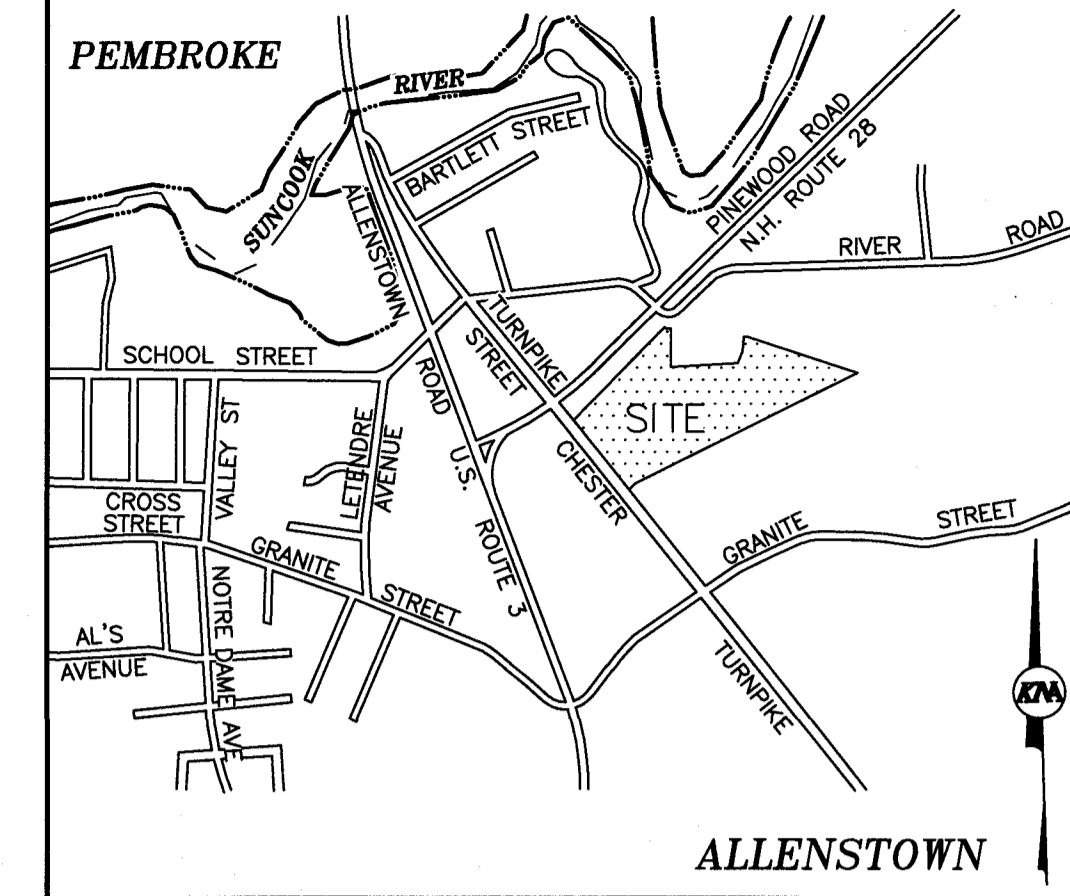


VICINITY PLAN
NOT TO SCALE



LOCATION PLAN
SCALE: 1" = 1,000'±

NON-RESIDENTIAL SITE PLAN OPTIMUS SENIOR LIVING

MAP 109; LOT 17 15 PINEWOOD ROAD ALLENSTOWN, NEW HAMPSHIRE

OWNER:

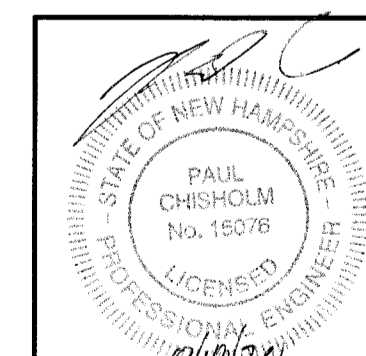
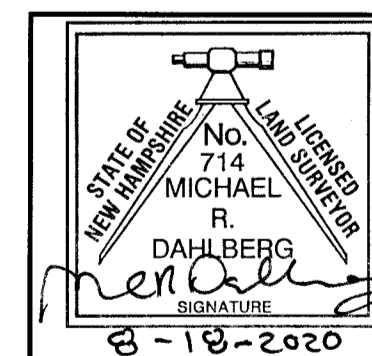
RUI & MARIA J. LEITE, TRUSTEES
OCEAN REALTY TRUST
9772 BLUE STONE CIRCLE
FORT MYERS, FL 33913
M.C.R.D. BK. 3459 PG. 554

PREPARED FOR:

OPTIMUS SENIOR LIVING
162 COLLEGE HWY
P.O. BOX 363
SOUTHAMPTON, MA 01073

PREPARED BY:

KEACH-NORDSTROM ASSOCIATES, INC.
10 COMMERCE PARK NORTH, SUITE 3B
BEDFORD, NEW HAMPSHIRE 03110
(603) 627-2881



KNA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

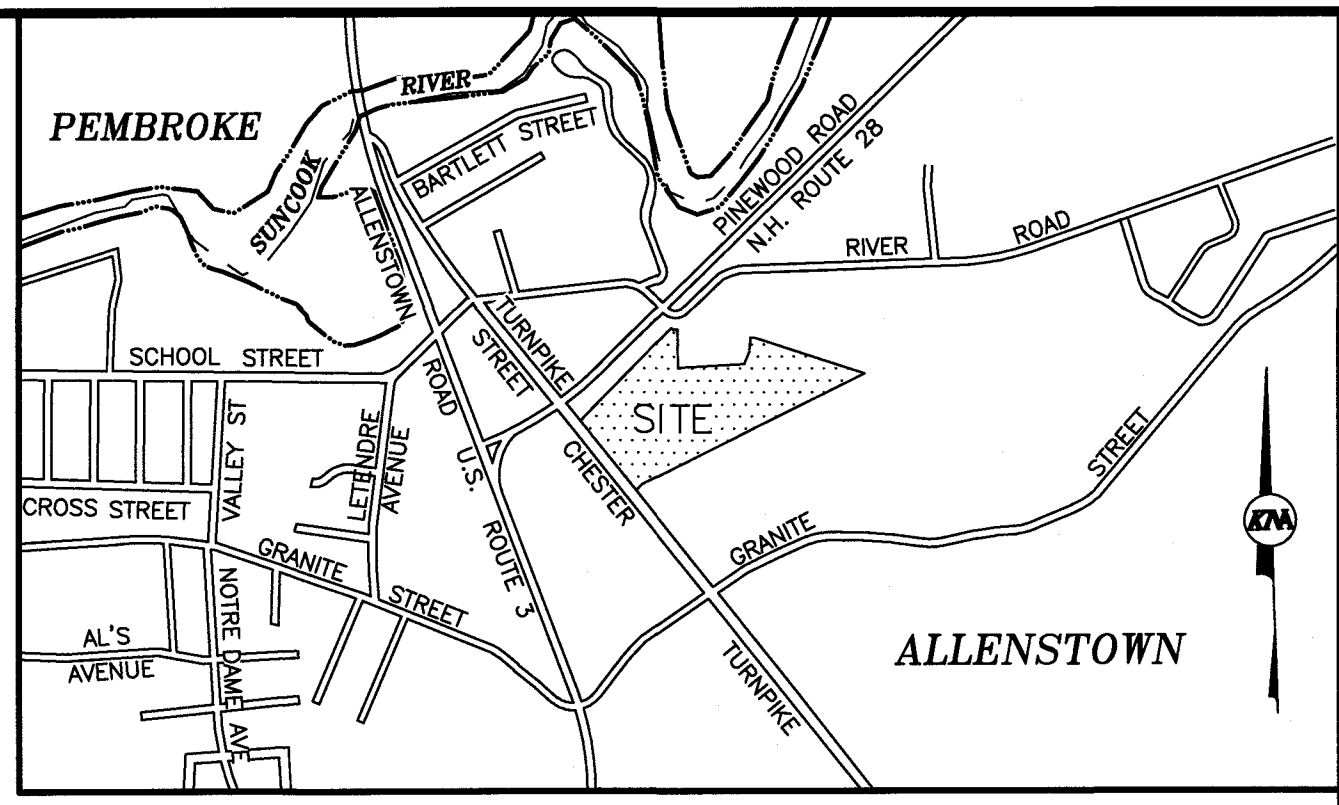
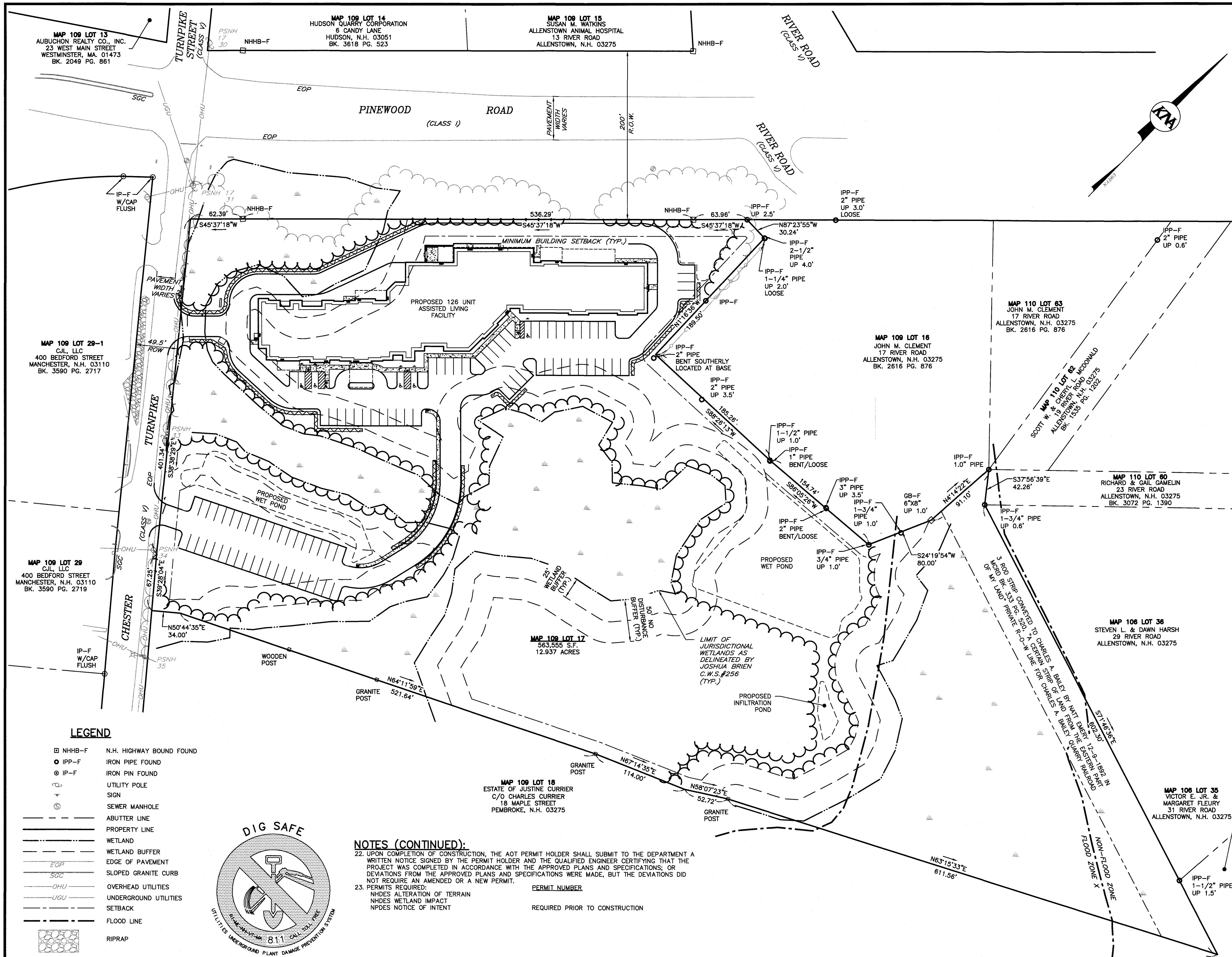
JUNE 2, 2020
LAST REVISED: AUGUST 17, 2020
PROJECT NO. 19-1126-1

SHEET TITLE

- MASTER SITE PLAN
- EXISTING CONDITIONS PLAN
- NON-RESIDENTIAL SITE PLAN
- GRADING AND DRAINAGE PLAN
- EROSION CONTROL AND PHASING PLAN
- UTILITY PLAN
- SEWER PROFILE
- LANDSCAPE PLAN
- LIGHTING PLAN
- WETLAND IMPACT PLAN
- CONSTRUCTION DETAILS

SHEET No.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11 - 18



VICINITY PLAN
1" = 1000'

- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW INFORMATION FOR A PROPOSED 126 UNIT ASSISTED LIVING FACILITY ON ASSESSOR'S MAP 109 LOT 17 IN THE TOWN OF ALLENSTOWN, NEW HAMPSHIRE AND NO OTHER PURPOSE.
 - LOT AREA: 563,555 S.F. OR 12,937 ACRES
 - OWNER OF RECORD:
RUI J. & MARIA J. LEITE, TRUSTEES
OCEAN REALTY TRUST
9772 BLUE STONE CIRCLE
FORT MYERS, FL 33913
 - THE SUBJECT PARCEL LIES WITHIN THE COMMERCIAL/LIGHT INDUSTRIAL (CL) ZONING DISTRICT AND IS SUBJECT TO THE FOLLOWING DIMENSIONAL REQUIREMENTS.
MINIMUM BUILDING SETBACKS:
- FRONT 20 FT
- SIDE 15 FT
- REAR 40 FT
 - BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED BY THIS OFFICE IN FEBRUARY OF 2020.
 - HORIZONTAL DATUM IS NAD83, VERTICAL DATUM IS NAVD88 OBTAINED FROM GPS SURVEY METHODS UTILIZING NHDOT D 17 1934 STAMPED 361-0040.
 - NORTH ORIENTATION IS NAD83
 - WETLANDS WERE DELINEATED BY JOSHUA BRIEN, C.W.S. #256 OF KEACH-NORDSTROM ASSOCIATES, INC.
 - EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF ALLENSTOWN, NEW HAMPSHIRE, MERRIMACK COUNTY, COMMUNITY PANEL NUMBER 33013C0564E PANEL NUMBER 564 OF 705, EFFECTIVE DATE: APRIL 19, 2010 INDICATES THAT A PORTION OF THE SUBJECT PREMISES IS LOCATED WITHIN A DESIGNATED FLOOD ZONE "X" WITH AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE OF FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND ARE PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE, THE OWNER OR CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
 - EASEMENTS, RIGHTS AND RESTRICTIONS SHOWN OR IDENTIFIED HEREON ARE THOSE FOUND DURING RESEARCH AT THE MERRIMACK COUNTY REGISTRY OF DEEDS. OTHER EASEMENTS, RIGHTS AND RESTRICTIONS MAY EXIST WHICH A TITLE EXAMINATION OF THE SUBJECT PREMISES MAY DETERMINE.
 - THE DECOMMISSIONED WATER MAIN IS TIED INTO THE RIVER ROAD MAIN NEAR THE SEWER PUMP STATION ON THAT ROAD. THIS INFORMATION WAS PROVIDED BY PEMBROKE WATER WORKS.
 - PARKING CALCULATIONS:
REQUIRED:
1 SPACE/INDEPENDENT UNIT X 39 INDEPENDENT UNITS = 39 SPACES
0.5 SPACES/ASSISTED UNIT X 87 ASSISTED UNITS = 44 SPACES
TOTAL SPACES REQUIRED = 39 SPACES + 44 SPACES = 83 SPACES
PROPOSED:
TOTAL SPACES PROPOSED = 89 SPACES + 5 HANDICAP SPACES = 96 SPACES
14. THE FOLLOWING VARIANCES WERE APPROVED BY THE ZONING BOARD OF ADJUDICATION AT THE APRIL 22, 2020 HEARING:
-ARTICLE X SECTION 1004.A DIMENSIONAL RESTRICTIONS: TO ALLOW THE A PROPOSED 4 STORY BUILDING TO REDUCE THE 100' RESIDENTIAL BUILDING SETBACK.
-ARTICLE XI SECTION 1113.1 & 5 LOT ACCESS: TO ALLOW FOR TWO CURB CUTS ALONG CHESTER TURNPIKE WITHIN 225 FEET OF EACH OTHER.
15. A CONDITIONAL USE PERMIT HAS BEEN REQUESTED OF THE PLANNING BOARD FOR THE FOLLOWING:
-ARTICLE XXV SECTION V SUBSECTION A: TO ALLOW FOR A TOTAL OF 26% IMPERVIOUS COVER ON SITE WHERE ONLY 20% IS ALLOWED.
-ARTICLE XXV SECTION V SUBSECTION C.6.b: TO ALLOW FOR ENCROACHMENTS WITHIN THE 50' NO DISTURBANCE WETLAND BUFFER.
-ARTICLE XXIV SECTION V SUBSECTION B.4: TO ALLOW FOR ONE FOOT OF SEPARATION BELOW THE PROPOSED INFILTRATION POND, WHERE FOUR FEET OF SEPARATION IS REQUIRED IN THE GROUNDWATER PROTECTION DISTRICT.
16. THE FOLLOWING WAIVERS ARE BEING REQUESTED OF THE PLANNING BOARD:
-SITE PLAN REVIEW REGULATIONS ARTICLE VII SECTION 7.01(c): TO ALLOW FOR DISTURBANCE WITHIN THE 25' WETLAND BUFFER.
17. THE TOTAL SITE IMPACT AREA IS APPROXIMATELY 226,410 SQUARE FEET, WHICH NECESSITATES A NHDES ALTERATION OF TERRAIN PERMIT.
18. FINAL ARCHITECTURAL PLANS TO REFLECT THE APPROVED SITE PLAN, HEIGHT, AND BUILDING FACADE AS WELL AS ANY CONDITIONS PLACED ON THE APPROVAL.
19. NO REGULATED SUBSTANCES EXCEEDING PRESCRIBED AMOUNTS ARE TO BE STORED, HANDLED, OR USED ON SITE.
20. THE PROPOSED TOTAL IMPERVIOUS COVER ON SITE IS APPROXIMATELY 146,524 SQUARE FEET.
21. THE APPLICANT IS RESPONSIBLE FOR THE CONSTRUCTION, MAINTENANCE AND OWNERSHIP OF ALL STORMWATER SYSTEMS LOCATED ON SITE.
22. THE SIGHT DISTANCE REQUIREMENTS ARE FULFILLED BASED ON THE ALIGNMENT AND GRADE OF CHESTER TURNPIKE. THERE IS 260 FEET OF SIGHT DISTANCE TO THE SOUTH OF THE SOUTHERNMOST CURB CUT AND 55 FEET OF SIGHT DISTANCE TO THE INTERSECTION OF CHESTER TURNPIKE AND PINEWOOD ROAD.

LEGEND

- NHHB-F N.H. HIGHWAY BOUND FOUND
- IPP-F IRON PIPE FOUND
- IP-F IRON PIN FOUND
- UTILITY POLE
- SIGN
- SEWER MANHOLE
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- WETLAND BUFFER
- EOP EDGE OF PAVEMENT
- SGC SLOPED GRANITE CURB
- OHU OVERHEAD UTILITIES
- UGU UNDERGROUND UTILITIES
- SETBACK
- FLOOD LINE
- RIPRAP



NOTES (CONTINUED):

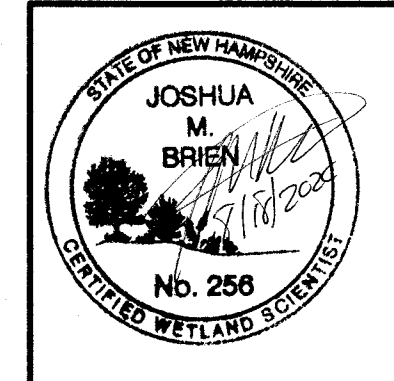
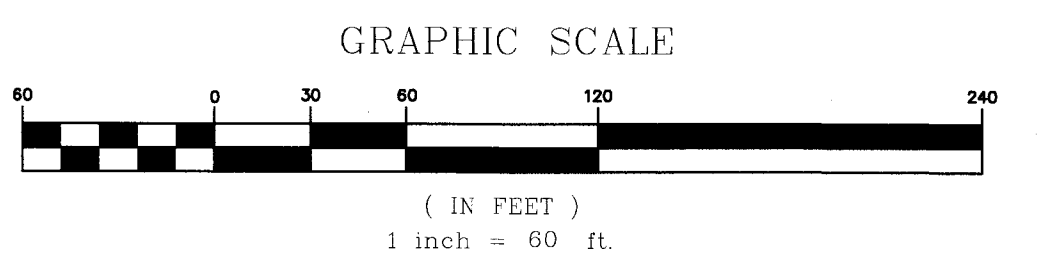
- UPON COMPLETION OF CONSTRUCTION, THE AOT PERMIT HOLDER SHALL SUBMIT TO THE DEPARTMENT A WRITTEN NOTICE SIGNED BY THE PERMIT HOLDER AND THE QUALIFIED ENGINEER CERTIFYING THAT THE PROJECT WAS COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS; OR DEVIATIONS FROM THE APPROVED PLANS AND SPECIFICATIONS WERE MADE, BUT THE DEVIATIONS DID NOT REQUIRE AN AMENDED OR A NEW PERMIT.
- PERMITS REQUIRED:
NHDES ALTERATION OF TERRAIN
NHDES WETLAND IMPACT
NPDES NOTICE OF INTENT

PERMIT NUMBER
REQUIRED PRIOR TO CONSTRUCTION

OWNER OF MAP 109 LOT 17

SIGNATURE: _____

DATE: _____



WETLAND SCIENTIST'S CERTIFICATION:

JOSHUA BRIEN, CERTIFIED WETLAND SCIENTIST #256 OF KEACH-NORDSTROM ASSOCIATES, INC. OF BEDFORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN FEBRUARY OF 2020 USING THE TECHNICAL CRITERIA IN THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

LICENSED WETLAND SCIENTIST

6/11/2020
DATE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE BY THIS OFFICE DURING FEBRUARY OF 2020. SAID SURVEY HAS A RELATIVE ERROR OF CLOSURE OF ONE PART IN TEN THOUSAND (1:10,000) OR BETTER.

LICENSED LAND SURVEYOR

DATE



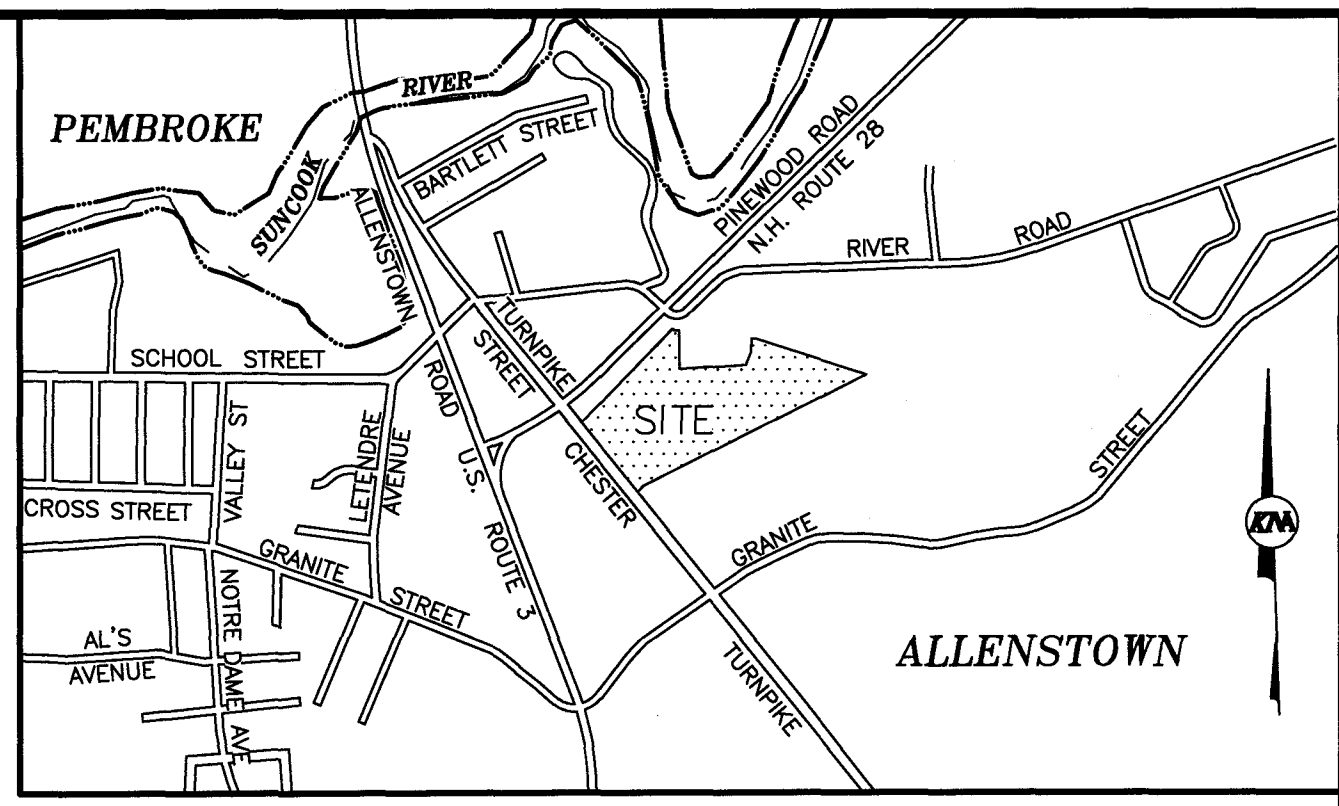
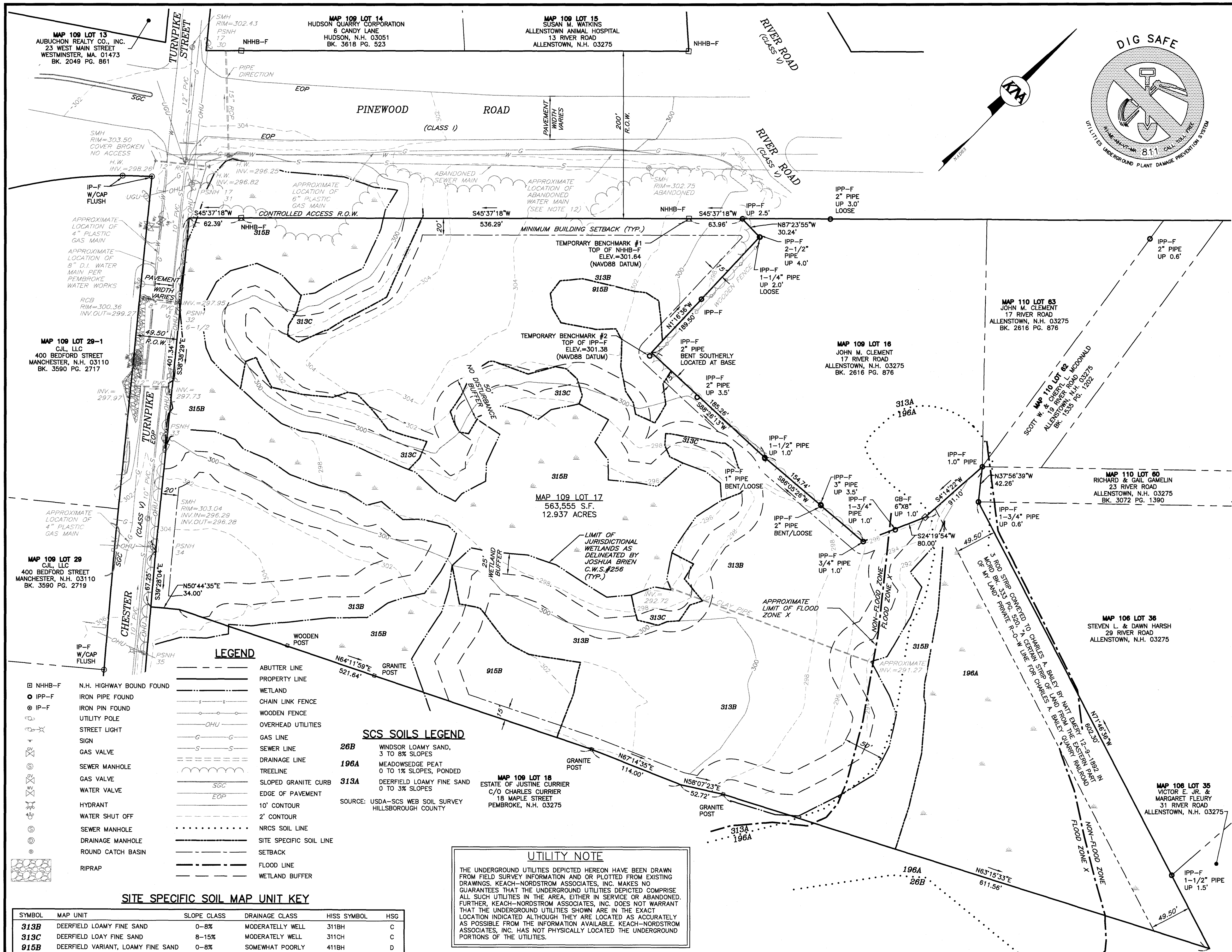
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

