

**GENERAL INFORMATION**

**OWNER**  
 MAP 101 LOTS 18 & 19  
 MAP 2 LOT 34A  
 MAL-MAR, LLC  
 9 DOVER ROAD  
 CHICHESTER, NH 03258

**APPLICANT**  
 BOBCAT OF NEW HAMPSHIRE  
 2 TRACY LANE  
 HUDSON, NH 03051

**LONDONDERRY RESOURCE LIST**  
 PLANNING & ECONOMIC DEVELOPMENT  
 268B MAMMOTH ROAD  
 LONDONDERRY, NH 03053  
 603-432-1100 EXT. 149  
 COLLEEN MAILLOUX

**BUILDING & ZONING ENFORCEMENT**  
 268B MAMMOTH ROAD  
 LONDONDERRY, NH 03053  
 603-432-1100 EXT. 115  
 LIBBY CANUEL

**PUBLIC WORKS & ENGINEERING**  
 268B MAMMOTH ROAD  
 LONDONDERRY, NH 03053  
 603-432-1100 EXT. 146  
 JOHN TROTTER, DIRECTOR

**POLICE DEPARTMENT**  
 268A MAMMOTH ROAD  
 LONDONDERRY, NH 03053  
 603-432-1118  
 WILLIAM R. HART, CHIEF OF POLICE

**FIRE DEPARTMENT**  
 280 MAMMOTH ROAD  
 LONDONDERRY, NH 03053  
 603-432-1124  
 DARREN O'BRIEN, CHIEF

**HUDSON RESOURCE LIST**  
 PLANNING DEPARTMENT  
 TOWN OF HUDSON  
 12 SCHOOL STREET  
 HUDSON, NH 03051  
 603-886-6008

**ZONING DEPARTMENT**  
 TOWN OF HUDSON  
 12 SCHOOL STREET  
 HUDSON, NH 03051  
 603-886-6008

**POLICE DEPARTMENT**  
 1 CONSTITUTION DRIVE  
 HUDSON, NH 03051  
 603-886-6011  
 WILLIAM AVERY, CHIEF OF POLICE

**FIRE DEPARTMENT**  
 39 FERRY STREET  
 HUDSON, NH 03051  
 603-886-6021  
 ROBERT BUXTON, CHIEF

**ABUTTERS**  
 ABUTTERS-HUDSON  
 MAP 101 LOT 11  
 SMT REBEL ROAD, LLC  
 3 TRACY LANE  
 HUDSON, NH 03051

MAP 101 LOT 17  
 SMT TRACEY LANE HOLDINGS, LLC  
 3 TRACY LANE  
 HUDSON, NH 03051

MAP 101 LOT 30-000  
 MARIO PLANTE TR & DENYSE PLANTE TR  
 GREEN MOUNTAIN PARTNERS TRUST  
 9 OLD DERRY ROAD  
 HUDSON, NH 03051

MAP 101 LOTS 30-001, 30-002, 30-003, 30-004 & 30-005  
 ANTHONY E. DIONNE TRUST  
 GREENLAND INVESTMENT REALTY TRUST  
 P.O. BOX 1206  
 LONDONDERRY, NH 03053

MAP 101 LOT 20  
 4 REBEL ROAD, LLC  
 4 REBEL ROAD  
 HUDSON, NH 03051

MAP 101 LOT 21  
 MATTHEW E. MASON TR & LYNN A. MASON TR  
 13 CUTLER ROAD  
 LITCHFIELD, NH 03052

MAP 102 LOT 1  
 LINDA K. HARVEY  
 11 AVERY ROAD  
 LONDONDERRY, NH 03053

**ABUTTERS-LONDONDERRY**  
 MAP 2 LOT 34  
 SMT TRACEY LANE HOLDINGS, LLC  
 3 TRACY LANE  
 HUDSON, NH 03051

MAP 2 LOT 34-1  
 CABLE HOLDCO EXCHANGE III LLC  
 ONE COMCAST CENTER  
 PHILADELPHIA, PA 19103

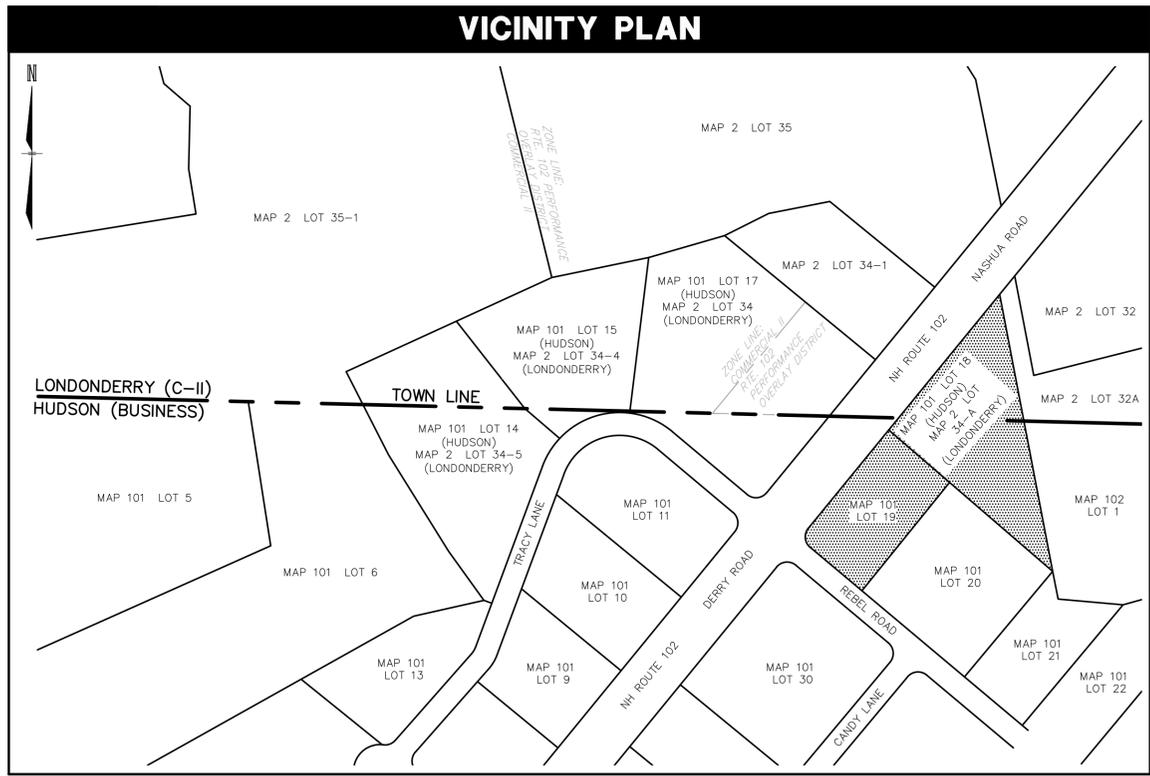
MAP 2 LOT 35  
 CABLE HOLDCO EXCHANGE III LLC  
 ONE COMCAST CENTER  
 PHILADELPHIA, PA 19103

MAP 2 LOT 32  
 PETER J. SAPATIS REVOCABLE TRUST OF 2007  
 5 AVERY ROAD  
 LONDONDERRY, NH 03053

MAP 2 LOT 32A  
 LINDA K. & DOUGLAS C. JR. HARVEY  
 P.O. BOX 639  
 LONDONDERRY, NH 03053

# BOBCAT OF NEW HAMPSHIRE

**2 REBEL ROAD, 345 DERRY ROAD & 307 NASHUA ROAD  
 HUDSON & LONDONDERRY, NEW HAMPSHIRE**

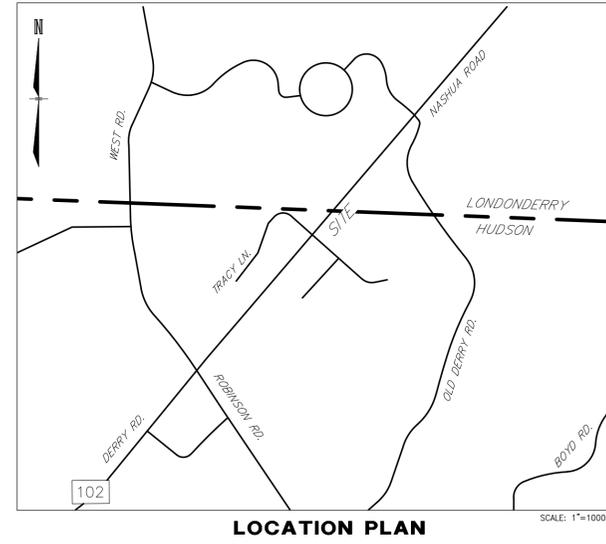


**INDEX OF SHEETS**

SHEET	SHEET TITLE
C-1	COVER
C-2	NOTES & LEGEND
S-01	EXISTING CONDITIONS PLAN
C-3	SITE PREPARATION PLAN
C-4	SITE LAYOUT PLAN
C-5	GRADING & DRAINAGE PLAN
C-6	LANDSCAPE PLAN
C-7	STORMWATER MANAGEMENT PLAN
C-8 - C-12	DETAILS
REFERENCE PLANS BY ASSOCIATED PROFESSIONALS	
L1	LIGHTING PLAN
A1	ARCHITECTURAL ELEVATION PLANS

**PERMITS/APPROVALS**

	NUMBER	APPROVED	EXPIRES
HUDSON PLANNING BOARD SITE PLAN REVIEW	-	-	-
LONDONDERRY PLANNING BOARD SITE PLAN REVIEW	-	-	-
HUDSON CONDITIONAL USE PERMIT	-	-	-
LONDONDERRY WAIVER	-	-	-
NHDOT DRIVEWAY	-	-	-



**SITE DEVELOPMENT PLANS**  
 TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A  
**COVER**  
**BOBCAT OF NEW HAMPSHIRE**  
**2 REBEL RD & 345 DERRY RD (HUDSON, NH)**  
**307 NASHUA RD (LONDONDERRY, NH)**  
 OWNED BY  
**MAL-MAR, LLC**  
 PREPARED FOR  
**BOBCAT OF NEW HAMPSHIRE**  
 SCALE: NTS **JULY 26, 2021**

**TFM**  
 Civil Engineers  
 Structural Engineers  
 Traffic Engineers  
 Land Surveyors  
 Landscape Architects  
 Scientists



OWNER'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 OWNER OR REPRESENTATIVE

Approved by the Town of Londonderry N.H. Planning Board for Phase \_\_\_\_\_  
 on Date: \_\_\_\_\_  
 Certified By: \_\_\_\_\_

**APPROVED BY THE HUDSON, NH PLANNING BOARD**

DATE OF MEETING \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

*SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.*

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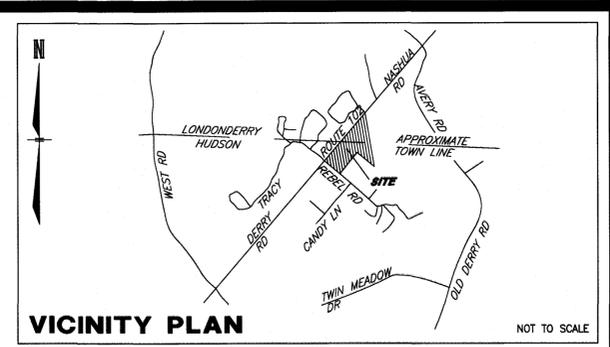
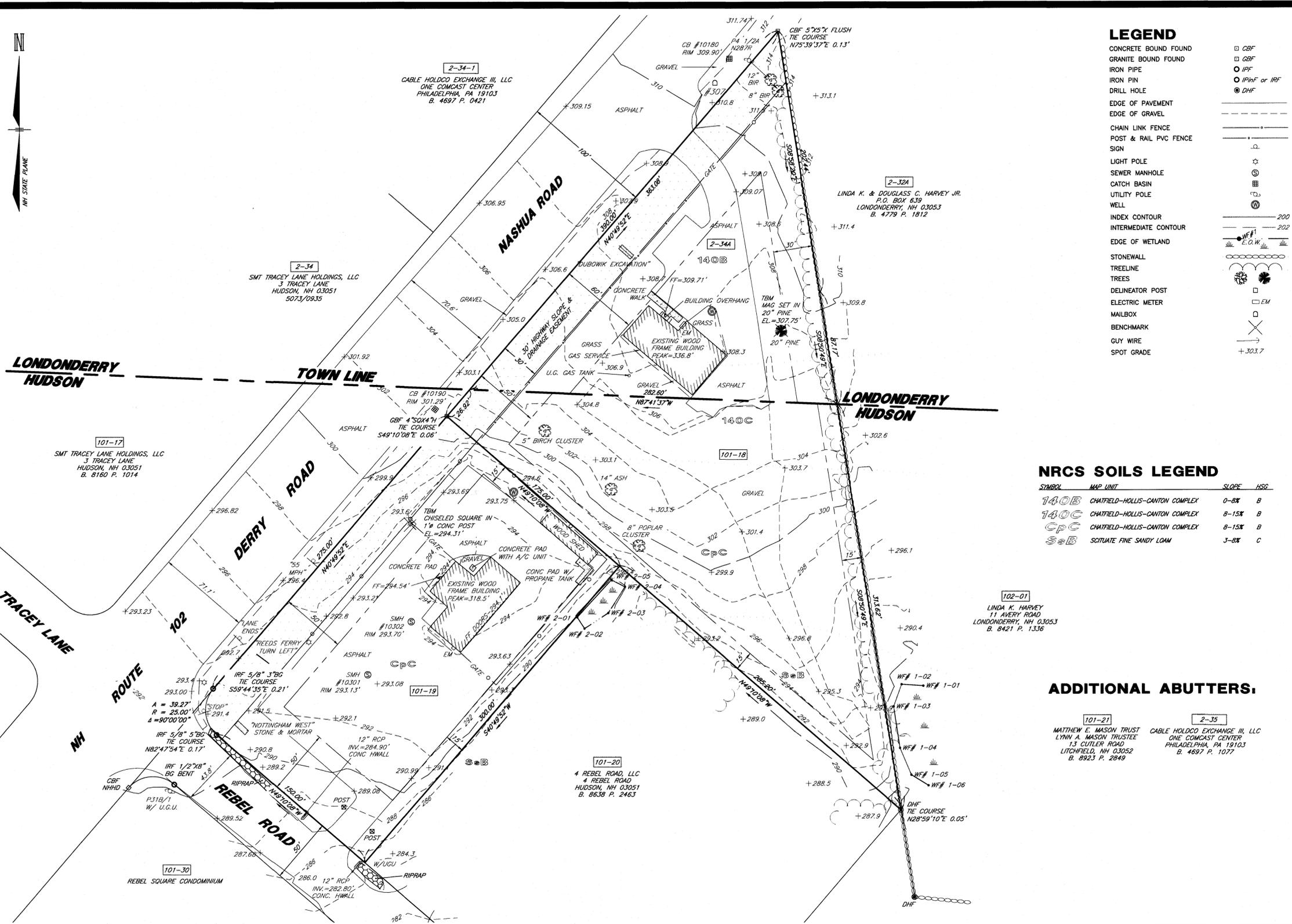
REV	DATE	DESCRIPTION	DR	CK

**TFM**  
 Civil Engineers  
 Structural Engineers  
 Traffic Engineers  
 Land Surveyors  
 Landscape Architects  
 Scientists

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 Phone (603) 472-4488  
 Fax (603) 472-9747  
 www.tfmoran.com

17851-08 DR PWH FB  
 CK JSH CADFILE 17851-08 SITE PLANS C-1





**REFERENCE PLAN**  
 SUBDIVISION PLAN: MAP 42 LOT 7 LEE J. ALLARD ET. UX. NH ROUTE 102 HUDSON & LONDONDERRY NH, 23 MARCH 1984 BY GEORGE F. KELLER INC. H.C.R.D. PLAN # 18102

- LEGEND**
- CBF
  - GBF
  - IPF
  - IPinF or IRF
  - DHF
  - EDGE OF PAVEMENT
  - EDGE OF GRAVEL
  - CHAIN LINK FENCE
  - POST & RAIL PVC FENCE
  - SIGN
  - LIGHT POLE
  - SEWER MANHOLE
  - CATCH BASIN
  - UTILITY POLE
  - WELL
  - INDEX CONTOUR
  - INTERMEDIATE CONTOUR
  - EDGE OF WETLAND
  - STONEWALL
  - TREELINE
  - TREES
  - DELINEATOR POST
  - ELECTRIC METER
  - MAILBOX
  - BENCHMARK
  - GUY WIRE
  - SPOT GRADE

**NRCS SOILS LEGEND**

SYMBOL	MAP UNIT	SLOPE	HSG
140B	CHATFIELD-HOLLIS-CANTON COMPLEX	0-8%	B
140C	CHATFIELD-HOLLIS-CANTON COMPLEX	8-15%	B
CpC	CHATFIELD-HOLLIS-CANTON COMPLEX	8-15%	B
S&B	SCITUATE FINE SANDY LOAM	3-8%	C

- ADDITIONAL ABUTTERS:**
- 101-21: MATTHEW E. MASON TRUST, LYNN A. MASON TRUSTEE, 13 CUTLER ROAD, LITCHFIELD, NH 03052, B. 8923 P. 2849
  - 2-35: CABLE HOLDCO EXCHANGE III, LLC, ONE COMCAST CENTER, PHILADELPHIA, PA 19103, B. 4697 P. 1077

**CERTIFICATION**

I HEREBY CERTIFY THAT THIS SURVEY AND PLAT WERE PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION AND IS THE RESULT OF AN ACTUAL FIELD SURVEY MADE ON THE GROUND AND HAS AN ERROR OF CLOSURE OF GREATER ACCURACY THAN ONE PART IN TEN THOUSAND (1:10,000).

