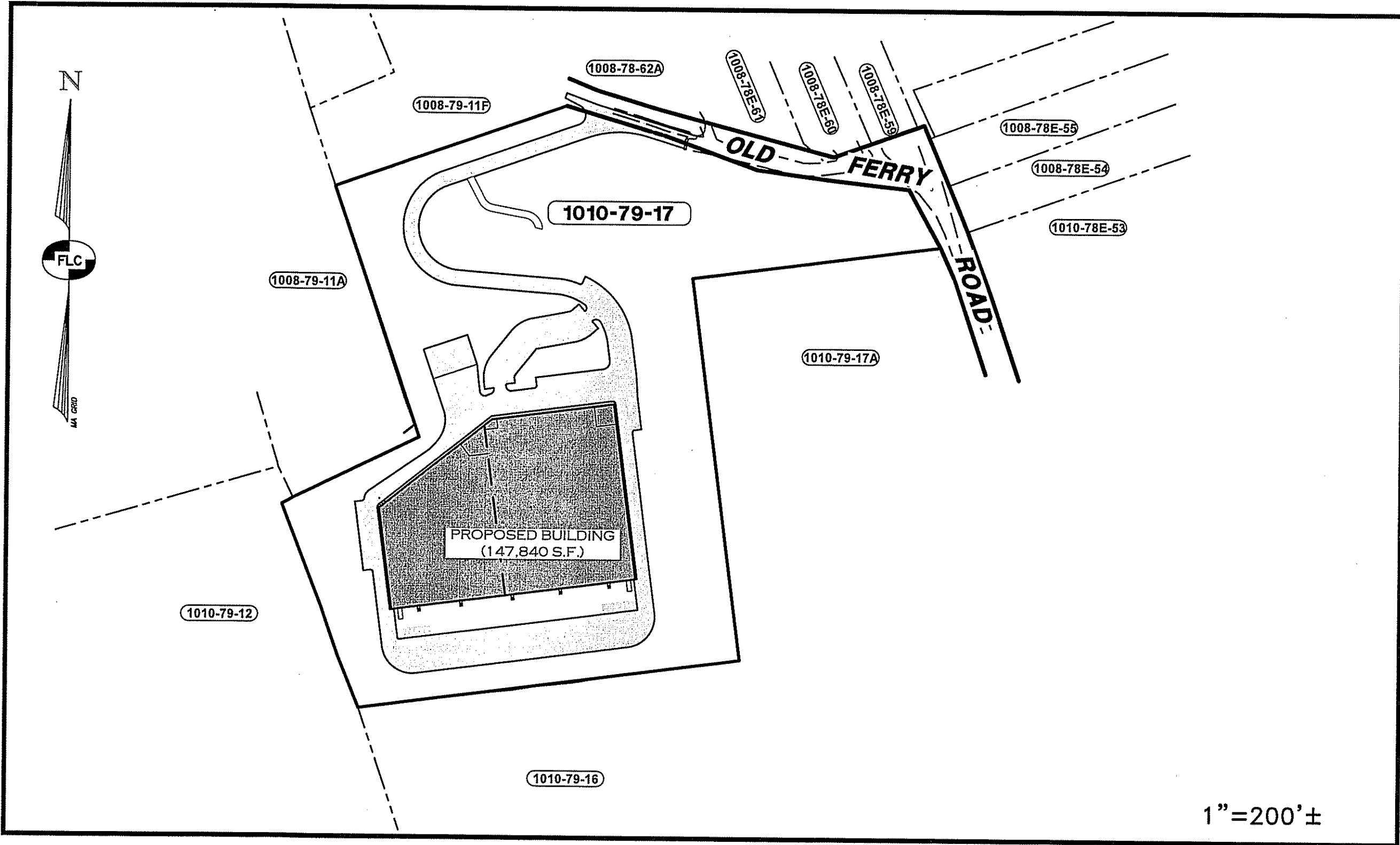
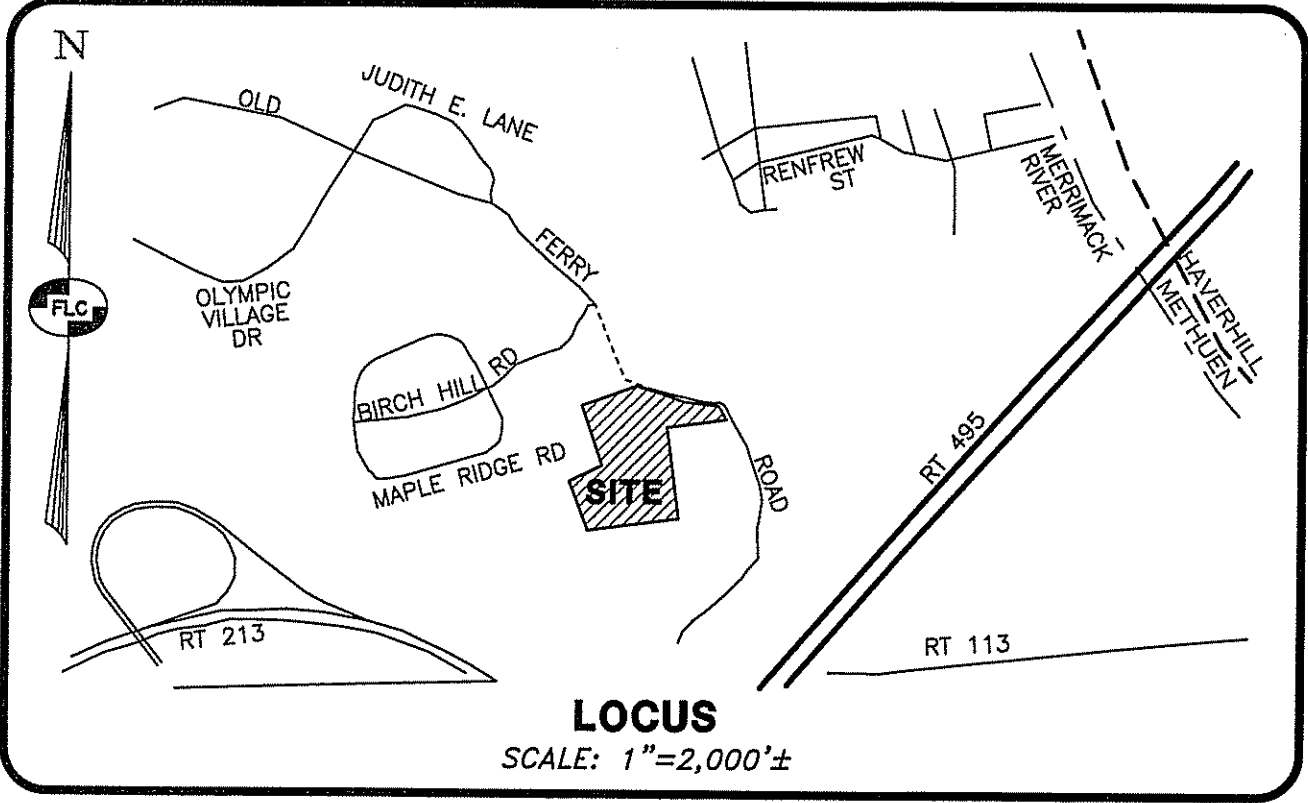


SITE CONSTRUCTION PLANS
TAX MAP 1010 - LOT 79-17
PIE HILL WAREHOUSING

46 OLD FERRY ROAD
METHUEN, MASSACHUSETTS
DATE: APRIL 4, 2022
LAST REVISED: AUGUST 29, 2022

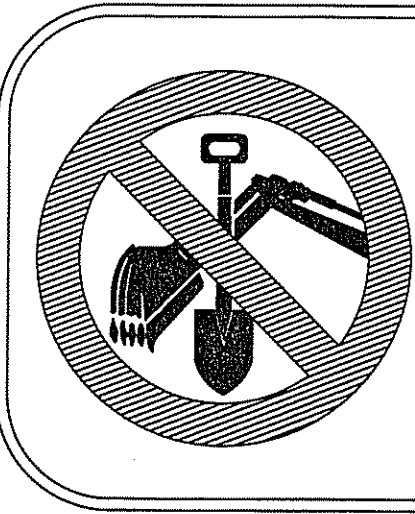


SHEET INDEX		
PAGE	SHEET	TITLE
1	CV-1	COVER SHEET
2	MP-1	OVERALL SITE LAYOUT PLAN
3	SP-1	SITE LAYOUT PLAN NORTH
4	SP-2	SITE LAYOUT PLAN SOUTH
5	EX-1	EXISTING CONDITIONS PLAN
6	MG-1	MASTER GRADING & DRAINAGE PLAN
7	GR-1	GRADING & DRAINAGE PLAN NORTH
8	GR-2	GRADING & DRAINAGE PLAN SOUTH
9	UT-1	UTILITY PLAN NORTH
10	UT-2	UTILITY PLAN SOUTH
11	EC-1	EROSION CONTROL PLAN NORTH
12	EC-2	EROSION CONTROL PLAN SOUTH
13	LT-1	LIGHTING PLAN NORTH
14	LT-2	LIGHTING PLAN SOUTH
15	LS-1	LANDSCAPING PLAN NORTH
16	LS-2	LANDSCAPING PLAN SOUTH
17	PP-1	DRIVEWAY PLAN & PROFILE
18	PP-2	DRIVEWAY PLAN & PROFILE
19	EH-1	TRUCK TURNING EXHIBIT
20	DT-1	CONSTRUCTION DETAILS
21	DT-2	CONSTRUCTION DETAILS
22	DT-3	EROSION CONTROL NOTES
23	DT-4	EROSION CONTROL DETAILS
24	DT-5	LANDSCAPING DETAILS
25	DT-6	WATER CONSTRUCTION DETAILS
26A	DT-7	STORMWATER RECHARGE SYSTEM DETAILS
26B	DT-8	STORMWATER RECHARGE SYSTEM DETAILS
27	ST-1	PROPOSED SEWAGE DISPOSAL SYSTEM PLAN
28	ST-2	PROPOSED SEWAGE DISPOSAL SYSTEM PLAN
29	OS-1	OFF SITE IMPROVEMENT EXHIBIT PLAN

PREPARED FOR AND LAND OF:
TRIPLE G PROPERTY LLC
59 BONANNO COURT
METHUEN, MA 01844

APPROVED
METHUEN COMMUNITY DEVELOPMENT

CHAIRMAN: _____ DATE: _____
SECRETARY: _____ DATE: _____



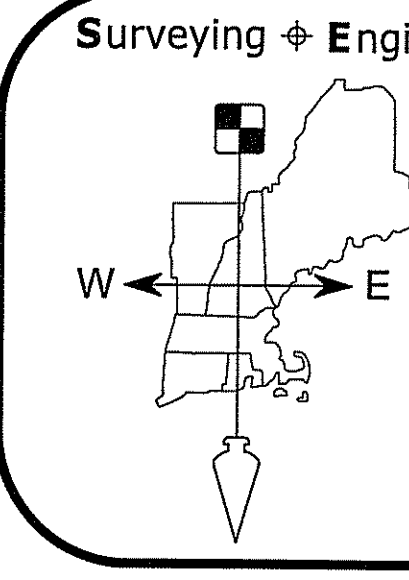
1. THE LOCATION OF THE UTILITIES SHOWN ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PRESERVE ALL UTILITY SERVICES.

2. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH ALL JURISDICTIONAL AGENCIES AND UTILITY COMPANIES PRIOR TO AND DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND PROPOSED WORK PRIOR TO CONSTRUCTION.

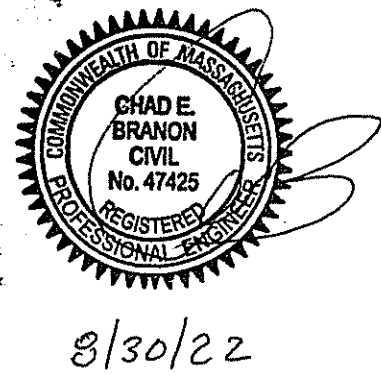
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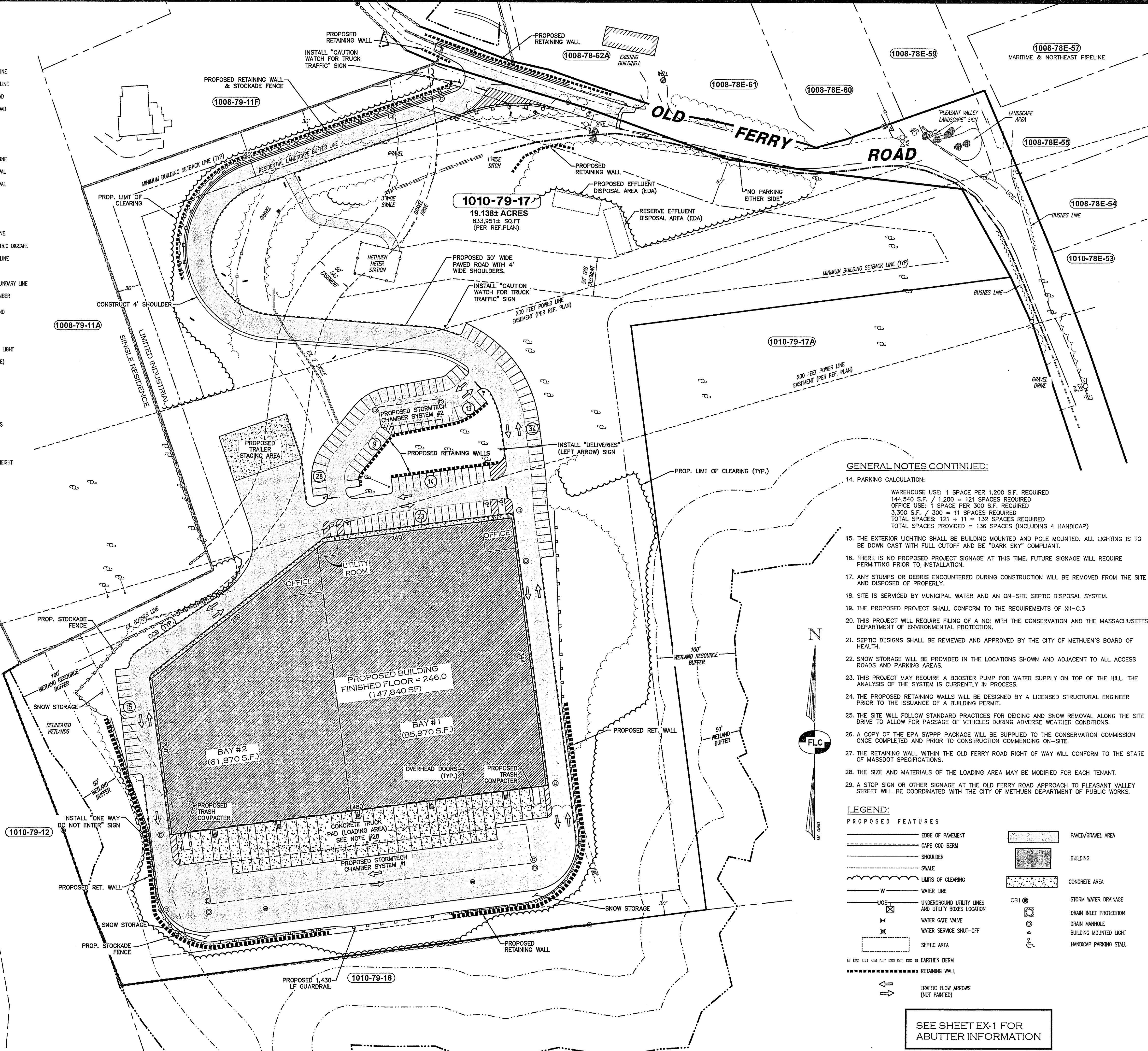
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E	8/29/22	REVISED PER ENGINEERING PEER REVIEW	CLR	CEB
D	8/3/22	REVISED PER ENGINEERING REVIEW	CLR	CEB
C	7/22/22	REVISED PER CONSERVATION COMMISSION REVIEW	CLR	CEB
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REV.	DATE	DESCRIPTION	C/O	DR
FILE: 2295CV01E.dwg	PROJ. NO. 2295.01	SHEET: CV-1	PAGE NO. 1 OF 29	

LEGEND:

EXISTING FEATURES

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ABUTTING LOT LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OH OVERHEAD UTILITY LINE
- UGE UNDERGROUND ELECTRIC DISSAFE
- UG UNDERGROUND GAS LINE
- W WATER LINE
- ZONING DISTRICT BOUNDARY LINE
- TAX MAP & LOT NUMBER
- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIN FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3' HEIGHT



GENERAL NOTES CONTINUED:

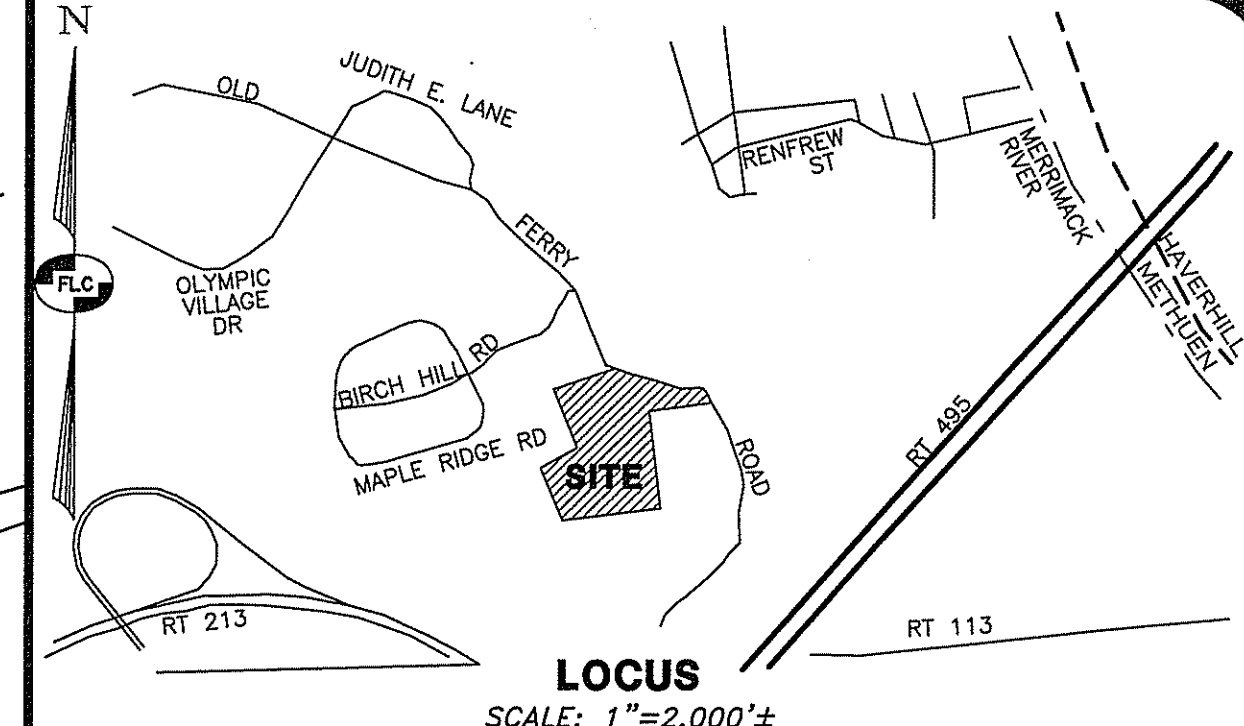
14. PARKING CALCULATION:
WAREHOUSE USE: 1 SPACE PER 1,200 S.F. REQUIRED
144,540 S.F. / 1,200 = 121 SPACES REQUIRED
OFFICE USE: 1 SPACE PER 300 S.F. REQUIRED
3,300 S.F. / 300 = 11 SPACES REQUIRED
TOTAL SPACES: 121 + 11 = 132 SPACES REQUIRED
TOTAL SPACES PROVIDED = 136 SPACES (INCLUDING 4 HANDICAP)
15. THE EXTERIOR LIGHTING SHALL BE BUILDING MOUNTED AND POLE MOUNTED. ALL LIGHTING IS TO BE DOWN CAST WITH FULL CUTOFF AND BE "DARK SKY" COMPLIANT.
16. THERE IS NO PROPOSED PROJECT SIGNAGE AT THIS TIME. FUTURE SIGNAGE WILL REQUIRE PERMITTING PRIOR TO INSTALLATION.
17. ANY STUMPS OR DEBRIS ENCOUNTERED DURING CONSTRUCTION WILL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
18. SITE IS SERVICED BY MUNICIPAL WATER AND AN ON-SITE SEPTIC DISPOSAL SYSTEM.
19. THE PROPOSED PROJECT SHALL CONFORM TO THE REQUIREMENTS OF XII-C.3
20. THIS PROJECT WILL REQUIRE FILING OF A NOI WITH THE CONSERVATION AND THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION.
21. SEPTIC DESIGNS SHALL BE REVIEWED AND APPROVED BY THE CITY OF METHUEN'S BOARD OF HEALTH.
22. SNOW STORAGE WILL BE PROVIDED IN THE LOCATIONS SHOWN AND ADJACENT TO ALL ACCESS ROADS AND PARKING AREAS.
23. THIS PROJECT MAY REQUIRE A BOOSTER PUMP FOR WATER SUPPLY ON TOP OF THE HILL. THE ANALYSIS OF THE SYSTEM IS CURRENTLY IN PROCESS.
24. THE PROPOSED RETAINING WALLS WILL BE DESIGNED BY A LICENSED STRUCTURAL ENGINEER PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
25. THE SITE WILL FOLLOW STANDARD PRACTICES FOR DEICING AND SNOW REMOVAL ALONG THE SITE DRIVE TO ALLOW FOR PASSAGE OF VEHICLES DURING ADVERSE WEATHER CONDITIONS.
26. A COPY OF THE EPA SWPPP PACKAGE WILL BE SUPPLIED TO THE CONSERVATION COMMISSION ONCE COMPLETED AND PRIOR TO CONSTRUCTION COMMENCING ON-SITE.
27. THE RETAINING WALL WITHIN THE OLD FERRY ROAD RIGHT OF WAY WILL CONFORM TO THE STATE OF MASSDOT SPECIFICATIONS.
28. THE SIZE AND MATERIALS OF THE LOADING AREA MAY BE MODIFIED FOR EACH TENANT.
29. A STOP SIGN OR OTHER SIGNAGE AT THE OLD FERRY ROAD APPROACH TO PLEASANT VALLEY STREET WILL BE COORDINATED WITH THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS.

LEGEND:

PROPOSED FEATURES

- EDGE OF PAVEMENT
- CAPE COD BERM
- SHOULDER
- SWALE
- LIMITS OF CLEARING
- W WATER LINE
- UGE UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
- WATER GATE VALVE
- WATER SERVICE SHUT-OFF
- SEPTIC AREA
- PAVED/GRAVEL AREA
- BUILDING
- CONCRETE AREA
- STORM WATER DRAINAGE
- DRAIN INLET PROTECTION
- DRAIN MANHOLE
- BUILDING MOUNTED LIGHT
- HANDICAP PARKING STALL
- CB1
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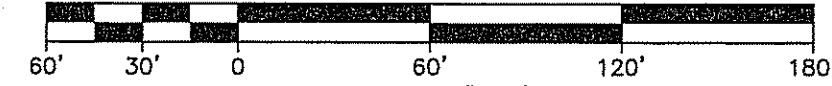
SEE SHEET EX-1 FOR ABUTTER INFORMATION



GENERAL NOTES:

1. THE OWNER OF RECORD FOR TAX MAP 1010 LOT 79-17 IS TRIPLE G LLC, 59 BONANNO COURT, METHUEN MA 01844. THE DEED REFERENCE FOR THE LOT IS BK.16844 PG.73 DATED OCTOBER 14, 2020.
2. THE PURPOSE OF THIS PLAN IS TO DEPICT A 147,840 S.F. WAREHOUSE AND ASSOCIATED SITE IMPROVEMENTS ON TAX MAP 1010 LOT 79-17 AS SHOWN.
3. THE TOTAL AREA OF TAX MAP 1010 LOT 79-17 IS 19.138± ACRES OR 833,651 SQ.FT. PER REFERENCE PLAN.
4. ZONING FOR THE ENTIRE LOT IS "LI" INDUSTRIAL LIMITED DISTRICT. LOT REQUIREMENTS INCLUDE:
LI ZONE: LIGHT INDUSTRIAL
MIN LOT AREA 40,000 SF 833,651 SF 833,651 SF
MIN LOT WIDTH 100 FT 567.4 FT 567.4 FT
MIN LOT FRONTAGE 100 FT 820.03 FT 820.03 FT
MIN FRONT SETBACK 60 FT N/A 526.27 FT
MIN SIDE SETBACK 30 FT N/A 47.73 FT
MIN REAR SETBACK 30 FT N/A 182.85 FT
MAX. BUILDING HEIGHT 45 FT N/A 30± FT
MAX. STORIES 4 ST N/A 1 ST
MAX. LOT COVERAGE 35% 11% 34.1%
OPEN SPACE NONE --% --%
5. THE WETLAND CONSERVATION DISTRICT OVERLAY REQUIRES A 50 FEET BUFFER.
6. THE LOT LIES OUTSIDE THE BOUNDARY OF THE 100-YEAR FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP (FIRM), ESSEX COUNTY, CITY OF METHUEN, COMMUNITY NO. 250093 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER 250093C0069F DATED JULY 3, 2012.
7. THE BOUNDARY INFORMATION SHOWN WAS DEVELOPED ENTIRELY FROM THE REFERENCE PLAN CITED HEREON AND IS NOT A RESULT OF A BOUNDARY SURVEY BY THIS OFFICE. THE LOT IS SUBJECT TO THE FOLLOWING: AN EASEMENT TO NEW ENGLAND POWER COMPANY (SEE BK.713 PG.54 - 6/18/1948), A RIGHT OF WAY AGREEMENT EASEMENT TO PORTLAND NATURAL GAS TRANSMISSION SYSTEM & MARITIMES & NORTHEAST PIPELINE, LLC (SEE BK.5502 PG.229 - 7/19/1999 AND A RIGHT OF WAY EASEMENT TO MARITIMES & NORTHEAST PIPELINE, LLC (SEE BK.8324 PG.26 - 10/7/2003).
8. THE SURFACE FEATURES AND SITE TOPOGRAPHY SHOWN ARE THE RESULT OF A PARTIAL ON-SITE FIELD SURVEY BY THIS OFFICE DURING THE MONTH OF JANUARY, 2020.
9. THE UNDERGROUND UTILITIES SHOWN SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITIES.
10. HORIZONTAL ORIENTATION IS BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM DEVELOPED FROM THE N.D.A.A. ONLINE POSITIONING USER SERVICE (OPUS) WHICH UTILIZES THE HIGH ACCURACY NATIONAL SPATIAL REFERENCE (NSRS). VERTICAL DATUM IS NYDA-88 PER OPUS OBSERVATION ON 01/27/2020.
11. JURISDICTIONAL WETLANDS SHOWN HEREON WERE DELINEATED BY CHRISTOPHER A. GUIDA FROM THIS OFFICE IN DECEMBER, 2019.
12. RIGHT OF WAY OF OLD FERRY ROAD IS PER REFERENCE PLAN CITED HEREON.
13. THE UNDERGROUND WATER LINE SHOWN IS APPROXIMATE AND SHALL BE VERIFIED PRIOR ANY EXCAVATION OR CONSTRUCTION ACTIVITIES. THE PIPE AT THE SUBJECT LOCATION IS A 8" DIAMETER DUCTILE IRON CLASS 52 PER THE CITY OF METHUEN.

GRAPHIC SCALES



REV.	DATE	DESCRIPTION	C/O	DR	CK
E	8/29/22	REVISED PER ENGINEERING PEER REVIEW		CLR	CEB
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OVERALL SITE LAYOUT PLAN

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:

TRIPLE G, LLC

59 BONANNO COURT, METHUEN, MA 01844

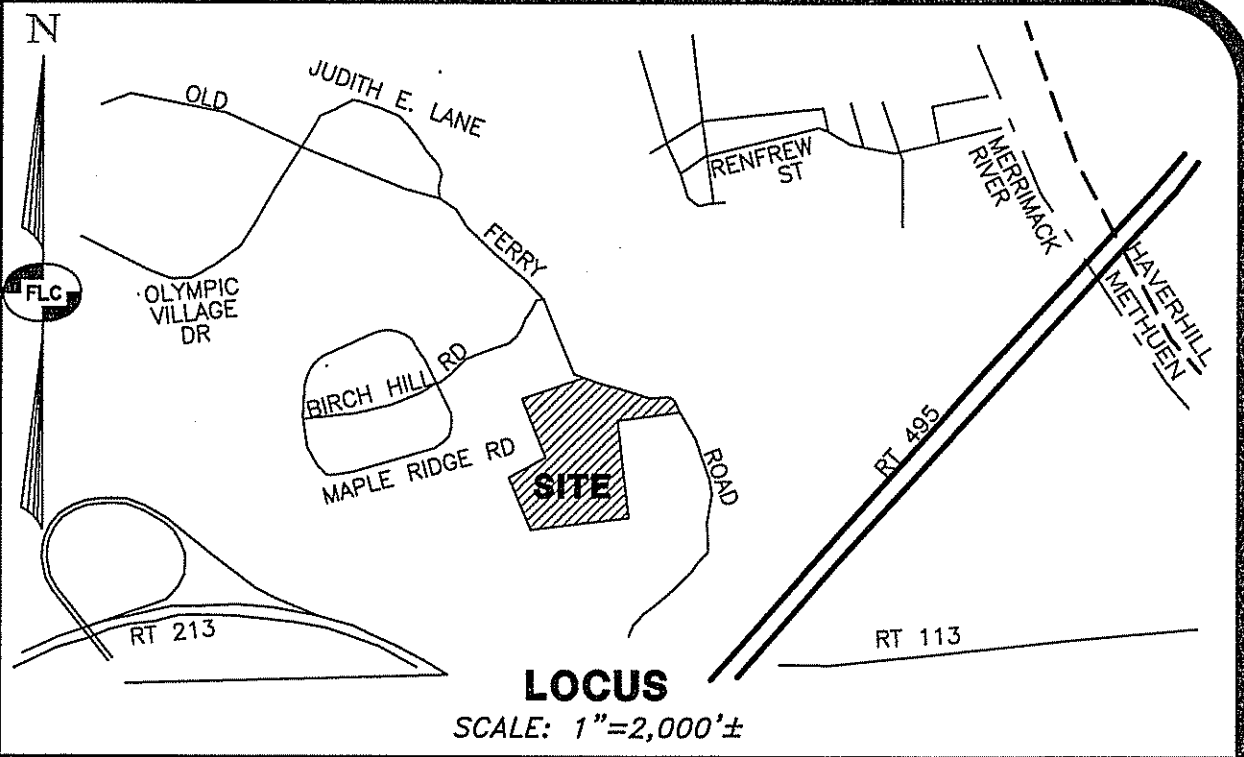
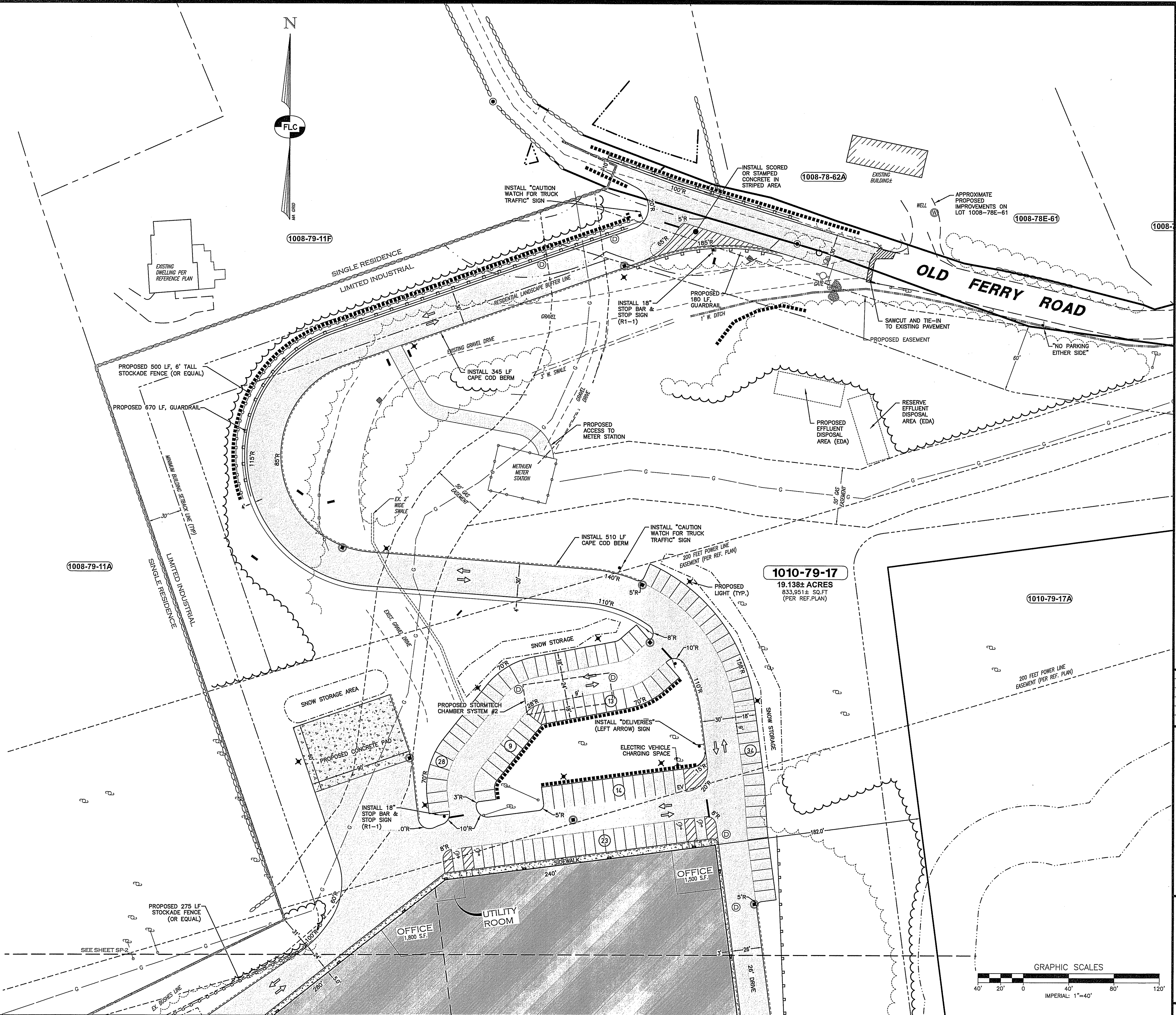
SCALE: 1" = 60'

APRIL 4, 2022

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- LEGEND:**
- EXISTING FEATURES**
- RIGHT-OF-WAY LINE
 - BOUNDARY LINE
 - ABUTTING LOT LINE
 - BUILDING SETBACK LINE
 - EXISTING EASEMENT LINE
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 - EDGE OF TREE LINE
 - EDGE OF WETLANDS
 - WETLANDS BUFFER LINE
 - 10' CONTOUR INTERVAL
 - 2' CONTOUR INTERVAL
 - CHAIN-LINK FENCE
 - STOCKADE FENCE
 - CULVERT
 - OVERHEAD UTILITY LINE
 - UNDERGROUND ELECTRIC DISCASE
 - UNDERGROUND GAS LINE
 - WATER LINE
- PROPOSED FEATURES**
- EDGE OF PAVEMENT
 - CAPE COD BERM
 - GUARD RAIL
 - CONCRETE AREA
 - PAVEMENT AREA
 - BITUMINOUS CONCRETE SIDEWALK
 - SNOW STORAGE AREA
 - EASEMENT LINE
 - RETAINING WALL
 - PRIMARY SEPTIC AREA
 - RESERVE SEPTIC AREA
- LIMIT OF CLEARING**
- HYDRANT
 - POLE MOUNTED LIGHT
 - WALL MOUNTED LIGHT
 - HANDICAP PARKING STALL
 - TRAFFIC FLOW (PAINTING IS OPTIONAL ON SITE)
 - NUMBER OF PARKING SPACES
- SYMBOLS**
- G.B.(F) GRANITE BOUND FOUND
 - D.H.(F) DRILL HOLE FOUND
 - I.P.(F) IRON PIN FOUND
 - U.P. & L. UTILITY POLE, GUY & LIGHT
 - C.B. CATCH BASIN (SQUARE)
 - W.H. WATER HYDRANT
 - W.V. WATER VALVE
 - W.S.O. WATER SHUT-OFF
 - W. WELL
 - S.T. SIGN WITH TWO POSTS
 - R.P. RIP RAP
 - R. ROCK
 - T.P. TEST PIT NUMBER
 - L. LEDGE
 - S. SEASONAL HIGH WATER

1010-79-17 TAX MAP & LOT NUMBER

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E	8/29/22	REVISED PER ENGINEERING PEER REVIEW		CLR	CEB
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SITE LAYOUT PLAN NORTH
PIE HILL
WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS
PREPARED FOR AND LAND OF:
TRIPLE G, LLC

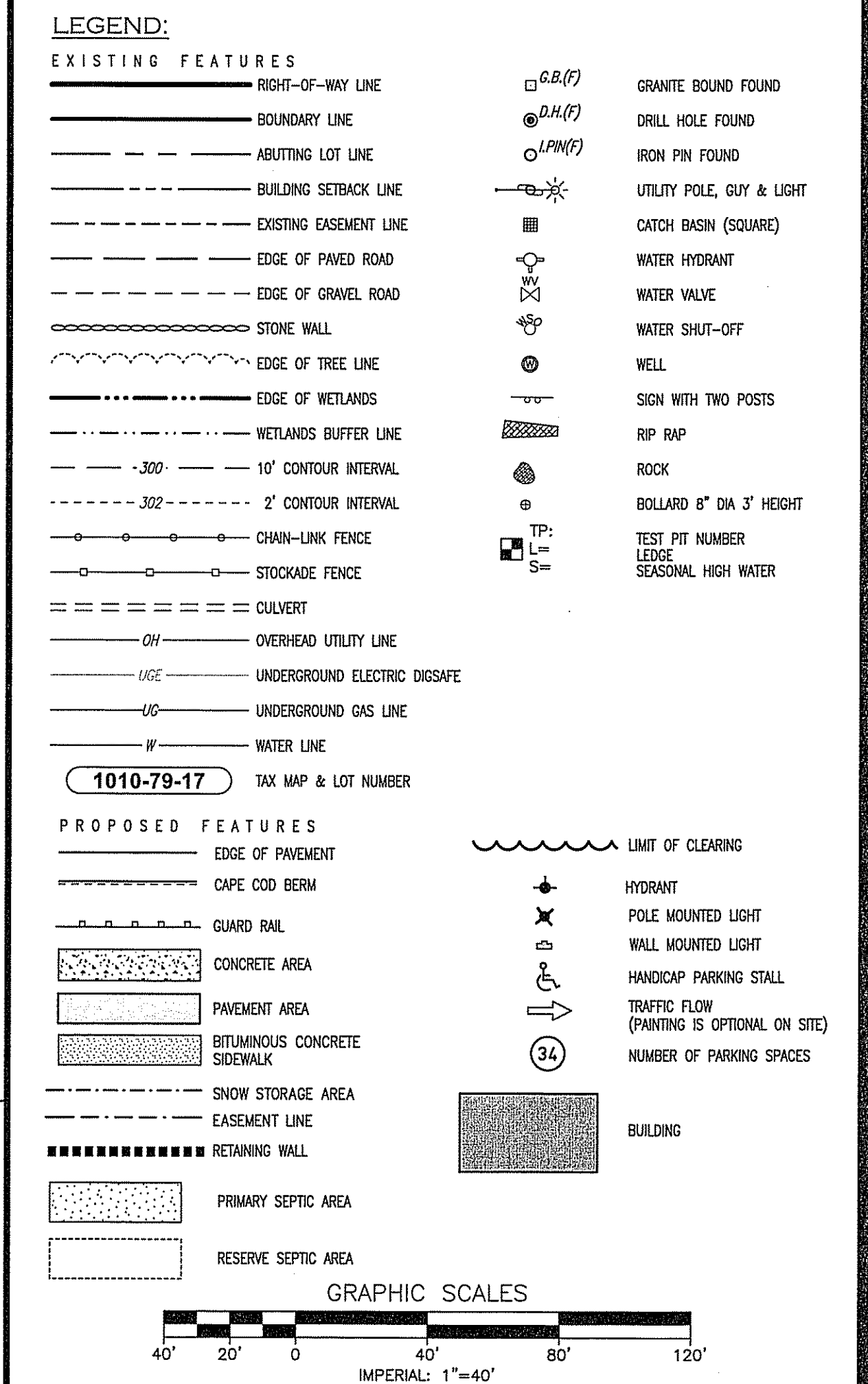
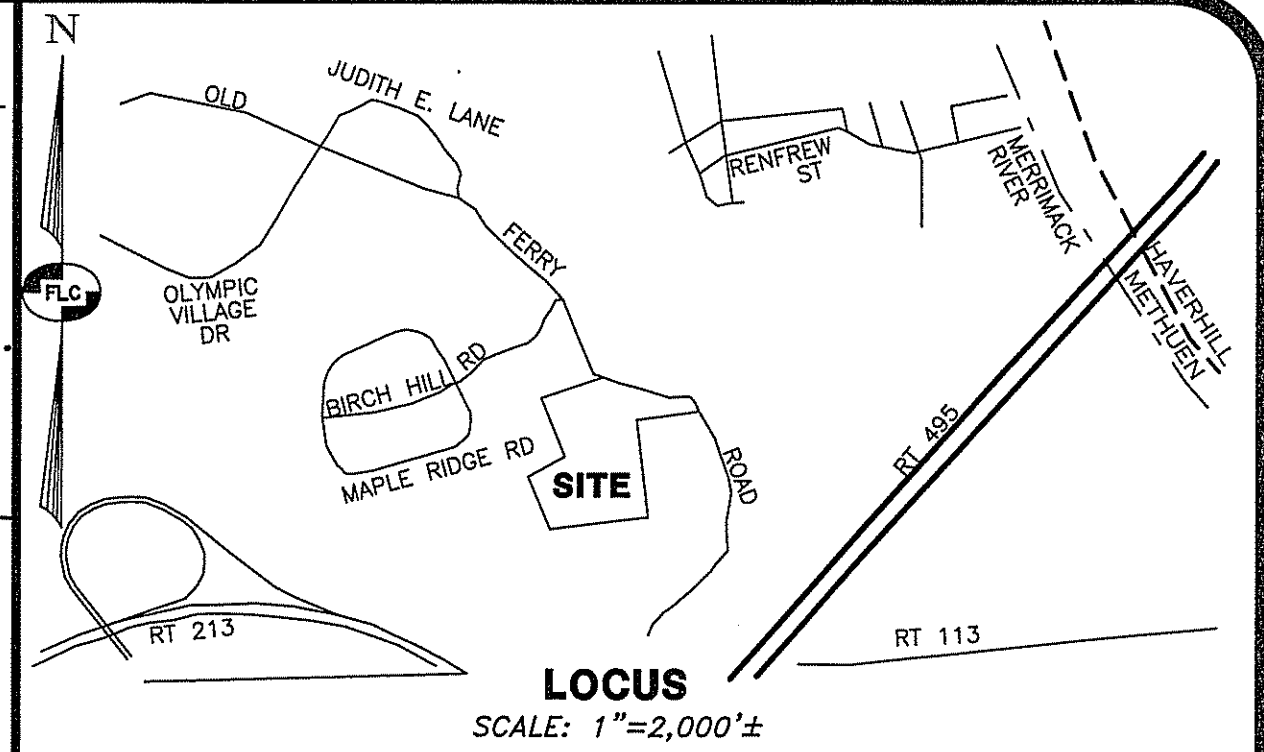
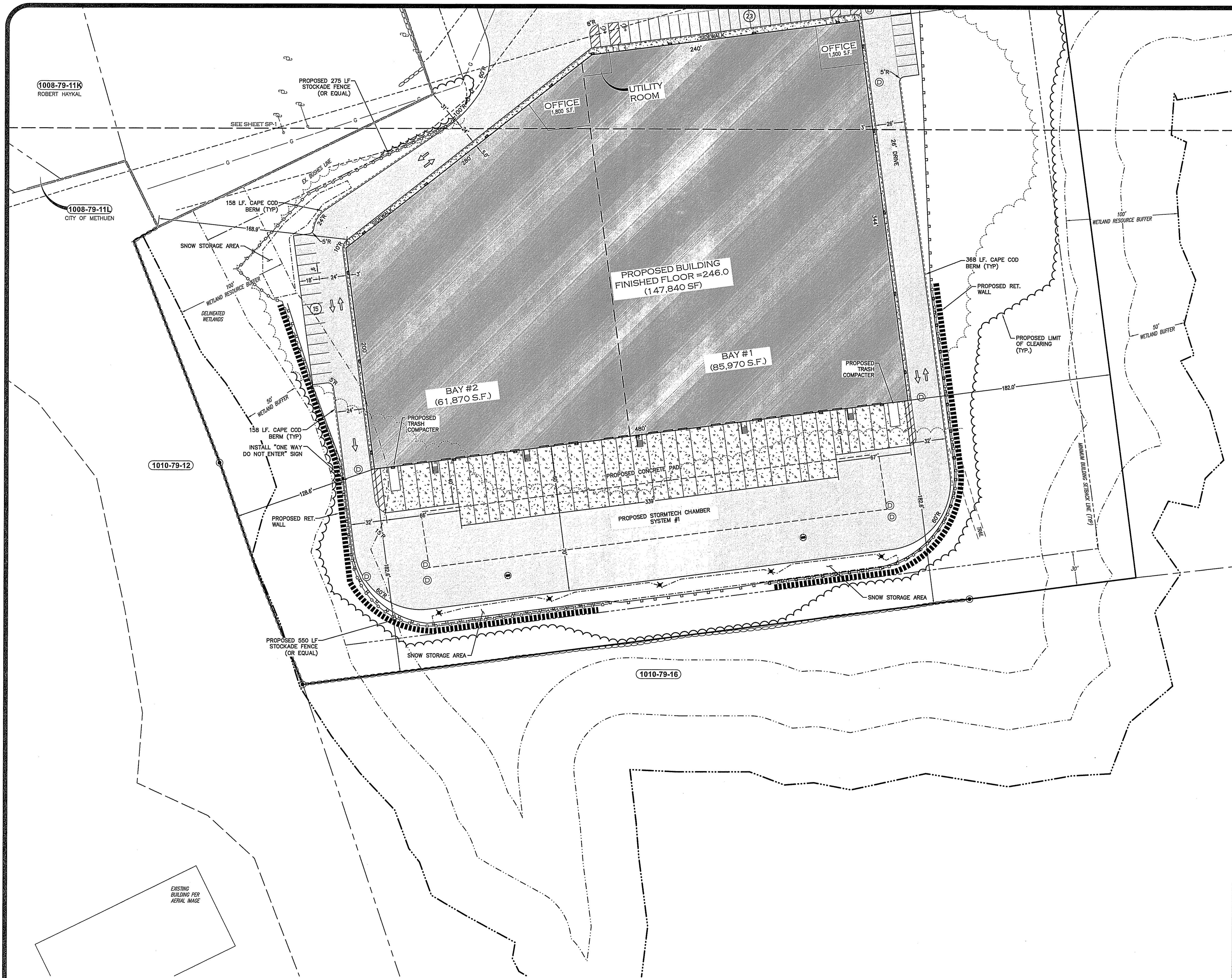
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SCALE: 1" = 40' APRIL 4, 2022

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REV.	DATE	DESCRIPTION	C/O	DR

SITE LAYOUT PLAN SOUTH

PIE HILL

WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:

TRIPLE G, LLC

59 BONANNO COURT, METHUEN, MA 01844

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FILE: 2295SP010.dwg PROJ. NO. 2295.01 SHEET: SP-2 PAGE NO. 4 OF 29

LEGEND:

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
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- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3" HIGH
- TEST PIT NUMBER
- SEASONAL HIGH WATER
- OVERHEAD WIRE ELEVATION

NRCS SOILS LEGEND:

SOURCE: USDA NRCS WEB SOIL SURVEY

--- SOIL BOUNDARY

306B PAXTON FINE SANDY LOAM

0 TO 8% SLOPES, VERY STONY

306D PAXTON FINE SANDY LOAM

15 TO 25% SLOPES, VERY STONY

651 UDORTHENTS, SMOOTHED

307E PAXTON FINE SANDY LOAM

25 TO 35% SLOPES, EXTREMELY STONY

311B WOODBRIDGE FINE SANDY LOAM

0 TO 8% SLOPES, VERY STONY

1010-79-12

1010-79-17
19.138± ACRES
833,951± SQ. FT.
(PER REF. PLAN)

REFERENCE PLAN:
"PERIMETER PLAN - AT - 46 OLD FERRY ROAD
- IN - METHUEN, MASSACHUSETTS, SCALE:
1"=60', PREPARED BY ATLANTIC ENGINEERING &
SURVEY CONSULTANTS INC., DATED MAY 30, 2019.

ABUTTER LIST

TAX MAP 1008 LOT 79-11F
JOHN A. & ROBIN M. NARDONE
111 HILL ROAD
METHUEN, MA 01844
BK.10827 PG.198 07/05/2007
(2 BIRCH HILL ROAD)

TAX MAP 1008 LOT 78E-82A
THOMAS J. & JEAN W. BATTYE
45 CHRISTOPHER DRIVE, UNIT 143
METHUEN, MA 01844
BK.1324 PG.202 11/01/1977
(OLD FERRY ROAD)

TAX MAP 1008 LOT 78E-61
DESAI FERRY LLC
10 NORTH STREET
METHUEN, MA 01844-4101
BK.17071 PG.139 08/08/2021
(61 OLD FERRY ROAD)

TAX MAP 1008 LOT 78E-60
FINE & OLD FERRY LLC
11 PINE STREET, P.O. BOX 74
METHUEN, MA 01844
BK.8951 PG.163 12/12/2000
(59 OLD FERRY ROAD)

TAX MAP 1008 LOT 78E-59
CONSOLI BROTHERS REALTY LLC
215 NORTH LOWELL STREET
METHUEN, MA 01844
BK.15417 PG.138 03/15/2018
(67 OLD FERRY ROAD)

TAX MAP 1008 LOT 78E-55
MARTIMES & NORTHEAST PIPELINE
P.O. BOX 2669
ADDISON, TX 76001-2629
BK.8868 PG.32 08/03/2002
(41 OLD FERRY ROAD)

TAX MAP 1008 LOT 78E-54
NEW ENGLAND POWER CO
O/O PROPERTY TAX DEPT
40 SYLVAN ROAD
WALTHAM, MA 02451-2286
BK.724 PG.289 12/02/1947
(OLD FERRY ROAD)

TAX MAP 1010 LOT 78E-53
JENNY TORRES
92 POND STREET
METHUEN, MA 01844-2134
BK.1031 PG.442 04/01/1985
(OLD FERRY ROAD)

TAX MAP 1010 LOT 79-15
CIRCLE G LLC
59 BONANNO COURT
METHUEN, MA 01844
BK.18285 PG.242 04/30/2020
(OLD FERRY ROAD)

TAX MAP 1010 LOT 79-12
SUMMIT PLACE INVESTORS LLC
C/O CORELOGIC COM TAX SERVICES
P.O. BOX 9222
CORPELL, TEXAS 75019-9240
BK.13858 PG.44 05/22/2014
(142 20-30 PLEASANT VALLEY STREET)

TAX MAP 1008 LOT 79-11A
MASS ELECTRIC COMPANY
C/O PROPERTY TAX DEPT
40 SYLVAN ROAD
WALTHAM, MA 02451-2286
BK.5177 PG.134 09/14/1998
(OLD FERRY ROAD)

TAX MAP 1010 LOT 79-17A
HILL HOLDING LLC
34 BELCHER STREET
ESSEX, MA 01929-1065
BK.16538 PG.112 07/02/2018
(OLD FERRY ROAD)

TAX MAP 1008 LOT 79-11G
EDGAR R. & PAMELA A. SANDON
4 BIRCH HILL DRIVE
METHUEN, MA 01844
BK.6568 PG.93 02/14/2002
(4 BIRCH HILL DRIVE)

TAX MAP 1008 LOT 79-11J
JEAN CHAMOUN
MARLENE ADJUN
45 MAPLE RIDGE ROAD
METHUEN, MA 01844
BK.15278 PG.34 10/27/2017
(45 MAPLE RIDGE ROAD)

TAX MAP 1008 LOT 79-11K
ROBERT & ROSEBA HAYVAL
43 MAPLE RIDGE ROAD
METHUEN, MA 01844
BK.11229 PG.54 05/25/2008
(43 MAPLE RIDGE ROAD)

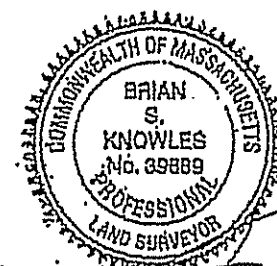
NOTES:

- THE OWNER OF RECORD FOR TAX MAP 1010 LOT 79-17 IS TRIPLE G PROPERTY LLC, 59 BONANNO COURT, METHUEN, MA 01844. THE DEED REFERENCE FOR THE LOT IS BK.18544 PG.73 DATED OCTOBER 14, 2020.
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS ON TAX MAP 1010 LOT 79-17 AS SHOWN.
- THE TOTAL AREA OF TAX MAP 1010 LOT 79-17 IS 19.138± ACRES OR 833,951 SQ. FT. PER REFERENCE PLAN.
- ZONING FOR THE ENTIRE LOT IS "I-1" INDUSTRIAL LIMITED DISTRICT. LOT REQUIREMENTS INCLUDE:
- MINIMUM LOT SIZE: 40,000 SQ. FT.
- MINIMUM FRONTAGE: 100 FEET
- BUILDING SETBACK: 60 FEET FRONT, 30 FEET SIDE & REAR.
- THE WETLAND CONSERVATION DISTRICT OVERLAY REQUIRES A 50-FOOT NON-DISTURBANCE BUFFER AND THE WETLANDS PROTECTION ACT REQUIRES A 100-FOOT BUFFER.
- THE LOT LIES OUTSIDE THE BOUNDARY OF THE 100-YEAR FLOOD HAZARD AREA PER FEMA FLOOD INSURANCE RATE MAP (FIRM), ESSEX COUNTY, MASSACHUSETTS, CITY OF METHUEN COMMUNITY NO. 250093 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, MAP NUMBER 25009300069F DATED JULY 3, 2012.
- THE BOUNDARY INFORMATION SHOWN WAS DEVELOPED ENTIRELY FROM THE REFERENCE PLAN CITED HEREON AND IS NOT A RESULT OF A BOUNDARY SURVEY BY THIS OFFICE. THE LOT IS SUBJECT TO THE FOLLOWING: AN EASEMENT TO NEW ENGLAND POWER COMPANY (SEE BK.713 PG.54 - 6/15/1948); A RIGHT OF WAY AGREEMENT EASEMENT TO PORTLAND NATURAL GAS TRANSMISSION SYSTEM AND MARITIMES & NORTHEAST PIPELINE, LLC (SEE BK.6502 PG.229 - 7/19/1999 AND A RIGHT OF WAY EASEMENT TO MARITIMES & NORTHEAST PIPELINE, LLC (SEE BK.8324 PG.26 - 10/7/2003).
- THE SURFACE FEATURES AND SITE TOPOGRAPHY SHOWN ARE THE RESULT OF A PARTIAL ON-SITE FIELD SURVEY BY THIS OFFICE DURING THE MONTH OF JANUARY, 2020.
- THE UNDERGROUND UTILITIES SHOWN SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED PRIOR TO ANY EXCAVATION OR CONSTRUCTION ACTIVITIES.
- HORIZONTAL ORIENTATION IS BASED ON THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, DEVELOPED FROM THE NAD83. ONLINE POSITIONING USER SERVICE (OPUS) WHICH UTILIZES THE HIGH ACCURACY NATIONAL SPATIAL REFERENCE (NSRS). VERTICAL DATUM IS NADA-88 PER OPUS OBSERVATION ON 01/27/2020.
- JURISDICTIONAL WETLANDS SHOWN HEREON WERE DELINEATED BY CHRISTOPHER A. GUIDA FROM THIS OFFICE IN DECEMBER, 2019.
- RIGHT OF WAY OF OLD FERRY ROAD IS PER REFERENCE PLAN CITED HEREON.
- THE UNDERGROUND WATER LINE SHOWN IS APPROXIMATE AND SHALL BE VERIFIED PRIOR ANY EXCAVATION OR CONSTRUCTION ACTIVITIES. THE PIPE AT THE SUBJECT LOCATION IS A 8" DIAMETER DUCTILE IRON CLASS 52 PER THE CITY OF METHUEN.

