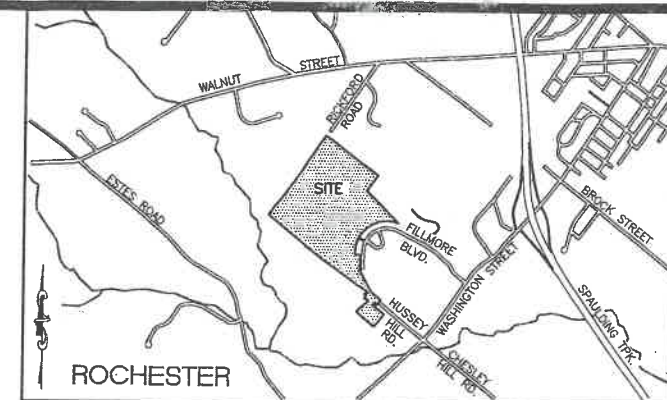


VICINITY PLAN
NOT TO SCALE

RESIDENTIAL SUBDIVISION PLAN HIGHFIELD COMMONS PHASE 1B(A) MAP 237 LOT 3 FILLMORE BOULEVARD ROCHESTER, NEW HAMPSHIRE



VICINITY MAP
SCALE: 1" = 2,000'

ABUTTERS LIST

MAP 237 LOT 1-1
DONALD N. JR. & PAULA MCCALLION
7 JODI LANE
STRAFFORD, NH 03884

MAP 237 LOT 3-1
GARY & SHARON HUSSEY
24 HUSSEY HILL ROAD
ROCHESTER, NH 03867-4205

MAP 237 LOT 4
WOODBURY C. ARGEREOW, JR.
23 HUSSEY HILL ROAD
ROCHESTER, NH 03867

MAP 237 LOT 5
JOSEPH J. MIGLIORE, III &
ANGELES GETINO DIAZ
183 WASHINGTON STREET
ROCHESTER, NH 03839-5506

MAP 237 LOT 6
STATE OF NEW HAMPSHIRE
JOHN MORTON BUILDING
PO BOX 483
CONCORD, NH 03301

MAP 237 LOT 6-1
WASHINGTON STREET PARTNERS, LLC
c/o CHESAPEAKE DEVELOPMENT
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054

MAP 237 LOT 6-2
STATE OF NEW HAMPSHIRE
JOHN MORTON BUILDING
PO BOX 483
CONCORD, NH 03301

MAP 237 LOT 7
JONATHAN W. & HOLLY A. CLEMENT
30 BICKFORD ROAD
ROCHESTER, NH 03867-4288

MAP 236 LOT 1
GARY & ROBYNN JEWELL
73 BICKFORD ROAD
ROCHESTER, NH 03867-4272

MAP 236 LOT 18
ROBERT A. & SUSAN COPP SILVA
129 ESTES ROAD
ROCHESTER, NH 03867-4233

MAP 236 LOT 19
SCOTT & PAULA WENSLEY
125 ESTES ROAD
ROCHESTER, NH 03867-4248

MAP 236 LOT 20
GERALD & LORI CHASSE
123 ESTES ROAD
ROCHESTER, NH 03867-4233

MAP 230 LOT 8
JAMES L. & SUZANNE H. THOMAS
25 BICKFORD ROAD
ROCHESTER, NH 03867-4272

MAP 246 LOTS 3 & 4
CHESLEY HILL PARTNERS LLC
260 WASHINGTON STREET
ROCHESTER, NH 03839-5426

MAP 246 LOT 5
CITY OF ROCHESTER
31 WAKEFIELD STREET
ROCHESTER, NH 03867-1916

MAP 246 LOT 7
BETTY BAUN
10 HUSSEY HILL ROAD
ROCHESTER, NH 03867-4205

MAP 246 LOT 8
CHARLES W. HUSSEY & BETTY BAUN
10 HUSSEY HILL ROAD
ROCHESTER, NH 03867-4205

MAP 247 LOTS 54 & 55
DAVID & JUDITH ROBBINS
111 ESTES ROAD
ROCHESTER, NH 03867

MAP 247 LOT 58
JULIE A. & ANDREW M. BRITTON
14 VINEWOOD LANE
ROCHESTER, NH 03867

MAP 247 LOT 59
RYAN M. & CRYSTAL TANGUY
85 ESTES ROAD
ROCHESTER, NH 03867

MAP 247 LOT 61
DWIGHT MEADER
71 ESTES ROAD
ROCHESTER, NH 03867-4232

MAP 130 LOT 39
ARTHUR & VICKI WALKER
174 WASHINGTON STREET
ROCHESTER, NH 03839-5504

MAP 130 LOT 40
RONALD & PATRICIA LECLAIR
176 WASHINGTON STREET
ROCHESTER, NH 03839-5504

MAP 130 LOT 42
PUBLIC SERVICE OF NH
DBA EVERSOURCE ENERGY
PO BOX 270
HARTFORD, CT 06141-0270

MAP 130 LOT 43-1
ROUTE 202, LLC
c/o JEAN M. KANE
117 BOW STREET
PORTSMOUTH, NH 03801

MAP 237A LOT 3-141
ED POTTBERG
72 FILLMORE BLVD
ROCHESTER, NH 03867-4497

MAP 237A LOT 3-142
KENNETH MC MORRIS JR.
76 FILLMORE BLVD
ROCHESTER, NH 03867-4497

MAP 237A LOT 3-143
WILLIAM & SHERRILL WOODY
1751 STATE ROUTE 32
ROUND POND, ME 04564-3607

MAP 237A LOT 3-144
MICHAEL MCCANN &
CHRISTINE CALOGER
82 FILLMORE BOULEVARD
ROCHESTER, NH 03867-4497

MAP 237A LOT 3-146
HUNG & ANGELA NGUYEN
6 PIERCE DRIVE
ROCHESTER, NH 03867-4495

MAP 237A LOT 3-147
ERIC SIRLES REVOCABLE TRUST
c/o ERIC SIRLES, TRUSTEE
30 PARKER STREET
PORTSMOUTH, NH 03801-3934

MAP 237A LOT 3-148
CHRISTOPHER & MICHELLE
CARLO-JONES
14 PIERCE DRIVE
ROCHESTER, NH 03867-4495

MAP 237A LOT 3-149
DAWNE H. WIMBROW
16 PIERCE DRIVE
ROCHESTER, NH 03867-4495

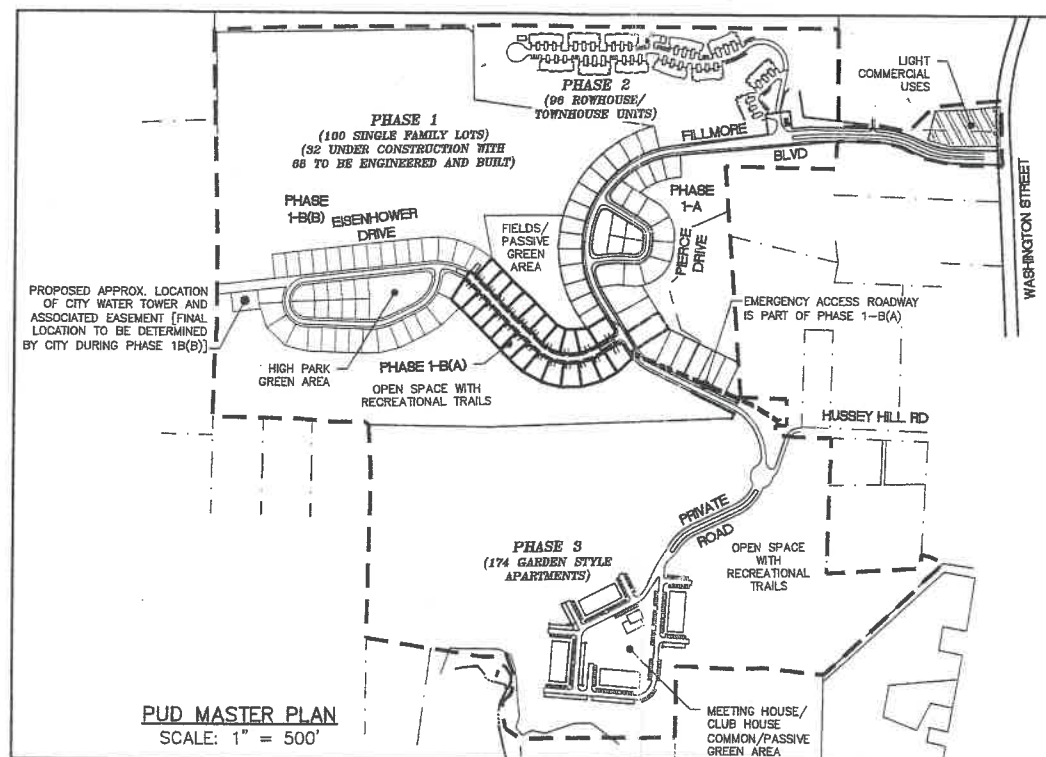
MAP 237A LOT 3-150
JOSEPH & PHYLLIS BOUDREAU
20 PIERCE DRIVE
ROCHESTER, NH 03867-4495

MAP 237A LOT 3-158
RUDOLF & JANET MAIR
5 PIERCE DRIVE
ROCHESTER, NH 03867-4495

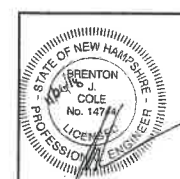
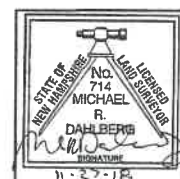
MAP 237A LOT 3-161
NATHANIEL & SANDRA BYRNE
118 FILLMORE BLVD.
ROCHESTER, NH 03867

MAP 246 LOT 1
MICHAEL R. GAUTHIER
259 WASHINGTON STREET
ROCHESTER, NH 03839-5426

MAP 246 LOT 2
RICHARD & NORMA HESLTON
251 WASHINGTON STREET
ROCHESTER, NH 03839-5426



PUD MASTER PLAN
SCALE: 1" = 500'



KMA
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

MAY 29, 2018

LAST REVISED: OCTOBER 24, 2018

PROJECT NO. 17-0417-3

SHEET TITLE

LOT CONSOLIDATION PLAN

OVERVIEW PLAN

RESIDENTIAL SUBDIVISION PLAN

TOPOGRAPHIC SUBDIVISION PLAN

ROADWAY PLAN

ROADWAY PROFILE

GRADING, DRAINAGE & EROSION CONTROL PLAN

UTILITY PLAN

STOCKPILE PLAN

LANDSCAPE & LIGHTING PLAN

PROFILES

SIGHT DISTANCE PLAN & PROFILE

CONSTRUCTION DETAILS

CROSS SECTIONS

PHASING PLANS

SHEET No.

1

2

3 - 5

6 - 8

9 & 10

11 & 12

13 - 15

16

17

18

19 & 20

21

22 - 29

X1 - X4

P1 - P2

OWNER/APPLICANT:

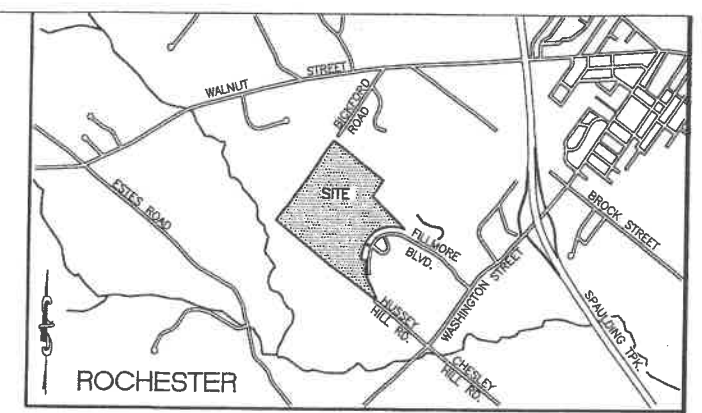
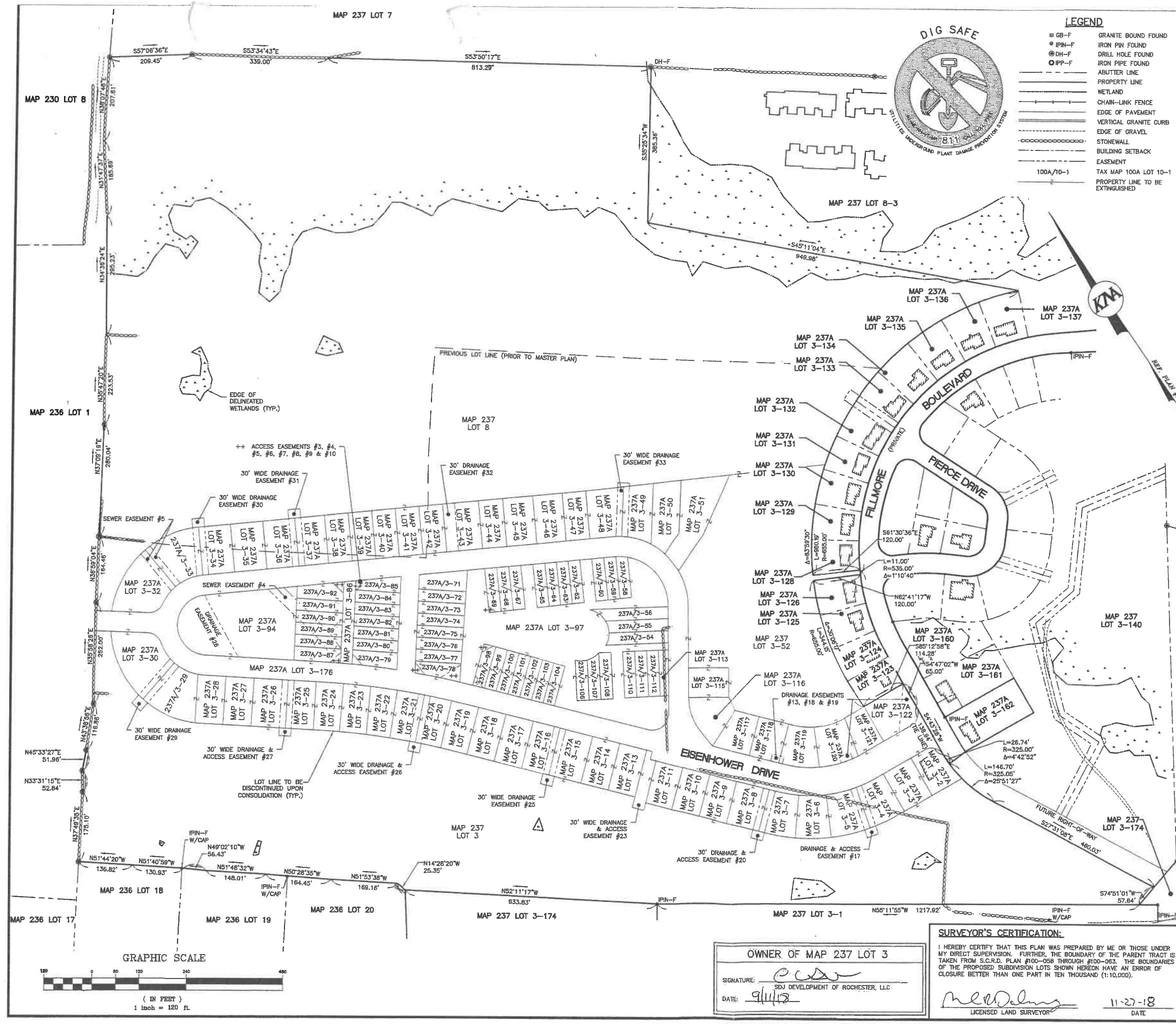
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NEW HAMPSHIRE 03054-2700

PREPARED BY:

KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3B
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2881

200# 117-71 thru 74

Certified 10/19/2018 by [Signature] Seth Creighton Chief Planner



- REFERENCE PLANS:**
- REVISED SUBDIVISION PLAN OF HIGHFIELD COMMONS, PHASE 1, OWNED BY: 183 WASHINGTON STREET, LLC. TAX MAP 237 LOTS 8 & 3, WASHINGTON STREET, ROCHESTER, NEW HAMPSHIRE. PREPARED BY: JOSEPH M. WICHERT, L.L.S., INC. S.C.R.D. PLAN #100-058 THROUGH 100-063.
- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO: CONSOLIDATE MAP 237A LOTS 3-2 TO 3-11, 3-13 TO 3-30, 3-32 TO 3-51, 3-54 TO 3-66, 3-68 TO 3-80, 3-82 TO 3-85, 3-87 TO 3-89, 3-91 TO 3-92, 3-94, 3-97 TO 3-104, 3-106 TO 3-108, 3-110 TO 3-113, 3-115 TO 3-122, 3-124 TO 3-126 AND MAP 237 LOTS 3 & 8 TO CREATE ONE SINGLE LOT 237 LOT 3 TOTALING 3,909,756 SF OR 89.756 ACRES, AND NO OTHER PURPOSE.
 - PARCELS LISTED IN NOTE #1 AND AS SHOWN ON THE PLAN INDICATE THE CITY OF ROCHESTER'S MAP AND LOT NUMBERS.
 - PRESENT OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC. c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453
 - THE SUBJECT PARCELS ARE LOCATED WITHIN THE AGRICULTURAL ZONING DISTRICT (AG) AND THE PLANNED UNIT DEVELOPMENT-2 (PUD-2) OVERLAY DISTRICT. THE PROPERTY IS SUBJECT TO THE FOLLOWING PUD STANDARDS OF DEVELOPMENT:

PERCENT MINIMUM OPEN SPACE	20%
PERCENT PUD SITE COVERAGE	50%
MAXIMUM DENSITY	370 TOTAL UNITS
MAXIMUM BUILDING HEIGHT	4 STORES
FRONT YARD SETBACK	15 FEET
SIDE/REAR YARD SETBACK	5 FEET
 - BOUNDARY INFORMATION SHOWN HEREON PER REFERENCE PLAN #1.
 - TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AERIAL PHOTOGRAMMETRY PROVIDED BY WICHERT LAND SURVEYING. LIMITED TOPOGRAPHIC SURVEY WAS CONDUCTED IN APRIL AND AUGUST OF 2018. DELINEATED LIMITS SHOWN ON TOPOGRAPHIC PLANS.
 - THE WETLANDS WERE DELINEATED AND/OR FIELD VERIFIED IN NOVEMBER OF 2017 BY CINDY BALCIUS, CWS #61 OF STONEY RIDGE ENVIRONMENTAL, LLC.
 - SITE-SPECIFIC SOIL MAPPING WAS COMPLETED BY CYNTHIA M. BALCIUS, NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST #82 OF STONEY RIDGE ENVIRONMENTAL LLC IN MAY AND SEPTEMBER OF 2018.
 - EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF ROCHESTER, NEW HAMPSHIRE, STRAFFORD COUNTY, MAP NUMBER 3307C0195D, PANEL NUMBER 195 OF 405, EFFECTIVE DATE: MAY 17, 2005, INDICATES THAT THE SUBJECT PARCELS ARE LOCATED WITHIN ZONE X.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
 - FOR MORE INFORMATION ABOUT THIS PLAN, OR TO SEE A COMPLETE PLAN SET, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 31 WAKEFIELD STREET, ROCHESTER, NH 03607, (603) 335-1338.
 - ALL EXISTING EASEMENTS APPURTENANT AND LABELED ON THIS SHEET ARE TO BE EXTINGUISHED IN CONJUNCTION WITH THE CONSOLIDATION OF THE PARCELS INTO MAP 237 LOT 3.

DATE RECORDED: _____ S.C.R.D.# _____

APPROVED BY THE ROCHESTER PLANNING BOARD ON _____ DATE _____

SIGNED BY _____ NAME _____ POSITION _____

LOT CONSOLIDATION PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

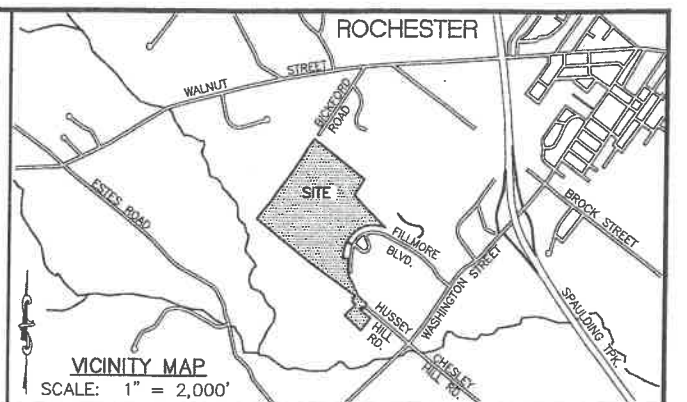
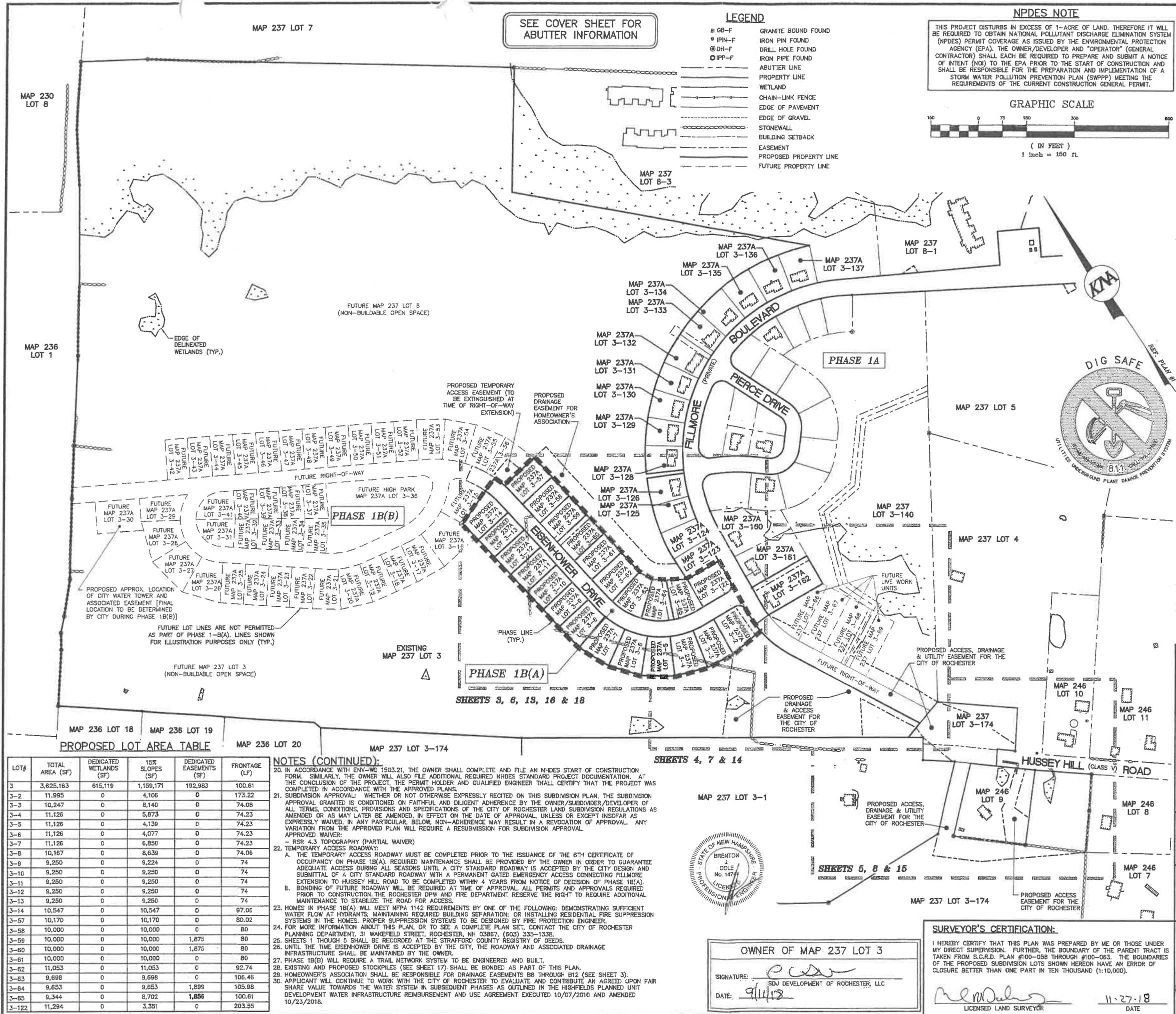
APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	B/C

DATE: MAY 29, 2018 SCALE: 1" = 120'
PROJECT NO: 17-0417-3 SHEET 1 OF 29



- REFERENCE PLANS:**
- REVISED SUBDIVISION PLAN OF HIGHFIELD COMMONS, PHASE I, OWNED BY: 183 WASHINGTON STREET, LLC, TAX MAP 237 LOTS 8 & 3, WASHINGTON STREET, ROCHESTER, NEW HAMPSHIRE. PREPARED BY: JOSEPH M. WICKERT, L.L.S., INC. S.C.R.D. PLAN #100-058 THROUGH 100-063.
- NOTES:**
- THE PURPOSE OF THIS PLAN IS AS FOLLOWS:
 - SUBDIVIDE TO CREATE A 23 LOT SUBDIVISION AS SHOWN OFF EISENHOWER DRIVE;
 - APPROVE MAP 237A LOT 3-162;
 - PLAT EISENHOWER DRIVE TO THE EXTENT SHOWN;
 - DEPict THE FUTURE SUBDIVISION OF REMAINING LOT 3 TO CREATE 40 ADDITIONAL SINGLE FAMILY LOTS IN FUTURE PHASE 1B(B); AND
 - PLAT VARIOUS EASEMENTS ON TAX MAP 237 LOTS 3-140 AND 3-174, AND MAP 246 LOT 9.
 - PARCELS LISTED IN NOTE #1 AND AS SHOWN ON THE PLAN INDICATE THE CITY OF ROCHESTER'S MAP AND LOT NUMBER
 - EXISTING PARCEL AREA = 3,909,756 SF, OR 89,756 ACRES.
 - PRESENT OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453
 - THE SUBJECT PARCELS ARE LOCATED WITHIN THE AGRICULTURAL ZONING DISTRICT (AG) AND THE PLANNED UNIT DEVELOPMENT-2 (PUD-2) OVERLAY DISTRICT. THE PROPERTY IS SUBJECT TO THE FOLLOWING PUD STANDARDS OF DEVELOPMENT:

	20%
PERCENT MINIMUM OPEN SPACE	20%
PERCENT PUD SITE COVERAGE	50%
MAXIMUM DENSITY	370 TOTAL UNITS
MAXIMUM BUILDING HEIGHT	4 STORIES
FRONT YARD SETBACK	15 FEET
SIDE/REAR YARD SETBACK	5 FEET
 - BOUNDARY INFORMATION SHOWN HEREON PER REFERENCE PLAN #1.
 - TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON AERIAL PHOTOGRAMMETRY PROVIDED BY WICKERT LAND SURVEYING. AS INDICATED ON THE REFERENCED PLAN, TOPOGRAPHY FROM AERIAL SURVEY WAS CONDUCTED ON MAY 5, 2002. LIMITED TOPOGRAPHIC SURVEY WAS CONDUCTED IN APRIL AND AUGUST OF 2016 BY KNA. DELINEATED LIMITS SHOWN ON TOPOGRAPHIC PLANS.
 - ON OCTOBER 1, 2018 THE PLANNING BOARD GRANTED A WAIVER FROM SUBDIVISION REGULATION 4.3
 - THE WETLANDS WERE DELINEATED AND/OR FIELD VERIFIED IN NOVEMBER OF 2017 BY CINDY BALCUS, CWS #81 OF STONEY RIDGE ENVIRONMENTAL LLC.
 - SITE-SPECIFIC SOIL MAPPING WAS COMPLETED BY CYNTHIA M. BALCUS, NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST #82 OF STONEY RIDGE ENVIRONMENTAL LLC IN MAY OF 2018.
 - EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF ROCHESTER, NEW HAMPSHIRE, STRAFFORD COUNTY, MAP NUMBER 33017001950, PANEL NUMBER 195 OF 405, EFFECTIVE DATE: MAY 17, 2005, INDICATES THAT THE SUBJECT PARCELS ARE LOCATED WITHIN ZONE X.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
 - PARCELS ARE SERVICED BY MUNICIPAL SEWER AND WATER UTILITIES.
 - THIS PLAN SHALL SUPERSEDE PORTIONS OF REFERENCE PLAN #1.
 - ALL WORK TO BE DONE IN CONFORMANCE WITH THE CITY OF ROCHESTER REGULATIONS. ALL ROAD, STRUCTURES, AND DRAINAGE TO MEET CITY OF ROCHESTER SPECIFICATIONS.
 - MONUMENTATION SHALL BE PROVIDED IN ACCORDANCE WITH RSR 6.1. A LETTER STATING SUCH IS REQUIRED TO BE SUBMITTED TO THE CITY BY THE SURVEYOR.
 - SURITIES AND INSPECTION FEES SHALL BE ESTABLISHED AS OUTLINED IN RSR 6.7.
 - CONTRACTORS AND SUBCONTRACTORS SHALL MAINTAIN THE SITE IN ACCORDANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT AND ASSOCIATED SWPPP THROUGHOUT THE DURATION OF CONSTRUCTION (PREPARED BY OTHERS).
 - EISENHOWER DRIVE IS SPECIFICALLY DESIGNED AND INTENDED FOR FUTURE ACCEPTANCE BY THE CITY.
 - THE FOLLOWING LOCAL, STATE AND FEDERAL PERMITS ARE REQUIRED FOR THIS PROJECT:

PERMIT NUMBER	APPROVAL DATE	EXPIRES
NHDES ALTERATION OF TERRAIN PERMIT	Ad-1522	11/28/2018
NHDES SEWER CONNECTION PERMIT	D2018-1011	11/06/2018
NPDES NOTICE OF INTENT		11/06/2021

DATE RECORDED: _____ S.C.R.D.# _____

APPROVED BY THE ROCHESTER PLANNING BOARD ON _____ DATE _____

SIGNED BY _____ NAME _____ POSITION _____

OVERVIEW PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

KNA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 5B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018 SCALE: 1" = 150'

PROJECT NO: 17-0417-3 SHEET 2 OF 29

PROPOSED LOT AREA TABLE				
LOT#	TOTAL AREA (SF)	DEDICATED WETLANDS (SF)	15% SLOPES (SF)	FRONTAGE (LF)
3	3,625,163	615,119	1,159,171	192,983
3-2	11,995	0	4,106	173.22
3-3	10,247	0	8,140	74.08
3-4	11,126	0	5,873	74.23
3-5	11,126	0	4,139	74.23
3-6	11,126	0	4,077	74.23
3-7	11,126	0	6,850	74.23
3-8	10,167	0	8,639	74.06
3-9	9,250	0	9,224	74
3-10	9,250	0	9,250	74
3-11	9,250	0	9,250	74
3-12	9,250	0	9,250	74
3-13	9,250	0	9,250	74
3-14	10,547	0	10,547	97.06
3-57	10,170	0	10,170	80.02
3-58	10,000	0	10,000	80
3-59	10,000	0	10,000	80
3-60	10,000	0	10,000	80
3-61	10,000	0	10,000	80
3-62	11,053	0	11,053	92.74
3-63	9,698	0	9,698	106.46
3-64	9,653	0	9,653	105.98
3-65	9,344	0	8,702	100.61
3-122	11,294	0	3,351	203.55

NOTES (CONTINUED):

20. IN ACCORDANCE WITH ENV-WO 1503.21, THE OWNER SHALL COMPLETE AND FILE AN NPDES START OF CONSTRUCTION FORM. SIMILARLY, THE OWNER WILL ALSO FILE ADDITIONAL REQUIRED NPDES STANDARD PROJECT DOCUMENTATION. AT THE CONCLUSION OF THE PROJECT, THE PERMIT HOLDER AND QUALIFIED ENGINEER SHALL CERTIFY THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS.

21. SUBDIVISION APPROVAL: WHETHER OR NOT OTHERWISE EXPRESSLY RECITED ON THIS SUBDIVISION PLAN, THE SUBDIVISION APPROVAL GRANTED IS CONDITIONED ON FAITHFUL AND DILIGENT ADHERENCE BY THE OWNER/SUBDIVIDER/DEVELOPER OF ALL TERMS, CONDITIONS, PROVISIONS AND SPECIFICATIONS OF THE CITY OF ROCHESTER LAND SUBDIVISION REGULATIONS AS AMENDED OR AS MAY LATER BE AMENDED, IN EFFECT ON THE DATE OF APPROVAL, UNLESS OR EXCEPT INsofar AS EXPRESSLY WAIVED, IN ANY PARTICULAR, BELOW, NON-ADHERENCE MAY RESULT IN A REVOCATION OF APPROVAL. ANY VARIATION FROM THE APPROVED PLAN WILL REQUIRE A RESUBMISSION FOR SUBDIVISION APPROVAL.

APPROVED WAIVER:
- RSR 4.3 TOPOGRAPHY (PARTIAL WAIVER)

22. TEMPORARY ACCESS ROADWAY:
A. THE TEMPORARY ACCESS ROADWAY MUST BE COMPLETED PRIOR TO THE ISSUANCE OF THE 6TH CERTIFICATE OF OCCUPANCY ON PHASE 1B(A). REQUIRED MAINTENANCE SHALL BE PROVIDED BY THE OWNER IN ORDER TO GUARANTEE ADEQUATE ACCESS DURING ALL SEASONS UNTIL A CITY STANDARD ROADWAY IS ACCEPTED BY THE CITY DESIGN AND SUBMITTAL OF A CITY STANDARD ROADWAY WITH A PERMANENT GATED EMERGENCY ACCESS CONNECTING FILLMORE EXTENSION TO HUSSEY HILL ROAD TO BE COMPLETED WITHIN 4 YEARS FROM NOTICE OF DECISION OF PHASE 1B(A). B. BONDING OF FUTURE ROADWAY WILL BE REQUIRED AT TIME OF APPROVAL. ALL PERMITS AND APPROVALS REQUIRED PRIOR TO CONSTRUCTION OF THE ROCHESTER DRIVE AND FIRE DEPARTMENT RESERVE THE RIGHT TO REQUIRE ADDITIONAL MAINTENANCE TO STABILIZE THE ROAD FOR ACCESS.

23. HOMES IN PHASE 1B(A) WILL MEET NPFA 1142 REQUIREMENTS BY ONE OF THE FOLLOWING: DEMONSTRATING SUFFICIENT WATER FLOW AT HYDRANTS; MAINTAINING REQUIRED BUILDING SEPARATION; OR INSTALLING RESIDENTIAL FIRE SUPPRESSION SYSTEMS IN THE HOMES. PROPER SUPPRESSION SYSTEMS TO BE DESIGNED BY FIRE PROTECTION ENGINEER.

24. FOR MORE INFORMATION ABOUT THIS PLAN, OR TO SEE A COMPLETE PLAN SET, CONTACT THE CITY OF ROCHESTER PLANNING DEPARTMENT, 31 WAKEFIELD STREET, ROCHESTER, NH 03867, (603) 335-1338.

25. SHEETS 1 THROUGH 6 SHALL BE RECORDED AT THE STRAFFORD COUNTY REGISTRY OF DEEDS.

26. UNTIL THE TIME EISENHOWER DRIVE IS ACCEPTED BY THE CITY, THE ROADWAY AND ASSOCIATED DRAINAGE INFRASTRUCTURE SHALL BE MAINTAINED BY THE OWNER.

27. PHASE 1B(B) WILL REQUIRE A TRAIL NETWORK SYSTEM TO BE ENGINEERED AND BUILT.

28. EXISTING AND PROPOSED STOCKPILES (SEE SHEET 17) SHALL BE BONDED AS PART OF THIS PLAN.

29. HOMEOWNER'S ASSOCIATION SHALL BE RESPONSIBLE FOR DRAINAGE EASEMENTS B8 THROUGH B12 (SEE SHEET 3).

30. APPLICANT WILL CONTINUE TO WORK WITH THE CITY OF ROCHESTER TO EVALUATE AND CONTRIBUTE AN AGREED UPON FAIR SHARE VALUE TOWARDS THE WATER SYSTEM IN SUBSEQUENT PHASES AS OUTLINED IN THE HIGHFIELDS PLANNED UNIT DEVELOPMENT WATER INFRASTRUCTURE REIMBURSEMENT AND USE AGREEMENT EXECUTED 10/07/2010 AND AMENDED 10/23/2016.