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN. (RSA 676:18-11)

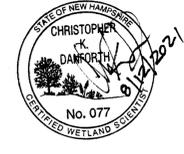
8/12/2021

TAX MAP 2 LOT 34-A (LONDONDERRY)  
 TAX MAP 101 LOTS 17&18 (HUDSON)  
**EXISTING CONDITIONS PLAN**  
 NH ROUTE 102  
 HUDSON / LONDONDERRY, NH  
 OWNED BY  
**SMT REBEL ROAD, LLC**  
 PREPARED FOR  
**BOBCAT OF NH**      **JUNE 9, 2021**

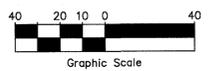
SCALE: 1"=40'

**WETLAND CERTIFICATION**

JURISDICTIONAL WETLANDS SHOWN ON THIS PLAN WERE DELINEATED ON 2/9/21 BY CHRISTOPHER K. DANFORTH CWS #077. THE WETLANDS WERE DELINEATED ACCORDING TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987) AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2, JANUARY 2012. DOMINANT HYDRIC SOILS WITHIN THE WETLAND(S) WERE IDENTIFIED USING "FIELD INDICATORS OF HYDRIC SOILS OF THE UNITED STATES" A GUIDE FOR IDENTIFYING AND DELINEATING HYDRIC SOILS, NRCS, VERSION 5.1, 2017. DOMINANCE OF HYDROPHYTIC VEGETATION WAS DETERMINED USING THE USACE NATIONAL WETLAND PLANT LIST, NWPL 2016 VERSION 3.3 HTTP://WETLAND\_PLANTS.USACE.ARMY.MIL.



OWNER'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



REV.	DATE	DESCRIPTION	DR	CK

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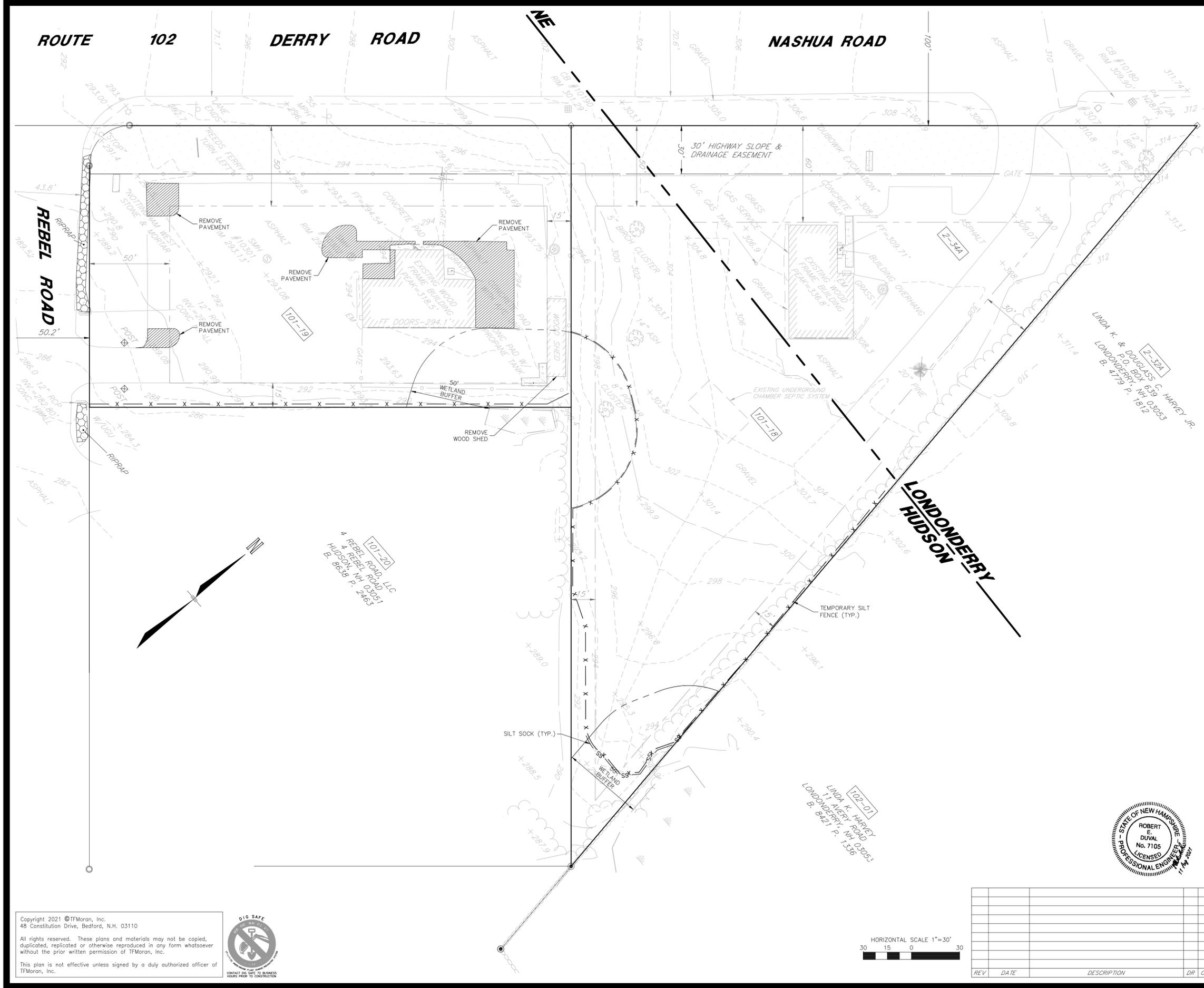


CONTACT DIG SAFE 72 BUSINESS HOURS PRIOR TO CONSTRUCTION

**TFM** Civil Engineers, Structural Engineers, Traffic Engineers, Land Surveyors, Landscape Architects, Scientists

48 CONSTITUTION DRIVE, BEDFORD, NH 03110  
 PHONE (603) 472-4488  
 FAX (603) 472-9747  
 WWW.TFMORAN.COM

17851.08 DR AGL FB 2177, 2178  
 CK HGM CADFILE 17851-08 SURVEY SHEET 1 OF 1

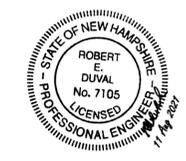


**NOTES**

1. THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY HIS WORK AT ALL TIMES.
2. THE CONTRACTOR SHALL VERIFY ALL SURVEY INFORMATION IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
3. ALL SUBBASE MATERIALS LOCATED WITHIN THE PROPOSED LANDSCAPING AREAS SHALL BE REMOVED AND REPLACED WITH MATERIALS SUITABLE FOR LANDSCAPING.
4. STUMPS SHALL NOT BE BURIED ON SITE; STUMPS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
5. TEMPORARY CONSTRUCTION FENCE SHALL BE PLACED TO SEPARATE PEDESTRIANS FROM THE CONSTRUCTION SITE WHERE NEEDED. THE TEMPORARY FENCE SHALL BE ADJUSTED AS CONSTRUCTION PROGRESSES.
6. THE LOCATION OF UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. TFMORAN 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 1-888-344-7233.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE SITE AND ALL EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF THEIR INTENTION AT LEAST 48 HOURS IN ADVANCE.

OWNER'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
 \_\_\_\_\_ OWNER OR REPRESENTATIVE \_\_\_\_\_

**SITE DEVELOPMENT PLANS**  
 TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A  
**SITE PREPARATION PLAN**  
**BOBCAT OF NEW HAMPSHIRE**  
**2 REBEL RD & 345 DERRY RD (HUDSON, NH)**  
**307 NASHUA RD (LONDONDERRY, NH)**  
 OWNED BY  
**MAL-MAR, LLC**  
 PREPARED FOR  
**BOBCAT OF NEW HAMPSHIRE**  
**SCALE: 1"=30' JULY 26, 2021**



102-01  
 LINDA K. HARVEY  
 11 AVERY ROAD  
 LONDONDERRY, NH 03053  
 B. 8-21 P. 1336

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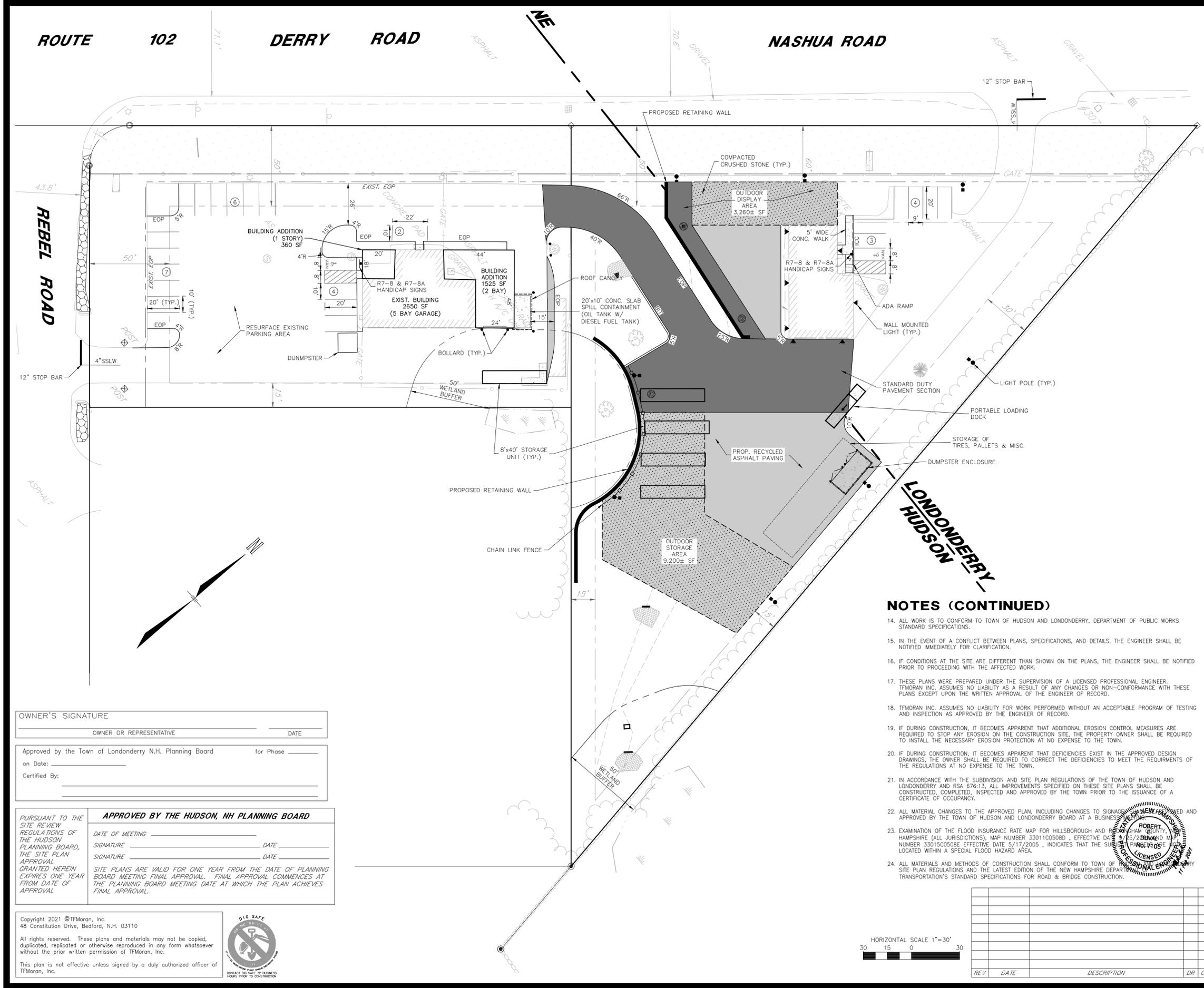


REV	DATE	DESCRIPTION	DR	CK

**TFM** Civil Engineers  
 Structural Engineers  
 Traffic Engineers  
 Land Surveyors  
 Landscape Architects  
 Scientists

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17851-08 DR PWH FB  
 CK JSH CADFILE 17851-08 SITE PLANS C-3



**NOTES**

- THE PURPOSE OF THIS PLAN IS TO DEPICT THE PROPOSED SITE WORK WHICH INCLUDES PAVING AND RECONFIGURATION OF THE PARKING LOT/ACCESS DRIVES FOR LOT 101-18 AND LOT 2-34A, AS WELL AS ADDING OUTDOOR DISPLAY AND STORAGE AREAS. SITE WORK FOR LOT 101-19 INCLUDES THE CONSTRUCTION OF TWO BUILDING ADDITIONS WITH ASSOCIATED SITE IMPROVEMENTS AND OUTDOOR DISPLAY AREAS.
- ZONING:  
TOWN OF LONDONDERRY  
COMMERCIAL II DISTRICT (C- II) & RT 28 PERFORMANCE OVERLAY (PO)  
LOT AREA 1 AC  
LOT FRONTAGE 150 FT  
MINIMUM BUILDING SETBACKS  
FRONT 60 FT, 4 TIMES BLDG. HT. (PO)  
SIDE 30 FT, BLDG. HT. [20' MIN.] (PO)  
REAR 30 FT, BLDG. HT. [20' MIN.] (PO)  
BUILDING HEIGHT 50 FT, 45' (PO)  
MAX. BUILDING COVERAGE 25%  
MIN. GREEN SPACE 33%  
GREEN SPACE SETBACKS  
SIDE/REAR 15 FT, 1/2 BLDG. HT. 10' MIN. (PO)  
FRONT 30 FT, 35' (PO), (STREET TREE AREA & FRONT BUFFER AREA)  
BUFFER TO AR-1 50', 75' (PO)  
ROUTE 102 PERFORMANCE OVERLAY ZONE (MAP 2 LOT 34A)  
TOWN OF HUDSON  
BUSINESS DISTRICT (B)  
LOT AREA 43,560 SF  
LOT FRONTAGE 150 FT TOWN ROAD  
MINIMUM BUILDING SETBACKS  
FRONT 50 FT  
SIDE 15 FT  
REAR 15 FT  
BUILDING HEIGHT 38 FT  
MIN. GREEN SPACE 40%  
GREEN SPACE SETBACKS 35 FT FROM R.O.W.
- TOWN OF LONDONDERRY PARKING CALCULATIONS:  
SALES & RENTAL OF TRUCKS OR HEAVY EQUIPMENT (EQUIPMENT DISPLAY OR STORAGE AREA)  
0.5 SPACE/1,000 SF = 14,985 SF (2,528 SF BLDG., 3,260 SF DISPLAY, 9,200 SF OUTDOOR STORAGE) = 7 SPACES  
PROPOSED: 7 SPACES  
TOWN OF HUDSON PARKING CALCULATIONS:  
RETAIL & OFFICE = 1 SPACE/200 SF = 1,520 SF/200 SF = 7.6 SPACES  
WAREHOUSE = 1 SPACE/600 SF = 3,300 SF/600 SF = 5.5 SPACES  
TOTAL REQUIRED: 13 SPACES  
PROPOSED: 19 SPACES

**NOTES (CONTINUED)**

- ALL WORK IS TO CONFORM TO TOWN OF HUDSON AND LONDONDERRY, DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS.
- IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
- IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN ON THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
- THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. TFMORAN INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-COMFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
- TFMORAN INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
- IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE, THE PROPERTY OWNER SHALL BE REQUIRED TO INSTALL THE NECESSARY EROSION PROTECTION AT NO EXPENSE TO THE TOWN.
- IF DURING CONSTRUCTION, IT BECOMES APPARENT THAT DEFICIENCIES EXIST IN THE APPROVED DESIGN DRAWINGS, THE OWNER SHALL BE REQUIRED TO CORRECT THE DEFICIENCIES TO MEET THE REQUIREMENTS OF THE REGULATIONS AT NO EXPENSE TO THE TOWN.
- IN ACCORDANCE WITH THE SUBDIVISION AND SITE PLAN REGULATIONS OF THE TOWN OF HUDSON AND LONDONDERRY AND RSA 676:13, ALL IMPROVEMENTS SPECIFIED ON THESE SITE PLANS SHALL BE CONSTRUCTED, COMPLETED, INSPECTED AND APPROVED BY THE TOWN PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- ALL MATERIAL CHANGES TO THE APPROVED PLAN, INCLUDING CHANGES TO SIGNAGE, SHALL BE SUBMITTED AND APPROVED BY THE TOWN OF HUDSON AND LONDONDERRY BOARD AT A BUSINESS MEETING.
- EXAMINATION OF THE FLOOD INSURANCE RATE MAP FOR HILLSBOROUGH AND LONDONDERRY, NEW HAMPSHIRE (ALL JURISDICTIONS), MAP NUMBER 33011C0508D, EFFECTIVE DATE 5/17/2005, INDICATES THAT THE SITE IS LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA.
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO TOWN OF HUDSON AND LONDONDERRY SITE PLAN REGULATIONS AND THE LATEST EDITION OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.
- THE PROPERTY WILL BE SERVICED BY THE FOLLOWING:  
DRAINAGE PRIVATE  
SEWER PRIVATE  
WATER PRIVATE  
GAS LIBERTY UTILITIES  
ELECTRIC EVERSOURCE  
TELEPHONE CONSOLIDATED COMMUNICATIONS  
CABLE COMCAST
- IN THE EVENT THAT THE SNOW STORAGE AREAS PROVIDED ON THE SITE ARE COMPLETELY UTILIZED, EXCESS SNOW SHALL BE TRANSPORTED OFF SITE FOR DISPOSAL IN ACCORDANCE WITH N.H.D.E.S. REGULATIONS. IF SNOW IS STORED WITHIN PARKING AREA KEEP CATCH BASINS CLEAR.
- THE CONTRACTOR SHALL BID AND PERFORM THE WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES, SPECIFICATIONS, REGULATIONS AND STANDARDS.
- ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
- WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN CASE OF CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY TFMORAN, INC., DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE SITE AND ALL EXISTING CONDITIONS SURROUNDING IT AND THEREON. THE CONTRACTOR SHALL ADVISE THE APPROPRIATE AUTHORITY OF HIS INTENTIONS AT LEAST 48 HOURS IN ADVANCE.
- THE CONTRACTOR SHALL MAINTAIN EMERGENCY ACCESS TO ALL AREAS AFFECTED BY HIS WORK AT ALL TIMES.
- LIGHTING, SIGNAGE, LANDSCAPING, AND SCREENING SHALL MEET THE REQUIREMENTS OF THE CITY/TOWN ZONING ORDINANCE AND SITE PLAN REGULATIONS.
- SITE WORK SHALL BE CONSTRUCTED FROM A COMPLETE SET OF PLANS, NOT ALL FEATURES ARE DETAILED ON EVERY SHEET. THE ENGINEER IS TO BE NOTIFIED OF ANY CONFLICT WITHIN THIS PLAN SET.