CERTIFICATION:

"I HEREBY CERTIFY THAT THE EXISTING IMPROVEMENTS SHOWN ARE THE RESULT OF A FIELD SURVEY PERFORMED BY THIS OFFICE ON JANUARY, 2020.

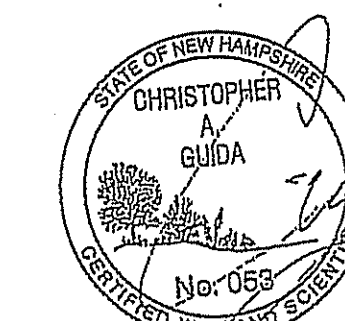
DATE: 04/06/22



CERTIFICATION:

WETLANDS WERE DELINEATED IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS 1987 WETLANDS DELINEATION MANUAL Y-87-1 AND REGIONAL SUPPLEMENT FOR NORTHEAST AND NORTH-CENTRAL REGION AND FIELD INDICATORS FOR HYDRIC SOILS IN NEW ENGLAND, BY CHRISTOPHER A. GUIDA, C.W.S., IN DECEMBER, 2019.

DATE: 04/06/22



B	3/21/22	ADD ADDITIONAL ROAD TOPO & REVISE SURFACE	DEB	MDP
A	2/19/21	REVISIONS PER CITY AND ENGINEERING	CLR	CEB
REV.	DATE	DESCRIPTION	C/O	DR

EXISTING CONDITIONS PLAN

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:

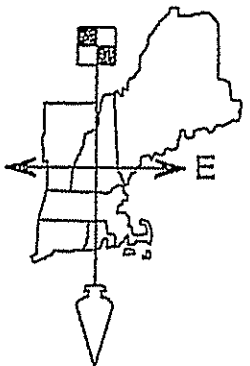
TRIPLE G PROPERTY LLC

59 BONANNO COURT, METHUEN, MA 01844

SCALE: 1" = 60'

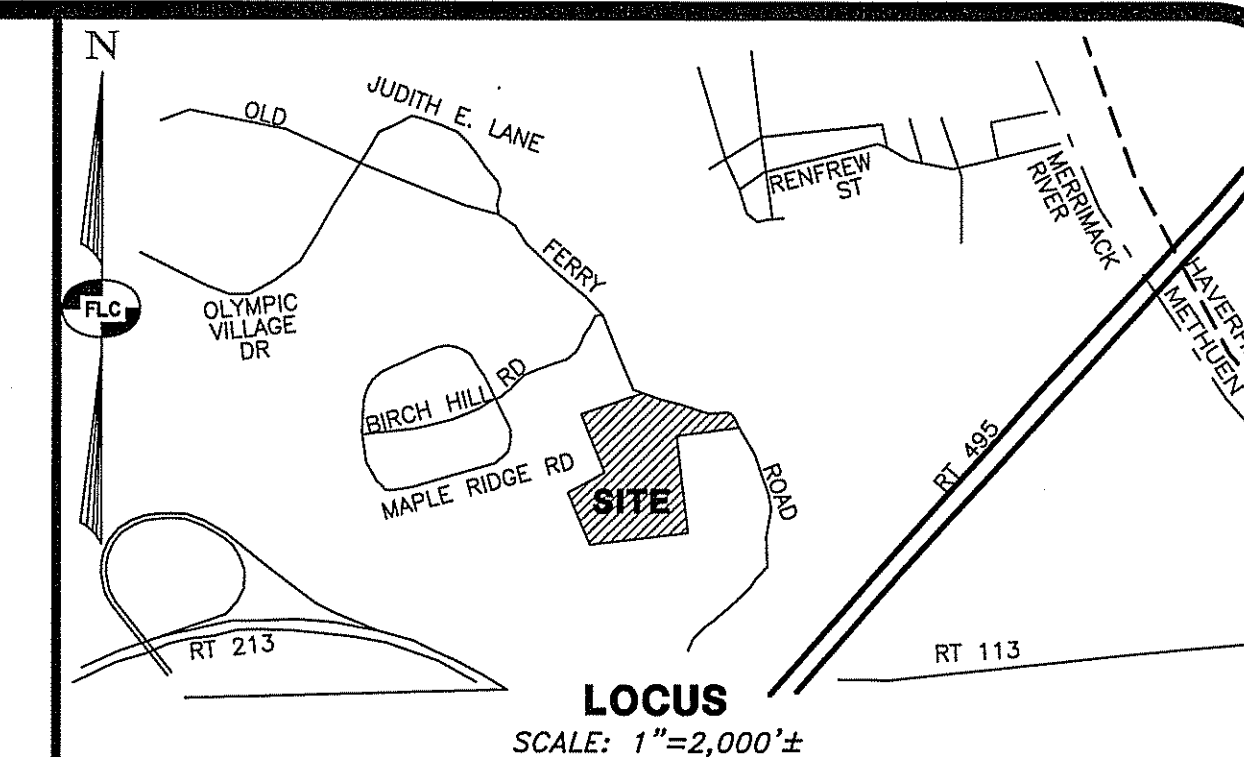
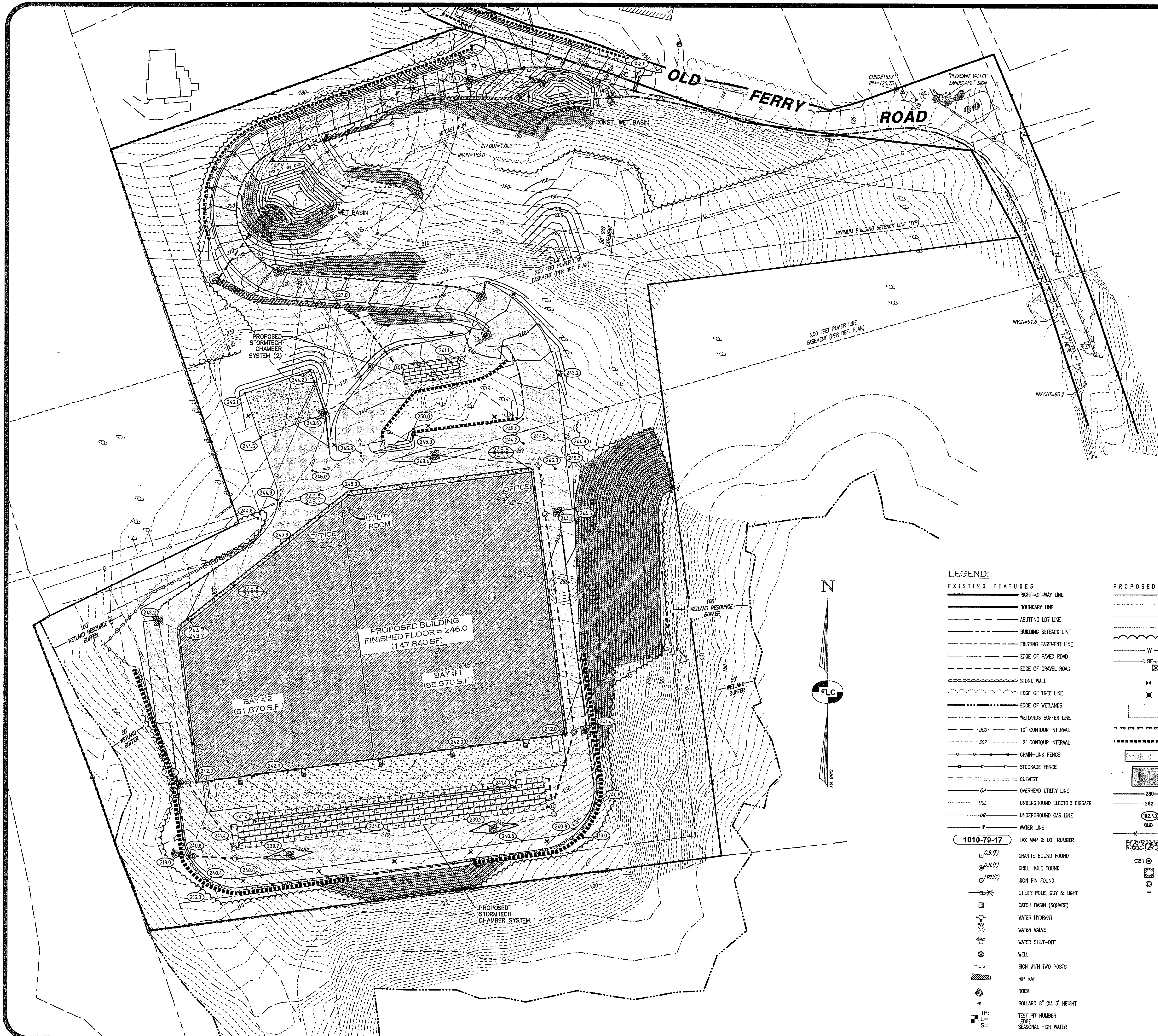
FEBRUARY 04, 2020

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs



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206 Elm Street, Milford, NH 03055
Phone: (603) 672-5456 Fax: (603) 413-5456
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- NOTES:**
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 - ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND THE SPECIFICATIONS NOTED ABOVE. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS CITY/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACT "DIGSAFE" AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION (811).
 - THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE CITY DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR NECESSARY INSPECTIONS.
 - BLASTING, IF REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF METHUEN FIRE DEPARTMENT REGULATIONS.
 - ALL DISTURBED NON-PAVED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON BEING CONSTRUCTED THE RETAINING WALLS SHOWN SHALL BE DESIGNED BY OTHERS UNLESS OTHERWISE NOTED.
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 - ALL TELEPHONE WORK SHALL CONFORM TO VERIZON SPECIFICATIONS.
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 - PORTIONS OF THE EXISTING DRIVEWAY NOT IMPACTED SHALL BE LOAMED AND SEEDED. ASSOCIATED IMPROVEMENTS TO THE EXISTING DRIVEWAY SHALL ALSO BE REMOVED SUCH AS BUT NOT LIMITED TO THE GATE, CULVERTS, ETC.. ANY QUESTIONS SHALL BE DIRECTED TO THE PROJECT ENGINEER.

LEGEND:

EXISTING FEATURES

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ABUTTING LOT LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC DIGSAFE
- UNDERGROUND GAS LINE
- WATER LINE
- TAX MAP & LOT NUMBER
- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIN FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3' HEIGHT
- TEST PIT NUMBER
- LEGS
- SEASONAL HIGH WATER

PROPOSED FEATURES

- EDGE OF PAVEMENT
- CAPE COD BERM
- SHOULDER
- SWALE
- LIMITS OF CLEARING
- WATER LINE
- UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
- WATER GATE VALVE
- WATER SERVICE SHUT-OFF
- SEPTIC AREA
- EARTHEN BERM
- RETAINING WALL
- PAVED/GRAVEL AREA
- BUILDING
- 10 FT. CONTOUR
- 2 FT. CONTOUR
- SPOT ELEVATION
- STONE CHECK DAM
- SILT FENCE
- REINFORCED SHALE (RIPRAP OR FABRIC)
- STORM WATER DRAINAGE
- DRAIN INLET PROTECTION
- DRAIN MANHOLE
- BUILDING MOUNTED LIGHT

GRAPHIC SCALES

60' 30' 0' 30' 60' 120' 180'

IMPERIAL: 1"=60'

REV.	DATE	DESCRIPTION	C/O	DR	CK
E	8/29/22	REVISED PER ENGINEERING PEER REVIEW		CLR	CEB
D	8/3/22	REVISED PER ENGINEERING REVIEW		CLR	CEB
C	7/22/22	REVISED PER CONSERVATION COMMISSION REVIEW		CLR	CEB
B	6/29/22	REVISED PER ENGINEERING & PEER REVIEW		CLR	CEB
A	6/1/22	REVISED PER CITY COMMENTS		CLR	CEB

MASTER GRADING & DRAINAGE PLAN

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:

TRIPLE G, LLC

59 BONANNO COURT, METHUEN, MA 01844

SCALE: 1" = 60' APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

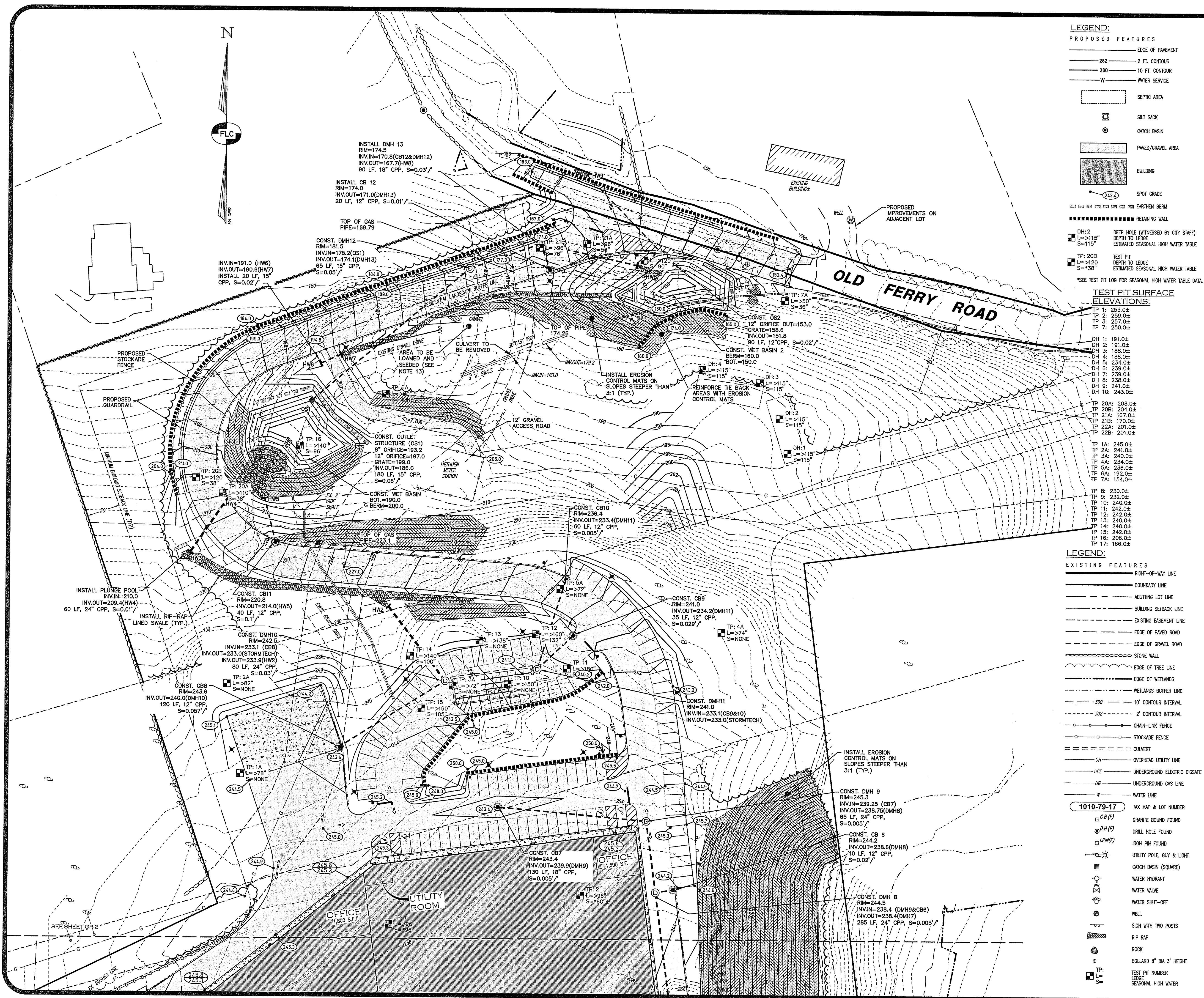
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FILE: 2295SP01G.dwg PROJ. NO. 2295.01 SHEET: MG-1 PAGE NO. 6 OF 29



LEGEND:

PROPOSED FEATURES

- EDGE OF PAVEMENT
- 2 FT. CONTOUR
- 10 FT. CONTOUR
- WATER SERVICE
- SEPTIC AREA
- SILT SACK
- CATCH BASIN
- PAVED/GRAVEL AREA
- BUILDING
- SPOT GRADE
- RETAINING WALL
- DEEP HOLE (WITNESSED BY CITY STAFF)
- TEST PIT
- ESTIMATED SEASONAL HIGH WATER TABLE
- *SEE TEST PIT LOG FOR SEASONAL HIGH WATER TABLE DATA

TEST PIT SURFACE ELEVATIONS:

TP 1:	255.0±
TP 2:	255.0±
TP 3:	257.0±
TP 7:	250.0±
TP 11:	245.0±
TP 12:	241.0±
TP 13:	240.0±
TP 14:	234.0±
TP 15:	236.0±
TP 16:	192.0±
TP 17:	154.0±
TP 20A:	208.0±
TP 20B:	204.0±
TP 21A:	167.0±
TP 21B:	170.0±
TP 22A:	201.0±
TP 22B:	201.0±
TP 23A:	242.0±
TP 23B:	242.0±
TP 23C:	240.0±
TP 23D:	240.0±
TP 23E:	242.0±
TP 23F:	208.0±
TP 23G:	166.0±

LEGEND:

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GRAPHIC SCALES

40' 20' 0' 40' 80' 120'

IMPERIAL: 1"=40'

F	8/29/22	REVISED PER ENGINEERING PEER REVIEW	CLR	CEB
E	8/8/22	REVISED PER IN HOUSE REVIEW	CLR	CEB
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A	6/1/22	REVISED PER CITY COMMENTS	CLR	CEB
REV.	DATE	DESCRIPTION	C/O	DR

GRADING & DRAINAGE PLAN NORTH

PIE HILL

WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:

TRIPLE G, LLC

59 BONANNO COURT, METHUEN, MA 01844

SCALE: 1" = 40' APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

FIELDSTONE

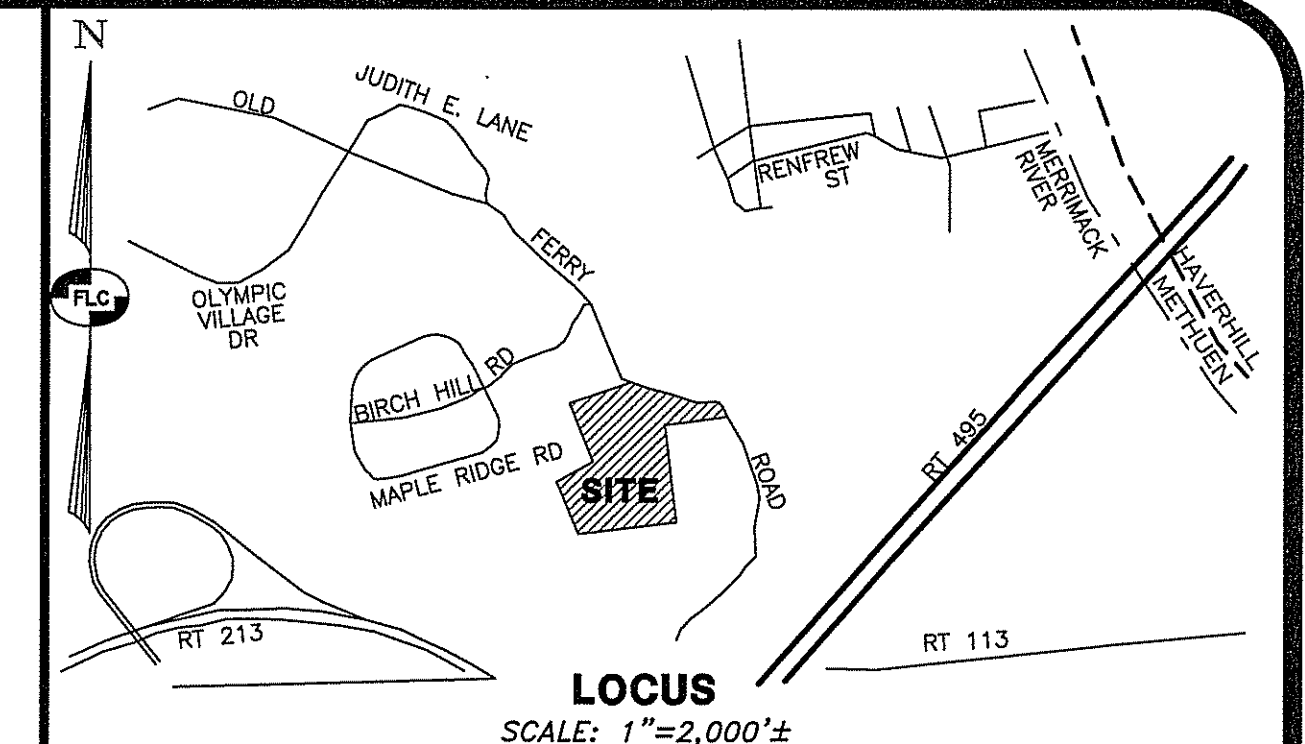
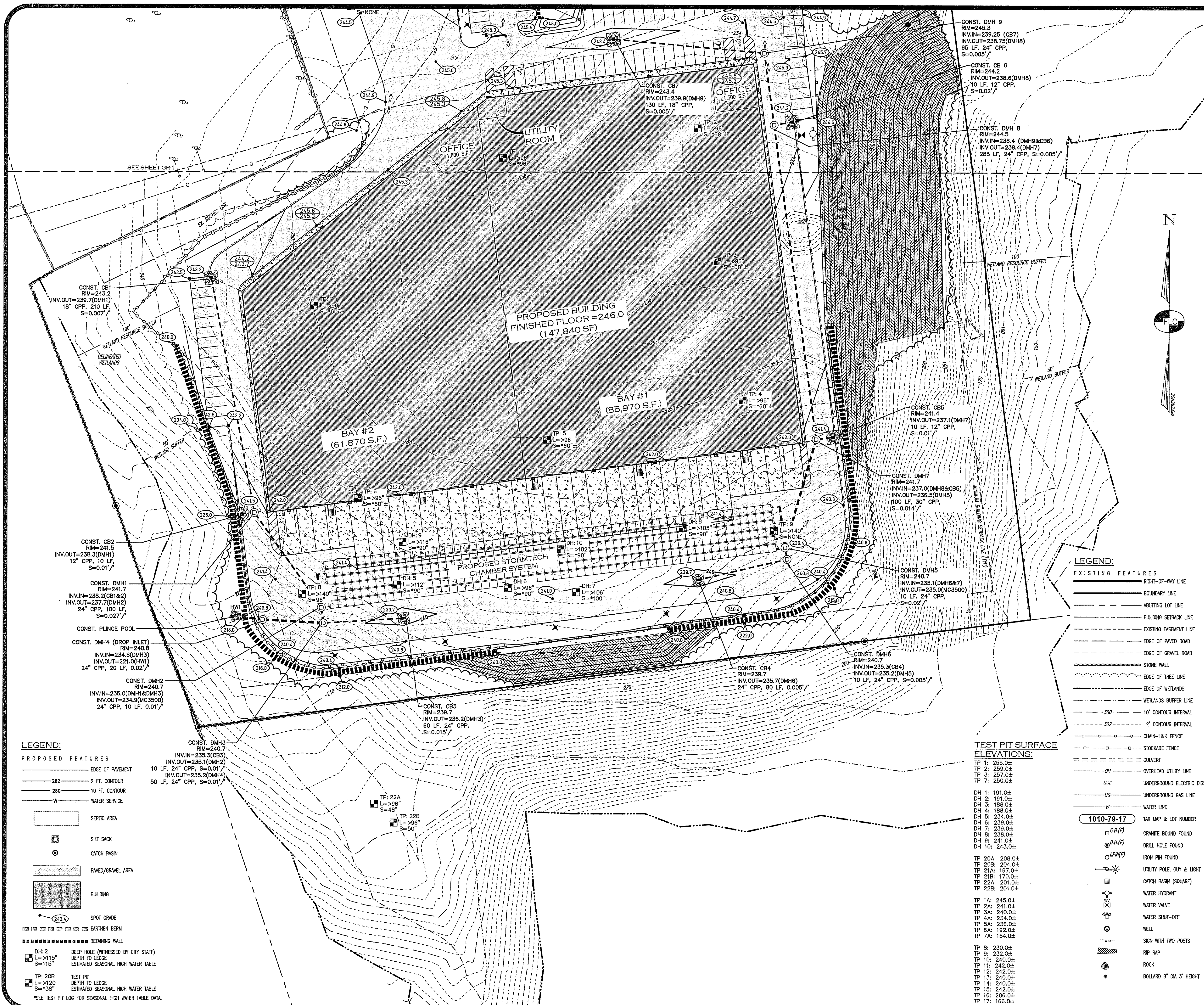
LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055

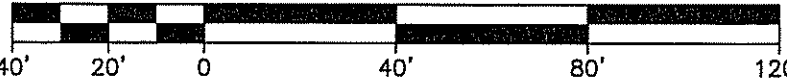
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GRADING & DRAINAGE PLAN SOUTH

PIE HILL

WAREHOUSING

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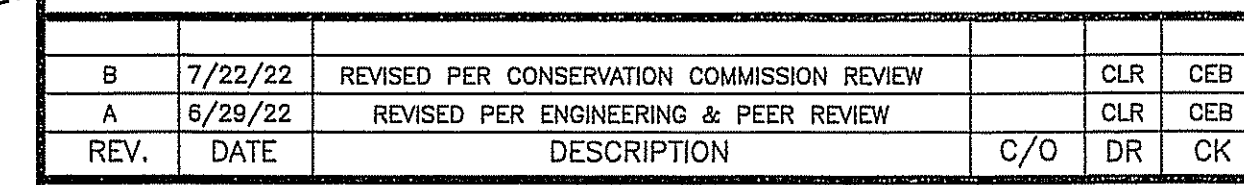
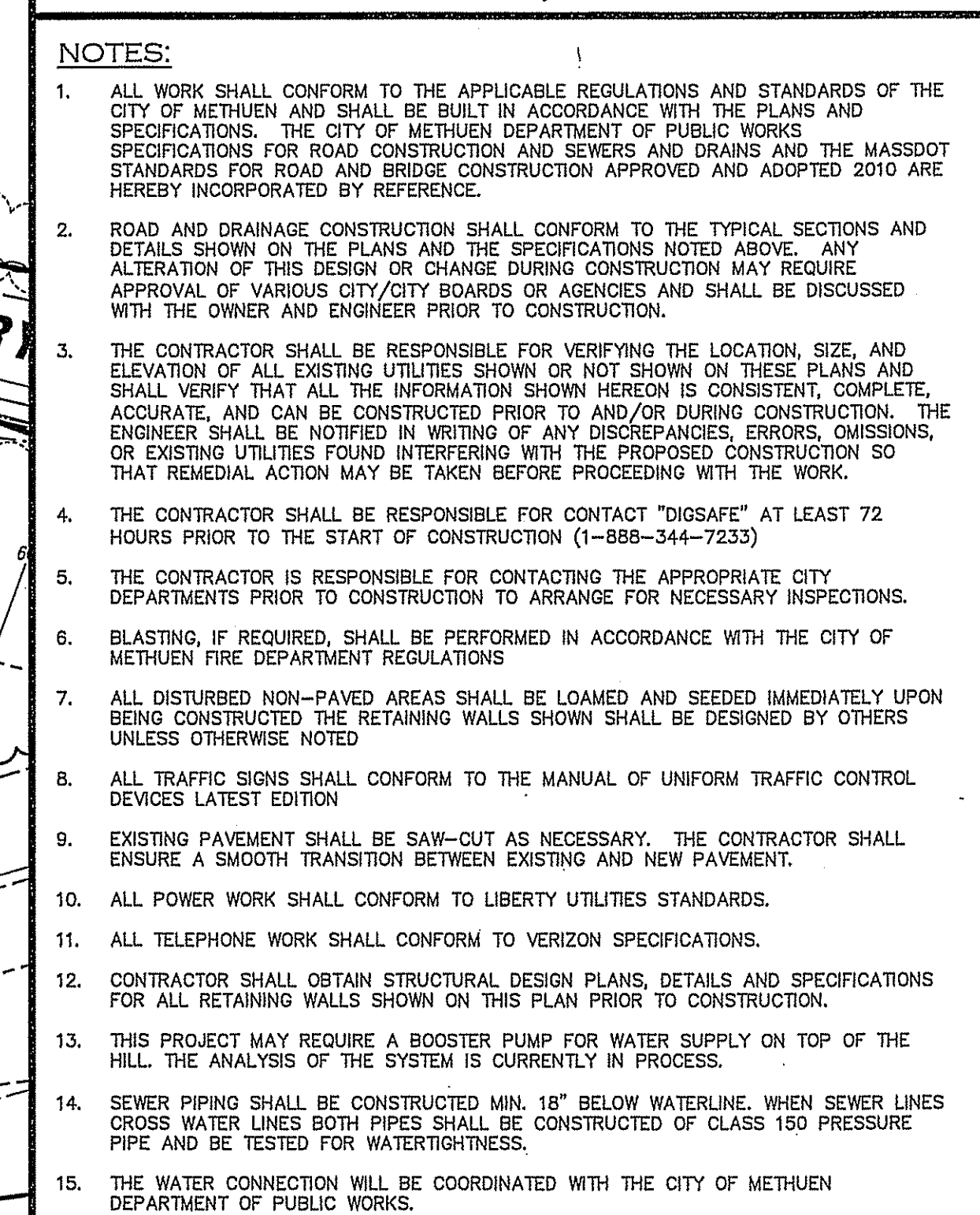
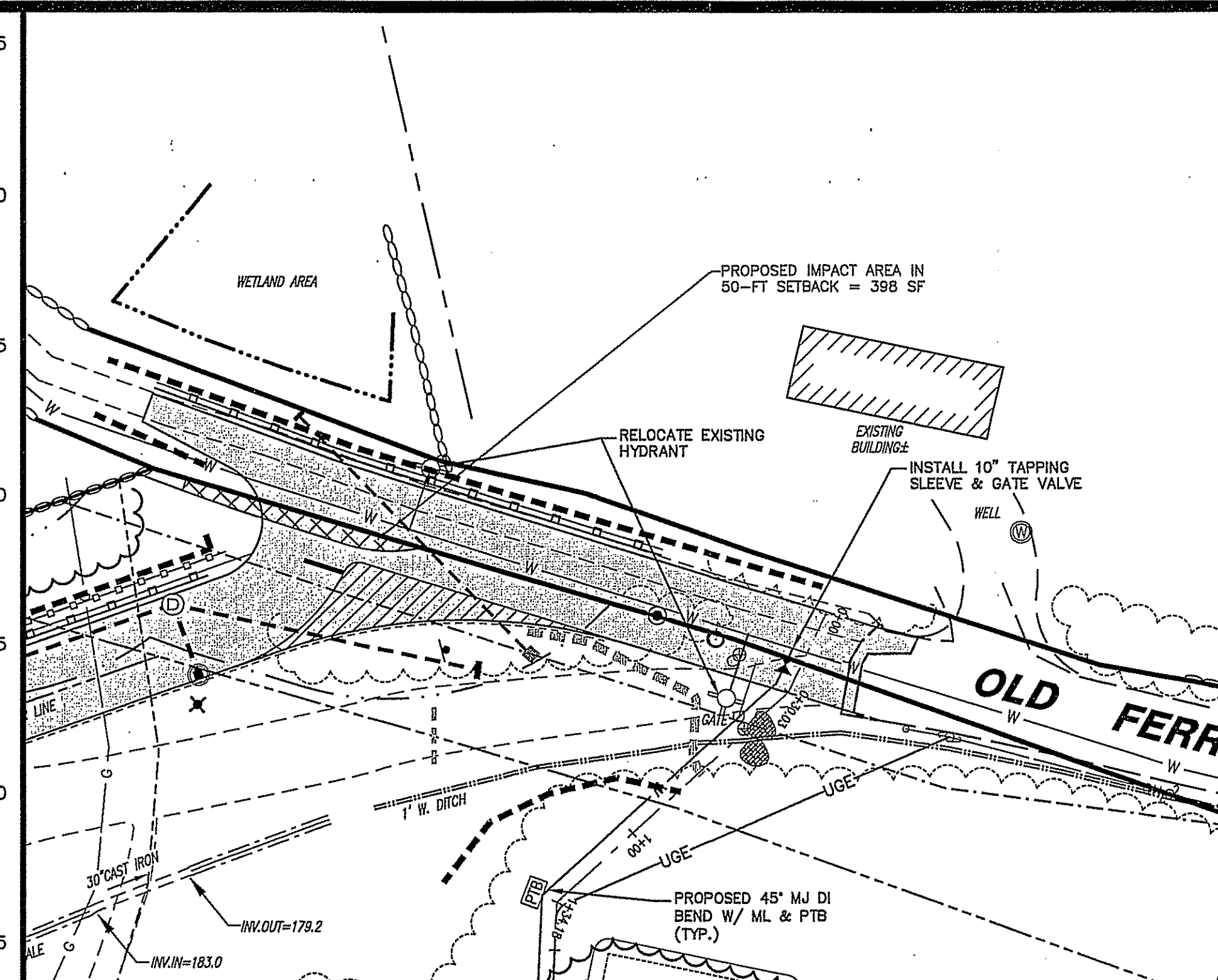
SCALE: 1" = 40' APRIL 4, 2022

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FILE: 2295SP01G.dwg PROJ. NO. 2295.01 SHEET: GR-2 PAGE NO. 8 OF 29



**TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS
PREPARED FOR AND LAND OF:
TRIPLE G, LLC
59 BONANNO COURT, METHUEN, MA 01844**

Surveying ⊕ Engineering ⊕ Land Planning ⊕ Permitting ⊕ Septic Designs



LEGEND:

EXISTING FEATURES

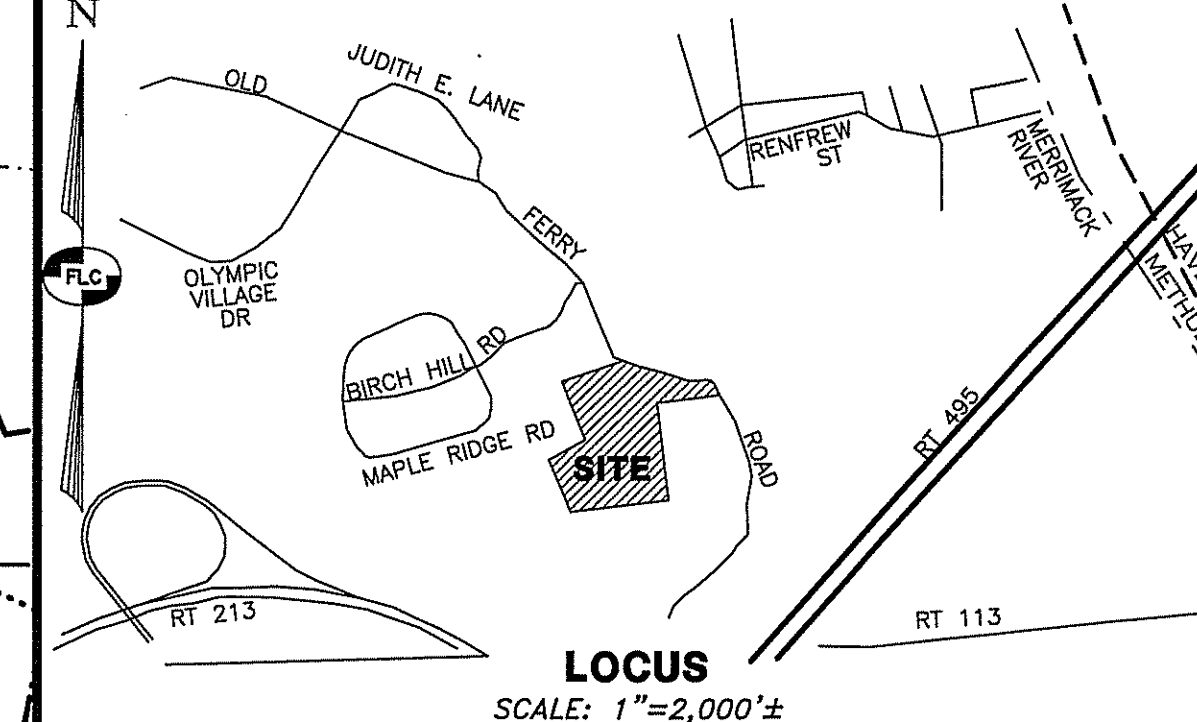
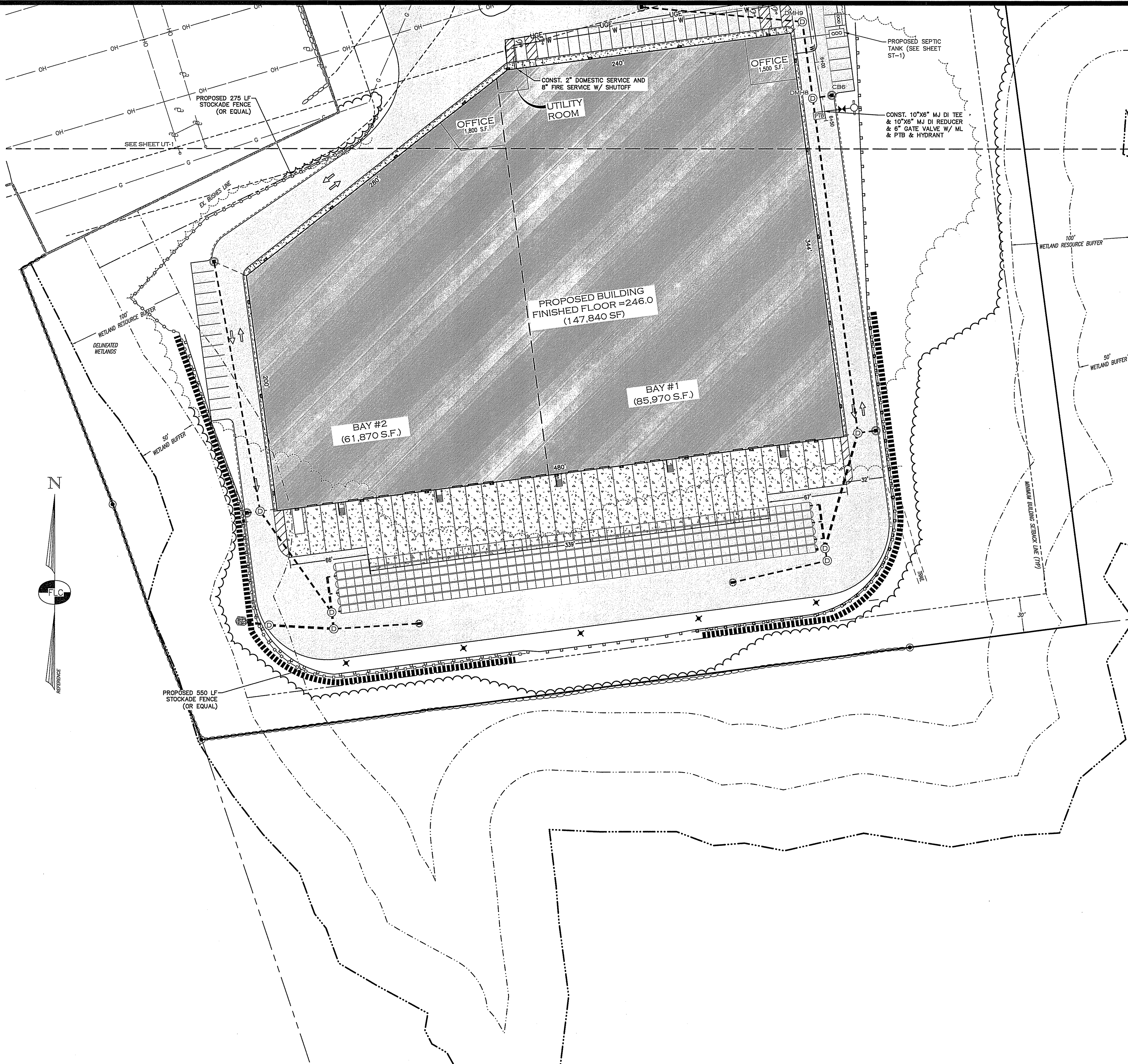
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- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 300' 10' CONTOUR INTERVAL
- 302' 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OH — OVERHEAD UTILITY LINE
- UGE — UNDERGROUND ELECTRIC DISSAFE
- UGC — UNDERGROUND GAS LINE
- W — WATER LINE

1010-79-17

- GRAB FOUND
- D.H. FOUND
- L.P.W. FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3' HEIGHT

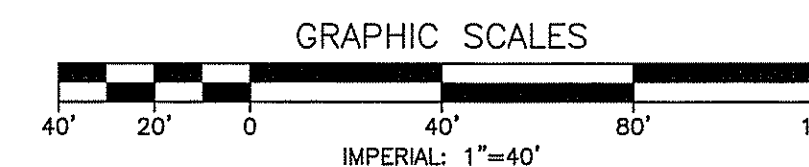
PROPOSED FEATURES

- EDGE OF PAVEMENT
- W — WATER SERVICE
- S — SEWER SERVICE
- UGE — UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
- SEPTIC AREA
- PAVED/GRAVEL AREA
- PTB — PRECAST THRUST BLOCK
- CB — DRAINAGE CATCH BASIN
- HW — DRAINAGE HEADWALL
- MH — DRAINAGE MANHOLE
- X — WATER GATE VALVE
- X — WATER SHUT OFF
- X — FIRE HYDRANT



NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE CITY OF METHUEN AND SHALL BE BUILT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR ROAD CONSTRUCTION AND SEWERS AND DRAINS AND THE MASSDOT STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
2. ROAD AND DRAINAGE CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS AND THE SPECIFICATIONS NOTED ABOVE. ANY ALTERATION OF THIS DESIGN OR CHANGE DURING CONSTRUCTION MAY REQUIRE APPROVAL OF VARIOUS CITY/CITY BOARDS OR AGENCIES AND SHALL BE DISCUSSED WITH THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND ELEVATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL VERIFY THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT, COMPLETE, ACCURATE, AND CAN BE CONSTRUCTED PRIOR TO AND/OR DURING CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY DISCREPANCIES, ERRORS, OMISSIONS, OR EXISTING UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION SO THAT REMEDIAL ACTION MAY BE TAKEN BEFORE PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACT "DIOSAFE" AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION (1-888-344-7233)
5. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE CITY DEPARTMENTS PRIOR TO CONSTRUCTION TO ARRANGE FOR NECESSARY INSPECTIONS.
6. BLASTING, IF REQUIRED, SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF METHUEN FIRE DEPARTMENT REGULATIONS
7. ALL DISTURBED NON-PAVED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON BEING CONSTRUCTED THE RETAINING WALLS SHOWN SHALL BE DESIGNED BY OTHERS UNLESS OTHERWISE NOTED
8. ALL TRAFFIC SIGNS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION
9. EXISTING PAVEMENT SHALL BE SAW-CUT AS NECESSARY. THE CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW PAVEMENT.
10. ALL POWER WORK SHALL CONFORM TO LIBERTY UTILITIES STANDARDS.
11. ALL TELEPHONE WORK SHALL CONFORM TO VERIZON SPECIFICATIONS.
12. CONTRACTOR SHALL OBTAIN STRUCTURAL DESIGN PLANS, DETAILS AND SPECIFICATIONS FOR ALL RETAINING WALLS SHOWN ON THIS PLAN PRIOR TO CONSTRUCTION.
13. THIS PROJECT MAY REQUIRE A BOOSTER PUMP FOR WATER SUPPLY ON TOP OF THE HILL. THE ANALYSIS OF THE SYSTEM IS CURRENTLY IN PROCESS.
14. SEWER PIPING SHALL BE CONSTRUCTED MIN. 18" BELOW WATERLINE. WHEN SEWER LINES CROSS WATER LINES BOTH PIPES SHALL BE CONSTRUCTED OF CLASS 150 PRESSURE PIPE AND BE TESTED FOR WATERTIGHTNESS.
15. THE WATER CONNECTION WILL BE COORDINATED WITH THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS.



