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SITE PLAN REVIEW
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 104
22 OLD CONCORD TURNPIKE
BARRINGTON, N.H.
TAX MAP 271, LOT 23

FOR PLANNING BOARD APPROVAL PURPOSES :

THE SUBDIVISION REGULATIONS OF THE TOWN OF BARRINGTON ARE A PART OF THIS PLAT, AND APPROVAL OF THIS PLAN IS CONTIGENT UPON COMPLETION OF ALL REQUIREMENTS OF SAID SUBDIVISION REGULATIONS, EXCEPTING ONLY MODIFICATIONS MADE IN WRITING BY THE BOARD AND ATTACHED HERETO.

REVISION	DATE	DESCRIPTION

OWNER: INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE
BARRINGTON, NH 03825

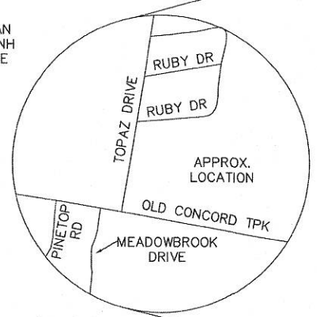
SIGNATURE

DEVELOPER: INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE
BARRINGTON, NH 03825

SURVEYOR OF RECORD: KENNETH A. BERRY, PE, LLS
CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332–2863

ENGINEER OF RECORD: KENNETH A. BERRY, PE, LLS
CPESC, CESSWI
BERRY SURVEYING & ENGINEERING
335 CROWN POINT ROAD
BARRINGTON, NH 03825
(603) 332–2863

LOCATION PLAN
BARRINGTON, NH
NOT TO SCALE



GIS SKETCH
BARRINGTON & LEE, N.H.
SCALE: 1" = 200'±

REQUIRED PERMITS:

~ NHDOT
~ NHDES SEPTIC
~ US EPA CGP NOTICE OF INTENT

GENERAL PLAN SET NOTES:

1.) 11x17" PLANS ARE HALF THE PUBLISHED SCALE.

2.) ALL PLANS ARE CONSIDERED TO BE NOT FOR CONSTRUCTION UNLESS THEY CONTAIN THE APPROVAL STAMP OF THE TOWN OF BARRINGTON.

LAND USE OFFICE
SEP 10 2015
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STATE OF NEW HAMPSHIRE No. 805 KENNETH A. BERRY LICENSED LAND SURVEYOR
SIGNATURE

SITE PLAN REVIEW
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 104
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, N.H.
TAX MAP 271, LOT 23

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 {332–2863}

SCALE : AS–NOTED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014–129

STATE OF NEW HAMPSHIRE KENNETH A. BERRY No. 14243 LICENSED PROFESSIONAL ENGINEER

TEST HOLE DATA

TEST HOLE #1

0' – 0.4'	10YR 3/3 FINE SANDY LOAM, GRANULAR, FRIABLE
0.4' – 1.0'	10YR 5/8, GRANULAR, SINGLE GRAIN
1.0' – 3.3'	10YR 6/6 FINE SANDY LOAM, GRANULAR, SINGLE GRAIN
3.3' – 5.0'	10YR 6/6 FINE SANDY LOAM, GRANULAR, FIRM IN HOLE

S.H.W.T. 3.3'
G.W. NO GROUNDWATER OBSERVED
ROOTS NONE
PERC. RATE: 4 MIN/INCH

TEST HOLE #2

0' – 1.0'	10YR 5/4 FINE SANDY LOAM, GRANULAR AND FRIABLE
1.0' – 4.0'	10YR 7/6 FINE SAND, GRANULAR AND SINGLE GRAIN
4.0' – 5.0'	10YR 6/3 FINE SAND, GRANULAR, FIRM IN HOLE

S.H.W.T. 4.0'
G.W. NO GROUNDWATER OBSERVED
FINE ROOTS TO 1.5'
PERC. RATE: 4 MIN/INCH

LEGEND:

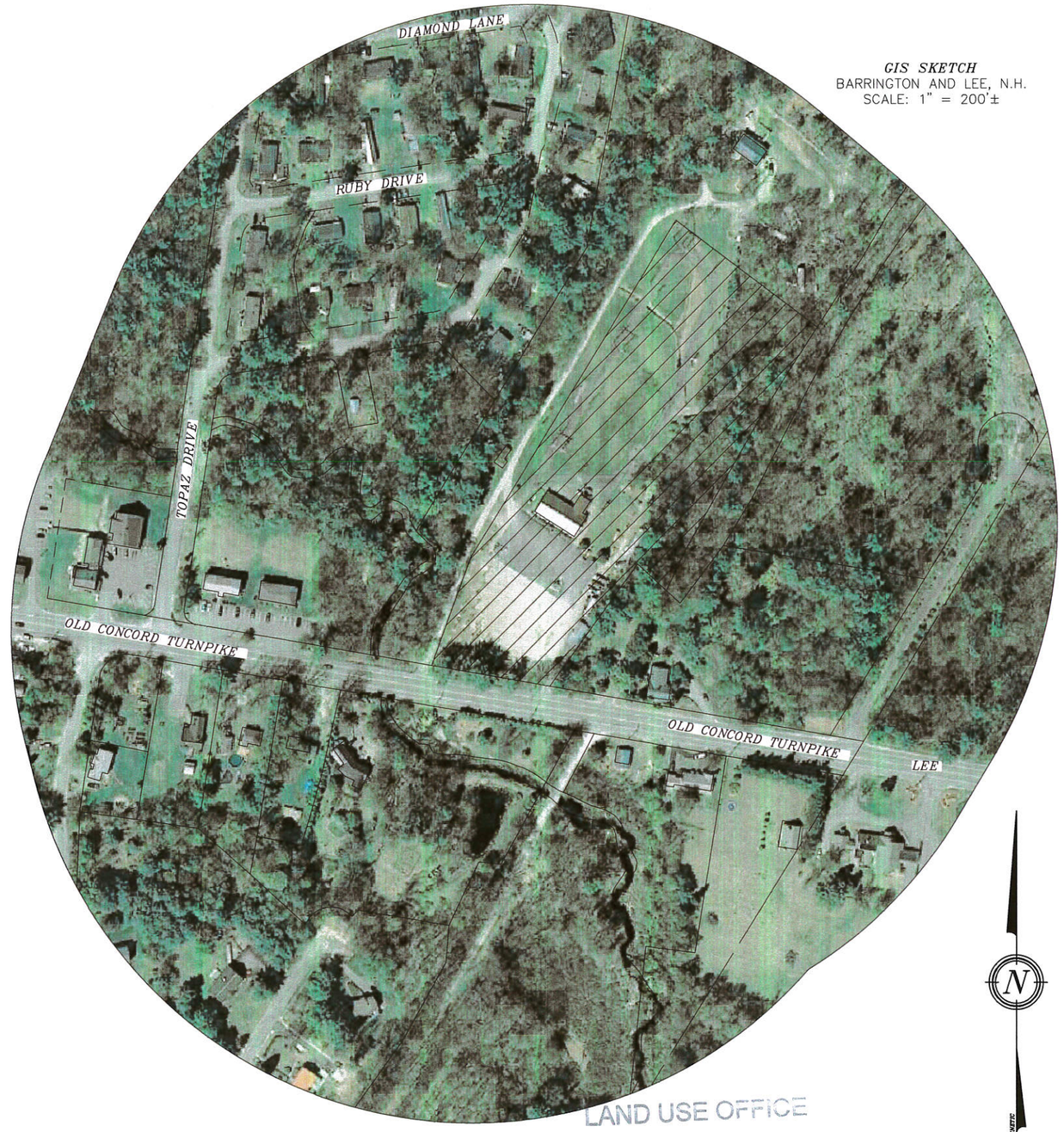
- IRON BOUND ~TBS~
- IRON BOUND ~FND~
- GRANITE BOUND ~FND~
- STONE BOUND ~FND~
- UTILITY POLE
- GUY WIRE
- CURB STOP
- GATE VALVE
- GAS VALVE
- FIRE HYDRANT
- CATCH BASIN
- SEWER MAN HOLE
- SINGLE POST SIGN
- POLE LIGHT
- TESTPIT
- TREE
- BUILDING SETACK LINE
- EASEMENT LINE
- GAS LINE
- WATER LINE
- SEWER LINE
- OVERHEAD UTILITYS
- UNDERGROUND UTILITIES
- HIGHWAY FENCE
- SOILS LINE
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- R.O.W. LINE
- ABUTTING LOT LINES
- SPOT ELEVATION
- 50' WETLAND BUFFER
- EXISTING CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- PROPOSED CONTOUR MINOR
- PROPOSED CONTOUR MAJOR
- PROPOSED CULVERT W/ FLARED END SECTION (F.E.S.)
- DETAIL SHEET / DETAIL
- PROPOSED & EXISTING TREELINE
- RIP-RAP APRON
- PROPOSED CENTER LINE
- PROPOSED UNDERGROUND UTILITY
- PROPOSED UNDER DRAIN (U.D.)
- PROPOSED TRANSFORMER / JUNCTION BOX
- EXISTING SECTOR CABINET AND ELECTRIC MANHOLE

ABBREVIATION LEGEND:

S.G.C.	SLOPED GRANITE CURB
V.G.C.	VERTICAL GRANITE CURB
E.O.P.	EDGE OF PAVEMENT
B.C.C.	BITUMINOUS CONCRETE CURB
BITUM.	BITUMINOUS
E.O.P.	EDGE OF PAVEMENT
TYP.	TYPICAL
T. BLOCK	THRUST BLOCK
CONC.	CONCRETE
U.G.E.	UNDER GROUND ELECTRIC / UTILITY
U.D.	UNDER DRAIN
F.E.S.	FLARED END SECTION
HDPE	HIGH DENSITY POLYETHYLENE
RCP	REINFORCED CONCRETE PIPE
F.G.	FINISHED GRADE
E.G.	EXISTING GRADE
T.W.	TRAVELED WAY

| | SSL ( ) ~ [SIZE] SINGLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
| | DSL ( ) ~ [SIZE] DOUBLE SOLID LINE (COLOR W=WHITE, Y=YELLOW)
| | SSB ( ) ~ [SIZE] SINGLE SOLID W/ BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
| | SBL ( ) ~ [SIZE] SINGLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)
| | DBL ( ) ~ [SIZE] DOUBLE BROKEN LINE (COLOR W=WHITE, Y=YELLOW)

SIGN ID NUMBER	SIGN SIZE (WIDTH x HEIGHT)	SIGN	TEXT DIMENSIONS	NO. OF SIGNS	BACKGROUND	LEGEND	BORDER	POST SIZE & QUANTITY
R1-1	30"x30"	STOP	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	RED	WHITE	WHITE	U-CHANNEL (1)
R7-1	12"x18"	NO PARKING ANY TIME	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	2	WHITE	RED	RED	U-CHANNEL (2)
R7-8	12"x18"	RESERVED PARKING	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	2	WHITE	GREEN W/ WHITE SYMBOL ON BLUE	RED	U-CHANNEL (2)
N/A	12"x18"	NO PARKING FIRE LANE	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	4	WHITE	RED	RED	U-CHANNEL (4)
R5-1	30"x30"	DO NOT ENTER	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	WHITE W/ RED SYMBOL	WHITE	WHITE	U-CHANNEL (1)
R6-1L	36"x12"	ONE WAY	SEE STANDARD HIGHWAY SIGNS 2004 EDITION PUBLISHED BY USDOT – FHWA	1	BLACK W/ WHITE ARROW	BLACK	WHITE	U-CHANNEL (1)



GIS SKETCH
BARRINGTON AND LEE, N.H.
SCALE: 1" = 200'±

REVISION	DATE	DESCRIPTION

1500' NEIGHBORHOOD PLAN
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS LOCAL 104
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, N.H.
TAX MAP 271, LOT 23

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 {332-2863}

SCALE : AS-NOTED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

SHEET 1 OF 16

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SOILS:

ADB ~ ACTON VERY STONEY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES
GsB ~ GLOUCESTER VERY STONY FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES
SuB ~ SUTTON VERY STONY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES
Wa ~ WHITMAN VERY STONY FINE SANDY LOAM
WdA ~ WINDSOR LOAMY SAND, 0 TO 3 PERCENT SLOPES

SEE WEBSOIL USDA-NRCS

THE WETLAND DELINEATION WAS COMPLETED NOVEMBER, 2014 IN ACCORDANCE WITH THE 1987 CORP OF ENGINEERS WETLAND DELINEATION MANUAL. JURISDICTIONAL WETLANDS WERE IDENTIFIED AND DELINEATED USING THE ROUTINE DETERMINATIONS METHOD AS OUTLINED IN THE MANUAL. THE DELINEATION WAS DONE BY:

FRAGGLE ROCK ENV., DAMON BURT – CWS #163
38 GARLAND ROAD, STRAFFORD, NH 03884

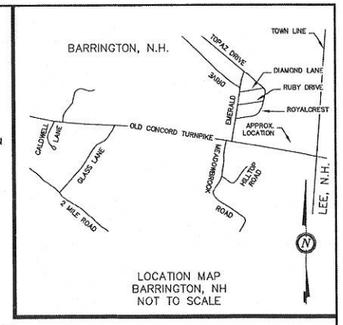
PLAN REFERENCES:

1.) "LOT LINE ADJUSTMENT PLAN PREPARED FOR GOWEN FAMILY REVOCABLE TRUST OF TAX MAP 271/LOTS 23 & 24 LOCATED AT NH ROUTE 4 COUNTY OF STRAFFORD BARRINGTON, NH"
BY: DAVID W. VINCENT, LLS LAND SURVEYING SERVICES
DATED: JULY 18, 2006
S.C.R.D.: PLAN # 88-37

2.) "A SURVEY AND PLAT OF A SUBDIVISION PREPARED FOR NICHOLAS P. & KATHOLIKI CHAKOUTIS SITUATED IN THE TOWN OF BARRINGTON & LEE NEW HAMPSHIRE"
BY: R.S.L. LAYOUT & DESIGN INC.
DATED: JULY 27, 1987
S.C.R.D.: PLAN #33A-78

3.) "BOUNDARY PLAN CHARLES VOROSMARTY ROUTE BARRINGTON, NEW HAMPSIRE"
BY: R.G. MOYNIHAN CIVIL ENGINEER AND SURVEYOR
DATED: OCTOBER 18, 1990
S.C.R.D.: PLAN # 32A-23

4.) "PLAN OF LAND MAJOR WALDRONS SPORTSMEN'S ASSOC."
BY: FREDERICK E. DREW ASSOCIATES
DATED: FEBRUARY 1985
S.C.R.D.: PLAN # 24A-198



LOCATION MAP
BARRINGTON, NH
NOT TO SCALE

NOTES:

1.) OWNER: PROJECT ADDRESS: INT'L BROTHERHOOD OF ELECTRICAL WORKERS, 22 OLD CONCORD TURNPIKE, BARRINGTON, NH 03825
MAILING ADDRESS: INT'L BROTHERHOOD OF ELECTRICAL WORKERS, 130 WEST STREET, WALPOLE, MA 02081

2.) TAX MAP 271, LOT 23

3.) S.C.R.D. BOOK 3552, PAGE 349

4.) LOT AREA: 219,154 Sq. Ft., 5.03 Ac.

5.) THE INTENT OF THIS PLAN IS TO SHOW THE EXISTING BOUNDARIES AND CONDITIONS OF TAX MAP 271, LOT 23, LOCATED IN BARRINGTON, N.H., AS OF THE DATE OF THIS PLAN.

6.) I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, A PORTION OF THIS PROPERTY DOES NOT FALL WITHIN THE FLOOD PLAIN FLOOD HAZARD REF: FEMA MAP# 33017C0295D, DATED: MAY 17, 2005.

7.) VERTICAL DATUM BASED ON NAVD88 ELEVATIONS. COORDINATES GATHERED USING TOPCON HIPER SR SURVEY GRADE GPS.

8.) EXISTING IMPERVIOUS AREA = 61,766 Sq.Ft. 28.1%

9.) ALL ABUTTING PROPERTIES ARE IN THE REGIONAL COMMERCIAL ZONE.

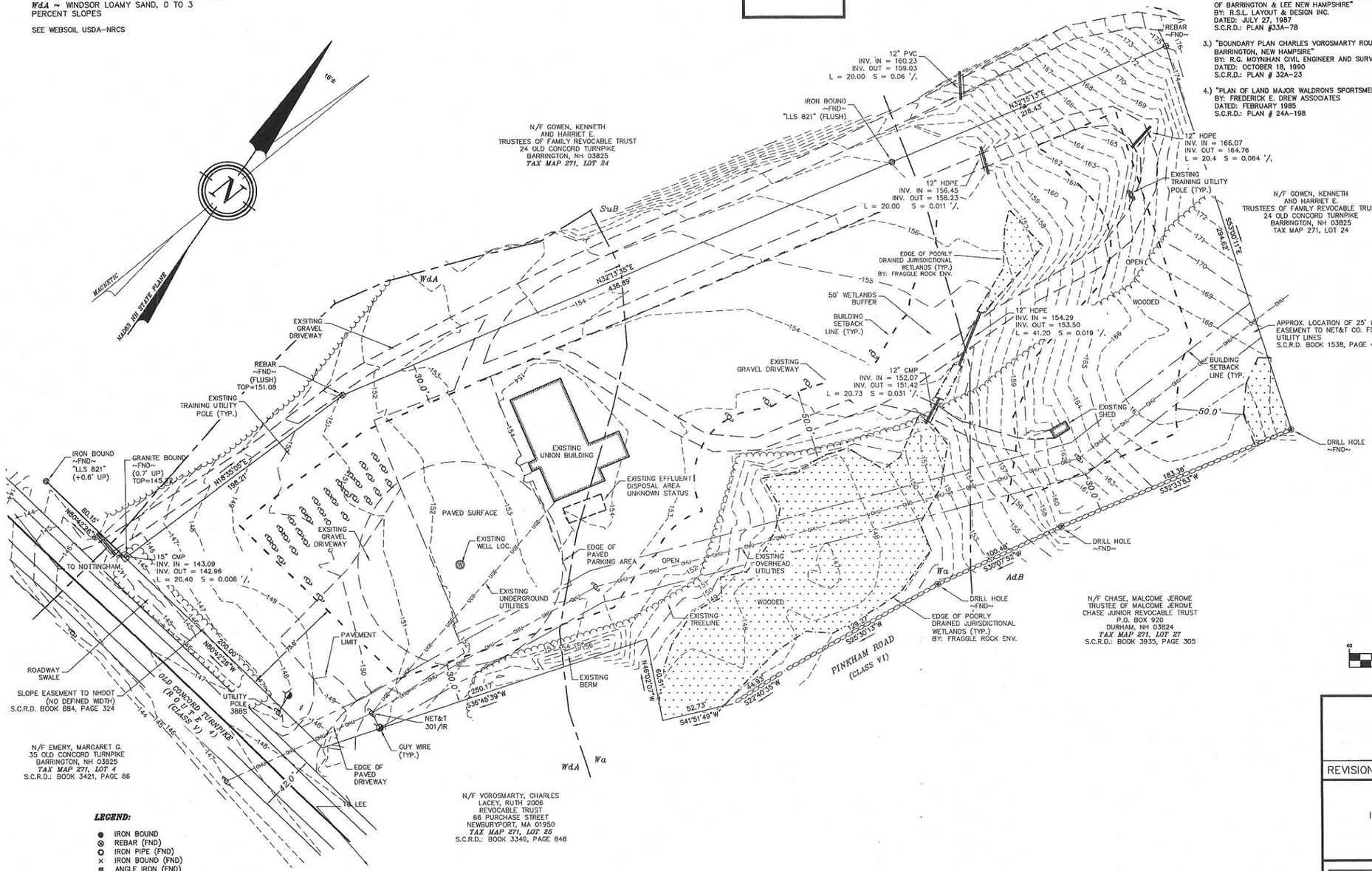
ZONING:

ZONE:	REGIONAL COMMERCIAL
MIN. LOT SIZE:	40,000 Sq. Ft.
MIN. FRONTAGE:	200'
FRONT SETBACK:	75'
SIDE SETBACK:	30'
REAR SETBACK:	30'
OPEN SPACE:	
MAX. LOT COVERAGE:	50%
MAX. HEIGHT:	40' – 3 STORIES
RESIDENTIAL BUFFER:	50'

SITE PLAN REVIEW

NON-RESIDENTIAL PARKING AREA: FRONT BUFFER (50') 4.2.3(5)

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.