OWNER'S SIGNATURE \_\_\_\_\_  
OWNER OR REPRESENTATIVE \_\_\_\_\_ DATE \_\_\_\_\_

Approved by the Town of Londonderry N.H. Planning Board for Phase \_\_\_\_\_  
on Date: \_\_\_\_\_  
Certified By: \_\_\_\_\_

**APPROVED BY THE HUDSON, NH PLANNING BOARD**  
DATE OF MEETING \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
SITE PLANS ARE VALID FOR ONE YEAR FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN ACHIEVES FINAL APPROVAL.

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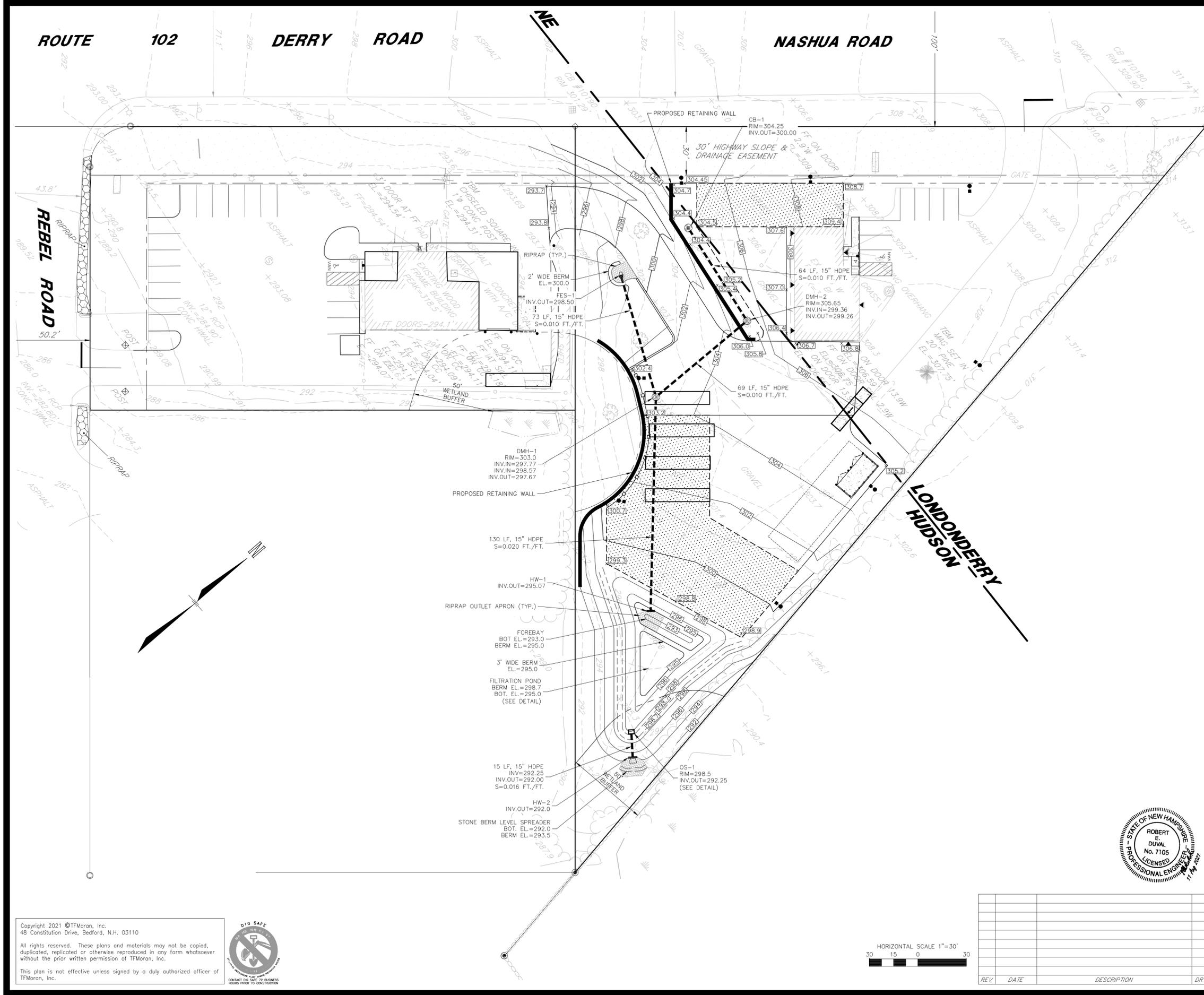


REV	DATE	DESCRIPTION	DR	CK

**SITE DEVELOPMENT PLANS**  
TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A  
**SITE LAYOUT PLAN**  
**BOBCAT OF NEW HAMPSHIRE**  
**2 REBEL RD & 345 DERRY RD (HUDSON, NH)**  
**307 NASHUA RD (LONDONDERRY, NH)**  
OWNED BY  
**MAL-MAR, LLC**  
PREPARED FOR  
**BOBCAT OF NEW HAMPSHIRE**  
**SCALE: 1"=30'** **JULY 26, 2021**

**TFM** Civil Engineers  
Structural Engineers  
Traffic Engineers  
Land Surveyors  
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Scientists  
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FILE 17851-08 DR PWH FB  
CK JSH CADFILE 17851-08 SITE PLANS C-4



- ### NOTES
- ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF HUDSON AND LONDONDERRY, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
  - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH THE SITE AND ALL SURROUNDING CONDITIONS.
  - 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 BE AGREED TO BY THE ENGINEER BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT "DIGSAFE" (811) AT LEAST 72 HOURS BEFORE DIGGING.
  - THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNING UTILITIES, EITHER OVERHEAD OR UNDERGROUND, WITHIN THE CONSTRUCTION AREA AND SHALL COORDINATE AS NECESSARY WITH THE UTILITY COMPANIES OF SAID UTILITIES. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
  - THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE INDIVIDUAL UTILITY AGENCIES/COMPANIES, AND ARRANGE FOR ALL INSPECTIONS.
  - ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET LOCAL STANDARDS AND THE REQUIREMENTS OF THE LATEST NHDOT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION AND THE NHDOT STANDARD STRUCTURE DRAWINGS UNLESS OTHERWISE NOTED.
  - STORM DRAINAGE SYSTEM SHALL BE CONSTRUCTED TO LINE AND GRADE AS SHOWN ON THE PLANS. CONSTRUCTION METHODS SHALL CONFORM TO NHDOT STANDARD SPECIFICATIONS, SECTION 603. CATCH BASINS AND DRAIN MANHOLES SHALL CONFORM TO SECTION 604. ALL CATCH BASIN GRATES SHALL BE TYPE B AND CONFORM TO NHDOT STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED.
  - ALL MANHOLES IN PAVEMENT SHALL HAVE RIMS SET TO FINISH GRADE REGARDLESS OF ANY ELEVATIONS OTHERWISE SHOWN.
  - ALL ELEVATIONS SHOWN AT CURB ARE TO THE BOTTOM OF CURB UNLESS OTHERWISE NOTED. CURBS HAVE A 6" REVEAL UNLESS OTHERWISE NOTED.
  - ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE IMMEDIATE AREA.
  - IN ACCORDANCE WITH RSA 430:53 AND Agr 3800, THE CONTRACTOR SHALL NOT TRANSPORT INVASIVE SPECIES OFF THE PROPERTY, AND SHALL DISPOSE OF INVASIVE SPECIES ON-SITE IN A LEGAL MANNER.
  - THE SITE CONTRACTOR SHALL PREPARE, MAINTAIN, AND EXECUTE A S.W.P.P. IN ACCORDANCE WITH EPA REGULATIONS AND THE CONSTRUCTION GENERAL PERMIT.
  - THE SITE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO SUBMIT AN eNOI AT LEAST 14 DAYS IN ADVANCE OF ANY EARTHWORK ACTIVITIES AT THE SITE.
  - THE EROSION CONTROL PRACTICES SHOWN ON THESE PLANS ARE ILLUSTRATIVE ONLY AND SHALL BE SUPPLEMENTED BY THE SITE CONTRACTOR AS NEEDED.
  - COORDINATE WITH ARCHITECTURAL PLANS FOR DETAILED GRADING AT BUILDING, AND SIZE AND LOCATION OF ALL BUILDING SERVICES.
  - COORDINATE WITH GEOTECHNICAL/STRUCTURAL PLANS FOR SITE PREPARATION AND OTHER BUILDING INFORMATION.
  - COORDINATE WITH MECHANICAL AND PLUMBING PLANS FOR ROOF DRAIN INFORMATION.
  - LIMITS OF WORK ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHALL COORDINATE ALL WORK TO PROVIDE SMOOTH TRANSITIONS. THIS INCLUDES GRADING, PAVEMENT, CURBING, SIDEWALKS AND ALIGNMENTS.
  - THE CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR INFORMATION ABOUT GROUNDWATER CONDITIONS. THE CONTRACTOR SHALL FOLLOW THE GEOTECHNICAL ENGINEERS RECOMMENDED METHODS TO ADDRESS ANY GROUNDWATER ISSUES THAT ARE FOUND ON SITE.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR THE CONDITIONS AT THE SITE. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT DISCREPANCIES TO THE ENGINEER.
  - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK THE ACCURACY OF THE TOPOGRAPHY AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO ANY EARTHWORK BEING PERFORMED ON THE SITE. NO CLAIM FOR EXTRA WORK WILL BE CONSIDERED FOR PAYMENT AFTER EARTHWORK HAS COMMENCED.
  - VERIFY TBM ELEVATIONS PRIOR TO CONSTRUCTION.
  - IN THE EVENT OF A CONFLICT BETWEEN PLANS, SPECIFICATIONS, AND DETAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
  - IF CONDITIONS AT THE SITE ARE DIFFERENT THAN SHOWN THE ENGINEER SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH THE AFFECTED WORK.
  - THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER, TFMORAN INC. ASSUMES NO LIABILITY AS A RESULT OF ANY CHANGES OR NON-COMFORMANCE WITH THESE PLANS EXCEPT UPON THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD.
  - TFMORAN INC. ASSUMES NO LIABILITY FOR WORK PERFORMED WITHOUT AN ACCEPTABLE PROGRAM OF TESTING AND INSPECTION AS APPROVED BY THE ENGINEER OF RECORD.
  - AT COMPLETION OF CONSTRUCTION, THE SITE CONTRACTOR SHALL PROVIDE A LETTER CERTIFYING THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND A LETTER STAMPED BY A QUALIFIED ENGINEER THAT THEY HAVE OBSERVED ALL UNDERGROUND DETENTION SYSTEMS, INFILTRATION SYSTEMS, OR FILTERING SYSTEMS PRIOR TO BACKFILL, AND THAT SUCH SYSTEMS CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS.
  - IF ANY DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS HAVE BEEN MADE, THE SITE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS STAMPED BY A LICENSED SURVEYOR OR QUALIFIED ENGINEER ALONG WITH A LETTER STAMPED BY A QUALIFIED ENGINEER DESCRIBING ALL SUCH DEVIATIONS, AND BEAR ALL COSTS FOR PREPARING AND FILING ANY NEW PERMITS OR PERMIT AMENDMENTS THAT MAY BE REQUIRED.
  - THE EDGE OF THE CONSERVATION OVERLAY DISTRICT AND NON-DISTURBANCE ZONES SHALL BE APPROPRIATELY DELINEATED IN THE FIELD PRIOR TO CONSTRUCTION.

**SITE DEVELOPMENT PLANS**  
 TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A  
**GRADING & DRAINAGE PLAN**  
**BOBCAT OF NEW HAMPSHIRE**  
**2 REBEL RD & 345 DERRY RD (HUDSON, NH)**  
**307 NASHUA RD (LONDONDERRY, NH)**  
 OWNED BY  
**MAL-MAR, LLC**  
 PREPARED FOR  
**BOBCAT OF NEW HAMPSHIRE**  
**SCALE: 1"=30' JULY 26, 2021**



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REV	DATE	DESCRIPTION	DR	CK

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FILE: 17851-08 DR PWH FB CK JSH CADFILE 17851-08 SITE PLANS C-5

ROUTE 102 DERRY ROAD

NASHUA ROAD

REBEL ROAD

LONDONDERRY HUDSON

**LANDSCAPE REQUIREMENTS (HUDSON)**

- INTERIOR PARKING LANDSCAPE AREA REQUIREMENTS: (275-B.C(7) OF SITE PLAN REG.'S)  
INTERIOR PARKING LOT: 10% LANDSCAPE AREA REQUIRED.  
REQUIRED: 1,490 SF (10%)  
PROVIDED: \*998 SF, (6.7%)
- REQUIRED TREES: 1 TREE PER 1,600 SF OR 1 TREE PER 5 SPACES, WHICHEVER IS GREATER.  
REQUIRED: 9 TREES  
PROVIDED: \*6 TREES
- REQUIRED SHRUBS: 1 SHRUB PER 200 SF OR 1 SHRUB PER 1.6 SPACES, WHICHEVER IS GREATER.  
REQUIRED: 74 SHRUBS  
PROVIDED: \*57 SHRUBS  
\*WAIVER REQUIRED

**LANDSCAPE REQUIREMENTS (LONDONDERRY)**

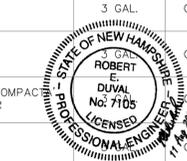
- GREEN SPACE REQUIREMENT:  
30' GREEN SPACE BUFFER ALONG ROW.  
15' GREEN SPACE BUFFER ALONG SIDE AND REAR LOT LINES.
- INTERIOR PARKING LANDSCAPE AREA REQUIREMENTS: (3.10g OF SITE PLAN REG.'S)  
PARKING LOT: 10% LANDSCAPE AREA REQUIRED  
REQUIRED: 350 SF (10%)  
PROVIDED: 397 SF (11.3%)
- INTERNAL PARKING LOT LANDSCAPING (TREES):  
1 TREE/15 PARKING SPACES.  
REQUIRED: 1 TREE  
PROVIDED: 1 TREE
- PARKING LOT PERIMETER LANDSCAPING (TREES):  
1 SHADE TREE/20' OF PARKING PERIMETER.  
REQUIRED: 2 TREES  
PROVIDED: 2 TREES
- SCREENING FROM PUBLIC RIGHT-OF-WAY:  
EXISTING AND PROPOSED DISPLAY AREAS TO SATISFY REQUIREMENT.
- ACCORDING TO THE USDA PLANT HARDINESS ZONE MAP THE ANNUAL MINIMUM TEMPERATURE ZONES FOR SOUTHERN NH ARE BETWEEN ZONE 4 (-30 TO -20 DEGREES) AND ZONE 5 (-20 TO -10 DEGREES). THE PLANT MATERIALS SHOWN ON THIS PLAN HAVE A HARDINESS ZONE TO MEET THAT OF SOUTHERN NH.
- AT TIME OF PLANTING:  
ALL TREES SHALL BE A MINIMUM OF 3" CALIPER.  
ALL ORNAMENTAL TREES SHALL BE A MINIMUM OF 2" CALIPER.  
ALL EVERGREEN TREES SHALL BE A MINIMUM OF 6" HIGH.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AND MAINTENANCE THROUGHOUT CONSTRUCTION OF PROTECTIVE TREE FENCING LOCATED 12" INCHES OFF THE THE DRIFLINE OF ALL TREES TO BE PROTECTED. PRIOR TO CONSTRUCTION THE CONTRACTOR IS REQUIRED TO HAVE ALL NO-CUT ZONES DELINEATED IN THE FIELD.
- THE CONTRACTOR/APPLICANT IS RESPONSIBLE FOR REPLACEMENT OF "ANY TREES DESIGNATED TO REMAIN, WHICH HAVE BEEN DAMAGED, KILLED OR REMOVED AS A RESULT OF CONSTRUCTION ACTIVITIES". SEE TOWN OF LONDONDERRY "LANDSCAPE DESIGN STANDARDS" SECTION 3.10.D OF THE SITE PLAN REGULATIONS.
- THE OWNER IS RESPONSIBLE FOR MAINTENANCE OF ALL LANDSCAPE AREAS ONCE CONSTRUCTION IS COMPLETED AS OUTLINED IN THE TOWN OF LONDONDERRY, "LANDSCAPE DESIGN STANDARDS" SECTION 3.10.F OF THE SITE PLAN REGULATIONS.