DATE: JUNE 2, 2020 SCALE: 1"=60'
PROJECT NO: 19-1126-1 SHEET 1 OF 18

MASTER SITE PLAN
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINEWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554	APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073
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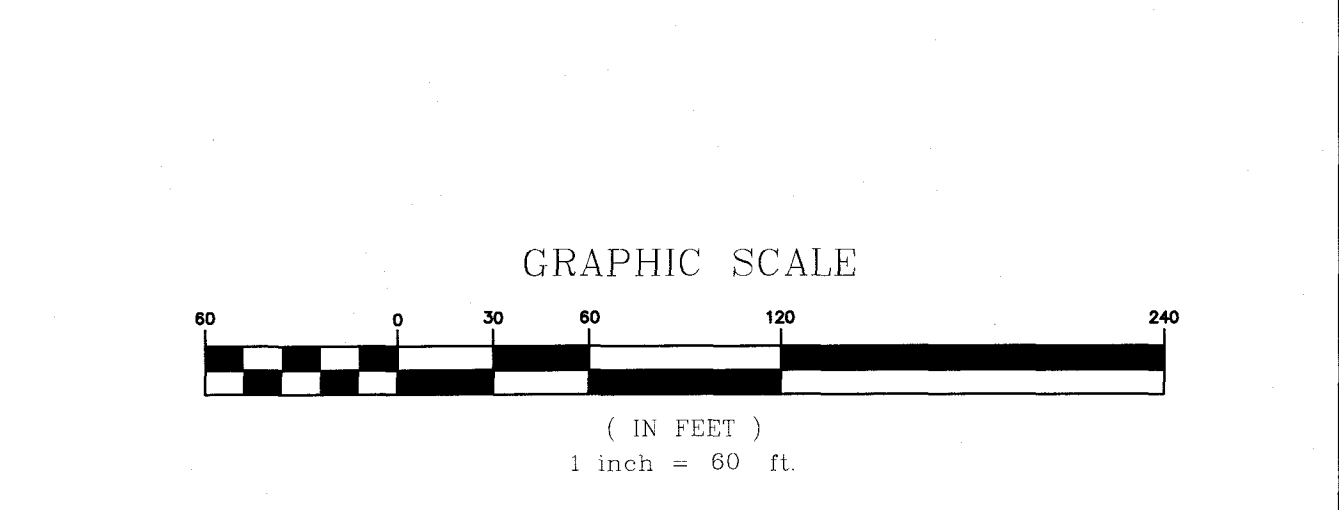
KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



VICINITY PLAN
1" = 1000'

- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS FOR ASSESSOR'S MAP 109 LOT 17 IN ALLENSTOWN, NEW HAMPSHIRE AND NO OTHER PURPOSE.
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OCEAN REALTY TRUST
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FORT MYERS, FL 33913
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- REAR 40 FT
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 - NORTH ORIENTATION IS NAD83
 - WETLANDS WERE DELINEATED BY JOSHUA BRIEN, C.W.S.#256 OF KEACH-NORDSTROM ASSOCIATES, INC.
 - EXAMINATION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAPS (FIRM) FOR THE TOWN OF ALLENSTOWN, NEW HAMPSHIRE, MERRIMACK COUNTY, COMMUNITY PANEL NUMBER 3301300584E PANEL NUMBER 584 OF 705. EFFECTIVE DATE: APRIL 19, 2010 INDICATES THAT A PORTION OF THE SUBJECT PREMISES IS LOCATED WITHIN A DESIGNATED FLOOD ZONE "X" WITH AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE OF FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND ARE PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD.
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 - THE DECOMMISSIONED WATER MAIN IS TIED INTO THE RIVER ROAD MAIN NEAR THE SEWER PUMP STATION ON RIVER ROAD, PER PEMBROKE WATER WORKS.

- REFERENCE PLANS**
- "PLAN OF LAND OWNED BY FOREST S. HUGGINS," CHESTER TURNPIKE, ALLENSTOWN, NEW HAMPSHIRE, SCALE: 1"=100', DATED: AUGUST, 1959. PREPARED BY: MARTIN G. FERRY, M.C.R.D. PLAN #1642
 - "SUBDIVISION OF THE LAND OF LAURA M. CLEMENT," RIVER ROAD & NEW RIVER ROAD, ALLENSTOWN, NEW HAMPSHIRE, SCALE: 1"=50', DATED: 8-25-1985. PREPARED BY: RAYMOND G. CUSHMAN, L.L.S. M.C.R.D. PLAN #14077.
 - "LOT LINE ADJUSTMENT & SUBDIVISION PLAN," TAX MAP 109 LOTS 29 & 29-1, 3 CHESTER TURNPIKE, ALLENSTOWN, NEW HAMPSHIRE, SCALE: 1"=40', DATED: JULY 23, 2019. PREPARED BY: ERIC C. MITCHELL & ASSOCIATES, INC. M.C.R.D. PLAN #20200000939.
 - "SUBDIVISION PLAN OF LAND OF PARKER REAL ESTATE TRUST," ALLENSTOWN, NEW HAMPSHIRE, SCALE: 1"=100', DATED: APRIL 27, 1977. LAST REVISED: 6-27-86. PREPARED BY: JOHN T. HILLS, M.C.R.D. PLAN #9000.
 - STATE OF NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS & HIGHWAYS-PLANS OF PROPOSED FEDERAL AID PRIMARY PROJECT, NO. F 023-1(I), N.H. NO P-2416. SUNCOOK VALLEY ROAD. ON FILE AT THE NH-DOT, CONCORD, NEW HAMPSHIRE.



EXISTING CONDITIONS PLAN
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINEWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD:
RUI & MARIA J. LEITE, TRUSTEES
OCEAN REALTY TRUST
9772 BLUE STONE CIRCLE
FORT MYERS, FL 33913
M.C.R.D. BK. 3459 PG. 554

APPLICANT:
OPTIMUS SENIOR LIVING
162 COLLEGE HWY
P.O. BOX 363
SOUTHAMPTON, MA 01073

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

- LEGEND**
- NHHB-F N.H. HIGHWAY BOUND FOUND
 - IPP-F IRON PIPE FOUND
 - IP-F IRON PIN FOUND
 - UTILITY POLE
 - STREET LIGHT
 - SIGN
 - GAS VALVE
 - SEWER MANHOLE
 - GAS VALVE
 - WATER VALVE
 - HYDRANT
 - WATER SHUT OFF
 - SEWER MANHOLE
 - DRAINAGE MANHOLE
 - ROUND CATCH BASIN
 - RIPRAP
 - PROPERTY LINE
 - WETLAND
 - CHAIN LINK FENCE
 - WOODEN FENCE
 - OVERHEAD UTILITIES
 - GAS LINE
 - SEWER LINE
 - DRAINAGE LINE
 - TREELINE
 - SLOPED GRANITE CURB
 - EDGE OF PAVEMENT
 - 10' CONTOUR
 - 2' CONTOUR
 - NRCS SOIL LINE
 - SITE SPECIFIC SOIL LINE
 - SETBACK
 - FLOOD LINE
 - WETLAND BUFFER

SCS SOILS LEGEND

26B WINDSOR LOAMY SAND, 3 TO 8% SLOPES

196A MEADOWSEDGE PEAT 0 TO 1% SLOPES, PONDED

313A DEERFIELD LOAMY FINE SAND 0 TO 3% SLOPES

SOURCE: USDA-SCS WEB SOIL SURVEY HILLSBOROUGH COUNTY

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS	HISS SYMBOL	HSG
313B	DEERFIELD LOAMY FINE SAND	0-8%	MODERATELY WELL	311BH	C
313C	DEERFIELD LOAY FINE SAND	8-15%	MODERATELY WELL	311CH	C
915B	DEERFIELD VARIANT, LOAMY FINE SAND	0-8%	SOMEWHAT POORLY	411BH	D
315B	MASHPEE SAND	0-8%	POORLY	511BH	D
196A	MEADOWSEDGE PEAT, PONDED	0-3%	VERY POORLY	611AH	D

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

- THIS DETAILED SITE-SPECIFIC SOIL MAP CONFORMS TO THE STANDARDS OF SSSNIE PUBLICATION NO. 3, AS AMENDED, SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NH AND VT.
- THIS MAP HAS BEEN PREPARED TO COMPLY WITH SOIL MAPPING REQUIREMENTS OF RSA 485 A: 17 AND NHDES ENV-WQ 1500, ALTERATION OF TERRAIN.
- SEE ACCOMPANYING NARRATIVE REPORT FOR METHODOLOGY, MAP SYMBOL LEGEND, AND INTERPRETATIONS. MAP SYMBOL DENOMINATORS FOR DISTURBED UNIT SUPPLEMENTS.
- FLOOD PORTION OF THE SITE-SPECIFIC SOIL MAP PREPARED DURING JANUARY OF 2020 BY GARY FLAHERTY NHCS #049 AND JOSHUA BRIEN OF KEACH-NORDSTROM ASSOCIATES, BEDFORD, NH.

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.

SOIL SCIENTIST'S CERTIFICATION:

SITE SPECIFIC SOIL MAPPING PERFORMED BY GARY FLAHERTY, NH CERTIFIED SOIL SCIENTIST #49, ON APRIL 16, 2020. SOIL MAPPING CONFORMS TO THE STANDARDS OF SSSNIE PUBLICATION NO. 3, AS AMENDED, "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT."

Joshua M. Brien
No. 256
CERTIFIED WETLAND SCIENTIST

WETLAND SCIENTIST'S CERTIFICATION:

JOSHUA BRIEN, CERTIFIED WETLAND SCIENTIST #256 OF KEACH-NORDSTROM ASSOCIATES, INC. OF BEDFORD, NH PERFORMED THE DELINEATION OF JURISDICTIONAL WETLANDS IN FEBRUARY OF 2020 USING THE TECHNICAL CRITERIA IN THE CORPUS OF ENGINEERS WETLAND DELINEATION MANUAL (TECHNICAL REPORT Y-87-1, JANUARY 1987).

Joshua M. Brien
8/18/2020
DATE

SURVEYOR'S CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR THOSE UNDER MY DIRECT SUPERVISION. FURTHER, THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY MADE BY THIS OFFICE DURING FEBRUARY OF 2020. SAID SURVEY HAS A RELATIVE ERROR OF CLOSURE OF ONE PART IN TEN THOUSAND (1:10,000) OR BETTER.