LEGEND:

- IRON BOUND
- REBAR (FND)
- IRON PIPE (FND)
- IRON BOUND (FND)
- ANGLE IRON (FND)
- DRILL HOLE (FND OR SET)
- TBS TO BE SET
- FND FOUND
- TYP TYPICAL
- STONE WALL
- BUILDING SETBACK LINE
- EASEMENT LINE
- JURISDICTIONAL WETLAND LINE
- WELL
- UTILITY POLE
- GUY WIRE

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I CERTIFY THAT THIS PLAT EXCEEDS THE MINIMUM REQUIREMENT FOR ACCURACY AND COMPLETENESS OF THE STATE OF N.H. AND OF THE TOWN OF BARRINGTON. – 1:10,000 –

9-9-15
KENNETH A. BERRY RLS 805 DATE

REVISION	DATE	DESCRIPTION

EXISTING CONDITIONS
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH
TAX MAP 271, LOT 23

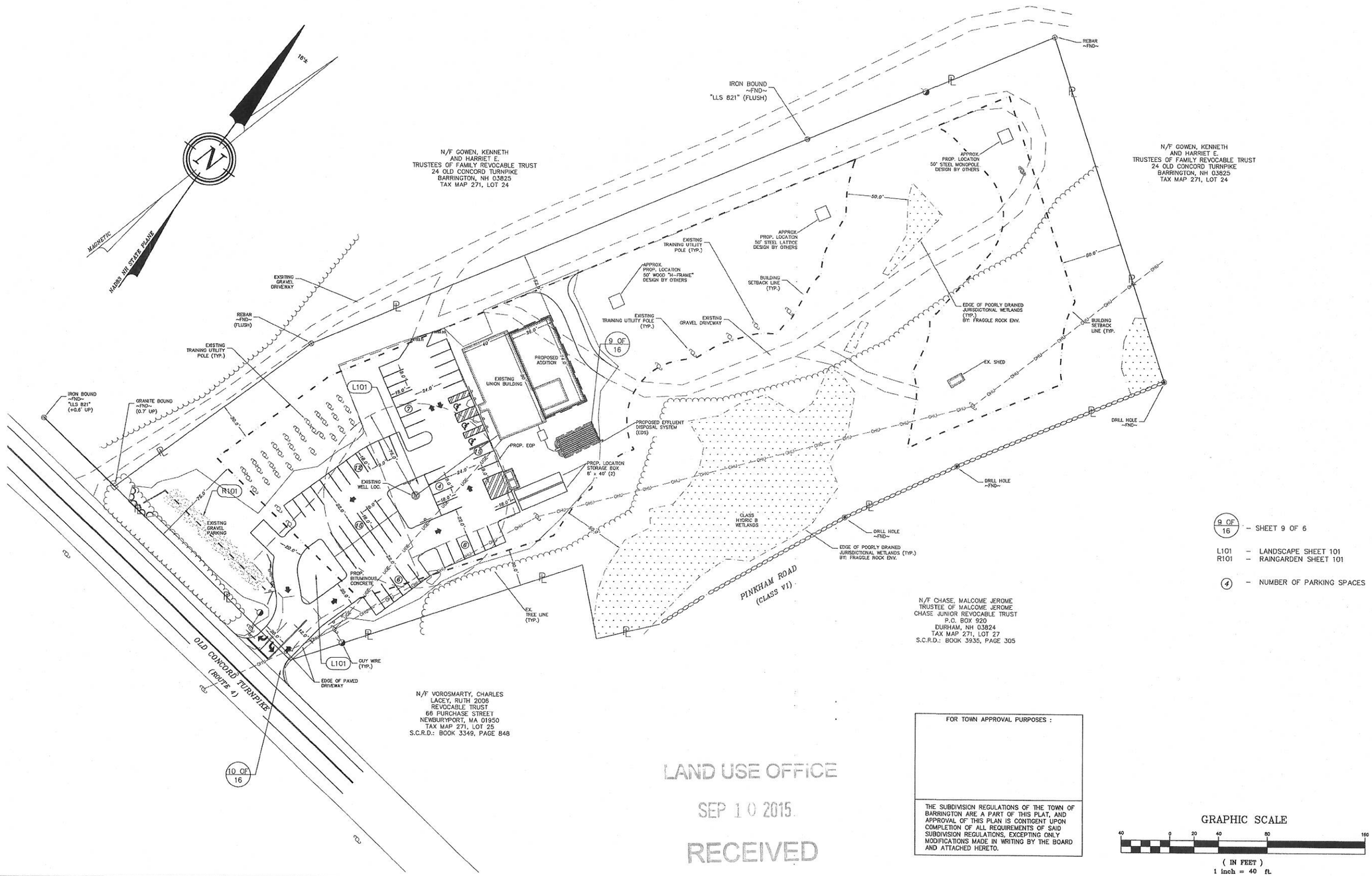
STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR No. 805 KENNETH A. BERRY SIGNATURE

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT RD.
BARRINGTON, N.H. 332-2863

SCALE : 1 IN. EQUALS 40 FT.
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014 – 129

PARKING CALCULATIONS
REQUIREMENTS:
(TRADE SCHOOL) 1 SPACE PER 4 STUDENTS
(OFFICE) – 1 SPACE PER 300 Sq.Ft.

1,000 Sq.Ft.± OFFICE SPACE – 4 SPACES
60 STUDENTS AT LARGEST CLASS – 15 SPACES
19 SPACES REQUIRED
62 SPACES PROVIDED, INCLUDING 3 ADA SPACES



FOR TOWN APPROVAL PURPOSES :

THE SUBDIVISION REGULATIONS OF THE TOWN OF BARRINGTON ARE A PART OF THIS PLAT, AND APPROVAL OF THIS PLAN IS CONTIGENT UPON COMPLETION OF ALL REQUIREMENTS OF SAID SUBDIVISION REGULATIONS, EXCEPTING ONLY MODIFICATIONS MADE IN WRITING BY THE BOARD AND ATTACHED HERETO.

LAND USE OFFICE
SEP 10 2015
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REVISION	DATE	DESCRIPTION

OVERVIEW SITE PLAN
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

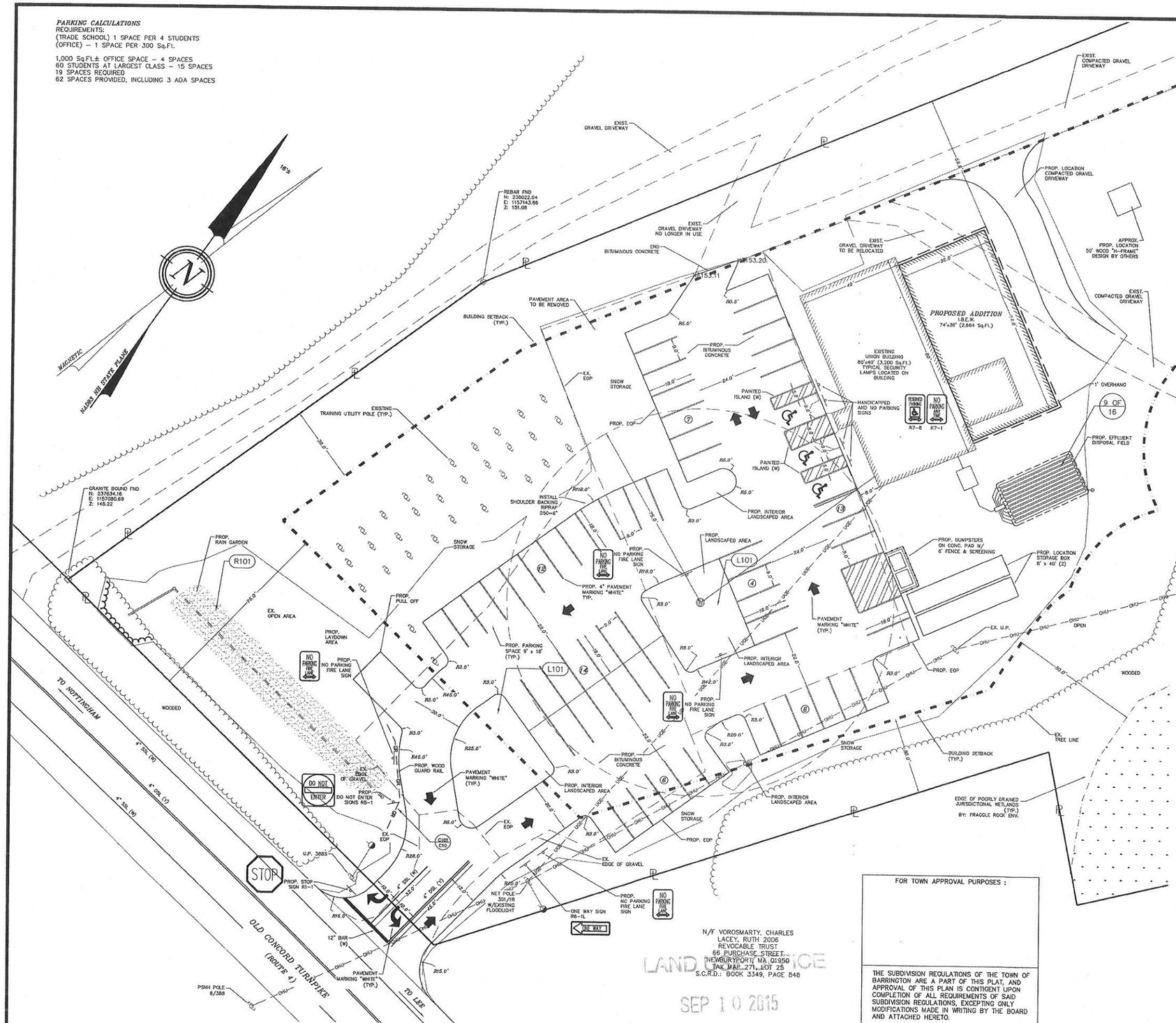
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

SCALE : 1 IN. EQUALS 40 FT.
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

PARKING CALCULATIONS
REQUIREMENTS:
(TRADE SCHOOL) 1 SPACE PER 4 STUDENTS
(OFFICE) -- 1 SPACE PER 300 Sq.Ft.

1,000 Sq.Ft.± OFFICE SPACE -- 4 SPACES
60 STUDENTS AT LARGEST CLASS -- 15 SPACES
19 SPACES REQUIRED
62 SPACES PROVIDED, INCLUDING 3 ADA SPACES



FOR TOWN APPROVAL PURPOSES :

THE SUBDIVISION REGULATIONS OF THE TOWN OF BARRINGTON ARE A PART OF THIS PLAT, AND APPROVAL OF THIS PLAN IS CONTIGENT UPON COMPLETION OF ALL REQUIREMENTS OF SAID SUBDIVISION REGULATIONS, EXCEPTING ONLY MODIFICATIONS MADE IN WRITING BY THE BOARD AND ATTACHED HERETO.

LAND USE OFFICE
SEP 10 2015
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GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

NOTES:

1.) THE INTENT OF THIS PLAN SET IS TO DEMONSTRATE THE SITE PLAN DESIGN OF A PROPOSED ADDITION AND PROPOSED PARKING LOT.

2.) CURRENT OWNER: INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD ROAD
BARRINGTON, NH 03825

3.) THE PROJECT PARCEL IS LOT NO. 23, MAP 271 OF THE TOWN OF BARRINGTON TAX ASSESSOR'S MAPS.

4.) THE PROJECT PARCEL CONTAINS 5.03 ACRES OR 219,154 SQUARE FEET AREA OF LAND.

5.) EXISTING IMPERVIOUS AREA = 61,766 Sq.Ft. 28.1%
PROPOSED IMPERVIOUS AREA = 60,536.57 Sq.Ft. 27.6%

6.) TITLE REFERENCE FOR THE PROJECT PARCEL IS THE STRAFFORD COUNTY REGISTRY OF DEEDS, (S.C.R.D.) BOOK NO. 3552, PAGE NO. 349.

7.) ZONING NOTES: REGIONAL COMMERCIAL, STRATIFIED DRIFT AQUIFER OVERLAY

MINIMUM LOT SIZE:	40,000 SQUARE FEET
MINIMUM FRONTAGE:	200 FEET
BUILDING SETBACK REQUIREMENTS:	
FRONT (EXISTING)	75 FEET
SIDE	30 FEET
REAR	30 FEET
MAXIMUM LOT COVERAGE:	50 PERCENT
MAXIMUM BUILDING HEIGHT:	40 FEET – 3 STORIES

8.) PROPERTY LINE INFORMATION HAS BEEN OBTAINED FROM A SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING IN NOVEMBER 2014 WITH AN ERROR OF CLOSURE GREATER THAN 1 IN 10,000 UNDER NO SNOW CONDITIONS.

9.) LOT LIMITS TO BE LAID OUT BY BS&E.

10.) THE SUBJECT PARCEL IS NOT LOCATED WITHIN AREAS DETERMINED TO BE WITHIN THE 0.2 PERCENT ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP NO.: 33017C0295D DATED MAY 17, 2005.

11.) WETLANDS WERE DELINEATED BY FRAGGLE ROCK ENV., DAMON BURT, CERTIFIED WETLAND SCIENTIST CERTIFICATE NUMBER 163.

12.) AS-BUILT PLANS OF THE SITE SHALL BE SUBMITTED ON A REPRODUCIBLE MYLAR MEDIUM AND IN A DIGITAL DXF FORMAT ON DISK TO THE TOWN OF BARRINGTON UPON COMPLETION OF PROJECT. AS-BUILT PLANS SHALL BE PREPARED AND CERTIFIED CORRECT BY A L.L.S. OR P.E.

13.) TOPOGRAPHIC SURVEY PERFORMED BY BERRY SURVEYING & ENGINEERING IN NOVEMBER 2014 UNDER NO SNOW CONDITIONS AND IS SHOWN AT 1 FOOT INTERVALS.

14.) DATUM: PROJECT DATUM IS BASED ON GPS COORDINATES ESTABLISHED WITH A TOPCON HIPER SR RECEIVER IN NOVEMBER 2014 AND REPRESENTED IN NEW HAMPSHIRE STATE PLANE COORDINATES NAD 1983 AND VERTICALLY BY NAVD 1988.

15.) IF A SPRINKLER SYSTEM IS REQUIRED FOR THE PROPOSED ADDITION, IT IS TO BE DESIGNED BY OTHERS.

16.) ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO APPLICABLE TOWN AND STATE CODES.

17.) REQUIRED EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY DISTURBANCE OF THE SITES SURFACE AREA AND SHALL BE MAINTAINED THROUGH THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES. IF DURING CONSTRUCTION IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.

18.) ALL TREATMENT SWALES TO BE CONSTRUCTED SHALL HAVE SOD BOTTOMS.

19.) A LETTER OF CREDIT FOR THE COST OF REVEGETATING ALL DISTURBED AREAS ON THE SITE SHALL BE SUBMITTED PRIOR TO ANY EARTH DISTURBING ACTIVITY OCCURS.

20.) A PRE-CONSTRUCTION CONFERENCE WITH THE DEVELOPER, THE DESIGN ENGINEER, THE EARTHWORK CONTRACTOR AND THE TOWN'S ENGINEER SHALL OCCUR PRIOR TO ANY EARTH DISTURBING ACTIVITY.

21.) THE PROPOSED USE FOR THE SITE IS COMMERCIAL.

22.) THIS PLAN PROPOSES 53,000 SQ. FT. OF DISTURBANCE.

23.) CALL DIG SAFE PRIOR TO BEGINNING WORK (1-888-344-7233).

24.) ALL CONSTRUCTION SHALL CONFORM TO THE TOWN OF BARRINGTON SUBDIVISION REGULATIONS AND THE LATEST EDITION OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

25.) WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR IS TO CONFIRM ALL ELEVATIONS. CONFLICTS WILL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

26.) SNOW STORAGE AREAS ARE AS SHOWN ON THIS SITE PLAN. NO SNOW IS TO BE STORED IN THE TREATMENT SWALE. SNOW IN THIS AREA IS TO BE PUSHED BEYOND THE TREATMENT SWALE. EXCESS SNOW WILL BE REMOVED FROM THIS SITE AND DISPOSED OF IN A QUALIFIED LOCATION.

27.) TRAINING UTILITY POLES WILL BE PERIODICALLY ERECTED AND TAKEN DOWN INSIDE THE BUILDING ENVELOPE.

28.) IF DURING CONSTRUCTION IT BECOMES APPARENT THE DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE CONTRACTOR SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.

29.) THE EXISTING USE OF THE PROPERTY IS FOR THE LOCAL IBEW UNION TRAINING SITE. THE PROPOSED USE IS THE SAME.