**LANDSCAPE LEGEND (LONDONDERRY)**

SYMBOL	QTY	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
	1	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	3 TO 3 1/2" CAL.	B&B
	2	NYSSA SYLVATICA BLACK GUM	3 TO 3 1/2" CAL.	B&B
	4	CEANOTHUS AMERICANUS NEW JERSEY TEA	3 GAL.	CONT.
	6	JUNIPERUS C. 'PFITZERIANA COMPACTA' COMPACT PFITZER JUNIPER	3 GAL.	CONT.
	8	SYRINGA PATULA 'MISS KIM' MISS KIM LILAC	3 GAL.	CONT.

**LANDSCAPE LEGEND (HUDSON)**

SYMBOL	QTY	BOTANICAL NAME COMMON NAME	SIZE	REMARKS
	3	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY RED MAPLE	3 TO 3 1/2" CAL.	B&B
	3	NYSSA SYLVATICA BLACK GUM	3 TO 3 1/2" CAL.	B&B
	21	CEANOTHUS AMERICANUS NEW JERSEY TEA	3 GAL.	CONT.
	16	ILEX GLABRA 'COMPACTA' COMPACT INKBERRY	3 GAL.	CONT.
	10	JUNIPERUS C. 'PFITZERIANA COMPACTA' COMPACT PFITZER JUNIPER	3 GAL.	CONT.
	10	SYRINGA PATULA 'MISS KIM' MISS KIM LILAC	3 GAL.	CONT.



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REV	DATE	DESCRIPTION	DR	CK

**SITE DEVELOPMENT PLANS**

TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A

**LANDSCAPE PLAN**

**BOBCAT OF NEW HAMPSHIRE**  
2 REBEL RD & 345 DERRY RD (HUDSON, NH)  
307 NASHUA RD (LONDONDERRY, NH)

OWNED BY  
**MAL-MAR, LLC**  
PREPARED FOR

**BOBCAT OF NEW HAMPSHIRE**

SCALE: 1"=30'

JULY 26, 2021



Civil Engineers  
Structural Engineers  
Traffic Engineers  
Land Surveyors  
Landscape Architects  
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17851-08 DR PWH FB  
CK JSH CADFILE 17851-08\_XR\_LANDSCAPING

C-6

**CONSTRUCTION GENERAL PERMIT**

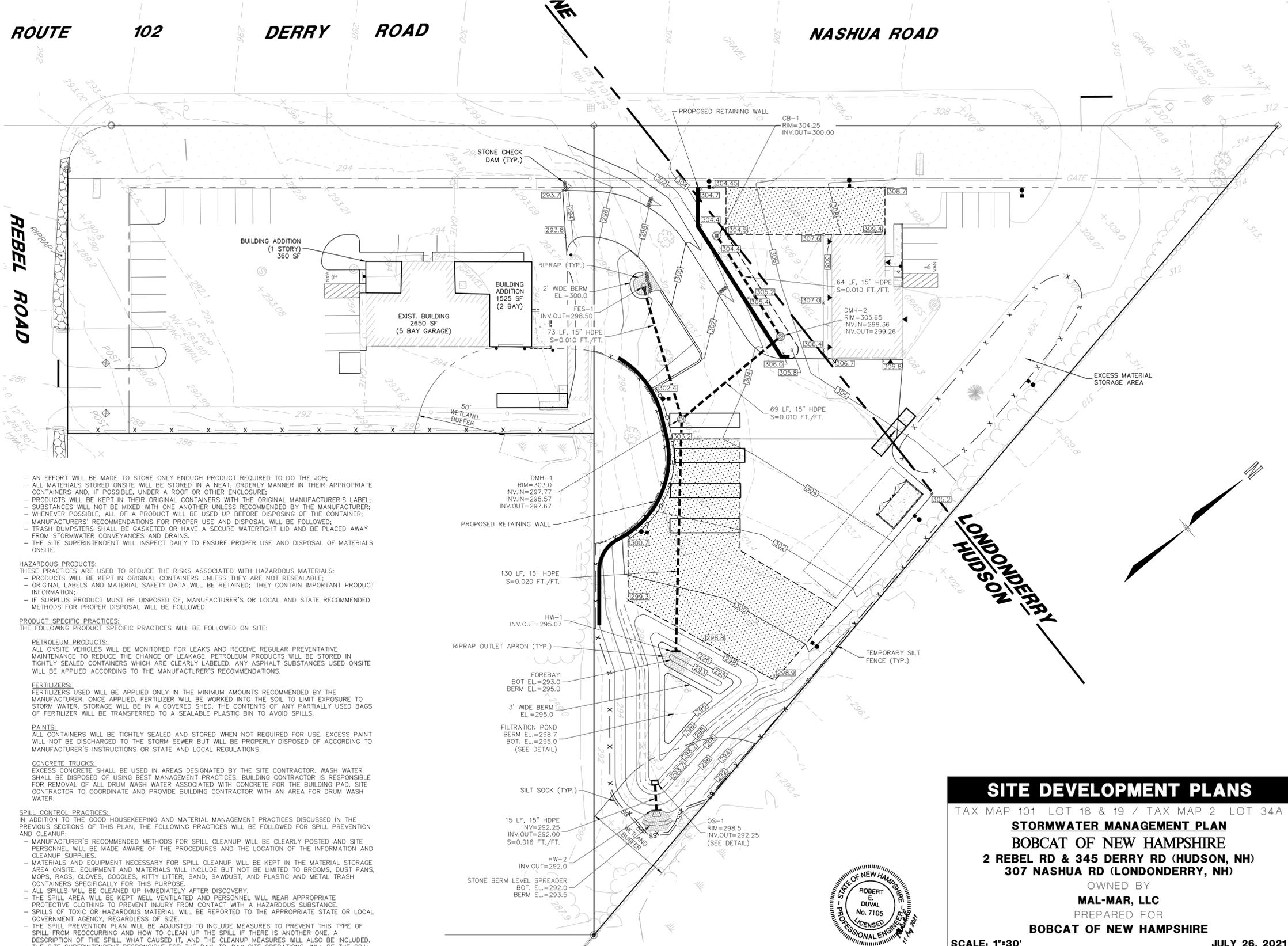
1. THE OWNER, IN CONJUNCTION WITH THE CONTRACTOR (OPERATORS), MUST OBTAIN A CONSTRUCTION GENERAL PERMIT (CGP) FOR LARGE CONSTRUCTION ACTIVITIES (FIVE OR MORE ACRES) OR SMALL CONSTRUCTION ACTIVITIES (GREATER THAN ONE ACRE BUT LESS THAN FIVE ACRES) FROM THE ENVIRONMENTAL PROTECTION AGENCY (EPA), AS PART OF THE CGP, A STORMWATER NOTICE OF INTENT (NOI) MUST BE SUBMITTED TO THE EPA AT LEAST 7 DAYS PRIOR TO COMMENCING CONSTRUCTION. THE NOI MUST BE SUBMITTED TO STORM WATER NOTICE OF INTENT (4203M), USEPA, 1200 PENNSYLVANIA AVE. NW, WASHINGTON, DC 20460.
2. THE CGP OUTLINES A SET OF PROVISIONS MANDATING THE OWNER AND CONTRACTOR TO COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER REGULATIONS, INCLUDING, BUT NOT LIMITED TO: STORM WATER POLLUTION PREVENTION PLANS (SWPPP'S), IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROLS, EQUIPMENT MAINTENANCE GUIDELINES, ETC. PLEASE CONTACT USEPA OFFICE OF WASTEWATER MANAGEMENT AT 202-564-9545 OR AT WWW.EPA.GOV/NPDES/STORMWATER FOR ADDITIONAL INFORMATION. FOR FURTHER ASSISTANCE, CONTACT ABBY SWAINE OF NEW ENGLAND'S EPA REGION 1 AT 617-918-1841.

**NOTES**

1. THIS PROJECT INCLUDES PAVING AND RECONFIGURATION OF THE PARKING LOT/ACCESS DRIVES FOR LOT 101-18 AS WELL AS ADDING OUTDOOR DISPLAY AND STORAGE AREAS. SITE WORK FOR LOT 101-19 INCLUDES THE CONSTRUCTION OF TWO BUILDING ADDITIONS WITH ASSOCIATED SITE IMPROVEMENTS AND OUTDOOR DISPLAY AREAS.
2. TOTAL SITE AREA: 2.342 AC  
TOTAL AREA OF DISTURBANCE: 1.27± AC
3. SOILS SHOWN ARE FROM THE SOIL SURVEY OF HILLSBOROUGH COUNTY, NH, EASTERN PART, PREPARED BY USDA-SOIL CONSERVATION SERVICES.  
140B - CHATFIELD-HOLLIS CANTON COMPLEX  
140C - CHATFIELD-HOLLIS CANTON COMPLEX  
CpC - CHATFIELD-HOLLIS CANTON COMPLEX  
SsB - SCIUTATE FINE SANDY LOAM
4. STORM WATER DRAINAGE SYSTEM IS SHOWN ON THE PLAN. SEE GRADING & DRAINAGE PLAN FOR RIM, INVERT, PIPE LENGTH, AND SLOPE INFORMATION.  
POST-CONSTRUCTION RUNOFF COEFFICIENT: C=0.80  
IMPERVIOUS SURFACE AREA: 1.35± AC
5. STABILIZATION PRACTICES FOR EROSION AND SEDIMENTATION CONTROLS:  
TEMPORARY STABILIZATION - TOPSOIL STOCKPILES AND DISTURBED AREAS OF THE CONSTRUCTION SITE THAT WILL NOT BE REDISTURBED FOR 14 DAYS OR MORE MUST BE STABILIZED BY THE 14TH DAY AFTER THE LAST DISTURBANCE. THE TEMPORARY SEED SHALL BE ANNUAL RYE APPLIED AT THE RATE OF 1.1 LBS PER 1,000 SF. PRIOR TO SEEDING, A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS PER ACRE OF 10-20-20 FERTILIZER SHALL BE APPLIED. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH 1.5 TONS PER ACRE OF HAY MULCH. PRIOR TO SEEDING, A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS PER ACRE OF 10-20-20 FERTILIZER SHALL BE APPLIED. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH 1.5 TONS PER ACRE OF HAY MULCH. MULCH TO BE ANCHORED IN PLACE WHERE NECESSARY.  
PERMANENT STABILIZATION - DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 3 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE PERMANENT SEED MIX SHALL BE AS SPECIFIED BY THE LANDSCAPE PLAN NOTES OR MAY OTHERWISE CONSIST OF 0.45 LBS/1,000 SF TALL FESCUE, 0.20 LBS/1,000 SF CREEPING RED FESCUE, AND 0.20 LBS/1,000 SF BIRDFOOT TREFLOIL. PRIOR TO SEEDING, A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS PER ACRE OF 10-20-20 FERTILIZER SHALL BE APPLIED. AFTER SEEDING, EACH AREA SHALL BE MULCHED WITH 1.5 TONS PER ACRE OF HAY MULCH. MULCH TO BE ANCHORED IN PLACE WHERE NECESSARY.
6. STRUCTURAL PRACTICES FOR EROSION AND SEDIMENTATION CONTROL  
SILT SOCK - WILL BE CONSTRUCTED AROUND THE PERIMETER OF THE DISTURBED AREAS AND WILL DELINEATE THE LIMITS OF WORK FOR THE PROPOSED CONSTRUCTION. THE SILT SOCK WILL BE INSTALLED BY OTHERS. POSTS SHALL BE USED WITH AT LEAST 6" OF THE POST BURIED BELOW THE GROUND SURFACE TO PREVENT THE SILT SOCK FROM FORMING GAPS NEAR THE GROUND SURFACE. RUNOFF WILL FLOW THROUGH THE OPENINGS IN THE SILT SOCK WHILE RETAINING THE SEDIMENT WITHIN THE CONSTRUCTION AREA.  
SILT FENCE - WILL BE CONSTRUCTED AROUND THE PERIMETER OF THE DISTURBED AREAS AND WILL DELINEATE THE LIMITS OF WORK FOR THE PROPOSED CONSTRUCTION. THE SILT FENCE WILL BE INSTALLED BY STRETCHING REINFORCED FILTER FABRIC BETWEEN POSTS WITH AT LEAST 8" OF THE FABRIC BURIED BELOW THE GROUND SURFACE TO PREVENT GAPS FROM FORMING NEAR THE GROUND SURFACE. RUNOFF WILL FLOW THROUGH THE OPENINGS IN THE FILTER FABRIC WHILE RETAINING THE SEDIMENT WITHIN THE CONSTRUCTION AREA.  
STABILIZED CONSTRUCTION ENTRANCE - WILL BE INSTALLED IN ACCORDANCE WITH THE DETAIL AT THE ENTRANCE TO THE CONSTRUCTION SITE TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS OFF THE SITE. THE STABILIZED ENTRANCE WILL BE 20'-WIDE AND FLARE AT THE ENTRANCE TO THE PAVED ROAD AND HAVE A DEPTH OF 12" OF STONE. THE STABILIZED ENTRANCE SHALL BE MAINTAINED UNTIL THE REMAINDER OF THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED. THE PAVED STREET ADJACENT TO THE SITE SHALL BE SWEEPED ON A WEEKLY BASIS TO REMOVE EXCESS MUD AND DIRT FROM BEING TRACKED FROM THE SITE. TRUCKS HAULING MATERIAL TO AND/OR FROM THE SITE SHALL BE COVERED WITH A TARP/AULIN.  
CATCH BASINS - WILL BE CLEANED ON AN ANNUAL BASIS TO REMOVE ALL SEDIMENTS FROM THE CATCH BASIN SUMPS.  
CATCH BASIN PROTECTION - WILL BE INSTALLED AT ALL CATCH BASINS WITHIN THE CONSTRUCTION AREA. FILTER FABRIC WILL BE INSTALLED AROUND THE GRATES OF CATCH BASINS THAT ARE LOCATED IN THE TRAVEL WAY AND STONE/FILTER FABRIC PROTECTION WILL BE INSTALLED AT THE CATCH BASINS FOUND WITHIN THE PARKING AREA AND GRASS.  
BLANKET SLOPE PROTECTION - SHALL BE INSTALLED ON ALL 2:1 SLOPES OR STEEPER ON SITE. ANCHOR THE TOP OF THE BLANKET BY ANCHORING THE BLANKET IN A 6" DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING. ROLL THE BLANKET IN THE DIRECTION OF STORM WATER FLOW. WHERE 2 OR MORE STRIPS OF BLANKET ARE REQUIRED, A MINIMUM OF 4" OF OVERLAP SHALL BE PROVIDED.  
STONE CHECK DAMS - WILL BE INSTALLED IN EXISTING AND PROPOSED GRASS SWALES TO REDUCE THE VELOCITY OF CONCENTRATED STORM WATER FLOWS AND PREVENT EROSION OF THE SWALE.
7. STORM WATER MANAGEMENT  
STORM WATER DRAINAGE FOR DEVELOPED AREAS WILL BE COLLECTED BY A PIPE AND CATCH BASIN CLOSED DRAINAGE SYSTEM. APPROXIMATELY 1.07 ACRES OF THE 2.342 ACRE SITE WILL REMAIN UNTOUCHED AND IN ITS NATURAL STATE. WHEN CONSTRUCTION IS COMPLETE THE MAJORITY OF THE SITE WILL DRAIN TO ONE FILTRATION BASIN SYSTEM FOR STORMWATER RUN OFF TREATMENT.
8. ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURE DUMPSTERS OR APPROVED ENCLOSURE AND REMOVED FROM THE SITE ON A WEEKLY BASIS. NO CONSTRUCTION WASTE SHALL BE BURIED ON SITE. PORTABLE TOILET/SANITARY WASTE FACILITIES WILL BE PROVIDED DURING CONSTRUCTION AND MAINTAINED/DISPOSED OF ON A REGULAR BASIS IN ACCORDANCE WITH TOWN AND STATE REGULATIONS.
9. THRUST BLOCK SHALL BE PROVIDED WHERE WATER LINE CHANGES DIRECTION OR TAPS INTO EXISTING WATER LINE.
10. A LIST OF CONSTRUCTION ITEMS AND OTHER PRODUCTS USED ON THIS PROJECT SHALL BE KEPT ON RECORD WITH THIS PLAN ONSITE. ALL CHEMICALS, PETROLEUM PRODUCTS AND OTHER MATERIALS USED DURING CONSTRUCTION SHALL BE STORED IN A SECURE AREA. AND PRECAUTIONS USED TO PREVENT POTENTIAL SOURCES OF CONTAMINATION OR POLLUTION. ANY SPILL OF THESE TYPES OF SUBSTANCES SHALL BE CLEANED UP AND DISPOSED OF IN A LEGAL MANNER AS SPECIFIED BY STATE REGULATIONS AND THE MANUFACTURER. ANY SPILL IN AMOUNTS EQUAL TO OR EXCEEDING REPORTABLE QUANTITY AS DEFINED BY THE EPA SHALL TAKE THE FOLLOWING STEPS:  
- NOTIFY THE NATIONAL RESPONSE CENTER IMMEDIATELY AT (888) 424-8802; IN WASHINGTON, D.C., CALL (202) 426-2675.  
- WITHIN 14 DAYS, SUBMIT A WRITTEN DESCRIPTION OF THE RELEASE TO THE EPA REGIONAL OFFICE PROVIDING THE DATE AND CIRCUMSTANCES OF THE RELEASE AND THE STEPS TO BE TAKEN TO PREVENT ANOTHER RELEASE.  
- MODIFY THE POLLUTION PREVENTION PLAN TO INCLUDE THE INFORMATION LISTED ABOVE

**GOOD HOUSEKEEPING.**  
THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

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- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB;
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE;
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL;
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER;
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED;
- TRASH DUMPSTERS SHALL BE GASKETED OR HAVE A SECURE WATER-TIGHT LID AND BE PLACED AWAY FROM STORMWATER CONVEYANCES AND DRAINS.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

- HAZARDOUS PRODUCTS:**  
THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
  - ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION;
  - IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

- PRODUCT SPECIFIC PRACTICES:**  
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ON SITE:
- PETROLEUM PRODUCTS:**  
ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

- FERTILIZERS:**  
FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

- PAINTS:**  
ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

- CONCRETE TRUCKS:**  
EXCESS CONCRETE SHALL BE USED IN AREAS DESIGNATED BY THE SITE CONTRACTOR. WASH WATER SHALL BE DISPOSED OF USING BEST MANAGEMENT PRACTICES. BUILDING CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL DRUM WASH WATER ASSOCIATED WITH CONCRETE FOR THE BUILDING PAD. SITE CONTRACTOR TO COORDINATE AND PROVIDE BUILDING CONTRACTOR WITH AN AREA FOR DRUM WASH WATER.

