SITE IMPROVEMENT PLANS

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP

(TAX MAP 793Z LOT 23)

96 HALL STREET
CONCORD, NH

OWNER

MAP 793Z LOT 23
JTA REALTY INVESTMENTS, LLC.
47 HALL STREET
CONCORD, NH 03301-3591

APPLICANT

METRO TREATMENT OF NEW HAMPSHIRE, LP
100 HALL STREET
CONCORD, NH 03301

ENGINEER

NORTHPOINT ENGINEERING, LLC
119 STORRS ST., STE 201
CONCORD, NH 03301

SURVEYOR

RICHARD D. BARTLETT,
& ASSOCIATES, LLC.
214 NORTH STATE STREET
CONCORD, NH 03301

ABUTTERS

MAP 793Z LOT 1
DHYAN HOTEL, LLC.
83 HARTWELL AVENUE
LEXINGTON, MA 02421-3116

MAP 793Z LOT 21
ATG CORPORATION
286 SOUTH STREET
CONCORD, NH 03301-3185

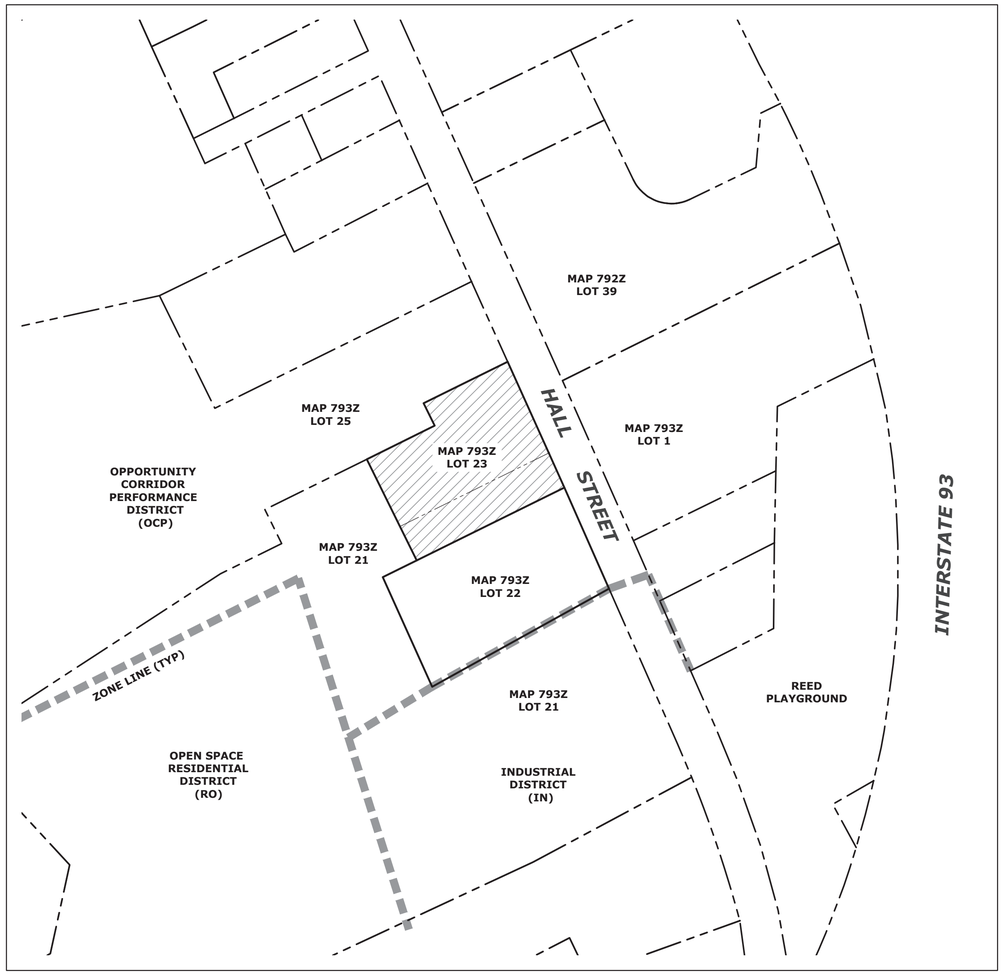
MAP 793Z LOT 22
FLO HAMPSHIRE COMMONS, LLC.
50 BROAD STREET
SALEM, MA 01970-3165

MAP 793Z LOT 25
C500 LIMITED PARTNERSHIP
286 SOUTH STREET
CONCORD, NH 03301-2164

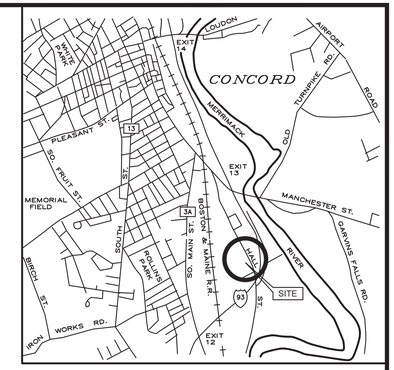
MAP 792Z LOT 39
CAPITAL HOTEL COMPANY III, LLC.
2 PILLSBURY STREET STE 500
CONCORD, NH 03301-3576

LEGEND

EXISTING	DESCRIPTION	PROPOSED
⊡	STONE BOUND	■
○	BENCHMARK	●
TBM BM	IRON PIPE/PIN	TBM BM
◎	DRILL HOLE	◉
□	CATCH BASIN	⊞
Ⓓ	DRAIN MANHOLE	◎
Ⓢ	SEWER MANHOLE	◎
○ CO	CLEANOUT	○ CO
○ MW	MONITORING WELL	○ MW
	UTILITY VALVE	
	WATER SHUT-OFF VALVE	
	FIRE HYDRANT	
Ⓦ	WELL	Ⓦ
	SIGN	
●	BOLLARD	●
	UTILITY POLE	
	GUY WIRE	
	TREE	
	SHRUB	
	WETLAND SYMBOL	
	SPOT GRADE	x F100.00
	WETLAND LIMITS	
	EDGE OF WATER	
	BOUNDARY	
	ABUTTER LINE	
	EASEMENT	
	EDGE OF PAVEMENT	
- 248 -	CONTOUR (2-FT)	F248
- 250 -	CONTOUR (10-FT)	F250
W	WATER LINE	W
S	SEWER LINE	S
SFM	SEWER FORCE MAIN	SFM
G	GAS LINE	G
D	DRAINAGE LINE (<12")	D
	DRAINAGE LINE (>12")	
UD	UNDERDRAIN	UD
UGU	UNDERGROUND UTIL.	UGU
OHU	OVERHEAD UTIL.	OHU
	STONEWALL	
	RETWALL	
O	FENCE	O
	SILT FENCE	
	TREELINE	
	WETLAND IMPACT AREA	
	WETLAND NON-DISTURB AREA	



AREA PLAN
SCALE: 1"=100'±



VICINITY MAP
SCALE: 1"=2,000'±

SHEET INDEX

COVER SHEET

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP
(TAX MAP 793Z LOT 23)
96 HALL STREET
CONCORD, NH

APPLICANT:	OWNER:
METRO TREATMENT OF NEW HAMPSHIRE, LP 100 HALL STREET CONCORD, NH 03301	JTA REALTY INVESTMENTS, LLC. 47 HALL STREET CONCORD, NH 03301-3591

STATE OF NEW HAMPSHIRE – JEFFREY W. LEWIS No.10420 – LICENSED PROFESSIONAL ENGINEER

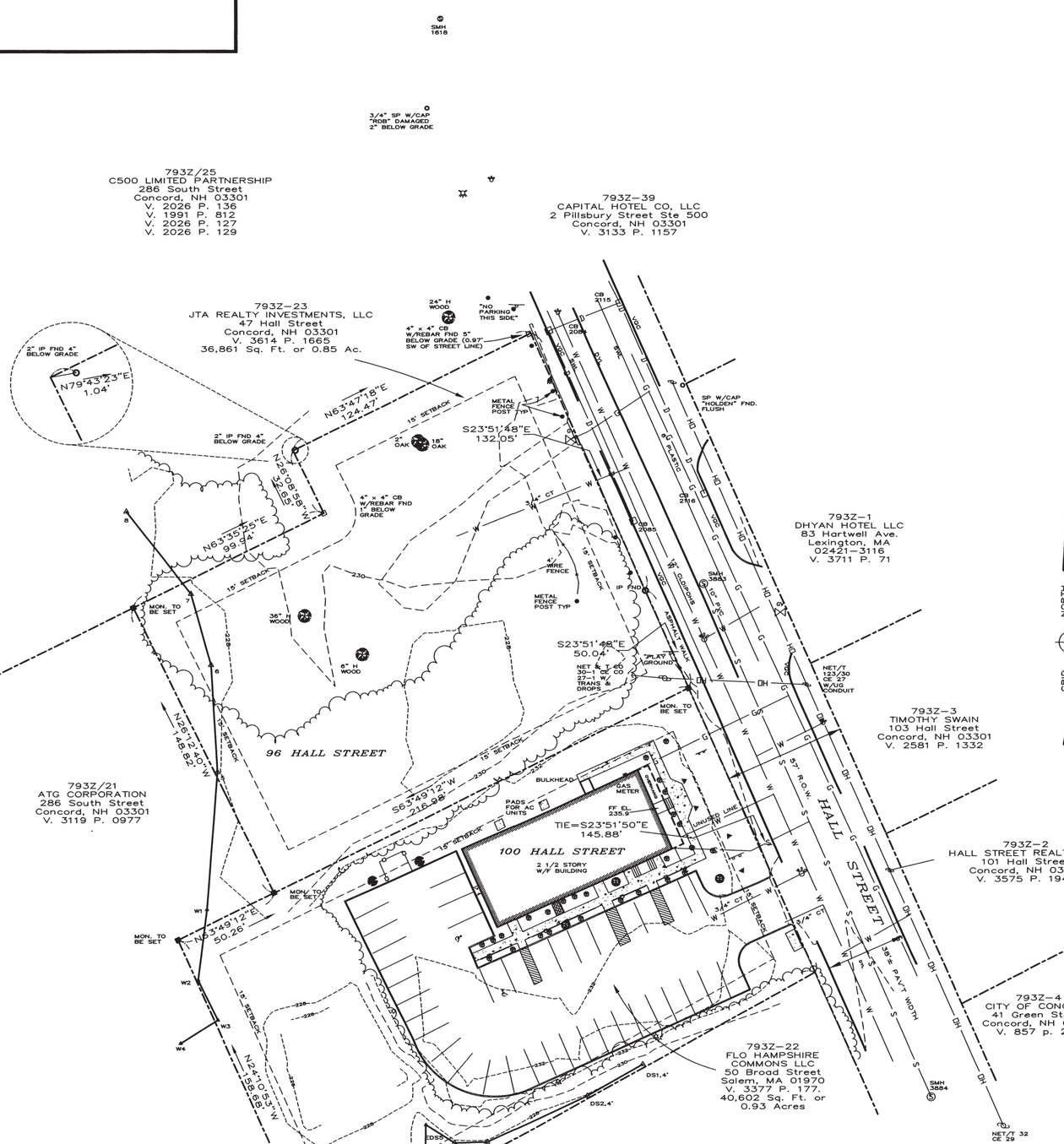
REVISIONS:

NO.	DATE	DESCRIPTION

NORTHPOINT ENGINEERING, LLC
Civil Engineering ◢ Land Planning ◢ Construction Services
119 Storrs St, Ste 201
Concord, NH 03301
Tel 603-226-1166
Fax 603-226-1160
www.northpointeng.com