30.) THE WATER SUPPLY SOURCE IS AN ON-SITE WELL.

REVISION	DATE	DESCRIPTION

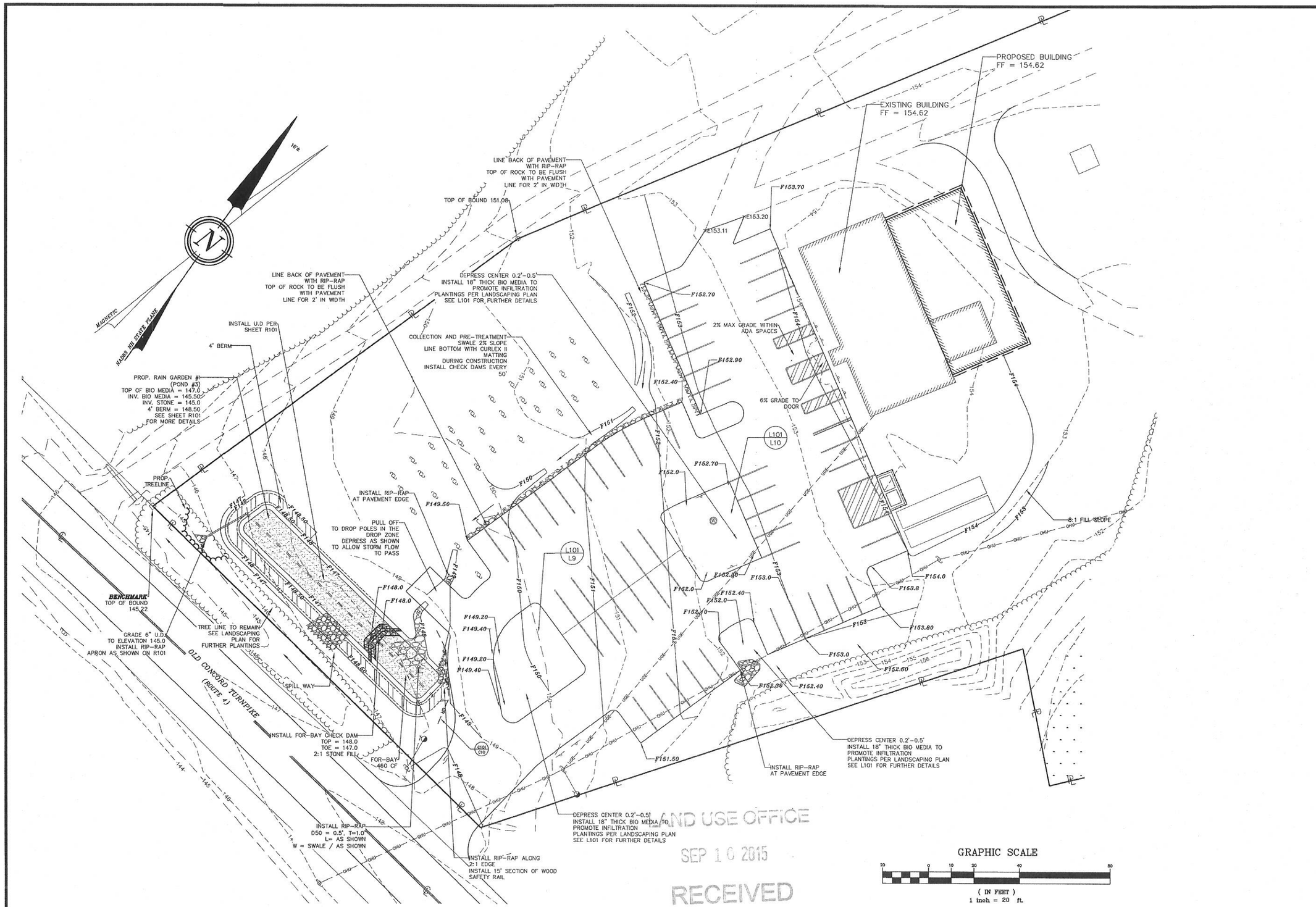
20 SCALE SITE PLAN
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 {332-2863}

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

SHEET 4 OF 16



LAND USE OFFICE
SEP 16 2015
RECEIVED

REVISION	DATE	DESCRIPTION

GRADING PLAN
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 {332-2863}

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

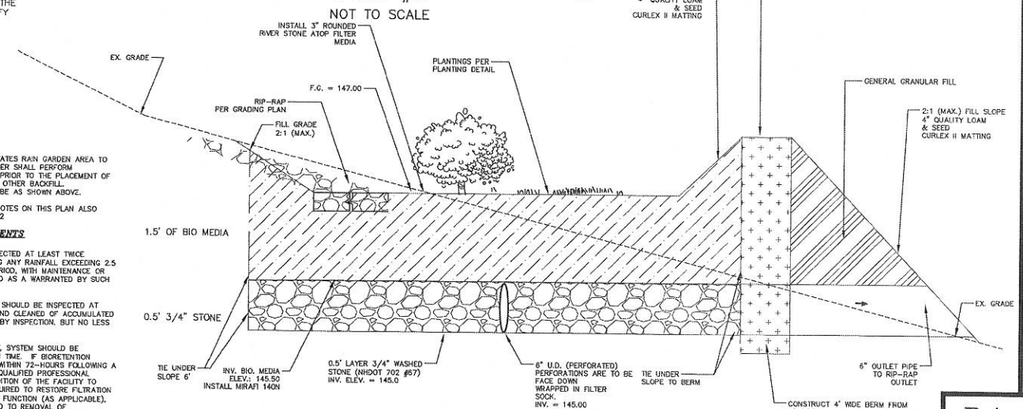
1.) THE RAIN GARDEN SUBGRADE IS NOT TO BE IMPACTED BY VEHICLE TRAFFIC. IF THIS INADVERTENTLY HAPPENS THE CONTRACTOR IS TO SCARIFY TO A DEPTH OF 6"

RAIN GARDEN #1 CROSS SECTION POND #3

A/1

NOT TO SCALE

R1



NOTES

1. WHEN CONTRACTOR EXCAVATES RAIN GARDEN AREA TO SUBGRADE, DESIGN ENGINEER SHALL PERFORM SUBSURFACE EVALUATION PRIOR TO THE PLACEMENT OF ANY SELECT MATERIAL OR OTHER BACKFILL.
2. SOIL FILTER MEDIA SHALL BE AS SHOWN ABOVE.
3. GENERAL CONSTRUCTION NOTES ON THIS PLAN ALSO APPLY TO RAIN GARDEN #2

MAINTENANCE REQUIREMENTS

1 SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EXCEEDING 2.5 INCHES IN A 24-HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS A WARRANTED BY SUCH INSPECTION.

2 PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.

3 AT LEAST ONCE ANNUALLY, SYSTEM SHOULD BE INSPECTED FOR DRAWDOWN TIME. IF BIORETENTION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE FILTRATION FUNCTION OR INFILTRATION FUNCTION (AS APPLICABLE), INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER MEDIA.

4 VEGETATION SHOULD BE INSPECTED AT LEAST ANNUALLY, AND MAINTAINED IN HEALTHY CONDITION, INCLUDING, PRUNING, REMOVAL, AND REPLACEMENT OF DEAD OR DISEASED VEGETATION, AND REMOVAL OF INVASIVE SPECIES.

DESIGN REFERENCES

1 UNH STORMWATER CENTER
2 NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 2, DECEMBER 2008 AS AMENDED.

CRUSHED STONE BEDDING*

SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 – 100
#4	0 – 10
#8	0 – 5

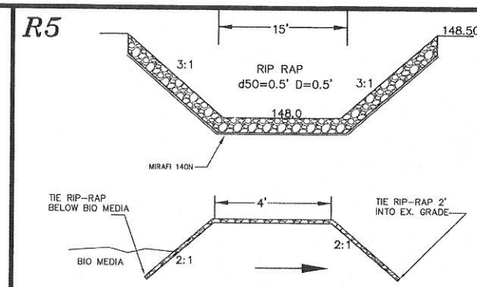
*EQUIVALENT TO STANDARD STONE SIZE #67 – SECTION 702 OF NHDOT STANDARD SPECIFICATIONS

LOW PERMEABILITY MATERIAL GRADATION

SIEVE SIZE	% PASSING BY WEIGHT
#4	95 – 100
#40	60 – 95
#100	40 – 60
#200	25 – 45

R2

R5



EMERGENCY SPILLWAY PROFILE

SPILLWAY DETAILS

NOT TO SCALE

R4

FILTER MEDIA MIXTURES

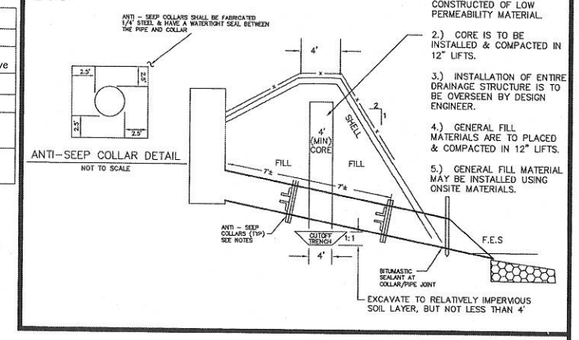
Component Material	Percent of Mixture by Volume	Gradation of material: Sieve No.	Gradation of material: Percent by Weight Passing Standard Sieve
Filter Media Option A			
ASTM C-33 concrete sand	50 to 55		
Loamy sand topsoil, with fines as indicated	20 to 30	200	15 to 25
Moderately fine shredded bark or wood fiber mulch, with fines as indicated	20 to 30	200	< 5

GRAPHIC SCALE

20 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

R6



1.) 4' CORE IS TO BE CONSTRUCTED OF LOW PERMEABILITY MATERIAL.

2.) CORE IS TO BE INSTALLED & COMPACTED IN 12" LIFTS.

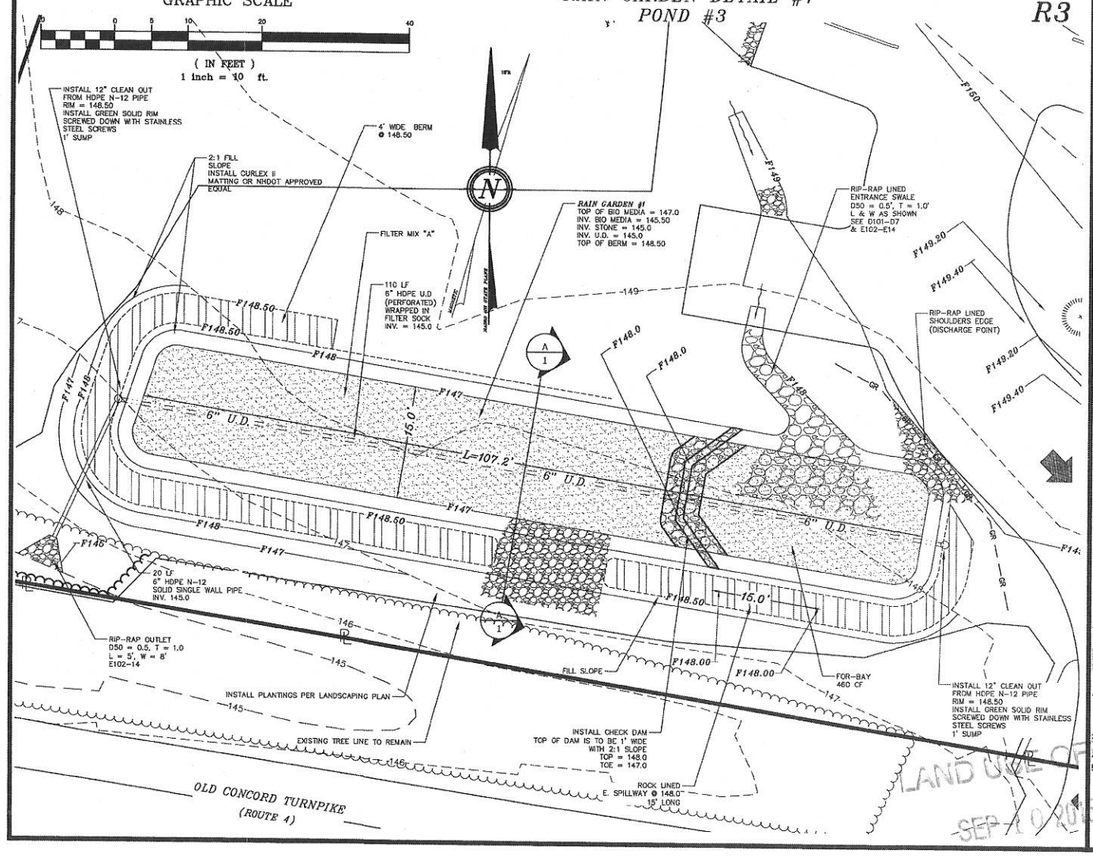
3.) INSTALLATION OF ENTIRE DRAINAGE STRUCTURE IS TO BE OVERSEEN BY DESIGN ENGINEER.

4.) GENERAL FILL MATERIALS ARE TO PLACED & COMPACTED IN 12" LIFTS.

5.) GENERAL FILL MATERIAL MAY BE INSTALLED USING ONSITE MATERIALS.

RAIN GARDEN DETAIL #1 POND #3

R3

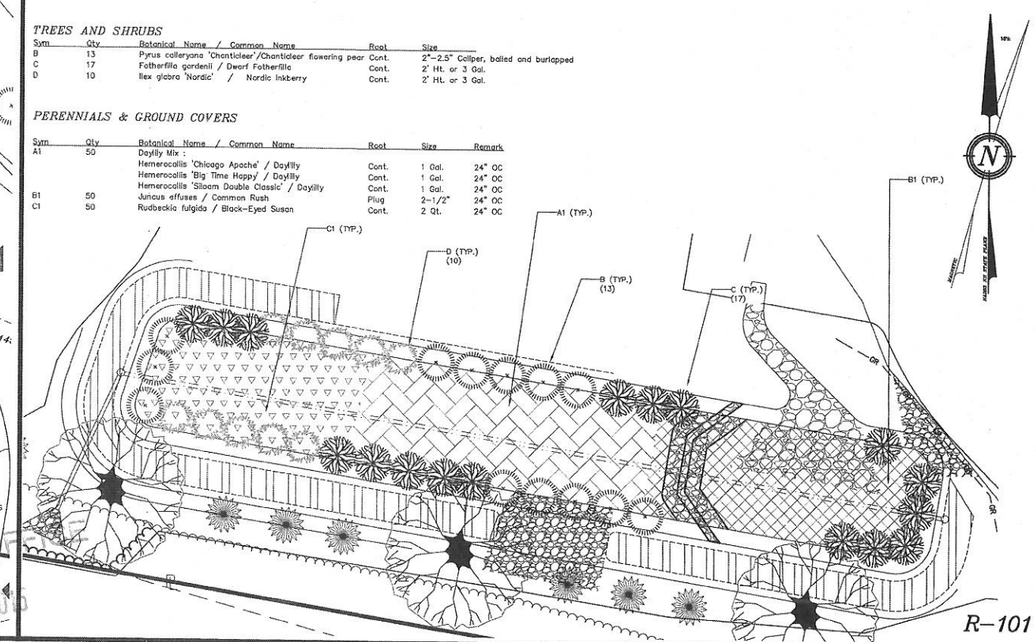


TREES AND SHRUBS

Sym	Qty	Botanical Name / Common Name	Root	Size
B	13	Pyrus calleryana 'Chanticleer'/Chanticleer flowering pear	Cont.	2"-2.5" Caliper, balled and burlapped
C	17	Fothergilla gardenii / Dwarf Fotherfilla	Cont.	2' Ht. or 3 Gal.
D	10	Ilex glabra 'Nordic' / Nordic Inkberry	Cont.	2' Ht. or 3 Gal.

PERENNIALS & GROUND COVERS

Sym	Qty	Botanical Name / Common Name	Root	Size	Remark
A1	50	Daylily Mix :			
		Hemerocallis 'Chicago Apache' / Daylilly	Cont.	1 Gal.	24" OC
		Hemerocallis 'Big Time Happy' / Daylilly	Cont.	1 Gal.	24" OC
		Hemerocallis 'Siloam Double Classic' / Daylilly	Cont.	1 Gal.	24" OC
B1	50	Juncus effuses / Common Rush	Plug	2-1/2"	24" OC
C1	50	Rudbeckia fulgida / Black-Eyed Susan	Cont.	2 Qt.	24" OC



R-101

REVISION	DATE	DESCRIPTION

RAIN GARDEN #1 DETAIL
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

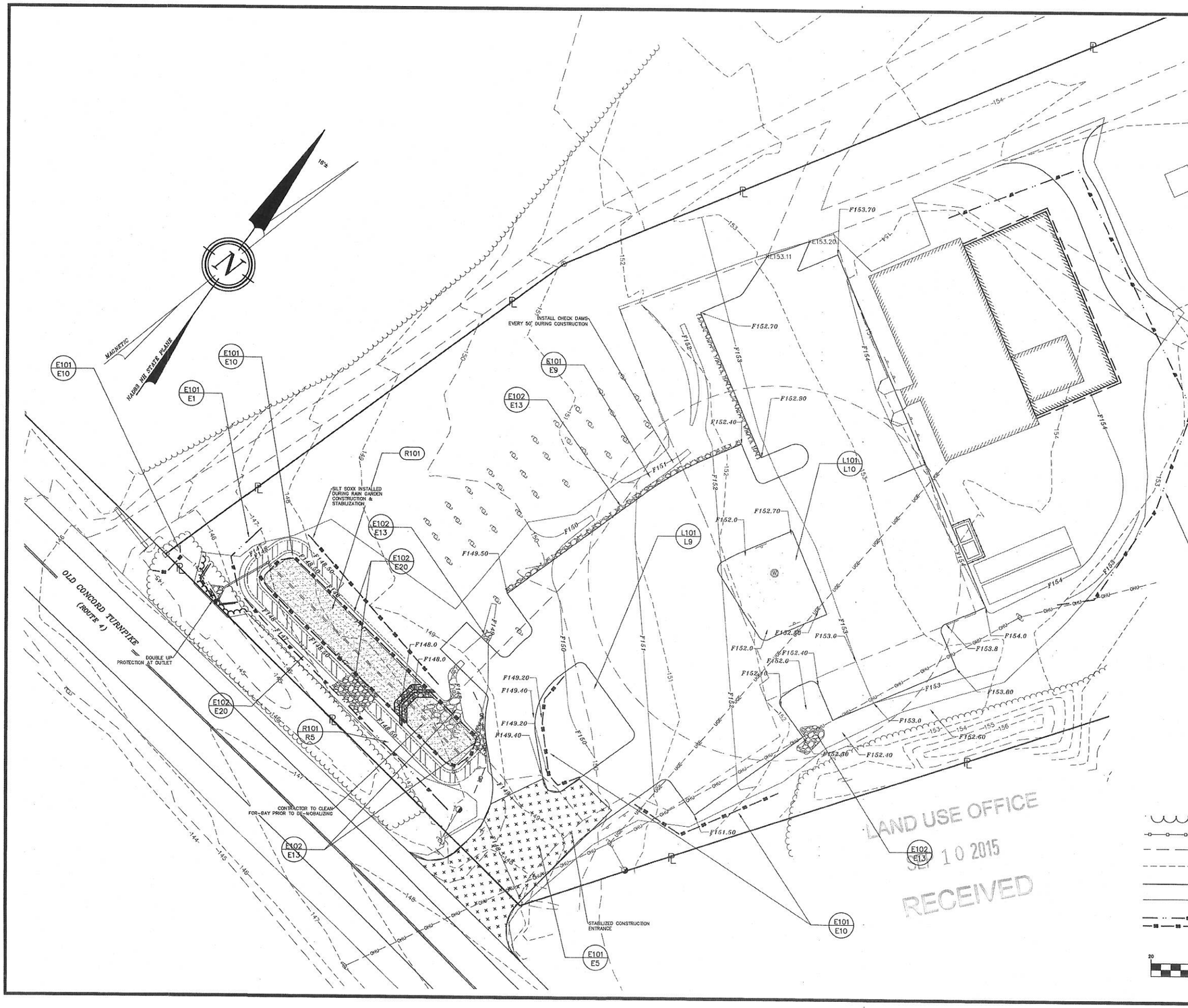
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

SCALE : AS NOTED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

SHEET 6 OF 16

LAND USE STAFF
SEP 11 2015
RECEIVED



NOTES:

1.) OWNER: PROJECT ADDRESS: INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE
BARRINGTON, NH 03825

2.) BARRINGTON TAX MAP 271, LOT 23

3.) THE PURPOSE OF THIS PLAN IS TO DEMONSTRATE PROPER SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION.