- SPILL CONTROL PRACTICES:**  
IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
- MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
  - MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
  - ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
  - THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
  - SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.
  - THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE.
  - DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
  - THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THEY WILL DESIGNATE AT LEAST THREE OTHER SITE PERSONNEL WHO WILL EACH RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

11. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN RECORDS OF CONSTRUCTION ACTIVITIES, INCLUDING DATES OF MAJOR GRADING ACTIVITIES, DATES WHEN CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED ON A PORTION OF THE SITE, DATES WHEN WORK IS COMPLETED ON A PORTION OF THE SITE, AND DATES WHEN STABILIZATION MEASURES ARE INITIATED ONSITE.
12. THE CONTRACTOR SHALL PERFORM INSPECTIONS OR HAVE A CONSULTING ENGINEER PERFORM INSPECTIONS EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER A STORM OF 0.5" OR GREATER. INSPECTIONS REPORTS ARE TO BE KEPT ON FILE AT THE SITE WITH THIS PLAN. MAINTENANCE OR MODIFICATION SHALL BE IMPLEMENTED AND ADDED TO THE PLAN AS RECOMMENDED BY THE QUALIFIED INSPECTOR.



REV	DATE	DESCRIPTION	DR	CK

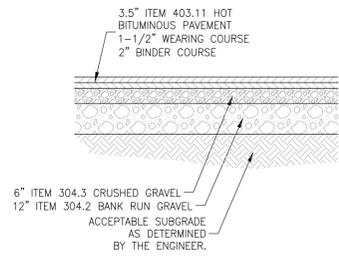


**SITE DEVELOPMENT PLANS**  
TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A  
**STORMWATER MANAGEMENT PLAN**  
**BOBCAT OF NEW HAMPSHIRE**  
**2 REBEL RD & 345 DERRY RD (HUDSON, NH)**  
**307 NASHUA RD (LONDONDERRY, NH)**  
OWNED BY  
**MAL-MAR, LLC**  
PREPARED FOR  
**BOBCAT OF NEW HAMPSHIRE**  
**SCALE: 1"=30'** **JULY 26, 2021**

**TFM** Civil Engineers, Structural Engineers, Traffic Engineers, Land Surveyors, Landscape Architects, Scientists  
48 Constitution Drive, Bedford, NH 03110, Phone (603) 472-4488, Fax (603) 472-9747, www.tfmoran.com

17851-08 DR PWH FB - -  
CK JSH CADFILE 17851-08 SITE PLANS C-7

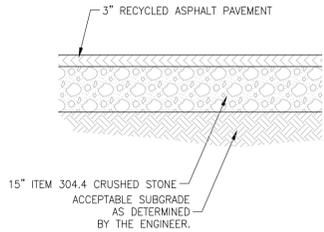




**NOTES:**  
 REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER PAVEMENT FOUNDATION MATERIAL WITHIN 2' OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL MATERIAL ACCEPTABLE TO APPROVING AGENCY. COMPACTION TO BE AT LEAST 95% OF STANDARD PROCTOR.  
 ALL PAVEMENT, BASE MATERIALS AND WORKMANSHIP TO BE IN COMPLIANCE WITH N.H.D.O.T., "STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION.

**TYPICAL PAVEMENT SECTION**

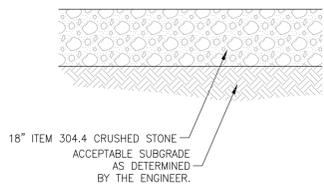
NOT TO SCALE



**NOTES:**  
 REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER PAVEMENT FOUNDATION MATERIAL WITHIN 2' OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL MATERIAL ACCEPTABLE TO APPROVING AGENCY. COMPACTION TO BE AT LEAST 95% OF STANDARD PROCTOR.  
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**RECYCLED ASPHALT PAVEMENT SECTION**

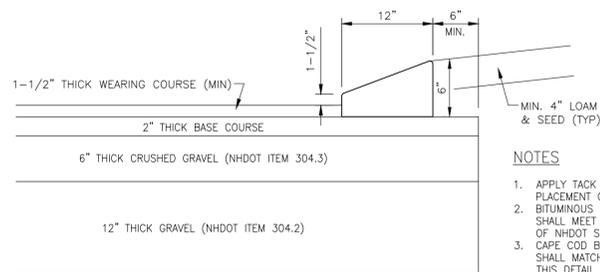
NOT TO SCALE



**NOTES:**  
 REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER PAVEMENT FOUNDATION MATERIAL WITHIN 2' OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL MATERIAL ACCEPTABLE TO APPROVING AGENCY. COMPACTION TO BE AT LEAST 95% OF STANDARD PROCTOR.  
 ALL PAVEMENT, BASE MATERIALS AND WORKMANSHIP TO BE IN COMPLIANCE WITH N.H.D.O.T., "STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION.

**CRUSHED STONE SECTION**

NOT TO SCALE

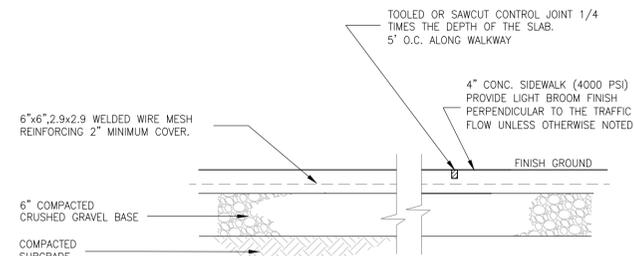


**NOTES:**  
 1. APPLY TACK COAT PRIOR TO PLACEMENT OF CURB.  
 2. BITUMINOUS CURB MATERIAL SHALL MEET THE REQUIREMENTS OF NHDOT SECTION 609.  
 3. CAPE COD BERM DIMENSIONS SHALL MATCH THOSE GIVEN IN THIS DETAIL.

**CAPE COD BERM**

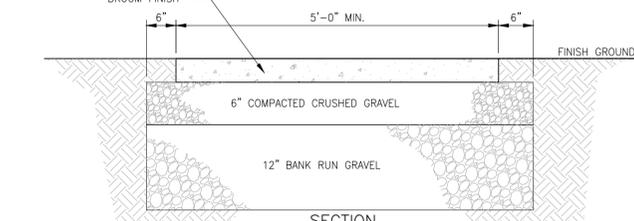
TOWN OF LONDONDERRY

NOT TO SCALE



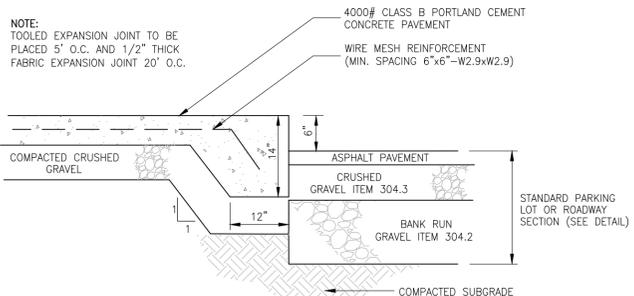
**CONCRETE SIDEWALK**

NOT TO SCALE



**CONCRETE SIDEWALK**

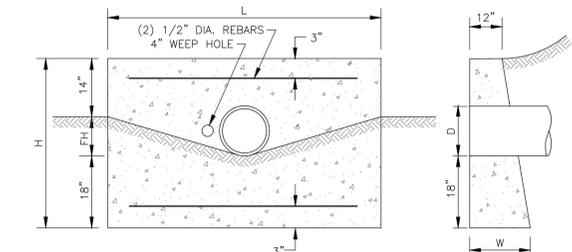
NOT TO SCALE



**CONCRETE CURB AT SIDEWALK**

NOT TO SCALE

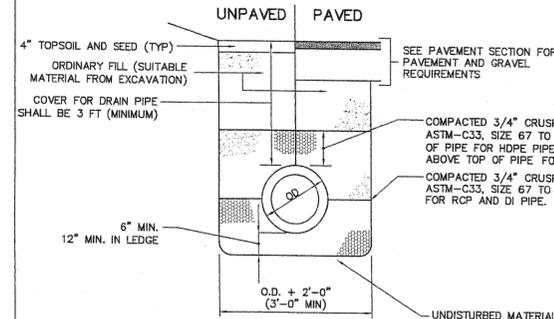
NOMINAL PIPE SIZE D	LENGTH OF BARS L	H			FH		W
		3'-6"	3'-6"	0'-10"	0'-10"	1'-10.5"	
12	3'-2"	3'-6"	3'-9"	1-1	1-1	1-11.25	
15	4'-2"	4'-6"	4-0	1-4	2-0	2-1.5	
18	5'-2"	5-6	4-6	1-10	2-3	2-4.5	
24	7'-2"	7-6	4-6	3-10	2-6	2-7.5	
30	9'-2"	9-6	5-0	2-4	2-3		
36	11'-2"	11-6	5-6	2-10	2-4.5		
42	13'-2"	13-6	6-0	3-4	2-6		
48	15'-2"	15-6	6-6	3-10	2-7.5		



**CONCRETE HEADWALL**

SINGLE PIPE SYSTEM

NOT TO SCALE



**NOTE:**  
 DRAIN PIPE SHALL BE 15" DIAMETER MIN.  
 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 PIPE TRENCH**

NOT TO SCALE

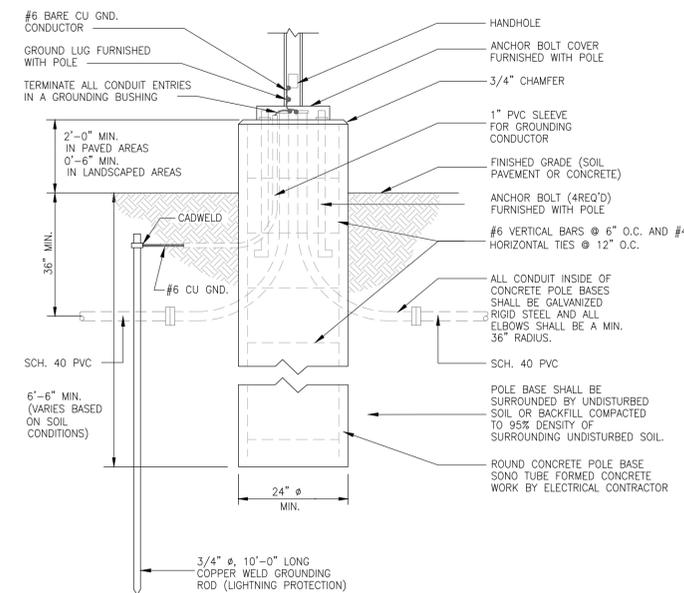
**EXHIBIT D101**



LENGTH: P-12, 12'-0"; P-14, 14'-0"; P-16, 16'-0".  
 WEIGHT PER LINEAR FOOT: 2.50 LBS. (MIN.)  
 HOLES: 3/8" DIA. 1' C-C FULL LENGTH  
 STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070-1080).  
 FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN, BAKED ON OR AIR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

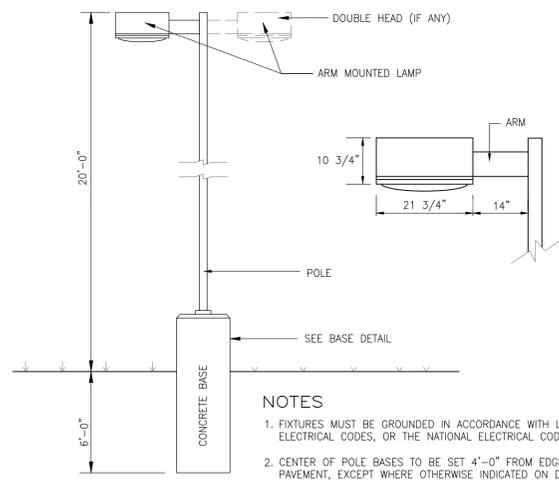
- NOTES:**
- POSTS SHALL BE PLUMB; ANY POST BENT OR OTHERWISE DAMAGED SHALL BE REMOVED AND PROPERLY REPLACED. POSTS MAY BE SET OR DRIVEN.
  - WHEN POSTS ARE SET, HOLES SHALL BE DUG TO THE PROPER DEPTH. AFTER INSERTING POSTS, THE HOLES SHALL BE BACKFILLED WITH SUITABLE MATERIAL IN LAYERS NO TO EXCEED 6" DEEP THOROUGHLY COMPACTED, CARE BEING TAKEN TO PRESERVE THE ALIGNMENT OF THE POST.
  - 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.
  - POSTS SHALL NOT BE DRIVEN WITH THE SIGN ATTACHED TO THE POST.
  - SIGNS SHALL BE ERRECTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
  - WHEN SIGN IS IN PLACE NO PART OF POST SHALL EXTEND ABOVE THE SIGN.
  - DIMENSIONS SHOWN ARE NOMINAL.
  - ALTERNATE SECTIONS MUST BE APPROVED PRIOR TO USE.

**TRAFFIC SIGN POST IN GRADE**



**LIGHT POLE BASE**

NOT TO SCALE



- NOTES:**
- FIXTURES MUST BE GROUNDED IN ACCORDANCE WITH LOCAL ELECTRICAL CODES, OR THE NATIONAL ELECTRICAL CODE.
  - CENTER OF POLE BASES TO BE SET 4'-0" FROM EDGE OF PAVEMENT, EXCEPT WHERE OTHERWISE INDICATED ON DRAWING.
  - LIGHTING SHOWN HERE IS AREA LIGHTING, SUPPLEMENTAL BUILDING-MOUNTED FIXTURES AT DOORWAYS, ETC. MAY BE REQUIRED.
  - SEE LIGHTING PLAN FOR FIXTURE SCHEDULE.

**LIGHT POLE**

NOT TO SCALE

TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A

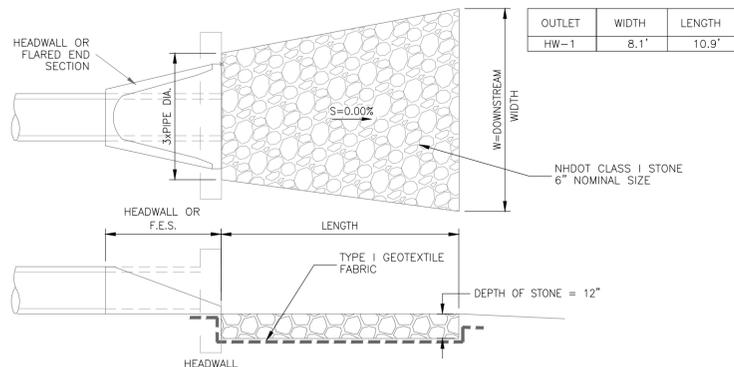
**DETAIL SHEET**  
**BOBCAT OF NEW HAMPSHIRE**  
 2 REBEL RD & 345 DERRY RD (HUDSON, NH)  
 307 NASHUA RD (LONDONDERRY, NH)  
 OWNED BY  
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 SCALE: AS SHOWN JULY 26, 2021

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REV	DATE	DESCRIPTION	DR	CK

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 CK JSH CADFILE 17851-08 DETAILS C-9

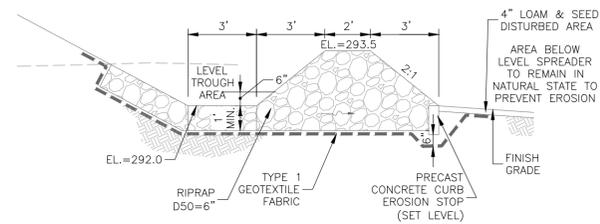


**CONSTRUCTION SPECIFICATIONS:**

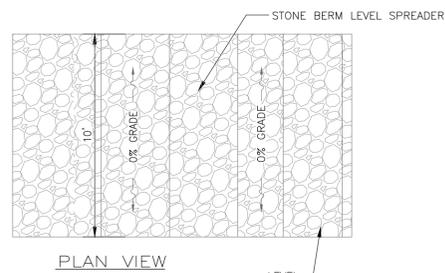
1. THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIP-RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
2. THE ROCK USED FOR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP-RAP. DAMAGED 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.

