

PROPOSED SITE PLAN

for

MADBURY COMMONS

17 & 21 MADBURY ROAD

DURHAM, NEW HAMPSHIRE

OCTOBER 16, 2013
REVISED JUNE 11, 2014

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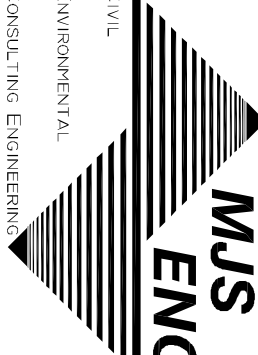
WIP

APPLICANT:
GOLDEN GOOSE CAPITAL, LLC
1 PLEASANT STREET UNIT 1A-21
WESTFORD, MA 01886

OWNERS:
GP MADBURY 17, LLC
1 PLEASANT STREET UNIT 1A-21
WESTFORD, MA 01886

ROSE LAWN PROPERTIES, LLC
116 KING ROAD
BEDFORD, NH 03110
S.C.R.D BOOK 2205 PG 489

PROJECT TEAM:
CIVIL ENGINEER:



**MJS
ENGINEERING, PC**

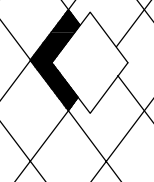
CIVIL
ENGINEERING
3 GILBARD ST., P.O. BOX 359
PORTSMOUTH, NH 03801
Phone: (603) 436-4274
Fax: (603) 436-4274
E-MAIL: info@tms-architects.com

WETLAND SCIENTIST:

GZA GEOTECHNICAL, INC.
380 HARVEY ROAD
MANCHESTER, NH 03103
PHONE: (603)-623-3600
FAX: (603)-624-9463

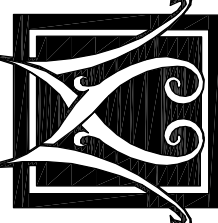
SOIL SCIENTIST:
JOHN P. HAYES III CSS, CWS,
33 THIRD STREET #2
DOVER, NH 03820
PHONE: 603-205-4396

SURVEYOR:



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**WOODBURN
& COMPANY**

Landscape Architecture, LLC
103 Kant Place
Newmarket, NH 03857
Tel: 603.659.5949
Fax: 603.659.5939

LANDSCAPE DESIGNER:

ARCHITECT:
TMS ARCHITECTS
ONE CATE STREET
PORTSMOUTH, NH 03801
PHONE: (603)-436-4274, FAX: (603)-431-1828
EMAIL: info@tms-architects.com

FINAL APPROVAL BY THE DURHAM PLANNING BOARD

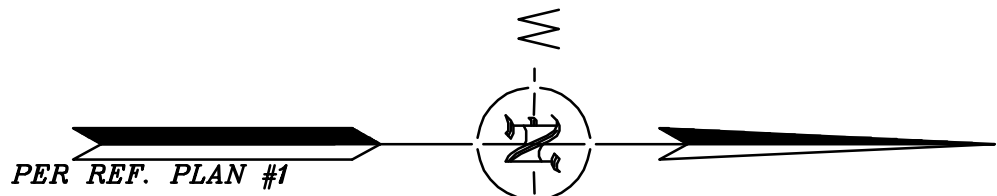
CERTIFIED BY _____

DATE _____

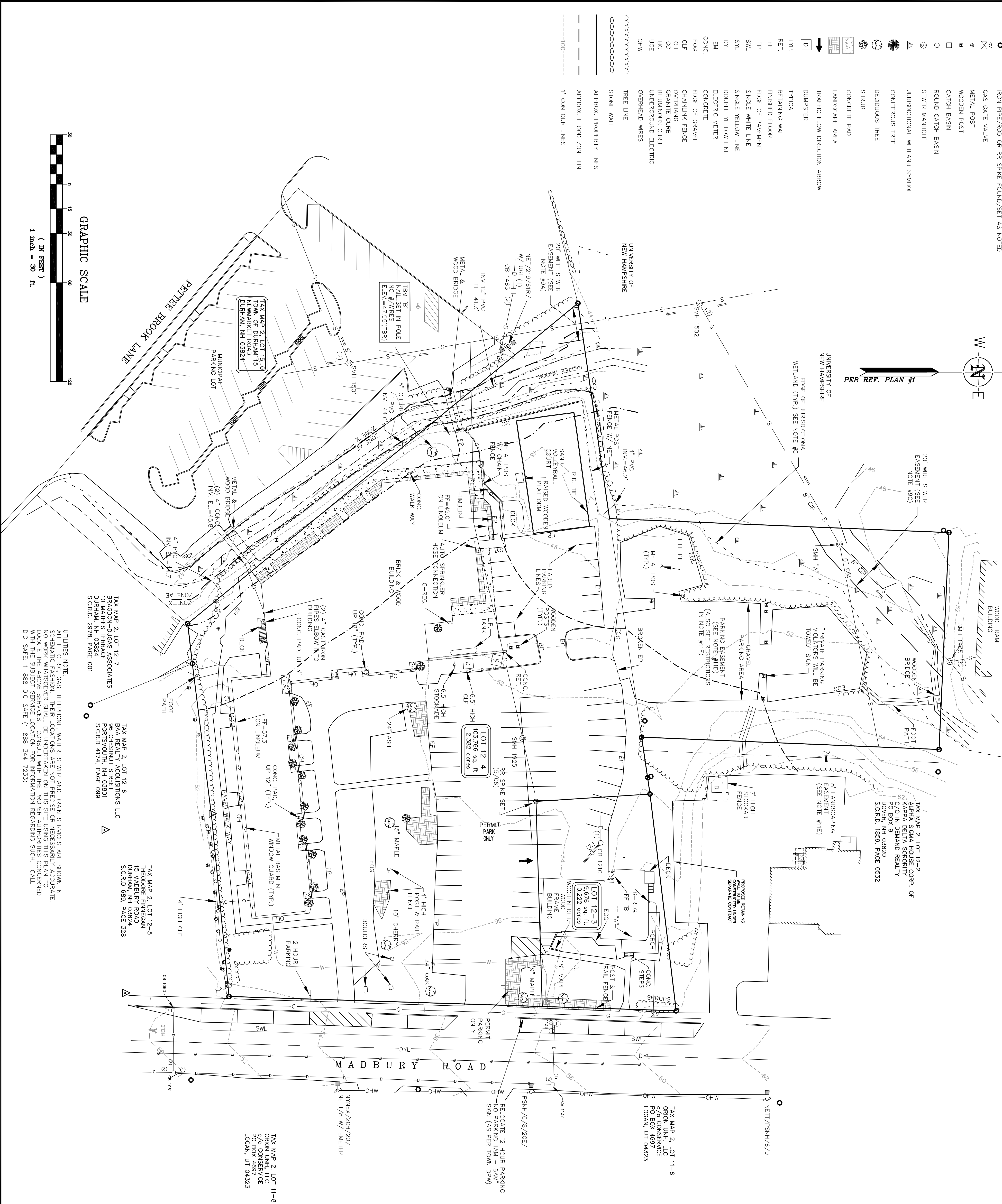
5.	REVISIONS PER 6/10/14 COA REVIEW MEETING WITH TOWN PLANNER	6/11/14	MS
4.	INITIAL SUBMISSION FOR COA REVIEW BY TOWN PLANNER	5/28/14	MS
3.	SUBMISSION TO AOT BUREAU	4/29/14	MS
2.	REVISIONS PER TIGHE & BOND REVIEW LETTER 1/21/14	2/10/14	KD
1.	ADDITIONAL REVISIONS PER COMMERCIAL OCCUPANCY REQUIREMENTS	10/16/13	KD
0.	SUBMISSION FOR SITE PLAN REVIEW	10/16/13	KD
NO.	REVISIONS	DATE	INT.

LEGEND

- UTILITY POLE & GUY WIRE
- UTILITY POLE W/ ONE LIGHT
- UTILITY POLE W/ TWO LIGHTS
- SIGN
- BOLT FOUND
- DRILL HOLE FOUND
- IRON PIPE/ROD OR RR SPIKE FOUND/SET AS NOTED
- GAS GATE VALVE
- METAL POST
- WOODEN POST
- CATCH BASIN
- ROUND CATCH BASIN
- SEWER MANHOLE
- JURISDICTIONAL WETLAND SYMBOL
- CONIFEROUS TREE
- DECIDUOUS TREE
- SHRUB
- CONCRETE PAD
- LANDSCAPE AREA
- TRAFFIC FLOW DIRECTION ARROW
- DUMPSTER
- RET. TYP.
- FINISHED FLOOR
- EDGE OF PARCEMENT
- SINGLE WHITE LINE
- SINGLE YELLOW LINE
- DOUBLE YELLOW LINE
- ELECTRIC WETER
- CONCRETE
- EDGE OF GRAVEL
- GRANULAK FENCE
- GRANITE CURB
- BITUMINOUS CURB
- UNDERGROUND ELECTRIC
- OVERHEAD WRES
- TREE LINE
- STONE WALL
- APPROX. PROPERTY LINES
- APPROX. FLOOD ZONE LINE
- 1' CONTOUR LINES



PER REF. PLAN #1



TAX MAP 2, LOT 12-1
ORION UNIT LLC
825 FRANKLIN ST.
DURHAM, NH 03824
S.C.R.D. 3990, PAGE 886

TAX MAP 2, LOT 12-0
KAPPA DELTA SORORITY
PO BOX 1895
DOVER, NH 03820
S.C.R.D. 1895, PAGE 0332

TAX MAP 2, LOT 12-2
ALPHA SIGMA HOUSE CORP. OF
PO BOX 1895
DOVER, NH 03820
S.C.R.D. 1895, PAGE 0332

TAX MAP 2, LOT 11-6
ORION UNIT LLC
825 FRANKLIN ST.
DURHAM, NH 03824
S.C.R.D. 3990, PAGE 886

TAX MAP 2, LOT 11-8
ORION UNIT LLC
825 FRANKLIN ST.
DURHAM, NH 03824
S.C.R.D. 3990, PAGE 886

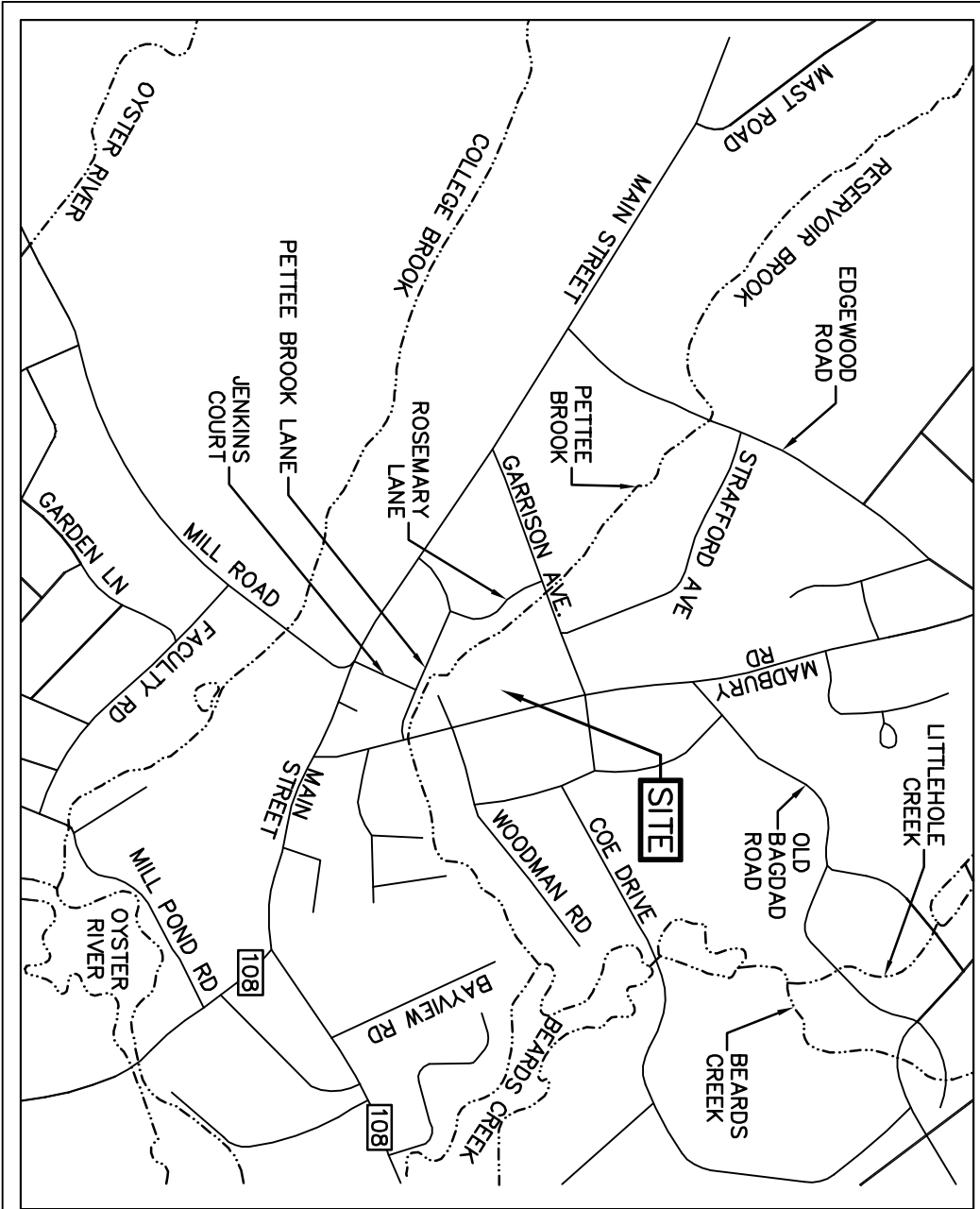
MADBURY ROAD

TAX MAP 2, LOT 12-7
BRADON-DUGAS ASSOCIATES
DURHAM, NH 03824
S.C.R.D. 2978, PAGE 001

TAX MAP 2, LOT 12-6
BAA REALTY ACQUISITIONS LLC
PORTSMOUTH, NH 03801
S.C.R.D. 4174, PAGE 099

TAX MAP 2, LOT 12-5
THEODORE FINNEGAN
DURHAM, NH 03824
S.C.R.D. 689, PAGE 328

UTILITIES NOTE:
ALL ELECTRIC, GAS, TELEPHONE, WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACQUATE. NO WORK, MAINTENANCE, REPAIRS, OR ALTERATIONS SHOULD BE MADE OR UNDERTAKEN WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE ENGINEER SHALL BE RESPONSIBLE FOR THE PRESENCE OF UTILITIES AND THE LOCATION OF UTILITIES. CALL THE SUBJECT SERVICE LOCATION FOR INFORMATION REGARDING SUCH. CALL DUG-SAFE: 1-888-DUG-SAFE (1-888-344-7233)



LOCUS
SCALE: 1"=1000'

SITE DATA BLOCK
ZONE: CB - CENTRAL BUSINESS DISTRICT
USE: COMMERCIAL & RESIDENTIAL

DIMENSIONAL REQUIREMENTS	
MINIMUM LOT SIZE (SQUARE FEET)	REQUIRED
MINIMUM LOT AREA PER DWELLING UNIT (S.F.)	3000
MINIMUM FRONTAGE (FEET)	50
MINIMUM FRONT YARD SETBACK (FEET)	50
MINIMUM SIDE YARD SETBACK (FEET)	50
MINIMUM REAR YARD SETBACK (FEET)	50
MAXIMUM ROAD SETBACK (FEET)	50
MAXIMUM HEIGHT (FEET)	50
MAXIMUM HEIGHT W/ P.B. APPROVAL (FEET)	50

GENERAL NOTES:

1. REFERENCE: TAX MAP 2, LOTS 12-3 & 12-4.
2. TOTAL PARCEL AREA: LOT 12-3: 9,676 SF (0.222 AC.), LOT 12-4: 103,766 SF (2.382 AC.)
3. OWNERS OF RECORD: TAX MAP 2, LOT 12-3: GP MADBURY 17, LLC; TAX MAP 2, LOT 12-4: ROSE LAM PROPERTIES, LLC
4. FIELD SURVEY PERFORMED BY DOUGET SURVEY (C.R.C. & B.M.M.) ON 4/08 USING A LEICA 12/12 USING A TRIMBLE 58 TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR.
5. JURISDICTIONAL WETLANDS Delineated by GZA GEOSCIENCE/ENVIRONMENTAL, INC. DURING DECEMBER 2012 IN ACCORDANCE WITH 1987 CORPS OF ENGINEERS WETLANDS Delineations Manual, TECHNICAL REPORT Y-87-1.
6. FLOOD HAZARD ZONES: "X" (OUTSIDE THE 100 YEAR FLOOD ZONE) & "AE" (MINIMUM 100 YEAR FLOOD ZONE) PER FIRM #3070203180, DATED 5/17/05.
7. HORIZONTAL DATUM BASED ON REFERENCE PLAN #2.
8. VERTICAL DATUM BASED ON NAVD83 PER DISK UNH3 ELEVATION = 76.72' TO CONVERT TO NAVD29 ADD 0.727'.
9. THE PARCELS ARE SUBJECT TO, AND/OR IN BENEFIT OF, THE FOLLOWING EASEMENTS, RESTRICTIONS, ETC:
 - A) SUBJECT TO A 20' WIDE SEWER EASEMENT IN FAVOR OF THE TOWN OF DURHAM, SEE S.C.R.D. BOOK 1060 PAGE 318.
 - B) SUBJECT TO A 20' WIDE SEWER EASEMENT IN FAVOR OF THE TOWN OF DURHAM, SEE S.C.R.D. BOOK 1060 PAGE 318.
 - C) SUBJECT TO A 20' WIDE SEWER EASEMENT IN FAVOR OF THE TOWN OF DURHAM, SEE S.C.R.D. BOOK 1060 PAGE 318.
 - D) SUBJECT TO A PARKING EASEMENT IN FAVOR OF TAX MAP 2 LOT 12-2.
 - E) IN BENEFIT OF S.C.R.D. BOOK 1060 PAGE 318.
 - F) SUBJECT TO THE RESTRICTION THAT THE NORTHERLY PORTION OF THE LOT, WHICH WAS ACQUIRED BY DEED 1060 PAGE 313, SHALL BE USED ONLY AS A PARKING LOT. IN ADDITION, ACCORDING TO REFERENCE PLAN #7, THIS
 - G) IN BENEFIT OF A 20' WIDE SEWER EASEMENT OVER TAX MAP 2 LOT 15-0.
 - H) SUBJECT TO AND IN BENEFIT OF SEWER AND WATER RIGHTS, SEE S.C.R.D. BOOK 399 PAGE 389.
 - I) SUBJECT TO WATER LINE RIGHTS GRANTED TO CHARLES PETTIE, SEE S.C.R.D. BOOK 399 PAGE 384.
 - 10. EASEMENTS D, E, F & I ARE BEING DISCLOSED AND NEW EASEMENTS WILL BE PREPARED FOR DRAINAGE AND GRADING ON MAP 2 LOT 12-2.

REFERENCE PLANS:

1. "EXISTING CONDITIONS PLAN OF LOT 17 & 21 MADBURY ROAD FOR GOLDEN GOOSE PROPERTIES, LLC, DURHAM, NEW HAMPSHIRE" PREPARED BY DOUGET SURVEY, INC. AND DATED DECEMBER 12, 2012.
2. "ALTA/ACSM LAND TITLE SURVEY FOR N.H. BETA ASSOC. OF SIGMA ALPHA EPSILON," BY DOUGET SURVEY, INC., DATED APRIL 30, 1999.
3. "EXISTING CONDITIONS PLAN OF TAX MAP 2, LOTS 15-0 & 15-1 FOR THE TOWN OF DURHAM, PETTIE BROOK ROAD, DURHAM, NH PREPARED BY DOUGET SURVEY, INC. AND DATED JANUARY 16, 2008.