4.) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVE AND BELOW GROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. ANY UTILITY CONFLICTS SHOULD BE REPORTED IMMEDIATELY TO THE DESIGN ENGINEER.

5.) THE CONTRACTOR SHALL CALL AND COORDINATE WITH DIGSAFE 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

6.) SEE DETAILS CONCERNING SITE LAYOUT, DRAINAGE, UTILITY AND SEDIMENT AND EROSION CONTROLS.

7.) ALL DRAINAGE PIPE IS TO BE HDPE N-12 ASTM F2648. INDIVIDUAL PIPE SIZES ARE SPECIFIED.

8.) ALL ELEVATIONS TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER IS TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCY. TEMPORARY BENCHMARKS (T.B.M.) ARE TO BE PROVIDED BY THE DESIGN ENGINEER.

9.) UPON FINAL COMPLETION AND 85% STABILIZATION THE DRAINAGE SYSTEM IS TO BE CLEANED OF ALL DEBRIS.

10.) ALL UNPAVED AREAS ARE TO RECEIVE 4" QUALITY LOAM AND SEED.

11.) REFERENCE IS MADE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DATED _____ A COPY OF THE SWPPP IS TO BE MAINTAINED ON SITE AT ALL TIMES PER THE EPA CONSTRUCTION GENERAL PERMIT (CGP).

12.) INSPECTIONS TO BE CONDUCTED ONCE PER EVERY SEVEN DAYS AND AT AN INCREASED FREQUENCY INCLUDING WITHIN 24-HOURS OF A 0.25 INCH RAIN EVENT. INSPECTIONS TO BE CONDUCTED BY A "QUALIFIED PERSON" AS DEFINED BY EPA CGP 4.1.1 AND INSPECTION REPORTS SUBMITTED TO THE TOWN OF BARRINGTON, NH, ENGINEERING DEPARTMENT WITHIN 24 HOURS IN ACCORDANCE WITH CGP 4.1.7 AND MAINTAINED BY THE OWNER FOR A PERIOD OF THREE YEARS AFTER THE NOTICE OF TERMINATION (NOT) IS SUBMITTED.

13.) SILT FENCE MAY BE SUBSTITUTED WITH SILT SOXX OR EROSION CONTROL MIX BERM.

14.) THE CONTRACTOR SHALL NOT COMPACT SOIL IN THE RAIN GARDEN AREAS.

15.) PER EPA CGP 2.1.2.2 (INSTALL PERIMETER CONTROL), "YOU MUST INSTALL SEDIMENT CONTROLS ALONG THOSE PERIMETER AREAS OF YOUR SITE THAT WILL RECEIVE STORMWATER FROM EARTH DISTURBING ACTIVITIES." AS A RESULT OF SWPPP INSPECTIONS, THE CONTRACTOR MAY HAVE TO EXPAND PERIMETER CONTROLS TO MEET THIS REQUIREMENT.

LEGEND:

- 3/4" REBAR W/ID CAP(TO BE SET)
- IRON BOUND (FND)
- GRANITE BOUND (FND)
- STONE BOUND (FND)
- UTILITY POLE
- BENCHMARK
- TREE LINE, EXISTING OR PROPOSED
- PROPOSED STOCKADE FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SILT FENCE / EROSION MIX BERM
- FILTREXX 12" SILT SOXX

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REVISION	DATE	DESCRIPTION

SEDIMENT & EROSION CONTROL PLAN
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKER
OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

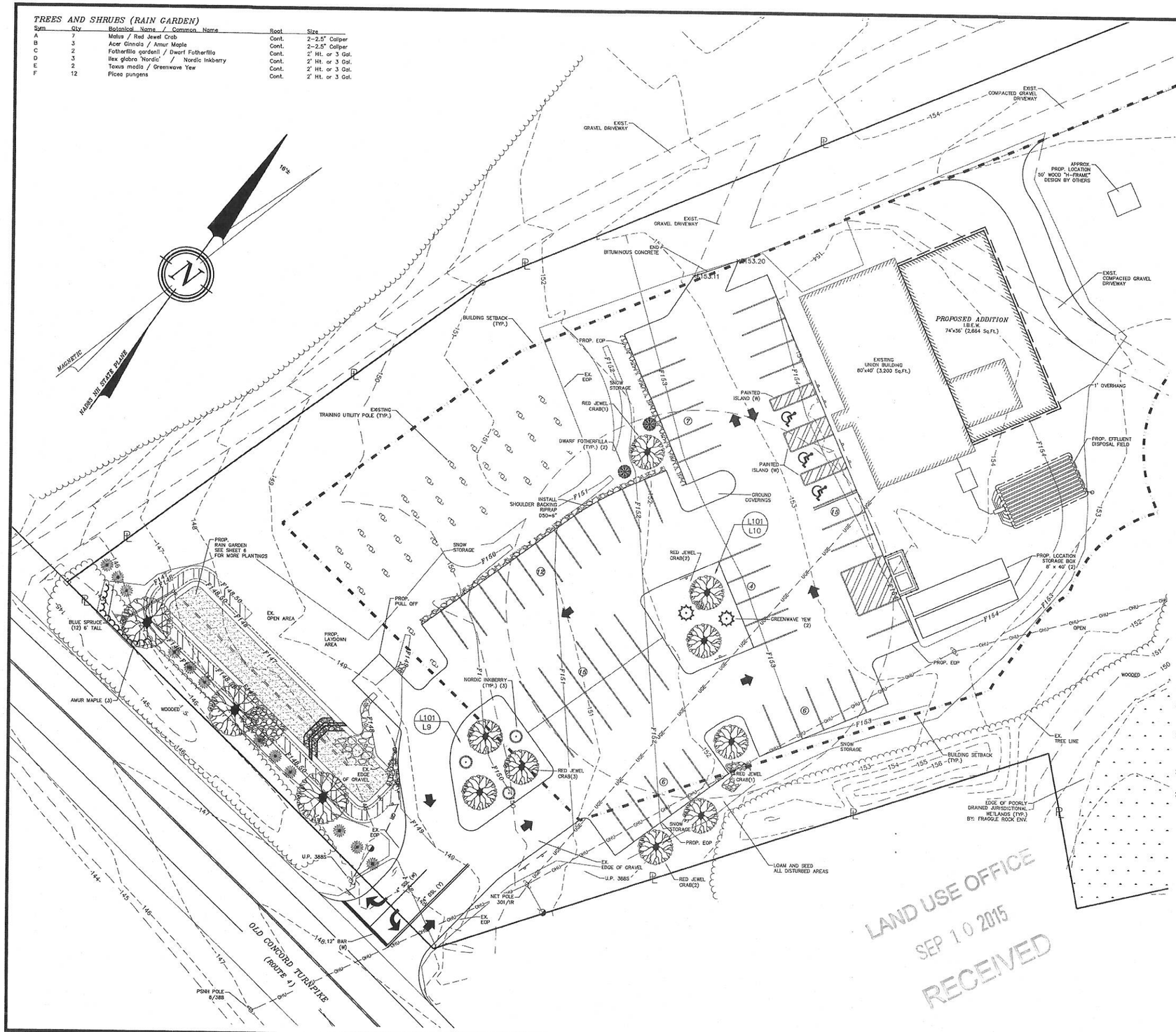
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

TREES AND SHRUBS (RAIN GARDEN)

Sym	Qty	Botanical Name / Common Name	Root	Size
A	7	Malus / Red Jewel Crab	Cont.	2-2.5" Caliper
B	3	Acer Ginnala / Amur Maple	Cont.	2-2.5" Caliper
C	2	Fothergilla gardenii / Dwarf Fotherfilla	Cont.	2' Ht. or 3 Gal.
D	3	Ilex glabra 'Nordic' / Nordic Inkberry	Cont.	2' Ht. or 3 Gal.
E	2	Taxus media / Greenwave Yew	Cont.	2' Ht. or 3 Gal.
F	12	Picea pungens	Cont.	2' Ht. or 3 Gal.



NOTES:

1.) OWNER: INT'L BROTHERHOOD OF ELECTRICAL WORKERS

2.) BARRINGTON TAX MAP 271, LOT 23

3.) S.C.R.D BOOK 3552 , PAGE 349

4.) CALL DIG SAFE PRIOR TO BEGINNING WORK. (1-888-344-7233). THE LANDSCAPE CONTRACTOR IS ADVISED OF THE PRESENCE OF UNDERGROUND UTILITIES AND SHALL VERIFY THE EXISTENCE AND LOCATION OF THE SAME BEFORE COMMENCING AND DIGGING OPERATIONS. THE LANDSCAPE CONTRACTOR SHALL REPLACE OR REPAIR UTILITIES, PAVING, WALKS, CURBING, ETC DAMAGED IN PERFORMANCE OF THIS JOB AT NO ADDITIONAL COST TO THE OWNER OR GENERAL CONTRACTOR.

5.) CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL SITE CONDITIONS PRIOR TO CONSTRUCTION BIDDING.

6.) PROVIDE SMOOTH TRANSITION WHERE NEW WORK MEETS EXISTING CONDITIONS.

7.) ALL PLANT MATERIAL INSTALLED SHALL MEET THE SPECIFICATIONS OF "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN

8.) ALL PLANT MATERIALS SHALL BE FREE FROM INSECTS AND DISEASE.

9.) ALL PLANTINGS SHALL BE DONE IN ACCORDANCE WITH ACCEPTABLE HORTICULTURAL PRACTICES. THIS IS TO INCLUDE PROPER PLANTING MIX, PLANT BED AND TREE PIT PREPARATION, PRUNING STAKING OR GUYING, WRAPPING, SPRAYING, FERTILIZATION, PLANTING AND ADEQUATE MAINTENANCE UNTIL ACCEPTANCE FROM OWNER.

10.) ALL GRASS, OTHER VEGETATION AND DEBRIS SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO PLANTING.

11.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING AND NEWLY PLANTED TREES AND SHRUBS DURING THE CONSTRUCTION PROCESS. WHERE REQUIRED, THE CONTRACTOR SHALL INSTALL TEMPORARY FENCING (SNOW OR EQUAL) AROUND EXISTING TREES AND SHRUBS THAT COULD BE IMPACTED BY THE CONSTRUCTION PROCESS. STORAGE OF CONSTRUCTION EQUIPMENT, CONSTRUCTION MATERIALS, SNOW STORAGE AND OR VEHICLE PARKING SHALL NOT BE PERMITTED WITHIN THE DRIP LINE OF TREES OR TWENTY FEET WHICH EVER IS GREATER.

12.) NEW PLANTINGS SHALL BE INSTALLED PER PROJECT DRAWINGS AND SPECIFICATION THAT INCLUDE FERTILIZATION AND MULCHING AS REQUIRED.

13.) ALL SHRUB BEDS AND TREE PITS SHALL BE MULCHED WITH 4" CLEAN SHREDDED AGED PINEBARK

14.) WHERE INDICATED ON PLAN, PLANTING SOIL MIXTURE FOR GROUND COVER AND PERENNIAL BED AREAS SHALL CONSIST OF FOUR PARTS TOPSOIL, TWO PARTS SPHAGNUM PEAT MOSS, AND ONE PART HORTICULTURAL PERLITE BY VOLUME. PEAT MOSS MAY BE SUBSTITUTED WITH WELL-ROTTED OR DEHYDRATED MANURE OR COMPOST. ROTOTILL BEDS TO A DEPTH OF 8 INCHES.

15.) MAINTENANCE OF NEW PLANTINGS AND LAWNS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/OR LANDSCAPE SUBCONTRACTOR UNTIL ACCEPTANCE BY THE OWNER. RESPONSIBILITIES SHALL INCLUDE WATERING WEEDING AND MOWING AS NECESSARY. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, REPLACEMENT MATERIAL SHALL BE GUARANTEED FOR AND ADDITIONAL YEAR FROM TIME OF INSTALLATION.

16.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY EROSION CONTROL MEASURES DURING THE CONSTRUCTION PHASE AND UNTIL ALL AREAS HAVE BEEN STABILIZED AND ACCEPTED BY THE OWNER. THE GENERAL CONTRACTOR SHALL PROVIDE WEEKLY INSPECTIONS OF EROSION MEASURES AND IMMEDIATELY AFTER STORM EVENTS AND REPAIR AS NECESSARY.

17.) THE GENERAL CONTRACTOR AND OR THE LANDSCAPE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TREE GUYING MATERIAL ONCE PLANT MATERIAL HAS BEEN ESTABLISHED. (MINIMUM OF ONE GROWING SEASON). ALL TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE STABILIZATION OF DISTURBANCE HAS BEEN ACCEPTED BY OWNER.

18.) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR A MINIMUM OF TWO MOWINGS FOR ALL TURF AREAS OR UNTIL ACCEPTANCE BY THE OWNER. A MINIMUM UNIFORM 75% CATCH OF TURF IS REQUIRED FOR ACCEPTANCE.

19.) ALL PLANTINGS SHALL BE WATERED REGULARLY DURING THEIR FIRST YEAR AND MAINTAINED PERMANENTLY IN GOOD GROWING CONDITION AS AN EFFECTIVE VISUAL SCREEN.

20.) SHRUBS OR TREES WHICH DIE SHALL BE REPLACED WITHIN ONE GROWING SEASON WITH NEW SHRUBS OR TREES TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE LANDSCAPING REQUIREMENTS.

21.) ALL REQUIRED LANDSCAPING SHALL BE INSTALLED BEFORE OCCUPANCY, OR WITHIN SIX MONTHS IF OCCUPANCY OCCURS DURING WINTER CONDITIONS.

22.) TREES ARE TO BE 6' TALL AT PLANTING

23.) 4" AGED PINEBARK MULCH AND A WEED BARRIER (TY-PAR FABRIC OR APPROVED EQUAL) SHALL BE APPLIED TO ALL SHRUB AND GROUND COVER BEDS. INSTALL WEED BARRIER AS PER MANUFACTURERS RECOMMENDATIONS.

24.) PLANT-PIT BACK-FILL SHALL BE MIXED AT A RATE OF 7 PARTS OF TOPSOIL TO 2 PARTS OF DEHYDRATED COW MANURE. SLOW RELEASE FERTILIZER SHALL BE APPLIED AS PER MANUFACTURERS RECOMMENDATIONS. USE EXISTING ON-SITE TOPSOIL AS PART OF BACK-FILL WHEN AVAILABLE.

25.) ALL LANDSCAPED AREAS NOT PLANTED WITH TREES, SHRUBS OR GROUNDCOVER SHALL BE RESTORED WITH LOAM AND SEED.

26.) TOPSOIL WILL BE TESTED FOR FERTILIZATION REQUIREMENTS, AND SLOW RELEASE ENVIRONMENTALLY FRIENDLY FERTILIZER WILL BE APPLIED AT THE RECOMMENDED RATES.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REVISION	DATE	DESCRIPTION

LANDSCAPING PLAN
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 9, 2015
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STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
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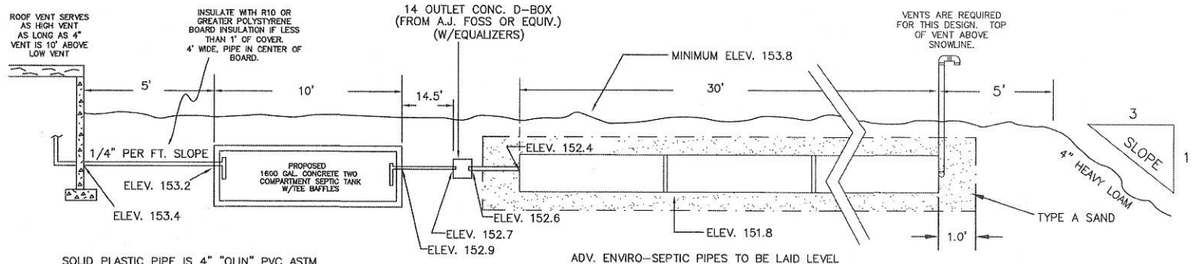
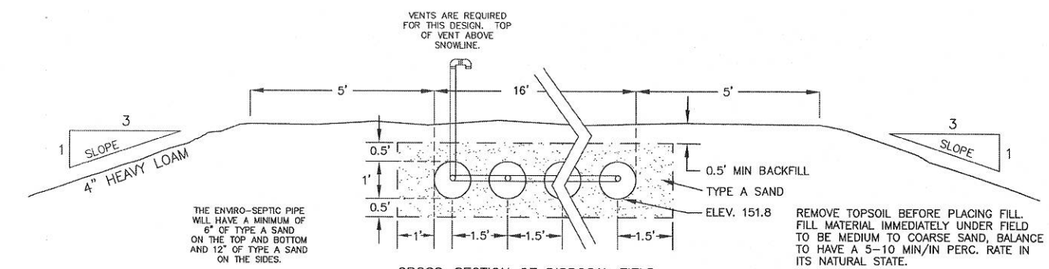
SHEET 8 OF 16



SOLID PLASTIC PIPE IS 4" "OLIN" PVC ASTM D-2729 81 E 2141, CRUSH PROOF. JOINTS OF PLASTIC PIPE AT BOTH THE HOUSE OUTLET AND THE SEPTIC TANK, ARE TO BE CAULKED WITH PRESSURE RESISTANT CAULKING.