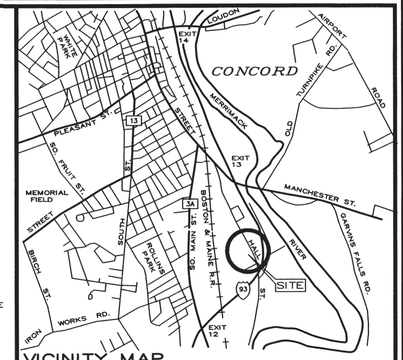
DATE: APRIL 2022
PROJ.: 21102
SCALE: AS SHOWN
SHEET: ----

FILE: G:_projects\21102\dwg\21102_Cover.dwg BY: Jamie DATE: 20 Apr 2022 - 10:29am



LEGEND

- PROPERTY LINE
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- OVERHEAD UTILITY LINES
- DRAINAGE LINE
- SEWER LINE
- GAS LINE
- TEL. LINE
- UNDERGROUND ELECT.
- DOUBLE YELLOW LINE
- SINGLE WHITE LINE
- VERTICAL OR SLOPED GRANITE CURB
- SHORE LINE
- CHAIN LINK FENCE
- STOCKADE FENCE
- EDGE OF WOODS
- CONCRETE
- SIGN HC-HANDICAPPED HCV- VAN ACCESSIBLE NP-NO PARKING
- CONIFEROUS TREE
- SHRUB
- DECIDUOUS TREE
- ARTESIAN WELL
- IRON PIPE OR REBAR
- GRANITE OR CONCRETE BOUND (GB OR CB)
- DRILL HOLE (DH)
- UTILITY POLE
- LIGHT POLE
- SEWER MANHOLE
- DRAIN MANHOLE
- CATCH BASIN
- HYDRANT
- WATER SHUTOFF
- WATER VALVE
- IRRIGATION CONTROL VALVE
- GAS SHUTOFF
- MONITORING WELL



VICINITY MAP
SCALE: 1" = 2000±

WETLAND NOTES

The limits of jurisdictional wetlands depicted on this plan were delineated Northpoint Engineering wetland scientist Randall Shuey, NH CWS #85, who certifies that the areas depicted are classified as jurisdictional wetlands according to the following standards:

1. The Corps of Engineers Federal Manual for Identifying and Delineating Jurisdictional Wetlands.
2. U.S. Army Corps of Engineers. 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
3. Field Indicators for Identifying Hydric Soils in New England, Version 4, May 2017 as published by the New England Interstate Water Pollution Control Commission and/or the current version of the Field Indicators of Hydric Soils in the United States, as published by the USDA, NRCS, as appropriate.
4. U.S. Army Corps of Engineers 2020. National Wetland Plant List, version 3.5 http://wetland-plants.usace.army.mil/ . U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH

NOTES

1. Survey by total station October 28, 2021. Control Traverse error of closure is less than 1: 15,000'. Additional field survey on December 10, 2021.

2. Horizontal datum is based on New Hampshire State Plane Coordinate System NAD 83 based on GPS observations and OPUS solutions.

3. Vertical datum is based on NAVD 88.

4. Owners of record: JTA Realty Investments, LLC 47 Hall Street Concord, NH 03301 – Map 793 Z, Lot 23 V. 3614 P. 1665. ATG Corporation 286 SOuth Street Concord, NH 03301 – Map 793Z, Lot 21 V. 3491 P. 1866

5. Affected portion of parcel is zoned OCP-Building setbacks: front 15', rear 15', and side 15'. Minimum Lot size = N/A Minimum frontage = 150', Maximum Lot coverage is 85%.

6. The underground utilities depicted hereon have been located from field survey information and plotted from existing drawings. The surveyor makes no guarantee that the underground utilities depicted comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although they are located as accurately as possible from the information available. The surveyor has not physically located the underground portion of the utilities. All contractors should notify, in writing, any utility company and appropriate governmental agencies prior to any excavation work and call DIG-SAFE at 811.

7. The intent of this plat is to depict the existing conditions of 96 and 100 Hall Street.

8. The premises is located in within a Flood Zone Area having a 0.2% chance annual flood as shown on the Flood Insurance Rate Map for Concord, NH Map No. 33013C0542E with an effective date of April 19, 2010.

REFERENCES

1. "Resubdivision Plat prepared for C-500 Ltd. Partnership, ATG Corporation, Turntable Inc., Yukon Realty Investment Ltd. Partnership & CFA Corporation" dated through June 9, 2008 by Richard D. Bartlett & Associates, LLC recorded at the MCRD as plan no. 19143.

2. "Existing Conditions Plat of land of 100 Hall Street, a Business Condominium" dated August 8, 2012 by Richard D. Bartlett & Associates, LLC. on file at this office.

3. Plat entitled "Lot Line Adjustment Plat lands of JTA Realty Investements, LLC & ATG Corporation" dated November 3, 2021 by Richard D. Bartlett & Assoc. LLC.

CERTIFICATIONS

"I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED BY ME OR THOSE UNDER MY DIRECT IMMEDIATE SUPERVISION, AND DEPICTS A SURVEY CONDUCTED WITH A TOTAL STATION HAVING AN URBAN CLASSIFICATION AND A MINIMUM ERROR OF CLOSURE LESS THAN 1:10,000.

SIGNATURE — 741 LICENSE NO. — 4/15/22 DATE

NO.	DATE	REVISION

STATE OF NEW HAMPSHIRE — NO. 741 — LICENSED LAND SURVEYOR — MARK C. BARGENT — SIGNATURE

FOR: RICHARD D. BARTLETT & ASSOCIATES, LLC

RICHARD D. BARTLETT & ASSOCIATES, LLC
214 North State Street
Concord, N.H. 03301
Tel.: (603) 225-6770
info@richarddbartlett.com
www.richarddbartlett.com
LICENSED LAND SURVEYORS

EXISTING CONDITONS PLAT of the lands of JTA REALTY INVESTMENTS, LLC FLO HAMPSHIRE COMMONS, LLC

PROJECT : MAP 793Z , LOTS 21 & 23
LOCATION: 96 & 102 HALL ST CONCORD, NH

GRAPHIC SCALE 0' 15' 30' 60' 1" = 30'

DATE: DEC. 2021
JOB NO.: 1121.242
SHEET 1 OF 1

MATCH LINE - SEE INSERT THIS SHEET

TAX MAP 793Z LOT 25
C500 LIMITED PARTNERSHIP
286 SOUTH STREET
CONCORD, NH 03301-2664
(BK. 3491, PG. 1865)

TAX MAP 793Z LOT 39
CAPITAL HOTEL CO, LLC
2 PILLSBURY STREET STE 500
CONCORD, NH 03301
(BK. 3133, PG. 1157)

TAX MAP 793Z LOT 1
DHYAN HOTEL LLC
83 HARTWELL AVE.
LEXINGTON, MA
02421-3116
(BK. 3711, PG. 71)

TAX MAP 793Z LOT 23
96 HALL STREET
(BK 3614, PG. 1665)
36,861 SQ. FT. OR
0.85 AC.

TAX MAP 793Z LOT 3
TIMOTHY SWAIN
103 HALL STREET
CONCORD, NH 03301
(BK. 2581, PG. 1332)

TAX MAP 793Z LOT 21
ATG CORPORATION
286 SOUTH STREET
CONCORD, NH 03301-2664
(BK. 3491, PG. 1866)

TAX MAP 793Z LOT 22
FLO HAMPSHIRE COMMONS LLC
50 BROAD STREET
SALEM, MA 01970
(BK. 3377, PG. 177)
40,602 SQ. FT.
0.93 ACRES

TAX MAP 793Z LOT 2
HALL STREET REALTY LLC
101 HALL STREET
CONCORD, NH 03301
(BK. 3575, PG. 1946)

TAX MAP 793Z LOT 21
ATG CORPORATION
286 SOUTH STREET
CONCORD, NH 03301-2664
(BK. 3491, PG. 1866)

HALL STREET

EXISTING BUILDING
2 ½ STORY

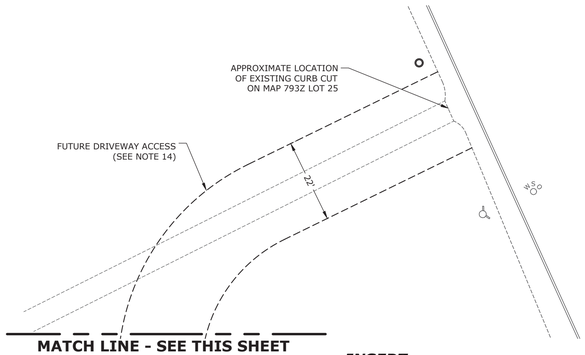
FUTURE DRIVEWAY ACCESS (SEE NOTE 14)
"NO PARKING THIS SIDE"
24" H WOOD
4" X 4" CB W/REBAR FND 5" BELOW GRADE (0.97' SW OF STREET LINE)
2" IP FND 4" BELOW GRADE
N79°43'23"E 1.04'
22'
N63°47'18"E 124.47'
BUILDING SETBACK LINE (TYP)
15'
19'
24'
5' R
PAINTED ISLAND (TYP)
4' R
2' R
N26°08'56"W 32.65'
4" X 4" CB W/REBAR FND 1" BELOW GRADE
N63°35'25"E 99.94'
MON. TO BE SET
50' WETLAND BUFFER
PROP. WOOD BEAM GUARDRAIL
PROP. WETLAND BUFFER IMPACT (6,536 S.F.)
N26°12'40"W 148.62'
EXIST. DELINEATED WETLAND LINE (TYP)
N63°49'12"E 50.26'
MON. TO BE SET
PROP. PAVED PARKING SPACES, (2) EACH, 9' WIDE
RELOCATED TRASH ENCLOSURE (SCREENED)
PROP. VERTICAL GRANITE CURB (TYP)
PROP. VERTICAL GRANITE CURB & ASPHALT SIDEWALK
SP W/CAP "HOLDEN" FND. FLUSH
S23°51'48"E 132.05'
ASPHALT WALK
IP FND
S23°51'48"E 50.04'
"PLAY GROUND"
PROP. HANDICAP VAN ACCESSIBLE SIGNS (TYP. OF 2)
MON. TO BE SET
NET & T CO 30-1 CE CO 27-1 W/ TRANS & DROPS
NET/T 123/30 CE 27 W/UG CONDUIT
P-EOP
P-VGC
9' (TYP)
PROP. PAVED SIDEWALK
S63°49'12"W 216.98'
BULKHEAD
PADS FOR AC UNITS
OVERHANG
F.F. EL. 235.9
5' R
9' (TYP)
57' R.O.W.
38'± PAVT WIDTH
VGC
SWL
DYL
OHU
S

GENERAL NOTES:

1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE PROPOSED SITE IMPROVEMENTS ASSOCIATED WITH THE CONSTRUCTION OF A NEW COMMERCIAL PARKING LOT ON THE SUBJECT PARCEL OF LAND.
2. REFERENCE THE SUBJECT PARCEL OF LAND AS LOT OF RECORD KNOWN AS CITY OF CONCORD TAX MAP/BLOCK/LOT (MBL) 793Z-23 LOCATED AT 96 HALL STREET. THE PARCEL IS SUBJECT TO A PROPOSED LOT LINE ADJUSTMENT WITH THE ADJACENT PARCEL TO THE WEST KNOWN AS MBL 793Z-21
3. THE SUBJECT PARCEL CONTAINS APPROXIMATELY 25,981-SF (0.59-ACRES) PRIOR TO THE LOT LINE ADJUSTMENT AND WILL CONTAIN APPROXIMATELY 36,861-SF (0.85-ACRES) AFTER THE LOT LINE ADJUSTMENT.
4. OWNER OF RECORD: MBL 793Z-23
   JTA REALTY INVESTMENTS, LLC
   47 HALL STREET
   CONCORD, NH 03301-3591
   (V. 3614 P. 1665 MCRD)
5. THE SUBJECT PARCEL IS SITUATED WITH THE 'OCP' OPPORTUNITY CORRIDOR PERFORMANCE DISTRICT. THE PROPOSED IMPROVEMENTS ARE SUBJECT TO THE FOLLOWING DIMENSIONAL REGULATIONS PER THE CITY OF CONCORD ZONING ORDINANCE:

	REQUIRED	PROVIDED (AFTER LLA)
MIN. LOT AREA:	--	36,861 SF
MIN. BUILDABLE AREA:	--	35,371 SF
MIN. LOT FRONTAGE:	150 FT	182.05 FT
MIN. SETBACKS (FRONT):	15 FT	N/A
(REAR):	15 FT	N/A
(SIDE):	15 FT	N/A
MAX. LOT COVERAGE:	85%	48%
MAX. BUILDING HEIGHT:	45 FT	N/A

6. THE AREA OF LAND DISTURBANCE PROPOSED BY THIS PROJECT IS APPROXIMATELY 32,000-SF.
7. THIS PROJECT DOES NOT REQUIRE ANY STATE OR FEDERAL PERMITS.
8. THE CITY OF CONCORD PLANNING BOARD HAS GRANTED THE FOLLOWING CONDITIONAL USE PERMIT(S) ON THE SUBJECT PARCEL:
9. ALL WORK PERFORMED SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE CITY OF CONCORD CONSTRUCTION STANDARDS.
10. PRIOR TO START OF ANY CONSTRUCTION THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEERING SERVICES DIVISION.
11. THE SITE IMPROVEMENTS FOR THIS PROJECT WILL BE CONSTRUCTED IN A SINGLE PHASE.
12. DURING PROJECT CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AS-BUILT SKETCHES OF ALL UNDERGROUND UTILITIES PRIOR TO BACKFILL AND PROVIDE TO ENGINEER OF RECORD. ALL INVERTS AND ELEVATIONS SHALL BE BASED ON A SURVEYED BENCHMARK PROVIDED BY THE SURVEYOR OF RECORD THE SURVEYOR SHALL PROVIDE AN AS- BUILT OF THE SITE UTILIZING NH STATE PLANE GRID COORDINATES AND N.A.V.D. 88 DATUM AND SUBMIT TO THE ENGINEERING SERVICES DIVISION IN ELECTRONIC FORMAT FOR INCLUSION IN THE CITY GIS DATABASE.
13. UPON COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS TO THE ENGINEERING SERVICES DIVISION.
14. THIS PLAN INCLUDES A RESERVATION FOR A FUTURE DRIVEWAY ACCESS ACROSS MAP 793Z LOT 25 TO THE NORTH, IN ORDER TO ACCESS THE EXISTING CURB CUT ON LOT 25 IN THE EVENT THAT THE CROSS ACCESS TO THE SOUTH, ACROSS LOT 22 IS REMOVED.



INSERT
SCALE: 1" = 20'

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

SITE PLAN

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP
(TAX MAP 793Z LOT 23)
96 HALL STREET
CONCORD, NH

APPLICANT:
METRO TREATMENT OF NEW HAMPSHIRE, LP
100 HALL STREET
CONCORD, NH 03301

OWNER:
JTA REALTY INVESTMENTS, LLC.
47 HALL STREET
CONCORD, NH 03301-3591

STATE OF NEW HAMPSHIRE — JEFFREY W. LEWIS No.10420 — LICENSED PROFESSIONAL ENGINEER

REVISIONS:

NO.	*DATE*	*DESCRIPTION*

NORTHPOINT ENGINEERING, LLC
Civil Engineering ◢ Land Planning ◢ Construction Services
119 Storrs St, Ste 201
Concord, NH 03301
Tel 603-226-1166
Fax 603-226-1160
www.northpointeng.com

DATE: APRIL 2022
PROJ.: 21102
SCALE: 1"=20'
SHEET: 2 OF 9

811 DigSafe MA . ME . NH . RI . VT

FILE: G:_projects\21102\dwg\21102_Design.dwg BY: Jamie DATE: 20 Apr 2022 - 10:29am

CONSTRUCTION NOTES:

1. PRIOR TO CONSTRUCTION, CONTACT DIG SAFE CENTER, TOLL FREE 811. NEW HAMPSHIRE LAW REQUIRES NOTIFICATION AT LEAST THREE BUSINESS DAYS BEFORE DIGGING OPERATIONS START. IN AN EMERGENCY, CALL IMMEDIATELY.
2. LOCATION AND/OR ELEVATIONS OF EXISTING UTILITIES AND STRUCTURES SHOWN ON THIS PLAN SET ARE BASED ON PREVIOUS PLANS AND WHERE POSSIBLE VERIFIED IN THE FIELD. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXACT SIZE, LOCATION, DEPTH AND EXISTENCE OF ALL EXISTING UNDERGROUND UTILITIES THAT ARE TO BE ACCESSED OR CROSSED DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING IF ANY UTILITIES ARE FOUND TO BE INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE TAKEN BEFORE PROCEEDING WITH THE WORK.
3. ALL WORK SHALL CONFORM TO THE NHDOT STANDARDS AND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE CITY OF CONCORD 2016 CONSTRUCTION STANDARDS AND DETAILS, AND THE CITY OF CONCORD SITE PLAN REGULATIONS, AND SHALL BE BUILT IN A WORKMAN LIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
4. PRIOR TO THE START OF CONSTRUCTION THE LIMITS OF CLEARING SHALL BE STAKED OUT. NO TREES SHALL BE CUT BEYOND THE LIMITS SHOWN ON THIS PLAN AND TEMPORARY FENCING SHALL BE INSTALLED AROUND THE LIMITS OF CLEARING PRIOR TO CLEARING TO ENSURE THAT NO ADDITIONAL TREES ARE DAMAGED DURING CONSTRUCTION. IMMEDIATELY AFTER CLEARING HAS OCCURRED, ALL TEMPORARY EROSION CONTROL MEASURES SHOWN ON THE EROSION CONTROL PLAN SHALL BE INSTALLED AND SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION, AND UNTIL FINAL STABILIZATION HAS OCCURRED.
5. ALL PROPOSED UTILITIES SHALL BE CONSTRUCTED UNDERGROUND.
6. PROPOSED UNDERGROUND UTILITIES TO INCLUDE CONDUIT FOR ELECTRIC, SERVING PROPOSED LIGHT POLES. TRENCH AND CONDUIT PER TYPICAL DETAIL ON CONSTRUCTION DETAIL SHEETS.
7. SAWCUT, REMOVE AND REPAIR EXISTING PAVEMENT IN HALL STREET TO INSTALL NEW CURB AND SIDEWALK.
8. ALL CONSTRUCTION DEBRIS, INCLUDING STUMPS, SHALL BE REMOVED FROM THE JOB SITE AND DISPOSED OF PROPERLY OFFSITE, UNLESS OTHERWISE APPROVED.
9. THE CONTRACTOR SHALL APPLY FOR AN EXCAVATION PERMIT (AVAILABLE FROM ENGINEERING SERVICES) PER CITY ORDINANCE ARTICLE 5-1-4 FOR WORK WITHIN THE CITY RIGHT-OF-WAY OR ON CITY OWNED PROPERTY. CONTACT THE CITY OF CONCORD ENGINEERING SERVICES DIVISION PRIOR TO CONSTRUCTION TO APPLY FOR THE PERMIT.
10. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE PERMANENTLY STABILIZED WITH 6" OF LOAM AND SEED, PER THE TURF ESTABLISHMENT SCHEDULE. REFER TO THE EROSION CONTROL PLANS FOR ADDITIONAL REQUIREMENTS FOR TEMPORARY AND PERMANENT STABILIZATION PRACTICES IN CERTAIN AREAS OF THE SITE AS MAY BE APPLICABLE.
11. PRIOR TO START OF ANY CONSTRUCTION THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE CITY OF CONCORD, ENGINEERING SERVICES DIVISION.
12. DURING PROJECT CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AS-BUILT SKETCHES OF ALL UNDERGROUND UTILITIES PRIOR TO BACKFILL AND PROVIDE TO ENGINEER OR RECORD. ALL INVERTS AND ELEVATIONS SHALL BE BASED ON A SURVEYED BENCHMARK PROVIDED BY THE SURVEYOR OF RECORD THE SURVEYOR SHALL PROVIDE AN AS-BUILT OF THE SITE UTILIZING NH STATE PLANE GRID COORDINATES AND N.A.V.D. 88 DATUM AND SUBMIT TO THE ENGINEERING SERVICES DIVISION IN ELECTRONIC FORMAT FOR INCLUSION IN THE CITY GIS DATABASE.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

GRADING & DRAINAGE PLAN

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP

(TAX MAP 793Z LOT 23)

96 HALL STREET

CONCORD, NH

APPLICANT:	OWNER:
METRO TREATMENT OF NEW HAMPSHIRE, LP 100 HALL STREET CONCORD, NH 03301	JTA REALTY INVESTMENTS, LLC. 47 HALL STREET CONCORD, NH 03301-3591

REVISIONS:

NO.	DATE	DESCRIPTION

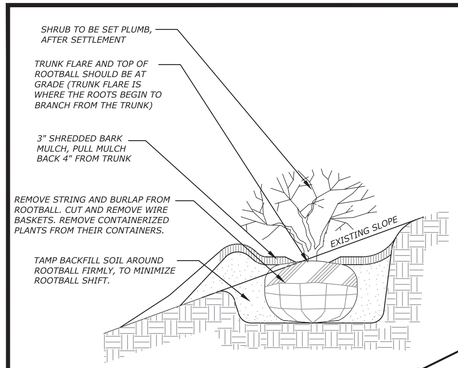
STATE OF NEW HAMPSHIRE – JEFFREY W. LEWIS No.10420 LICENSED PROFESSIONAL ENGINEER

NORTHPOINT ENGINEERING, LLC
Civil Engineering ◢ Land Planning ◢ Construction Services
119 Storrs St, Ste 201
Concord, NH 03301
Tel 603-226-1166
Fax 603-226-1160
www.northpointeng.com

DATE: APRIL 2022
PROJ.: 21102
SCALE: 1"=20'
SHEET: 3 OF 9

811 DigSafe MA . ME . NH . RI . VT

FILE: G:_projects\21102\dwg\21102_Design.dwg BY: Jamie DATE: 20 Apr 2022 - 10:29am



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.*

SHRUB PLANTING
CITY OF CONCORD DETAIL L-4
-NOT TO SCALE-

PROPOSED PLANTING SCHEDULE

TREES

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENT	SPACING
AsA	3	ACER SACCHARUM 'APOLLO'	APOLLO SUGAR MAPLE	2" CAL (MIN)	B&B	AS SHOWN
As	5	ACER SACCHARUM 'LEGACY'	LEGACY SUGAR MAPLE	2" CAL. (MIN)	B&B	AS SHOWN
Gs	7	GLEDITSIA T.I. 'STREET KEEPER'	STREET KEEPER HONEYLOCUST	2" CAL. (MIN)	B&B	AS SHOWN

SHRUBS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENT	SPACING
Ig	28	LEX GLABRA 'GEM BOX'	NKBERRY, GEM BOX	12–24" HGT	CONTAINER	AS SHOWN

PERRENIALS

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENT	SPACING
Hm	16	HYDRANGEA MACROPHYLLA	ENDLESS SUMMER HYDRANGEA	#1 POT	CONTAINER	AS SHOWN

LANDSCAPE NOTES:

1. ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOW HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE; WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL. WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).