EXISTING CONDITIONS PLAN
prepared for

MADBURY COMMONS

17 & 21 MADBURY ROAD DURHAM, NH

DATE: 4/22/14
SCALE: 1"=30'
DESIGNED BY: MJS
DRAWN BY: MS
APPROVED BY: MJS

DWG FILE: 13--007 C1K.dwg

SEAL

NO.	REVISIONS	DATE	INT.
2.	INITIAL SUBMISSION FOR COA REVIEW BY TOWN PLANNER	5/28/14	MS
1.	SUBMISSION FOR SEWER CONNECTION PERMIT	5/7/14	MS

MJS ENGINEERING, PC
CIVIL
ENVIRONMENTAL
CONSULTING ENGINEERING
5 RAILROAD ST., P.O. BOX 359
NEW MARKET, NH 03857
PHONE: (603) 653-4679, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM

EC

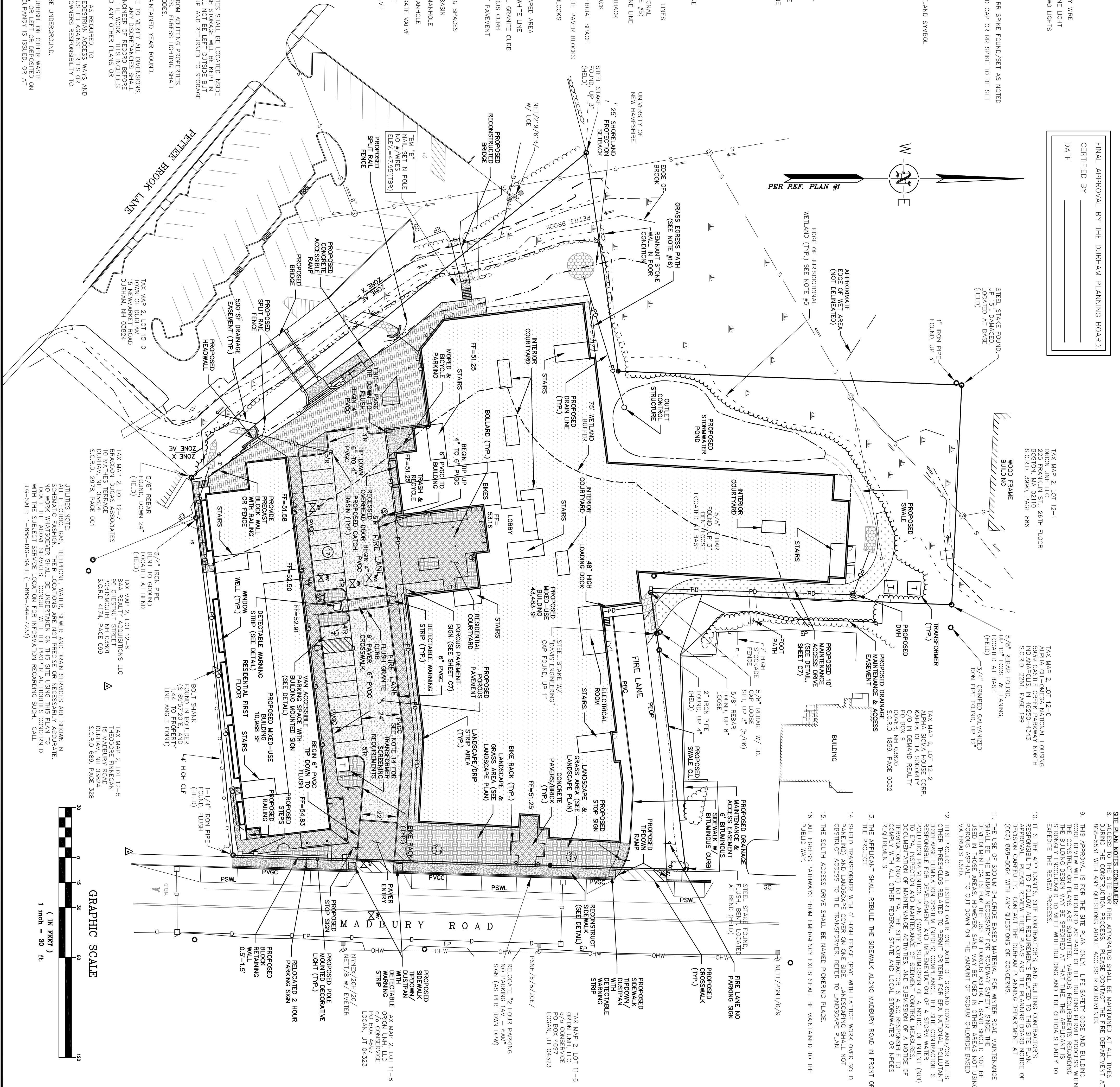
JOB: 13--007

CERTIFIED BY _____

DATE _____

- PROPOSED GAS VALVE

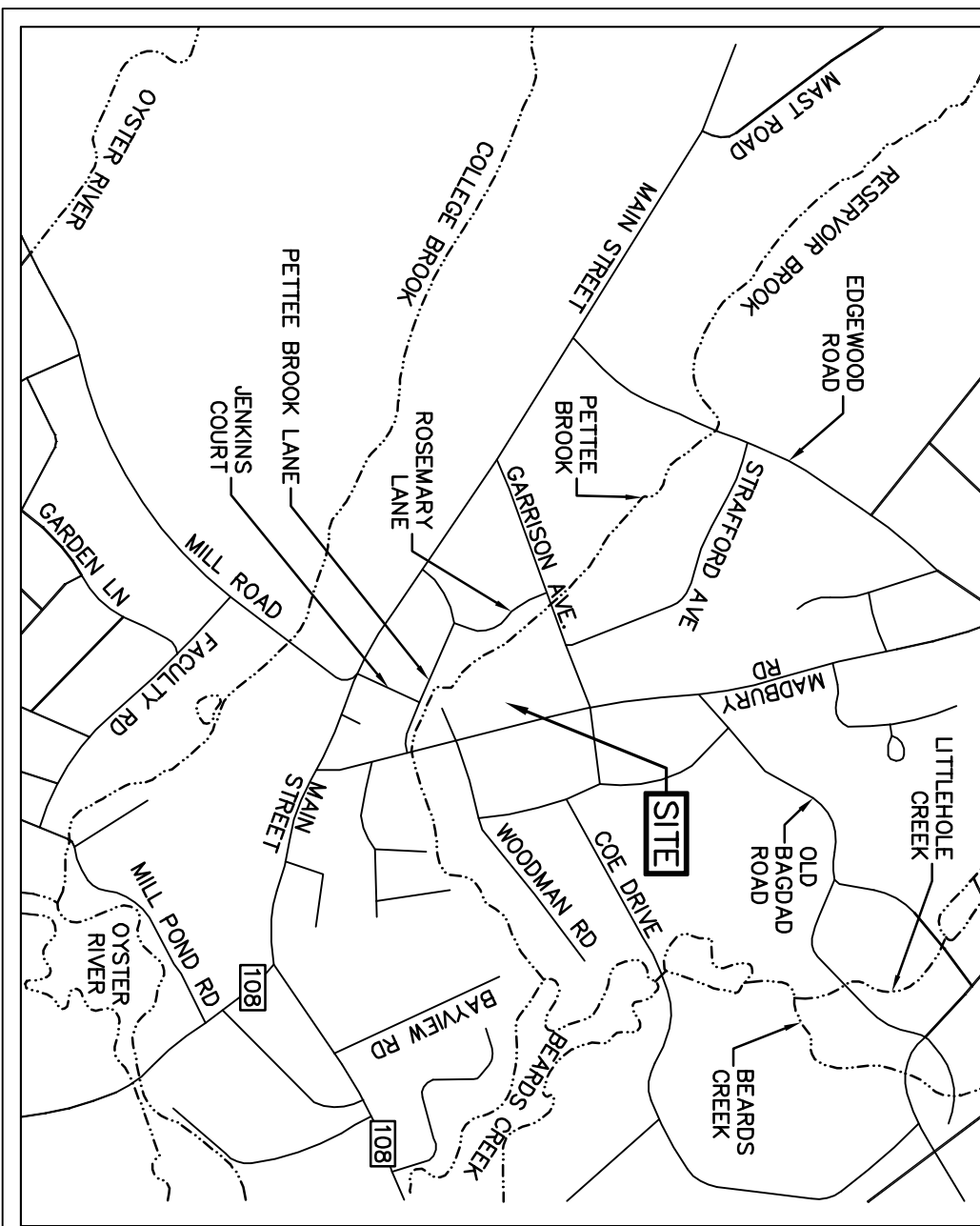
SITE PLAN NOTES:



ACCESS TO THE SITE FOR FIRE APPARATUS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 868-5531 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.

9. THIS APPROVAL IS FOR THE SITE PLAN ONLY. LIFE SAFETY CODE AND BUILDING CODE REQUIREMENTS ARE SUBMITTED SEPARATELY. MAJOR REQUIREMENTS REGARDING THE CONSTRUCTION PLANS ARE SUBMITTED. MAJOR REQUIREMENTS REGARDING THE CONSTRUCTION OF THE PROJECT ARE SUBMITTED. THE PROJECT SHALL BE STRONGLY ENCOURAGED TO MEET WITH BUILDING AND FIRE OFFICIALS EARLY TO EXPEDITE THE REVIEW PROCESS.
10. IT IS THE APPLICANT'S, SITE CONTRACTOR'S, AND BUILDING CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL REQUIREMENTS RELATED TO THIS SITE PLAN APPROVAL. PLEASE REVIEW THESE PLANS AND THE PLANNING BOARD NOTICE OF DECISION CAREFULLY. CONDUCT THE DOWNSIDE PLANNING DEPARTMENT AT (603) 868-0060 WITH ANY QUESTIONS OR CONCERNS.
11. THE USE OF SOIL/CURB/CURB BASED MATERIAL FOR WINTER ROAD MAINTENANCE SHALL BE LIMITED TO THE USE OF POLYMER ASPHALT. SAND SHOULD NOT BE USED IN THOSE AREAS. HOWEVER, SAND MAY BE USED IN OTHER AREAS NOT USING POROUS ASPHALT TO CUT DOWN ON THE AMOUNT OF SOIL/CURB BASED MATERIALS USED.
12. THIS PROJECT WILL DISTURB OVER ONE ACRE OF GROUND COVER AND/OR MEETS OTHER THRESHOLDS RELATED TO PERMIT CRITERIA FOR EPA NATIONAL POLLUTANT DISCHARGE ACT (NPDES) PERMITTING. THE APPLICANT SHALL PREPARE AND SUBMIT A POLLUTION PREVENTION PLAN (P3PP), SUBMISSION OF A NOTICE OF INTENT (NOI) TO EPA, INSPECTION AND MAINTENANCE OF SEDIMENT CONTROL MEASURES, DOCUMENTATION OF MAINTENANCE ACTIVITIES, AND SUBMISSION A NOTICE OF COMPLETION TO THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENT AND NATURE. COMPLY WITH ALL OTHER FEDERAL, STATE AND LOCAL STREAMWATER OR NPDES REQUIREMENTS.
13. THE APPLICANT SHALL REBUILD THE SIDEWALK ALONG MADDURY ROAD IN FRONT OF THE PROJECT.
14. SHIELD TRANSFORMER WITH 6' HIGH FENCE (ONE WITH LITTER WORK OVER SOLID CURB) SHALL BE INSTALLED. THE TRANSFORMER SHALL BE MAINTAINED AND NOT OBSTRUCT ACCESS TO THE TRANSFORMER. REFER TO LANDSCAPE PLAN.
15. THE SOUTH ACCESS DRIVE SHALL BE NAMED PICKERING PLACE.
16. ALL ACCESS PATHWAYS FROM EMERGENCY EXITS SHALL BE MAINTAINED TO THE PUBLIC WAY.

SCALE: 1"=1000'



SALE: 1 = 1000

PLAN INTENT: LOT REDEVELOPMENT WITH TWO NEW MULTI-STORY, MIXED USE BUILDINGS WITH RESIDENTIAL UNITS AND FIRST FLOOR COMMERCIAL.

IONS

- | | |
|-----|--|
| 9. | REVISIONS PER 6/10/14 COA REVIEW MEETING WITH TOWN PLANNER |
| 8. | INITIAL SUBMISSION FOR COA REVIEW BY TOWN PLANNER |
| 7. | SEWER REVISIONS |
| 6. | SUBMISSION TO AOT BUREAU |
| 5. | REVISIONS PER TIGHE & BOND REVIEW LETTER DATED 1/21/14 |
| 4. | ADDITIONAL REVISIONS PER COMMERCIAL OCCUPANCY REQUIREMENTS |
| NO. | REVISIONS |

REVISIONS

DAT

NT.

DATE: 10/16/13
SCALE: 1"=30'
DESIGNED BY: MJS
DRAWN BY: MS
APPROVED BY: MJS

DWG FILE: 13-007 C1K.dwg

PROPOSED SITE PLAN
prepared for
MADBURY COMMONS

17 & 21 MADBURY ROAD DURHAM, NH

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=====
= 11 SPACES
=====

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NOTE 1: ARTICLE 21, SECTION 175-112.A ALLOWS EXEMPTIONS FROM PARKING REQUIREMENTS IN THE CB DISTRICT. REQUEST EXEMPTION FROM 620 SPACES

GENERAL NOTES:

1. REFERENCE: TAX MAP 2, LOTS 12-3 & 12-4.
2. TOTAL PARCEL AREA: LOT 12-3: 9,676 SF (0.222 AC.), LOT 12-4: 103,766 SF (2.382 AC.).
3. OWNERS OF RECORD: TAX MAP 2, LOT 12-3
GP MADRURY 17, LLC
TAX MAP 2, LOT 12-4
ROSE LAWN PROPERTIES, LLC

WESTFORD, MA 01886
C O N D D O O K 4 0 8 4 P A G E 8 8 8

4. FIELD SURVEY PERFORMED BY DOUGLASS SURVEY (C.R.C. & S.M.M.) ON 4/06 USING A TCRA TOTAL STATION & A SOKKIA B20 AUTO LEVEL, AND BY P.J.S. & L.P.S. DURING

INDICATIONS ARE NOT IMPLIED BY CTA ASSOCIATION/CATALAN INC

DELIVERATIONS MANUAL, TECHNICAL REPORT 1-87-1.

MODERNIZATION OF THE ECONOMY

8. VERTICAL DATUM BASED ON NAVD88 PER DISK UNH3 ELEVATION = 6.72 (10 CONVERSION TO NAVD29 ADD 0.72).

RESTRICTIONS, ETC.

B) SUBJECT TO A UTILITY EASEMENT IN FAVOR OF NH ELECTRIC COMPANY AND N
TELEPHONE & TELEGRAPH COMPANY SEE S.C.R.D BOOK 658 PAGE 41

D) SUBJECT TO A PARKING EASEMENT IN FAVOR OF TAX MAP 2 LOT 12-2, SEE 3 MECHANIC ARTS, SEE 3, 4 AND BOOK 307 PAGE 440.

BOOK 1060 PAGE 320.

ACCORDING TO REFERENCE PLAN #7, "THIS PARCEL IS A NON-BUILDING LOT",
G) IN BENEFIT OF A 20' WIDE SEWER EASEMENT OVER TAX MAP 2 LOT 15-0 SEE

1) SUBJECT TO WATER LINE RIGHTS GRANTED TO CHARLES PETTEE, SEE S.C.R.D.

AND GRADING ON MAP 2 LOT 12-2.

TOWN OF DORTMUN PLANNING DEPARTMENT, 13 NEWMARKET ROAD, DORTMUN, NH 0382
868-8064.

EXISTING CONDITIONS PLAN OF 17 & 21 MADRILLY ROAD FOR GOLDEN GOOSE PROBE

2. "ALTA/ACSM LAND TITLE SURVEY FOR N.H. BETA ASSOC. OF SIGMA ALPHA EPSILON,"

3. "EXISTING CONDITIONS PLAN OF TAX MAP 2, LOTS 15-0 & 15-1 FOR THE TOWN OF BROOK ROAD, DUNHAM, MD. PREPARED BY COLICET SURVEY INC. AND DATED JANUARY 2011."

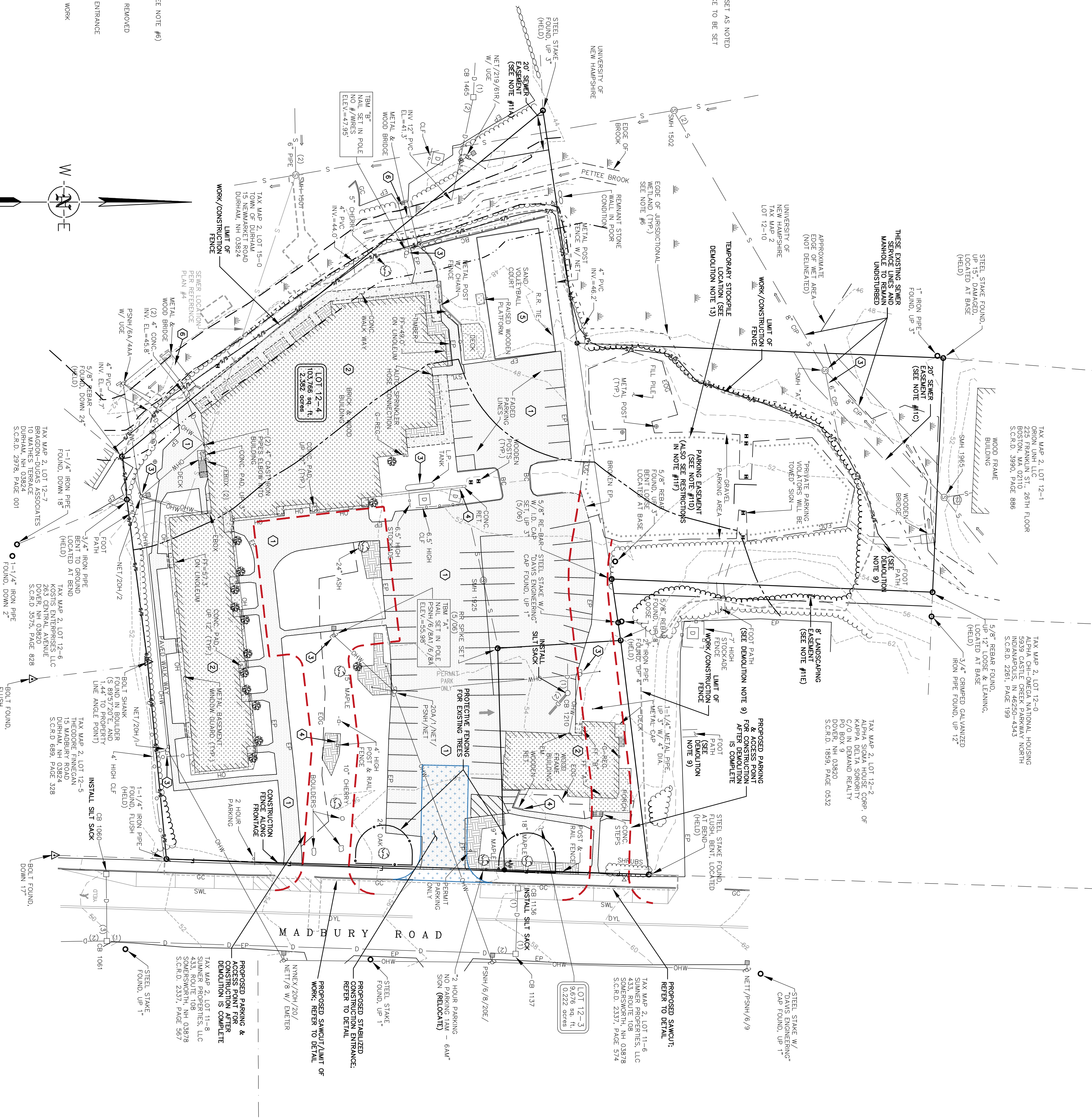
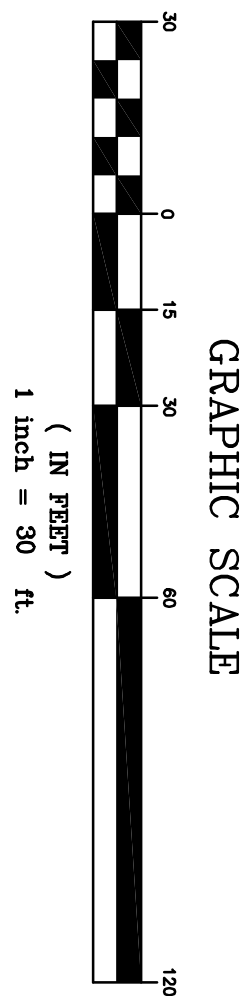
MJS
ENGINEERING, PC

CIVIL 5 RAILROAD ST., P.O. Box 359
NEWMARKET, NH 03857
ENVIRONMENTAL PHONE: (603) 659-4979, FAX: (603) 659-4980
CONSULTING ENGINEERING E-MAIL: MJS@MJS-ENGINEERING.COM

JOB: 13-007

C1

- LEGEND**
- UTILITY POLE & GUY WIRE
 - UTILITY POLE W/ ONE LIGHT
 - UTILITY POLE W/ TWO LIGHTS
 - SIGN
 - BOLT FOUND
 - DRILL HOLE FOUND
 - IRON PIPE/POD OR RR SPIKE FOUND/SET AS NOTED
 - 5/8" RE-BAR W/ ID CAP OR RR SPIKE TO BE SET
 - GAS GATE VALVE
 - METAL POST
 - WOODEN POST
 - CATCH BASIN
 - ROUND CATCH BASIN
 - SEWER MANHOLE
 - JURISDICTIONAL WETLAND SYMBOL
 - CONIFEROUS TREE
 - DECIDUOUS TREE
 - SHRUB
 - CONCRETE PAD
 - LANDSCAPED AREA
 - TRAFFIC FLOW DIRECTION ARROW
 - DUMPSTER
 - TYPICAL
 - RETAINING WALL
 - FINISHED FLOOR
 - EDGE OF PAVEMENT
 - SINGLE WHITE LINE
 - SINGLE YELLOW LINE
 - DOUBLE YELLOW LINE
 - ELECTRIC METER
 - CONC.
 - EDGE OF GRAVEL
 - CHAINLINK FENCE
 - G-REG.
 - GAS REGULATOR
 - GRANITE CURB
 - BRIDGEOUS CURB
 - UNDERGROUND ELECTRIC
 - OVERHEAD WIRES
 - SEWER LINE
 - S
 - D
 - APPROX. ABUTTERS LOT LINE
 - EXISTING TREE LINE
 - PROPOSED TREE LINE
 - STONE WALL
 - APPROX. PROPERTY LINES
 - 1" CONTOUR LINES
 - EDGE OF JURISDICTIONAL WETLAND (SEE NOTE #6)
 - APPROX. FLOOD ZONE LINE
 - EXISTING PAVEMENT/CONCRETE TO BE REMOVED
 - EXISTING STRUCTURE TO BE REMOVED
 - PROPOSED STABILIZED CONSTRUCTION ENTRANCE
 - S/S
 - PROP. TEMPORARY SILT SOXX
 - PROP. CONSTRUCTION FENCE/LIMIT OF WORK
 - PROP. SAWCUT
 - CONSTRUCTION FENCE
 - TEMPORARY STOCKPILE LOCATION