**OUTLET APRON**

NOT TO SCALE



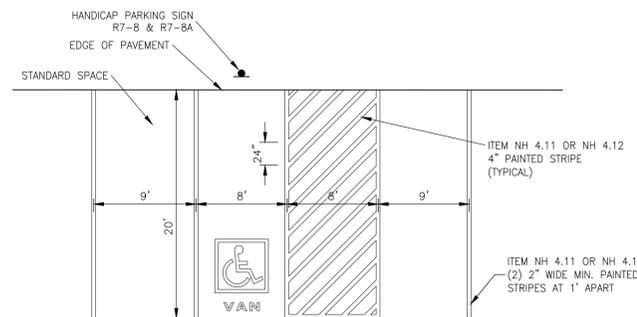
**CROSS SECTION**



**PLAN VIEW**

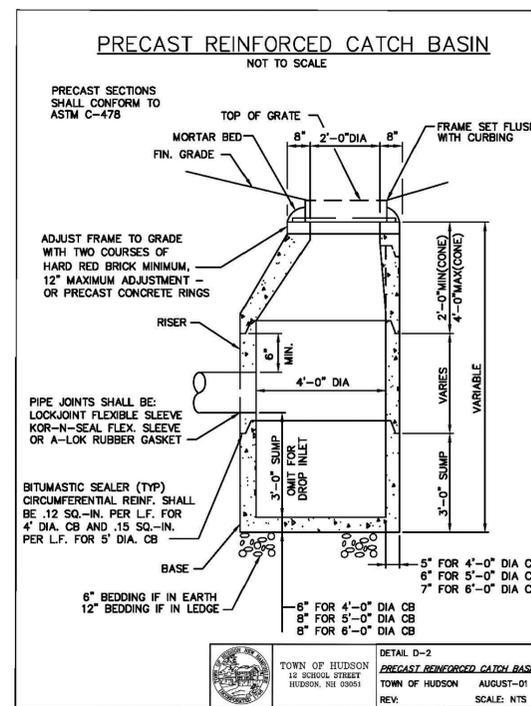
**RIPRAP LEVEL SPREADER**

NOT TO SCALE



**PARKING STRIPING DETAIL**

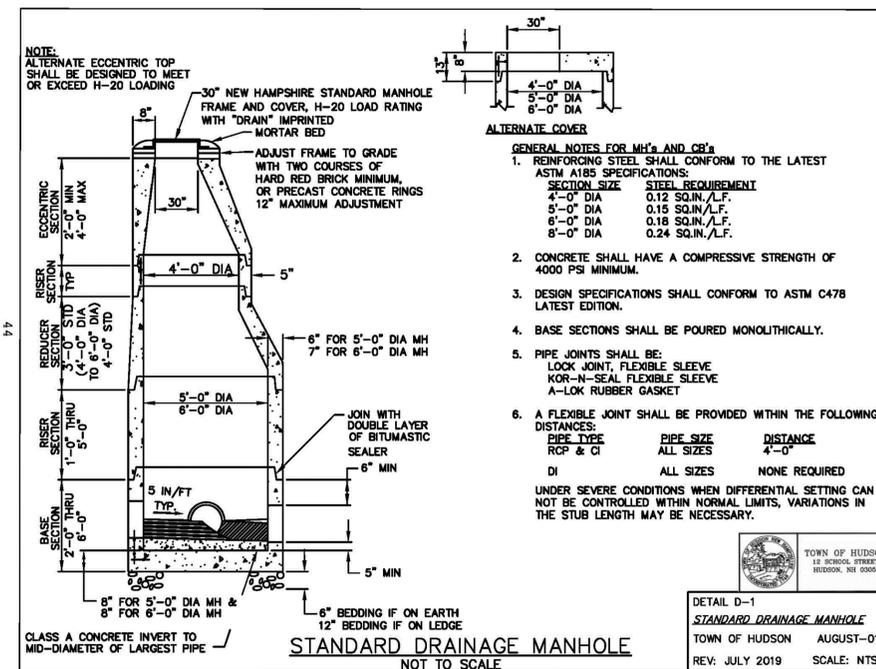
NOT TO SCALE



**PRECAST REINFORCED CATCH BASIN**

NOT TO SCALE

DETAIL D-2  
PRECAST REINFORCED CATCH BASIN  
TOWN OF HUDSON  
AUGUST-01  
SCALE: NTS



NOTE: ALTERNATE ECCENTRIC TOP SHALL BE DESIGNED TO MEET OR EXCEED H-20 LOADING

**ALTERNATE COVER**

SECTION SIZE	STEEL REQUIREMENT
4'-0" DIA	0.12 SQ.IN./L.F.
5'-0" DIA	0.15 SQ.IN./L.F.
6'-0" DIA	0.18 SQ.IN./L.F.
8'-0" DIA	0.24 SQ.IN./L.F.

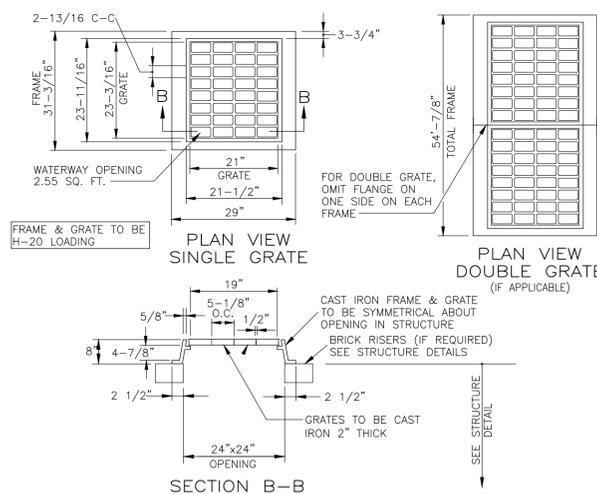
1. REINFORCING STEEL SHALL CONFORM TO THE LATEST ASTM A185 SPECIFICATIONS.
2. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4000 PSI MINIMUM.
3. DESIGN SPECIFICATIONS SHALL CONFORM TO ASTM C478 LATEST EDITION.
4. BASE SECTIONS SHALL BE POURED MONOLITHICALLY.
5. PIPE JOINTS SHALL BE: LOCK JOINT, FLEXIBLE SLEEVE, KOR-N-SEAL FLEXIBLE SLEEVE, A-LOK RUBBER GASKET
6. A FLEXIBLE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES:  

PIPE TYPE	PIPE SIZE	DISTANCE
RCP & CI	ALL SIZES	4'-0"
DI	ALL SIZES	NONE REQUIRED

**STANDARD DRAINAGE MANHOLE**

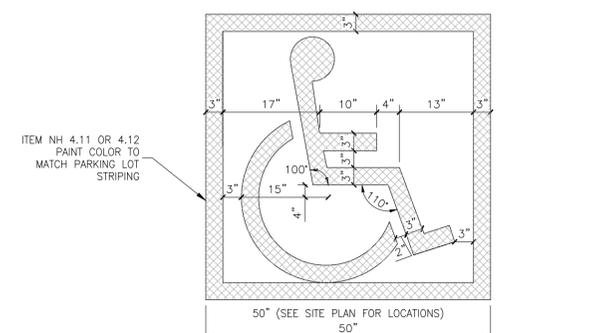
NOT TO SCALE

DETAIL D-1  
STANDARD DRAINAGE MANHOLE  
TOWN OF HUDSON  
AUGUST-01  
REV: JULY 2019  
SCALE: NTS



**FRAME AND GRATE**

NHDOT TYPE B ALT 1 NOT TO SCALE

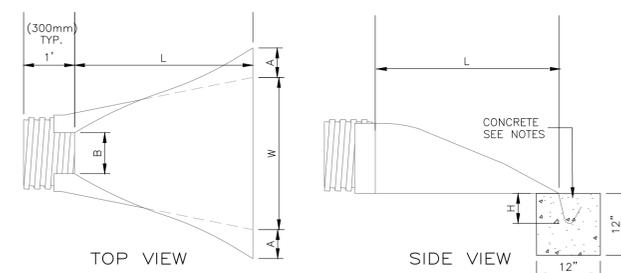


**PAINTED HANDICAP SYMBOL**

NOT TO SCALE

**CONSTRUCTION SPECIFICATIONS**

- PREPARE BEDDING:**  
BACKFILL MATERIAL AROUND THE END SECTION MAY BE THE SAME AS THE MATERIAL AROUND THE PIPE. PLACE A FEW INCHES OF BACKFILL MATERIAL IN THE TRENCH OR DITCH WHERE THE END SECTION WILL BE PLACED. COMPACT AND CONTOUR THIS BEDDING MATERIAL TO GENERALLY MATCH THE END SECTION. EXCAVATE AN AREA IN THE BEDDING WHERE THE TOE TROUGH WILL SEAT SO THAT THE END SECTION WILL BE LEVEL WITH THE BOTTOM OF THE TRENCH OR DITCH IN THE FINISHED INSTALLATION.
- PLACE END SECTION OF PIPE:**  
OPEN THE END SECTION COLLAR AND SEAT IT OVER THE TWO PIPE CONNECTIONS. ONCE THE END SECTION IS POSITIONED, CHECK TO MAKE SURE THAT THE INVERT OF THE END SECTION MATCHES THE INVERT OF THE PIPE AND THAT THE END SECTION IS LEVEL WITH THE TRENCH OR DITCH BOTTOM.
- SECURE THE END SECTION:**  
SLIP THE STAINLESS STEEL ROD THROUGH THE PRE-DRILLED HOLES AT THE TOP OF THE COLLAR. THE ROD SHOULD BE BETWEEN THE CROWNS OF THE TWO PIPE CONNECTIONS. PLACE A WASHER ON EITHER END OF THE ROD. PLACE A NUT ON EITHER END OF THE ROD AND TIGHTEN WITH A WRENCH.
- SECURE THE TOE TROUGH:**  
TO PREVENT WASHOUTS FROM HIGH VELOCITY FLOW, IT IS RECOMMENDED THAT THE TROUGH BE SECURED WITH CONCRETE. POUR CONCRETE IN THE TROUGH UP TO THE LEVEL OF THE TRENCH OR DITCH BOTTOM AND ALONG THE ENTIRE LENGTH OF THE TROUGH.
- FINISH BACKFILL:**  
SHOVEL BACKFILL AROUND THE END SECTION IN 6 TO 9 INCH LAYERS EQUALLY ON BOTH SIDES, KNIFING IT TO ELIMINATE VOIDS. TAMP WITH A SMALL-FACED COMPACTOR OR OTHER EQUIPMENT SUITABLE FOR SMALL AREAS. CONTINUE PLACING, KNIFING, AND COMPACTING BACKFILL LAYERS TO THE TOP OF THE END SECTION TO SEAT IT WELL INTO THE BACKFILL.



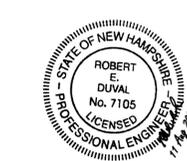
PIPE DIAMETER	PART NO.	DIMENSIONS, INCHES (mm)				
		A, ±1 (25)	B MAX	H, ±1 (25)	L, ±1/2 (13)	W, ±2 (50)
12", 15" (300,375)	1210 NP	6.5 (165)	10 (254)	6.5 (165)	25 (635)	29 (736)
18" (450)	1810 NP	7.5 (190)	15 (380)	6.5 (165)	32 (812)	35 (890)
24" (600)	2410 NP	7.5 (190)	18 (450)	6.5 (165)	36 (900)	45 (1140)
30" (750)	3010 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)
36" (900)	3610 NP	10.5 (266)	NA	7.0 (178)	53 (1346)	68 (1725)

**FLARED END SECTION**

HIGH DENSITY POLYETHYLENE (HDPE)

NOT TO SCALE

TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A  
**DETAIL SHEET**  
**BOBCAT OF NEW HAMPSHIRE**  
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REV	DATE	DESCRIPTION	DR	CK

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 CK JSH CADFILE 17851-08 DETAILS C-10

TFM  
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 Structural Engineers  
 Traffic Engineers  
 Land Surveyors  
 Landscape Architects  
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# BIORETENTION AREA CONSTRUCTION

CLEAR AND GRUB THE AREA WHERE THE BIORETENTION AREAS ARE TO BE LOCATED. STOCKPILE LOAM FOR REUSE ON SLOPES.

GRADE BIORETENTION AREAS ACCORDING TO PLAN AND DETAILS. SIDE SLOPES SHALL HAVE 4" LOAM AND SEED. BOTTOM OF BIORETENTION AREAS TO BE CONSTRUCTED WITH MULCH, MANUFACTURED SOIL, PEA STONE AND CRUSHED STONE (SEE BIORETENTION AREA DETAIL). SPECIFIC PLANTINGS SHALL BE FIELD LOCATED BY LANDSCAPE ARCHITECT AT TIME OF INSTALLATION.

BIORETENTION SOIL MIXTURE SHALL BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER SIMILAR OBJECTS LARGER THAN TWO INCHES EXCLUDING MULCH. NO OTHER MATERIALS OR SUBSTANCES SHALL BE MIXED OR DUMPED WITHIN THE BIORETENTION AREA THAT MAY BE HARMFUL TO PLANT GROWTH, OR PROVIDE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATION.

TOPSOIL/LOAM SHALL CONSIST OF LOOSE FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE FROM STONES, LUMPS, STUMPS, OR SIMILAR OBJECTS LARGER THAN ONE INCH (1") IN GREATEST DIAMETER, SUBSOIL, ROOTS, AND WEEDS. THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 7.2. LOAM SHALL CONTAIN A MINIMUM OF FOUR PERCENT (4%) AND A MAXIMUM OF FIVE AND A HALF PERCENT (5.5%) ORGANIC MATTER AS DETERMINED BY WEIGHT. NOT MORE THAN TWENTY-FIVE PERCENT (25%) SHALL PASS A NO. 200 SIEVE. IN NO INSTANCE SHALL MORE THAN 20% OF THAT MATERIAL PASSING THE #4 SIEVE CONSIST OF CLAY SIZE PARTICLES. THE RATIO OF THE PARTICLE SIZE FOR 80% PASSING (D80) TO THE PARTICLE SIZE FOR 30% PASSING (D30) SHALL BE 6.0 OR LESS (D80/D30 ≤ 6.0). SATURATED HYDRAULIC CONDUCTIVITY OF TOPSOIL/LOAM SHALL BE BETWEEN 3 INCHES/HOUR AND 10 INCHES/HOUR ACCORDING TO ASTM D5856-95 WHEN COMPACTED TO A MINIMUM OF 88% STANDARD PROCTOR, ASTM 698.

**FILTER MEDIA**  
 FILTER MEDIA SHALL CONFORM TO THE FOLLOWING:  
 20% TO 30% BY VOLUME OF MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH THAT HAS NO MORE THAN 5% FINES PASSING THE NUMBER 200 SIEVE, WITH 70 TO 80% BY VOLUME LOAMY COARSE SAND USED IN THE MIXTURE MEETING THE FOLLOWING SIEVE ANALYSIS SPECIFICATION:  
 FROM 85 TO 100 PERCENT BY WEIGHT SHALL PASS THE NUMBER 10 SIEVE;  
 FROM 70 TO 100 PERCENT BY WEIGHT SHALL PASS THE NUMBER 20 SIEVE;  
 FROM 15 TO 40 PERCENT BY WEIGHT SHALL PASS THE NUMBER 60 SIEVE; AND  
 FROM 8 TO 15 PERCENT BY WEIGHT SHALL PASS THE NUMBER 200 SIEVE;

SEEDING FOR BIORETENTION AREA SIDE SLOPES SHALL HAVE A MINIMUM OF 4" LOAM MIXTURE INSTALLED WITH TYPICAL LAWN MIX (MIN. 200 LBS/ACRE):  
 33% CREEPING RED FESCUE (MIN. 66 LBS/ACRE)  
 42% PERENNIAL RYEGRASS (MIN. 84 LBS/ACRE)  
 21% KENTUCKY BLUEGRASS (MIN. 42 LBS/ACRE)  
 4% REDTOP (MIN. 8 LBS/ACRE)

SEEDING FOR BIORETENTION AREA BASIN SHALL BE NEW ENGLAND WETLAND PLANTS, INC. NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES (MIN. 35 LBS/ACRE).

THE DRAINAGE LAYER MATERIAL SHALL BE PLACED WITH ONLY NOMINAL COMPACTION APPLIED BY A DOZER OR GRADER. FORMAL COMPACTION USING A VIBRATORY STEEL DRUM ROLLER SHALL NOT BE USED AS DENSIFICATION WILL REDUCE THE PERMEABILITY AND ABILITY FOR THE MANUFACTURED SOIL TO PROPERLY DRAIN. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT EQUIPMENT & VEHICLE TRAFFIC FROM DRIVING IN THE AREA OF THE PROPOSED BIORETENTION AREA DURING CONSTRUCTION. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT SMEARING OF THE SUBGRADE DURING CONSTRUCTION.

# BIORETENTION AREA INSPECTION & MAINTENANCE

INSPECTION & MAINTENANCE SCHEDULE TO BEGIN AFTER CONSTRUCTION SITE IS STABILIZED AND FLOW DIRECTED TO BASIN.