2. A TOPSOIL MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS; ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% PEATMOSS AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.

3. UNSUITABLE MATERIAL ENCOUNTERED IN PLANTING AREAS SHALL BE REMOVED AND REPLACED WITH TOPSOIL MIXTURE NOTED ABOVE. THE AREA OF REMOVAL SHALL BE TWICE THE DIAMETER OF THE ROOT BALL FOR THE SPECIFIED PLANT MATERIAL.

4. ALL TREES CALIPERS SHALL BE MEASURED FROM A HEIGHT OF 12" ABOVE THE GROUND. ALL TREES ARE SHOWN AT MATURE SIZE

5. ANY PROPOSED PLANT SUBSTITUTIONS SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT AND APPROVED BY THE LOCAL JURISDICTION PRIOR TO PLANTING.

6. CONTRACTOR SHALL INSTALL SNOW FENCING AT DRIP LINE OF TREES TO BE SAVED TO PROTECT FROM ROOT COMPACTION AND ROOTS ARE TO BE CUT BY HAND WHERE THEY INTERFERE WITH UTILITIES, CURBING AND PAVEMENT SUB-BASE COURSES.

LANDSCAPE REGULATIONS:

ZONING REQUIREMENTS

28-7-10 - PARKING AREA LANDSCAPING STANDARDS

(a) PARKING LOT PERIMETER LANDSCAPING REQUIRED:
- 10' PERIMETER ALONG COLLECTOR AND ARTERIAL STREETS
- 5' PERIMETER OTHERWISE

(b) PARKING LOT INTERIOR LANDSCAPING REQUIRED
- OFF-STREET PARKING FOR FIFTY (50) OR MORE VEHICLES IS REQUIRED, THERE SHALL BE LANDSCAPED OPEN SPACE WITHIN THE PERIMETER OF THE PARKING LOT IN THE MINIMUM AMOUNT OF FIVE (5) PERCENT OF THE GROSS PARKING LOT AREA

19,255-SF GPA X 0.05 = 963-SF REQUIRED
1,992-SF PROPOSED

(d) LANDSCAPE MATERIAL STANDARDS:
ALL LANDSCAPED AREAS REQUIRED BY THIS ARTICLE SHALL CONTAIN NO LESS THAN ONE LIVE SHADE OR ORNAMENTAL TREE FOR EVERY TWO THOUSAND (2,000) SQUARE FEET OF PARKING AREA. SUCH TREES SHALL HAVE A MINIMUM TRUNK DIAMETER (MEASURED TWELVE (12) INCHES ABOVE THE GROUND LEVEL) OF NOT LESS THAN TWO (2) INCHES AND SHALL BE PLANTED NOT MORE THAN FIFTY (50) FEET APART WITHIN EACH CONTIGUOUS LANDSCAPED AREA. ALL LANDSCAPED AREAS SHALL CONTAIN SHRUB AND GROUND COVER PLANTING

19,255-SF GPA / 2,000-SF = 10 TREES REQUIRED
= 15 TREES PROVIDED

SITE PLAN REQUIREMENTS

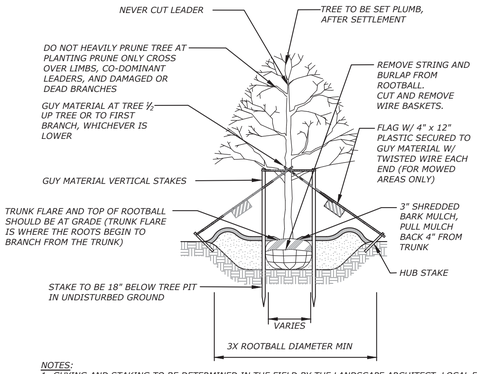
27.06 PLACEMENT OF LANDSCAPE MATERIAL:

(1) DISTRIBUTION: STREET TREES SHALL BE PLANTED BETWEEN TWENTY (20) FEET AND FORTY (40) FEET APART.

27.07 REQUIRED LANDSCAPING IMPROVEMENTS:

(2) LANDSCAPE BUMPOUTS AND ISLANDS: LANDSCAPE BUMPOUTS AND ISLANDS WITHIN PARKING LOTS SHALL CONTAIN A MINIMUM OF ONE (1) DECIDUOUS SHADE TREE AND SHALL BE PROTECTED WITH CURBING.

(4) BIODIVERSITY: PROPOSED TREES SHALL BE SELECTED TO ENCOURAGE BIOLOGICAL DIVERSITY. NO MORE THAN TWENTY FIVE (25%) PERCENT OF THE TREES TO BE PLANTED IN ANY DEVELOPMENT SHALL BE OF THE SAME SPECIES. WHEN MORE THAN 100 TREES ARE TO BE PLANTED, NO SINGLE TREE SPECIES SHALL CONSIST OF MORE THAN FIFTEEN PERCENT (15%) OF THE TOTAL PLANTED. NO MORE THAN TWENTY FIVE PERCENT (25%) OF THE TREES TO BE PLANTED SHALL BE CLASSIFIED AS ORNAMENTAL TREES, AND THE BALANCE OF THE REQUIRED TREES SHALL BE DECIDUOUS SHADE TREES.



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
CITY OF CONCORD DETAIL L-1
-NOT TO SCALE-

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 PLANTING
CITY OF CONCORD DETAIL L-3
-NOT TO SCALE-

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

LANDSCAPING PLAN

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP

(TAX MAP 793Z LOT 23)

96 HALL STREET
CONCORD, NH

APPLICANT:	*OWNER:*
METRO TREATMENT OF NEW HAMPSHIRE, LP *100 HALL STREET* *CONCORD, NH 03301*	*JTA REALTY INVESTMENTS, LLC.* *47 HALL STREET* *CONCORD, NH 03301-3591*

STATE OF NEW HAMPSHIRE – JEFFREY W. LEWIS No. 10420 – LICENSED PROFESSIONAL ENGINEER

REVISIONS:

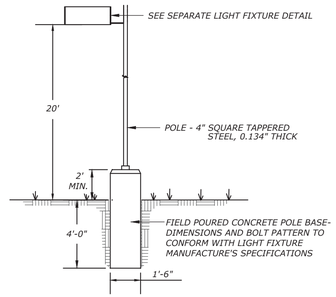
NO.	*DATE*	*DESCRIPTION*

NORTHPOINT ENGINEERING, LLC
Civil Engineering ◢ Land Planning ◢ Construction Services
119 Storrs St, Ste 201
Concord, NH 03301
Tel 603-226-1166
Fax 603-226-1160
www.northpointeng.com

DATE: APRIL 2022
PROJ.: 21102
SCALE: 1"=20'
SHEET: 4 OF 9

811 DigSafe MA . ME . NH . RI . VT

PRV/PRV-XL
PREVAIL LED DETAIL
-NOT TO SCALE-



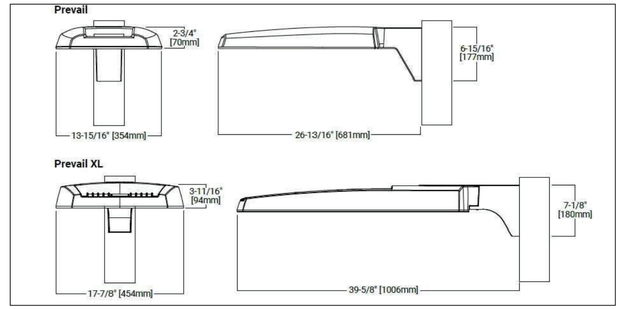
TYPICAL POLE-MOUNTED LIGHT FIXTURE
-NOT TO SCALE-

NOTES:

1. ALL LIGHT FIXTURES SHALL BE FULL-CUTOFF.

2. PROPOSED LIGHTING SHALL BE DIRECTED ONTO THE SITE AND AWAY FROM THE ROADWAY AND ADJACENT PROPERTIES.

3. ELECTRICAL CONDUIT, IF SHOWN, IS FOR COORDINATION PURPOSES ONLY. CONTRACTOR TO VERIFY EXISTING UNDERGROUND ELECTRICAL FOR LIGHTING IN FIELD.



PRV/PRV-XL PREVAIL LED DIMENSIONS
-NOT TO SCALE-

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LIGHTING PLAN

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP
(TAX MAP 793Z LOT 23)
96 HALL STREET
CONCORD, NH

APPLICANT:
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CONCORD, NH 03301

OWNER:
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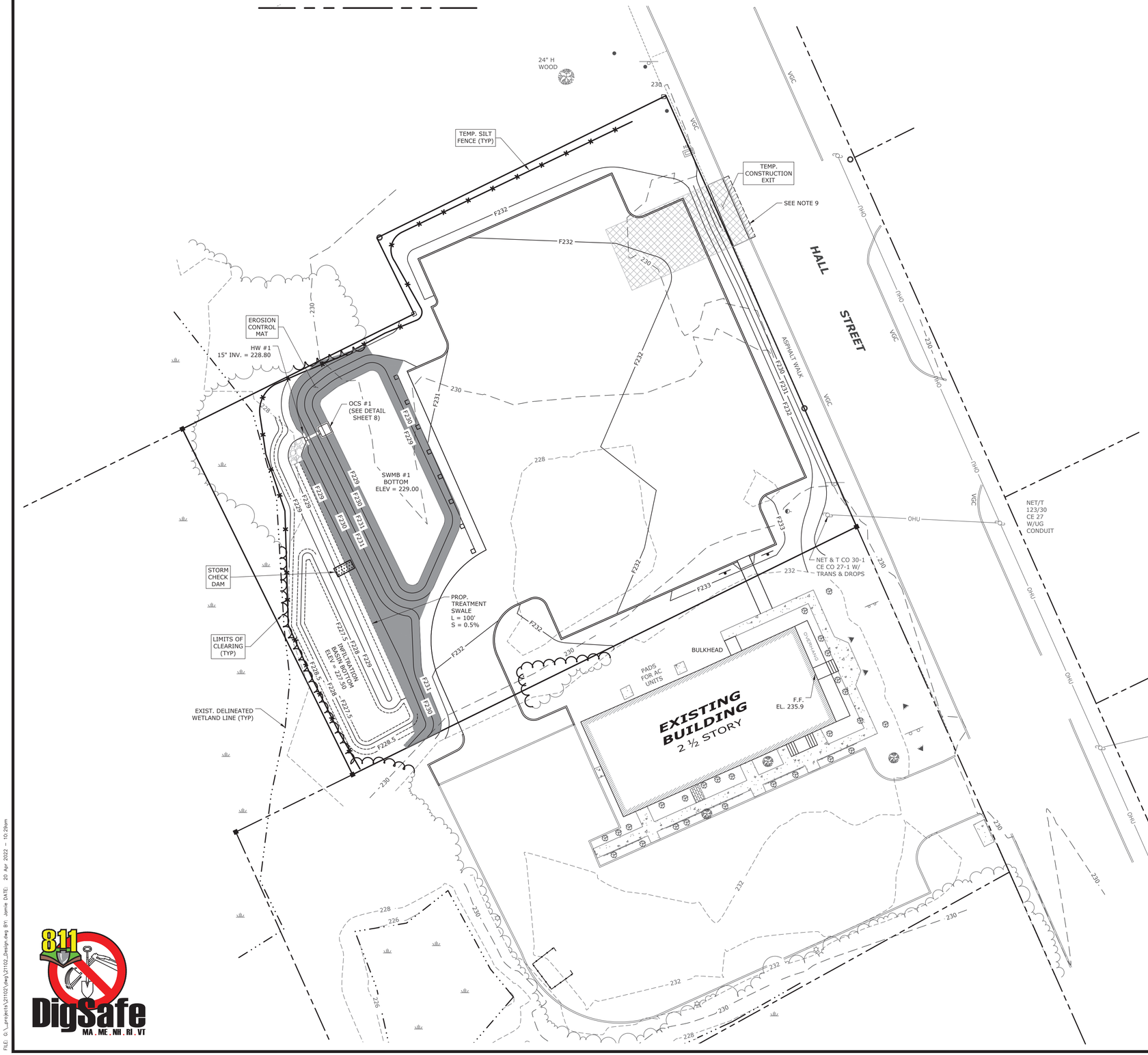

CONSTRUCTION NOTES

1. DIG SAFE SHALL BE CONTACTED 72 HOURS PRIOR TO CONSTRUCTION COMMENCING (1-888-344-7233).

2. TEMPORARY EROSION CONTROL MEASURES, INCLUDING SILT FENCE WHERE SHOWN, SHALL BE IN PLACE PRIOR TO THE START OF ANY CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL SITE IS STABILIZED.

