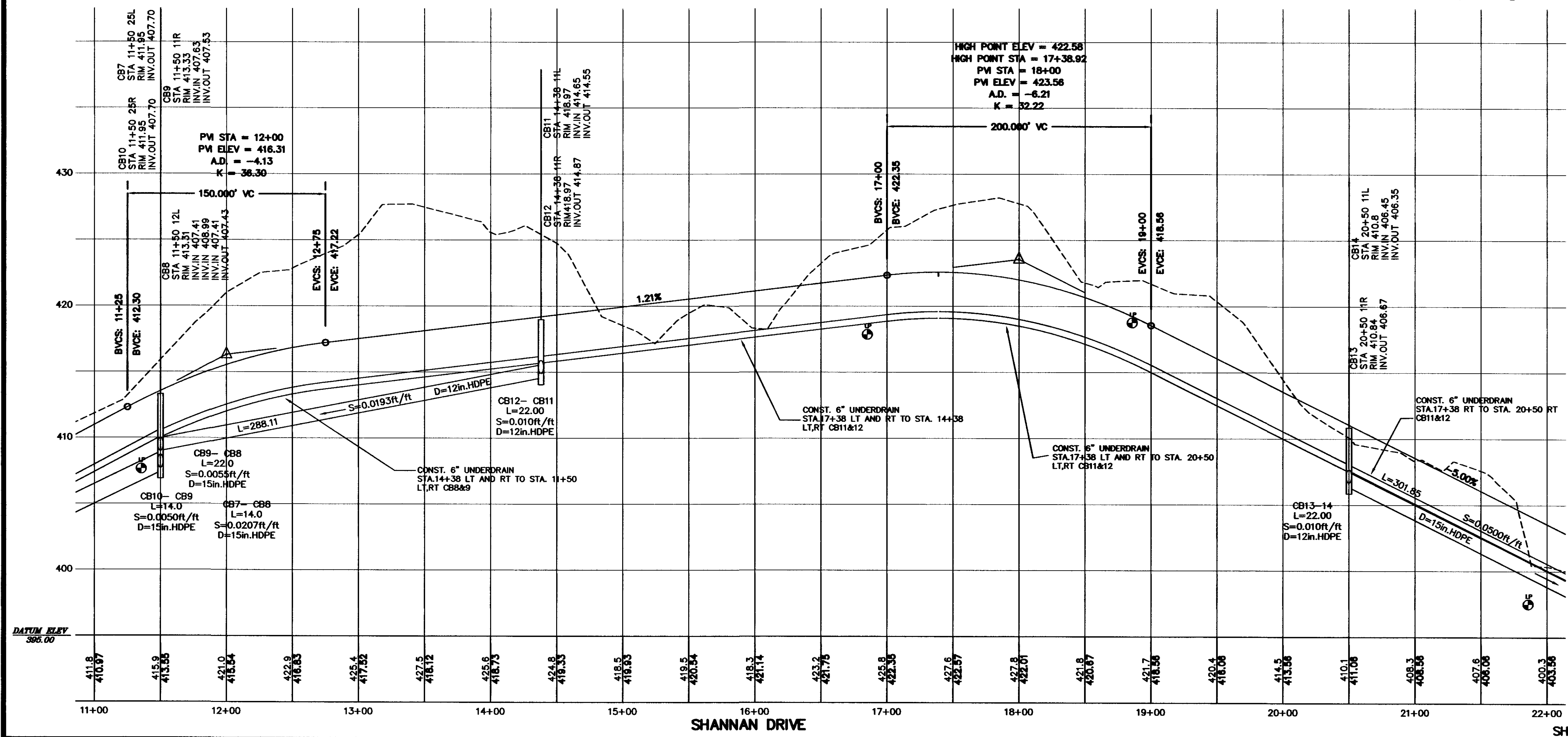
DAR BUILDERS LLC

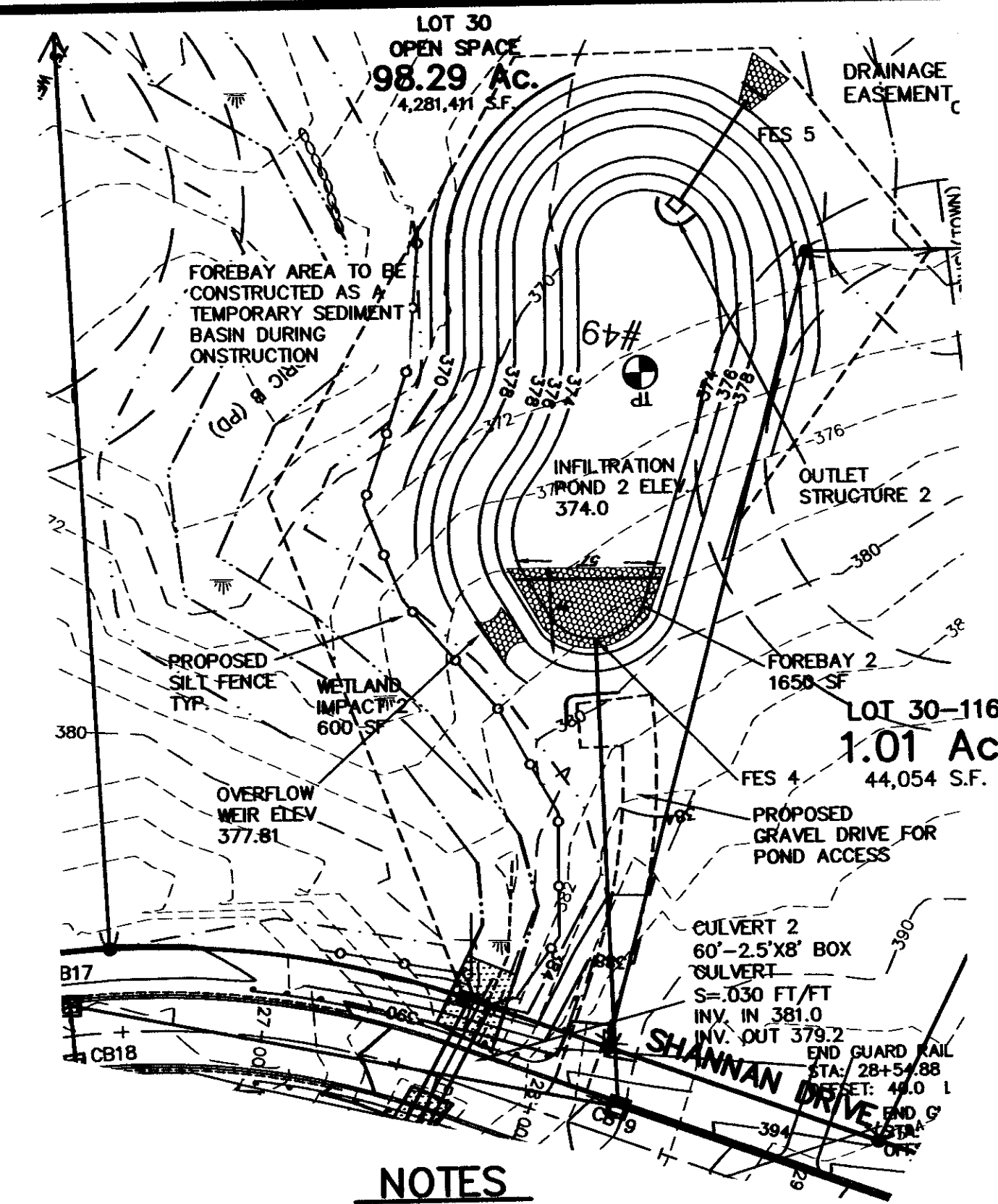
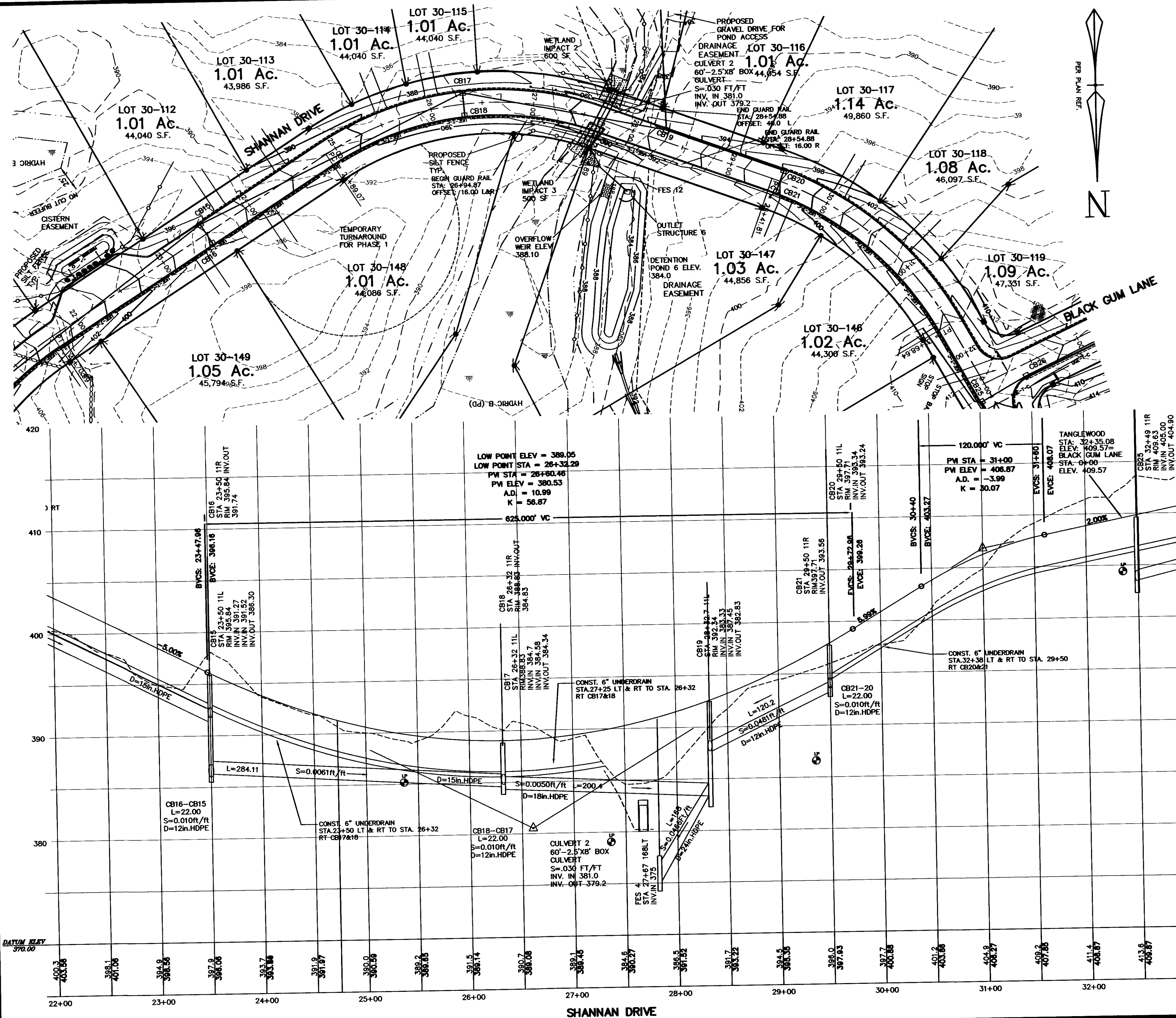
305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

SCALE: 1" = 50'
PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181





NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

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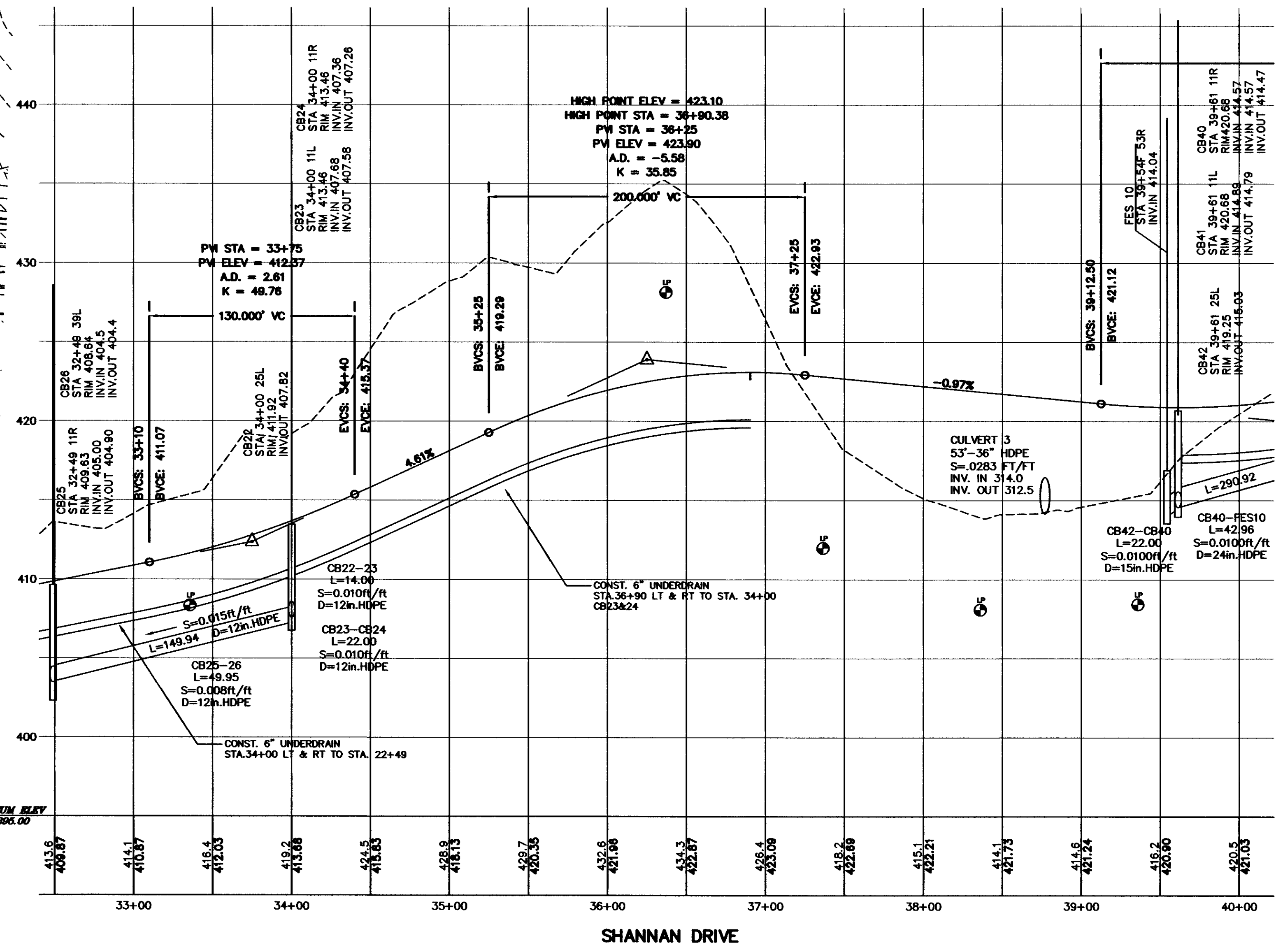
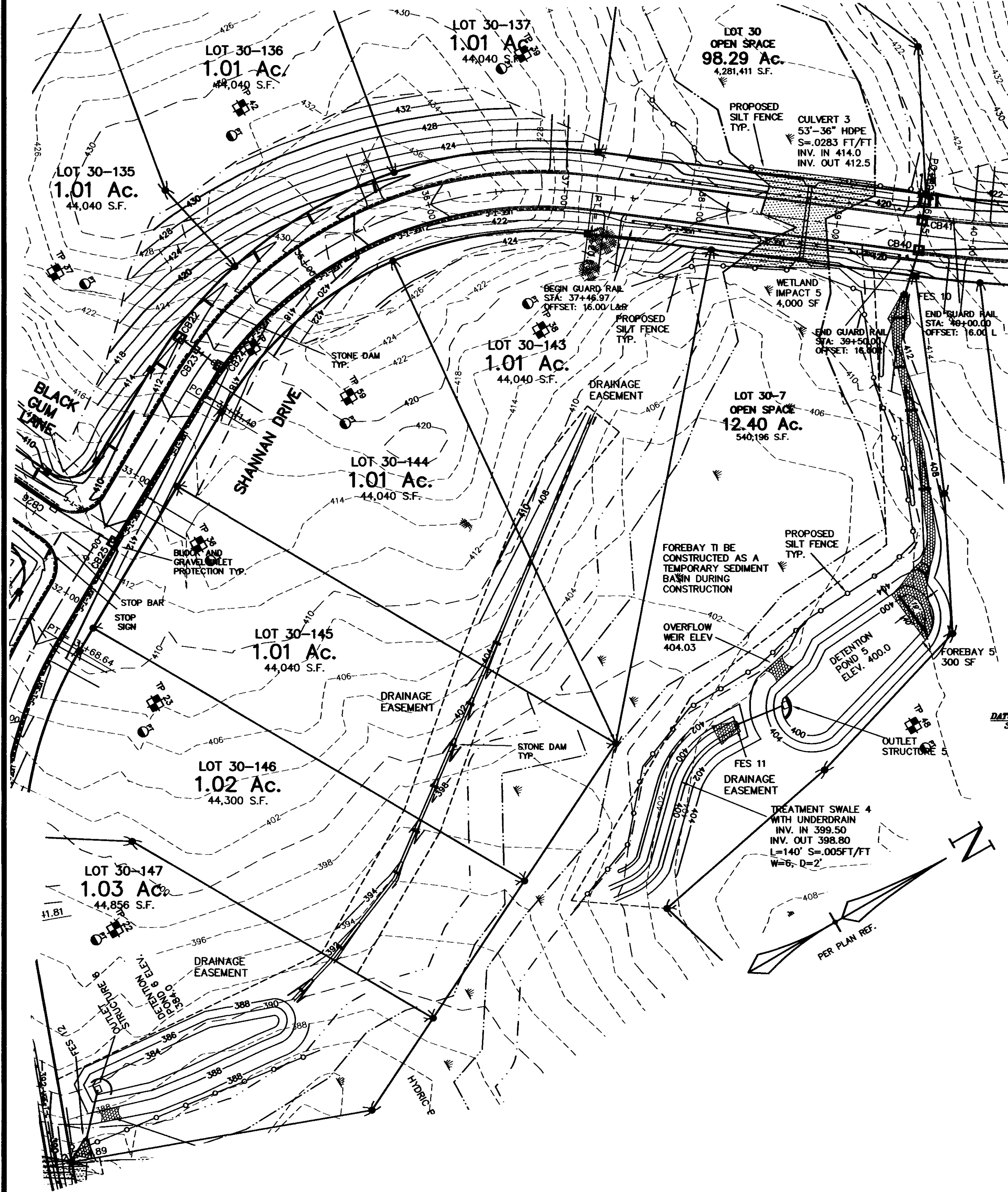
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E	1/29/18	ADDRESS TOWN COMMENTS	BT
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	C.H

REVISIONS

PLAN & PROFILE
SHANNAN DRIVE STA 22+00 TO 32+50
"TANGLEWOOD"
 CANDIA TAX MAP 414
 LOTS 152 & 152-10
 CHESTER TAX MAP 11
 LOTS 30 & 30-7
 CROWLEY ROAD
CANDIA & CHESTER NH
 OWNER OF RECORD:
DAR BUILDERS LLC
 305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017



SCALE: 1" = 50'
 PREPARED BY:
ERIC C. MITCHELL & ASSOC. INC.
 PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
 P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
 PH. (603) 627-1181



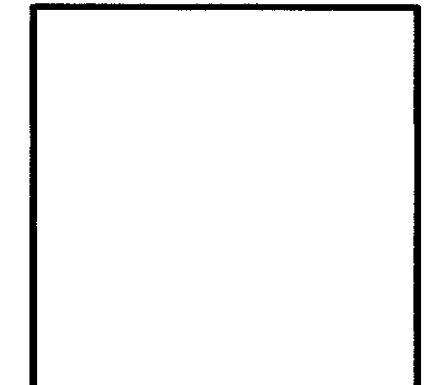
PLAN & PROFILE
SHANNAN DRIVE STA 32+50 TO 40+00
"TANGLEWOOD"
 CANDIA TAX MAP 414
 LOTS 152 & 152-10
 CHESTER TAX MAP 11
 LOTS 30 & 30-7
 CROWLEY ROAD
CANDIA & CHESTER NH
 OWNER OF RECORD:
DAR BUILDERS LLC
 305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017

NOTES

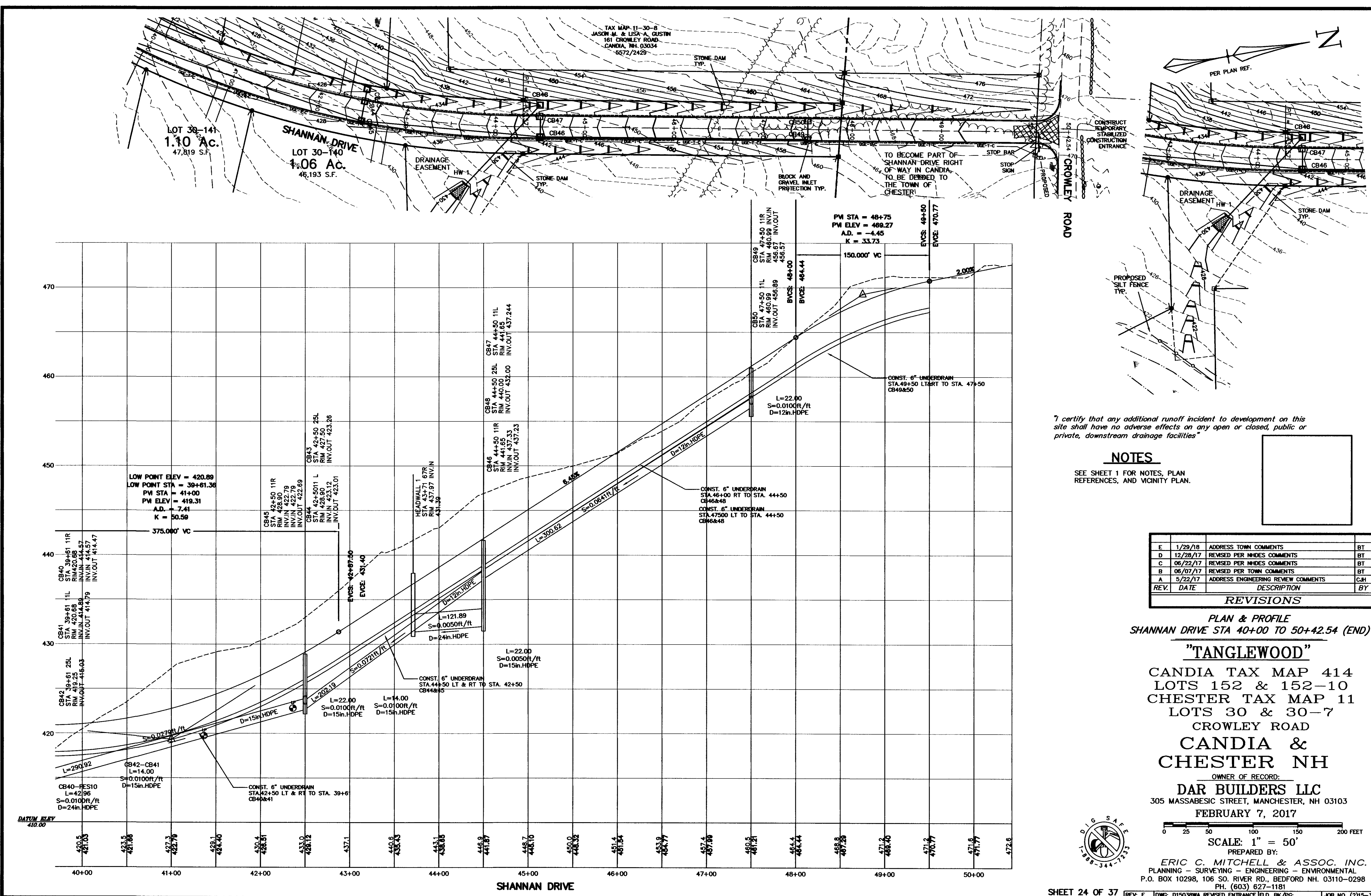
SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

"I certify that any additional runoff incident to development on this site shall have no adverse effects on any open or closed, public or private, downstream drainage facilities"

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT
D	12/28/17	REVISED PER NHDES COMMENTS	BT
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B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJM
REVISIONS			



0 25 50 100 150 200 FEET
SCALE: 1" = 50'
 PREPARED BY:
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 PH. (603) 627-1181



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NOTES

SEE SHEET 1 FOR NOTES, PLAN, REFERENCES, AND VICINITY PLAN.

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT
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C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	C.H

REVISIONS

PLAN & PROFILE
SHANNAN DRIVE STA 40+00 TO 50+42.54 (END)

"TANGLEWOOD"

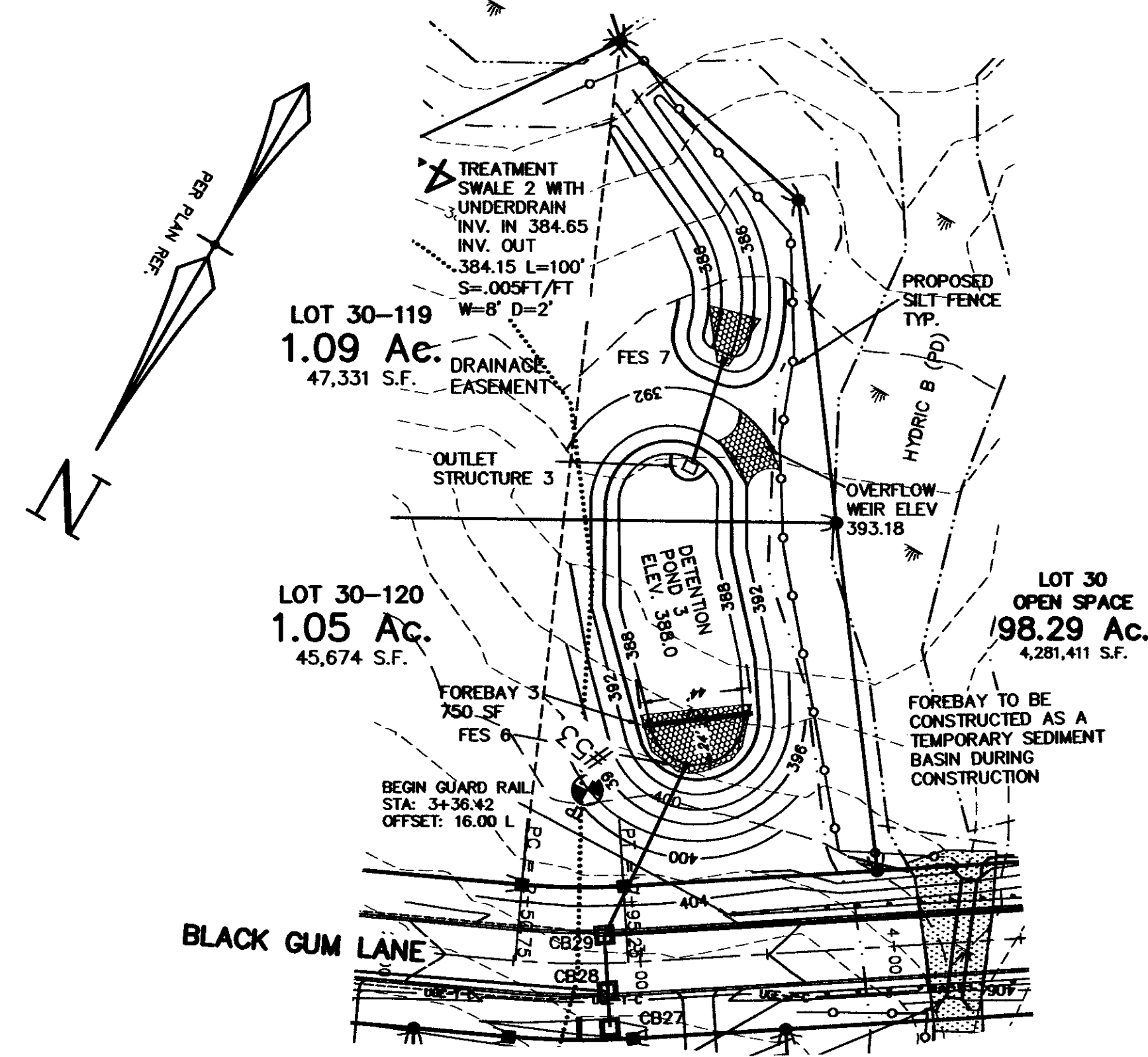
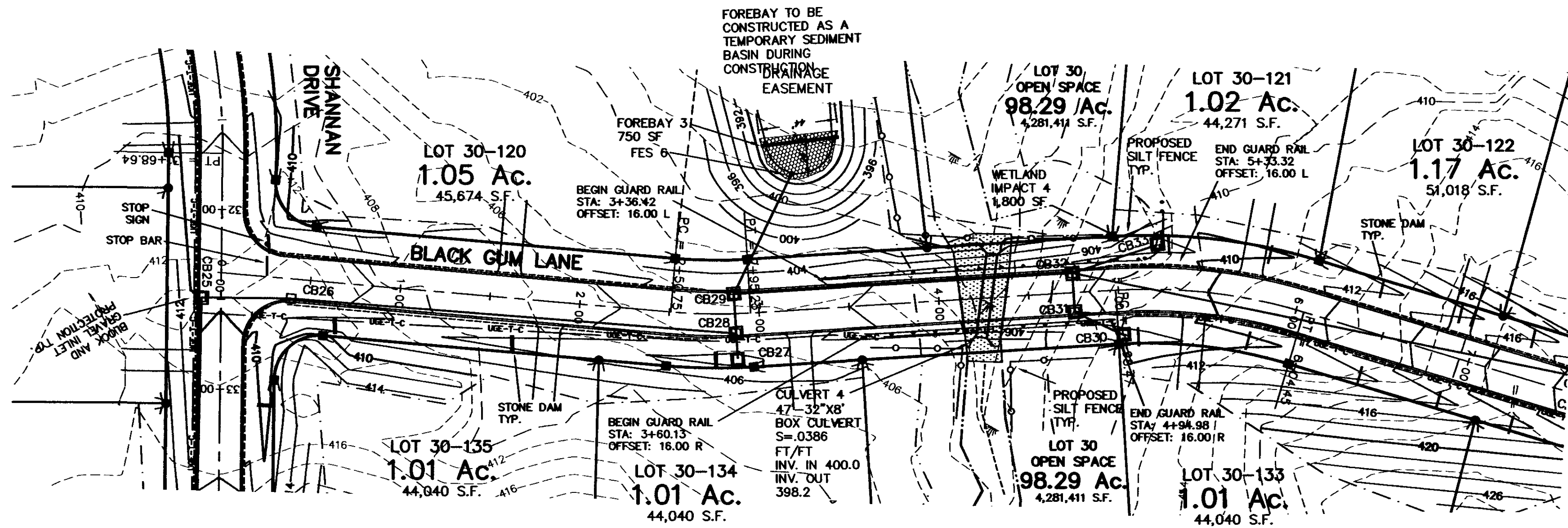
CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:
DAR BUILDERS LLC
305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017



SCALE: 1" = 50'
PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181



NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

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PLAN & PROFILE BLACK GUM LANE STA 0+00 TO 7+50

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC
305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

SCALE: 1" = 50'