### MAINTENANCE REQUIREMENTS

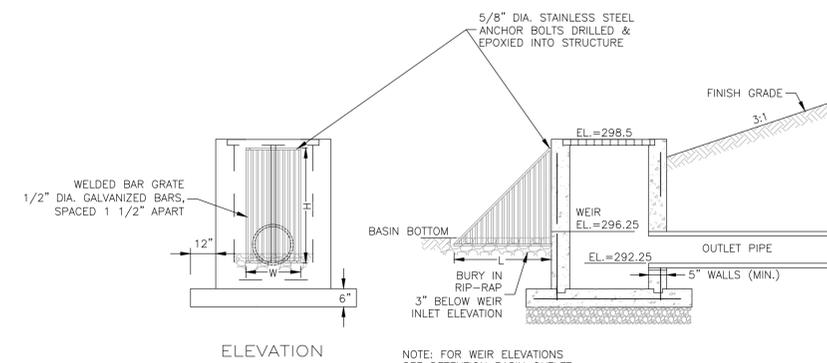
- ONCE ANNUALLY, EACH BIO-RETENTION SYSTEM SHALL BE INSPECTED BY THE DESIGN ENGINEER OR OTHER QUALIFIED PARTY. THE RESULTS OF THE INSPECTION SHALL BE PROVIDED TO DEPARTMENT OF PUBLIC WORKS.
- SYSTEMS SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION.
- PRETREATMENT MEASURES SHOULD BE INSPECTED AT LEAST TWICE ANNUALLY, AND CLEANED OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY.
- TRASH AND DEBRIS SHOULD BE REMOVED AT EACH INSPECTION. ALL SEDIMENT AND TRASH SHOULD BE HANDLED PROPERLY AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS.
- 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.
- 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.

VEGETATION - SHALL BE INSPECTED AND MAINTAINED IN A HEALTHY CONDITION BY REMOVING/REPLACING DEAD OR DISEASED VEGETATION AND REMOVING INVASIVE SPECIES. THE VEGETATED AREAS SHALL BE PROTECTED FROM DAMAGE BY TRAFFIC AND DENSE WEED GROWTH. VEGETATION MAINTENANCE A MINIMUM OF 2 TONS PER ACRE OF AGRICULTURAL LIMESTONE AND 500 LBS. PER ACRE OF 10-20-20 FERTILIZER SHALL BE APPLIED.

BOTTOM OF BASIN - BOTTOM OF BASIN SHALL BE INSPECTED FOR EROSION, SEDIMENT ACCUMULATION, TRASH & DEBRIS. REPAIR ANY ERODED AREA OF THE BIORETENTION AREA WITH APPROPRIATE GRASS COVER AFTER REPLACING ANY LOST FILL MATERIAL AND LOAM. REMOVED SEDIMENT, TRASH & DEBRIS SHALL BE REMOVED AND DISPOSED OF PROPERLY.

INLET/OUTLET - CONDITIONS OF PIPES/RIPRAP SHALL BE NOTED AND REPAIRS MADE IF NEEDED. ACCUMULATED SEDIMENT & DEBRIS SHALL BE REMOVED AND DISPOSED OF PROPERLY. IF EROSION HAS OCCURRED, THEN MEASURES SHALL BE TAKEN TO STABILIZE AND PROTECT THE AREAS.

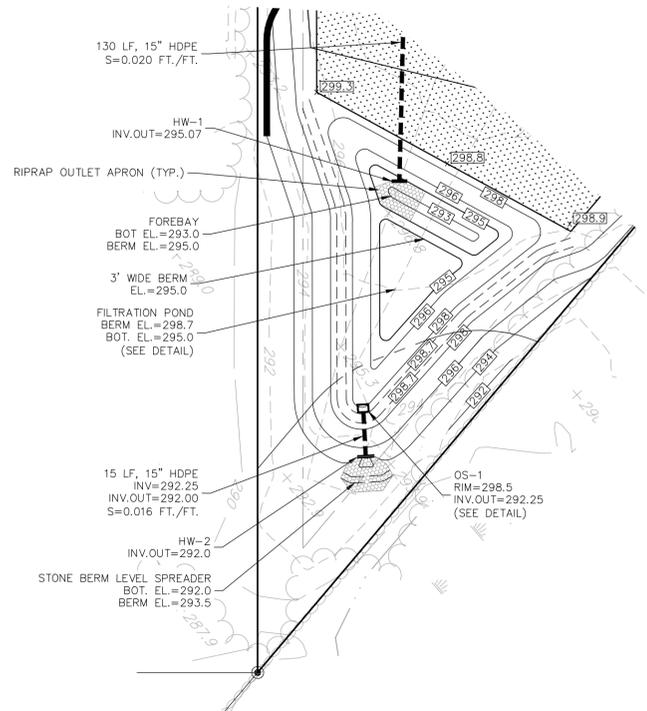
TRASH RACK LOCATION	WIDTH (W)	HEIGHT (H)	LENGTH (L)
FILTRATION POND #1	2'	2.5'	2



# FABRICATED TRASH RACK

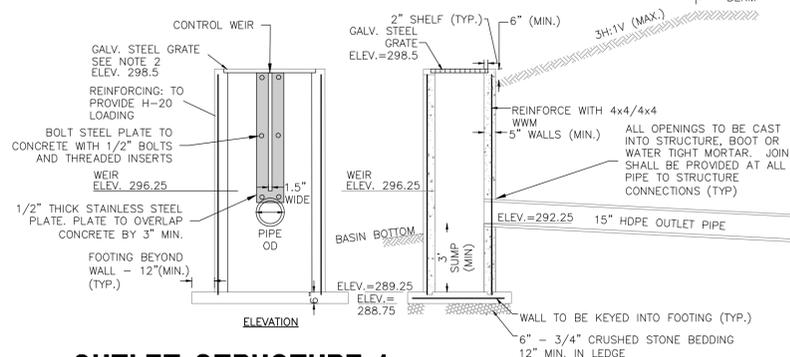
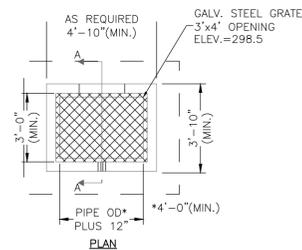
AT OUTLET STRUCTURE

NOT TO SCALE



# FILTRATION BASIN #1

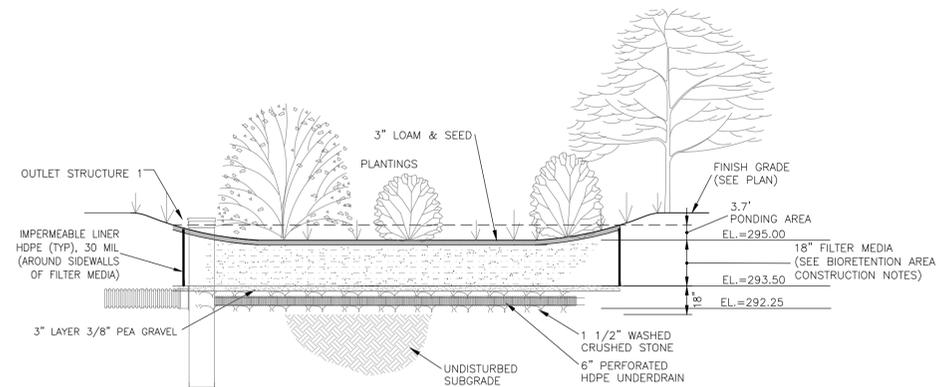
1"=30'



# OUTLET STRUCTURE 1

### NOTES:

- ALL CEMENT CONCRETE TO BE 4000 PSI (NHDOT - CLASS AA) WITH AIR ENTRAINMENT.
- GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE W/ 1/2" SS BOLTS AND THREADED INSERTS.
- ALL OPENINGS CAST AS REQUIRED. MIN. CONCRETE WEIR WIDTH TO BE 2 INCHES.
- PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.
- CONTROL WEIR SHALL BE SIZED TO MITIGATE DESIGN STORM AS REQUIRED BY REGULATIONS AND IN ACCORDANCE WITH THE APPROVED DRAINAGE CALCULATIONS. STAINLESS STEEL PLATE SHALL BE USED FOR CONTROL WEIR LESS THAN 2 INCHES WIDE.
- ALL STAINLESS STEEL SHALL BE GRADE 316.
- MINIMUM EMBANKMENT ELEVATIONS TO BE 12" ABOVE 50-YEAR STORM ELEVATION.
- PROVIDE GALVANIZED STEEL TRASH RACK TO COVER VERTICAL WEIR. BOLT TO STRUCTURE W/ STAINLESS STEEL BOLTS.

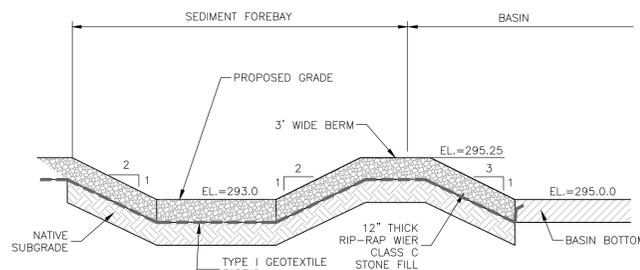


### BIORETENTION NOTES

- DO NOT PLACE THE BIORETENTION SYSTEM INTO SERVICE UNTIL THE BMP HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO THE BIORETENTION AREA DURING ANY STAGE OF CONSTRUCTION.
- 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.

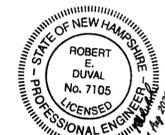
# BIORETENTION AREA SECTION

NOT TO SCALE



# SEDIMENT FOREBAY

NOT TO SCALE



TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A

### DETAIL SHEET

**BOBCAT OF NEW HAMPSHIRE**  
 2 REBEL RD & 345 DERRY RD (HUDSON, NH)  
 307 NASHUA RD (LONDONDERRY, NH)

OWNED BY

**MAL-MAR, LLC**

PREPARED FOR

**BOBCAT OF NEW HAMPSHIRE**

SCALE: AS SHOWN

JULY 26, 2021

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Civil Engineers  
 Structural Engineers  
 Traffic Engineers  
 Land Surveyors  
 Landscape Architects  
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REV	DATE	DESCRIPTION	DR	CK

17851-08	DR	PWH	FB	-	-	-	-
	CK	JSH	CADFILE	17851-08 DETAILS			

C-11

## LANDSCAPE NOTES

### SITE AND SOIL PREPARATION

- WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR LEDGE, NOTIFY LANDSCAPE ARCHITECT/ENGINEER BEFORE PLANTING.
- ALL DISTURBED AREAS & PLANTING AREAS, INCLUDING AREAS TO BE SODDED, SHALL RECEIVE THE FOLLOWING SOIL PREPARATION PRIOR TO PLANTING: A MINIMUM OF 6 INCHES OF LIGHTLY COMPACTED TOPSOIL SHALL BE INSTALLED OVER THE SUBSOIL IF TOPSOIL HAS BEEN REMOVED OR IS NOT PRESENT.
- LOAM SHALL CONSIST OF LOOSE FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE FROM STONES, LUMPS, STUMPS, OR SIMILAR OBJECTS LARGER THAN TWO INCHES (2") IN GREATEST DIAMETER, SUBSOIL, ROOTS, AND WEEDS. THE MINIMUM AND MAXIMUM PH VALUE SHALL BE FROM 5.5 TO 7.0. LOAM SHALL CONTAIN A MINIMUM OF TWO PERCENT (2%) AND A MAXIMUM OF FIVE PERCENT (5%) ORGANIC MATTER AS DETERMINED BY LOSS BY IGNITION. SOIL TEXTURE SHALL BE SANDY CLAY LOAM OR SANDY LOAM WITH CLAY CONTENT BETWEEN 15 AND 25%, AND A COMBINED CLAY/SILT CONTENT OF NO MORE THAN 55%. NOT MORE THAN SIXTY-FIVE PERCENT (65%) SHALL PASS A NO. 200 SIEVE AS DETERMINED BY THE WASH TEST IN ACCORDANCE WITH ASTM D1140. IN NO INSTANCE SHALL MORE THAN 20% OF THAT MATERIAL PASSING THE #4 SIEVE CONSIST OF CLAY SIZE PARTICLES.
- NATURAL TOPSOIL NOT CONFORMING TO THE PARAGRAPH ABOVE OR CONTAINING EXCESSIVE AMOUNTS OF CLAY OR SAND SHALL BE TREATED BY THE CONTRACTOR TO MEET THOSE REQUIREMENTS.
- SUBMIT TEST RESULTS OBTAINED FROM SOURCE TO ENGINEER/LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL, PRIOR TO SPREADING OPERATIONS.
- APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT TO USE THE TOPSOIL WILL DEPEND UPON THE RESULTS OF THE SOIL TESTS.
- THE BURDEN OF PROOF OF SOIL AMENDMENT INSTALLATION RESTS WITH THE CONTRACTOR. SOIL TESTS MAY BE REQUIRED AT THE CONTRACTOR'S EXPENSE IN ORDER TO CONFIRM AMENDMENT INSTALLATION.

### SEEDING

- ROUGH GRADING SHALL BE COMPLETED PRIOR TO THE START OF PLANTING IN ANY GIVEN AREA OF THE PROJECT SITE.
- SEEDING SHALL BE DONE BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 15, EXCEPT FOR RESEEDING OF BARE SPOTS AND MAINTENANCE. ALL DISTURBED AREAS NOT COVERED BY BUILDINGS, PAVING OR AREAS THAT HAVE NOT BEEN OTHERWISE DEVELOPED SHALL BE SEEDING OR SODDED. SLOPES GREATER THAN 3:1 SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET. AFTER OCTOBER 15 DISTURBED SOILS SHALL BE PROTECTED IN ACCORDANCE WITH THE WINTER CONSTRUCTION NOTES.

ACCEPTABLE SEED MIXES ARE AS FOLLOWS:

PARK SEED MIX (NHDOT TYPE 44) MIN. 135 LBS/ACRE:  
 33% CREEPING RED FESCUE (MIN. 45 LBS/ACRE)  
 42% PERENNIAL RYEGRASS (MIN. 55 LBS/ACRE)  
 21% KENTUCKY BLUEGRASS (MIN. 30 LBS/ACRE)  
 4% REDTOP (MIN. 5 LBS/ACRE)

TEMPORARY LAWN MIX (MIN. 47 LBS/ACRE)  
 100% ANNUAL RYE

SLOPE SEED (NHDOT TYPE 44) MIX 3:1 OR GREATER SLOPES (MIN. 90 LBS/ACRE):  
 44% CREEPING RED FESCUE (MIN. 40 LBS/ACRE)  
 38% PERENNIAL RYEGRASS (MIN. 35 LBS/ACRE)  
 6% REDTOP (MIN. 5 LBS/ACRE)  
 6% ALSIKE CLOVER (MIN. 5 LBS/ACRE)  
 6% BIRDSFOOT TREFLOIL (MIN. 5 LBS/ACRE)

### PLANTING

- EXCAVATE PITS, PLANTERS, BEDS AND TRENCHES WITH VERTICAL SIDES AND WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO PROVIDE PROPER DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION.
- ANY LEDGE OR RUBBLE MATERIAL SHALL BE FRACTURED TO A DEPTH OF 3 FEET AND EXCAVATED TO A DEPTH OF 30 INCHES FOR TREE POCKETS AND 18 INCHES FOR SHRUB BEDS. THIS PROCEDURE SHALL BE HANDLED BY THE SITE CONTRACTOR. SITE TOPSOIL SHALL BE DEPOSITED IN ALL EXCAVATED POCKETS.
- DISPOSE OF SUBSOIL REMOVED FROM PLANTING EXCAVATIONS. DO NOT MIX WITH PLANTING SOIL OR USE AS BACKFILL.
- FILL EXCAVATIONS FOR TREES AND SHRUBS WITH WATER AND ALLOW TO PERCOLATE OUT BEFORE PLANTING.
- DISH TOP OF BACKFILL TO ALLOW FOR MULCH - PLANT SAUCERS SHALL BE AS SHOWN ON DETAIL SHEETS; 6" DIAMETER FOR ALL DECIDUOUS TREES, AND FOR EVERGREEN TREES A RADIUS 2" BEYOND THE OUTER MOST BRANCHES.
- MULCH TREES, SHRUBS, PLANTERS AND BEDS. PROVIDE NOT LESS THAN 3" THICKNESS OF BARK MULCH, 3/8"-2" OF WIDTH, AND WORK INTO TOP OF BACKFILL. FINISH LEVEL WITH ADJACENT FINISH GRADES AS DIRECTED IN THE FIELD.
- TREEGATOR WATERING SYSTEM OR APPROVED EQUAL SHALL BE INSTALLED FOR ALL DECIDUOUS TREES AT TIME OF PLANTING AND REMOVED BEFORE FROST. WATERING RATE TO BE APPLIED PER MANUFACTURER'S SPECIFICATIONS.
- THE CONTRACTOR SHALL REQUEST A FINAL OBSERVATION BY THE OWNER'S REPRESENTATIVE UPON COMPLETION OF INSTALLATION.