3. INLET FILTER BASKETS SHALL BE INSTALLED AT ALL EXISTING AND PROPOSED CATCH BASINS THAT WILL RECEIVE RUNOFF DURING CONSTRUCTION.

4. ALL TEMPORARY EROSION CONTROL MATS/BLANKETS USED ON THIS SITE SHALL BE CURLEX NET FREE EROSION CONTROL BLANKETS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL. WELDED PLASTIC OR BIODEGRADABLE PLASTIC NETTING OR THREAD IN MATTING IS SPECIFICALLY NOT ALLOWED ON THIS SITE.

5. SEDIMENT TRAPS AND/OR BASINS SHOULD BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASINS/PONDS ARE STABILIZED.

EROSION CONTROL LEGEND

- PROPOSED CONSTRUCTION EXIT
- PROPOSED SILT FENCE
- LIMITS OF CLEARING
- NO-DISTURBANCE AREAS
- STONE CHECK DAMS
- EROSION CONTROL MAT

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

EROSION CONTROL PLAN

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP

(TAX MAP 793Z LOT 23)

96 HALL STREET

CONCORD, NH

APPLICANT:
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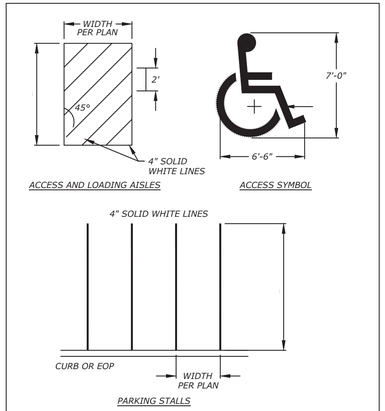
811 DigSafe MA . ME . NH . RI . VT

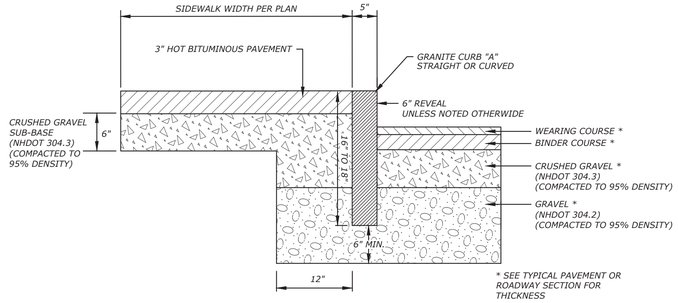


NOTES:

1. ALL PAVEMENT AND CURB MARKINGS SHALL CONFORM TO THE MUTCD.

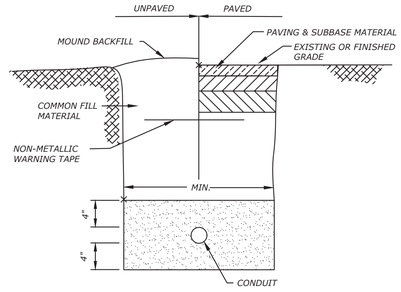
TYPICAL PAVEMENT MARKINGS DETAIL

-NOT TO SCALE-



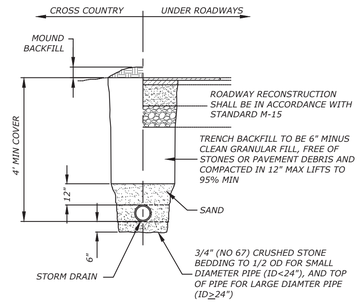
BITUMINOUS SIDEWALK W/ VERTICAL GRANITE CURB

-NOT TO SCALE-



SITE LIGHTING TRENCH SECTION TYP.

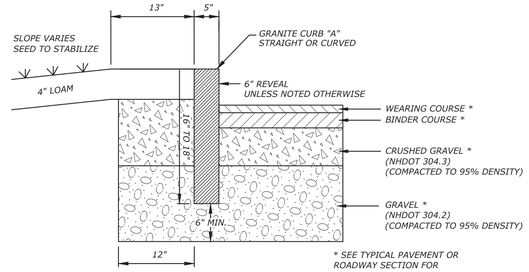
-NOT TO SCALE-



STORM DRAIN TRENCH

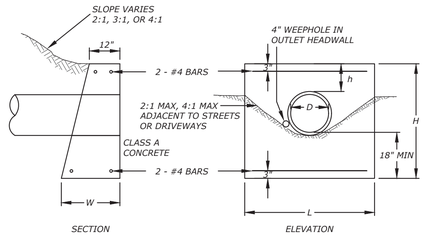
CITY OF CONCORD DETAIL SD-1

-NOT TO SCALE-



VERTICAL GRANITE CURB

-NOT TO SCALE-

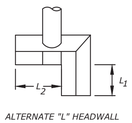


DIAMETER D INCHES	MASONRY PER STD HDM (CY)	STEEL PER STD HDR (LB)	LENGTH OF BARS	L	H	W	h
12	0.80	11	3'-9"	4'-2"	3'-9"	1'-11"	1'-3"
15	1.32	15	5'-7"	5'-11"	4'-3"	2'	1'-6"
18	1.66	15	5'-7"	6'-11"	4'-6"	2'-1"	1'-6"
24	2.41	24	8'-6"	8'-10"	5'-0"	2'-3"	1'-6"
30	3.32	29	10'-6"	10'-10"	5'-6"	2'-4"	1'-6"
36	4.43	35	12'-6"	12'-10"	6'-0"	2'-6"	1'-6"
42	6.28	42	14'-11"	15'-6"	6'-9"	2'-8"	1'-9"
48	7.77	46	16'-11"	17'-6"	7'-3"	2'-9"	1'-9"
54	9.46	53	18'-10"	19'-5"	7'-9"	2'-11"	1'-9"
60	11.42	57	20'-10"	21'-5"	8'-3"	3'	1'-9"
66	13.68	64	22'-10"	23'-5"	8'-9"	3'-2"	1'-9"
72	15.79	68	24'-10"	25'-4"	9'-3"	3'-3"	1'-9"

$L_1 + L_2 = L$

$L_1 = \frac{L-D}{2}$

$L_2 = \frac{L+D}{2}$



ALTERNATE "L" HEADWALL

PRE-CAST HEADWALL DETAIL

-NOT TO SCALE-

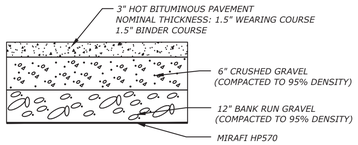
VAN ACCESSIBLE SIGN

NOTES FOR ALL SIGNS:

1. ALL SIGN FACES AND SHAPES SHALL CONFORM WITH THE CURRENT MUTCD.
2. ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NHDOT SPECIFICATIONS (SEE SEPARATE SIGN POST DETAILS).
3. ALL SIGNS SHALL BE REFLECTIVE ALUMINUM.

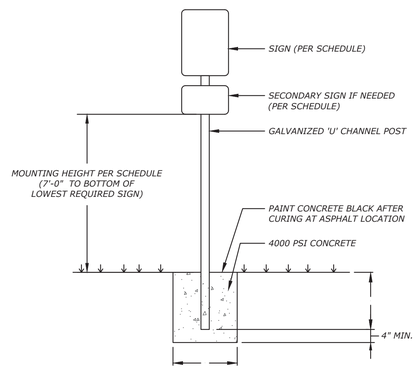
TYPICAL SIGN DETAIL

-NOT TO SCALE-



STANDARD DUTY PAVEMENT DETAIL

-NOT TO SCALE-



TYPICAL SIGN POST - IN SOIL

-NOT TO SCALE-

CONSTRUCTION DETAILS

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP

(TAX MAP 793Z LOT 23)

96 HALL STREET

CONCORD, NH

APPLICANT:
METRO TREATMENT OF NEW HAMPSHIRE, LP
100 HALL STREET
CONCORD, NH 03301

OWNER:
JTA REALTY INVESTMENTS, LLC.
47 HALL STREET
CONCORD, NH 03301-3591

STATE OF NEW HAMPSHIRE – JEFFREY W. LEWIS No.10420 – LICENSED PROFESSIONAL ENGINEER

REVISIONS:

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DATE: APRIL 2022
PROJ.: 21102
SCALE: AS SHOWN
SHEET: 7 OF 9

SITE PREPARATION

1. GRADE AND SHAPE AREA OF INSTALLATION.

2. REMOVE ALL ROCKS, CLODS, AND VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS OR MATS WILL HAVE DIRECT CONTACT WITH THE SOIL.

3. PREPARE SEEDBED BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE, AND INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.

5. SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND RE-VEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATION.

ANCHORING

1. WHEN APPLICABLE, ANCHORING SHOULD BE DONE PER MANUFACTURERS RECOMMEDATION.

2. U-SHAPED WIRE STAPLES, METAL GEOTEXTILE STAKE PINS, OR TRIANGULAR WOODEN STAKES CAN BE USED TO ANCHOR MATS TO THE GROUND SURFACE. WIRE STAPLES SHOULD BE A MINIMUM OF 11 GAUGE. METAL STAKE PINS SHOULD BE 3/16-INCH DIAMETER STEEL WITH A 1 ½-INCH STEEL WASHER AT THE HEAD OF THE PIN. WIRE STAPLES AND METAL STAKES SHOULD BE DRIVEN FLUSH TO THE SOIL SURFACE. ALL ANCHORS SHOULD BE 6-8 INCHES LONG AND HAVE SUFFICIENT GROUND PENETRATION TO RESIST PULLOUT. LONGER ANCHORS MAY BE REQUIRED FOR LOOSE SOILS.

INSTALLATION ON SLOPES

1. BEGIN AT THE TOP OF THE SLOPE AND ANCHOR ITS BLANKET IN A 6-INCH DEEP X 6-INCH WIDE TRENCH. BACKFILL TRENCH AND TAMP EARTH FIRMLY.

2. UNROLL BLANKET DOWN SLOPE IN THE DIRECTION OF THE WATER FLOW. THE EDGES OF ADJACENT PARALLEL ROLLS MUST BE OVERLAPPED 4 INCHES AND BE STAPLED EVERY 3 FEET.

4. WHEN BLANKETS MUST BE SPLICED, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH 6-INCH OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12 INCHES APART.

5. LAY BLANKETS LOOSELY AND MAINTAIN DIRECT CONTACT WITH THE SOIL - DO NOT STRETCH.

6. BLANKETS SHALL BE STAPLED SUFFICIENTLY TO ANCHOR BLANKET AND MAINTAIN CONTACT WITH THE SOIL. STAPLES SHALL BE PLACED DOWN THE CENTER AND STAGGERED WITH THE STAPLES PLACED ALONG THE EDGES. STEEP SLOPES, 1:1 TO 2:1, REQUIRE 2 STAPLES PER SQUARE YARD. MODERATE SLOPES, 2:1 TO 3:1, REQUIRE 1-2 STAPLES PER SQUARE YARD (1 STAPLE 3' O/C). GENTLE SLOPES REQUIRE 1 STAPLE PER SQUARE YARD.