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REV.	DATE	DESCRIPTION	C/O	DR

UTILITY PLAN SOUTH PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:
TRIPLE G, LLC

59 BONANNO COURT, METHUEN, MA 01844

SCALE: 1" = 40'

APRIL 4, 2022

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LEGEND:

EXISTING FEATURES

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ADJUTING LOT LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 300' 10' CONTOUR INTERVAL
- 302' 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OH — OVERHEAD UTILITY LINE
- UGE — UNDERGROUND ELECTRIC DISSAFE
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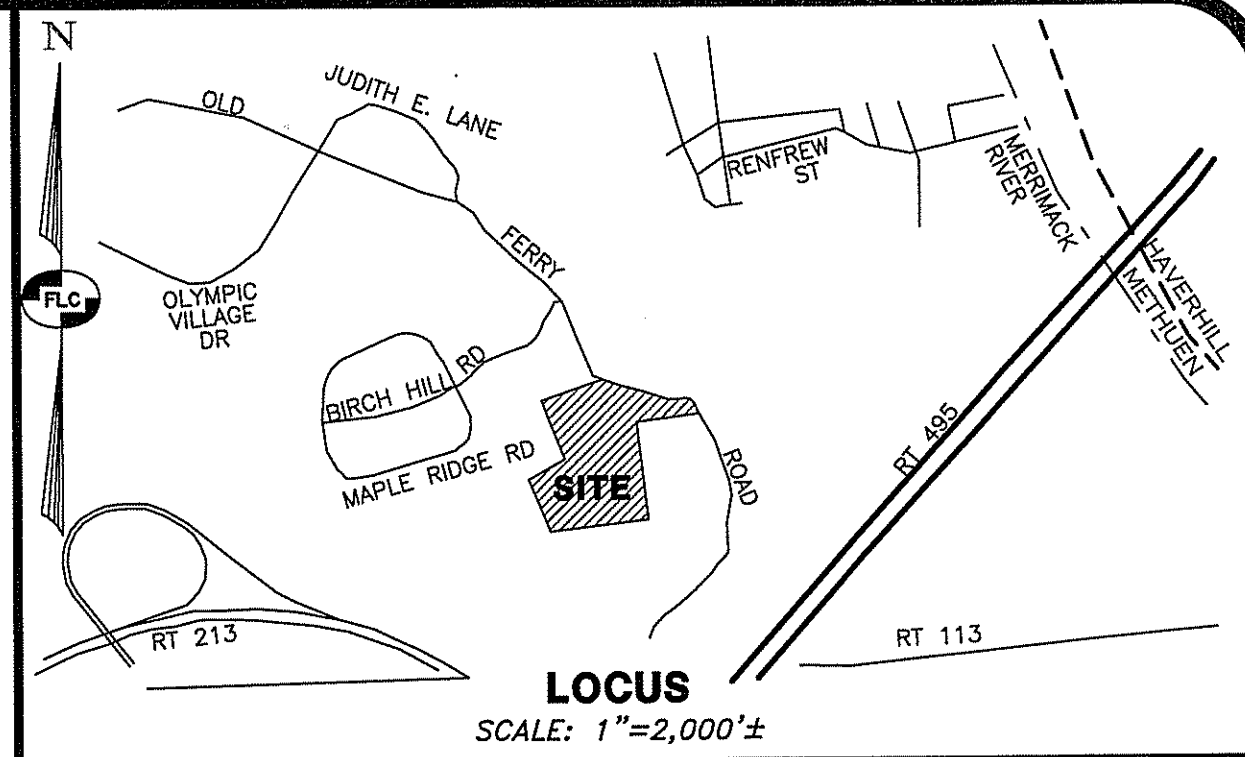
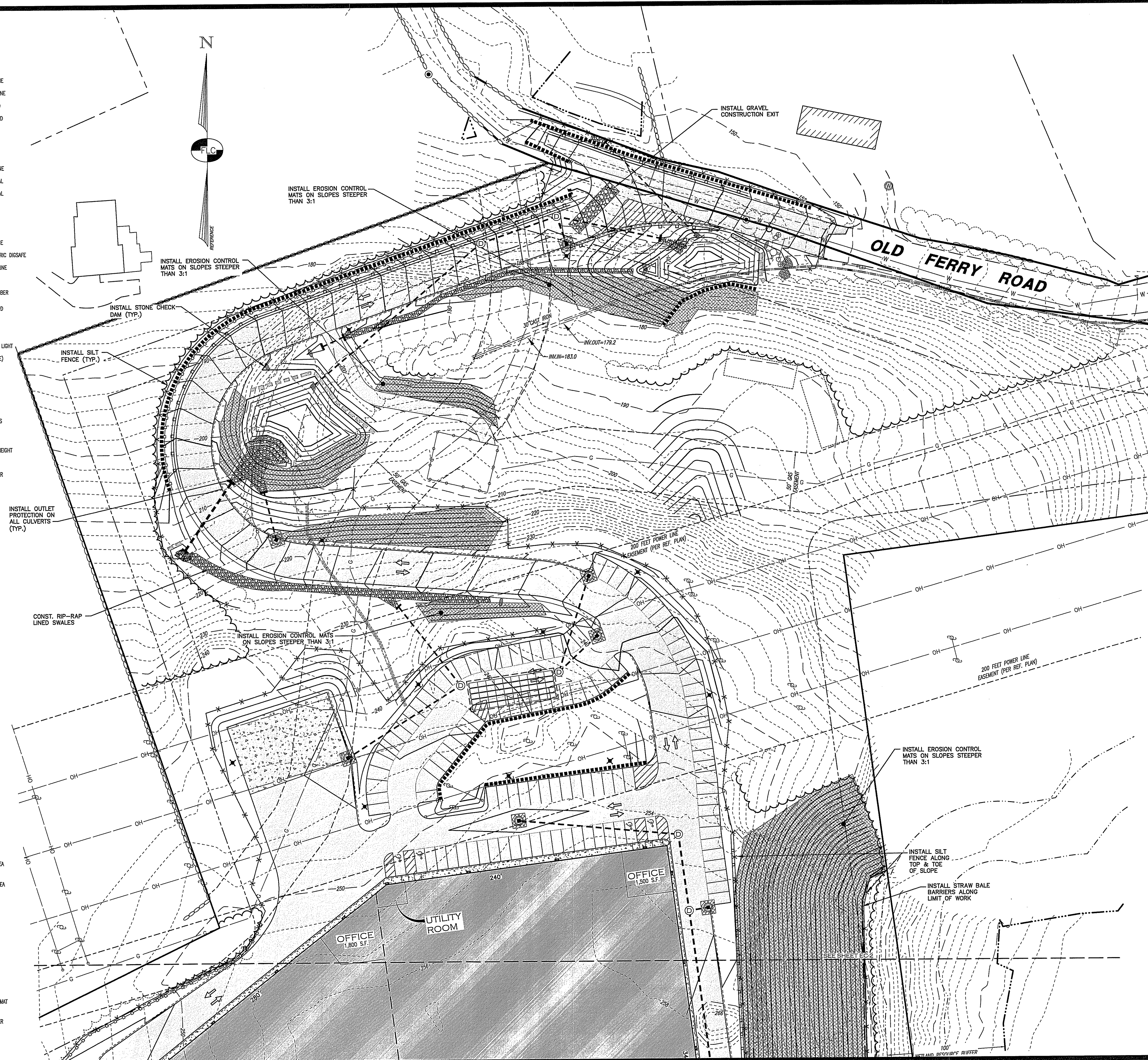
1010-79-17

TAX MAP & LOT NUMBER

- G.B.(F) GRANITE BOUND FOUND
- D.H.(F) DRILL HOLE FOUND
- I.PIN(F) IRON PIN FOUND
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- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- ROCK
- BOLLARD 6" DIA 3' HEIGHT
- TP: TEST PIT NUMBER
- LE: LEASE
- S: SEASONAL HIGH WATER

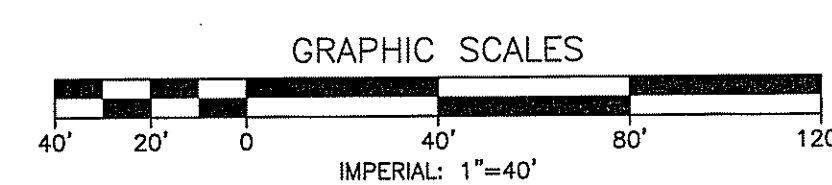
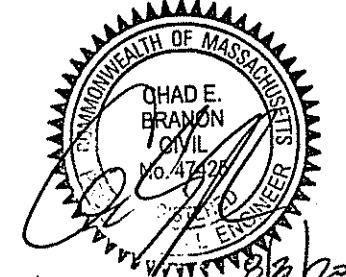
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- EDGE OF PAVEMENT
- 2 FT. CONTOUR
- 10 FT. CONTOUR
- SILT FENCE
- PRIMARY SEPTIC AREA
- RESERVE SEPTIC AREA
- SILT SACK
- CATCH BASIN
- PAVED AREA
- BUILDING
- STONE CHECK DAM
- EROSION CONTROL MAT
- STRAW BALE BARRIER



NOTES:

1. ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF METHUEN AND SHALL BE BUILT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS OF THE TOWN OF METHUEN DEPARTMENT OF PUBLIC WORKS. SPECIFICATIONS FOR ROAD CONSTRUCTION AND SEWERS AND DRAINS AND THE MASSDOT STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION APPROVED AND ADOPTED 2010 ARE HEREBY INCORPORATED BY REFERENCE.
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EROSION CONTROL PLAN NORTH

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:
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SCALE: 1" = 40' APRIL 4, 2022

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LEGEND:

EXISTING FEATURES

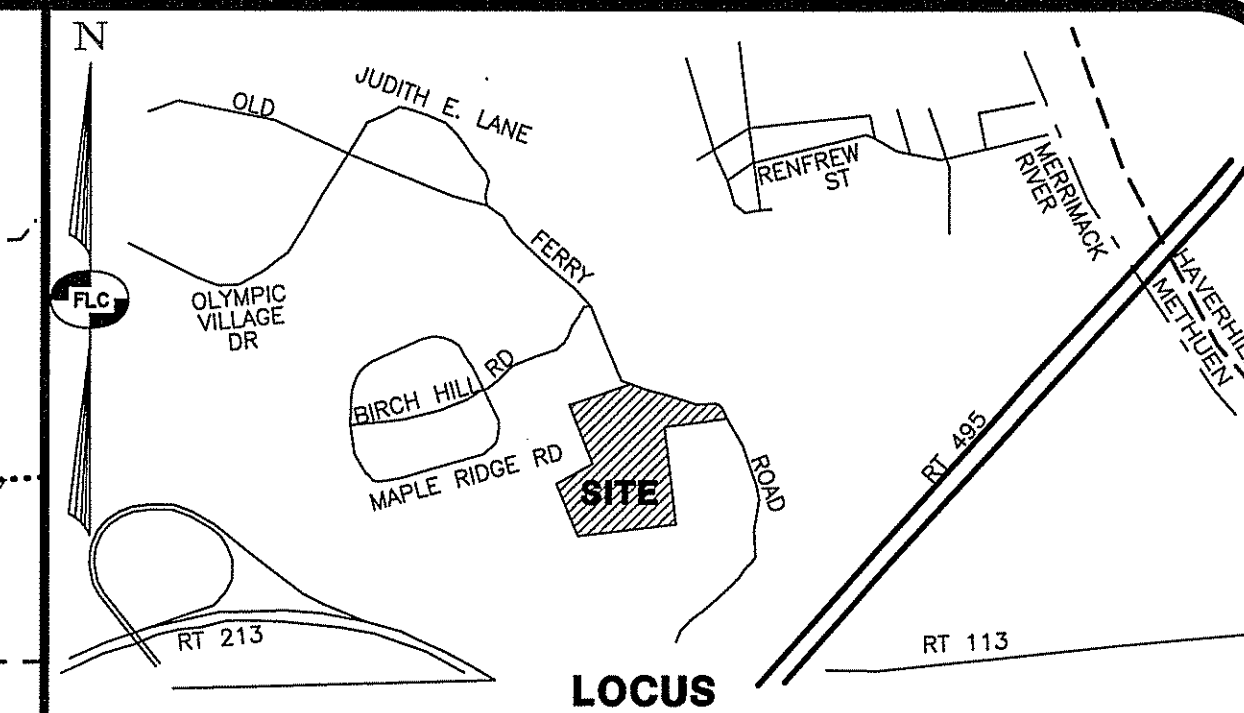
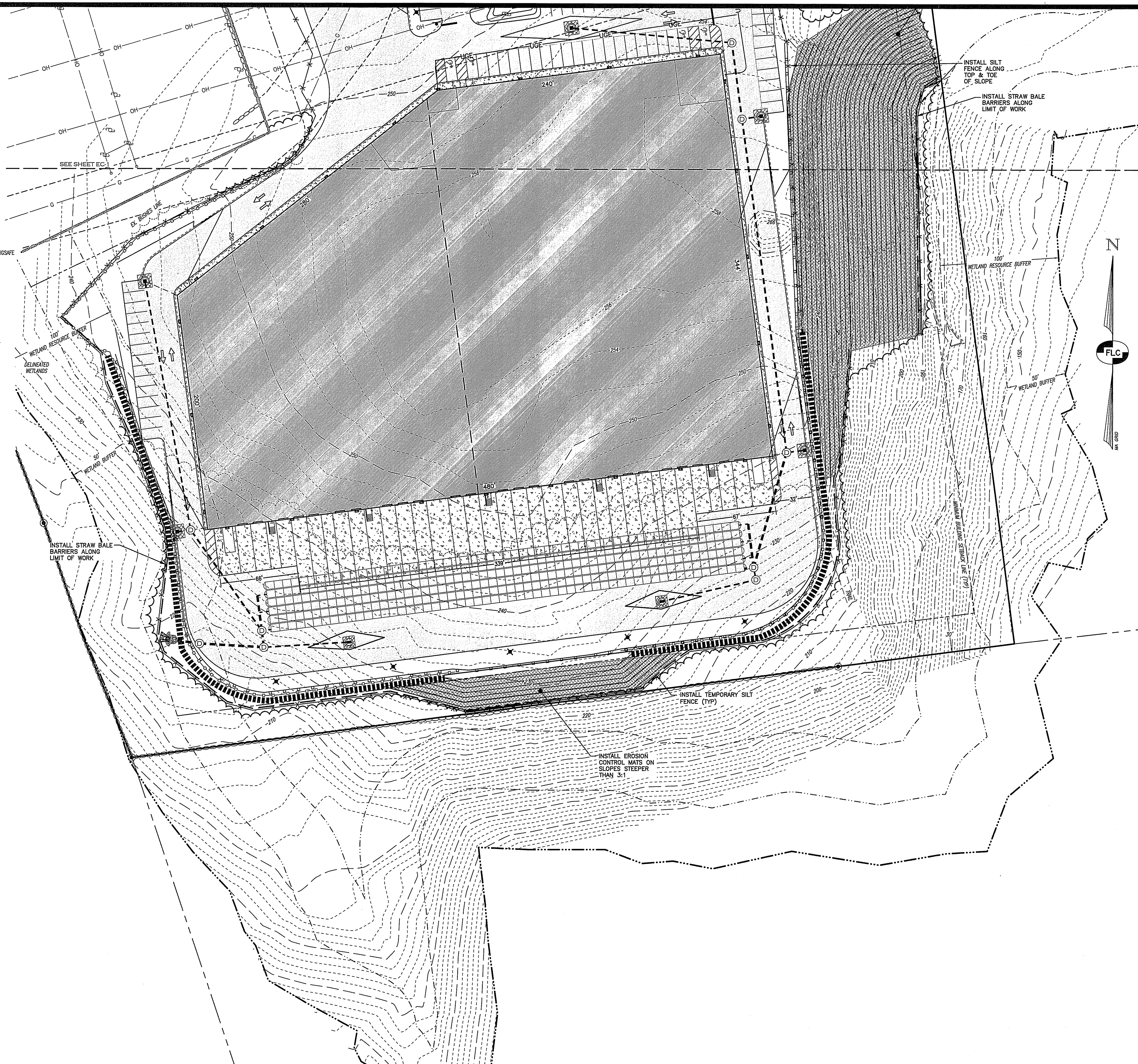
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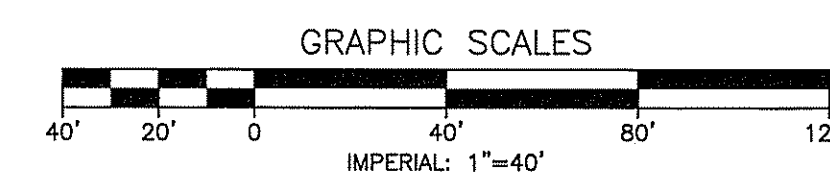
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EROSION CONTROL PLAN SOUTH

PIE HILL WAREHOUSING

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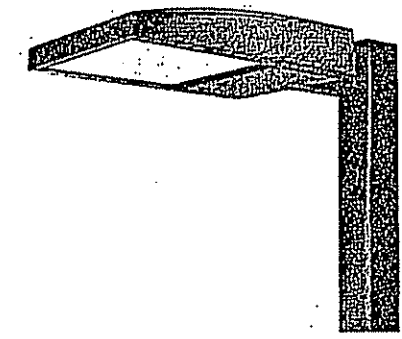
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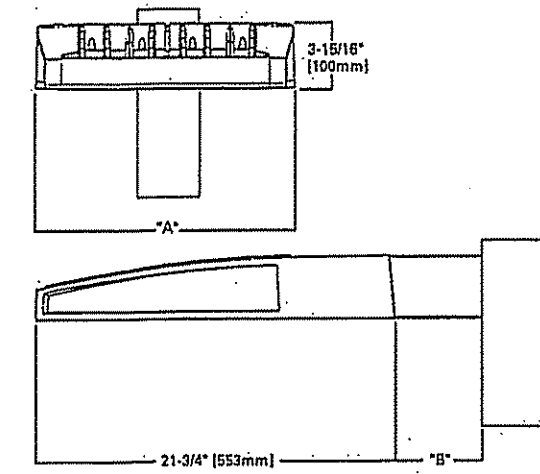
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McGraw-Edison GLEON Galleon

Area / Site Luminaire



Dimensional Details



Product Specifications

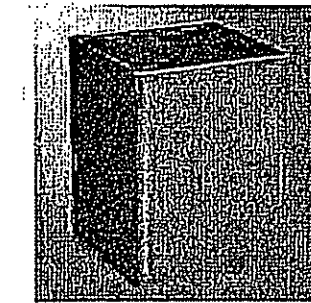
- Construction
 - Extruded aluminum driver enclosure
 - Heavy-duty, die-cast aluminum end caps
 - Die-cast aluminum heat sink
 - Patent pending interlocking housing and heat sink
- Optics
 - Patented, high-efficiency injection-molded AsuLED Optics technology
 - 16 optical distributions
 - 5 shielding options including HSS, GSS and PPS
 - IDA Certified (3000K CCT and warmer only)
- Electrical
 - LED drivers are mounted to removable tray

- assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Copper Lighting Solutions proprietary circuit module designed to withstand 100% of transient line surge
- Reliable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration
- Standard extruded arm includes internal bolt guides and round pole adapter
- Standard arms (SA and QMS) may be required in 50° or 120° pole mount configurations, see arm mounting requirements table

- Most arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMS) includes pole adapter and factory installed future mount for fast installation to square or round poles
- Finish
 - Super housing durable 700D polyester powder coat paint, 2.5 mil nominal thickness
 - Heat sink is powder coated black
 - RAL and custom color matches available
 - Coastal Construction (CC) option available
- Warranty
 - Five-year warranty

AREA LIGHT

NOT TO SCALE

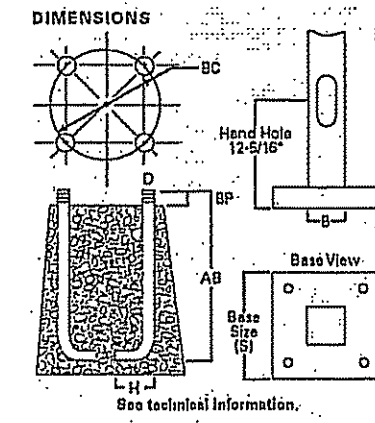


SSS SQUARE STRAIGHT STEEL

- FEATURES
 - ASTM Grade steel base plate with ASTM A366 base cover
 - Hand hole assembly 2" x 5" on 8" and 6" pole; and 2" x 4" on 4" pole
 - 10-39" mounting heights
 - Drilled or totem (specify)

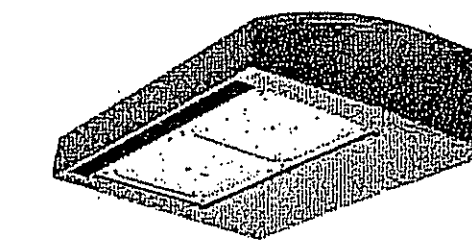
STEEL POLE

NOT TO SCALE

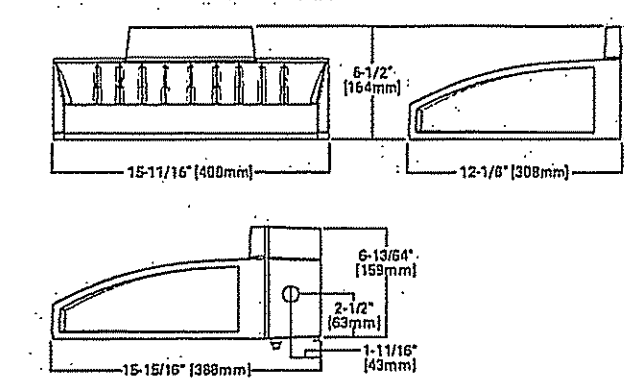


McGraw-Edison GWC Galleon Wall

Wall Mount Luminaire



Dimensional Details



Product Specifications

- Construction
 - Driver enclosure thermally isolated from optics for optimal thermal performance
 - Die-cast aluminum heat sink
 - IP68 rated housing
 - 1.5G Vibration rated
- Optics
 - Patented, high-efficiency injection-molded AsuLED Optics technology
 - 12 optical distributions
 - IDA Certified (3000K CCT and warmer only)

- Electrical
 - LED driver assembly mounted for ease of maintenance
 - Standard with 0-10V dimming
 - Optional 10W or 20W surge module
 - Reliable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration
- Mounting
 - Gasketed and zinc-plated rigid steel mounting attachment

- "Hook-N-Lock" mechanism for easy installation
- Finish
 - Housing finished in super durable 700D polyester powder coat paint, 2.5 mil nominal thickness
 - Heat sink is powder coated black
 - RAL and custom color matches available
 - Coastal Construction (CC) option available
- Warranty
 - Five-year warranty

WALL LIGHT

NOT TO SCALE

StatArea_1
PARKING SPACES IN FRONT OF BUILDING
Illuminance (Fc)
Average = 2.41
Maximum = 7.3
Minimum = 0.5
Avg/Min Ratio = 4.82
Max/Min Ratio = 14.60

StatArea_2
PARKING SPACES ALONG ROADWAY
Illuminance (Fc)
Average = 1.63
Maximum = 7.2
Minimum = 0.1
Avg/Min Ratio = 16.30
Max/Min Ratio = 72.00

StatArea_3
DOCK AREA
Illuminance (Fc)
Average = 2.10
Maximum = 21.8
Minimum = 0.3
Avg/Min Ratio = 7.00
Max/Min Ratio = 72.67

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
	1	P5	Single	GLEON-SA2C-740-U-SWQ / SSS4A12SFN1 12' POLE MTD ON 2.5' BASE (14.5' AFG)
	7	P4	Single	GLEON-SA2C-740-U-T4FT / SSS4A12SFN1 12' POLE MTD ON 2.5' BASE (14.5' AFG)
	3	S3	Single	GLEON-SA2C-740-U-T3 / SSS4A17SFN1 17' POLE MOUNTED ON 2.5' BASE (19.5' AFG)
	5	S4	Single	GLEON-SA2C-740-U-T4FT / SSS4A17SFN1 17' POLE MOUNTED ON 2.5' BASE (19.5' AFG)
	11	W3	Single	GWC-SA1A-740-U-SL3 / WALL MTD 8' AFG
	9	W4	Single	GWC-SA2B-740-U-T4FT / WALL MTD 14' AFG
	5	W5	Single	GWC-SA1A-740-U-SL4 / WALL MTD 8' AFG

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LIGHTING PLAN NORTH PIE HILL WAREHOUSING

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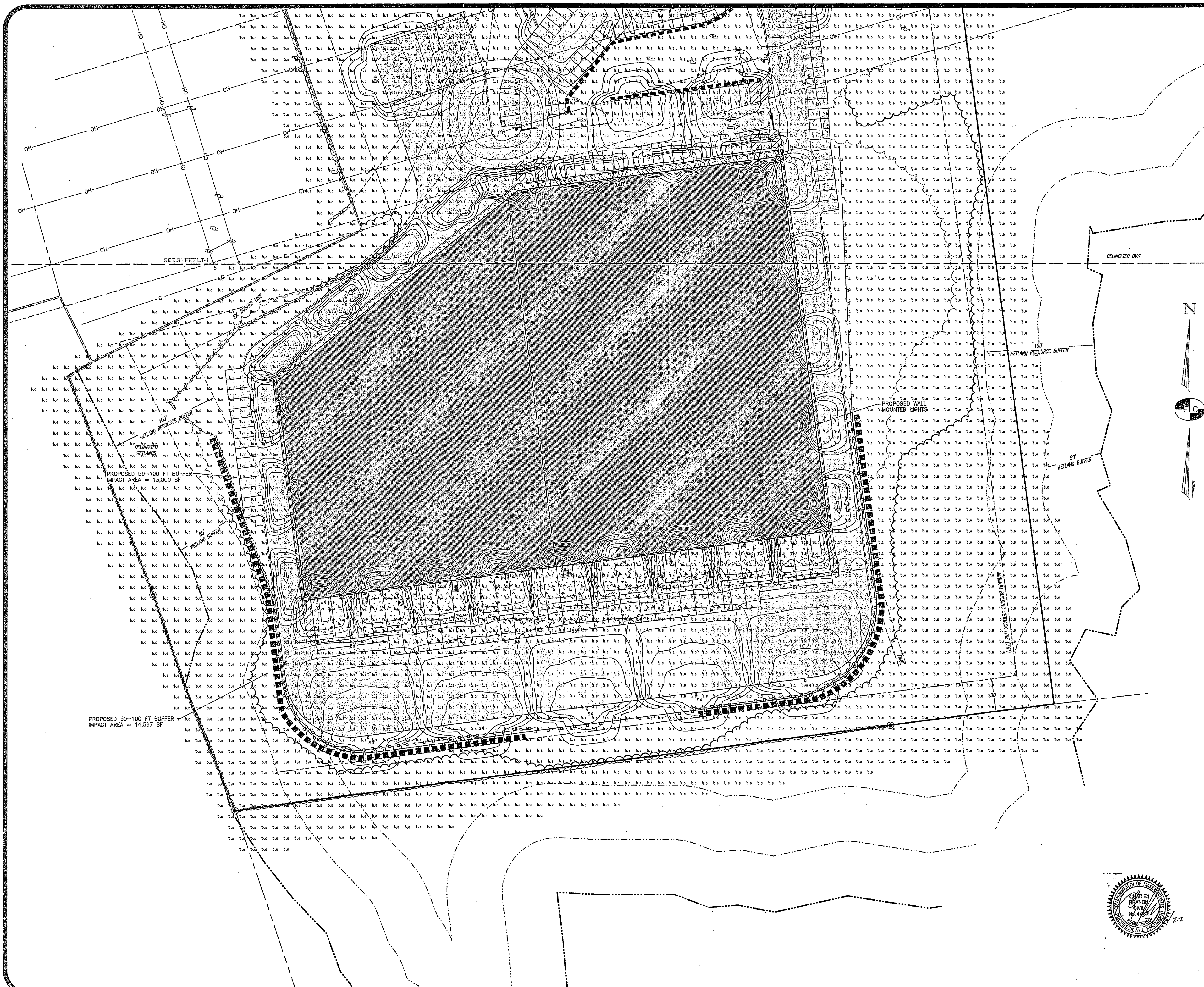
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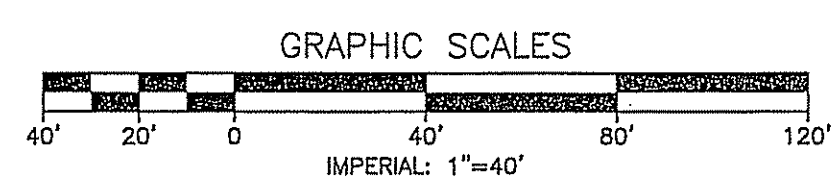
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SEE SHEET LT-1 FOR LIGHTING DETAILS AND LUMINAIRE SCHEDULE.



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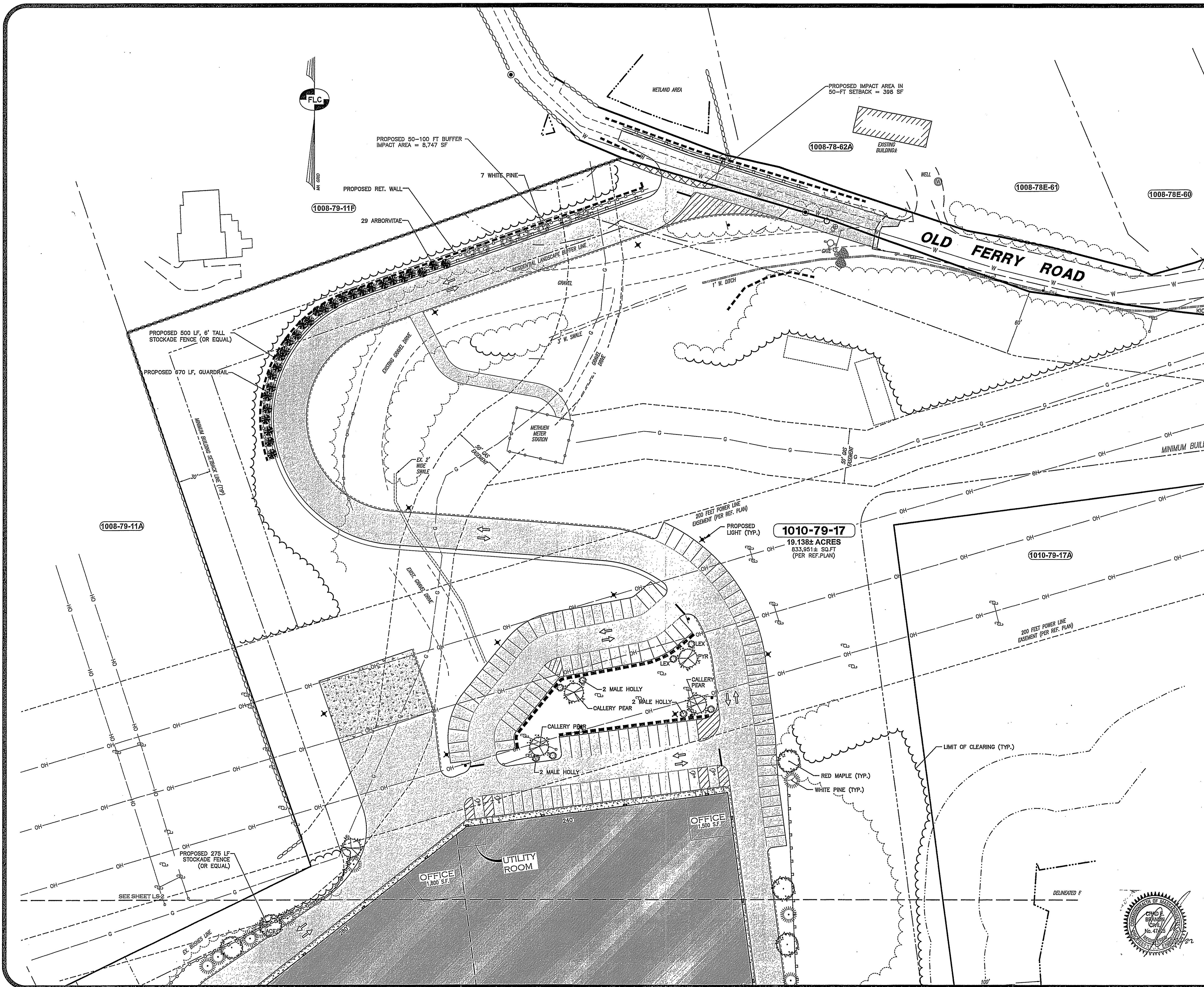
LIGHTING PLAN SOUTH
PIE HILL
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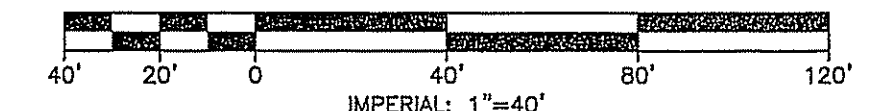
LANDSCAPING LEGEND:

PLANT SYMBOLS	PLANT LIST	QTY.
	PIN PINUS STROBUS (WHITE PINE) (OR EQUAL)	(20) 5'-6"
	ACE ACER PLATANOIDES (CRIMSON KING MAPLE) (OR EQUAL)	(6) 2.5'-3" CAL.
	PYR PYRUS CALLERYANA (CALLERY PEAR) (OR EQUAL)	(5) 2.5'-3"
	THU THUJA O. NIGRA (DARK AMERICAN ARBORVITAE) OR EQUAL	(29) 7'-8"
	LEX ILEX MESERVEAE 'BLUE PRINCE' (MALE HOLLY) (OR EQUAL)	(6) 2.5'-3"

LANDSCAPING NOTES:

1. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIG-SAFE AND FOR VERIFICATION OF ALL UTILITIES AND SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY CONFLICTS PRIOR TO COMMENCING.
2. EXISTING TREES TO REMAIN SHALL BE PRESERVED AND PROTECTED DURING CONSTRUCTION.
3. UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED WITHIN THE IMMEDIATE AREA NO PLANT MATERIAL SHALL BE INSTALLED.
4. UNLESS OTHERWISE NOTED OR APPROVED, ALL TREES MUST BE BALLED AND BURLAPPED.
5. ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF "THE AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERMEN.
6. ANY PROPOSED PLANT MATERIAL SUBSTITUTIONS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.
7. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE INSTALLER FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE.
8. IN AREAS OF STONE MULCH LAY 6 MIL SHEETS OF "VISQUEEN" TYPE POLYETHYLENE ON COMPACTED SUBGRADE BEFORE PLACING STONE, MINIMUM 6" OVERLAP. PERFORATE SHEETING IN PLANTING BEDS BEFORE PLACING STONE.
9. UNLESS OTHERWISE NOTED LOAM AND SEED ALL DISTURBED AREAS WITH A MINIMUM 4" OF SUITABLE LOAM. SLOPES GREATER THAN 3:1 SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET. SEE SITE PLAN.
10. WHERE APPLICABLE, THE CONTRACTOR SHALL HAVE ALL FALL TRANSPLANTING HAZARD PLANTS DUG IN THE SPRING AND STORED FOR FALL PLANTING.
11. PLANTS SHALL BE INSTALLED WITHIN ONE YEAR OF COMMENCEMENT OF CONSTRUCTION
12. ALL LANDSCAPING SHALL BE LOCATED AND MAINTAINED SO AS NOT TO IMPACT THE LINES OF SIGHT AT THE ENTRANCE AND INTERNAL INTERSECTIONS.
13. ALL LANDSCAPED AREAS WILL BE MAINTAINED TO HAVE A SUFFICIENT AMOUNT OF WATER TO MAINTAIN VIABILITY EITHER BY IRRIGATION OR BY OTHER MEANS.
14. PROPOSED PLANTINGS SHALL NOT CONFLICT WITH SNOW STORAGE AREAS, LIGHT FIXTURES OR UNDERGROUND UTILITIES.
15. A 15' LANDSCAPE BUFFER (MINIMUM) SHALL REMAIN ADJACENT TO THE RIGHT OF WAY LINE AND A 60' BUFFER SHALL REMAIN ALONG PROPERTY LINES SHARED WITH RESIDENTIAL LOTS.
16. LANDSCAPING CALCULATIONS:
INTERIOR PARKING AREA = 60,479 SF
REQUIRED INTERIOR LANDSCAPING = 5% X 60,479 SF = 3,024 SF
PROPOSED INTERIOR LANDSCAPING = 11,450 SF
REQUIRED TREES = 1 TREE / 2,000 SF OF PARKING X 60,479 = 30.2 TREES
PROPOSED PARKING AREA TREES = 31 TREES
17. A LANDSCAPED SCREEN WILL BE PLANTED WHERE THE INDUSTRIAL ZONED PARCEL ABUTS RESIDENTIAL PROPERTIES. THE VERTICAL SCREEN WILL NOT BE LESS THAN 4' IN WIDTH AND 5' HIGH AT THE TIME OF PLANTING. PLANTINGS WILL BE SPACED NO MORE THAN 10' ON CENTER AND CONTAIN A MINIMUM OF 50% EVERGREENS.

GRAPHIC SCALES



C	7/22/22	REVISED PER CONSERVATION COMMISSION REVIEW	CLR	CEB
B	6/29/22	REVISED PER ENGINEERING & PEER REVIEW	CLR	CEB
A	6/1/22	REVISED PER CITY COMMENTS	CLR	CEB
REV.	DATE	DESCRIPTION	C/O	DR

LANDSCAPING PLAN NORTH PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:
TRIPLE G, LLC

59 BONANNO COURT, METHUEN, MA 01844

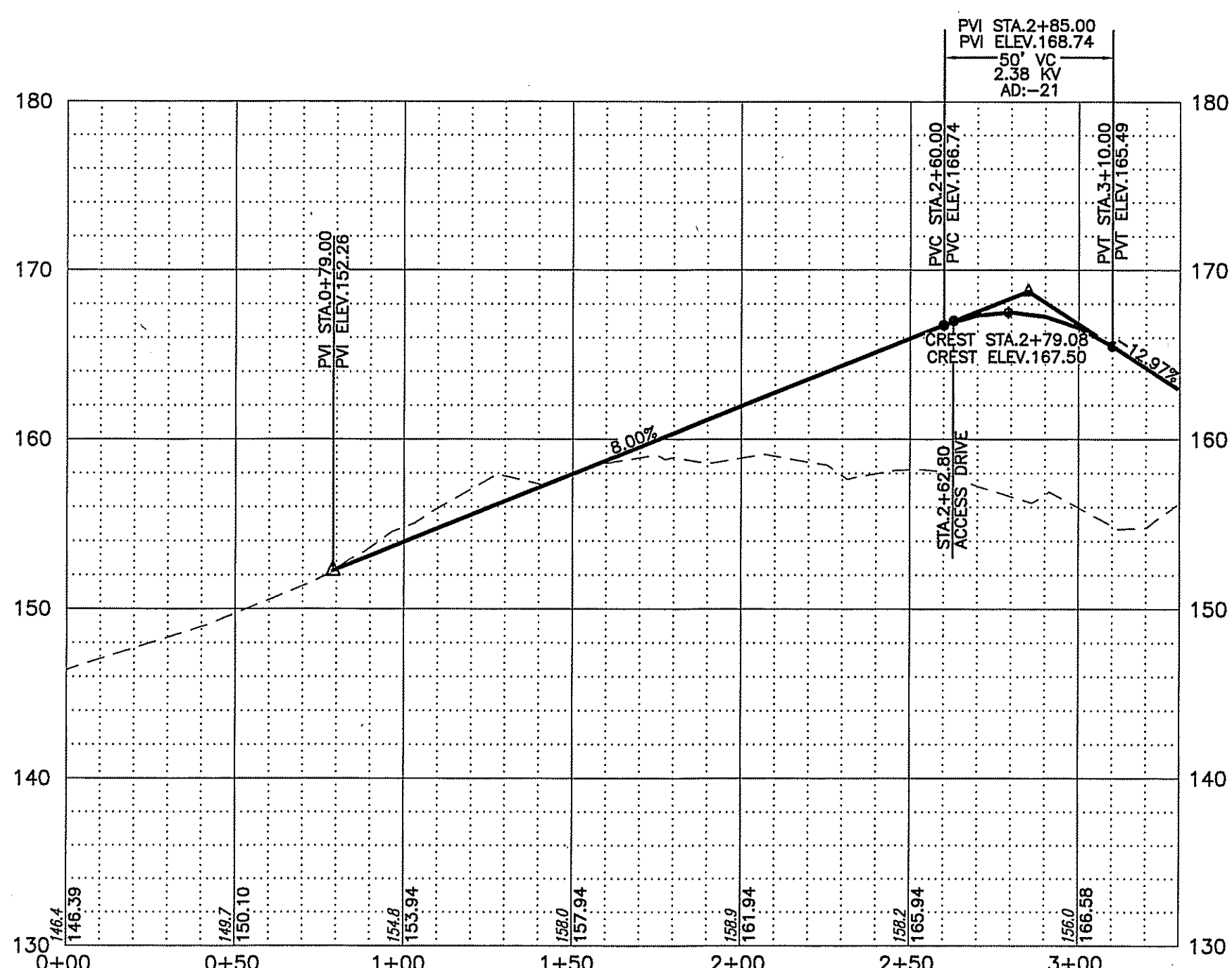
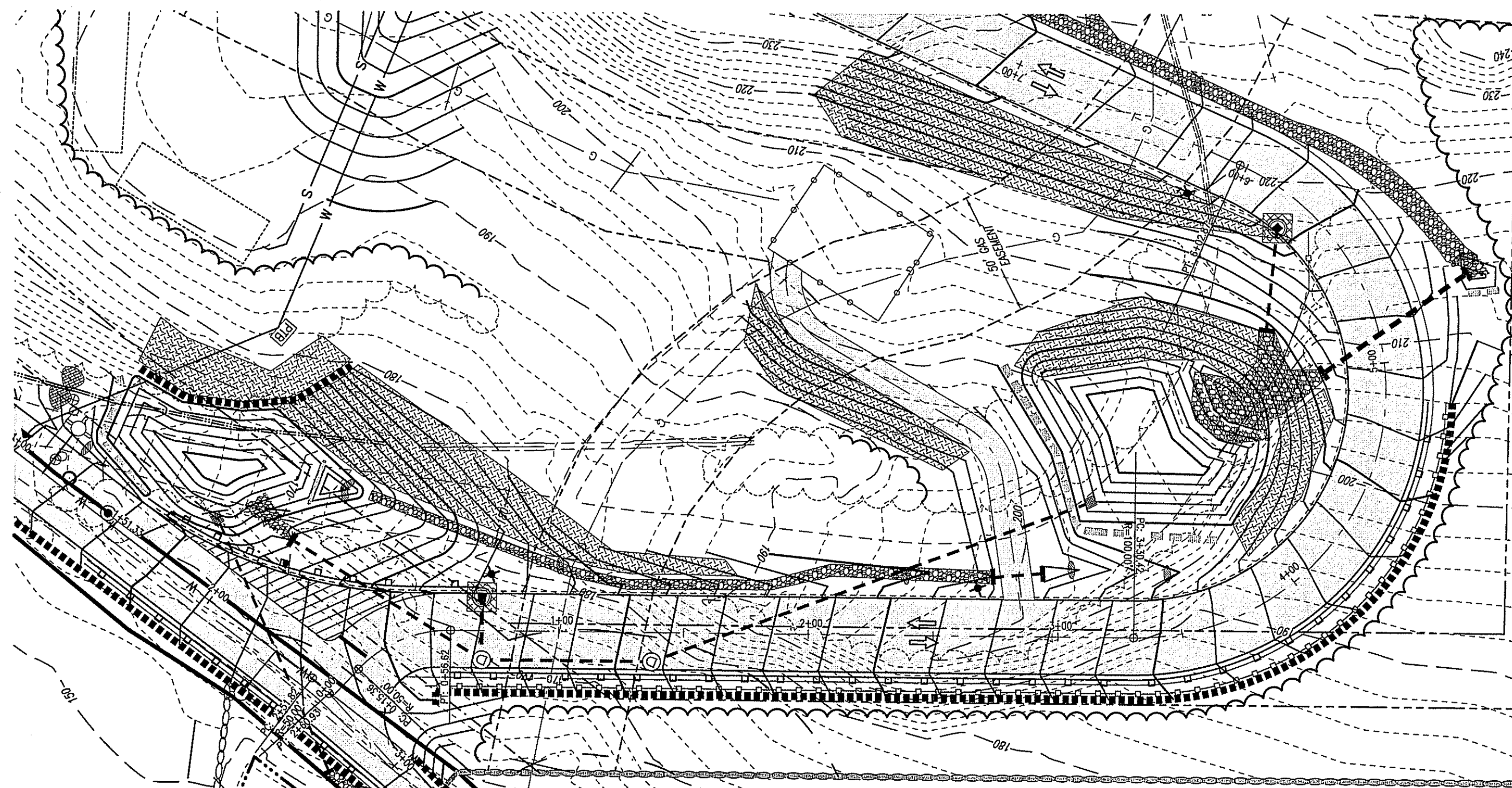
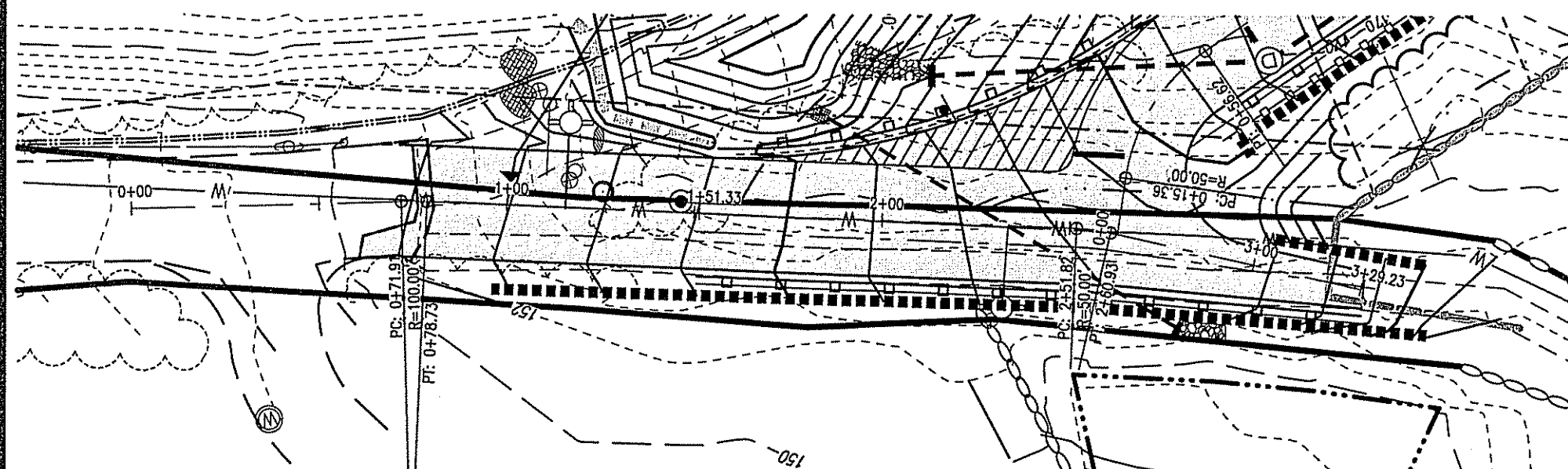
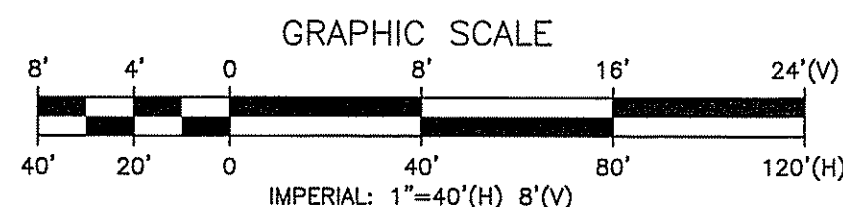
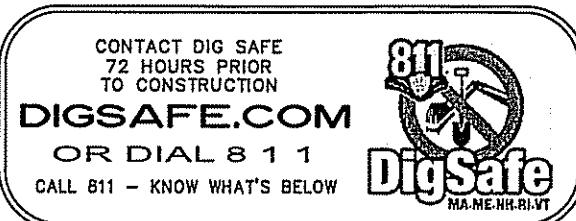
SCALE: 1" = 40'

APRIL 4, 2022

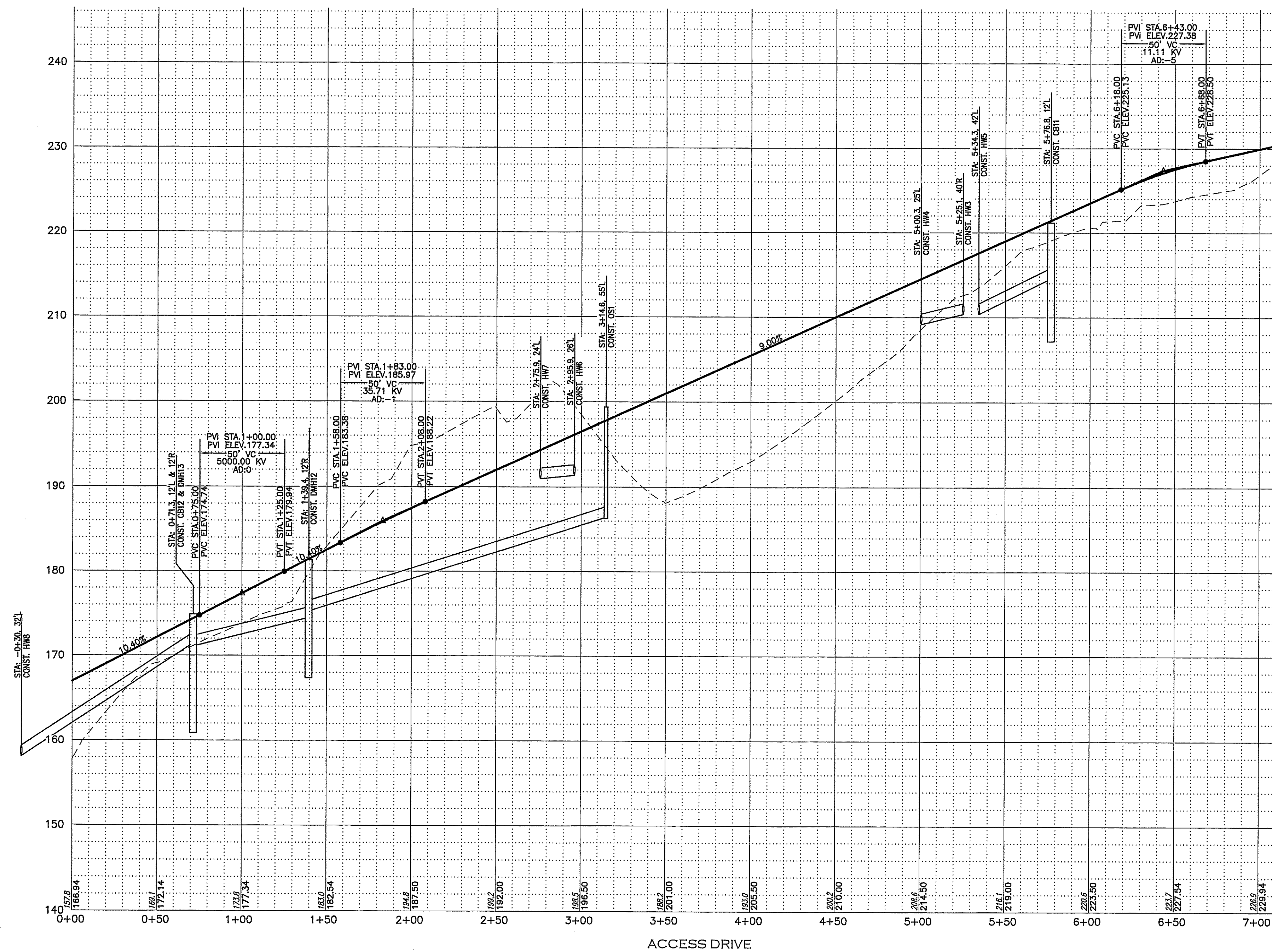
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OLD FERRY ROAD EXTENSION

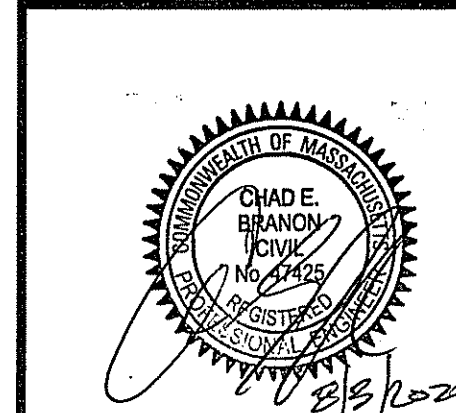


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REV.	DATE	DESCRIPTION	DR	CK
C	8/3/22	REVISED PER ENGINEERING REVIEW	CLR	CEB
B	7/22/22	REVISED PER CONSERVATION COMMISSION REVIEW	CLR	CEB
A	6/29/22	REVISED PER ENGINEERING REVIEW	CLR	CEB

DRIVEWAY PLAN & PROFILE **TRIPLE G, LLC**
59 BOVANO COURT, METHUEN, MA 01844

PIE HILL WAREHOUSING

TAX MAP 79 LOT 17
METHUEN, MASSACHUSETTS

PLANS ISSUED FOR:
MUNICIPAL REVIEW

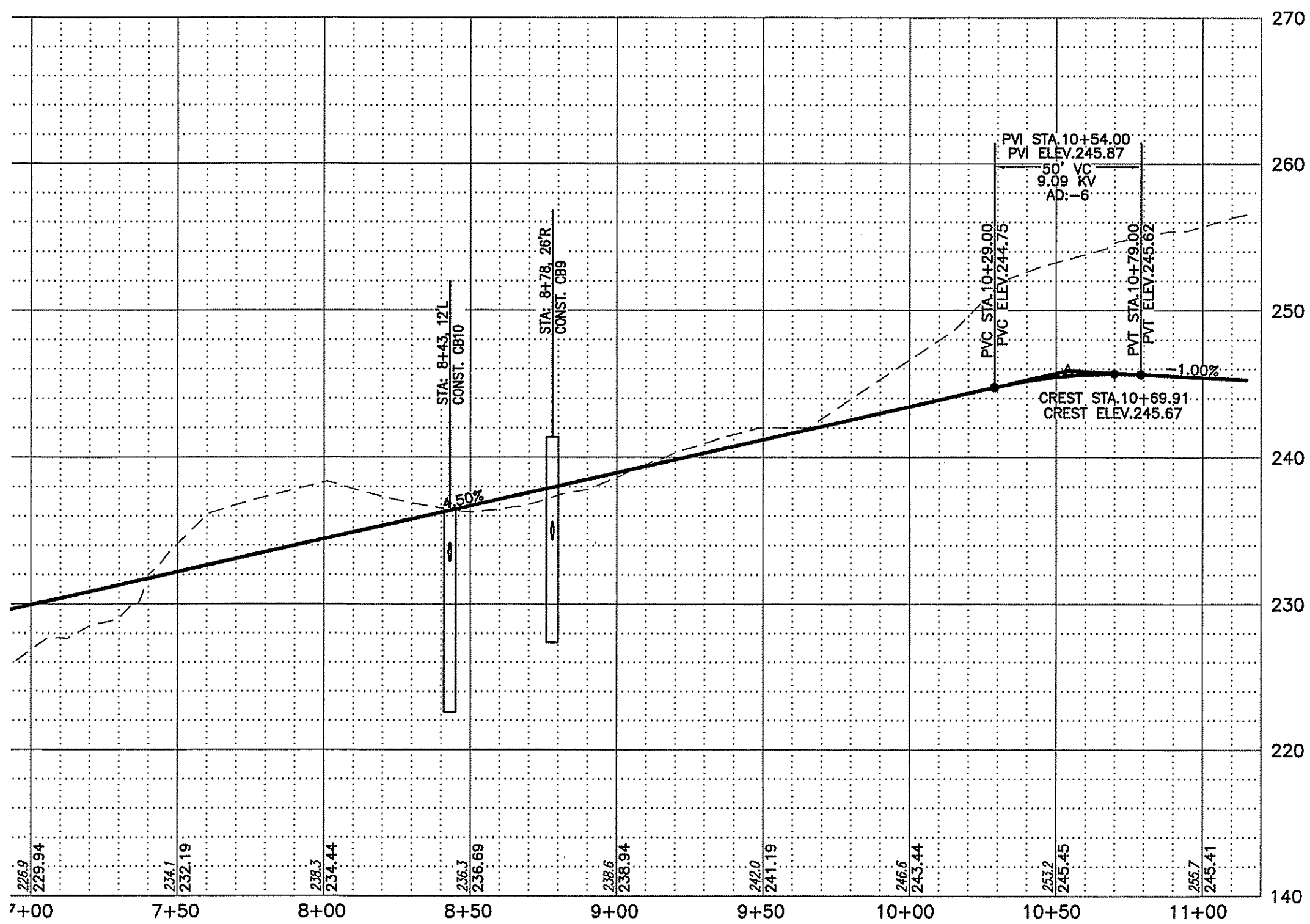
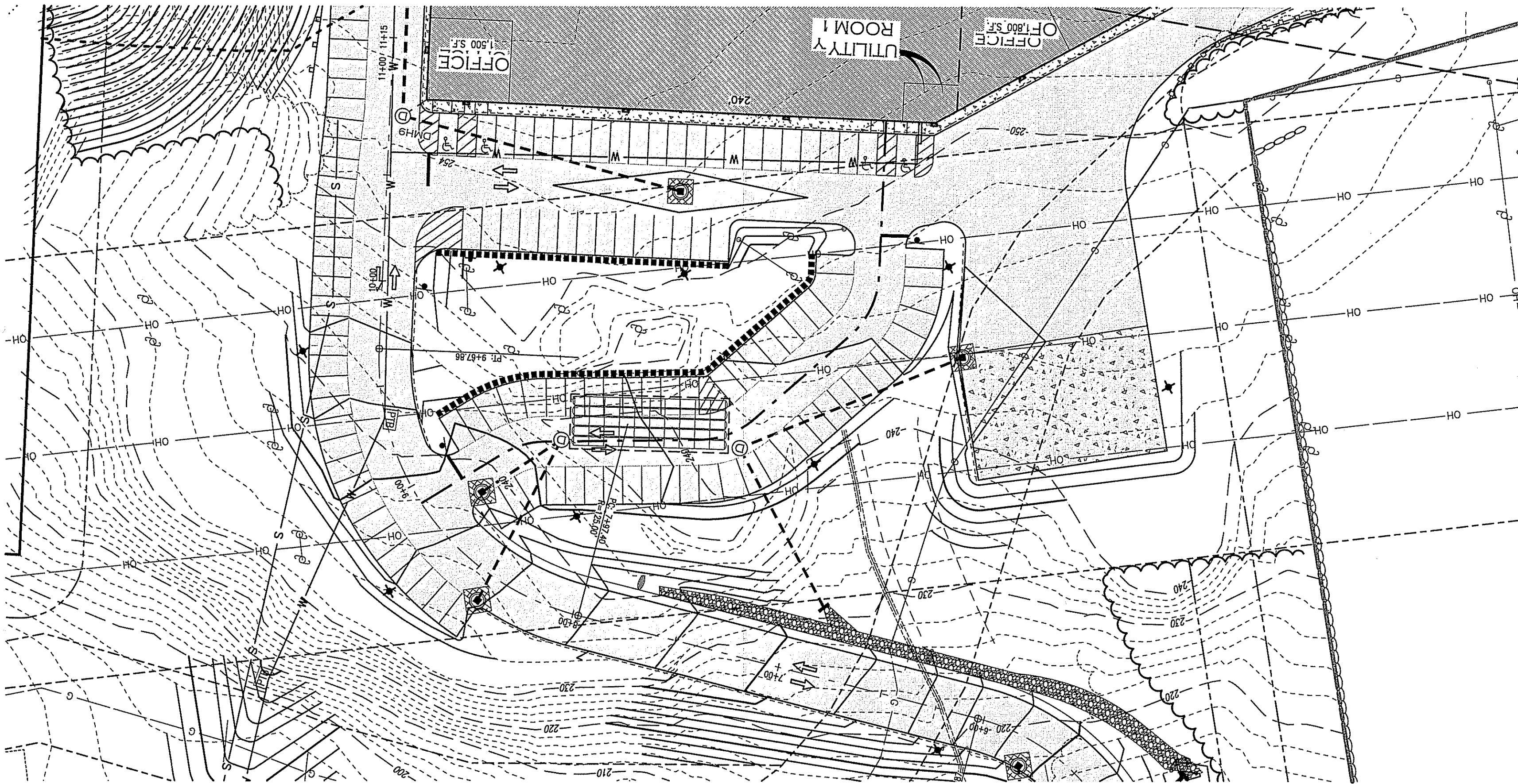
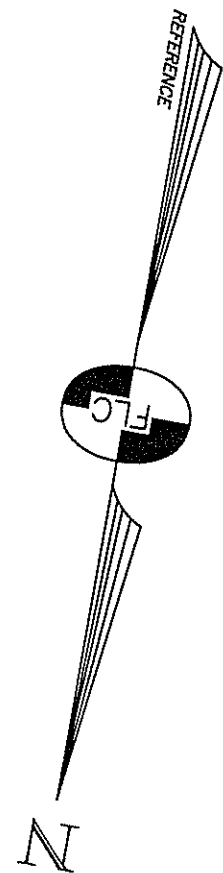
APRIL 4, 2022

SCALE: 1" = 40' HORIZ. / 4' VERT.

PP-1
SHEET

PROJECT NO. 2295.01
SHEET NO. 17 OF 29

FILE: 2295PP01E.dwg



DRIVEWAY PLAN & PROFILE
STA 5+00 - STA 12+00

TRIPLE G, LLC
59 BOWMAN COURT, METHUEN, MA 01844

PP-2
SHEET

PROJECT NO. 2295.01
SHEET NO. 18 OF 29

DRIVEWAY PLAN & PROFILE
TAX MAP 79 LOT 17
METHUEN, MASSACHUSETTS

PLANS ISSUED FOR:
MUNICIPAL REVIEW

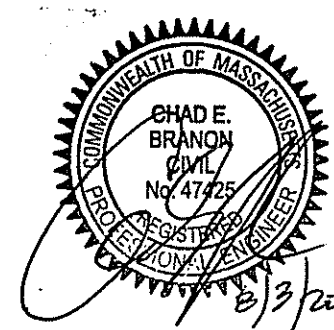
APRIL 4, 2022

FILE: 2295SP01E.dwg

SCALE: 1" = 40' HORIZ. / 4' VERT.