OWNER OF MAP 237 LOT 3

SIGNATURE: _____

DATE: 9/11/18

SDJ DEVELOPMENT OF ROCHESTER, LLC

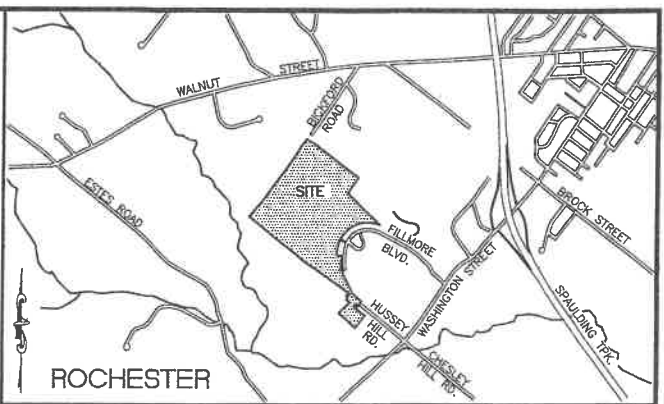
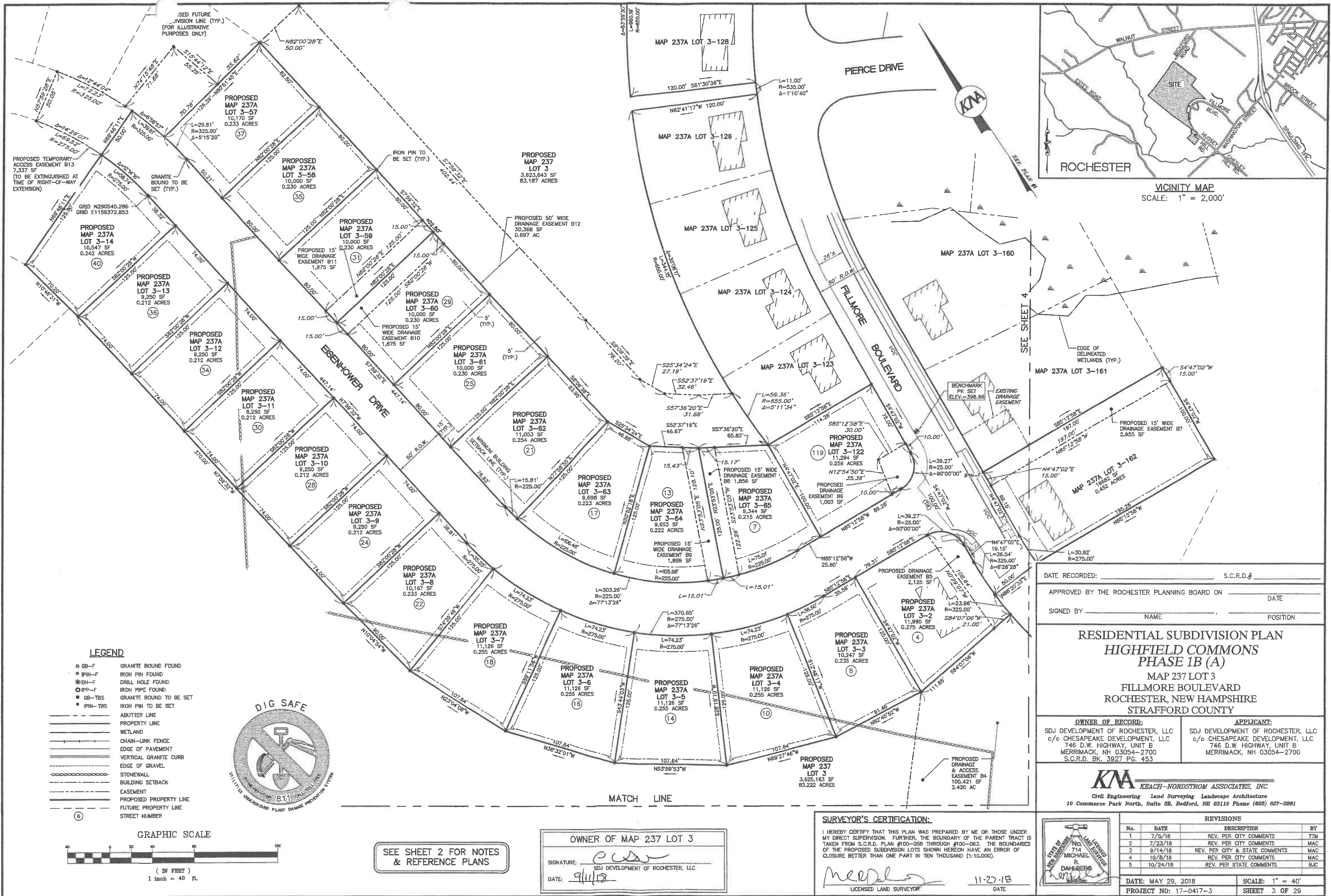
SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE BOUNDARY OF THE PARENT TRACT IS TAKEN FROM S.C.R.D. PLAN #100-058 THROUGH #100-063. THE BOUNDARIES OF THE PROPOSED SUBDIVISION LOTS SHOWN HEREON HAVE AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

SIGNATURE: _____

DATE: 11-27-18

LICENSED LAND SURVEYOR



VICINITY MAP
SCALE: 1" = 2,000'

DATE RECORDED: _____ S.C.R.D.# _____
APPROVED BY THE ROCHESTER PLANNING BOARD ON _____ DATE _____
SIGNED BY _____ NAME _____ POSITION _____

RESIDENTIAL SUBDIVISION PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	B/C

DATE: MAY 29, 2018
PROJECT NO: 17-0417-3

SCALE: 1" = 40'
SHEET 3 OF 29

SURVEYOR'S CERTIFICATION:
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE BOUNDARY OF THE PARENT TRACT IS TAKEN FROM S.C.R.D. PLAN #100-058 THROUGH #100-063. THE BOUNDARIES OF THE PROPOSED SUBDIVISION LOTS SHOWN HEREON HAVE AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Michael R. Dahlberg
MICHAEL R. DAHLBERG
LICENSED LAND SURVEYOR
DATE: 11-27-18

OWNER OF MAP 237 LOT 3
SIGNATURE: *SDJ Development of Rochester, LLC*
SDJ DEVELOPMENT OF ROCHESTER, LLC
DATE: 9/11/18

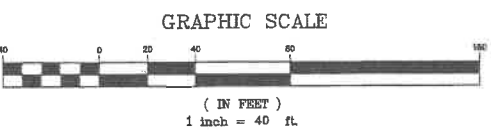
SEE SHEET 2 FOR NOTES
& REFERENCE PLANS

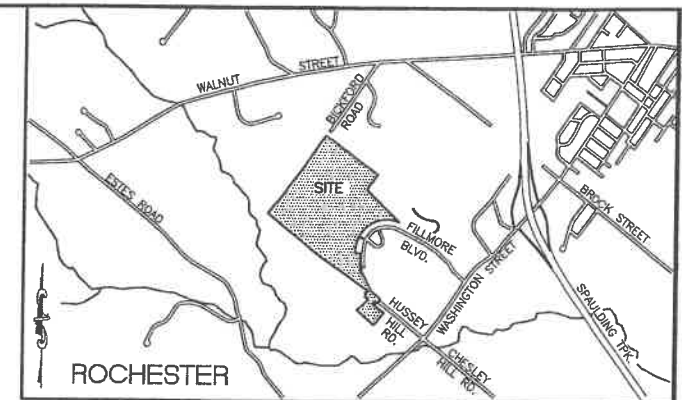
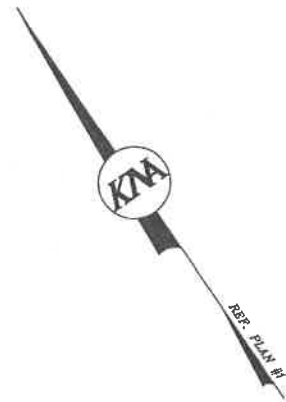
LEGEND

- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- DH-F DRILL HOLE FOUND
- IPP-F IRON PIPE FOUND
- GB-TBS GRANITE BOUND TO BE SET
- IPIN-TBS IRON PIN TO BE SET
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN-LINK FENCE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- EDGE OF GRAVEL
- STONEWALL
- BUILDING SETBACK
- EASEMENT
- PROPOSED PROPERTY LINE
- FUTURE PROPERTY LINE
- STREET NUMBER

DIG SAFE

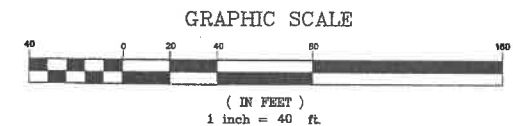
UTILITIES UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM





VICINITY MAP
SCALE: 1" = 2,000'

SEE SHEET 2 FOR NOTES
& REFERENCE PLANS



DATE RECORDED: _____ S.C.R.D.# _____

APPROVED BY THE ROCHESTER PLANNING BOARD ON _____ DATE _____

SIGNED BY _____ NAME _____ POSITION _____

RESIDENTIAL SUBDIVISION PLAN
HIGHFIELD COMMONS
PHASE 1B (A)

MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

KMA KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE BOUNDARY OF THE PARENT TRACT IS TAKEN FROM S.C.R.D. PLAN #100-058 THROUGH #100-063. THE BOUNDARIES OF THE PROPOSED SUBDIVISION LOTS SHOWN HEREON HAVE AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Michael R. Dahlberg
MICHAEL R. DAHLBERG
LICENSED LAND SURVEYOR

11-22-18
DATE

OWNER OF MAP 237 LOT 3

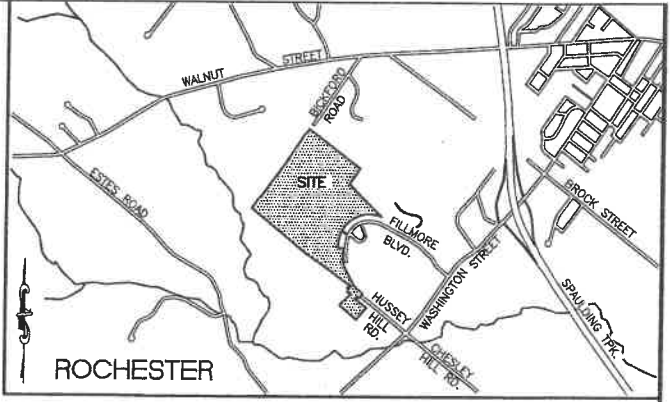
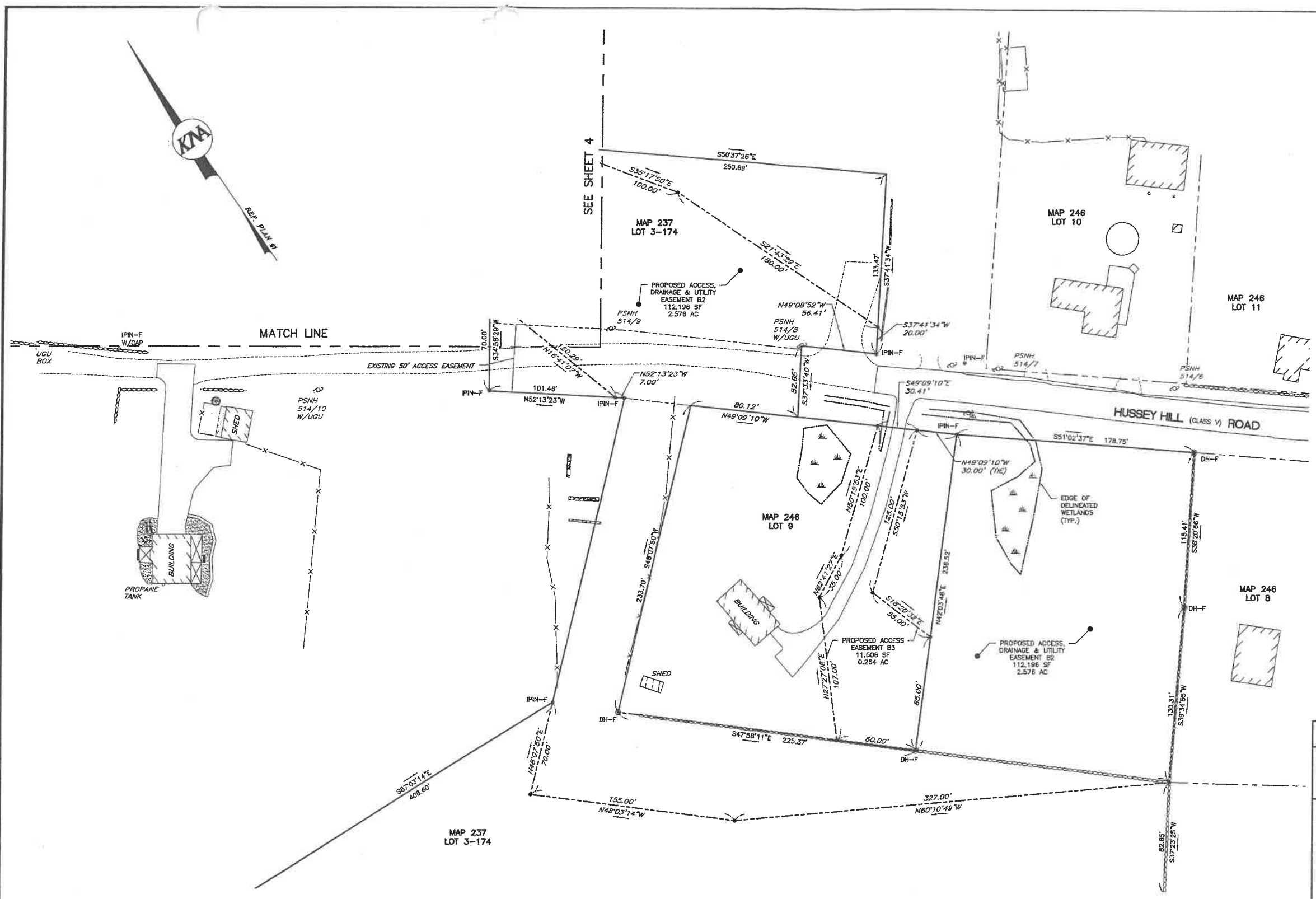
SIGNATURE: *Michael R. Dahlberg*
SDJ DEVELOPMENT OF ROCHESTER, LLC
DATE: 9/11/18

REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/6/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC

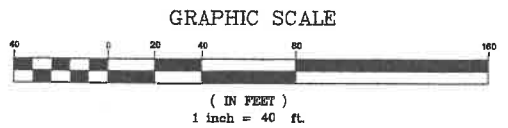
DATE: MAY 29, 2018
PROJECT NO: 17-0417-3

SCALE: 1" = 40'
SHEET 4 OF 29



VICINITY MAP
SCALE: 1" = 2,000'

SEE SHEET 2 FOR NOTES
& REFERENCE PLANS



- LEGEND**
- GB-F GRANITE BOUND FOUND
 - IPIN-F IRON PIN FOUND
 - DH-F DRILL HOLE FOUND
 - IPP-F IRON PIPE FOUND
 - GB-TBS GRANITE BOUND TO BE SET
 - IPIN-TBS IRON PIN TO BE SET
 - ABUTTER LINE
 - PROPERTY LINE
 - WETLAND
 - CHAIN-LINK FENCE
 - EDGE OF PAVEMENT
 - VERTICAL GRANITE CURB
 - EDGE OF GRAVEL
 - STONEWALL
 - BUILDING SETBACK
 - EASEMENT
 - PROPOSED PROPERTY LINE



OWNER OF MAP 237 LOT 3

SIGNATURE: *[Signature]*
SDJ DEVELOPMENT OF ROCHESTER, LLC

DATE: 9/11/18

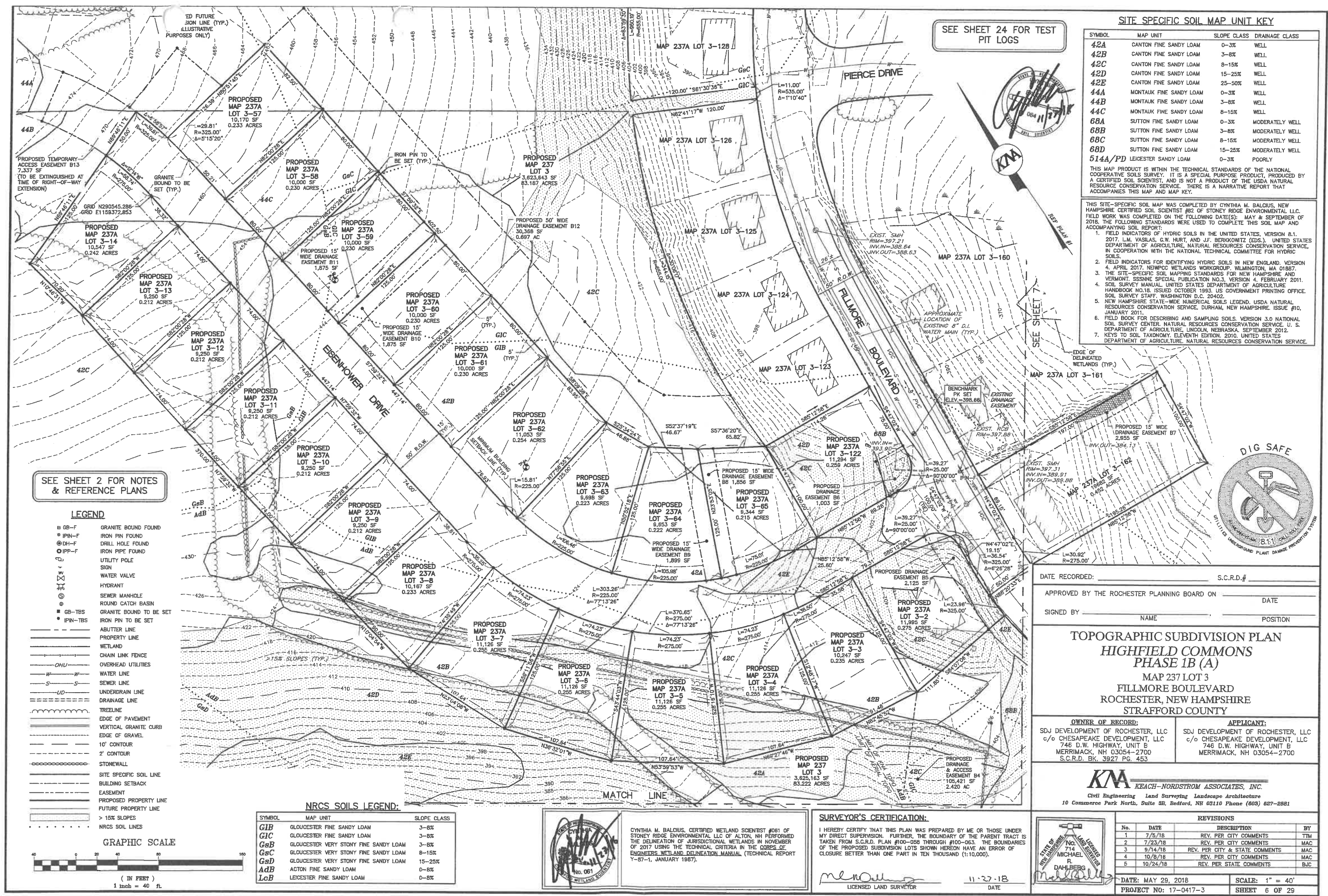
SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE BOUNDARY OF THE PARENT TRACT IS TAKEN FROM S.C.R.D. PLAN #100-058 THROUGH #100-063. THE BOUNDARIES OF THE PROPOSED SUBDIVISION LOTS SHOWN HEREON HAVE AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

[Signature]
MICHAEL R. DAHLBERG
LICENSED LAND SURVEYOR

DATE: 11-22-18

DATE RECORDED: _____ S.C.R.D.# _____			
APPROVED BY THE ROCHESTER PLANNING BOARD ON _____ DATE _____			
SIGNED BY _____ NAME _____ POSITION _____			
RESIDENTIAL SUBDIVISION PLAN HIGHFIELD COMMONS PHASE 1B (A) MAP 237 LOT 3 FILLMORE BOULEVARD ROCHESTER, NEW HAMPSHIRE STRAFFORD COUNTY			
OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453	APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700		
KMA KEACH-NORDSTROM ASSOCIATES, INC. Civil Engineering Land Surveying Landscape Architecture 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881			
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BUC
DATE: MAY 29, 2018		SCALE: 1" = 40'	
PROJECT NO: 17-0417-3		SHEET 5 OF 29	



SEE SHEET 24 FOR TEST PIT LOGS

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
42A	CANTON FINE SANDY LOAM	0-3%	WELL
42B	CANTON FINE SANDY LOAM	3-8%	WELL
42C	CANTON FINE SANDY LOAM	8-15%	WELL
42D	CANTON FINE SANDY LOAM	15-25%	WELL
42E	CANTON FINE SANDY LOAM	25-50%	WELL
44A	MONTAUK FINE SANDY LOAM	0-3%	WELL
44B	MONTAUK FINE SANDY LOAM	3-8%	WELL
44C	MONTAUK FINE SANDY LOAM	8-15%	WELL
68A	SUTTON FINE SANDY LOAM	0-3%	MODERATELY WELL
68B	SUTTON FINE SANDY LOAM	3-8%	MODERATELY WELL
68C	SUTTON FINE SANDY LOAM	8-15%	MODERATELY WELL
68D	SUTTON FINE SANDY LOAM	15-25%	MODERATELY WELL
514A/PD	LEICESTER SANDY LOAM	0-3%	POORLY

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

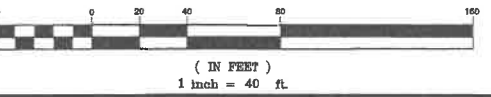
1. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.1, 2017. L.M. VASILAS, G.W. HURT, AND J.F. BERKOWITZ (EDS.), UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.
2. FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, APRIL 2017. NEWPPC WETLANDS WORKGROUP, WILMINGTON, MA 01887.
3. THE SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, SPECIAL PUBLICATION NO. 3, VERSION 4, FEBRUARY 2011.
4. SOIL SURVEY MANUAL, UNITED STATES DEPARTMENT OF AGRICULTURE, HANDBOOK NO. 18, ISSUED OCTOBER 1993, U.S. GOVERNMENT PRINTING OFFICE, SOIL SURVEY STAFF, WASHINGTON D.C. 20402.
5. NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NATURAL RESOURCES CONSERVATION SERVICE, DURHAM, NEW HAMPSHIRE, ISSUE #10, JANUARY 2011.
6. FIELD BOOK FOR DESCRIBING AND SAMPLING SOILS, VERSION 3.0 NATIONAL SOIL SURVEY CENTER, NATURAL RESOURCES CONSERVATION SERVICE, U. S. DEPARTMENT OF AGRICULTURE, LINCOLN, NEBRASKA, SEPTEMBER 2012.
7. KEYS TO SOIL TAXONOMY, ELEVENTH EDITION, 2010, UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

SEE SHEET 2 FOR NOTES & REFERENCE PLANS

LEGEND

- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- DH-F DRILL HOLE FOUND
- IPP-F IRON PIPE FOUND
- UTILITY POLE
- WATER VALVE
- HYDRANT
- SEWER MANHOLE
- ROUND CATCH BASIN
- GRANITE BOUND TO BE SET
- IRON PIN TO BE SET
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- OVERHEAD UTILITIES
- WATER LINE
- SEWER LINE
- UNDERDRAIN LINE
- DRAINAGE LINE
- TREELINE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- EDGE OF GRAVEL
- 10' CONTOUR
- 2' CONTOUR
- STONEWALL
- SITE SPECIFIC SOIL LINE
- BUILDING SETBACK
- EASEMENT
- PROPOSED PROPERTY LINE
- FUTURE PROPERTY LINE
- > 15% SLOPES
- NRCS SOIL LINES

GRAPHIC SCALE



NRCS SOILS LEGEND:

SYMBOL	MAP UNIT	SLOPE CLASS
GIB	GLOUCESTER FINE SANDY LOAM	3-8%
GIC	GLOUCESTER FINE SANDY LOAM	3-8%
GsB	GLOUCESTER VERY STONY FINE SANDY LOAM	3-8%
GsC	GLOUCESTER VERY STONY FINE SANDY LOAM	8-15%
GsD	GLOUCESTER VERY STONY FINE SANDY LOAM	15-25%
AdB	ACTON FINE SANDY LOAM	0-8%
LcB	LEICESTER FINE SANDY LOAM	0-8%



CYNTHIA M. BALCIUS, CERTIFIED SOIL SCIENTIST #061 OF STONEY RIDGE ENVIRONMENTAL LLC OF ALTON, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN NOVEMBER OF 2017 USING THE TECHNICAL CRITERIA IN THE CORES OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE BOUNDARY OF THE PARENT TRACT IS TAKEN FROM S.C.R.D. PLAN #100-058 THROUGH #100-063. THE BOUNDARIES OF THE PROPOSED SUBDIVISION LOTS SHOWN HEREON HAVE AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

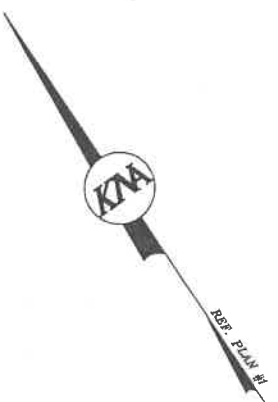
meow
LICENSED LAND SURVEYOR
DATE 11-27-18



REVISIONS

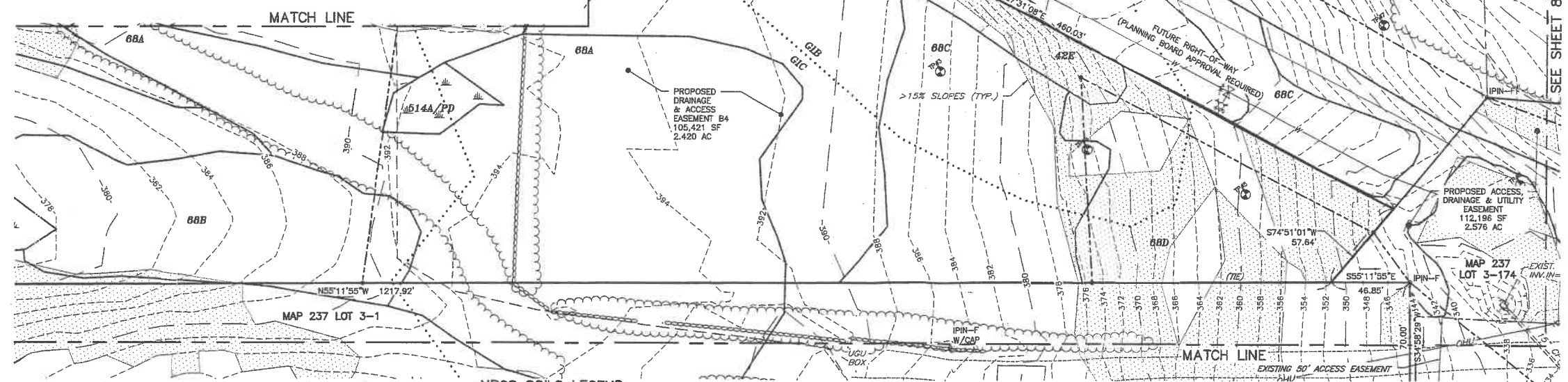
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER CITY COMMENTS	BUC

DATE: MAY 29, 2018
PROJECT NO: 17-0417-3
SCALE: 1" = 40'
SHEET 6 OF 29



LEGEND

- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- DM-F DRILL HOLE FOUND
- IPP-F IRON PIPE FOUND
- UTILITY POLE
- SIGN
- WATER VALVE
- HYDRANT
- SEWER MANHOLE
- ROUND CATCH BASIN
- GB-TBS GRANITE BOUND TO BE SET
- IPIN-TBS IRON PIN TO BE SET
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- OVERHEAD UTILITIES
- OHU
- W
- S
- UD
- DRAINAGE LINE
- TREELINE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- EDGE OF GRAVEL
- 10' CONTOUR
- 2' CONTOUR
- STONEWALL
- SITE SPECIFIC SOIL LINE
- BUILDING SETBACK
- EASEMENT
- PROPOSED PROPERTY LINE
- > 15% SLOPES
- NRCS SOIL LINES



NRCS SOILS LEGEND:

SYMBOL	MAP UNIT	SLOPE CLASS
GIB	GLOUCESTER FINE SANDY LOAM	3-8%
GIC	GLOUCESTER FINE SANDY LOAM	3-8%
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GsC	GLOUCESTER VERY STONY FINE SANDY LOAM	8-15%
GsD	GLOUCESTER VERY STONY FINE SANDY LOAM	15-25%
AdB	ACTON FINE SANDY LOAM	0-8%
LoB	LEICESTER FINE SANDY LOAM	0-8%



CYNTHIA M. BALCIUS, CERTIFIED WETLAND SCIENTIST #061 OF STONEY RIDGE ENVIRONMENTAL LLC OF ALTON, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN NOVEMBER OF 2017 USING THE TECHNICAL CRITERIA IN THE CORDES ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE BOUNDARY OF THE PARENT TRACT IS TAKEN FROM S.C.R.D. PLAN #100-056 THROUGH #100-063. THE BOUNDARIES OF THE PROPOSED SUBDIVISION LOTS SHOWN HEREON HAVE AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Michael P. Dahlberg
LICENSED LAND SURVEYOR

11-27-18
DATE

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
42A	CANTON FINE SANDY LOAM	0-3%	WELL
42B	CANTON FINE SANDY LOAM	3-8%	WELL
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42D	CANTON FINE SANDY LOAM	15-25%	WELL
42E	CANTON FINE SANDY LOAM	25-50%	WELL
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44C	MONTAUK FINE SANDY LOAM	8-15%	WELL
68A	SUTTON FINE SANDY LOAM	0-3%	MODERATELY WELL
68B	SUTTON FINE SANDY LOAM	3-8%	MODERATELY WELL
68C	SUTTON FINE SANDY LOAM	8-15%	MODERATELY WELL
68D	SUTTON FINE SANDY LOAM	15-25%	MODERATELY WELL
514A/PD	LEICESTER SANDY LOAM	0-3%	POORLY

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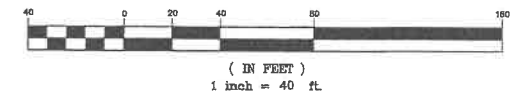
THIS SITE-SPECIFIC SOIL MAP WAS COMPLETED BY CYNTHIA M. BALCIUS, NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST #02 OF STONEY RIDGE ENVIRONMENTAL LLC. FIELD WORK WAS COMPLETED ON THE FOLLOWING DATE(S): MAY & SEPTEMBER OF 2018. THE FOLLOWING STANDARDS WERE USED TO COMPLETE THIS SOIL MAP AND ACCOMPANYING SOIL REPORT:

1. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.1, 2017. L.M. VASILAS, G.W. HURT, AND J.F. BERKKOWITZ (EDS.). UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.
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5. SOIL SURVEY STAFF, WASHINGTON D.C. 20402.
6. NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NATURAL RESOURCES CONSERVATION SERVICE, DURHAM, NEW HAMPSHIRE, ISSUE #10, JANUARY 2011.
7. FIELD BOOK FOR DESCRIBING AND SAMPLING SOILS, VERSION 3.0 NATIONAL SOIL SURVEY CENTER, NATURAL RESOURCES CONSERVATION SERVICE, U. S. DEPARTMENT OF AGRICULTURE, LINCOLN, NEBRASKA, SEPTEMBER 2012.
8. KEYS TO SOIL TAXONOMY, ELEVENTH EDITION, 2010, UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.

SEE SHEET 24 FOR TEST PIT LOGS

SEE SHEET 2 FOR NOTES & REFERENCE PLANS

GRAPHIC SCALE



DATE RECORDED: _____ S.C.R.D.# _____

APPROVED BY THE ROCHESTER PLANNING BOARD ON _____ DATE _____

SIGNED BY _____ NAME _____ POSITION _____

TOPOGRAPHIC SUBDIVISION PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:	APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453	SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700



REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018 SCALE: 1" = 40'
PROJECT NO: 17-0417-3 SHEET 7 OF 29

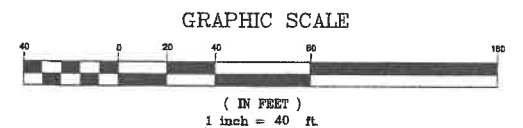
SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS
42A	CANTON FINE SANDY LOAM	0-3%	WELL
42B	CANTON FINE SANDY LOAM	3-8%	WELL
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42D	CANTON FINE SANDY LOAM	15-25%	WELL
42E	CANTON FINE SANDY LOAM	25-50%	WELL
44A	MONTAUK FINE SANDY LOAM	0-3%	WELL
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44C	MONTAUK FINE SANDY LOAM	8-15%	WELL
68A	SUTTON FINE SANDY LOAM	0-3%	MODERATELY WELL
68B	SUTTON FINE SANDY LOAM	3-8%	MODERATELY WELL
68C	SUTTON FINE SANDY LOAM	8-15%	MODERATELY WELL
68D	SUTTON FINE SANDY LOAM	15-25%	MODERATELY WELL
514A/PD	LEICESTER SANDY LOAM	0-3%	POORLY

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

THIS SITE-SPECIFIC SOIL MAP WAS COMPLETED BY CYNTHIA M. BALCIUS, NEW HAMPSHIRE CERTIFIED SOIL SCIENTIST #82 OF STONEY RIDGE ENVIRONMENTAL, LLC. FIELD WORK WAS COMPLETED ON THE FOLLOWING DATE(S): MAY & SEPTEMBER OF 2018. THE FOLLOWING STANDARDS WERE USED TO COMPLETE THIS SOIL MAP AND ACCOMPANYING SOIL REPORT:

1. FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.1, 2017. L.M. VASILAS, G.W. HURT, AND J.F. BERKOWITZ (EDS.), UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, IN COOPERATION WITH THE NATIONAL TECHNICAL COMMITTEE FOR HYDRIC SOILS.
2. FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4, APRIL 2017. NEWPPC WETLANDS WORKGROUP, WILMINGTON, MA 01887.
3. THE SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT, ISSUING SPECIAL PUBLICATION NO.3, VERSION 4, FEBRUARY 2011.
4. SOIL SURVEY MANUAL, UNITED STATES DEPARTMENT OF AGRICULTURE, HANDBOOK NO.18, ISSUED OCTOBER 1993, US GOVERNMENT PRINTING OFFICE, SOIL SURVEY STAFF, WASHINGTON D.C. 20402.
5. NEW HAMPSHIRE STATE-WIDE NUMERICAL SOILS LEGEND, USDA NATURAL RESOURCES CONSERVATION SERVICE, DURHAM, NEW HAMPSHIRE, ISSUE #10, JANUARY 2011.
6. FIELD BOOK FOR DESCRIBING AND SAMPLING SOILS, VERSION 3.0 NATIONAL SOIL SURVEY CENTER, NATURAL RESOURCES CONSERVATION SERVICE, U. S. DEPARTMENT OF AGRICULTURE, LINCOLN, NEBRASKA, SEPTEMBER 2012.
7. KEYS TO SOIL TAXONOMY, ELEVENTH EDITION, 2010, UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE.



DATE RECORDED: _____ S.C.R.D.# _____

APPROVED BY THE ROCHESTER PLANNING BOARD ON _____ DATE _____

SIGNED BY _____ NAME _____ POSITION _____

TOPOGRAPHIC SUBDIVISION PLAN HIGHFIELD COMMONS PHASE 1B (A) MAP 237 LOT 3 FILLMORE BOULEVARD ROCHESTER, NEW HAMPSHIRE STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THE BOUNDARY OF THE PARENT TRACT IS TAKEN FROM S.C.R.D. PLAN #100-058 THROUGH #100-063. THE BOUNDARIES OF THE PROPOSED SUBDIVISION LOTS SHOWN HEREON HAVE AN ERROR OF CLOSURE BETTER THAN ONE PART IN TEN THOUSAND (1:10,000).

Michael R. Dahlberg
LICENSED LAND SURVEYOR
DATE: 11-27-18



CYNTHIA M. BALCIUS, CERTIFIED WETLAND SCIENTIST #861 OF STONEY RIDGE ENVIRONMENTAL, LLC OF ALTON, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN NOVEMBER OF 2017 USING THE TECHNICAL CRITERIA IN THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT 7-87-1, JANUARY 1987).

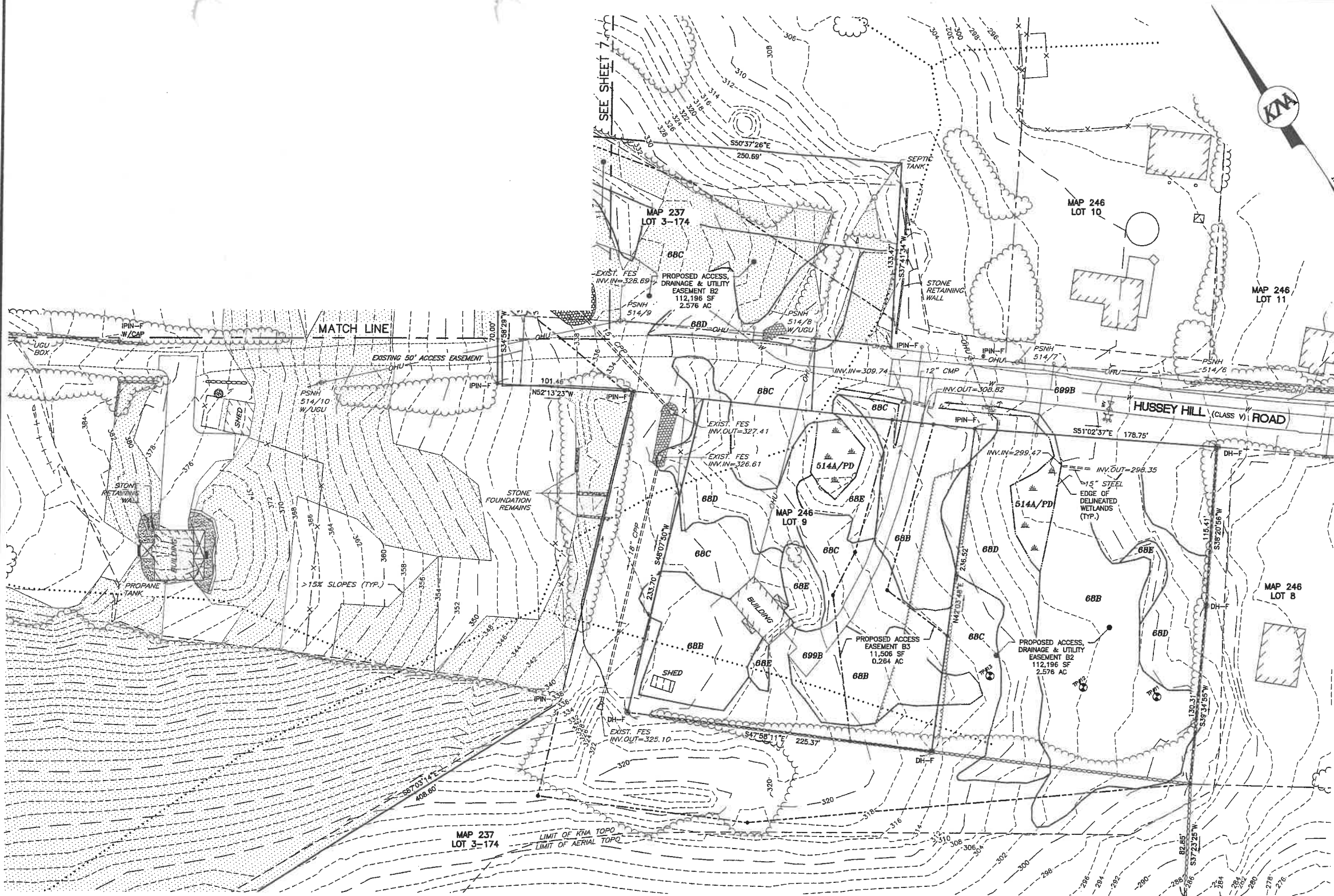
SEE SHEET 2 FOR NOTES & REFERENCE PLANS

NRCS SOILS LEGEND:

SYMBOL	MAP UNIT	SLOPE CLASS
GIB	GLOUCESTER FINE SANDY LOAM	3-8%
GIC	GLOUCESTER FINE SANDY LOAM	3-8%
GsB	GLOUCESTER VERY STONY FINE SANDY LOAM	3-8%
GsC	GLOUCESTER VERY STONY FINE SANDY LOAM	8-15%
GsD	GLOUCESTER VERY STONY FINE SANDY LOAM	15-25%
AdB	ACTON FINE SANDY LOAM	0-8%
LcB	LEICESTER FINE SANDY LOAM	0-8%

LEGEND

GB-F	GRANITE BOUND FOUND	UD	UNDERDRAIN LINE
IPIN-F	IRON PIN FOUND	---	DRAINAGE LINE
DH-F	DRILL HOLE FOUND	---	TREELINE
IPP-F	IRON PIPE FOUND	---	EDGE OF PAVEMENT
U	UTILITY POLE	---	VERTICAL GRANITE CURB
S	SIGN	---	EDGE OF GRAVEL
W	WATER VALVE	---	10' CONTOUR
H	HYDRANT	---	2' CONTOUR
SM	SEWER MANHOLE	---	STONEWALL
RCB	ROUND CATCH BASIN	---	SITE SPECIFIC SOIL LINE
GB-TBS	GRANITE BOUND TO BE SET	---	BUILDING SETBACK
IPIN-TBS	IRON PIN TO BE SET	---	EASEMENT
AB	ABUTTER LINE	---	> 15% SLOPES
PL	PROPERTY LINE	---	NRCS SOIL LINES
W	WETLAND		
CLF	CHAIN LINK FENCE		
OHU	OVERHEAD UTILITIES		
WL	WATER LINE		
S	SEWER LINE		





EISENHOWER DRIVE ROADWAY PLAN
SCALE: 1" = 30'

INTERSECTION REMOVALS DETAIL
SCALE: 1" = 30'

NOTES:

1. DEVELOPERS OF ALL NEW MAJOR SUBDIVISIONS WITH NEW ROADS WHICH ARE INTENDED TO BE CONVEYED TO THE CITY OF ROCHESTER SHALL POST:
 - A. CONSTRUCTION ZONE SIGNS PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES STANDARDS; AND
 - B. STREET ACCEPTANCE SIGNS WITH THE FOLLOWING LANGUAGE AT ALL ENTRY POINTS TO THE SUBDIVISION: "POSTED. THIS SUBDIVISION IS UNDER CONSTRUCTION. THESE STREETS HAVE NOT YET BEEN ACCEPTED BY THE CITY OF ROCHESTER AND ARE NOT ELIGIBLE FOR CITY SERVICES. TRAVEL AT YOUR OWN RISK. (PER ORDER OF PLANNING BOARD)". THE LOCATION AND DESIGN OF THE SIGNS SHALL BE AS STIPULATED BY THE PUBLIC WORKS DEPARTMENT, BUT IN NO CASE SHALL THEY BE LESS THAN 2' X 4' AND THEY SHALL BE ERECTED PRIOR TO ISSUANCE OF ANY BUILDING PERMITS.

CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF ROCHESTER, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016 ARE HEREBY INCORPORATED BY REFERENCE.
2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, ROCHESTER, NEW HAMPSHIRE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
4. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE EROSION AND SEDIMENTATION CONTROLS AROUND STOCKPILES DURING CONSTRUCTION.
5. TILL SOIL TO A DEPTH OF 4" MINIMUM AND REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
6. GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
6. ALL GRADED AREAS TO RECEIVE SEED OR SOD, TOP SOIL, STRAW, AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
9. SEE ARCHITECTURAL DRAWINGS FOR SPECIFIC GRADING AND DRAINAGE REQUIREMENTS AT THE BUILDING, WALKWAYS, AND ENTRANCES. INSTALL STEPS, LANDINGS, RAILINGS, AND OTHER FEATURES PER APPLICABLE CODES.
10. ALL STREET CATCH BASINS SHALL HAVE A 4'-0" SUMP AND SNOOT OIL AND DEBRIS STOPS.
11. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE WATER LINES SHALL CONFORM TO ALL THE LOCAL PRECINCT'S STANDARDS, SPECIFICATIONS, RULES, AND REGULATIONS.
12. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE ELECTRIC AND TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE LOCAL PROVIDER.
13. ALL UTILITY CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY OF ROCHESTER STANDARDS OF INFRASTRUCTURE DESIGN SECTION I - POTABLE WATER DESIGN STANDARDS AND SECTION II - SANITARY SEWER DESIGN STANDARDS.
14. ONLY CONTRACTORS THAT HAVE BEEN GRANTED A WATER/SEWER LICENSE SHALL BE PERMITTED TO INSTALL ANY APPURTENANCE OR WATER/SEWER CONNECTION IN THE FILLMORE BOULEVARD RIGHT-OF-WAY.
15. PER RSR 6.4.3, FOLLOWING CONSTRUCTION, A PLAN SHALL BE SUBMITTED TO THE BOARD AND CITY ENGINEER BY THE ENGINEER OR LAND SURVEYOR INDICATING THEREON THE INVERT GRADES OF ALL STORM DRAINAGE AT ALL CATCH BASINS AND MANHOLES. THE ENGINEER SHALL CERTIFY THAT THE GRADES SHOWN ON THIS PLAN REPRESENT THE GRADES AS CONSTRUCTED.
16. PER RSR 6.6.3, ALL UTILITIES WITHIN THE LIMITS OF FILLMORE BOULEVARD SHALL BE INSPECTED BY A REPRESENTATIVE OF THE CITY PRIOR TO BACKFILLING OF TRENCHES OR OTHER COVERING OF THE SERVICES.
17. AN ACCURATE RECORD OF THE LOCATION AND DEPTH OF ALL UTILITIES SHALL BE KEPT BY THE DEVELOPER OR HIS/HER REPRESENTATIVE AND A COPY SHALL BE PROVIDED TO THE CITY.
18. PROPOSED GATE TO BE COORDINATED WITH FIRE DEPARTMENT AND DPW. PROVIDE KNOX BOX OR OTHER LOCKING SYSTEM SUITABLE TO THE CITY OF ROCHESTER.

SEE SHEETS 11 & 12 FOR
ROADWAY PROFILES

LOAM & SEED ALL
DISTURBED AREAS (TYP.)