INSTALLATION IN CHANNELS

1. DIG INITIAL ANCHOR TRENCH 12 INCHES DEEP AND 6 INCHES WIDE ACROSS THE CHANNEL AT THE LOWER END OF THE PROJECT AREA.

2. EXCAVATE INTERMITTENT CHECK SLOTS, 6 INCHES DEEP AND 6 INCHES WIDE ACROSS THE CHANNEL AT 25-30 FOOT INTERVALS ALONG THE CHANNEL.

3. CUT LONGITUDINAL CHANNEL ANCHOR SLOTS 4 INCHES DEEP AND 4 INCHES WIDE ALONG EACH SIDE OF THE INSTALLATION TO BURY EDGES OF MATTING. WHENEVER POSSIBLE EXTEND MATTING 2-3 INCHES ABOVE THE CREST OF CHANNEL SIDE SLOPES.

4. BEGINNING AT THE DOWNSTREAM END AND IN THE CENTER OF THE CHANNEL, PLACE THE INITIAL END OF THE FIRST ROLL IN THE ANCHOR TRENCH AND SECURE WITH FASTENING DEVICES AT 1-FOOT INTERVALS. NOTE: MATTING WILL INITIALLY BE UPSIDE DOWN IN ANCHOR TRENCH.

5. IN THE SAME MANNER, POSITION ADJACENT ROLLS IN ANCHOR TRENCH, OVERLAPPING THE PRECEDING ROLL A MINIMUM OF 3 INCHES. SECURE THESE ENDS OF MATS WITH ANCHORS AT 1-FOOT INTERVALS, BACKFILL AND COMPACT SOIL.

7. UNROLL CENTER STRIP OF MATTING UPSTREAM. STOP AT NEXT CHECK SLOT OR TERMINAL ANCHOR TRENCH. UNROLL ADJACENT MATS UPSTREAM IN SIMILAR FASHION, MAINTAINING A 3-INCH OVERLAP.

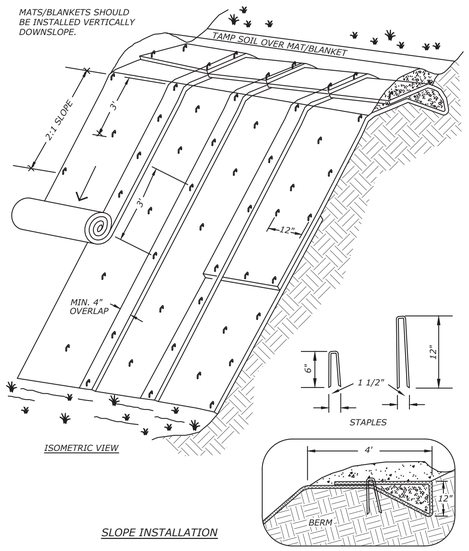
9. FOLD AND SECURE ALL ROLLS OF MATTING SNUGLY INTO ALL TRANSVERSE CHECK SLOTS. LAY MAT IN THE BOTTOM OF THE SLOT THEN FOLD BACK AGAINST ITSELF. ANCHOR THROUGH BOTH LAYERS OF MAT AT 12-INCH INTERVALS, THEN BACKFILL AND COMPACT SOIL. CONTINUE ROLLING ALL MAT WIDTHS UPSTREAM TO THE NEXT CHECK SLOT OR TERMINAL ANCHOR TRENCH.

INSPECTION AND MAINTENANCE

1. ALL BLANKET AND MATS SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION.

2. INSPECT INSTALLATION AFTER SIGNIFICANT RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY.

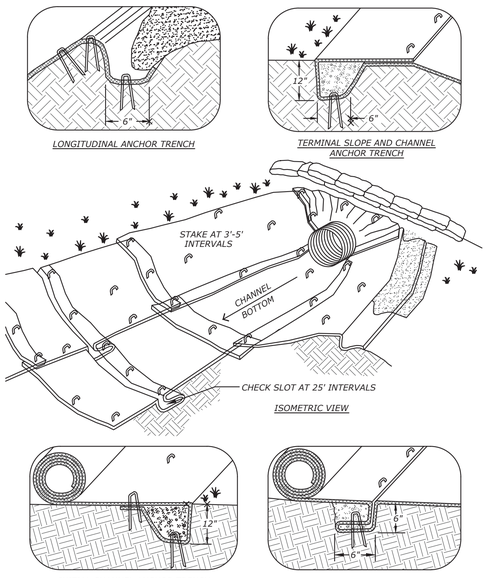
3. IF WASHOUT OR BREAKAGE OCCURS, RE-INSTALL THE MATERIAL AFTER REPAIRING THE DAMAGE TO THE SLOPE OR DRAINAGE WAY.



SLOPE INSTALLATION

DESCRIPTION

EROSION CONTROL MATS ARE MANUFACTURED COMBINATIONS OF MULCH AND NETTING DESIGNED TO RETAIN SOIL MOISTURE AND MODIFY SOIL TEMPERATURE. THEY ARE TYPICALLY MADE FROM JUTE MATTING, STRAW, COCONUT FIBER, EXCELSIOR OR SYNTHETIC MATERIAL THAT IS ENVELOPED IN PLASTIC OR BIODEGRADABLE NETTING. EROSION BLANKETS ARE SUITED FOR POST-CONSTRUCTION SITE STABILIZATION, BUT MAY BE USED FOR TEMPORARY STABILIZATION OF HIGHLY EROSIVE SOILS.



CHANNEL INSTALLATION

EROSION CONTROL MATS
-NOT TO SCALE-

CONSTRUCTION SPECIFICATIONS

1. A SUITABLE GEOTEXTILE FABRIC OR FILTER MATERIAL SHALL BE PLACED BETWEEN THE SOIL AND THE RIP-RAP APRON.

2. THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, OR RIPRAP SHALL BE CLEARED AND GRUBBED TO REMOVE ALL ROOTS, VEGETATION, AND DEBRIS AND PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.

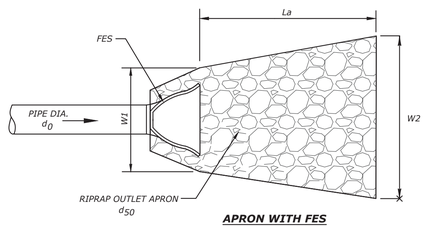
3. THE ROCK OR GRAVEL USED FOR FILTER OR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.

4. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIPRAP BY PLACING A CUSHION OF SAND AND GRAVEL OVER THE FABRIC. 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.

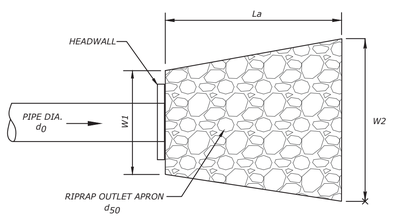
5. STONE FOR THE RIPRAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES AND/OR DISPLACEMENT OF THE UNDERLYING MATERIALS. HAND PLACEMENT MAY BE REQUIRED TO PREVENT DAMAGE TO ANY PERMANENT STRUCTURES.

6. STONES FOR RIPRAP SHALL BE ANGULAR OR SUBANGULAR. THE STONES SHOULD BE SHAPED SO THAT THE LEAST DIMENSION OF THE STONE FRAGMENT SHALL BE NOT LESS THAN ONE-THIRD OF THE GREATEST DIMENSION OF THE FRAGMENT. FLAT ROCKS SHALL NOT BE USED FOR RIPRAP.

7. VOIDS IN THE ROCK RIPRAP SHOULD BE FILLED WITH SPALLS AND SMALLER ROCKS.



APRON WITH FES



APRON WITH HEADWALL

MAINTENANCE

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED, OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. WOODY VEGETATION SHOULD BE REMOVED FROM THE ROCK RIPRAP ANNUALLY BECAUSE TREE ROOTS WILL EVENTUALLY DISLODGE THE ROCK RIPRAP.

THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TRESS, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES.

IF THE RIPRAP IS ON A CHANNEL BANK, THE STREAM SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT BARS THAT MAY CHANGE FLOW PATTERNS WHICH COULD DAMAGE OR DISPLACE THE RIPRAP. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

NOTES:

W1 = W2 FOR OUTLETS THAT DISCHARGE TO A WELL-DEFINED CHANNEL OR WATERWAY.

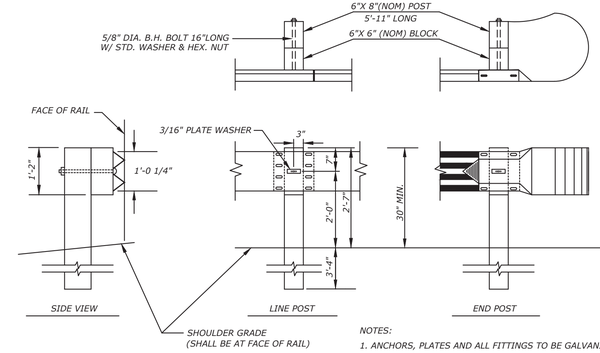
W1 = 3*d_0 FOR OUTLETS THAT DO NOT DISCHARGE TO A WELL-DEFINED CHANNEL OR WATERWAY.

RIP RAP GRADATION TABLE

% OF WEIGHT SMALLER THAN GIVEN SIZE	FOR d_{50} = XX
100	1.5-2.0 d_{50}
85	1.3-1.8 d_{50}
50	1.0-1.5 d_{50}
15	0.3-0.5 d_{50}

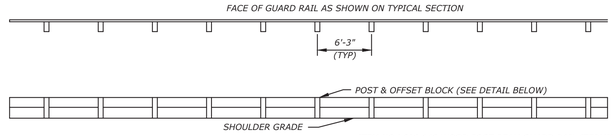
DESCRIPTION	La	W1	W2	d50	DEPTH
HW 1	9'	4'	13'	6"	15"

OUTLET PROTECTION APRON DETAIL
-NOT TO SCALE-



PLAN FOR WOOD POST & OFFSET BLOCK

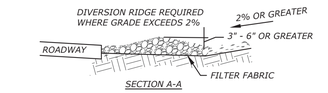
NOTES:
1. ANCHORS, PLATES AND ALL FITTINGS TO BE GALVANIZED.
2. ALL DIMENSIONS SUBJECT TO MANUFACTURING TOLERANCES.
3. RAIL PANELS AND END SECTIONS TO BE 12" GAGE STEEL.
4. WHEN GUARD RAIL IS SET 0'-4' BEHIND CURB, USE FINISHED PAVEMENT GRADE AT FACE OF CURB. WHEN GUARD RAIL IS SET 4' AND BEYOND USE GRADE AT FACE OF GUARD RAIL.

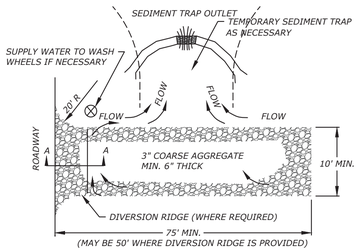


STANDARD SECTION GUARD RAIL

ITEM NO.' 606.146 WOOD POST BEAM GUARD RAIL (TERMINAL UNIT TYPE F)
ITEM NO.' 606.140 WOOD POST BEAM GUARD RAIL (STANDARD SECTION)
PAID' LIN. FT.
USE' WHEREVER BEAM GUARD RAIL IS WARRANTED

TYPICAL W-BEAM GUARDRAIL WITH WOOD POSTS
-NOT TO SCALE-





PLAN

CONSTRUCTION SPECIFICATIONS

- THE MINIMUM STONE USED SHOULD BE 3-INCH CRUSHED STONE
- THE MINIMUM LENGTH OF THE PAD SHOULD BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE
- THE PAD SHOULD EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 10 FEET, WHICHEVER IS GREATER
- THE PAD SHOULD SLOPE AWAY FROM THE EXISTING ROADWAY
- THE PAD SHOULD BE AT LEAST 6 INCHES THICK
- A GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD
- THE PAD SHOULD BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
- NATURAL DRAINAGE THAT CROSSED THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.