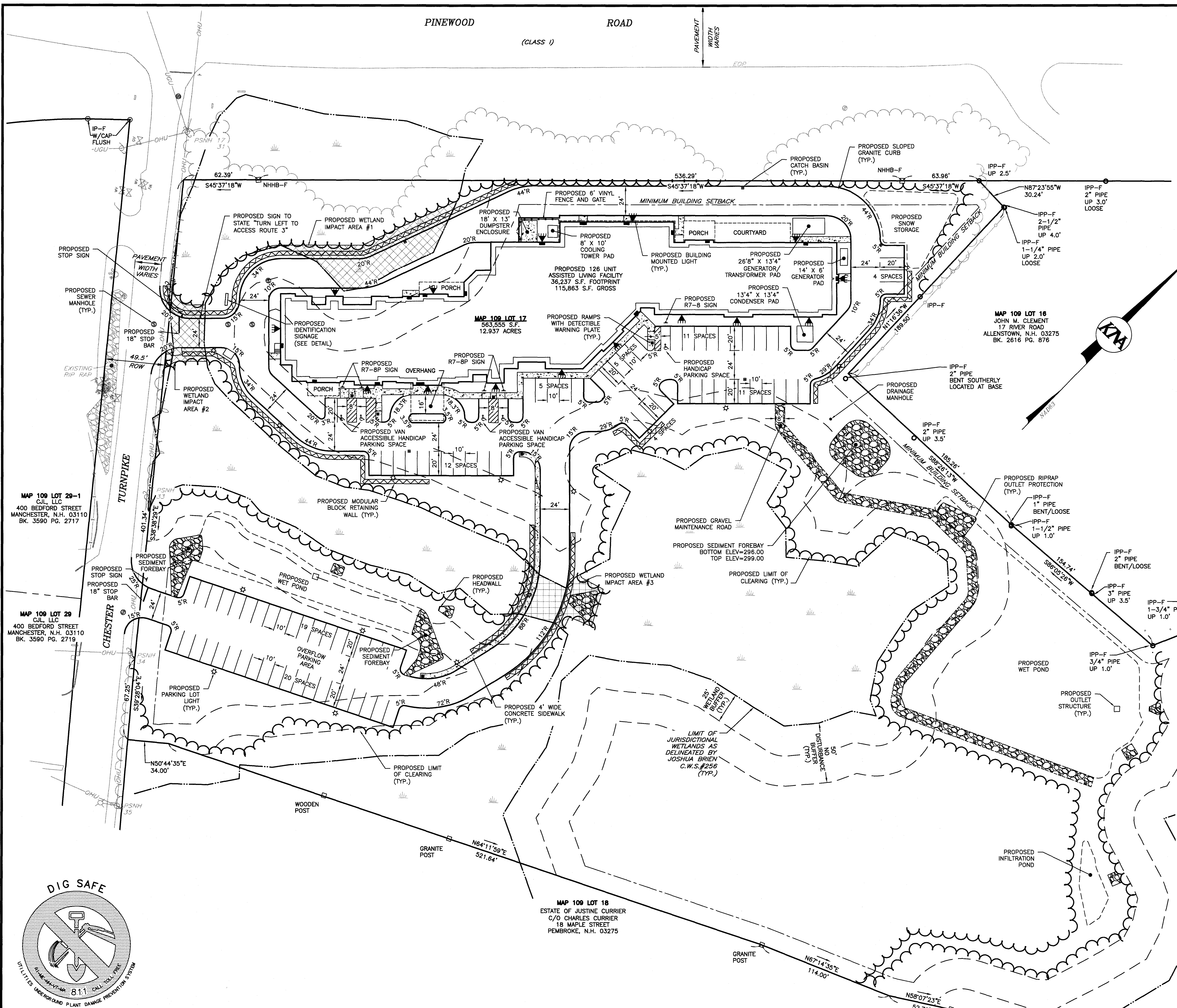
Meridewey
8-18-2020
DATE

LICENSED LAND SURVEYOR

REVISIONS

No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

DATE: JUNE 2, 2020
PROJECT NO: 19-1126-1
SCALE: 1"=60'
SHEET 2 OF 18

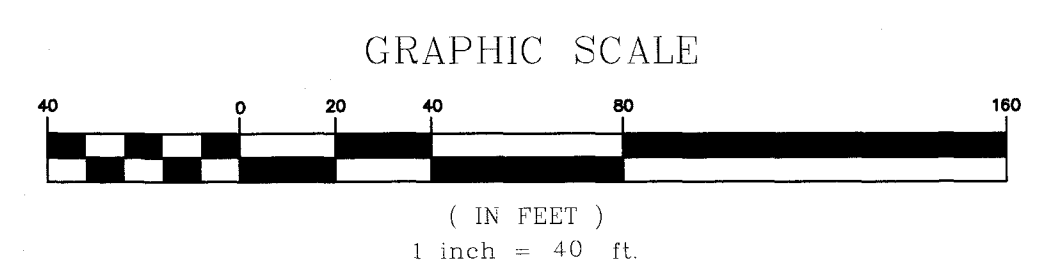


- NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW INFORMATION FOR A PROPOSED 126 UNIT ASSISTED LIVING FACILITY ON ASSESSOR'S MAP 109 LOT 17 IN THE TOWN OF ALLENSTOWN, NEW HAMPSHIRE AND NO OTHER PURPOSE.
 - PROPOSED IDENTIFICATION SIGNAGE SHALL BE LOCATED AS SHOWN AND SHALL BE IN COMPLIANCE WITH THE ALLENSTOWN ZONING ORDINANCE. ALL PERMITS SHALL BE SECURED PRIOR TO INSTALLATION.
 - PROPOSED SNOW STORAGE AREAS ARE SHOWN AS APPROXIMATE. PLOWING SHALL BE DONE IN SUCH A FASHION AS TO NOT DAMAGE OR ADVERSELY IMPACT ANY LANDSCAPED FEATURES. SHOULD THE VOLUME OF ACCUMULATED SNOW EXCEED THE CAPACITY OF THE ONSITE STORAGE AS SHOWN ON THIS PLAN OR IN THE EVENT SITE DRAINAGE IS BLOCKED BY SNOWPACK, THE EXCESS SNOW SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS.

LEGEND

- NHHB-F N.H. HIGHWAY BOUND FOUND
- IPP-F IRON PIPE FOUND
- ⊙ IP-F IRON PIN FOUND
- ⊕ UTILITY POLE SIGN
- ⊕ GAS VALVE
- ⊕ WATER VALVE
- ⊕ HYDRANT
- ⊕ WATER SHUT OFF
- ⊕ SEWER MANHOLE
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- ⊕ ROUND CATCH BASIN
- ⊕ ABUTTER LINE
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- ⊕ CHAIN LINK FENCE
- ⊕ WOODEN FENCE
- ⊕ OVERHEAD UTILITIES
- ⊕ UNDERGROUND UTILITIES
- ⊕ TREELINE
- ⊕ SGC SLOPED GRANITE CURB
- ⊕ EOP EDGE OF PAVEMENT
- ⊕ EDGE OF GRAVEL
- ⊕ SETBACK
- ⊕ WETLAND BUFFER
- ⊕ PROPOSED CATCH BASIN
- ⊕ PROPOSED DRAINAGE MANHOLE
- ⊕ PROPOSED OUTLET STRUCTURE
- ⊕ PROPOSED HEADWALL
- ⊕ PROPOSED BUILDING MOUNTED LIGHT
- ⊕ PROPOSED PARKING LOT LIGHT
- ⊕ PROPOSED SLOPED GRANITE CURB
- ⊕ PROPOSED EDGE OF PAVEMENT
- ⊕ PROPOSED RETAINING WALL
- ⊕ PROPOSED TREELINE
- ⊕ RIPRAP

SEE SHEET 1 FOR NOTES & REFERENCE PLANS



NON-RESIDENTIAL SITE PLAN
OPTIMUS SENIOR LIVING
 MAP 109 LOT 17
 15 PINWOOD ROAD
 ALLENSTOWN, NEW HAMPSHIRE
 MERRIMACK COUNTY

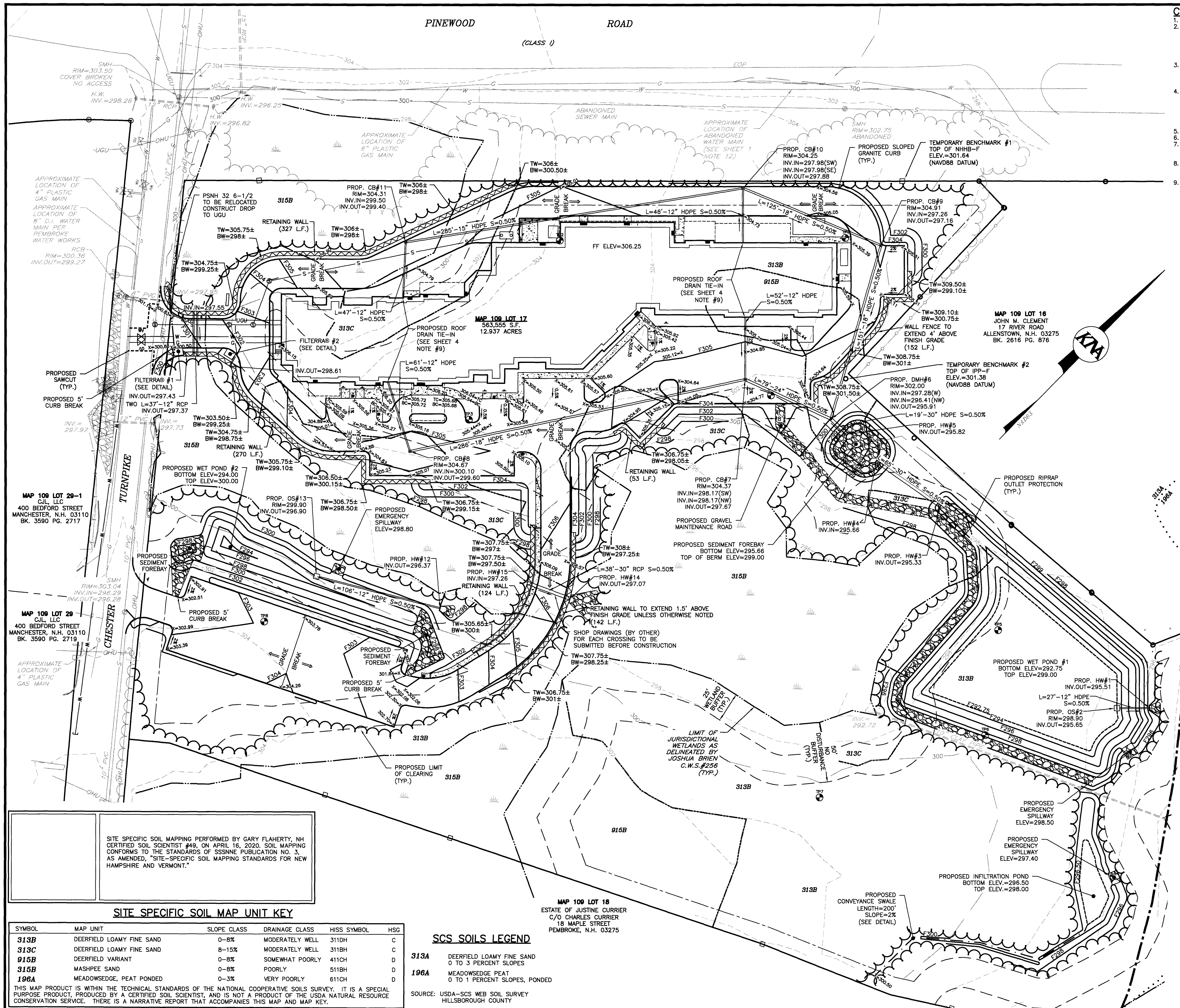
OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554	APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073
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KMA KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

DATE: JUNE 2, 2020 SCALE: 1"=40'
 PROJECT NO: 19-1126-1 SHEET 3 OF 18

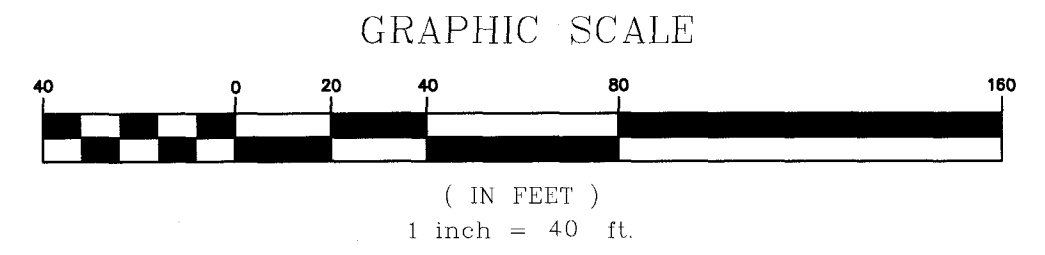




- CONSTRUCTION NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED GRADING AND DRAINAGE SYSTEMS FOR THIS SITE.
 - ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF ALLENSTOWN, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ALL WORK PERFORMED IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016 ARE HEREBY INCORPORATED BY REFERENCE.
 - CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, ALLENSTOWN, NEW HAMPSHIRE. ALL DRAINAGE PIPES SHOWN SHALL BE HDPE. CATCH BASINS SHALL BE TYPE B, AND HAVE 3' SUMPS UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - ALL DRAINAGE PIPE SHALL BE INSTALLED FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - ALL WATER UTILITIES SHALL CONFORM TO THE TOWN OF ALLENSTOWN REGULATIONS.
 - THE WATER, SANITARY SEWER, AND ELECTRICAL UTILITIES SHOWN HERE SHALL BE NOTIFIED WITH THE FINAL BUILDING PLANS PRIOR TO CONSTRUCTION. THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
 - DURING CONSTRUCTION, IF ANY LOW POINTS DEVELOP AROUND THE LANDSCAPED AREAS CONTAINED WITHIN THE PARKING LOT AND SIDEWALK, THE CONTRACTOR WILL INSTALL AREA DRAINS TO TIE IN TO THE PROPOSED DRAINAGE SYSTEM.
 - ALL DRAIN TIE-INS ARE SHOWN AS APPROXIMATE. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER DURING CONSTRUCTION IF ROOF DRAIN LOCATIONS NEED TO BE MOVED.

LEGEND

□ NHHB-F	N.H. HIGHWAY BOUND FOUND	○	PROPOSED TEST PIT LOCATION
● IPP-F	IRON PIPE FOUND	■	PROPOSED CATCH BASIN
○ IP-F	IRON PIN FOUND	•	PROPOSED DRAINAGE MANHOLE
○	UTILITY POLE	□	PROPOSED OUTLET STRUCTURE
○	GAS VALVE	—	PROPOSED HEADWALL
○	WATER VALVE	—	PROPOSED EDGE OF PAVEMENT
○	HYDRANT	—	PROPOSED UNDERGROUND UTILITIES
○	WATER SHUT OFF	—	PROPOSED GAS LINE
○	SEWER MANHOLE	—	PROPOSED WATER LINE
○	DRAINAGE MANHOLE	—	PROPOSED SEWER LINE
○	ROUND CATCH BASIN	—	PROPOSED DRAINAGE LINE
○	ABUTTER LINE	—	PROPOSED SLOPED GRANITE CURB
○	PROPERTY LINE	—	PROPOSED 2' CONTOUR
○	WETLAND	—	PROPOSED SAWCUT LINE
○	CHAIN LINK FENCE	—	PROPOSED RETAINING WALL
○	WOODEN FENCE	—	PROPOSED TREELINE
○	OVERHEAD UTILITIES	—	
○	UNDERGROUND UTILITIES	—	
○	GAS LINE	—	
○	WATER LINE	—	
○	SEWER LINE	—	
○	DRAINAGE LINE	—	
○	TREELINE	—	
○	EDGE OF PAVEMENT	—	
○	EDGE OF GRAVEL	—	
○	10' CONTOUR	—	
○	2' CONTOUR	—	
○	SOIL LINE	—	
○	SETBACK	—	
○	WETLAND BUFFER	—	
○	FLOOD LINE	—	
○	SOIL TYPE INDICATOR	—	



GRADING AND DRAINAGE PLAN
OPTIMUS SENIOR LIVING
 MAP 109 LOT 17
 15 PINWOOD ROAD
 ALLENSTOWN, NEW HAMPSHIRE
 MERRIMACK COUNTY

OWNER OF RECORD:
 RUI & MARIA J. LEITE, TRUSTEES
 OCEAN REALTY TRUST
 9772 BLUE STONE CIRCLE
 FORT MYERS, FL 33913
 M.C.R.D. BK. 3459 PG. 554

APPLICANT:
 OPTIMUS SENIOR LIVING
 162 COLLEGE HWY
 P.O. BOX 363
 SOUTHAMPTON, MA 01073

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DATE: JUNE 2, 2020 SCALE: 1"=40'
 PROJECT NO: 19-1126-1 SHEET 4 OF 18

SITE SPECIFIC SOIL MAPPING PERFORMED BY GARY FLAHERTY, NH CERTIFIED SOIL SCIENTIST #49, ON APRIL 16, 2020. SOIL MAPPING CONFORMS TO THE STANDARDS OF SSSNIE PUBLICATION NO. 3, AS AMENDED, "SITE-SPECIFIC SOIL MAPPING STANDARDS FOR NEW HAMPSHIRE AND VERMONT."