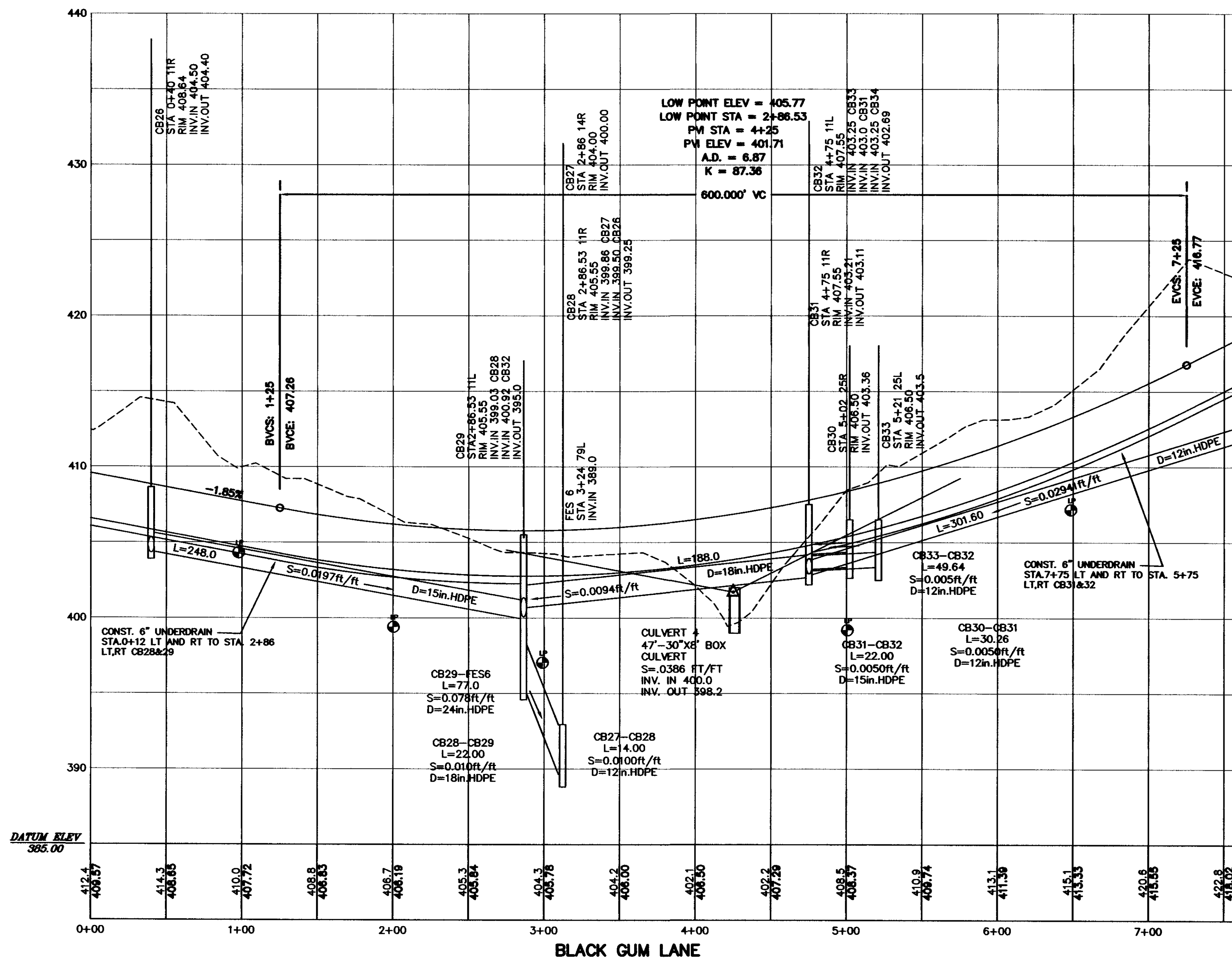
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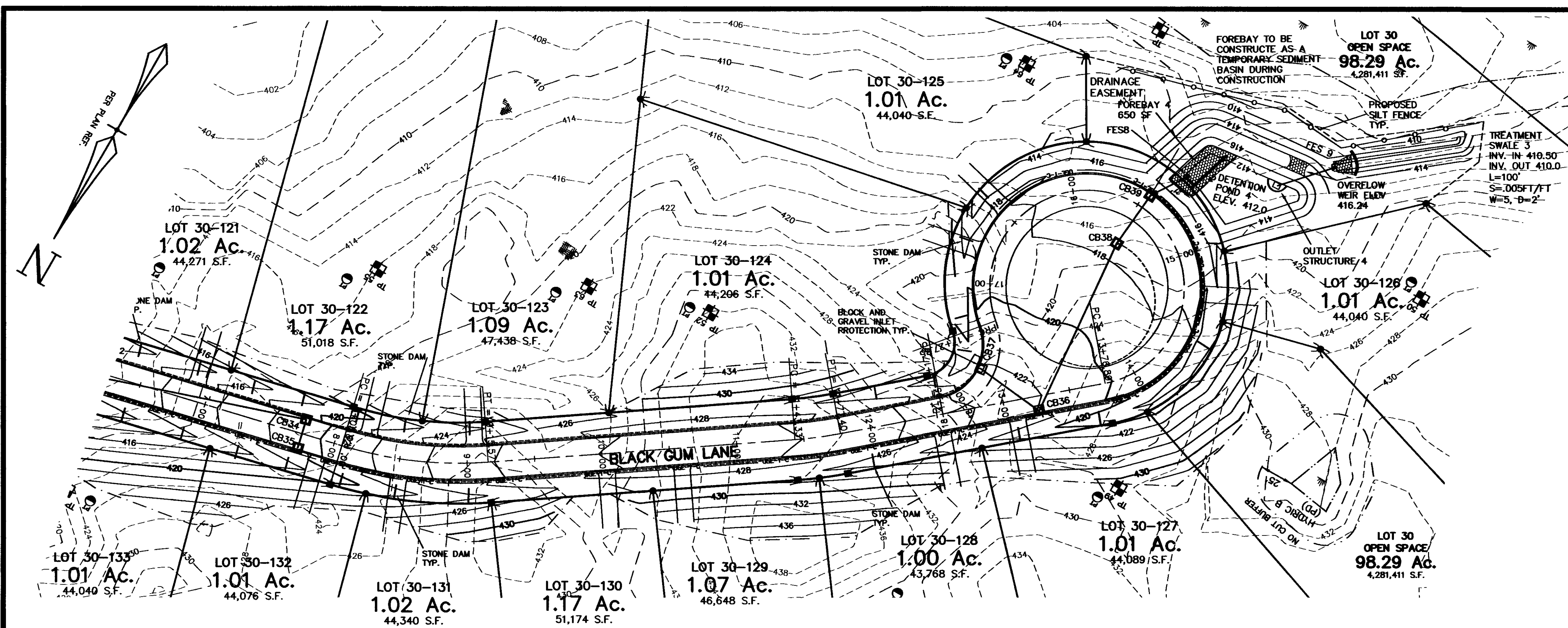
ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

SHEET 25 OF 37 REV: E [DWG: D15038WA REVISED ENTRANCE] FLD. BK/PG: JOB NO. (2)15-38

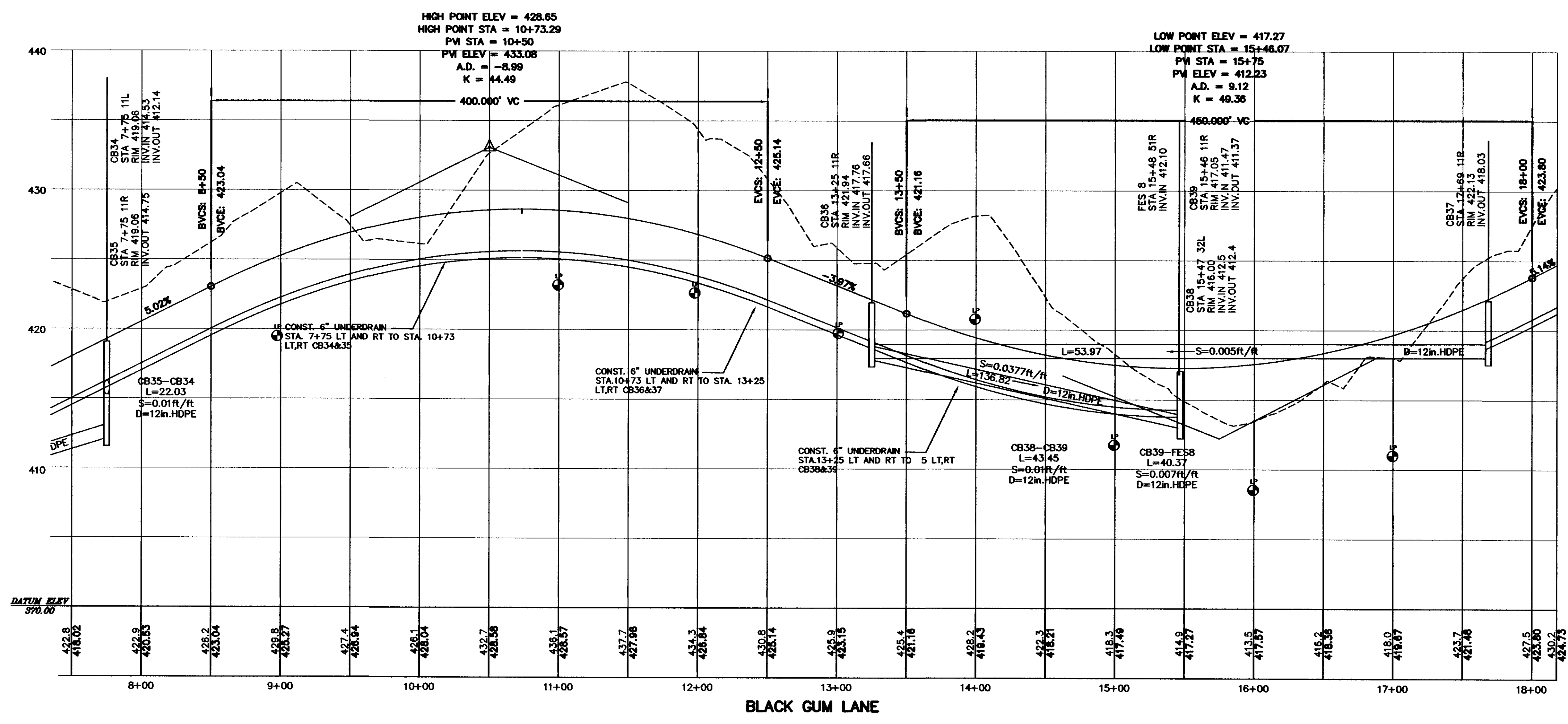
REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJH
REV.	DATE	DESCRIPTION	BY

REVISIONS





Horizontal Alignment Station and Curve Report.				
Alignment: 1-24-17 final cut				
Desc.	Station	Spiral/Curve Data	Northing	Easting
Tangent Data				
0+00	2+50.75	Length: 250.75	Course: S 64-56-53 W	
Circular Curve Data				
PC	2+50.75	Delta: 08-29-47	187449.3455	1089761.9729
RP	2+95.23	Radius: 300.00	187177.5683	1089889.0051
PT	2+95.23	Length: 44.49	187427.5944	1089723.2132
Tangent Data				
2+95.23	4+98.47	Length: 203.23	Course: S 56-27-06 W	
Circular Curve Data				
PC	4+98.47	Delta: 20-14-30	187315.2803	1089553.8355
RP	6+04.45	Radius: 300.00	187565.3063	1089398.0436
PT	6+04.45	Length: 105.99	187273.3606	1089457.0919
Tangent Data				
6+04.45	8+05.82	Length: 201.37	Course: S 76-41-36 W	
Circular Curve Data				
PC	8+05.82	Delta: 20-57-37	187227.0131	1089261.1282
RP	9+15.57	Radius: 300.00	186935.0673	1089330.1765
PT	9+15.57	Length: 108.75	187182.9943	1089161.2617
Tangent Data				
9+15.57	11+43.33	Length: 227.76	Course: S 55-43-59 W	
Circular Curve Data				
PC	11+43.33	Delta: 06-30-22	187054.7533	1088973.0343
RP	11+77.40	Radius: 300.00	186806.8263	1089141.9491
PT	11+77.40	Length: 34.07	187034.0169	1088946.0297
Tangent Data				
11+77.40	13+76.89	Length: 199.49	Course: S 49-13-37 W	
Circular Curve Data				
PC	13+76.89	Delta: 279-16-54	186903.7361	1088794.9544
RP	17+27.85	Radius: 72.00	186849.2103	1088841.9751
PT	17+27.85	Length: 350.96	186904.4098	1088888.2029
Circular Curve Data				
PC	17+27.85	Delta: 99-16-54	186904.4098	1088888.2029
RP	18+17.95	Radius: 52.00	186844.2762	1088921.5897
PT	18+17.95	Length: 90.11	186904.4098	1088887.6304



NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CH

REVISIONS

PLAN & PROFILE
BLACK GUM LANE STA 7+50 TO 18+17.95 (END)

"TANGLEWOOD"

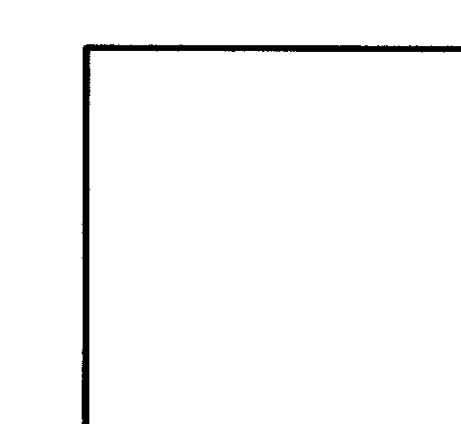
CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:
DAR BUILDERS LLC
305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017

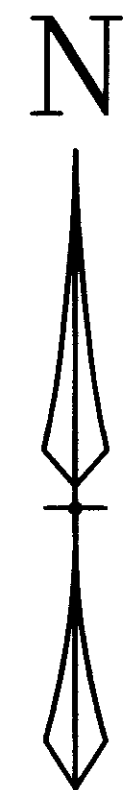
SCALE: 1" = 50'
PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH 03110-0298
PH. (603) 627-1181

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AASHTO STOPPING SITE DISTANCE
35 MPH
OBJECT 2' @ EOP
EYE AT 3.5'
REQUIRED STOPPING 250'
THREE WAY STOP SITE DISTANCE
PROVIDED 400' ALL DIRECTIONS



TAX MAP 414-090-4
BEAR-PAW REGIONAL GREENWAYS
P.O. BOX 19
DEERFIELD, NH 03037
5223/2623

TAX MAP 414-090-5
BEAR-PAW REGIONAL GREENWAYS
P.O. BOX 19
DEERFIELD, NH 03037
5223/2623

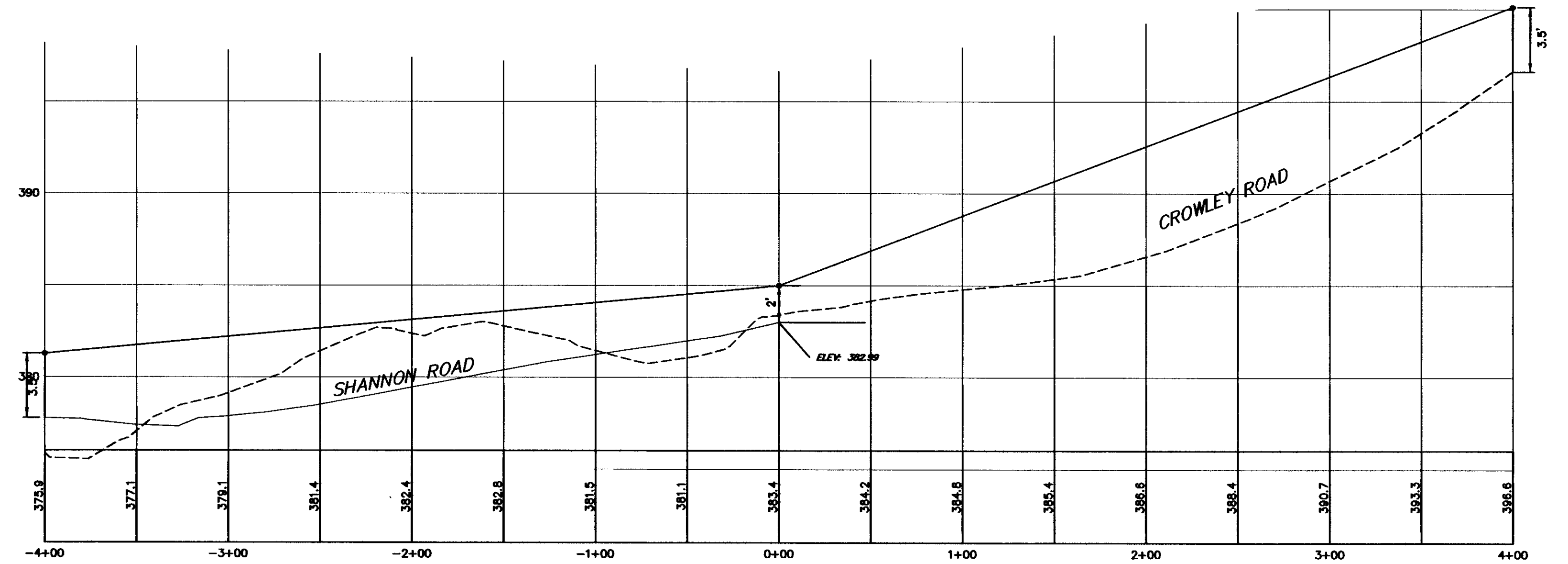
PROPOSED 3 WAY STOP

TAX MAP 414 LOT 152-4
RICHARD J. FACTEUR
225 CROWLEY ROAD
CANDIA, NH 03034
4621/1569

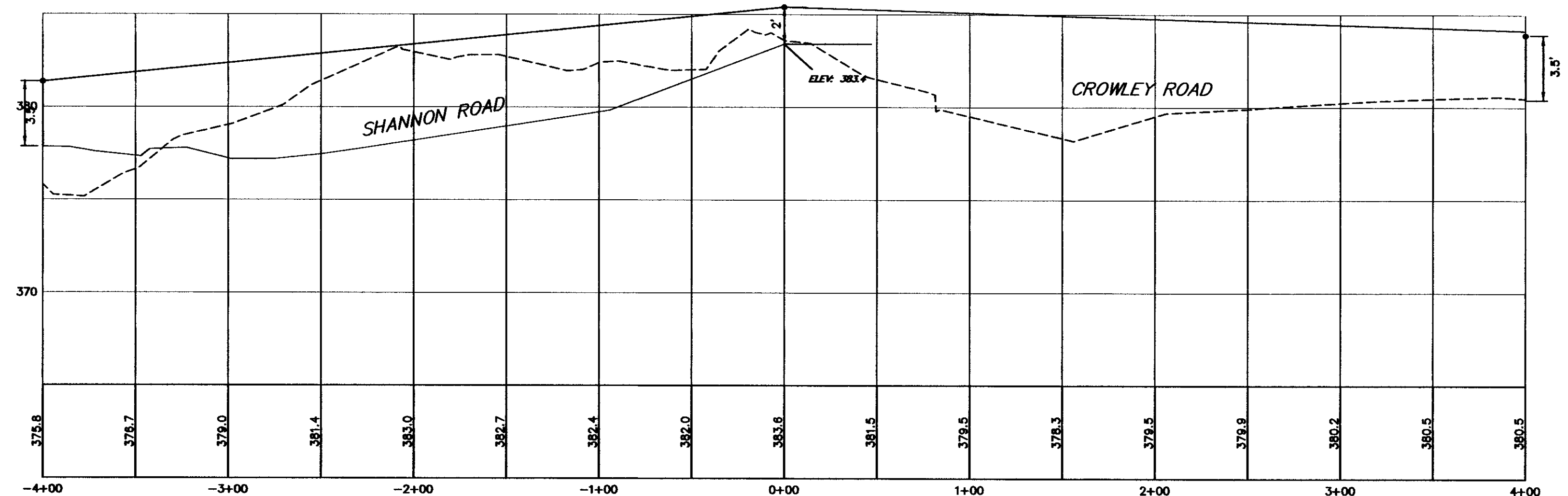
CANDIA TAX MAP 414 LOT 152-4
CHESTER TAX MAP 11-30-1
DAVID ONDZES
275 CROWLEY ROAD
CANDIA, NH 03034
4747/1941

LOT 152
3.00 Ac.
130,811 S.F.

SHANNAN DRIVE



CROWLEY FROM THE NORTH



CROWLEY FROM THE WEST

NOTES

SEE SHEET 1 FOR NOTES, PLAN
REFERENCES, AND VICINITY PLAN.

SIGHT DISTANCE PLAN & PROFILE
AASHTO SAFE STOPPING

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:
DAR BUILDERS LLC
305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017

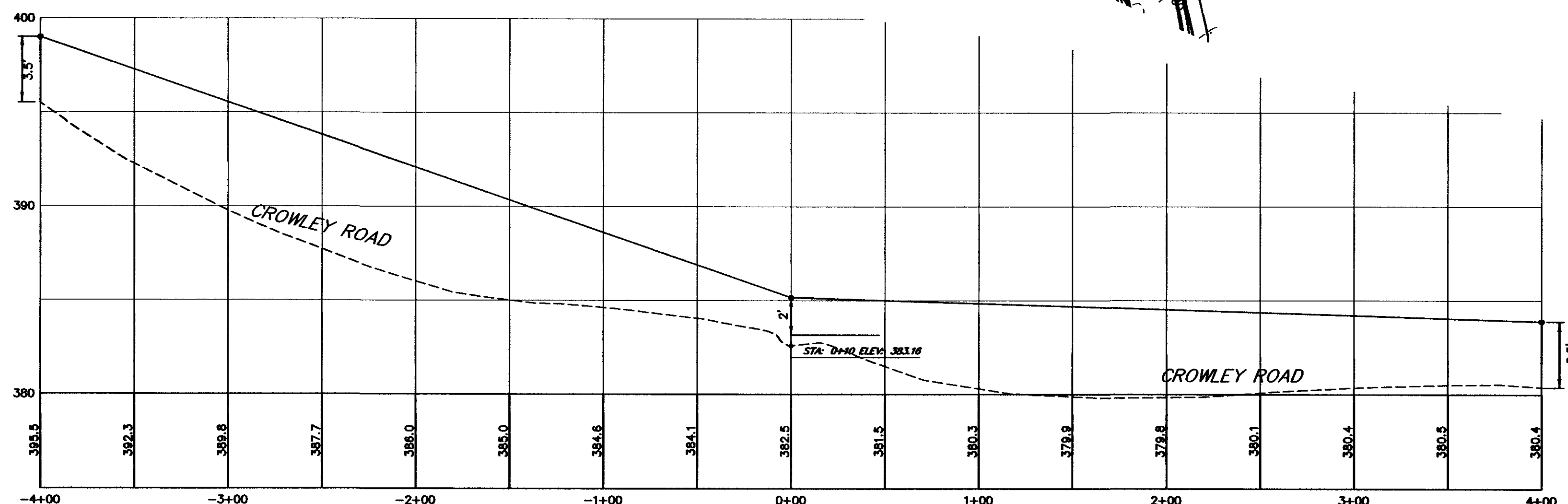
SCALE: 1" = 50'
PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
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P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
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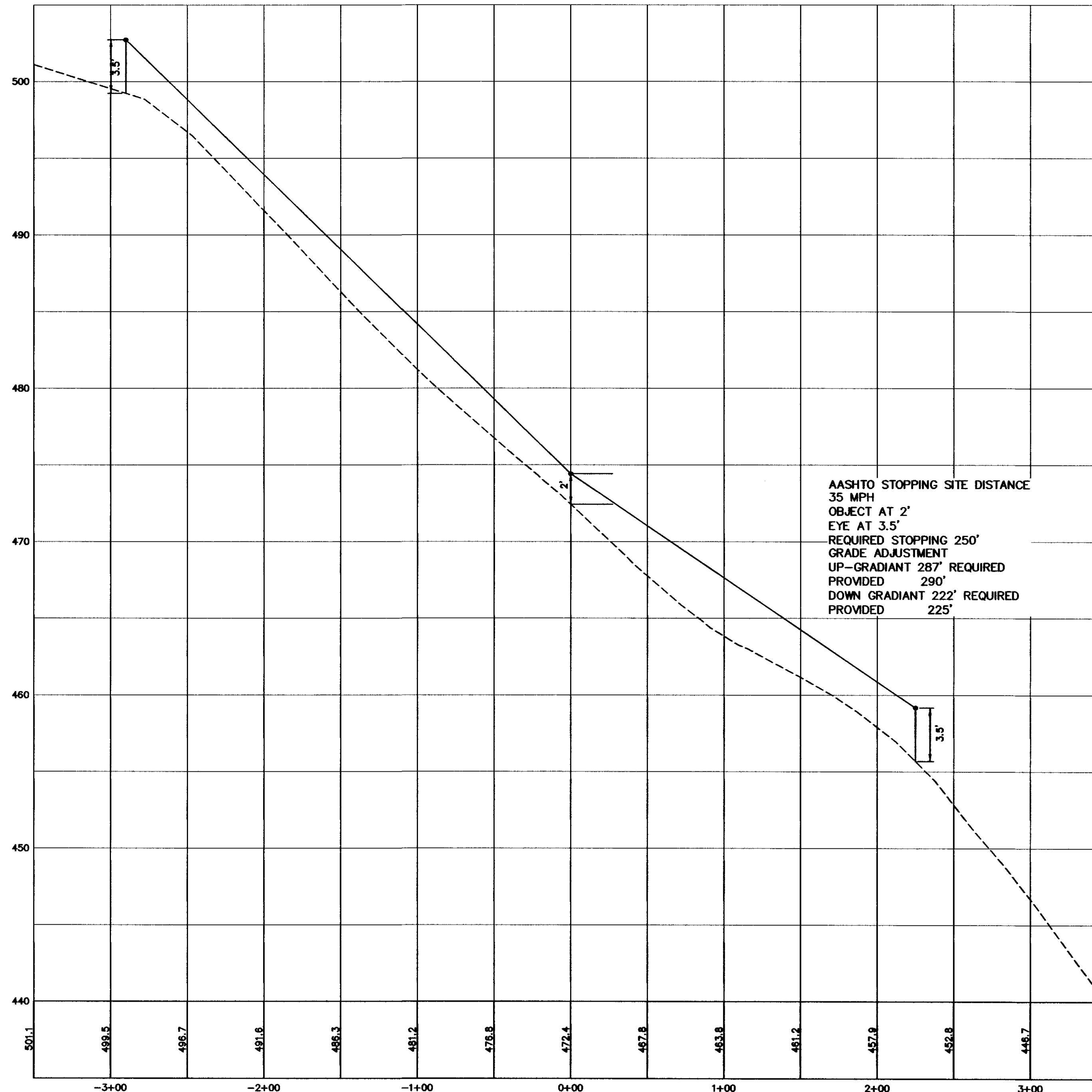
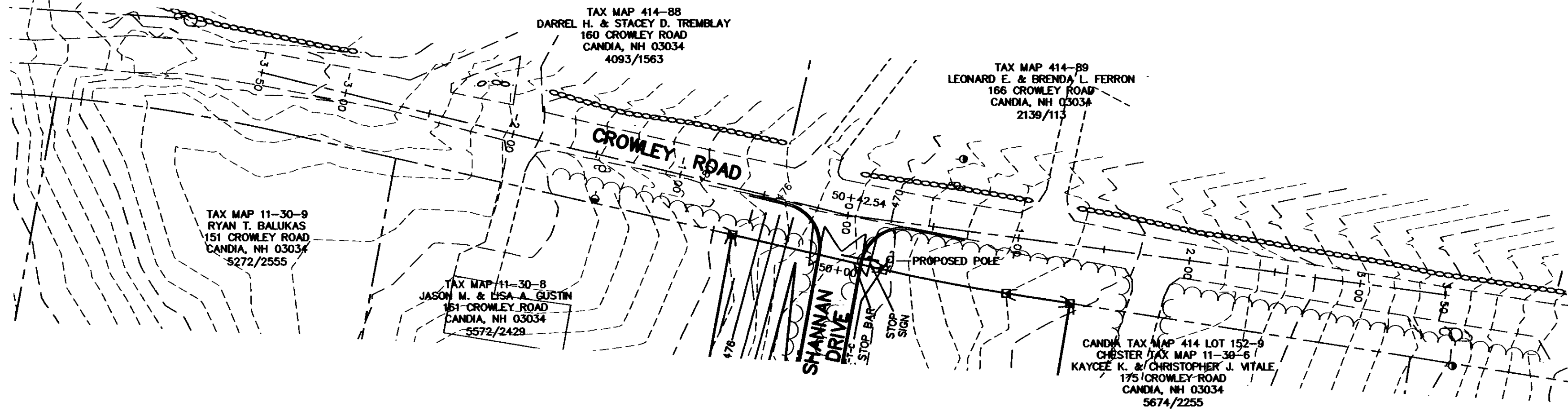
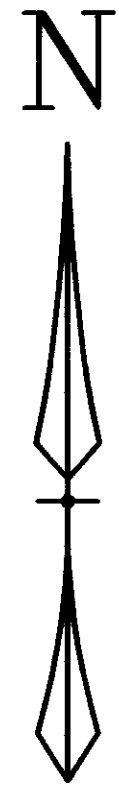


REV.	DATE	DESCRIPTION	BY
E	1/29/18	ADDRESS TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	BT
REV.	DATE	DESCRIPTION	BY

REVISIONS



SHANNON AT CROWLEY ROAD INTERSECTION



NOTES

SEE SHEET 1 FOR NOTES, PLAN REFERENCES, AND VICINITY PLAN.

REV.	DATE	DESCRIPTION	BY
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	C.M.