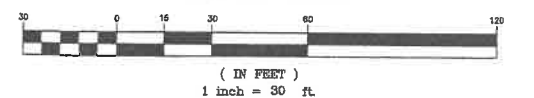
SEE GRADING, DRAINAGE AND
EROSION CONTROL PLANS FOR
DETAILED POND INFORMATION



LEGEND

- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- DH-F DRILL HOLE FOUND
- IPP-F IRON PIPE FOUND
- U UTILITY POLE
- W WATER VALVE
- H HYDRANT
- SMH SEWER MANHOLE
- RCB ROUND CATCH BASIN
- GB-TBS GRANITE BOUND TO BE SET
- IPIN-TBS IRON PIN TO BE SET
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- OHU OVERHEAD UTILITIES
- W WATER LINE
- S SEWER LINE
- UD UNDERDRAIN LINE
- D DRAINAGE LINE
- TREELINE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- EDGE OF GRAVEL
- 10' CONTOUR
- 2' CONTOUR
- STONEMAN
- BUILDING SETBACK
- EASEMENT
- PROPOSED PROPERTY LINE
- FUTURE PROPERTY LINE
- PROPOSED UNDERGROUND UTILITIES
- PROPOSED WATER LINE
- PROPOSED SEWER LINE
- PROPOSED UNDERDRAIN
- PROPOSED DRAINAGE LINE
- PROPOSED TREELINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED SLOPED GRANITE CURB
- SAWCUT LINE
- PAVEMENT TO BE REMOVED

GRAPHIC SCALE



ROADWAY PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

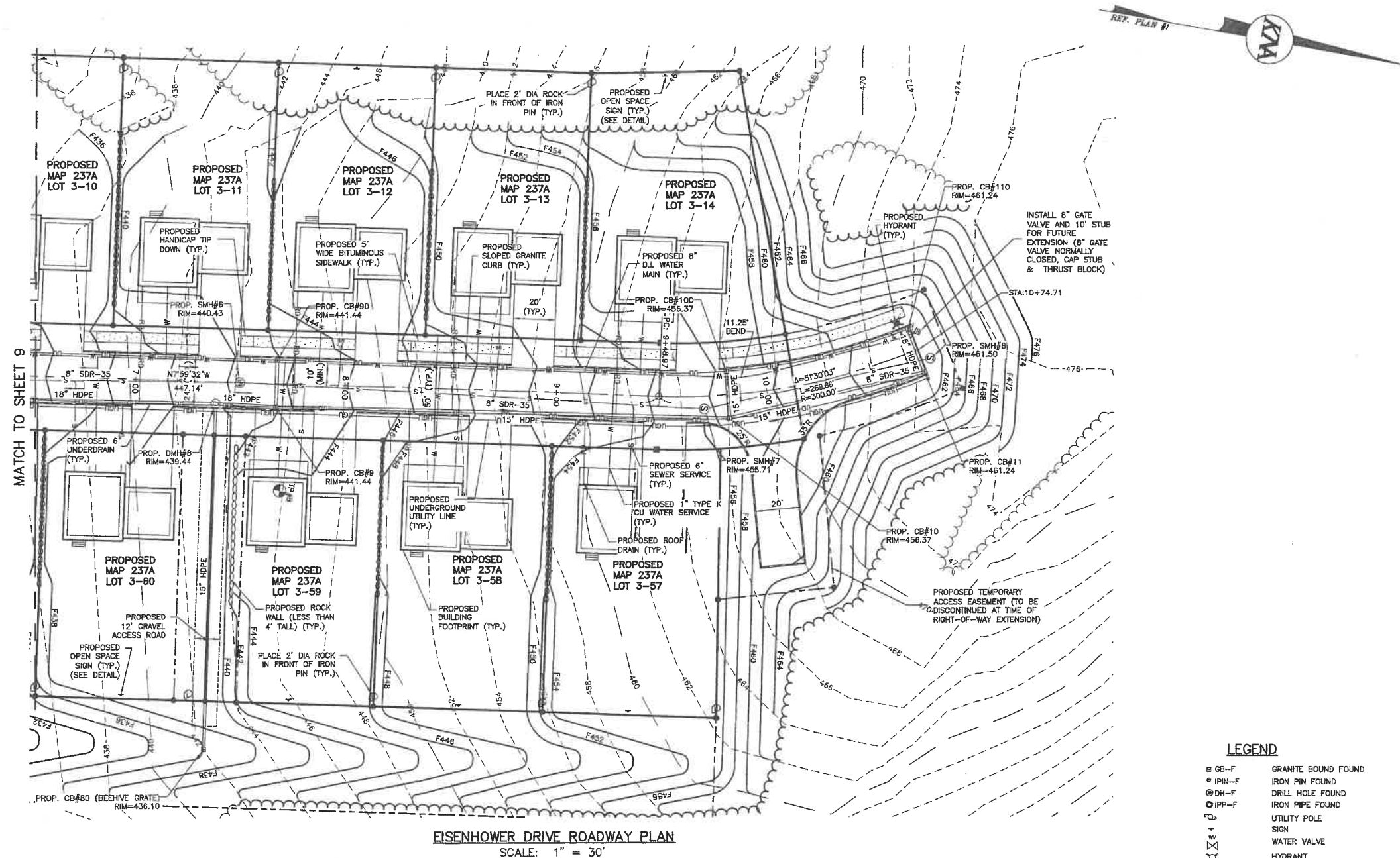
APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018 SCALE: 1" = 30'
PROJECT NO: 17-0417-3 SHEET 9 OF 29



EISENHOWER DRIVE ROADWAY PLAN
SCALE: 1" = 30'

LEGEND

- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- DH-F DRILL HOLE FOUND
- IPP-F IRON PIPE FOUND
- UTILITY POLE
- SIGN
- WATER VALVE
- HYDRANT
- SEWER MANHOLE
- ROUND CATCH BASIN
- GB-TBS GRANITE BOUND TO BE SET
- IPIN-TBS IRON PIN TO BE SET
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- OHU OVERHEAD UTILITIES
- W WATER LINE
- S SEWER LINE
- UD UNDERDRAIN LINE
- DRAINAGE LINE
- TREELINE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- EDGE OF GRAVEL
- 10' CONTOUR
- 2' CONTOUR
- STONEWALL
- BUILDING SETBACK
- EASEMENT
- PROPOSED PROPERTY LINE
- FUTURE PROPERTY LINE
- PROPOSED UNDERGROUND UTILITIES
- PROPOSED WATER LINE
- PROPOSED SEWER LINE
- PROPOSED UNDERDRAIN
- PROPOSED DRAINAGE LINE
- PROPOSED TREELINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED SLOPED GRANITE CURB

SEE SHEET 9 FOR
CONSTRUCTION NOTES

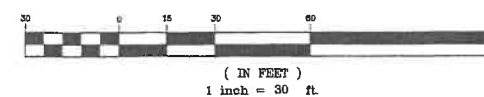
SEE SHEETS 11 & 12 FOR
ROADWAY PROFILES

LOAM & SEED ALL
DISTURBED AREAS (TYP.)

SEE GRADING, DRAINAGE AND
EROSION CONTROL PLANS FOR
DETAILED POND INFORMATION



GRAPHIC SCALE

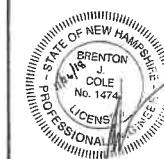


ROADWAY PLAN HIGHFIELD COMMONS PHASE 1B (A) MAP 237 LOT 3 FILLMORE BOULEVARD ROCHESTER, NEW HAMPSHIRE STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

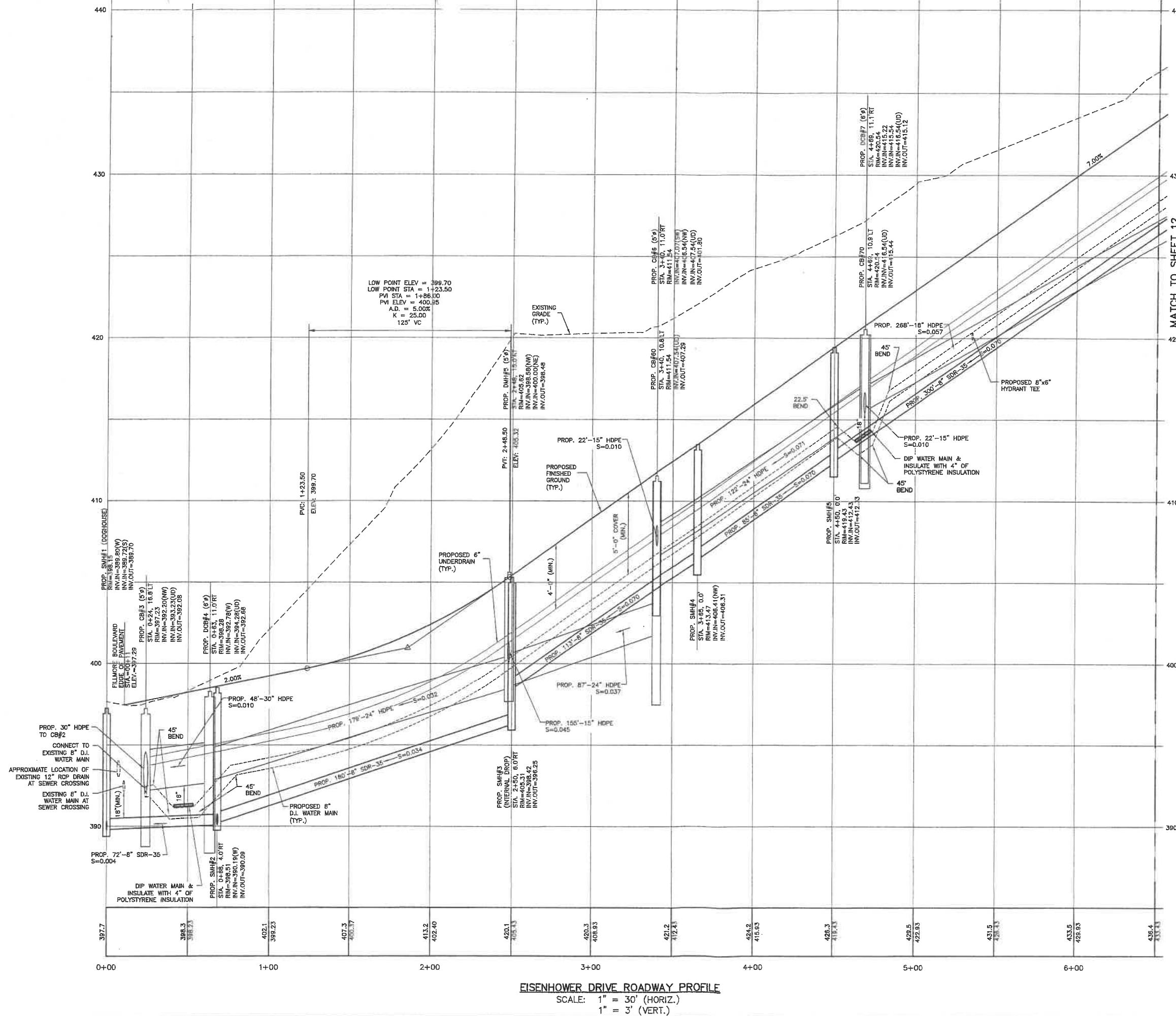
K&A KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 2B, Bedford, NH 03110 Phone (603) 827-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BUC

DATE: MAY 29, 2018 SCALE: 1" = 30'
PROJECT NO: 17-0417-3 SHEET 10 OF 29

SEE SHEETS 9 & 10 FOR
ROADWAY PLAN



ROADWAY PROFILE HIGHFIELD COMMONS PHASE 1B (A)

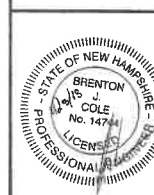
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

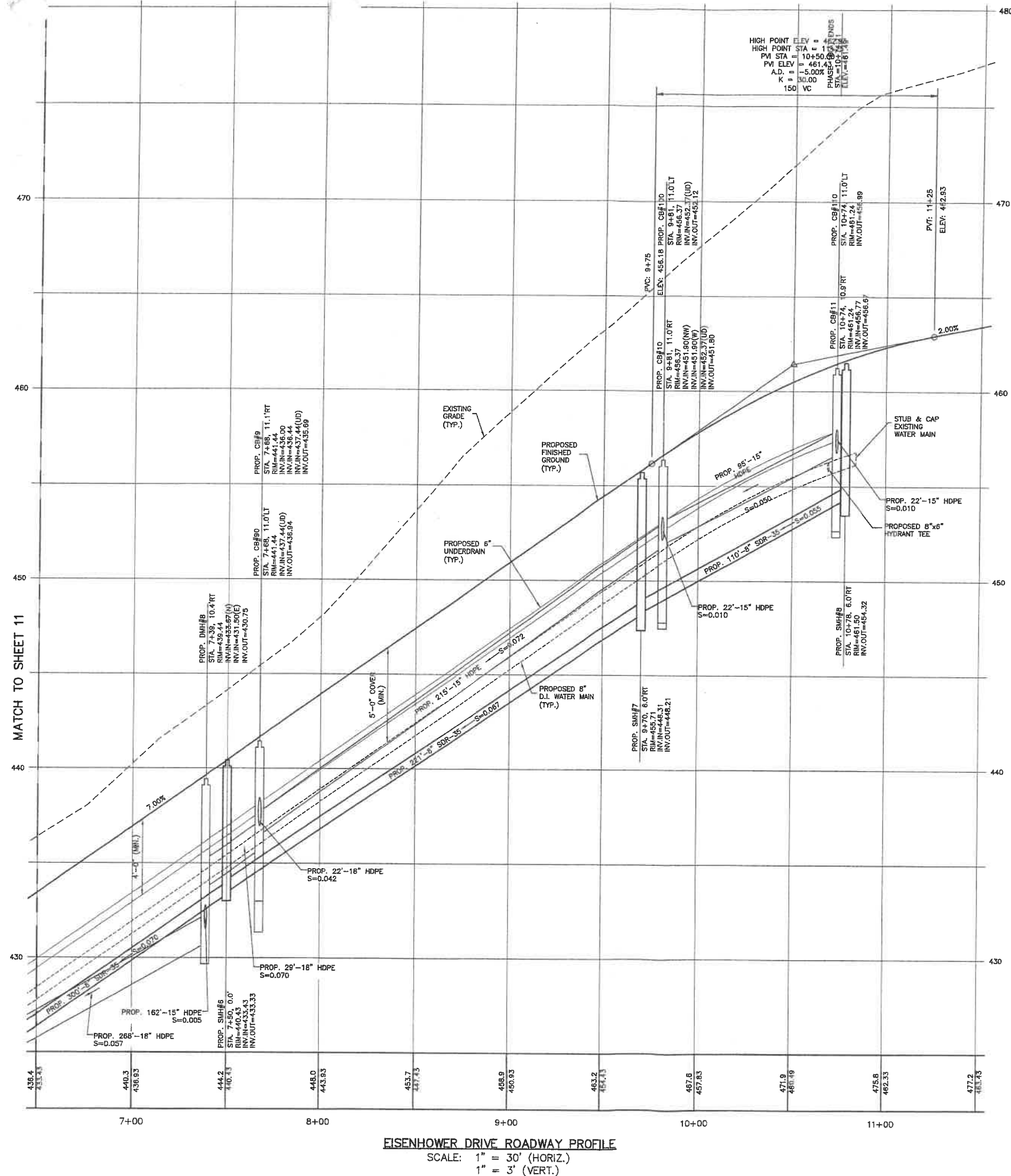
KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 9E, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS				
No.	DATE	DESCRIPTION	BY	
1	7/5/18	REV. PER CITY COMMENTS	MAC	
2	7/23/18	REV. PER CITY COMMENTS	MAC	
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC	
4	10/8/18	REV. PER CITY COMMENTS	MAC	
5	10/24/18	REV. PER STATE COMMENTS	BJC	
DATE: MAY 29, 2018			SCALE: 1" = 30'	
PROJECT NO: 17-0417-3			SHEET 11 OF 29	

SEE SHEETS 9 & 10 FOR
ROADWAY PLAN



ROADWAY PROFILE HIGHFIELD COMMONS PHASE 1B (A)

MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:

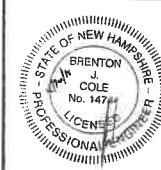
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KNA KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite SE, Bedford, NH 03110 Phone (603) 827-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/16	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BuC

DATE: MAY 29, 2018

PROJECT NO: 17-0417-3

SCALE: 1" = 30'

SHEET 12 OF 29

CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF ROCHESTER AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, HIGHWAY DEPARTMENT, ROCHESTER, NEW HAMPSHIRE.
3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ON-SITE STUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT LEAST 72 HOURS BEFORE DIGGING.
5. ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.

LOAM & SEED ALL DISTURBED AREAS (TYP.)

SEE SHEET 17 FOR STOCKPILE PLAN

SEE SHEET 19 FOR ACCESS ROAD PROFILE

EROSION CONTROL NOTES:

1. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL, TITLED "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION," DATED DECEMBER 2016, AS AMENDED FROM TIME TO TIME.
2. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION, WHEN NECESSARY, SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
3. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
4. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
5. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
6. OFF-SITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
7. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE CONDITIONS DICTATE OTHERWISE.
9. THE CITY OF ROCHESTER SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
10. ALL DISTURBED AREAS SHALL RECEIVE 6" OF LOAM AND SEED PER RSR 6.2.7.
11. SNOW ACCUMULATED DURING THE WINTER CONSTRUCTION CONDITIONS SHOULD BE STORED IN THE STAGING & STOCKPILE AREA. DETERMINED BY THE CONTRACTOR, SURROUNDED BY SILT FENCE. THE USE OF WELDED PLASTIC OR "BIODEGRADABLE" EROSION CONTROL NETTING SHALL BE AVOIDED AT THIS JOB SITE. COCO MATING C125BN EROSION CONTROL BLANKETS SHALL BE USED INSTEAD.
12. PROPOSED GATES TO BE COORDINATED WITH FIRE DEPARTMENT AND DPW. PROVIDE KNOX BOX OR OTHER LOCKING SYSTEM SUITABLE TO THE CITY OF ROCHESTER.

DRAINAGE NOTES:

1. UNTIL THE CITY HAS ACCEPTED THE ROAD, ALL DRAINAGE INFRASTRUCTURE AND SYSTEMS SHALL BE PRIVATELY MAINTAINED BY THE DEVELOPER AND/OR BY THE HOMEOWNERS ASSOCIATION.
2. DRAINAGE INFRASTRUCTURE SHOWN HAS BEEN DESIGNED TO ACCOMMODATE STORMWATER FROM PHASE 1-B(A). STORMWATER DETENTION AND TREATMENT FOR FUTURE PHASES WILL BE HANDLED WITH ADDITIONAL INFRASTRUCTURE AND SYSTEMS.
3. PARCELS 3-55 THROUGH 3-63 ARE REQUIRED TO UTILIZE ROOF DRAINS FOR ROOFS. ALL OTHER PARCELS ARE OPTIONAL. ROOF DRAIN SERVICES CAN ALSO BE USED FOR ROOF DRAINS, SUMP PUMPS, AND FOUNDATION DRAINS. NO SANITARY ALLOWED.
4. FOUNDATIONS CONSTRUCTED IN HIGH WATER TABLE SHALL HAVE A WATERPROOFING SYSTEM AND SHALL BE PROVIDED WITH FOUNDATION DRAINS, EITHER PIPED TO DAYLIGHT OR PUMPED INTO ROOF DRAIN STUB PROVIDED.

ENVIRONMENTAL NOTES:

1. PERSONNEL WORKING AT THIS JOB SITE SHOULD BE MADE AWARE OF THE POTENTIAL TO ENCOUNTER PROTECTED TURTLES, ESPECIALLY DURING TURTLE NESTING SEASON, WHICH EXTENDS FROM LATE MAY THROUGH THE END OF JUNE. IF WOOD TURTLES OR OTHER PROTECTED TURTLE SPECIES ARE FOUND LAYING EGGS IN WORK AREA, PLEASE CONTACT KIM TUTTLE OR MELISSA DOPERALSKI, WETLAND SYSTEMS BIOLOGIST AT 603-271-1738 FOR INSTRUCTIONS. A DESCRIPTION OF WOOD, BLANDING'S AND OTHER PROTECTED TURTLES, INCLUDING PHOTOS, MAY BE FOUND AT: <http://www.wildlife.state.nh.us/nongame/reptiles-amphibians.html>.

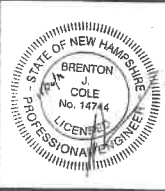


GRADING, DRAINAGE & EROSION CONTROL PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT:
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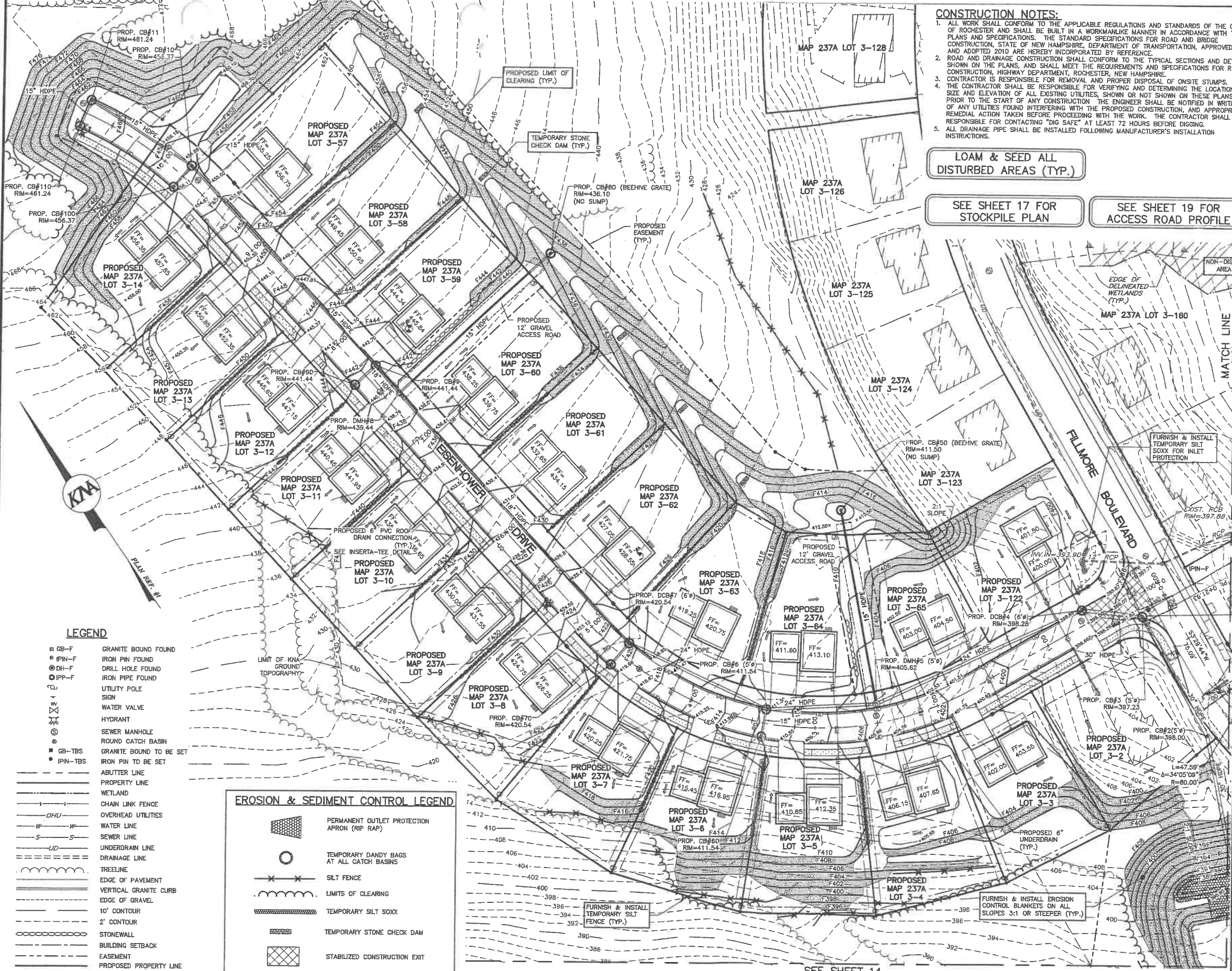
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS			
No.	DATE	DESCRIPTION	BY
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4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BUC

DATE: MAY 29, 2018
PROJECT NO: 17-0417-3

SCALE: 1" = 40'
SHEET 13 OF 29



LEGEND

- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- DH-F DRILL HOLE FOUND
- IPP-F IRON PIPE FOUND
- UTILITY POLE
- SIGN
- WATER VALVE
- HYDRANT
- SEWER MANHOLE
- ROUND CATCH BASIN
- GRANITE BOUND TO BE SET
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- PROPOSED UNDERDRAIN
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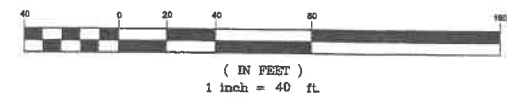
EROSION & SEDIMENT CONTROL LEGEND

- PERMANENT OUTLET PROTECTION APRON (RIP RAP)
- TEMPORARY DANDY BAGS AT ALL CATCH BASINS
- SILT FENCE
- LIMITS OF CLEARING
- TEMPORARY SILT SOXX
- TEMPORARY STONE CHECK DAM
- STABILIZED CONSTRUCTION EXIT
- NON DISTURBANCE AREA
- STAGING AND STOCKPILE AREA
- EROSION CONTROL BLANKETS

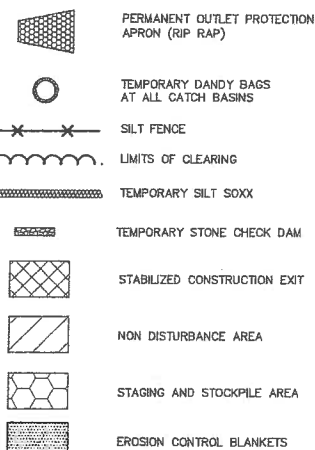
NPDES NOTE

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GRAPHIC SCALE

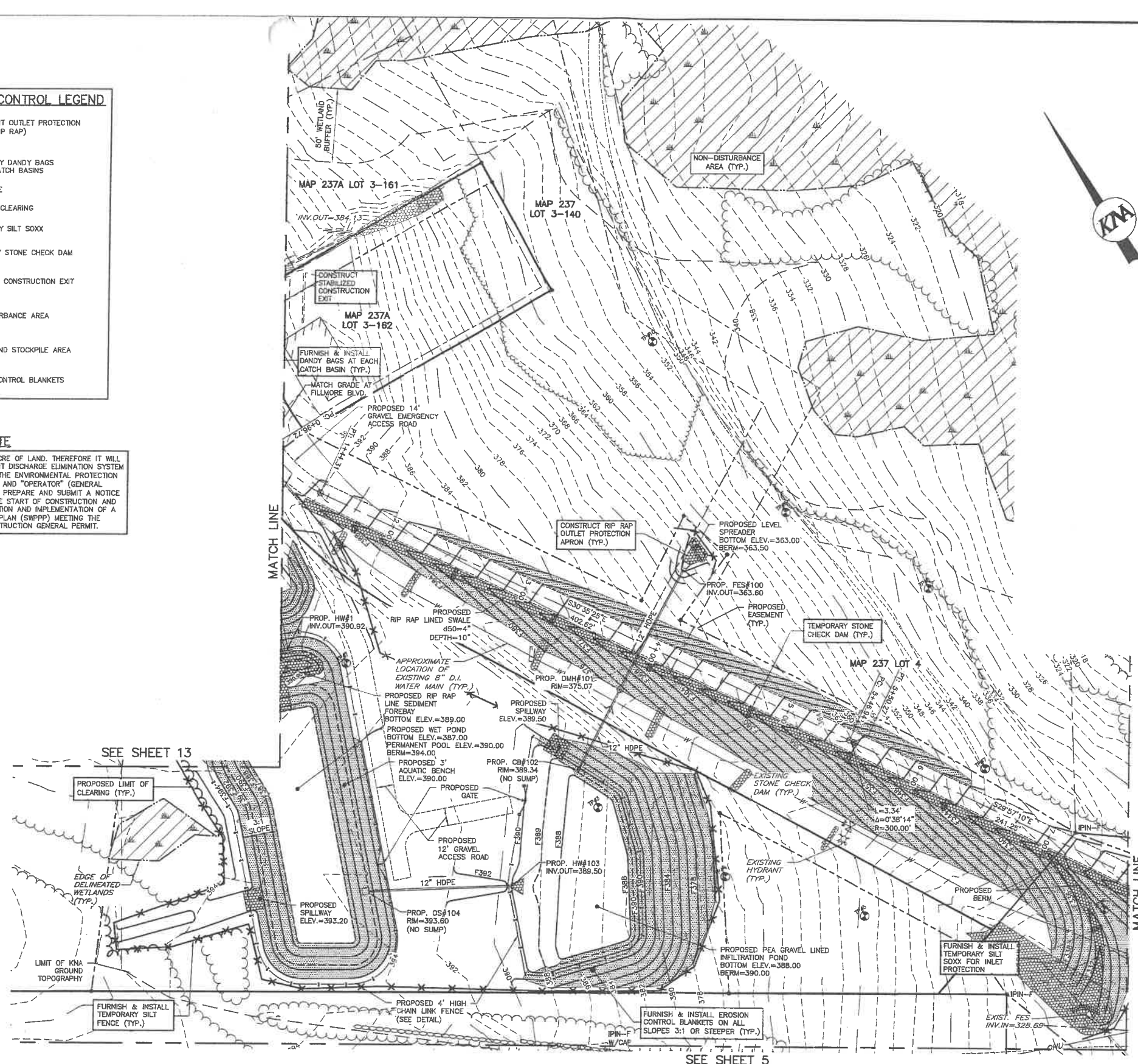


EROSION & SEDIMENT CONTROL LEGEND



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SEE SHEET 19 FOR
ACCESS ROAD PROFILE

SEE SHEET 13 FOR
CONSTRUCTION NOTES

SEE SHEET 13 EROSION
CONTROL NOTES

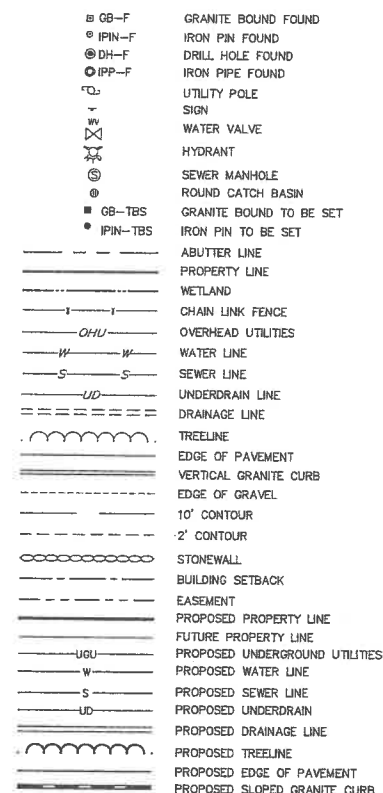
SEE SHEET 13 FOR
DRAINAGE NOTES

SEE SHEET 13 FOR
ENVIRONMENTAL NOTES

SEE SHEET 17 FOR
STOCKPILE PLANS

LOAM & SEED ALL
DISTURBED AREAS (TYP.)

LEGEND



GRADING, DRAINAGE & EROSION CONTROL PLAN

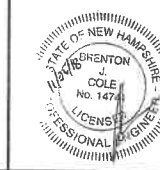
HIGHFIELD COMMONS PHASE 1B (A)

MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
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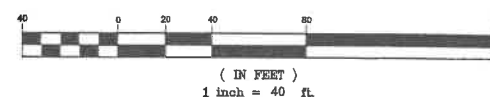
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5.	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018 SCALE: 1" = 40'
PROJECT NO: 17-0417-3 SHEET 14 OF 29



SEE SHEET 5

GRAPHIC SCALE



NPDES NOTE

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SEE SHEET 14

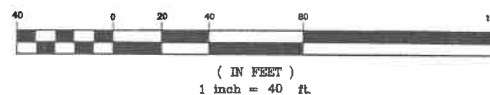
LEGEND

- GB-F GRANITE BOUND FOUND
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EROSION & SEDIMENT CONTROL LEGEND

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- TEMPORARY DANDY BAGS AT ALL CATCH BASINS
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- TEMPORARY STONE CHECK DAM
- STABILIZED CONSTRUCTION EXIT
- NON DISTURBANCE AREA
- STAGING AND STOCKPILE AREA
- EROSION CONTROL BLANKETS

GRAPHIC SCALE



SEE SHEET 19 FOR ACCESS ROAD PROFILE

SEE SHEET 13 FOR CONSTRUCTION NOTES

SEE SHEET 13 EROSION CONTROL NOTES

SEE SHEET 13 FOR DRAINAGE NOTES

SEE SHEET 13 FOR ENVIRONMENTAL NOTES

SEE SHEET 17 FOR STOCKPILE PLANS

LOAM & SEED ALL DISTURBED AREAS (TYP.)



GRADING, DRAINAGE & EROSION CONTROL PLAN HIGHFIELD COMMONS PHASE 1B (A)

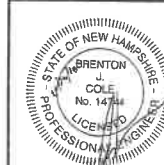
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
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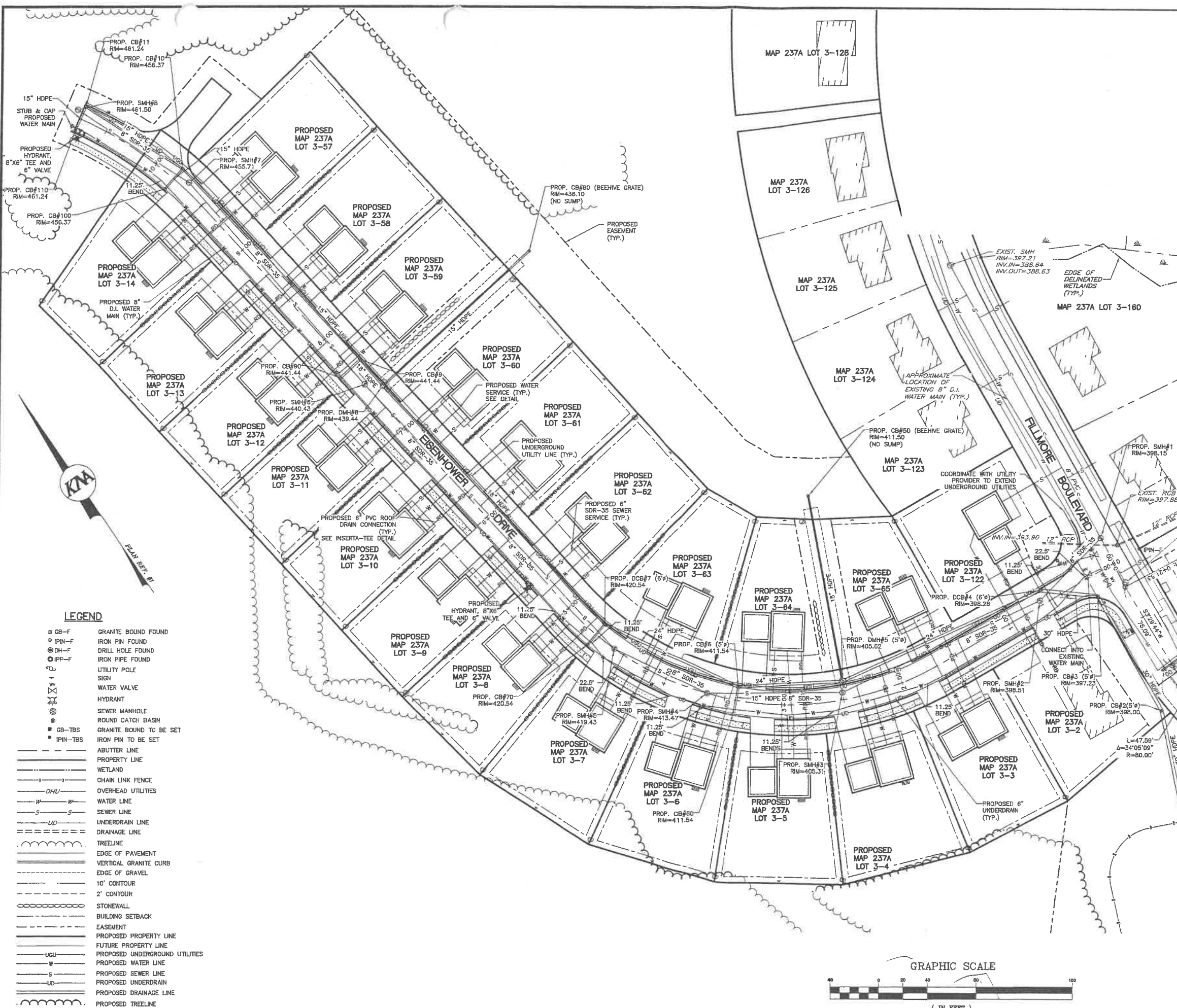
KMA KEACH-NORDSTROM ASSOCIATES, INC.

Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



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DATE: MAY 29, 2018 SCALE: 1" = 40'
PROJECT NO: 17-0417-3 SHEET 15 OF 29



- CONSTRUCTION NOTES:**
1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF ROCHESTER, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
 2. THE CONTRACTOR SHALL CONSTRUCT A HEATED AND INSULATED EXTERIOR DOMESTIC WATER CABINET TO PROVIDE ACCESS FOR THE DEPARTMENT OF PUBLIC WORKS TO INDIVIDUAL UNIT WATER SHUTOFFS.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 4. UNDERGROUND ELECTRICAL SHALL BE PROVIDED TO ALL SITE LIGHT POLES. SEE ELECTRICAL PLANS FOR DETAILS AND FINAL CONDUIT LAYOUT.
 5. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE WATER LINES SHALL CONFORM TO ALL THE LOCAL PRECINCT'S STANDARDS.
 6. ALL WORKMANSHIP AND MATERIALS INCORPORATED INTO THE CONSTRUCTION OF THE ELECTRIC AND TELEPHONE LINES SHALL CONFORM WITH THE STANDARDS OF THE LOCAL PROVIDER.
 7. ALL UTILITY CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CITY OF ROCHESTER STANDARDS OF INFRASTRUCTURE DESIGN SECTION I - POTABLE WATER DESIGN STANDARDS AND SECTION II - SANITARY SEWER DESIGN STANDARDS.
 8. ONLY CONTRACTORS THAT HAVE BEEN GRANTED A WATER/SEWER LICENSE SHALL BE PERMITTED TO INSTALL ANY APPURTENANCE OR WATER/SEWER CONNECTION IN THE FILLMORE BOULEVARD RIGHT-OF-WAY.
 9. PER RSR 6.4.3, FOLLOWING CONSTRUCTION, A PLAN SHALL BE SUBMITTED TO THE BOARD AND CITY ENGINEER BY THE ENGINEER OR LAND SURVEYOR INDICATING THEREON THE INVERT GRADES OF ALL STORM DRAINAGE AT ALL CATCH BASINS AND MANHOLES. THE ENGINEER SHALL CERTIFY THAT THE GRADES SHOWN ON THIS PLAN REPRESENT THE GRADES AS CONSTRUCTED.
 10. PER RSR 6.6.3, ALL UTILITIES WITHIN THE LIMITS OF FILLMORE BOULEVARD SHALL BE INSPECTED BY A REPRESENTATIVE OF THE CITY PRIOR TO BACKFILLING OF TRENCHES OR OTHER COVERING OF THE SERVICES.
 11. AN ACCURATE RECORD OF THE LOCATION AND DEPTH OF ALL UTILITIES SHALL BE KEPT BY THE DEVELOPER OR HIS/HER REPRESENTATIVE AND A COPY SHALL BE PROVIDED TO THE CITY.
 12. SEE SHEET 20 FOR SEWER PROFILE OF DEEPEST SERVICE. NO DROP REQUIRED.
 13. WATER EXTENSION TO BE REVIEWED AND APPROVED BY NHDES.
 14. SEWER SERVICES ARE TO BE INSTALLED SUB-SLAB.
 15. WHERE SEWER SERVICES CROSS WATER MAIN AND WHERE WATER SERVICES CROSS SEWER MAIN, 18" OF VERTICAL SEPARATION SHALL BE PROVIDED, WITH WATER OVER SEWER.

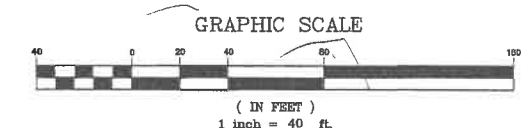
- LEGEND**
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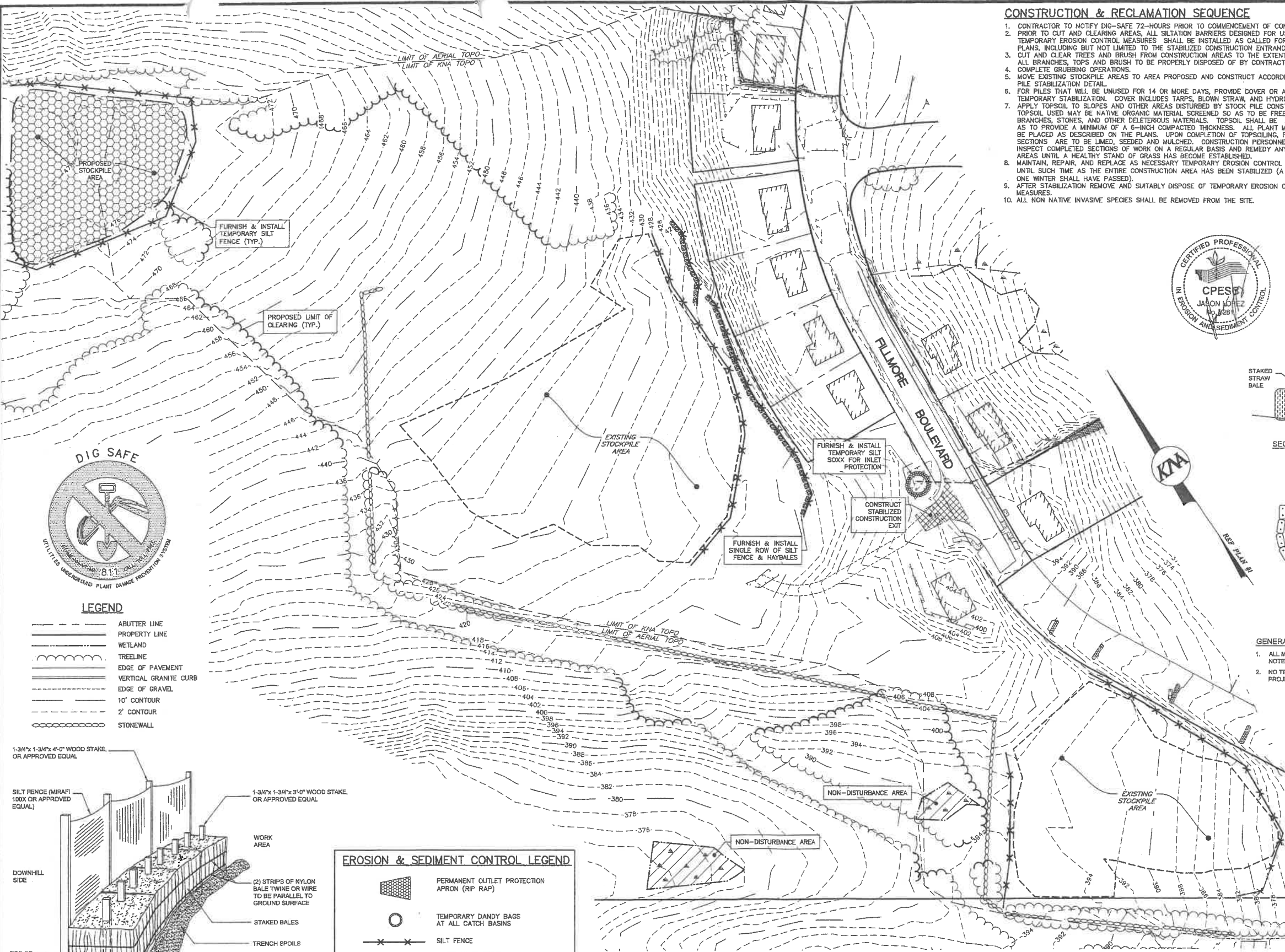
UTILITY PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:	APPLICANT:
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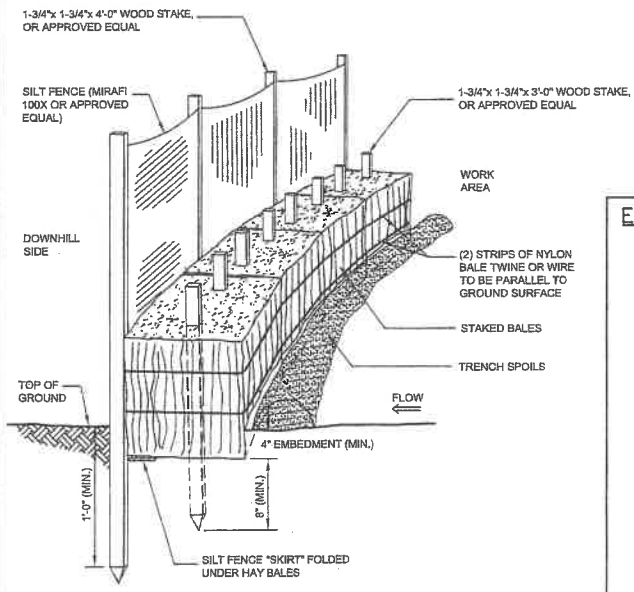
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DATE: MAY 29, 2018		SCALE: 1" = 40'	
PROJECT NO: 17-0417-3		SHEET 16 OF 29	



- LEGEND**
- ABUTTER LINE
 - PROPERTY LINE
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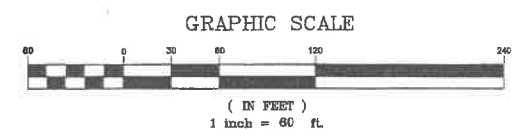
SILT FENCE WITH HAY BALE BARRIER
NOT TO SCALE
(MARCH 2008)

- EROSION & SEDIMENT CONTROL LEGEND**
- PERMANENT OUTLET PROTECTION APRON (RIP RAP)
 - TEMPORARY DANDY BAGS AT ALL CATCH BASINS
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NPDES NOTE

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SEE SHEET 22 FOR EROSION CONTROL AND STABILIZATION NOTES



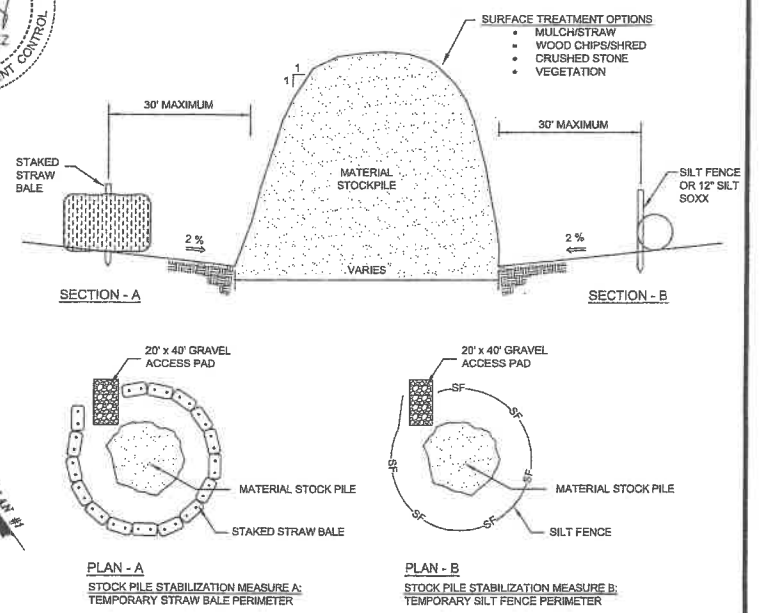
CONSTRUCTION & RECLAMATION SEQUENCE

1. CONTRACTOR TO NOTIFY DIG-SAFE 72-HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. PRIOR TO CUT AND CLEARING AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS, INCLUDING BUT NOT LIMITED TO THE STABILIZED CONSTRUCTION ENTRANCE.
3. CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
4. COMPLETE GRUBBING OPERATIONS.
5. MOVE EXISTING STOCKPILE AREAS TO AREA PROPOSED AND CONSTRUCT ACCORDING TO STOCK PILE STABILIZATION DETAIL.
6. FOR PILES THAT WILL BE UNUSED FOR 14 OR MORE DAYS, PROVIDE COVER OR APPROPRIATE TEMPORARY STABILIZATION. COVER INCLUDES TARPS, BLOWN STRAW, AND HYDROSEEDING.
7. APPLY TOPSOIL TO SLOPES AND OTHER AREAS DISTURBED BY STOCK PILE CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES, AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 6-INCH COMPACTED THICKNESS. ALL PLANT MATERIAL TO BE PLACED AS DESCRIBED ON THE PLANS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LIMED, SEEDED AND MULCHED. CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
8. MAINTAIN, REPAIR, AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
9. AFTER STABILIZATION REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
10. ALL NON NATIVE INVASIVE SPECIES SHALL BE REMOVED FROM THE SITE.