ADV. ENVIRO-SEPTIC PIPES TO BE LAID LEVEL

PROFILE OF SEPTIC SYSTEM



REMOVE TOPSOIL BEFORE PLACING FILL. FILL MATERIAL IMMEDIATELY UNDER FIELD TO BE MEDIUM TO COARSE SAND, BALANCE TO HAVE A 5-10 MIN/IN PERC. RATE IN ITS NATURAL STATE.

CROSS-SECTION OF DISPOSAL FIELD

SOILS:

ADB ~ ACTON VERY STONEY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES
GsB ~ GLOUCESTER VERY STONY FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES
SuB ~ SUTTON VERY STONY FINE SANDY LOAM, 0 TO 8 PERCENT SLOPES
Wa ~ WHITMAN VERY STONY FINE SANDY LOAM
WdA ~ WINDSOR LOAMY SAND, 0 TO 3 PERCENT SLOPES

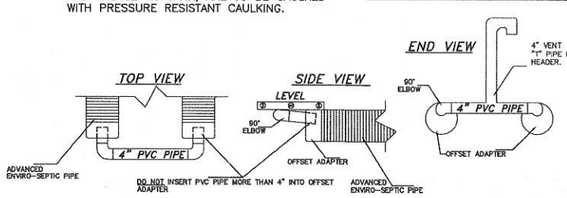
SEE WEBSOIL USDA-NRCS

TESTHOLE DATA:

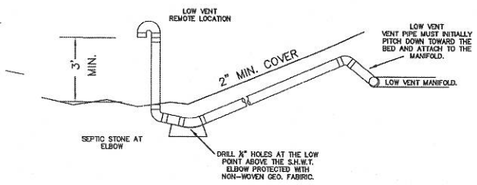
TEST HOLE

0' – 1.0'	10YR 5/4 FINE SANDY LOAM, GRANULAR AND FRIABLE
1.0' – 4.0'	10YR 7/6 FINE SAND, GRANULAR AND SINGLE GRAIN
4.0' – 5.0'	10YR 6/3 FINE SAND, GRANULAR, FIRM IN HOLE

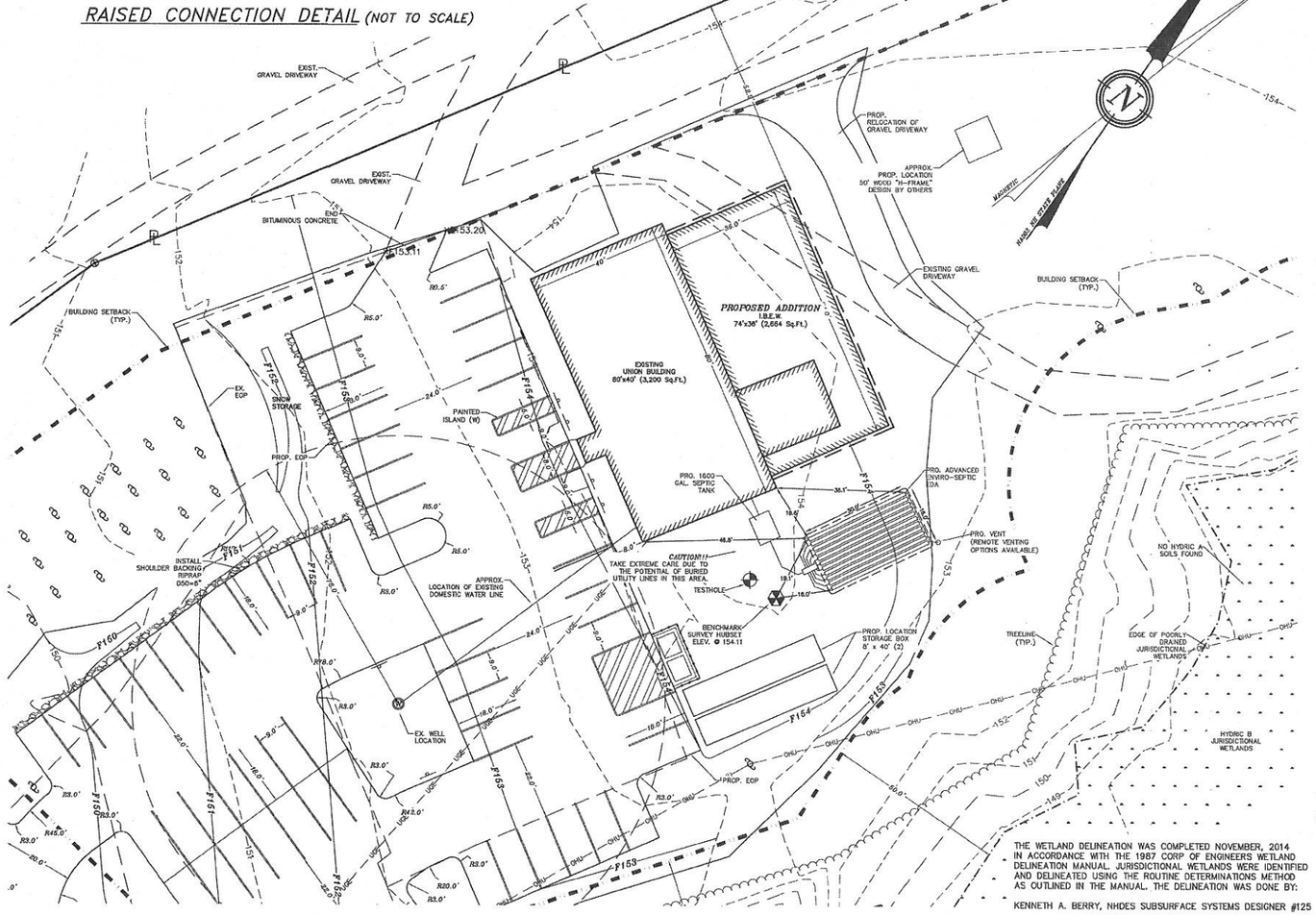
S.H.W.T. 4.0'
G.W. NO GROUNDWATER OBSERVED
FINE ROOTS TO 1.5'
PERC. RATE: 4 MIN/INCH



RAISED CONNECTION DETAIL (NOT TO SCALE)



REMOTE VENT DETAIL



THE WETLAND DELINEATION WAS COMPLETED NOVEMBER, 2014 IN ACCORDANCE WITH THE 1987 CORP OF ENGINEERS WETLAND DELINEATION MANUAL. JURISDICTIONAL WETLANDS WERE IDENTIFIED AND DELINEATED USING THE ROUTINE DETERMINATIONS METHOD AS OUTLINED IN THE MANUAL. THE DELINEATION WAS DONE BY:

KENNETH A. BERRY, NHDES SUBSURFACE SYSTEMS DESIGNER #125

CALCULATIONS :

TRAINING SCHOOL – 60 STUDENTS – NO GYM, CAF., OR SHOWERS
BUSINESS OFFICE – 4 EMPLOYEES
TOTAL – 660 GPD
USE 1600 GAL. TWO COMPARTMENT CONCRETE SEPTIC TANK
(FROM A.J. FOSS OR EQUIV.) IN STOCK TANKS APPROVED FOR THIS DESIGN

4 MIN/IN MEASURED PERC RATE
4 MIN/IN DESIGN PERC RATE
310.2' – MIN. LENGTH ADV. ENVRIO SEPTIC PIPE REQUIRED
330' – PROPOSED LENGTH OF ADV. ENVIRO SEPTIC PIPE
33 – TOTAL NUMBER OF 10' SECTIONS OF ADV. ENVRIO SEPTIC PIPE REQUIRED
11 ROWS OF ADV. ENVIRO SEPTIC PIPE, EACH ROW 30' LONG

ELEVATIONS :

153.8 – HIGH POINT OF LEACH BED
149.8 – S.H.W.T.
N/A – IMPERVIOUS LAYER
151.8 – BOTTOM OF ADV. ENVIRO-SEPTIC PIPES

PLAN INTENT :

THE SEPTIC SYSTEM IS TO BE CONSTRUCTED WITH THE BOTTOM OF THE LEACH BED 2.0' BELOW THE HIGH POINT OF THE EXISTING LAND.

IN THE EVENT OF LEACH BED FAILURE, IT MAY BE REBUILT IN PLACE WITH NHDES APPROVAL.

CAUTION !!!!!

ANY DEVIATION FROM THIS PLAN IN GRADE OR LOCATION OF THE SEPTIC SYSTEM WHEN CONSTRUCTED WITHOUT THE APPROVAL OF THE DESIGNER AND NH-DES SUBSURFACE SYSTEMS BUREAU MAY RESULT IN THE FAILURE OF THE SYSTEM TO PASS INSPECTION BY NH-DES SUBSURFACE SYSTEMS BUREAU PRIOR TO OPERATION APPROVAL, OR FUNCTION PROPERLY AND SAFELY.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NOTES:

1.) OWNER: INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE
BARRINGTON, NH 03825

2.) DESIGNER: KENNETH A. BERRY, PERMIT #125
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825

3.) TAX MAP 271, LOT 23

4.) LOT AREA: 219,154 Sq.Ft., 5.03 Ac.

5.) S.C.R.D. BOOK 3552, PAGE 349

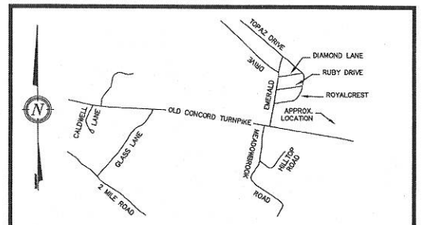
6.) SUBDIVISION STATUS: OVER 5 Ac.

7.) FOUNDATION DRAINS WILL START AT LEAST 15' FROM THE LEACH FIELD, AND AT LEAST 5' FROM THE SEPTIC TANK.

8.) THERE IS NO SURFACE WATER OR VERY POORLY DRAINED SOILS WITHIN 75', OR POORLY DRAINED SOILS WITHIN 50' OF THE PROPOSED SEPTIC SYSTEM.

9.) THIS DESIGN DOES NOT ALLOW FOR THE USE OF A GARBAGE GRINDER. IF A GRINDER IS TO BE INCORPORATED A LARGER SEPTIC TANK WILL BE REQUIRED.

10.) THIS DESIGN DOES NOT ALLOW FOR THE ACCEPTANCE OF WATER TREATMENT BACKWASH. IF A WATER TREATMENT SYSTEM IS TO BE INCORPORATED A LARGER LEACHFIELD WILL BE REQUIRED.



LOCATION MAP
BARRINGTON, NH
NOT TO SCALE

REVISION	DATE	DESCRIPTION

PROPOSED ADVANCED ENVIRO-SEPTIC SYSTEM
FOR
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH
TAX MAP 271, LOT 23

NEW HAMPSHIRE Designer of Subsurface Disposal Systems ★★★ Kenneth A. Berry No. 125 Department of Environmental Services

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT RD.
BARRINGTON, N.H. 332-2863

SCALE : 1 IN. EQUALS 20 FT.
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014 – 129

SHEET 9 OF 16

LAND USE OFFICE
SEP 10 2015
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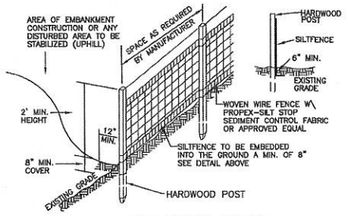


SILT FENCE DETAIL

N.T.S.

SILT FENCE CONSTRUCTION SPECIFICATIONS

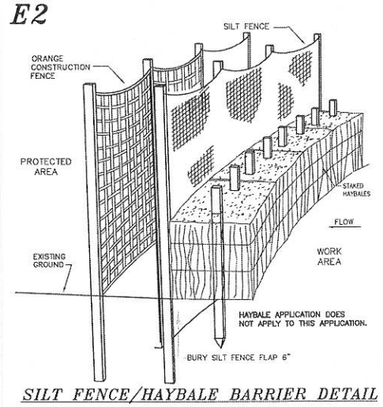
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES AND FILTER CLOTH SHALL BE FASTENED TO WOVEN WIRE EVERY 24" AT TOP MID AND BOTTOM
2. SECTIONS TO BE EMBEDDED INTO GROUND A MINIMUM OF 8" THE FENCE POSTS SHALL BE A MINIMUM 48" LONG, SPACED A MAXIMUM 10' APART, AND DRIVEN A MINIMUM OF 16" INTO THE GROUND.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THE ENDS OF THE FABRIC SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED TO PREVENT SEDIMENT FROM BY-PASSING
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE AND PROPERLY DISPOSED OF
5. PLACE THE ENDS OF THE SILT FENCE UP CONTOUR TO PROVIDE FOR SEDIMENT STORAGE
6. SILT FENCES SHALL BE REMOVED WHEN NO LONGER NEEDED AND THE SEDIMENT COLLECTED SHALL BE DISPOSED AS DIRECTED BY THE ENGINEER. THE AREA DISTURBED BY THE REMOVAL SHALL BE SMOOTHED AND RE-VEGETATED

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 IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE.
2. 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.

E1

E2

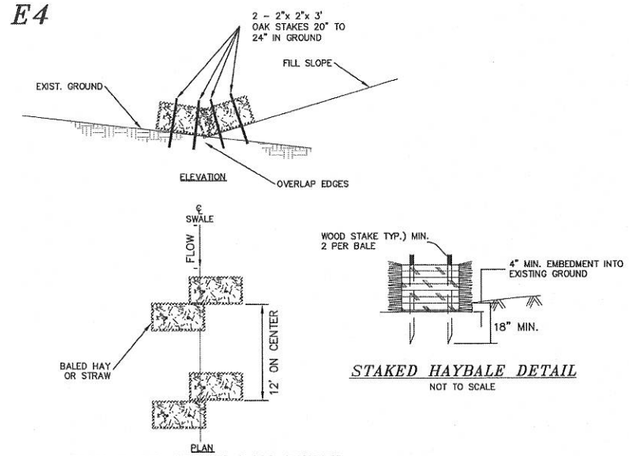


SILT FENCE/HAYBALE BARRIER DETAIL

THIS METHOD TO BE USED ALONG THE REAR OF THE PROPERTY

E3

E4



HAY BALE CHECK DAM DETAIL

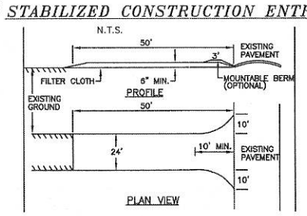
(NOT TO SCALE)

STAKED HAYBALE DETAIL

NOT TO SCALE

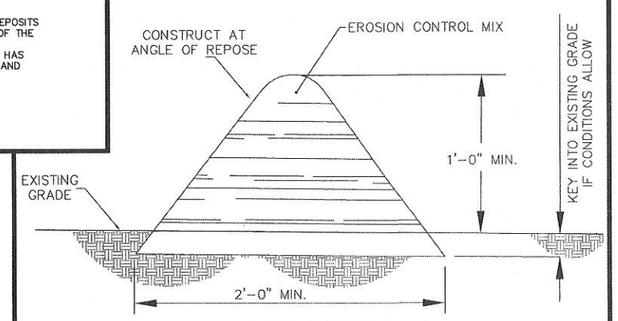
REVISION	DATE	DESCRIPTION

E5 *STABILIZED CONSTRUCTION ENTRANCE*



1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICH EVER IS GREATER.
5. 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.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

E6 *EROSION CONTROL MIX BERM*



EROSION CONTROL MIX BERMS SHALL BE USED ONLY AS FOLLOWS:

(A) BERMS SHALL BE USED IN AREAS WHERE EROSION WILL OCCUR ONLY IN THE FORM OF SHEET EROSION AND THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR DRAINAGE WAY ABOVE THE BERM.
(B) THE BERMS SHALL BE INSTALLED FOLLOWING THE CONTOUR OF THE LAND AS CLOSLY AS POSSIBLE.
(C) THE BERMS SHALL BE INSTALLED ON SLOPES LESS THAN 5%.
(D) SUBJECT TO (E), BELOW, THE MIX SHALL HAVE AN ORGANIC PORTION BETWEEN 80 AND 100%, DRY WEIGHT BASIS, AND BE FIBROUS AND ELONGATED SUCH AS FROM SHREDDED BARK, STUMP GRINDINGS, COMPOSED BARK, OR EQUIVALENT MANUFACTURED PRODUCTS.
(E) WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS, OR REPROCESSED WOOD PRODUCTS SHALL NOT BE USED AS ORGANIC MATERIAL.
(F) THE MIX SHALL NOT CONTAIN SILTS, CLAY, OR FINE SANDS.
(G) THE MIX SHALL HAVE A PARTICLE SIZE BY WEIGHT OF 70 TO 85% PASSING A 6-INCH SCREEN AND A MAXIMUM OF 85% PASSING THE 0.75-INCH SCREEN.
(H) THE MIX PH SHALL BE BETWEEN 5.0 AND 8.0.
(I) THE BERM SHALL BE AT LEAST 12 INCHES HIGH AND AT LEAST 2 FEET WIDE.