- DEMOLITION NOTES**
1. LOCATIONS OF UTILITIES ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE SITE DCSAFE AT 1-888-DIG-SAFE (1-888-344-7233) PRIOR TO COMMENCING WITH ANY DEMOLITION WORK.
 2. CONSTRUCTION SEQUENCING SHALL MEET THE REQUIREMENTS OF THE CONSTRUCTION SEQUENCING AND EROSION CONTROL NOTES FOUND ON SHEET C4 TEMPORARY PRIOR TO CONDUCTING EARTHWORK ACTIVITIES.
 3. ALL DEMOLITION MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFICALLY INDICATED OTHERWISE ON THIS PLAN. MATERIALS SHALL BE REMOVED FROM THE SITE AND STOCKPILED AROUND THE PERIMETER OF THE DEMOLITION SITE. COSTS FOR THIS WORK SHALL BE PAID FOR BY THE SITE CONTRACTOR.
 4. ALL DEMOLITION MATERIALS SHALL BE REMOVED FROM THE SITE PER CURRENT LOCAL, STATE, AND FEDERAL REGULATIONS. ALL STUMPS SHALL BE REMOVED FROM THE SITE.
 5. THE INTENT OF THIS PLAN IS TO SHOW THE DEMOLITION REQUIREMENTS. THE DEMOLITION OR REMOVAL OF ADDITIONAL ITEMS MAY BE REQUIRED AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO PERFORM A SITE VISIT TO VERIFY ALL DEMOLITION REQUIREMENTS FOR THE PROJECT.
 6. PROPERTY BOUNDARY MONUMENTS SHALL BE SET AS SHOWN. EXISTING MONUMENTATION THAT IS DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A U.S. BOUNDARY SURVEY, INC. (669-6560) IS THE SURVEYOR OF RECORD FOR THIS PROPERTY. COSTS FOR THIS WORK SHALL BE PAID FOR BY THE SITE CONTRACTOR.
 7. THE SITE CONTRACTOR SHALL PROVIDE DAILY MAINTENANCE AS NECESSARY, INCLUDING SWEEPING MADBURY ROAD, TO REMOVE DEPOSITED MATERIALS, SPILLS, ETC., ASSOCIATED WITH THE SITE AND BUILDING CONSTRUCTION ACTIVITIES.
 8. ALL WORK SHALL BE CONDUCTED IN A MANNER TO PROTECT EXISTING FEATURES TO REMAIN AS SHOWN. DAMAGE TO THESE FEATURES SHALL BE REPAIRED/REPLACED IN KIND BY THE SITE CONTRACTOR.
 9. IN ANY LOCATION WHERE AN EXISTING PEDESTRIAN TRAVEL WAY LEADS TO THE CONSTRUCTION SITE (CROSSING, FOOT PATH, ETC.), ACCESS TO THE CONSTRUCTION SITE SHALL BE BLOCKED AND SWANAGE SHALL BE PROVIDED AS SHOWN BELOW.
 10. GRAVE FLAGGING SHALL BE PLACED ON TREES TO BE SAVED AT THE CLEARING LIMITS. PRIOR TO ANY TREE CUTTING, A REPRESENTATIVE FROM THE TOWN SHALL INSPECT CLEARING LIMITS.
 11. TEMPORARY CONSTRUCTION EASEMENTS SHALL BE OBTAINED PRIOR TO CONSTRUCTION PER THE LOCATION OF LIMIT OF WORK/ CONSTRUCTION FENCE LINE.
 12. SILT SACKS SHALL BE PLACED IN ALL CATCHBASINS RECEIVING RUNOFF FROM WORK AREAS.
 13. PROPOSED LOCATION OF TEMPORARY SOIL AND SEWAGE STOCKPILES, STOCKPILES SHALL BE ENCLOSED DOWN GRADIENT WITH SILT SOCK AND EITHER STABILIZED OR CULVERT OPENINGS AND PETTIE BROOK.
 14. NO CUT TREES, STUMPS, LIMBS, LIMBS, RUBBER, OR OTHER WASTE MATERIALS SHALL BE LEFT ON THE SITE. ALL WASTE MATERIALS SHALL BE REMOVED FROM THE SITE. THE CERTIFICATE OF OCCUPANCY IS ISSUED OR AT ANY TIME AFTER THAT.
- DEMOLITION ITEMS**
- (REFER TO DEMOLITION NOTE 5 ABOVE)
1. REMOVE ALL EXISTING PAVEMENT AND CONCRETE.
 2. REMOVE ALL EXISTING BUILDINGS INCLUDING FOUNDATIONS, STEPS, DECKS, OUTBUILDINGS, AND OTHER BUILDING APPEARANCES.
 3. UNLESS NOTED OTHERWISE, REMOVE ALL EXISTING UTILITIES THAT SERVICE THE SITE. UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE INDIVIDUAL UTILITY PROVIDERS.
 4. UNLESS NOTED OTHERWISE, ALL EXISTING POSTS, FENCES, BOLLARDS, CURBS, RETAINING WALLS, ETC. SHALL BE REMOVED FROM THE SITE.
 5. REMOVE THE EXISTING VALENTIN COURT, INCLUDING ALL APPEARANCES.
 6. REMOVE THE EXISTING PROPOSED REFERENCED BY THIS NOTE. REMOVAL AND RECONSTRUCTION SHALL BE COORDINATED WITH THE TOWN FOR STABILIZING IN ADDITION, REFER TO DEMOLITION NOTE 9 ABOVE.

FINAL APPROVAL BY THE DURHAM PLANNING BOARD

CERTIFIED BY _____

DATE _____

UTILITIES NOTE: ALL UTILITIES, GAS, TELEPHONE, WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO WITH THE SUBJECT SERVICE LOCATION FOR INFORMATION REGARDING SLOPE. CALL DIG-SAFE: 1-888-DIG-SAFE (1-888-344-7233)

C3

JOB: 13-007

MJS ENGINEERING, PC

CIVIL ENVIRONMENTAL CONSULTING ENGINEERING

5 RAILROAD ST., P.O. BOX 359
NEWBURY, NH 03857

PHONE: (603) 659-4679, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM

DEMOLITION PLAN

prepared for

MADBURY COMMONS

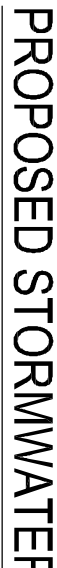
17 & 21 MADBURY ROAD DURHAM, NH

DATE: 10/16/13
SCALE: 1"=30'
DESIGNED BY: MJS
DRAWN BY: MS
APPROVED BY: MJS

DWG FILE: 13-007 DEMO B.dwg

SEAL

NO.	REVISIONS	DATE	INT.
6.	REVISIONS PER 6/10/14 COA REVIEW MEETING WITH TOWN PLANNER	6/11/14	MS
5.	INITIAL SUBMISSION FOR COA REVIEW BY TOWN PLANNER	5/28/14	MS
4.	REVISIONS PER SWPPP REQUIREMENTS	5/14/14	MS
3.	SUBMISSION TO AOT BUREAU	4/29/14	MS
2.	ADDITIONAL REVISIONS PER COMMERCIAL OCCUPANCY REQUIREMENTS	1/15/14	MS
1.	REVISED PER CONSTRUCTION MANAGEMENT PLAN	11/25/13	MS



(SEE PLUNGE POOL DETAIL)

1. DO NOT PLACE STORMWATER POND IN SERVICE UNIT. THE BMP SHALL BE FULLY STABILIZED.
2. CLEAR AND GRUB THE AREA WHERE THE STORMWATER POND IS TO BE LOCATED. STORMWATER LOAM FOR REUSE LATER.
3. THE FOUNDATION AREA SHALL BE SCARIFIED PRIOR TO PLACING THE REMOVED AND REPLACED WITH SUITABLE FOUNDATION MATERIAL.
4. THE BERM SHALL BE CONSTRUCTED BEGINNING FROM THE LONGEST POINT UNTERFALL, ALLOW ITS ENTIRE LENGTH. PLACE MATERIALS IN MAXIMUM 12" LOOSE LIFTS COMPACTED TO 95% MAXIMUM DRY DENSITY. EMBANKMENT SOIL SHALL HAVE NO ORGANIC MATTER. THE MAXIMUM LOOSE LIFT THICKNESS SHALL NOT EXCEED 12" STONES AROUND ANY STRUCTURES AND/OR CONDUITS SHALL NOT EXCEED 3 INCHES. GRADATIONS AND FILL MATERIAL SHALL HAVE THE FOLLOWING:
 1. PERMANENT POOL BOTTOM AND SIDE SLORES TO BE COVERED WITH 2" DEEP RIVERSTONE (1-1 1/2" TO 2" STONES).
 2. POOL BOTTOM
DO NOT BOTTOM EXCLUDING PERMANENT POOL. TO BE PLANTED WITH A MIXTURE OF 50% NEW ENGLAND WETLAND MIX (22 LBS/AC) AND 50% NEW ENGLAND DRY COVER/RESTORATION MIX (FOR DETENTION BASINS AND MOST SITES (50 LBS/AC)).
 3. ERODED BERM AND SIDE SLORES
DO NOT BOTTOM EXCLUDING PERMANENT POOL. TO BE PLANTED WITH NEW ENGLAND EROSION CONTROL/RESTORATION MIX.

#4
#40
#100
#200

AMHERST, MA 0
(413)-548-8000



SECTION A-A

(השאלות ממוינות הן שאלות חובה)

PIPE OUTLET	W ₀	W	L _g	T	d50
RIP RAP #1 (DMH #1)	4.5"	6.2	15"	18"	6"
RIP RAP #2 (CG #2)	4.0"	3.8	11"	18"	6"
RIP RAP #3	4.0"	3.7	15"	18"	6"
RIP RAP #4	4.0"	4.2	14"	18"	6"

1. UNIFORM 6" SAND/GRVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
2. UNIFORM 6" SAND/GRVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF 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 TO THE FABRIC FOR THE RIP-RAP SHALL BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEPARATION OF THE STONE SIZES.

MAINTENANCE NOTES:

1. OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OF THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.
2. THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO OBSTRUCTION OF THE DOWNSTREAM CHANNEL, SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS TALLER TREES, DEBRIS OR SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TALKMETER DEPENDS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

NOT TO SCALE



N.T.S



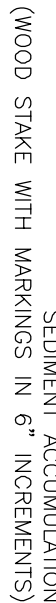
N.T.S.

2. THERE SHALL BE NO WETLAND IMPACTS
STORMWATER POND OUTLETS.

50	6	10	9
15	1.8	10	3

N.T.S

SEDIMENT SHALL BE REMOVED AFTER SEDIMENT ACCUMULATES TO A DEPTH OF 1 FOOT.



SPILLWAY #1 - SEDIMENT POND	49.50
SPILLWAY #2 - SW POND	49.50

SPILLWAY DIMENSION TABLE



BIORETENTION SOIL MIX SPECIFICATIONS			
COMPONENT MATERIAL	PERCENT OF MIXTURE	GRADATION OF MATERIAL	
		SEIVE NO.	% BY WEIGHT PASSING STANDARD SIEVE
FILTER MEDIA OPTION A			
ASTM C-33 CONCRETE SAND	50 TO 55		
LOAMY SAND TOPSOIL, WITH FINES AS INDICATED	20 TO 30	200	15 TO 25
MATERIALS AS INDICATED, BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	< 5

N.T.S



OCS FOR STORMWATER POND



N.T.S.

6. TRASH RACK AVAILABLE FROM:
CONTECH

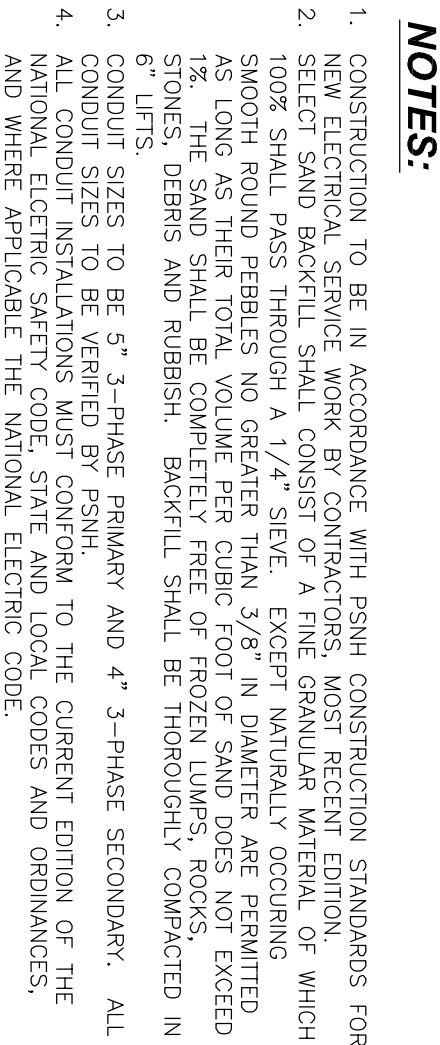
SCARBOROUGH, ME 04074
PHONE: 207-885-9830

DATE

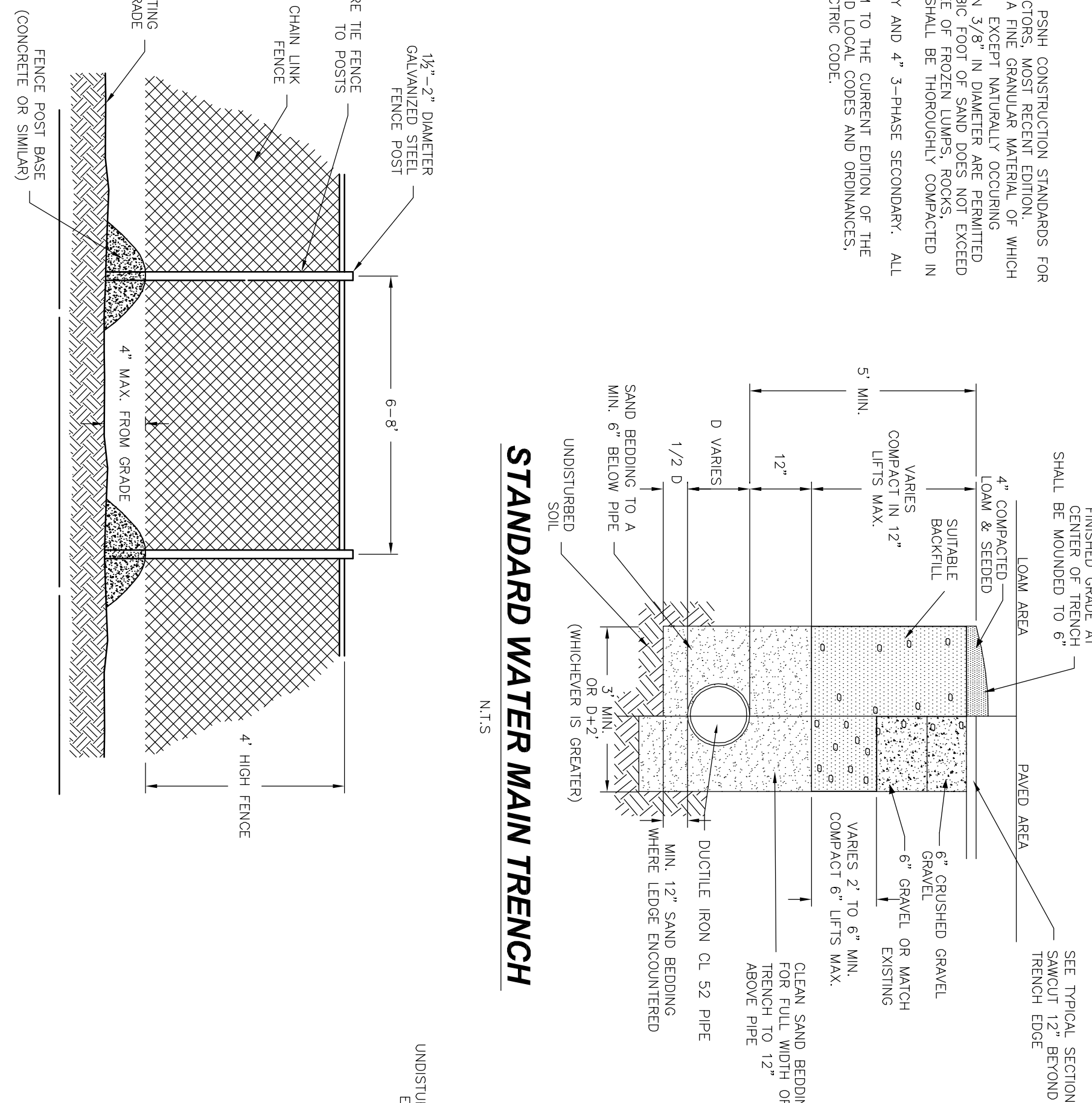


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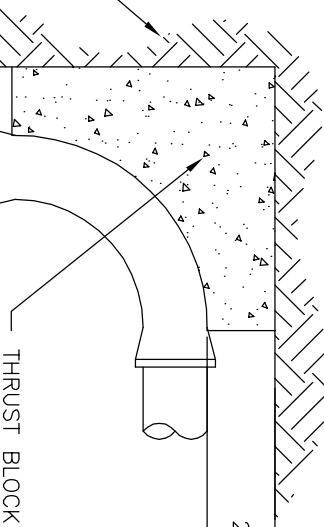
Wed, 28 May 2014 - 4:12pm



N.T.S



N.T.S

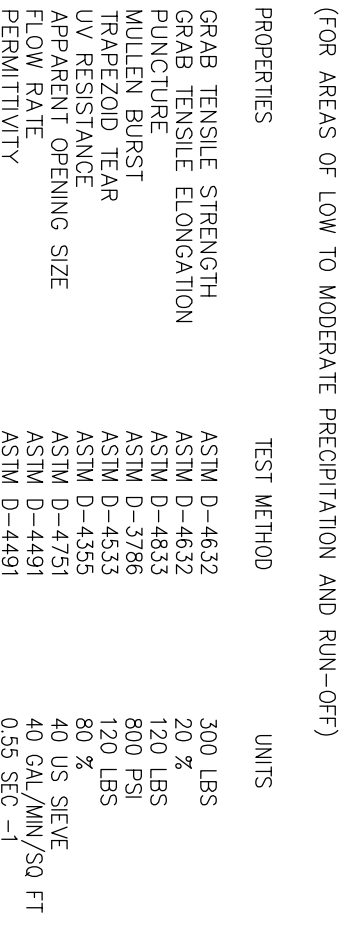
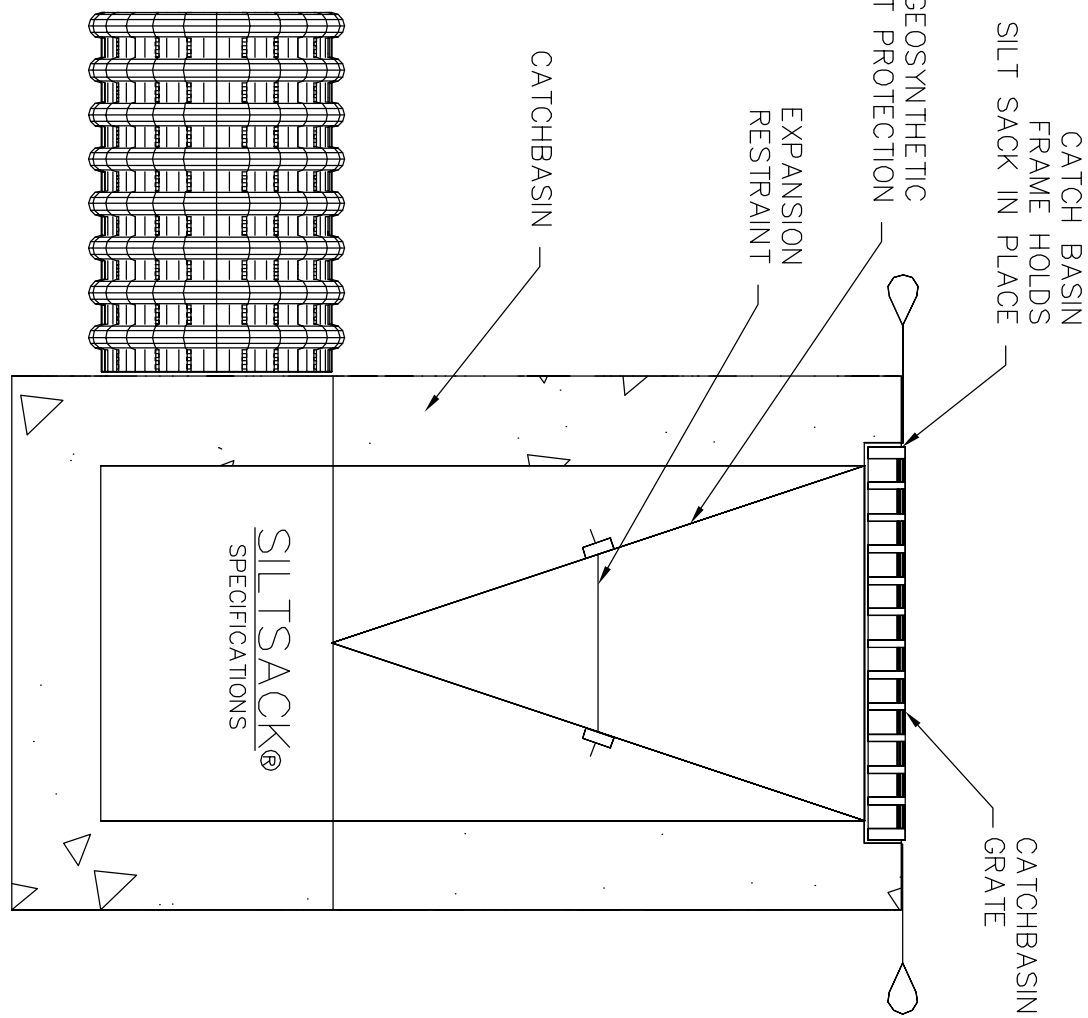


NOTE: THE SIZE OF THE THRUST BLOCK MAY BE INCREASED BY THE ENGINEER TO MEET SOIL CONDITIONS FOUND DURING THE CONSTRUCTION OF THE PILING.

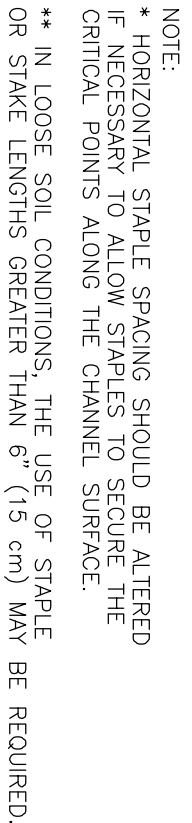
DETAILS



N.T.S

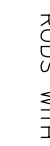


N.T.S



N.T.S

N.T.S.