PLANS ISSUED FOR:
MUNICIPAL REVIEW

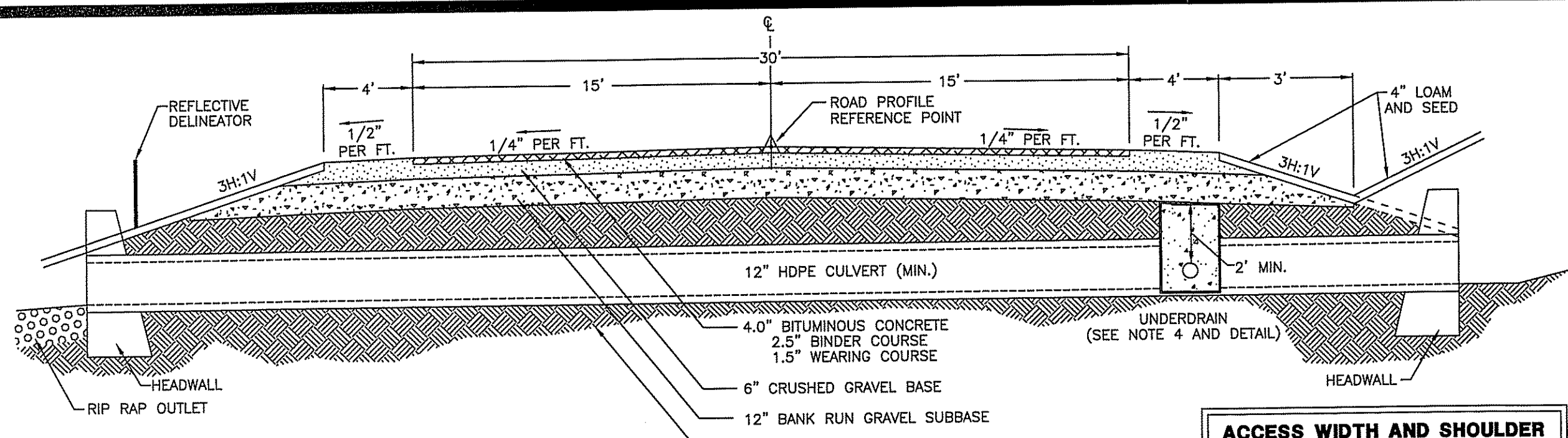
REV.	DATE	DESCRIPTION	DR	CK
C	8/3/22	REVISED PER ENGINEERING REVIEW	CLR	CEB
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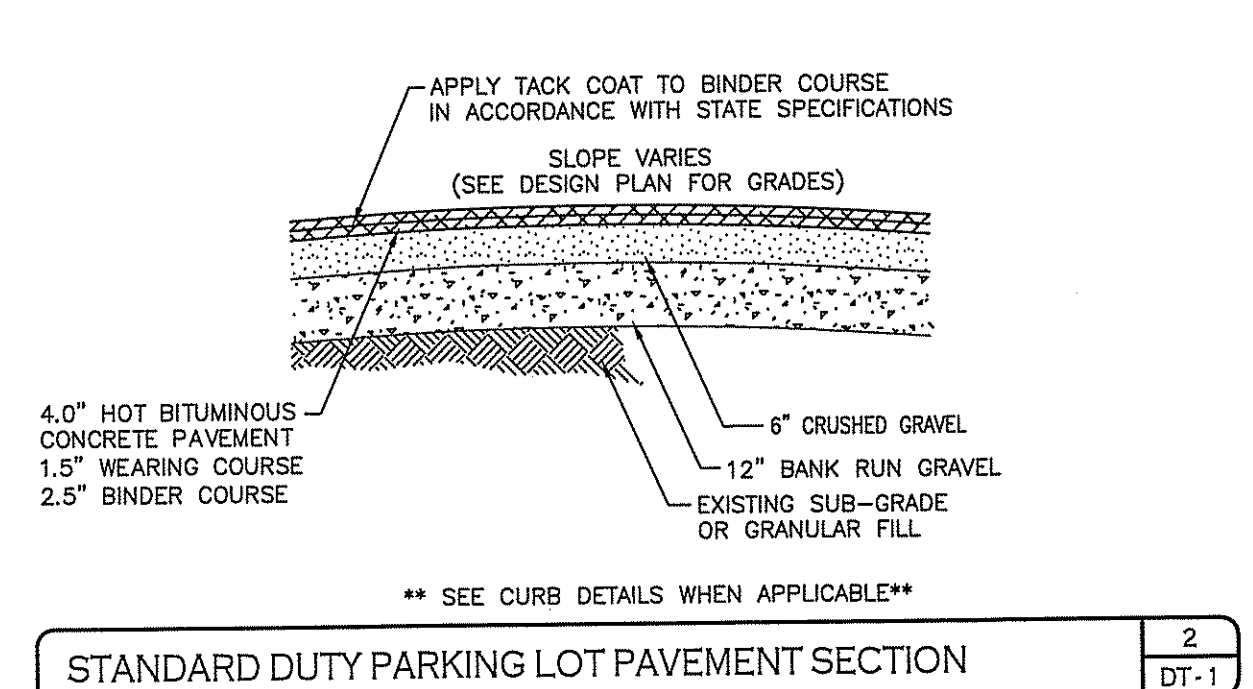
GENERAL ROAD CONSTRUCTION NOTES:

1. REMOVE ALL LOAM, CLAY, MUCK, STUMPS, AND OTHER IMPROPER ROAD FOUNDATION MATERIAL WITHIN 3' OF SUBGRADE. REPLACE WITH COMPACTED GRANULAR FILL MATERIAL ACCEPTABLE TO THE ENGINEER. COMPACTION TO BE AT LEAST 95% OF THE DRY WEIGHT AS DETERMINED BY STANDARD PROCTOR TESTING (ASTM 1557).
2. ALL MATERIALS AND CONSTRUCTION SHALL MEET AND BE COMPLETED IN STRICT ACCORDANCE WITH THE CITY OF METHUEN'S CURRENT ROAD AND DRAINAGE SPECIFICATIONS.
3. THE GUARDRAIL POSTS SHALL BE SET 19' FEET FROM CENTERLINE.

TYPICAL CROSS-SECTION - SITE ENTRANCE

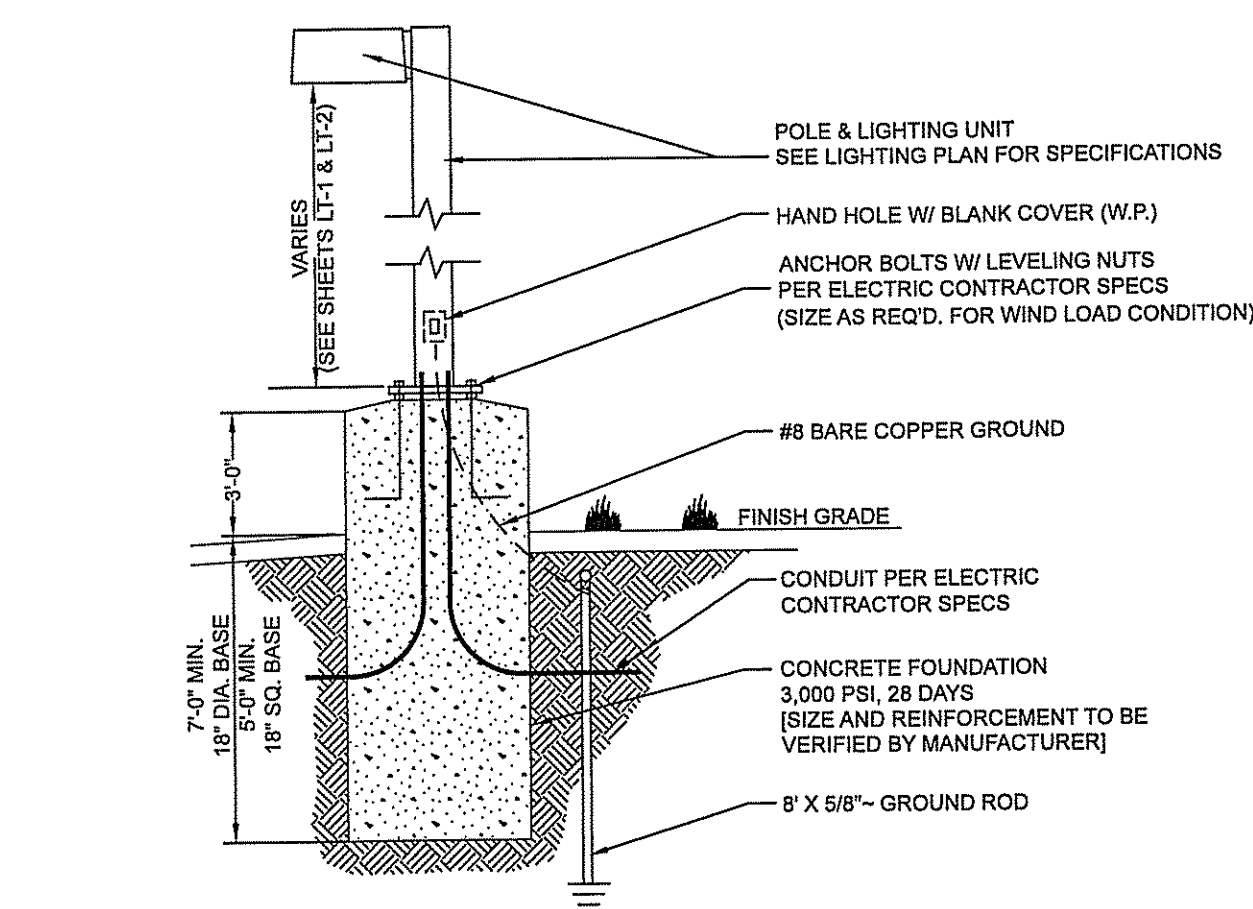
ACCESS WIDTH AND SHOULDER WIDTH VARIES ALONG LENGTH AS DEPICTED ON PLANS.

SCALE: N.T.S.
1
DT-1



STANDARD DUTY PARKING LOT PAVEMENT SECTION

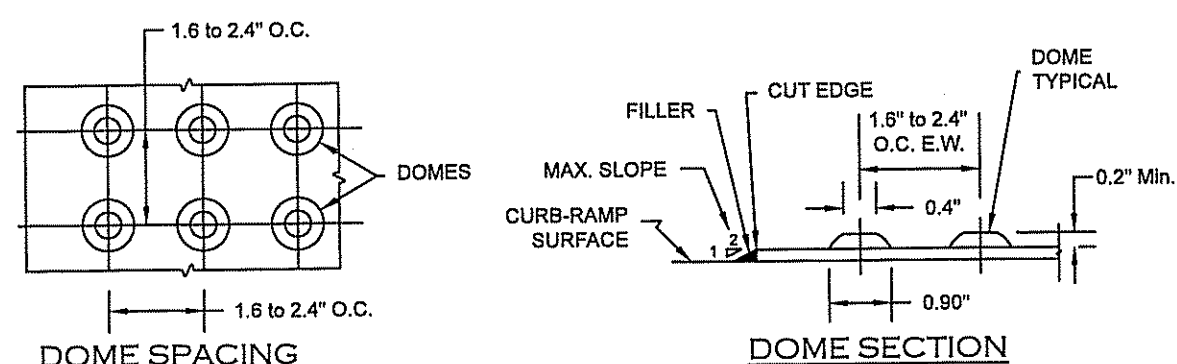
2
DT-1



NOTE:
1. LIGHT POLE FOUNDATION SHALL EXTEND 3.0 FEET ABOVE FINISH GRADE TO PREVENT VEHICLES FROM DAMAGING THE LIGHT POLE.

LIGHT POLE FOUNDATION

SCALE: N.T.S.
3
DT-1

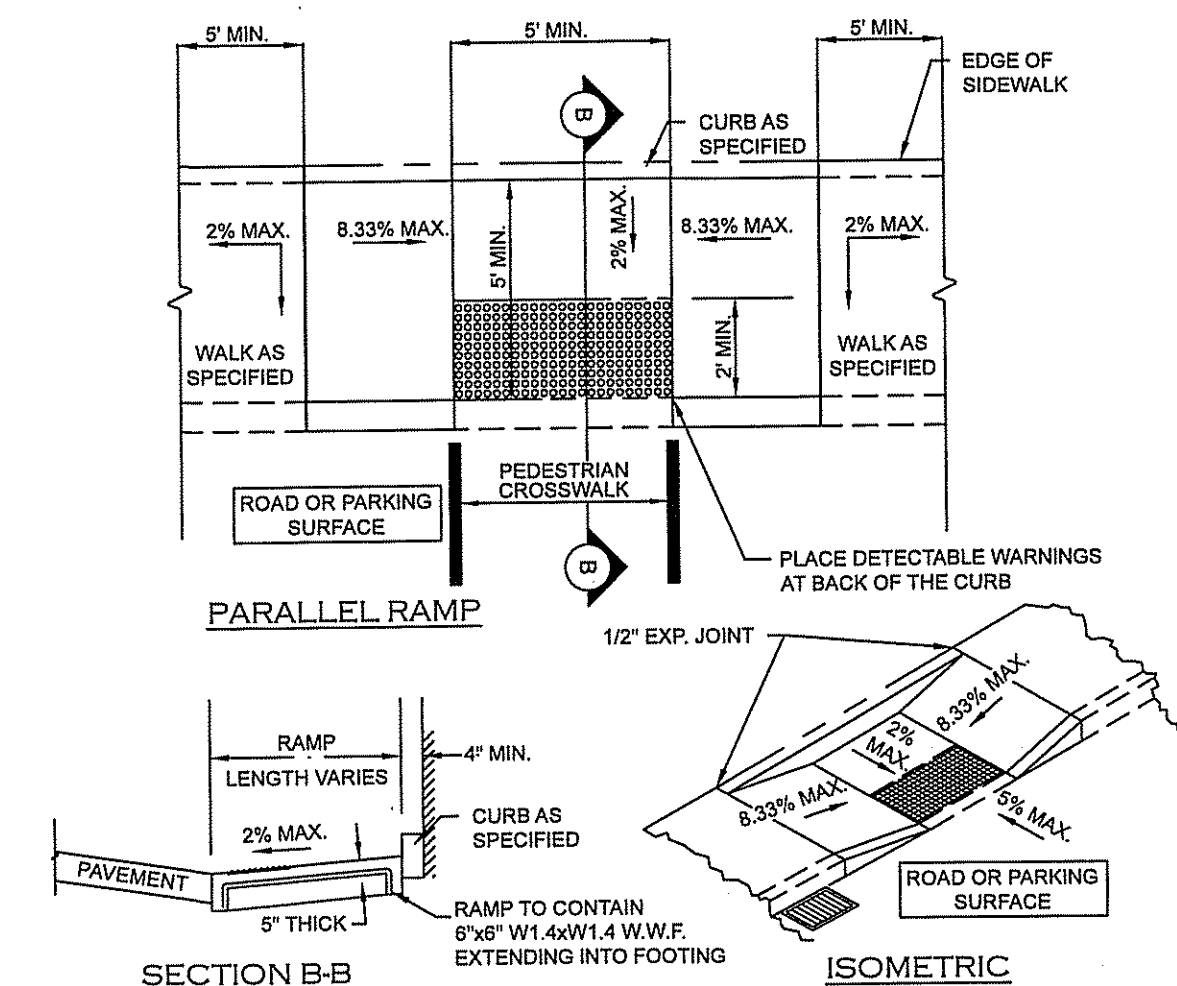


NOTES:

1. DETECTABLE WARNINGS SHALL BE PROVIDED WHERE EVER A CURB RAMP CROSSES A VEHICULAR WAY.
2. DETECTABLE WARNINGS SHALL BE PROVIDED 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. THE DETECTABLE WARNING SHALL BE LOCATED ADJACENT TO THE CURB LINE.
3. DETECTABLE WARNINGS MATERIALS SHALL BE TEXTURED TO PROVIDE SLIP RESISTANCE AND SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES - EITHER LIGHT ON DARK OR DARK ON LIGHT. THE PREFERRED COLOR FOR A LIGHT BACKGROUND IS RED BRICK AND FOR A DARK BACKGROUND SHALL BE SAFETY YELLOW.
4. DETECTABLE WARNINGS SHALL BE PLACED 6\"/>

DETECTABLE WARNING SURFACE FOR HANDICAP RAMPS

SCALE: N.T.S.
4
DT-1

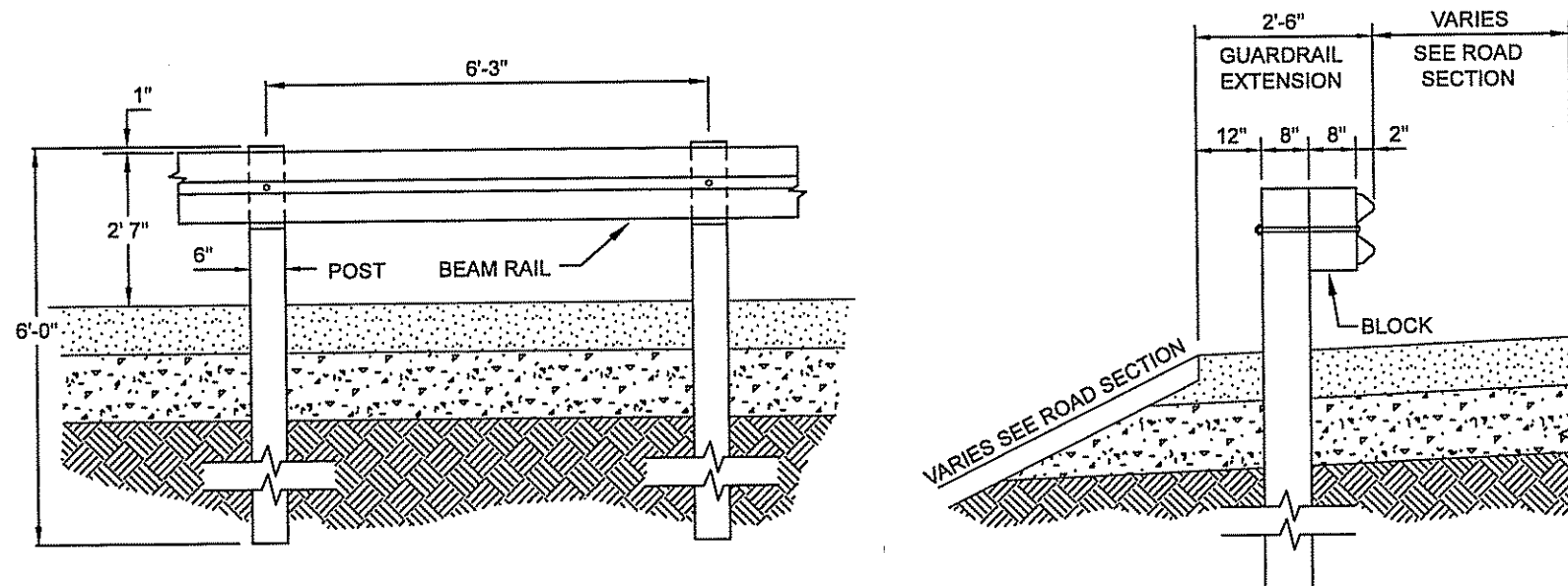


HANDICAP RAMP NOTES:

1. A SIDEWALK CURB RAMP IS DEFINED AS THE ENTIRE CONCRETE SURFACE WHICH INCLUDES THE RAMP AND FLARED SIDES.
2. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 8.33% (1:12). THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION. THE FLARED SIDE OF THE RAMP SHALL LIE ON A SLOPE OF 10% (1:10) MAXIMUM MEASURED ALONG THE CURB.
3. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2 FEET FROM THE ROADWAY CURBLINE.
4. INTERCEPT DRAINAGE ALONG THE CURB IN ADVANCE OF SIDEWALK CURB RAMPS OR LANDINGS. CATCH BASINS, MANHOLES, ETC. SHALL NOT BE LOCATED IN, OR AT THE BASE OF, SIDEWALK CURB RAMPS OR LANDINGS.
5. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS. IT IS DESIRABLE THAT THE LOCATION OF THE RAMP BE AS CLOSE AS POSSIBLE TO THE CENTER OF THE CROSSWALK.
6. THE SIDEWALK CURB RAMP OR THE LANDING AREA (PARALLEL SIDEWALK CURB RAMP) SHALL CONTRAST VISUALLY WITH THE ADJOINING SIDEWALK SURFACE, EITHER ASPHALT/LIGHT-COLORED CONCRETE OR LIGHT-COLORED CONCRETE/DARK-STAINED CONCRETE. THE CONCRETE SURFACE SHALL BE SLIP RESISTANT (BROOM FINISHED).
7. DETECTABLE WARNING PANELS SHALL BE THE FULL WIDTH OF THE LANDING, BLENDED TRANSITION, OR CURB RAMP THEY ARE A PART OF AND SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION OR LANDING AND THE STREET.
8. A LEVEL LANDING 5'-0\"/>

HANDICAP SIDEWALK RAMP - HCR2

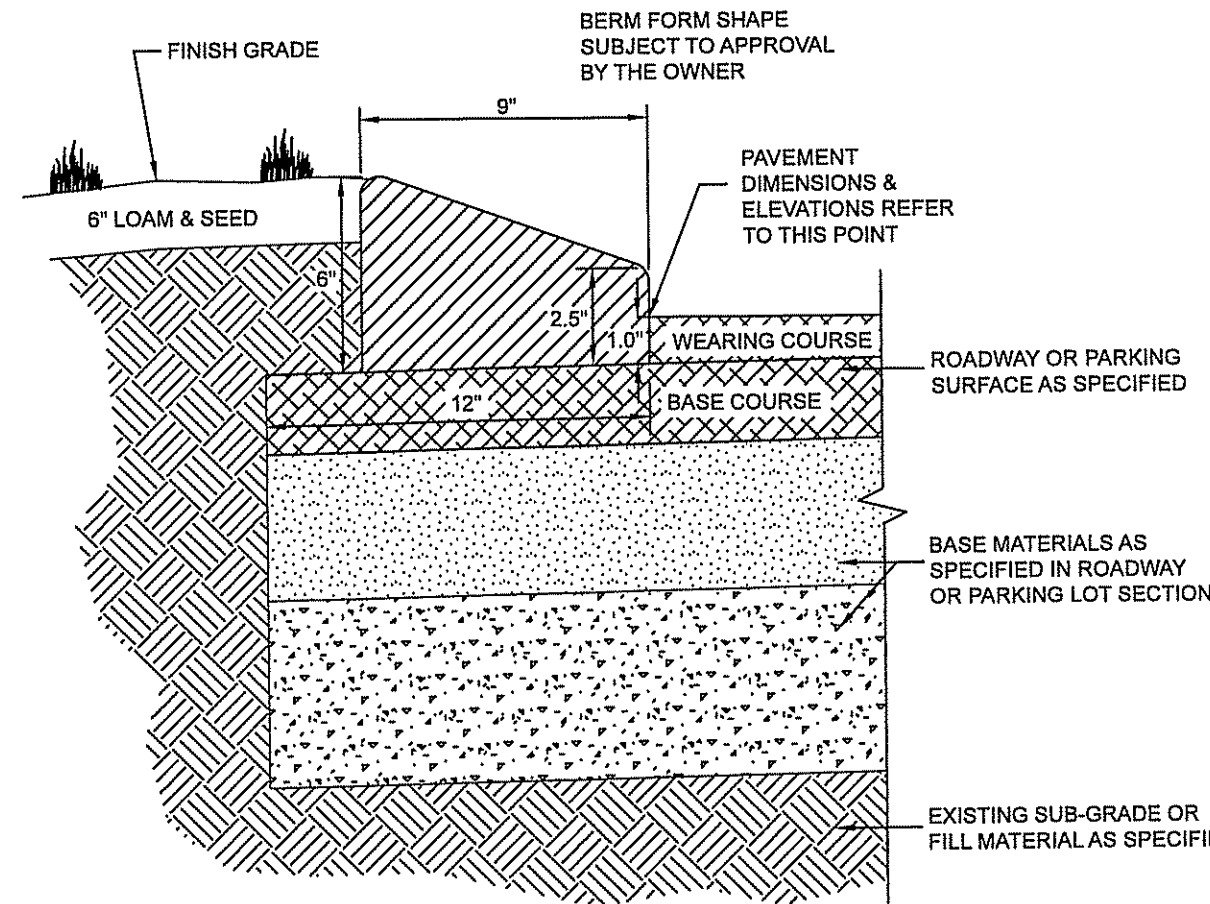
5
DT-1



- 1) ALL MATERIALS AND CONSTRUCTION REQUIREMENTS SHALL CONFORM TO "MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION CONSTRUCTION STANDARD DETAILS" AS SET FORTH IN SECTION 400, 2017 EDITION.
- 2) ALL GUARDRAIL SHALL BE STEEL BEAM GUARD RAIL WITH 6"x8\"/>

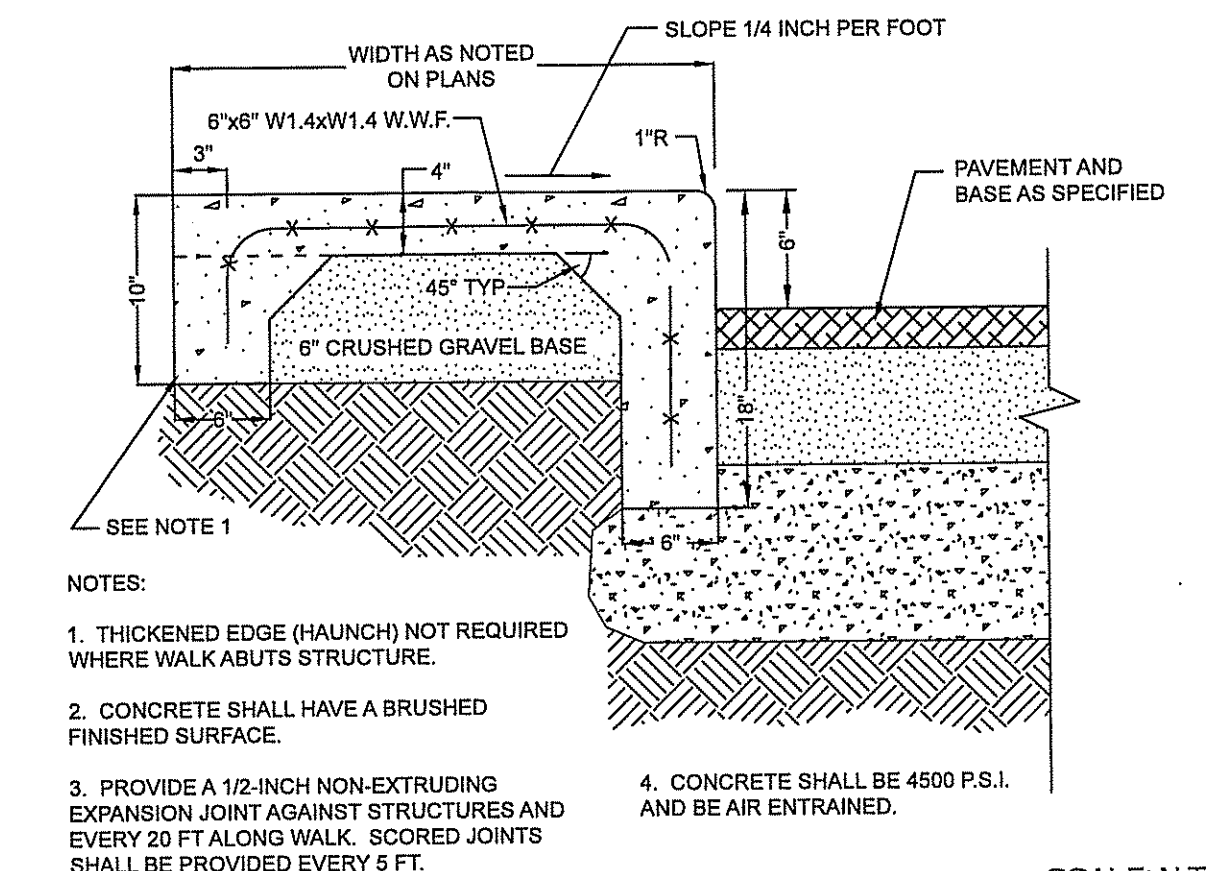
GUARDRAIL (OPTIONAL)

SCALE: N.T.S.
6
D-1



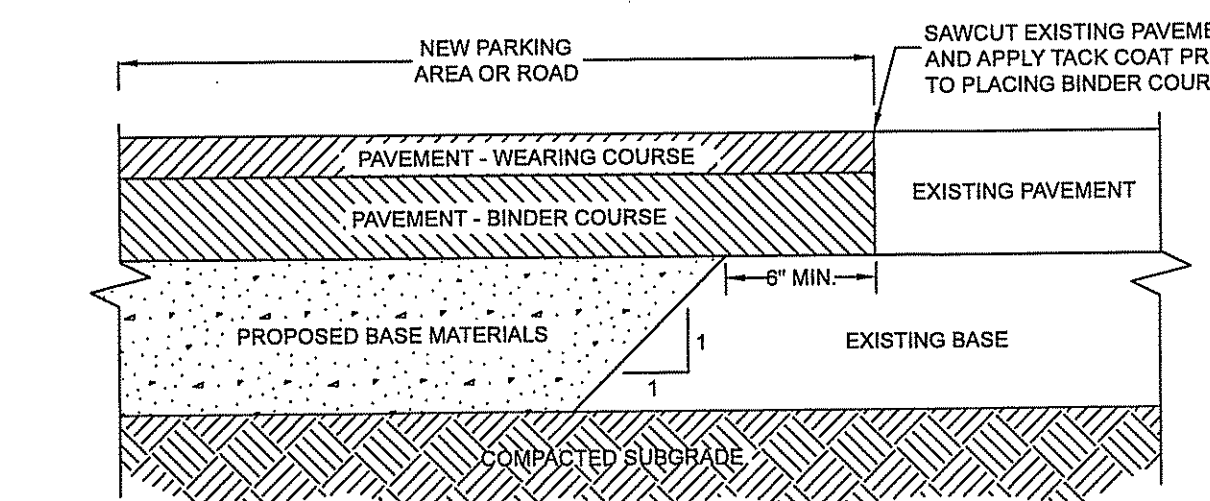
CURB - ASPHALT (CAPE COD BERM)

SCALE: N.T.S.
7
DT-1



SIDEWALK - CONCRETE W/INTEGRAL CONCRETE CURB

SCALE: N.T.S.
8
DT-1

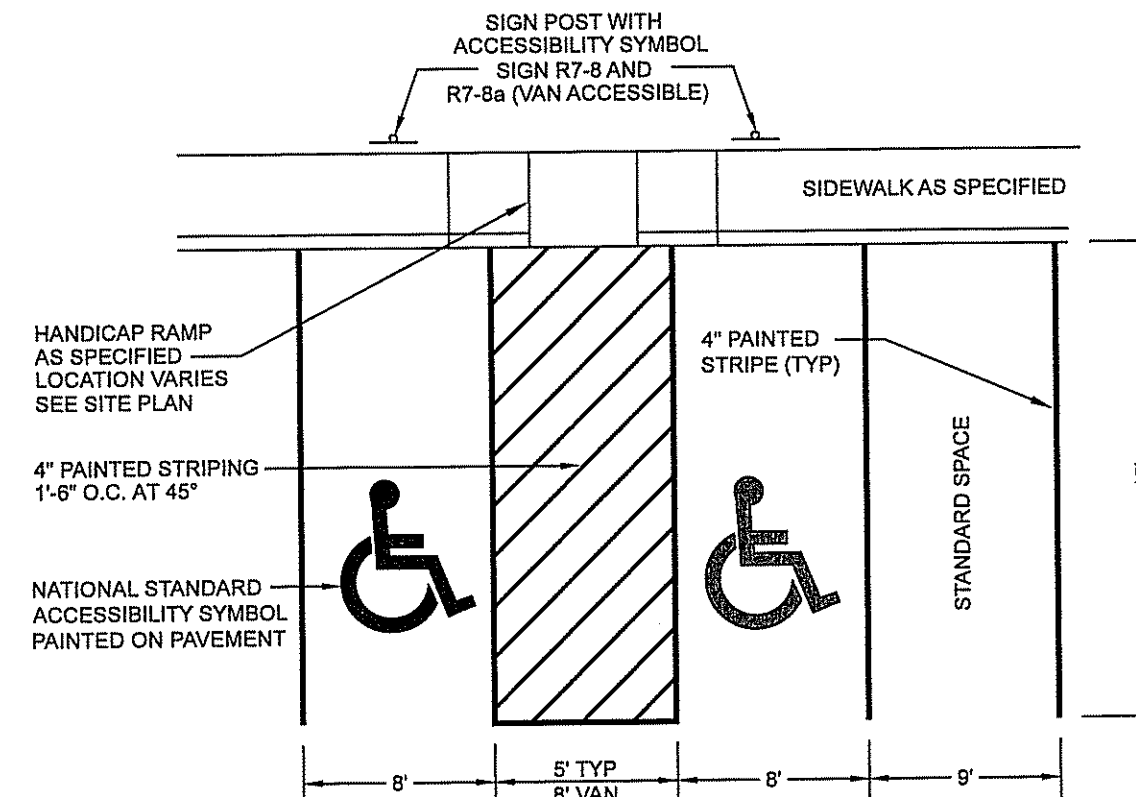


- NOTE:
1. SEE ROADWAY OR PARKING LOT SECTION FOR MATERIALS AND ASSOCIATED DEPTHS.
2. INFRARED JOINT AFTER PLACING PAVEMENT.

PAVEMENT MATCH

SCALE: N.T.S.
9
DT-1

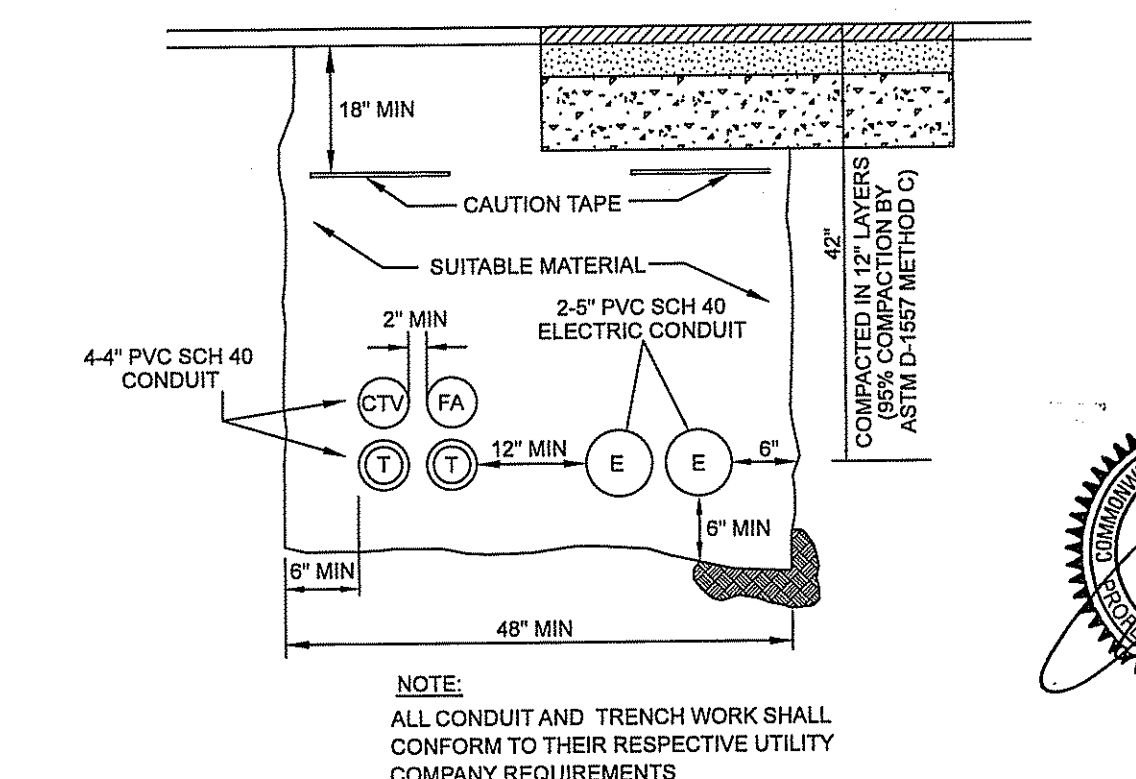
CONTACT DIG SAFE
72 HOURS PRIOR
TO CONSTRUCTION
DIGSAFE.COM
OR DIAL 8 1 1
IT'S SMART, IT'S FREE, IT'S THE LAW
DigSafe
NAME ME RY



- NOTES:
(DIMENSIONS TO CENTER-LINE OF PAINTED LINES)
1. MAXIMUM SLOPE IN ANY DIRECTION IS 2.0% FOR HANDICAP SPACES.
2. SEE SITE PLAN FOR LOCATION OF HANDICAP SPACES AND TYPE OF HANDICAP RAMP TO BE USED.
3. HANDICAP SYMBOL SHALL BE CENTERED ON WIDTH OF PARKING STALL AND LOCATED 66\"/>

PARKING STALL LAYOUT

SCALE: N.T.S.
10
DT-1



TYPICAL UTILITY TRENCH

SCALE: N.T.S.
11
DT-1

B	8/3/22	REVISED PER ENGINEERING REVIEW		CLR	CEB
A	7/22/22	REVISED PER CONSERVATION COMMISSION		CLR	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