E7

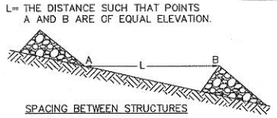
E8 *TEMPORARY EROSION CONTROL MEASURES*

1. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME
2. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND AT LOCATIONS AS REQUIRED, DIRECTED BY THE ENGINEER
3. ALL DISTURBED AREAS SHALL BE RETURNED TO ORIGINAL GRADES AND ELEVATIONS. DISTURBED AREAS SHALL BE LOAMED WITH A MINIMUM OF 4" OF LOAM AND SEEDED WITH NOT LESS THAN ONE POUND OF SEED PER 50 SQUARE YARDS OF AREA. (SEE SEED SPECIFICATIONS E102)

   3a. ALL DISTURBED AREAS WILL BE RESTABILIZED WITHIN 60 DAYS. AT ANY ONE TIME, NO MORE THAN 5 ACRES, (217,800 Sq. Ft.) WILL BE DISTURBED.
4. SILT FENCES AND STRAW OR HAY BALES BARRIERS SHALL BE INSPECTED PERIODICALLY AND AFTER EVERY RAIN DURING THE LIFE OF THE PROJECT. ALL DAMAGED AREAS SHALL BE REPAIRED, SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED OF.
5. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED AND THE AREA DISTURBED BY THE REMOVAL SMOOTHED AND RE-VEGETATED
6. PER THE EPA REQUIREMENTS THERE WILL BE A LOG OF THE EROSION CONTROL INSPECTIONS EVERY 7-14 DAYS PLEASE FIND SWPPP PREPARED BY BS&E (AFTER LOCAL APPROVAL)
7. DITCHES, SWALES, AND BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
8. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.5" OR GREATER RAIN EVENT

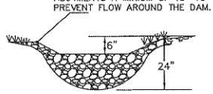
E9 *STONE CHECK DAM*

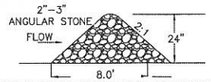
L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.



SPACING BETWEEN STRUCTURES

NOTE: KEY STONE INTO CHANNEL BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIUM OF 18" TO PREVENT FLOW AROUND THE DAM.





STONE GRADE STABILIZATION STRUCTURE

1.) CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH

2.) THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHOULD BE LESS THEN ONE ACRE.

3.) THE MAXIMUM HEIGHT OF THE DAM SHOULD BE TWO FEET.

4.) THE CENTER OF THE DAM SHOULD BE AT LEAST SIX INCHES LOWER THAN THE OUTER EDGES.

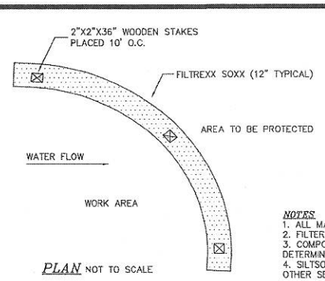
5.) THE MAXIMUM SPACING IS AS SHOWN ON THE PROJECT SITE PLANS.

6.) CHECK DAMS WILL NOT BE USED IN A FLOWING STREAM.

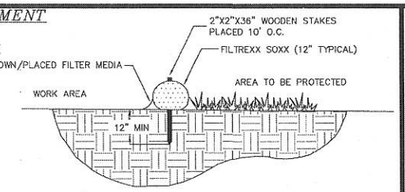
7.) TEMPORARY CHECK DAMS WILL BE REMOVED ONCE THE SWALE OR DITCH IS DETERMINED STABLE.

E10 *FILTREXX SEDIMENT CONTROL*

NOT TO SCALE



PLAN NOT TO SCALE



SECTION NOT TO SCALE

NOTES

1. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
2. FILTER MEDIA FILL TO MEET APPLICATION REQUIRMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.
4. SILTSOXX MAY BE USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
5. SILTSOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIRMENTS OF THE SPECIFIC APPLICATION.
6. FILTREXX SOXX IS A REGISTERED TRADEMARK OF FILTRESS INTERNATIONAL, LLC.

Filtrexx International, LLC
35481 Grafton Eastern Rd | Grafton, Oh 44044
440-926-2607 | fax: 440-926-4021
WWW.FILTREXX.COM

E11

LAND USE OFFICE
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E-101

SEDIMENT AND EROSION CONTROL DETAILS
LAND OF
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

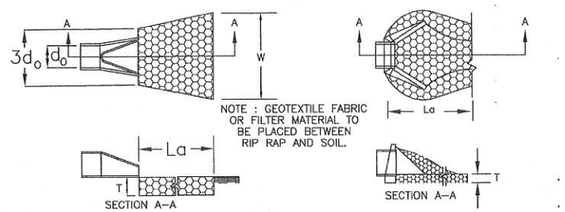
SCALE : AS MARKED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

E12

E13

PIPE OUTLET PROTECTION



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

PIPE OUTLET TO WELL–DEFINED CHANNEL

PIPE OUTLET PROTECTION CONSTRUCTION SPECIFICATIONS

1. THE SUB GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS. SPECIFIED GRADATION.
2. THE ROCK OR GRAVEL USED FOR FILTER OF RIP RAP SHALL CONFORM TO NHDOT SECTION 583.
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.

E14

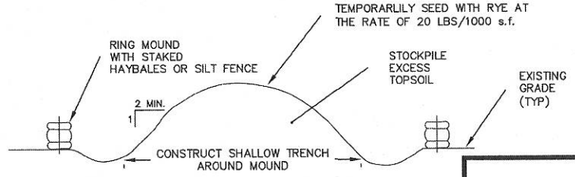
TABLE 7–24––RECOMMENDED RIP RAP GRADATION RANGES

d50 SIZE= 0.5 FEET 6 INCHES

% OF WEIGHT SMALLER THAN THE GIVEN d50 SIZE	SIZE OF STONE (INCHES) FROM	TO
100%	9	12
85%	8	11
50%	6	9
15%	2	3

REVISION	DATE	DESCRIPTION

E15



TOPSOIL STOCKPILE MOUND

NOT TO SCALE

E16

NOTE: THIS PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

NOTE: Temporary seed mix for stabilization of turf shall be winter rye or oats at a rate of 2.5 lbs. per 1000 s.f. and shall be placed prior to OCT. 15, if permanent seeding not yet complete.

SEEDING GUIDE

USE	SEEDING MIXTURE 1/	DROUGHTY	WELL DRAINED	MODERATELY WELL DRAINED	POORLY DRAINED
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	FAIR	GOOD	GOOD	FAIR
	B	POOR	GOOD	FAIR	FAIR
	C	POOR	GOOD	EXCELLENT	GOOD
	D	FAIR	FAIR	GOOD	EXCELLENT
	E	FAIR	EXCELLENT	EXCELLENT	POOR
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER.	A	GOOD	GOOD	GOOD	FAIR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	GOOD	EXCELLENT	EXCELLENT	FAIR
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY USE RECREATION SITES.	A	GOOD	GOOD	GOOD	FAIR
	B	GOOD	GOOD	FAIR	POOR
	C	GOOD	EXCELLENT	EXCELLENT	FAIR
	D	FAIR	GOOD	GOOD	EXCELLENT
PLAY AREAS AND ATHLETIC FIELDS. (TOPSOIL IS ESSENTIAL FOR GOOD TURF.)	F	FAIR	EXCELLENT	EXCELLENT	2/
	G	FAIR	EXCELLENT	EXCELLENT	2/

GRAVEL PIT, SEE NH–PM–24 IN APPENDIX FOR RECOMMENDATION REGARDING RECLAMATION OF SAND AND GRAVEL PITS.

1/ REFER TO SEEDING MIXTURES AND RATES IN TABLE 7–26.
2/ POORLY DRAINED SOILS ARE NOT DESIRABLE FOR USE AS PLAYING AREA AND ATHLETIC FIELDS.

RECOMMENDED *

SEEDING RATES

MIXTURE	POUNDS PER ACRE	POUNDS PER 1,000 Sq. Ft.
A. TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
RED TOP	2	0.05
TOTAL	42	0.95
B. TALL FESCUE	15	0.35
CREEPING RED FESCUE	10	0.25
CROWN VETCH	15	0.35
OR		
FLAT PEA	30	0.75
TOTAL	40 OR 55	0.95 OR 1.35
C. TALL FESCUE	24	0.55
CREEPING RED FESCUE	24	0.55
BIRDS FOOT TREFOIL	REMOVED	REMOVED
TOTAL	48	1.10
D. TALL FESCUE	20	0.45
FLAT PEA	30	0.75
TOTAL	50	1.20
E. CREEPING RED FESCUE 1/	50	1.15
KENTUCKY BLUEGRASS 1/	50	1.15
TOTAL	100	2.30
F. TALL FESCUE 1	150	3.60

CONSERVATION MIX	POUNDS PER ACRE	POUNDS PER 1,000 S.F.
RED FESCUE (35%)	75	1.75
TALL FESCUE (25%)	55	1.25
ANNUAL RYEGRASS (12%)	33	0.75
PERENNIAL RYEGRASS (10%)	26	0.60
KENTUCKY BLUEGRASS (10%)	22	0.50
WHITE CLOVER (3%)	7	0.15

1. GRADING AND SHAPING
   A. SLOPES SHALL NOT BE STEEPER THAN 2:1;3:1 SLOPES OR FLATTER ARE PREFERRED. WHERE MOWING WILL BE DONE, 3:1 SLOPES OR FLATTER ARE RECOMMENDED.
2. SEEDBED PREPARATION
   A. SURFACE AND SEEPAGE WATER SHOULD BE DRAINED OR DIVERTED FROM THE SITE TO PREVENT DROWNING OR WINTER KILLING OF THE PLANTS.
   B. STONES LARGER THAN 4 INCHES AND TRASH SHOULD BE REMOVED BECAUSE THEY INTERFERE WITH SEEDING AND FUTURE MAINTENANCE OF THE AREA. WHERE FEASIBLE, THE SOIL SHOULD BE TILLED TO A DEPTH OF ABOUT 4 INCHES TO PREPARE A SEED BED AND MIX FERTILIZER AND LIME INTO THE SOIL. THE SEEDBED SHOULD BE LEFT IN REASONABLY FIRM AND SMOOTH CONDITION. THE LAST TILLAGE OPERATION SHOULD BE PERFORMED ACROSS THE SLOPE WHEREVER PRACTICAL.
3. ESTABLISHING A STAND
   A. LIME AND FERTILIZER SHOULD BE APPLIED PRIOR TO OR AT THE TIME OF SEEDING AND INCORPORATED INTO THE SOIL KINDS AND AMOUNTS OF LIME AND FERTILIZER SHOULD BE BASED ON AN EVALUATION OF SOIL TESTS. WHEN A SOIL TEST IS NOT AVAILABLE, THE FOLLOWING MINIMUM AMOUNTS SHOULD BE APPLIED:
   AGRICULTURAL LIMESTONE, 2 TONS PER ACRE OR 100LBS. PER 1,000 SQ.FT.
   NITROGEN(N), 50LBS. PER ACRE OR 1.1LBS. PER 1,000 SQ.FT.
   PHOSPHATE(P205), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   POTASH(K20), 100LBS. PER ACRE OR 2.2LBS. PER 1,000 SQ.FT.
   (NOTE: THIS IS THE EQUIVALENT OF 500LBS. PER ACRE OF 10–20–20 FERTILIZER OR 1,000LBS. PER ACRE OF 5–10–10.)
   B. SEED SHOULD BE SPREAD UNIFORMLY BY THE METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDE BROADCASTING, DRILLING AND HYDROSEEDING. WHERE BROADCASTING IS USED, COVER SEED WITH .25 INCH OF SOIL OR LESS, BY CULTIPACKING OR RAKING.
   C. REFER TO TABLE(G–E1 THIS SHEET) FOR APPROPRIATE SEED MIXTURES AND TABLE(H–E1 THIS SHEET) FOR RATES OF SEEDING. ALL LEGUMES (CROWNVETCH, BIRDSFOOT TREFOIL, AND FLATPEA) MUST BE INOCULATED WITH THEIR SPECIFIC INOCULANT.
   D. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 10 TO SEPTEMBER 1.
4. MULCH
   A. HAY, STRAW, OR OTHER MULCH, WHEN NEEDED, SHOULD BE APPLIED IMMEDIATELY AFTER SEEDING.
   B. MULCH WILL BE HELD IN PLACE USING APPROPRIATE TECHNIQUES FROM THE BEST MANAGEMENT PRACTICE FOR MULCHING. HAY OR STRAW MULCH SHALL BE PLACED AT A RATE OF 90LBS PER 1000 S.F.
5. MAINTENANCE TO ESTABLISH A STAND
   A. PLANTED AREA SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH.
   B. FERTILIZATION NEEDS SHOULD BE DETERMINED BY ONSITE INSPECTIONS. SUPPLEMENTAL FERTILIZER IS USUALLY THE KEY TO FULLY COMPLETE THE ESTABLISHMENT OF THE STAND BECAUSE MOST PERENNIAL STAKE 2 TO 3 YEARS TO BECOME ESTABLISHED.
   C. IN WATERWAYS, CHANNELS, OR SWALES WHERE UNIFORM FLOW CONDITIONS ARE ANTICIPATED, OCCASIONAL MOWING MAY BE NECESSARY TO CONTROL GROWTH OF WOODY VEGETATION.

SEEDING SPECIFICATIONS

E17

WINTER STABILIZATION NOTES

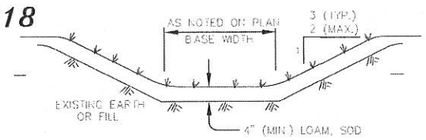
1. ALL DISTURBED AREAS THAT DO NOT HAVE AT LEAST 85% VEGETATIVE COVERAGE PRIOR TO OCTOBER 15TH, SHALL BE STABILIZED BY APPLYING MULCH AT A RATE OF 3–4 TONS PER ACRE. ALL SIDE SLOPES, STEEPER THAN 4:1, THAT ARE NOT DIRECTED TO SWALES OR DETENTION BASINS, SHALL BE LINED WITH BIODEGRADABLE/PHOTODEGRADABLE "JUTE MATTING" (EXCELSIOR'S CURLEX II OR EQUAL). ALL OTHER SLOPES SHALL BE MULCHED AND TACKED AT A RATE OF 3–4 TONS PER ACRE. THE APPLICATION OF MULCH AND/OR JUTE MATTING SHALL NOT OCCUR OVER EXISTING SNOW COVER. IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY SNOW THAT ACCUMULATES ON DISTURBED AREAS SHALL BE REMOVED. PRIOR TO SPRING THAW ALL AREAS WILL BE STABILIZED, AS DIRECTED ABOVE.

2. ALL SWALES THAT DO NOT HAVE FULLY ESTABLISHED VEGETATION SHALL BE EITHER LINED WITH TEMPORARY JUTE MATTING OR TEMPORARY STONE CHECK DAMS (APPROPRIATELY SPACED). STONE CHECK DAMS WILL BE MAINTAINED THROUGHOUT THE WINTER MONTHS. IF THE SWALES ARE TO BE MATTED WITH PERMANENT LINERS OR RIPRAP WITH ENGINEERING FABRIC, THIS SHALL BE COMPLETED PRIOR TO WINTER SHUTDOWN OR AS SOON AS THEY ARE PROPERLY GRADED AND SHAPED.

3. PRIOR TO NOV. 15TH ALL ROADWAY AND PARKING AREAS SHALL BE BROUGHT UP TO AND THROUGH THE BANK RUN GRAVEL APPLICATION. IF THESE AREAS' ELEVATIONS ARE PROPOSED TO REMAIN BELOW THE PROPOSED SUBGRADE ELEVATION, THE SUBGRADE MATERIAL SHALL BE ROUGHLY CROWNED AND A 3" LAYER OF CRUSHED GRAVEL SHALL BE PLACED AND COMPACTED. THIS WILL ALLOW THE SUBGRADE TO SHED RUNOFF AND WILL REDUCE ROADWAY EROSION. THIS CRUSHED GRAVEL DOES NOT HAVE TO CONFORM TO NH DOT 304.3, BUT SHALL HAVE BETWEEN 15–25% PASSING THE #200 SIEVE AND THE LARGEST STONE SIZE SHALL BE 2". IF THE SITE IS ACTIVE AFTER NOVEMBER 15TH, ANY ACCUMULATED SNOW SHALL BE REMOVED FROM ALL ROADWAY AND PARKING AREAS.

4. AFTER OCTOBER 15TH, THE END OF NEW HAMPSHIRE'S AVERAGE GROWING SEASON, NO ADDITIONAL LOAM SHALL BE SPREAD ON SIDE SLOPES AND SWALES. THE STOCKPILES THAT WILL BE LEFT UNDISTURBED UNTIL SPRING SHALL BE SEEDED BY THIS DATE. AFTER OCTOBER 15TH, ANY NEW OR DISTURBED PILES SHALL BE MULCHED AT A RATE OF 3–4 TONS PER ACRE. ALL STOCKPILES THAT WILL REMAIN THROUGHOUT THE WINTER SHALL BE SURROUNDED WITH SILT FENCING.

E18



GRASS TREATMENT SWALE

NOT TO SCALE

INSPECT ANNUALLY FOR EROSION, SEDIMENT ACCUMULATIONS, VEGETATION LOSS, & INVASIVE SPECIES. REPAIR AS NECESSARY.

MOW GRASS ANNUALLY TO A DEPTH OF 4".

INSTALL STABILIZATION MATTING DURING CONSTRUCATION

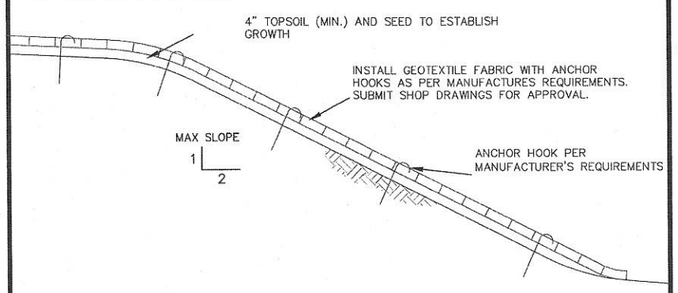
DEFINITION OF STABLE:

1. WHEN A BASE COURSE GRAVEL HAS BEEN INSTALLED IN AN AREA TO BE PAVED
2. WHEN A MINIMUM OF 85% VEGITATIVE GROWTH OCCURS
3. WHEN A MINIMUM OF 3" OF NON–EROSIVE MATERIAL, SUCH AS STONE OR RIP–RAP HAS BEEN INSTALLED.
4. WHEN PROPER EROSION CONTROL BLANKETS, SUCH AS CURLEX II, C350 OR OTHER DOT APPROVED MATTING, HAS BEEN INSTALLED PROPERLY
5. HAY MULCH OR OTHER APPROVED METHODS SHALL BE USED TO CONTROL EROSION OF NEWLY GRADED AREAS. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS AFTER THEIR CONSTRUCTOIN.