EROSION CONTROL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES TO CONTROL STOCKPILE AREAS DURING AND AFTER CONSTRUCTION.
2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL TITLED "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION," DATED DECEMBER 2016, AS AMENDED FROM TIME TO TIME.
3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION, WHEN NECESSARY, SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
4. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE. IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS MAY WARRANT.
5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
7. OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
9. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
10. THE CITY OF ROCHESTER SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
11. ALL DISTURBED AREAS SHALL RECEIVE 6" OF LOAM AND SEED PER RSR 6.2.7.



- GENERAL NOTES:**
1. ALL MATERIAL STOCK PILES LEFT STANDING GREATER THAN 72 HOURS WILL REQUIRE PERIMETER MEASURES (A OR B), AS NOTED ABOVE.
 2. NO TEMPORARY OR PERMANENT MATERIAL STOCKPILES WILL BE PERMITTED WITHIN THE PROJECT LIMITS FOLLOWING PROJECT SUBSTANTIAL COMPLETION.

STOCK PILE STABILIZATION
NOT TO SCALE

EXISTING & PROPOSED STOCKPILE PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

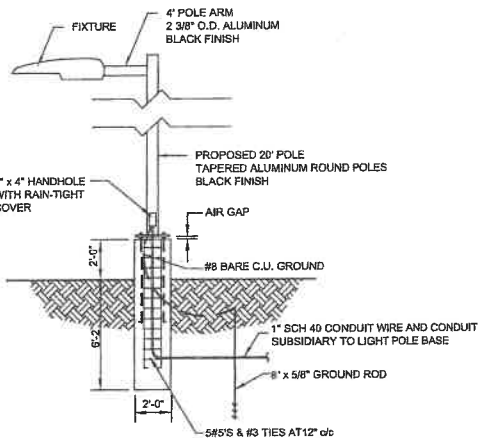
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2861

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
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3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC
DATE: MAY 29, 2018		SCALE: 1" = 60'	
PROJECT NO: 17-0417-3		SHEET 17 OF 29	

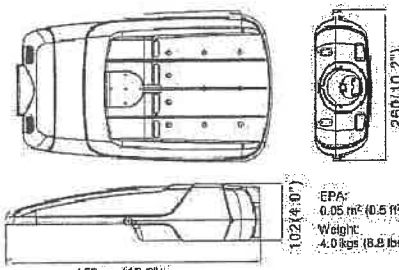
CONSTRUCTION NOTES:
1. SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION REGARDING LIGHT INSTALLATION AND WIRING REQUIREMENTS.

- LANDSCAPE NOTES:
- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SITE LANDSCAPE WHICH PROVIDES CLIMATIC RELIEF AND AESTHETIC APPEAL.
 - ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOWN HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE; WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).
 - IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL PLACED IN THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS: ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% PEATMOSS AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.
 - PLANTING BEDS AND SAUCERS SHALL RECEIVE A 4" MINIMUM THICKNESS OF PINE/HEMLOCK BARK MULCH OVER A 5oz. POLYPROPYLENE WEED CONTROL FABRIC.
 - PAVEMENT AND ROAD BASE MATERIAL ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SUITABLE AMENDED SOIL INSTALLED AS SPECIFIED IN THE TURF ESTABLISHMENT SCHEDULE.

- LIGHTING NOTES:
- LIGHTS TO HAVE BLACK LIGHT HEADS ON NEW METAL POLES.



CONCRETE LIGHT POLE BASE DETAIL
NOT TO SCALE
(MARCH 2008)



LIGHT FIXTURE DETAIL (15' AFG)
AFFINITY LED LIGHTING
S800 SERIES ROADWAY LUMINAIRE
NOT TO SCALE

LANDSCAPE & LIGHTING PLAN
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
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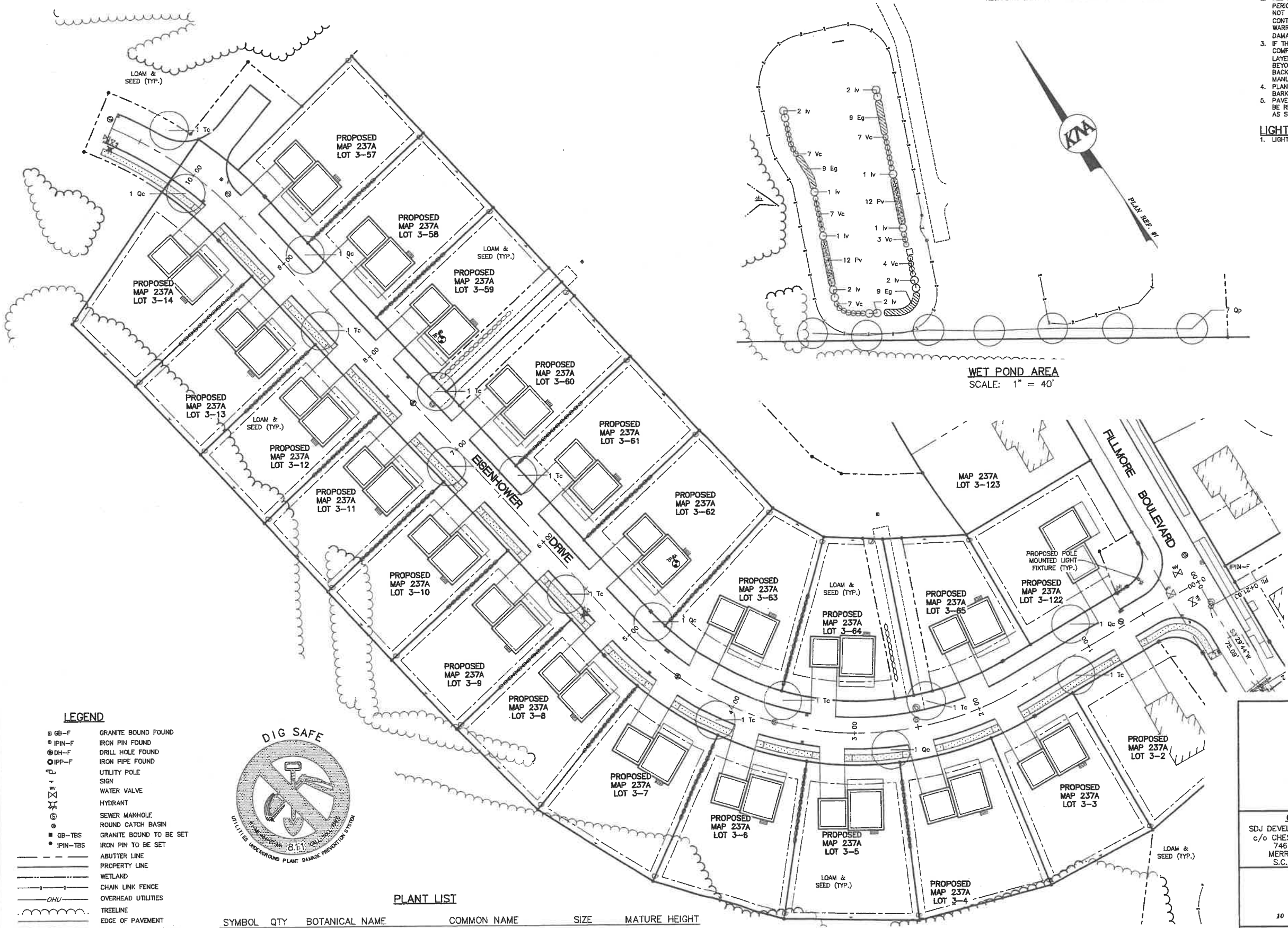
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881



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5	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018
PROJECT NO: 17-0417-3

SCALE: 1" = 40'
SHEET 18 OF 28



LEGEND

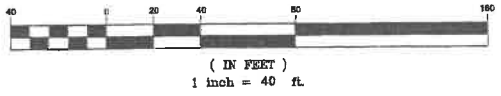
- GB-F GRANITE BOUND FOUND
- IPIN-F IRON PIN FOUND
- DH-F DRILL HOLE FOUND
- IPF-F IRON PIPE FOUND
- UTILITY POLE
- SIGN
- WATER VALVE
- HYDRANT
- SEWER MANHOLE
- ROUND CATCH BASIN
- GRANITE BOUND TO BE SET
- IRON PIN TO BE SET
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- OVERHEAD UTILITIES
- DHU
- TREELINE
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- EDGE OF GRAVEL
- STONEWALL
- BUILDING SETBACK
- EASEMENT
- PROPOSED PROPERTY LINE
- FUTURE PROPERTY LINE
- PROPOSED TREELINE
- PROPOSED EDGE OF PAVEMENT
- PROPOSED SLOPED GRANITE CURB

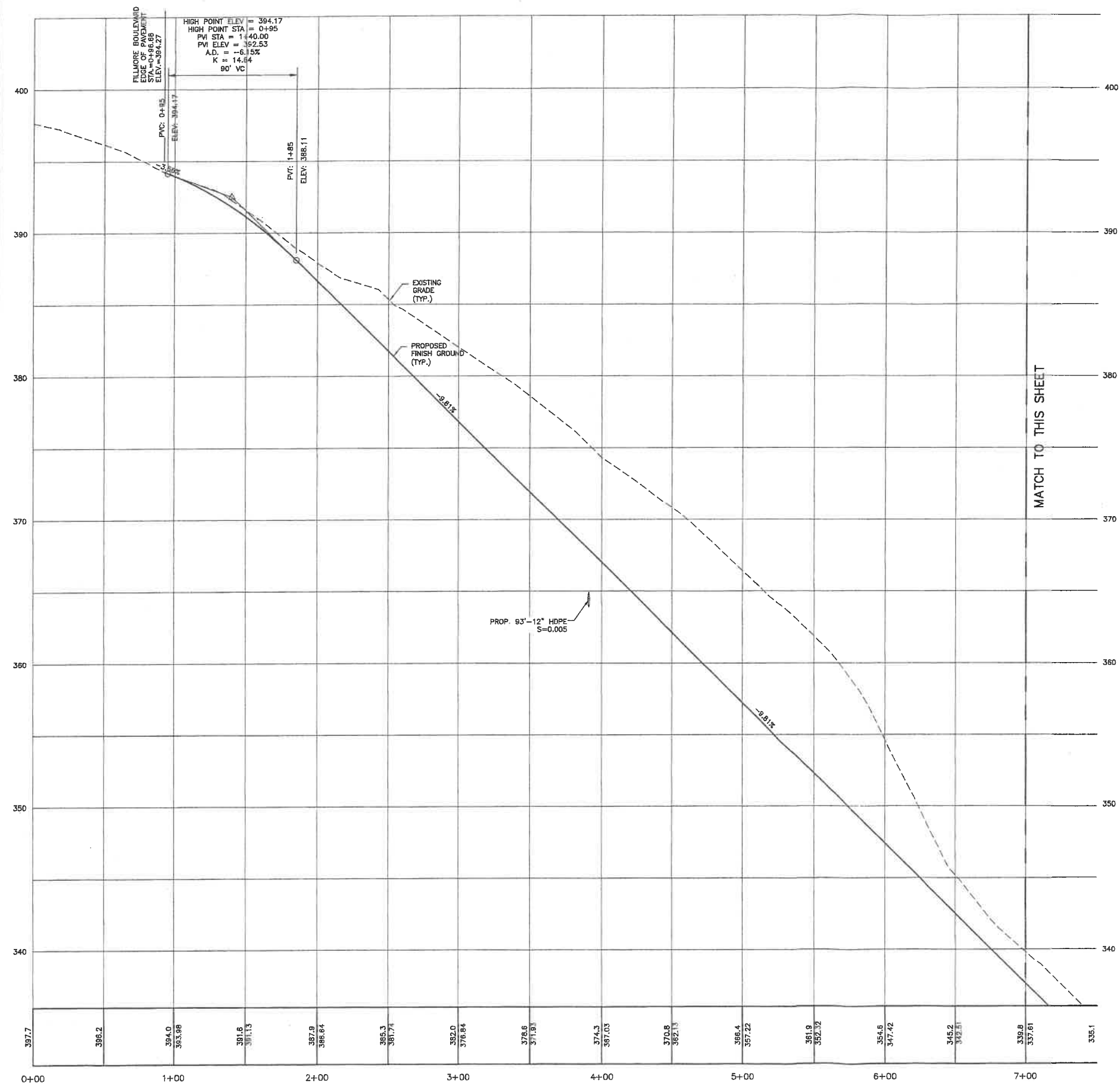


PLANT LIST

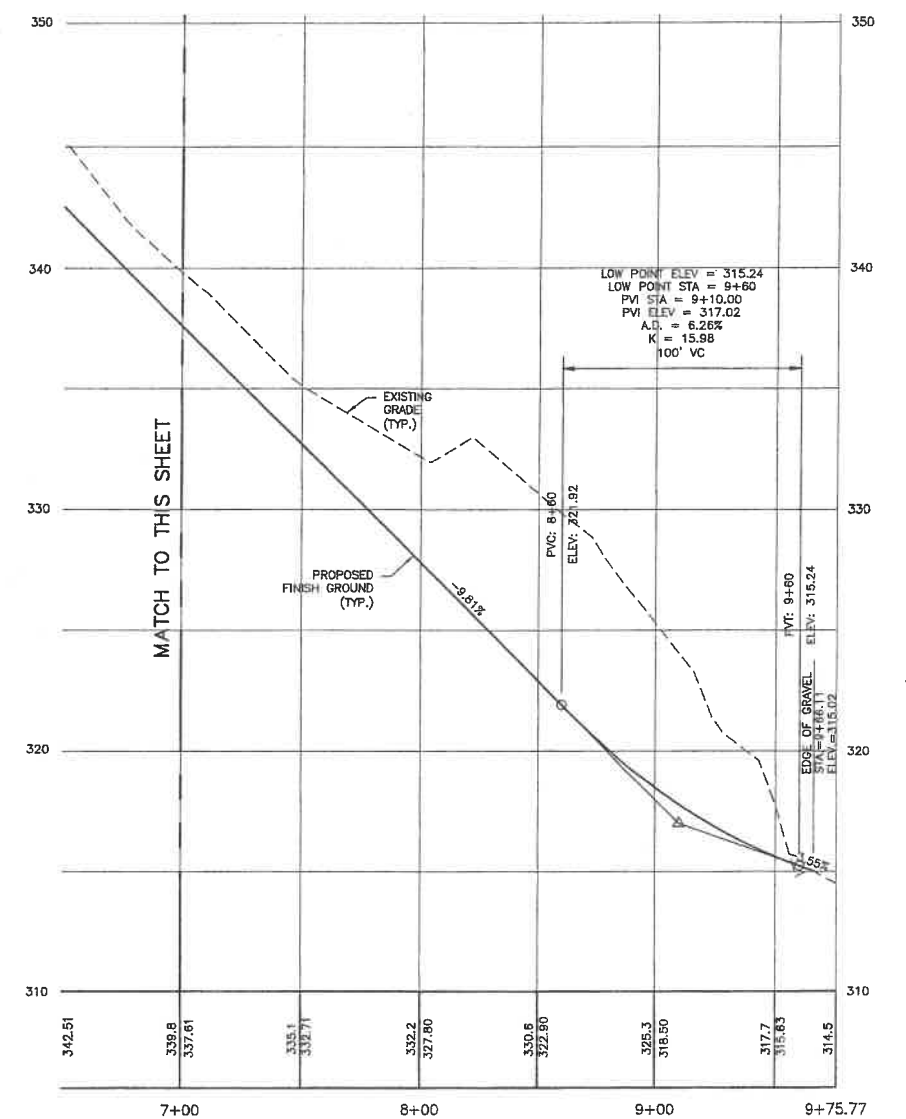
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	MATURE HEIGHT
TREES					
Qc	6	QUERCUS COCCINEA	SCARLET OAK	2-2.5" CAL.	60'+
Op	7	OVERCUS PALUTRIS	PINE OAK	3" CAL.	30'-40'
Tc	9	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLE LEAF LINDEN	2-2.5" CAL.	40'-60'
SHRUBS					
Iv	14	ILEX VETICILLATA	COMMON WINTERBERRY	2.5-3'	6-8'
Vc	35	VIBURNUM CASSINOIDES	WITHEROD VIBURNUM	2-3' S&B	5-6'
PERENNIALS					
Eg	27	EUPATORIUM 'GATEWAY'	GATEWAY JOE PYE WEED	#2	4-5'
Pv	24	PANICUM VIRGATUM 'PRAIRIE FIRE'	PRAIRIE FIRE SWITCH GRASS	#2	

GRAPHIC SCALE





EMERGENCY ACCESS ROADWAY PROFILE
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



EMERGENCY ACCESS ROADWAY PROFILE
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)

SEE SHEET 9 FOR
CONSTRUCTION NOTES

SEE SHEETS 13 - 15 FOR
GRADING, DRAINAGE &
EROSION CONTROL PLANS



EMERGENCY ACCESS ROADWAY PROFILE
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
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S.C.R.D. BK. 3927 PG. 453

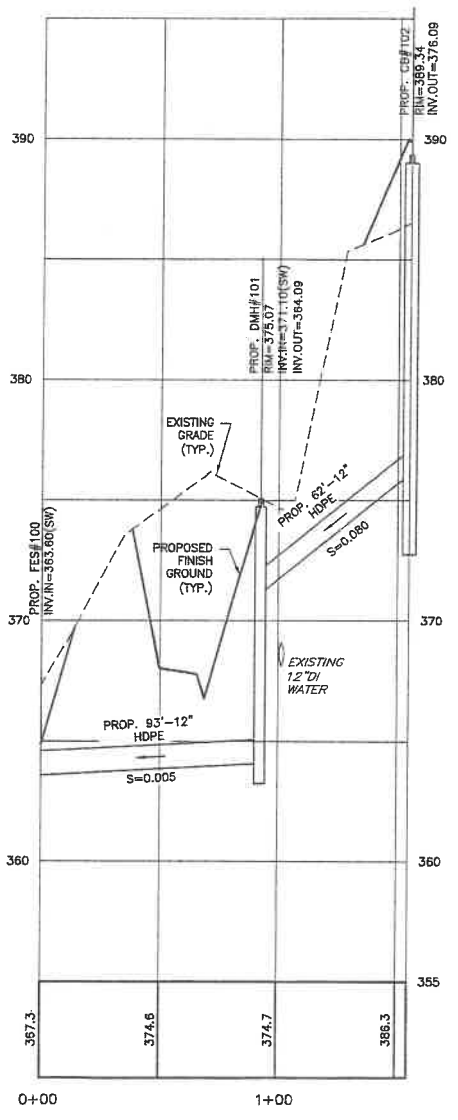
APPLICANT:
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MERRIMACK, NH 03054-2700

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Civil Engineering Land Surveying Landscape Architecture
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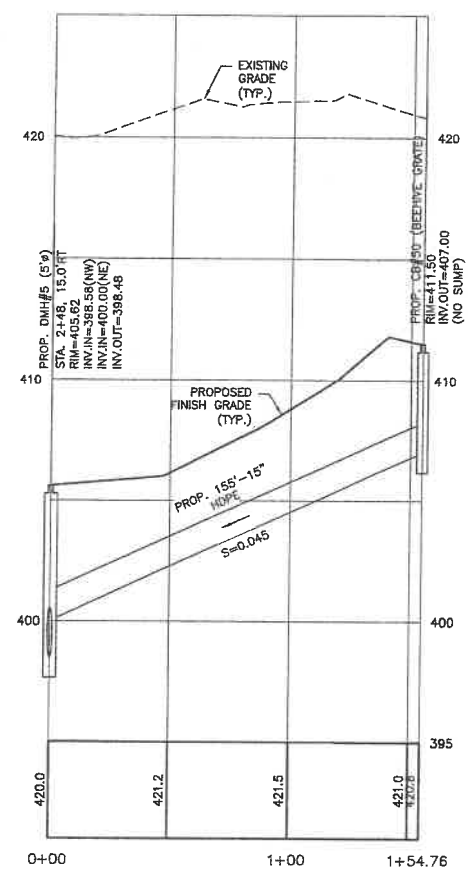
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TM
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3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
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5	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018 SCALE: 1" = 40'
PROJECT NO: 17-0417-3 SHEET 19 OF 29

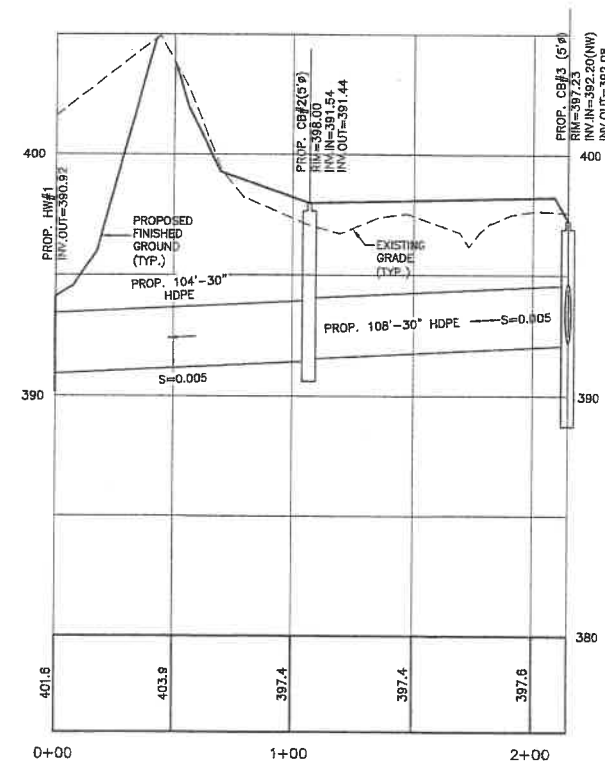
SEE SHEETS 13 - 15 FOR
GRADING, DRAINAGE &
EROSION CONTROL PLANS



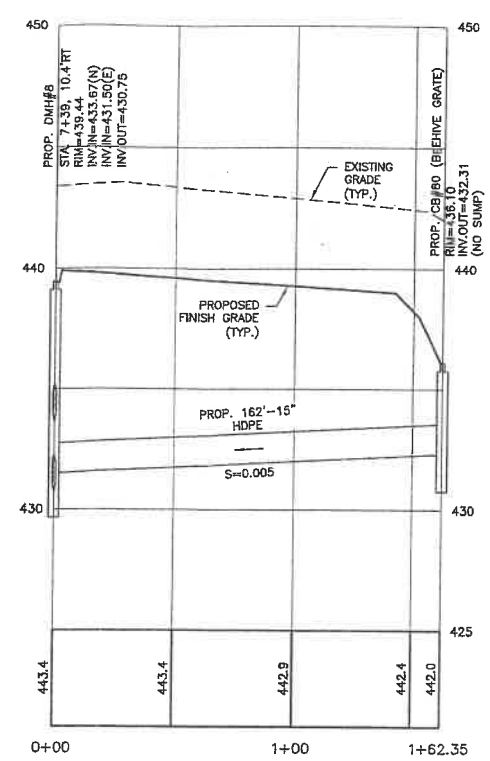
PROP. FES#100 TO PROP. CB#102
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



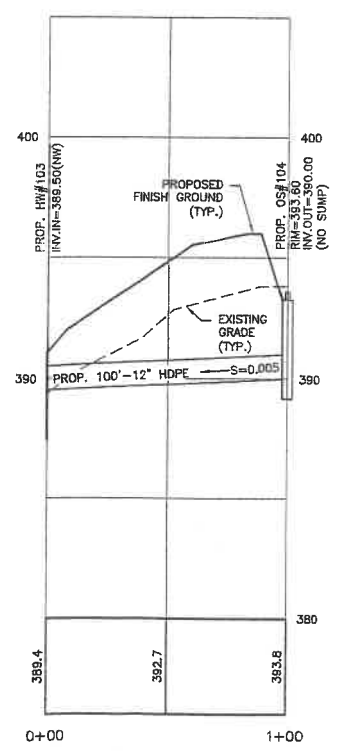
PROP. DMH#5 TO PROP. CB#50
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



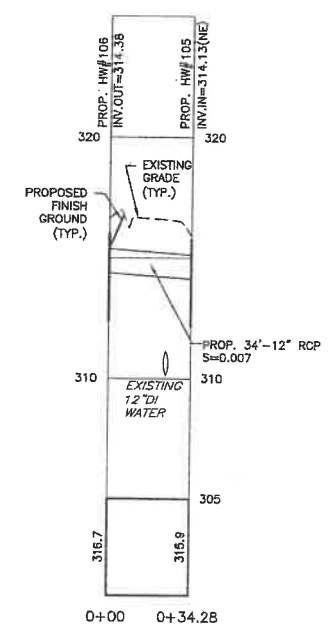
PROP. HW#1 TO PROP. CB#3
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



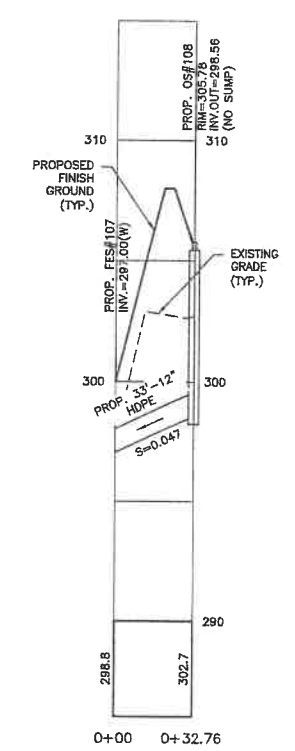
PROP. DMH#8 TO PROP. CB#80
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1" = 4' (VERT.)



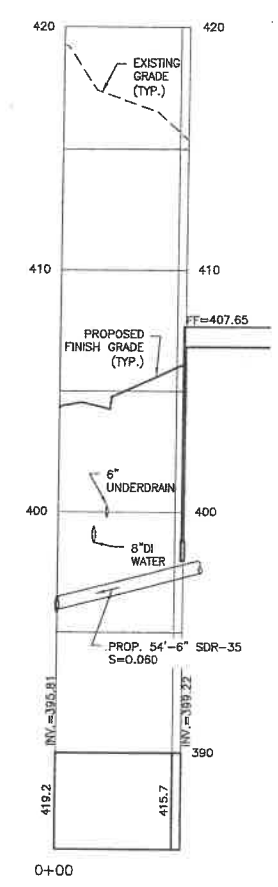
PROP. HW#103 TO PROP. OS#104
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



PROP. HW#106 TO PROP. HW#105
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



PROP. HW#107 TO PROP. OS#108
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



LOT 3-4 SEWER SERVICE
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)



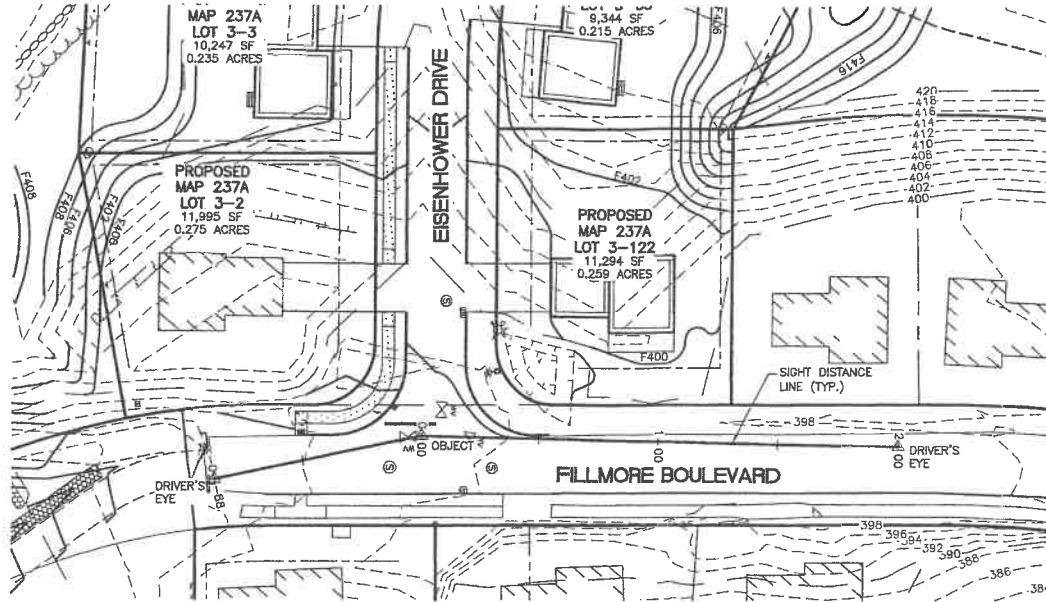
PROFILES
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

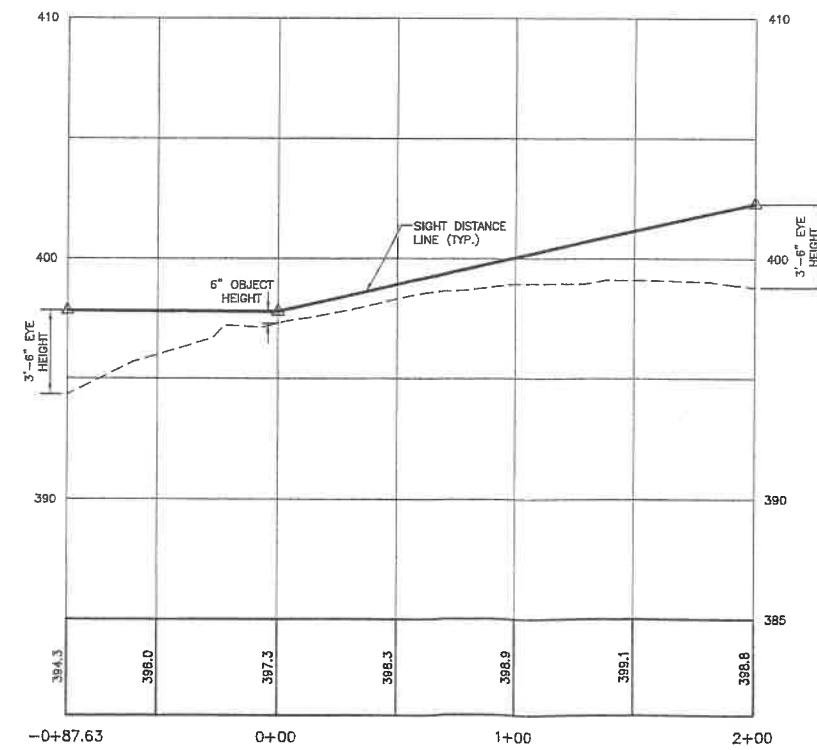
APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

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5	10/24/18	REV. PER STATE COMMENTS	BJC
DATE: MAY 29, 2018		SCALE: AS SHOWN	
PROJECT NO: 17-0417-3		SHEET 20 OF 29	

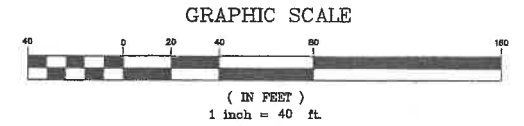


EISENHOWER DRIVE SIGHT DISTANCE PLAN
SCALE: 1" = 40'



EISENHOWER DRIVE SIGHT DISTANCE PROFILE
SCALE: 1" = 40' (HORIZ.)
1" = 4' (VERT.)

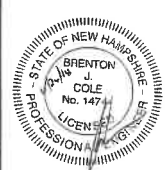
- NOTES:
1. SIGHT DISTANCE MEETS MINIMUM AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STOPPING SIGHT DISTANCE (TABLES 3.1 AND 3.2) FOR 30 MPH.
 2. SIGHT LINES SHALL REMAIN CLEAR DURING ALL SEASONS.



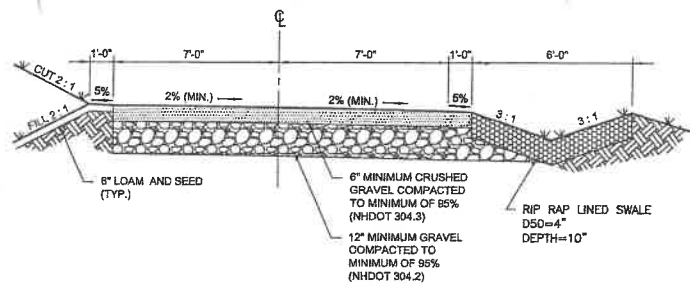
SIGHT DISTANCE PLAN & PROFILE
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453	APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700
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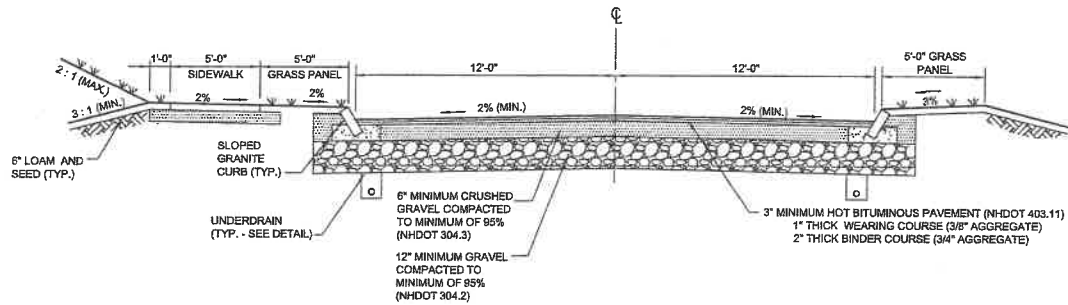
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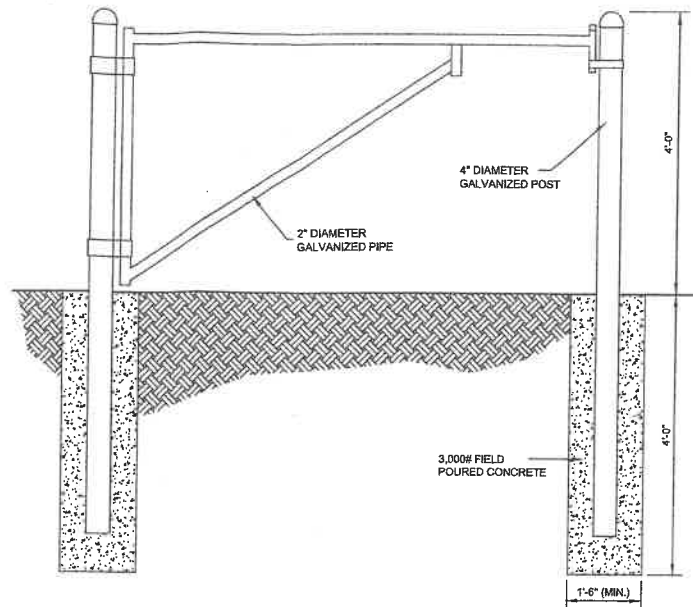
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3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC



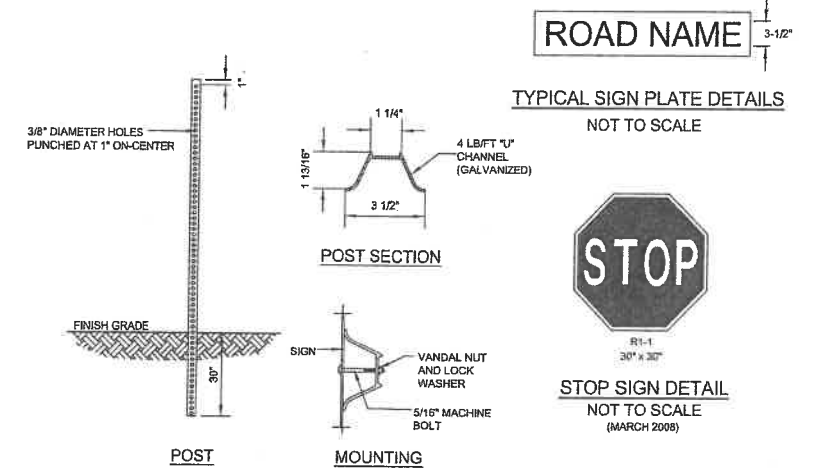
EMERGENCY ACCESS ROADWAY SECTION
NOT TO SCALE



PUBLIC ROADWAY SECTION WITH SIDEWALK
NOT TO SCALE



GALVANIZED GATE DETAIL
NOT TO SCALE
(MARCH 2008)

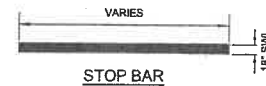


STOP SIGN DETAIL
NOT TO SCALE
(MARCH 2008)

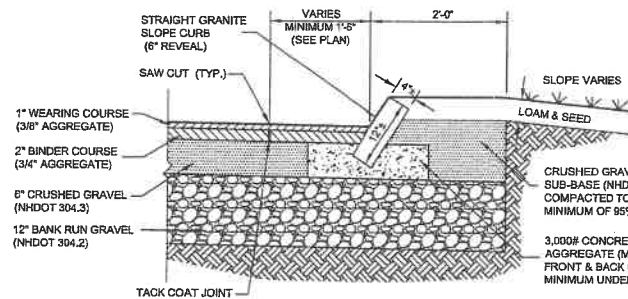
STEEL SIGN POST DETAIL
NOT TO SCALE
(MARCH 2008)

- TRAFFIC SIGN NOTES:
1. ALL TRAFFIC SIGN FACES AND SHAPES SHALL CONFORM WITH THE MUTCD.
 2. ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NHDOT SPECIFICATIONS.

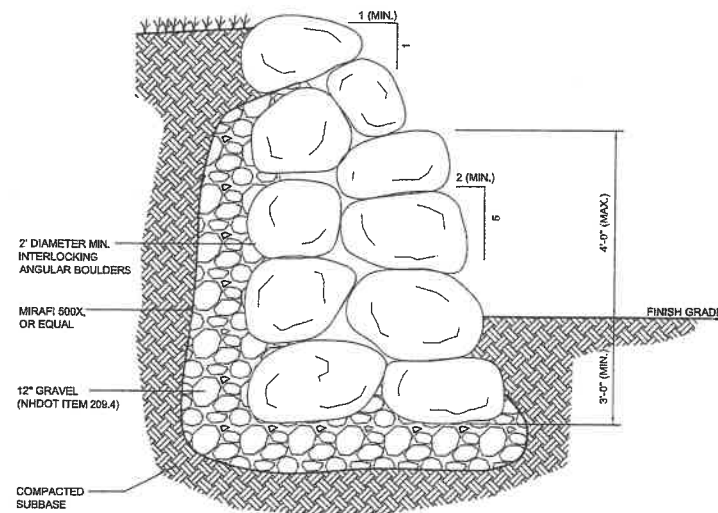
- STRIPING NOTES:
1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF MUTCD.
 2. WIDTH OF LINES SHALL VARY NO MORE THAN 1/4 INCH FROM THAT SPECIFIED.
 3. THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.
 4. OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.