CONSTRUCTION DETAILS

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

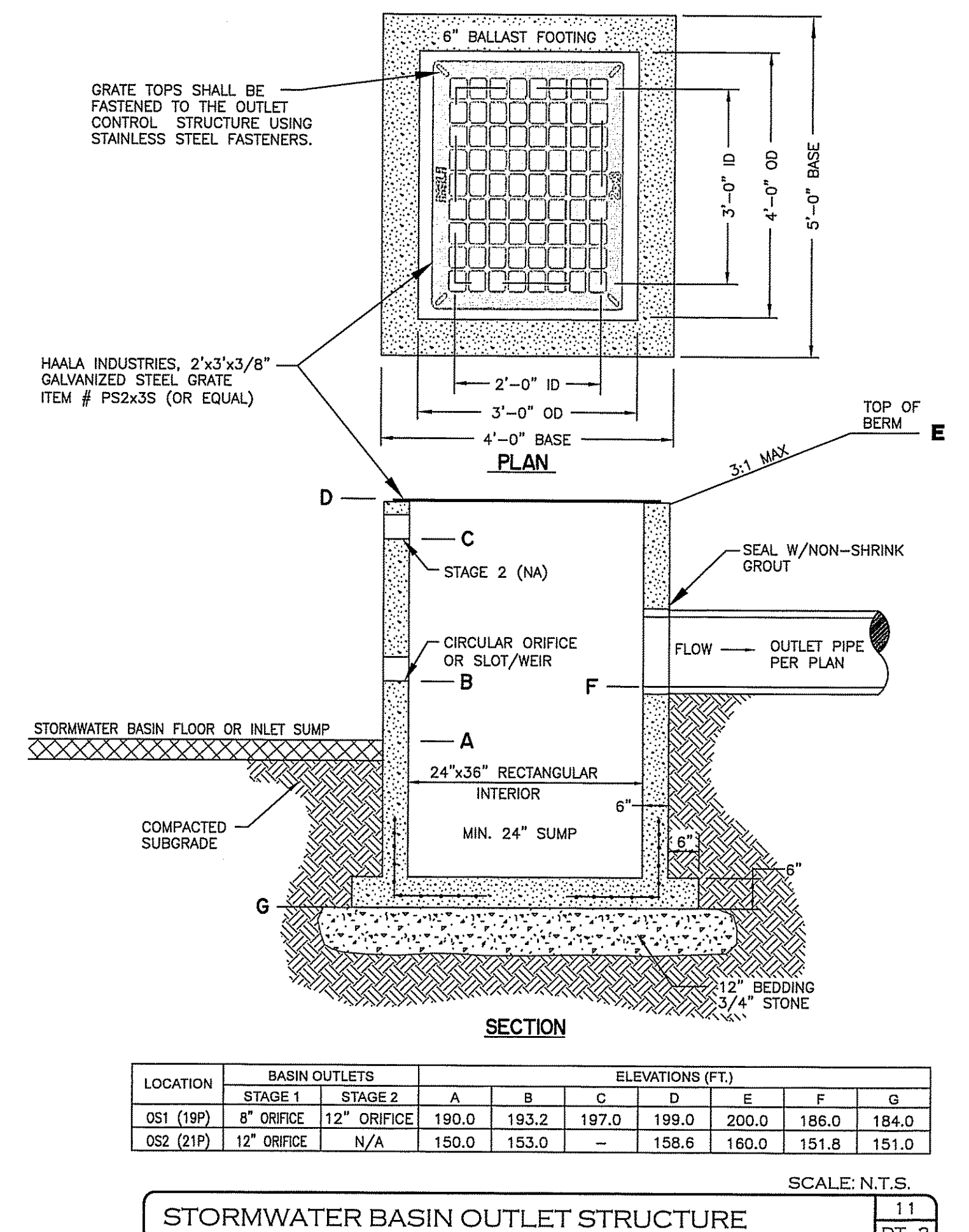
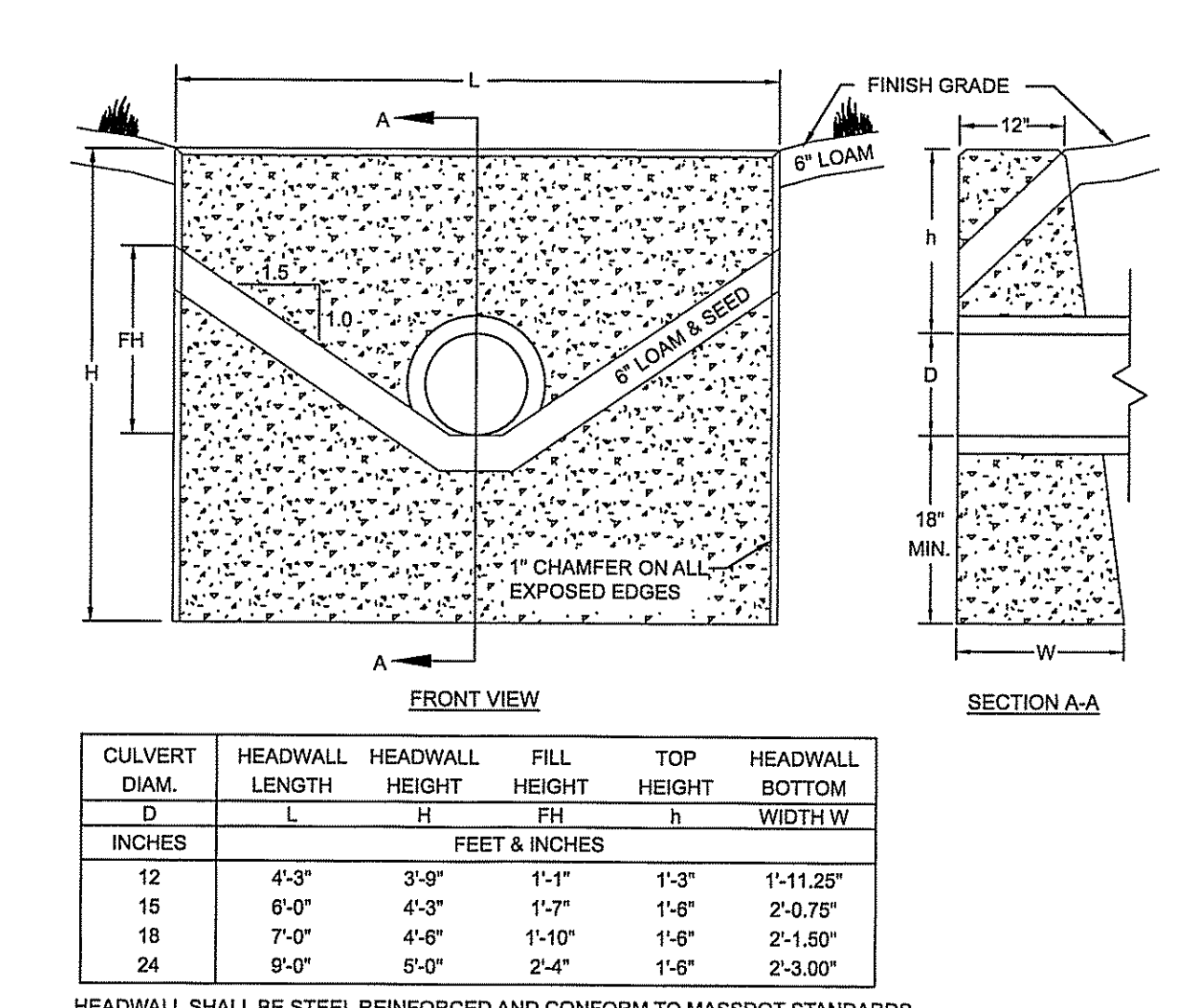
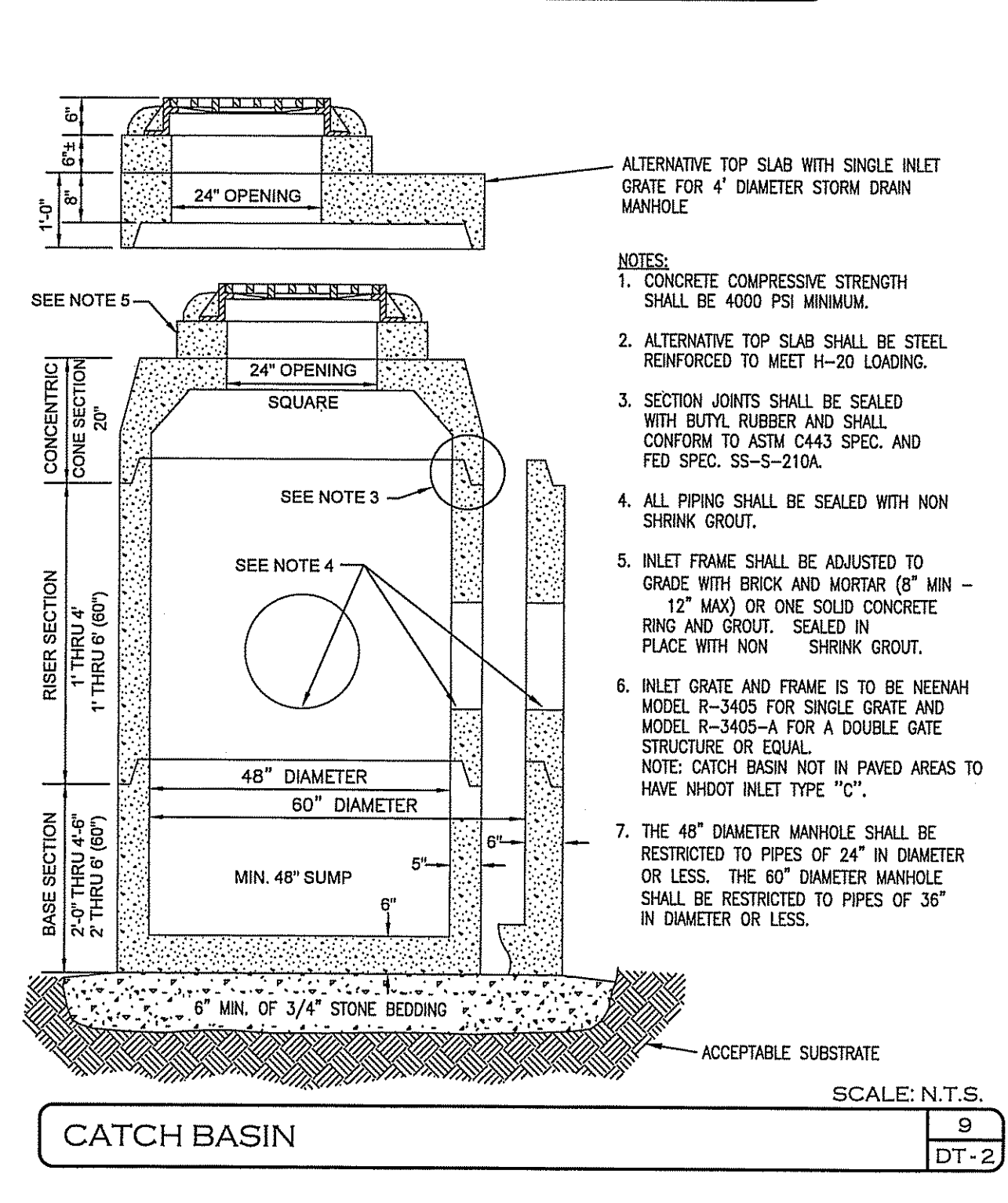
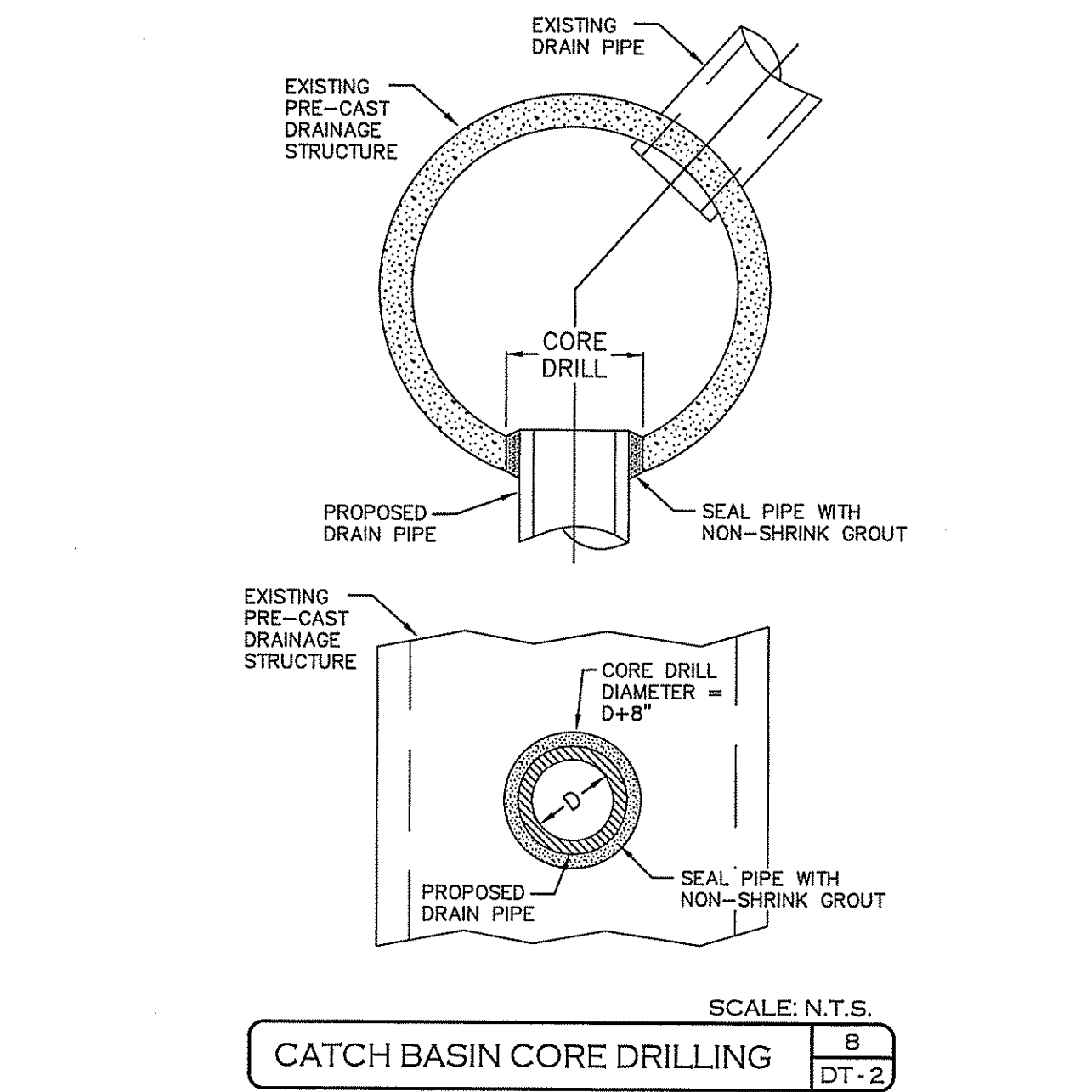
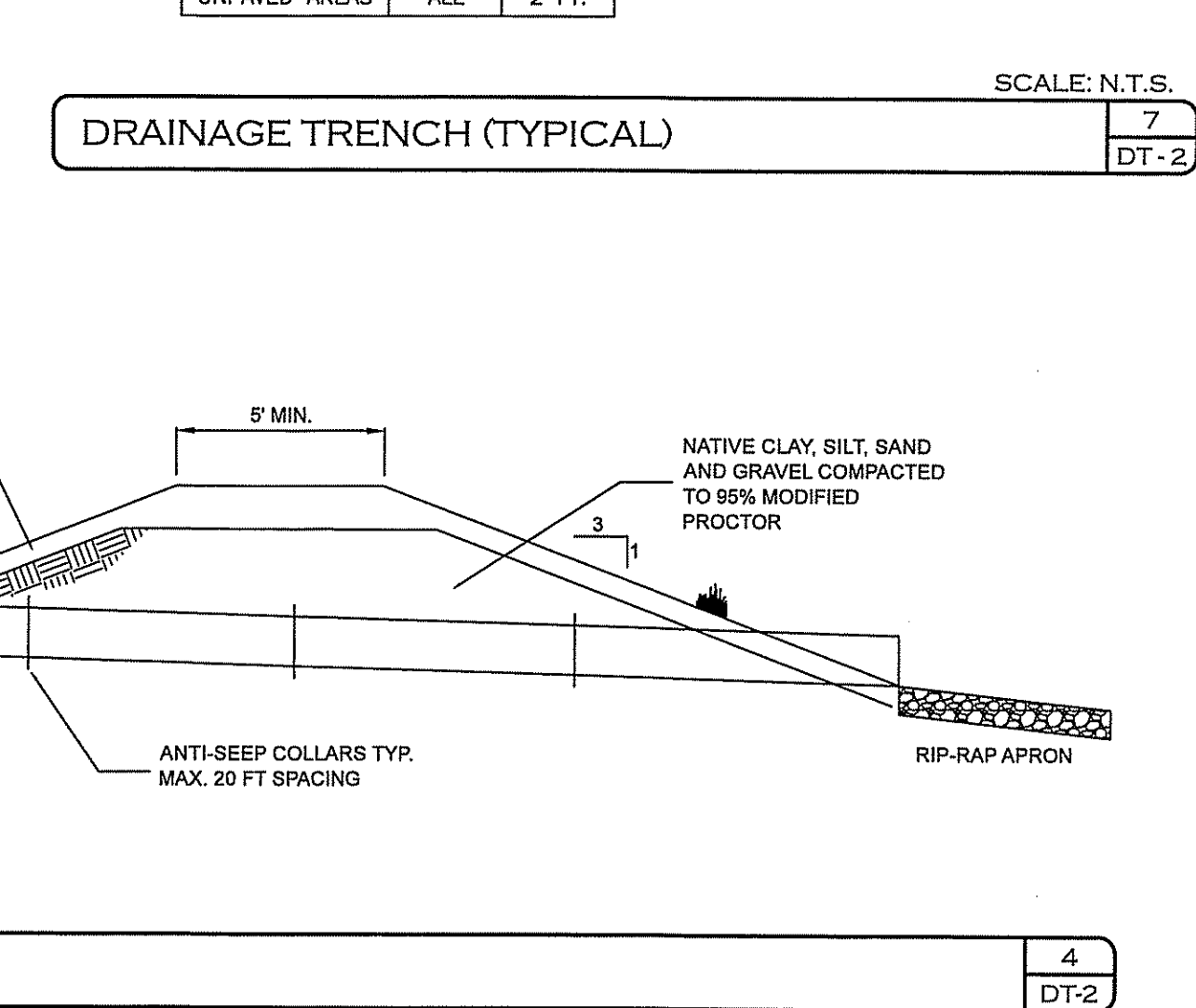
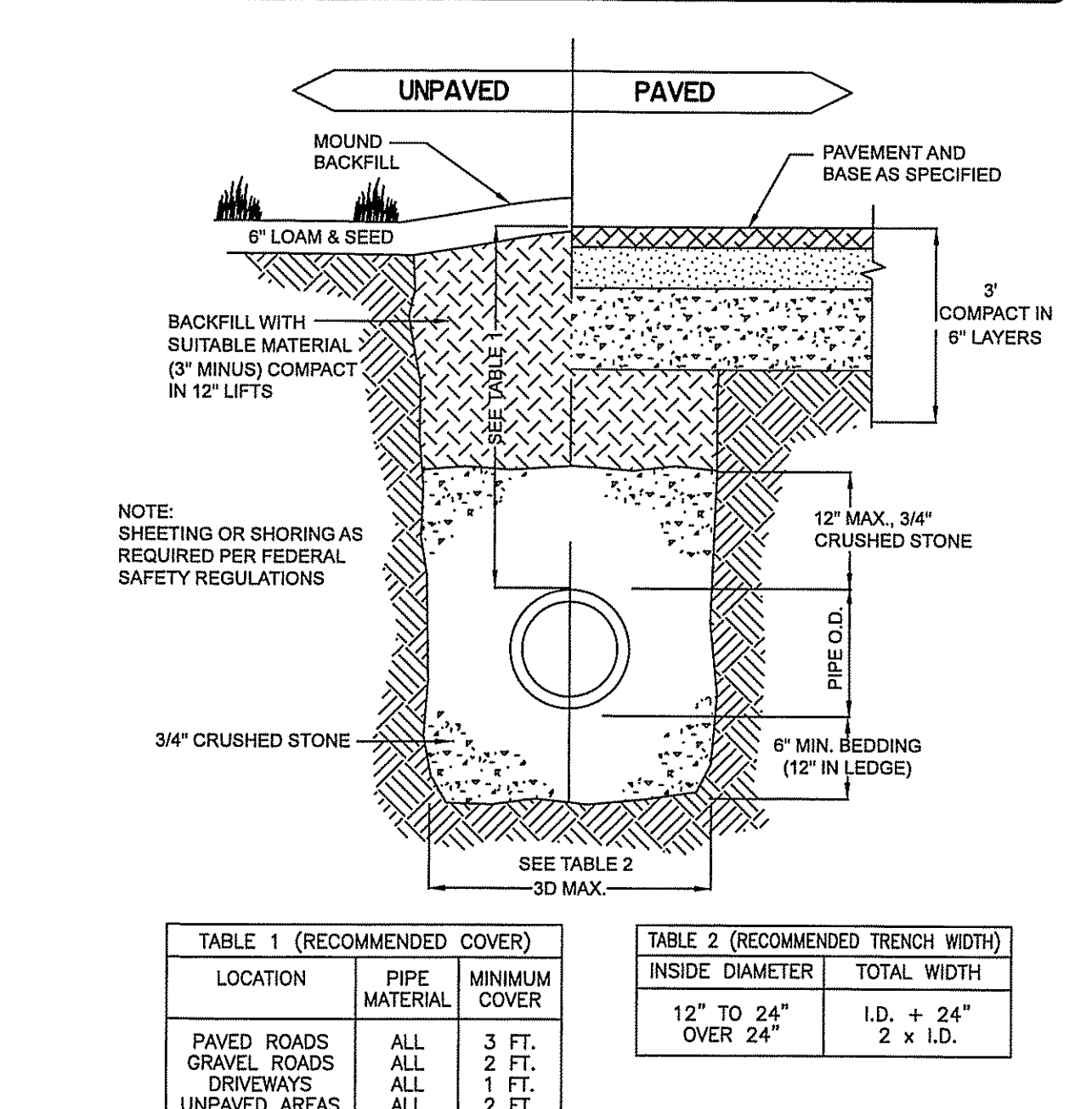
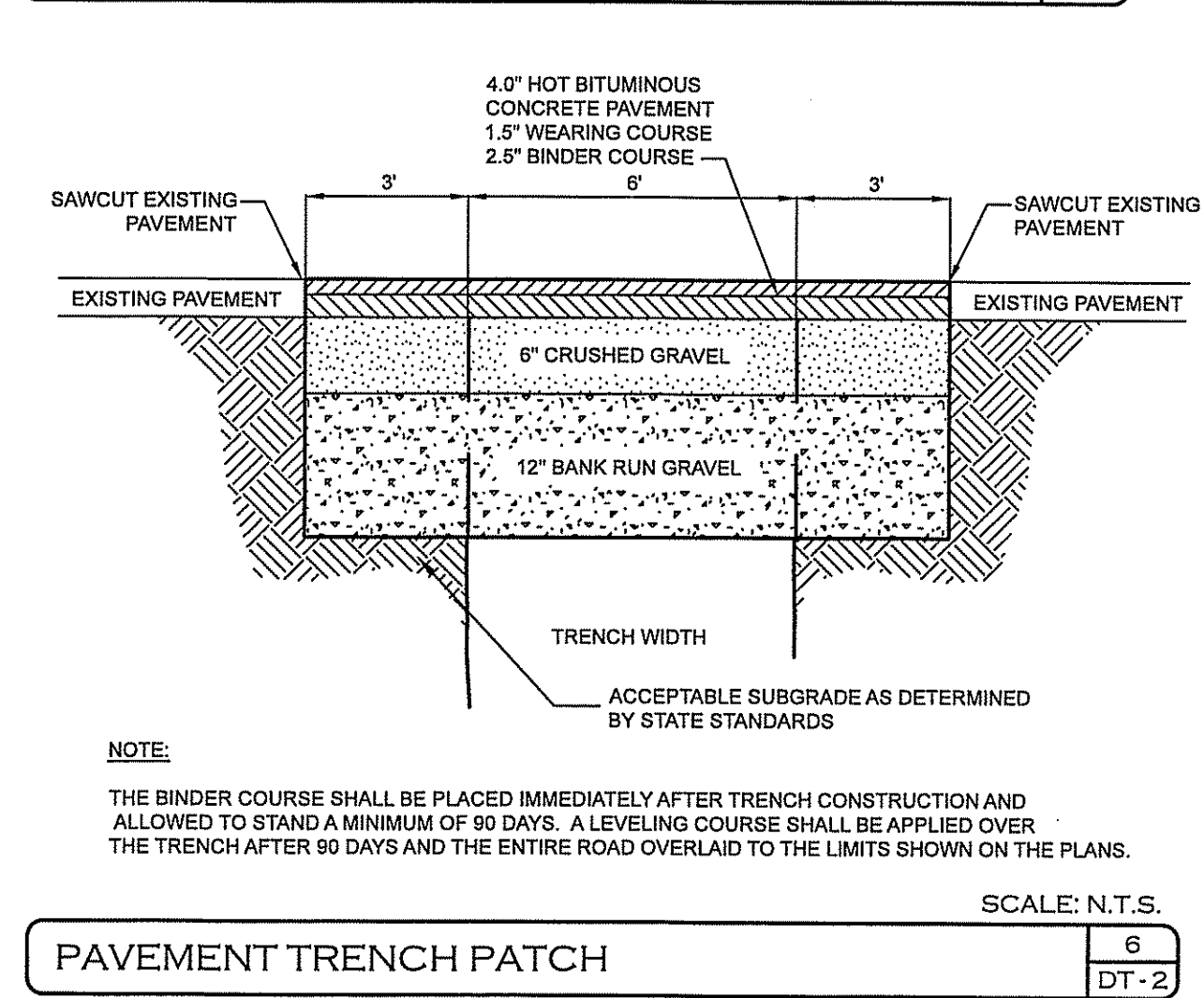
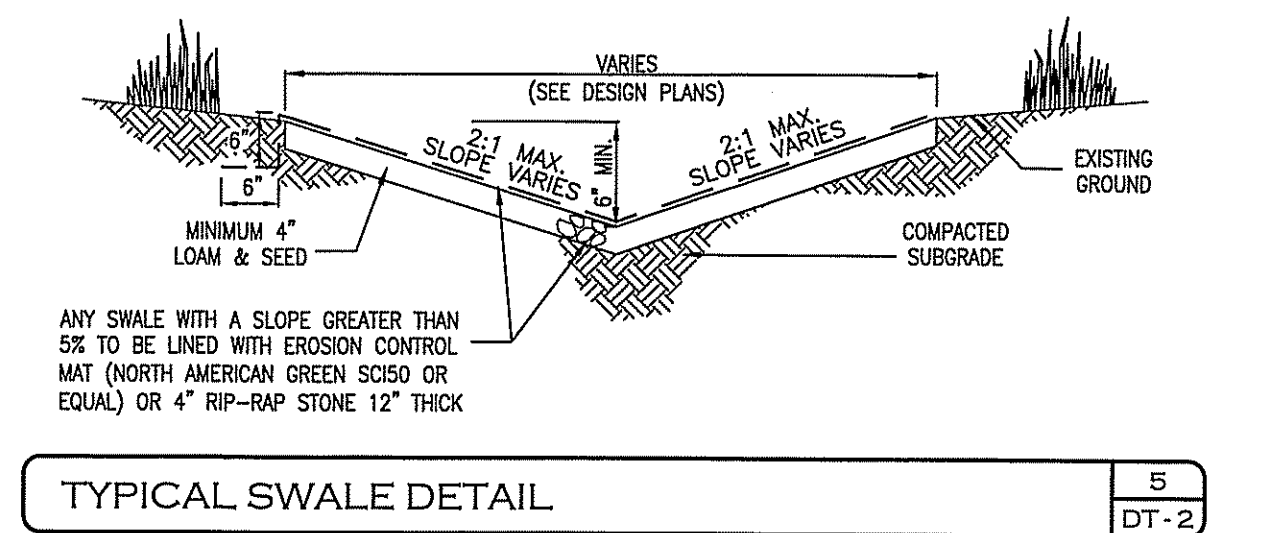
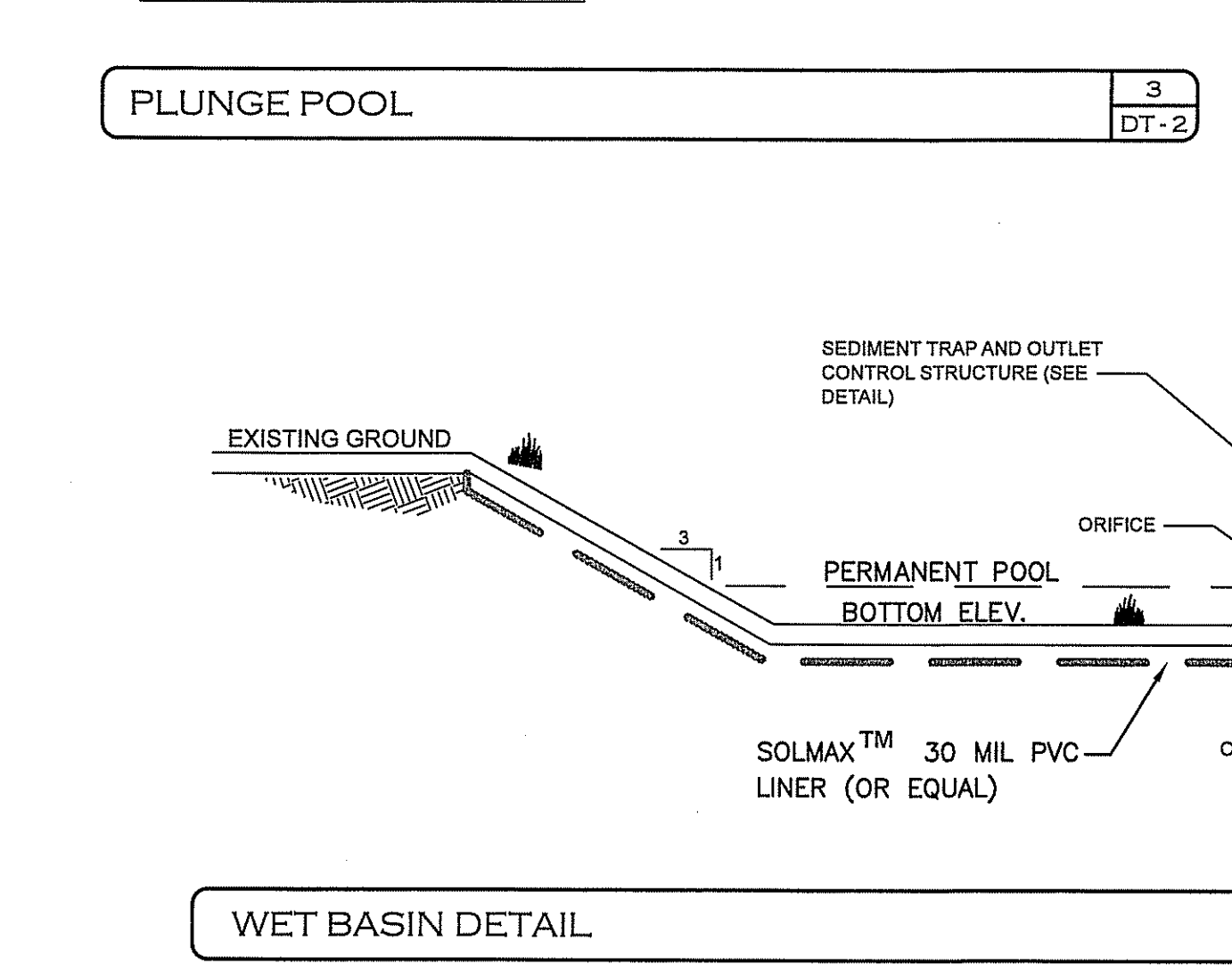
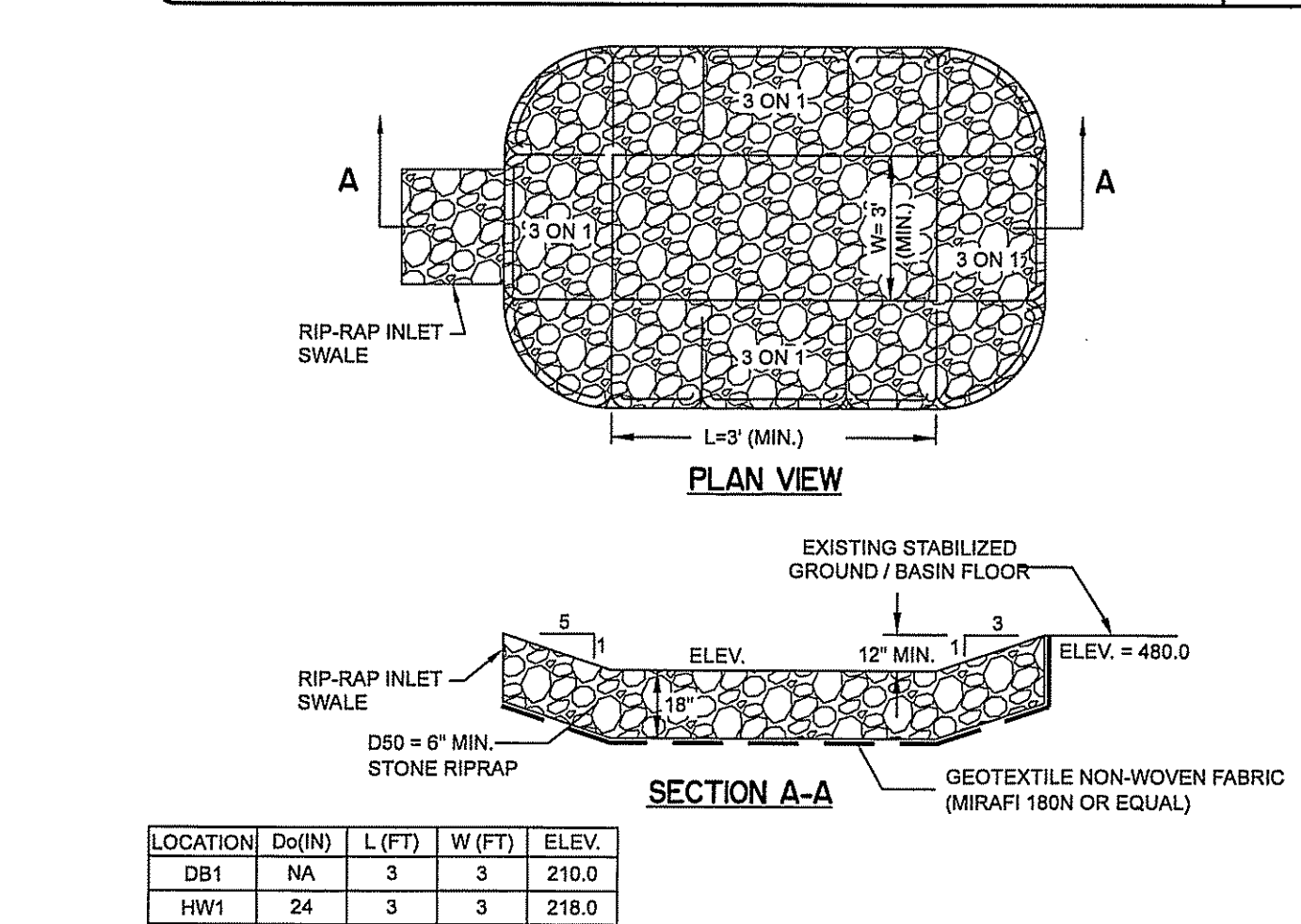
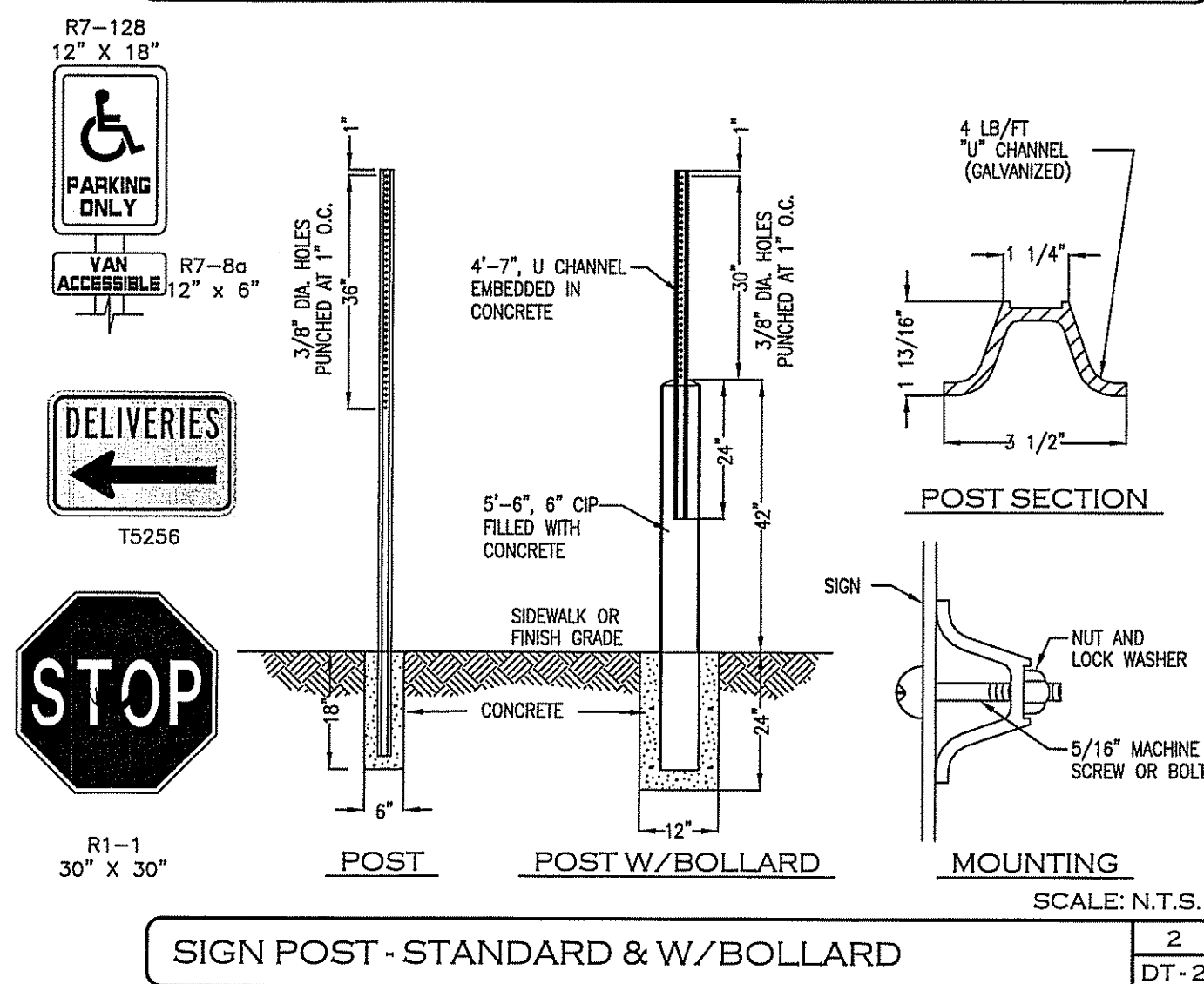
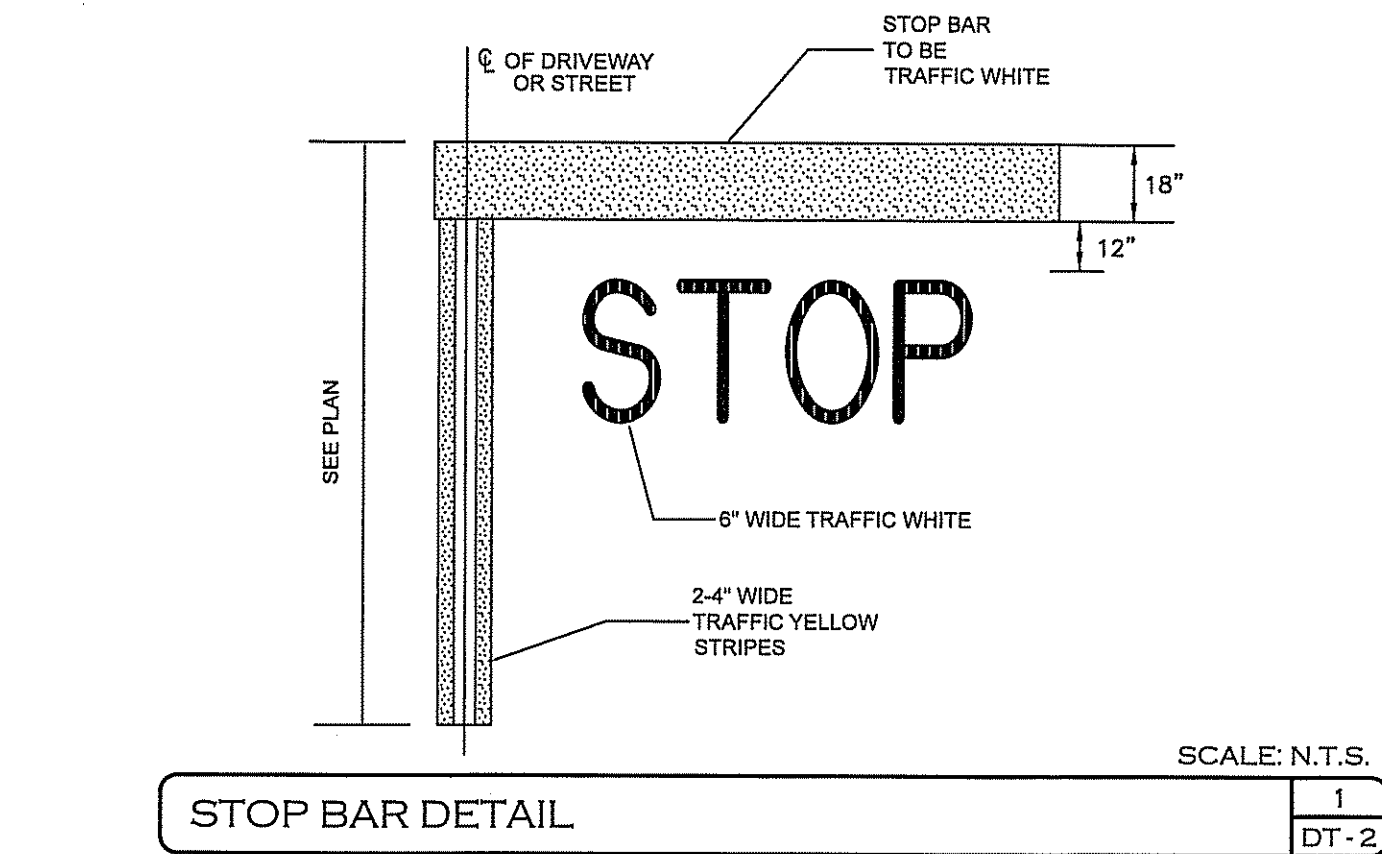
PREPARED FOR:
TRIPLE G PROPERTY LLC
59 BONANNO COURT, METHUEN, MA 01844

SCALE: NONE APRIL 4, 2022

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LOCATION	BASIN OUTLETS	STAGE 1	STAGE 2	A	B	C	D	E	F	G
Q51 (19P)	8" ORIFICE	190.0	193.2	197.0	199.0	200.0	186.0	184.0		
Q52 (21P)	12" ORIFICE	N/A	150.0	153.0	158.6	160.0	151.8	151.0		

SCALE: N.T.S.

11 DT-2

CONSTRUCTION DETAILS

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

PREPARED FOR:
TRIPLE G PROPERTY LLC
59 BONANNO COURT, METHUEN, MA 01844

SCALE: NONE APRIL 4, 2022

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FILE: 229501010.dwg PROJ. NO. 2295.01 SHEET: DT-2 PAGE NO. 21 OF 29

1. PRIOR TO STARTING ANY WORK ON THE SITE THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES.
2. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS THEREOF IN MASSACHUSETTS STORM WATER HANDBOOK, VOLUME 1-3, LATEST EDITION.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PER PLANS AND DETAILS. PERIMETER CONTROLS SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF EARTH DISTURBING ACTIVITIES.
4. INSTALL INLET PROTECTION AROUND ALL STORM DRAIN STRUCTURES. INLET PROTECTION BMP'S SHALL REMAIN UNTIL THE SITE IS STABILIZED. CONSTRUCTION OF DETENTION BASINS AND TREATMENT SWALES SHALL OCCUR PRIOR TO AN EARTH MOVING OPERATION THAT WILL INFLUENCE STORM WATER RUNOFF.
5. THE WORK AREA SHALL BE GRADED, SHAPED AND OTHERWISE DRAINED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE THE LIMITS OF THE WORK AREA.
6. EXISTING VEGETATION IS TO REMAIN UNDISTURBED WHEN POSSIBLE.
7. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE KEPT CLEAN DURING CONSTRUCTION. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EVERY 0.5-INCH OR GREATER RAINFALL. SEDIMENTS SHALL BE DISPOSED OF IN AN UPLAND AREA THAT WILL NOT CONTRIBUTE TO SEDIMENT OFF-SITE AND BE PERMANENTLY STABILIZED.
8. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION. AT NO TIME SHALL THE TOTAL UNSTABILIZED DISTURBED AREA, INCLUDING LOT DISTURBANCES, BE GREATER THAN FIVE (5) ACRES.
9. THE LAND AREA EXPOSED SHALL BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME. ALL NON-ACTIVE DISTURBED AREAS SHALL BE STABILIZED WITHIN 30 DAYS OF THE DISTURBANCE. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF FINAL GRADING.
10. DITCHES, SWALES AND DRAINAGE BASINS SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
11. AN AREA SHALL BE CONSIDERED STABILIZED IF ONE OF THE FOLLOWING HAS OCCURRED:
A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
C. A MINIMUM OF 3-INCHES OF NON-EROSIVE MATERIAL, SUCH AS STONE OR RIPRAP, HAS BEEN INSTALLED; OR
D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
12. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES THAT ARE STEEPER THAN 3:1 (HORIZONTAL / VERTICAL), UNLESS OTHERWISE SPECIFIED THE CONTRACTOR SHALL USE NORTH AMERICAN GREEN SC150, OR APPROVED EQUAL.
13. ALL AREAS RECEIVING EROSION CONTROL STONE OR RIPRAP SHALL HAVE A GEOTEXTILE MATERIAL INSTALLED BELOW THE STONE (SEE APPROPRIATE DETAILS).
14. ALL DISTURBED AREAS TO TURF FINISHED SHALL BE COVERED WITH A MINIMUM THICKNESS OF 6 INCHES OF COMPACTED LOAM. LOAM SHALL BE COVERED WITH THE APPROPRIATE SEED MIXTURE AS INDICATED BELOW:

PERMANENT SEED (LAWN AREAS)	LBS / 1,000 SQ. FT.	PERMANENT SLOPE SEED MIX	LBS / 1,000 SQ. FT.
CREeping RED FESCUE	0.92 LBS	CREeping RED FESCUE	0.80 LBS
PERENNIAL RYEGRASS	1.15 LBS	PERENNIAL RYEGRASS	0.69 LBS
KENTUCKY BLUEGRASS	0.88 LBS	REDTOP	0.12 LBS
REDTOP	0.12 LBS	ALSIKE CLOVER	0.12 LBS
		BIRDSFOOT TREFOIL	

**APPLICATION RATE TOTALS
2.8 LBS PER 1,000 SF**

**APPLICATION RATE TOTALS
1.68 LBS PER 1,000 SF**

15. TEMPORARY STABILIZATION OF DISTURBED AREAS:
STRIPPED SOIL SHALL BE STOCKPILED UNCOMPACTED, AND STABILIZED AGAINST EROSION AS OUTLINED BELOW.

SEED BED PREPARATION: 10-10-10 FERTILIZATION TO BE SPREAD AT THE RATE OF 7 LBS. PER 100 SF AND AGRICULTURAL LIMESTONE AT A RATE OF 90 LBS PER 1000 SF AND INCORPORATED INTO THE SOIL. THE SOIL, FERTILIZER AND LIMESTONE SHALL BE TILLED TO PREPARE FOR SEEDING.

SEED MIXTURE: USE ANY OF THE FOLLOWING:			
SPECIES	RATE PER 1,000 SF	DEPTH	SEEDING DATES
WINTER RYE	2.5 LBS	1 INCH	8/15 TO 9/15
OATS	2.5 LBS	1 INCH	4/15 TO 10/15
ANNUAL RYEGRASS	1.0 LBS	0.25 INCH	8/15 TO 9/15

MULCHING: MULCH SHOULD BE USED ON HIGHLY ERODIBLE AREAS, AND WHERE CONSERVATION OF MOISTURE WILL FACILITATE PLANT ESTABLISHMENT AS FOLLOWS:			
TYPE	RATE PER 1,000 SF	USE AND COMMENTS	
STRAW	70 TO 90 LBS	MAY BE USED WITH PLANTINGS, MUST BE ANCHORED TO BE USED ALONE	
WOOD CHIPS OR BARK MULCH	460 TO 920 LBS	USED WITH TREE AND SHRUB PLANTINGS	
FIBROUS MATTING	AS RECOMMENDED BY MANUFACTURER	MUST BE BIODEGRADABLE. USE IN SLOPE AREAS AND AREAS DIFFICULT TO VEGETATE	
CRUSHED STONE	SPREAD TO GREATER THAN 1/2" DIA. THAN 1/2" THICKNESS	USE IN SPECIFIC AREAS AS SHOWN ON PLAN OR AS NEEDED	

16. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE (CRITICAL TIME FRAMES OR VARIOUS SITES) THEN APPLY FERTILIZER AT A RATE OF 11 POUNDS PER 1,000 SF AND LIMESTONE AT A RATE OF 90 POUNDS PER 1,000 SF. FERTILIZER SHALL BE LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS).
17. CAUTION SHOULD BE TAKEN WHEN THE PROPERTY IS LOCATED WITHIN 250 FEET OF A WATER BODY. IN THIS CASE ALL FERTILIZERS SHALL BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER. SLOW RELEASE FERTILIZERS MUST BE AT LEAST 50% SLOW RELEASE NITROGEN COMPONENT. NO FERTILIZER EXCEPT LIMESTONE SHALL BE APPLIED WITHIN 25 FEET OF THE SURFACE WATER. THESE ARE REGULATED LIMITATIONS.
18. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS (SEE WINTER CONSTRUCTION NOTES). NO DISTURBED AREAS SHALL BE LEFT EXPOSED DURING THE WINTER MONTHS.
19. A VIGOROUS DUST CONTROL PROGRAM SHALL BE APPLIED BY THE SITE CONTRACTOR. DUST SHALL BE MANAGED THROUGH THE USE OF WATER AND/OR CALCIUM CHLORIDE. THE DUST CONTROL PROGRAM WILL INCLUDE A WATER APPLICATION TRUCK TO BE ON SITE DURING CONSTRUCTION AND AVAILABLE TO WET DOWN DUSTY SURFACES AS NEEDED DURING THE DAY. TYPICALLY WATER APPLICATION WILL BE FIRST THING BEFORE WORKS STARTS IN THE MORNING AND APPLIED AS NEEDED DEPENDING ON TRAFFIC AND WEATHER CONDITIONS.
20. IN NO WAY ARE THE MEASURES INDICATED ON THE PLANS OR IN THESE NOTES TO BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL USE JUDGMENT TO INSTALL ADDITIONAL EROSION CONTROL MEASURES AS SITE CONDITIONS, WEATHER OR CONSTRUCTION METHODS WARRANT.
21. FOLLOWING PERMANENT STABILIZATION, TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AND ACCUMULATED SEDIMENTATION IS TO BE DISPOSED OF IN AN APPROVED LOCATION, OUTSIDE OF JURISDICTIONAL WETLANDS.
22. LOT DISTURBANCE OTHER THAN SHOWN ON THE APPROVED PLANS, SHALL NOT COMMENCE UNTIL AFTER THE ROADWAY HAS THE BASE COURSE TO DESIGN ELEVATION AND THE ASSOCIATED DRAINAGE IS COMPLETE AND STABLE.
23. THE CONTRACTOR AND OWNER ARE RESPONSIBLE FOR OBSERVING AND MANAGING THE PROJECT PER RSA 430:83 AND AGR 3800 REGARDING INVASIVE SPECIES (PLANTS AND INSECTS). NO INVASIVE SPECIES PLANT OR INSECT SHALL BE INTRODUCED ONTO THE SITE.

EROSION CONTROL NOTES

1. INSTALL SILTATION CONTROL FENCES IN LOCATIONS SHOWN HEREON. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATION.
2. INSTALL STABILIZED CONSTRUCTION EXIT(S).
3. CUT AND CLEAR TREES; DISPOSE OF DEBRIS. STUMPS ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
4. REMOVE TOPSOIL AND STOCKPILE AWAY FROM ANY WETLAND. STABILIZE STOCKPILE IMMEDIATELY BY SEEDING. PLACE SILT FENCE AROUND THE DOWN SLOPE SIDE OF EARTH STOCKPILES.
5. ROUGH GRADE SITE - CONSTRUCT DRAINAGE BASINS AND DRAINAGE SWALES DURING INITIAL PORTION OF CONSTRUCTION. STABILIZE IMMEDIATELY PER THE CONSTRUCTION AND EROSION CONTROL DETAILS. DO NOT DIRECT STORM WATER RUNOFF TO THESE STRUCTURES UNTIL A HEALTHY VEGETATIVE COVER IS ESTABLISHED.
6. STABILIZATION OF STEEP SLOPES WILL BEGIN BY REMOVING MATERIALS AT THE TOP OF THE SLOPE DOWN TO PROPOSED GRADE. A BENCH HALFWAY DOWN THE SLOPE WILL BE GRADED IN FOR CONSTRUCTION VEHICLES. THE SLOPE AREA WILL BE BUILT FROM THE BOTTOM UP, STABILIZED WITH EROSION CONTROL MATTING AS DEPICTED ON EROSION CONTROL PLANS.
7. EXPOSE LEDGE AND COMMENCE BLASTING ACTIVITIES IN ACCORDANCE WITH THE BLASTING BEST MANAGEMENT PRACTICES SUMMARIZED HEREON. THE SLOPE OF THE LEDGE CUTS SHALL BE DEPENDENT ON THE COMPETENCY OF THE LEDGE ENCOUNTERED WITH A MAXIMUM RATE OF 1' HORIZ. TO 4' VERT.
8. BEGIN BUILDING CONSTRUCTION.
9. CONSTRUCT ROAD, PARKING AND BUILDING PADS. INSTALL UTILITIES AND STRUCTURES. ALL CUT AND FILL SLOPES SHALL BE STABILIZED UPON COMPLETION OF ROUGH GRADING PER THE EROSION CONTROL NOTES.
10. INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS AND AFTER EVERY 0.25" OR GREATER RAINFALL.
11. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, CULVERTS, DITCHES, SILTATION FENCES, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
12. FINISH GRADING TO PREPARE FOR PAVING AND LOAMING. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING.
13. FINISH PAVING. PERMANENT SEEDING SHALL BE PERFORMED UPON COMPLETION OF DRIVE AND PARKING AREA PAVING (SEE EROSION CONTROL NOTES).
14. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
15. TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED.
16. ALL STRUCTURES SHALL BE CLEANED OF SEDIMENTS ONCE CONSTRUCTION IS COMPLETE.

CONSTRUCTION SEQUENCE

THE FOLLOWING PROVIDES AN ITEMIZATION OF SPECIFIC SITE MAINTENANCE PRACTICES THAT WILL BE EMPLOYED ON THE SITE TO MINIMIZE POLLUTANT GENERATION AND TRANSPORT FROM THE SITE. THE SITE MAINTENANCE PROGRAM INCLUDES ROUTINE INSPECTIONS, PREVENTATIVE MAINTENANCE AND "GOOD HOUSEKEEPING" PRACTICES.

ROUTINE INSPECTIONS

1. THE CONTRACTOR SHALL INSPECT ALL CONTROL MEASURES AT LEAST ONCE A WEEK AND WITHIN TWELVE (12) HOURS OF THE END OF A STORM WITH RAINFALL AMOUNT GREATER THAN 0.5 INCHES. THE INSPECTIONS WILL VERIFY THAT THE STRUCTURAL BMP'S DESCRIBED IN THE PLANS ARE IN GOOD CONDITION AND ARE MINIMIZING EROSION. A MAINTENANCE INSPECTION REPORT WILL BE MADE WITH EACH INSPECTION. COMPLETED INSPECTION FORMS SHALL BE KEPT ON-SITE FOR THE DURATION OF THE PROJECT. FOLLOWING CONSTRUCTION, THE COMPLETED FORMS SHALL BE RETAINED AT THE CONTRACTOR'S OFFICE FOR A MINIMUM OF ONE YEAR.

PREVENTATIVE MAINTENANCE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL TEMPORARY AND PERMANENT CONTROLS THROUGHOUT THE DURATION OF THIS CONTRACT. MAINTENANCE PRACTICES SHALL INCLUDE BUT ARE NOT LIMITED TO:

1. CLEANING OF CATCH BASINS TWICE A YEAR OR MORE FREQUENTLY AS DICTATED BY QUARTERLY INSPECTIONS.
2. CLEANING OF SEDIMENT AND DEBRIS FROM STORMWATER MANAGEMENT AREA FOREBAY TWICE A YEAR OR MORE FREQUENTLY AS DICTATED BY MONTHLY INSPECTIONS.
3. IMPLEMENTATION OF OTHER MAINTENANCE OR REPAIR ACTIVITIES AS DEEMED NECESSARY BASED ON WEEKLY INSPECTIONS.
4. REMOVAL OF BUILT UP SEDIMENT ALONG SILT FENCES AND / OR HAY BALE BARRIERS.
5. REMOVAL OF BUILT UP SEDIMENT IN BOTH TEMPORARY AND PERMANENT CONTROLS SUCH AS GRASS SWALES, SEDIMENT FOREBAYS AND RECHARGE / DETENTION BASINS.
6. RECONSTRUCTING THE STABILIZED CONSTRUCTION ENTRANCE IF NOT WORKING PROPERLY.
7. TREATMENT OF NON-STORM WATER DISCHARGES SUCH AS WATER FROM WATER LINE FLUSHINGS OR GROUNDWATER FROM DEWATERING EXCAVATIONS. SUCH FLOWS SHOULD BE DIRECTED TO A TEMPORARY SEDIMENTATION BASIN OR STORM WATER MANAGEMENT AREA.

8. SWEEP PARKING LOTS AND DRIVES REGULARLY TO MINIMIZE SEDIMENT ACCUMULATION. FREQUENCY WILL VARY SEASONALLY ACCORDING TO SEDIMENT ACCUMULATION ON PAVED SURFACES. (E.G. MORE FREQUENT SWEEPING DURING THE WINTER AND SPRING). AFFECTED ROADWAYS, INCLUDING THE SPIT BROOK ROAD AND TARKEN BOULEVARD INTERSECTION SHOULD BE SWEEP AS NECESSARY TO ENSURE THERE IS NO ACCUMULATION OF SEDIMENT.

GOOD HOUSEKEEPING PRACTICES

THE CONTRACTOR SHALL EMPLOY MEASURES AND PRACTICES TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS TO STORM AND WATER RUNOFF. THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO THE HANDLING, USE AND DISPOSAL OF MATERIALS SUCH AS PETROLEUM PRODUCTS, FERTILIZERS AND PAINTS TO ENSURE THAT THE RISK ASSOCIATED WITH THESE PRODUCTS IS MINIMIZED. THE FOLLOWING "GOOD HOUSEKEEPING" PRACTICES SHALL BE FOLLOWED DURING THE CONSTRUCTION OF THE PROJECT:

- A. AN EFFORT SHALL BE MADE TO STORE ONLY ENOUGH PRODUCT TO DO THE JOB.
- B. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS, AND IS POSSIBLE UNDER A ROOF OR ENCLOSURE.
- C. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THEIR MANUFACTURER'S LABELS.
- D. WHENEVER POSSIBLE, ALL OF A PRODUCT SHALL BE USED BEFORE DISPOSING OF THE CONTAINER.
- E. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED.
- F. THE CONTRACTOR SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.

SPILL PREVENTION AND PRACTICES

- A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
- B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. MATERIALS AND EQUIPMENT WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
- D. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- E. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
- F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

SITE MAINTENANCE AND INSPECTION PROGRAM

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

2. [APPLIES TO ALL BLASTING] THE FOLLOWING BEST MANAGEMENT PROCEDURES FOR BLASTING SHALL BE COMPLIED WITH:

- (1) LOADING PRACTICES. THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:

- (A) DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.

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

- (C) SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.

- (D) LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.

- (E) LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.

- (F) EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.

- (2) EXPLOSIVE SELECTION. THE FOLLOWING BMP'S SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:

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

- (B) EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.

- (3) PREVENTION OF MISFIRES. APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.

- (4) MUCK PILE MANAGEMENT. MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:

- (A) REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.

- (B) MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.

- (5) SPILL PREVENTION MEASURES AND SPILL MITIGATION. SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:

- (A) THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:

1. STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE;
2. SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY;
3. LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY;
4. INSPECT STORAGE AREAS WEEKLY;
5. COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS;
6. WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS; AND
7. SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.

- (B) THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:

1. EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED;
2. PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS;
3. HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS;
4. USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES; AND
5. PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.

- (C) THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.

- (D) FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT" OR ITS SUCCESSOR DOCUMENT. (SEE [HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/PIP/FACTSHEETS/DWGB/DOCUMENTS/DWGB-22-6.PDF](http://des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-6.pdf)

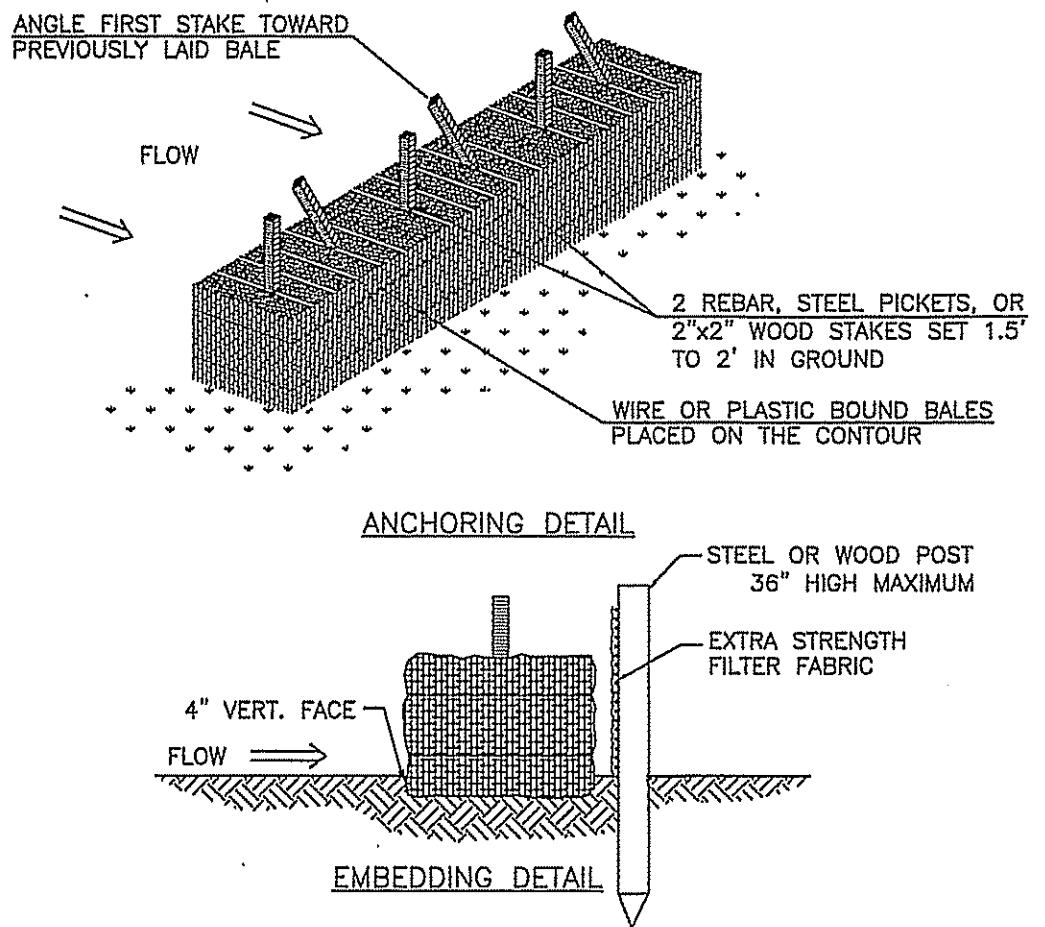
BLASTING NOTES

1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE 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 INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

2. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED 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.

3. 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 OR PROPERLY INSTALLED EROSION CONTROL BLANKETS COVERED WITH HAY. OTHER STABILIZATION OPTIONS ARE TO BE APPROVED BY THE APPROPRIATE AGENCIES AND THE DESIGN ENGINEER. IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER MONTHS THEN THE ROAD SHOULD BE CLEARED OF ACCUMULATED SNOW AFTER EACH STORM EVENT.