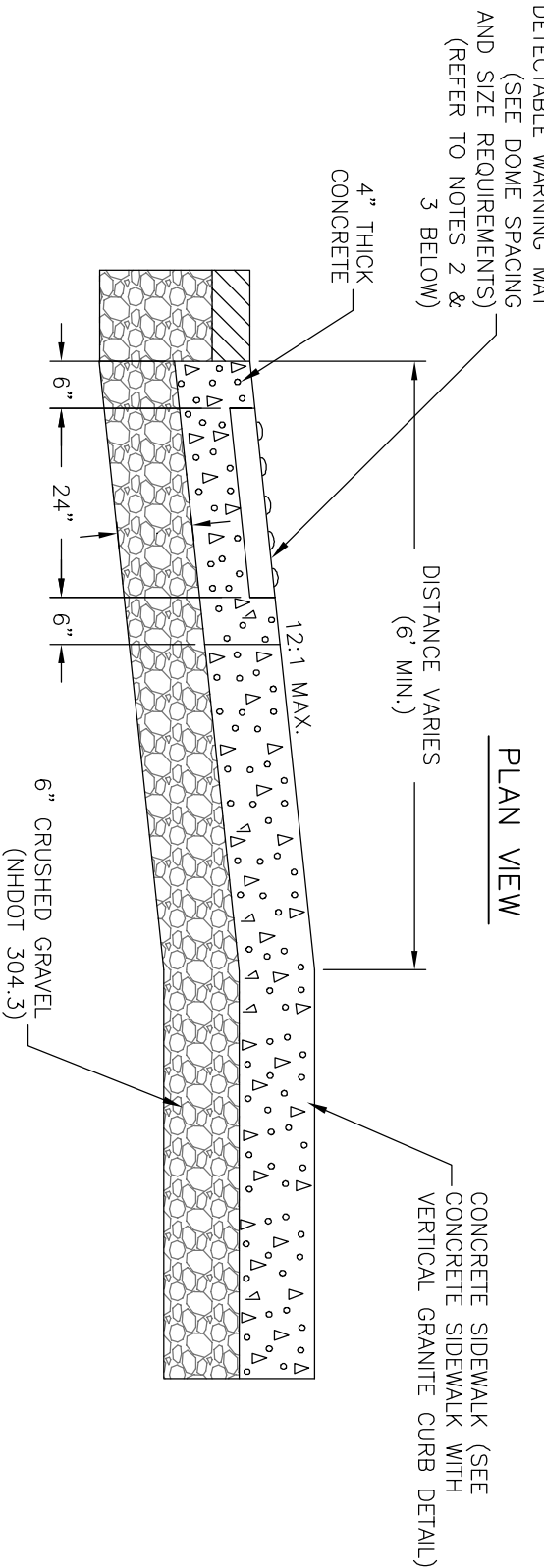
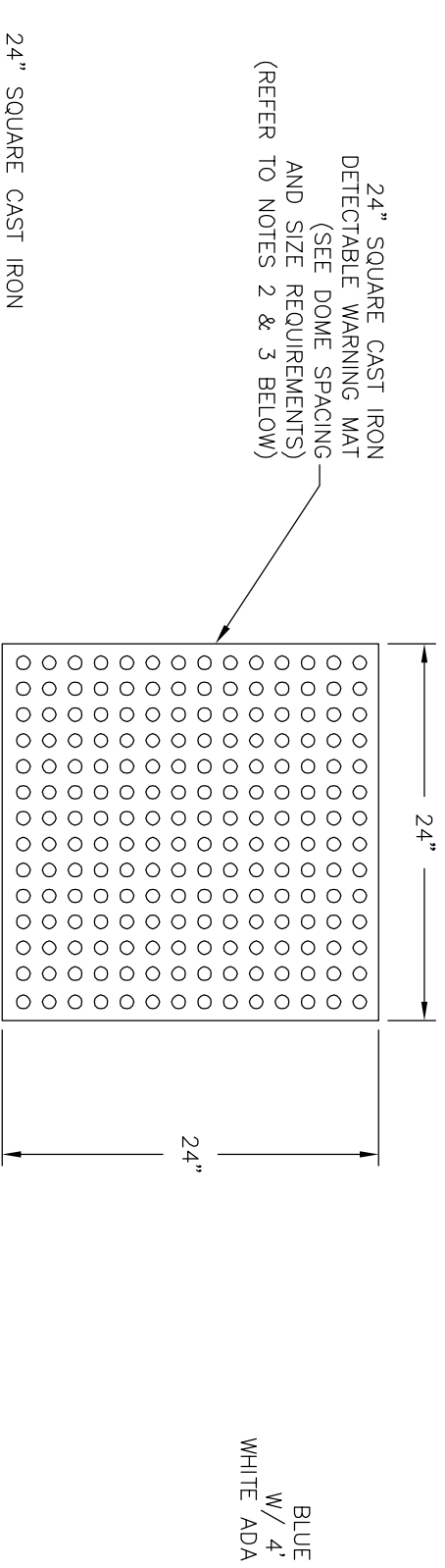
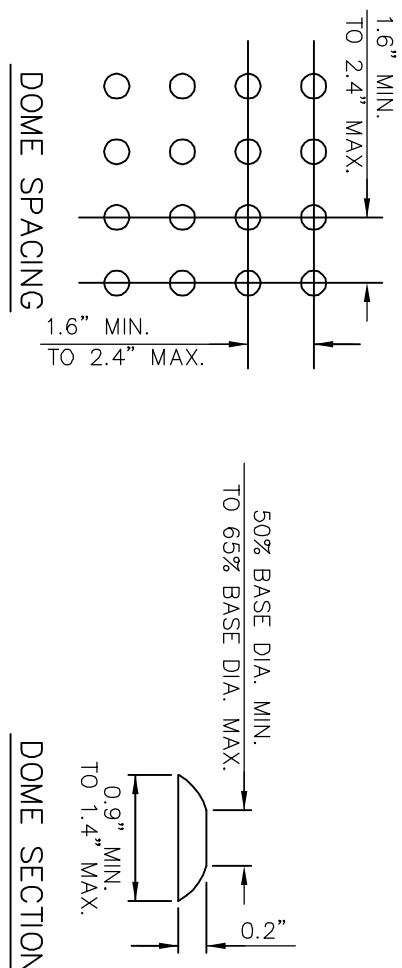


N.T.S

DATE: 10/16/13
SCALE: AS SHOWN
DESIGNED BY: MJS
DRAWN BY: MS
APPROVED BY: MJS
DWG FILE:
13-007 Cover&DetailsD.dwg

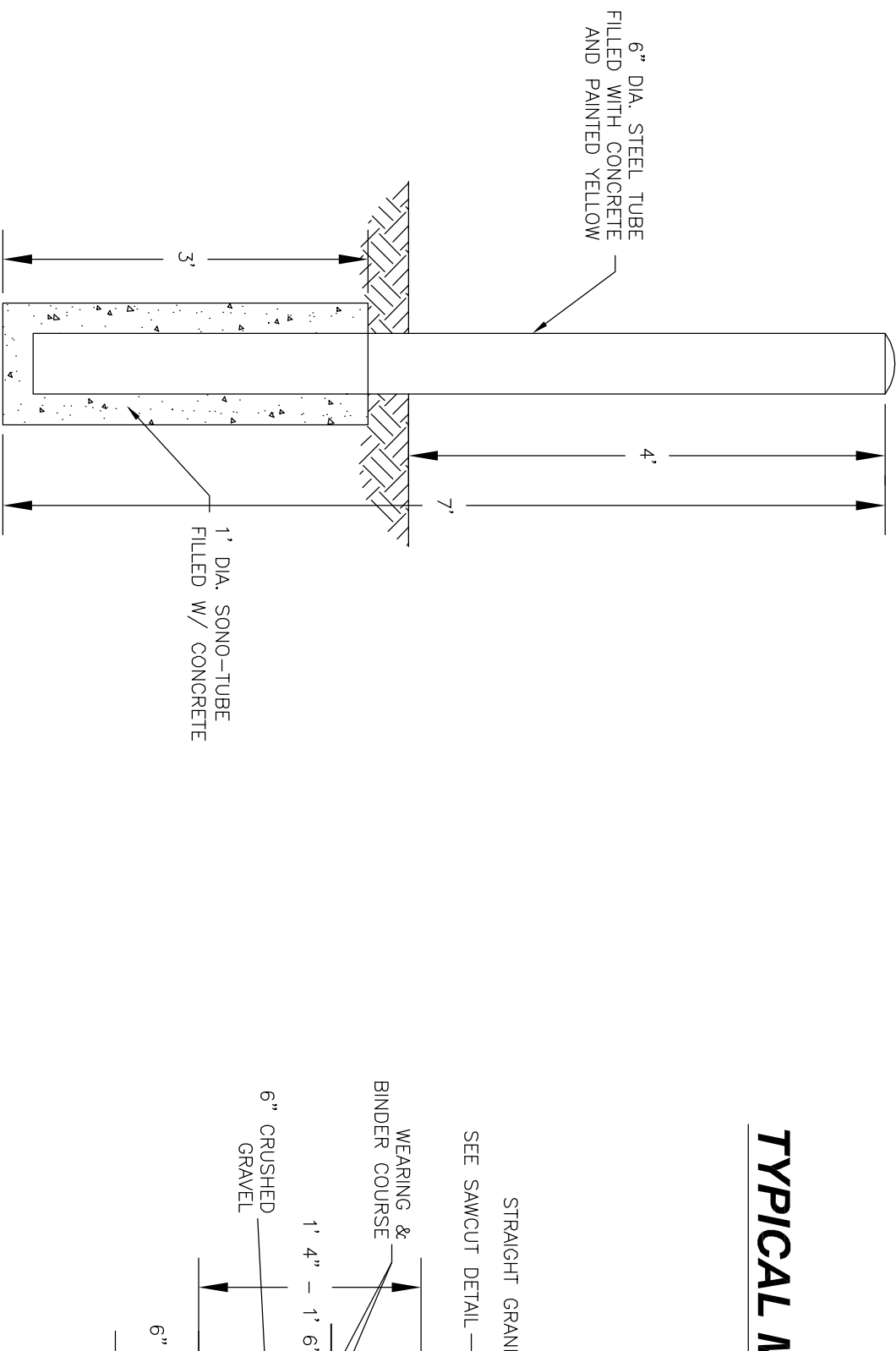
prepared for

CIVIL
ENVIRONMENTAL
CONSULTING EN

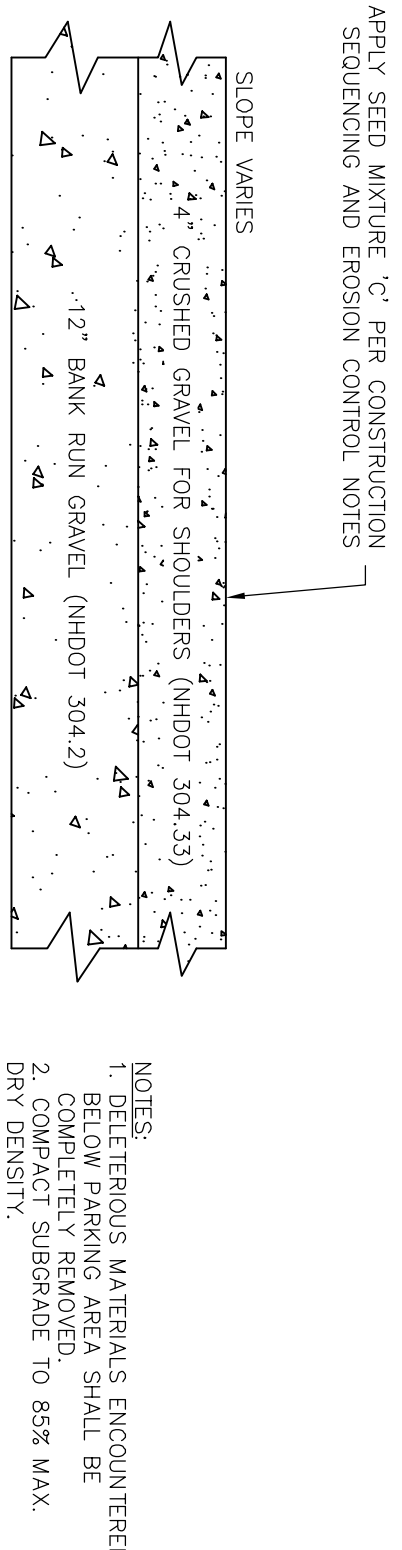


DETECTABLE WARNING MAT DETAIL

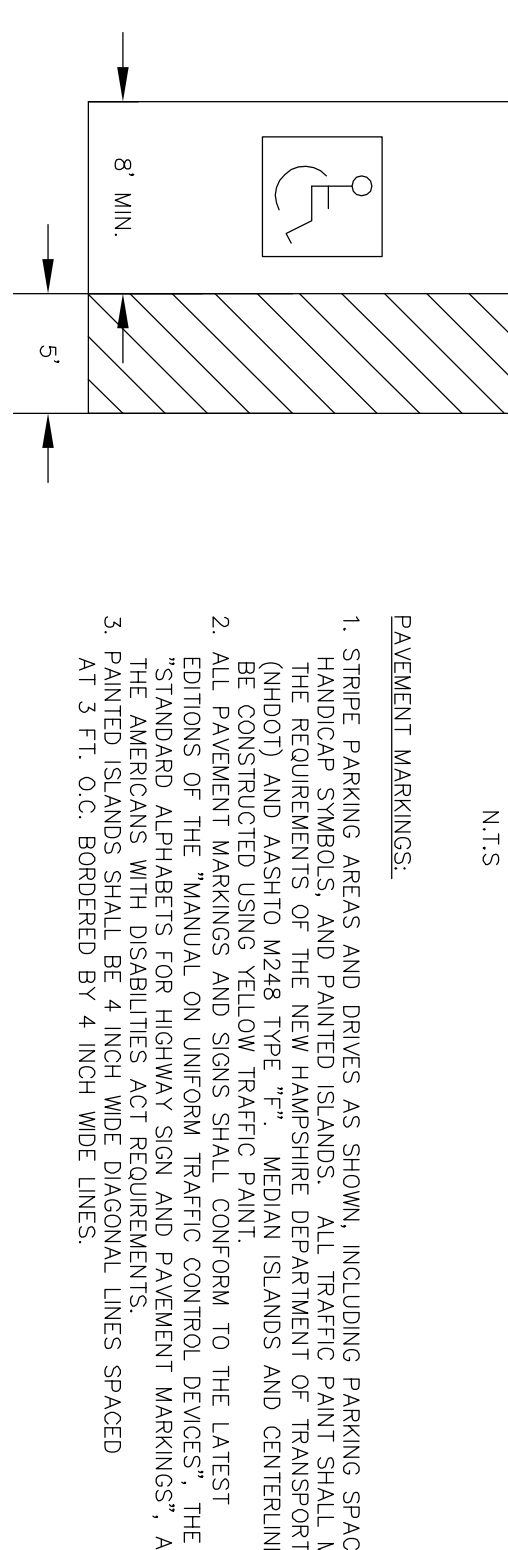
- NOTES:
1. CONCRETE TO BE 4,000 PSF.
 2. REFER TO MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION
 3. DETECTABLE WARNING MATS SHALL BE USED IN ALL AREAS THAT CONSIST OF CONCRETE PAVERS INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.



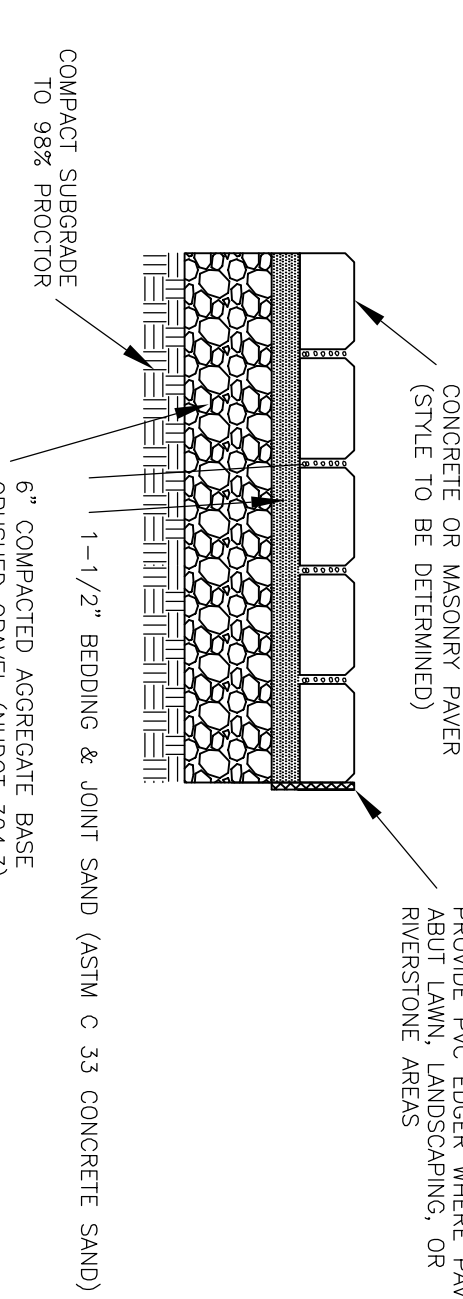
TYPICAL MAINTENANCE ACCESS ROAD CROSS SECTION