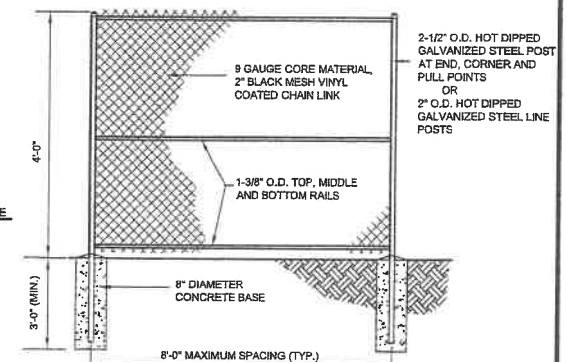
SIGN DETAIL



STRAIGHT GRANITE SLOPE CURB DETAIL
NOT TO SCALE
(MARCH 2008)

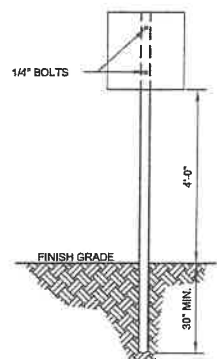


BOULDER WALL DETAIL
NOT TO SCALE

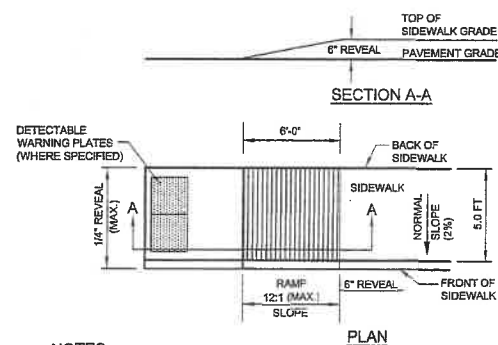


CHAIN LINK FENCE DETAIL
NOT TO SCALE

- POST NOTES:
1. POSTS SHALL BE PLUMB; ANY POST BENT OR OTHERWISE DAMAGED SHALL BE REMOVED AND PROPERLY REPLACED. POSTS MAY BE SET OR DRIVEN.
 2. WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH, AFTER INSERTING POSTS, THE HOLES SHALL BE BACKFILLED WITH SUITABLE MATERIAL IN LAYERS NOT TO EXCEED 8" DEEP THOROUGHLY COMPACTED, CARE BEING TAKEN TO PRESERVE THE ALIGNMENT OF THE POST.
 3. WHEN POSTS ARE DRIVEN, A SUITABLE DRIVING CAP SHALL BE USED AND, AFTER DRIVING, THE TOP OF THE POST SHALL HAVE SUBSTANTIALLY THE SAME CROSS-SECTIONAL DIMENSION AS THE BODY OF THE POST; BATTERED HEADS WILL NOT BE ACCEPTED.
 4. POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.
 5. SIGNS SHALL BE ERECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
 6. WHEN SIGN IS IN PLACE, NO PART OF POST SHALL EXTEND ABOVE THE SIGN.
 7. DIMENSIONS SHOWN ARE NOMINAL.
 8. ALTERNATE SECTIONS MUST BE APPROVED PRIOR TO USE.

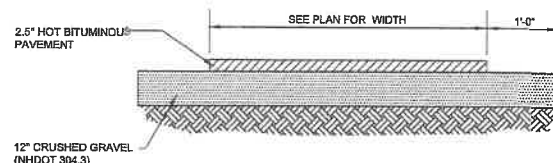


SIGN POST DETAIL
OPEN SPACE SIGN DETAIL
NOT TO SCALE

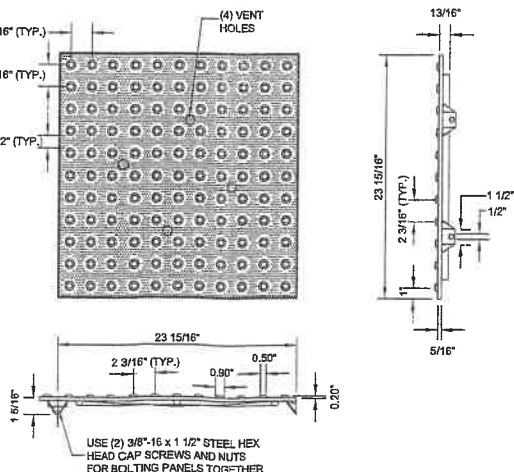


- NOTES:
1. A BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP AND SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMPS.
 2. MAINTAIN THE NORMAL PAVEMENT PROFILE THROUGHOUT THE RAMP AREA.
 3. MAINTAIN A MAXIMUM 1/4" OF CURB REVEAL AT THE RAMP, SEE SECTION A-A.
 4. DETECTABLE WARNINGS TO BE USED IN ACCORDANCE WITH APPLICABLE CODES.

SIDEWALK RAMP
NOT TO SCALE



BITUMINOUS WALK DETAIL
NOT TO SCALE
(MARCH 2008)



- NOTES:
1. DETECTABLE WARNING PLATE SHALL BE NEENAH FOUNDRY OR APPROVED EQUAL.
 2. THE PLATE MUST COMPLY WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND ARCHITECTURAL BARRIER ACT GUIDELINES.
 3. MATERIAL SHALL BE CAST GRAY IRON.
 4. FINISH: NO PAINT
 5. ADA TRUNCATED DOMES MUST RUN PARALLEL WITH DIRECTION OF TRAVEL.

24" x 24" DETECTABLE WARNING PLATE DETAIL
NOT TO SCALE

- NOTES:
1. ANY BOULDER WALL GREATER THAN 4' TALL SHALL REQUIRE A PLANS SUBMITTED TO THE CITY OF ROCHESTER ENGINEER.
 2. AS PERMISSIBLE, THE STRUCTURAL ENGINEER CHARGED WITH RETAINING WALL DESIGN SHALL SPECIFY SALT RESISTANT BLOCK CONSTRUCTION WHERE WALLS ARE TO BE CONSTRUCTED NEAR ROADWAYS OR PARKING AREAS.
 3. RETAINING WALL DRAIN TO "DAYLIGHT" AT LOW POINT OR TIE TO DRAIN STRUCTURE AS SHOWN IN PLAN VIEW.
 4. THE STAMPED DRAWINGS AND CALCULATIONS FOR THE ACTUAL RETAINING WALL MUST BE PROVIDED FOR REVIEW AND APPROVAL AT OR PRIOR TO THE PROJECT'S REQUIRED PRE CONSTRUCTION MEETING.
 5. THE PROVIDED PLANS AND SUPPORTING CALCULATIONS MUST ADDRESS THE FOLLOWING CRITERIA:
 - 5.a. DESIGN CALCULATIONS STAMPED BY QUALIFIED PE LICENSE IN NH
 - 5.b. STABILITY CALCULATIONS (INCLUDING BEARING CAPACITY, GLOBAL STABILITY, OVERTURNING & SLIDING, IMPACT)
 - 5.c. GEORGID PULLOUT AND OTHER PERTINENT DATA & ELEVATIONS
 - 5.d. CONSTRUCTION INSTALLATION SPECIFICATION
 - 5.e. LATERAL EARTH PRESSURE COEFFICIENT
 - 5.f. SURCHARGE LOAD, EMBEDMENT DEPTH
 - 5.g. BOTH A PLAN AND PROFILE OF EACH WALL SECTION

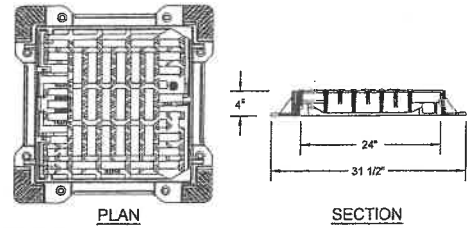
CONSTRUCTION DETAILS HIGHFIELD COMMONS PHASE 1B (A) MAP 237 LOT 3 FILLMORE BOULEVARD ROCHESTER, NEW HAMPSHIRE STRAFFORD COUNTY

OWNER OF RECORD:	APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453	SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

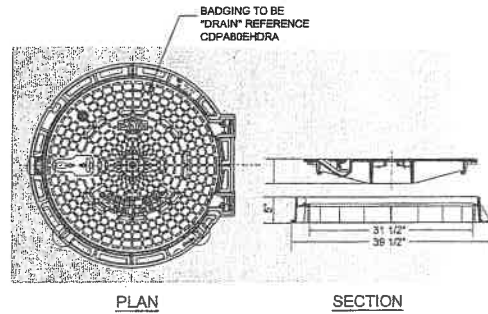
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018 SCALE: AS SHOWN
PROJECT NO: 17-0417-3 SHEET 22 OF 29



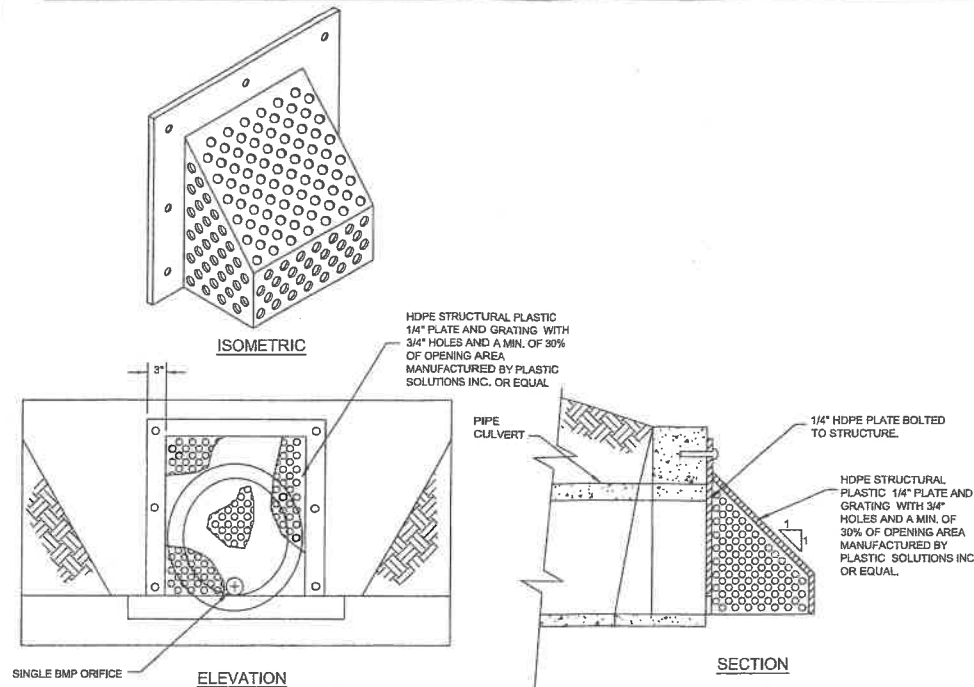
- NOTES:**
1. REXUS 62114 CBSR OR APPROVED EQUAL
 2. FEATURES:
 - TRAFFIC DIRECTION ARROWS INDICATE CLOSING DIRECTION FOR TRAFFIC SAFETY
 - SPRING BAR LOCKING
 - HINGED COVER
 - H-20 LOAD RATED
 - BLACK COATED DUCTILE IRON

CATCH BASIN FRAME AND GRATE DETAIL
NOT TO SCALE

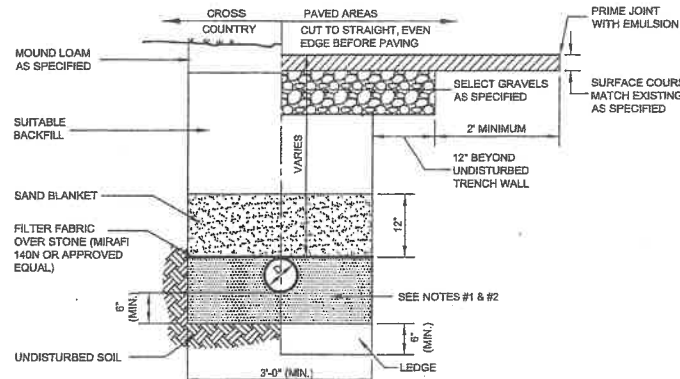


- NOTES:**
- PAMREX 32\" OR APPROVED EQUAL
- FEATURES:**
- COVERS MARKED DRAIN
 - NONROCKING COVER
- SPECIFICATIONS:**
- FULLY MACHINED FRAME AND COVER
 - H-20 LOAD RATED
 - DOUBLE HINGED
 - DUCTILE IRON

DRAIN MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE

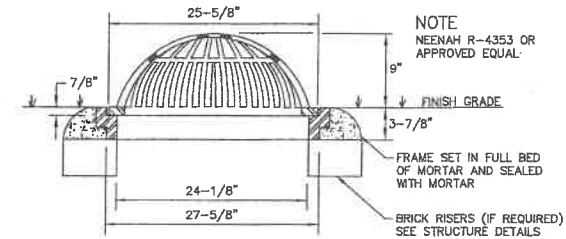


TRASH RACK DETAIL
NOT TO SCALE

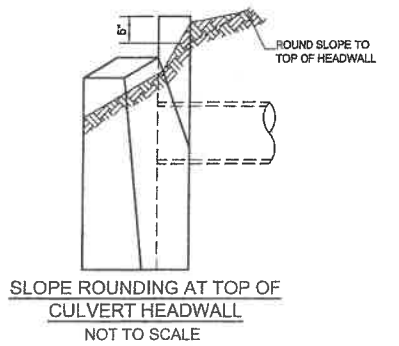


- NOTES:**
1. THOROUGHLY COMPACTED SCREENED GRAVEL FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
 2. FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4\"/>

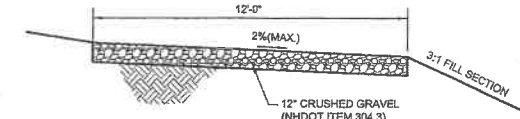
STORM DRAINAGE TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



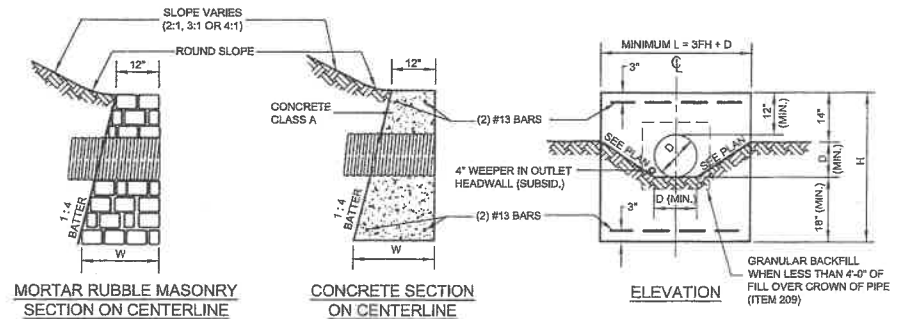
BEEHIVE GRATE - LIGHT DUTY
NOT TO SCALE



SLOPE ROUNDING AT TOP OF CULVERT HEADWALL
NOT TO SCALE



TYPICAL CROSS SECTION GRAVEL DRAINAGE ACCESS
NOT TO SCALE



MORTAR RUBBLE MASONRY SECTION ON CENTERLINE

CONCRETE SECTION ON CENTERLINE

ELEVATION

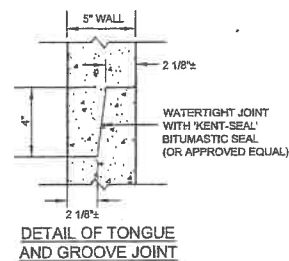
- NOTE:**
- DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.

DIAMETER D (INCH)	AREA OF PIPE (SF)	MASONRY PER FOOT OF WALL (CU. YD.)	MASONRY PER HOLE (CU. FT.)	MASONRY PER STANDARD HEADER (CU. YD.)	STEEL PER STANDARD HEADER (LB)	LENGTH OF BARS	PIPE EXC. 1' DEPTH 1' LENGTH (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)	ITEM 209 PER LINEAR FOOT	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FH	WIDTH AT BOTTOM OF HEADER W	MASONRY IN CORNER FRUSTRUM (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)
12"	0.79	0.186	1.06	0.61	8	3'-2"	0.111	0.789	0.30	3'-6"	3'-6"	10"	1'-10 1/2"	0.28	1.057
15"	1.23	0.202	1.73	0.85	11	3'-10"	0.120	0.947	0.35	4'-6"	3'-9"	1'-11 1/4"	1'-11 1/4"	0.31	1.232
18"	1.77	0.222	2.52	1.13	14	5'-2"	0.130	1.111	0.39	5'-6"	4'-0"	1'-4"	2'-0"	0.35	1.406
24"	3.14	0.260	4.71	1.78	20	7'-2"	0.148	1.451	0.48	7'-6"	4'-6"	1'-10"	2'-1 1/2"	0.42	1.776
30"	4.91	0.301	7.67	2.58	25	9'-2"	0.165	1.910	0.55	9'-6"	5'-0"	2'-4"	2'-3"	0.51	2.164
36"	7.07	0.344	11.49	3.53	31	11'-2"	0.222	2.167	0.65	11'-6"	5'-6"	2'-10"	2'-4 1/2"	0.61	2.572
42"	8.82	0.389	16.24	4.85	36	13'-2"	0.268	2.581	1.07	13'-6"	6'-0"	3'-4"	2'-5"	0.72	3.000
48"	12.57	0.436	21.98	5.95	42	15'-2"	0.298	3.000	1.31	15'-6"	6'-6"	3'-10"	2'-7 1/2"	0.84	3.447
54"	15.80	0.486	28.83	7.44	47	17'-2"	0.333	3.432	1.58	17'-6"	7'-0"	4'-4"	2'-9"	0.98	3.914
60"	19.63	0.538	36.82	9.13	52	19'-2"	0.370	3.882	1.87	18'-6"	7'-6"	4'-10"	2'-10 1/2"	1.12	4.401
66"	23.78	0.593	46.03	11.04	58	21'-2"	0.407	4.350	2.17	21'-6"	8'-0"	5'-4"	3'-0"	1.26	4.907
72"	28.27	0.649	56.55	13.17	63	23'-2"	0.445	4.839	2.50	23'-6"	8'-6"	5'-10"	3'-11 1/2"	1.46	5.433

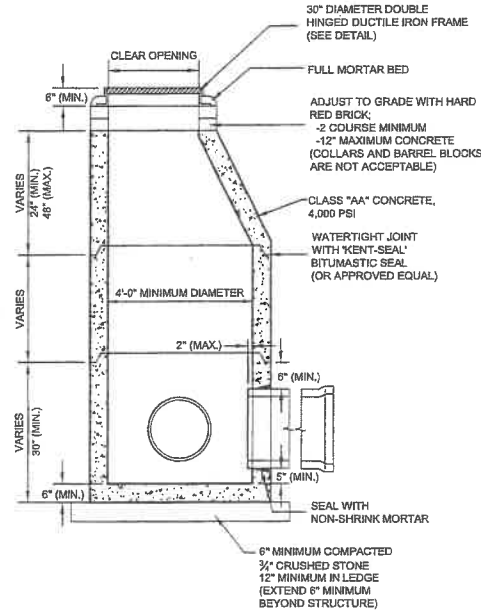
NOTE: STEEL QUANTITIES ARE FOR CONCRETE HEADWALLS ONLY.

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS

NOT TO SCALE
(MARCH 2008)



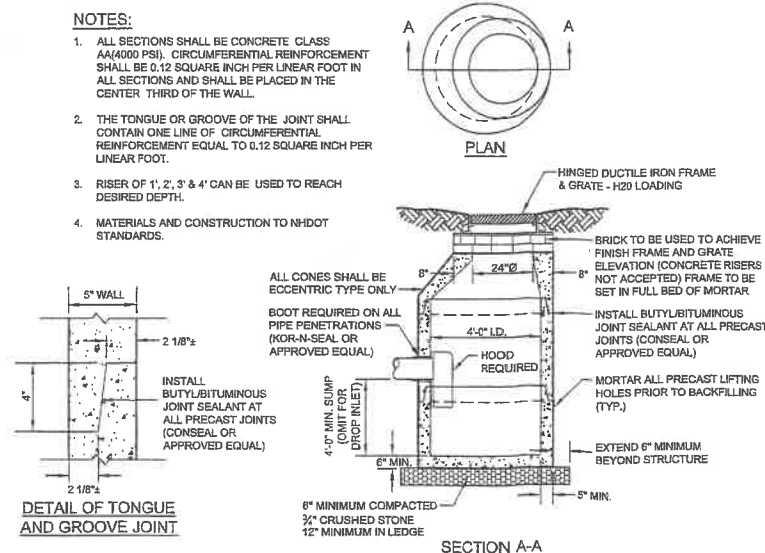
DETAIL OF TONGUE AND GROOVE JOINT



- NOTES:**
1. STEPS ARE NOT ALLOWED.
 2. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE WALL.
 3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F.
 4. MATERIALS AND CONSTRUCTION TO CITY OF ROCHESTER STANDARDS.

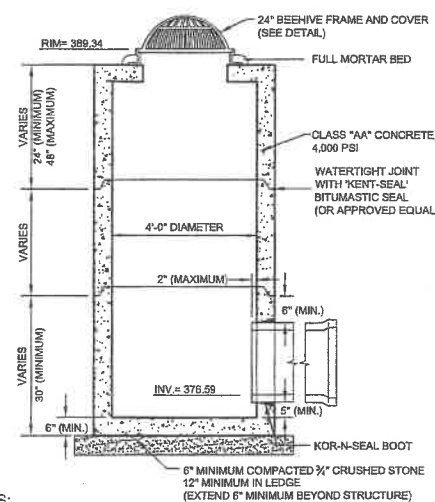
PRECAST REINFORCED DRAIN MANHOLE DETAIL

NOT TO SCALE
(MARCH 2008)



PRECAST REINFORCED CATCH BASIN

NOT TO SCALE
(MAY 2012)



- NOTES:**
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA (4,000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCH PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 2. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
 3. RISER OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
 4. MATERIALS AND CONSTRUCTION TO NHDOT STANDARDS.

OUTLET CONTROL STRUCTURE FOR DETENTION POND
NOT TO SCALE

CONSTRUCTION DETAILS HIGHFIELD COMMONS PHASE 1B (A)

MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

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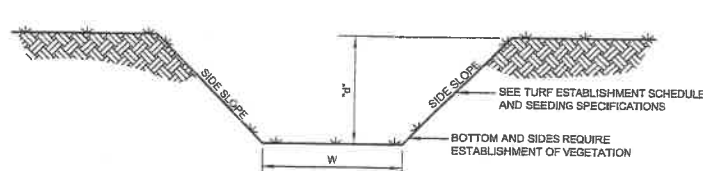
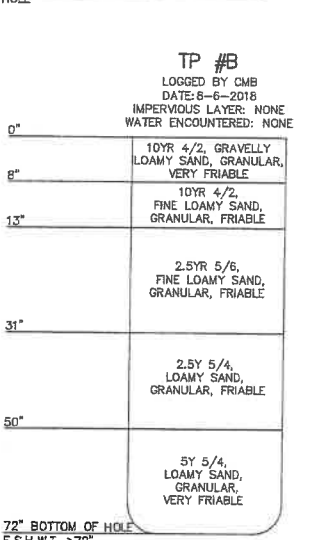
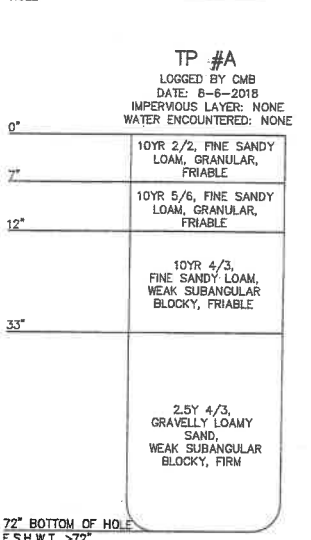
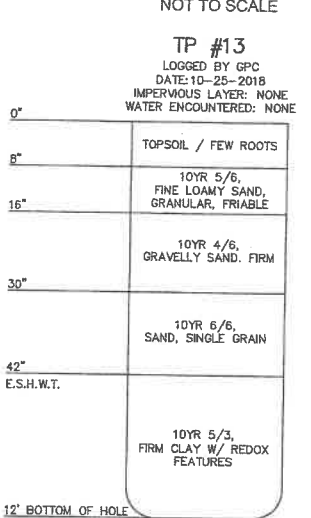
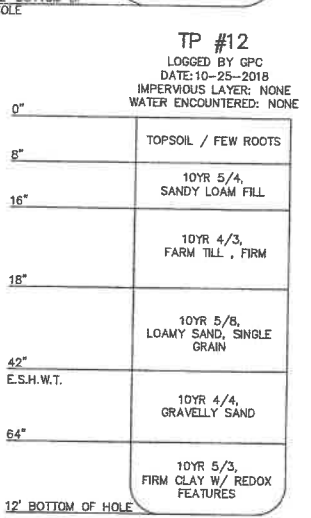
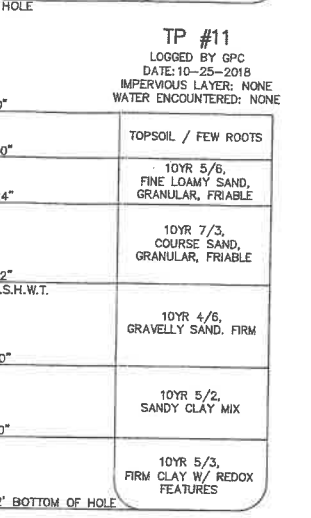
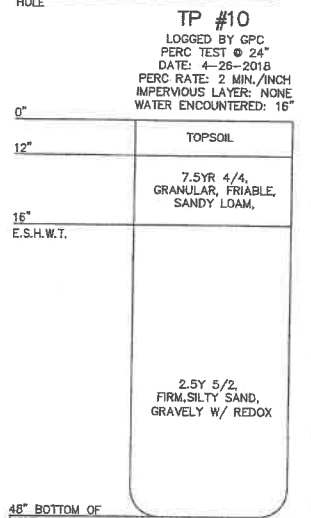
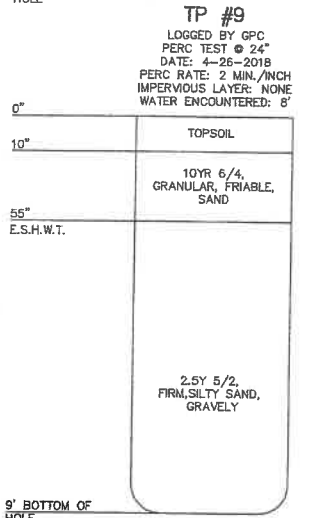
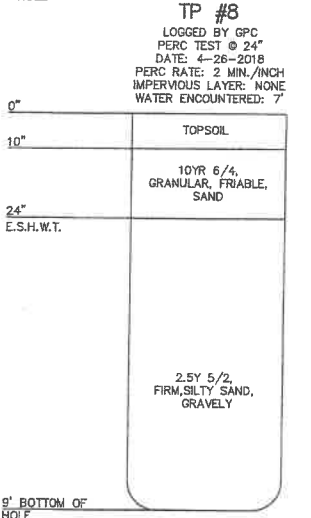
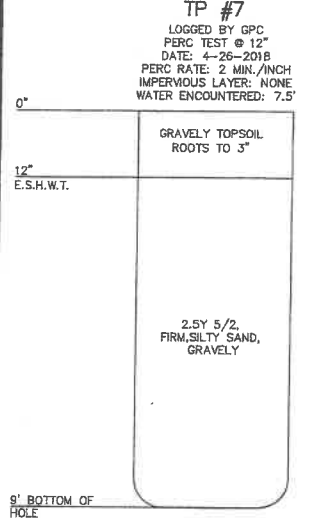
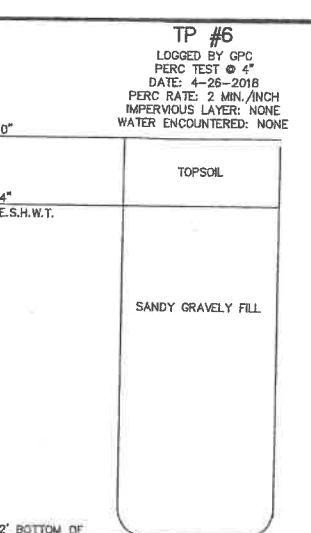
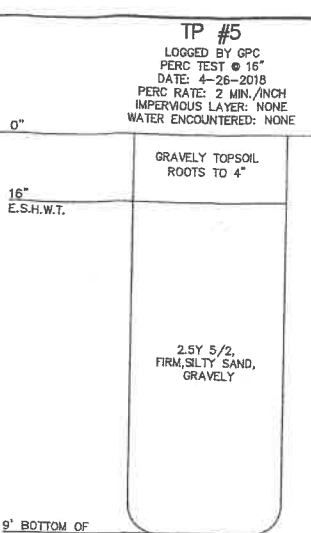
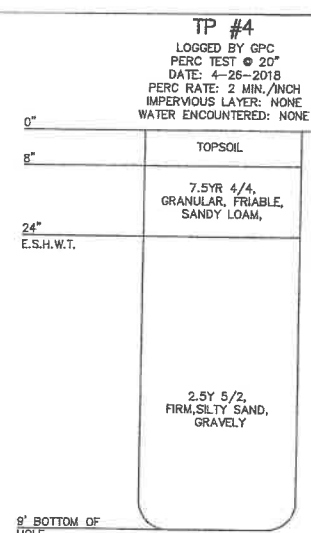
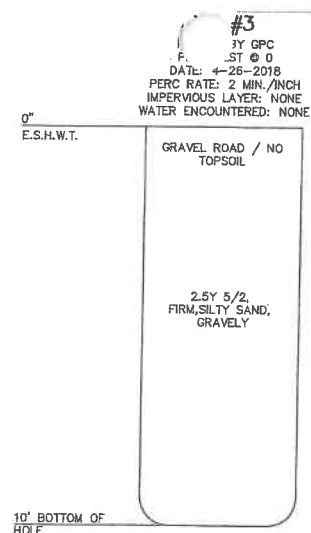
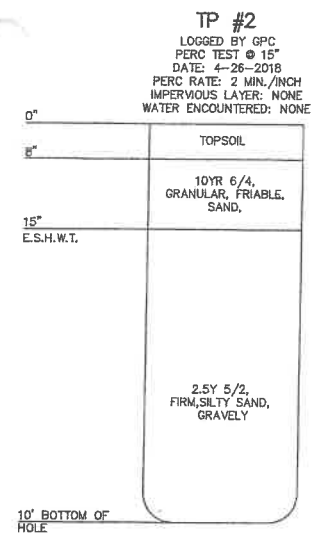
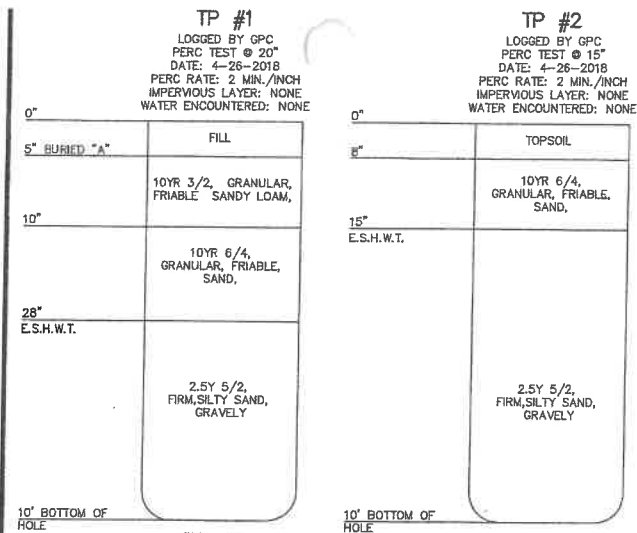
KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BUC

DATE: MAY 29, 2018 **SCALE:** AS SHOWN

PROJECT NO: 17-0417-3 **SHEET** 23 OF 29



LOCATION	SWALE WIDTH "W"	SWALE LENGTH	SWALE SLOPE	DEPTH "D"	SIDE SLOPE
TREATMENT SWALE	8'	184'	0.010	12"	3:1

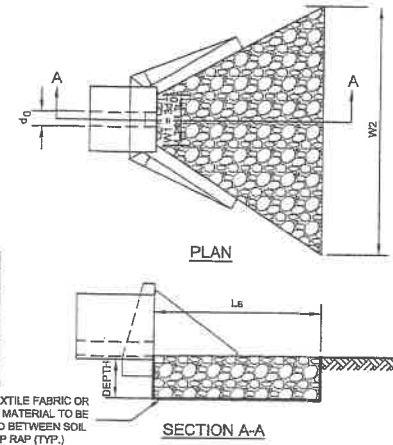
- MAINTENANCE**
1. TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN THE SWALE IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCRUSTMENT OF WEEDS AND WOODY VEGETATION. HOWEVER IT SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.
 2. 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.

TREATMENT SWALE DETAIL
NOT TO SCALE

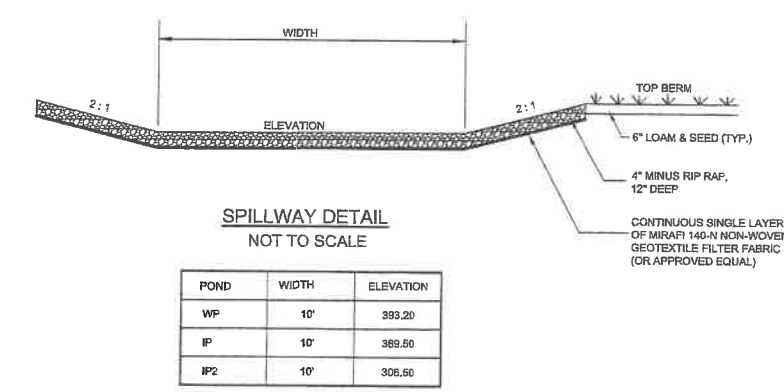
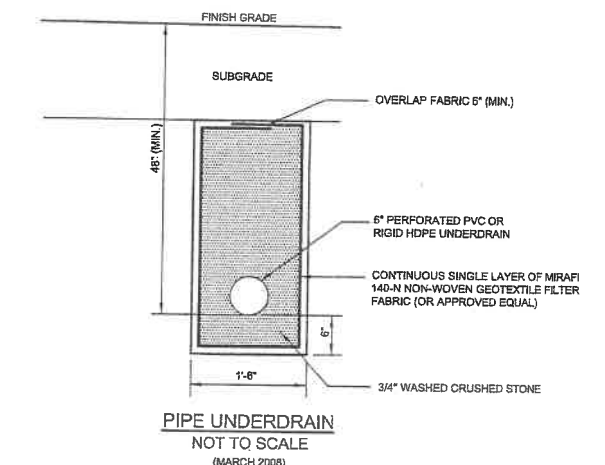
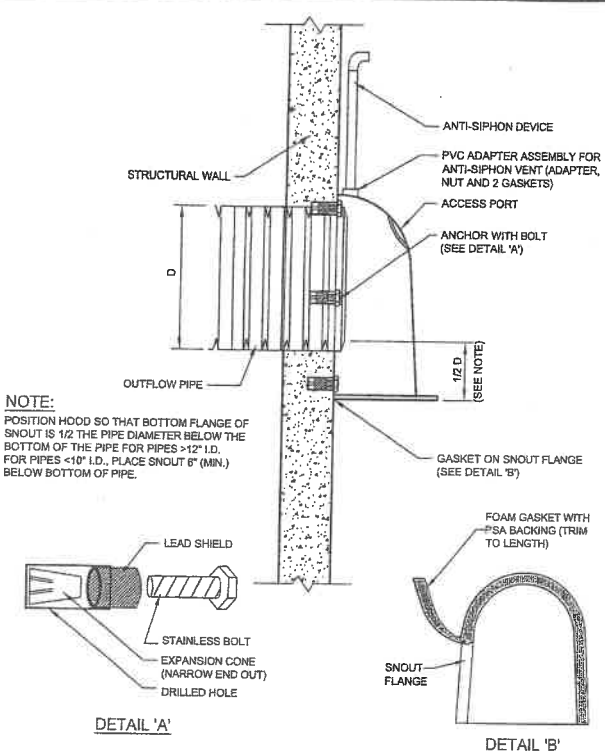
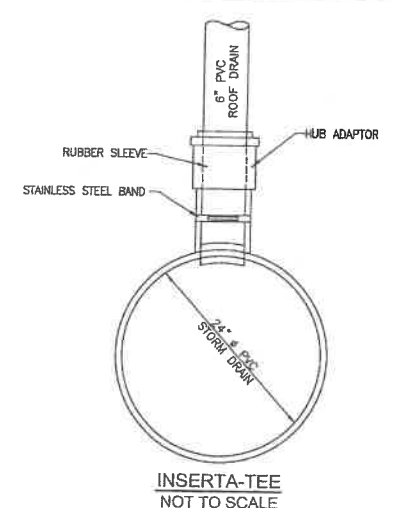
TABLE 7-24 - RECOMMENDED RIP RAP GRADATION RANGES

PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 d50
85%	1.3 TO 1.8 d50
50%	1.0 TO 1.5 d50
15%	0.3 TO 0.5 d50

LOCATION	Ls	W1	W2	d50	DEPTH
PROP. HW#1	27'	8'	34'	6"	15"
PROP. HW#2	8'	3'	11'	4"	10"
PROP. FES#100	8'	3'	11'	4"	10"
PROP. FES#107	8'	3'	11'	4"	10"
PROP. HW#105	8'	3'	11'	4"	10"



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL
NOT TO SCALE
(MARCH 2008)



POND	WIDTH	ELEVATION
WP	10'	393.20
IP	10'	389.50
IP2	10'	306.50

ADS END SECTION DETAIL
NOT TO SCALE

- CONSTRUCTION SPECIFICATIONS:**
1. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
 2. THE ROCK OR GRAVEL USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
 4. STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

- MAINTENANCE:**
- THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED, OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

**CONSTRUCTION DETAILS
HIGHFIELD COMMONS
PHASE 1B (A)**

MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

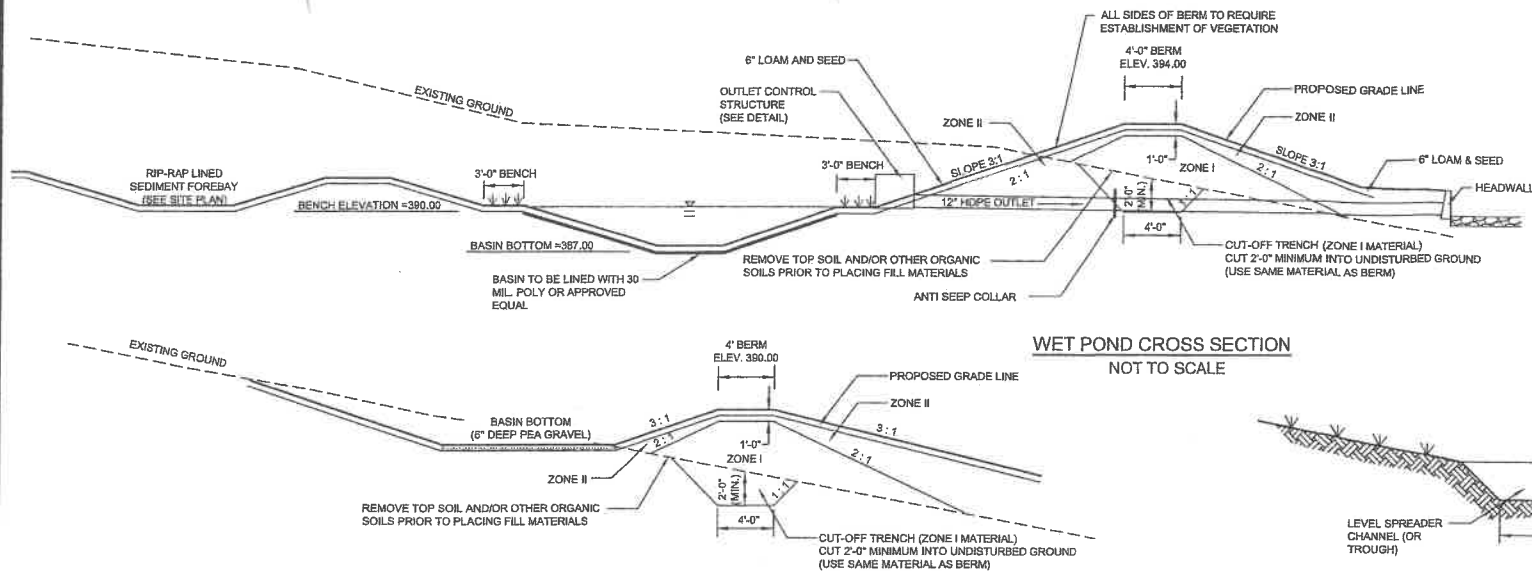
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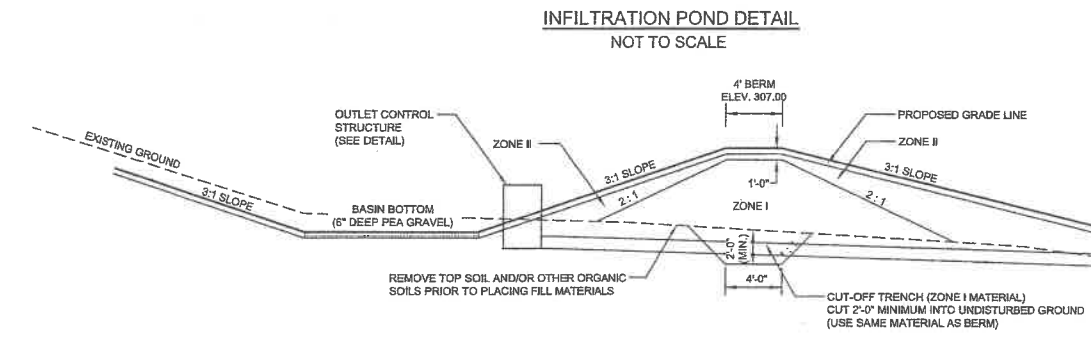
KMA
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DATE: MAY 29, 2018		SCALE: AS SHOWN	
PROJECT NO: 17-0417-3		SHEET 24 OF 29	



SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
12 INCH	100%
6 INCH	84 - 100%
3 INCH	66 - 83%
1 INCH	42 - 55%
NO. 4	8 - 12%



STORMWATER PONDS CONSTRUCTION SEQUENCE

- CONTRACTOR TO NOTIFY DIG-SAFE 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR.
- PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UPLAND AREAS. ALL STOCKPILES SHALL BE SEEDDED WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
- CONSTRUCT CUT-OFF TRENCH (PART OF ZONE I).
- CONSTRUCT OUTLET AND OVERFLOW STRUCTURE, CULVERT, ANTI SEEP COLLARS, HEADWALL, AND RIP RAP OUTLET PROTECTION AS SHOWN ON PLANS.
- CONSTRUCT ZONE I PORTION OF EARTH EMBANKMENT.
- CONSTRUCT ZONE II PORTION OF EARTH EMBANKMENT.
- APPLY TOPSOIL TO SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES, AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LINED, SEEDDED AND MULCHED.
- CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
- A CERTIFIED SOIL SCIENTIST, PROFESSIONAL ENGINEER OR PROFESSIONAL GEOLOGIST MUST MEASURE THE INFILTRATION RATE OF THE AMENDED SOIL IN ACCORDANCE WITH ENH-WQ 1604.14(6). THE RESULTS MUST BE SUBMITTED TO THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WITHIN SEVEN (7) DAYS OF TESTING.
- MAINTAIN, REPAIR, AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
- AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
- MONITOR CONSTRUCTION ACTIVITIES TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF EARTH EMBANKMENTS, STORMWATER CONTROL STRUCTURE, CULVERT AND RIP RAP OUTLET PROTECTION.