MAINTENANCE REQUIREMENTS

- WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHOULD BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE AND STABILIZED. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED.
- THE CONTRACTOR SHOULD SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
- WHEN WHEEL WASHING IS REQUIRED, IT SHOULD BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.

STABILIZED CONSTRUCTION EXIT
-NOT TO SCALE-

CONSTRUCTION DETAILS

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP
(TAX MAP 793Z LOT 23)
96 HALL STREET
CONCORD, NH

APPLICANT:	OWNER:
METRO TREATMENT OF NEW HAMPSHIRE, LP 100 HALL STREET CONCORD, NH 03301	JTA REALTY INVESTMENTS, LLC. 47 HALL STREET CONCORD, NH 03301-3591

STATE OF NEW HAMPSHIRE — JEFFREY W. LEWIS No.10420 — LICENSED PROFESSIONAL ENGINEER

REVISIONS:

NO.	DATE	DESCRIPTION

NORTHPOINT ENGINEERING, LLC
Civil Engineering ◢ Land Planning ◢ Construction Services
119 Storrs St, Ste 201
Concord, NH 03301
Tel 603-226-1166
Fax 603-226-1160
www.northpointeng.com

DATE: APRIL 2022
PROJ.: 21102
SCALE: AS SHOWN
SHEET: 8 OF 9

EROSION CONTROL NOTES

1. THE SMALLEST PRACTICAL AREA SHALL BE DISTRURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTRURBED AREAS ARE STABILIZED.

2. ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS.

3. ALL AREAS OF UNSTABILIZED SOIL SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICAL BUT NO LATER THAN 45 DAYS OF INITIAL DISTURBANCE.

4. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF OF THE INDIVIDUAL SITE CONTRACTOR MAY WARRANT.

5. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5-INCH OR GREATER RAINFALL WITHIN A 24-HOUR PERIOD. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE CLEANED AND MAINTATINED AND OTHERWISE KEPT IN AN EFFECTIVE OPERATIONS MANNER THROUGHOUT THE CONSTRUCTION PERIOD.

6. ALL ROADWAYS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINSHED GRADE. ALL CUT AND FILL SLOPES SHALL BE LOAMED AND SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.

7. ALL DISTURBED AREAS DESIGNATED TO BE TURF, SHALL RECEIVE A MINIMUM APPLICATION OF 4-INCHES OF LOAM (COMPACTED THICKNESS), PRIOR TO FINAL SEEDING AND MULCHING.

8. ALL SWALES AND DITCHLINES SHALL BE FULLY STABILIZED PRIOR TO HAVING STORMWATER DIRECTED TOWARDS THEM.

9.ALL SWALES AND DITCHLINES SHALL BE PERIODICALLY CLEANED OF DEPOSITED SEDIMENT SO AS TO MAINTAIN AN EFFECTIVE GRADE AND CROSS SECTION.

10. IN THE EVENT THAT DURING CONSTRUCTION OF ANY PORTION OF THIS PROJECT, A WINTER SHUTDOWN IS NECESSARY, THE CONTRACTOR SHALL STABILIZE ALL INCOMPLETE WORK AND PROVIDE FOR SUITABLE METHODS OF DIVERTING RUNOFF IN ORDER TO ELIMINATE SHEET FLOW ACROSS FROZEN SURFACES.

11. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS

12. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

13. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.

14. DUST SHALL BE CONTROLLED BY THE USE OF WATER AS NECESSARY THROUGHOUT THE CONSTRUCTION PERIOD.

15. IN NO WAY ARE THOSE TEMPORARY EROSION CONTROL MEASURES INDICATED ON THESE PLANS TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGEMENT IN INSTALLING SUPPLEMENTARY EROSION CONTROL MEASURES WHERE AND WHEN SPECIFIC SITE CONDITIONS AND/OR CONSTRUCTION METHODOLOGIES MAY WARRANT.

16. AREAS HAVING FINISH GRADE SLOPES STEEPER THAN 3 : 1 SHALL BE STABILIZED WITH EROSION CONTROL MATS WHEN AND IF FIELD CONDITIONS WARRANT, OR IF SO ORDERED. EROSION CONTROL MATS SHALL BE INSTALLED TO CONFORM WITH THE RECOMMENDED BEST MANAGEMENT PRACTICE OUTLINED IN THE "STORMWATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL HANDBOOK FOR URBAN AND DEVELOPING AREAS IN NEW HAMPSHIRE".

17. IN ORDER TO PROTECT WETLAND AREAS FROM SILTATION DURING CONSTRUCTION OF HOMES ON INDIVIDUAL LOTS, SILTATION FENCE SHALL BE INSTALLED UP GRADIENT OF DESIGNATED WETLANDS WHERE EXCAVATION IS PROPOSED TO OCCUR WITHIN 30-FEET OF SAID WETLANDS.

18. ALL CONSTRUCTION WITHIN 100 FEET OF ANY WETLAND SHALL BE UNDERTAKEN WITH SPECIAL CARE TO AVOID EROSION AND SILTATION INTO THE WETLANDS.

19. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;OR
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.

CONSTRUCTION SEQUENCE

1. CONTRACTOR TO NOTIFY DIG-SAFE 72-HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

2. CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS NECESSARY TO FACILITATE PROPOSED CONSTRUCTION. ALL TREES, BRANCHES AND OTHER VEGETATIVE MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR.

3. PRIOR TO COMMENCEMENT OF ANY GRUBBING OR EARTHMOVING OPERATIONS, ALL SPECIFIED PERIMETER CONTROLS AND STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLANS.

4. COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTIONS ACTIVITIES AND DRAINAGE FLOW. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED WITH HAY BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION.

5. PRIOR TO ROUGH GRADING ANY PORTION OF THE SITE, THE PERMANENT RETENTION BASINS AND DRAINAGE SWALES SHALL BE INSTALLED FOR ANY PORTIONS OF THE SITE THAT WILL DIRECT RUNOFF TO THE BASINS OR SWALES.

6. BEGIN EARTHMOVING OPERATIONS: PERMANENT DOWNSLOPE WORK SHALL BE PROTECTED FROM UPGRADIENT STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY EARTHEN DIKES OR EXCAVATED SWALES.

7. INSTALL DRAINAGE SWALE SYSTEMS, DETENTION BASINS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED.

8. CONSTRUCT TEMPORARY CULVERTS AS NECESSARY TO FACILITATE CONSTRUCTION ACTIVITIES. ALL SUCH CROSSINGS SHALL BE PROTECTED WITH HAY BALE BARRIERS TO LIMIT EROSION.

9. CONSTRUCT CLOSED DRAINAGE SYSTEM, AND OTHER SUBSURFACE UTILITIES, AS APPLICABLE.

10. COMMENCE CONSTRUCTION OF ROADWAYS. PERFORM EXCAVATION ACTIVITIES REQUIRED TO ACHIEVE SUBGRADE ELEVATION. ALL EXCAVATED EMBANKMENTS, DITCHES, SWALES AND ROADWAY CROSS CULVERTS SHALL BE INSTALLED AND STABILIZED. ALL SWALES AND DITCHLINES SHALL BE PROTECTED FROM EROSION BY IMPLEMENTATION OF SILT FENCES AND/OR EROSION CONTROL MULCH BERMS AS SHOWN ON THE PROJECT PLANS. DIVERT STORMWATER RUNOFF THROUGH THE USE OF TEMPORARY CULVERTS, OR OTHER MEANS NECESSARY PRIOR TO THE COMPLETIONS OF A FUNCTIONAL STORM DRAINAGE SYSTEM. SLOPES AND EMBANKMENTS SHALL BE STABILIZED BY TRACKING AND TEMPORARY SEEDING WITH WINTER RYE PRIOR TO TURF ESTABLISHMENT. ALL DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO HAVING RUNOFF DIRECTED TO THEM.

11. COMPLETE CONSTRUCTION OF ROADWAY EMBANKMENTS BY ADDING APPROPRIATE BASE MATERIALS GRADED TO PROPER ELEVATION.

12. COMPLETE EXCAVATION /STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY TO LEAVE A THICKNESS OF 4-INCHES OF FRIABLE LOAM.

13. APPLY TOPSOIL TO ROADWAY SLOPES AND OTHER AREAS DISTURBED BY CONSTRUCTION. TOPSOIL USED MAY BE NATIVE ORGANIC MATERIAL SCREENED SO AS TO BE FREE OF ROOTS, BRANCHES, STONES, AND OTHER DELETERIOUS MATERIALS. TOPSOIL SHALL BE APPLIED SO AS TO PROVIDE A MINIMUM OF A 4-INCH COMPACTED THICKNESS.

14. FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED.

15. PERFORM FINE GRADING OF ROADWAY BASE MATERIALS. INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS.

16. INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE. COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

17. CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.

18. AFTER STABILIZATION REMOVE AND SUITABLY DISPOSE OF TEMPORARY EROSION CONTROL MEASURES.

19. MONITOR CONSTRUCTION ACTIVITIES ON INDIVIDUAL LOTS TO INSURE CONSTRUCTION ACTIVITIES ARE BEING PERFORMED IN SUCH A WAY AS NOT TO ENDANGER THE INTEGRITY OF ROADWAY EMBANKMENTS, STORMWATER SYSTEMS AND UTILITIES. ALL DRIVEWAYS ACROSS DITCHLINES SHALL HAVE CULVERTS INSTALLED IN ACCORDANCE WITH LOCAL REQUIREMENTS.

20. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED FIVE (5) ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.

21. THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 38000 RELATIVE TO INVASIVE SPECIES.

CONSTRUCTION SPECIFICATIONS

1. CHECKS DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DITCH.

2. CAREFUL PLACEMENT WILL BE NECESSARY TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO ENSURE THAT THE CENTER OF THE STRUCTURE IS LOWER THAN THE EDGES.

3. THE MAXIMUM HEIGHT OF THE STRUCTURE SHOULD BE 2-FEET AND THE CENTER OF THE STRUCTURE SHOULD BE AT LEAST 6-INCHES LOWER THAN THE OUTER EDGES.

4. THE MAXIMUM SPACING BETWEEN THE STRUCTURES SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM STRUCTURE IS AT THE SAME ELEVATION AS THE TOP OF DOWNSTREAM STRUCTURE.

5. STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS EXPIRED.

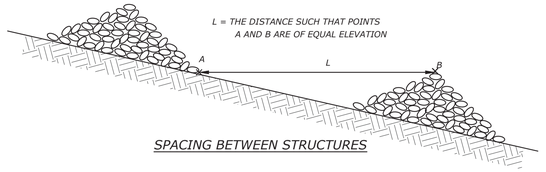
MAINTENANCE & INSPECTION

1. CHECK DAMS SHOULD BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED STORMS, AND ANY NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.

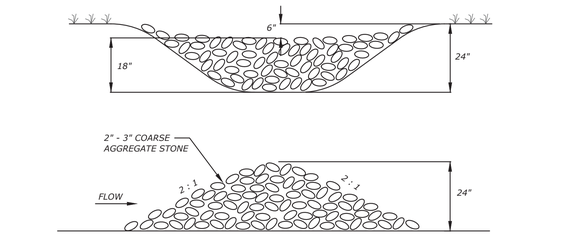
2. PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE, AND TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.

3. SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT HAS ACCUMULATED TO ONE HALF OF THE ORIGINAL HEIGHT OF THE STRUCTURE.

4. WHEN THE STRUCTURES ARE REMOVED, THE DISTURBED PORTION SHOULD BE BROUGHT TO THE EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEEDED, AND MULCHED IMMEDIATELY.



SPACING BETWEEN STRUCTURES



STONE GRADE STABILIZATION STRUCTURE

STONE CHECK DAM
-NOT TO SCALE-

CONSTRUCTION SPECIFICATIONS

1. THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.

2. THE FABRIC SHALL BE EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.

3. WHEN APPLICABLE, WOVEN WIRE FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIE OR STAPLES. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOVEN WIRE FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP, MID-SECTION, AND BOTTOM.

4. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED.

5. FENCE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND. WOOD POSTS SHALL BE OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.

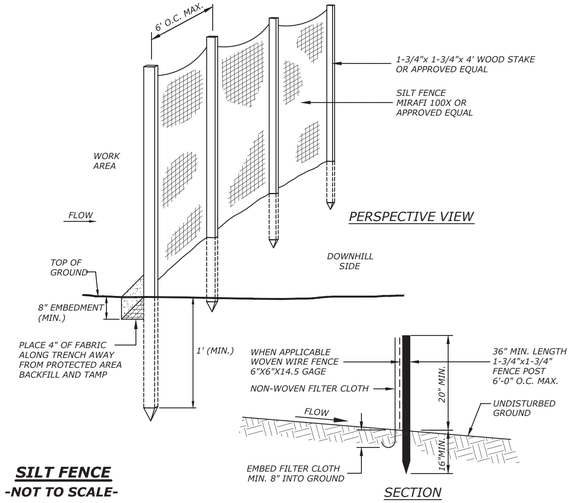
MAINTENANCE

1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE IMMEDIATELY.

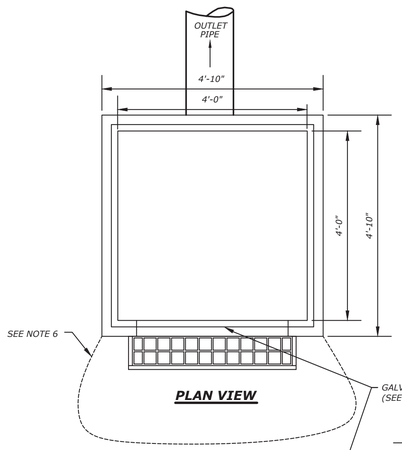
2. IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.

3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-THIRD 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.



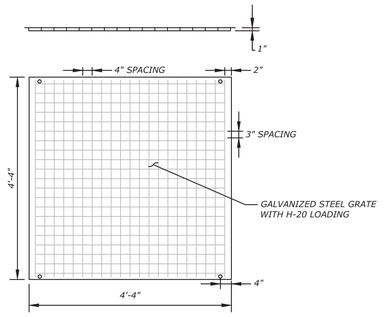
SILT FENCE
-NOT TO SCALE-



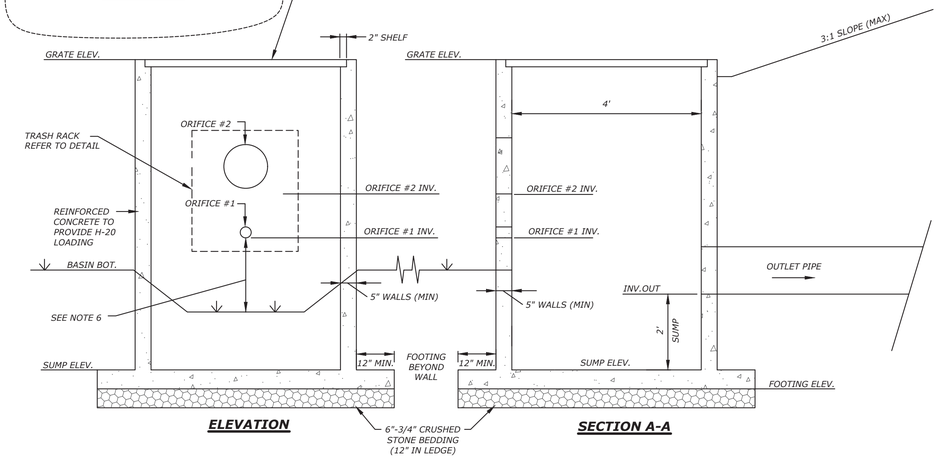
PLAN VIEW

NOTES:

1. ALL CONCRETE TO BE 4000 PSI (MIN.).
2. GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE. (SEE DETAIL THIS SHEET)
3. ALL OPENINGS CAST IN AS REQUIRED.
4. PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM C-478 DESIGNATION AND H-20 LOADING.
5. ALL PIPE TO PIPE CONNECTIONS AND ALL PIPE TO CONCRETE CONNECTIONS SHALL BE WATERPROOF.
6. WHEN LOWEST ORIFICE IS WITHIN 6" OF BASIN BOTTOM, THEN BASIN BOTTOM SHALL BE GRADED TO PROVIDE A SUMP AREA AT INLET THAT IS 6" LOWER THAN THE LOWEST ORIFICE INVERT. SUMP AREA SHALL BE 4'X4' MINIMUM.



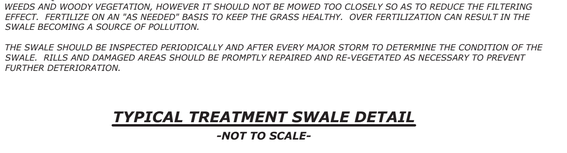
STEEL GRATE DETAIL



ELEVATION SECTION A-A

STRUCTURE	BASIN BOT ELEV	GRATE ELEV	WEIR WIDTH	WEIR INV.	ORIFICE #1 DIA.	ORIFICE #1 INV.	ORIFICE #2 LxW	ORIFICE #2 INV.	OUTLET PIPE DIA.	OUTLET PIPE INV.	SUMP ELEV	TRASH RACK
OS #1	329.00	330.75	N/A	N/A	1.5"	329.00	6"	329.90	15"	329.00	327.00	YES

OUTLET STRUCTURE #1
-NOT TO SCALE-



MAINTENANCE

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

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

TYPICAL TREATMENT SWALE DETAIL
-NOT TO SCALE-

CONSTRUCTION DETAILS

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP
(TAX MAP 793Z LOT 23)
96 HALL STREET
CONCORD, NH

APPLICANT:	OWNER:
METRO TREATMENT OF NEW HAMPSHIRE, LP 100 HALL STREET CONCORD, NH 03301	JTA REALTY INVESTMENTS, LLC. 47 HALL STREET CONCORD, NH 03301-3591

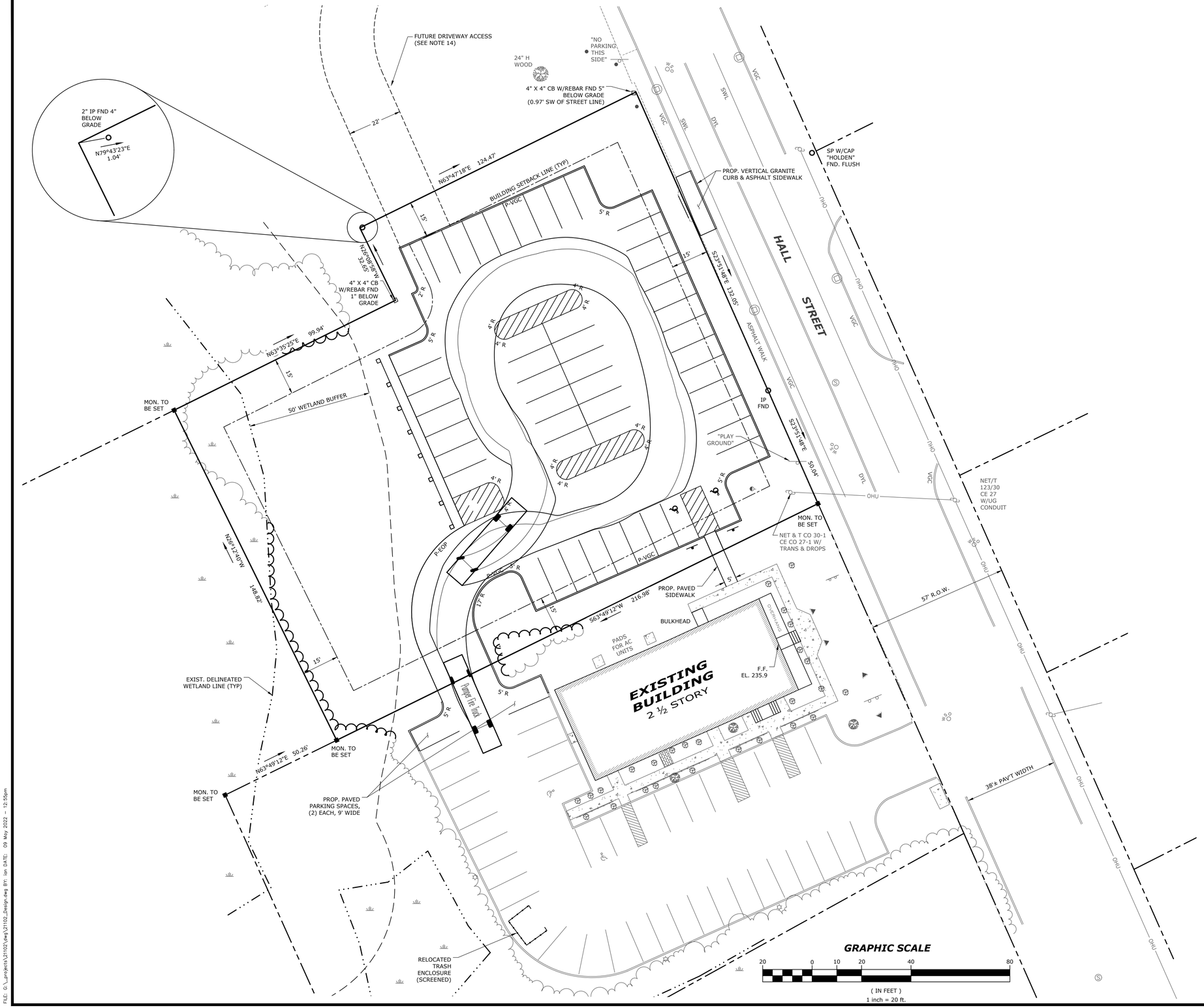
STATE OF NEW HAMPSHIRE — JEFFREY W. LEWIS No.10420 — LICENSED PROFESSIONAL ENGINEER

REVISIONS:

NO.	DATE	DESCRIPTION

NORTHPOINT ENGINEERING, LLC
Civil Engineering ◢ Land Planning ◢ Construction Services
119 Storrs St, Ste 201
Concord, NH 03301
Tel 603-226-1166
Fax 603-226-1160
www.northpointenginc.com

DATE: APRIL 2022
PROJ.: 21102
SCALE: AS SHOWN
SHEET: 9 OF 9



FIRE TRUCK EXHIBIT

PREPARED FOR:

METRO TREATMENT OF NEW HAMPSHIRE, LP

(TAX MAP 793Z LOT 23)

96 HALL STREET
CONCORD, NH

APPLICANT:	OWNER:
METRO TREATMENT OF NEW HAMPSHIRE, LP 100 HALL STREET CONCORD, NH 03301	JTA REALTY INVESTMENTS, LLC. 47 HALL STREET CONCORD, NH 03301-3591

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DATE: APRIL 2022
PROJ.: 21102
SCALE: 1"=20'
SHEET: -