SITE SPECIFIC SOIL MAP UNIT KEY

SYMBOL	MAP UNIT	SLOPE CLASS	DRAINAGE CLASS	HISS SYMBOL	HSG
313B	DEERFIELD LOAMY FINE SAND	0-8%	MODERATELY WELL	311DH	C
313C	DEERFIELD LOAMY FINE SAND	8-15%	MODERATELY WELL	311BH	C
915B	DEERFIELD VARIANT	0-8%	SOMEWHAT POORLY	411CH	D
315B	MASHPEE SAND	0-8%	POORLY	511BH	D
196A	MEADOWSEDE, PEAT PONDED	0-3%	VERY POORLY	611CH	D

THIS MAP PRODUCT IS WITHIN THE TECHNICAL STANDARDS OF THE NATIONAL COOPERATIVE SOILS SURVEY. IT IS A SPECIAL PURPOSE PRODUCT, PRODUCED BY A CERTIFIED SOIL SCIENTIST, AND IS NOT A PRODUCT OF THE USDA NATURAL RESOURCE CONSERVATION SERVICE. THERE IS A NARRATIVE REPORT THAT ACCOMPANIES THIS MAP AND MAP KEY.

SCS SOILS LEGEND

313A	DEERFIELD LOAMY FINE SAND 0 TO 3 PERCENT SLOPES
196A	MEADOWSEDE PEAT 0 TO 1 PERCENT SLOPES, PONDED

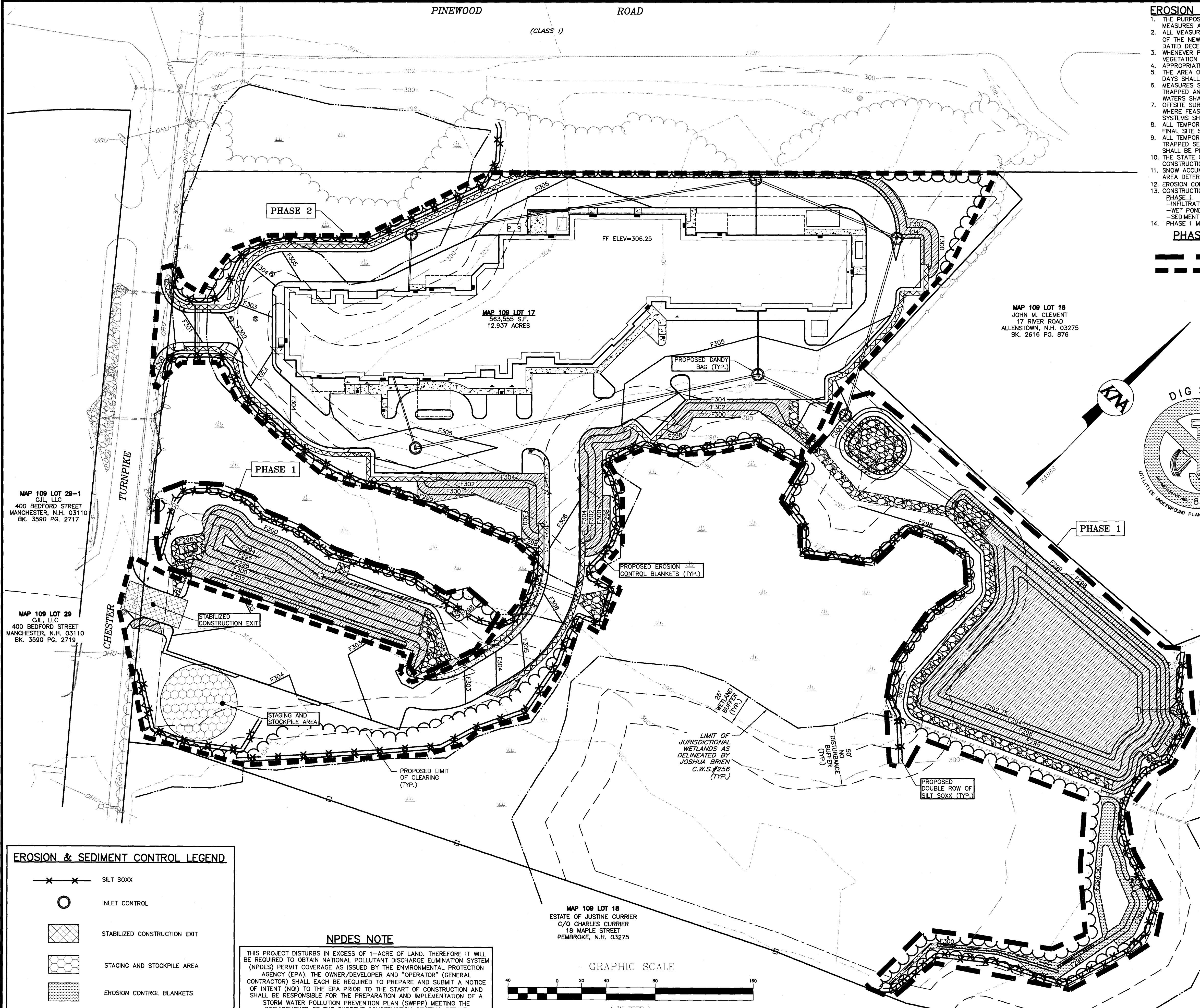
SOURCE: USDA-SCS WEB SOIL SURVEY
 HILLSBOROUGH COUNTY

MAP 109 LOT 29-1
 CUL, LLC
 400 BEDFORD STREET
 MANCHESTER, N.H. 03110
 BK. 3590 PG. 2717

MAP 109 LOT 29
 CUL, LLC
 400 BEDFORD STREET
 MANCHESTER, N.H. 03110
 BK. 3590 PG. 2719

MAP 109 LOT 18
 ESTATE OF JUSTINE CURRIER
 C/O CHARLES CURRIER
 18 MAPLE STREET
 PEMBROKE, N.H. 03275

MAP 109 LOT 16
 JOHN M. CLEMENT
 17 RIVER ROAD
 ALLENSTOWN, N.H. 03275
 BK. 2816 PG. 876



- EROSION CONTROL NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO DEPICT THE REQUIRED ONSITE TEMPORARY CONSTRUCTION EROSION CONTROL MEASURES AS WELL AS THE PERMANENT EROSION CONTROL MEASURES FOR THIS SITE.
 2. ALL MEASURES IN THE PLAN SHALL MEET AS A MINIMUM THE BEST MANAGEMENT PRACTICES SET FORTH IN VOLUME 3 OF THE NEW HAMPSHIRE STORMWATER MANUAL TITLED "EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION," DATED DECEMBER 2010, AS AMENDED FROM TIME TO TIME.
 3. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED OR SUPPLEMENTED. THE STRIPPING OF VEGETATION SHALL BE DONE IN A MANNER THAT MINIMIZES SOIL EROSION.
 4. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO LAND DISTURBANCE.
 5. THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 30 DAYS SHALL BE STABILIZED.
 6. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA USING APPROVED MEASURES. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
 7. OFFSITE SURFACE WATER AND RUNOFF FROM UNDISTURBED AREAS SHALL BE DIVERTED AWAY FROM DISTURBED AREAS WHERE FEASIBLE OR CARRIED NON-EROSIVELY THROUGH THE PROJECT AREA. INTEGRITY OF DOWNSTREAM DRAINAGE SYSTEMS SHALL BE MAINTAINED.
 8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN FUNCTIONING CONDITION UNTIL FINAL SITE STABILIZATION IS ACCOMPLISHED.
 9. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS UNLESS CONDITIONS DICTATE OTHERWISE.
 10. THE STATE OF NH SHALL RESERVE THE RIGHT TO REQUIRE FURTHER EROSION CONTROL PRACTICES DURING CONSTRUCTION SHOULD THEY FIND IT NECESSARY.
 11. SNOW ACCUMULATED DURING THE WINTER CONSTRUCTION CONDITIONS SHOULD BE STORED IN THE STAGING & STOCKPILE AREA DETERMINED BY THE CONTRACTOR, SURROUNDED BY SILT FENCE.
 12. EROSION CONTROL PRACTICES ARE TO BE INSPECTED WEEKLY AND AFTER 0.5" OF RAINFALL.
 13. CONSTRUCTION SHALL BE COMPLETED IN THE FOLLOWING TWO PHASES:
 PHASE 1 - INFILTRATION PRACTICE
 - PARKING LOTS
 - WET PONDS
 - SEDIMENT FOREBAYS
 PHASE 2 - INFILTRATION PRACTICE
 - BUILDING FOUNDATION
 - DRAINAGE & UTILITIES
 PHASE 1 MUST BE STABILIZED BEFORE ADVANCING TO PHASE 2.

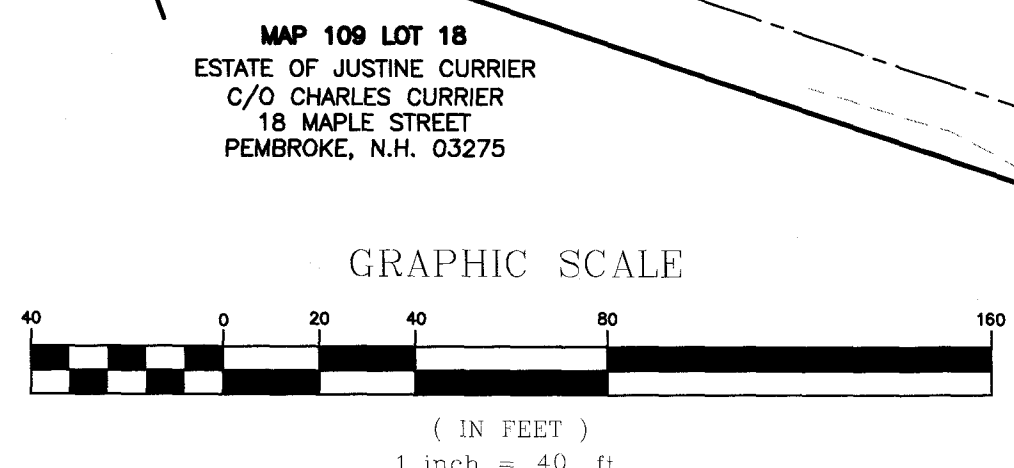
PHASING LEGEND	LEGEND
— PHASE 1 LINE	□ NHHB-F N.H. HIGHWAY BOUND FOUND
--- PHASE 2 LINE	● IPP-F IRON PIPE FOUND
	○ IP-F IRON PIN FOUND
	⊕ UTILITY POLE
	⊕ SIGN
	⊕ GAS VALVE
	⊕ WATER VALVE
	⊕ HYDRANT
	⊕ WATER SHUT OFF
	⊕ SEWER MANHOLE
	⊕ DRAINAGE MANHOLE
	⊕ ROUND CATCH BASIN
	--- ABUTTER LINE
	--- PROPERTY LINE
	--- WETLAND
	--- CHAIN LINK FENCE
	--- WOODEN FENCE
	--- OHU OVERHEAD UTILITIES
	--- UGU UNDERGROUND UTILITIES
	--- DRAINAGE LINE
	--- TREELINE
	--- EOP EDGE OF PAVEMENT
	--- EDGE OF GRAVEL
	--- 10' CONTOUR
	--- 2' CONTOUR
	--- SOIL LINE
	--- SETBACK
	--- WETLAND BUFFER
	■ PROPOSED CATCH BASIN
	● PROPOSED DRAINAGE MANHOLE
	□ PROPOSED OUTLET STRUCTURE
	--- PROPOSED HEADWALL
	--- PROPOSED EDGE OF PAVEMENT
	--- PROPOSED DRAINAGE LINE
	--- PROPOSED SLOPED GRANITE CURB
	--- PROPOSED 2' CONTOUR
	--- PROPOSED RETAINING WALL
	--- PROPOSED TREELINE
	■ RIPRAP

EROSION & SEDIMENT CONTROL LEGEND

✕ ✕	SILT SOXX
○	INLET CONTROL
▨	STABILIZED CONSTRUCTION EXIT
▩	STAGING AND STOCKPILE AREA
▧	EROSION CONTROL BLANKETS

NPDES NOTE

THIS PROJECT DISTURBS IN EXCESS OF 1-ACRE OF LAND. THEREFORE IT WILL BE REQUIRED TO OBTAIN NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT COVERAGE AS ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE OWNER/DEVELOPER AND "OPERATOR" (GENERAL CONTRACTOR) SHALL EACH BE REQUIRED TO PREPARE AND SUBMIT A NOTICE OF INTENT (NOI) TO THE EPA PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) MEETING THE REQUIREMENTS OF THE CURRENT CONSTRUCTION GENERAL PERMIT.



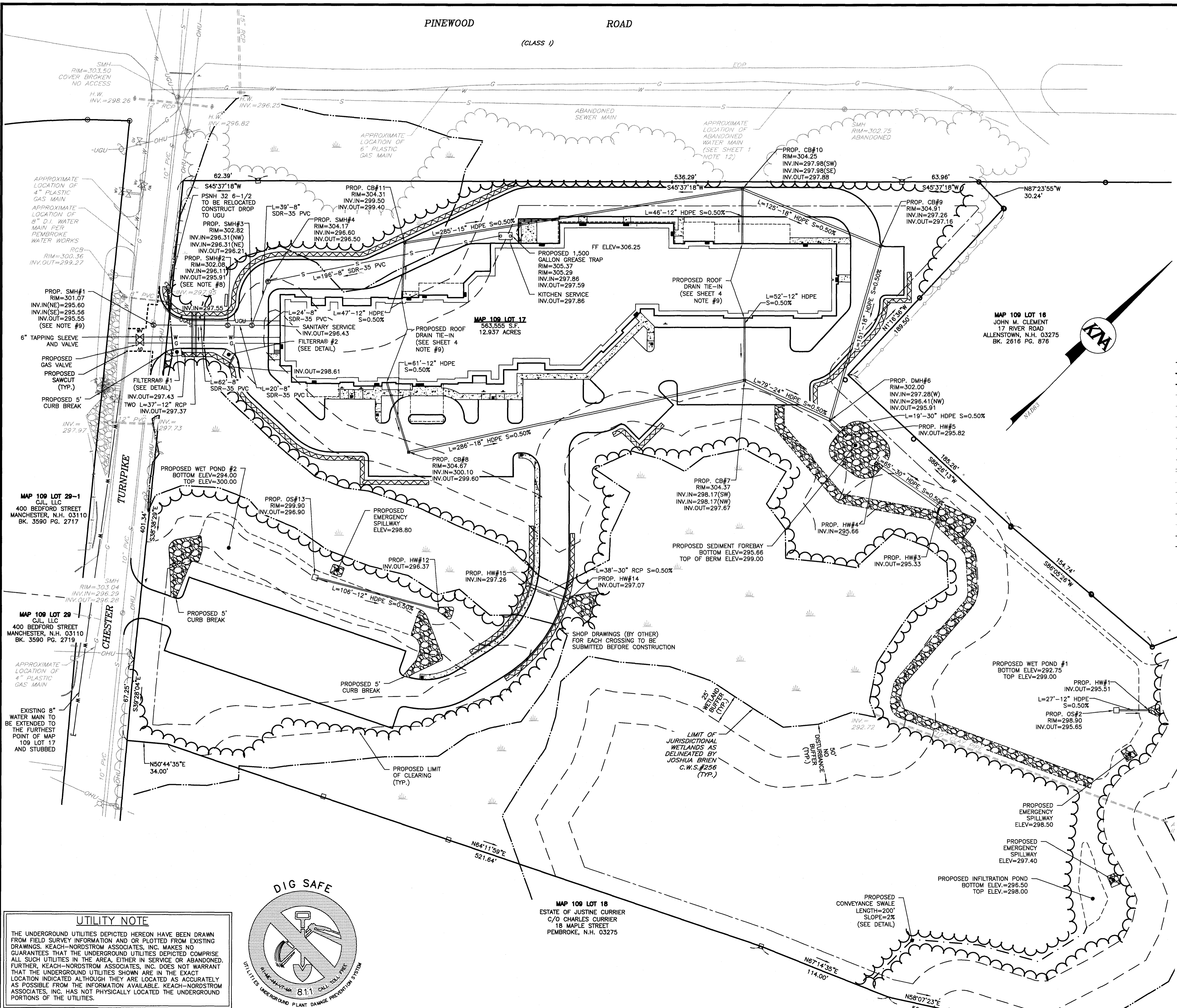
EROSION CONTROL AND PHASING PLAN
OPTIMUS SENIOR LIVING
 MAP 109 LOT 17
 15 PINWOOD ROAD
 ALLENSTOWN, NEW HAMPSHIRE
 MERRIMACK COUNTY

OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554	APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073
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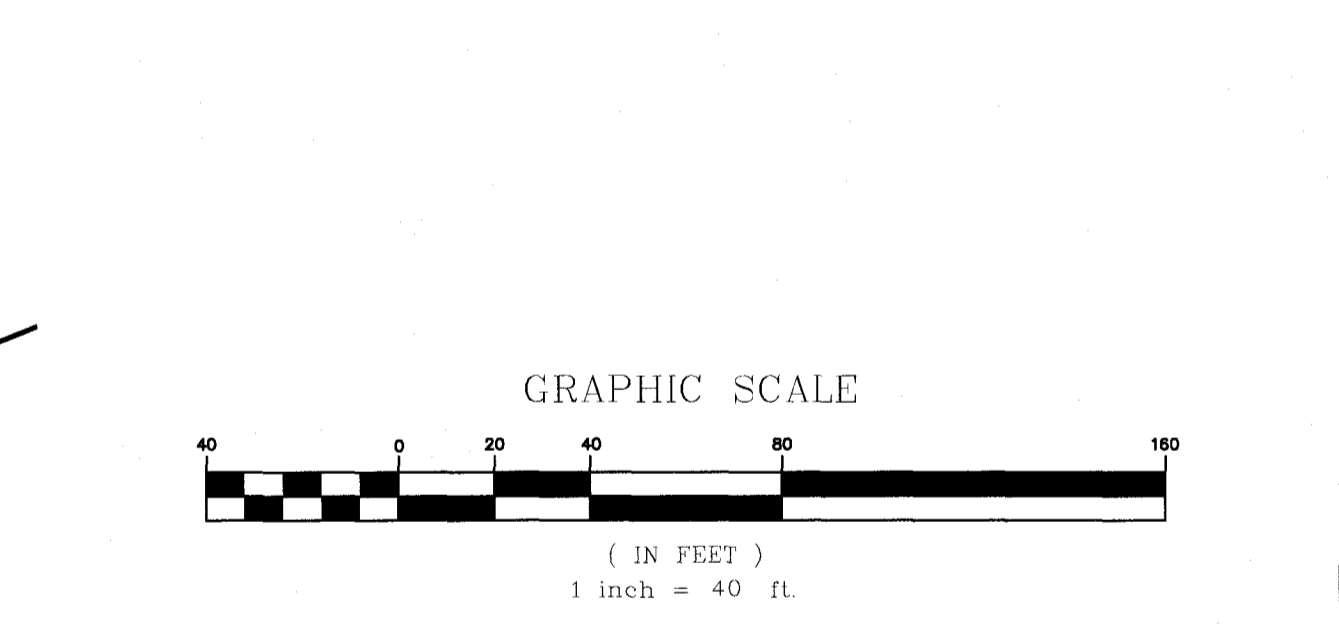
DATE: JUNE 2, 2020 SCALE: 1"=40'
 PROJECT NO: 19-1126-1 SHEET 5 OF 18



- CONSTRUCTION NOTES:**
- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED UTILITY SYSTEMS FOR THIS SITE.
 - ALL WORK SHALL CONFORM TO THE APPLICABLE REGULATIONS AND STANDARDS OF THE TOWN OF ALLENSTOWN, AND SHALL BE BUILT IN A WORKMANLIKE MANNER IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, STATE OF NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION, APPROVED AND ADOPTED 2016 ARE HEREBY INCORPORATED BY REFERENCE.
 - CONSTRUCTION SHALL CONFORM TO THE TYPICAL SECTIONS AND DETAILS SHOWN ON THE PLANS, AND SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS FOR ROAD CONSTRUCTION, PUBLIC WORKS DEPARTMENT, ALLENSTOWN, NEW HAMPSHIRE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, SIZE AND ELEVATION OF ALL EXISTING UTILITIES, SHOWN OR NOT SHOWN ON THESE PLANS, PRIOR TO THE START OF ANY CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION, AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING "DIG SAFE" AT 811 AT LEAST 72 HOURS BEFORE DIGGING.
 - ALL WATER UTILITIES SHALL CONFORM TO PEMBROKE WATER WORKS REGULATIONS.
 - THE LOCATION OF ANY UNDERGROUND UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE THE CONTRACTOR SHALL CONTACT DIG SAFE AT 811.
 - FINAL UTILITY CONNECTION SIZES, TYPES, AND LOCATIONS SHALL BE CONFIRMED WITH THE PLUMBING ENGINEER. ANY CHANGES SHALL BE COMMUNICATED WITH KEACH-NORDSTROM ASSOCIATES, INC. PRIOR TO CONSTRUCTION.
 - SEWER MANHOLE #2 WILL BE A TYPICAL MANHOLE INSTALLED WITH AN IN-LINE MUFFIN MONSTER® GRINDER WITH A 6" INTERNAL BYPASS, PER REQUEST OF THE SEWER DEPARTMENT. PLEASE REFER TO CONSTRUCTION DETAIL SHEET #15 FOR MORE INFORMATION.
 - SEWER MANHOLE #1 LID AND COVER WILL NOT BE HINGED PER REQUEST OF THE SEWER DEPARTMENT. DURING CONSTRUCTION, THE CONTRACTOR WILL VERIFY THE INVERT OF THE EXISTING 10" PVC SEWER MAIN. THE DESIGN ENGINEER WILL BE NOTIFIED IF THERE ARE ANY DISCREPANCIES.

LEGEND

□ NHHB-F	N.H. HIGHWAY BOUND FOUND	⊙	PROPOSED TEST PIT LOCATION
● IPP-F	IRON PIPE FOUND	■	PROPOSED CATCH BASIN
⊙ IP-F	IRON PIN FOUND	●	PROPOSED DRAINAGE MANHOLE
⊙	UTILITY POLE	○	PROPOSED OUTLET STRUCTURE
⊙	SIGN	—	PROPOSED HEADWALL
⊙	GAS VALVE	—	PROPOSED EDGE OF PAVEMENT
⊙	WATER VALVE	—	PROPOSED UNDERGROUND UTILITIES
⊙	HYDRANT	—	PROPOSED GAS LINE
⊙	WATER SHUT OFF	—	PROPOSED WATER LINE
⊙	SEWER MANHOLE	—	PROPOSED SEWER LINE
⊙	DRAINAGE MANHOLE	—	PROPOSED DRAINAGE LINE
⊙	ROUND CATCH BASIN	—	PROPOSED SLOPED GRANITE CURB
—	ABUTTER LINE	—	PROPOSED 2' CONTOUR
—	PROPERTY LINE	—	PROPOSED SAWCUT LINE
—	WETLAND	—	PROPOSED RETAINING WALL
—	CHAIN LINK FENCE	—	PROPOSED TREELINE
—	WOODEN FENCE	—	
—	OVERHEAD UTILITIES	—	
—	UNDERGROUND UTILITIES	—	
—	GAS LINE	—	
—	WATER LINE	—	
—	SEWER LINE	—	
—	DRAINAGE LINE	—	
—	TREELINE	—	
—	EDGE OF PAVEMENT	—	
—	EDGE OF GRAVEL	—	
—	10' CONTOUR	—	
—	2' CONTOUR	—	
—	SETBACK	—	
—	WETLAND BUFFER	—	



UTILITY PLAN
OPTIMUS SENIOR LIVING
 MAP 109 LOT 17
 15 PINWOOD ROAD
 ALLENSTOWN, NEW HAMPSHIRE
 MERRIMACK COUNTY

OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554	APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073
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DATE: JUNE 2, 2020 SCALE: 1"=40'
 PROJECT NO: 19-1126-1 SHEET 6 OF 18

UTILITY NOTE

THE UNDERGROUND UTILITIES DEPICTED HEREON HAVE BEEN DRAWN FROM FIELD SURVEY INFORMATION AND OR PLOTTED FROM EXISTING DRAWINGS. KEACH-NORDSTROM ASSOCIATES, INC. MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES DEPICTED COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, KEACH-NORDSTROM ASSOCIATES, INC. DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. KEACH-NORDSTROM ASSOCIATES, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND PORTIONS OF THE UTILITIES.



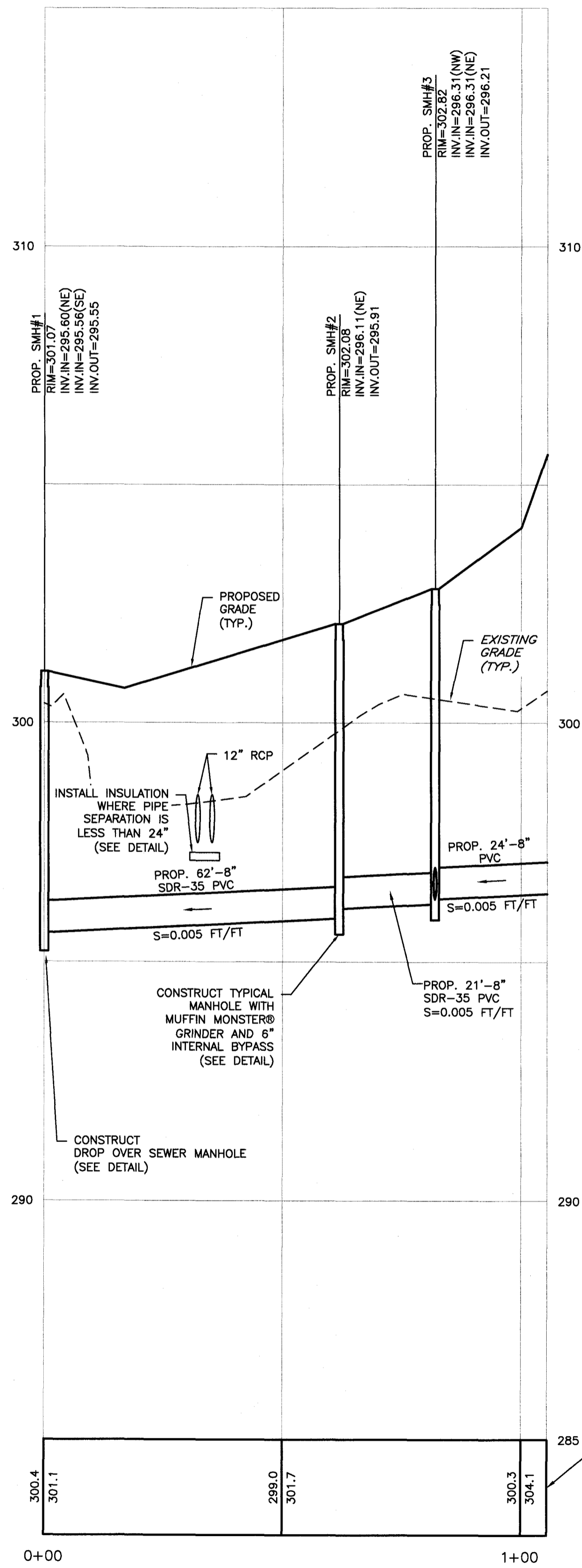
MAP 109 LOT 18
 ESTATE OF JUSTINE CURRIER
 C/O CHARLES CURRIER
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 PEMBROKE, N.H. 03275

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 17 RIVER ROAD
 ALLENSTOWN, N.H. 03275
 BK. 2616 PG. 876