WINTER CONSTRUCTION NOTES



INSTALLATION SPECIFICATIONS:

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARDS PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAW BALE BARRIER DETAIL

CONTACT DIG SAFE
72 HOURS PRIOR
TO CONSTRUCTION
DIGSAFE.COM
OR DIAL 8 1 1
IT'S SMART, IT'S FREE, IT'S THE LAW

DigSafe
NAME/NUMBER

A	7/22/22	REVISED PER CONSERVATION COMMISSION		CLR	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

EROSION CONTROL NOTES

PIE HILL

WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR:

TRIPLE G PROPERTY LLC

59 BONANNO COURT, METHUEN, MA 01844

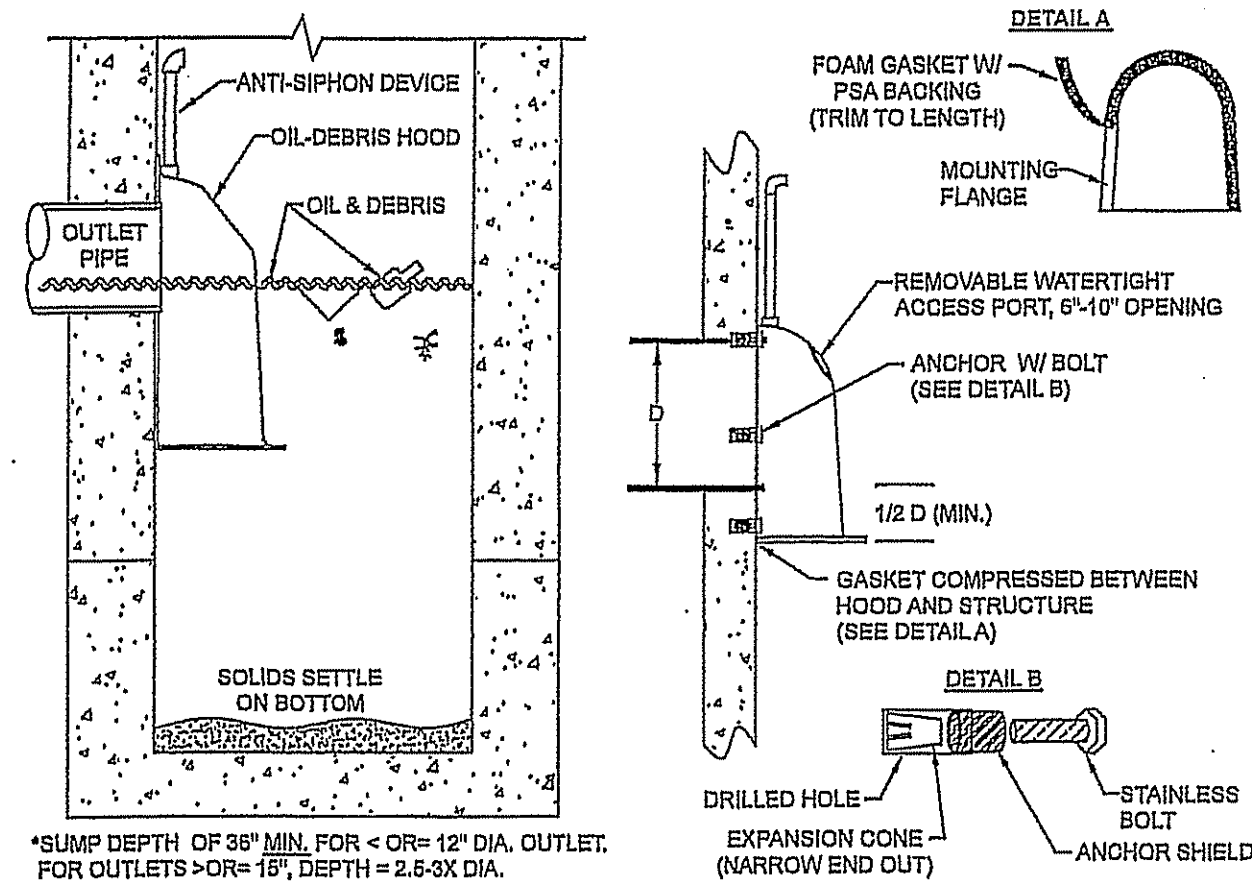
SCALE: NONE

Surveying + Engineering + Land Planning + Permitting + Septic Designs

FIELDSTONE

LAND CONSULTANTS, PLLC

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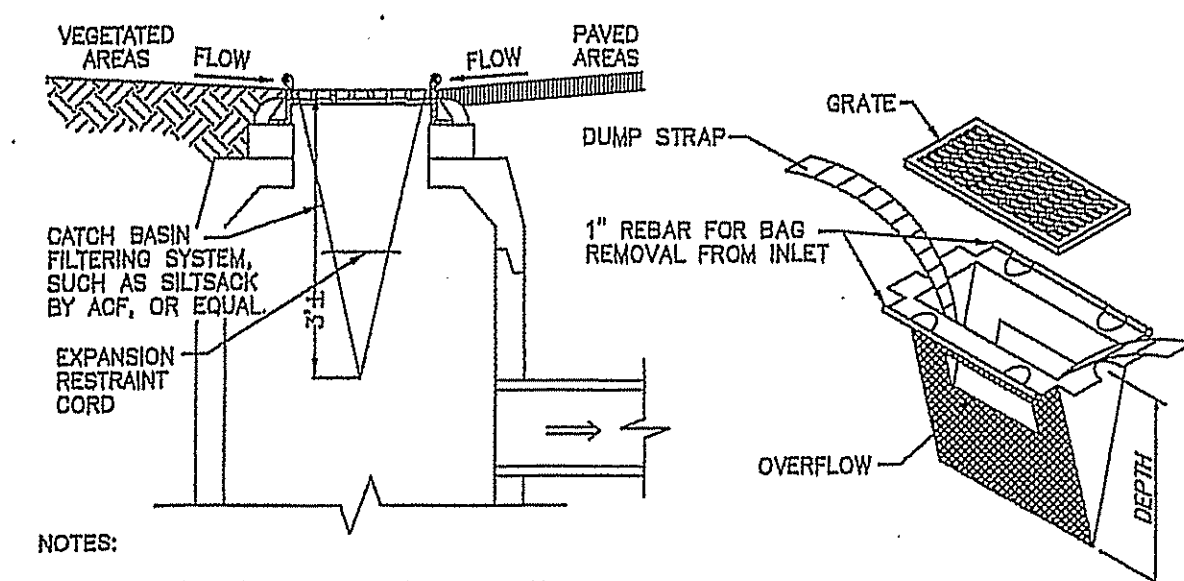
STRUCTURE OUTLET HOLE SIZE	HOOD SIZE
11.9" O.D. OR LESS	12 F or R
12.0"-17.9" O.D.	18 F or R
18.0"-23.9" O.D.	24 F or R
24.0"-29.9" O.D.	30 F or R
30.0"-47.9" O.D.	48 F
48.0"-55.9" O.D.	56 F

F: FLAT WALL STRUCTURE
R: ROUND WALL STRUCTURE

NOTES:

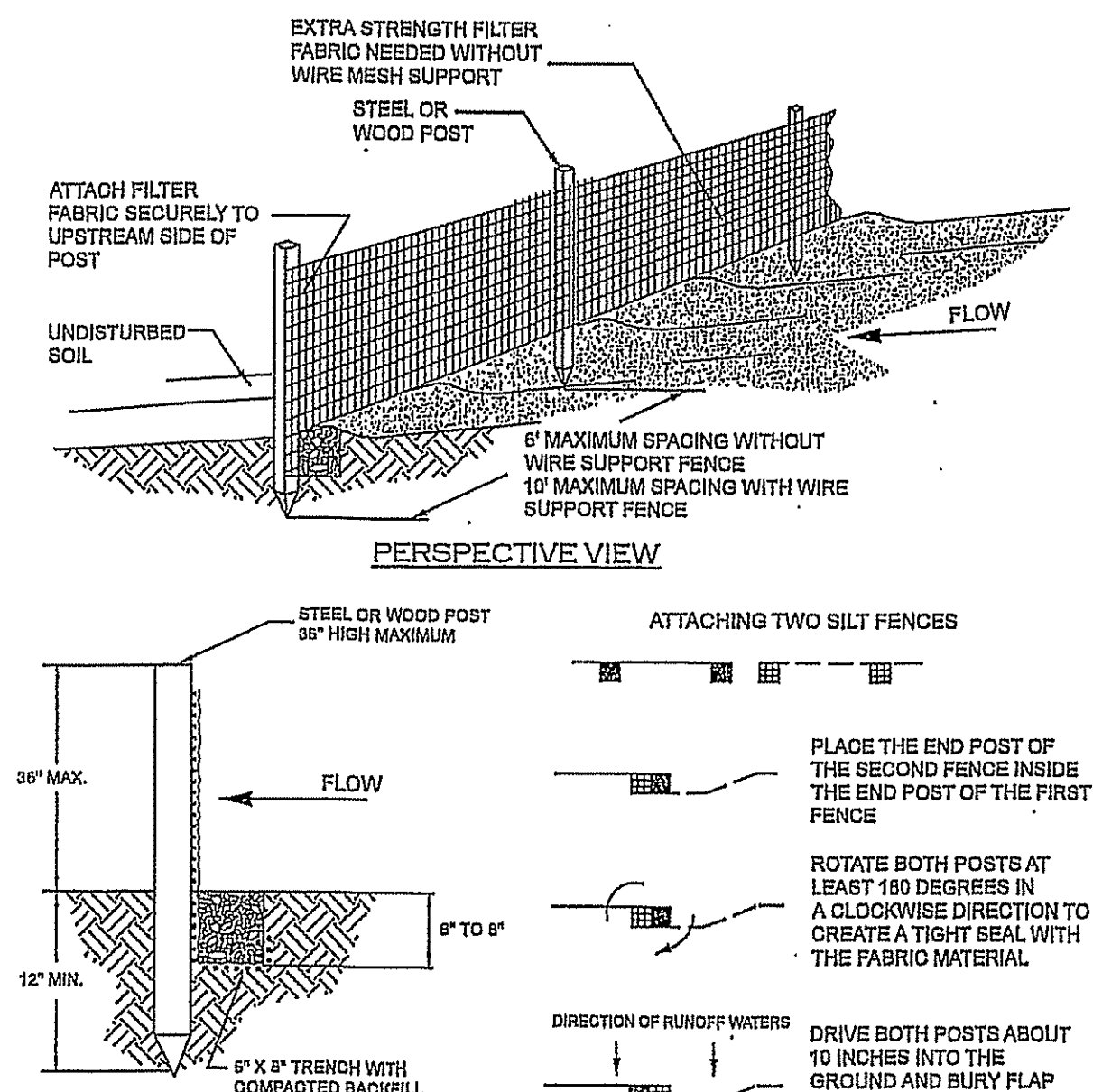
- ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
- THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
- THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES < 12" I.D.
- THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
- THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND THE PIPE SHALL BE TRIMMED FLUSH TO WALL.
- THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY BEST MANAGEMENT PRODUCTS, INC., LYME, CT OR EQUAL.

OIL - DEBRIS HOOD 1 DT-4

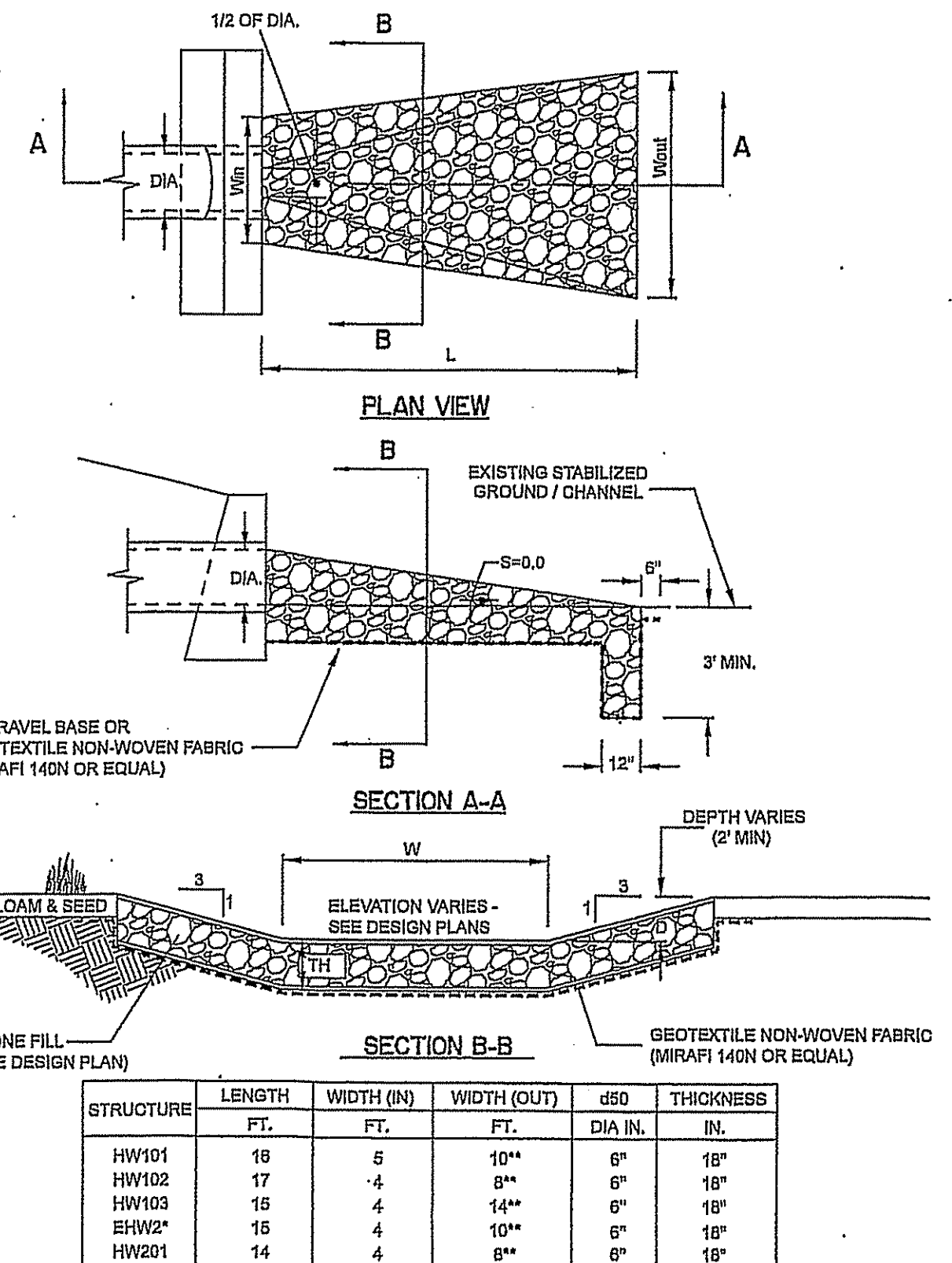


- NOTES:**
- INSTALL AND MAINTAIN SACKS IN ALL CATCH BASINS.
 - TO INSTALL SACK, REMOVE CATCH BASIN GRATE AND PLACE SACK IN OPENING. HOLD OUT APPROXIMATELY SIX INCHES OF THE SACK OUTSIDE THE FRAME FOR THE LIFTING STRAPS. REPLACE THE GRATE TO HOLD THE SACK IN PLACE.
 - THE SACK SHOULD BE INSPECTED AFTER EVERY STORM, OR ONCE EVERY TWO WEEKS, WHICH EVER OCCURS FIRST.
 - THE RESTRAINT CORD SHOULD BE VISIBLE AT ALL TIMES. IF THE CORD IS COVERED WITH SEDIMENT, THE SACK SHOULD BE EMPTIED. EMPTY THE SACK AWAY FROM THE CATCH BASIN TO PREVENT SEDIMENT FROM RE-ENTERING THE CATCH BASIN. EMPTY THE SACK PER THE MANUFACTURER'S RECOMMENDATIONS.
 - REPLACE THE SACK IN THE CATCH BASIN AFTER THE SACK HAS BEEN EMPTIED. ONCE CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED BY PAVING OR A HEALTHY VEGETATIVE COVER, REMOVE THE SACK FROM THE CATCH BASINS.

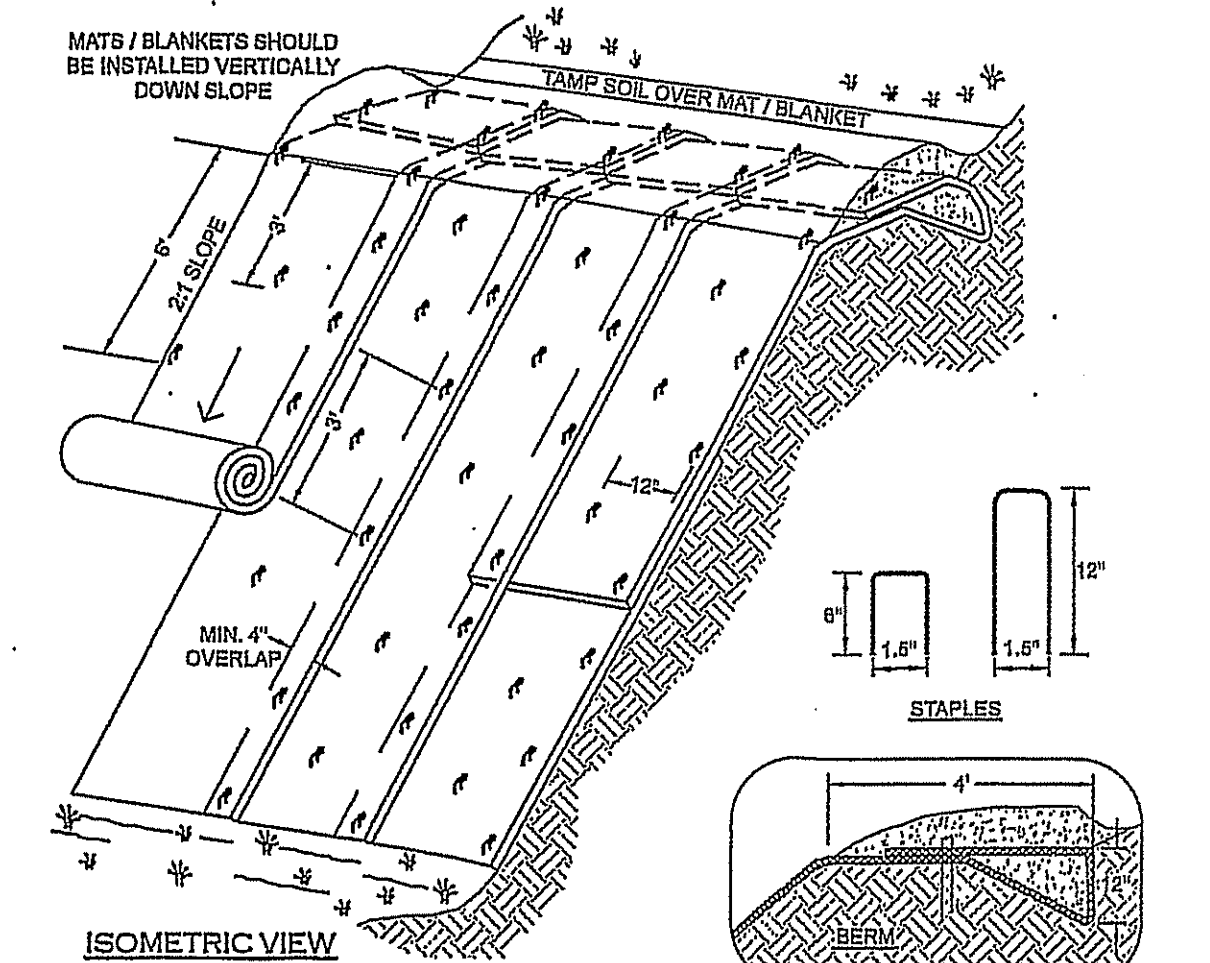
SILT SACK SEDIMENT FILTER 2 DT-4



SILT FENCE 3 DT-4

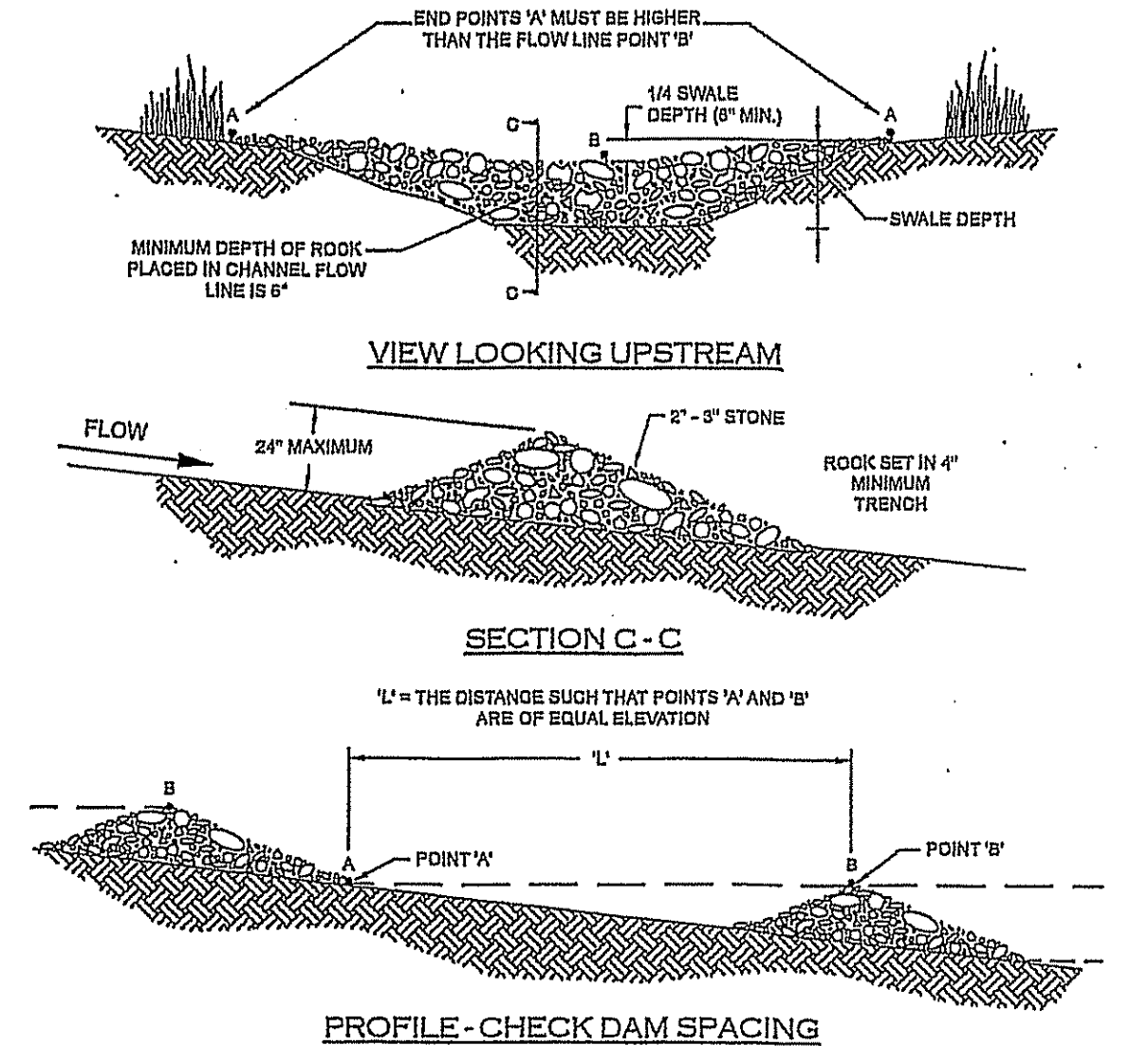


RIP-RAP OUTLET PROTECTION 4 DT-4



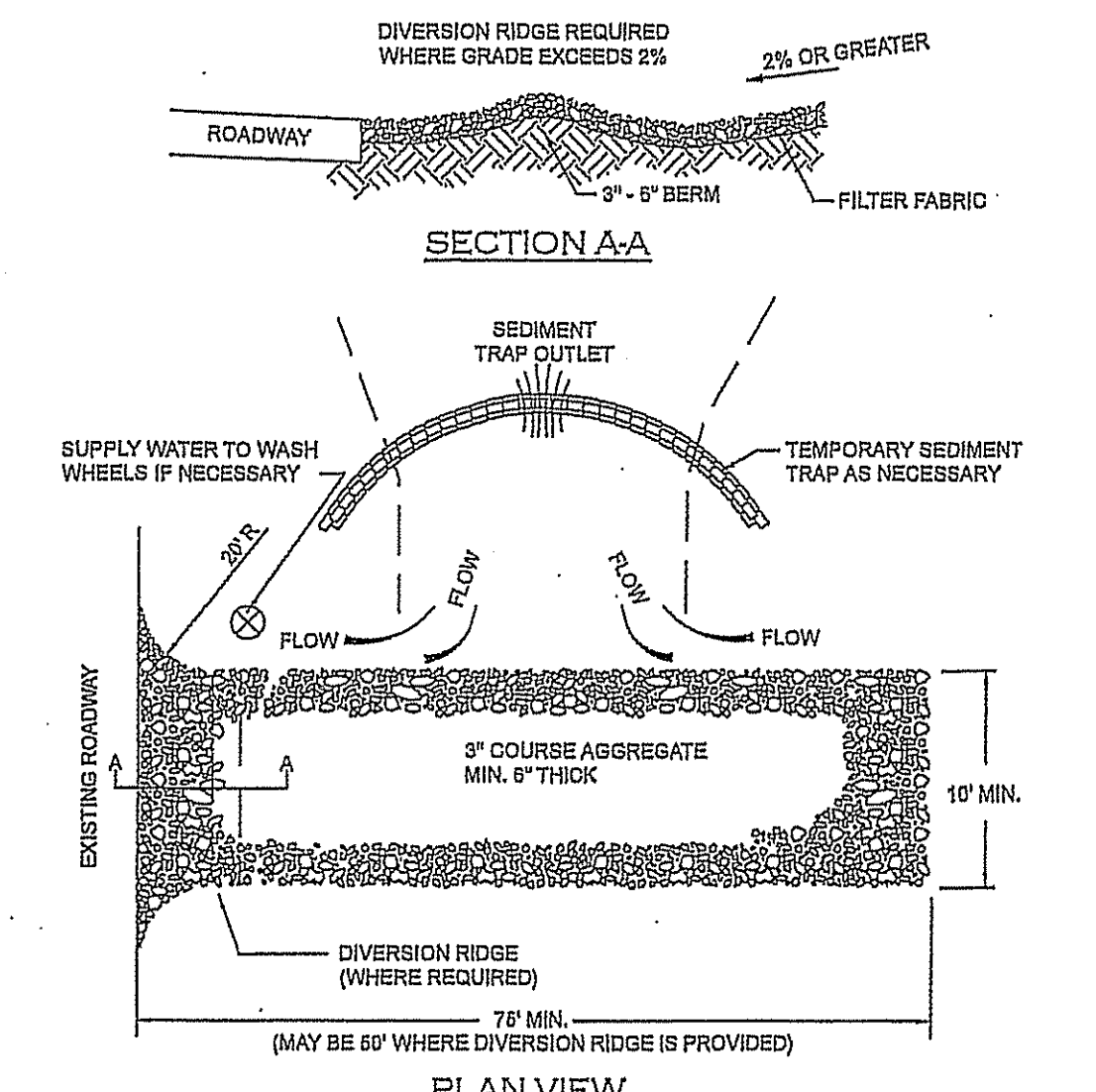
- DIMENSIONS GIVEN IN THIS DETAIL ARE EXAMPLES; DEVICE SHOULD BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- INSTALL STRAW/OCCOONUT FIBER EROSION CONTROL MAT SUCH AS NORTH AMERICAN GREEN SC180 BN OR EQUAL ON ALL SLOPES EXCEEDING 3" HORIZ. 1" VERT.
- THE EROSION CONTROL MATERIAL(S) SHALL BE ANCHORED WITH "U" SHAPED 11 GAUGE WIRE STAPLES OR WOODEN STAKES WITH A MINIMUM TOP WIDTH OF 1 INCH AND LENGTH OF 6 INCH.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS / BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- APPLY LIME, FERTILIZER AND PERMANENT SEEDING BEFORE PLACING BLANKETS.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET AS SHOWN. ROLL THE BLANKETS DOWN THE SLOPE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES OR STAKES IN APPROPRIATE LOCATIONS. REFER TO MANUFACTURER'S STAPLE GUIDE FOR CORRECT STAPLE PATTERN.
- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
- IN LOOSE SOIL CONDITIONS THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6 INCHES MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
- THE CONTRACTOR SHALL MAINTAIN THE BLANKET UNTIL ALL WORK ON THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MAINTENANCE SHALL CONSIST OF THE REPAIR OF AREAS WHERE DAMAGED BY ANY CAUSE. ALL DAMAGED AREAS SHALL BE REPAIRED TO REESTABLISH THE CONDITIONS AND GRADE OF THE SOIL PRIOR TO APPLICATION OF THE COVERING AND SHALL BE RESEEDING, RESEEDING AND REMULCHED AS DIRECTED.

EROSION BLANKETS - SLOPE INSTALLATION 5 DT-4



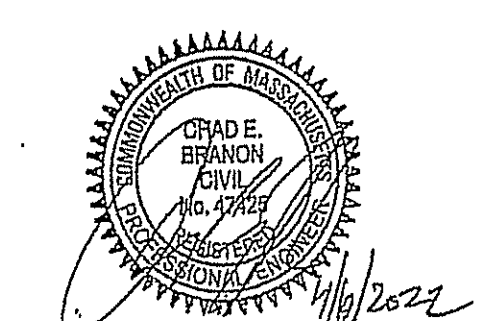
- NOTES:**
- STONE CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
 - THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE CHECK DAM SHOULD BE LESS THAN ONE ACRE.
 - STONE CHECK DAMS SHOULD NOT BE USED IN A FLOWING STREAM.
 - STONE CHECK DAMS SHOULD BE CONSTRUCTED OF WELL-GRADED ANGULAR 2 TO 3 INCH STONE. THE INSTALLATION OF 3/4-INCH STONE ON THE UPGRADIENT FACE IS RECOMMENDED FOR BETTER FILTERING.
 - WHEN INSTALLING STONE CHECK DAMS THE CONTRACTOR SHALL KEY THE STONE INTO THE CHANNEL BANKS AND EXTEND THE STONE BEYOND THE ABUTMENTS A MINIMUM OF 16-INCHES TO PREVENT FLOW AROUND THE DAM.
 - STONE CHECK DAMS SHOULD BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED UNLESS OTHERWISE SPECIFIED.

STONE CHECK DAM 6 DT-4



- NOTES:**
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 - 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.
 - THE GEOTEXTILE FILTER FABRIC SHOULD BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW THE PAD.
 - THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
 - NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHOULD BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.
 - WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

GRAVEL CONSTRUCTION EXIT 7 DT-4



EROSION CONTROL DETAILS

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

PREPARED FOR:
TRIPLE G PROPERTY LLC
59 BONANNO COURT, METHUEN, MA 01844

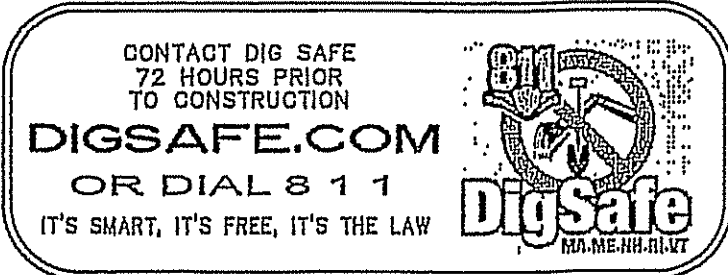
SCALE: NONE APRIL 4, 2022

Surveying + Engineering + Land Planning + Permitting + Septic Designs

FIELDSTONE LAND CONSULTANTS PLLC

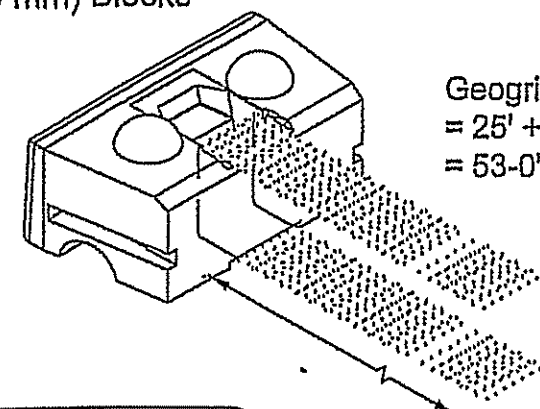
206 Elm Street, Milford, NH 03055
Phone: (603) 672-5456 Fax: (603) 413-5456
www.FieldstoneLandConsultants.com

FILE: 2295D01.dwg PROJ. NO. 2295.01 SHEET: DT-4 PAGE NO. 23 OF 29



LOAD CONDITION CR | 12 CREST SLOPE, 10' (3.0m) HIGH, 250 lb/ft² (12 kPa) BURCHARGE AT CREST

17 BLOCK HIGH SECTION
(17) 28" (710 mm) Blocks



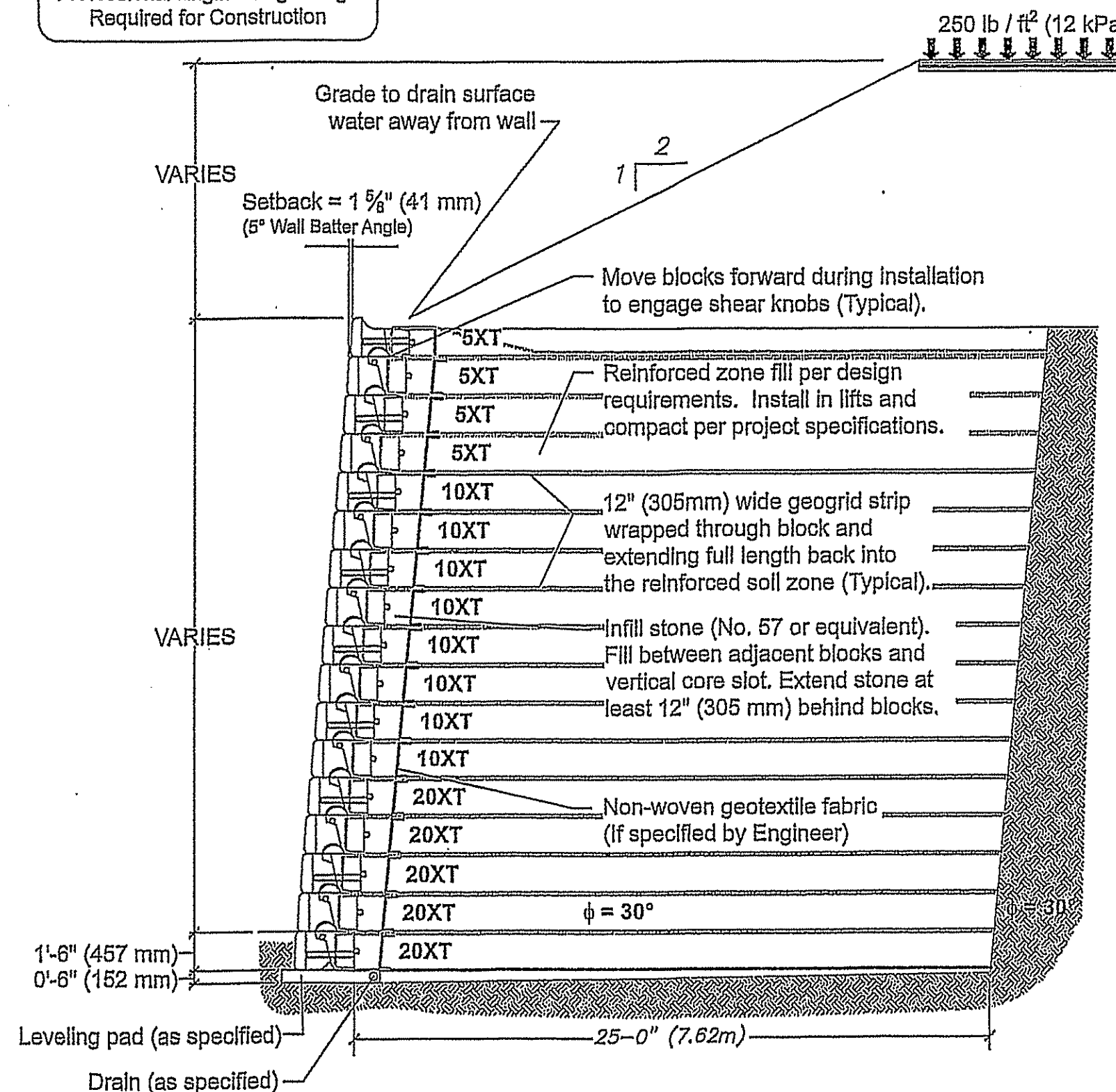
Geogrid out length:
= 25' + 25' + 3'
= 53'-0" (16.15m)

REDI-ROCK
OR EQUAL

Geogrid Rolls Required per Wall Length		
Type	Rolls / linear ft	Rolls / linear m
5XT	± 0.35	± 1.14
10XT	± 0.69	± 2.28
20XT	± 0.43	± 1.42

Geogrid shall be 12" (305 mm) wide strips of Mirafi geogrid, type as noted. Geogrid shall be factory cut and certified for width and strength by TenCate Mirafi.

PRELIMINARY
Professional Engineering Design
Required for Construction



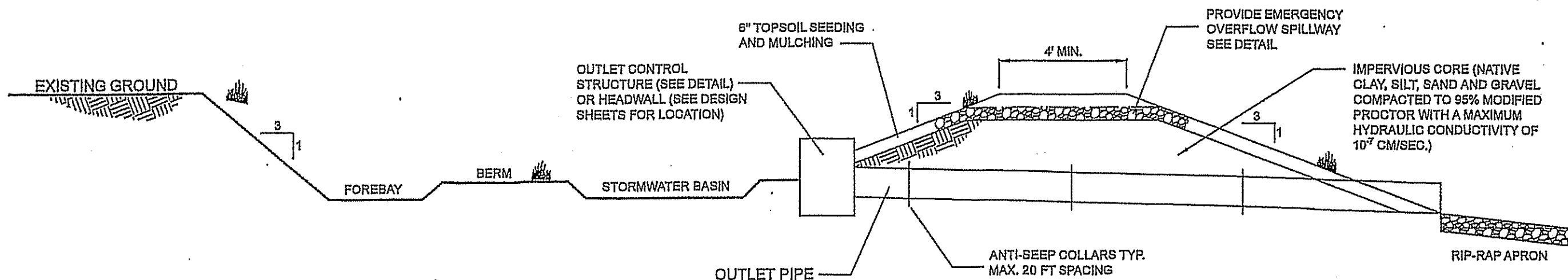
Preliminary Wall Section

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DT-5

RETAINING WALL

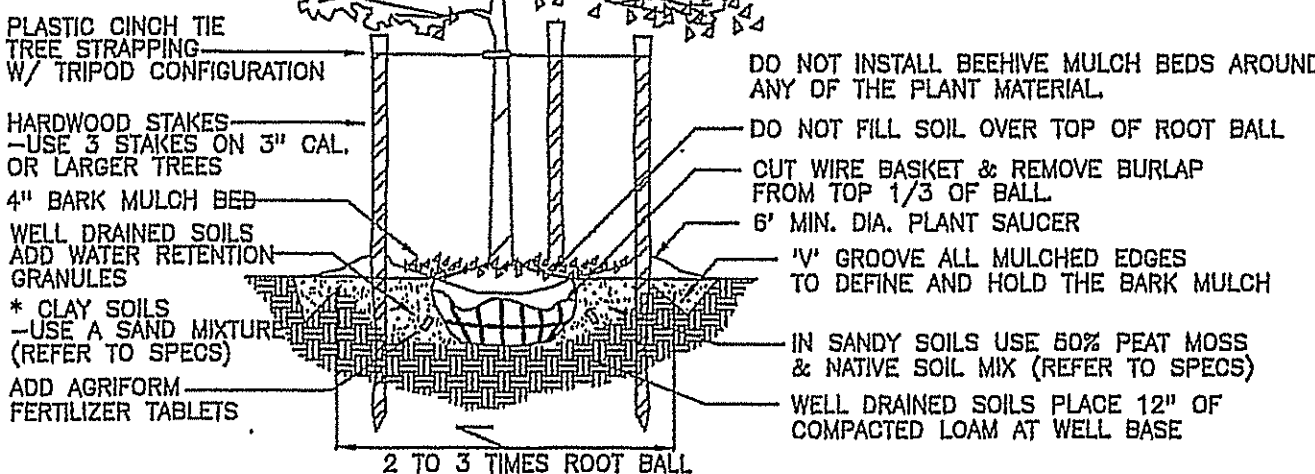
This drawing is for reference only. Determination of the suitability and/or manner of use of any details contained in this document is the sole responsibility of the design engineer of record. Final project designs, including all construction details, shall be prepared by a licensed professional engineer using the actual conditions of the proposed site. Final wall design must address both internal and external drainage and all modes of wall stability.

TYPICAL STORMWATER BASIN BERM DETAIL



DECIDUOUS TREE PLANTING DETAIL

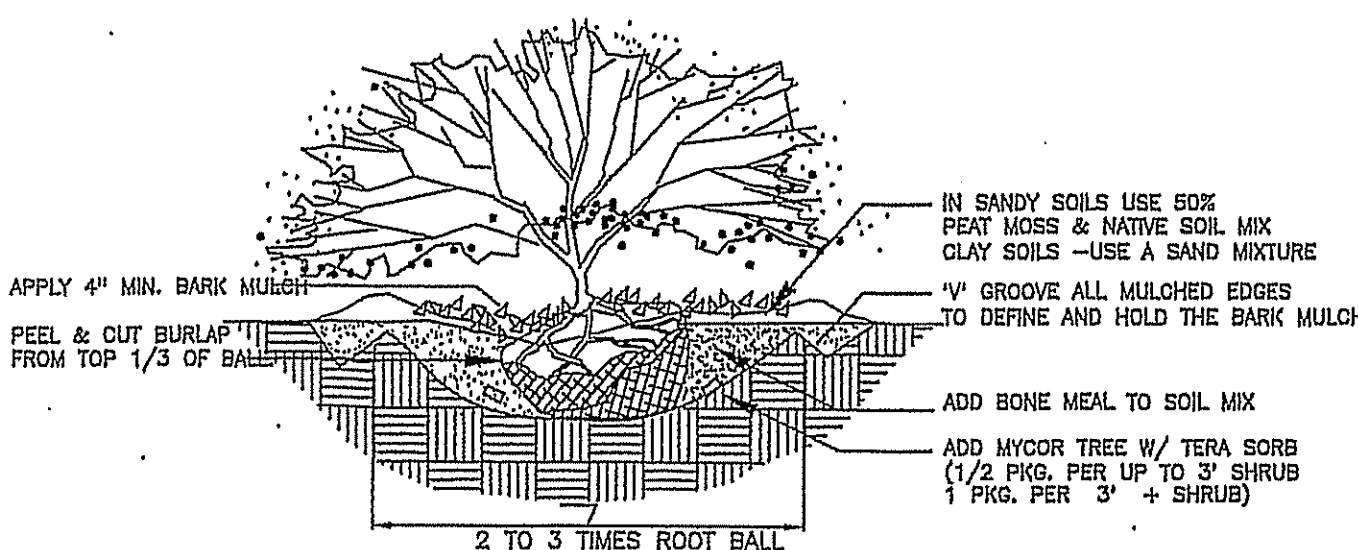
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NOTE: ALL PYRAMIDAL EVERGREENS & DECIDUOUS TREES SHALL BE PLANTED W/ ROOTS HORMONE ENHANCER.

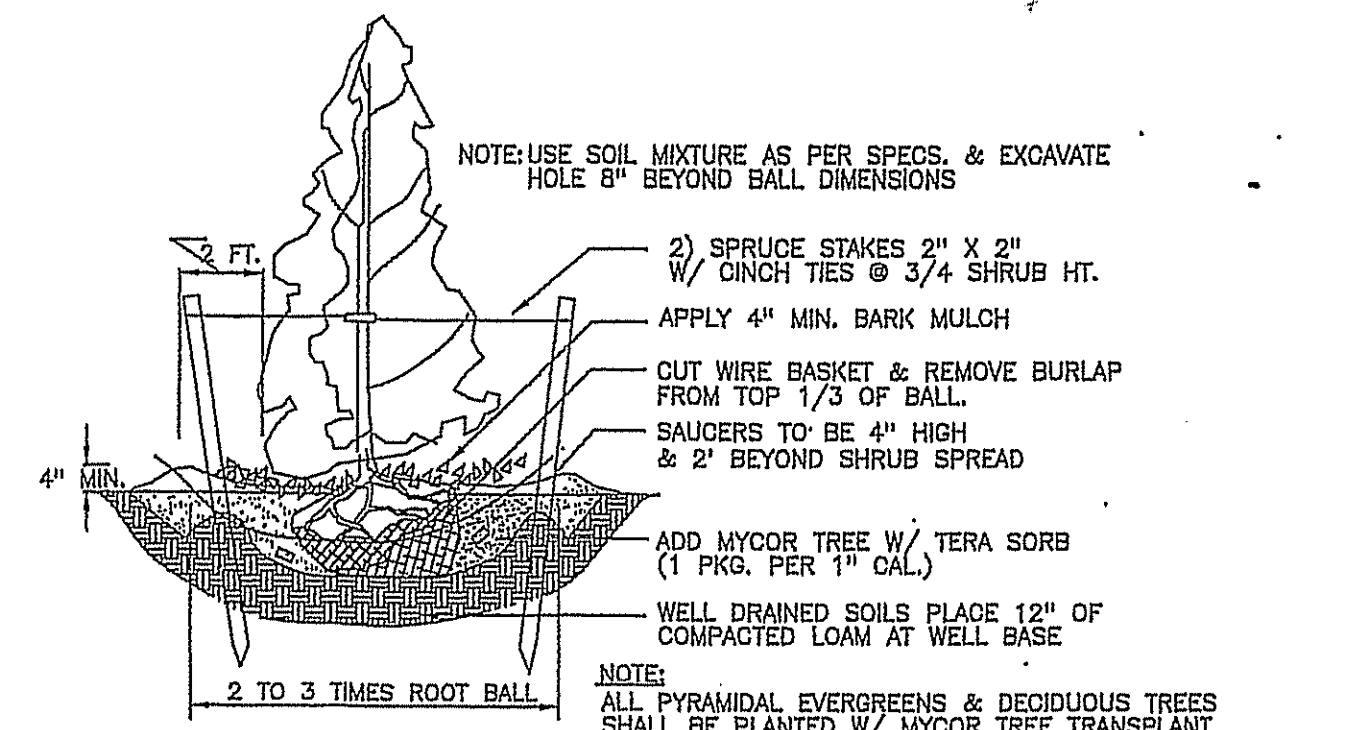
B & B SHRUB PLANTING DETAIL

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DT-5



EVERGREEN TREE PLANTING DETAIL

SCALE: N.T.S.
3
DT-5

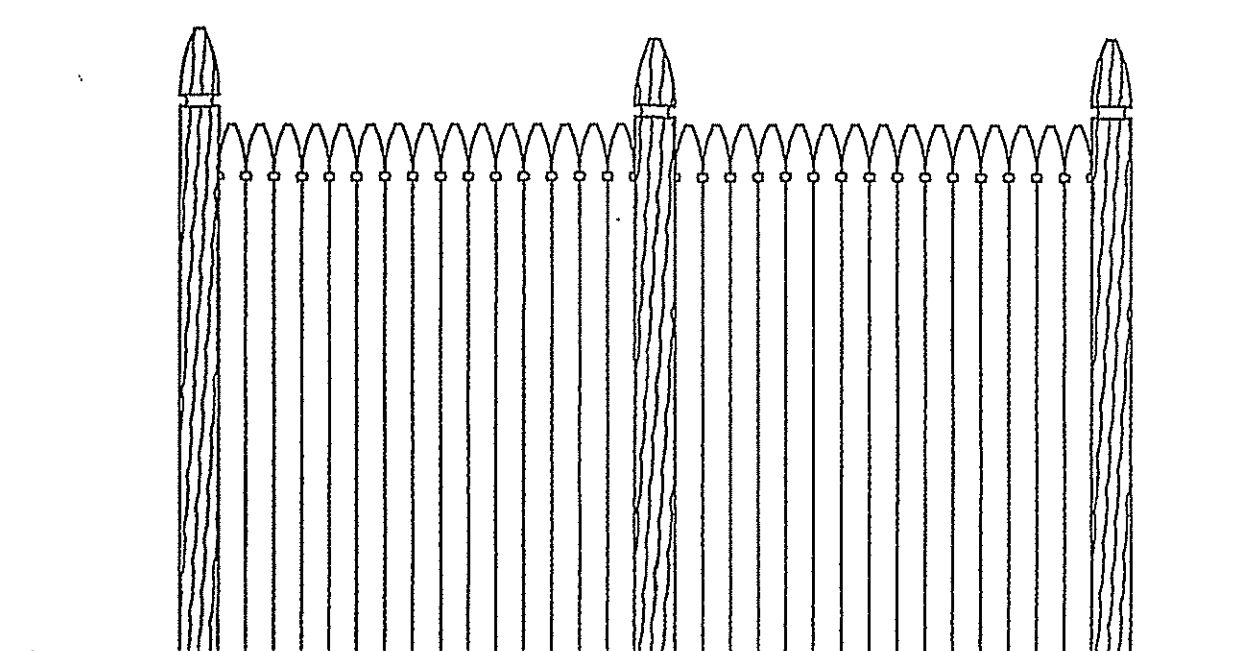
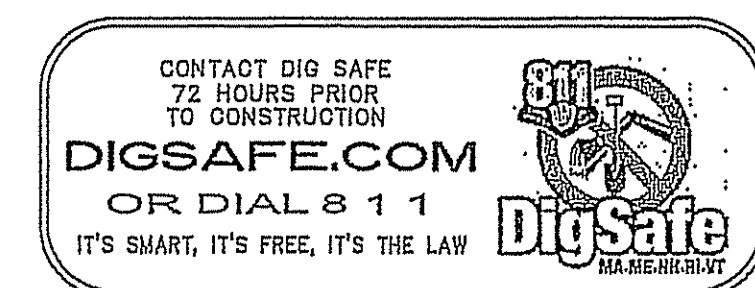
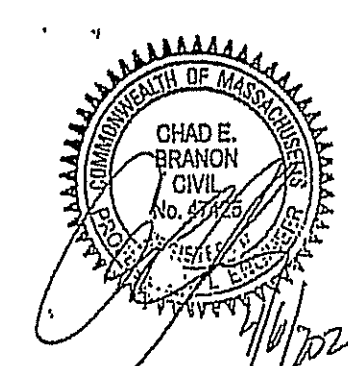


GENERAL SPECIFICATIONS:

1. THE CONTRACTOR SHALL AT HIS EXPENSE FURNISH ALL THE MATERIALS, SUPPLIES, MACHINERY, EQUIPMENT, TOOL, SUPERINTENDENT, LABOR, INSURANCE, & OTHER ACCESSORIES AND SERVICES NECESSARY TO COMPLETE THE SAID PROJECT WITHIN THE UNIT COSTS STATED WITHIN THE BID PRICE.
2. THE WORK TO BE DONE UNDER THIS CONTRACT IS AS SHOWN AND DESCRIBED ON THE DRAWINGS. EACH BIDDER SHALL MAKE A CAREFUL EXAMINATION OF THE PLANS AND SPECIFICATIONS (THE PLAN SHALL DICTATE QUANTITIES) AND ACQUAINT THEMSELVES WITH ALL CONDITIONS BEFORE MAKING THEIR PROPOSAL. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS IN THEIR PROPOSAL RESULTING FROM HIS FAILURE TO MAKE SUCH AN EXAMINATION. ALL BIDDERS SHALL VISIT THE SITE AND INFORM THEMSELVES OF ALL CONDITIONS.
3. THE BIDS SHALL BE BASED ON MATERIALS AND EQUIPMENT COMPLYING WITH THE DRAWINGS AND THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT PRICE FOR FURNISHING AND INSTALLING MATERIALS CONFORMING TO THE BID ITEMS. UNDER NO CIRCUMSTANCES MAY A SPECIES 'HYBRID' BE SUBSTITUTED OR SIZE CHANGED WITHOUT WRITTEN CONSENT OF THE OWNER AND/OR OWNERS REPRESENTATIVE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF SUCH EXISTING UTILITIES AS WATER MAINS, SEWER SYSTEMS, GAS MAINS, ELECTRICAL CONDUITS, TELEPHONE LINES AND ANY OTHER UTILITIES AND IF ANY DAMAGE OR DESTRUCTION MAY OCCUR TO THESE UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND/OR REPLACEMENT AT HIS EXPENSE.
5. THE CONTRACTOR SHALL MAKE PAYMENT FOR ALL DAMAGES TO BUILDINGS, STRUCTURES, TREES, SHRUBS AND/OR ANY OTHER PROPERTY OUTSIDE THE CONSTRUCTION AREA OR LOCATED WITHIN THOSE LIMITS BUT NOT DESIGNATED FOR REMOVAL OR RECONSTRUCTION PROVIDING SUCH DAMAGE SHALL RESULT FROM ACCIDENT CAUSED BY NEGLIGENCE FOR WHICH THE CONTRACTOR SHALL BE LEGALLY LIABLE.
6. IF ADDITIONAL LABOR AND/OR MATERIALS IS REQUESTED OR REQUIRED, THE CONTRACTOR SHALL SUBMIT A PRICE TO THE OWNER. IF THE OWNER APPROVES THE PRICE THE CONTRACTOR SHALL PREPARE A CHANGE ORDER FOR APPROVAL AND SIGNATURE. THE CONTRACTOR SHALL NOT PROCEED WITHOUT A WRITTEN AUTHORIZATION FROM THE OWNER FOR THE ADDITIONAL WORK. IF THE CONTRACTOR PROCEEDS WITH THE ADDITIONAL WORK WITHOUT AUTHORIZATION THEY SHALL FORFEIT ANY CLAIM FOR ADDITIONAL COMPENSATION.
7. THE OWNER AND/OR OWNERS REPRESENTATIVE (L.A.) SHALL RESERVE THE RIGHT TO INSPECT THE PROJECT WORK AT ANY TIME DEEMED NECESSARY TO INSURE THAT THE SPECIFICATIONS AND PLANS AND ANY OTHER CONTRACT DOCUMENTS ARE BEING FOLLOWED.
8. THE L.A. SHALL HAVE THE RIGHT TO REJECT ANY PLANT ON-SITE BASED UPON CONDITION, SIZE, OR INCORRECT SPECIES OR HYBRID. THE L.A. MUST BE CONTACTED PRIOR TO INSTALL, TO INSPECT MATERIALS DELIVERED TO THE SITE AND TO INSURE THAT SOIL AMENDMENTS, BARK MULCH, ROOF BALLAST, ETC. ARE TO THE WRITTEN SPECIFICATIONS.
9. ALL SEEDED AREAS SHALL RECEIVE A MINIMUM 6" TOPSOIL BLANKET (BY SITE CONTRACTOR) W/ SITE PREPARATION, RAKING AND GENERAL CLEAN UP PRIOR TO APPLICATION. OPERATIONS SHALL INCLUDE A PRE-EMERGENCE TYPE HERBICIDE, 12-25-12 GRANULAR FERTILIZER @ 10 LBS/1000 SF AND PELLETED LIME @ 25 LBS/1000 SF POWER RAKED INTO THE TOP 2" OF SOIL PRIOR TO HYDRO-SEEDING. RATIOS & APPLICATION RATES MAY VARY BASED UPON THE REQUIRED SOIL ANALYSIS.
10. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING A THICK, WEED FREE LAWN. SEED SHALL BE SPREAD @ 4 LBS /1000 SF. LAWN GERMINATION SHALL BE 95% FREE OF NOXIOUS WEEDS FOR ACCEPTANCE. DEFINE DIFFERENCES IN SEED MIXES (IF APPLICABLE) WITH IRRIGATION FLAGGING UNTIL 2ND MOWING. SITE REVIEW BY L.A. IS REQUIRED.
11. REVIEW OF THE INSTALLED IRRIGATION SYSTEM BY THE DESIGNER IS REQUIRED PRIOR TO RELEASE OF FINAL PAYMENT.
12. HYDROSEEDING OPERATIONS SHALL BE A ONE PART PROCESS WITH A PAPER FIBER MULCH; A TACKIFIER SHALL BE APPLIED ON ALL SLOPES GREATER THAN 3:1, EXCELSDOR DRAINAGE MAT SHALL BE APPLIED TO ALL 2:1 SLOPES AND DRAINAGE SWALES PER PLAN.
13. THE CONTRACTOR SHALL MAINTAIN, FROM ACCEPTANCE DATE, THE LAWN AREAS THROUGH THE FIRST MOWING. THE CONTRACTOR IS NOT RESPONSIBLE FOR THE FIRST MOWING.
14. ALL PLANT MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH A.L.O.C. SPECIFICATIONS AND PER PLAN DETAILS. PER DETAILS DECIDUOUS TREES SHALL BE GUYED IN A TRIPOD FASHION USING PLASTIC CINCH TIES & 2" X 2" X 8' HARDWOOD STAKES; TREES AND SHRUBS SHALL HAVE APPROPRIATE SOIL MIXTURES, FERTILIZER AND SOIL RETENTION GRANULES.
15. IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL (VERIFY WITH OWNER AND/OR OWNERS REPRESENTATIVE) PLACED AT THE BASE OF THE PLANT PIT AS A MOISTURE RETENTION LAYER. THE PLANT PIT SIDEWALLS SHALL BE OVER EXCAVATED BY AN ADDITIONAL 12" BEYOND THE NORMAL OUTSIDE RADIUS OF THE HOLE. A TOPSOIL PLANTING MIXTURE SHALL BE USED TO BACKFILL AS PER SPEC # 22.
16. THE OWNER AND/OR OWNERS REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT AND HAVE GROUND REMOVED ANY PLANT MATERIAL NOT OF PROPER SIZE OR OF WEAK QUALITY, I.E. THIN, NO LOWER BRANCHING, ETC. CONTRACTOR MUST SUBMIT SHIPPING LISTS (BILLING INVOICES) FOR VERIFICATION, PRIOR TO INSTALLATION.