REVISIONS

SIGHT DISTANCE PLAN & PROFILE
AASHTO SAFE STOPPING

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017



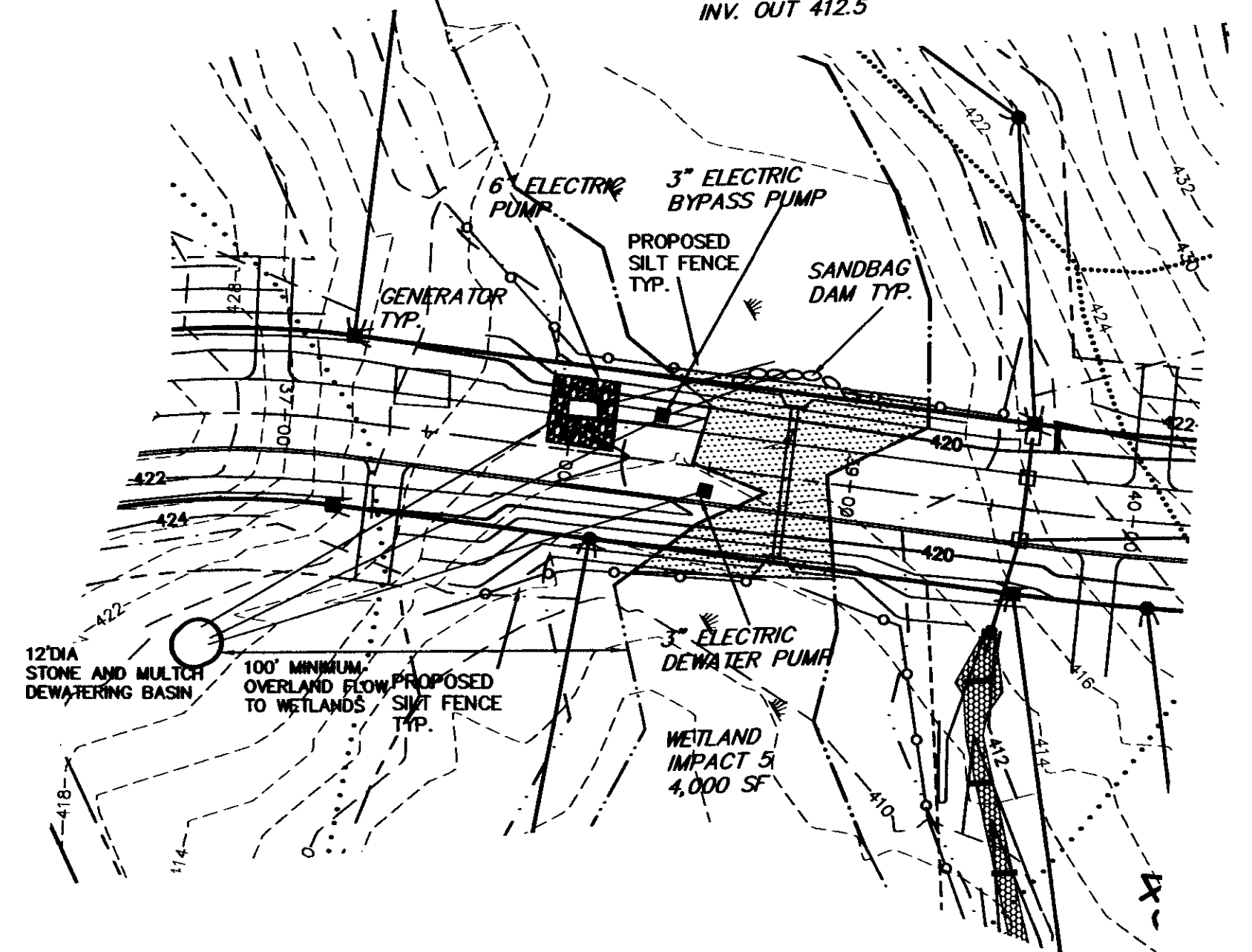
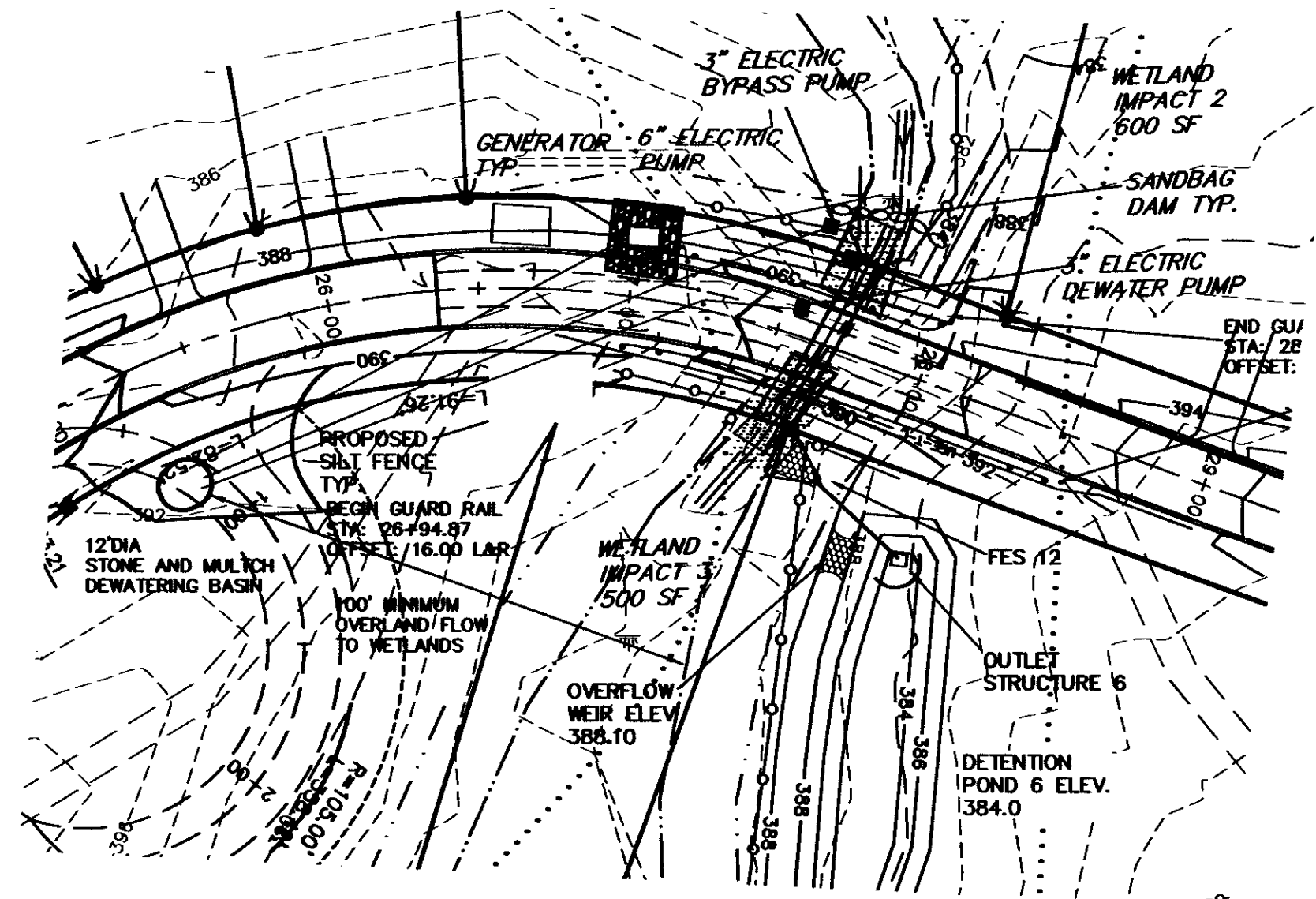
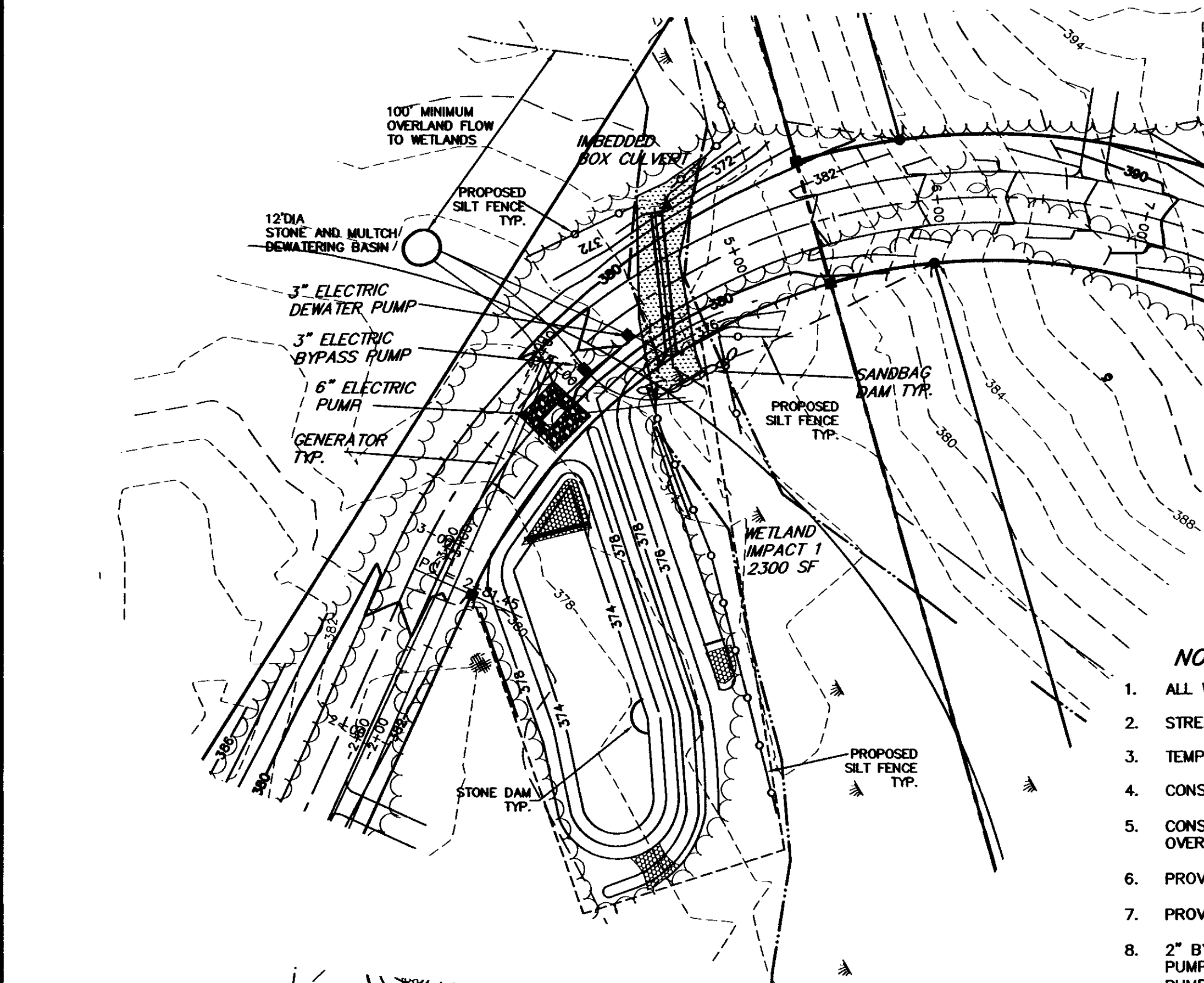
SCALE: 1" = 50'
PREPARED BY:

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P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

CULVERT 1
68'-5"x30" HDPE BOX
S=.014 FT/FT
INV. IN 371.0
INV. OUT 370.0

CULVERT 2
60'-2.5"x8' BOX CULVERT
S=.030 FT/FT
INV. IN 381.0
INV. OUT 379.2

CULVERT 3
53'-36" HDPE
S=.0283 FT/FT
INV. IN 414.0
INV. OUT 412.5



NOTES:

- ALL WORK TO BE PERFORMED DURING LOW FLOW
- STREAM FLOWS WILL BE TEMPORARILY DIVERTED DURING THE CULVERT INSTALLATION.
- TEMPORARY SANDBAG BYPASS DAM
- CONSTRUCTION EROSION CONTROL AS SHOWN.
- CONSTRUCT TEMPORARY SETTLING BASIN FOR DEWATERING AS SHOWN, PROVIDING A MINIMUM OF 100' OF OVERLAND FLOW BEFORE ENTERING WETLANDS
- PROVIDED 6" EMERGENCY BYPASS PUMP AS SHOWN
- PROVIDE 2-3" BYPASS PUMPS AS SHOWN
- 2" BYPASS PUMPS TO BE USED DURING THE PREPPING OF SUB GRADE FOR FOOTINGS AND BOX CULVERT PUMP TO BE PLACED ON THE UPSTREAM OF SANDBAGS AS SHOWN AND TO DISCHARGE INTO SEDIMENT BASIN. BYPASS PUMPING TO BE USED DURING CONSTRUCTION 18" ADS BYPASS PIPE WILL BE PROVIDED AT NIGHT AND DURING NON CONSTRUCTION HOURS.
- DEWATERING DURING CONSTRUCTION WILL BE PROVIDED WITH 3" ELECTRIC PUMPS PUMPS WILL BE DISCHARGE TO THE SETTLING BASIN AS SHOWN.
- ONCE THE BASE CULVERT IS SET AND FILLED STREAM FLOWS WILL BE ALLOWED TO PASS THROUGH.

NOTES:

Water Removal:

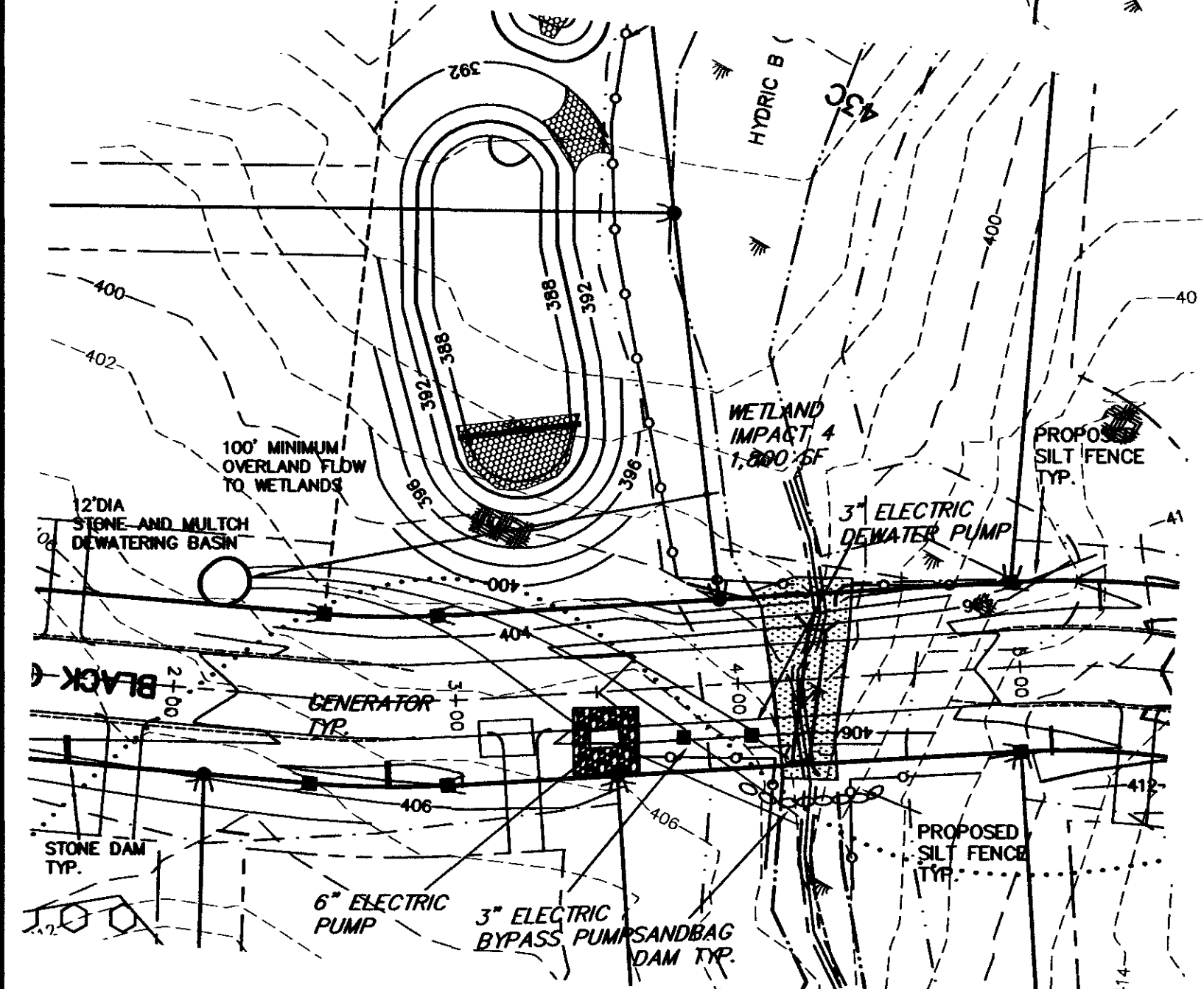
- For trench excavation, limit the trench length to 50 feet and place the excavated material on the upgradient side of the trench.
- The removal of water from the excavated area will be accomplished by mechanical pumping

Sediment Removal:

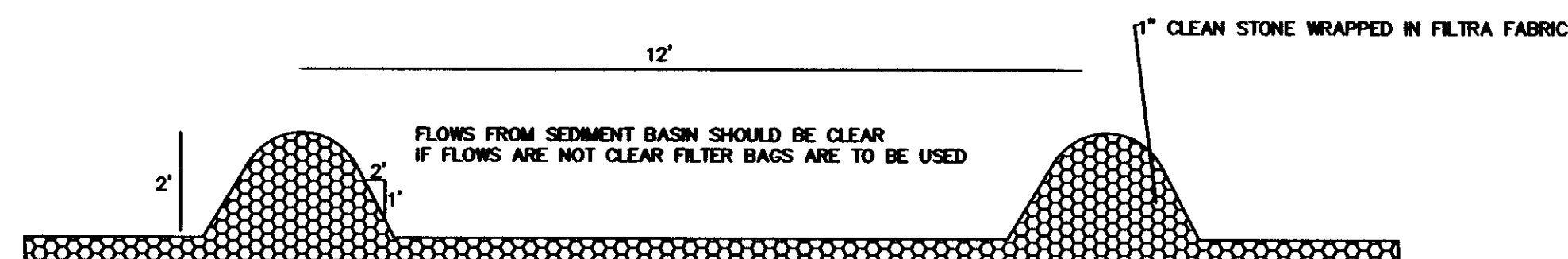
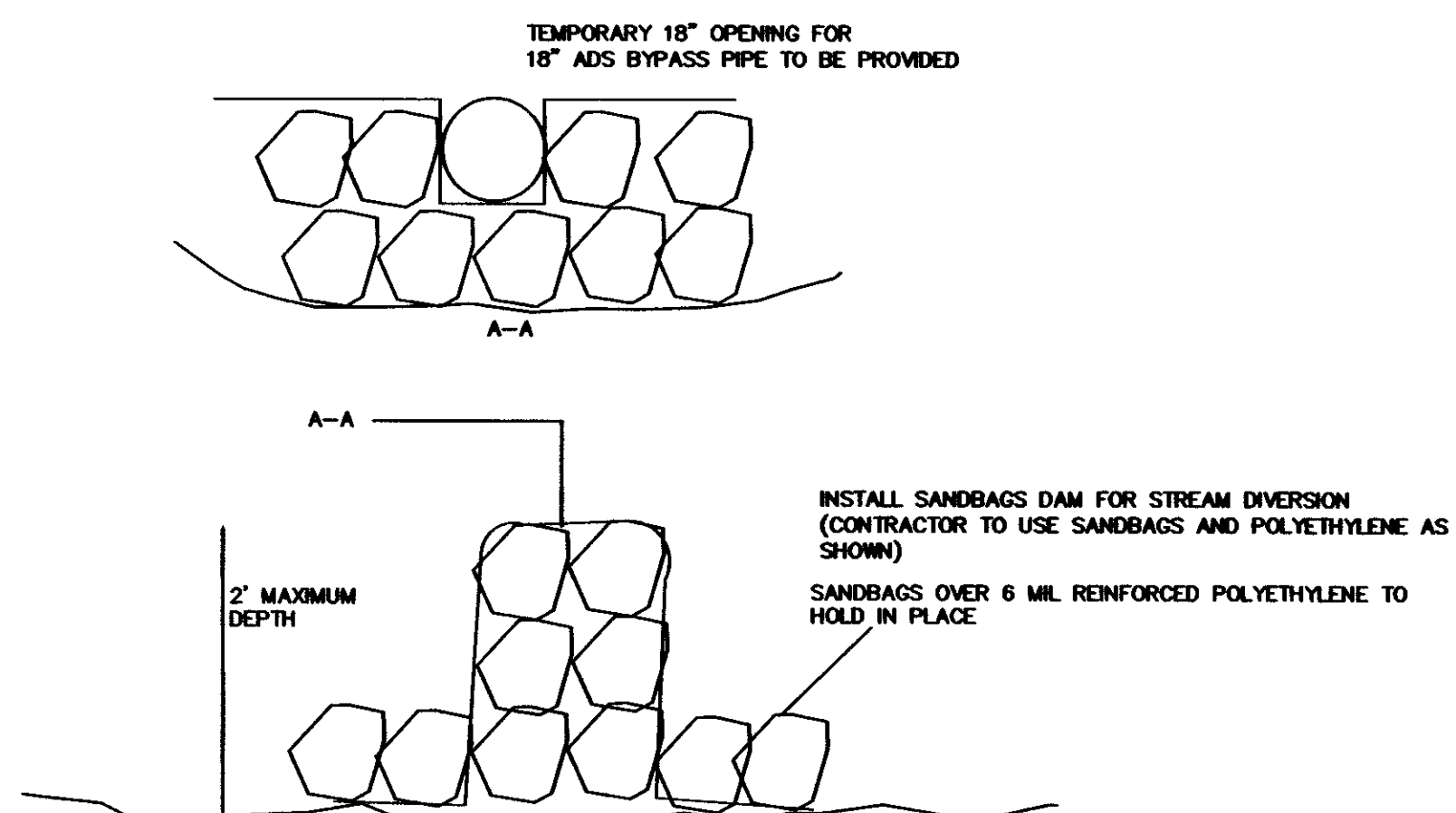
- sediment removal will be provided by a temporary sediment traps or a manufactured fabric bags designed for filtering pumped discharges.
- Flow to the sediment removal structure must not exceed the structure's volume capacity or the structure's capacity to settle and filter flow
- Sediment removal structures should discharge wherever possible to a well-vegetated buffer through sheet flow and a minimum of 100 feet from the nearest water resource.

Discharges:

- Water that is visibly clear of sediment, and has not come into contact with other contaminants and may be directly discharged into well-vegetated buffered areas as long as a method is used to spread flow into sheet flow as it enters the buffer.
- Never discharge to areas that are bare or newly vegetated.
- The discharge should be stopped immediately if the receiving area is showing any sign of instability or erosion.