NOTES:

- DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE PONDS.
- DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION BASIN.
- AFTER THE BASIN IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
- VEGETATION SHOULD BE ESTABLISHED IMMEDIATELY.
- DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

INFILTRATION BASIN FLOOR NOTES:

- DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM.
- AFTER THE BASIN IS EXCAVATED TO 6" BELOW THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
- PLACE 6" DEEP LAYER OF SAND OR 3/4" PEASTONE ON TOP OF LEVEL BASIN FLOOR TO ACHIEVE THE FINAL DESIGN ELEVATION.
- FILL MATERIAL USED ON THE EXTERIOR FILL SLOPES SHALL CONFORM TO ZONE II GRADATION.
- FILL MATERIAL USED WITHIN THE INTERIOR TO ACHIEVE DESIGN FLOOR ELEVATION OF THE INFILTRATION BASIN SHALL CONFORM TO NHDOT 209.1 GRANULAR BACKFILL (ZONE IV).

MATERIAL TYPE:

ZONE I		ZONE II	
SIEVE SIZE	PERCENT BY WEIGHT PASSING	SIEVE SIZE	PERCENT BY WEIGHT PASSING
3"	100%	3"	100%
1"	95 TO 100%	2 1/2"	95 TO 100%
NO. 4	60 TO 80%	1"	55 TO 85%
NO. 40	60 TO 70%	NO. 4	27 TO 52%
NO. 200	15 TO 30%	NO. 200	0 TO 12%

EMBANKMENT CONSTRUCTION CRITERIA:

- FOUNDATION PREPARATION - THE FOUNDATION AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOD AND RUBBISH. IF NEEDED TO ESTABLISH VEGETATION, THE TOPSOIL AND SOD SHALL BE STOCKPILED AND SPREAD ON THE COMPLETED DAM AND SPILLWAYS. FOUNDATION SURFACES SHALL BE SLOPED NO STEEPER THAN 1:1. THE FOUNDATION AREA SHALL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE MATERIAL. THE SURFACE SHALL HAVE MOISTURE ADDED OR IT SHALL BE COMPACTED IF NECESSARY SO THAT THE FIRST LAYER OF FILL MATERIAL CAN BE COMPACTED AND BONDED TO THE FOUNDATIONS.
- THE CUTOFF TRENCH AND ANY OTHER REQUIRED EXCAVATIONS SHALL BE DUG TO THE LINES AND GRADES SHOWN ON THE PLANS OR AS STAKED IN THE FIELD. IF THEY ARE SUITABLE, EXCAVATED MATERIALS SHALL BE USED IN THE PERMANENT FILL.

EXISTING STREAM CHANNELS IN THE FOUNDATION AREA SHALL BE SLOPED NO STEEPER THAN 1:1 AND DEEPENED AND WIDENED AS NECESSARY TO REMOVE ALL STONES, GRAVEL, SAND, STUMPS, ROOTS AND OTHER OBJECTIONABLE MATERIAL AND TO ACCOMMODATE COMPACTION EQUIPMENT.

- FOUNDATION AREAS SHALL BE KEPT FREE OF STANDING WATER WHEN FILL IS BEING PLACED ON THEM. FILL PLACEMENT - THE MATERIAL PLACED IN THE FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIAMETER (EXCEPT FOR ROCK FILLS) AND OTHER OBJECTIONABLE MATERIAL.

SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS AND ANTI-SEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING.

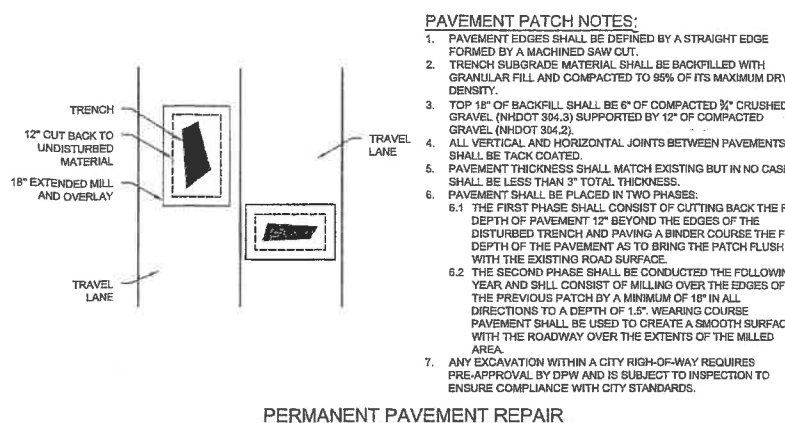
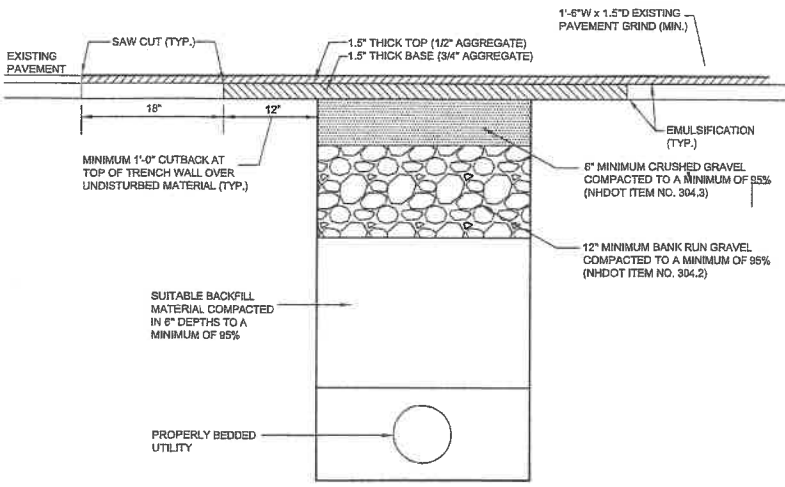
THE PLACING AND SPREADING OF FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL BROUGHT UP IN HORIZONTAL LAYERS OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED. THE FILL SHALL BE CONSTRUCTED IN CONTINUOUS HORIZONTAL LAYERS EXCEPT WHERE OPENINGS OR SECTIONAL FILLS ARE REQUIRED. IN THOSE CASES, THE SLOPE OF THE BONDING SURFACES BETWEEN THE EMBANKMENT IN PLACE AND THE EMBANKMENT TO BE PLACED SHALL 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 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 OF EACH LAYER OF FILL TO INSURE THAT THE REQUIRED COMPACTION IS OBTAINED. SPECIAL EQUIPMENT SHALL BE USED, IF NEEDED, TO OBTAIN THE REQUIRED COMPACTION.
- 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 PRECLUDE THE USE OF VEGETATION AND PROTECTION IS NEEDED, NON-VEGETATIVE MEANS, SUCH AS MULCHES OR GRAVEL, MAY BE USED UNTIL CONDITIONS PERMIT ESTABLISHMENT OF PERMANENT VEGETATION. THE EMBANKMENT AND SPILLWAY SHALL BE FENCED IF NECESSARY TO PROTECT THE VEGETATION. (SEEDING PREPARATION, SEEDING, FERTILIZING AND MULCHING SHALL COMPLY WITH THE APPROPRIATE BMP'S).
- CONCRETE - THE MIX DESIGN AND TESTING OF CONCRETE SHALL BE CONSISTENT WITH THE STRENGTH REQUIREMENTS OF THE JOB. MIX REQUIREMENTS OR NECESSARY STRENGTH SHALL BE SPECIFIED. THE TYPE OF CEMENT, AIR ENTRAINMENT, SLUMP, AGGREGATE OR OTHER PROPERTIES SHALL BE SPECIFIED IF NECESSARY. ALL CONCRETE IS TO CONSIST OF A WORKABLE MIX THAT CAN BE PLACED AND FINISHED IN AN ACCEPTABLE MANNER. NECESSARY CURING SHALL BE SPECIFIED. REINFORCING STEEL SHALL BE PLACED AS INDICATED ON THE PLANS AND SHALL BE HELD SECURELY IN PLACE DURING CONCRETE PLACEMENT. SUBGRADES AND FORMAL SHALL BE SHALLOU TO LINE AND GRADE, AND THE FORMS SHALL BE MORTAR TIGHT AND UNYIELDING AS THE CONCRETE IS PLACED.

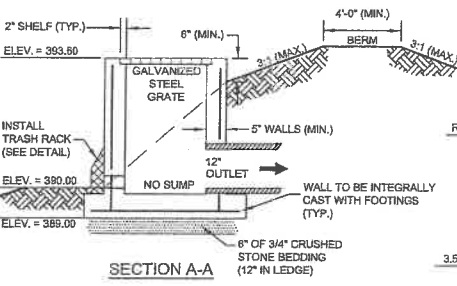
STONED BERMED LEVEL LIP SPREADER DETAIL

NOT TO SCALE
(APRIL 2010)



NOTES:

- ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
- GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
- OUTLET PIPE SHALL NOT BE LESS THAN 15" MINIMUM.
- ALL OPENINGS CAST IN AS REQUIRED.
- PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.

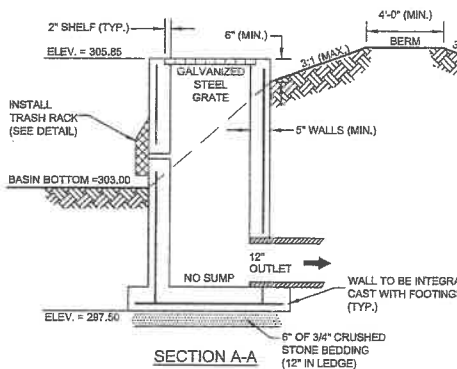


OUTLET CONTROL STRUCTURE #104 FOR WET POND

NOT TO SCALE

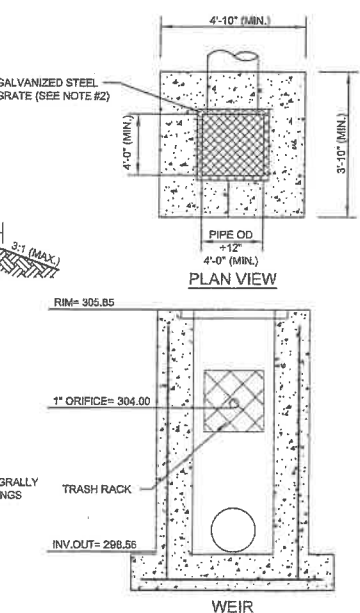
NOTES:

- ALL CEMENT CONCRETE TO BE 4,000 PSI MINIMUM.
- GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
- ALL OPENINGS CAST IN AS REQUIRED.
- PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.



OUTLET CONTROL STRUCTURE #108 FOR INFILTRATION POND #2

NOT TO SCALE



CONSTRUCTION DETAILS HIGHFIELD COMMONS PHASE 1B (A)

MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

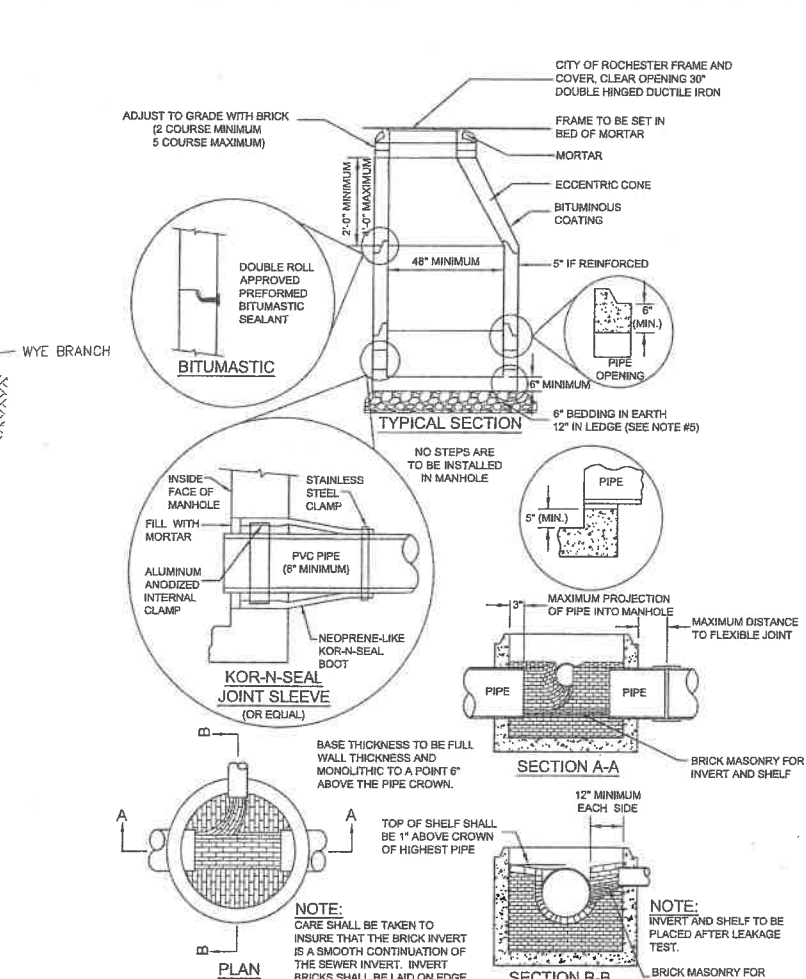
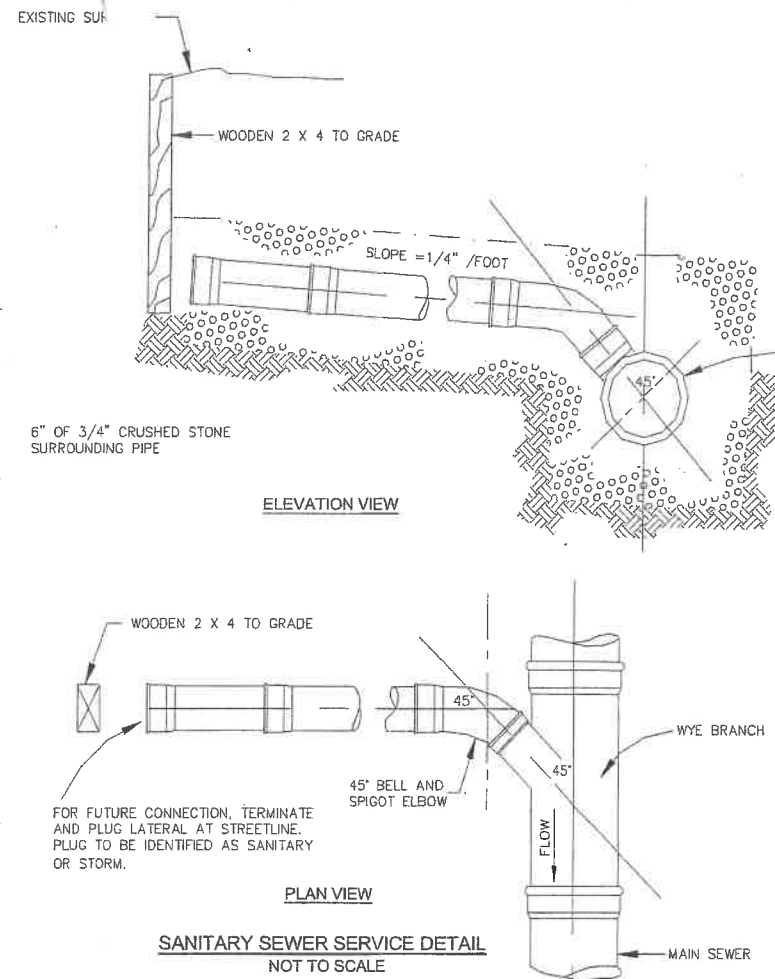
OWNER OF RECORD:	APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453	SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

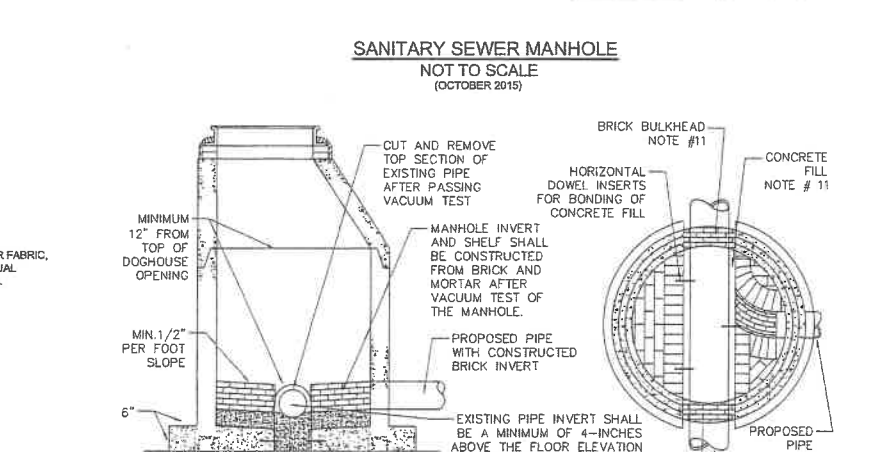
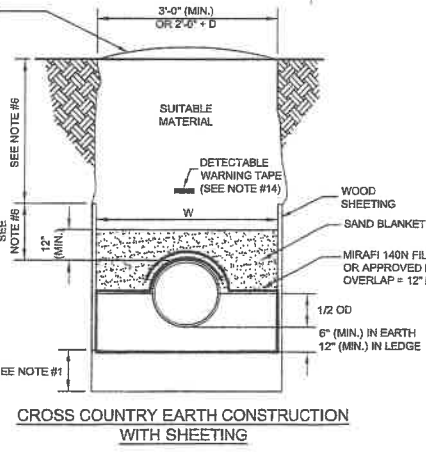
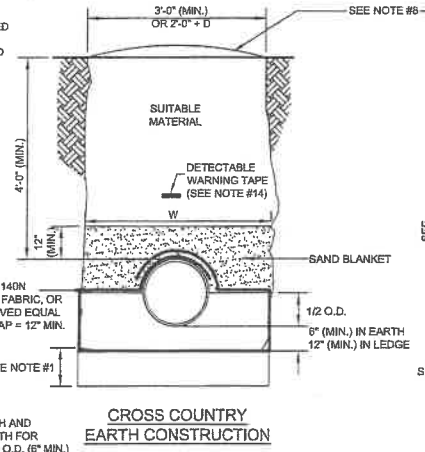
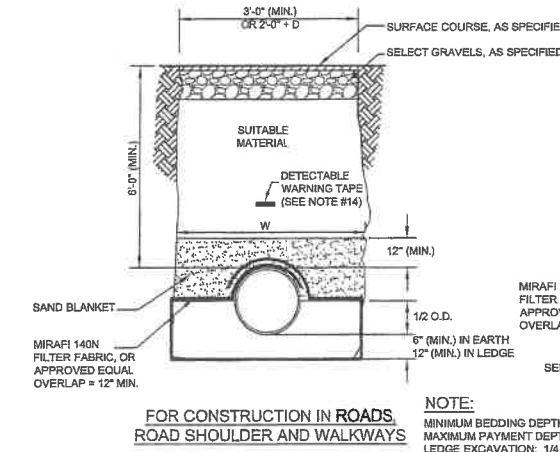
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC
DATE: MAY 29, 2018		SCALE: AS SHOWN	
PROJECT NO: 17-0417-3		SHEET 25 OF 29	

SANITARY SEWER PIPE NOTES:

- MINIMUM SIZE PIPE FOR HOUSE SERVICE SHALL BE 4 INCHES.
- PIPE AND JOINT MATERIALS:
 - DUCTILE IRON PIPE AND FITTINGS SHALL CONFORM TO THE FOLLOWING STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA):
 - AWWA C151/A21.51-02 - FOR DUCTILE IRON PIPE, CENTRIFUGALLY CAST IN METAL OR SAND-LINED MOLDS, FOR WATER OR OTHER LIQUIDS;
 - AWWA C150/A21.50-02 - FOR THICKNESS DESIGN OF DUCTILE IRON PIPE AND WITH ASTM A536-84 (2004) DUCTILE IRON CASTINGS;
 - JOINTS SHALL BE MECHANICAL, PUSH-ON OR BALL-AND-SOCKET TYPE.
 - PLASTIC GRAVITY SEWER PIPE AND FITTINGS SHALL COMPLY WITH THE FOLLOWING STANDARDS:
 - ASTM D3034-04A - PVC, SOLID WALL;
 - AT LEAST 46 PSI AT 5% PIPE DIAMETER DEFLECTION, AS MEASURED IN ACCORDANCE WITH ASTM D2414-02 DURING MANUFACTURING;
 - JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D3212-96A(2003)E1 AND SHALL BE PUSH-ON OR BELL-AND-SPIGOT TYPE.
- DAMAGED PIPE SHALL BE REJECTED AND REMOVED FROM THE JOB SITE.
- JOINTS SHALL BE DEPENDENT UPON PROPER MATERIALS (SEE NOTE #2) FOR WATER TIGHTNESS, AND ALL JOINTS SHALL BE PROPERLY MATCHED WITH THE PIPE MATERIALS USED. WHERE DIFFERING MATERIALS ARE TO BE CONNECTED, AS AT THE STREET SEWER WYE OR AT THE FOUNDATION WALL, APPROPRIATE MANUFACTURED ADAPTERS SHALL BE USED.
- SERVICE CONNECTIONS SHALL USE SANITARY TEE OR WYE FITTINGS FOR ALL NEW CONSTRUCTION. THE CENTERLINE OF ALL BUILDING CONNECTIONS SHALL ENTER THE TOP HALF OF THE SEWER. ANY SERVICE CONNECTION WITH A VERTICAL RISE UP TO 4 FEET MAY HAVE THE SEWER FITTING SET VERTICALLY. ANY SERVICE CONNECTION WITH A VERTICAL RISE UP TO 12 FEET SHALL EMPLOY NON-ENCASED RISERS THAT PROTECT AGAINST PIPE PENETRATION OR FAILURE AT THE FITTING BY THE USE OF BELL-ON-BELL CONNECTIONS. FOR EXISTING SEWER WHERE FITTINGS CANNOT BE INSTALLED, SADDLE CONNECTIONS SHALL BE USED. PRESSURE SEWERAGE SHALL HAVE AN ISOLATION VALVE OR CURB STOP VALVE INSTALLED AT THE PROPERTY LINE. IF A CHECK VALVE IS USED AT THE PROPERTY LINE, THE VALVE SHALL BE INSTALLED WITHIN A VAULT TO FACILITATE MAINTENANCE. ROOF DOWNSPOUTS, EXTERIOR OR INTERIOR FOUNDATION DRAINS, SUMP PUMPS OR OTHER SOURCE OF SURFACE WATER RUN-OFF OR GROUND WATER SHALL NOT BE DIRECTLY OR INDIRECTLY CONNECTED TO A PUBLIC SEWER.
- PIPE INSTALLATION:
 - THE PIPE SHALL BE HANDLED, PLACED AND JOINTED IN ACCORDANCE WITH INSTALLATION GUIDES OF THE APPROPRIATE MANUFACTURER.
 - PIPES SHALL BE CAREFULLY BEDDED ON A 4 INCH LAYER OF CRUSHED STONE AND/OR GRAVEL.
 - BEDDING AND RE-FILL, FOR A DEPTH OF 12 INCHES ABOVE THE TOP OF THE PIPE, SHALL BE CAREFULLY AND THOROUGHLY TAMPED BY HAND OR WITH THE APPROPRIATE MECHANICAL DEVICES.
 - THE PIPE SHALL BE LAID AT A CONTINUOUS AND CONSTANT GRADE FROM THE STREET SEWER CONNECTION TO THE HOUSE FOUNDATION AT A GRADE OF NOT LESS THAN 18 INCH PER FOOT.
 - PIPE JOINTS MUST BE MADE UNDER DRY CONDITIONS. IF WATER IS PRESENT, ALL NECESSARY STEPS SHALL BE TAKEN TO DEWATER THE TRENCH.
- TESTING: THE COMPLETED HOUSE SEWER SHALL BE SUBJECTED TO A LEAKAGE TEST IN ANY OF THE FOLLOWING MANNERS: (PRIOR TO BACKFILLING)
 - AN OBSERVATION TEE SHALL BE INSTALLED AS SHOWN AND WHEN READY FOR TESTING, AN INFLATABLE BLADDER OR PLUG SHALL BE INSERTED JUST UPSTREAM FROM THE OPENING IN THE TEE. AFTER INFLATION, WATER SHALL BE INTRODUCED INTO THE SYSTEM ABOVE THE PLUG TO A HEIGHT OF 5 FEET ABOVE THE LEVEL OF THE PLUG.
 - THE PIPE SHALL BE LEFT EXPOSED AND LIBERALLY HOSED WITH WATER TO SIMULATE, AS NEARLY AS POSSIBLE, WET TRENCH CONDITIONS OR, IF THE TRENCH IS WET, THE GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. INSPECTIONS FOR LEAKS SHALL BE MADE THROUGH THE CLEAN OUT WITH A FLASHLIGHT.
 - DRY FLUORESCENCE DYE SHALL BE SPRINKLED INTO THE TRENCH OVER THE PIPE. IF THE TRENCH IS DRY, THE PIPE SHALL BE LIBERALLY HOSED WITH WATER, OR IF THE TRENCH IS WET, GROUND WATER SHALL BE PERMITTED TO RISE IN THE TRENCH OVER THE PIPE. OBSERVATION FOR LEAKS SHALL BE MADE IN THE FIRST DOWNSTREAM MANHOLE.
 - LEAKAGE OBSERVED IN ANY OF THE ABOVE TESTS SHALL BE CAUSE FOR NON-ACCEPTANCE AND THE PIPE SHALL BE DUG-UP, IF NECESSARY, AND RE-LAID SO AS TO ASSURE WATER-TIGHTNESS.
- ILLEGAL CONNECTIONS: NOTHING BUT SANITARY WASTE FLOW FROM TOILETS, SINKS, LAUNDRY, ETC. SHALL BE PERMITTED. ROOF LEADERS, FOOTING DRAINS, SUMP PUMPS OR ANY OTHER SIMILAR CONNECTION CARRYING RAIN WATER, DRAINAGE OR GROUND WATER, SHALL NOT BE PERMITTED.
- WATER SERVICE SHALL NOT BE LAID IN THE SAME TRENCH AS THE SEWER SERVICE, UNLESS NECESSARY AND APPROVED BY THE A.H.J. WHEN NECESSARY, THE WATER SERVICE SHALL BE PLACED ABOVE AND TO ONE SIDE OF THE SEWER SERVICE, AS SHOWN.
- LOCATION: THE LOCATION OF THE WYE SHALL BE RECORDED AND FILED IN THE MUNICIPAL RECORDS. IN ADDITION, A FERROUS MATERIAL, ROD OR PIPE SHALL BE PLACED OVER THE WYE TO AID IN LOCATING THE BURIED PIPE WITH A DIP NEEDLE OR PIPE FINDER.
- CHIMNEY CONNECTIONS ARE ONLY PERMITTED IF ALLOWED BY THE A.H.J. ANY VERTICAL RISE GREATER THAN 4 FEET SHALL BE PROVIDED WITH ADDED SUPPORT BY ENCASED THE FITTING AND RISER IN A PRECAST CONCRETE CHIMNEY. UP TO 12 FEET OF VERTICAL RISE CAN ALSO BE SECURED BY PROPER MEANS AS LONG AS IT CONSISTS OF A BELL-ON-BELL CONNECTION PROPERLY PROTECTED AGAINST PIPE PENETRATION AND IF IT IS ALLOWED BY THE A.H.J.
- UNLESS OTHERWISE NOTED, ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" MAXIMUM LIFTS AND COMPACTED TO 95% OF THE MODIFIED PROCTOR TEST DENSITY.



- NOTES: (NHDES ENV WQ700 - 2015)**
- ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND SPACE NECESSARY FOR THE INTENDED SERVICE.
 - MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS.
 - MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN EXCESS OF ONE GPD PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE STRUCTURE.
 - BARRELS, CONCRETE GRADE RINGS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE AND SHALL CONFORM TO ASTM C478.
 - BEDDINGS: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 100% PASSING 1 INCH SCREEN 90% PASSING 3/4 INCH SCREEN 20-55% PASSING 3/8 INCH SCREEN 10-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE
- WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED.
- BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 6 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.
 - HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE, SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
 - PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
 - ELASTOMERIC, RUBBER SLEEVE WITH WATERTIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACE.
 - CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS;
 - ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING; AND
 - NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
 - MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.
 - ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDUBLY MARKED ON THE INSIDE WALL.
 - ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
 - MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. INVERTS AND SHELVES SHALL BE PLACED AFTER TESTING.
 - MATERIALS OF CONSTRUCTION FOR MANHOLES SHALL BE AS FOLLOWS:
 - CONCRETE FOR PRECAST BASES OR GRADE RINGS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION";
 - REINFORCING FOR PRECAST CONCRETE SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION";
 - PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO ASTM C478;
 - THE MANHOLE FRAME AND COVER SHALL PROVIDE A 30-INCH DIAMETER CLEAR OPENING;
 - THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3-INCH LETTERS CAST INTO THE TOP SURFACE;
 - THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES AND DEFECTS;
 - CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION;
 - CASTINGS SHALL BE EQUAL TO CLASS 30, BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO ASTM A484B9M;
 - BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL BE CERTIFIED BY THEIR MANUFACTURER(S) AS CONFORMING TO ASTM C2, CLAY OR SHALE, FOR GRADE SS HARD BRICK;
 - MORTAR SHALL BE COMPOSED OF TYPE I PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION;
 - PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:
 - 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
 - 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PARTS HYDRATED LIME;
 - CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150C150M;
 - HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES";
 - SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM C33 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES";
 - CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION";
 - SUBJECT TO (C) BELOW, A FLEXIBLE PIPE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION:
 - WITHIN 48-INCHES FOR REINFORCED CONCRETE (RC) PIPE; AND
 - WITHIN 80-INCHES FOR PVC PIPE LARGER THAN 15-INCH DIAMETER;
 - NO FLEXIBLE JOINT SHALL BE REQUIRED FOR D.I. PIPE OR FOR PVC PIPE UP THROUGH 15-INCH DIAMETER; AND
 - WHEN MANHOLE DEPTH IS LESS THAN 6 FEET, A REINFORCED CONCRETE SLAB COVER MAY BE USED IN LIEU OF A CONE SECTION, PROVIDED THE SLAB HAS AN ECCENTRIC ENTRANCE OPENING AND IS CAPABLE OF SUPPORTING H-20 LOADS.
 - MANHOLE TESTING:
 - MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST.
 - THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
 - THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES Hg; AND
 - THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH Hg PRESSURE DROP TO 9 INCH Hg SHALL BE:
 - NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH;
 - NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP; AND
 - NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.
 - THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (B) ABOVE.
 - FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENTS TO GRADE.



- NOTES:**
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL. ALSO SEE NOTE #7.
 - BEDDING: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33/C33M STONE SIZE NO. 67. 100% PASSING 1 INCH SCREEN 20 - 100% PASSING 3/4 INCH SCREEN 20 - 55% PASSING 3/8 INCH SCREEN 0 - 10% PASSING #4 SIEVE 0 - 5% PASSING #8 SIEVE
 - WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED CRUSHED STONE 1/2 INCH TO 1-1/2 INCHES SHALL BE USED.
 - SAND BLANKET: GRADED CLEAN SAND FREE FROM ORGANIC MATTER, SO THAT 100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A #200 SIEVE. BLANKET MAY BE OMITTED FOR CAST IRON, DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED, HOWEVER, THAT NO STONE LARGER THAN 2 INCHES IS IN CONTACT WITH THE PIPE.
 - MIRAFI 140N FILTER FABRIC, OR APPROVED EQUAL, SHALL BE INSTALLED ABOVE PIPE.
 - SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS SUITABLE MATERIAL FOR TRENCH BACKFILL 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 6 INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
 - IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK OR PEAT IF HE/SHE IS SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER WILL BE PRESERVED FOR MAINTENANCE AND POSSIBLY RECONSTRUCTION, WHEN NECESSARY.
 - BASE COURSE, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 308 OF THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS."
 - WOOD SHEETING, IF REQUIRED, WHERE PLACED ALONGSIDE THE PIPE AND EXTENDING BELOW MID-DIAMETER, SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE, WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
 - W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE PAVEMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
 - FOR CROSS COUNTRY CONSTRUCTION, BACKFILL OR FILL SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE 10 FEET OF SEPARATION BETWEEN WATER AND SEWER. HOWEVER, SHOULD CONSTRUCTION REVEAL OR EXPOSE A WATERLINE (MAIN OR SERVICE) RUNNING APPROXIMATELY PARALLEL AND LESS THAN 10 FEET HORIZONTALLY FROM THE PROPOSED SEWER INSTALLATION AND WHERE IT IS NOT PRACTICAL TO RELOCATE THE SEWER, A DEVIATION MAY BE GRANTED PROVIDED THAT THE SEWER IS CONSTRUCTED IN ACCORDANCE WITH THE FORCE MAIN CONSTRUCTION REQUIREMENT SPECIFIED BELOW:
 - FORCE MAINS SHALL BE CONSTRUCTED FROM DUCTILE IRON, HIGH DENSITY POLYETHYLENE, OR PVC PER ENV-WQ 704.09(a).
 - PVC SHALL CONFORM TO ASTM D2241-05 OR ASTM D1785-05. D.I. SHALL CONFORM TO ASTM D3035-03a.
 - D.I. SHALL BE CORROSION PROTECTED IN CORROSIVE ENVIRONMENTS
 - WHERE WATER LINES AND SEWER LINES CROSS, THEY SHOULD CROSS AS PERPENDICULAR AS POSSIBLE AND THE WATER MAIN SHALL CROSS AT LEAST 18 INCHES ABOVE THE SEWER. FURTHER, THE SEWER JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.
 - ALL SEWERS AT 8 PERCENT SLOPE, OR GREATER, SHALL HAVE IMPERVIOUS TRENCH DAMS CONSTRUCTED EVERY 300 FEET.
 - UNLESS OTHERWISE NOTED, ALL GRANULAR MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 95% OF THE MODIFIED PROCTOR TEST.
 - WHERE WATER MAINS CROSS UNDER SEWER MAINS, BOTH THE SEWER AND WATER MAINS SHALL BE PRESSURE RATED PIPE PER ENV-WQ 704.06 AND TESTED PER AWWA C900-05 AT 1.5 TIMES DESIGN PRESSURE OR 100 PSI, WHICHEVER IS GREATER, WITH NO JOINTS WITHIN 9 FEET OF THE CROSSING POINT AND 18" MINIMUM VERTICAL SEPARATION.
 - ALL SEWERS SHALL BE MARKED USING METAL IMPREGNATED MARKING TAPE OR TRACER WIRE PLACED 24 INCHES ABOVE THE TOP OF PIPE THAT CAN BE LOCATED USING METAL DETECTION EQUIPMENT.
 - GRAVITY PIPE SEWER TESTING:
 - ALL NEW GRAVITY SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR TESTS.
 - LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH:
 - ASTM F1417-92(2005) "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR;" OR
 - UN-BELL PVC PIPE ASSOCIATION UNI-B-8, "LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" (1998).
 - ALL NEW GRAVITY SEWERS SHALL BE CLEANED AND VISUALLY INSPECTED USING A LAMP TEST AND BY INTRODUCING WATER TO DETERMINE THAT THERE IS NO STANDING WATER IN THE SEWER AND SHALL BE TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO USE.
 - ALL PLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED NOT LESS THAN 30 DAYS NOR MORE THAN 90 DAYS FOLLOWING INSTALLATION.
 - THE MAXIMUM ALLOWABLE DEFLECTION OF FLEXIBLE SEWER PIPE SHALL BE 5 PERCENT OF AVERAGE INSIDE DIAMETER. A RIGID BALL OR MANHOLE WITH A DIAMETER OF AT LEAST 95 PERCENT OF THE AVERAGE INSIDE PIPE DIAMETER SHALL BE USED FOR TESTING PIPE DEFLECTION. THE DEFLECTION TEST SHALL BE CONDUCTED WITHOUT MECHANICAL PULLING DEVICES.
 - MINIMUM 4" DIAMETER MANHOLE.
 - DOGHOUSE STYLE MANHOLE SHALL ONLY BE USED WHERE SPECIFIED ON THE PLANS AND APPROVED BY WAIVER FROM NHDES. OTHERWISE, CONSTRUCTION OF THE MANHOLE SHALL COMPLY ENTIRELY ACCORDING TO THE STANDARD SEWER MANHOLE DETAIL. CONTRACTOR SHALL NOTIFY NHDES IN ADVANCE OF ANY CONSTRUCTION OR TESTING OF THIS STYLE OF MANHOLE TO CONFIRM ANY INTENTIONS TO WITNESS WORK.
 - DOGHOUSE OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN OUTSIDE DIAMETER OF THE EXISTING PIPE.
 - BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
 - SEE SANITARY MANHOLE DETAIL FOR ADDITIONAL INFORMATION.
 - MANHOLE BASE SECTION SHOWN IN DETAIL. ALL OTHER SECTION AND CONSTRUCTION DETAILS SHALL COMPLY WITH THE SEWER MANHOLE DETAIL.
 - BARREL AND SLAB SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H-20 LOADING, AND CONFORMING TO ASTM C478-06 AND ASHTO M-188.
 - INVERT BRICKS SHALL BE LAID ON EDGE.
 - INVERT AND SHELF OF NEW CHANNEL(S) SHALL BE CONSTRUCTED ENTIRELY BRICK AND MORTAR. BRICK SHELF SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE OUTLET.
 - REMOVE MATERIAL BELOW THE PIPE. INSTALL CRUSHED STONE BEDDING AND SET DOGHOUSE STYLE MANHOLE BASE OVER EXISTING PIPE.
 - DOGHOUSE OPENINGS SHALL BE FILLED WITH BRICK AND MORTAR. BULKHEADS AND NON-SHRINK GROUT. PARGE EXTERIOR OF THE BRICK BULKHEADS AND WATERPROOF WITH BITUMINOUS COATING. AFTER BULKHEADS ARE CONSTRUCTED, AREA BELOW THE PIPE IS TO BE FILLED WITH CONCRETE.
 - CIRCUMFERENTIAL REINFORCEMENT SHALL CONFORM TO ASTM A-185.
 - BOTTOM REINFORCEMENT SHALL CONFORM TO ASTM A-615 GRADE 60 AND PLACED PER ASTM C-478.
 - BRICK AND MORTAR INVERT AND SHELF TO BE PLACED ONLY AFTER PASSING VACUUM TEST OF THE MANHOLE. CUTTING AND REMOVING TOP SECTION OF EXISTING PIPE WILL ONLY BE DONE AFTER VERIFYING TIGHTNESS VIA A PASSING VACUUM TEST.
 - CARE SHALL BE TAKEN TO ENSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
 - CONTRACTOR TO VERIFY NUMBER AND LOCATION OF OPENINGS WITH THE UTILITY PLANS.

NOTES ON SANITARY SEWER DOGHOUSE MANHOLE:

- MINIMUM 4" DIAMETER MANHOLE.
- DOGHOUSE STYLE MANHOLE SHALL ONLY BE USED WHERE SPECIFIED ON THE PLANS AND APPROVED BY WAIVER FROM NHDES. OTHERWISE, CONSTRUCTION OF THE MANHOLE SHALL COMPLY ENTIRELY ACCORDING TO THE STANDARD SEWER MANHOLE DETAIL. CONTRACTOR SHALL NOTIFY NHDES IN ADVANCE OF ANY CONSTRUCTION OR TESTING OF THIS STYLE OF MANHOLE TO CONFIRM ANY INTENTIONS TO WITNESS WORK.
- DOGHOUSE OPENINGS IN PRECAST UNITS ARE TO BE 4" MINIMUM TO 8" MAXIMUM LARGER THAN OUTSIDE DIAMETER OF THE EXISTING PIPE.
- BITUMINOUS WATERPROOF COATING TO BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
- SEE SANITARY MANHOLE DETAIL FOR ADDITIONAL INFORMATION.
- MANHOLE BASE SECTION SHOWN IN DETAIL. ALL OTHER SECTION AND CONSTRUCTION DETAILS SHALL COMPLY WITH THE SEWER MANHOLE DETAIL.
- BARREL AND SLAB SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H-20 LOADING, AND CONFORMING TO ASTM C478-06 AND ASHTO M-188.
- INVERT BRICKS SHALL BE LAID ON EDGE.
- INVERT AND SHELF OF NEW CHANNEL(S) SHALL BE CONSTRUCTED ENTIRELY BRICK AND MORTAR. BRICK SHELF SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE OUTLET.
- REMOVE MATERIAL BELOW THE PIPE. INSTALL CRUSHED STONE BEDDING AND SET DOGHOUSE STYLE MANHOLE BASE OVER EXISTING PIPE.
- DOGHOUSE OPENINGS SHALL BE FILLED WITH BRICK AND MORTAR. BULKHEADS AND NON-SHRINK GROUT. PARGE EXTERIOR OF THE BRICK BULKHEADS AND WATERPROOF WITH BITUMINOUS COATING. AFTER BULKHEADS ARE CONSTRUCTED, AREA BELOW THE PIPE IS TO BE FILLED WITH CONCRETE.
- CIRCUMFERENTIAL REINFORCEMENT SHALL CONFORM TO ASTM A-185.
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- CARE SHALL BE TAKEN TO ENSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
- CONTRACTOR TO VERIFY NUMBER AND LOCATION OF OPENINGS WITH THE UTILITY PLANS.