GENERAL PLANTING NOTES

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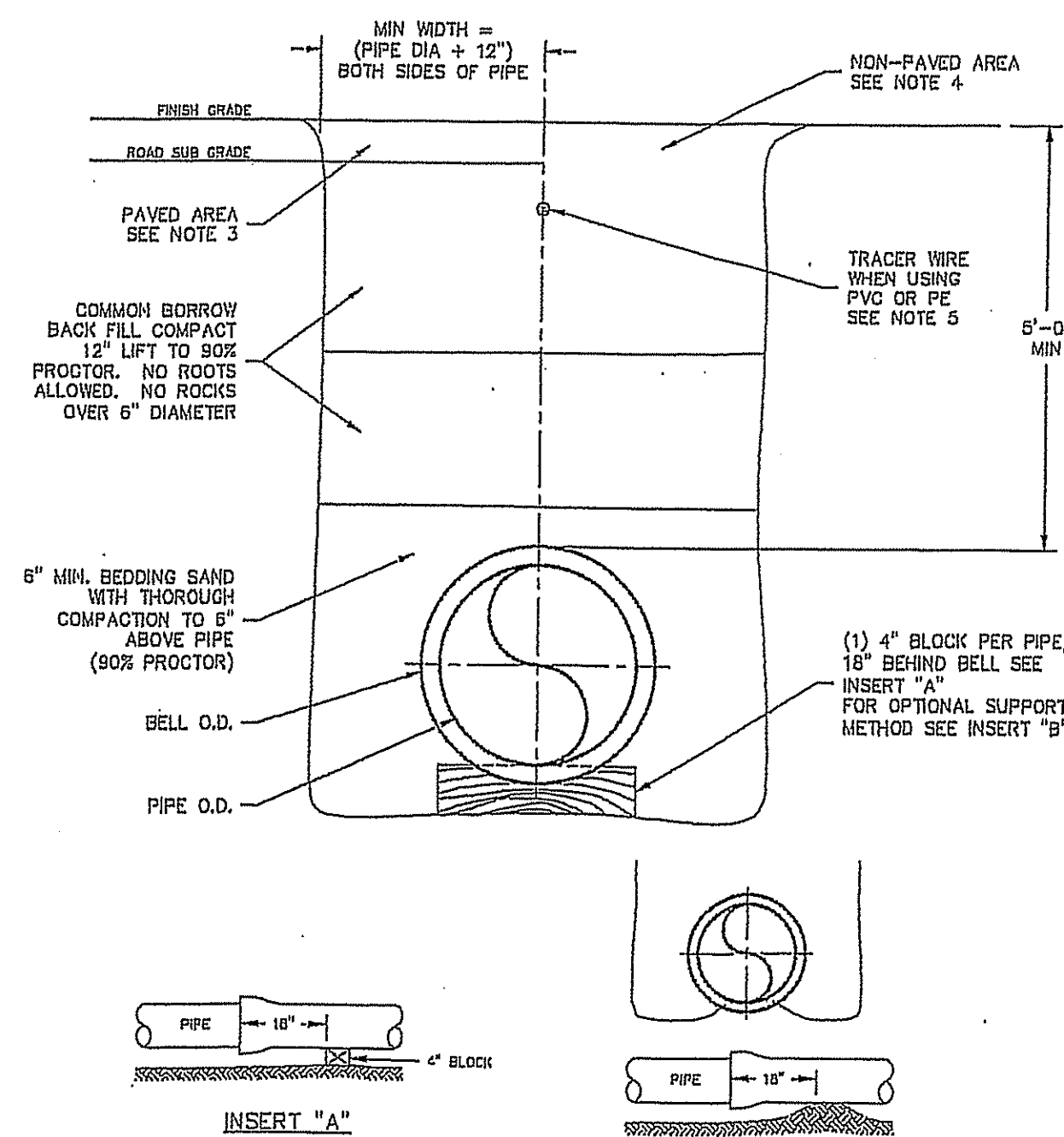
NOTE:
1) THE STYLE OF FENCE IS # 704 (MASSACHUSETTS) AS OFFERED BY AMERICAN FENCES, INC. THE FENCE IS TO BE 6' HIGH, (OR EQUAL)

STOCKADE FENCE

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DT-5

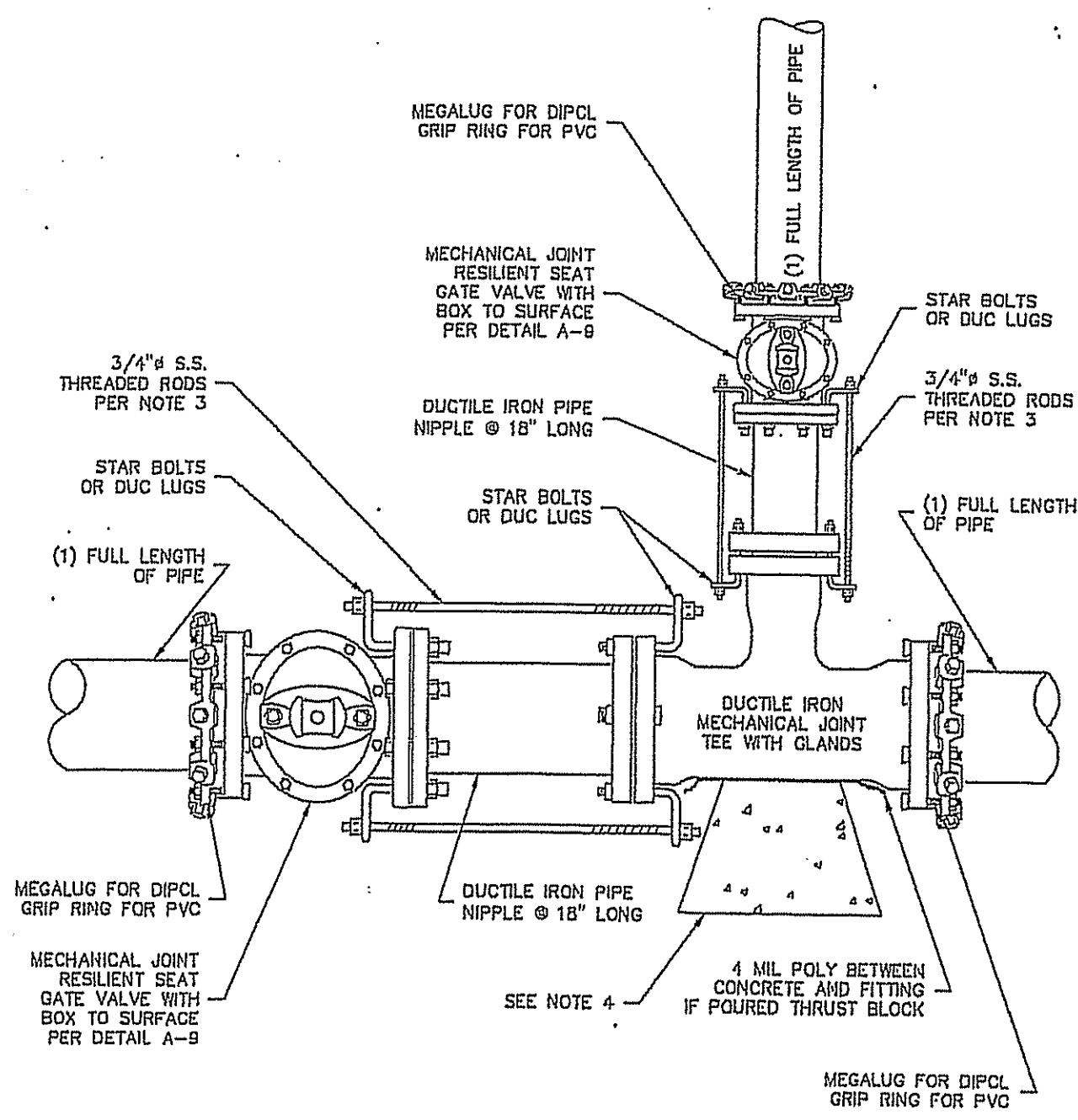
REV.	DATE	DESCRIPTION	C/O	DR	CK

LANDSCAPING DETAILS
PIE HILL WAREHOUSING
TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS
PREPARED FOR:
TRIPLE G PROPERTY LLC
59 BONANNO COURT, METHUEN, MA 01844
SCALE: NONE
APRIL 4, 2022
Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs
FIELDSTONE
LAND CONSULTANTS, PLLC
206 Elm Street, Milford, NH 03055
Phone: (603) 672-5456 Fax: (603) 413-5456
www.FieldstoneLandConsultants.com
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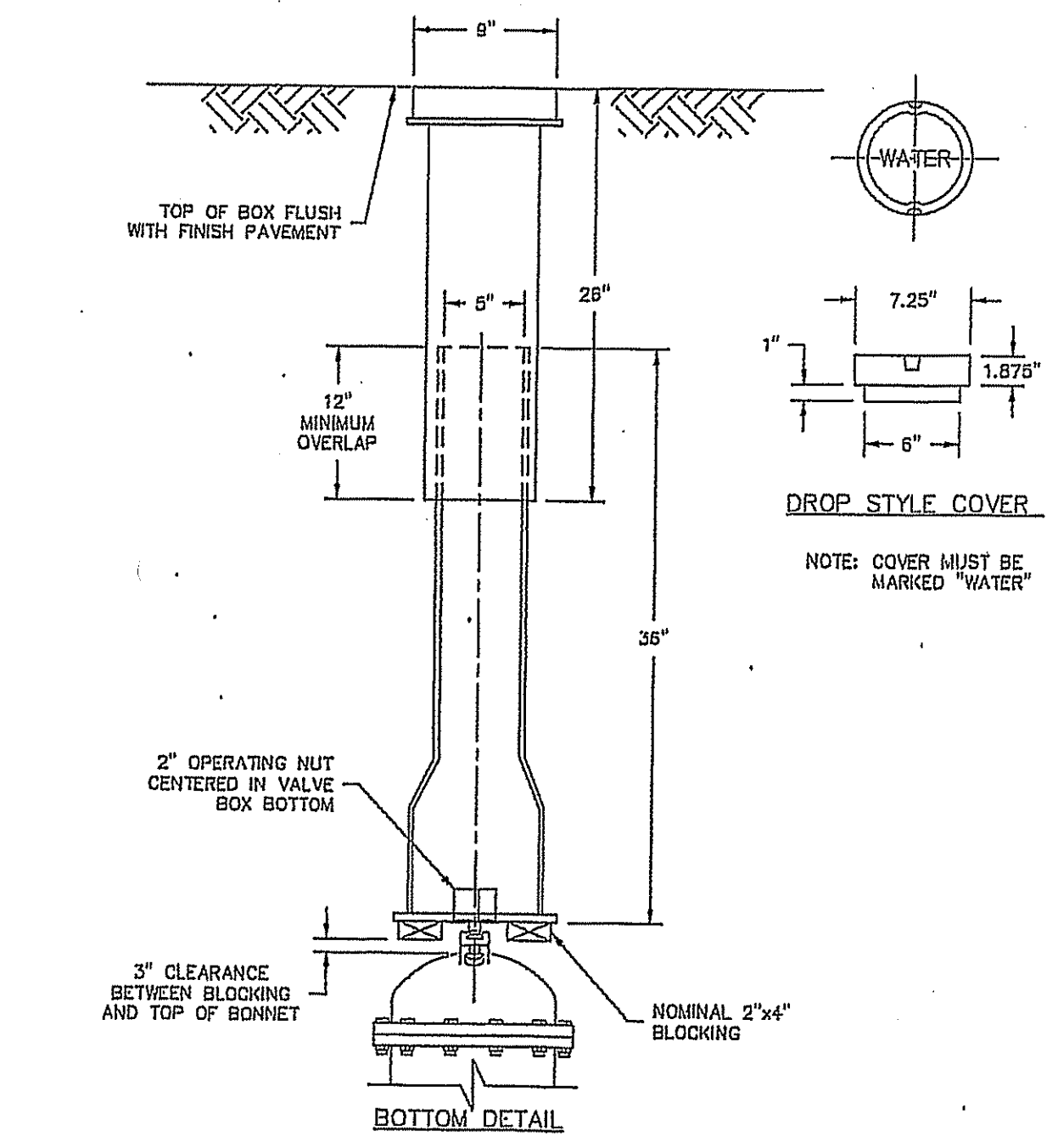
- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. REQUIREMENTS FOR SUBBASE AND BASE MATERIAL TYPE ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN PAVED AREAS.
 4. REQUIREMENTS FOR GRAVEL, LOAM AND/OR SEED ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY HAVING LOCAL JURISDICTION IN NON-PAVED AREAS.
 5. TO OBTAIN TRACER WIRE AS MANUFACTURED BY BNS, DIVISION OF ALBERTAR CORP., AVON, MA OR EQUIVALENT.

TYPICAL TRENCH DETAIL



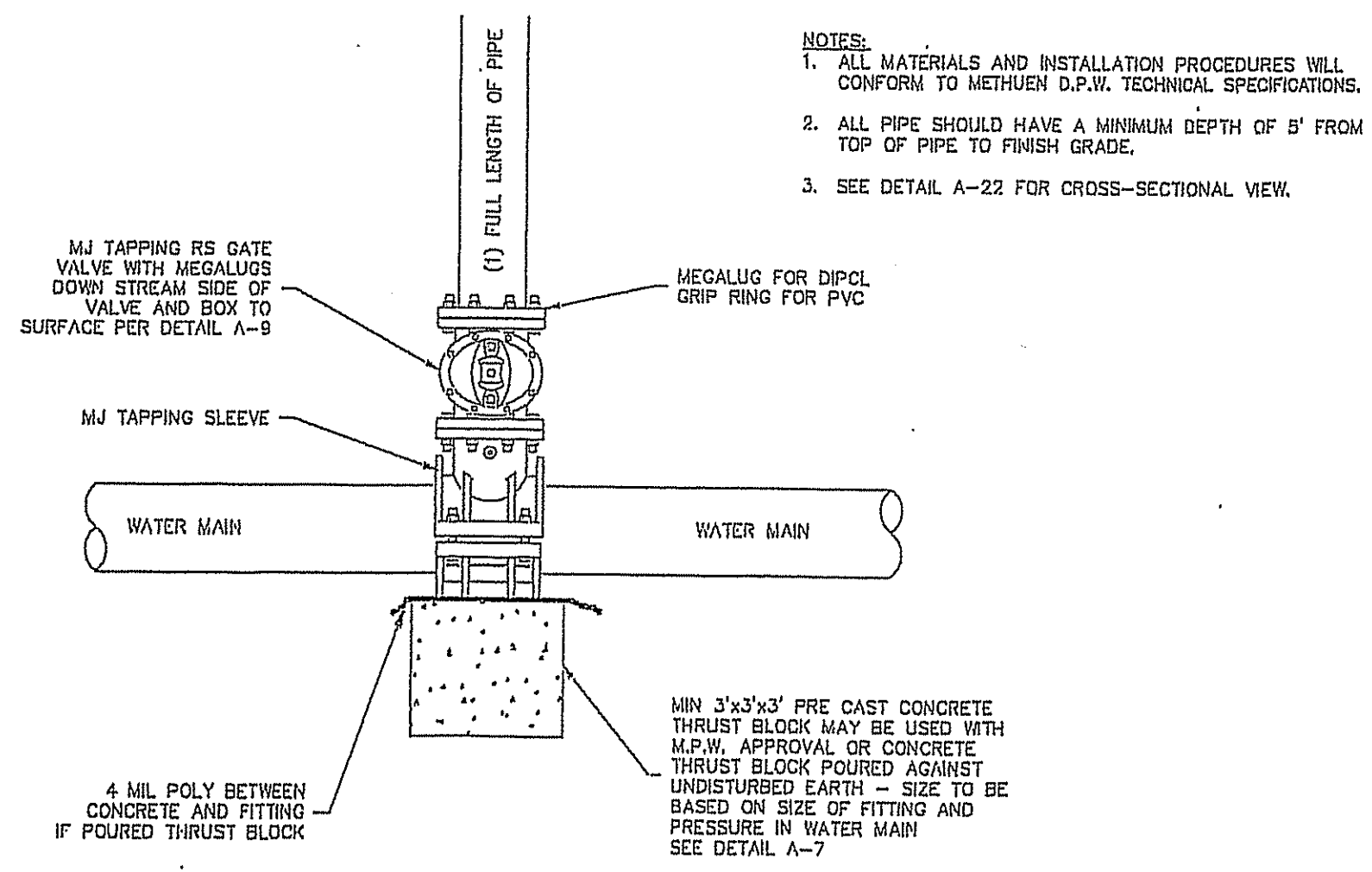
- NOTES:
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 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR LARGER = (1) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (1) 3/4" S.S. RODS & ASSOC. HARDWARE.
 4. 10" 3/4" S.S. PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH M.P.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL A-7.

TYPICAL TEE INSTALLATION



- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.

TYPICAL VALVE BOX



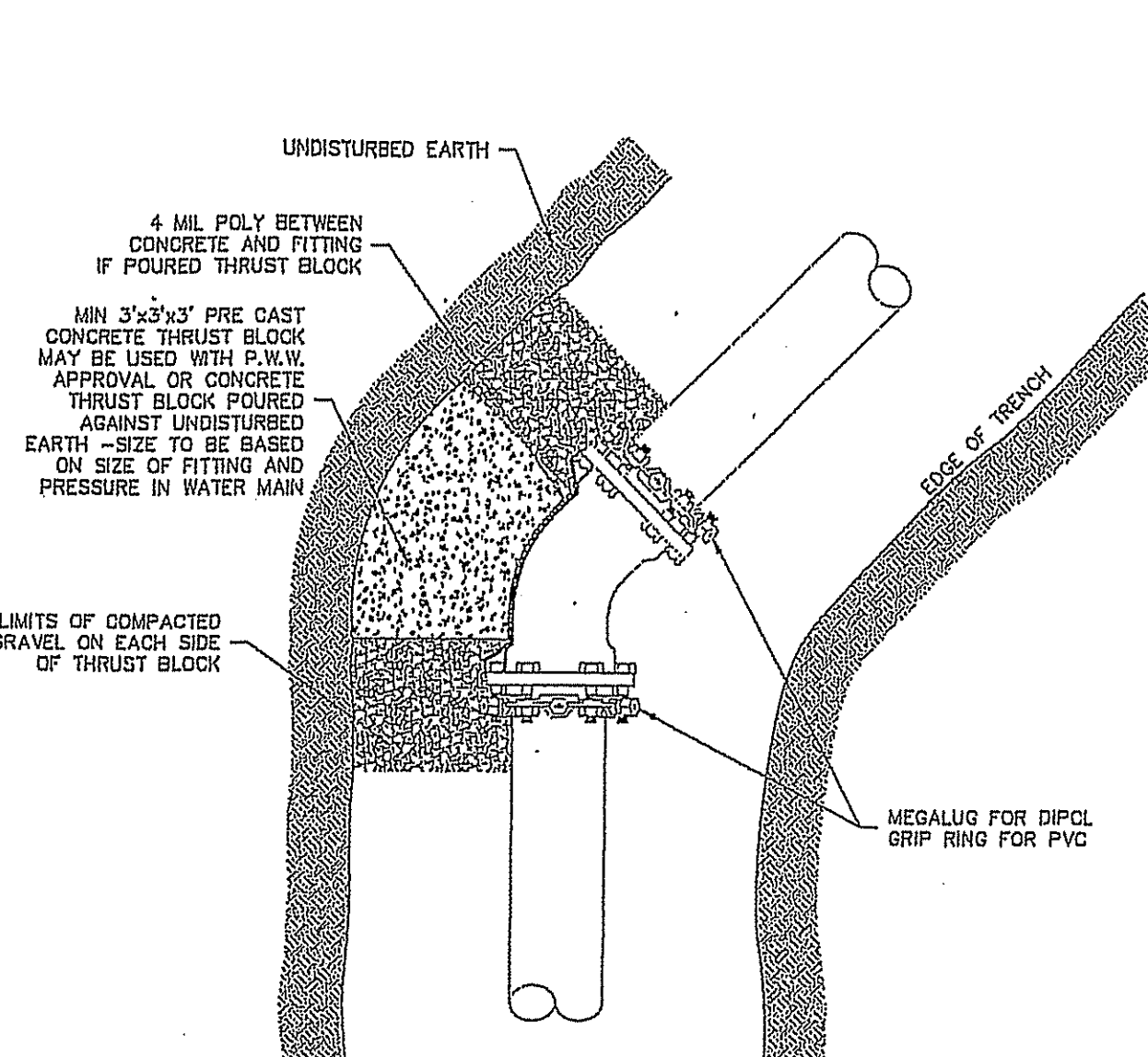
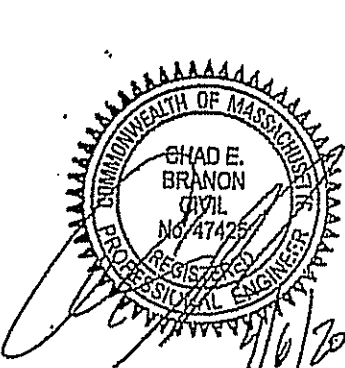
TYPICAL LARGE SERVICE AND/OR TAPPING SLEEVE

1. REFERENCE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR INSTALLATION OF ALL WATER LINES.
2. ALL SPRINKLER AND DOMESTIC LEADS TO BUILDING SHALL END 5 FEET OUTSIDE THE FACE OF THE BUILDING WALL, UNLESS NOTED, AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT THE END (FOR OTHERS TO REMOVE AND EXTEND THE LINE AS NECESSARY).
3. THRUST BLOCKS AND MEGALUG RESTRAINTS SHALL BE PROVIDED AT ALL HORIZONTAL BENDS, TEES, AND FIRE HYDRANTS. SEE DETAIL.
4. MINIMUM COVER ON ALL WATER LINES IS 5'-5".
5. CONTRACTOR SHALL MAINTAIN A 6'-0" HORIZONTAL (UNLESS OTHERWISE NOTED) AND 12" VERTICAL SEPARATION BETWEEN WATER SERVICE AND UTILITIES OTHER THAN SANITARY SEWER.
6. INSPECTIONS ON WATER SERVICE INSTALLATION DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE SITE CONTRACTOR AND SHALL BE COORDINATED WITH PENNICHUCK WATER WORKS. ALL INSPECTION FEES SHALL BE PAID FOR BY THE CONTRACTOR.
7. CONTRACTOR SHALL HAVE BACTERIOLOGICAL AND PRESSURE TESTING PERFORMED. CONTRACTOR SHALL GIVE PENNICHUCK WATER WORKS A COPY OF THE RESULTS. PENNICHUCK WATER WORKS SHALL BE ON-SITE TO WITNESS TEST.
8. ALL PIPE, VALVES, MISCELLANEOUS MATERIALS AND INSTALLATION SHALL CONFORM TO PENNICHUCK WATER WORKS SPECIFICATIONS AND REQUIREMENTS.
9. ALL FIRE HYDRANTS, VALVES, FITTINGS, PIPES, ETC. SHALL BE IN ACCORDANCE WITH THE CITY OF METHUEN DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS.
10. METALLIC TAPE OR DETECTOR WIRE SHALL BE INSTALLED IN THE SAME TRENCH WITH ALL NONMETALLIC PIPE SUCH THAT THE PIPE MAY BE LOCATED WITH ELECTRONIC LOCATING EQUIPMENT. METALLIC TAPE OR DETECTOR WIRE SHALL BE INSTALLED APPROXIMATELY 12" TO 18" BELOW GRADE DIRECTLY ABOVE THE TOP OF THE PIPE. DETECTOR WIRE SHALL BE 14 GAUGE SOLID COPPER, SIMPLEX BW300 OR EQUAL. METALLIC TAPE SHALL BE 2" MINIMUM METALLIZED TAPE, GRIFFOLYN COMPANY, INC., TERRATAPE OR EQUAL.
11. CONTRACTOR SHALL ENSURE ALL WATER VALVES ARE IN A FULLY OPEN POSITION UPON COMPLETION OF PROJECT.
12. CONTRACTOR SHALL COORDINATE ALL WATER INTERRUPTIONS WITH THE CITY OF METHUEN AND AFFECTED PROPERTY OWNERS.

WATER SYSTEM CONSTRUCTION NOTES

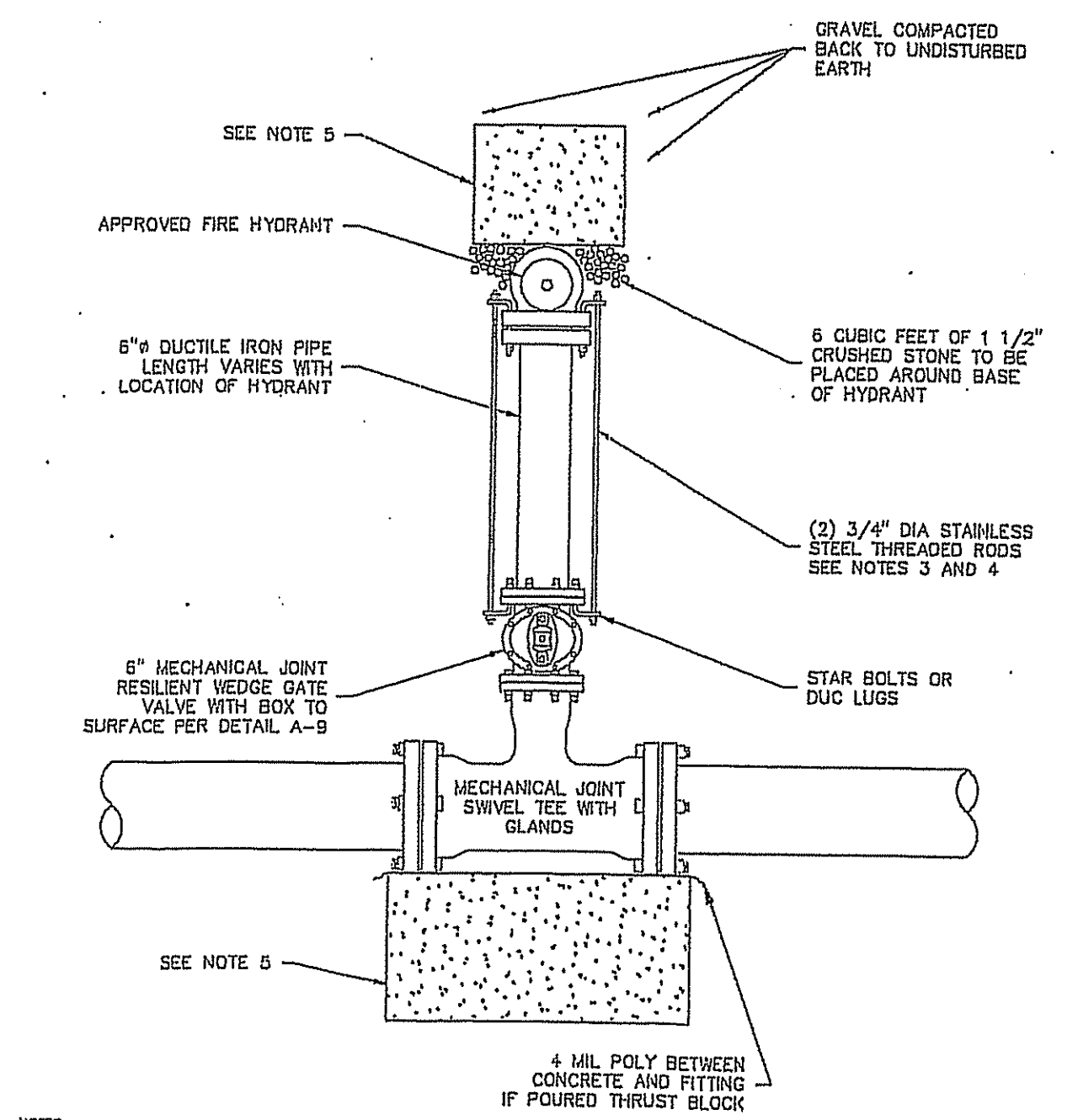
CONTACT DIG SAFE 72 HOURS PRIOR TO CONSTRUCTION
DIGSAFE.COM OR DIAL 811
IT'S SMART, IT'S FREE, IT'S THE LAW

Dig Safe



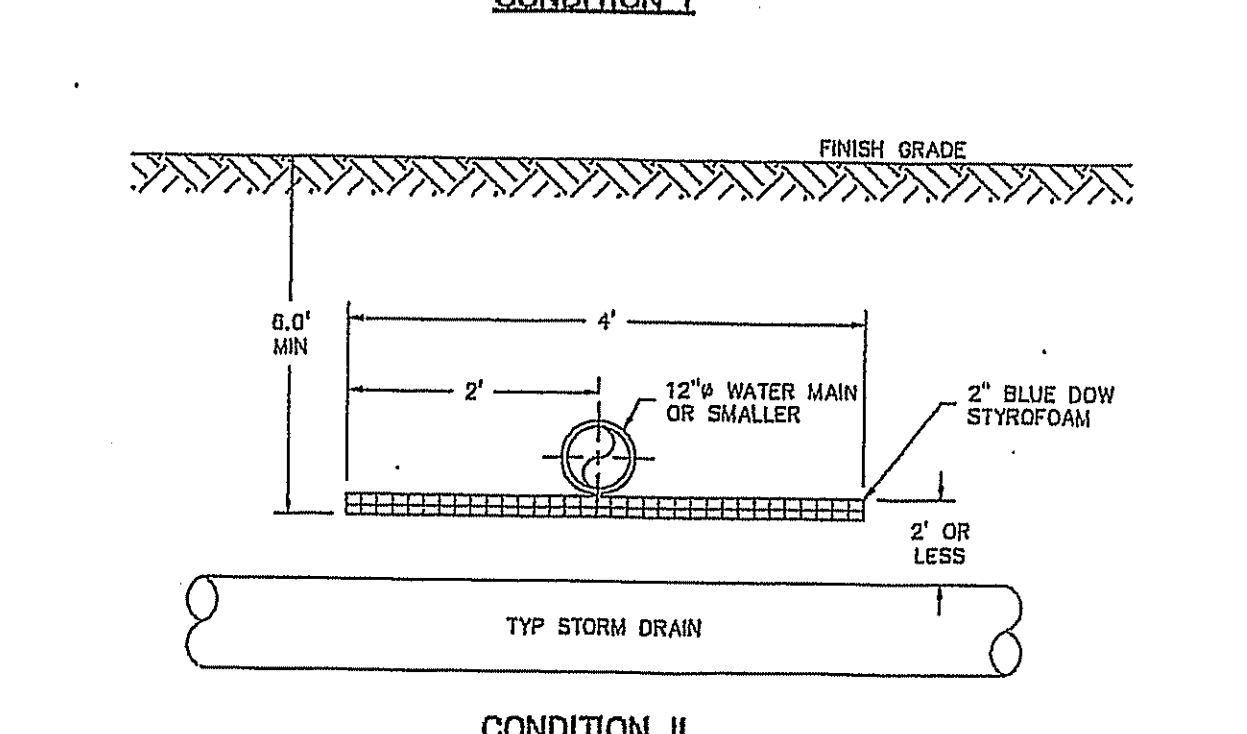
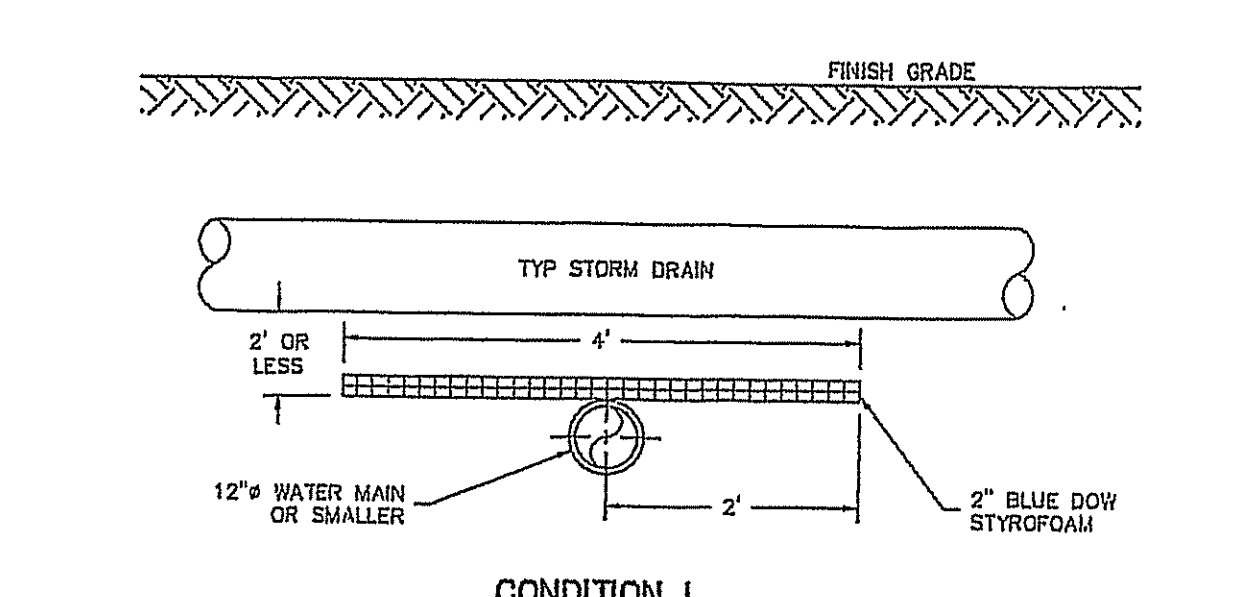
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 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR LARGER = (1) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (1) 3/4" S.S. RODS & ASSOC. HARDWARE.
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TYPICAL THRUST BLOCK BEHIND FITTINGS



- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO METHUEN D.P.W. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5' FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR LARGER = (1) 3/4" S.S. RODS & ASSOC. HARDWARE. 12" FITTING OR LARGER = (1) 3/4" S.S. RODS & ASSOC. HARDWARE.
 4. WHEN INSTALLED FROM WATER MAIN TO HYDRANT IS MORE THAN 10' SUBSTITUTE MEGALUGS (OR GRIP RINGS) IN LIEU OF THREADED RODS.
 5. 10" 3/4" S.S. PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH M.P.W. APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE DETAIL A-7.

TYPICAL HYDRANT INSTALLATION



- NOTES:
1. METHUEN DEPARTMENT OF PUBLIC WORKS RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 2. THE LENGTH OR WIDTH OF INSULATION SHALL EXTEND 1 STORM DRAIN PIPE DIAMETER BEYOND THE EDGE OF STORM DRAIN PIPE IN EACH DIRECTION OR A MINIMUM OF 2' BEYOND THE CENTERLINE OF THE STORM DRAIN PIPE, WHICHEVER IS GREATER.
 3. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH A 1' PIECE OF INSULATION CENTERED OVER SEAM.

STORM DRAIN / WATER MAIN INTERSECTING RUNS

WATER CONSTRUCTION DETAILS

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

PREPARED FOR:
TRIPLE G PROPERTY LLC
59 BONANNO COURT, METHUEN, MA 01844

SCALE: NONE APRIL 4, 2022

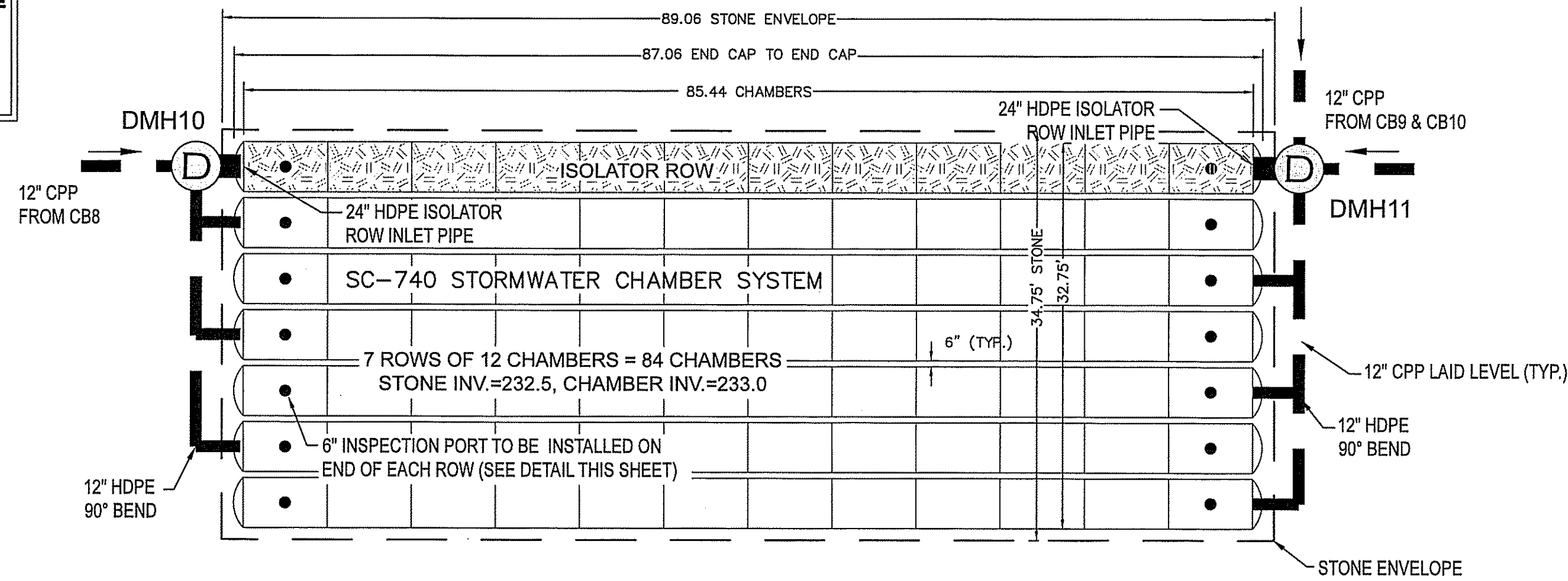
Surveying • Engineering • Land Planning • Permitting • Septic Designs

FIELDSTONE LAND CONSULTANTS, PLLC

206 Elm Street, Milford, NH 03055
Phone: (603) 672-5456 Fax: (603) 413-5456
www.FieldstoneLandConsultants.com

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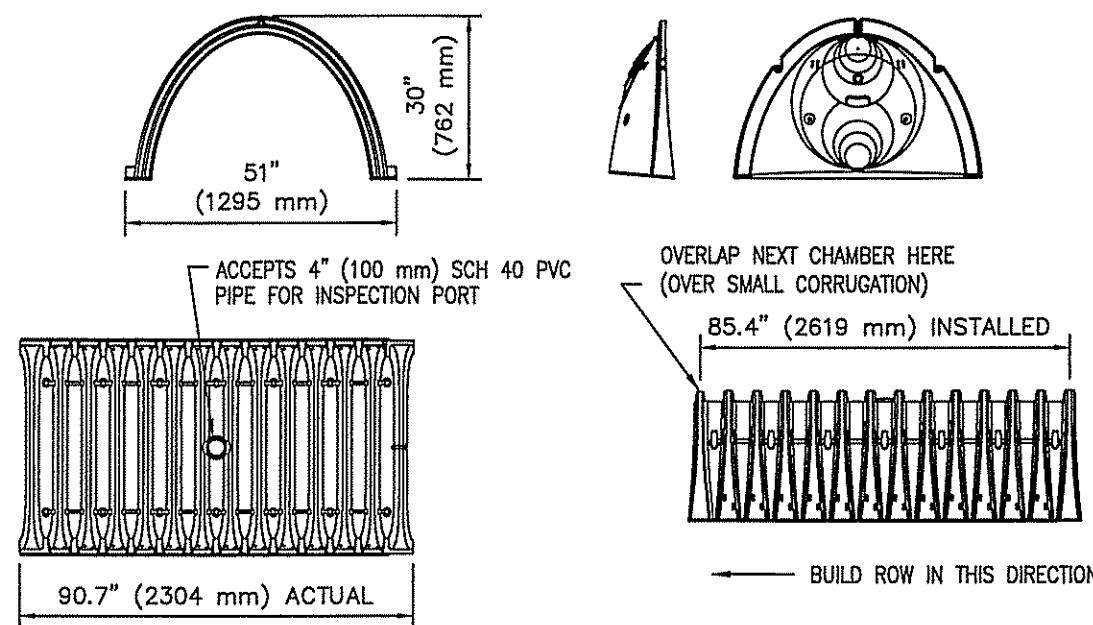
FILL MATERIAL WILL MEET THE FOLLOWING SPECIFICATIONS:
ASTM C33 sand with less than 10% passing a #100 sieve, and less than 5% passing a #200 sieve.



STORMWATER INFILTRATION SYSTEM - STORMTECH SC-740 CHAMBER LAYOUT
SCALE: 1"=10'

- ALL DESIGN SPECIFICATIONS FOR STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE STORMTECH DESIGN MANUAL.
- THE INSTALLATION OF STORMTECH SC-740 CHAMBERS SHALL BE IN ACCORDANCE WITH THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
- THE CONTRACTOR IS ADVISED TO REVIEW AND UNDERSTAND THE INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING SYSTEM INSTALLATION. CALL 1-888-892-2694 OR VISIT WWW.STORMTECH.COM TO RECEIVE A COPY OF THE LATEST STORMTECH INSTALLATION INSTRUCTIONS.
- CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND LOAD FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

SC-740 NOTES SCALE: NONE



NOMINAL CHAMBER SPECIFICATIONS	
SIZE (W x H x INSTALLED LENGTH)	51.0" x 30.0" x 85.4" (1295 mm x 762 mm x 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET (1.30 m³)
MINIMUM INSTALLED STORAGE	74.9 CUBIC FEET (2.12 m³)
WEIGHT	75 lbs. (33.6 kg)

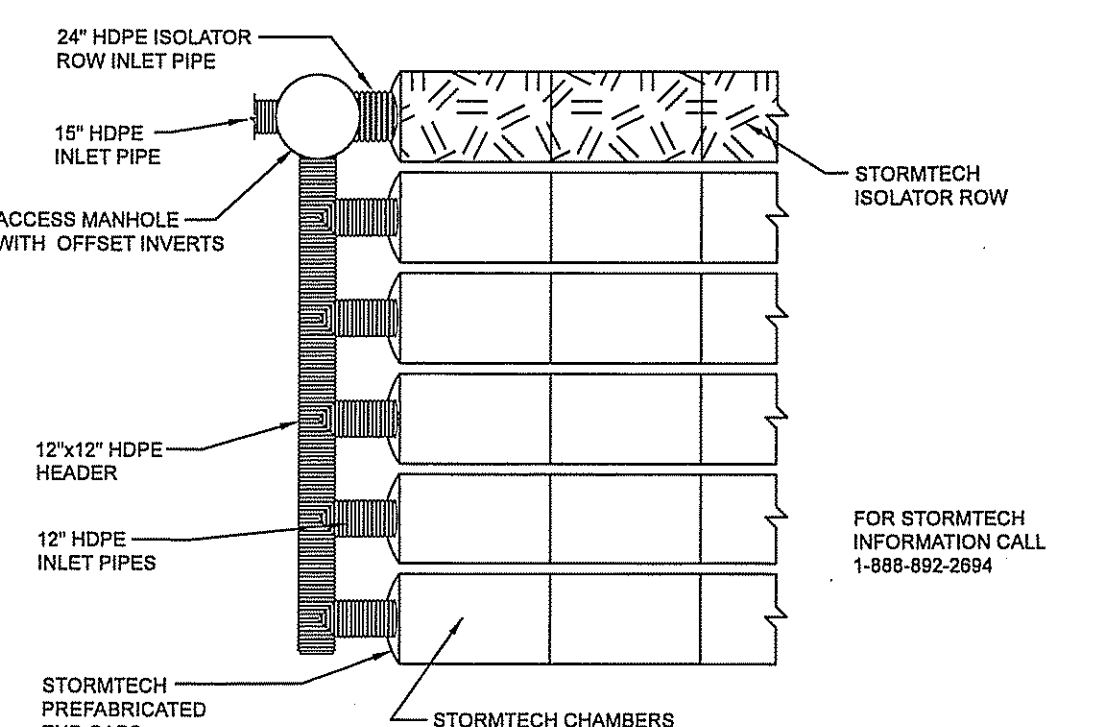
STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"

PART #	CHAMBER	PIPE SIZE	A	B	C	D
SC740EP001	SC 740	8 in (203 mm)	10.50 in (271 mm)	3.85 in (98 mm)	18.50 in (470 mm)	N/A
SC740EP008	SC 740	8 in (203 mm)	10.50 in (271 mm)	3.85 in (98 mm)	N/A	0.50 in (13 mm)
SC740EP012	SC 740	12 in (305 mm)	14.70 in (373 mm)	7.70 in (196 mm)	12.50 in (318 mm)	N/A
SC740EP018	SC 740	12 in (305 mm)	14.70 in (373 mm)	7.70 in (196 mm)	N/A	1.30 in (33 mm)
SC740EP019	SC 740	16 in (407 mm)	18.40 in (467 mm)	10.36 in (263 mm)	9.00 in (229 mm)	N/A
SC740EP019T	SC 740	16 in (407 mm)	18.40 in (467 mm)	10.36 in (263 mm)	N/A	1.30 in (33 mm)
SC740EP019B	SC 740	16 in (407 mm)	18.40 in (467 mm)	10.36 in (263 mm)	N/A	1.30 in (33 mm)
SC740EP019T	SC 740	18 in (457 mm)	19.70 in (500 mm)	10.72 in (272 mm)	5.00 in (127 mm)	N/A
SC740EP019B	SC 740	18 in (457 mm)	19.70 in (500 mm)	10.72 in (272 mm)	N/A	1.60 in (41 mm)
SC740EP024B	SC 740	24 in (609 mm)	18.50 in (470 mm)	9.45 in (240 mm)	N/A	0.10 in (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EP24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

*FOR THE SC740EP24B THE 24" (609 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

SC-740 TECHNICAL DETAILS SCALE: NONE



ISOLATOR ROW MAINIFOLD DETAIL
SCALE: NONE

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 AND SC-310 CHAMBER SYSTEMS

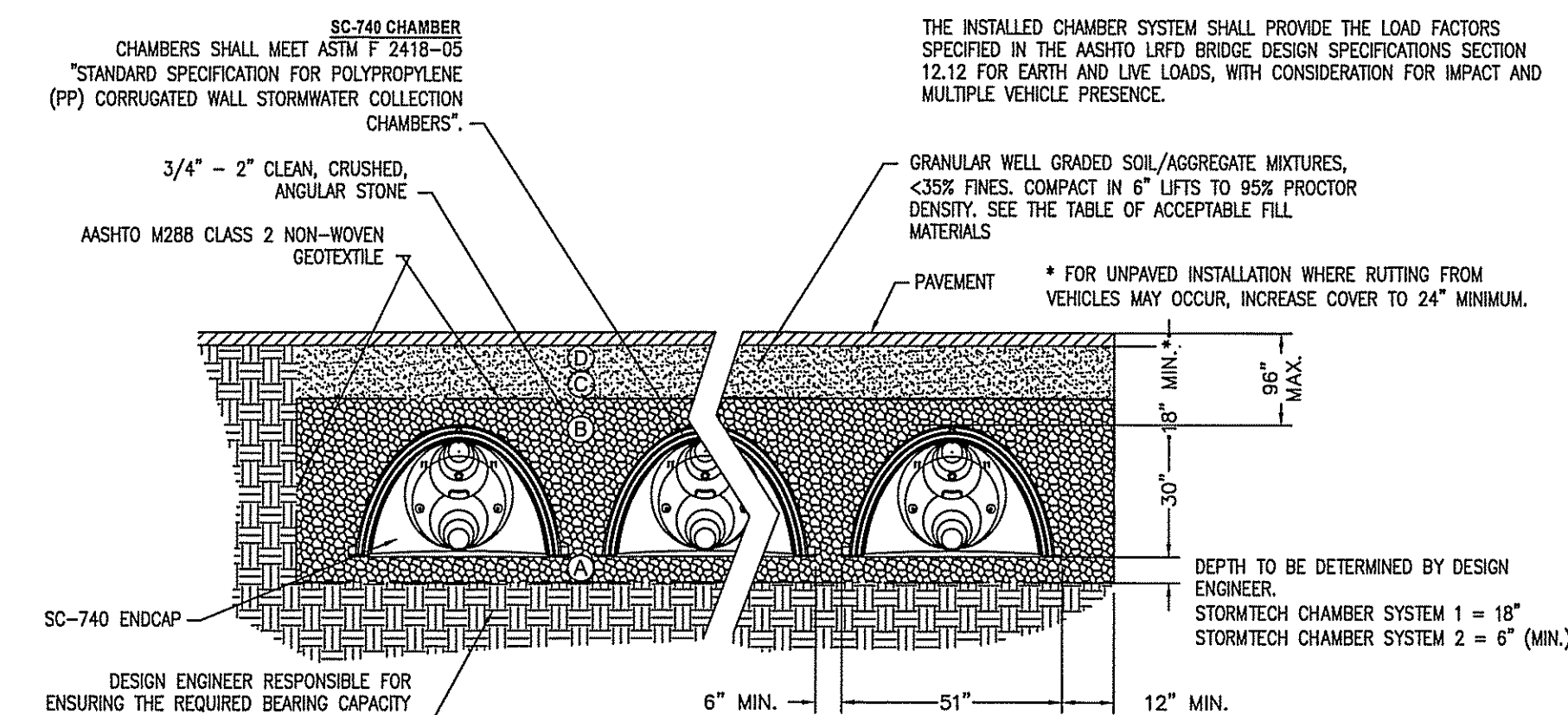
MATERIAL LOCATION	DESCRIPTION	AASHTO M43 DESIGNATION	COMPACTION/DENSITY REQUIREMENT
① FILL MATERIAL FOR LAYER "D" STARTS FROM THE TOP OF THE "C" LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISH GRADE ABOVE. NOTE THAT PAVEMENT SURFACE MAY BE PART OF THIS LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
② FILL MATERIAL FOR LAYER "C" STARTS FROM THE TOP OF THE EMBEDMENT STONE ("A" LAYER) TO 1" (25 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SURFACE MAY BE PART OF THIS LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES. MOST PREVENT SUB-BASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	3, 357, 4, 467, 5, 56, 57, 6, 57, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTION AFTER 12" (305 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (152 mm) LIFTS TO A MIN. 95% STANDARD PROCTOR DENSITY. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DRIVING FORCE NOT TO EXCEED 20,000 lbs (89 kN).
③ EMBEDMENT STONE SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ("A" LAYER) TO THE "C" LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
④ FOUNDATION STONE BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE, NOMINAL SIZE DISTRIBUTION BETWEEN 3/4" - 2 INCH (19 - 51 mm)	3, 35, 4, 467, 5, 56, 57	FLAT COMPACT OR ROLL TO ACHIEVE A 95% STANDARD PROCTOR DENSITY.

PLEASE NOTE:

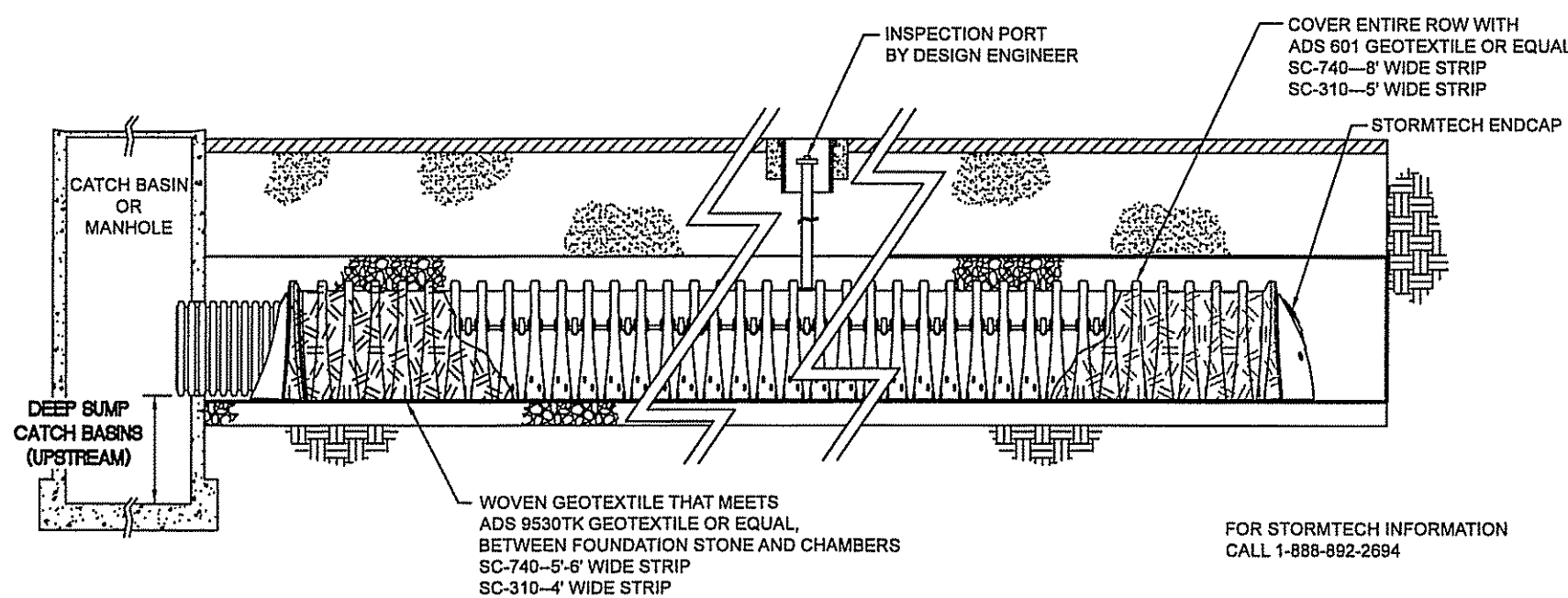
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".