CULVERT 4
47'-32"x8' BOX CULVERT
S=.0386 FT/FT
INV. IN 400.0
INV. OUT 398.2



REV.	DATE	DESCRIPTION	BY

REVISIONS



STREAM BYPASS PLAN

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

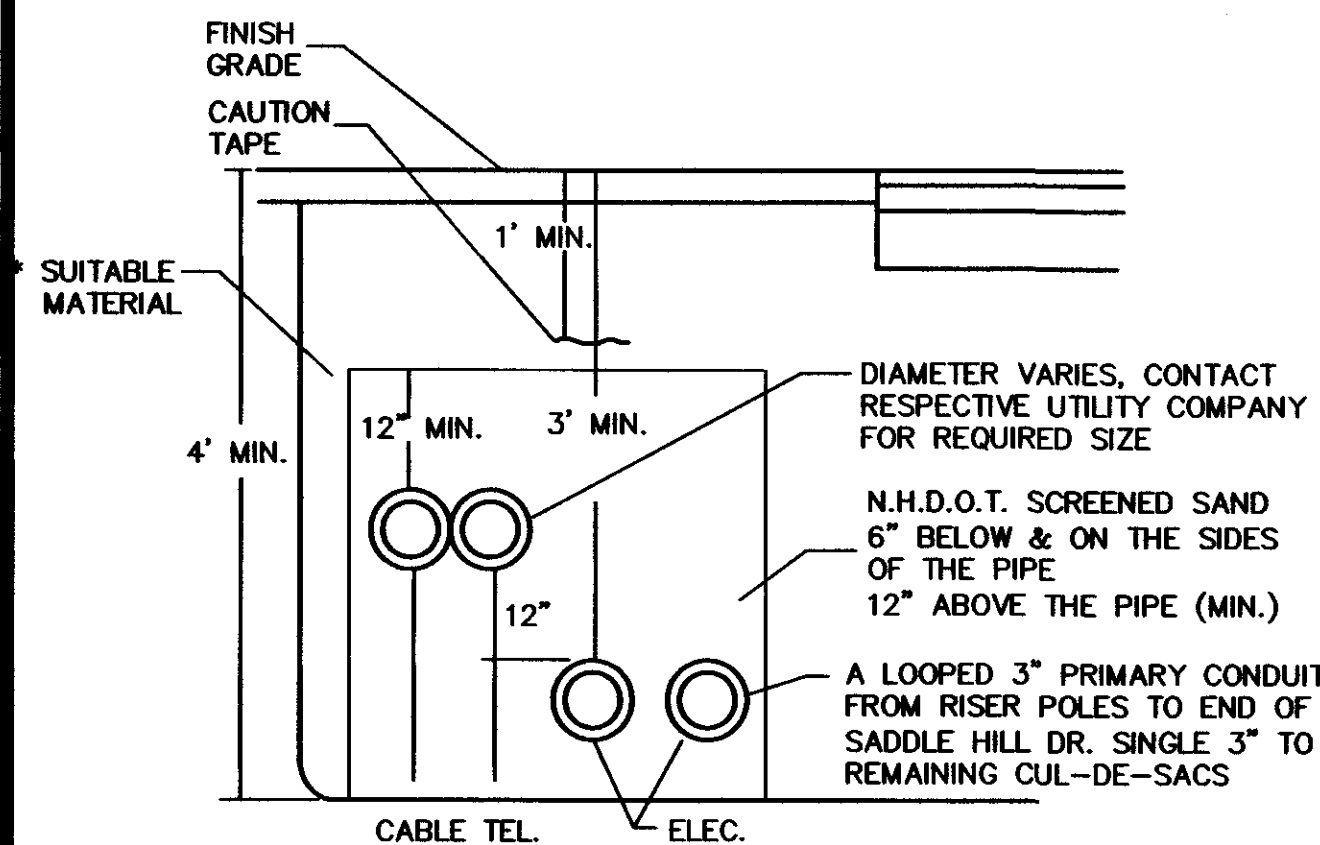
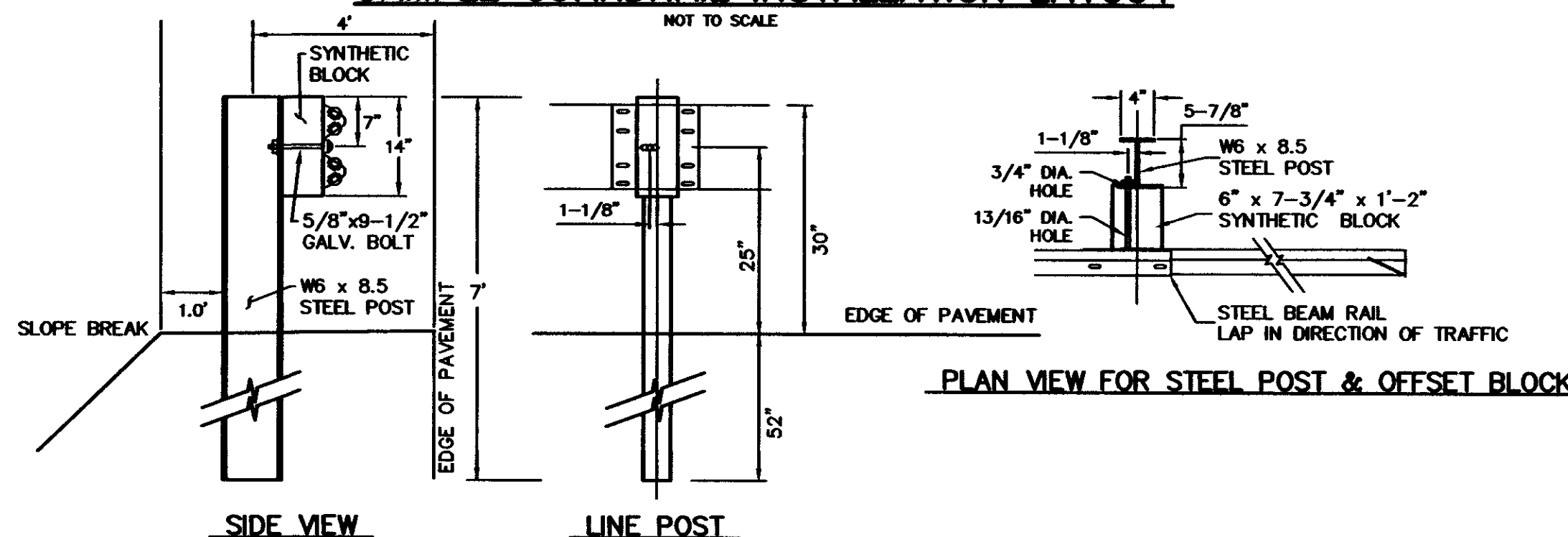
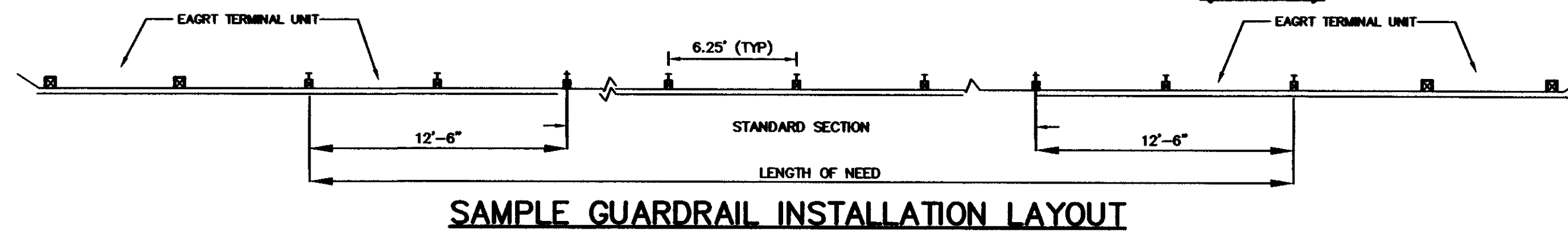
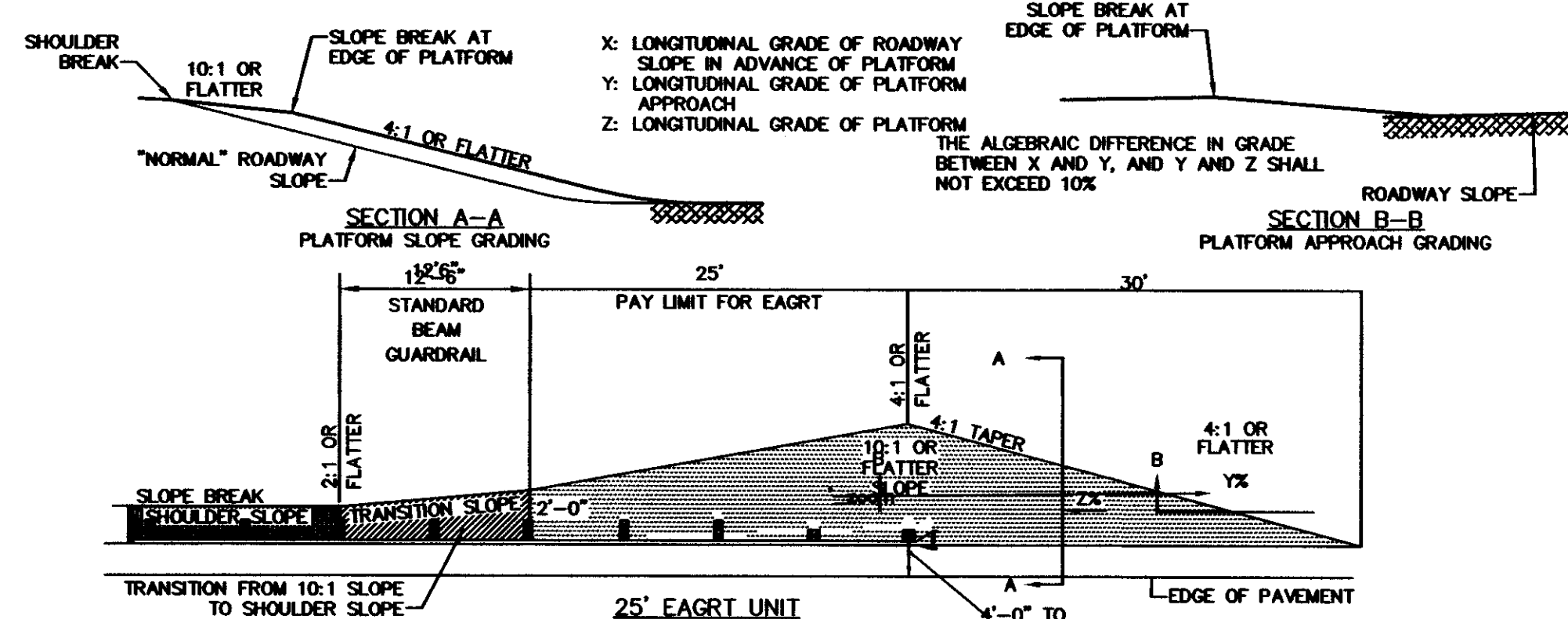
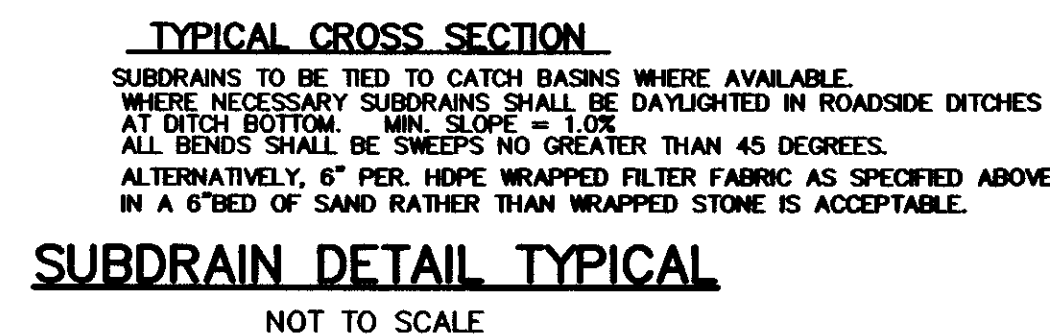
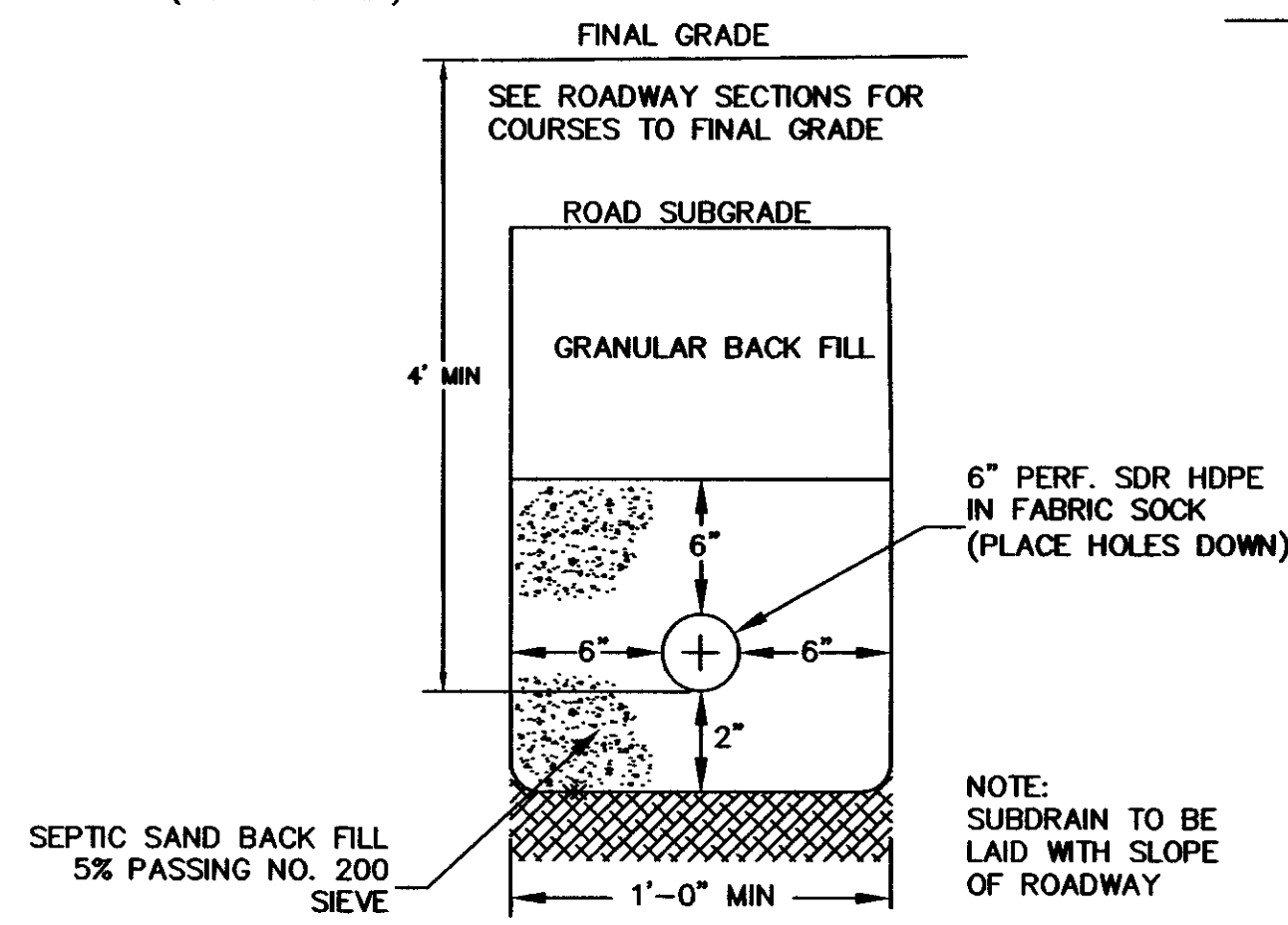
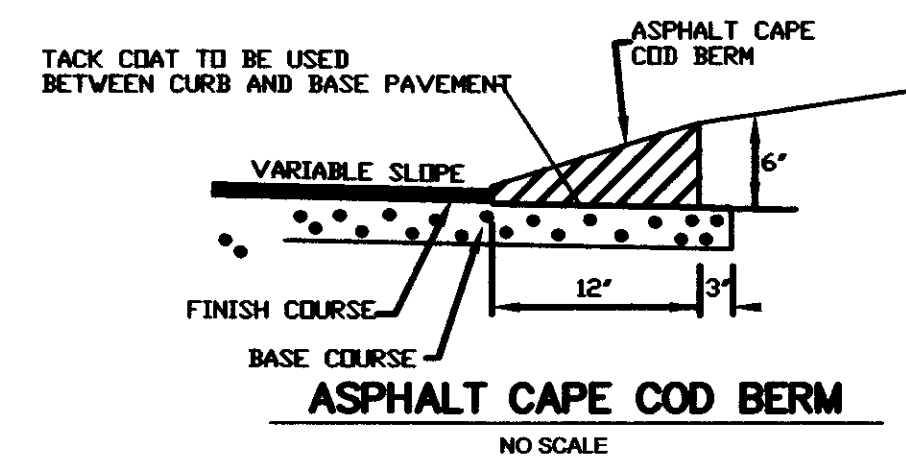
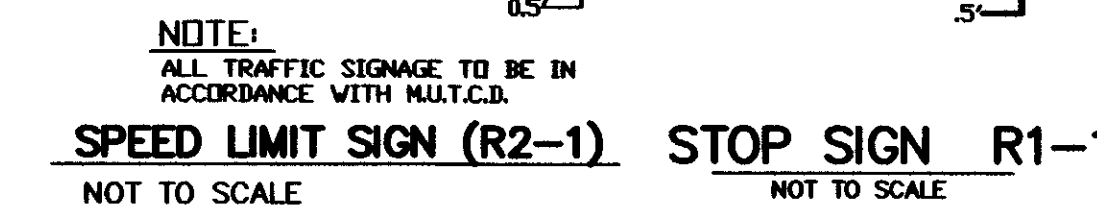
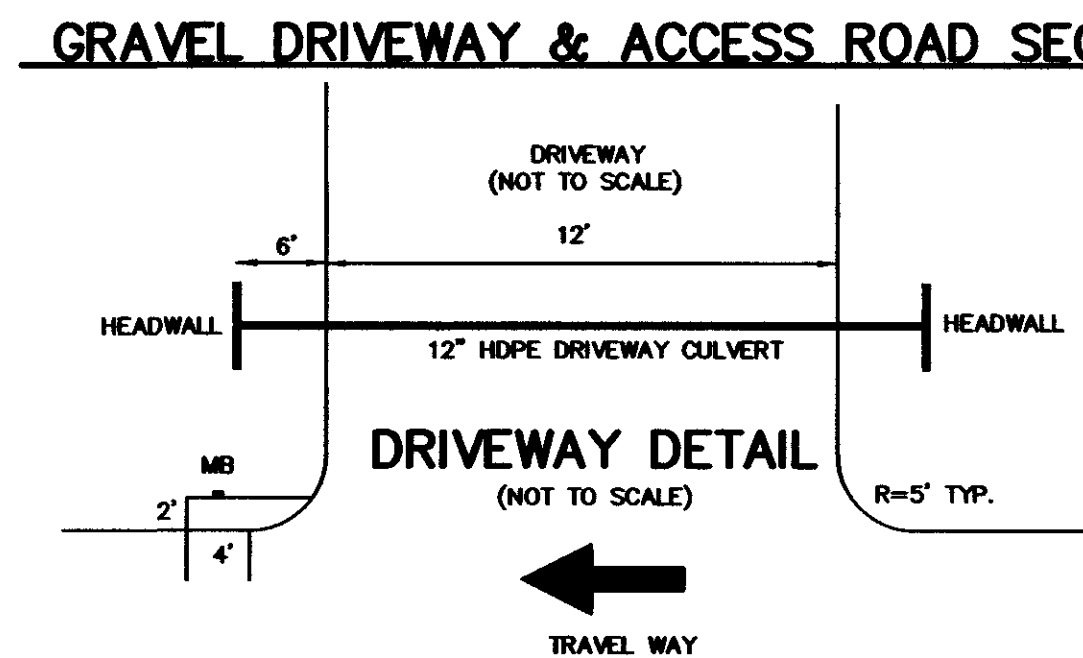
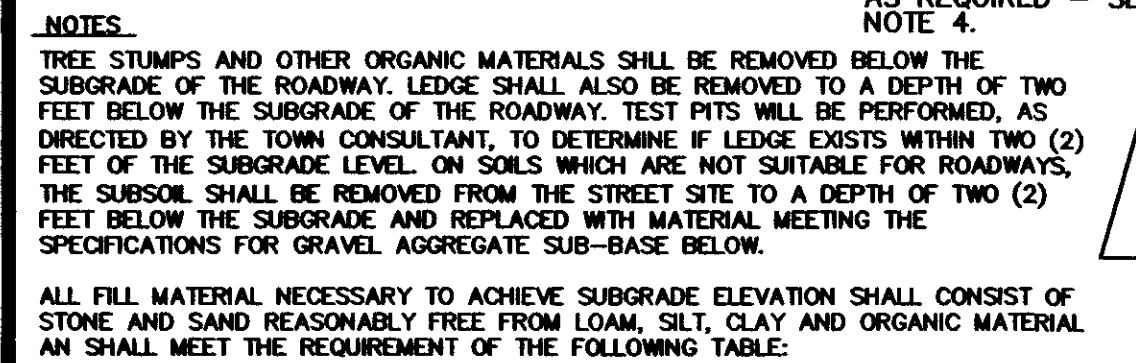
305 MASSABESIC STREET, MANCHESTER, NH 03103

JUNE 28, 2017

SCALE: 1" = 50'

PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181



A	05/22/17	ADDRESS ENGINEERING REVIEW COMMENTS		B
REV.	DATE	DESCRIPTION		B
<i>REVISIONS</i>				

CONSTRUCTION DETAILS

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7

CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

NO SCALE

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

SHEET 30 OF 37

REV: E	DWG: DETAILS	FLD. BK/PG:	JOB NO. (2)15-3
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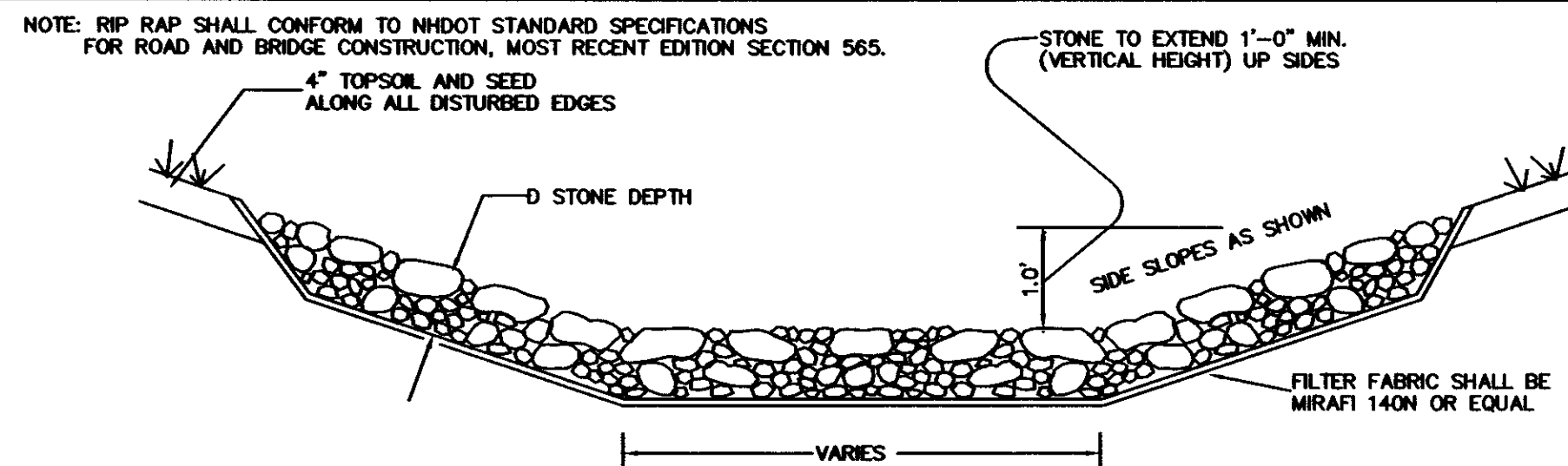
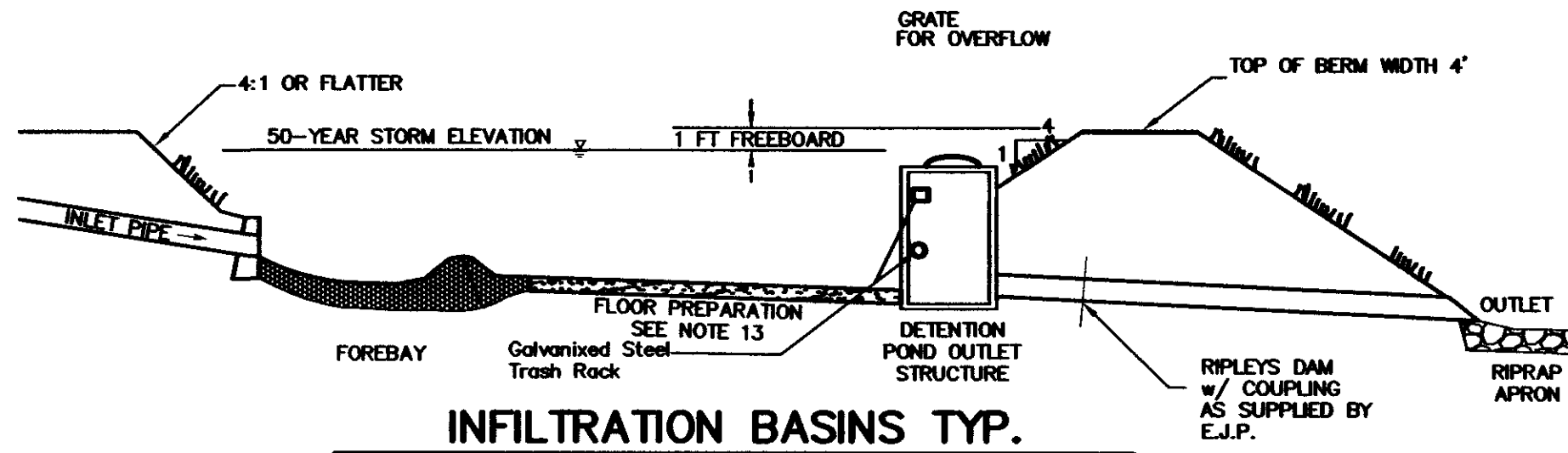
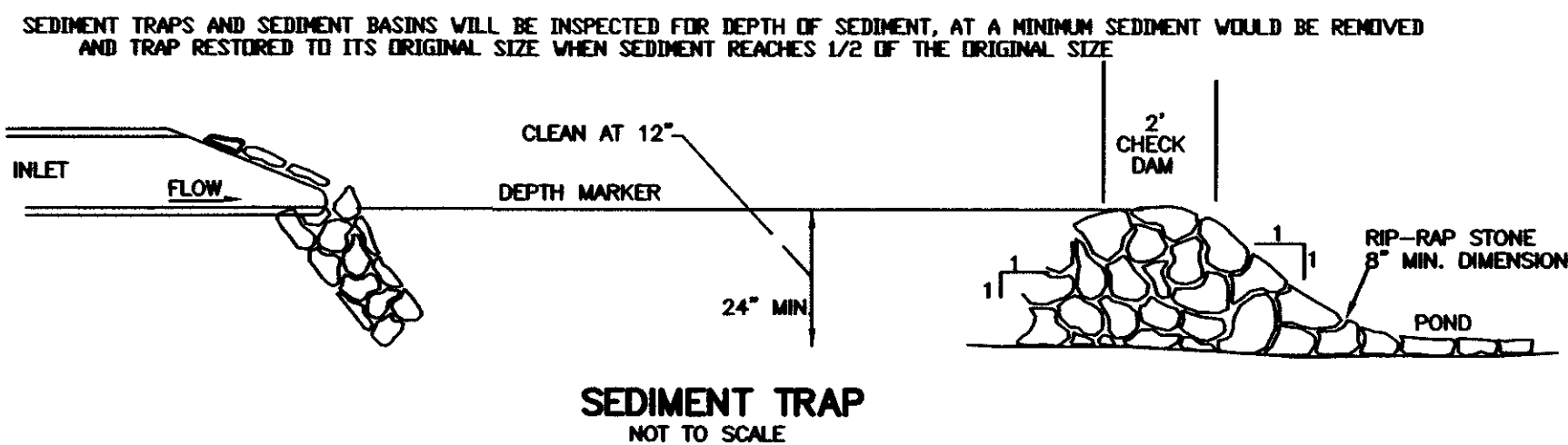
* SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACK FILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL AND ALL ROCKS OVER SIX INCHES IN THE LARGEST DIMENSION, OR ANY MATERIAL, WHICH, AS DETERMINED BY THE TOWN ENGINEERS, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. SUITABLE MATERIAL SHALL BE PLACED IN 6" LIFTS AND THOROUGHLY COMPACTED.

IN CROSS-COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE DESCRIBED AS ABOVE, EXCEPT THAT THE TOWN ENGINEERS MAY PERMIT THE USE OF TOP SOIL, LOAM, OR PEAT. IF SATISFIED THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT THE EASY ACCESS TO THE STRUCTURES FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY WILL BE PRESERVED SUITABLE MATERIAL SHALL BE PLACED IN 12" LIFTS AND THOROUGHLY COMPACTED.

NOTES:
1. UTILITIES SHALL BE INSTALLED ACCORDING TO THE RESPECTIVE UTILITY COMPANY STANDARDS AND SPECIFICATIONS.
2. ALL ABOVE GRADE UTILITIES MUST BE PLACED OUT OF THE R.O.W. AND IN AREAS THAT WILL NOT CONFLICT WITH THE ROADWAY DRAINAGE SYSTEM. PLACEMENT OF TRANSFORMERS CANNOT CONFLICT WITH THE INSTALLATION OF R.O.W. AND PROPERTY CORNER MONUMENTS.

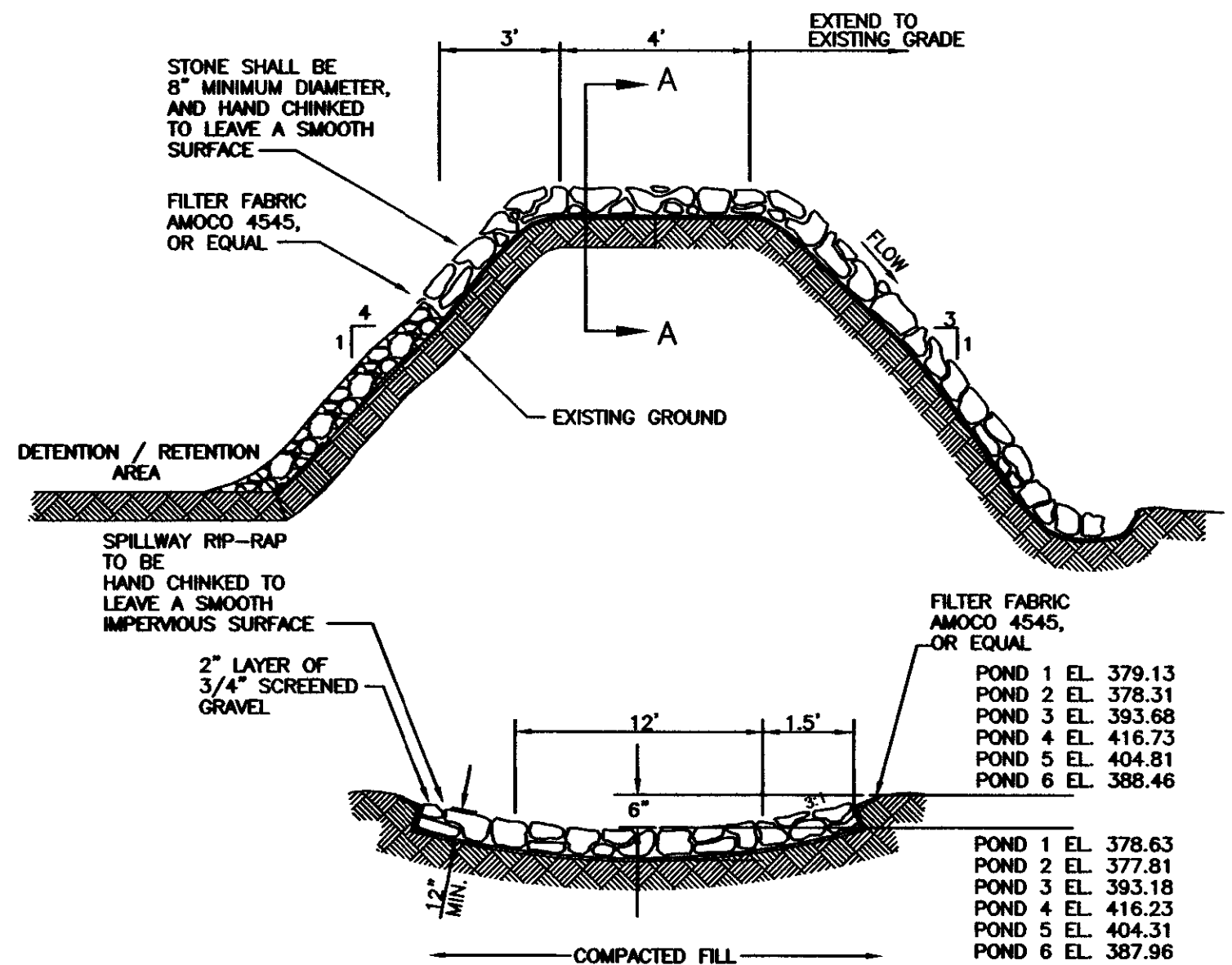
NOTES: 1. GUARDRAIL SHALL BE STEEL BEAM ON STEEL POSTS AND SHALL CONFORM TO NHDOT STANDARDS AND SPECIFICATIONS. SPECIFICALLY NHDOT STANDARD GR-2

2. END SECTIONS SHALL MEET NH DOT STANDARDS FOR EAGRE SECTIONS. SPECIFICALLY NHDOT STANDARDS GR4



RIp-RAP DITCH (NOT TO SCALE)

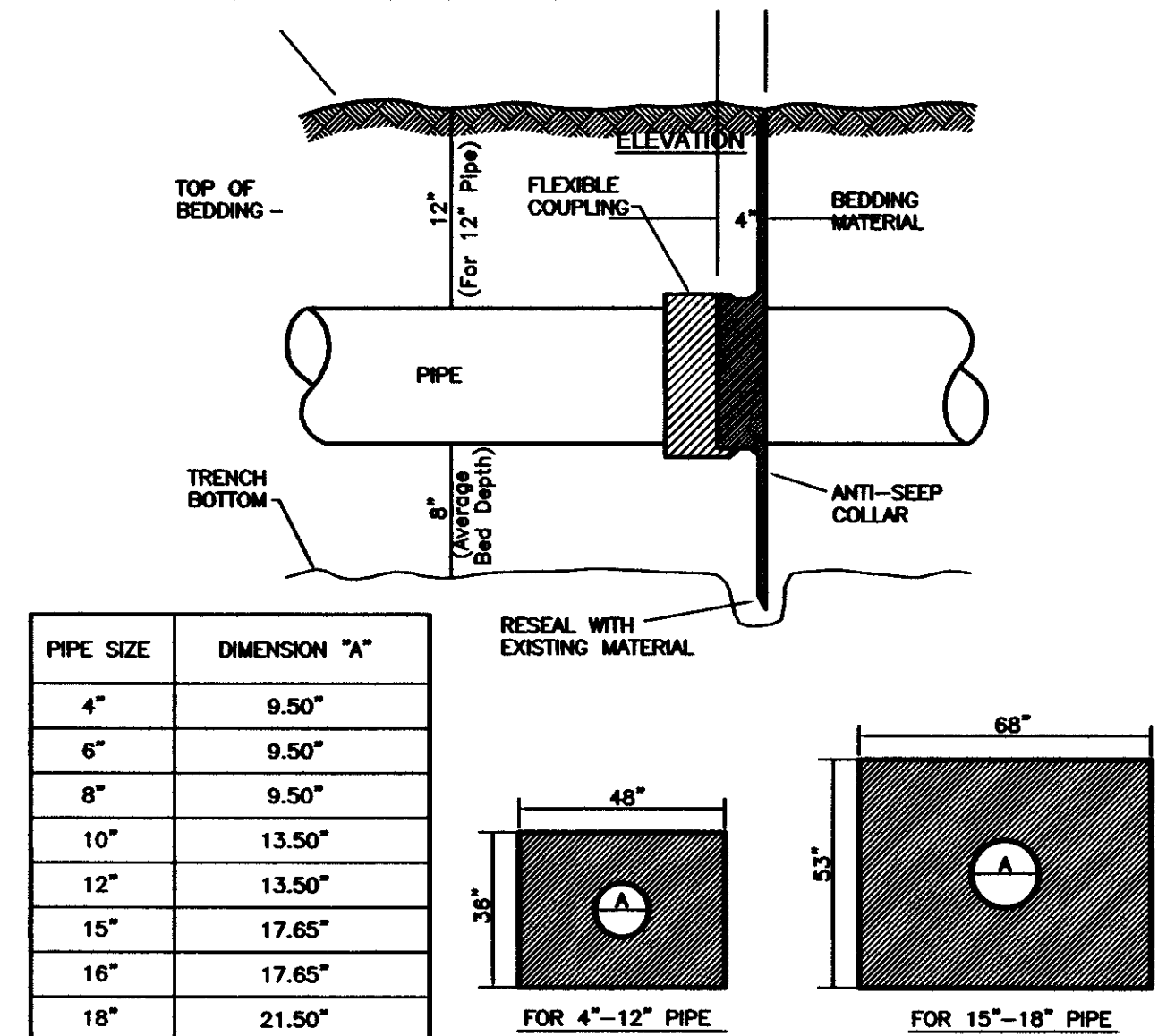
STONE SIZES	D1	C1	C2	C3	C4	C5
D = MIN. BLANKET THICKNESS	6"	12"	18"	24"	30"	46"
% OF PASSING BY WEIGHT	100%	85%	50%	15%		
	3-4"	6-8"	9-12"	12-16"	15-20"	23-30"
	2.5-3.5"	5-7"	8-11"	10-15"	13-18"	20-27"
	2-3"	4-6"	6-9"	8-12"	10-15"	15-23"
	0.5-1"	1.25-2"	1.75-3"	3-4"	3-5"	5-6"



SECTION A-A DETENTION BASIN OVERFLOW WEIR (NOT TO SCALE)

- NOTES:
- ALL CEMENT TO BE 4000 PSI (MIN)
 - GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE WITH 1/2" STAINLESS STEEL BOLTS AND THREADED INSERTS.
 - OUTLET PIPE SHALL NOT BE LESS THAN 15" DIAMETER AND SHALL BE SIZED FOR A 50-YEAR STORM.
 - ALL OPENINGS SHALL BE CAST IN AS REQUIRED. MINIMUM CONCRETE WEIR WIDTH SHALL BE 2 INCHES.
 - PRE CAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.
 - CONTROL WEIR SHALL BE SIZED TO MITGATE DESIGN STORM AS REQUIRED BY THE REGULATION AND IN ACCORDANCE WITH THE APPROVED DRAINAGE CALCULATIONS. STAINLESS STEEL PLATE SHALL BE USED FOR CONTROL WEIRS LESS THAN 2 INCHES WIDE.
 - ALL STAINLESS STEEL SHALL BE GRADE 316
 - MINIMUM EMBANKMENT ELEVATION TO BE 12" ABOVE 100-YEAR STORM ELEVATION.
 - ALL CONSTRUCTION TO COMPLY WITH THE MOST RECENT EDITION OF CHESTER REGULATIONS.