## LANDSCAPE MAINTENANCE

### LAWN

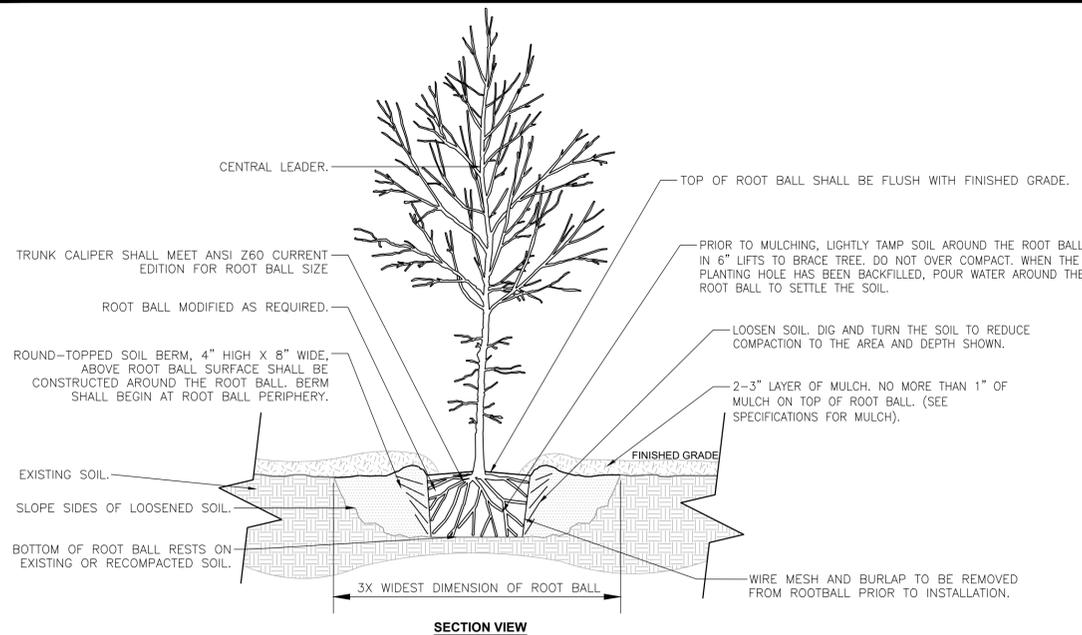
- BEGIN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE LAWN IS ESTABLISHED, BUT NOT LESS THAN THE FOLLOWING PERIODS:
  - SEEDED LAWNS: 60 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.
  - SODDED LAWNS: 30 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.
  - PLUGGED LAWNS: 30 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.
  - SPRIGGED LAWNS: 30 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.
- MAINTAIN AND ESTABLISH LAWN BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING, REPLANTING, AND OTHER OPERATIONS. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH TO PRODUCE A UNIFORMLY SMOOTH LAWN.
  - IN AREAS WHERE MULCH HAS BEEN DISTURBED BY WIND OR MAINTENANCE OPERATIONS, ADD NEW MULCH. ANCHOR AS REQUIRED TO PREVENT DISPLACEMENT.
- WATERING: PROVIDE AND MAINTAIN TEMPORARY PIPING, HOSES, AND LAWN-WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND KEEP LAWN UNIFORMLY MOIST TO A DEPTH OF FOUR INCHES (100 mm).
  - SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
  - WATER LAWN AT A MINIMUM RATE OF ONE INCH (25 mm) PER WEEK.
- MOW LAWN AS SOON AS TOP GROWTH IS TALL ENOUGH TO CUT. REPEAT MOWING TO MAINTAIN SPECIFIC HEIGHT WITHOUT CUTTING MORE THAN 40 PERCENT OF GRASS HEIGHT. REMOVE NO MORE THAN 40 PERCENT OF GRASS-LEAF GROWTH IN INITIAL OR SUBSEQUENT MOWINGS. DO NOT DELAY MOWING UNTIL GRASS BLADES BEND OVER AND BECOME MATTED. DO NOT MOW WHEN GRASS IS WET. SCHEDULE INITIAL AND SUBSEQUENT MOWINGS TO MAINTAIN THE FOLLOWING GRASS HEIGHT.
  - MOW GRASS TO 1/2 INCH (13 mm) HIGH OR LESS.
  - MOW GRASS 1/2 TO 1 INCH (13 TO 25 mm) HIGH OR LESS.
  - MOW GRASS 1 TO 2 INCHES (25 TO 50 mm) HIGH OR LESS.
  - MOW GRASS 1-1/2 TO 2 INCHES (38 TO 50 mm) HIGH OR LESS.
  - MOW GRASS 2 TO 3 INCHES (50 TO 75 mm) HIGH OR LESS.
- LAWN POSTFERTILIZATION: APPLY FERTILIZER AFTER INITIAL MOWING AND WHEN GRASS IS DRY.
  - USE FERTILIZER THAT WILL PROVIDE ACTUAL NITROGEN OF AT LEAST 1 lb/1,000 SF (0.45 kg/92.9 SM) TO LAWN AREA.

### MEADOW

- BEGIN MAINTENANCE IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE MEADOW IS ESTABLISHED, BUT FOR NOT LESS THAN 40 DAYS FROM DATE OF SUBSTANTIAL COMPLETION.
- MAINTAIN AND ESTABLISH MEADOW BY WATERING, WEEDING, MOWING, TRIMMING, REPLANTING, AND OTHER OPERATIONS. ROLL, REGRADE, AND REPLANT BARE OR ERODED AREAS AND REMULCH.
- WATERING: PROVIDE AND MAINTAIN TEMPORARY PIPING, HOSES, AND LAWN-WATERING EQUIPMENT TO CONVEY WATER FROM SOURCES AND KEEP MEADOW UNIFORMLY MOIST.
  - SCHEDULE WATERING TO PREVENT WILTING, PUDDLING, EROSION, AND DISPLACEMENT OF SEED OR MULCH. LAY OUT TEMPORARY WATERING SYSTEM TO AVOID WALKING OVER MUDDY OR NEWLY PLANTED AREAS.
  - WATER LAWN AT A MINIMUM RATE OF 1/2 INCH (13 mm) PER WEEK FOR 4 WEEKS.

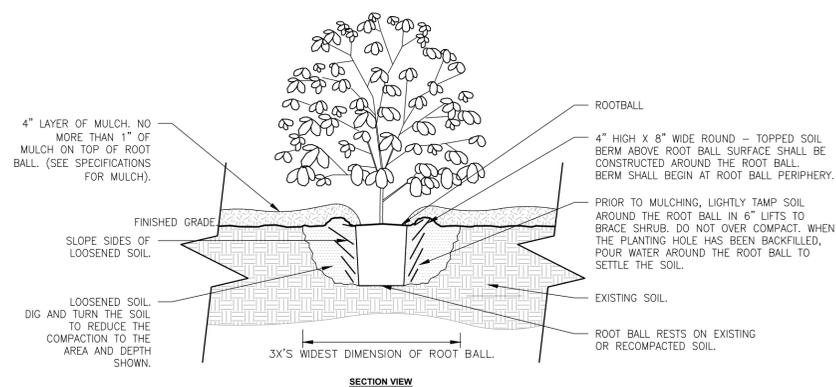
### TREES AND SHRUBS

- PRUNING SHOULD BE STARTED EARLY AND KEPT UP AT REGULAR INTERVALS. TREES SHOULD BE PRUNED AND SHAPED TO AVOID SPLITTING LATER IN LIFE. BROKEN TOPS AND BRANCHES SHOULD BE REMOVED AS SOON AS POSSIBLE AFTER INJURY. BROKEN, WEAK OR DISEASED BRANCHES SHOULD BE REMOVED FIRST, DEAD BRANCHES SECOND AND HEALTHY BRANCHES LAST.
- TREES AND SHRUBS SHOULD BE PROTECTED AGAINST DAMAGE INCURRED WITH LAWN MOWERS AND GARDEN EQUIPMENT. KEEPING GRASS AWAY FROM TREE TRUNKS WITH THE USE OF MULCH IS RECOMMENDED.
- THE USE OF ROAD SALT AROUND TREES AND SHRUBS SHOULD BE AVOIDED OR MINIMIZED.
- LANDSCAPED AREAS SHALL BE ROUTINELY MAINTAINED FREE OF DEBRIS AND LITTER. SPRAY AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE. MAINTENANCE SHALL INCLUDE THE REPLACEMENT OF ALL DEAD PLANT MATERIAL WITHIN THE GUARANTEED CONTRACT PERIOD.



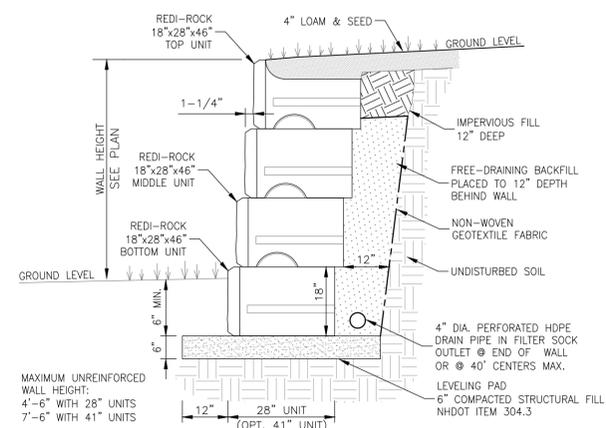
## TREE WITH MULCH BERM

NOT TO SCALE



## SHRUB PLANTING

NOT TO SCALE

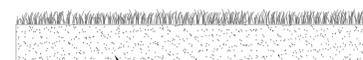


NOTE: RETAINING WALL SHALL HAVE A COBBLESTONE FINISH

## REDI-ROCK RETAINING WALL

UNREINFORCED

SCALE: 1/2"=1'-0"



## LOAM & SEED

NOT TO SCALE

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REV	DATE	DESCRIPTION	DR	CK

TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A

### DETAIL SHEET

**BOBCAT OF NEW HAMPSHIRE**  
 2 REBEL RD & 345 DERRY RD (HUDSON, NH)  
 307 NASHUA RD (LONDONDERRY, NH)

OWNED BY  
**MAL-MAR, LLC**  
 PREPARED FOR

**BOBCAT OF NEW HAMPSHIRE**

SCALE: AS SHOWN

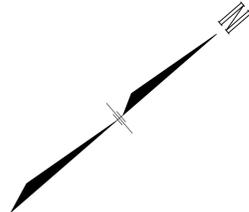
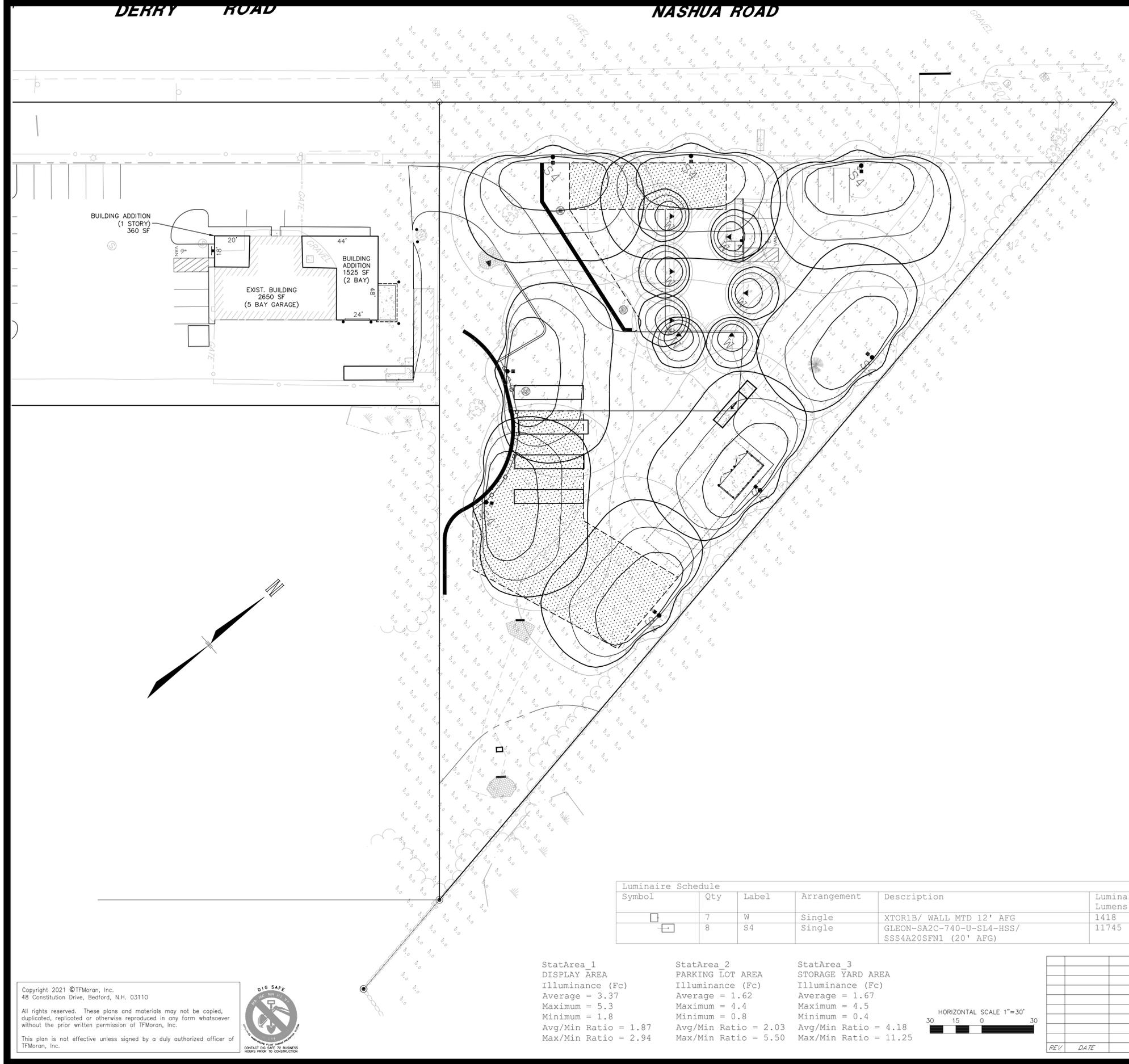
JULY 26, 2021

FILE	17851-08	DR	PWH	FB	-	C-12
		CK	JSH	CADFILE	17851-08 DETAILS	



Civil Engineers  
 Structural Engineers  
 Traffic Engineers  
 Land Surveyors  
 Landscape Architects  
 Scientists

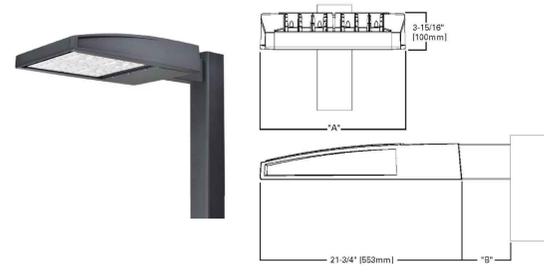
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 Phone (603) 472-4488  
 Fax (603) 472-9747  
 www.tfmoran.com



**NOTES**

1. LIGHTING PLAN AND CALCULATIONS PREPARED BY CHARRON LIGHTING.
2. ALL LIGHTS ARE FULL CUT-OFF FIXTURES AS REQUIRED.

**Dimensional Details**



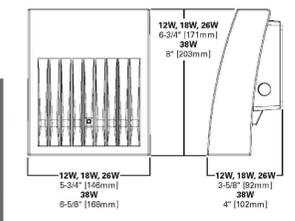
Number of Light Spheres	'A' Width	'B' Standard Arm Length	'B' Extended Arm Length <sup>1</sup>	'B' Quick Mount Arm Length	'B' Quick Mount Extended Arm Length
1-4	15-1/2"	7'	10'	10-5/8"	16-9/16"
5-6	21-5/8"	7'	10'	10-5/8"	16-9/16"
7-8	27-5/8"	7'	13'	10-5/8"	-
9-10	33-3/4"	7'	16'	-	-

NOTES:  
For arch selection requirements and additional line art, see Mounting Details section.

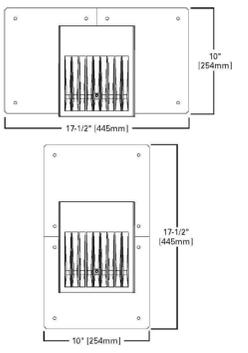
**McGRAW-EDISON GLEON GALLEON**

POLE MOUNTED 20' ABOVE F.G. NOT TO SCALE

**DIMENSIONS**



**ESCUTCHEON PLATES**



**LUMARK XTOR CROSTOUR LED**

WALL MOUNTED 12' ABOVE F.G. NOT TO SCALE



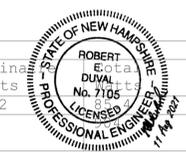
**SSS SQUARE STRAIGHT STEEL**

**SSS SQUARE STRAIGHT STEEL**

STEEL POLE NOT TO SCALE

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Description	Luminaire Lumens	Luminance Watts
□	7	W	Single	XTOR1B/ WALL MTD 12' AFG	1418	12.2
□	8	S4	Single	GLEON-SA2C-740-U-SL4-HSS/SSS4A20SFN1 (20' AFG)	11745	113

StatArea_1 DISPLAY AREA Illuminance (Fc) Average = 3.37 Maximum = 5.3 Minimum = 1.8 Avg/Min Ratio = 1.87 Max/Min Ratio = 2.94	StatArea_2 PARKING LOT AREA Illuminance (Fc) Average = 1.62 Maximum = 4.4 Minimum = 0.8 Avg/Min Ratio = 2.03 Max/Min Ratio = 5.50	StatArea_3 STORAGE YARD AREA Illuminance (Fc) Average = 1.67 Maximum = 4.5 Minimum = 0.4 Avg/Min Ratio = 4.18 Max/Min Ratio = 11.25
--	--	--



**SITE DEVELOPMENT PLANS**

TAX MAP 101 LOT 18 & 19 / TAX MAP 2 LOT 34A

**LIGHTING PLAN**

**BOBCAT OF NEW HAMPSHIRE**  
2 REBEL RD & 345 DERRY RD (HUDSON, NH)  
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PREPARED FOR  
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SCALE: 1"=30'

JULY 26, 2021

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REV	DATE	DESCRIPTION	DR	CK

FILE	17851-08	DR	PWH	FB	-
CK	JSH	CADFILE	17851-08 SITE PLANS		L1