TYPICAL DOGHOUSE SEWER MANHOLE

CITY OF ROCHESTER

NOT TO SCALE

CONSTRUCTION DETAILS HIGHFIELD COMMONS PHASE 1B (A) MAP 237 LOT 3 FILLMORE BOULEVARD ROCHESTER, NEW HAMPSHIRE STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

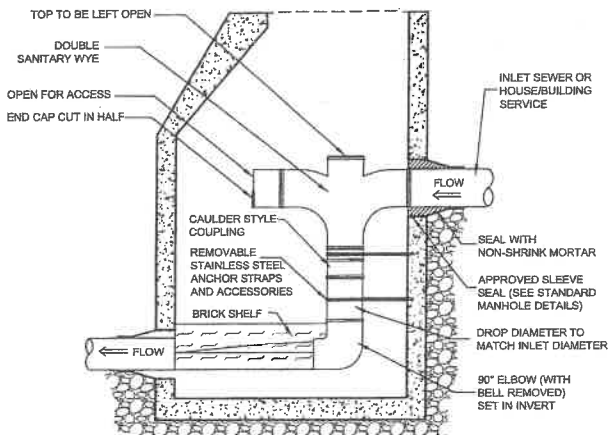
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3E, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TTM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC

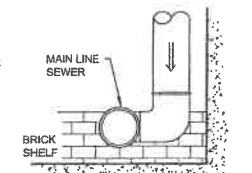
DATE: MAY 29, 2018 SCALE: AS SHOWN

PROJECT NO: 17-0417-3 SHEET 26 OF 29

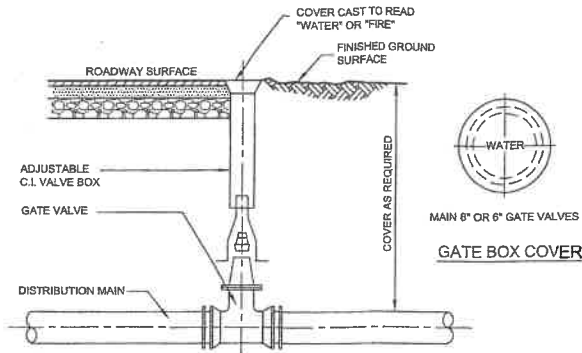


INTERNAL DROP SEWER MANHOLE
NOT TO SCALE
(MARCH 2008)

- NOTES:**
1. DROP DIAMETER TO MATCH INLET DIAMETER.
 2. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SEWER MANHOLE DETAILS.
 3. INSIDE DROP MANHOLES SHALL HAVE A MAXIMUM OF:
 - A. ONE 10" INTERNAL DROP PIPE FOR 4'-0" DIAMETER MANHOLES; AND
 - B. ONE 15" DROP PIPE, OR UP TO TWO 10" DROP PIPES, FOR 5'-0" DIAMETER MANHOLE.
 4. ANCHOR STRAPS AND BOLTS TO BE STAINLESS STEEL AND NOT MORE THAN 2'-0" ON CENTER.
 - STRAPS - 2" WIDE
 - BOLTS - 1/2" x 2-1/2" LONG

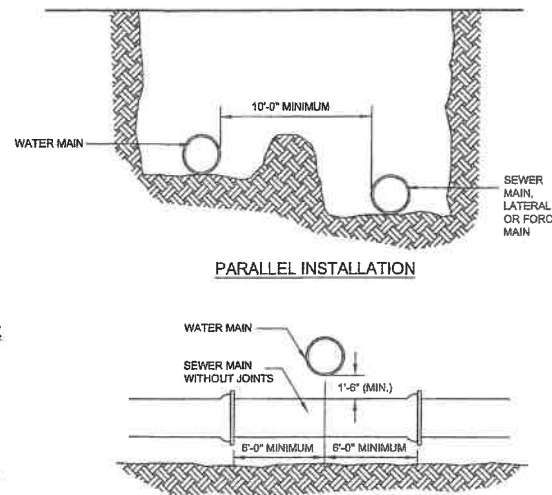


INVERT DETAIL AT SIDE DROPS

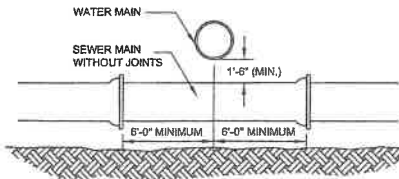


- NOTE:**
1. GATE VALVES AND GATE BOXES SHALL BE INSTALLED IN CONFORMANCE WITH THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS STANDARDS OF INFRASTRUCTURE DESIGN.

WATER GATE VALVE
NOT TO SCALE

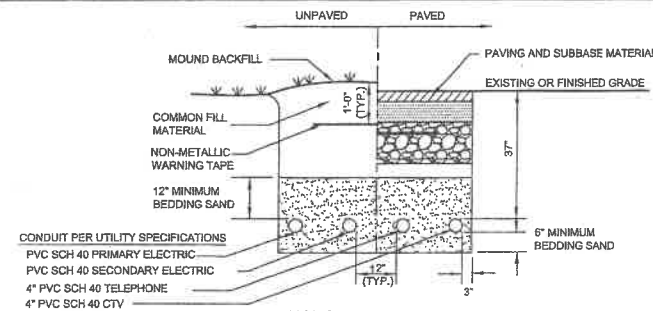


PARALLEL INSTALLATION



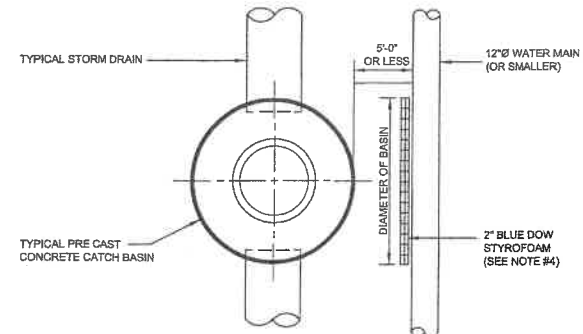
MAIN CROSSINGS
WATER PIPE/SEWER PIPE SEPARATION

NOT TO SCALE

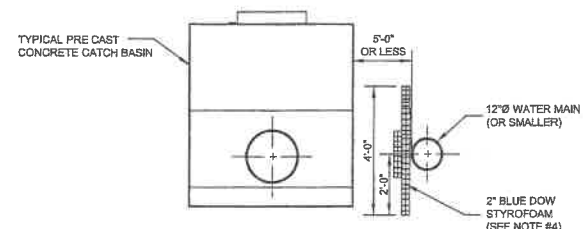


- NOTE:**
INSTALLATION AND MATERIALS OF UNDERGROUND UTILITIES SHALL CONFORM TO LOCAL UTILITY COMPANY SPECIFICATIONS.

UTILITY TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



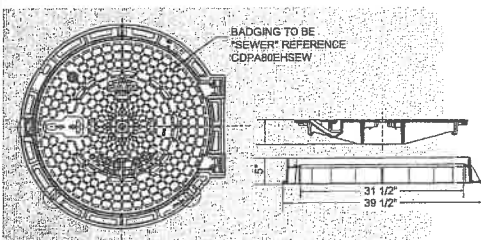
PLAN VIEW



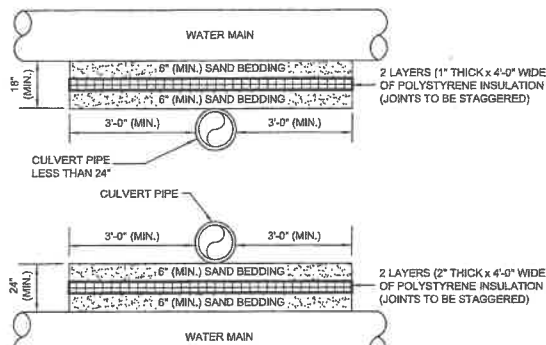
ELEVATION VIEW

- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO THE CITY OF ROCHESTER TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-6" FROM TOP OF PIPE TO FINISH GRADE.
 3. THE CITY OF ROCHESTER RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 1'-0" PIECE OF INSULATION CENTERED OVER SEAM.

CATCH BASIN INSULATION DETAIL
NOT TO SCALE
(JUNE 2012)

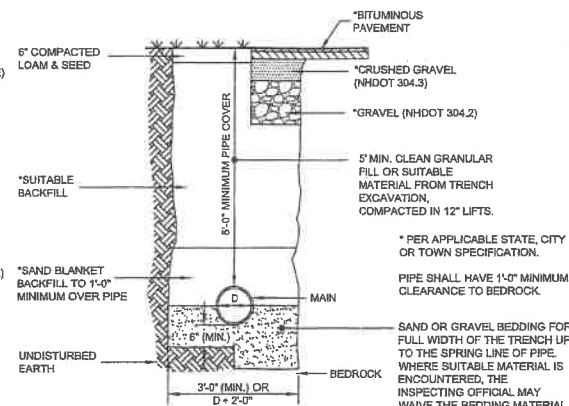


- NOTES:**
PAMREX 32" OR APPROVED EQUAL
- FEATURES:**
- COVERS MARKED SEWER
 - NONROCKING COVER
- SPECIFICATIONS:**
- FULLY MACHINED FRAME AND COVER
 - H-30 LOAD RATED
 - DOUBLE HINGED
 - DUCTILE IRON
- SEWER MANHOLE FRAME AND COVER DETAIL**
NOT TO SCALE

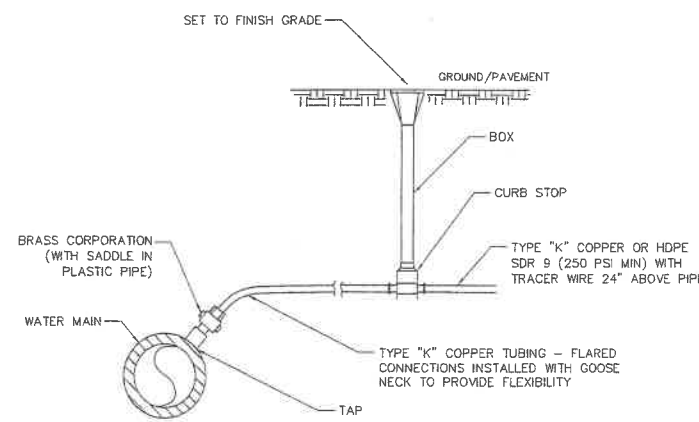


- NOTES:**
1. INSULATION TO BE USED WHERE PIPE SEPARATION IS 24" OR LESS.

WATER PIPE CROSSING INSULATION DETAIL
NOT TO SCALE
(JUNE 2012)

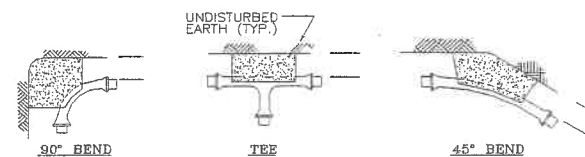


WATER LINE TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



- NOTES:**
1. WHERE A WATER SERVICE CROSSES A SEWER MAIN, WATER SHALL PASS OVER THE SEWER AND MAINTAIN 18 INCHES OF SEPARATION WITH A MINIMUM COVER OF 4'.
 2. WHERE SEPARATION AND MINIMUM COVER CANNOT BE MAINTAINED, CONSULT WITH ROCHESTER DPW FOR DESIGN ALTERATION.
 3. CURB STOPS NOT TO BE SET IN DRIVEWAYS.
 4. END OF INSTALLED WATER SERVICE TO BE MARKED WITH 2X4.

TYPICAL WATER SERVICE CONNECTION DETAIL
CITY OF ROCHESTER
NOT TO SCALE

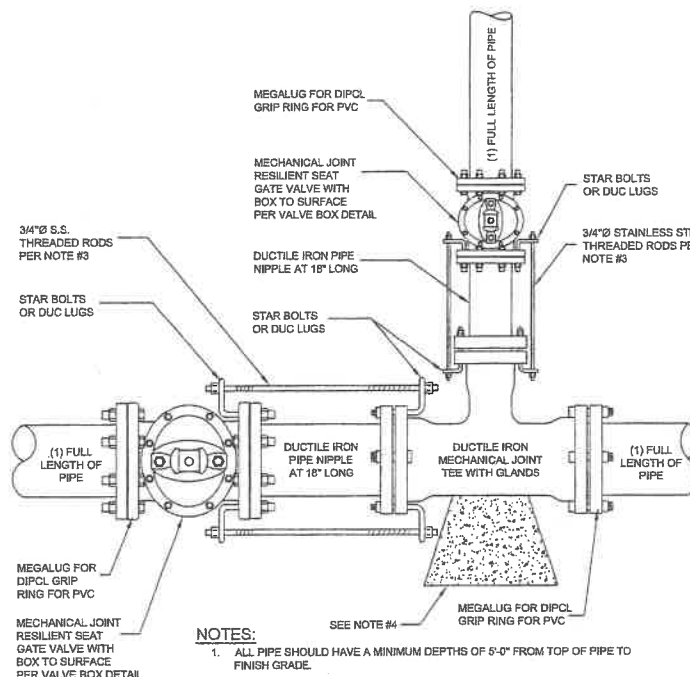


Soil	Bearing Strength, S_b (lb/ft ²)
Muck	0
Soft Clay	1,000
Silt	1,500
Sandy Silt	3,000
Sand	4,000
Sandy Clay	6,000
Hard Clay	9,000

NOTES:

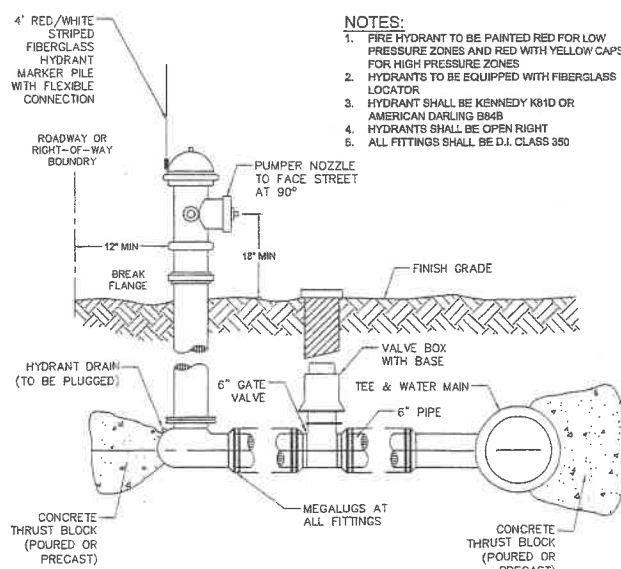
1. THRUST BLOCKS SHALL BE INSTALLED IN CONFORMANCE WITH THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS STANDARDS OF INFRASTRUCTURE DESIGN.

THRUST BLOCK DETAIL
NOT TO SCALE



- NOTES:**
1. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 2. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" S.S. RODS & ASSOCIATED HARDWARE. 12" FITTING OR LARGER = (4) 3/4" S.S. RODS & ASSOCIATED HARDWARE.

TEE INSTALLATION
(A-06)
NOT TO SCALE
(MARCH 2008)



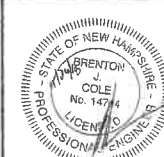
HYDRANT INSTALLATION
CITY OF ROCHESTER
NOT TO SCALE

CONSTRUCTION DETAILS HIGHFIELD COMMONS PHASE 1B (A)

MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:	APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453	SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700

KM KEACH-NORDSTROM ASSOCIATES, INC.
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10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



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3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC

DATE: MAY 29, 2018
PROJECT NO: 17-0417-3
SCALE: AS SHOWN
SHEET 27 OF 29

BEST MANAGEMENT PRACTICES FOR BLASTING

IF MORE THAN 5000 CUBIC YARDS ARE BLASTED, IDENTIFY DRINKING WATER WELLS LOCATED WITHIN 2000 FEET OF THE PROPOSED BLASTING ACTIVITIES. DEVELOP A GROUNDWATER QUALITY SAMPLING PROGRAM TO MONITOR FOR NITRATE AND NITRITE EITHER IN THE DRINKING WATER SUPPLY WELLS THAT ARE REPRESENTATIVE OF THE DRINKING WATER SUPPLY WELLS IN THE AREA. THE PLAN MUST INCLUDE PRE AND POST BLAST WATER QUALITY MONITORING AND BE APPROVED BY NHDES PRIOR TO INITIATING BLASTING. THE GROUNDWATER SAMPLING PROGRAM MUST BE IMPLEMENTED ONCE APPROVED BY NHDES.

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 PROCEDURE; 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:

- 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.
- EXPLOSIVE PRODUCTS SHALL BE MANAGED ON SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF SITE DISPOSAL.
- 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.
- 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.
- 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.
- 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:

- EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
- 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:

- REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
- MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- SPILL PREVENTION MEASURES AND SPILL MITIGATION.

PILL 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:

- THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
 - STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
 - SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
 - LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
 - INSPECT STORAGE AREAS WEEKLY.
 - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
 - 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.
- 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:

- EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
- PLACE DRIP PANS UNDER SPOGOTS, VALVES, AND PUMPS.
- HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
- USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
- PERFORM TRANSFERS OF REGULATED SUBSTANCES UNDER 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.

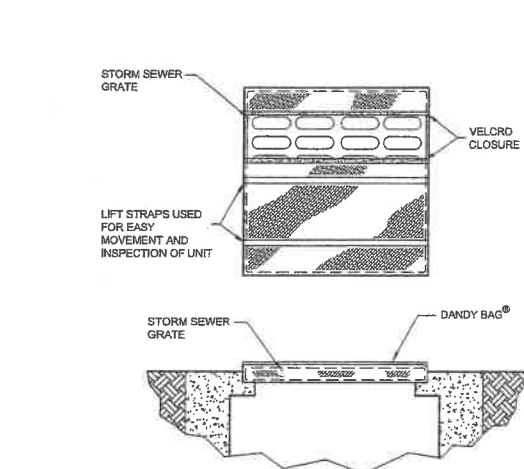
(D) FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWBS-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT.

GROUNDWATER QUALITY SAMPLING PROGRAM

PRIOR TO ANY BLASTING, THE FOLLOWING SEQUENCE SHALL OCCUR TO ENSURE GROUNDWATER QUALITY FROM THE NEIGHBORING WELLS.

- A GROUNDWATER MONITORING PLAN MUST BE DEVELOPED BY A QUALIFIED INDIVIDUAL AND APPROVED BY NHDES THAT INCLUDES:

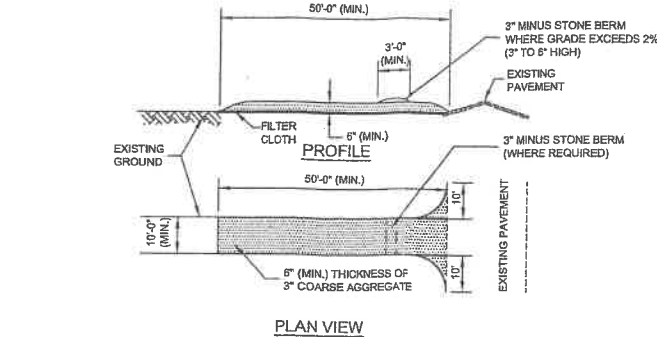
- THE LIST OF WELLS TO BE SAMPLED.
 - HOW THE INDIVIDUALS WILL BE NOTIFIED.
 - WHAT FOLLOW-UP TESTING WILL BE WILL BE REQUIRED IF ELEVATED NITRATE OR NITRITE CONCENTRATIONS ARE IDENTIFIED (VOC AND SEMI-VOC MUST BE INCLUDING IN TESTING).
- CONTACT PROPERTIES WITHIN 2000 OF PROJECT TO RECEIVE PERMISSION TO TEST THEIR WELL/DRINKING WATER FOR NITRATE AND NITRITE LEVELS. IF THE PROPERTY DOES GRANT PERMISSION, THAT SAID PROPERTY DOES NOT REQUIRE TESTING. AN EXHIBIT MAP OF POTENTIAL WELLS REQUIRING GROUNDWATER MONITORING" HAS BEEN DEVELOPED BY NHDES AS A REFERENCE FOR IDENTIFYING WELLS TO BE TESTED WITHIN THE PROJECT AREA. THIS EXHIBIT SHOULD BE UTILIZED AS A STARTING POINT FOR IDENTIFICATION.
 - COLLECT SAMPLES FROM EACH OF THESE WELLS PRIOR TO BLASTING AND TEST FOR NITRATE AND NITRITE LEVELS. THE OUTSIDE WATER SUPPLY CAN BE USED TO COLLECT THE SAMPLE.
 - SAMPLE 7 TO 14 DAYS AFTER THE INITIAL BLAST AND EVERY 30 DAYS THEREAFTER WHILE BLASTING CONTINUES. CONTINUE TO TEST THE SAMPLES FOR NITRATE AND NITRITE.
 - A MINIMUM OF TWO (2) SAMPLING ROUNDS MUST BE PERFORMED AT 1-MONTH INTERVALS FOLLOWING THE COMPLETION OF THE BLASTING PROGRAM.
 - ALL SAMPLE RESULTS SHOULD BE REPORTED TO NHDES WITHIN 5 BUSINESS DAYS OF RECEIPT. DATA INDICATING A SUBSTANTIAL INCREASE IN NITRATE OR NITRITE CONCENTRATIONS NEEDS TO BE REPORTED TO NHDES IMMEDIATELY AND THE SAMPLING SCHEDULE MAY BE MODIFIED ACCORDINGLY.



HI-FLOW DANDY BAG® (SAFETY ORANGE)

MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	lb/in	1.62 (395) x 0.89 (200)
GRAB TENSILE ELONGATION	ASTM D 4632	%	24 x 10
PUNCTURE STRENGTH	ASTM D 4833	lb/in	0.40 (90)
MULLEN BURST STRENGTH	ASTM D 3786	kPa (psi)	3097 (450)
TRAPEZOID TEAR STRENGTH	ASTM D 4533	lb/in	0.51 (115) x 0.33 (75)
UV RESISTANCE	ASTM D 4353	%	90
APPARENT OPENING SIZE	ASTM D 4751	mm (US Std Sieve)	0.425 (140)
FLOW RATE	ASTM D 4491	l/min/ft² (gal/min/ft²)	5992 (145)
PERMITTIVITY	ASTM D 4491	Sec-1	2.1

DANDY BAG®
NOT TO SCALE
(APRIL 2010)



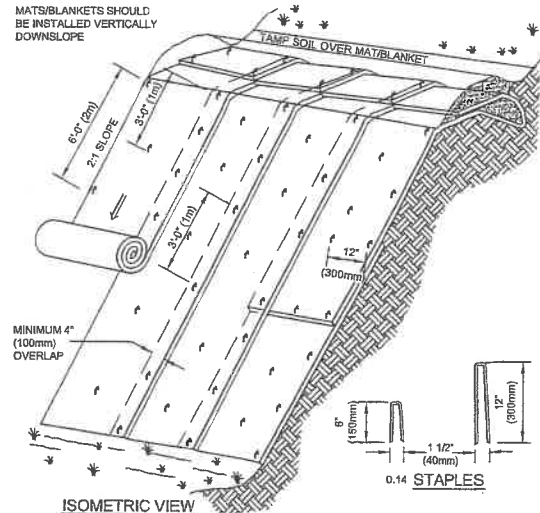
MAINTENANCE:

MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.

IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

- STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

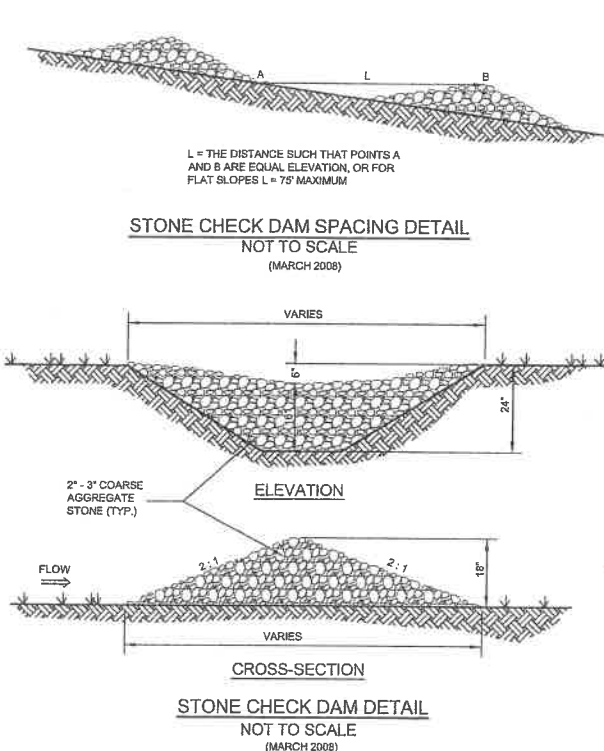


NOTES:

- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
- EROSION BLANKETS TO BE NORTH AMERICAN GREEN SCH1508N OR AN APPROVED ALTERNATIVE THAT MUST CONSIST OF ALL NATURAL FIBERS.

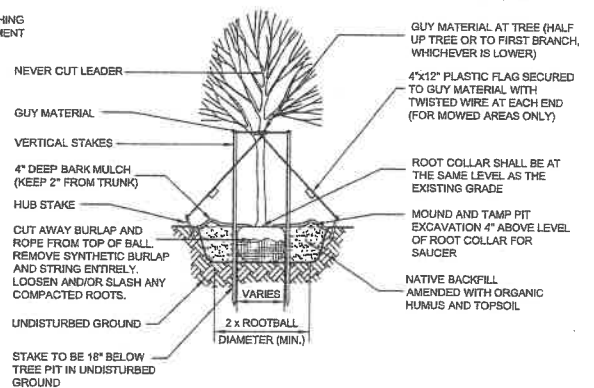
EROSION CONTROL BLANKETS - SLOPE INSTALLATION

NOT TO SCALE



NOTE:

GUYING AND STAKING TO BE DETERMINED IN THE FIELD BY THE LANDSCAPE ARCHITECT. LOCAL FIELD CONDITIONS AS WELL AS PLANT CHARACTERISTICS WILL DETERMINE THE NECESSITY OF GUYING AND STAKING.



DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE
(JANUARY 2012)

DEWATERING NOTES:

- THE PROPOSED PROJECT IS SCHEDULED TO TAKE PLACE IN THE "DRY" SEASON AND DOES NOT ANTICIPATE ANY DEWATERING ACTIVITIES. HOWEVER, SHOULD DEWATERING ACTIVITIES BECOME NECESSARY DUE TO ACTUAL WET FIELD CONDITIONS, THE SITE CONTRACTOR SHALL BE REQUIRED TO PREPARE A DEWATERING PLAN FOR APPROVAL BY THE MUNICIPALITY, PRIOR TO PERFORMING ANY DEWATERING ACTIVITIES.
- SHOULD A DEWATERING PLAN BE REQUIRED, THE PLAN SHALL CONTAIN THE MINIMUM ITEMS:
 - PLAN SKETCH: (PREPARED TO SCALE - INDICATING THE FOLLOWING)
 - ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL BMPs
 - BYPASS CHANNEL OR PIPE LOCATION, ELEVATION, SIZE, AND MATERIAL TYPE
 - PUMP SIZE, TYPE, LOCATION, OPERATING PARAMETERS (POWER, CAPACITY)
 - INTAKE LINE - SIZE & LOCATION
 - TEMPORARY IMPOUNDMENT VOLUME
 - DISCHARGE LINE - SIZE AND LOCATION
 - TEMPORARY DISCHARGE SCOUR PROTECTION
 - OPERATIONS & EMERGENCY CONTACT LIST: (NAME, ADDRESS, PHONE)
 - CONTRACTOR AND TOWN OFFICIALS (HIGHWAY AGENT, FIRE, POLICE, RESCUE)
 - DEWATERING SCHEDULE:
 - ANTICIPATED START DATE AND END DATE
 - DAILY HOURS OF OPERATION
 - CONTINGENCY PLAN

REFERENCE CONSTRUCTION STANDARDS/SPECIFICATIONS:

THE FOLLOWING CONSTRUCTION STANDARDS/SPECIFICATIONS/REFERENCES ARE TO BE UTILIZED IN CONCERT WITH THE APPROVED PLANS:

- NHDOT - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- NHDOT - STANDARD PLANS FOR ROAD CONSTRUCTION, LATEST EDITION.
- CITY OF ROCHESTER - CONSTRUCTION STANDARDS, LATEST REVISION.
- AASHTO - A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, LATEST EDITION.
- FHWA - THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.

CONSTRUCTION SEQUENCE

- CONTRACTOR TO NOTIFY DIG-SAFE 72-HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- PRIOR TO GRUBBING OF CLEARED AREAS, ALL SILENTATION BARRIERS DESIGNED FOR USE AS TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED AS CALLED FOR ON PROJECT PLANS. INSTALL STABILIZED CONSTRUCTION EXIT AT LOCATION OF CONSTRUCTION ACCESS AT LOCATION OF INTERSECTION WITH EXISTING PAVEMENT.
- CUT AND CLEAR TREES AND BRUSH FROM CONSTRUCTION AREAS TO THE EXTENT NECESSARY. ALL BRANCHES, TOPS AND BRUSH TO BE PROPERLY DISPOSED OF BY CONTRACTOR. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430:53 AND AGR 3800 RELATIVE TO INVASIVE SPECIES.
- COMPLETE GRUBBING OPERATIONS UNDER THE ROADWAY AND SLOPE SECTIONS. ALL STUMPS AND SIMILAR DEBRIS SHALL BE PROPERLY DISPOSED OF BY CONTRACTOR. ORGANIC MATERIAL SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED IN UP-AND AREAS. ALL STOCKPILES SHALL BE SEEDING WITH WINTER RYE AND, IF NECESSARY, SURROUNDED WITH HAY BALES IN ORDER TO PREVENT LOSS DUE TO EROSION.
- CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.
- STABILIZE DITCHLINES AND PONDS PRIOR TO DIRECTING FLOW INTO THEM. CONSTRUCT DRAINAGE SYSTEM SEWER AND OTHER SUBSURFACE UTILITIES.
- COMMENCE CONSTRUCTION OF ROADWAY. PERFORM EXCAVATION ACTIVITIES REQUIRED TO ACHIEVE SUBGRADE ELEVATION. ALL EXCAVATED EMBANKMENTS, DITCHES, SWALES AND ROADWAY CROSS CULVERTS SHALL BE INSTALLED AND STABILIZED. ALL SWALES AND DITCHLINES SHALL BE PROTECTED FROM EROSION BY IMPLEMENTATION OF TEMPORARY EROSION CONTROL MEASURES AS SHOWN ON PROJECT PLANS. DIVERT STORMWATER RUNOFF THROUGH THE USE OF TEMPORARY CULVERTS, OR OTHER MEANS NECESSARY PRIOR TO THE COMPLETION OF A FUNCTIONAL STORM DRAINAGE SYSTEM. SLOPES AND EMBANKMENTS SHALL BE STABILIZED BY TRACKING AND TEMPORARY SEEDING WITH WINTER RYE PRIOR TO TURF ESTABLISHMENT. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.
- COMPLETE CONSTRUCTION OF ROADWAY EMBANKMENTS BY ADDING APPROPRIATE BASE MATERIALS GRADED TO PROPER ELEVATION.
- APPLY TOPSOIL TO ROADWAY SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL, SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF 4-INCH COMPACTED THICKNESS. UPON COMPLETION OF TOPSOILING, FINISHED SECTIONS ARE TO BE LINED, SEEDING AND MULCHING CONSTRUCTION PERSONNEL SHALL INSPECT COMPLETED SECTIONS OF WORK ON A REGULAR BASIS AND REMEDY ANY PROBLEM AREAS UNTIL A HEALTHY STAND OF GRASS HAS BECOME ESTABLISHED.
- PERFORM FINE GRADING OF ROADWAY BASE MATERIALS.
- MAINTAIN, REPAIR AND REPLACE AS NECESSARY TEMPORARY EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENTIRE CONSTRUCTION AREA HAS BEEN STABILIZED (A MINIMUM OF ONE WINTER SHALL HAVE PASSED).
- AFTER STABILIZATION, REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.
- MONITOR CONSTRUCTION ACTIVITIES ON INDIVIDUAL LOTS TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF ROADWAY EMBANKMENTS, STORMWATER SYSTEMS AND UTILITIES. ALL DRIVEWAYS ACROSS DITCHLINES SHALL HAVE CULVERTS INSTALLED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
- LOT DISTURBANCE, OTHER THAN THAT SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.

EROSION CONTROL NOTES

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION PERIOD. AT NO GIVEN AREA OF THE SITE SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION. NO GIVEN AREA OF THE SITE SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING THIRTY (30) CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE OPERATOR, MAY WARRANT. TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25" OF RAINFALL OR MORE. THEY SHALL BE CLEANED AND MAINTAINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATING MANNER THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4 INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.
- ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS SECTION. ALL SWALES AND DITCHLINES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.
- IN THE EVENT THAT, DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD, IN ACCORDANCE WITH ENH-A-1000.
- IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.
- AREAS HAVING FINISH GRADE SLOPES OF 3:1 OR STEEPER, SHALL BE STABILIZED WITH JUTE MATTING WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. JUTE MATTING INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL. EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION.
- ALL DETENTION PITS AND TREATMENT SWALES SHALL BE CONSTRUCTED PRIOR TO ANY EARTH MOVING ACTIVITIES THAT WILL INFLUENCE STORMWATER RUNOFF.
- ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

WINTER CONSTRUCTION NOTES:

- ALL PROPOSED POST-DEVELOPMENT VEGETATED 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 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT 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.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL. PER AASHTO ITEM 304.3 IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
 - BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED;
 - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
 - A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR
 - EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION DETAILS HIGHFIELD COMMONS PHASE 1B (A)

MAP 237 LOT 3

FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

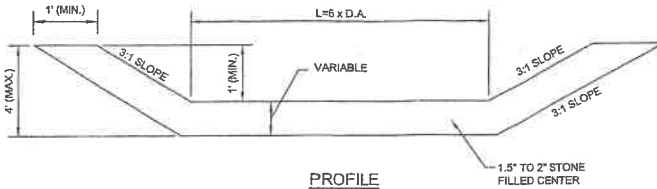
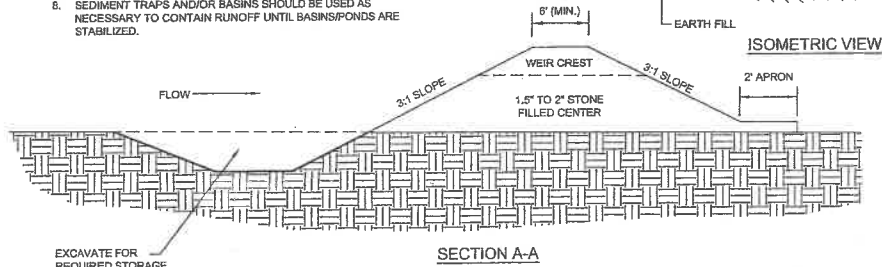
OWNER OF RECORD:	APPLICANT:
SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700 S.C.R.D. BK. 3927 PG. 453	SDJ DEVELOPMENT OF ROCHESTER, LLC c/o CHESAPEAKE DEVELOPMENT, LLC 746 D.W. HIGHWAY, UNIT B MERRIMACK, NH 03054-2700

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2081

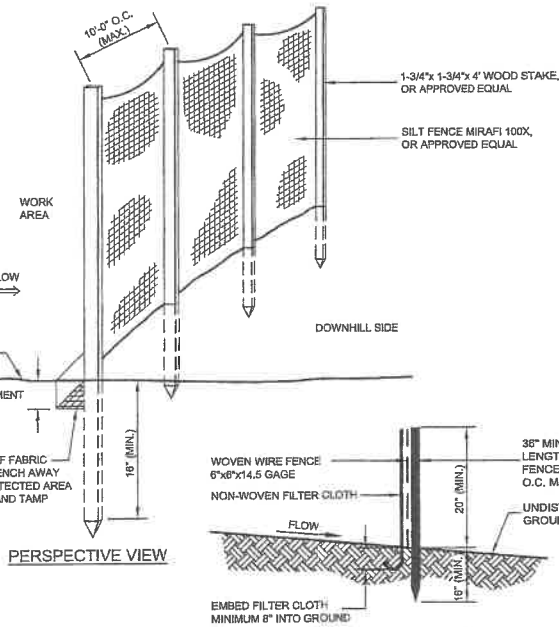
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	7/5/18	REV. PER CITY COMMENTS	TM
2	7/23/18	REV. PER CITY COMMENTS	MAC
3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/6/18	REV. PER CITY COMMENTS	MAC
5	10/24/18	REV. PER STATE COMMENTS	BJC
DATE: MAY 29, 2018		SCALE: AS SHOWN	
PROJECT No: 17-0417-3		SHEET 28 OF 29	

NOTES:

1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA OR SOURCE OF SEDIMENT AS POSSIBLE.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. THE SIDE SLOPES OF THE TRAP SHALL BE 3:1 OR FLATTER, AND SHALL BE STABILIZED IMMEDIATELY AFTER THEIR CONSTRUCTION.
5. THE OUTLET OF THE TRAP SHALL BE A MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP AND SHALL DISCHARGE TO A STABILIZED AREA.
6. THE TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. THE MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.
8. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE STABILIZED.



STONE OUTLET SEDIMENT TRAP
NOT TO SCALE



SILT FENCE DETAIL
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION SPECIFICATIONS:

1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
3. WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIE OR STAPLES WHERE NOTED OR AS DIRECTED BY DESIGN ENGINEER.
4. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MIDSECTION AND BOTTOM.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED AND STAPLED.
6. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

MAINTENANCE:

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

TURF ESTABLISHMENT SCHEDULE

PURPOSE:

TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

PREPARATION AND EXECUTION:

1. RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
2. PLACE LOAM OVER AREAS TO BE SEEDED AND SPREAD.
3. FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED; TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
4. IF THE PH OF THE SOIL NEEDS TO BE RAISED, APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
5. APPLY FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
6. DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
7. SEEDING AND INITIAL FERTILIZING SHALL BE DONE BETWEEN APRIL 1 AND JUNE 1 OR BETWEEN AUGUST 15 AND OCTOBER 14, OR AS PERMITTED. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS FROZEN, EXCESSIVELY WET OR OTHERWISE UNUSABLE.
8. WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH STRAW. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.
9. PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEED.
10. WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 14, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE:

ALL SEEDED AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDED AREA. MAINTAIN SEEDED AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:

1. LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 6 INCHES.
2. LIME SHALL BE USED WHEN NECESSARY TO RAISE THE PH OF THE SOIL AND APPLIED AT ONE OF THE FOLLOWING RATES:

EXISTING SOIL PH	TONS/ACRE	POUNDS/CUBIC YARD
4.0 - 4.4	3	12
4.5 - 4.9	2	8
5.0 - 5.4	1	4

3. FERTILIZER SHALL BE APPLIED AT THE FOLLOWING RATE:

INITIAL APPLICATION	POUNDS/1,000 SF	MEASUREMENT FACTOR
10-10-10	20.0	1.0
15-15-15	13.4	1.5
18-18-18	10.5	1.9

REFERTILIZATION	POUNDS/1,000 SF	MEASUREMENT FACTOR
10-3-6	20.0	1.0
12-2-8	16.7	1.2
	16.7	1.2

4. MULCH SHALL BE APPLIED AT A RATE OF 13 CUBIC YARDS PER 1,000 S.F. OF LANDSCAPE BED.

MATERIALS:

1. LOAM SHALL CONSIST OF LOOSE, FRABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE OF VIABLE PARTS OF PROHIBITED INVASIVE PLANTS AND BE GENERALLY FREE OF STONES, LUMPS, STUMPS AND SIMILAR OBJECTS LARGER THAN 2 INCHES IN GREATEST DIAMETER, SUBSOIL, ROOTS AND WEEDS. THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 6.5.
2. LIME SHALL BE A CALCIUM OR DOLOMITIC GROUND AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 95% OF EITHER CALCIUM OR MAGNESIUM CARBONATE, OR BOTH. IT SHALL CONFORM TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS AND SHALL COMPLY WITH ALL STATE AND FEDERAL RULES AND REGULATIONS.
3. FERTILIZER SHALL BE STANDARD COMMERCIAL GRADE FERTILIZER CONFORMING TO ALL STATE AND FEDERAL RULES AND REGULATIONS AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS. EXCEPT AS PERMITTED, THE ANALYSIS RATIO SHALL BE 1:1:1 FOR INITIAL APPLICATION AND 3:1:2 FOR REFERTILIZATION APPLICATION.
4. GRASS SEED SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE AGRICULTURAL AND VEGETABLE SEED LAWS AND SHALL INCLUDE NO "PRIMARY NOXIOUS WEED SEEDS."
5. SEED MIXTURE FOR LAWN AREAS SHALL CONSIST OF THE FOLLOWING:

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

6. SEED MIXTURE FOR SLOPE AREAS SHALL CONSIST OF THE FOLLOWING:

KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMINATION (%)	POUNDS/ACRE (TOTAL 95 POUNDS)
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
ANCE-LEAVED COREOPSIS	95	80	4
OXEYE DAISY	95	80	3
BLACKKEYED SUSAN	95	80	4
WILD LUPINE	95	80	4

7. TEMPORARY SEEDING MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 SF AND SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:

15% BLACKWELL OR SHELTER SWITCHGRASS
30% NIAGRA OR KAW BIG BLUESTEM
30% CAMPER OR BLAZE LITTLESTEM
15% NE-27 OR BLAZE SAND LOVEGRASS
10% VIKING BIRDSFOOT TREFOIL
INOCULUM SPECIFIC TO BIRDSFOOT TREFOIL MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.

8. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES, SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 SF, AND SHALL CONSIST OF THE FOLLOWING:

25% CREeping RED FESCUE
15% SWITCH GRASS
15% FOX SEDGE
15% CREeping BENTGRASS
10% FLATPEA
20% WILDFLOWER VARIETY

9. STRAW USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS, INVASIVE SPECIES OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.

SOD SPECIFICATIONS:

1. SOD SHALL BE PROVIDED WITH A STRONG ROOT SYSTEM, NOT LESS THAN TWO YEARS OLD AND SHALL BE FREE OF ANY UNDESIRABLE NATIVE GRASSES OR WEEDS.
2. SOD SHALL BE MACHINE CUT TO A THICKNESS NOT LESS THAN 3/4", EXCLUDING THATCH, AND SHALL BE CAPABLE OF VIGOROUS GROWTH WHEN PLANTED.
3. SOD PADS SHALL BE OF UNIFORM SIZE AND COMPOSED OF AT LEAST TWO LOCAL GRASS VARIETIES.
4. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. DO NOT OVERLAP. STAGGER STRIPS TO OFFSET JOINTS IN ADJACENT COURSES. TAMP SOD TO ENSURE CONTACT WITH SOIL.
5. WATER WITHIN ONE HOUR OF PLANTING WITH A FINE SPRAY.