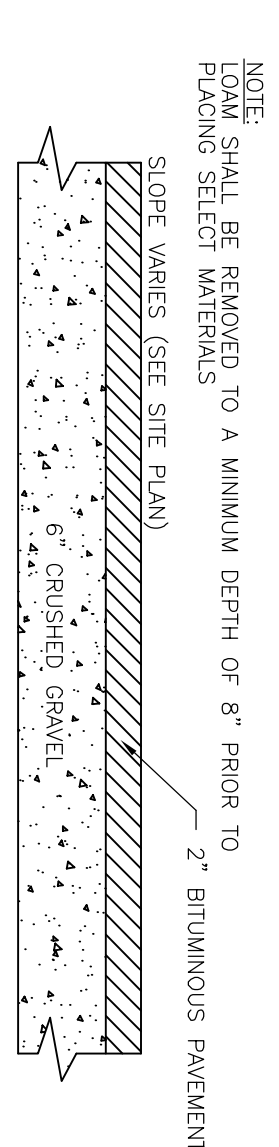
ADA STRIPING AND SIGN DETAIL



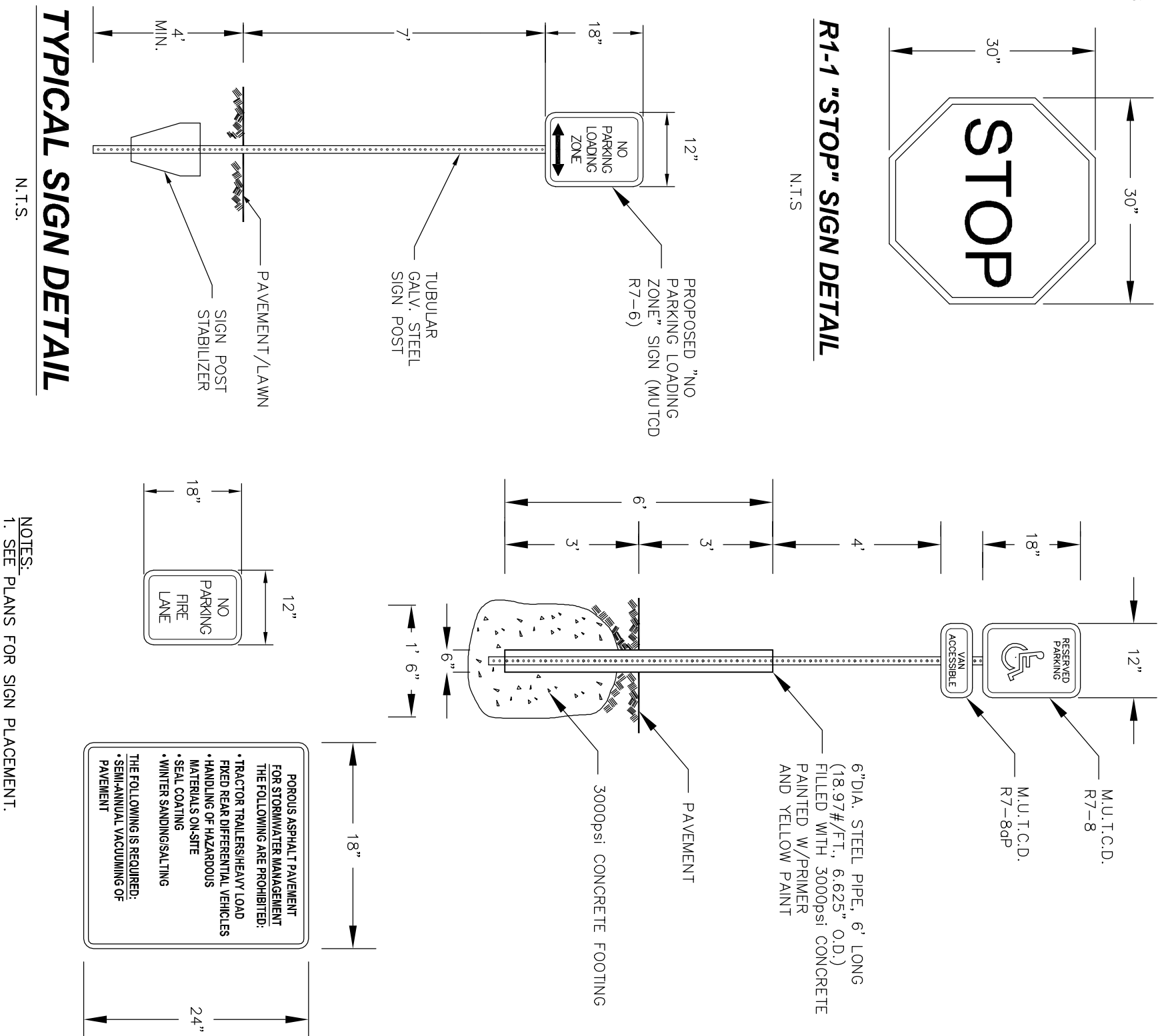
TYPICAL CONCRETE PAVER CROSS SECTION



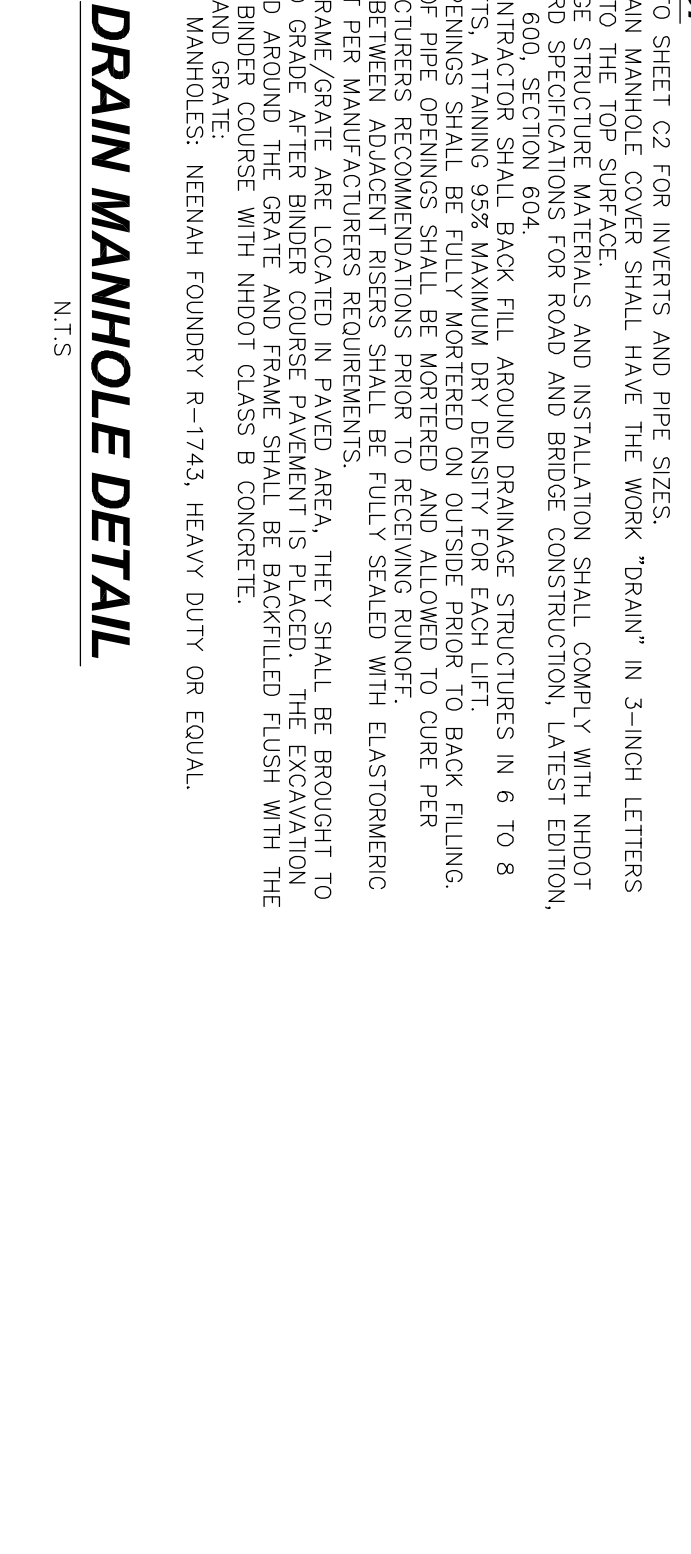
TYPICAL BITUMINOUS SIDEWALK SECTION



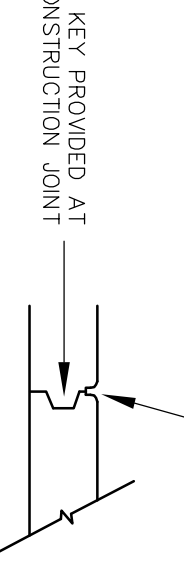
TYPICAL SIGN DETAIL



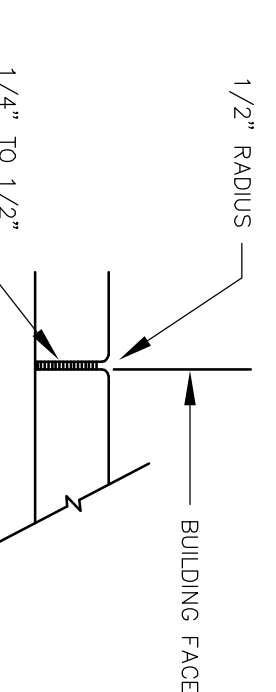
DRAIN MANHOLE DETAIL



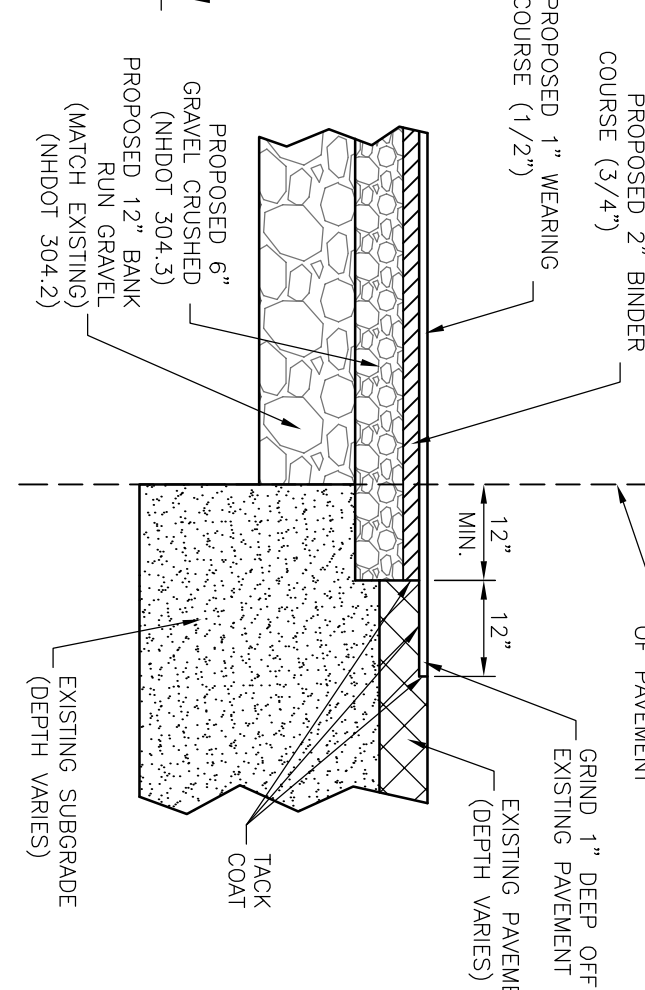
SECTION B: CONSTRUCTION CONTROL JOINT



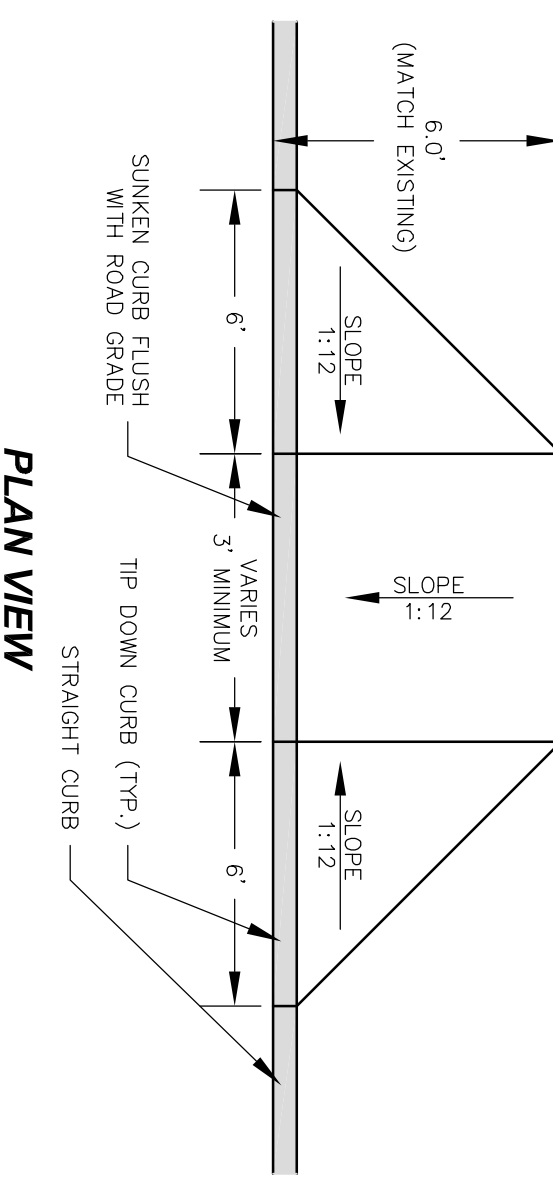
SECTION A: EXPANSION JOINT



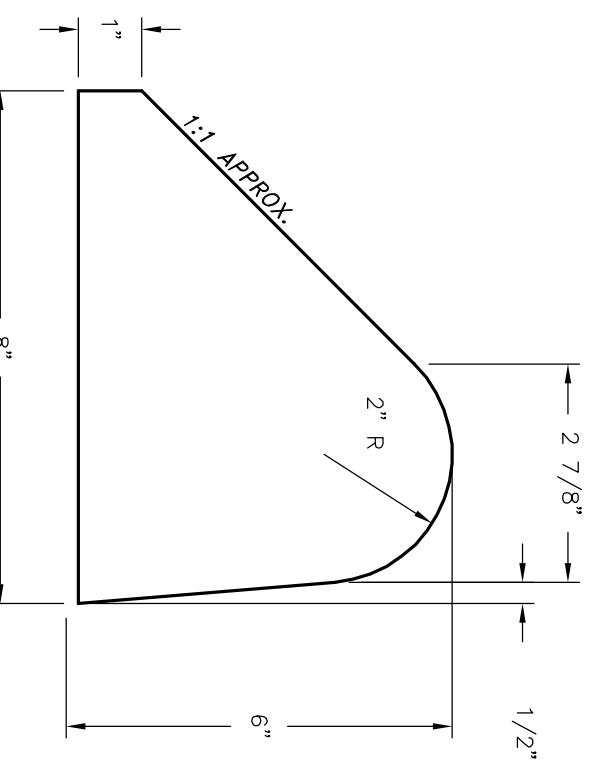
TYPICAL PAVEMENT SAWCUT DETAIL



DUSTPAN HANDICAP ACCESSIBLE RAMP



BITUMINOUS CONCRETE CURB



4.	INITIAL SUBMISSION FOR COA REVIEW BY TOWN PLANNER	5/28/14	MS
3.	SUBMISSION TO AOT BUREAU	4/29/14	MS
2.	REVISIONS PER TIGHE & BOND REVIEW LETTER DATED 1/21/14	2/10/14	KD
1.	ADDITIONAL REVISIONS PER COMMERCIAL OCCUPANCY REQUIREMENTS	1/15/14	KD
0.	SUBMISSION FOR SITE PLAN REVIEW	10/16/13	KD
NO.	REVISIONS	DATE	INT.

DATE:	9/13/13	SEAL
SCALE:	AS SHOWN	
DESIGNED BY:	MJS	
DRAWN BY:	MS	
APPROVED BY:	MJS	
DWG FILE:		
13-007 Cover&DetailsD.dwg		

CONSTRUCTION DETAILS
prepared for
MADBURY COMMONS
17 & 21 MADBURY ROAD DURHAM, NH

JOB# : 13-007

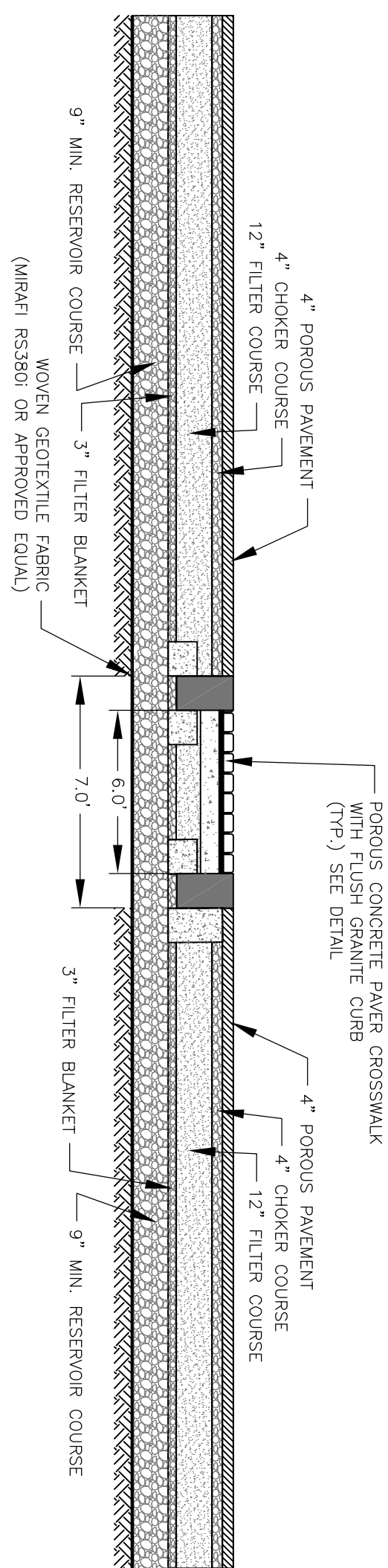
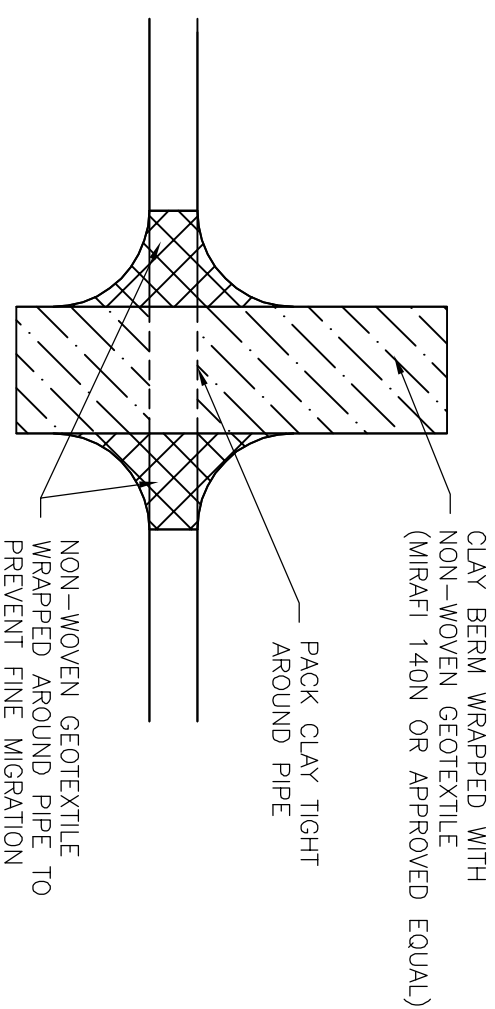
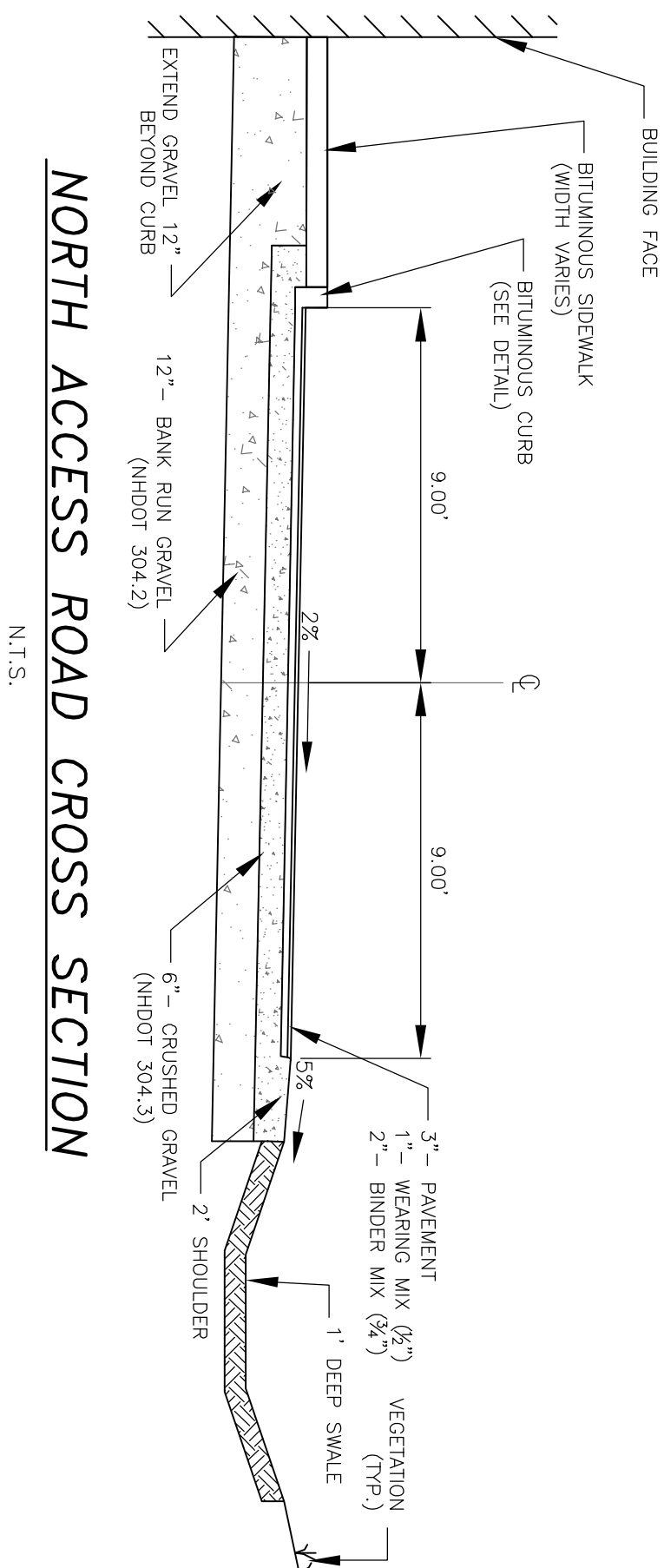
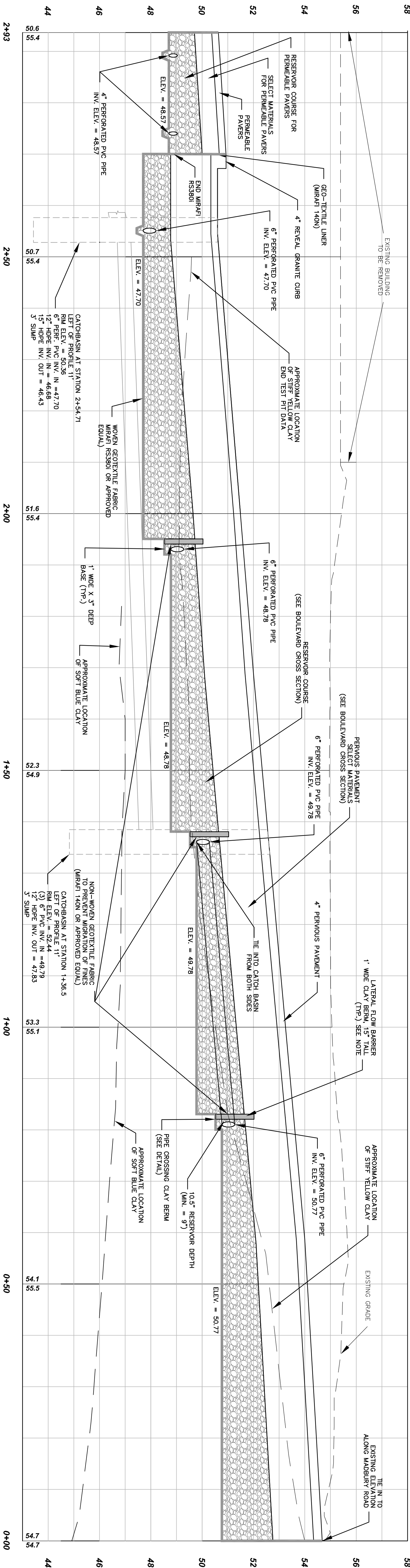


**MJS
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CONSULTING ENGINEERING E-MAIL: MJS@MJS-ENGINEERING.COM



NORTH ACCESS ROAD CROSS SECTION

N.T.S.

DRAIN LINE CROSSING CLAY BERM

N.T.S.

NORTH ACCESS ROAD PAVEMENT NOTES:

- BE FREE OF UNSOLUBLE MATERIALS SUCH AS SILT, CLAY, ORGANIC MATERIAL, ROCKS LARGER THAN THE AGGREGATE SPECIFIED IN THE GRAVEL OR CRUSHED GRAVEL GRADATIONS, ETC.

2. PLACE BANK RUN GRAVEL IN MAXIMUM 6 INCH LIFTS AND COMPACT TO 95% MAXIMUM DRY DENSITY TO THE DEPTHS SPECIFIED IN THE TYPICAL

NHDOT ITEM 304.2 (BANK RUN GRAVEL) SPECIFICATION:

SIEVE DESIGNATION: 6 INCH
SQUARE MESH SIEVE: 100#

NO. 4	25-70%
NO. 200	0-12%

BANK RUN GRAVEL SHALL CONTAIN NO PARTICLES OF FINE SAND OR SILT EXCEEDING SIX INCHES IN ANY DIMENSION.

PLACE CRUSHED GRAVEL IN MAXIMUM 6 INCH LIFTS AND
 007 MAXIMUM DRY DENSITY TO THE DENSITY SPECIFIED

CROSS SECTIONS.

PERCENTAGE BY WEIGHT
SOLUBLE IN WATER

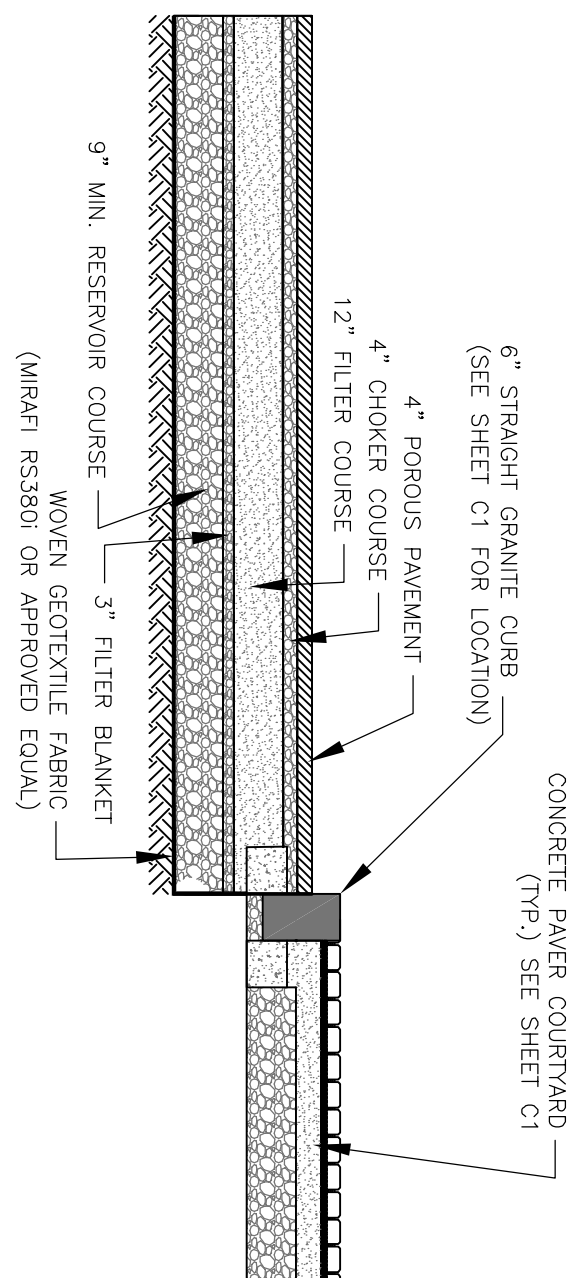
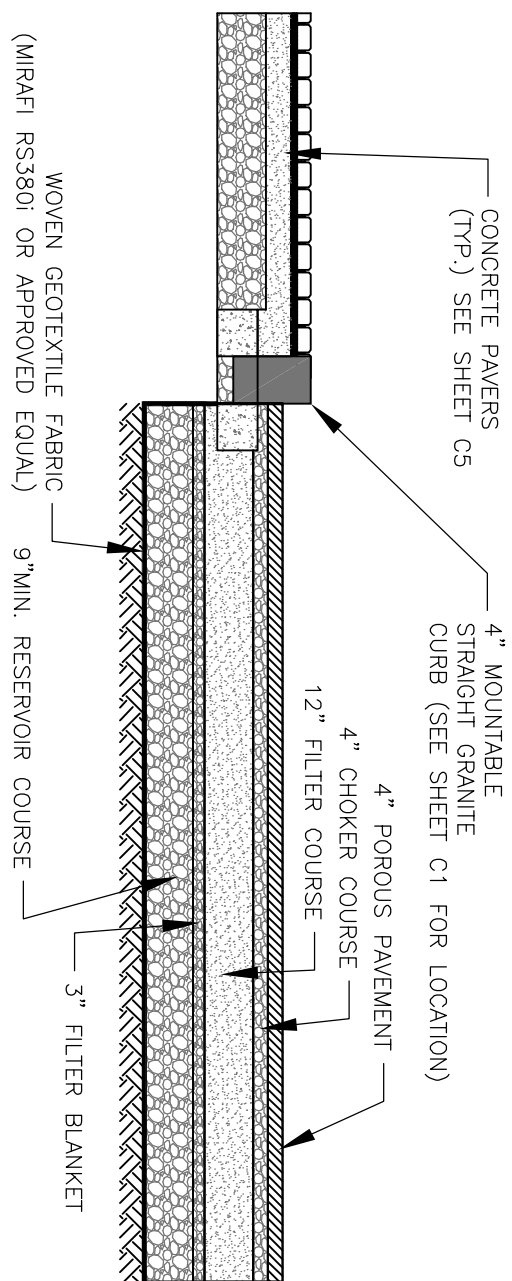
3	100%
2	100%
1	95-100%

NO. 4 27-52%

CRUSHED GRAVEL SHALL CONTAIN NO PARTICLES OF RO

.....