2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR "A" LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (229 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

STORMTECH ACCEPTABLE FILL MATERIALS SCALE: NONE



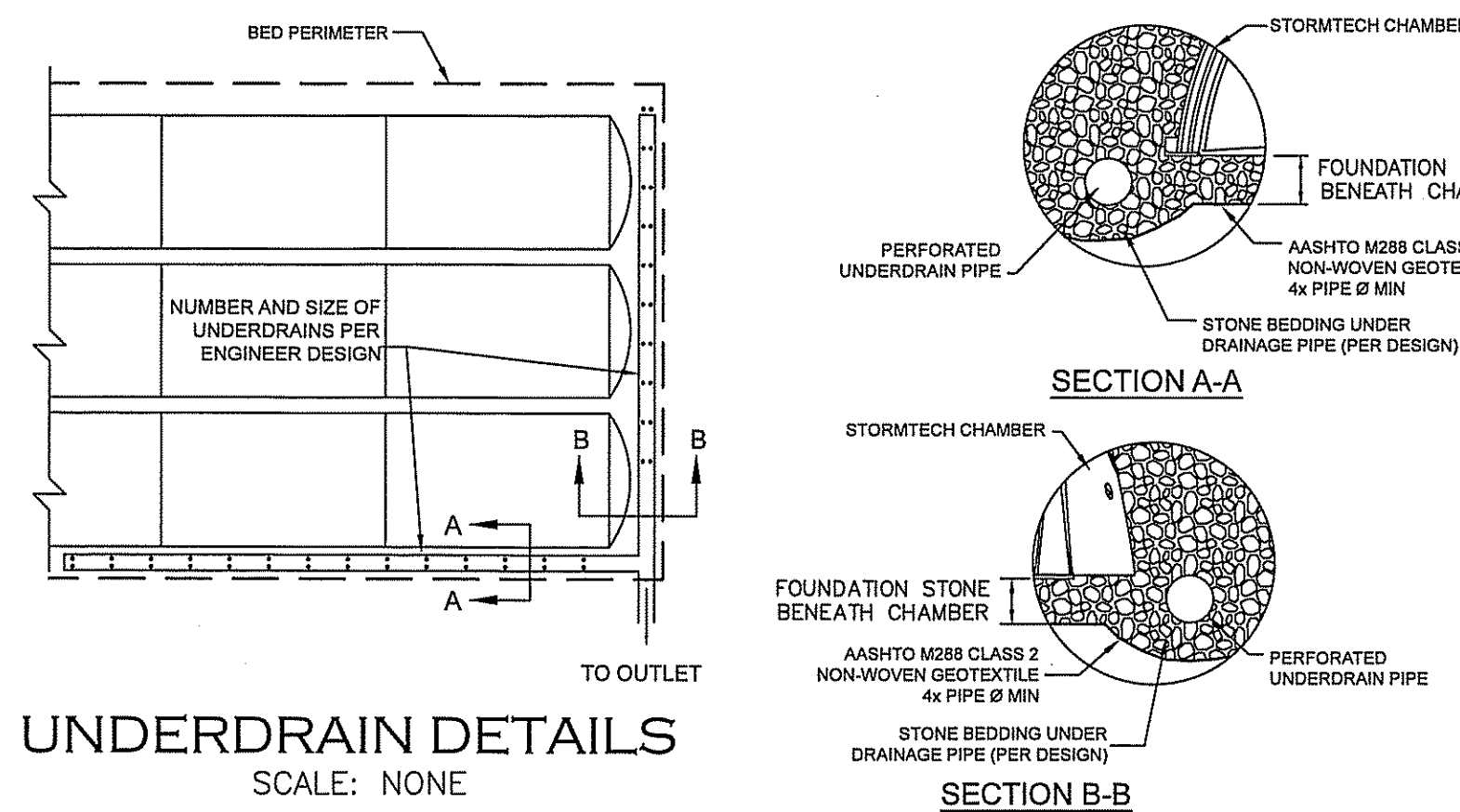
SC-740 STANDARD CROSS SECTION
SCALE: NONE



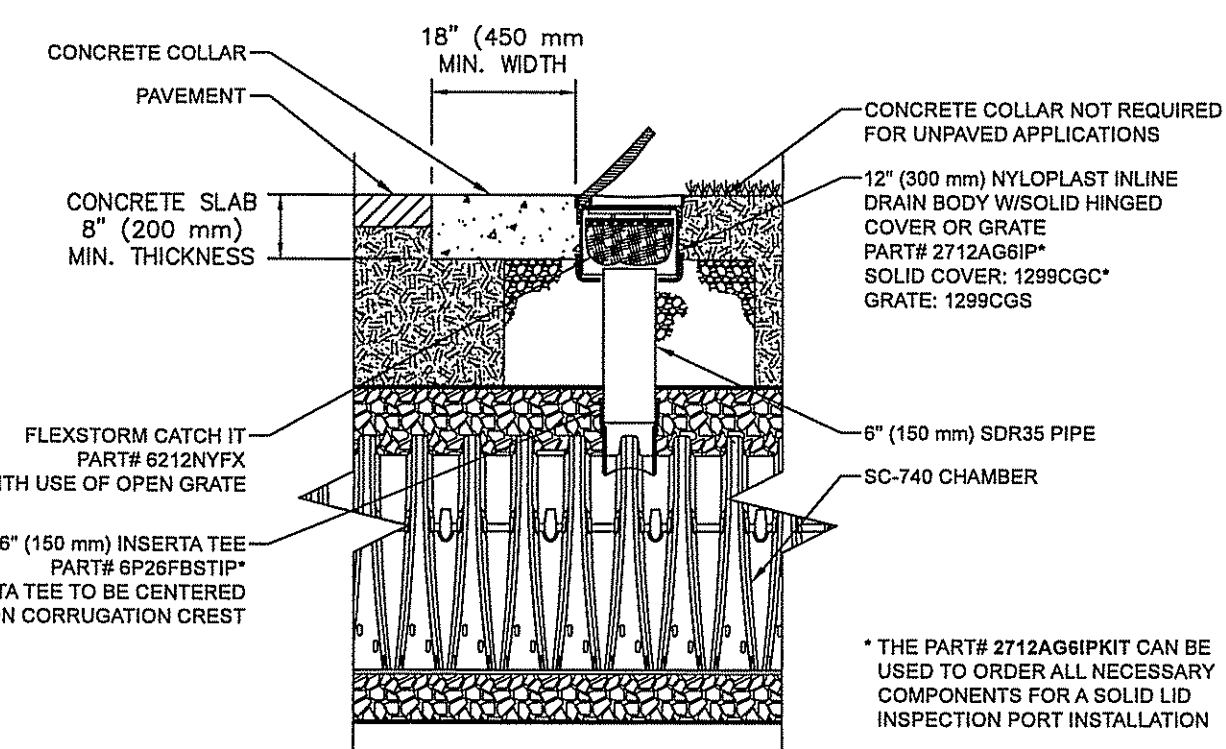
ISOLATOR ROW DETAIL
SCALE: NONE

- REMOVE ALL ORGANIC MATERIAL FROM AREA BELOW PROPOSED INFILTRATION BASINS AND TO EXPOSE UNDERLYING SOILS.
- CARE SHALL BE TAKEN TO PROTECT THE UNDERLYING SOILS FROM CONSTRUCTION TRAFFIC AND THE DISCHARGE OF SEDIMENT LADEN RUNOFF. IF FEASIBLE, POSITION EQUIPMENT OUTSIDE THE LIMITS OF THE INFILTRATION PRACTICE.
- ONCE EXCAVATED AND PRIOR TO FILLING, THE UNDERLYING SOILS SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH LEVELING DRAG.
- FILL BELOW THE INFILTRATION PRACTICE SHALL CONFORM TO THE SPECIFICATIONS FOR NHDOT ITEM 209.1, "GRANULAR BACKFILL".
- DO NOT PLACE INFILTRATION PRACTICES INTO SERVICE UNTIL ALL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

INFILTRATION PRACTICE CONSTRUCTION NOTES



UNDERDRAIN DETAILS
SCALE: NONE



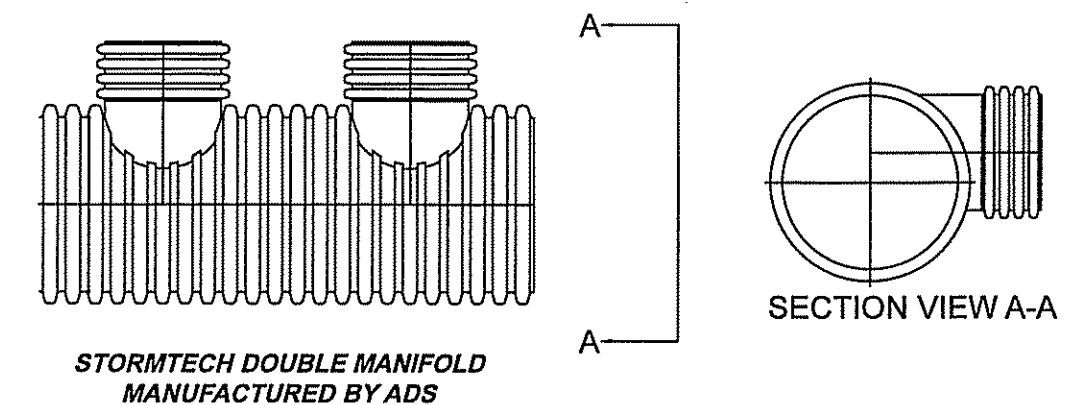
SC-740 6" INSPECTION PORT DETAIL
SCALE: NONE

MANIFOLDS ARE DESIGNED TO BE COUPLED TO STORMTECH PREFABRICATED END CAPS. WHEN USING STANDARD END CAPS, CORRUGATE DPIPE UP TO 18 INCHES CAN BE INSERTED DIRECTLY INTO THE END CAP. FOR 24" INLET PIPES, A CORRUGATED TO SMOOTH PIPE ADAPTER IS REQUIRED.

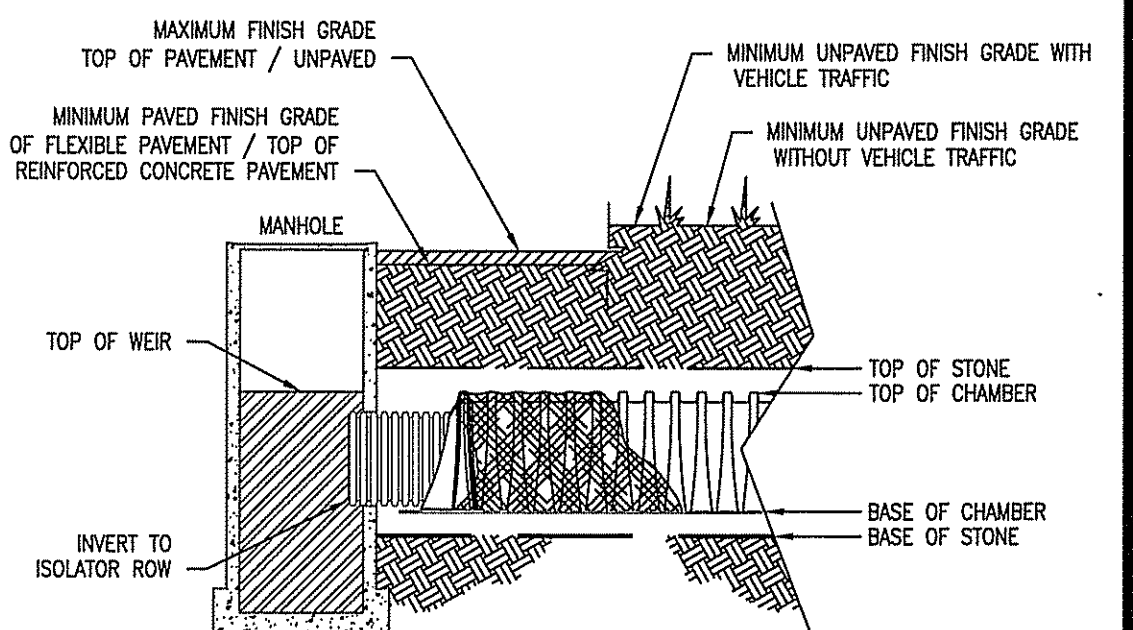
FOR INFORMATION
CALL 1-888-892-2694

STUB SIZE	48"	42"	36"	30"	24"	18"	15"	12"	10"	8"
24"	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	-	-	-	-
18"	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	-	-	-	-
15"	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	-	-	-	-
12"	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	-	-	-	-
10"	-	-	-	-	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	-
8"	-	-	-	-	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL	AVAIL

AVAIL - STANDARD HEADERS AVAILABLE



STORMTECH DOUBLE MANIFOLD
MANUFACTURED BY ADS



SECTION AT DRAIN STRUCTURE
SCALE: NONE

B	8/29/22	REVISED PER ENGINEERING PEER REVIEW		CLR	CEB
A	8/3/22	REVISED PER ENGINEERING REVIEW		CLR	CEB
REV.	DATE	DESCRIPTION	C/O	DR	CK

STORMWATER RECHARGE SYSTEM DETAILS

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17

(46 OLD FERRY ROAD)

METHUEN, MASSACHUSETTS

PREPARED FOR:

TRIPLE G PROPERTY LLC
59 BONANNO COURT, METHUEN, MA 01844

SCALE: AS SHOWN

APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs



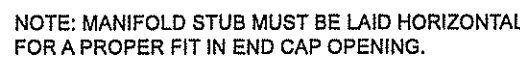
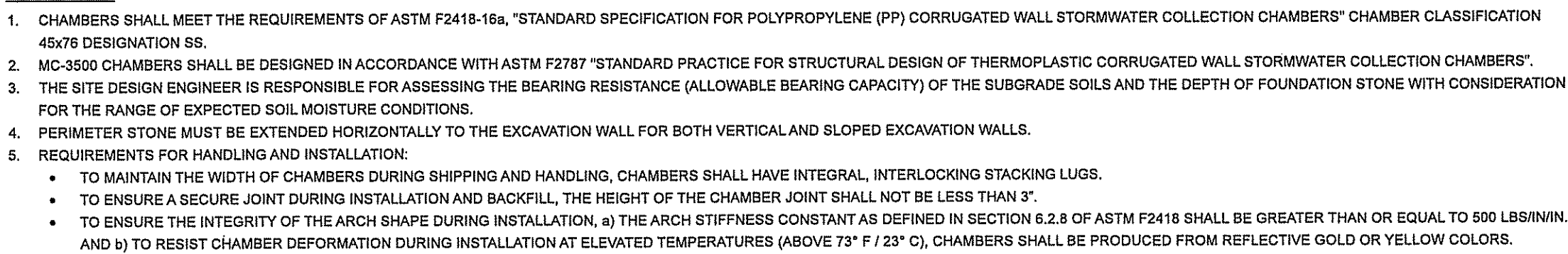
MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBGRADE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE (OR LAYER 'D' 24" (600 mm) ABOVE THE TOP OF THE CHAMBERS. NOTE THAT PAVEMENT SUBGRADE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBGRADE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 ¹ A-1, A-2-4, A-3 OR AASHTO M43 ¹ 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED, COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 56% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 98% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43 ¹ 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. ^{2,3}

1. THE LISTED ASHED DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (ASPHALT MAC) STONE".

2. STORMWATER COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 8" (230 mm) MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.

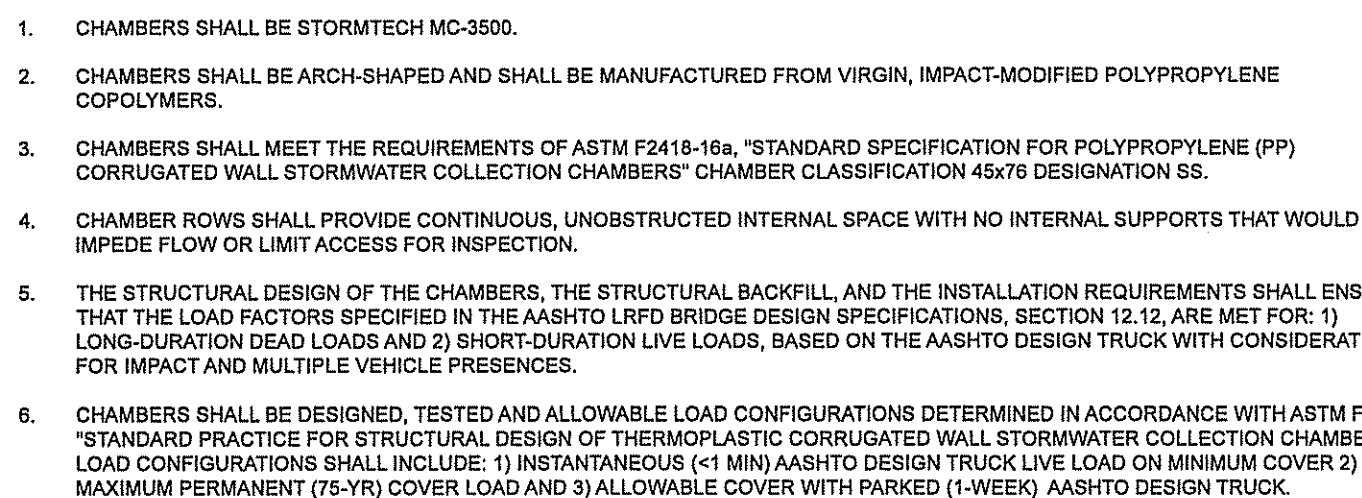
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMWATER FOR ADDITIONAL INFORMATION.

4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTE: ALL DIMENSIONS ARE NOMINAL

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT



7. REQUIREMENTS FOR HANDLING AND INSTALLATION:

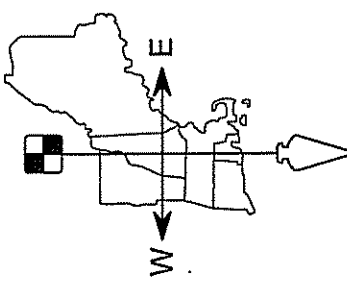
- TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
- TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
- TO MAINTAIN THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 0.50 LBS/IN/IN, AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM RELATIVELY GOLD OR YELLOW CULOR.

8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:

- THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
- THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.85 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED FOR ASTM F2727 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
- THE TEST DERIVED CRACK MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.

9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

Office: 206 Elm Street, Milford NH 03055
Phone: (603)-672-5456 Fax: (603)-413-5456
Email: FieldstoneLandConsultants@Comcast.net

[illegible]

FILE: 2295DT01D.dwg	APRIL 4, 2022	SCALE: = NOT TO SCALE
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PROJECT NO. 2295.01
SHEET NO. 26B OF 29

WAREHOUSE

PROPOSED SEPTIC
LOADING = 1440 GPD

FINISHED FLOOR
ELEV. = 246.0

INLET AND OUTLET RISER FOR TANK TO BE UP TO FINISHED GRADE
WITH H-20 CAST IRON MANHOLES
MIN. OF 20" DIAMETER-TYP

10' MIN.

36 LF
4" SCH 40 PVC W/ TIGHT JOINTS
MIN 2% SLOPE, 1/4" PER FT.

INV.= 236.6

INV.= 235.8

PROPOSED
SEWER CROSSING
SEWER INV.=235.2
WATER INV.=237.6
ELECTRIC = 241.8
DRAIN = 239.5

SEPTIC TANKS TO BE LEVEL
AND SET ON A STABLE
COMPACTED BASE W/6"
OF CRUSHED STONE

INLET Baffle TO BE A SCH 40 PVC T-Baffle. EXTEND AT LEAST 10"
BELOW LIQUID BUT NOT DEEPER THAN THE OUTLET Baffle

OUTLET Baffle TO BE A VENTED TEE WHICH EXTENDS DOWN
TO 14" MIN BELOW LIQUID DEPTH WITH TANK WATER DEPTH OF 4' MIN

OUTLET & INLET Baffle TO EXTEND ABOVE LIQUID LEVEL TO
NOT LESS THAN 3" FROM TOP OF TANK

3 LF - 4" SCH 40 PVC SEWER LINE
MIN 1% SLOPE, 1/8" PER FT.

INV.= 235.6

INV.= 235.3

PROPOSED TANK #1
3000 GALLON H-20
PRE-CAST CONCRETE
SEPTIC TANK

INLET Baffle
PVC OUTLET
Baffle
W/GAS Baffle

4" SCH 40 PVC SEWER LINE
MIN 1% SLOPE, 1/8" PER FT.

400 LF±

INV.= 235.1

INV.= 184.7

PROPOSED TANK #2
1500 GALLON H-20
PRE-CAST CONCRETE
SEPTIC TANK

INLET Baffle
PVC OUTLET
Baffle
W/GAS Baffle

D-BOX WITH H-20 LOADING RISER TO BE
WITHIN 6" OF FINISHED GRADE

60'

SOLID 4" SCH 40 PVC LEVEL
FOR 2 FT FROM D-BOX THEN
0.005 FT/FT TO LEACH LINE
FINISH GRADE TO SLOPE 2% MIN

BED TO BE LEVEL MIN.FG=184.9
PERFORATED SCH 40 PVC PIPE AT .005 FT/FT
TO LEACH LINE

PERF. INV.= 183.3

SOLID INV.= 183.5

4" OUTLET DISTRIBUTION BOX 12" INSIDE MIN.
TO BE LEVEL AND HAVE 6" DEEP SUMP MIN.
AND 2" THICK WALLS MIN. & VELOCITY REDUCING TEE
TO BE SET ON STABLE COMPACTED BASE

4" PVC VENT, 3'
3:1 SLOPE

4" PVC INSPECTION PORT W/SCREW
CAP WITHIN 3' OF SURFACE

BREAKOUT
ELEV.=184.0

INV.= 183.0

BED ELEV. = 182.5

SHWT ELEV. = 177.5

ALL UNSUITABLE MATERIAL AND ORGANIC MATTER SHALL BE REMOVED FROM THE AREA
BENEATH THE SAS. LEACH BED IS TO BE DOUBLE WASHED .75-1.5" CRUSHED STONE BASE WITH
AT LEAST 2" OF 1/8"-1/2" STONE ABOVE THE BASE AGGREGATE TO PREVENT INFILTRATION OF
FINER TEXTURED SOILS.

PROPOSED SAS TO HAVE 4 ROWS OF PERFORATED DISTRIBUTION LINES

20' (4 ROWS @ 5' OC)

PERFORATED PIPING IS 5' ON CENTER

2'-6"

5'

5'

2'-6"

FINISHED GRADE SLOPED AT 2%

4" TOPSOIL

9" SAND BACKFILL

2"

4"

VARIABLE (6" MIN)

FILTER FABRIC

4" SCH. 40 PVC PERFORATED PIPING-HOLES AT 5/8"

BED BOTTOM ELEVATION

DOUBLE WASHED BASE SEPTIC STONE - .75 TO 1.5 INCH

PIPING TO BE .005 FT/FT DOWNWARD SLOPE (NOT TO SCALE)

ANY DISCREPANCIES, CHANGES, SUBSTITUTIONS OR DEVIATIONS FROM PLAN REQUIRES NOTIFICATION OF THE DESIGNER. USE OF THIS PLAN FOR PURPOSE OTHER THAN THE CONSTRUCTION OF THE SEWAGE DISPOSAL SYSTEM SHALL BE AT THE USERS RISK.

SOIL ABSORPTION SYSTEM DATA

WAREHOUSE WITH 86 EMPLOYEES/UNIT AT 15 GPD PER EMPLOYEE = 1440 GPD
1440 GPD AT 15 MIN/IN AT 0.74 GPD/SF FOR CLASS I SOILS = 1,066 SF
OF SOILS ABSORPTION AREA REQUIRED
PROPOSED IS A 20X60' LEACHFIELD PROVIDING 1,200 SQ FT TOTAL

SOIL DATA - PAXTON FINE SANDY LOAM, 8-15% SLOPES

DESIGN INTENT

DUE TO SWHT AT 115" THE BOTTOM OF THE SOIL ABSORPTION
SYSTEM (SAS) SHALL BE CONSTRUCTED AT ELEVATION=182.5 A 5 FOOT SEPARATION
IS REQUIRED BETWEEN BED BOTTOM AND THE AVERAGE SEASONAL HIGH WATER
TABLE: PROVIDED IS 5.0 FT OF SEPARATION.

RECORDED AS BOOK #15533, PAGE #306 DATED 6/29/2018
NORTH ESSEX COUNTY REGISTRY OF DEEDS

DH-3 6/23/20 (ELEV.=187.0)
 SOIL EVALUATION PERFORMED BY CHRISTOPHER GUIDA, MASSACHUSETTS SOIL EVALUATOR
 LICENSE NO. #13488, WITNESSED BY CITY OF METHUEN, MA

Layer	Soil Description	Depth
A	10R 3/3 DARK BROWN, LOAM, GRANULAR, FRABLE	12"
B1	10R 4/6 DARK YELLOWISH BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRABLE	24"
B2	10R 5/6 YELLOWISH BROWN, GRAVELLY LOAMY FINE TO MEDIUM SAND, GRANULAR, FRABLE	45"
C	2.5Y 6/3 LIGHT YELLOWISH BROWN, FINE SANDY LOAM, WEAK BLOCKY, MODERATELY FIRM	115"

ROOTS 90"
 E.S.H.W.T. 115"
 WATER NONE
 HARDPAN NONE
 LEDGE NONE

PERC. TEST 2 3 MIN./IN. AT 84"
 DATE 6/23/20

1. THIS IS NOT A PROPERTY LINE SURVEY. ALL PROPERTY LINES SHALL BE VERIFIED BY OWNER AND CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. THERE ARE NO WETLANDS WITHIN 100 FEET OF THE SEWAGE DISPOSAL SYSTEM.
3. INSTALLER SHALL NOT ALLOW ANY VEHICULAR TRAFFIC TO OCCUR OVER THE PROPOSED EFFLUENT DISPOSAL SYSTEM (EDS)OR PROPOSED RESERVE AREA EXCEPT DURING CONSTRUCTION.
4. ALL PIPE CONNECTIONS TO THE SEPTIC TANK SHALL BE SEALED WITH A NON-SHRINK MORTAR OR OTHER APPROVED SEALANT.
5. THE INSTALLATION OF A SURFACE DRAINER IS PROHIBITED.
6. THIS SYSTEM IS NOT DESIGNED FOR DISCHARGES FROM WATER PURIFICATION SYSTEMS OR FLOOR DRAINS.
7. REPLACEMENT SYSTEM TO BE LOCATED IN THE RESERVE AREA LOCATION IF REPLACEMENT BECOMES NECESSARY.
8. CONTRACTOR SHALL USE CAUTION WHEN PREPARING THE SITE AND PLACING FILL MATERIALS TO AVOID COMPACTION AND/OR SMEARING OF THE INFILTRATIVE SOILS.
9. ALL INVERT ELEVATIONS AND GRADES ARE REFERENCED FROM THE T.B.M.
10. DESIGNER SHALL NOT BE NOTIFIED OF ANY CONDITIONS CONTRARY TO THOSE SPECIFIED ON THIS PLAN.
11. ADDITIONAL PERMITTING MAY BE REQUIRED FOR CROSSING EXISTING UTILITY EASEMENTS WITH SEWER LINE.
12. PROPOSED WATER SUPPLY IS MUNICIPAL SERVICE.
13. ALL PIPING SHALL BE SCH 40 PVC OR BETTER
14. SEPTIC TANK SHALL BE PUMPED AND CLEANED A MINIMUM OF EVERY 36 MONTHS OR AT MORE FREQUENT INTERVALS IF NEEDED.
15. SEPTIC TANK AND D BOX ARE TO BE SUPPLIED BY SHEA CONCRETE PRODUCTS OR EQUAL.
16. MAGNETIC TAPE TO BE PLACED OVER ALL SYSTEM COMPONENTS.
17. SEPTIC TANKS AND D-BOX TO BE SET ON A LEVEL & STABLE COMPACTED BASE
18. ALL SEPTIC MATERIALS SHALL MEET TITLE 5 CRITERIA
19. CONTRACTOR AND OWNER ARE RESPONSIBLE FOR CONTACTING DISGASE FOR MARKING OF UNDERGROUND UTILITIES PRIOR TO BREAKING GROUND. ANY UTILITIES SHOWN HEREIN ARE APPROXIMATE ONLY.
20. THERE ARE NO WELLS OR WATER SUPPLIES WITHIN THE SETBACK REQUIREMENTS.

SCHEDULE OF MATERIALS:

4" SCH 40 PVC SOLID PIPE= 440 LF+/-
6" SCH 40 PVC SOLID PIPE (SLEEVE) = 275 LF+/-
4" SCH 40 PVC PERFORATED PIPE = 240 LF+/-
4" SCH 40 PVC ELBOW 45 DEG = 74 LF+/-
4" SCH 40 PVC ELBOW 45 DEG = 24 LF+/-
4" SCH 40 PVC ELBOW 22.5 DEG = 1
4" SCH 40 PVC TEE = 3
4" SCH 40 THREADED COLLAR W/ SCREW CAP = 5
ALL JOINTS TO BE GLUED AND SEALED

MAGNETIC TAPE TO COVER ALL COMPONENTS
20" DIA RISER FOR D-BOX (H=20) = 1
20" DIA RISER FOR SEPTIC TANKS (H=20) = 40
4 OUTLET CONCRETE 12"x12" ID MIN-D-BOX
30" GALLON CONCRETE SEPTIC TANK = 1
1500 GALLON CONCRETE SEPTIC TANK = 1

APPROVED TITLE 5 SPECIFIED SEPTIC SAND
LUMP & CRUSHED STONE
ALL MATERIALS TO COMPLY WITH 310 CMR 15

(NOT TO SCALE)

90 DEG. BEND

TEE (TYP.)

SCH-40 PVC TIGHT PIPE

4" SCH-40 SOLID PVC (TYP.)

4" PVC VENT 3' HIGH WITH 180 DEG. BEND

45" SCH-40 ELBOW (TYP.)

4" SCH-40 PERF. PVC (TYP.)

4" PVC VENT, 3' HIGH

VENT MANIFOLD TO BE RAISED ABOVE THE LEACHING LINES

45" SCH-40 ELBOW

4" SCH-40 PERF. PVC LEACHING LINE (TYP.)

VENT MANIFOLD SOLID SCH-40 PVC

NO SCALE

478'±

391'±

300'±

129'±

487'±

750'±

150'±

806'±

750'±

272'±

DESIGN AREA #1
(SHEET ST-1)

DESIGN AREA #2
(SHEET ST-2)

MAP 1010
LOT 79-17

OLD FERRY ROAD

A	10YR 3/3 DARK BROWN, LOAM, GRANULAR, FRAGILE	10"
B1	10YR 5/6 YELLOWISH BROWN, LOAMY FINE SAND, GRANULAR, FRAGILE	28"
B2	2.5YR 6/4 LIGHT YELLOWISH BROWN, GRAVELLY LOAMY FINE SAND, MASSIVE, MODERATELY FIRM	40"
C	2.5Y 4/3 OLIVE BROWN, FINE SANDY LOAM, MASSIVE/BLOCKY, MODERATELY FIRM	115"

A	10YR 3/3 DARK BROWN, LOAM, GRANULAR, FRAGILE	12"
B1	10YR 4/6 DARK YELLOWISH BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRAGILE	26"
B2	10YR 5/6 YELLOWISH BROWN, GRAVELLY LOAMY FINE TO MEDIUM SAND, GRANULAR, FRAGILE	48"
C	2.5Y 6/3 LIGHT YELLOWISH BROWN, FINE SANDY LOAM, HEAVY BLOCKY, MODERATELY FIRM	115"

A	10YR 3/3 DARK BROWN, LOAM, GRANULAR, FRAGILE	10"
B1	10YR 4/6 DARK YELLOWISH BROWN, GRAVELLY LOAMY SAND, GRANULAR, FRAGILE	22"
B2	10YR 5/6 YELLOWISH BROWN, GRAVELLY LOAMY FINE TO MEDIUM SAND, GRANULAR, FRAGILE	32"
C	2.5Y 6/3 LIGHT YELLOWISH BROWN, FINE SANDY LOAM, WEAK BLOCK, MODERATELY FIRM	115"

I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.017. I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THE ATTACHED SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE WITH 310 CMR 15.100 THROUGH 15.107.

~~DATE: 12/12/12~~

ROOTS	<u>86"</u>
E.S.H.W.T.	<u>115"</u>
WATER	<u>NONE</u>
HARDPAN	<u>NONE</u>
LEDGE	<u>NONE</u>

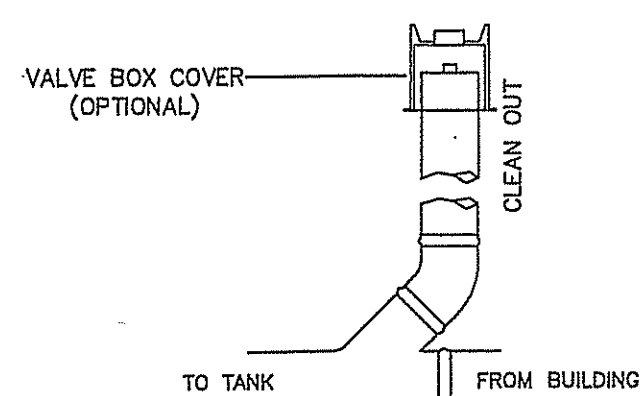
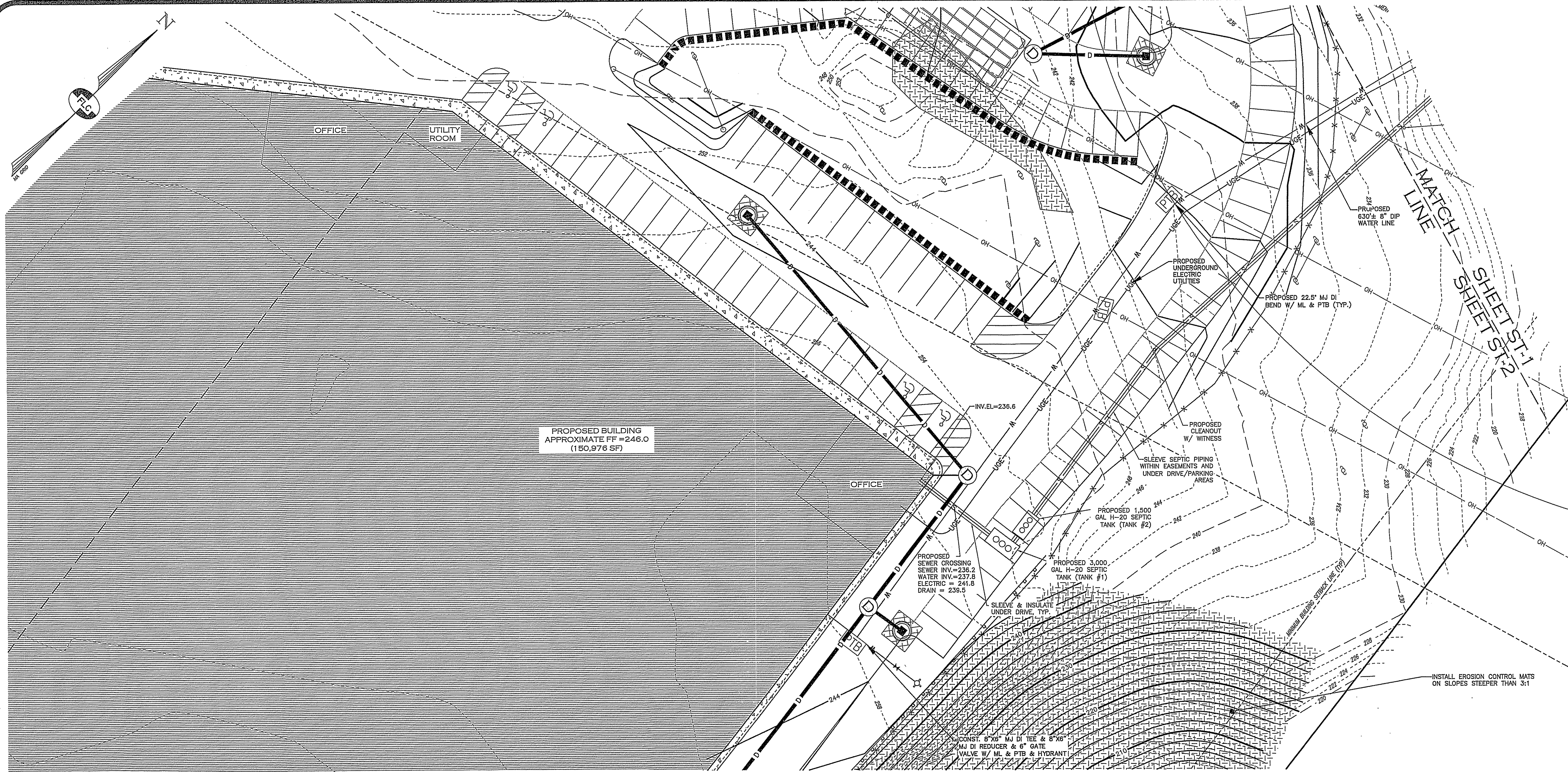
*PIE HILL
INDUSTRIAL PARK*
TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS
PREPARED FOR AND LAND OF:
TRIPLE G, LLC
46 ALSUN DRIVE, HOLLIS, NH 03049

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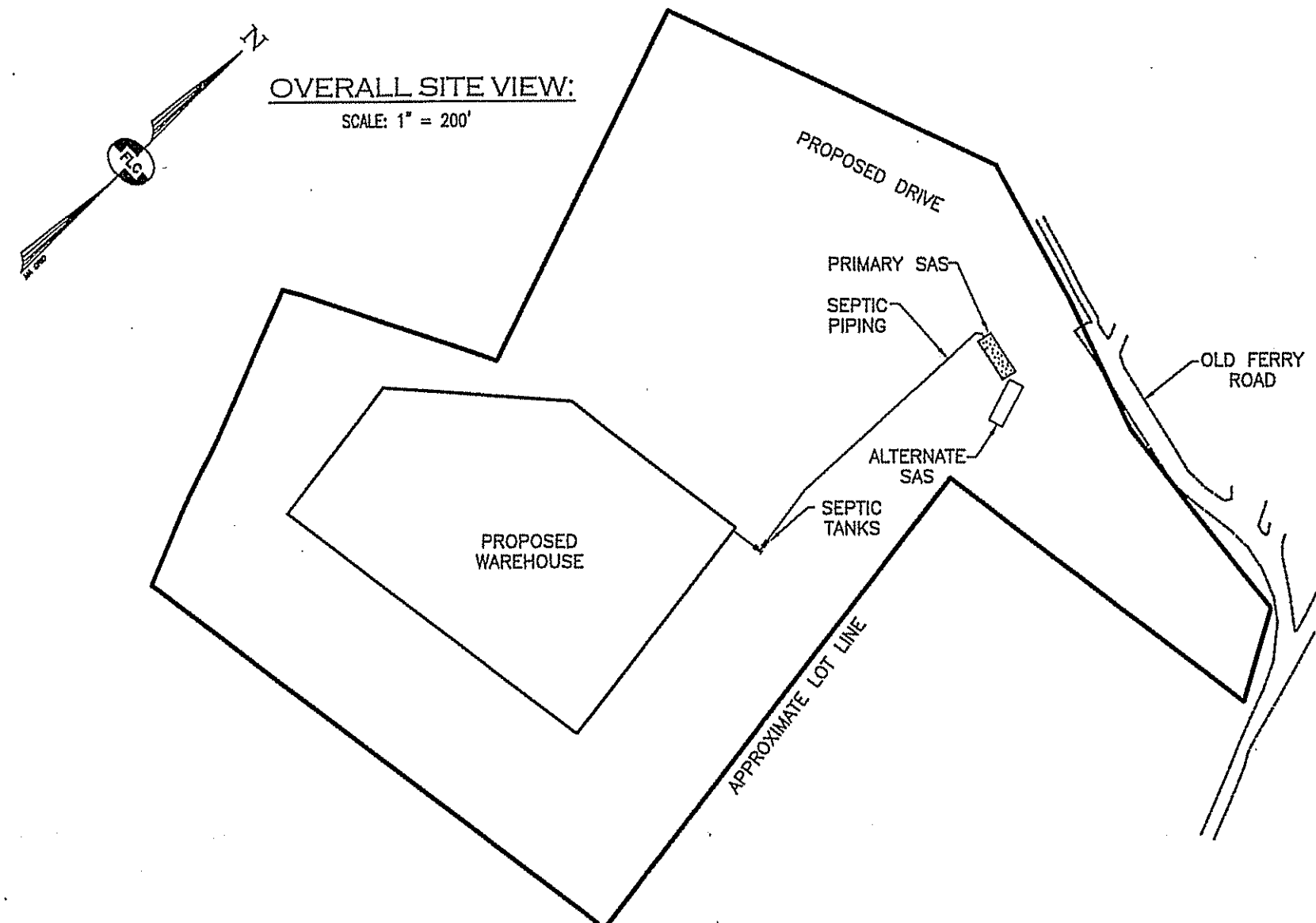
206 Elm Street, Milford, NH 03055
Phone: (603)-413-5456 Fax: (603)-413-5456
www.FieldstoneLandConsultants.com

FILE: 2295ST01C.dwg	PROJ. NO. 2295.01	SHEET: ST-1	SHEET NO. 27 OF 29
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SEWER SERVICE CLEAN OUT DETAIL

SCALE: N.T.S.
1
ST-2



OVERALL SITE VIEW:
SCALE: 1" = 200'

LEGEND:

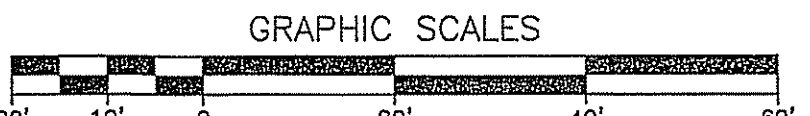
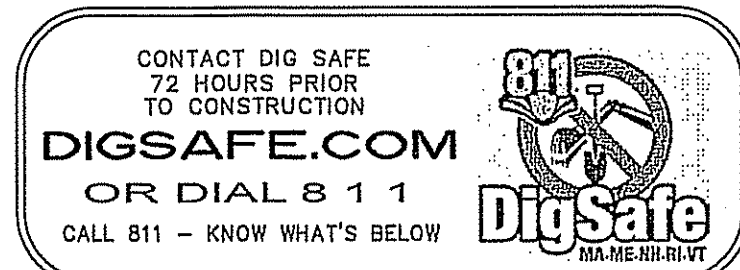
EXISTING FEATURES

- RIGHT-OF-WAY LINE
- BOUNDARY LINE
- ABUTTING LOT LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- EDGE OF PAVED ROAD
- EDGE OF GRAVEL ROAD
- STONE WALL
- EDGE OF TREE LINE
- EDGE OF WETLANDS
- WETLANDS BUFFER LINE
- 10' CONTOUR INTERVAL
- 2' CONTOUR INTERVAL
- CHAIN-LINK FENCE
- STOCKADE FENCE
- CULVERT
- OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC DISSAFE

- UNDERGROUND GAS LINE
- WATER LINE
- TAX MAP & LOT NUMBER
- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIN FOUND
- UTILITY POLE, GUY & LIGHT
- CATCH BASIN (SQUARE)
- WATER HYDRANT
- WATER VALVE
- WATER SHUT-OFF
- WELL
- SIGN WITH TWO POSTS
- RIP RAP
- ROCK
- BOLLARD 8" DIA 3' HEIGHT
- TEST PIT NUMBER
- LEDGE
- SEASONAL HIGH WATER

PROPOSED FEATURES

- EDGE OF PAVEMENT
- CAPE COD BERM
- SHOULDER
- UNDERGROUND UTILITY LINES AND UTILITY BOXES LOCATION
- WATER GATE VALVE
- WATER SERVICE SHUT-OFF
- ALTERNATE EDA
- PRIMARY EDA
- RETAINING WALL
- PAVED/GRAVEL AREA
- BUILDING
- 10 FT. CONTOUR
- 2 FT. CONTOUR
- SPOT ELEVATION
- STONE CHECK DAM
- SILT FENCE
- REINFORCED SWALE (RIPRAP OR FABRIC)
- STORM WATER DRAINAGE
- DRAIN INLET PROTECTION
- DRAIN MANHOLE



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REV.	DATE	DESCRIPTION	DR.	CHK.
C	7/22/22	UPDATED PLAN TO ADDRESS METHUEN B.O.H. 7/20/22 COMMENTS	KMR	CEB
B	6/29/22	UPDATED PLAN TO ADDRESS METHUEN B.O.H. 5/10/22 COMMENTS	KMR	CEB
A	4/9/22	REV. UTILITIES/GROUND/DRAINAGE	KMR	CEB

PROPOSED SEWAGE DISPOSAL SYSTEM PLAN

TRIPLE G. LLC

PLANS ISSUED FOR
PERMITTING

TAX MAP 1010 LOT 79-17
METHUEN, MASSACHUSETTS

FILE:2295.S101C.dwg
FEBRUARY 22, 2022
SCALE: 1" = 20' HORIZ.

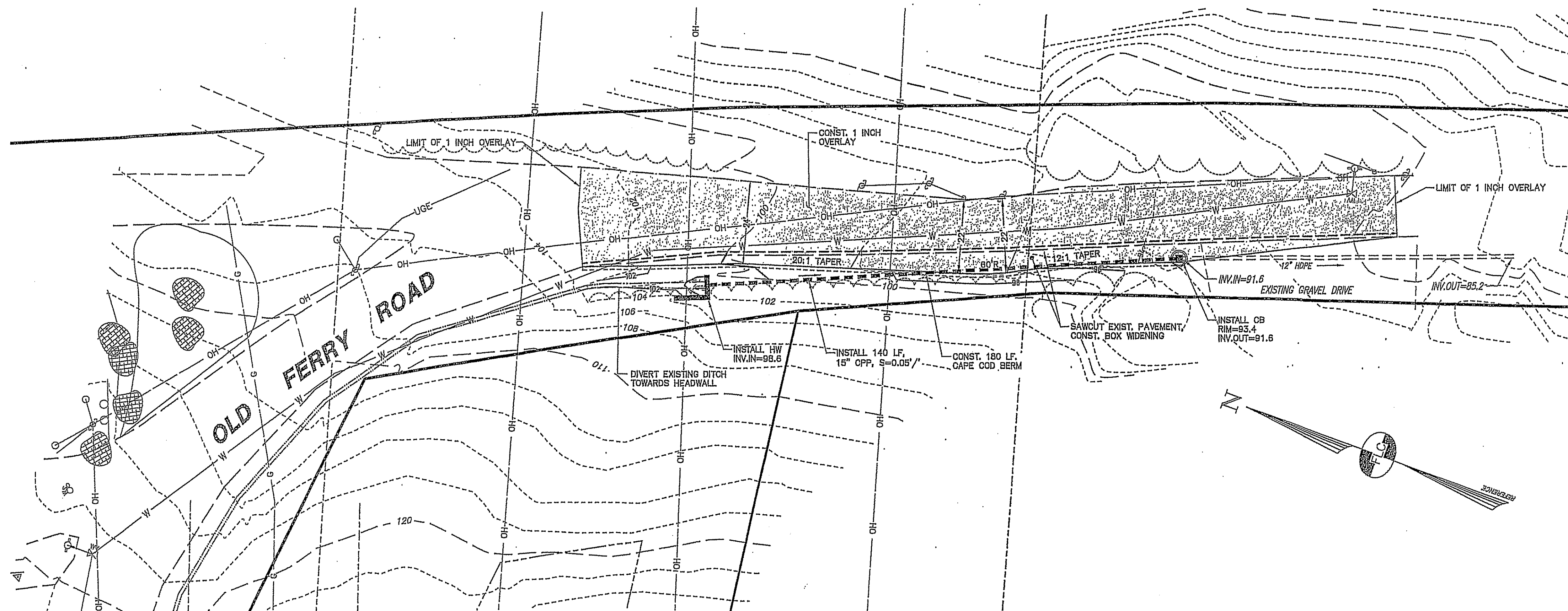
ST-2
SHEET
PROJECT NO. 2295.01
SHEET NO. 28 of 29

LEGEND:

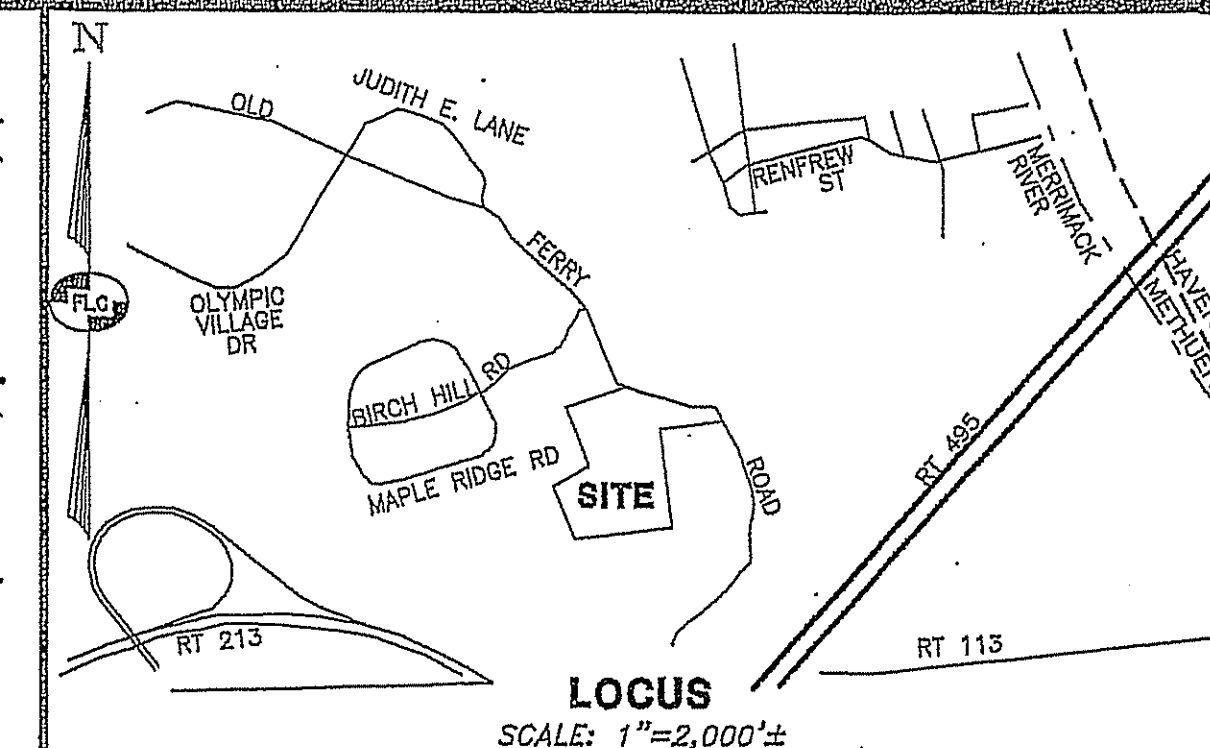
- EXISTING FEATURES**
- RIGHT-OF-WAY LINE
 - BOUNDARY LINE
 - ADJUTING LOT LINE
 - BUILDING SETBACK LINE
 - EXISTING EASEMENT LINE
 - EDGE OF PAVED ROAD
 - EDGE OF GRAVEL ROAD
 - STONE WALL
 - EDGE OF TREE LINE
 - EDGE OF WETLANDS
 - WETLANDS BUFFER LINE
 - 10' CONTOUR INTERVAL
 - 302' 2' CONTOUR INTERVAL
 - OHAN-LINK FENCE
 - STOCKADE FENCE
 - CULVERT
 - OH — OVERHEAD UTILITY LINE
 - UGE — UNDERGROUND ELECTRIC DISSAFE
 - UG — UNDERGROUND GAS LINE
 - W — WATER LINE
- 1010-79-17**
- G.B.(F) TAX MAP & LOT NUMBER
 - D.H.(F) GRANITE BOUND FOUND
 - I.P.W.(F) DRILL HOLE FOUND
 - UTILITY POLE, GUY & LIGHT
 - CATCH BASIN (SQUARE)
 - WATER HYDRANT
 - WATER VALVE
 - WATER SHUT-OFF
 - WELL
 - SIGN WITH TWO POSTS
 - RIP RAP
 - ROCK
 - BOLLARD 6" DIA 3' HEIGHT

PROPOSED FEATURES

- EDGE OF PAVEMENT
- 282 — 2 FT. CONTOUR
- 280 — 10 FT. CONTOUR
- W — WATER SERVICE
- S — SILT SACK
- C — CATCH BASIN
- PAVED/GRAVEL AREA
- 242.1 — SPOT GRADE
- LIMITS OF CLEARING

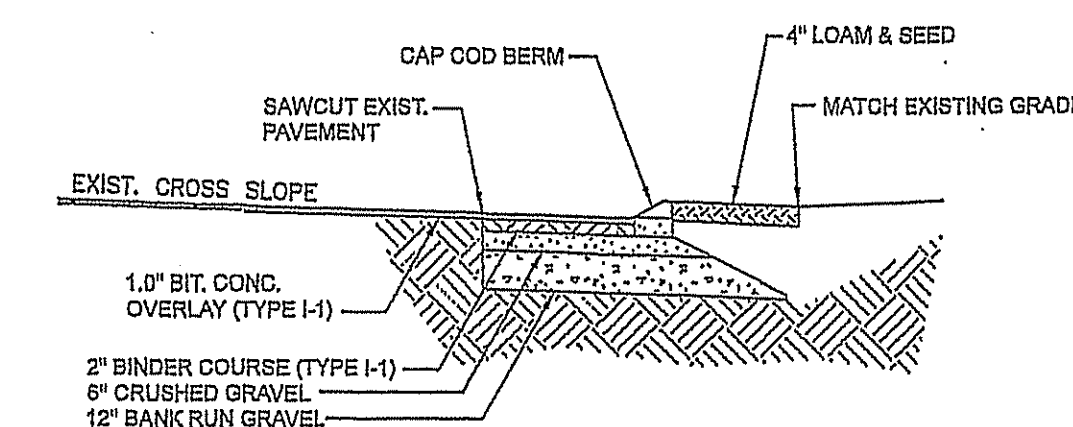
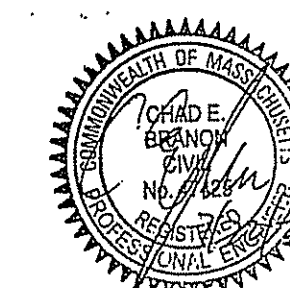


OFF SITE IMPROVEMENT PLAN



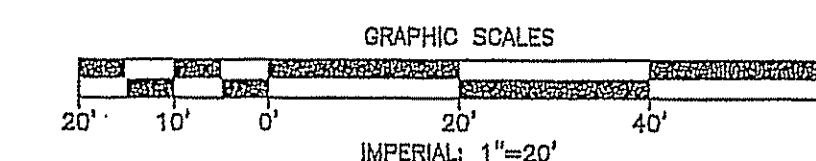
NOTE:

1. ALL OFF-SITE IMPROVEMENTS TO BE CONSTRUCTED BY OTHERS.



SCALE: N.T.S.

BOX WIDENING DETAIL



REV.	DATE	DESCRIPTION	C/O	DR	CK

OFF SITE IMPROVEMENT EXHIBIT PLAN

PIE HILL WAREHOUSING

TAX MAP 1010 LOT 79-17
(46 OLD FERRY ROAD)
METHUEN, MASSACHUSETTS

PREPARED FOR AND LAND OF:
TRIPLE G PROPERTY LLC
59 BONANNO COURT, METHUEN, MA 01844

SCALE: 1" = 20'

APRIL 4, 2022

Surveying ♦ Engineering ♦ Land Planning ♦ Permitting ♦ Septic Designs

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