CONSTRUCTION DETAILS HIGHFIELD COMMONS PHASE 1B (A)

MAP 237 LOT 3

FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:

SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 Pg. 453

APPLICANT:

SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700

KM KRACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS

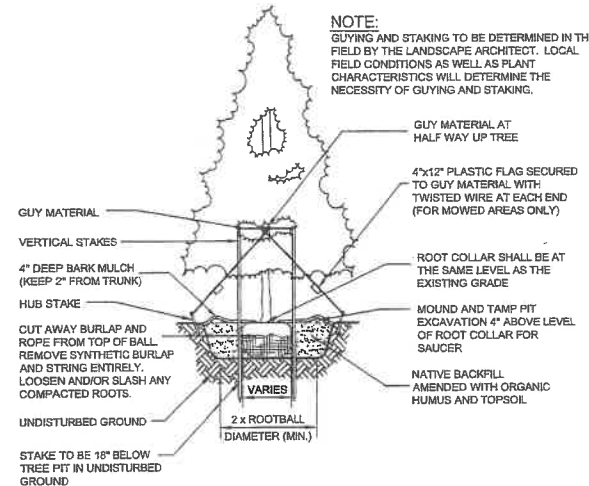
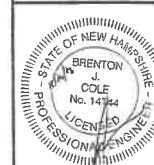
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3	9/14/18	REV. PER CITY & STATE COMMENTS	MAC
4	10/8/18	REV. PER CITY COMMENTS	MAC
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DATE: MAY 29, 2018

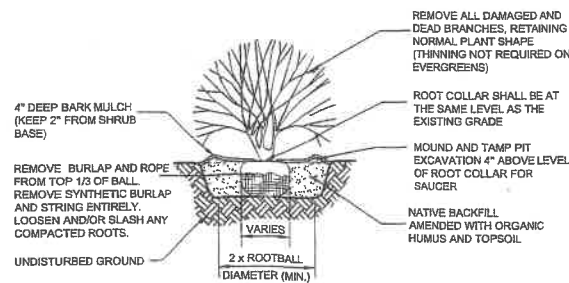
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PROJECT NO: 17-0417-3

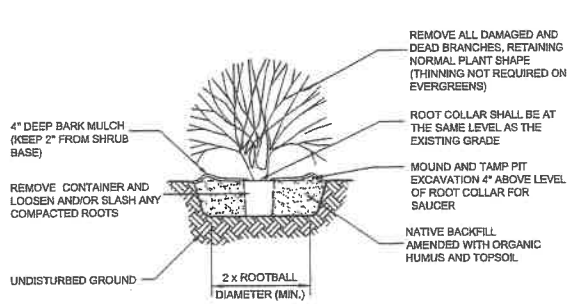
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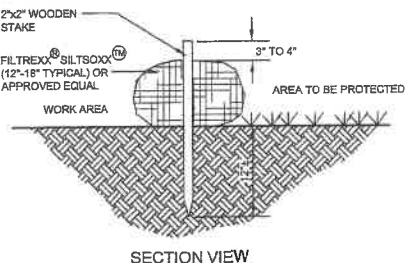
EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)



BALLED & BURLAP SHRUB PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)

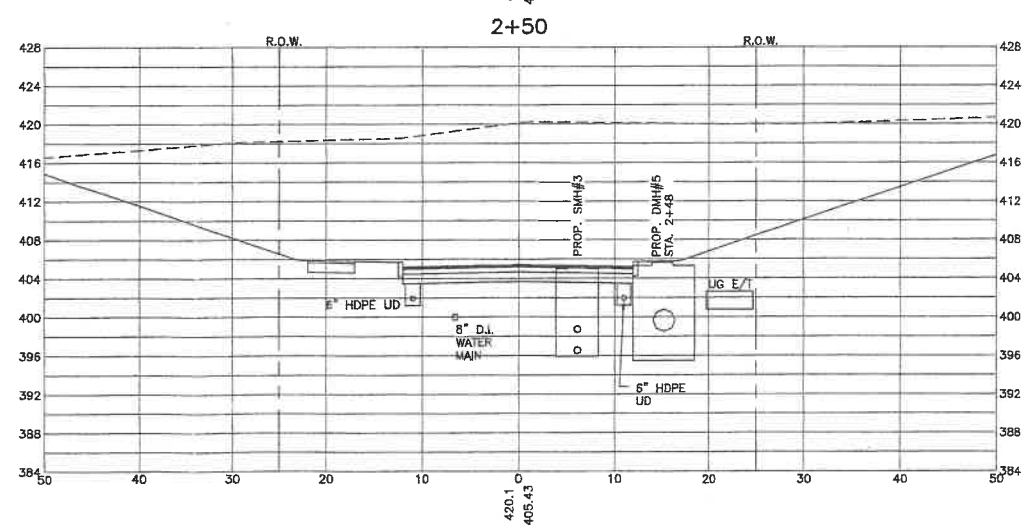
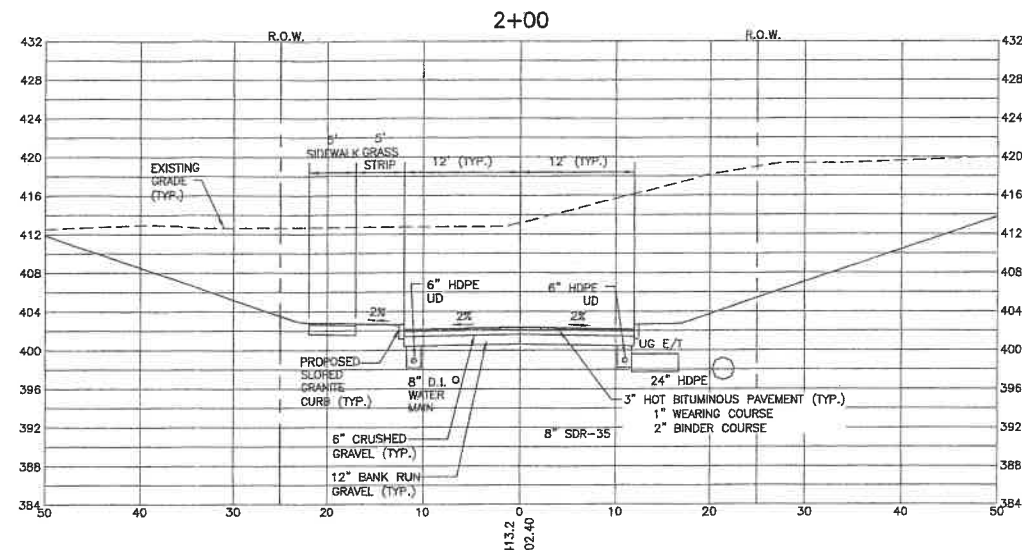
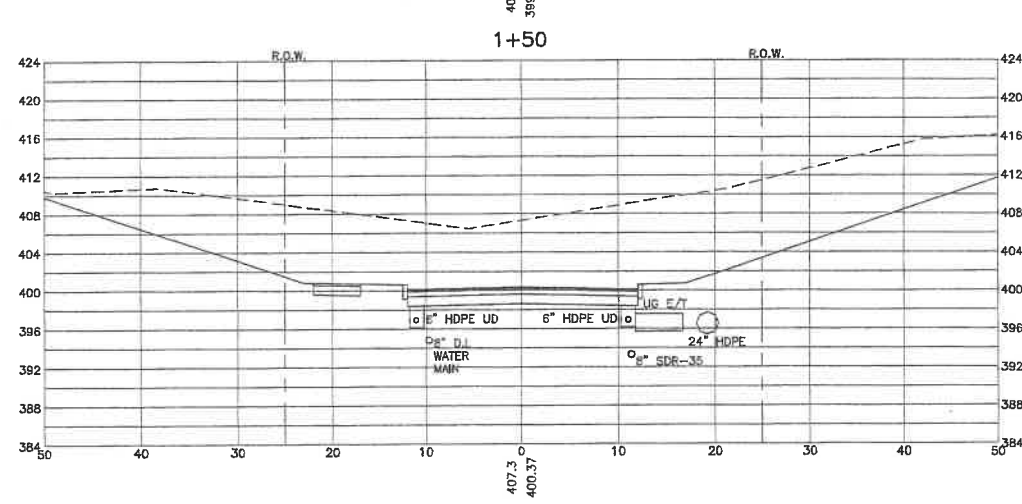
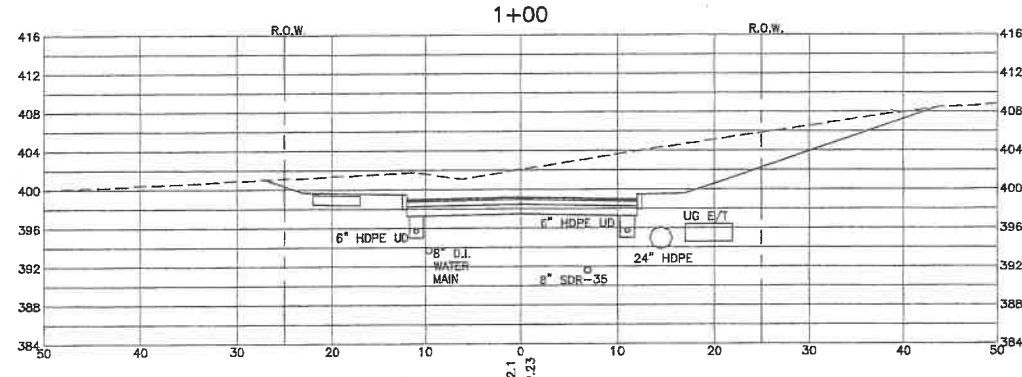
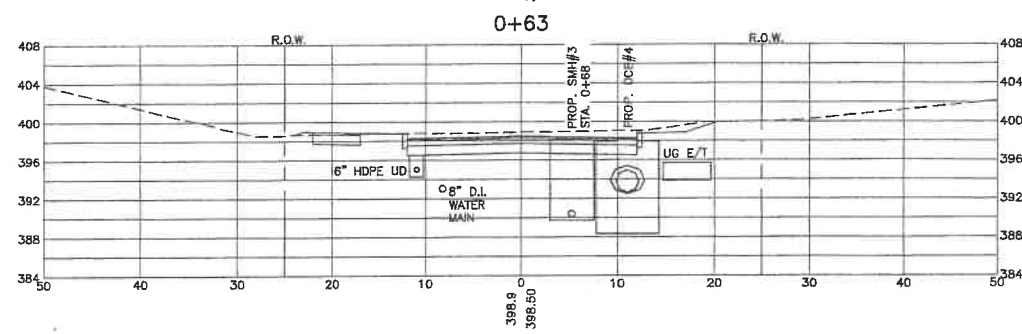
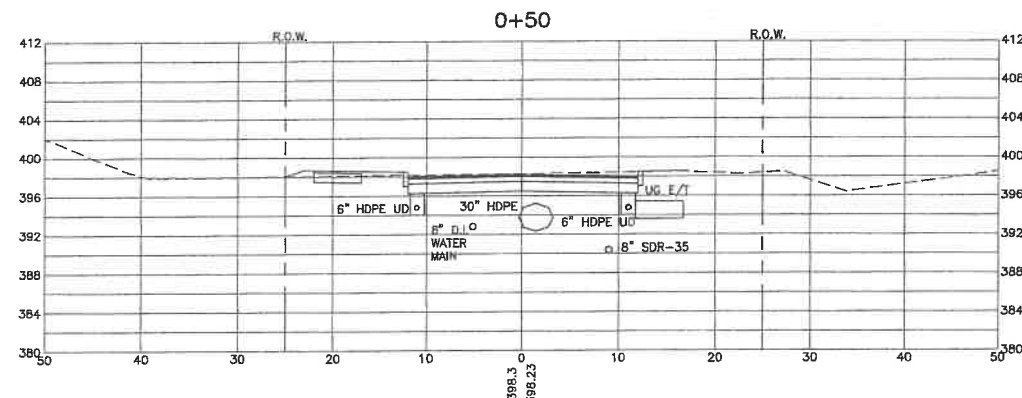
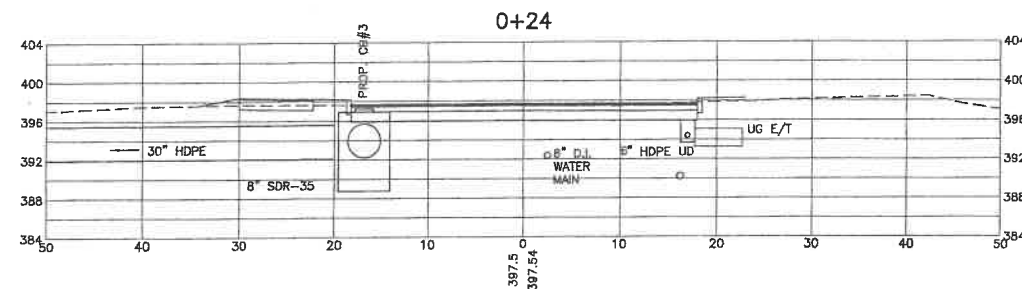


CONTAINER SHRUB PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)



FILTREXX® SILTSOXX™ DETAIL
NOT TO SCALE
(AUGUST 2011)

1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. SILTSOXX® COMPOST/ROCKSEED FILL TO MEET APPLICATION REQUIREMENTS.
3. SILTSOXX® DEPICTED IS FOR MINIMUM SLOPES. GREAT SLOPES MAY REQUIRE LARGER SOCKS PER THE ENGINEER.
4. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

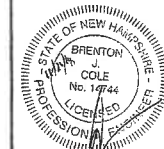


**CROSS SECTIONS
HIGHFIELD COMMONS
PHASE 1B (A)
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY**

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
c/o CHESAPEAKE DEVELOPMENT, LLC
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MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC
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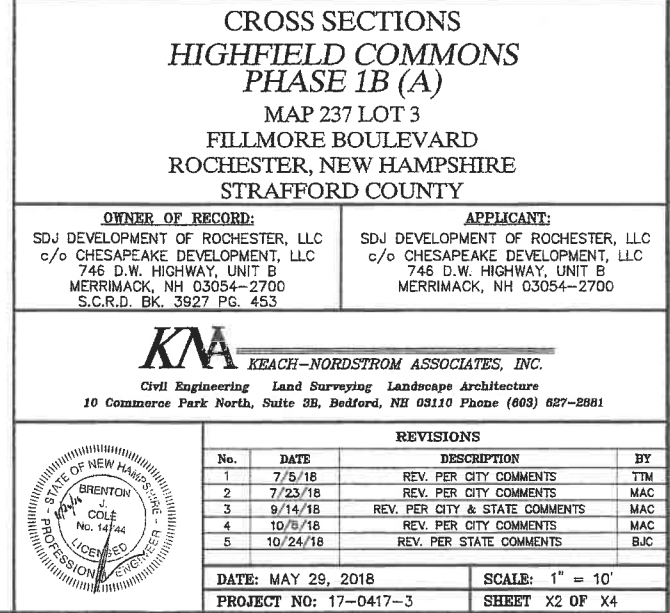
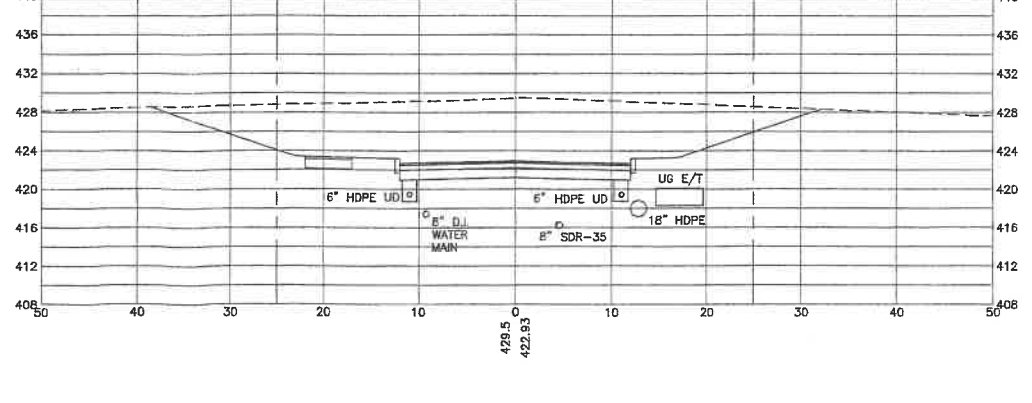
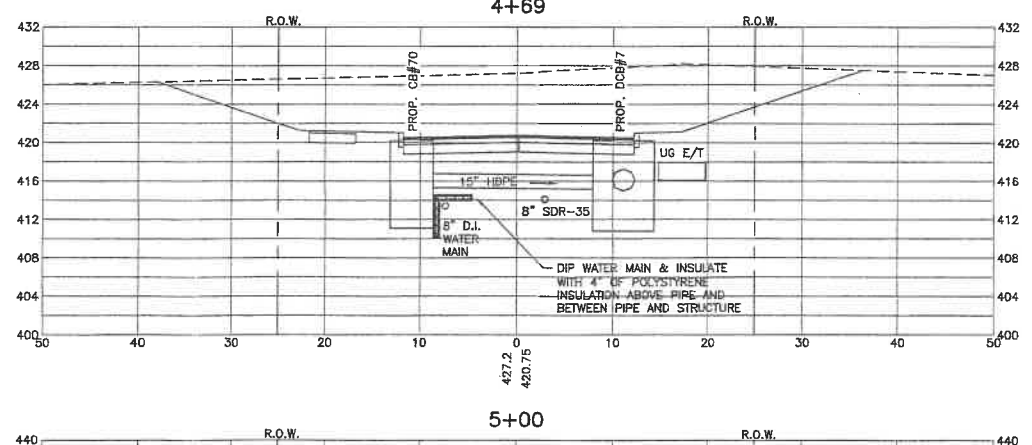
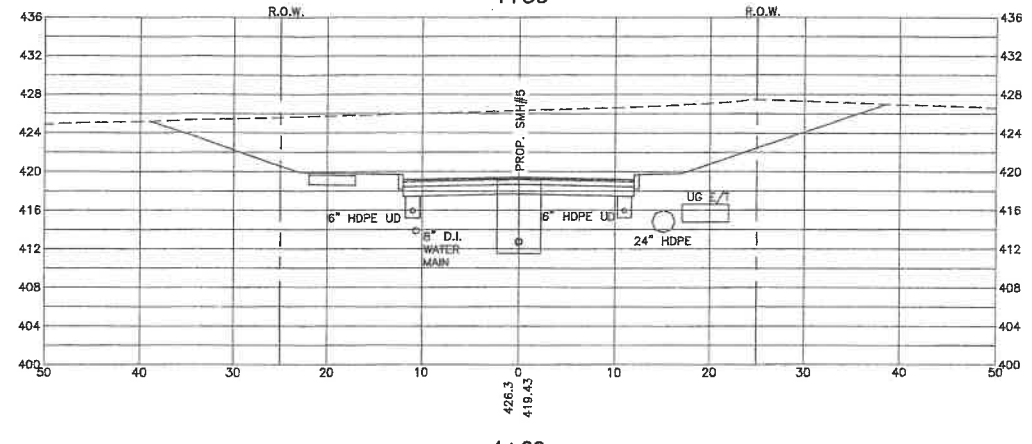
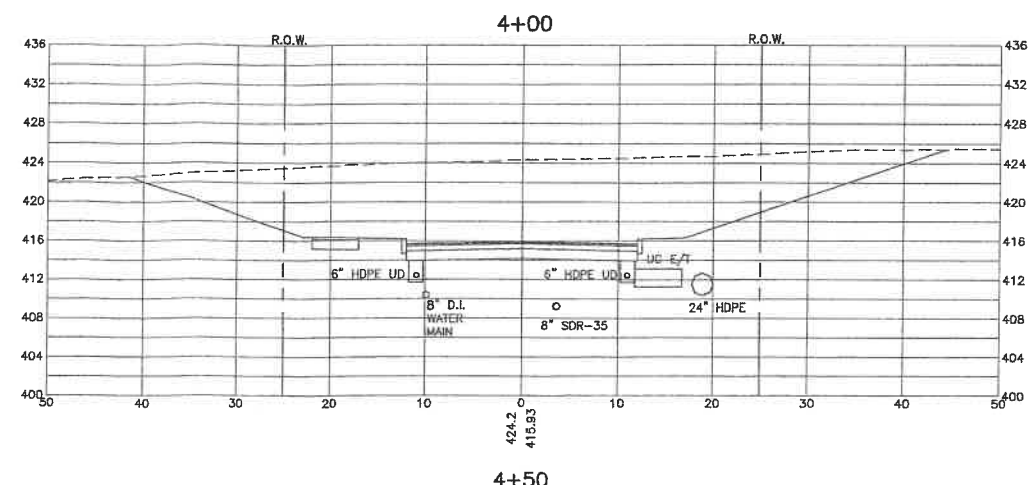
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Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

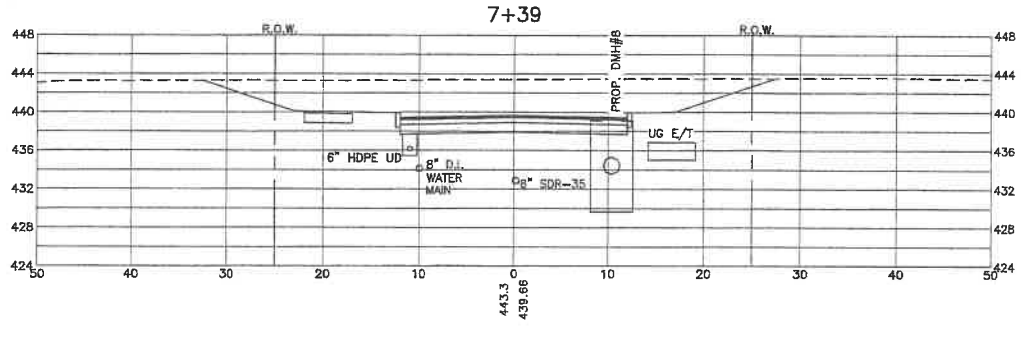
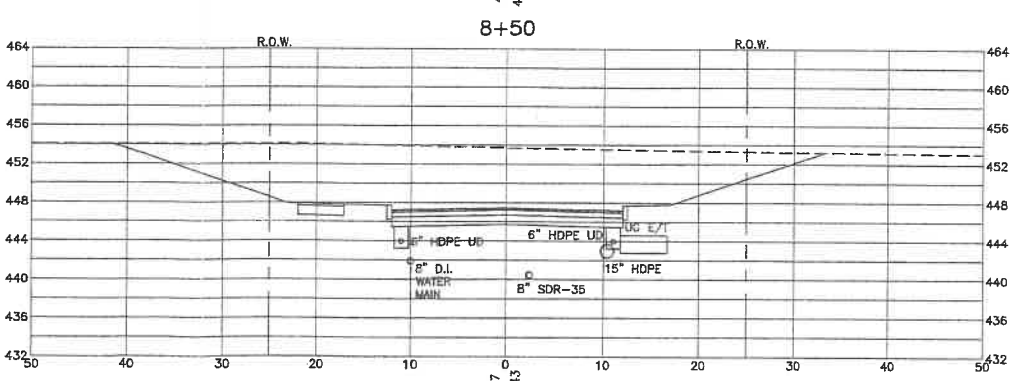
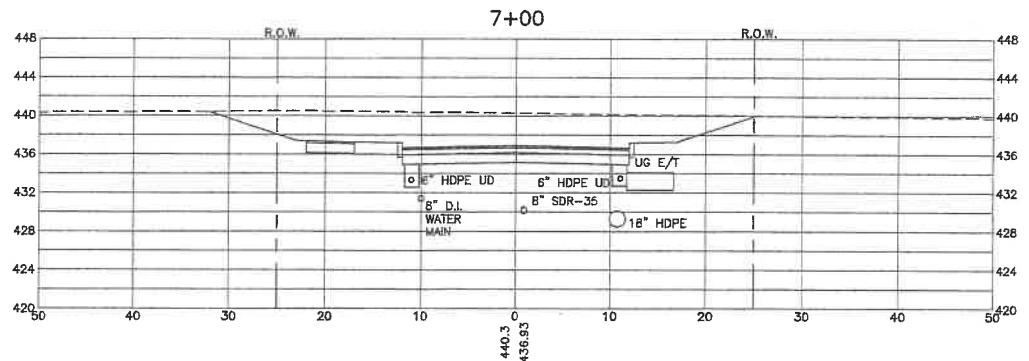
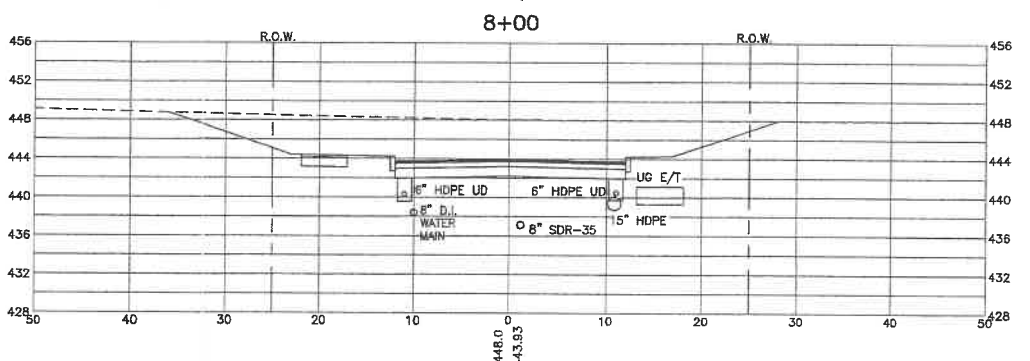
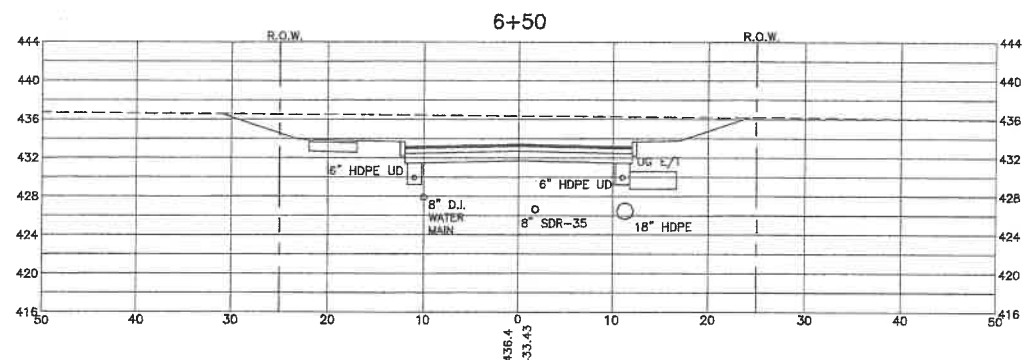
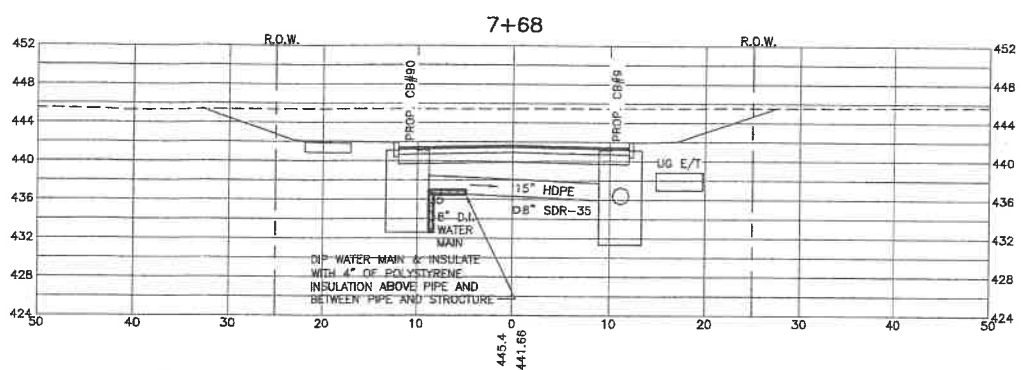
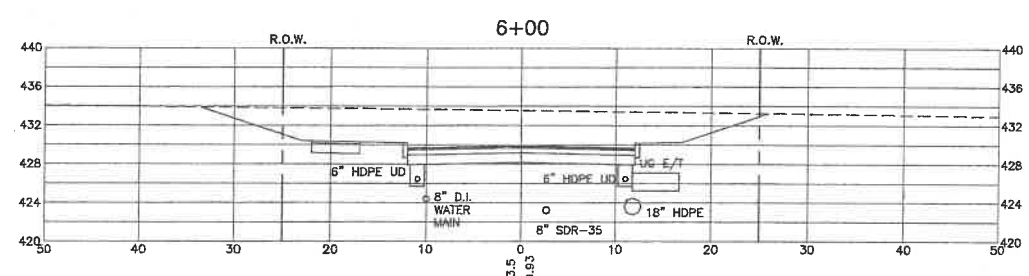
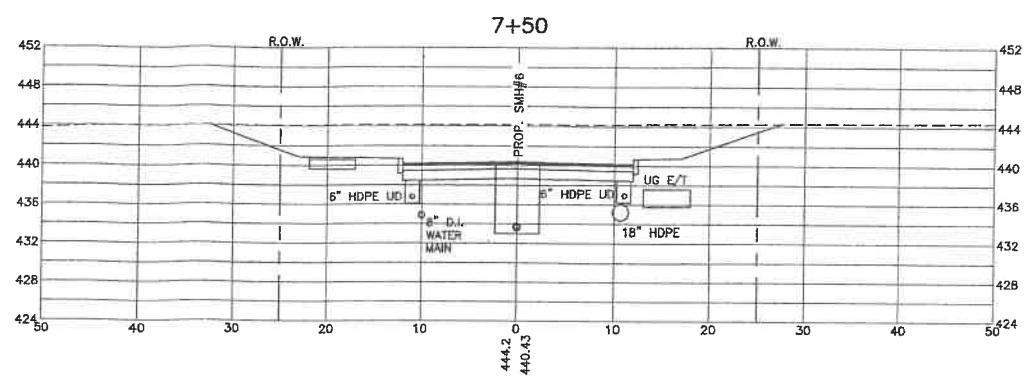
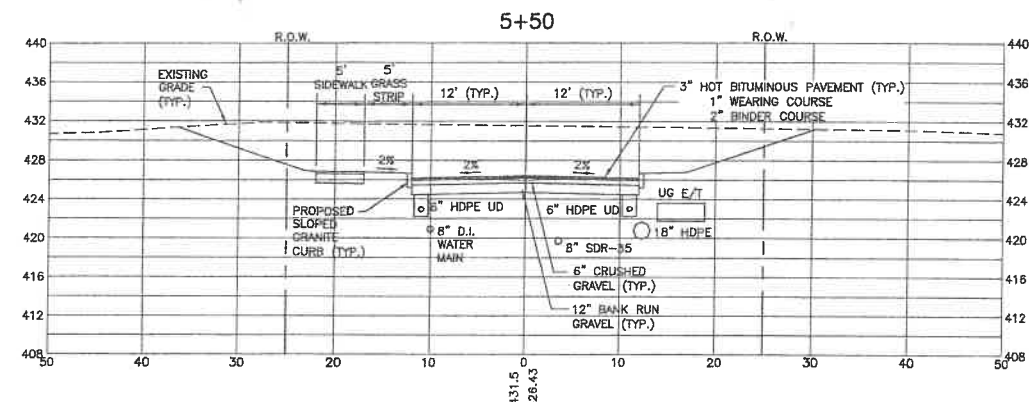


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DATE: MAY 29, 2018
PROJECT NO: 17-0417-3

SCALE: 1" = 10'
SHEET: X1 OF X4





**CROSS SECTIONS
HIGHFIELD COMMONS
PHASE 1B (A)**
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD:
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c/o CHESAPEAKE DEVELOPMENT, LLC
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MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

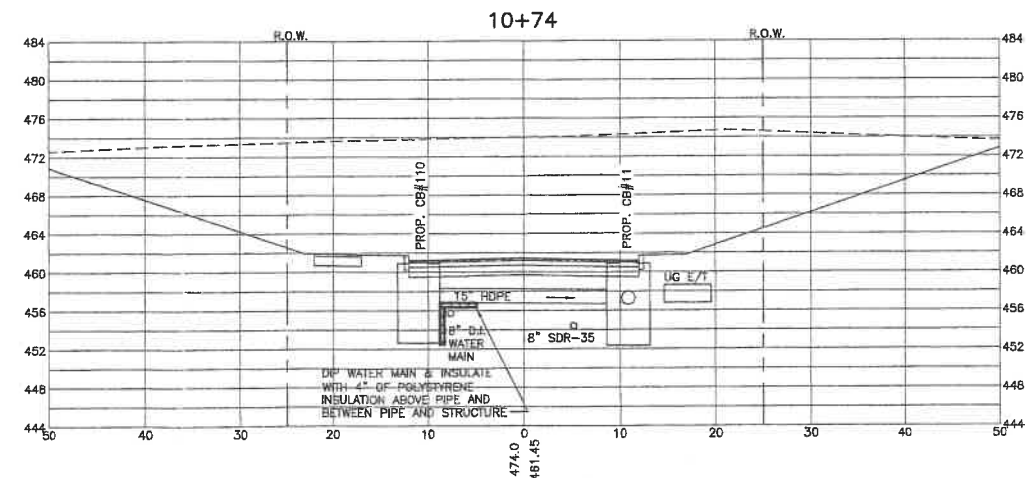
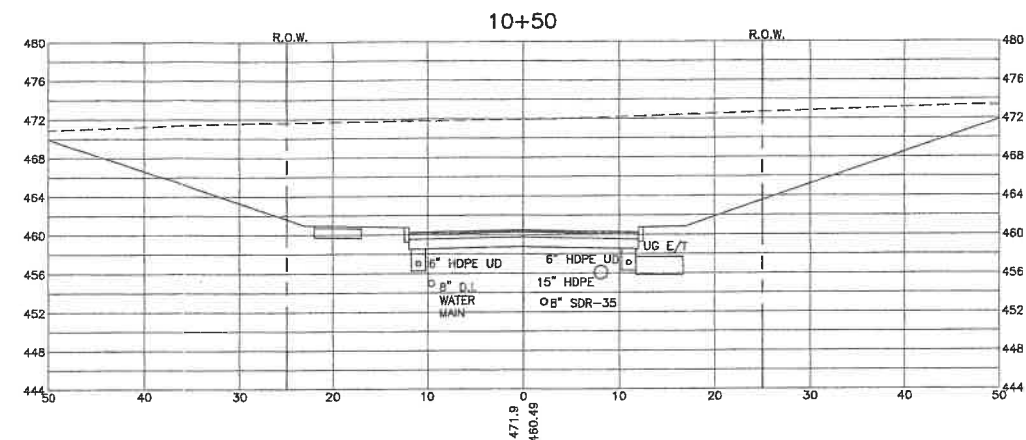
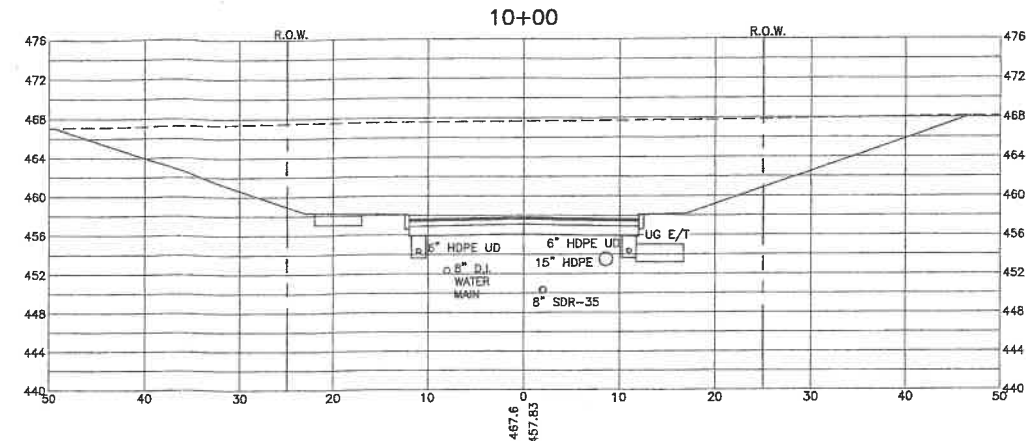
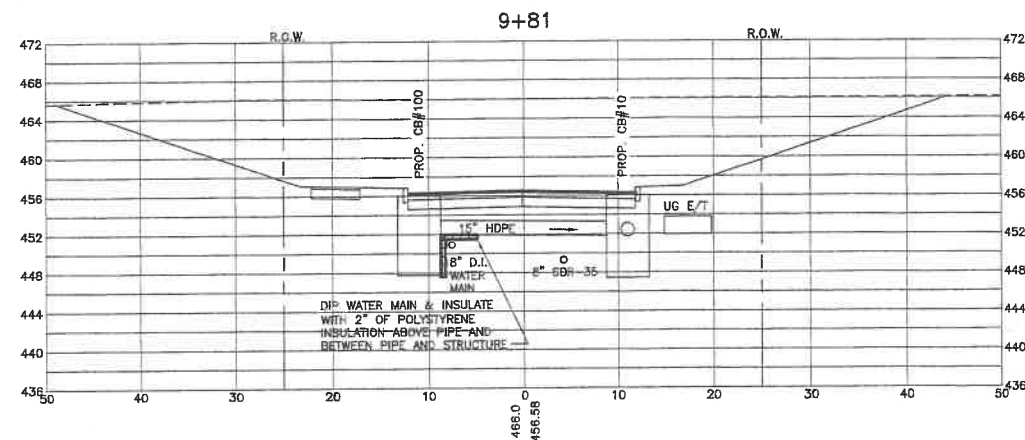
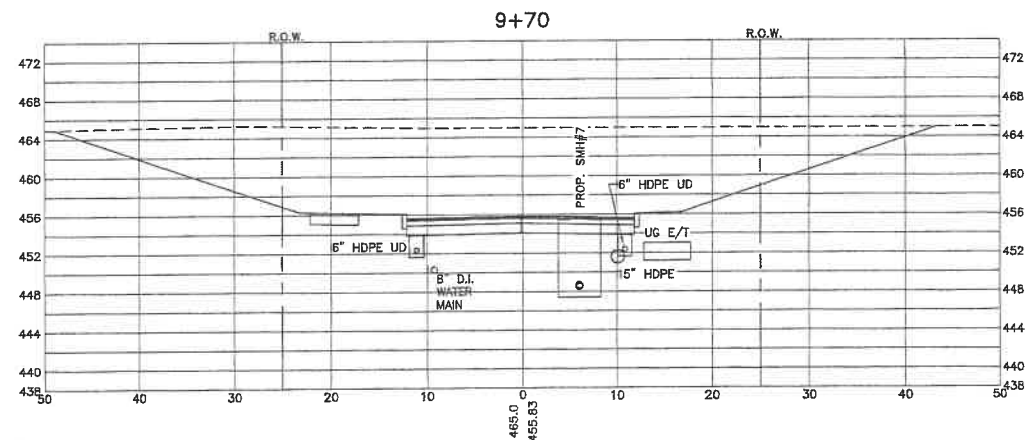
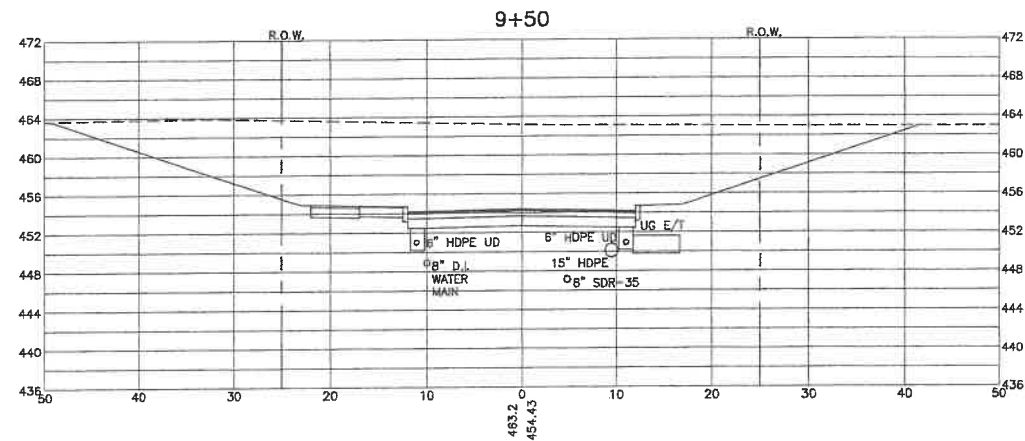
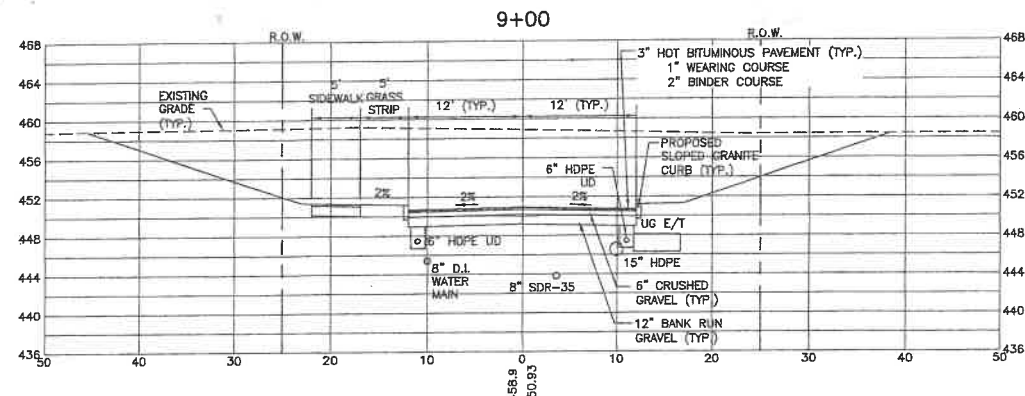
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4	10/8/18	REV. PER CITY COMMENTS	MAC
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PROJECT NO: 17-0417-3 SHEET X3 OF X4

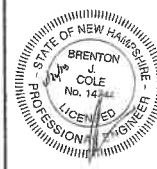


**CROSS SECTIONS
HIGHFIELD COMMONS
PHASE 1B (A)**
MAP 237 LOT 3
FILLMORE BOULEVARD
ROCHESTER, NEW HAMPSHIRE
STRAFFORD COUNTY

OWNER OF RECORD: SDJ DEVELOPMENT OF ROCHESTER, LLC
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746 D.W. HIGHWAY, UNIT B
MERRIMACK, NH 03054-2700
S.C.R.D. BK. 3927 PG. 453

APPLICANT: SDJ DEVELOPMENT OF ROCHESTER, LLC
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PROJECT NO: 17-0417-3 SHEET X4 OF X4