BOULEVARD PROFILE
SCALE H: 1"=10' V: 1"=2'

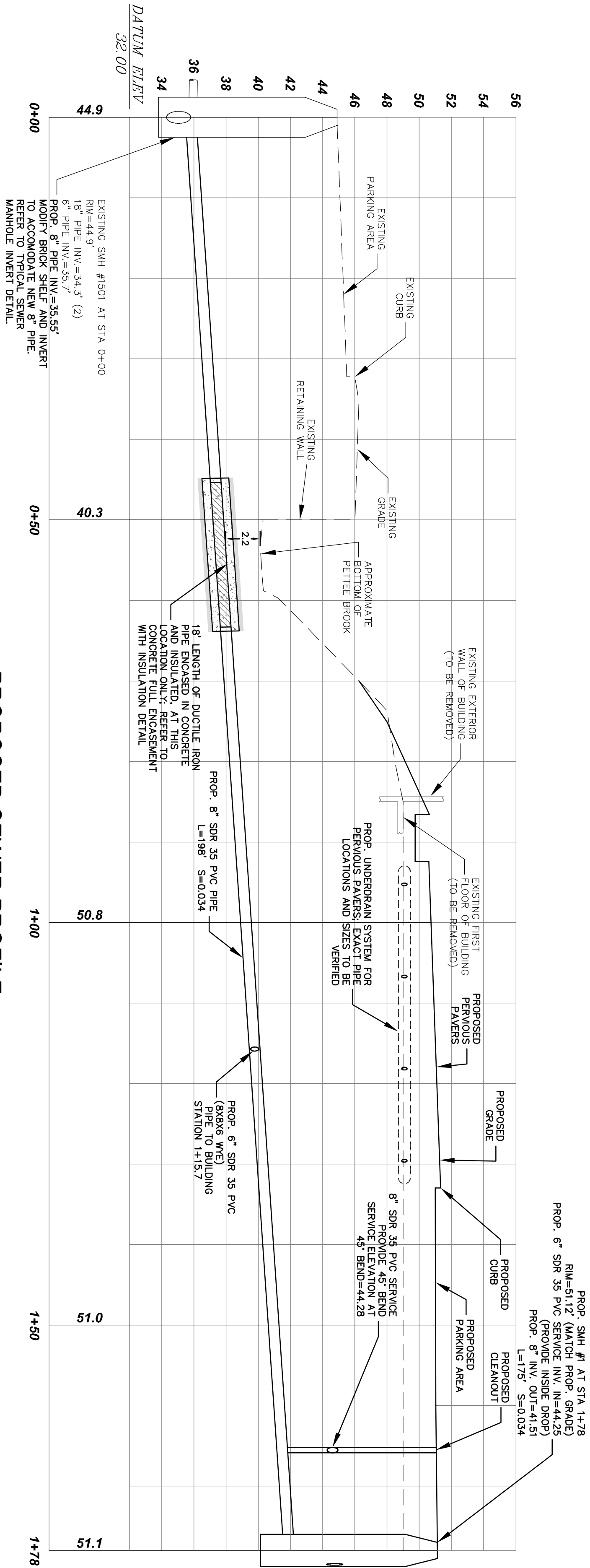


POROUS PAVEMENT WITH 6" REVEAL GRANITE CURB

N.T.S.

POROUS PAVEMENT WITH 4" REVEAL GRANITE CURB

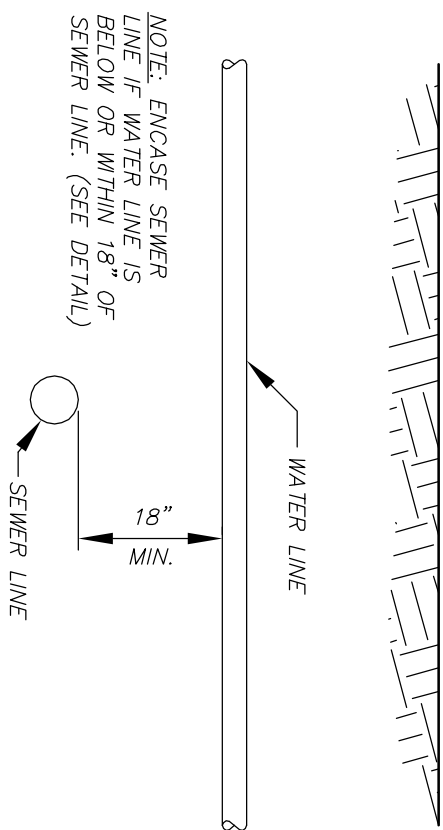
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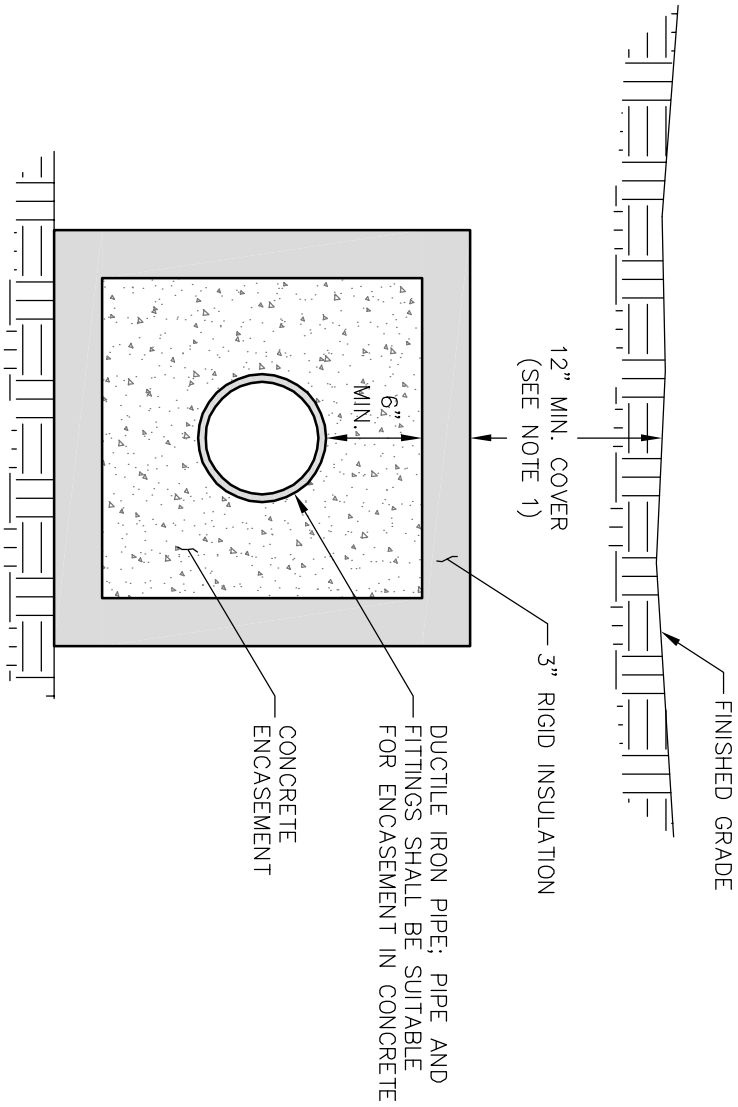
PROPOSED SEWER PROFILE
SCALE: H: 1"=10' V: 1"=5'
NOTE: REFER TO ALL SEWER DETAILS

EXISTING USE, DAILY FLOW CALCULATIONS.			
LOCATION	USE	# OF TENANTS	STANDARD
EXISTING BUILDINGS	RESIDENTIAL	146 TENANTS	50 GPD/PERSON
		TOTAL	7,300 GPD/ (2,664,500 GPD)

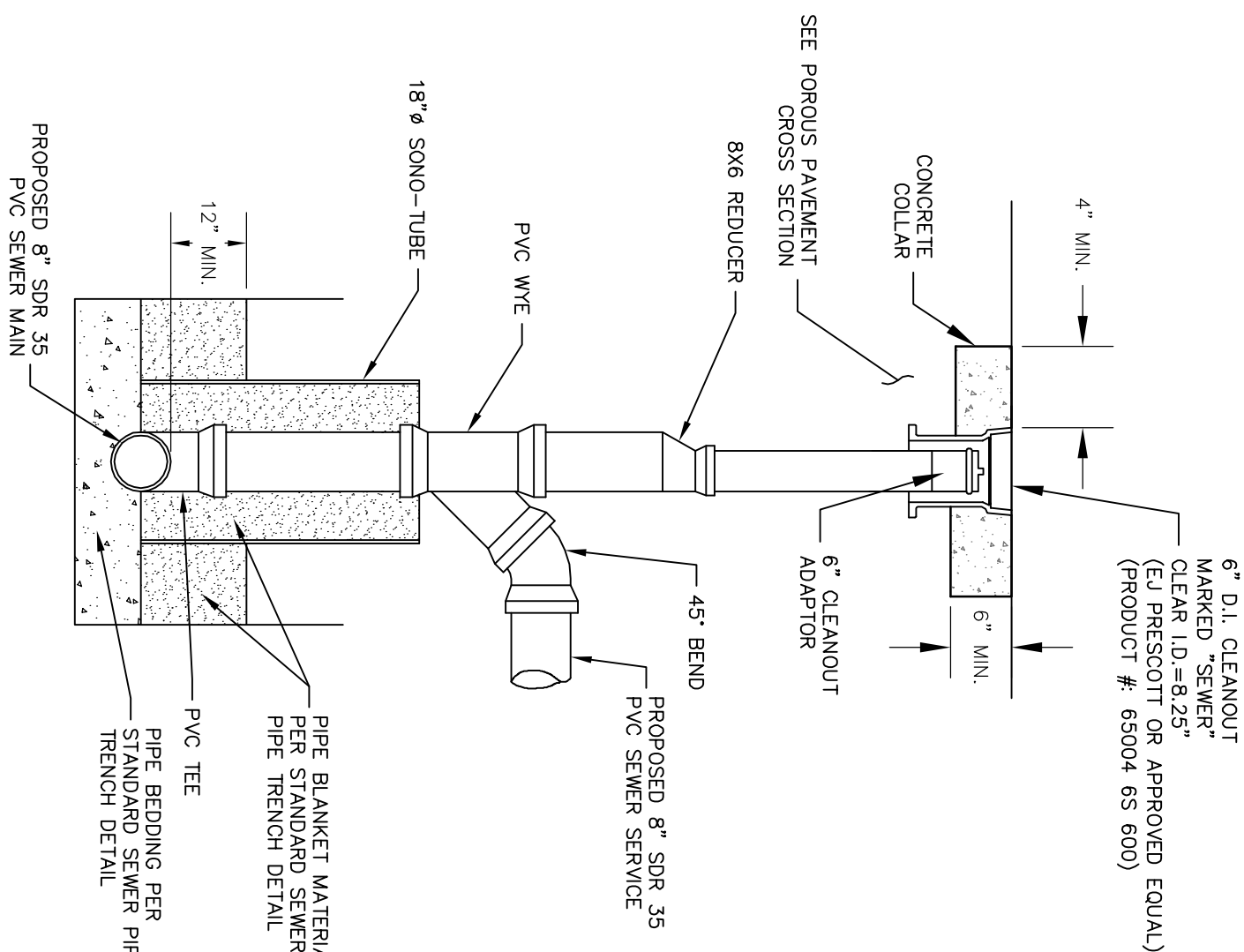
PROPOSED USE, DAILY FLOW CALCULATIONS.			
LOCATION	USE	AREA (S.F.) OR # OF TENANTS	STANDARD
PROPOSED BUILDINGS	RESIDENTIAL	525 TENANTS	50 GPD/PERSON
PROPOSED BUILDINGS	COMMERCIAL (OFFICE/RETAIL UNRECORDED)	44,280± S.F.	15 GPD/100 S.F.
		TOTAL	39,880 GPD (12,004,445 GPD) (3,339,985 GPD)



WATER/SEWER CROSSING
N.T.S.

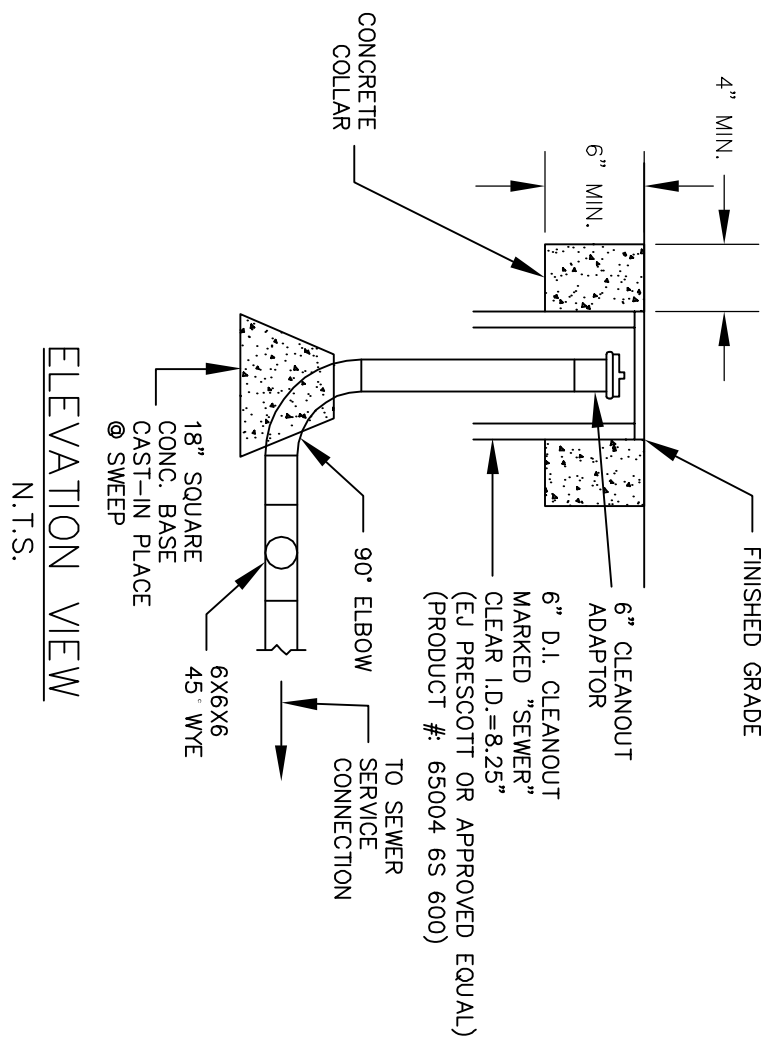
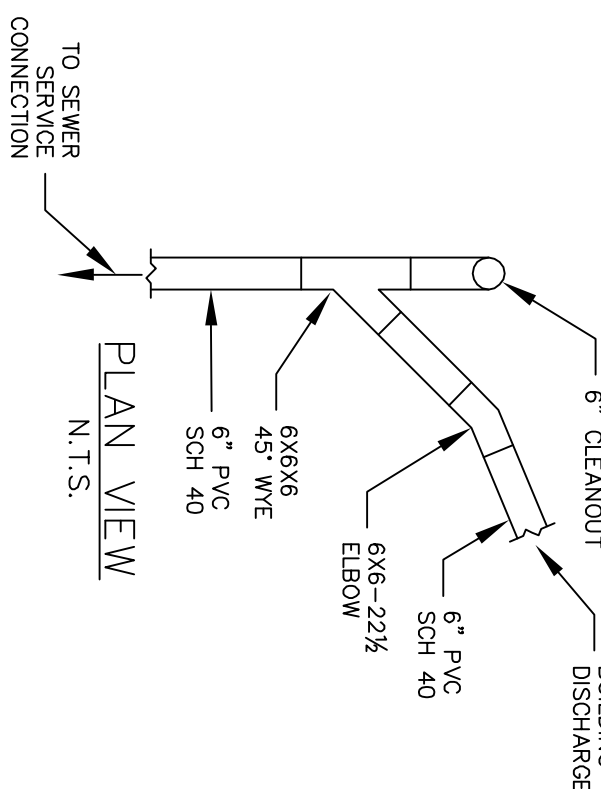


CONCRETE FULL ENCASEMENT WITH INSULATION DETAIL
N.T.S.



SERVICE CHIMNEY FOR PVC PIPE
N.T.S.

NOTES:
1. REFER TO STANDARD SEWER TRENCH DETAIL AND POROUS PAVEMENT CROSS SECTION.



CLEANOUT DETAIL
N.T.S.

NO.	REVISIONS	DATE	INT.
6.	INITIAL SUBMISSION FOR COA REVIEW BY TOWN PLANNER	5/28/14	MS
5.	SUBMISSION FOR SEWER CONNECTION PERMIT	5/7/14	MS
4.	SUBMISSION TO AOT BUREAU	4/29/14	MS
3.	REVISIONS PER CLIENT	4/18/14	MS
2.	REVISIONS PER TIGHE & BOND REVIEW LETTER DATED 1/21/14	2/10/14	KD
1.	ADDITIONAL REVISIONS PER COMMERCIAL OCCUPANCY REQUIREMENTS	1/15/14	KD

DATE:	10/16/13
SCALE:	AS SHOWN
DESIGNED BY:	MJS
DRAWN BY:	MS
APPROVED BY:	MJS
DWG FILE:	13-007 Cover&DetailsDwg

CONSTRUCTION DETAILS
prepared for
MADBURY COMMONS
17 & 21 MADBURY ROAD DURHAM, NH

MJS
ENGINEERING, PC

CIVIL
ENVIRONMENTAL
CONSULTING ENGINEERING

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NEWBURY, NH 03857
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: MJS@MJS-ENGINEERING.COM

JOB: 13-007

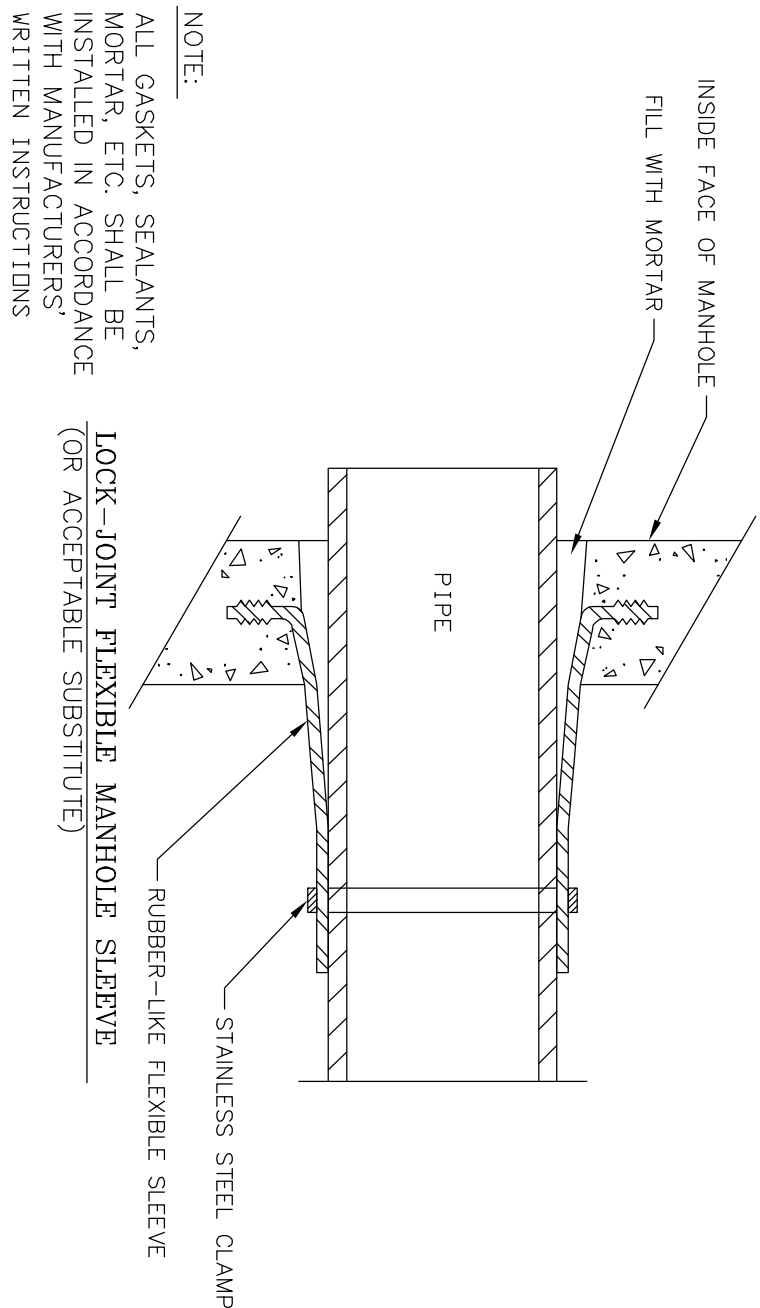
C10

MANHOLE CONSTRUCTION MATERIAL REQUIREMENTS
(PER ENR-Wq 704.10 NUMERATION)