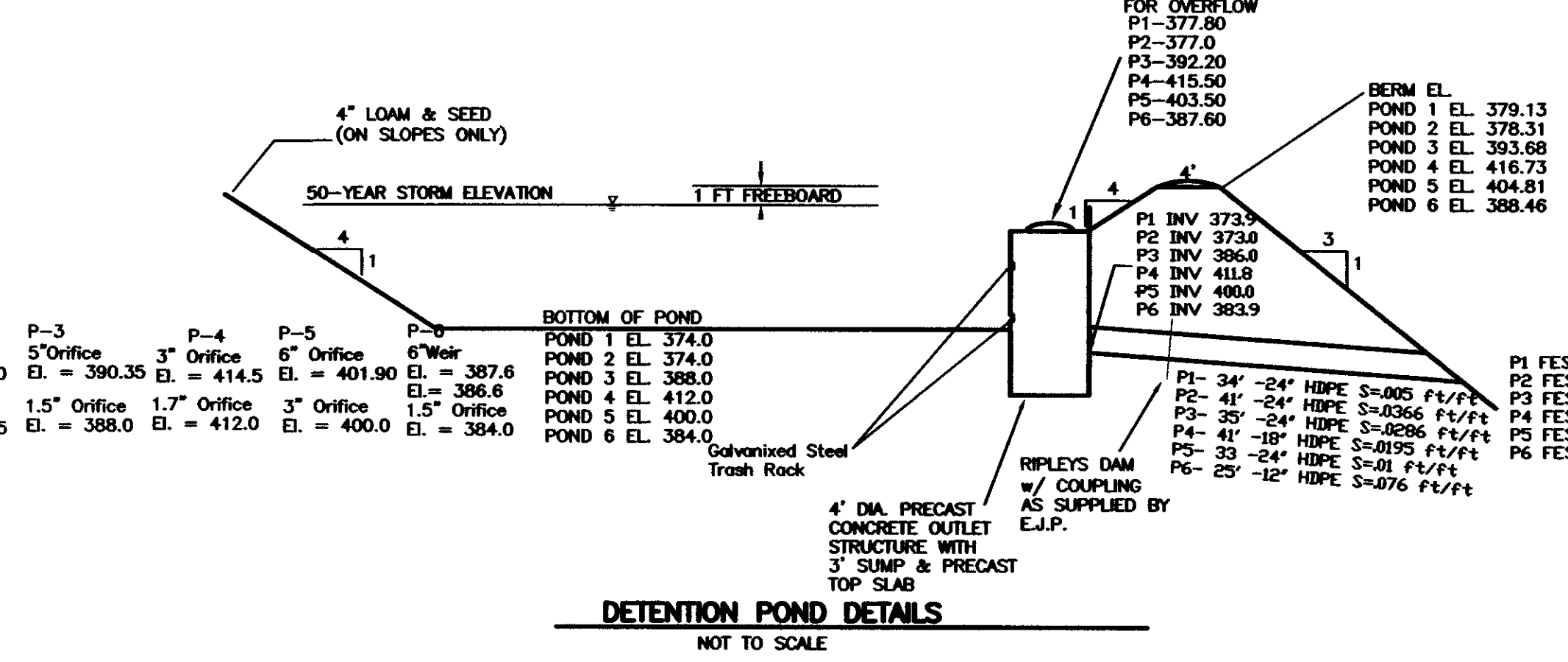
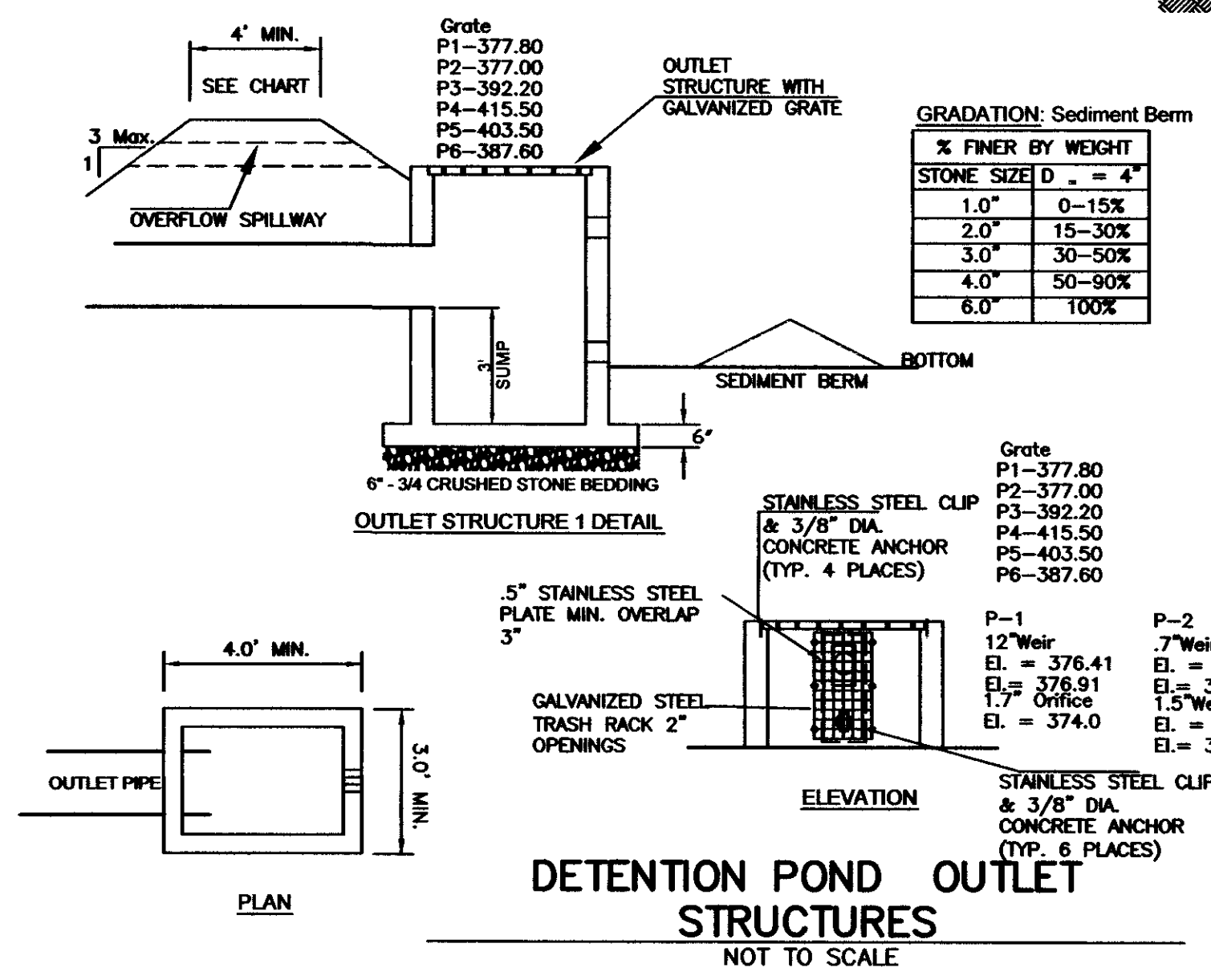
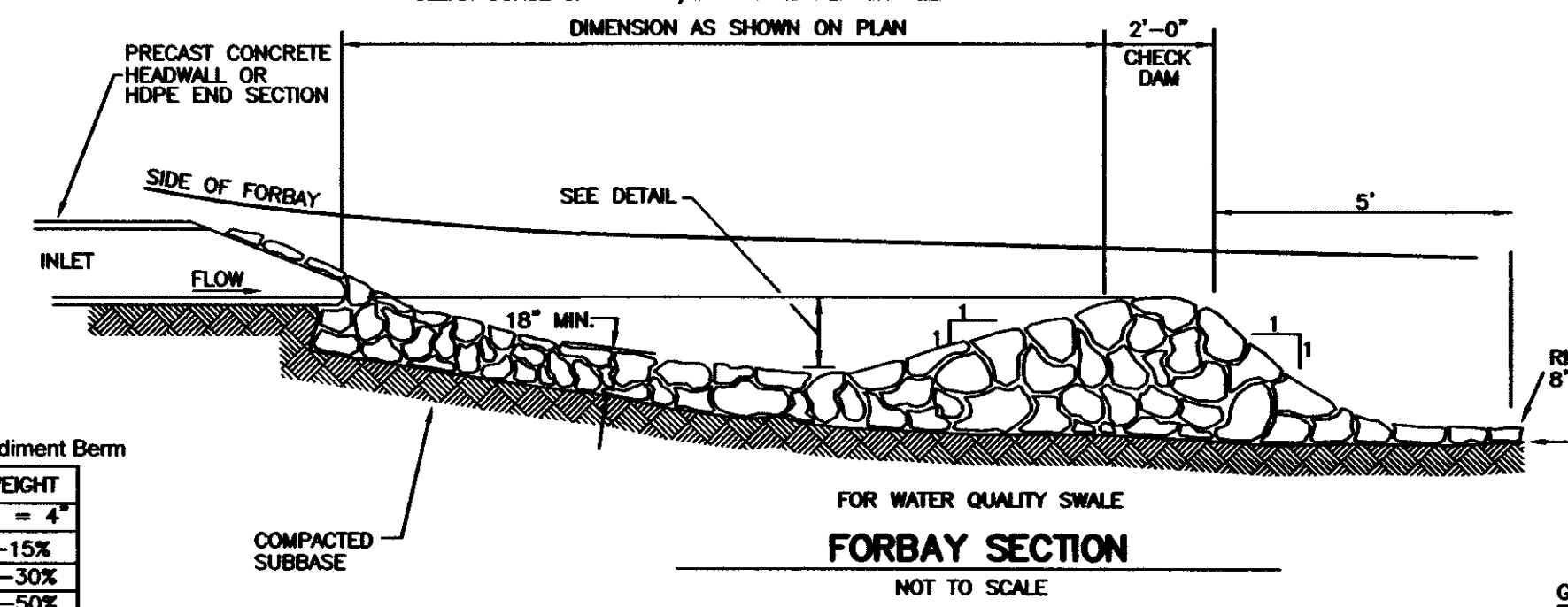
- MAINTENANCE REQUIREMENTS
- THE INTERIOR AND EXTERIOR SIDE SLOPES, AND CREST OF EARTHEN INFILTRATION BASINS SHALL BE MOWED, AND THE VEGETATION MAINTAINED IN HEALTHY CONDITION, AS APPROPRIATE TO THE FUNCTION OF THE FACILITY AND TYPE OF VEGETATION.
 - VEGETATED EMBANKMENTS THAT SERVE AS "BERMS" THAT IMPOUND WATER SHALL BE CLEARED OF WOODY VEGETATION ONCE PER YEAR.
 - EMBANKMENTS SHALL BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL FOR SETTLEMENT, EROSION, SEEPAGE, ANIMAL BURROWS, WOODY VEGETATION, AND OTHER CONDITIONS THAT COULD DEGRADE THE EMBANKMENT AND REDUCE ITS STABILITY FOR IMPOUNDING WATER. IMMEDIATE CORRECTIVE ACTION SHALL BE IMPLEMENTED IF ANY SUCH CONDITIONS ARE FOUND.
 - INLET AND OUTLET PIPES, INLET AND OUTLET STRUCTURES, ENERGY DISSIPATION STRUCTURES OR PRACTICES, AND OTHER STRUCTURAL APPURTENANCES SHALL BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL, AND CORRECTIVE ACTION IMPLEMENTED (E.G., MAINTENANCE, REPAIRS, OR REPLACEMENT) AS INDICATED BY SUCH INSPECTION.
 - TRASH AND DEBRIS SHALL BE REMOVED FROM THE BASIN AND ANY INLET OR OUTLET STRUCTURES WHENEVER OBSERVED BY INSPECTION.
 - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT SIGNIFICANTLY AFFECTS BASIN INFILTRATION CAPACITY.
- SPECIFICATIONS
- PONDS SHALL BE CONSTRUCTED IN THE INITIAL STAGES OF CONSTRUCTION.
 - FOUNDATION PREPARATION - THE FOUNDATION AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOO, AND RUBBISH. IF NEEDED TO ESTABLISH VEGETATION, THE TOPSOIL AND SOO SHALL BE STOCKPILED AND SPREAD ON THE COMPLETED SLOPES AND SPILLWAYS. FOUNDATION AREA SHALL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE MATERIAL. THE SURFACE SHALL HAVE MOISTURE ADDED OR IS SHALL BE COMPACTED IF NECESSARY SO THAT THE FIRST LAYER OF FILL MATERIAL CAN BE COMPACTED AND BONDED TO THE FOUNDATIONS.
 - FILL PLACEMENT - THE MATERIAL PLACED IN THE FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOO, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIAMETER (EXCEPT FOR ROCK FILLS), AND OTHER OBJECTIONABLE MATERIAL.
 - SELECTION BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING.
 - THE PLACING AND SPREADING OF FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL BROUGHT UP IN HORIZONTAL LAYERS OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED. THE FILL SHALL BE CONSTRUCTED IN CONTINUOUS HORIZONTAL LAYERS EXCEPT WHERE OPENINGS OR SECTIONALIZED FILLS ARE REQUIRED. IN THOSE CASES, THE SLOPE OF THE BONDING SURFACES BETWEEN THE EMBANKMENT IN PLACE, AND THE EMBANKMENT TO BE PLACED SHALL NOT BE STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. THE BONDING SURFACE SHALL BE TREATED THE SAME AS THAT SPECIFIED FOR THE FOUNDATION SO AS TO INSURE A GOOD BOND WITH THE NEW FILL.
 - THE DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFER SUBSTANTIALLY IN TEXTURE OF GRADATION FROM THE SURROUNDING MATERIAL. IF IT IS NECESSARY TO USE MATERIALS OF VARYING TEXTURE AND GRADATION, THE MOST IMPERVIOUS MATERIAL SHALL BE PLACED IN THE CENTER AND UPSTREAM PARTS OF THE FILL. IF ZONED FILLS OF SUBSTANTIALLY DIFFERING MATERIALS ARE SPECIFIED, THE ZONES SHALL BE PLACED ACCORDING TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. THE COMPLETE WORK SHALL CONFORM TO THE LINES, GRADES, AND ELEVATIONS SHOWN ON THE DRAWINGS OR AS STAKED IN THE FIELD.
 - MOISTURE CONTROL - THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION. MATERIAL THAT IS TOO WET SHALL BE DRIED TO MEET THIS REQUIREMENT, AND MATERIAL THAT IS TOO DRY SHALL HAVE WATER ADDED AND MIXED UNTIL THE REQUIREMENT IS MET.
 - COMPACTION - CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER THE AREAS OR EACH LAYER OF FILL TO INSURE THAT THE REQUIRED COMPACTION IS OBTAINED. SPECIAL EQUIPMENT SHALL BE USED IF NEEDED TO OBTAIN THE REQUIRED COMPACTION.
 - IF A MINIMUM REQUIRED DENSITY IS SPECIFIED, EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY.
 - FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY MEANS OF HAND TAMPING OR MANUALLY DIRECTED POWER TAMPER OR PLATE VIBRATORS.
 - PROTECTION - A PROTECTIVE COVER OF VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, AND BORROW AREA IF SOIL AND CLIMATIC CONDITIONS PERMIT. IF SOIL OR CLIMATIC CONDITIONS PRELUDE THE USE OF VEGETATION AND PROTECTION IS NEEDED, NON-VEGETATIVE MEANS, SUCH MULCHES OR GRAVEL, MAY BE USED. IN SOME PLACES, TEMPORARY VEGETATION MAY BE USED UNTIL CONDITIONS PERMIT ESTABLISHMENT OR PERMANENT VEGETATION. THE EMBANKMENT AND SPILLWAY SHALL BE FENCED IF NECESSARY TO PROTECT THE VEGETATION.
 - SEEDBED PREPARATION, SEEDING, FERTILIZING, AND MULCHING SHALL COMPLY WITH THE APPROPRIATE VEGETATIVE BMPs.
 - FINAL FLOOR CONSTRUCTION - THE BASIN FLOOR SHALL NOT BE TRAFFICED WITH CONSTRUCTION EQUIPMENT. ONCE THE BASIN IS ELEVATED TO THE FINAL DESIGN ELEVATION THE FLOOR SHALL BE DEEPLY TILLED TO RESTORE THE INFILTRATION RATE. ONCE TILLED THE AREA CAN BE PASSED WITH A LEVELING DRAG. THE FLOOR SHALL RECEIVE A 6" LAYER OF VERY CLEAN COARSE SAND OR 3/8" WASHED PEA GRAVEL.



ANTI-SEEP COLLAR BY E.J. PRESCOTT OR APPROVED EQUAL

- INSTALLATION PROCEDURES:
- MEASURE THE DISTANCE BETWEEN THE LASER POINT & THE TRENCH BOTTOM.
 - COMPARE THE DISTANCE WITH THE DISTANCE BETWEEN THE TARGET POINT AND THE BOTTOM OF THE COLLAR. DIG A TRENCH APPROXIMATELY THREE FEET FROM THE PRECEDING BELL TO ACCOMMODATE THE BOTTOM OF THE COLLAR.
 - WITH THE NECK OF THE COLLAR FACING UPSTREAM, PUT THE COLLAR INTO THE HAND-DUG TRENCH.
 - CENTER THE COLLAR OPENING INTO THE CORRECT POSITION USING THE LASER & SNAP THE EDGE INTO THE TRENCH SIDE WALLS. THE COLLAR OPENING MUST BE LOCATED BEFORE BACKFILLING BEGINS.
 - PLACE BEDDING MATERIAL ON BOTH SIDES OF THE COLLAR.
 - SLIDE THE FLEXIBLE COUPLING SUPPLIED, OVER THE PIPE TO BE INSTALLED. SLIDE THE PIPE THROUGH THE COLLAR OPENING AND BELL AS USUAL. SLIDE THE FLEXIBLE COUPLING OVER THE COLLAR NECK AND TIGHTEN.

FORBAY	REQUIRED FORBAY	PROPOSED FORBAY	ROCK DAM	STONE
	VOLUME CF	VOLUME CF		
1	410 CF	400 CF	1.5	CLASS C
2	1625 CF	1650 CF	1.5	CLASS C
3	680 CF	750 CF	1.5	CLASS C
4	641 CF	650 CF	2	CLASS C
5	276 CF	300 CF	1.0	CLASS C



REV.	DATE	DESCRIPTION	BY
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJH

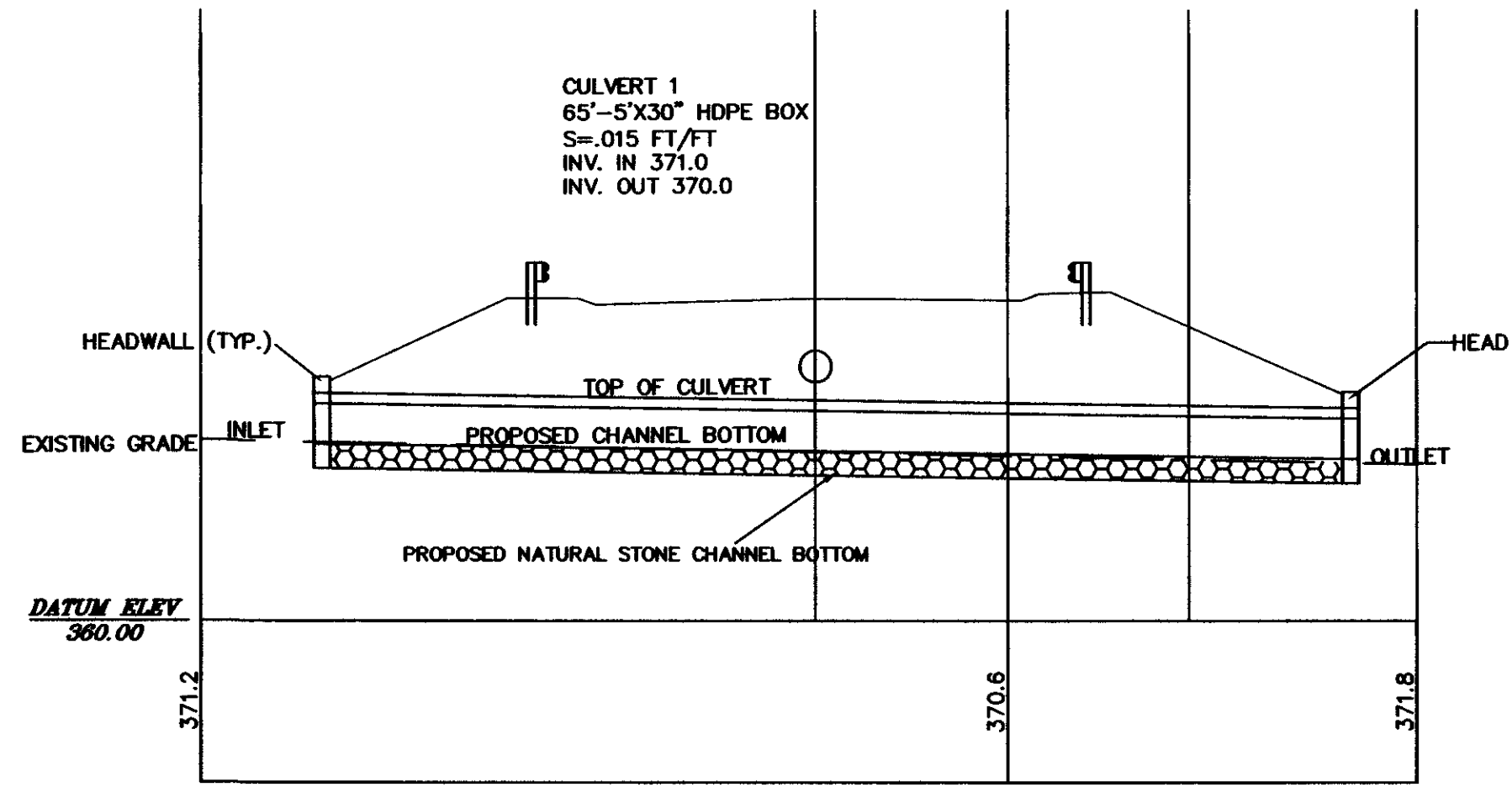
REVISIONS

CONSTRUCTION DETAILS

"TANGLEWOOD"

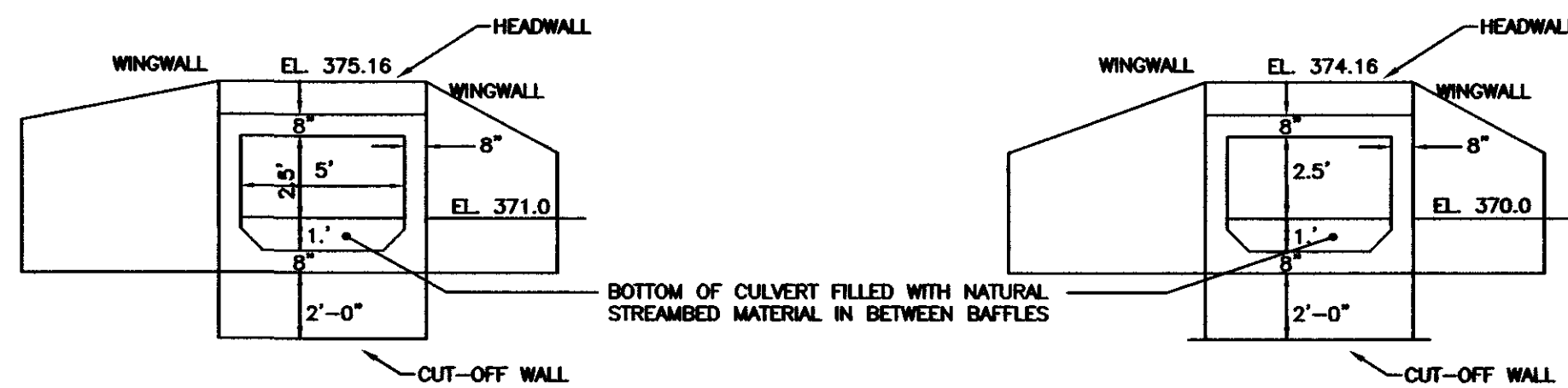
CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH
OWNER OF RECORD:
DAR BUILDERS LLC
305 MASSABESIC STREET, MANCHESTER, NH 03103
FEBRUARY 7, 2017
NO SCALE
PREPARED BY:
ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

REV: E DWG: DETAILS FLD: BK/PG: JOB NO: 2115-38



CULVERT 1 CROSS-SECTION

SCALE: 1"=10'



INLET ELEVATION

SCALE: 1"=5'

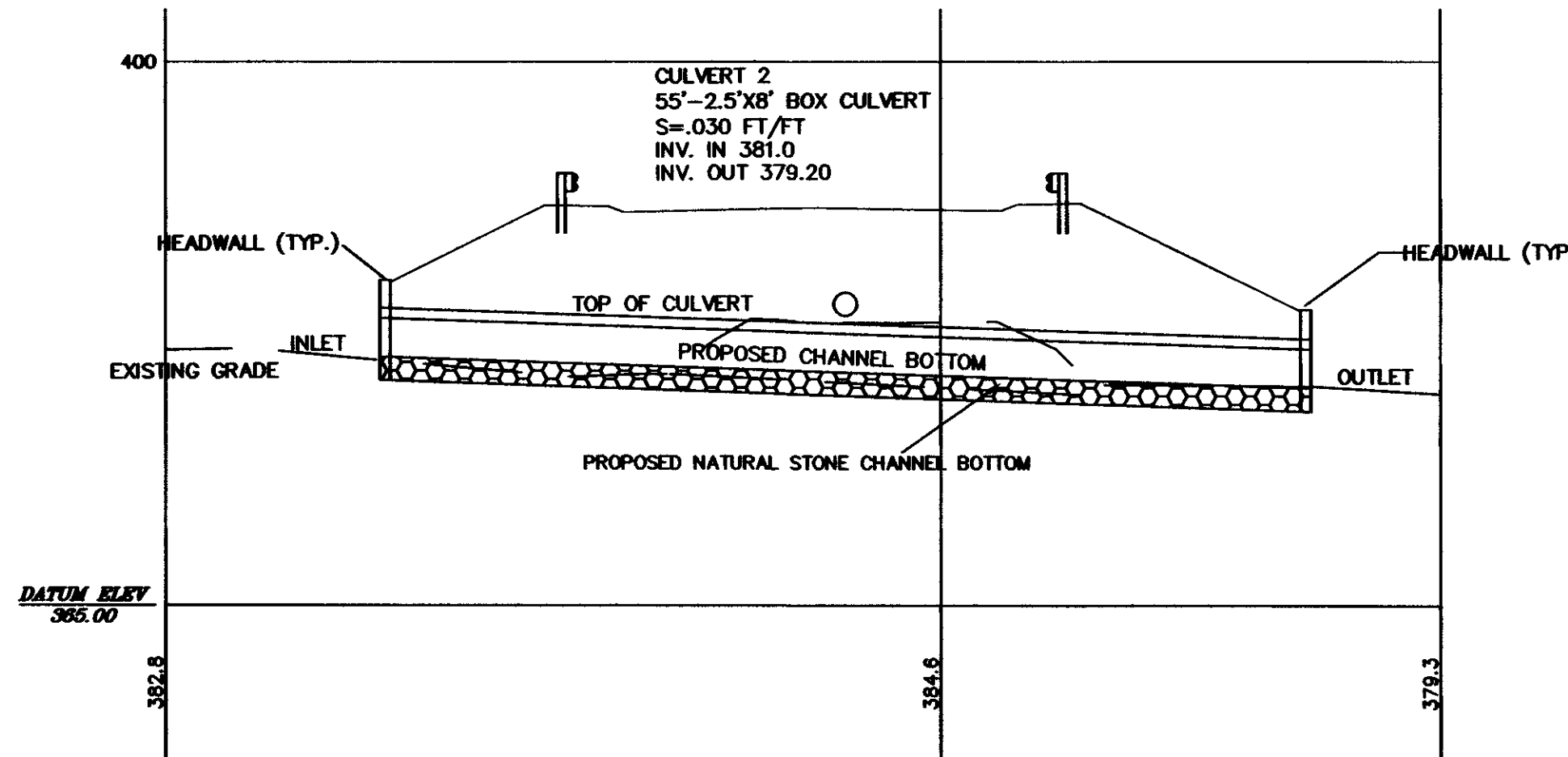
OUTLET ELEVATION

SCALE: 1"=5'

NOTE: ALL CONCRETE TO BE REINFORCED.

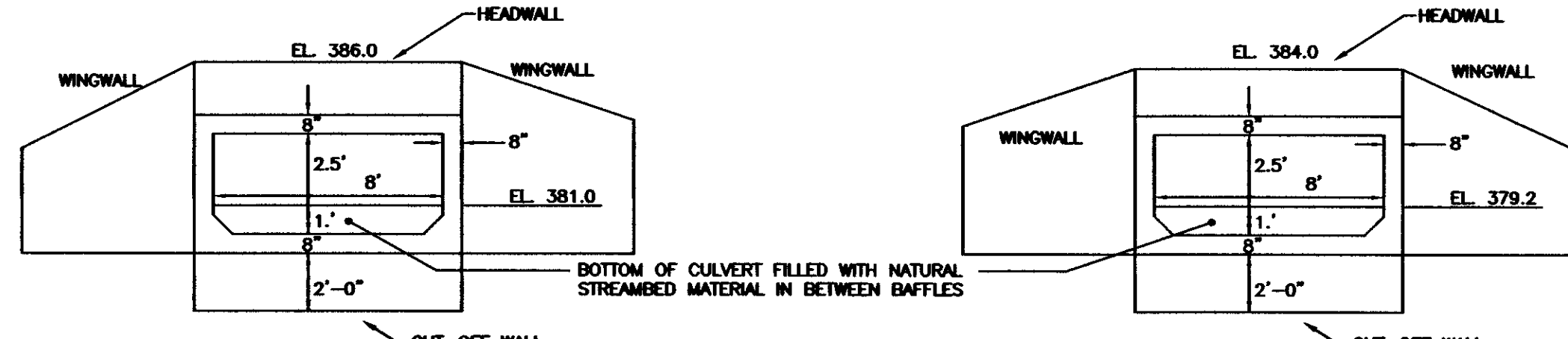
CULVERT 1 ELEVATION

SCALE: 1"=5'



CULVERT 2 CROSS-SECTION

SCALE: 1"=10'



INLET ELEVATION

SCALE: 1"=5'

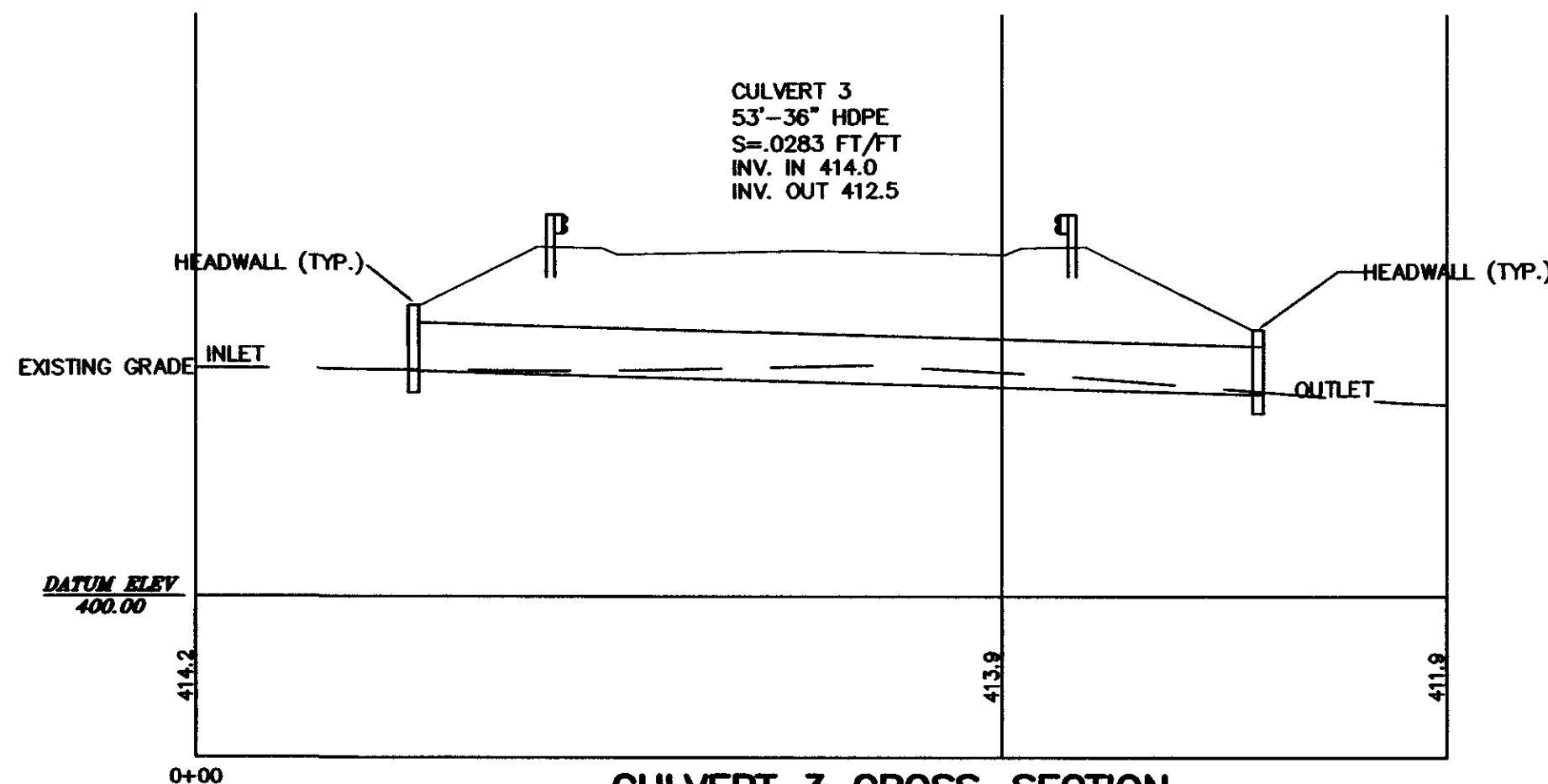
OUTLET ELEVATION

SCALE: 1"=5'

NOTE: ALL CONCRETE TO BE REINFORCED.