E22

SEDIMENT AND EROSION CONTROL DETAILS
LAND OF
INTL BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

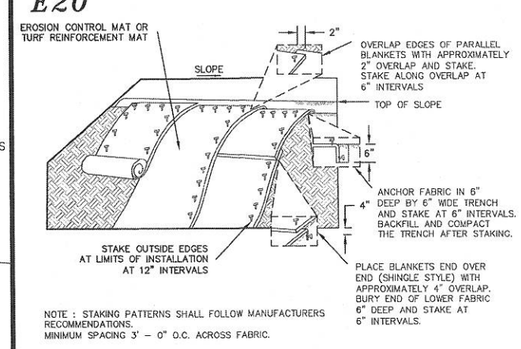
E19



SLOPE STABILIZATION DETAIL

NOT TO SCALE

E20



NOTE : STAKING PATTERNS SHALL FOLLOW MANUFACTURERS RECOMMENDATIONS.
MINIMUM SPACING 3' – 0" O.C. ACROSS FABRIC.

INSTALLATION OF EROSION CONTROL FABRICS

NOT TO SCALE

E21

CONSTRUCTION SEQUENCE:

1.) CUT AND REMOVE TREES IN CONSTRUCTION AREA ONLY AS REQUIRED

2.) CONSTRUCT AND/OR INSTALL TEMPORARY AND PERMANENT SEDIMENT EROSION AND DETENTION CONTROL FACILITIES AS

3.) EROSION, SEDIMENT AND DETENTION CONTROL FACILITY SHALL BE INSTALLED & STABILIZED PRIOR TO ANY EARTH MOVING OPERATION & OR DIRECTING RUNOFF TO THEM.

4.) CLEAR, CUT AND DISPOSE OF DEBRIS IN APPROVED FACILITY

5.) CONSTRUCT TEMPORARY CULVERTS AS REQUIRED, OR DIRECTED

6.) CONSTRUCT ROADWAYS FOR ACCESS TO DESIRED CONSTRUCTION AREAS. ALL ROADS SHALL BE STABILIZED IMMEDIATELY

7.) INSTALL PIPE AND CONSTRUCTION ASSOCIATED APPURTENANCES AS REQUIRED OR DIRECTED. INSTALL RAIN GARDENS. ALL DISTURBED AREAS SHALL STABILIZED IMMEDIATELY AFTER GRADING.

8.) BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES AND DISTURBED AREAS SHALL BE SEEDED OR MULCHED AS REQUIRED, OR DIRECTED. NO AREA IS ALLOWED TO BE DISTURBED FOR A LENGTH OF TIME THAT EXCEEDS 60 DAYS BEFORE BEING STABILIZED. DAILY, OR AS REQUIRED. ALL ROADWAYS AND PARKING AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES. ALL CUT AND FILL SLOPES SHALL BEW STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADES.

9.) CONSTRUCT TEMPORARY BERMS, DRAINS DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.

10.) INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION

11.) COMPLETE PERMANENT SEEDING AND LANDSCAPING.

12.) REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER SEEDING AREAS HAVE ESTABLISHED THEMSELVES AND SITE IMPROVEMENTS ARE COMPLETE.

13.) SMOOTH AND REVEGETATE ALL DISTURBED AREAS.

14.) FINISH PAVING ALL ROADWAYS

LAND USE OFFICE
SEP 10 2015
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E–102

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332–2863)

SCALE : AS MARKED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014–129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

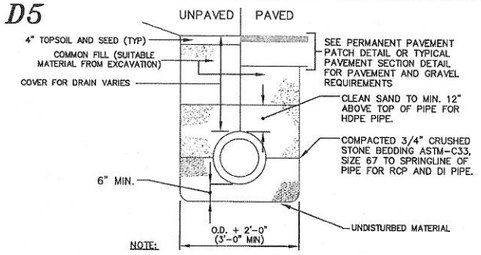
D1

D2

D3

D4

D5



NOTE:

PLASTIC DRAIN PIPE (HDPE) SHALL BE ADS N-12 (CORRUGATED EXTERIOR/SMOOTH INTERIOR) OR EQUAL MEETING AASHTO M-252 AND H-20 LOADING.

DI DRAIN PIPE SHALL BE CL. 50.

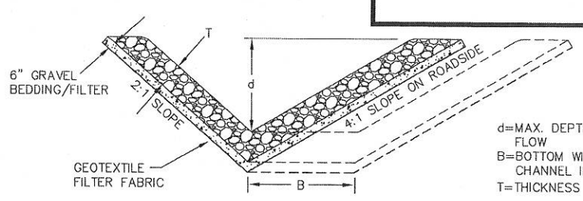
RC DRAIN PIPE SHALL BE CLASS III UNLESS OTHERWISE NOTED.

TYPICAL DRAIN AND SEWER PIPE TRENCH

NOT TO SCALE

D6

D7



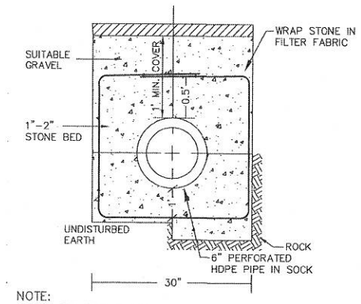
d=MAX. DEPTH OF FLOW
B=BOTTOM WIDTH OF CHANNEL IF SPECIFIED
T=THICKNESS OF STONE

TYPICAL SECTION FOR A RIPRAP LINED CHANNEL

NOT TO SCALE

D8

UNDERDRAIN TRENCH DETAIL



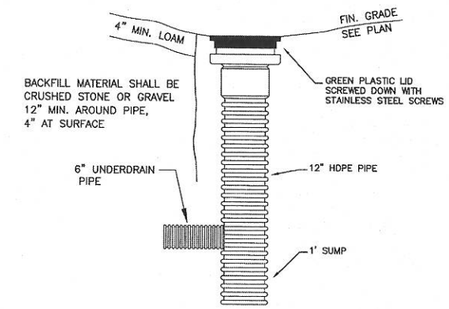
NOTE:
1. PAVEMENT REPAIR IN EXISTING ROADWAYS SHALL CONFORM TO STREET OPENING REGULATIONS.
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO SUBDIVISION SPECS.

D9

D10

LAND USE C
SEP 10 20
RECEIVED

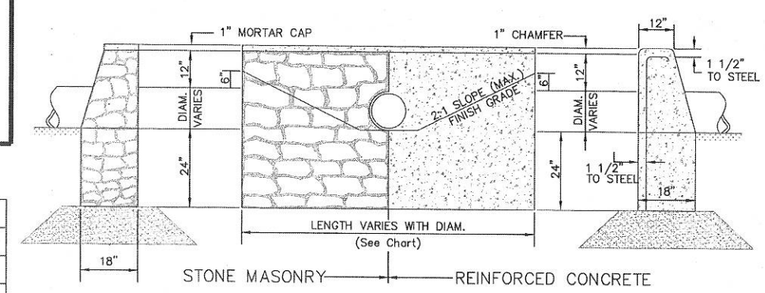
D11



HDPE CLEANOUT

NOT TO SCALE

D12



DIAMETER	12"	15"	18"	24"	30"
LENGTH	3'-6"	4'-6"	5'-6"	7'-6"	9'-6"
CONC. (Cu.Yd.)	0.65	0.91	1.22	1.95	2.86
STEEL (Lbs.)	9	11	14	20	25

ALL STEEL SHALL BE #5 REINFORCING STEEL, SPACED @ 12" ON CENTER

HEADWALLS
(MASONRY & CONCRETE)

NOT TO SCALE

REFERENCE IS MADE TO A LONG TERM MAINTENANCE MANUAL PREPARED BY BERRY SURVEYING & ENGINEERING, WHICH IS ON FILE AT THE TOWN OF BARRINGTON PLANNING DEPARTMENT, AND CAN BE FOUND AT THE OFFICE OF BERRY SURVEYING & ENGINEERING. (603) 332-2863

D-101

REVISION	DATE	DESCRIPTION

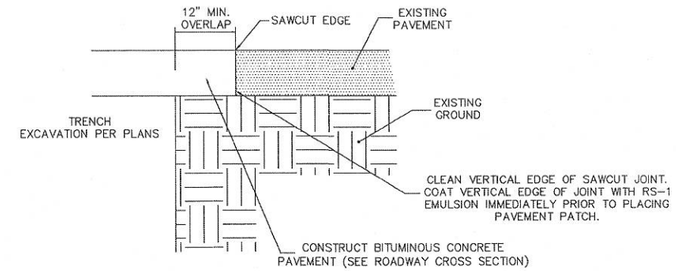
DRAINAGE DETAILS
LAND OF
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

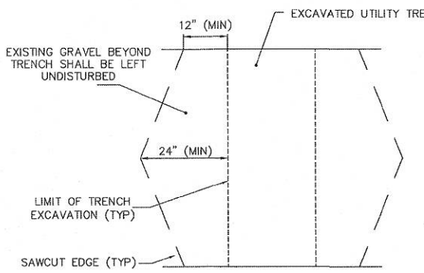
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

SCALE : AS MARKED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

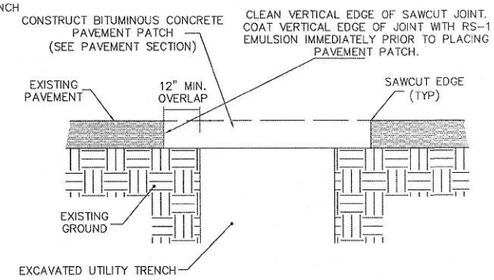
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

C1





PLAN

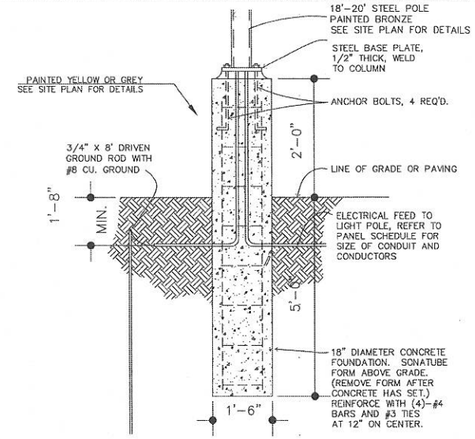


SECTION

NOTES
1. MACHINE CUT EXISTING PAVEMENT.
2. ALL TEMPORARY, DAMAGED, OR DEFECTIVE PAVEMENT SHALL BE REMOVED PRIOR TO PLACEMENT OF PERMANENT TRENCH REPAIRS.
3. DIAMOND PATCHES, SHALL BE REQUIRED FOR ALL TRENCHES CROSSING ROADWAY. DIAMOND PATCHES SHALL MEET NHDOT REQUIREMENTS.

TYPICAL TRENCH PATCH
NOT TO SCALE

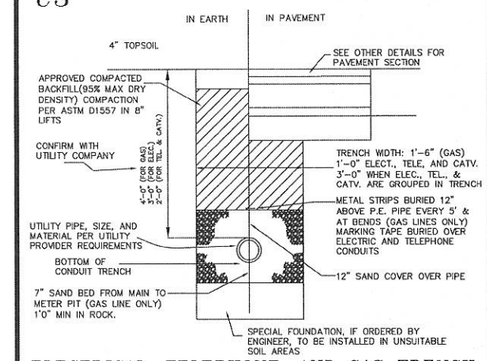
C2



POLE FOUNDATION

PARKING LOT LIGHT BASE DETAIL
SCALE: NONE

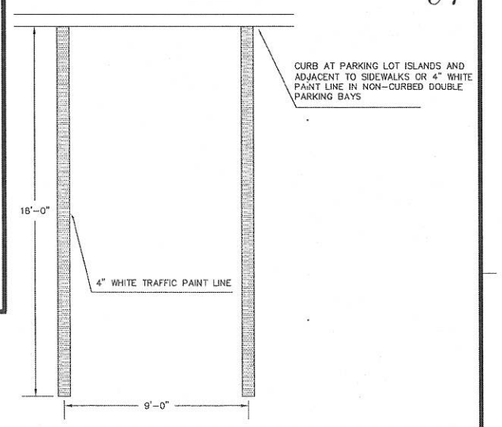
C3



ELECTRICAL, TELEPHONE, AND GAS TRENCH
NOT TO SCALE

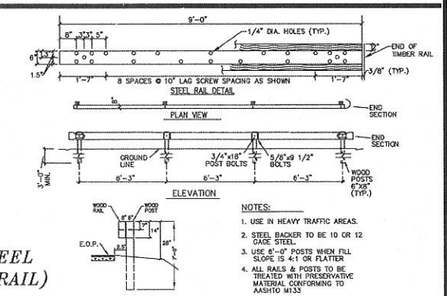
PARKING SPACE DETAIL
NOT TO SCALE

C4



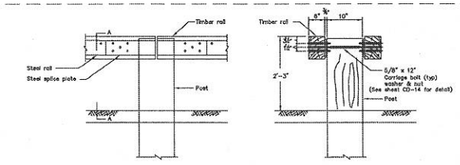
NOTES:
1.) PROVIDE TWO COATS OF PAINT ON ALL PARKING LINES.
2.) SEE PROPOSED SITE PLANS FOR LOCATION OF PARKING SPACES.
3.) PAINTED SPACES ONLY WHERE MARKED ON SITE PLAN

C10



NOTES:
1. USE IN HEAVY TRAFFIC AREAS.
2. STEEL BACKER TO BE 10 OR 12 GAGE STEEL.
3. USE 8'-0" POSTS WHEN FILL SLOPE IS 4:1 OR FLATTER
4. ALL RAILS & POSTS TO BE TREATED WITH PRESERVATIVE MATERIAL CONFORMING TO AASHTO M133

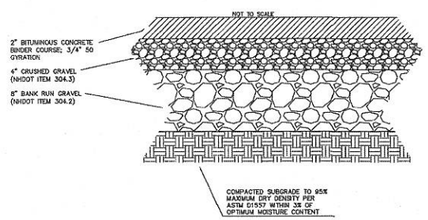
GUARD RAIL (STEEL BACKED WOODEN RAIL)
NOT TO SCALE



POST CONNECTION DETAIL
SECTION A-A

NOTES:
1. POST TYPE : 10" x 12" WOOD
2. BEAM TYPE : 6" x 10" WOOD WITH STEEL PLATE BACKING
3. POST SPACING : 10'-0" O.C.
4. NOMINAL BARRIER HEIGHT : 27"
5. STEEL PLATE BACKING AND SPLICE PLATE – A36 GALVANIZED STEEL
6. ALL BOLTS & WASHERS TO BE GALVANIZED

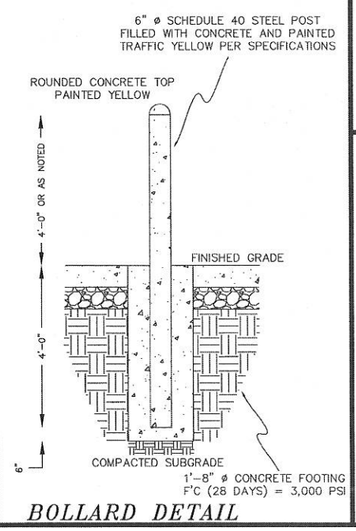
C6



NOTES:
1.) BITUMINOUS MATERIALS SHALL CONFORM TO NHDOT SPECIFICATION SUBSECTION 401.3.6.
2.) PAVEMENT BASE COURSE AGGREGATE SHALL CONFORM TO NHDOT SPECIFICATION SECTION 304, ITEM 304.3 AND COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY ASSUMING THE EXISTING MATERIALS ARE NOT OF HIGH QUALITY AS DETERMINED BY THE OWNER.
3.) PAVEMENT SUBBASE COURSE AGGREGATE AND AGGREGATE FOR SUBGRADE REPAIR AREAS SHALL BE SUITABLE FOR USE AS STRUCTURAL FILL AND BE PROGROLLED AND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.

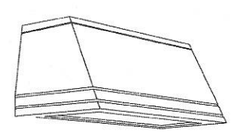
BITUMINOUS CONCRETE PAVEMENT SECTION
NOT TO SCALE

C7

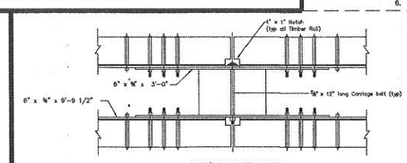


BOLLARD DETAIL

C8

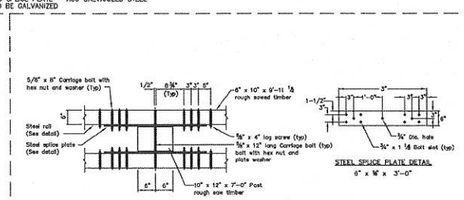


WALL MOUNTED LIGHTING
NOT TO SCALE

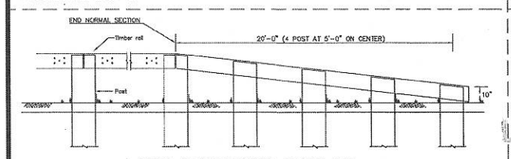


POST/RAIL CONNECTION DETAIL

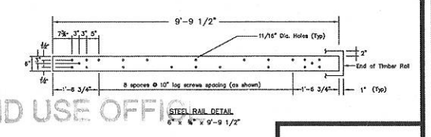
NOTES:
1. POST TYPE : 10" x 12" WOOD
2. BEAM TYPE : 6" x 10" WOOD WITH STEEL PLATE BACKING
3. POST SPACING : 5'-0" O.C.
4. NOMINAL BARRIER HEIGHT : 27"



STEEL SPLICE PLATE DETAIL
6" x 8" x 3'-0"



STEEL BACKED WOOD GUARD RAIL
TERMINAL UNIT DETAIL



STEEL RAIL DETAIL
6" x 6" x 9'-9 1/2"

LAND USE OFFICE
SEP 10 2015
RECEIVED

C-101

REVISION	DATE	DESCRIPTION

CONSTRUCTION DETAILS
LAND OF
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

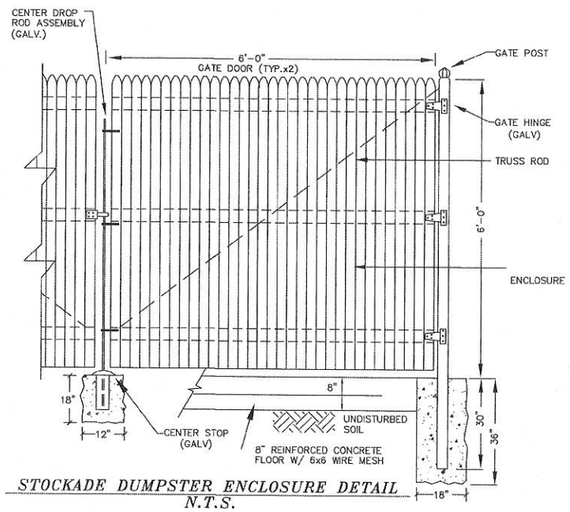
BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

SCALE : AS MARKED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

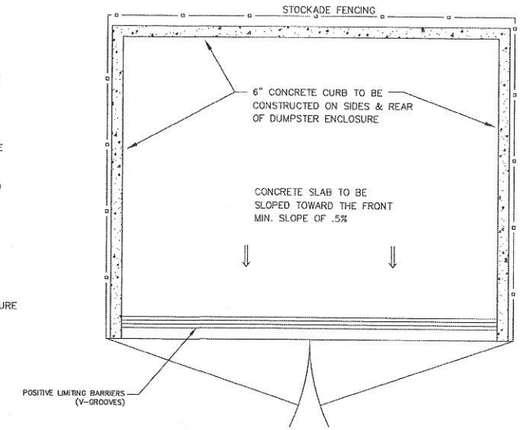
STATE OF NEW HAMPSHIRE
KENNETH A. BERRY
No. 14243
LICENSED
PROFESSIONAL ENGINEER

SHEET 14 OF 16

C20

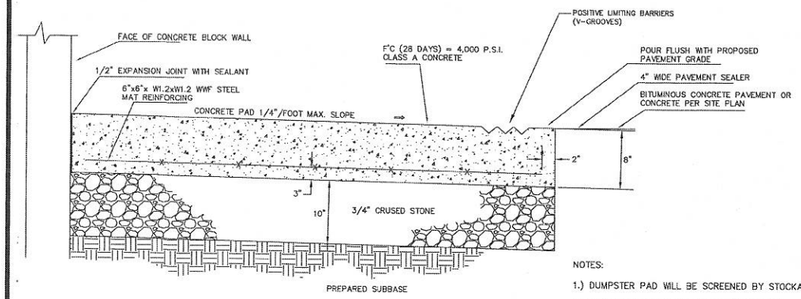


STOCKADE DUMPSTER ENCLOSURE DETAIL
N.T.S.