- (A) ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE, AND LIFE EXPECTANCY OF 25 YEARS.
- (B) MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS.
- (C) MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN EXCESS OF 1 GPD PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE CONCRETE.
- (D) BARRELS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
- (E) BASE SECTIONS SHALL BE MONOLITHIC CONSTRUCTION TO A POINT AT LEAST SIX INCHES ABOVE THE TOP OF THE MANHOLE.
- (F) HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING OR TASTE-LIKE SEALANT USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT FOLLOWS:
- (G) PIPE TO ELASTOMERIC RUBBER SLEEVE WITH WATER TIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES:
- (H) ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE SLEEVE.
- (I) NON-SHRINK GROUTED JOINTS WHERE WATERTIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
- (J) MANHOLE CONE SECTIONS SHALL BE ERECTING IN SHAPE.
- (K) MANHOLE CONE SECTIONS SHALL BE ERECTED IN SHAPE.
- (L) THE INSIDE OF THE WALL.
- (M) MANHOLES SHALL HAVE A BRICK FAYED SHELF AND INVERT CONSTRUCTED TO CONFORM WITH THE SLOPE OF THE SEWER LINE.
- (N) THE SEWER PIPES, SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST POINT OF THE SEWER LINE TO BE MAINTAINED.
- (O) UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY AND SHELVES SHALL BE PLACED AFTER TESTING.
- (P) MATERIALS FOR CONSTRUCTION FOR MANHOLES SHALL BE AS FOLLOWS:
- (Q) THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE 1H DOT'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."
- (R) REINFORCING FOR CAST-IN-PLACE CONCRETE SHALL BE STEEL OR STRUCTURAL STEELS THAT CONFORM TO THE REQUIREMENTS OF THE 1H DOT'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION."
- (S) PRECAST CONCRETE BARREL SECTIONS, CONES, AND BASES SHALL CONFORM TO ASTM C478-06.
- (T) THE MANHOLE FRAME AND COVER SHALL PROVIDE A 30-INCH DIAMETER CLEAR INTO THE TOP SURFACE.
- (U) THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3-INCH LETTERS CAST INTO THE TOP SURFACE.
- (V) THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH, AND FREE FROM DEFECTS AND IMPURITIES.
- (W) CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.
- (X) CASTINGS SHALL BE EQUAL TO CLASS 30, CONFORMING TO ASTM A48/A48-03.
- (Y) BRICK SHALL BE TYPE S CONFORMING TO THE ASTM C207-06 "STANDARD SPECIFICATION FOR BRICK."
- (Z) MORTAR SHALL BE COMPOSED OF PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION.
- (1) PROPORTIONS SHALL BE:
- (2) 4.5 PARTS SAND, 1.0 PART CEMENT AND 0.5 PART HYDRATED LIME.
- (3) CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150-05.
- (4) HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207-06 "STANDARD SPECIFICATION FOR HYDRATED LIME."
- (5) SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES."
- (6) THE MINIMUM INTERNAL DIAMETER OF MANHOLE SHALL BE 48 INCHES.
- (7) IN THE FLOW CHANNEL, A DROP OF AT LEAST 10 FEET SHALL BE PROVIDED BETWEEN THE INDOING AND OUTGOING SEWERS OR ALL MANHOLES.

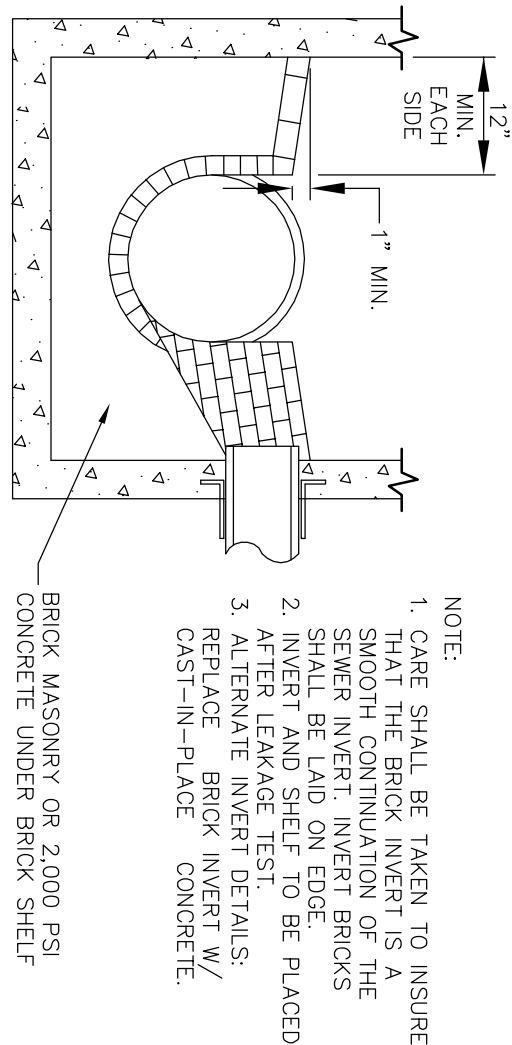
MANHOLE TESTING REQUIREMENTS (ENR-Wq 704.10)

- (X) MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST.*
- (Y) THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
- (1) THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES HG. AND THE INITIAL VACUUM TEST HOLD TIME FOR A 1-INCH HG PRESSURE DROP TO 9 INCHES HG SHALL BE:
- (A) NOT LESS THAN 25 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP.
- (B) NOT LESS THAN 25 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP.
- (2) THE MANHOLE (S) TO BE TESTED SHALL BE FULLY TESTED. TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (1) ABOVE.
- *MANHOLE TESTING MUST BE CONDUCTED PRIOR TO INVERT AND SHELF PLACEMENT.

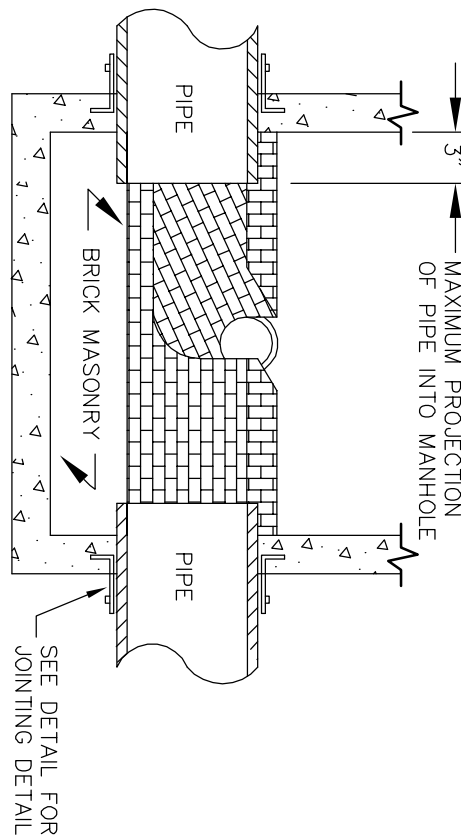


TYPICAL SEWER MANHOLE INVERT

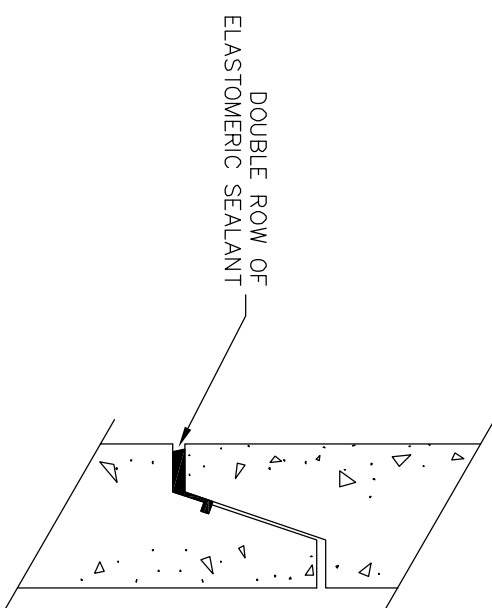
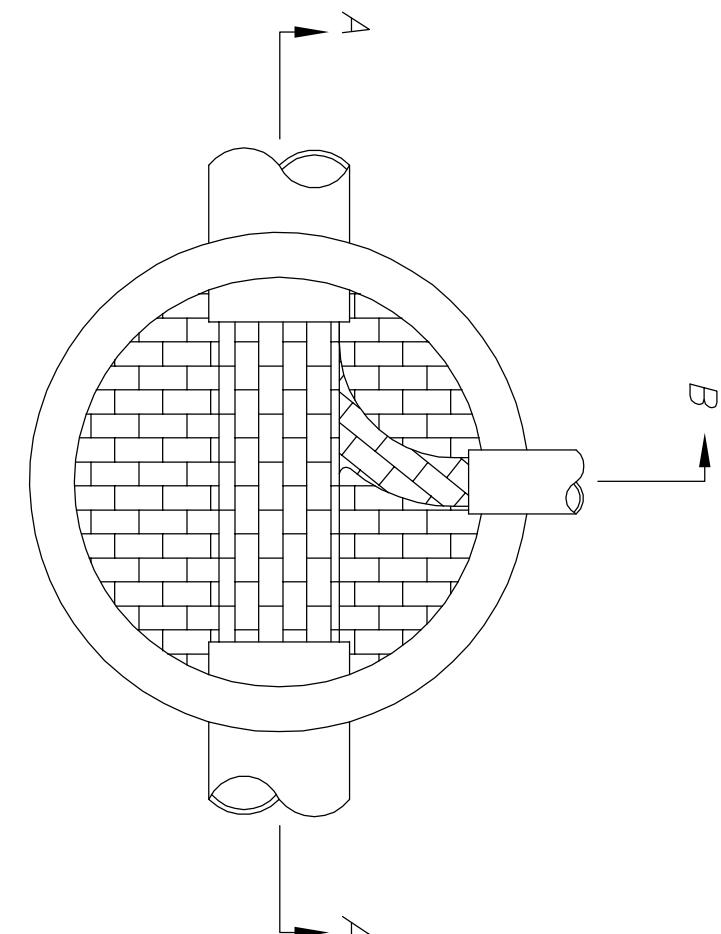
N.T.S.



SECTION A-A



PLAN

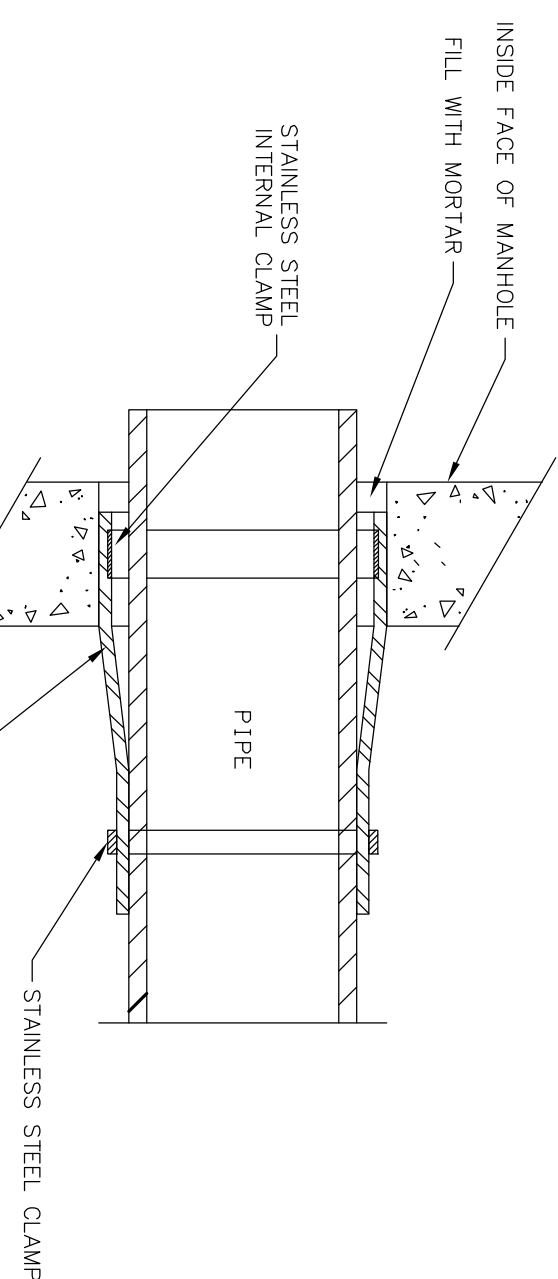


ELASTOMERIC SEALANT

- NOTE:
- ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS

DETAIL "B" - HORIZONTAL JOINTS

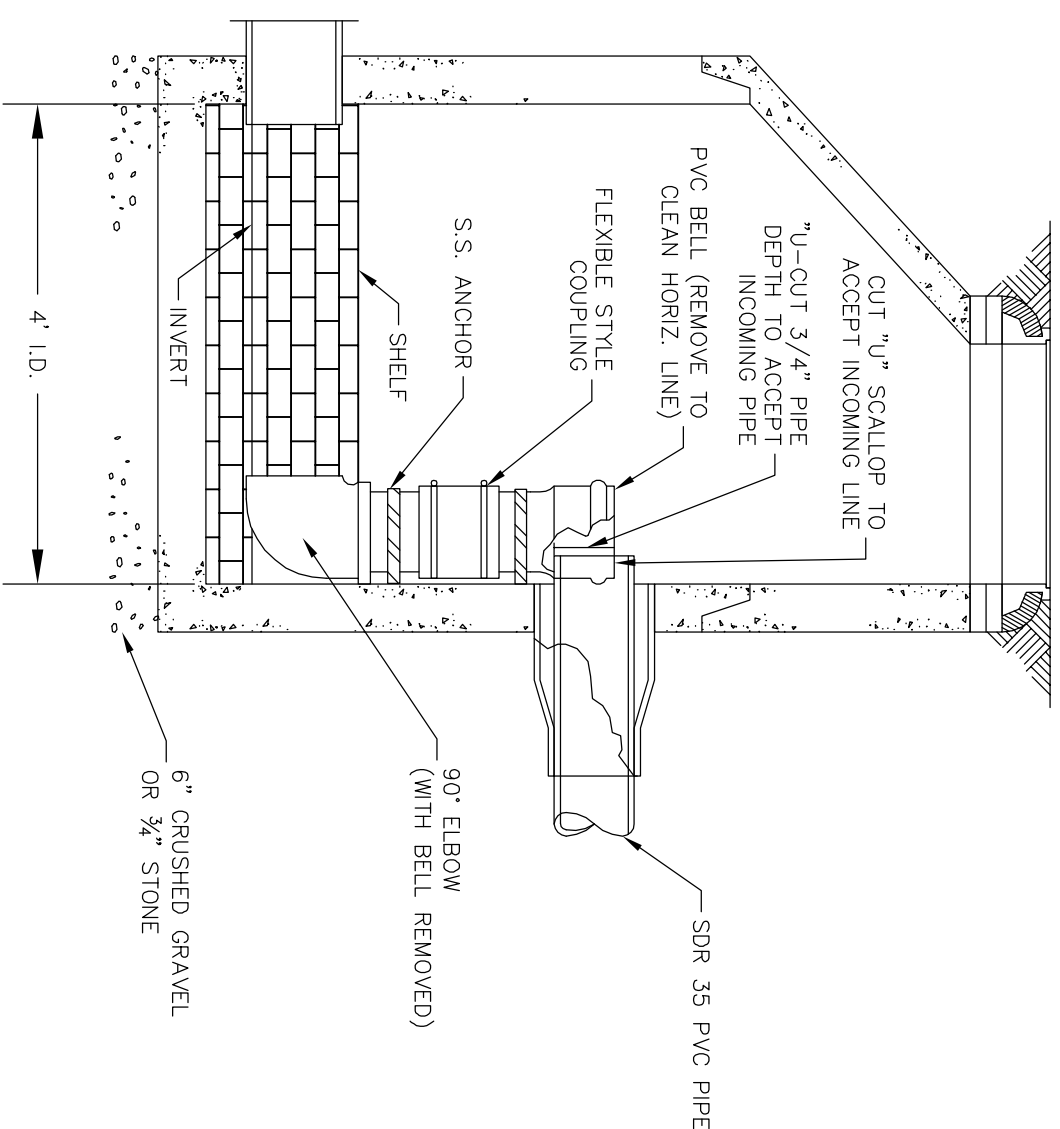
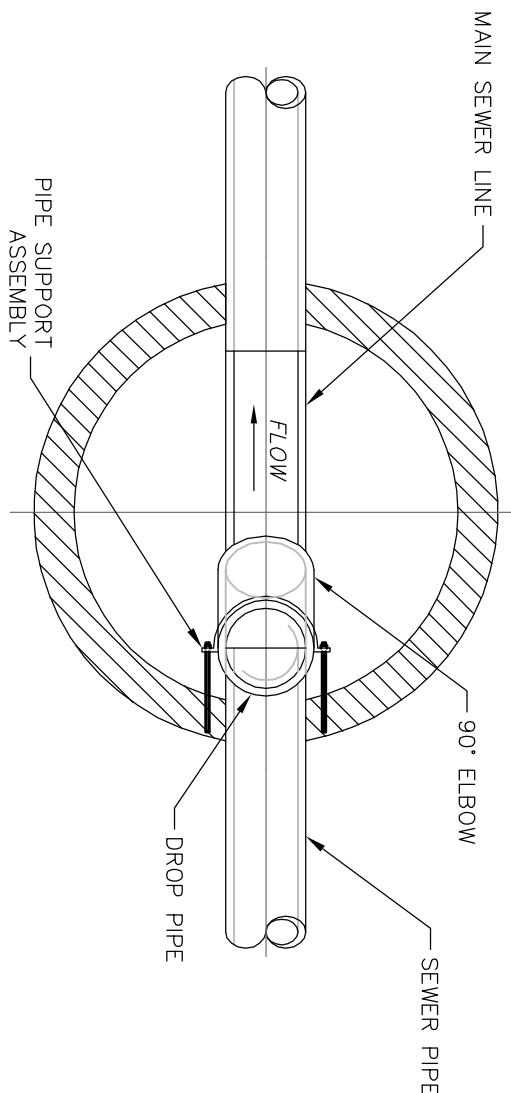
N.T.S.



DETAIL "A" - PIPE TO MANHOLE JOINTS

N.T.S.

- NOTES:
1. USE LOCK-JOINT FLEXIBLE MANHOLE SLEEVE FOR FACTORY INSTALLED APPLICATIONS AND KOR-N-SEAL SLEEVE FOR IN FIELD INSTALLATIONS.



SECTION VIEW

INSIDE DROP MANHOLE DETAIL

N.T.S.

- NOTES:
1. 4" SERVICES REQUIRE A 6" DIAMETER DROP. OTHERWISE, DROP DIAMETER SHALL BE 12" MINIMUM.
2. A MINIMUM OF TWO ANCHOR STRAPS SHALL BE USED. ANCHOR STRAPS AND BOLTS TO BE STAINLESS STEEL AND NOT MORE THAN 3" ON CENTER.
3. THERE SHALL BE NO STEPS INSTALLED WITHIN THE MANHOLES.

SEWER NOTES:

PER THE REQUIREMENTS OF "STANDARDS OF DESIGN AND CONSTRUCTION FOR SEWAGE AND WASTEWATER TREATMENT FACILITIES."

GRAVITY SEWER CONSTRUCTION MATERIALS (ENR-Wq 704.05)

- (A) PLASTIC GRAVITY SEWER PIPE AND FITTINGS SHALL BE 8" RCP SDR 35 PVC (EXCEPT SEWER SERVICE SHALL BE 6" SDR 35 PVC WHERE NOTED) AND SHALL COMPLY WITH ASTM D2034-04a.
- (B) PLASTIC SEWER PIPE SHALL HAVE A PIPE STIFFNESS RATING OF AT LEAST 46 WITH ASTM D2412-02 DURING MANUFACTURE.
- (C) JOINT SEALS FOR PVC PIPE SHALL BE OIL RESISTANT COMPRESSION RINGS OF ELASTOMERIC MATERIAL CONFORMING TO ASTM D2121-96(G)(2003)F AND SHALL BE RCP-ON, BELL AND SPIGOT TYPE.