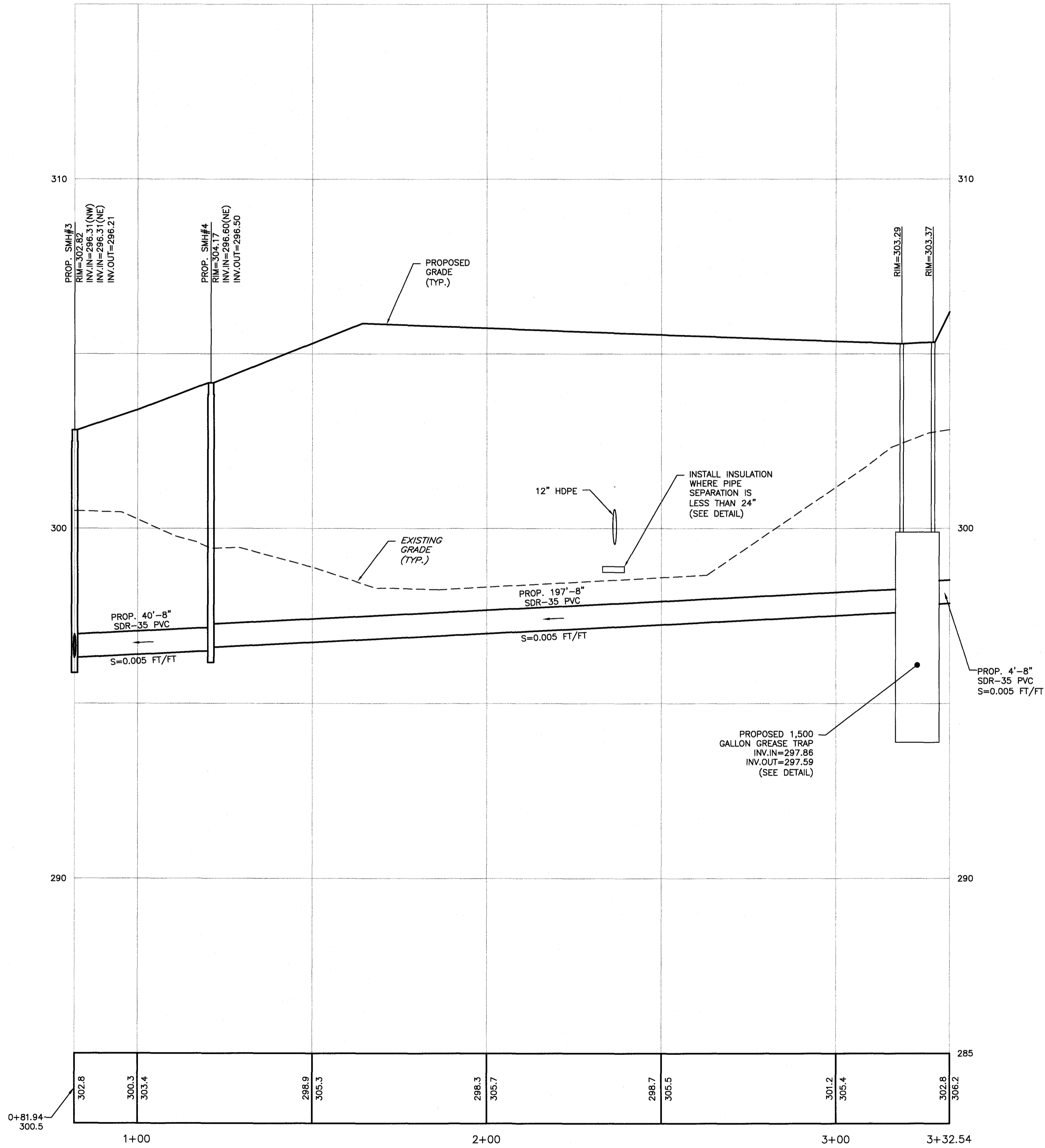
MAP 109 LOT 17
 583,555 S.F.
 12.937 ACRES

MAP 109 LOT 29-1
 CUL LLC
 400 BEDFORD STREET
 MANCHESTER, N.H. 03110
 BK. 3590 PG. 2717

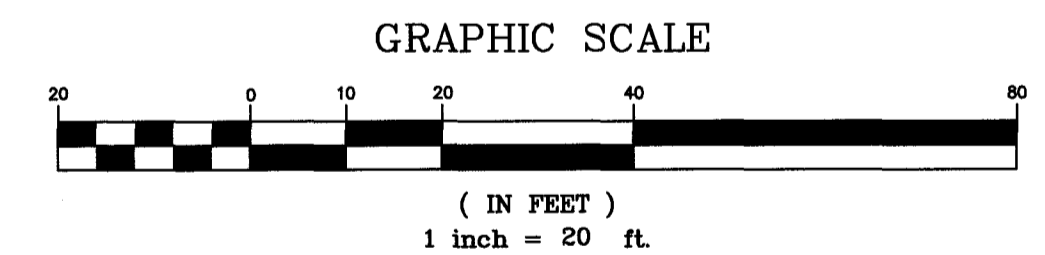
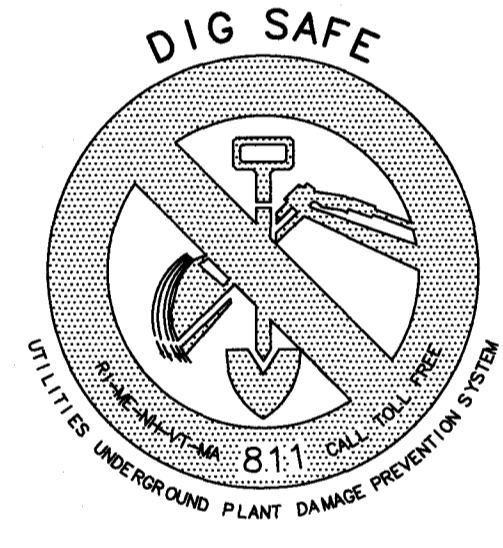
MAP 109 LOT 29
 CUL LLC
 400 BEDFORD STREET
 MANCHESTER, N.H. 03110
 BK. 3590 PG. 2719



SMH#1 TO BUILDING
 SCALE: 1" = 20' (HORIZ.)
 1" = 2' (VERT.)



SMH#3 TO BUILDING
 SCALE: 1" = 20' (HORIZ.)
 1" = 2' (VERT.)



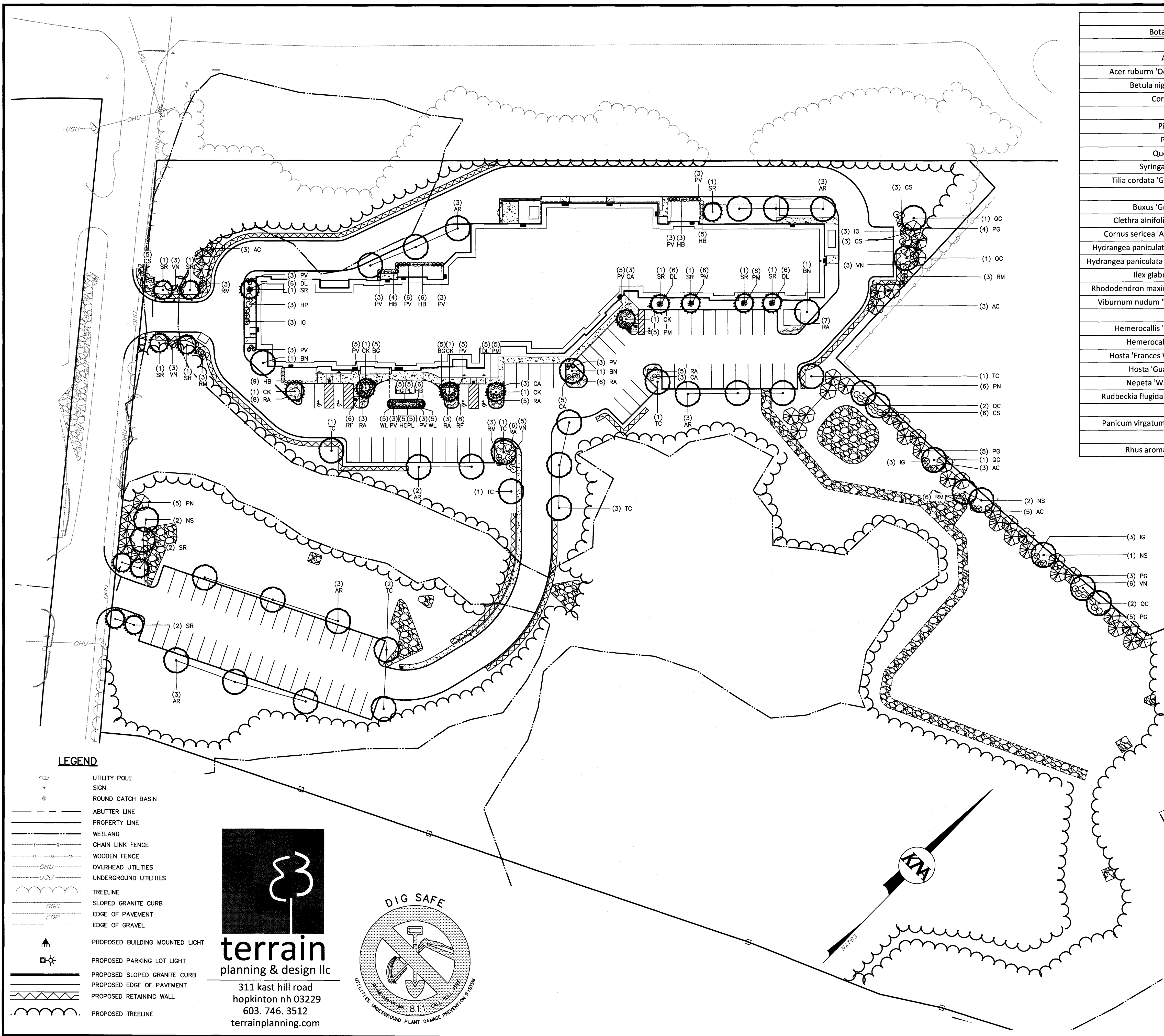
SEWER PROFILE
OPTIMUS SENIOR LIVING
 MAP 109 LOT 17
 15 PINWOOD ROAD
 ALLENSTOWN, NEW HAMPSHIRE
 MERRIMACK COUNTY

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 PROJECT NO: 19-1126-1 SHEET 7 OF 18



PLANTING SCHEDULE				
Botanical Name/ Common Name	Size	Label	Quantity	Mature Height
Trees				
Abies concolor / White Fir	5-6' B&B	AC	14	30-40'
Acer rubrum 'October Glory' / October Glory Red Maple	2.5-3" CAL.	AR	17	40-60'
Betula nigra 'Heritage' / Heritage River Birch	2.5-3" CAL.	BN	3	40-60'
Cornus kousa / Kousa Dogwood	2.5-3" CAL.	CK	5	20-30'
Nyssa sylvatica / Tupelo	2.5-3" CAL.	NS	5	30-40'
Picea glauca / White Spruce	5-6' B&B	PG	17	40-60'
Pinus nigra / Austrian Pine	5-6' B&B	PN	11	40-60'
Quercus coccinea / Scarlet Oak	2.5-3" CAL.	QC	7	60'+
Syringa reticulata / Japanese Lilac Tree	2.5-3" CAL.	SR	14	20-30'
Tilia cordata 'Greenspire' / Greenspire Littleleaf Linden	2.5-3" CAL.	TC	10	40-60'
Shrubs				
Buxus 'Green Gem' / Green Gem Boxwood	#3	BG	10	3-4'
Clethra alnifolia 'Compacta' / Compact Summersweet	#3	CA	14	3-4'
Cornus sericea 'Arctic Fire' / Arctic Fire Red-Osier Dogwood	#3	CS	17	5-6'
Hydrangea paniculata 'Bombshell' / Bombshell Panicle Hydrangea	#3	HB	33	3-4'
Hydrangea paniculata 'Pinky Winky' / Pinky Winky Panicle Hydrangea	#3	HP	3	6-8'
Ilex glabra 'Compacta' / Compact Inkberry	2.5-3" B&B	IG	12	5-6'
Rhododendron maximum 'Roseum' / Pink Rosebay Rhododendron	#5	RM	18	5-6'
Viburnum nudum 'Winterthur' / Winterthur Smooth Viburnum	#5	VN	20	6-8'
Perennials				
Hemerocallis 'Happy Returns' / Happy Returns Daylily	#1	DL	23	18-24"
Hemerocallis 'Pardon Me' / Pardon Me Daylily	#1	PM	22	18-24"
Hosta 'Frances Williams' / Frances Williams Plantain Lily	#1	PL	10	24"
Hosta 'Guacamole' / Guacamole Plantain Lily	#1	HG	10	30"
Nepeta 'Walker's Low' / Walker's Low Catmint	#1	WL	10	18"
Rudbeckia flugida 'Goldsturm' / Goldsturm Black-Eyed Susan	#1	RF	14	24"
Grasses				
Panicum virgatum 'Shenandoah' / Shenandoah Switch Grass	#2	PV	48	3-4'
Ground Cover				
Rhus aromatica 'Grow Low' / Grow Low Sumac	#3	RA	59	18-24"

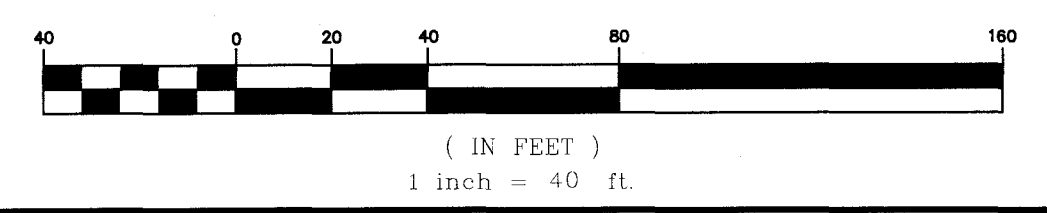
LANDSCAPE CALCULATIONS

REQUIRED PARKING LOT TREES
 PROPOSED PARKING AREA = 19,780 SF
 TREES REQUIRED:
 1 TREE / 900 SF FOR FIRST 3,600 SF OF PARKING + 1 SHADE TREE / 3,600 SF THEREAFTER
 19,780 - 3,600 = 16,180 / 3,600 = 4.5
 4 + 5 = 9 TREES REQUIRED
 TREES PROVIDED = 30 TREES PROPOSED AROUND PARKING AREAS

LANDSCAPE NOTES:

- THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SITE LANDSCAPE WHICH PROVIDES CLIMATIC RELIEF AND AESTHETIC APPEAL.
- ALL PLANT MATERIALS USED SHALL BE NURSERY STOCK AND SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF INSTALLATION. ANY MATERIAL WHICH DIES OR DOES NOT SHOW HEALTHY APPEARANCE WITHIN THIS TIME SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE; WITH SAME WARRANTY REQUIREMENTS AS THE ORIGINAL. WARRANTIES TYPICALLY DO NOT COVER LOSS DUE TO INSECT INFESTATION OR MECHANICAL DAMAGE (I.E. SNOW STORAGE).
- IF THE SOIL CONDITIONS ARE EXTREMELY SANDY, ALL TREES SHALL HAVE A 6" LAYER OF COMPACTED TOPSOIL PLACED IN 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 MIXTURE SHALL BE USED TO BACKFILL THE HOLE AS FOLLOWS: ORGANIC TOPSOIL, AMENDED WITH 10% WOOD ASH, 10% MANURE, 30% PEATMOSS AND A GRANULAR HYDROGEL TO ABSORB AND RETAIN WATER.
- PLANTING BEDS AND SAUCERS SHALL RECEIVE A 4" MINIMUM THICKNESS OF PINE/HEMLOCK BARK MULCH OVER A 5oz. POLYPROPYLENE WEED CONTROL FABRIC.
- PAVEMENT AND ROAD BASE MATERIAL ENCOUNTERED IN ANY LAWN OR PLANTING BED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SUITABLE AMENDED SOIL INSTALLED AS SPECIFIED IN THE TURF ESTABLISHMENT SCHEDULE.
- ALL GROUND DISTURBED AS A RESULT OF SITE CONSTRUCTION AND DEVELOPMENT SHALL BE COMPACTED, COVERED WITH TOPSOIL, AND PLANTED WITH A COMBINATION OF LIVING VEGETATION.