CULVERT 2 ELEVATION

SCALE: 1"=5'



CULVERT 3 CROSS-SECTION

SCALE: 1"=10'



INLET ELEVATION

SCALE: 1"=5'

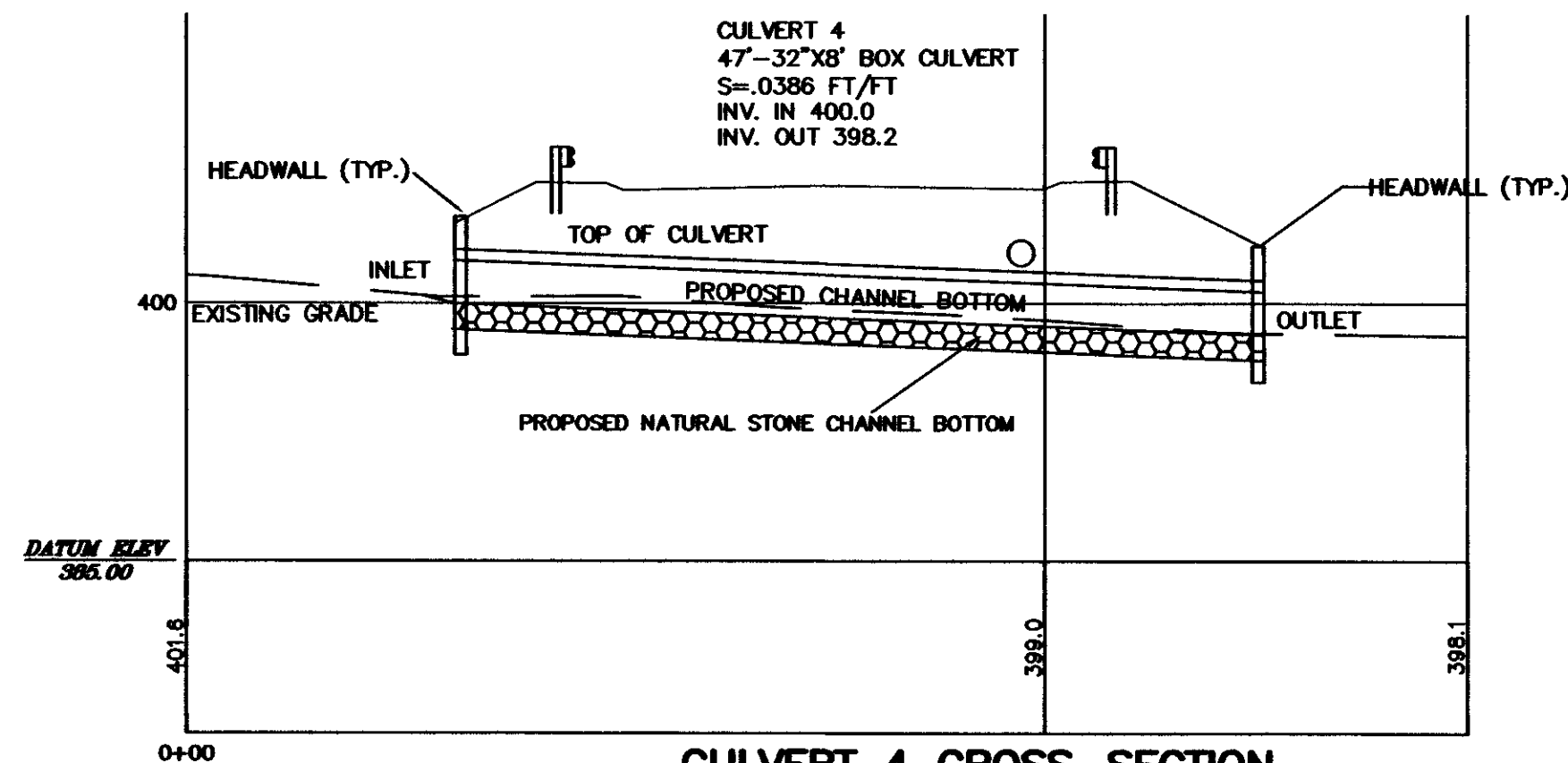
OUTLET ELEVATION

SCALE: 1"=5'

CULVERT 3 ELEVATION

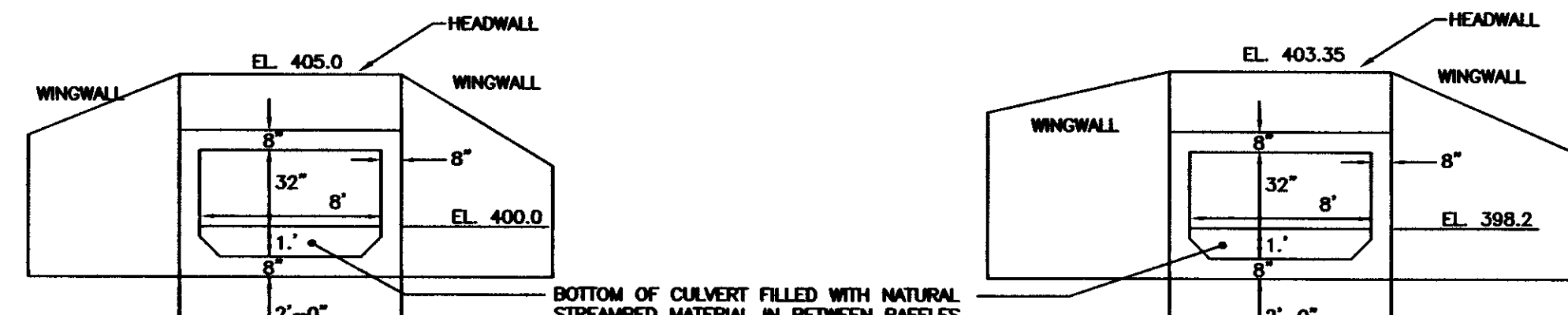
SCALE: 1"=5'

SEE SHEET 28 FOR DETAILS



CULVERT 4 CROSS-SECTION

SCALE: 1"=10'



INLET ELEVATION

SCALE: 1"=5'

OUTLET ELEVATION

SCALE: 1"=5'

NOTE: ALL CONCRETE TO BE REINFORCED.

CULVERT 4 ELEVATION

SCALE: 1"=5'

GENERAL NOTES

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2010, HS 25-44, SOIL BACKFILL WEIGHT OF 125LB PER CUBIC FOOT AND SUPPLEMENTAL SPECIFICATIONS, CURRENT STANDARD SHEETS AND SPECIAL PROVISIONS ATTACHED TO THE PROPOSAL.
- EXISTING CONDITIONS PERTINANT TO THE DESIGN OF EACH CULVERT ARE TO BE VERIFIED PRIOR TO DESIGN. THIS WILL INCLUDE NECESSARY PROCEDURES TO VERIFY A MINIMUM SOIL BEARING CAPACITY OF 2500 psf. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO COMMENCEMENT OF ANY DESIGN.
- ALTERNATE DRAINAGE AND EROSION CONTROL DETAILS NOT SPECIFIED ON THE PLANS, SHALL BE PROVIDED AT THE PRECONSTRUCTION MEETING FOR APPROVAL BY THE ENGINEER AND REVIEW BY NHDES.
- THE CONTRACTOR SHALL SUBMIT COMPLETE REINFORCEMENT SHOP DRAWINGS WITH SCHEDULES AND DETAILS TO THE ENGINEER FOR APPROVAL. SPUR LENGTHS SHALL BE IN ACCORDANCE WITH NHDOT STANDARDS.
- TOPSOIL SHALL BE REMOVED FOR ITS TOTAL DEPTH WITHIN THE LIMITS OF THE SLOPE LINES. UNLESS OTHERWISE DIRECTED, THE TOPSOIL SHALL BE STOCKPILED AND USED IN ITS ENTIRETY UNDER SECTION 641-LOAM AND/OR SECTION 647-HUMUS.
- UNSATURABLE MATERIAL, ROOTS AND STUMPS WITHIN THE LIMITS OF THE ROAD BED, SHALL BE REMOVED AS ORDERED.
- MUCK SHALL BE REMOVED BY EXCAVATION UNDER ITEM (203.1), (203.4), OR BY DISPLACEMENT, AS ORDERED.
- THE SUBGRADE SHALL BE SCARIFIED TO ASSURE THAT ALL BOULDERS AND COBBLES OVER 6 INCHES ARE REMOVED WITHIN 36 INCHES OF FINISHED GRADE. THIS WORK AND RECOMPACTION OF THE SUBGRADE WILL BE PAID UNDER ITEM 212.1-SCARIFYING.
- UNITS SHALL BEAR ON 1'-0" LAYER OF CRUSHED STONE COMPLYING WITH NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. SECTION 205.2.1.3 "CLEAN STONE FILL" WITH FILTER FABRIC BETWEEN THE SUBGRADE AND THE STONE, OR 12" OF CRUSHED GRAVEL WITHOUT FILTER FABRIC. THE STONE IS TO BE COMPACTED WITH A MINIMUM OF 4 PASSES WITH A 450 LB PLATE COMPACTOR.
- BACKFILL SOIL SHALL COMPLY WITH NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 205.2.1.2 "GRANULAR BACKFILL (GRAVEL)", AND BE COMPACTED TO 95% OF THE MODIFIED PROCTOR UNDER UNPAVED AND 95% OF THE MODIFIED PROCTOR UNDER PAVED AREAS.
- EXISTING LEDGE AND BOULDER OUTCROPS ARE TO BE REMOVED AND/OR BERMED AS SHOWN OR AS ORDERED.
- HUMUS SHALL BE APPLIED TO ALL EARTH SLOPES NOT LOADED IN CONFORMANCE WITH THE LATEST ADDITION OF THE SPECIFICATIONS.
- ALL NEW EARTH SLOPES SHALL BE MULCHED.
- ALL BACKFILL SOIL SHALL COMPLY WITH NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 205.2.1.3 "GRANULAR BACKFILL (BRIDGE)" AND MEET THE GRADATION REQUIREMENTS OF ITEM 304.2 CRUSHED GRAVEL AND COMPACTED TO 95% OF THE MODIFIED PROCTOR UNDER UNPAVED AND 95% OF THE MODIFIED PROCTOR UNDER PAVED AREAS.

NOTE: STAMPED SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE TOWN ENGINEER FOR REVIEW AND APPROVAL.

REV.	DATE	DESCRIPTION	BY
C	06/22/17	REVISED PER NHDES COMMENTS	BT
A	05/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	BT

REVISIONS

CONSTRUCTION DETAILS

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7

CROWLEY ROAD

CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

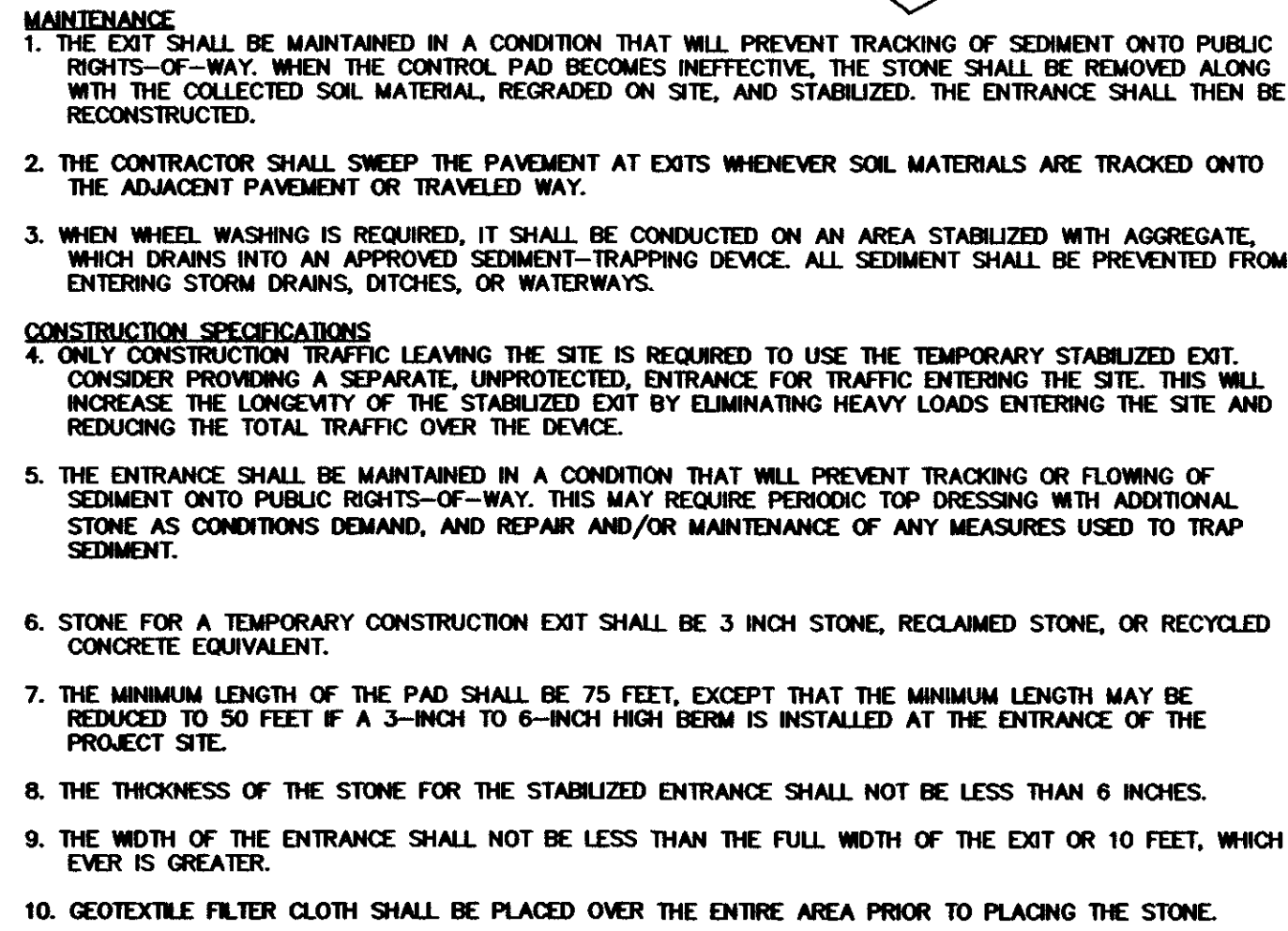
NO SCALE

PREPARED BY:

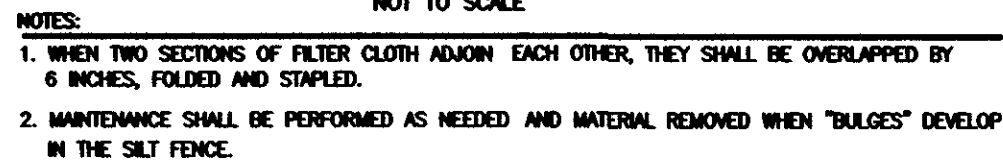
ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

SHEET 33 OF 37

REV. E DWG. DETAILS FLD. BK/Pg. JOB NO. (2)15-38



NOT TO SCALE



(THESE SEQUENCES TO APPLY FOR BOTH ROAD & LOT CONSTRUCTION)

NOTE: - ALL EROSION CONTROLS TO BE INSPECTED WEEKLY AND AFTER EVERY .5" OF RAINFALL.
- IF BLASTING IS REQUIRED, ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW

1. PRIOR TO CONSTRUCTION INSTALL FABRIC SILTATION FENCING AS SHOWN ON PLAN. CONSTRUCT TEMPORARY STABILIZED ENTRANCE, AND INSTALL OTHER APPROPRIATE SEDIMENT AND EROSION CONTROL.
2. CUT AND CLEAR ALL VEGETATION AND STUMPS FROM CUT SLOPES, PONDS, AND SWALE AREAS.
3. COMPLETE EXCAVATION AND BEGIN CONSTRUCTION OF THE MICRO POOL DETENTION BASIN AND TEMPORARY FOREBAYS WITHIN THE POND, STABILIZED SLOPES AND SWALES
4. ALLOW FOR VEGETATION STABILIZATION TO OCCUR WITHIN THE SWALES PRIOR TO DIRECTING STORM WATER INTO THE:
 - A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - B) A MINIMUM OF 85% VEGETATION GROWTH HAS BEEN ESTABLISHED;
 - C) A MINIMUM OF 60% NEW TURF GRASS OR NATURAL GRASS HAS BEEN INSTALLED; OR
 - D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
5. CUT AND CLEAR ALL VEGETATION AND STUMPS FROM AREAS TO BE DISTURBED FOR THE CONSTRUCTION OF THE PROPOSED ROADWAY
6. REMOVE TOPSOIL AND OTHER ORGANIC MATERIALS FROM AREAS TO BE DISTURBED. ALL SUCH TOPSOIL REMOVED SHALL BE STOCKPILED FOR LATER USE. ALL STOCKPILES SHALL BE SEEDED AND MULCHED TO PREVENT LOSS DUE TO EROSION, AND ENCLOSED WITH FABRIC SILT FENCE. WHEN CONSTRUCTION ACTIVITIES ARE TEMPORARILY CEASED FOR MORE THAN 21 DAYS, PERMANENTLY CEASED, OR SHUT DOWN FOR WINTER, THE CONTRACTOR SHALL LEAVE THE MULCH IN STEAD OF TOPSOIL. TOPSOIL IMPLEMENTATION OF SEEDING AND MULCHING WHERE CONSTRUCTION ACTIVITIES HAVE BEEN SUSPENDED OUTSIDE THE GROWING SEASON ALL EXPOSED SOIL SHALL BE STABILIZED BY MULCHING, AND ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NETTING & PINNING.
7. CONSTRUCT, CUT, AND FILL SLOPES. ALL CUT AND FILL SLOPES TO BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION. ALL SLOPES GREATER THAN 3:1 TO BE STABILIZED WITH JUTE MATTING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND LOANED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
8. CONSTRUCT STORM DRAINAGE, AND OTHER UNDERGROUND UTILITIES. ALL SWALES TO BE PROTECTED WITH TEMPORARY EROSION CONTROL MEASURES SHOWN. ALL CATCH BASIN OPENINGS TO BE PROTECTED WITH UNTIL BASINS AND GRAVEL INLET SEDIMENT FILTERS AS SHOWN. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED UNTIL BASINS/PONDS ARE STABILIZED.

1. TEMPORARY SEEDING SHALL BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING $\frac{1}{2}$ INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHALL ALSO BE INSPECTED JUST PRIOR TO THE END OF THE PERIOD TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
2. BASED ON INSPECTION, AREAS SHALL BE RESEED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED
3. AT A MINIMUM, 85% OF THE SOIL SURFACE SHALL BE COVERED BY VEGETATION.
4. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND AREAS SHALL BE RESEED. WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

SITE PREPARATION:

5. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.

6. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
7. RUNOFF SHALL BE DIVERTED FROM THE SEEDBED AREA.
8. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHALL INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

9. STONES AND TRASH

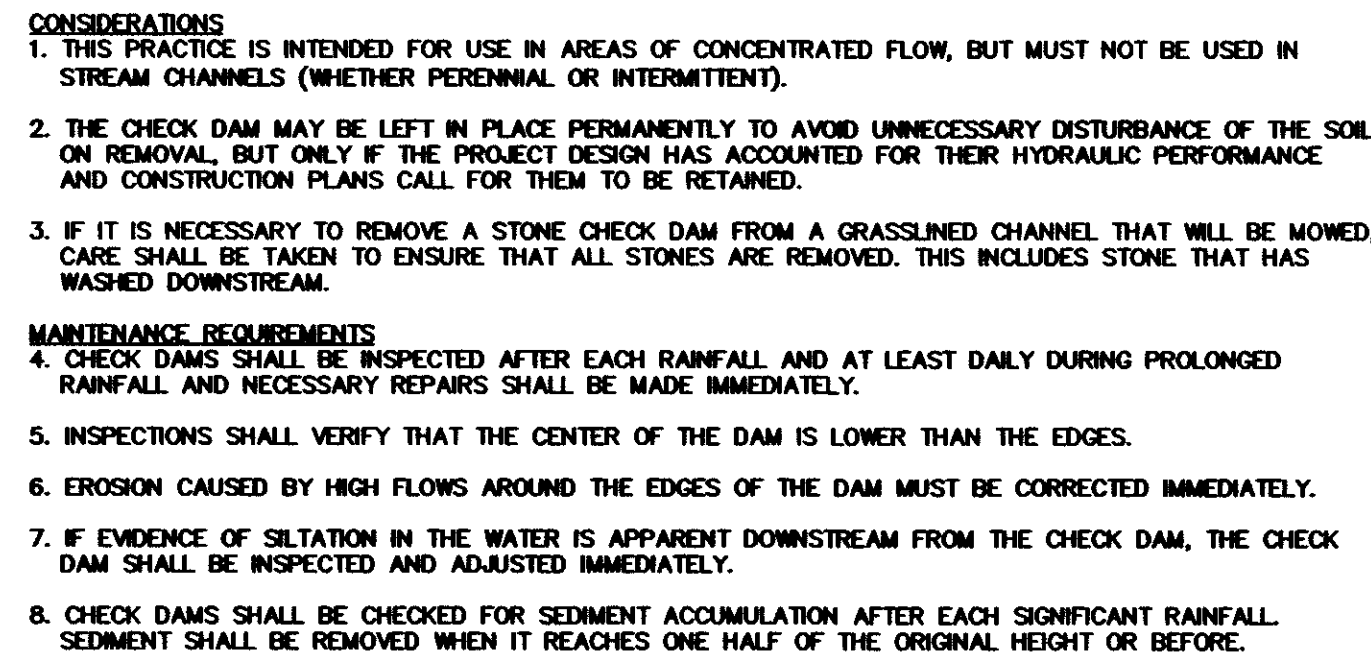
10. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
11. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHALL BE APPLIED DURING THE GROWING SEASON.
- APPLY LIME AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 100 POUNDS PER ACRE OF SLOW RELEASE 15-0-0 PLUS 50 POUNDS OF LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (148 LB. PER 1,000 SQUARE FEET).
 - FERTILIZER SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF A SURFACE WATER BODY. THESE RESTRICTIONS ARE INTENDED TO PROTECT FISH AND WILDLIFE FROM ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

12. SELECT SEED FROM RECOMMENDATIONS IN TABLE 4-1.

13. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTPACKER TYPE SEEDER OR HYDROSEEDER (SPLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DENSITIES ARE FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED TO 1% WHEN HYDROSEEDING.
14. TEMPORARY SEEDING SHALL TYPICALLY OCCUR PRIOR TO SEPTEMBER 15TH.
15. AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHALL BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE.
16. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHALL BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

SPECIES	PER ACRE BUSHELS (BU) OR POUNDS (LBS)	PER 1,000 FT ²	REMARKS
WINTER RYE	2 BU. OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2.5 BU. OR 80 LBS.	2 LBS.	BEST FOR SPRING SEEDINGS. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
POST, ANNUAL RYEGRASS	40 LBS.	1 LB.	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30 LBS.	0.7 LB.	GOOD COVER WHICH IS LONGER LASTING THAN ANNUAL RYEGRASS. SEED BETWEEN APRIL 1 AND JUNE 1 AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. MULCHING WILL ALLOW SEEDING THROUGHOUT THE GROWING SEASON. SEED TO A DEPTH OF APPROXIMATELY 0.5 INCH.

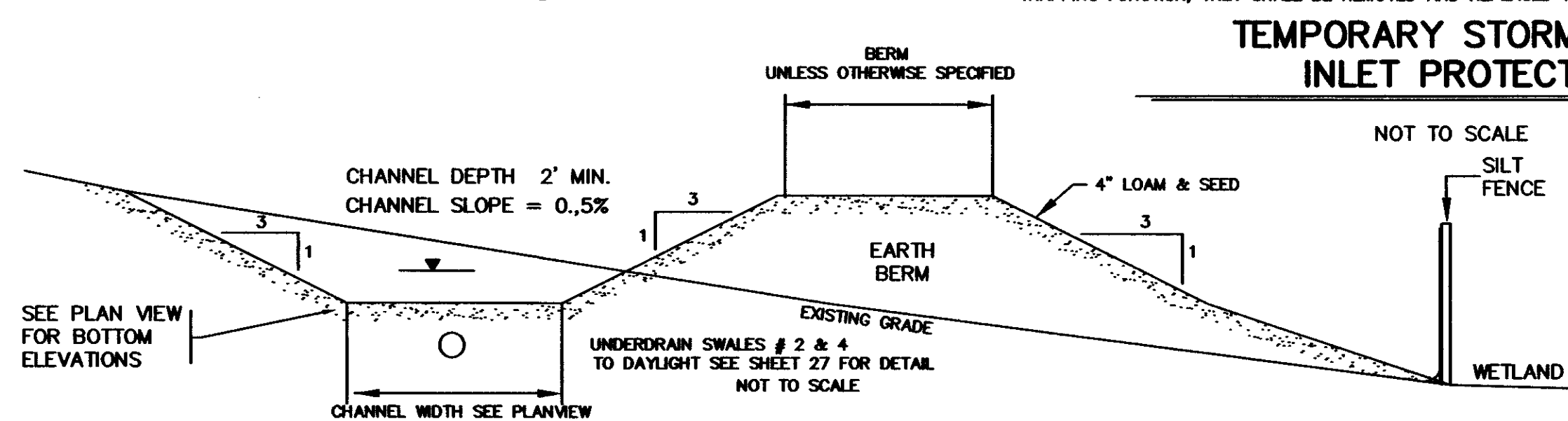
9. BEGIN TOP SOILING, SEEDING AND MULCHING IMMEDIATELY AFTER COMPLETION OF EMBANKMENTS. TEMPORARY EROSION CONTROL / DIVERSION CHANNELS SHALL BE IMPLEMENTED WHERE REQUIRED TO PREVENT EROSION OF EMBANKMENTS. ANY EROSION OCCURRING SHALL BE REPAIRED IMMEDIATELY UPON DISCOVERY.
10. FINISH GRADING & PAVING. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF FINISHING EACH AREA.
11. ALL PAVED AREAS TO BE COMPLETED BY NOVEMBER 15. ALL LANDSCAPED AREAS TO BE STABILIZED BY OCTOBER 15th, WITH HAY MULCH AND SEED.
12. COMPLETE PERMANENT SEEDING AND MULCHING OF ALL DISTURBED AREAS. ALL TEMPORARY EROSION CONTROL MEASURES TO REMAIN IN PLACE UNTIL A FULL VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DISTURBED AREAS.
13. SILT FENCES AND HAY BALE BARRIERS TO BE REMOVED ONCE THE SITE HAS STABILIZED.
14. REMOVE ACCUMULATIONS OF SEDIMENT FROM DRAINAGE STRUCTURES. MICROPOOL POND TO BE CLEANED OUT, LOWMAID & MATTED AS NECESSARY UPON COMPLETION OF PROJECT.
15. THE MAXIMUM AMOUNT OF AREA ALLOWED TO BE DISTURBED & UNSTABILIZED AT ONE TIME IS 1.5 ACRES. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS FROM INITIAL DISTURBANCE.
16. WINTER CONSTRUCTION NOTES:
 - A) DURING WINTER CONDITIONS, THE MAXIMUM ALLOWABLE DISTURBED AREA SHALL BE 0.5 ACRES.
 - B) ALL PROPOSED DISTURBED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING. ELSEWHERE, THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
 - C) ALL DITCHES AND SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
 - D) AFTER NOVEMBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER M.U.D.O.T. ITEM 304-3.
17. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
 - B) A MINIMUM OF 85% VEGETATIVE GROWTH HAS BEEN ESTABLISHED;
 - C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
 - D) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
18. BASINS AND SWALES SHALL BE INSTALLED EARLY IN THE CONSTRUCTION SEQUENCE AND PRIOR TO ANY ROUGH GRADING OF THE SITE.
19. ALL DITCHES, SWALES AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
20. LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT OCCUR UNTIL AFTER THE ROADWAY AND ASSOCIATED DRAINAGE HAVE BEEN COMPLETED AND STABILIZED. INDIVIDUAL LOT DEVELOPMENT THAT IS PLANNED TO EXCEED 100,000 SQUARE FEET (OR 50,000 SQUARE FEET WITH THE CSPR) MAY REQUIRE A ALTERATION OF TERRAIN APPLICATION PRIOR TO LOT DEVELOPMENT.



9. CHECK DAMS SHALL BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.

10. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHALL BE LESS THAN ONE ACRE.
11. THE MAXIMUM HEIGHT OF THE DAM SHALL BE 2 FEET.
12. THE CENTER OF THE DAM SHALL BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES.
13. THE MAXIMUM SPACING BETWEEN THE DAMS SHALL BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE OVERFLOW ELEVATION OF THE DOWNSTREAM DAM.
14. STONE CHECK DAMS SHALL BE CONSTRUCTED OF A WELL-GRADED ANGULAR 2-INCH TO 3-INCH STONE. 3/4-INCH STONE ON THE UPGRADIENT FACE IS RECOMMENDED FOR BETTER FILTERING.
15. IF PROVIDED BY DESIGN AND CONSTRUCTION PLANS, LEAVE THE DAM IN PLACE PERMANENTLY.
16. TEMPORARY STRUCTURES SHALL BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED:
 - IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHALL BE REMOVED AND THE DITCH FILLED IN WHEN IT IS NO LONGER NEEDED.
 - IN PERMANENT STRUCTURES, CHECK DAMS SHALL BE REMOVED WHEN A PERMANENT LINING HAS BEEN ESTABLISHED. THE PERMANENT LINING, THEN THE CHECK DAM SHALL BE RETAINED UNTIL THE GRASS HAS MATURED TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL.

NOT TO SCALE



MAINTENANCE

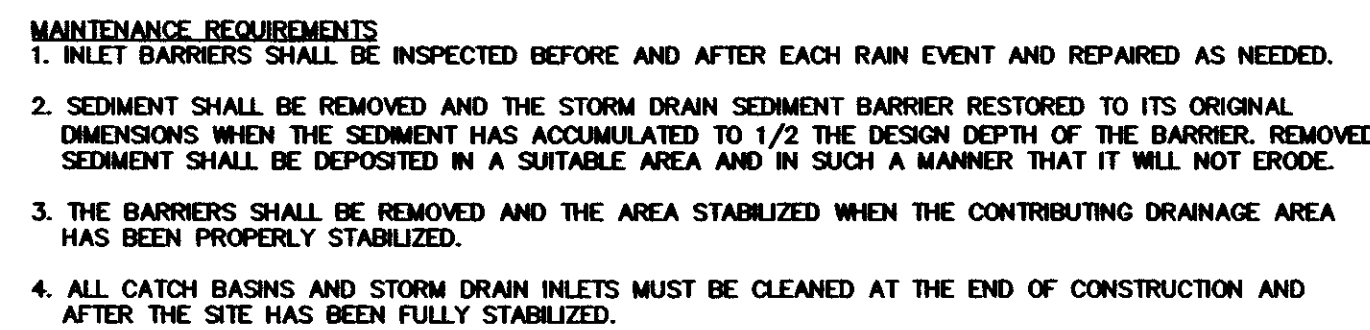
THE EARTH DIKE SHALL BE INSPECTED AFTER EVERY STORM AND REPAIRS MADE TO THE DIKE, FLOW CHANNEL, AND THE OUTLET AS NECESSARY. DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT SHOULD BE REPAIRED THE SAME DAY AS THE DAMAGE OCCURS. WHEN THE DIKE IS REMOVED, THE AREA SHALL BE SMOOTHED AND VEGETATED USING THE APPROPRIATE MEASURES OUTLINED IN THE BMP'S FOR VEGETATIVE MEASURES.

TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN WIGGURSON CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION. HOWEVER IT SHOULD NOT BE MOWN BELOW 6 INCHES SO AS TO REDUCE THE FILTERING EFFECT. MOWING SHOULD BE DONE AT A TIME WHEN THE WEEDS ARE NOT HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.

THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SHALE.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENTATION BASIN OR SEDIMENT TRAP. THE DRAINAGE CHANNEL OR DRAINAGE AREA ABOVE THE DIKE AREA SHALL NOT BE STABILIZED.

6. STABILIZATION SHALL BE IN ACCORDANCE WITH THE SEEDING FOR TEMPORARY PROTECTION OF DISTURBED AREAS BEST MANAGEMENT PRACTICE, THE MULCHING BEST MANAGEMENT PRACTICE, OR THE CRITERIA FOR FLOW CHANNEL STABILIZATION



5. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN ONE ACRE

6. THE INLET PROTECTION DEVICE SHALL BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN-OUT AND DISPOSAL OF TRAPPED SEDIMENTS AND MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES.
7. ANY RESULTANT PONDING OF STORMWATER MUST NOT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT AREAS OR STRUCTURES.
8. THE BLOCKS SHALL BE PLACED LENGTHWISE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET.
9. THE BLOCK ENDS SHALL ABUT ONE ANOTHER.
10. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 8-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS AND GRAVEL FILTER SHALL BE A MINIMUM OF 12 INCHES HIGH AND NO MORE THAN 24 INCHES HIGH.
11. A HARDWARE CLOTH OR WIRE MESH SHALL BE PLACED OVER THE OPENINGS OF THE CONCRETE BLOCKS AND EXTEND AT LEAST 12 INCHES AROUND THE OPENING TO PREVENT AGGREGATE FROM BEING TRANSPORTED THROUGH THE OPENINGS IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
12. THE GRAVEL FILTER SHALL BE CLEAN COARSE AGGREGATE.
13. THE GRAVEL SHALL BE PLACED AGAINST THE WIRE AND ALONG THE OUTSIDE EDGES OF THE BLOCKS TO THE TOP OF THE BLOCK BARRIER.
14. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

15. MANUFACTURED SEDIMENT BARRIERS ARE NOW AVAILABLE THAT COULD BE FUNCTIONALLY EQUIVALENT TO THE BARRIERS LISTED ABOVE. THESE MEASURES ARE ACCEPTABLE AS LONG AS THEY ARE INSTALLED, USED AND MAINTAINED AS SPECIFIED BY THE VENDOR OR MANUFACTURER, AND PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. IF SUCH PRODUCTS FAIL TO PERFORM THE REQUIRED SEDIMENT TRAPPING FUNCTION, THEY SHALL BE REMOVED AND REPLACED WITH AN EFFECTIVE ALTERNATIVE BARRIER.

NOT TO SCALE

"TANGLEWOOD"

CROWLEY ROAD

OWNER OF RECORD:

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

NO SCALE

PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING SURVEYING ENGINEERING ENVIRONMENTAL

ANNING = SURVEYING = ENGINEERING =
BOX 10298, 106 SO. RIVER RD., BEDFORD

D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJH
REV.	DATE	DESCRIPTION	BY
<i>REVISIONS</i>			

SHEET 34 OF 37

REV: E	DWG: DETAILS	FLD. BK/PG:	JOB NO. (2)15-38
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CONSTRUCTION SEQUENCES:

(THESE SEQUENCES TO APPLY FOR BOTH ROAD & LOT CONSTRUCTION)

- NOTE: - ALL EROSION CONTROLS TO BE INSPECTED WEEKLY AND AFTER EVERY .5' OF RAINFALL.
- IF BLASTING IS REQUIRED, ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW "BEST MANAGEMENT PRACTICES" REQUIREMENTS AS SPECIFIED IN NHDES PUBLICATION WD-10-12 SEE BELOW

1. PRIOR TO CONSTRUCTION INSTALL FABRIC SILTATION FENCING AS SHOWN ON PLAN. CONSTRUCT TEMPORARY STABILIZED ENTRANCE, AND INSTALL OTHER APPROPRIATE SEDIMENT AND EROSION CONTROL.
2. CUT AND CLEAR ALL VEGETATION AND STUMPS FROM CUT SLOPES, PONDS, AND SWALE AREAS.
3. COMPLETE EXCAVATION AND BERM CONSTRUCTION OF THE MICRO POOL DETENTION BASIN AND TEMPORARY FOREBAYS WITHIN THE POND, STABILIZED SLOPES AND SWALES
4. ALLOW FOR VEGETATION STABILIZATION TO OCCUR WITHIN THE SWALES PRIOR TO DIRECTING STORM WATER INTO THE
A.) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B.) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C.) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE, OR RIP-RAP HAS BEEN INSTALLED; OR
D.) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
5. CUT AND CLEAR ALL VEGETATION AND STUMPS FROM AREAS TO BE DISTURBED FOR THE CONSTRUCTION OF THE PROPOSED ROADWAY
6. REMOVE TOPSOIL AND OTHER ORGANIC MATERIALS FROM AREAS TO BE DISTURBED. ALL SUCH TOPSOIL REMOVED SHALL BE STOCKPILED FOR LATER USE. ALL STOCKPILES SHALL BE SEEDED AND MULCHED TO PREVENT LOSS DUE TO EROSION, AND ENCLOSED WITH FABRIC SILT FENCE. WHEN CONSTRUCTION ACTIVITIES ARE TEMPORARILY CEASED FOR MORE THAN 21 DAYS, PERMANENTLY CEASED, OR SHUT DOWN FOR WINTER, THE CONTRACTOR SHALL LEAVE NO SLOPES STEEPER THAN 3:1 AND SHALL IMPLEMENT TEMPORARY LOAMING, SEEDING AND MULCHING. WHERE CONSTRUCTION ACTIVITIES HAVE BEEN SUSPENDED OUTSIDE THE GROWING SEASON ALL EXPOSED SOIL SHALL BE STABILIZED BY MULCHING, AND ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH NETTING & PINNING.
7. CONSTRUCT, CUT, AND FILL SLOPES. ALL CUT AND FILL SLOPES TO BE STABILIZED IMMEDIATELY AFTER CONSTRUCTION. ALL SLOPES GREATER THAN 3:1 TO BE STABILIZED WITH JUTE MATTING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND LOAMED WITHIN 72 HOURS OF ACHIEVING FINISH GRADE.
8. CONSTRUCT STORM DRAINAGE, AND OTHER UNDERGROUND UTILITIES. ALL SWALES TO BE PROTECTED WITH TEMPORARY EROSION CONTROL MEASURES SHOWN. ALL CATCH BASIN OPENINGS TO BE PROTECTED WITH BLOCK AND GRAVEL INLET SEDIMENT FILTERS AS SHOWN. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED UNTIL BASINS/PONDS ARE STABILIZED.

15. THE MAXIMUM AMOUNT OF AREA ALLOWED TO BE DISTURBED & UNSTABILIZED AT ONE TIME IS 1.5 ACRES. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS FROM INITIAL DISTURBANCE.
16. WINTER CONSTRUCTION NOTES:
A.) DURING WINTER CONDITIONS, THE MAXIMUM ALLOWABLE DISTURBED AREA SHALL BE 0.5 ACRES.
B.) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MAXIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE. SECURED WITH ANCHORED NETTING. ELSEWHERE, THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
C.) ALL DITCHES AND SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15th, OR WHICH ARE DISTURBED AFTER OCTOBER 15th, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
D.) AFTER NOVEMBER 15th, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER N.H.D.O.T. ITEM 304.3.
17. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A.) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B.) A MINIMUM OF 85% VEGETATIVE GROWTH HAS BEEN ESTABLISHED;
C.) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR
D.) EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
18. BASINS AND SWALES SHALL BE INSTALLED EARLY IN THE CONSTRUCTION SEQUENCE AND PRIOR TO ANY ROUGH GRADING OF THE SITE.
19. ALL DITCHES, SWALES AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
20. LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT OCCUR UNTIL AFTER THE ROADWAY AND ASSOCIATED DRAINAGE HAVE BEEN COMPLETED AND STABILIZED. INDIVIDUAL LOT DEVELOPMENT THAT IS PLANNED TO EXCEED 100,000 SQUARE FEET (OR 50,000 SQUARE FEET WITHIN THE CSPAs) MAY REQUIRE A ALTERATION OF TERRAIN APPLICATION PRIOR TO LOT DEVELOPMENT.

BLASTING BMP'S

NOTE: IF GREATER THAN 5000 CUBIC YARDS OF BLAST ROCK WILL BE GENERATED, A GROUNDWATER MONITORING PROGRAM MUST BE DEVELOPED AND SUBMITTED TO NHDES.

A. Best Management Practices for Blasting. All activities related to blasting shall follow Best Management Practices (BMPs) to prevent contamination of groundwater including preparing, reviewing and following an approved blasting plan; proper drilling, explosive handling and loading procedures; observing the entire blasting procedures; evaluating blasting performance; and handling and storage of blasted rock.

- (1) **Loading practices.** The following blasthole loading practices to minimize environmental effects shall be followed:

(a) Drilling logs shall be maintained by the driller and communicated directly to the blaster. The logs shall indicate depths and lengths of voids, cavities, and fault zones or other weak zones encountered as well as groundwater conditions.

(b) Explosive products shall be managed on-site so that they are either used in the borehole, returned to the the delivery vehicle, or placed in secure containers for off-site disposal.

(c) Spillage around the borehole shall either be placed in the borehole or cleaned up and returned to an appropriate vehicle for handling or placement in secured containers for off-site disposal.

(d) Loaded explosives shall be detonated as soon as possible and shall not be left in the blastholes overnight, unless weather or other safety concerns reasonably dictate that detonation should be postponed.

(e) Loading equipment shall be cleaned in an area where wastewater can be properly contained and handled in a manner that prevents release of contaminants to the environment.

(f) Explosives shall be loaded to maintain good continuity in the column load to promote complete detonation. Industry accepted loading practices for priming, stemming, decking and column rise need to be attended to.
- (2) **Explosive Selection.** The following BMPs shall be followed to reduce the potential for groundwater contamination when explosives are used:

(a) Explosive products shall be selected that are appropriate for site conditions and safe blast execution.

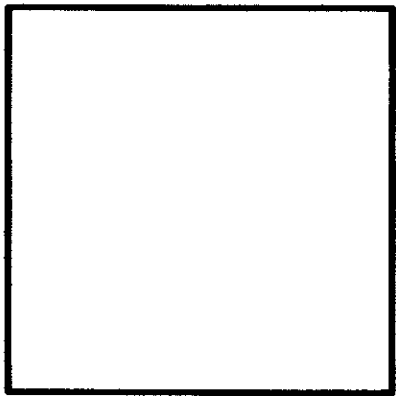
(b) Explosive products shall be selected that have the appropriate water resistance for the site conditions present to minimize the potential for hazardous effect of the product upon groundwater.
- (3) **Prevention of Misfires.** Appropriate practices shall be developed and implemented to prevent misfires.
- (4) **Muck Pile Management.** Muck piles (the blasted pieces of rock) and rock piles shall be managed in a manner to reduce the potential for contamination by implementing the following measures:

(a) Remove the muck pile from the blast area as soon as reasonably possible.

(b) Manage the interaction of blasted rock piles and stormwater to prevent contamination of water supply wells or surface water.

- (5) **Spill Prevention Measures and Spill Mitigation.** Spill prevention and spill mitigation measures shall be implemented to prevent the release of fuel and other related substances to the environment. The measures shall include at a minimum:

(a) The fuel storage requirements shall include:
1. Storage of regulated substances on an impervious surface.
2. Secure storage areas against unauthorized entry.
3. Label regulated containers clearly and visibly.
4. Inspect storage areas weekly.
5. Cover regulated containers in outside storage areas.
6. Wherever possible, keep regulated containers that are stored outside more than 50 feet from surface water and storm drains, 75 feet from private wells, and 400 feet from public wells.
7. Secondary containment is required for containers containing regulated substances stored outside, except for on premise use heating fuel tanks, or aboveground or underground storage tanks otherwise regulated.
- (b) The fuel handling requirements shall include:
1. Except when in use, keep containers containing regulated substances closed and sealed.
2. Place drip pans under spigots, valves, and pumps.
3. Have spill control and containment equipment readily available in all work areas.
4. Use funnels and drip pans when transferring regulated substances.
5. Perform transfers of regulated substances over an impervious surface.
- (c) The training of on-site employees and the on-site posting of release response information describing what to do in the event of a spill of regulated substances.
- (d) Fueling and maintenance of excavation, earthmoving and other construction related equipment will comply with the regulations of the New Hampshire Department of Environmental Services (note these requirements are summarized in WD-DWGB-22-6 Best Management Practices for Fueling and Maintenance of Excavation and Earthmoving Equipment" or its successor document. (see <http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-6.pdf>)



E	01/15/18	ADD BLASTING NOTES	BT
D	12/28/17	REVISED PER NHDES COMMENTS	BT
C	06/22/17	REVISED PER NHDES COMMENTS	BT
B	06/07/17	REVISED PER TOWN COMMENTS	BT
A	5/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	CJH
REV.	DATE	DESCRIPTION	BY
REVISIONS			

EROSION CONTROL DETAILS

"TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

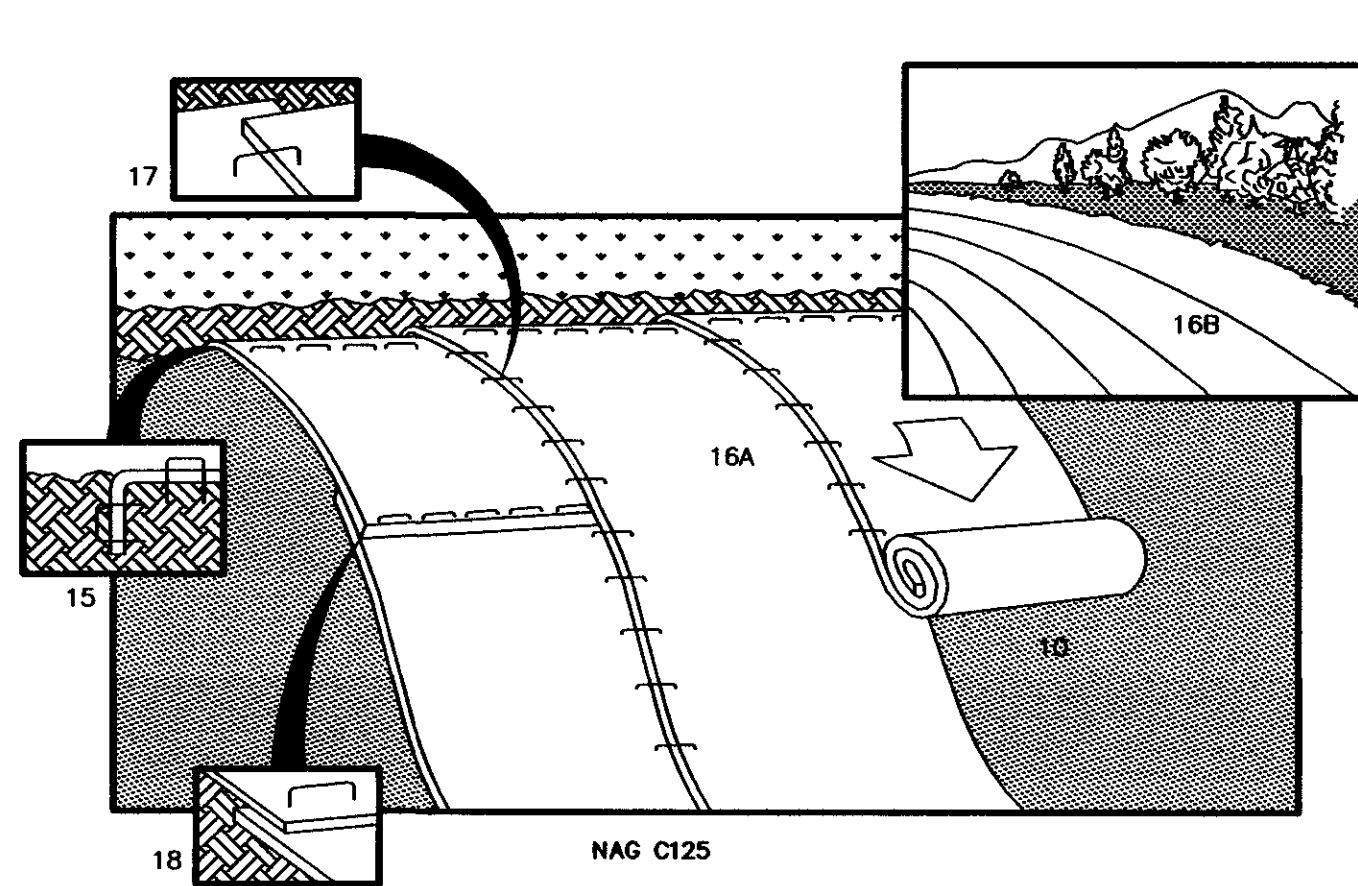
NO SCALE

PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

SHEET 35 OF 37

REV: E DWG: DETAILS FLD: BK/PG: JOB NO. (2)15-38



- CONSIDERATIONS**
1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE MATS OR MULCH AND NETTING ON SLOPES 15% OR GREATER AND ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND OOWETLANDS.
 2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) USE HEAVY GRADE MATS ON ALL AREAS NOTED ABOVE PLUS USE LIGHTER GRADE MATS OR MULCH AND NETTING ON SLOPES GREATER THAN 8%.

- MAINTENANCE REQUIREMENTS**
4. ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 5. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED OR REPLACED.

- SPECIFICATIONS**
- SITE PREPARATION:**
6. GRADE AND SHAPE AREA OF INSTALLATION.
 7. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 8. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 9. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.

- SEEDING:**
10. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATION. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.

11. WHERE SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

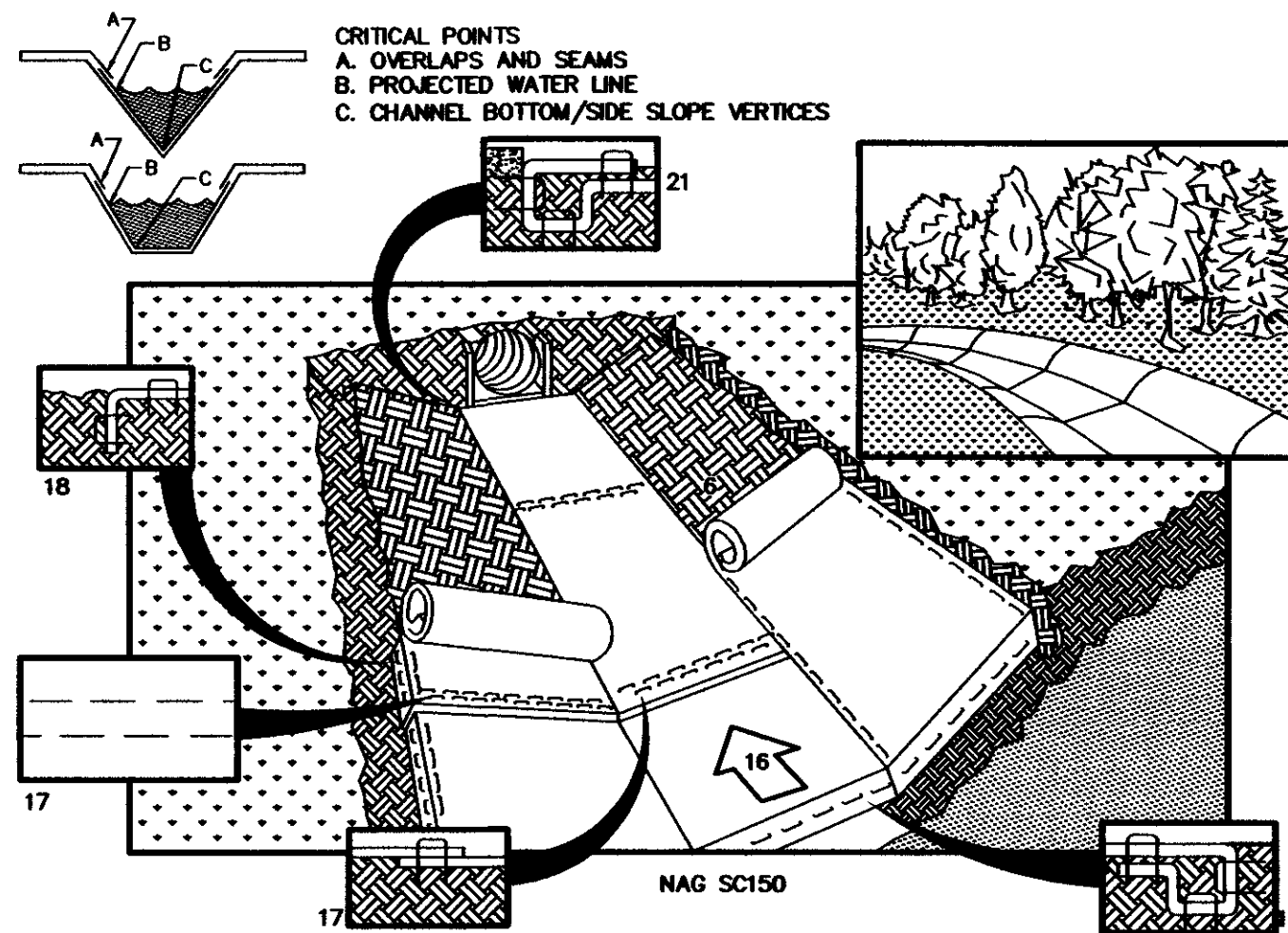
- INSTALLING AND ANCHORING BLANKETS:**
12. BLANKETS SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURER'S SPECIFICATIONS.
 13. ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.

- INSTALLATION ON SLOPES:**
14. BLANKETS SHALL BE INSTALLED ON SLOPES PER THE MANUFACTURER'S SPECIFICATIONS. IF THE MANUFACTURER'S INSTRUCTIONS DIFFER FROM THOSE LISTED BELOW, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED.

15. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
16. ROLL THE BLANKETS (A) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
17. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP.
18. WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

TEMPORARY EROSION CONTROL BLANKET ON SLOPES

NOT TO SCALE



- CONSIDERATIONS**
1. DURING THE GROWING SEASON (APRIL 15 - SEPTEMBER 15) USE MATS OR MULCH AND NETTING ON THE BASE OF GRASSED WATERWAYS.
 2. DURING THE LATE FALL AND WINTER (SEPTEMBER 15 - APRIL 15) USE HEAVY GRADE MATS ON SIDE SLOPES OF GRASSED WATERWAYS.

- MAINTENANCE REQUIREMENTS**
4. ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 5. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED OR REPLACED.

- SPECIFICATIONS**
- SITE PREPARATION:**
6. GRADE AND SHAPE AREA OF INSTALLATION.
 7. REMOVE ALL ROCKS, CLODS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 8. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 9. INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.

- SEEDING:**
10. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATION. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOTS AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEEDED.

11. WHERE SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

- INSTALLING AND ANCHORING BLANKETS:**
12. BLANKETS SHALL BE INSTALLED AND ANCHORED PER THE MANUFACTURER'S SPECIFICATIONS.
 13. ENSURE COMPLETE CONTACT OF THE PROTECTION MATTING WITH THE SOIL.

- INSTALLATION IN CHANNELS:**
14. BLANKETS SHALL BE INSTALLED IN CHANNELS PER THE MANUFACTURER'S SPECIFICATIONS. IF THE MANUFACTURER'S INSTRUCTIONS DIFFER FROM THOSE LISTED BELOW, THE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED.

15. BEGIN AT THE OUTLET OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
16. ROLL CENTER BLANKET IN DIRECTION OF THE INLET END OF THE CHANNEL.
17. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
18. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
19. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED.
20. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
21. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

TEMPORARY EROSION CONTROL BLANKET FOR CHANNELS

NOT TO SCALE

TEMPORARY EROSION CONTROL BLANKETS NHFG WILDLIFE FRIENDLY REQUIREMENTS

- CONSIDERATIONS**
1. THE ELIMINATION OF PLASTIC OR "BIODEGRADABLE PLASTIC" EROSION CONTROL NETTING IS REQUIRED AS THESE ARE KNOWN SOURCE OF ENTRAPMENT AND MORTALITY TO PROTECTED SNAKES AND TURTLES.
 2. SEVERAL "WILDLIFE FRIENDLY" OPTIONS SUCH AS WOVEN ORGANIC MATERIAL (E.G., COCO MATTING) OR THE USE OF EROSION CONTROL BERM OKAY.
 3. ACCEPTABLE MATERIALS INCLUDE NORTH AMERICAN GREEN C125BN OR EAST COAST EROSION CONTROL BLANKET ECC-2B BOTH ARE BIODEGRADABLE WITH A COCONUT FIBER MATRIX AND JUTE NETTING.

TEMPORARY & PERMANENT MULCHING

- CONSIDERATIONS**
1. WITHIN 100 FEET OF STREAMS, WETLANDS AND IN LAKE WATERSHEDS, TEMPORARY MULCH SHOULD BE APPLIED WITHIN 7 DAYS OF EXPOSING SOIL OR PRIOR TO ANY STORM EVENT.
 2. AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING.
 3. AREAS THAT CANNOT BE SEEDED WITHIN THE GROWING SEASON SHOULD BE MULCHED FOR OVER-WINTER PROTECTION. THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE NEXT GROWING SEASON.
 4. MULCH ANCHORING SHOULD BE USED ON SLOPES WITH GRADIENTS GREATER THAN 5% IN LATE FALL (PAST SEPTEMBER 15), AND OVER-WINTER (SEPTEMBER 15 - MAY 15).
 5. PERMANENT MULCH CAN BE USED IN CONJUNCTION WITH TREE, SHRUB, VINE, AND GROUND COVER PLANTINGS.

- MAINTENANCE REQUIREMENTS**
6. ALL TEMPORARY MULCHES MUST BE INSPECTED PERIODICALLY AND IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION OR DISPLACEMENT OF THE MULCH. IF LESS THAN 80% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHOULD BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGES OCCUR, REPAIR ANY DAMAGE TO THE SLOPE AND RE-INSTALL OR REPLACE NETTING AS NECESSARY. INSPECTIONS SHOULD TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED (85% SOIL SURFACE UNIFORMLY COVERED WITH HEALTHY STAND OF GRASS).
 7. EROSION CONTROL MIX MULCH USED FOR TEMPORARY STABILIZATION SHOULD BE LEFT IN PLACE. VEGETATION ADDS STABILITY AND SHOULD BE PROMOTED.
 8. WHERE PERMANENT MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.
 9. PERMANENT MULCHED AREAS SHOULD BE INSPECTED AT LEAST ANNUALLY, AND AFTER EACH LARGE RAINFALL (2.5 INCHES OR MORE IN A 24-HOUR PERIOD). ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. WHERE EROSION CONTROL MIX HAS BEEN USED, PLACE ADDITIONAL MIX ON TOP OF THE MULCH TO MAINTAIN THE RECOMMENDED THICKNESS. WHEN THE MULCH IS DECOMPOSED, CLOSED WITH SEDIMENT, ERODED OR INEFFECTIVE, IT MUST BE REPLACED OR REPAIRED.
 10. IF THE MULCH NEEDS TO BE REMOVED, SPREAD IT OUT INTO THE LANDSCAPE.

- SPECIFICATIONS**
- GENERAL:**
11. APPLY MULCH PRIOR TO A STORM EVENT. THIS IS APPLICABLE IN EXTREMELY SENSITIVE AREAS SUCH AS WITHIN 100 FEET OF LAKES, PONDS, RIVERS, STREAMS, AND WETLANDS. IT WILL BE NECESSARY TO CLOSELY MONITOR WEATHER PREDICTIONS TO HAVE ADEQUATE WARNING OF SIGNIFICANT STORMS.
 12. MULCHING SHOULD BE COMPLETED WITHIN THE FOLLOWING SPECIFIED TIME PERIODS FROM ORIGINAL SOIL EXPOSURE:
 - WITHIN 100 FEET OF RIVERS AND STREAMS, WETLANDS, AND IN LAKE AND POND WATERSHEDS, THE TIME PERIOD SHOULD BE NO GREATER THAN 7 DAYS. THIS 7-DAY LIMIT SHOULD BE REDUCED FURTHER DURING WET WEATHER PERIODS.
 - IN OTHER AREAS, THE TIME PERIOD CAN RANGE FROM 14 TO 30 DAYS, THE LENGTH OF TIME VARYING WITH SITE CONDITIONS (SOIL PRODUCTIVITY, SEASON OF YEAR, EXISTING VEGETATION, PROXIMITY TO SENSITIVE RESOURCES) AND THE POTENTIAL IMPACT OF EROSION ON ADJACENT AREAS. OTHER STATE OR LOCAL RESTRICTIONS MAY ALSO APPLY.
 13. THE CHOICE OF MATERIALS FOR MULCHING SHOULD BE BASED ON SITE CONDITIONS, SOILS, SLOPE, FLOW CONDITIONS, AND TIME OF YEAR.

- HAY OR STRAW MULCHES:**
14. ORGANIC MULCHES INCLUDING HAY AND STRAW SHOULD BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS.
 15. APPLICATION RATE SHOULD BE 2 BALES (70-90 POUNDS) PER 1000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90 % OF THE GROUND SURFACE.
 16. HAY OR STRAW MULCH SHOULD BE ANCHORED TO PREVENT DISPLACEMENT BY WIND OR FLOWING WATER, USING ONE OF THE FOLLOWING METHODS:
 - NETTING: INSTALL JUTE, WOOD FIBER, OR BIODEGRADABLE PLASTIC NETTING OVER HAY OR STRAW TO ANCHOR IT TO THE SOIL SURFACE. INSTALL NETTING MATERIAL ACCORDING TO MANUFACTURER'S RECOMMENDATION. NETTING SHOULD BE USED JUDICIOUSLY, AS WILDLIFE CAN BECOME ENTANGLED IN THE MATERIALS.
 - TACKIFIER: APPLY POLYMER OR ORGANIC TACKIFIER TO ANCHOR HAY OR STRAW MULCH. APPLICATION RATES VARY BY MANUFACTURER. TYPICALLY 40-80 LBS/ACRE FOR POLYMER MATERIAL, AND 80-120 LBS/ACRE FOR ORGANIC MATERIAL. LIQUID MULCH BINDERS ARE ALSO TYPICALLY APPLIED HEAVIER AT EDGES, IN VALLEYS, AND AT CRESTS THAN OTHER AREAS.

17. WHEN MULCH IS APPLIED TO PROVIDE PROTECTION OVER WINTER (PAST THE GROWING SEASON), IT SHOULD BE APPLIED TO A DEPTH OF FOUR INCHES (150-200 POUNDS OF HAY OR STRAW PER 1000 SQUARE FEET, OR DOUBLE STANDARD APPLICATION RATE). SEEDING CANNOT GENERALLY BE EXPECTED TO GROW UP THROUGH THIS DEPTH OF MULCH AND WILL BE SMOTHERED. IF VEGETATION IS DESIRED, THE MULCH WILL NEED TO BE REMOVED IN THE SPRINGTIME AND THE AREA SEEDED AND MULCHED.

18. WOOD CHIPS OR GROUND BARK SHOULD BE APPLIED TO A THICKNESS OF 2 TO 6 INCHES.
19. WOOD CHIPS OR GROUND BARK SHOULD BE APPLIED AT A RATE OF 10 TO 20 TONS PER ACRE OR 460 TO 920 POUNDS PER 1,000 SQUARE FEET.