DUMPSTER SLAB DETAILS
N.T.S. NOT TO SCALE

C21



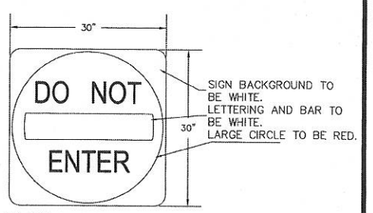
SECTION VIEW

DUMPSTER PAD & CONCRETE PAVEMENT
NOT TO SCALE

NOTES:

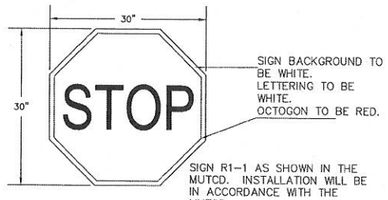
1.) DUMPSTER PAD WILL BE SCREENED BY STOCKAID FENCE.
2.) CATE ENCLOSURES WILL NOT BE INCLUDED.
3.) CONFIGUARATION WILL ENCLOSE 2-8 YARD DUMPSTERS.
4.) ADDITIONAL AREA FOR PALLET STORAGE.

C22



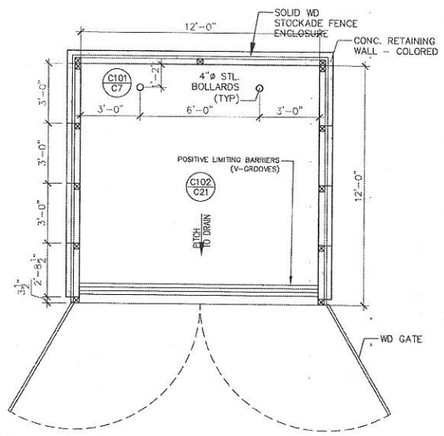
SIGN R5-1 AS SHOWN IN THE MUTCD. INSTALLATION WILL BE IN ACCORDANCE WITH THE MUTCD.

C23



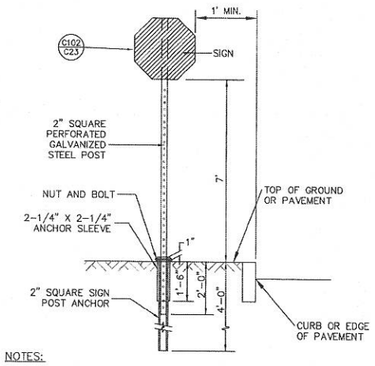
SIGN R1-1 AS SHOWN IN THE MUTCD. INSTALLATION WILL BE IN ACCORDANCE WITH THE MUTCD.

C24



DUMPSTER ENCLOSURE & CONCRETE PAD PLAN
NOT TO SCALE

C26

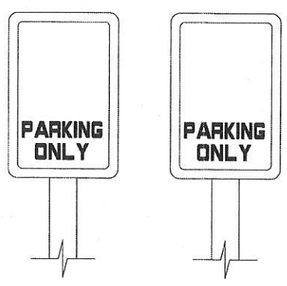


NOTES:

1. ALL SIGNAGE SHALL BE TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS AND NHDOT STANDARDS.
2. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS/CATALOG CUTS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ERECTING SIGNS.
3. THE LOCATION OF THE SIGNS SHALL BE AS INDICATED ON THE DRAWINGS AND/OR AS DIRECTED BY THE CITY OF ROCHESTER DEPARTMENT OF PUBLIC WORKS.

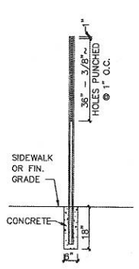
TYPICAL SIGN POST
(NOT TO SCALE)

LAND USE OFFICE
SEP 10 2015
RECEIVED



PARTIAL ELEVATION
N.T.S.

PARTIAL ELEVATION
N.T.S.



POST
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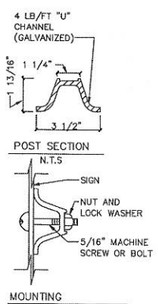
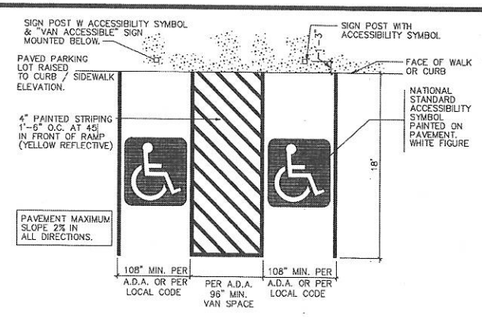


POST SECTION
N.T.S

MOUNTING
N.T.S.

PARTIAL ELEVATION
N.T.S.



PARKING STALL SIGNAGE FOR THE PHYSICALLY CHALLENGED
NOT TO SCALE

C25

REVISION	DATE	DESCRIPTION

CONSTRUCTION DETAILS
LAND OF
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
TAX MAP 271, LOT 23

BERRY SURVEYING & ENGINEERING
335 SECOND CROWN POINT ROAD
BARRINGTON, NH 03825 (332-2863)

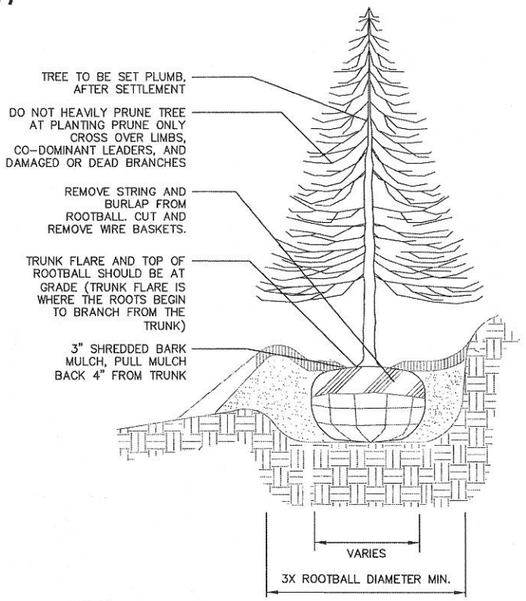
SCALE : AS MARKED
DATE : SEPTEMBER 9, 2015
FILE NO. : DB 2014-129

STATE OF NEW HAMPSHIRE
KENNETH A. BERRY No. 14243
LICENSED PROFESSIONAL ENGINEER

C-102

SHEET 15 OF 16

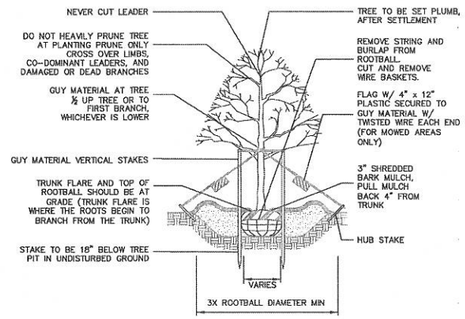
L1



NOTES:
1. DO NOT STAKE EVERGREEN TREES.
2. LOAM FOR BACKFILLING SHALL BE AMENDED AS REQUIRED BY LANDSCAPE ARCHITECT.
3. TAMP BACKFILL SOIL AROUND ROOTBALL FIRMLY TO MINIMIZE ROOTBALL SHIFT.

EVERGREEN TREE PLANTING

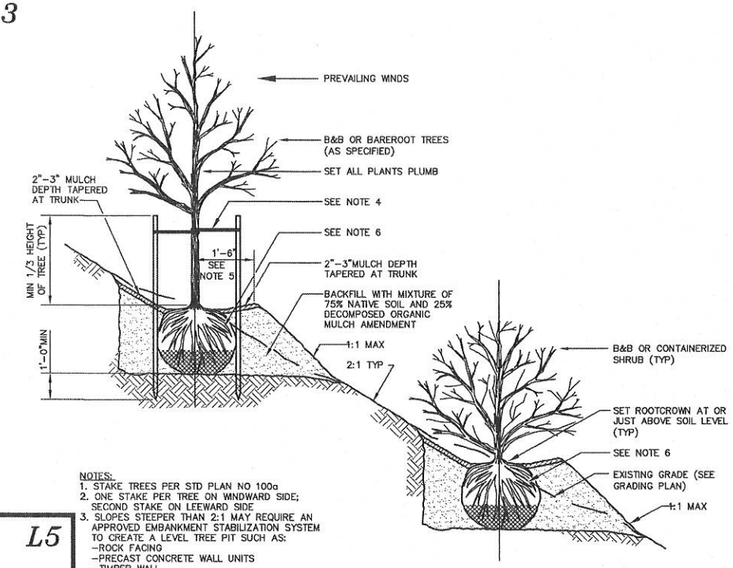
L2



NOTES:
1. 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.
2. TYPICALLY ONLY TREES WITH A 3" OR GREATER CALIPER NEED TO BE STAKED. TREES WITH LESS THAN A 3" CALIPER NEED TO BE STAKED ONLY AS REQUIRED BY LANDSCAPE ARCHITECT.
3. ONLY WRAP TREE TRUNKS AS REQUIRED BY LANDSCAPE ARCHITECT.
4. TREE SHALL BE SET PLUMB, AFTER SETTLEMENT.
5. LOAM FOR BACKFILLING SHALL BE AMENDED AS REQUIRED BY LANDSCAPE ARCHITECT.
6. CITY TREES PLANTED ON PRIVATE PROPERTY, ADJACENT TO A PUBLIC RIGHT-OF-WAY, NEED TO BE PLANTED A MINIMUM OF 5 FEET FROM THE EDGE OF THE CITY SIDEWALK.

DECIDUOUS TREE PLANTING

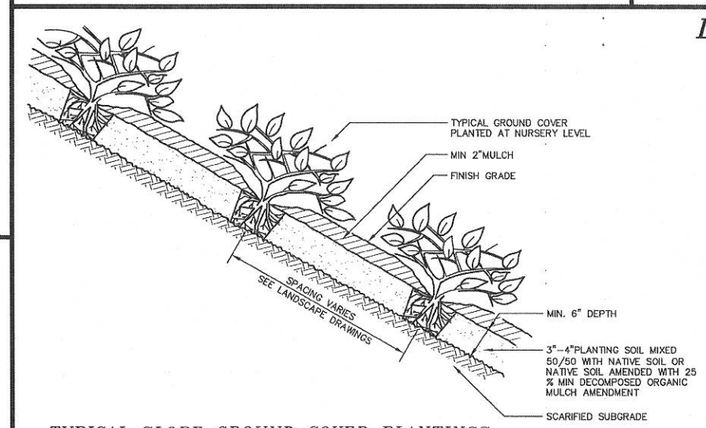
L3



NOTES:
1. STAKE TREES PER STD PLAN NO 100a
2. ONE STAKE PER TREE ON WINDWARD SIDE; SECOND STAKE ON LEEWARD SIDE
3. SLOPES STEEPER THAN 2:1 MAY REQUIRE AN APPROVED EMBANKMENT STABILIZATION SYSTEM TO CREATE A LEVEL TREE PIT SUCH AS:
   -ROCK FACING
   -PRECAST CONCRETE WALL UNITS
   -TIMBER WALL
   -MANUFACTURED SLOPE RETENTION UNITS
4. CHAINLOCK TREE TIE. LOOP EACH TIE AROUND TREE LOOSELY TO PROVIDE 1" SLACK FOR DIAMETER GROWTH.
5. SHAPE SOIL TO PROVIDE 3' DIAMETER OR ROOTBALL DIAMETER, WHICHEVER IS GREATER, WATERING RING.
6. REMOVE ALL WIRE AND STRING. REMOVE TOP 2/3 OF BURLAP.

TREE PLANTING ON SLOPES

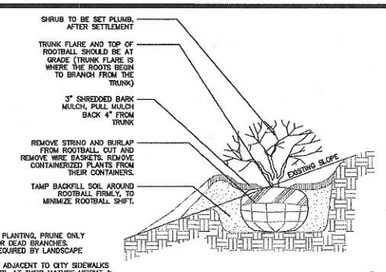
L5



TYPICAL SLOPE GROUND COVER PLANTINGS

L11

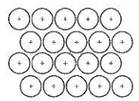
L4



NOTE:
1. DO NOT HEAVILY PRUNE SHRUB AT PLANTING, PRUNE ONLY CROSSOVER LIMBS AND DAMAGED OR DEAD BRANCHES.
2. BACKFILL WITH LOAM, AMEND AS REQUIRED BY LANDSCAPE ARCHITECT.
3. SHRUBS & GROUNDCOVER PLANTED ADJACENT TO CITY SIDEWALKS NEED TO BE PLACED SO THE PLANTS, AT THEIR MATURE HEIGHT & WIDTH, WILL NOT ENCROACH INTO THE CITY'S SIDEWALK.

TYPICAL SHRUB PLANTING

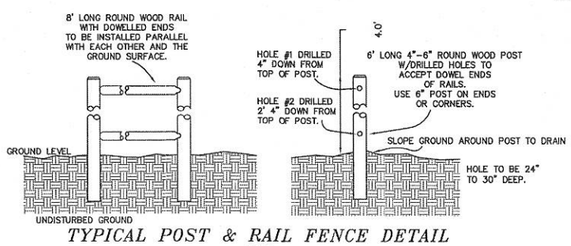
TYPICAL PERENNIAL PLANTING



TYPICAL BED PLANT SPACING

NOTE:
D = DIMENSION OF PLANT SPACING (SHRUB OR GROUNDCOVER AS INDICATED ON PLANS)

L7



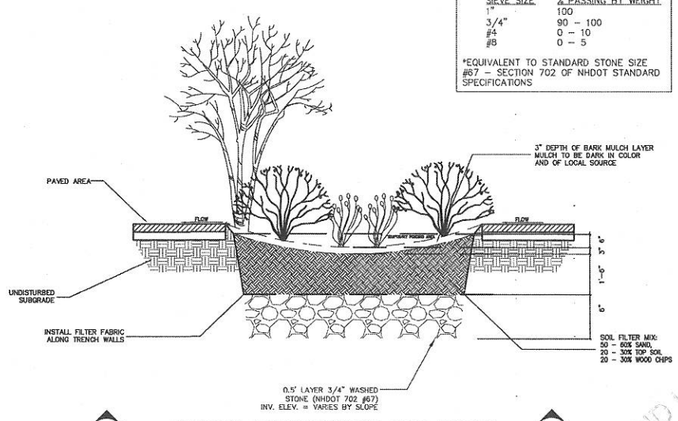
TYPICAL POST & RAIL FENCE DETAIL
N.T.S.

L8

CRUSHED STONE BEDDING*

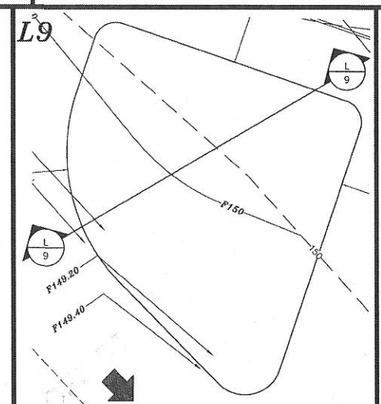
SIEVE SIZE	% PASSING BY WEIGHT
1"	100
3/4"	90 – 100
#4	0 – 10
#8	0 – 5

*EQUIVALENT TO STANDARD STONE SIZE #67 – SECTION 702 OF NHDOT STANDARD SPECIFICATIONS

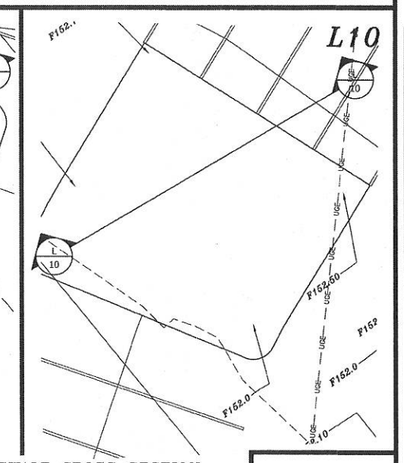


TYPICAL BIORETENTION DRY-SWALE
NOT TO SCALE

L9



L10



BIORETENTION SWALE CROSS SECTION
SEE DETAIL L8
NOT TO SCALE

L-101

REVISION	DATE	DESCRIPTION

LANDSCAPING DETAILS
LAND OF
INT'L BROTHERHOOD OF ELECTRICAL WORKERS
22 OLD CONCORD TURNPIKE (ROUTE 4)
BARRINGTON, NH 03825
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BERRY SURVEYING & ENGINEERING
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LICENSED
PROFESSIONAL ENGINEER

SHEET 16 OF 16

LAND USE
SEP 16 2015
RECEIVED