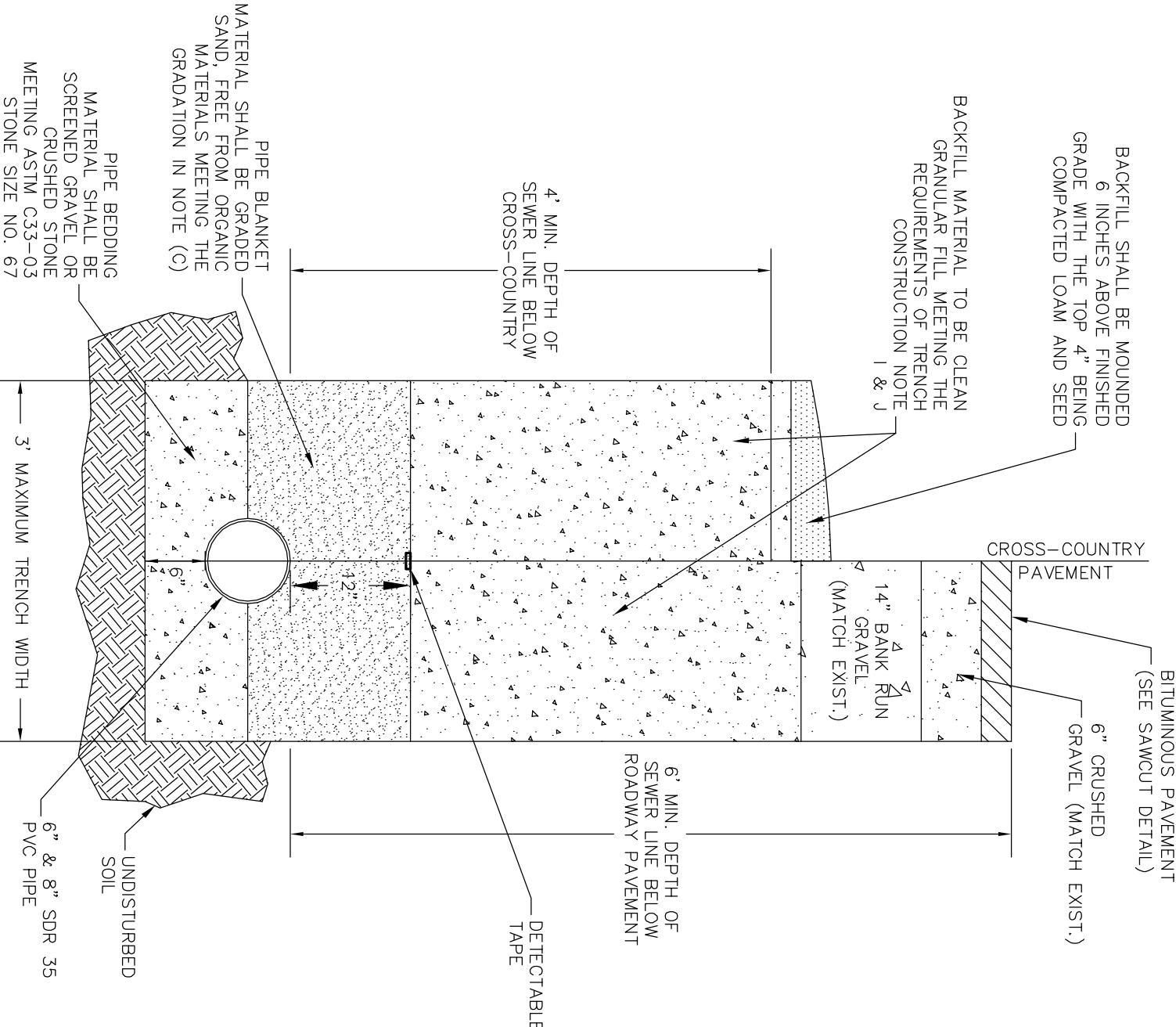
GRAVITY SEWER PIPE TESTING REQUIREMENTS

(ENR-Wq 704.07)

- (A) ALL NEW SEWERS SHALL BE TESTED FOR WATER TIGHTNESS BY THE USE OF LOW-PRESSURE AIR TESTING.
- (B) LOW-PRESSURE AIR TESTING SHALL BE IN CONFORMANCE WITH:
- (1) ASTM F1417-92(2005) "STANDARD TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR;"
- (2) UNL-BELL PVC PIPE ASSOCIATION UN-B-6, "LOW-PRESSURE AIR TESTING OF INSTALLED SEWER PIPE" (1998).
- (C) ALL NEW GRAVITY SEWERS SHALL BE CLEANED AND VISUALLY INSPECTED AND SHALL BE TRUE TO LINE AND GRADE FOLLOWING INSTALLATION AND PRIOR TO DAYS FOLLOWING INSTALLATION.
- (D) ALL PLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED NOT LESS THAN 30 PERCENT OF ALLOWABLE INSIDE DIAMETER.

PROTECTION OF WATER SUPPLIES (ENR-Wq 704.12)

- (A) SEWERS SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER SUPPLY.
- (B) A DEVIATION FROM THE SEPARATION REQUIREMENTS OF (A) ABOVE SHALL BE ALLOWED WHERE NECESSARY TO AVOID CONFLICT WITH SUBSURFACE STRUCTURES, UTILITY CHAMBERS, AND BUILDING FOUNDATIONS, PROVIDED THAT CONSTRUCTION REQUIREMENTS SPECIFIED IN ENR-Wq 704.06 ARE MAINTAINED.
- (C) WHEREVER SEWERS MUST CROSS WATER MAINS, THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
- (1) THE SEWER SHALL BE LOCATED AT LEAST 10 FEET HORIZONTALLY FROM THE WATER MAIN.
- (2) SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

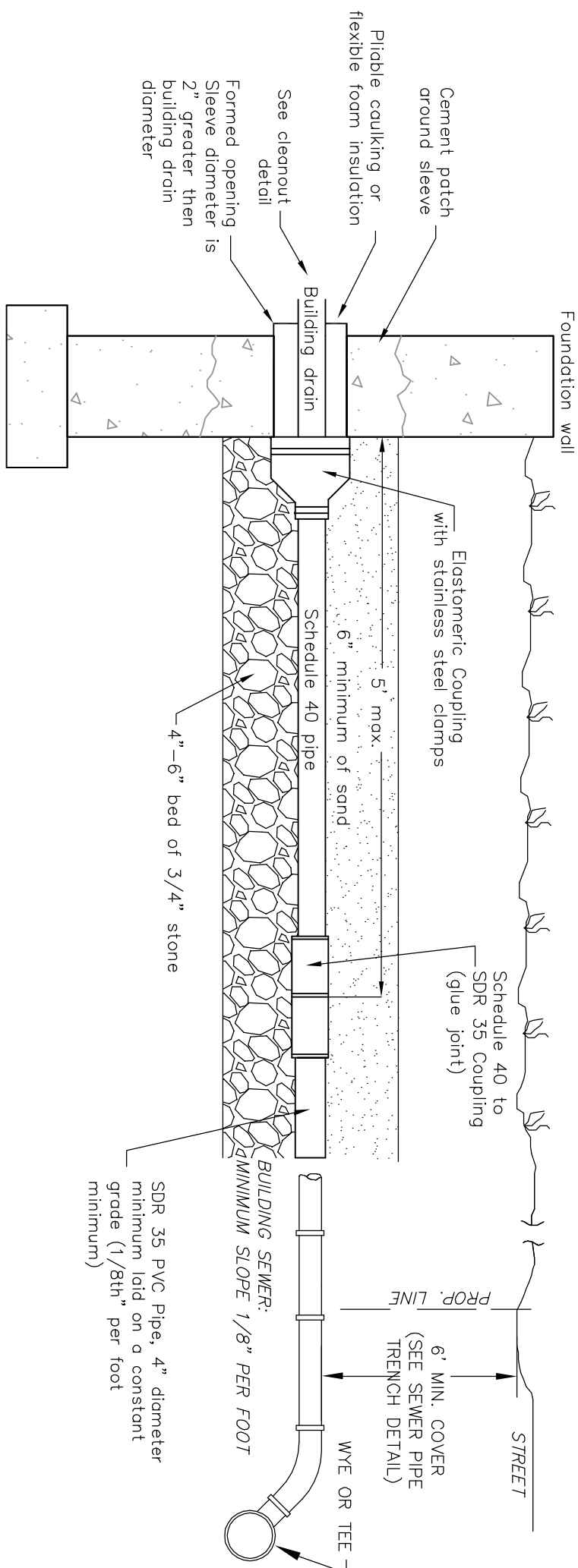


STANDARD SEWER PIPE TRENCH

N.T.S.

TRENCH CONSTRUCTION (PER ENR-Wq 704.09 NUMERATION)

- (A) TRENCH DIMENSIONS SHALL BE AS FOLLOWS:
- (1) FOR SEWER PIPE LESS THAN 15" IN DIAMETER, THE ALLOWABLE TRENCH WIDTH AT A PLANE 12 INCHES ABOVE THE PIPE SHALL BE NO MORE THAN 36".
- (B) PIPE BEDDING BEHIND MATERIAL AND FILL MATERIAL FOR EXCAVATION BELOW GRADE SHALL BE SCREENED GRAVEL OR CRUSHED STONE TO ASTM C33-03.
- (C) THE PIPE SAND BLANKET MATERIAL SHALL BE GRADED SAND, FREE FROM DEBRIS, PIECES OF PAVERMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MATERIAL, OR ANY MATERIAL THAT MAY BE DAMAGED BY THE WEIGHT OF THE PIPE AND A MINIMUM OF 15% PASSES THROUGH A 200-SIEVE.
- (D) PIPE BEDDING MATERIAL SHALL EXTEND FROM A HORIZONTAL PLANE THROUGH THE PIPE AXIS TO 6 INCHES BELOW THE BOTTOM OF THE OUTSIDE SURFACE OF THE PIPE.
- (E) THE SAND MATERIAL SHALL COVER THE PIPE A MINIMUM OF 12 INCHES ABOVE THE CROWN OF THE OUTSIDE SURFACE.
- (F) COMPACTION SHALL BE IN 12-INCH LAYERS FOR BEDDING AND BLANKET.
- (G) BACKFILL MATERIALS SHALL BE COMPACTED IN 3-FOOT LAYERS TO THE GROUND SURFACE EXCEPT FOR ROAD CONSTRUCTION (OR OTHER PAVED AREAS) WHERE THE FINAL 3 FEET SHALL BE COMPACTED IN 12-INCH LAYERS TO THE ROAD SURFACE.
- (H) TRENCH BACKFILL MATERIAL IN ROADWAY LOCATIONS SHALL BE NATURAL MATERIALS EXCAVATED FROM THE TRENCH DURING CONSTRUCTION, EXCLUDING DEBRIS, PIECES OF PAVERMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MATERIAL, OR ANY MATERIAL THAT MAY BE DAMAGED BY THE WEIGHT OF THE PIPE AND A MINIMUM OF 15% PASSES THROUGH A 200-SIEVE.
- (I) THE ENGINEER WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE TRENCH BACKFILL TO PREVENT COLLAPSE OF THE TRENCH.
- (J) ABOVE, EXCEPT THAT TOP SOIL, LOAM, MUCK OR PEAT, MAY BE USED PROVIDED THE COMPLETED CONSTRUCTION WILL BE STABLE, AND PROVIDED THAT THE TRENCH BACKFILL TO PREVENT COLLAPSE OF THE TRENCH.
- (K) CROSS-COUNTRY LOCATIONS.
- (L) BASE COURSE FOR TRENCH REPAIR SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND BE LOCATED AT LEAST 6 INCHES ABOVE GROUND.
- (M) PRECAUTIONS SHALL BE TAKEN TO AVOID GROUNDWATER POOLING AT THE SURFACE BY PROVIDING DRAINAGE TO A SUITABLE OUTLET AT CATCH BASINS OR ROUOFF SWALES.



TYPICAL BUILDING SEWER CONNECTION

N.T.S.

NO.	REVISIONS	DATE	INT.
5.	INITIAL SUBMISSION FOR COA REVIEW BY TOWN PLANNER	5/28/14	MS
4.	SUBMISSION FOR SEWER CONNECTION PERMIT	5/7/14	MS
3.	SUBMISSION TO AOT BUREAU	4/29/14	MS
2.	REVISIONS PER TIGHE & BOND REVIEW LETTER DATED 1/21/14	2/10/14	KD
1.	ADDITIONAL REVISIONS PER COMMERCIAL OCCUPANCY REQUIREMENTS	1/15/14	KD
0.	SUBMISSION FOR SITE PLAN REVIEW	10/16/13	KD

SEAL

DATE:	10/16/13
SCALE:	AS SHOWN
DESIGNED BY:	MJS
DRAWN BY:	MS
APPROVED BY:	MJS
DWG. FILE:	13-007 Cover&DetailsD.dwg

SEWER DETAILS

prepared for

MADBURY COMMONS

17 & 21 MADBURY ROAD DURHAM, NH

MJS
ENGINEERING, PC

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ENVIRONMENTAL
CONSULTING ENGINEERING

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E-MAIL: MJS@MJS-ENGINEERING.COM

JOB: 13-007

C11

LANDSCAPE NOTES

- [illegible]

General Tree and Vegetation Protection

1. **Best management practices** shall be followed for the protection of existing trees and vegetation that are planned to be preserved. Also, the provisions of Section 75.13-2 – Protection During Construction under Article XXII – Landscaping of the Durham Zoning Ordinance shall be followed.
2. The following minimum standards shall be followed:
 - a. Temporary fencing shall be measured by a certified surveyor for construction. Removable tree care shall be applied as needed to mitigate air damage caused by construction (piling of broken branches or exposed roots, mulching, wounds, etc.).
 - b. Temporary fencing: Contractor shall install temporary fence around the tree protection zones designated on the tree protection plan.
 - c. Temporary tree care and removal when construction is completed: Temporary tree shall be at least 1.2m (4 feet) height that be installed around each tree to be protected and preserved. The protection shall be installed prior to the actual start of construction and maintained on or within the property. On each fence, trees and shrubs to be protected shall be marked around each tree to be protected and preserved. The protection shall be installed prior to the start of construction. The critical root zone is a circle with radius equal to 1.5 feet per 1 inch of trunk diameter. If more than 40% of the critical root zone will be the disturbance, the tree may be damaged beyond recovery.
 - d. **Root Protection:** During the entire construction period all reasonable measures shall be taken to protect from damage to the root system of trees. The following shall be followed:
 - i. Excavation or compaction: All plant material displaced by be saved, shall be protected during construction. Protect tree root systems from damage caused by runoff or falling of porous materials with no mesh, piling, or storing construction materials, debris, or equipment within the critical root zone.
 - ii. Storage: Store construction materials, debris, or equipment outside the critical root zone.
 - iii. Traffic: With tree protection zones, prevent soil compaction over root systems.
3. **Fence:** At a minimum, the protective barrier shall be constructed of orange, non-fencing security fabric attached to three ground and 2m (6 feet) extending above ground. The fabric shall be attached to the post with a minimum of four (4) inches between the posts.
4. **Severing Logs:** Where roots of existing trees will be disturbed, sever roots cleanly by hand or with a root saw, rather than using a chainsaw, to minimize the root system damage.
5. **Mulching During Construction:** Prior to contractors apply 3-4 inches of dark mulch or wood chips to cover the root system to be protected with the temporary fencing. Maintain this mulch until construction is completed.
6. **Tree Care:** Tree care shall be performed by a certified arborist. Tree care shall be performed as required, especially when the soil is wet. Compacted soils have the open space, and therefore less access for moisture and oxygen needed to sustain tree health. Even one pass with heavy equipment can cause soil compaction.
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Plant List

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
As	<i>Acer saccharum</i>	Green Mountain	1	6" Cal	R&B
Bn	<i>Betula nigra</i> 'Heritage'	Heritage River Birch	11	10-12' Ht	R&B Multi Stem
Gt	<i>Geetia intercalaris</i> 'memis	Halka Thomless Honeysuckle	1	6" Cal	R&B
Ma	<i>Malus sylvestris</i> 'Tina'	Tina Crab	3	2-2.5' Cal	R&B
Pa	<i>Pyrus calleryana</i>	Chariclee Flowering Pear	4	4" Cal	R&B
Tl	<i>Tilia tomentosa</i>	Steepling Silver Linden	3	7" Cal	R&B
SHRUBS					
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Bu	<i>Buxus Green</i>	Green Boxwood	2	2-3' Ht	Comments
Ch	<i>Chamaecyparis</i>	Green Cypress	5	7' gal	Full
Cic2	<i>Cedrus atlantica</i>	Summersweet	13	5' gal	Full
Hs	<i>Hibiscus syriacus</i> 'Autumn	Adonis Rose-of-Sharon	2	7-8' Ht	B&B Full
HyQ	<i>Hydrangea arborescens</i>	Anabelle	3	5' gal	B&B Full
HyQ	<i>Hydrangea quercifolia</i>	Sikes Dwarf Hydrangea	10	5' gal	Full to ground
Ig	<i>Ilex glabra</i>	Shamrock	21	3' gal	Full to ground
Ilx	<i>Ilex nemoralis</i>	Blue Maid Holly	1	5-6' Ht	B&B Full
lv	<i>Ilex verticillata</i>	Winter Red	6	7' gal	Full to ground
Ros	<i>Rosa Double Knockout</i>	Knockout Rose	24	3' gal	Full to ground

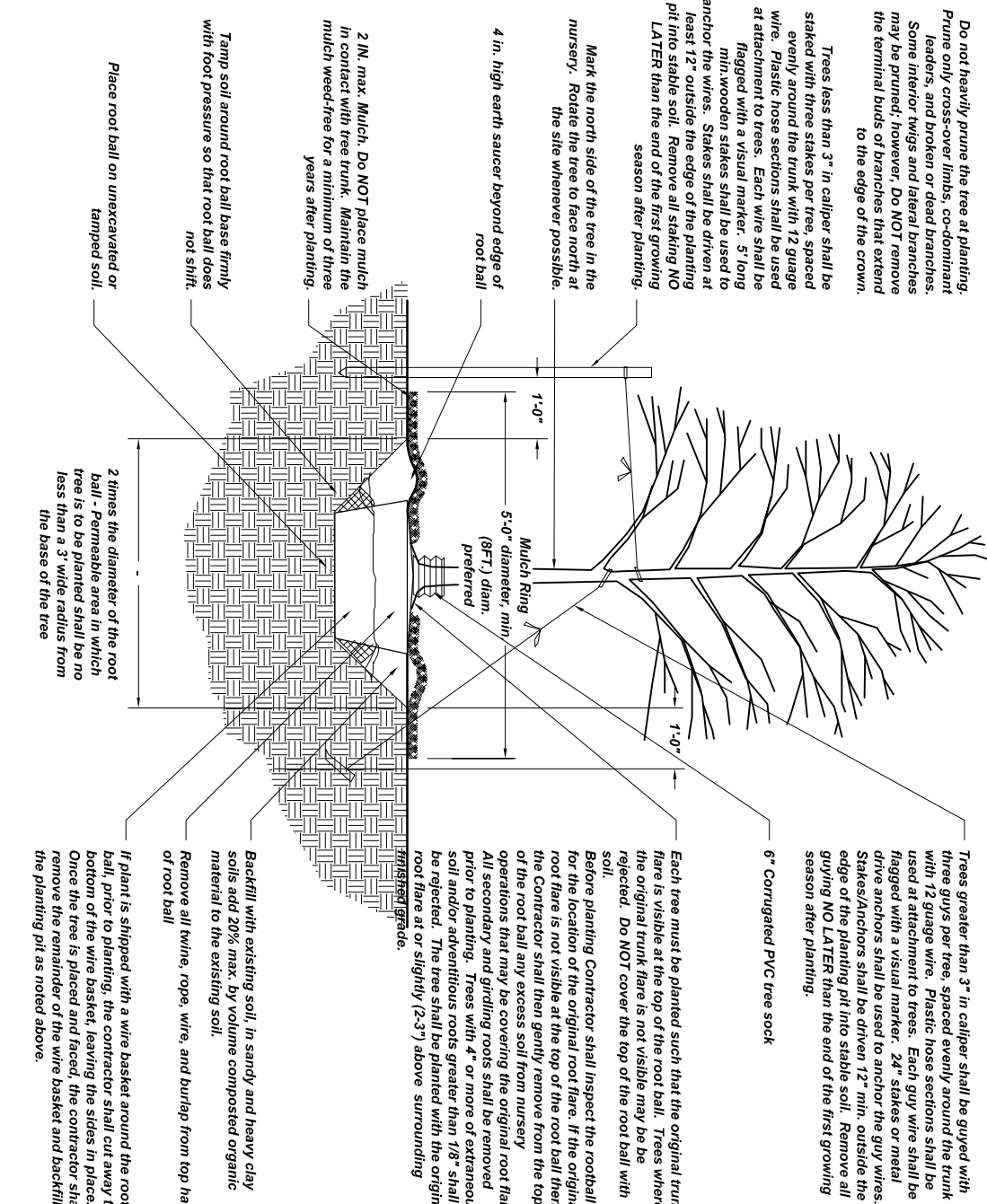
SHRUBS

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PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Seed Mix:	100%	New England Convention/ Middle Mix			
Seed Mix A					
Laurel	Tall fescue Bluegrass mix, such as Pennings' Smartseed Tall fescue Bluegrass Mix - or approved equal				
Application Notes:					
Seed Mix A	30lb/yd² new New England Convention/ Middle Mix				
Laurel	As recommended by seed provider				
Brook Rehabilitation					
1.	A pre-construction meeting with all parties involved is highly recommended work to assign responsibilities, shall take place prior to any removals. A Wetland Scientist, Landscape Architect or other qualified professional (QP) will oversee the enhancement work.				
2.	QP to flag all trees and shrubs to be saved.				
3.	QP to flag all trees and shrubs to be removed.				
4.	Contractor shall complete temporary stabilization practices in the vicinity of perme breaks as shown on approved site plans. Plantings should be completed after the proposed riprap swales are installed to avoid damage to plantings.				
5.	Contractor shall select protective fencing outside of the brook bank on the 17-21 Midway property to keep construction equipment out of the brook.				
6.	Contractor shall manually remove loose debris and slash from the entire site, and properly dispose of material.				
7.	Contractor shall remove select dead trees as flagged by landscape architect.				
8.	Contractor shall work with a Certified Arborist to prune the existing trees to remain in this area to raise the canopy for the brook.				
9.	Contractor shall identify and remove all invasive plant material in a manner appropriate to the specific invasive plant. Under no circumstances shall the following plant be cut from the ground: Bittersweet, Japanese Knotweed				
10.	For those invasive plants appropriate for manual removal the contractor shall carefully separate smaller stumps, roots and branches from the larger stumps and roots. The contractor shall remove the smaller stumps and roots to the brook. Larger stumps and roots are not possible to remove by hand shall be left, but covered with an appropriate mulch to be left in place and prevent re-growing.				
11.	The contractor shall store, remove and dispose of all parts of invasive species from the site, using commonly accepted practices.				
12.	Contractor shall and remove all species of trees, shrubs and other plants.				
13.	Contractor shall plant native trees and shrubs and groundcovers listed in the Brook Rehabilitation Plant List, as directed by landscape architect.				
14.	The brook shall be mowed by hand, with a brush or mower.				
15.	Install mulch around and in the brook bed as needed, but not much in riprap areas.				
16.	Contractor shall prepare buffer enhancement compilation report with photographs.				
PETTER BROOK REHABILITATION					
BRUSHES	Redbud Nettle	Common Nettle	Quantity	Size	Comments

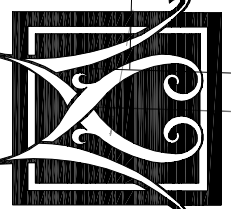
Tree Planting Detail, Typ



PROPOSED BUILDING

PROPOSED BUILDING

PROPOSED BUILDING



WOODBURN
& COMPANY

103 Kent Place
Newmarket, NH 03857
Tel 603.659.5949

PROPOSED LANDSCAPE PLAN
prepared for

MADBURY COMMONS

17 & 21 MADBURY ROAD DURHAM, NH

DATE:	11/27/13
SCALE:	1"=20'
DESIGNED BY:	RW
DRAWN BY:	VB
APPROVED BY:	VB
DWG FILE:	

SEAL

4	Revisions per town planner	5.11.14	
3	Revisions per site plan changes	5.7.14	
2	Per T&B Design Review #1	2.10.14	
1	Planting plan	1.15.14	
NO.	REVISIONS	DATE	INT.

11



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