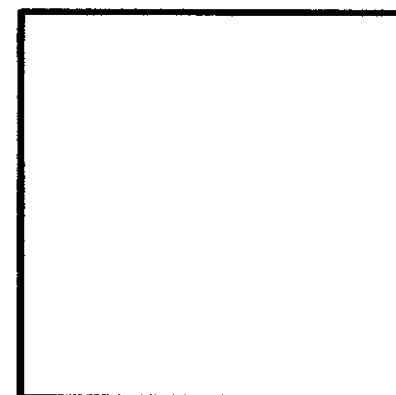
- EROSION CONTROL MIX:**
20. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

21. COMPOSITION OF THE EROSION CONTROL MIX SHOULD BE AS FOLLOWS:
 - EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 25 AND 65% DRY WEIGHT BASIS.
 - PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 3" SCREEN, 90% TO 100% PASSING A 1-INCH SCREEN, 70% TO 100% PASSING A 0.75-INCH SCREEN, AND A MAXIMUM OF 30% TO 75% PASSING A 0.25-INCH SCREEN.
 - THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
 - THE MIX SHOULD NOT CONTAIN SILTS, CLAYS OR FINE SANDS.
 - SOLUBLE SALTS CONTENT SHOULD BE < 4.0 MMHOS/CM.
 - THE PH SHOULD BE BETWEEN 5.0 AND 8.0.

22. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
23. THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE.

WINTER CONSTRUCTION NOTES

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCT. 15TH, OR WHICH ARE DISTURBED AFTER OCT. 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCT. 15TH, OR WHICH ARE DISTURBED AFTER OCT. 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
3. AFTER NOV. 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.



REV.	DATE	DESCRIPTION	BY
C	06/22/17	REVISED PER NHDES COMMENTS	BT
A	05/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	BT
REV.	DATE	DESCRIPTION	BY
REVISIONS			

GN-4: VEGETATION STABILIZATION NOTES

ALL VEGETATION STABILIZATION SHALL BE IN ACCORDANCE WITH USDA NRCS "VEGETATING NEW HAMPSHIRE SAND AND GRAVEL PITTS", IN ADDITION TOO "BEST MANAGEMENT PRACTICES FOR ROUTINE ROADWAY MAINTENANCE ACTIVITIES IN NEW HAMPSHIRE", LATEST EDITIONS.

PARK SEED TYPE 15 SHALL NORMALLY BE USED ON LOAM AREAS. THIS SEED MIXTURE SHALL CONFORM TO TABLE 1 UNLESS AMENDED BY THE PROJECT ENGINEER TO SUIT ACTUAL FIELD CONDITIONS.

KIND OF SEED	TABLE 1		POUNDS/ACRE
	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	
CREeping FESCUE	96	85	40
PERENNIAL RYEGRASS	98	90	50
KENTUCKY BLUEGRASS	97	85	25
REDTOP	95	80	5
TOTAL			120

SLOPE SEED TYPE 44 SHALL NORMALLY BE USED FOR ALL SLOPE WORK, AND SHALL CONFORM TO TABLE 2 UNLESS AMENDED BY THE DESIGN ENGINEER TO SUIT ACTUAL FIELD CONDITIONS.

KIND OF SEED	TABLE 2		POUNDS/ACRE
	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	
CREeping RED FESCUE	96	85	35
PERENNIAL RYEGRASS	98	90	30
REDTOP	95	80	5
ALSIKE CLOVER	97	90	5
BIRDSFOOT TREFOIL	98	80	5
TOTAL			80

SEEDING SEASON:

1. SEEDBED PREPARATION
 - A. ALL AREAS TO BE SEEDED SHALL BE A REASONABLY FIRM, BUT FRIABLE.
 - B. SURFACE and SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING.
 - C. THE SEEDBED SHOULD BE LEFT IN A REASONABLY FIRM AND SMOOTH CONDITION, FOLLOWING SEEDING OPERATIONS.
 - D. ALL AREAS TO BE SEEDED SHALL MEET THE SPECIFIED GRADES, AS SPECIFIED ON THE APPROVED PLAN.
 - E. ALL VEGETATION SHALL BE INSPECTED ANNUALLY FOR UNHEALTHY or DEAD AREAS. ANY and ALL SUCH AREAS ARE TO BE REPAIRED or REPLACED IN KIND.
2. ESTABLISHING A STAND
 - A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL. KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
 - AGRICULTURAL LIMESTONE: 2 TONS PER ACRE OR 0.09 LBS. PER SQ. FT.
 - NITROGEN (N): 50 LBS. PER ACRE OR 1.1 LBS. PER 1000 SQ. FT.
 - PHOSPHATE (P₂O₅): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.
 - POTASH (K₂O): 100 LBS. PER ACRE OR 2.2 LBS. PER 1000 SQ. FT.(NOTE: THIS IS THE EQUIVALENT OF 500 LBS. PER ACRE OF 10-20-20 FERTILIZER OR 1,000 LBS. PER ACRE OF 5-10-10)
 - B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING, AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH 0.25 INCH O SOIL OR LESS, BY CULTIPACKING OR RAKING.
3. MULCH
 - A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
 - B. MULCH WILL BE HELD IN PLACE USING TECHNIQUES FROM THE "BEST MANAGEMENT PRACTICE FOR MULCHING", AS SHOWN IN "STORMWATER MANAGEMENT AND SEDIMENTATION CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".
4. MAINTENANCE TO ESTABLISH A STAND
 - A. PLANTED AREAS SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
 - B. FERTILIZATION WILL BE PERFORMED ANNUALLY IN ACCORDANCE WITH NOTE 2A.
 - C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING or TRIMMING WILL BE PERFORMED ANNUALLY TO CONTROL GROWTH.
- B. ALL VEGETATION SHOULD BE INSPECTED REGULARLY and AFTER EVERY MAJOR RAIN EVENT (≥ 5"/24 hr). DAMAGED AREAS SHOULD BE REPAIRED AND RE-VEGETATED IMMEDIATELY.

EROSION CONTROL DETAILS "TANGLEWOOD"

CANDIA TAX MAP 414
LOTS 152 & 152-10
CHESTER TAX MAP 11
LOTS 30 & 30-7
CROWLEY ROAD
CANDIA &
CHESTER NH

OWNER OF RECORD:

DAR BUILDERS LLC

305 MASSABESIC STREET, MANCHESTER, NH 03103

FEBRUARY 7, 2017

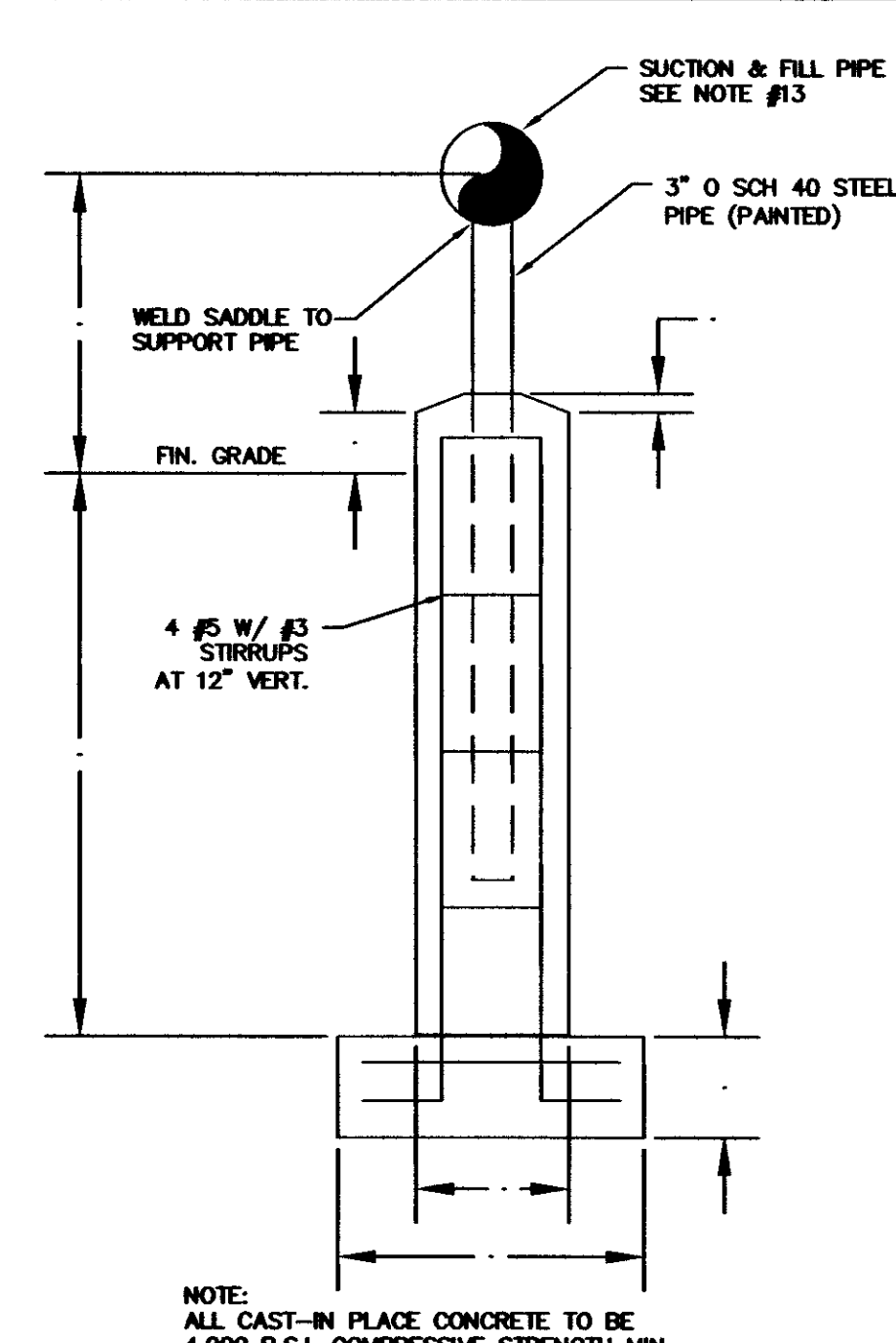
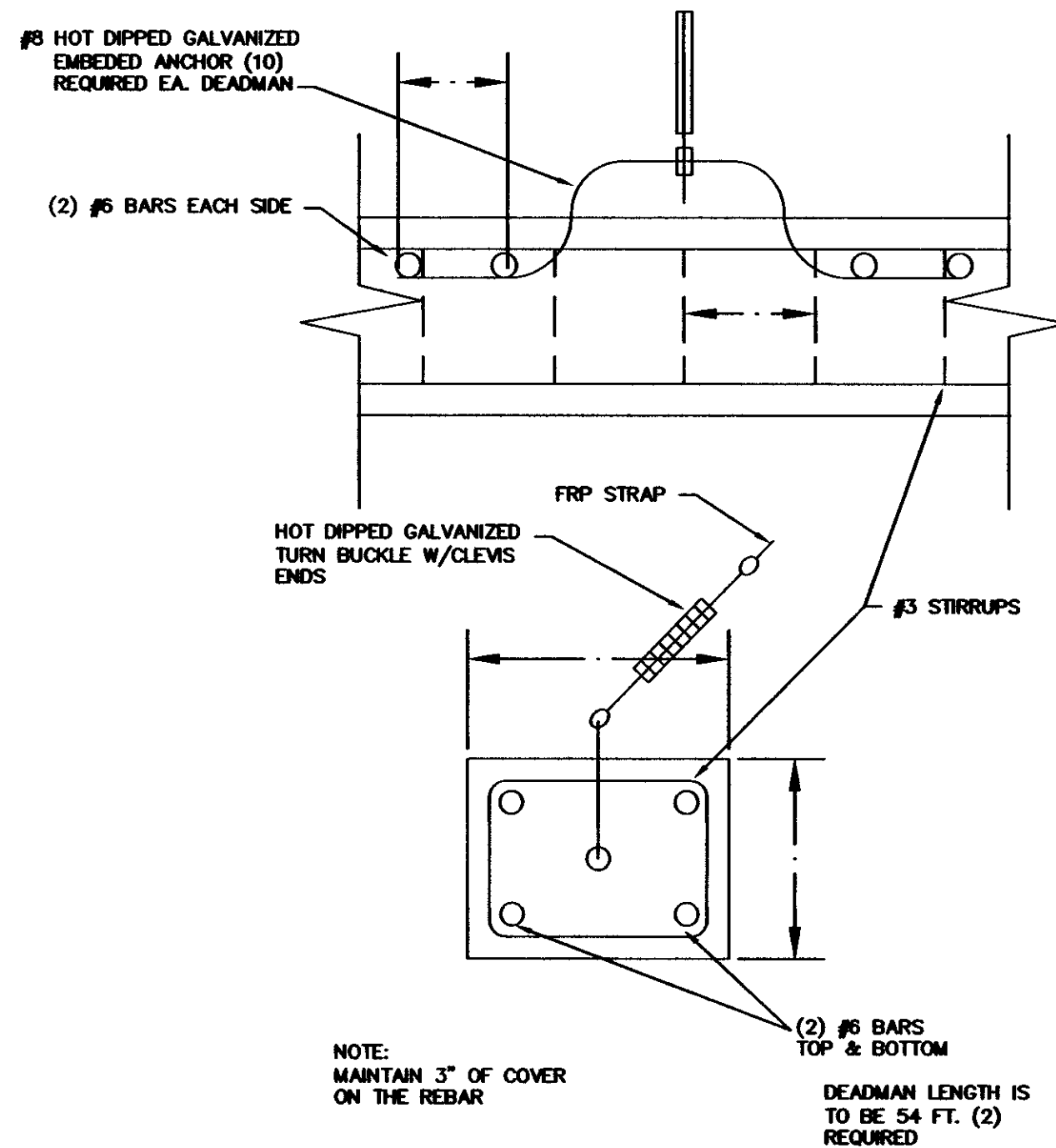
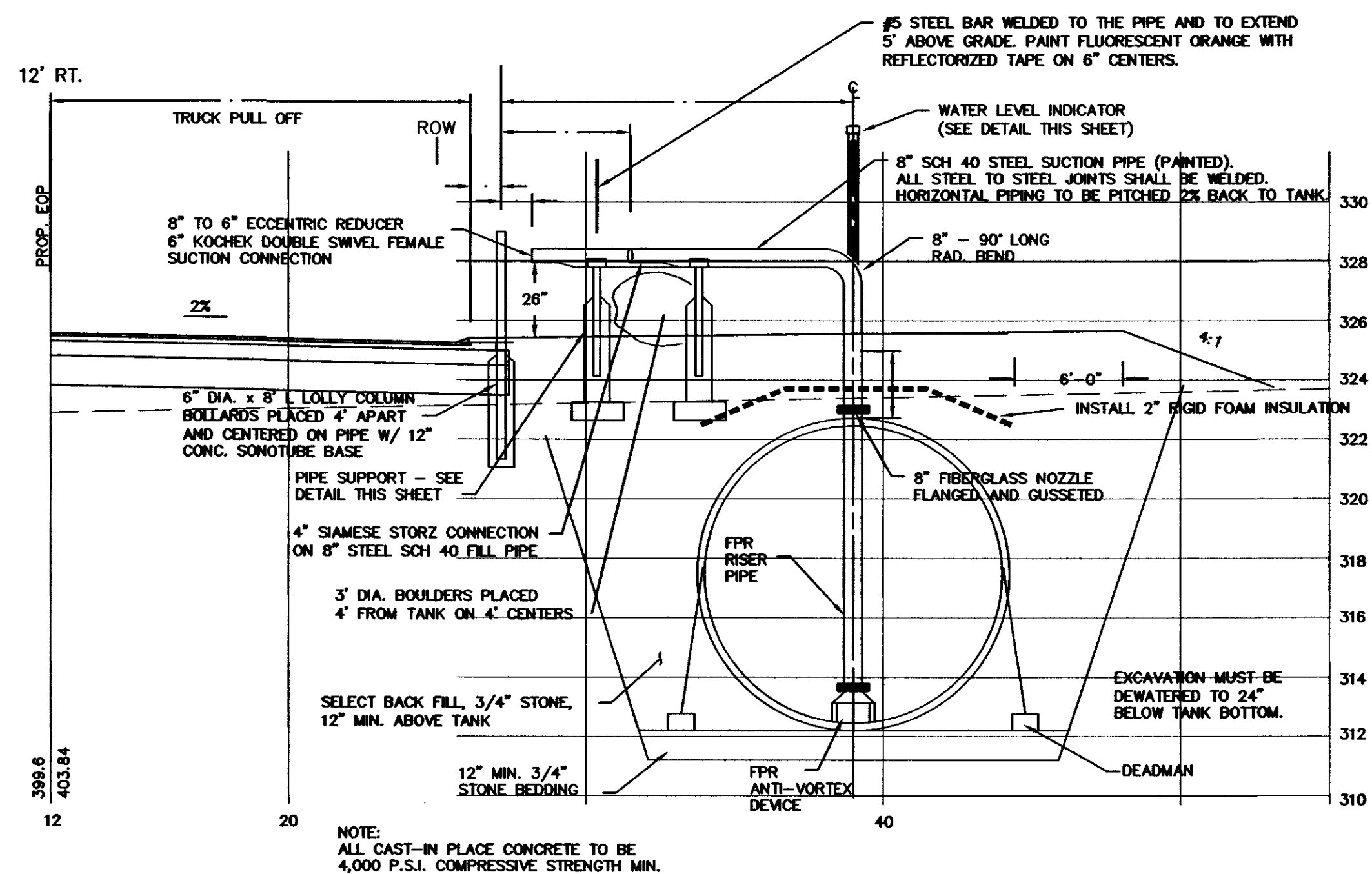
NO SCALE
PREPARED BY:

ERIC C. MITCHELL & ASSOC. INC.
PLANNING - SURVEYING - ENGINEERING - ENVIRONMENTAL
P.O. BOX 10298, 106 SO. RIVER RD., BEDFORD NH. 03110-0298
PH. (603) 627-1181

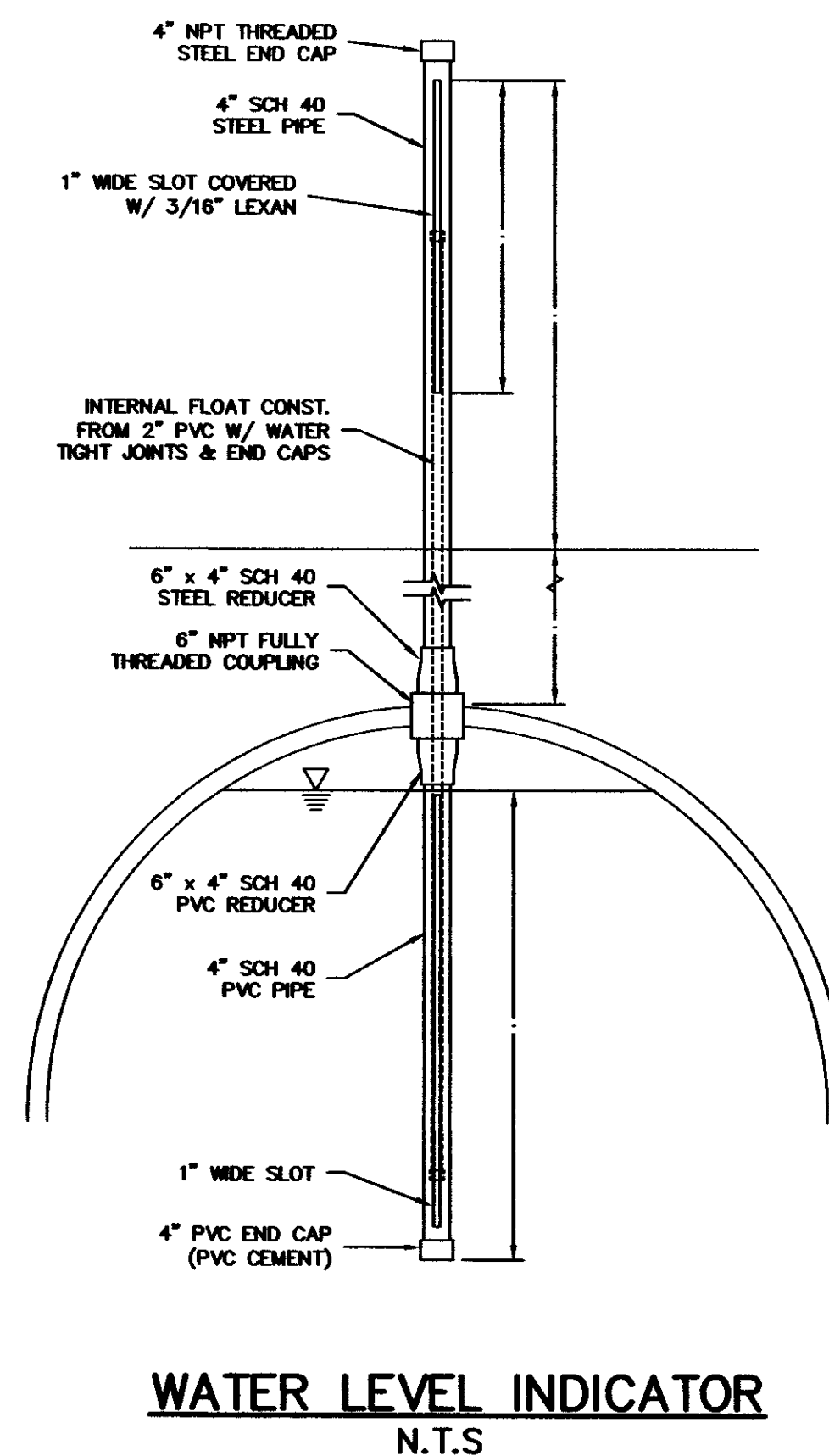
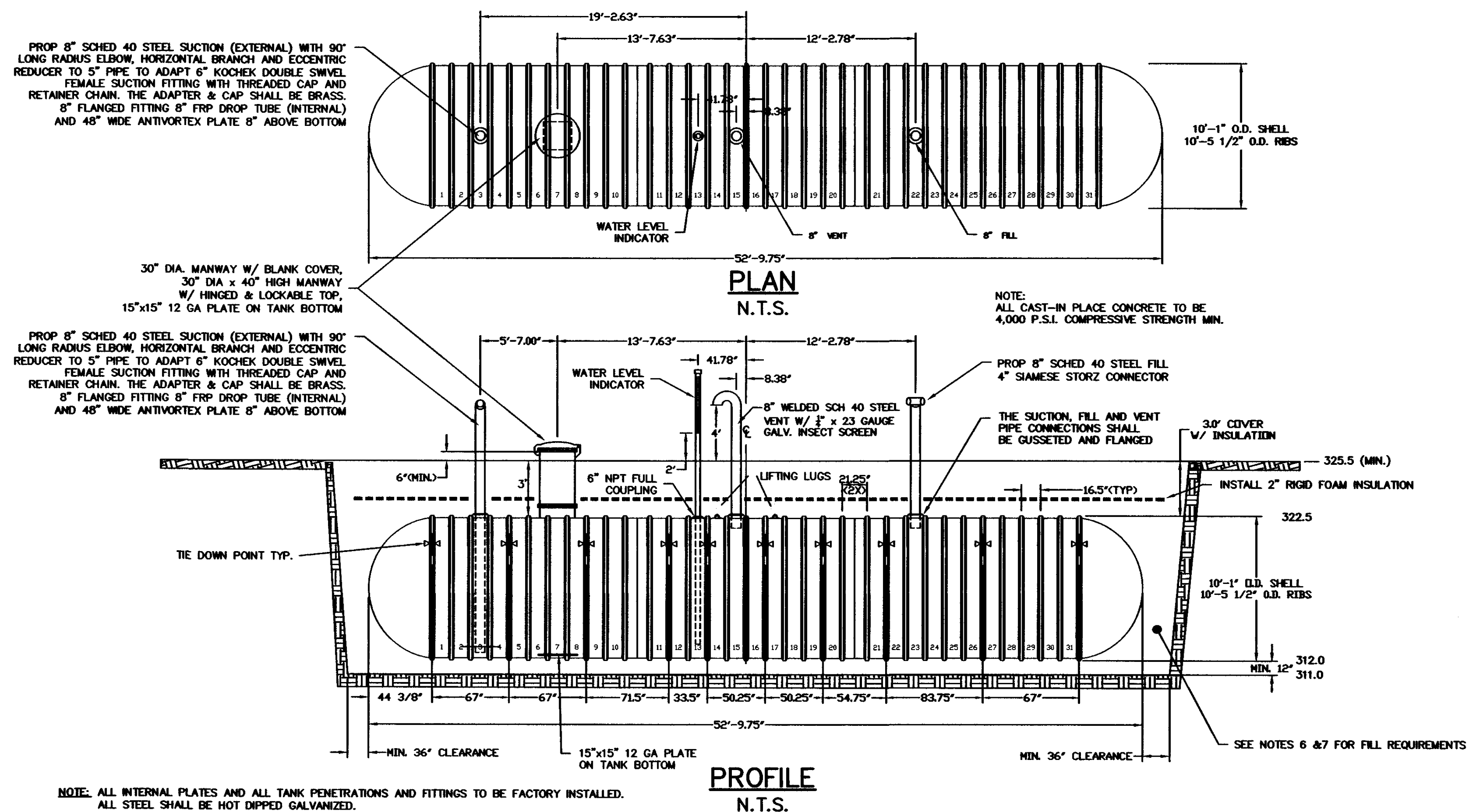
SHEET 36 OF 37

REV: E | DWG: DETAILS | FLD: BK/PG: | JOB NO. (2)15-36





- GENERAL NOTES:**
- SEE ALSO CONSTRUCTION CRITERIA AND STRUCTURAL NOTES
1. SUCTION AND FILL PIPES SHALL SLOPE A $\frac{1}{4}$ " PER FOOT BACK TO TANK.
 2. ALL STEEL PIPES TO BE ASTM SCH 40 UNLESS OTHERWISE STATED. ALL BELOW-GRADE CISTERN PIPING SHALL BE COATED WITH ONE APPLICATION OF CH1000. ABOVE GROUND CISTERN PIPING SHOULD BE PAINTED "SAFETY RED"; BOLLARDS ARE TO BE PAINTED "SAFETY YELLOW"; BOTH SHALL BE PAINTED WITH DURA CLAD 85 RUST INHIBITIVE EPOXY PRIMER, SHERWIN WILLIAMS #6018-39384, 6.0 MILS THICK. TOPCOAT SHALL BE MACROPOXY 646 FAST CURE EPOXY, SHERWIN WILLIAMS #6012-22516, 10.0 MILS THICK. FINAL COAT SHALL BE DIAMOND-CLAD URETHANE CLEAR COAT, 4 MILS THICK SHERWIN WILLIAMS #6403-11882.
 3. EXCAVATION OF LEDGE (IF NEEDED) WILL BE SLOPED TO DRAIN AND PVC DRAINS SHALL BE INSTALLED, TO PROVIDE POSITIVE DRAINAGE AROUND THE TANK AND AWAY FROM THE SITE.
 4. DRAFT PIPE SHALL BE EQUIPPED WITH A 6" KOCHER DOUBLE SWIVEL FEMALE SUCTION CONNECTION SET 26" ABOVE STREET GRADE REQUIRED.
 5. A MANHOLE WITH PROVISION FOR PADLOCKING SHALL BE PROVIDED BY THE INSTALLER (SEE DETAIL). KNOX PADLOCK TYPE AS REQUIRED BY CHESTER FIRE DEPT.
 6. BEDDING FOR THE CISTERN SHALL BE A MINIMUM THICKNESS OF 12" OF WASHED PEA STONE, COMPACTED. NO FILL SHALL BE PLACED BENEATH THE STONE. BEDDING MUST EXTEND EIGHTEEN INCHES MINIMUM PAST THE CISTERN.
 7. ROUNDED PEA STONE SHALL BE 1/8" TO 3/8" . SUPPLIER SHALL CERTIFY THAT THE MATERIAL MEETS ASTM C-33 SPECIFICATIONS.
 8. TANK CAPACITY ABOVE ANTIVORTEX PLATE SHAL BE 30,000 GALLONS MINIMUM.
 9. ALL FLANGES SHALL CONFORM TO ANSI B16.5 150 LBS BOLTING PATTERN.
 10. TANK INSTALLATION SHALL MEET ALL MANUFACTURER'S GUIDELINES AND RECOMMENDATIONS.
 11. EXCAVATION FOR THE TANK SHALL MEET ALL RELAVENT OSHA REQUIREMENTS. DETAILS SHOW ONLY MINIMUM REQUIREMENTS FOR TANK PLACEMENT. NO RECOMMENDATION FOR SIDESLOPES IS IMPLIED.
 12. ANTI VORTEX PLATE TO BE INSTALLED BY TANK MANUFACTURER TO XERXES MOST RECENT STANDARDS.
 13. THE MANWAY EXTENSION AND COVER SHALL BE CONSTRUCTED OF FIBERGLASS AND SUPPLIED BY TANK MANUFACTURER.
 14. ASSUMING GROUNDWATER AT FINAL GRADE:
WGT OF TANK = 9,400# TANK
WET SOIL ABOVE TANK = 2.0'x10'x55.8'x(120-62.4)PCF = 64,281# DOWN
SOIL ABOVE TANK CURVE = 9.75'x55.8'x(120-62.4)PCF = 31,176# DOWN
SOIL ABOVE DEADMAN = 2x2'x54'x11.5'x(120-62.4)PCF = 143,078# DOWN
DEADMAN WEIGHT = 2'x1.5'x108'x(150-62.4)PCF = 28,382# DOWN
TOTAL DOWN FORCE = DEADMAN + TANK + SOIL = 276,317# DOWN
UPFORCE = 30,590 GAL x 8.34 #/GAL = 255,120# UP
NET FORCE = 21,197# DOWN
 15. THE TOWN OF CHESTER HAS A ZERO ALLOWABLE 2 WEEK LEAKAGE TEST AND REQUIRES 1,000 GALLONS PER MINUTE FLOW TEST. THE LEAKAGE TEST WILL BE MONITORED BY THE TOWN'S CONSULTING ENGINEER, AND THE FLOW TEST WILL BE PERFORMED BY THE CHESTER FIRE DEPARTMENT.
 16. THE CONTRACTOR SHALL FILL THE TANK BEFORE AND AFTER THE FLOW TEST.
 17. THE CISTERN SHALL BE WARANTEED FOR A MINIMUM OF TWO (2) YEARS FROM THE MANUFACTURER. A COPY OF THE WARRANTY WILL BE PROVIDED TO THE FIRE DEPARTMENT.
 18. THE CONTRACTOR SHALL PROVIDE A DOCUMENTATION (CUT SHEET) THAT THE CISTERN CONFORMS TO UL-13-16.
 19. ALL SUBMITTAL AND DESIGN REQUIREMENTS SHALL CONFORM TO SECTION 9.14 OF THE TOWN OF CHESTER SUBDIVISION REGULATIONS, INCLUDING; REQUIRING SHOP DRAWINGS BE PROVIDED TO THE TOWN FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF TANK, ALSO ALL HORIZONTAL PIPING MUST BE PITCHED BACK TO THE TANK AT A SLOPE OF 2%.
 20. THE CONTRACTOR SHALL INSTALL A NO PARKING SIGN ON EACH END OF THE TRUCK APRON TO INDICATE NO PARKING IN TRUCK PULL OFF.



A	05/22/17	ADDRESS ENGINEERING REVIEW COMMENTS	B
REV.	DATE	DESCRIPTION	B
REVISIONS			



FIRE CISTERN DETAILS
"TANGLEWOOD"
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