GRAPHIC SCALE



LEGEND

- UTILITY POLE
- SIGN
- ROUND CATCH BASIN
- ABUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- WOODEN FENCE
- OVERHEAD UTILITIES
- UNDERGROUND UTILITIES
- TREELINE
- SLOPED GRANITE CURB
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED PARKING LOT LIGHT
- PROPOSED SLOPED GRANITE CURB
- PROPOSED EDGE OF PAVEMENT
- PROPOSED RETAINING WALL
- PROPOSED TREELINE

terrain
 planning & design llc
 311 kast hill road
 hopkinton nh 03229
 603. 746. 3512
 terrainplanning.com



LANDSCAPE PLAN
OPTIMUS SENIOR LIVING
 MAP 109 LOT 17
 15 PINWOOD ROAD
 ALLENSTOWN, NEW HAMPSHIRE
 MERRIMACK COUNTY

OWNER OF RECORD:
 RUI & MARIA J. LEITE, TRUSTEES
 OCEAN REALTY TRUST
 9772 BLUE STONE CIRCLE
 FORT MYERS, FL 33913
 M.C.R.D. BK. 3459 PG. 554

APPLICANT:
 OPTIMUS SENIOR LIVING
 162 COLLEGE HWY
 P.O. BOX 363
 SOUTHAMPTON, MA 01073

KMA
KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
 10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
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2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

DATE: JUNE 2, 2020 SCALE: 1"=40'
 PROJECT NO: 19-1126-1 SHEET 8 OF 18

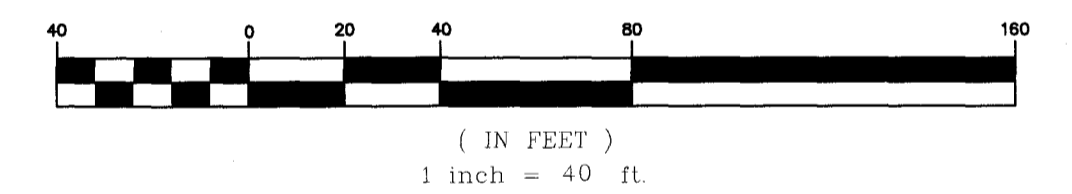
LIGHTING NOTES:

1. ALL LIGHTS/FIXTURES SHALL BE AS SPECIFIED BY CHARRON LIGHTING.
2. ALL PROPOSED LIGHTS/FIXTURES ARE TO BE FULL CUTOFF.
3. FIXTURES SHALL BE MOUNTED AT HEIGHTS AS SPECIFIED IN TABLE.
4. PRIOR TO CONSTRUCTION, THE SITE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ELECTRICIAN FOR THE EXACT LOCATION, LAYOUT, CONDUIT SIZE AND CIRCUITS ASSOCIATED WITH THE SITE LIGHTING.

LEGEND

- UTILITY POLE
- SIGN
- ROUND CATCH BASIN
- BUTTER LINE
- PROPERTY LINE
- WETLAND
- CHAIN LINK FENCE
- WOODEN FENCE
- OVERHEAD UTILITIES
- UNDERGROUND UTILITIES
- TREELINE
- SLOPED GRANITE CURB
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED PARKING LOT LIGHT
- PROPOSED SLOPED GRANITE CURB
- PROPOSED EDGE OF PAVEMENT
- PROPOSED RETAINING WALL
- PROPOSED TREELINE

GRAPHIC SCALE



IN ASSOCIATION WITH:



P.O. BOX 4550
MANCHESTER, NH 03108
(603) 624-4827
FAX (603) 624-3764
SALES@CHARRONINC.COM

LIGHTING PLAN
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD:
RUI & MARIA J. LEITE, TRUSTEES
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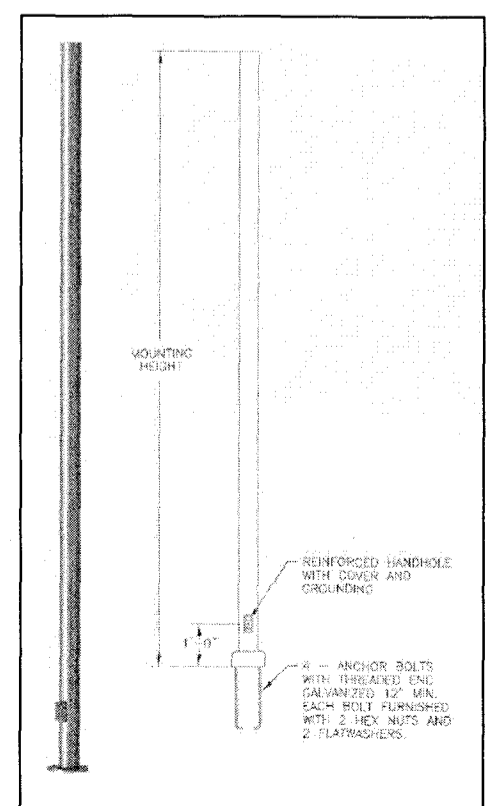
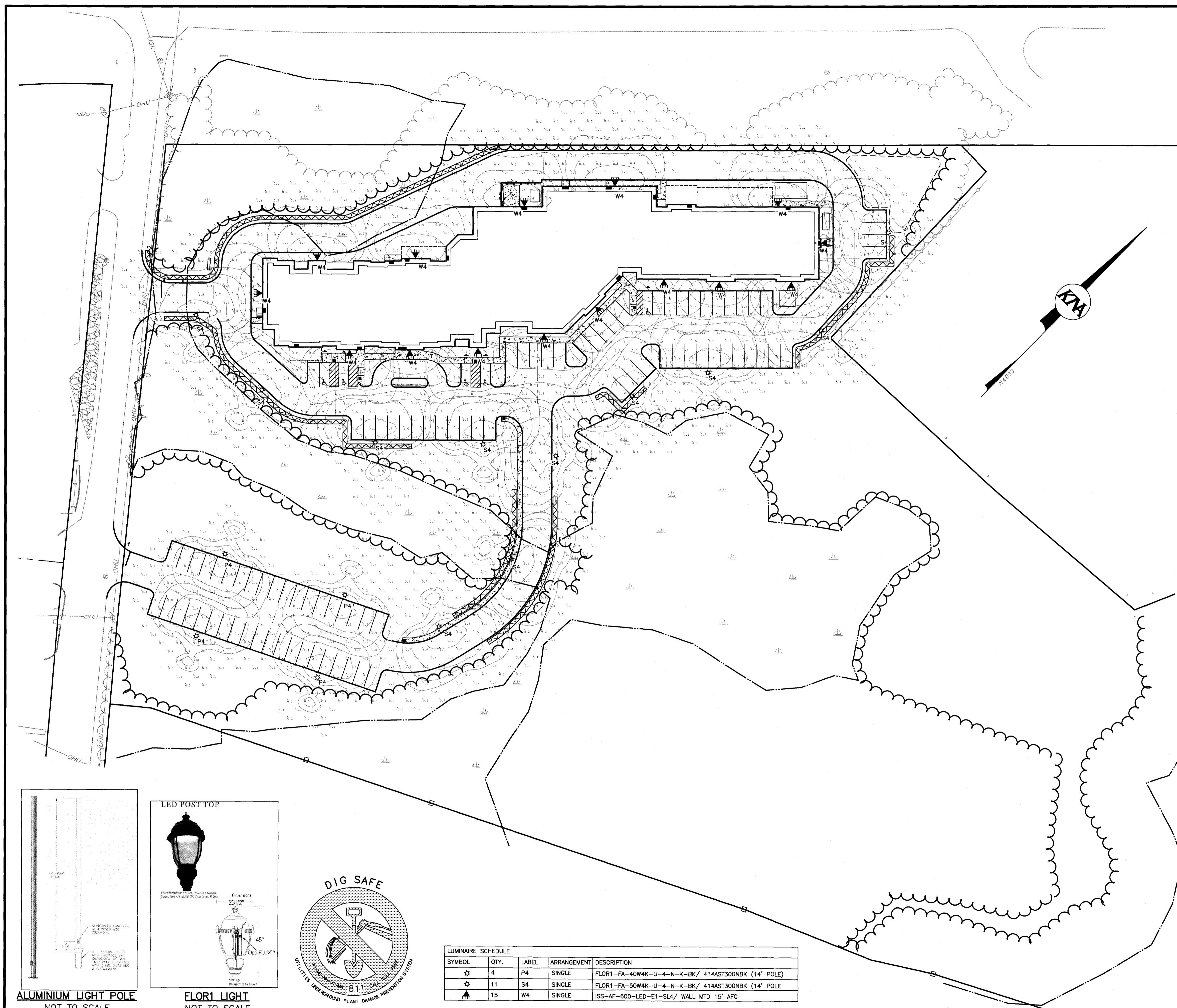
APPLICANT:
OPTIMUS SENIOR LIVING
162 COLLEGE HWY
P.O. BOX 363
SOUTHAMPTON, MA 01073

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
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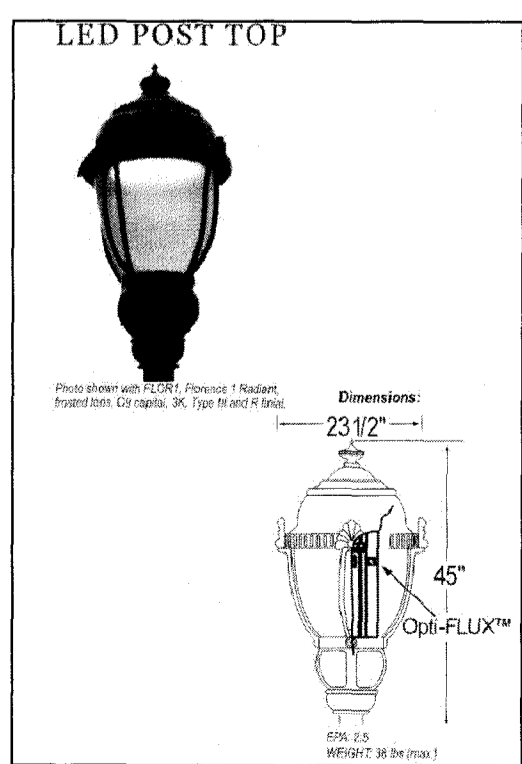
REVISIONS

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DATE: JUNE 2, 2020 SCALE: 1"=40'
PROJECT NO: 19-1126-1 SHEET 9 OF 18



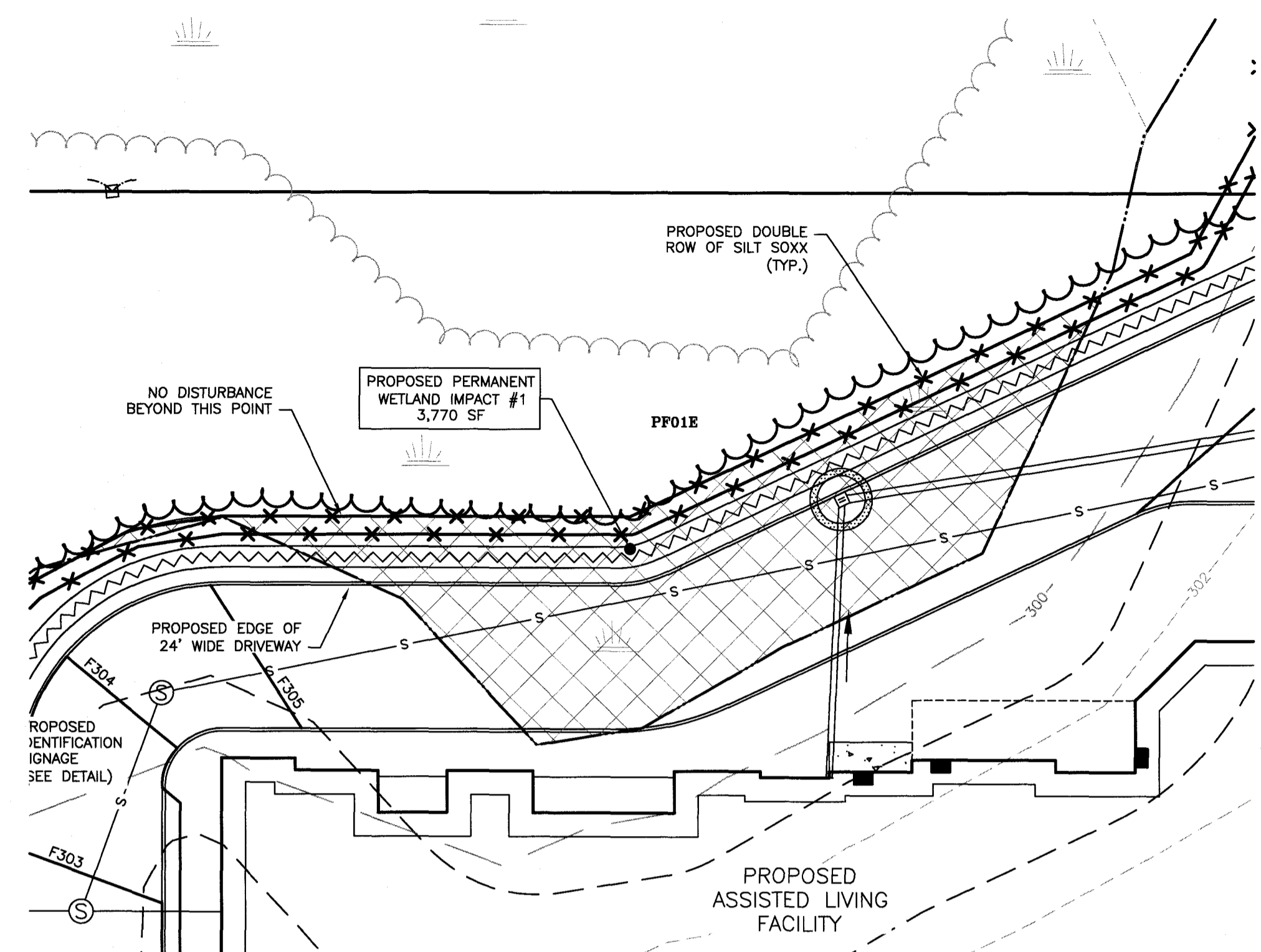
ALUMINIUM LIGHT POLE
NOT TO SCALE



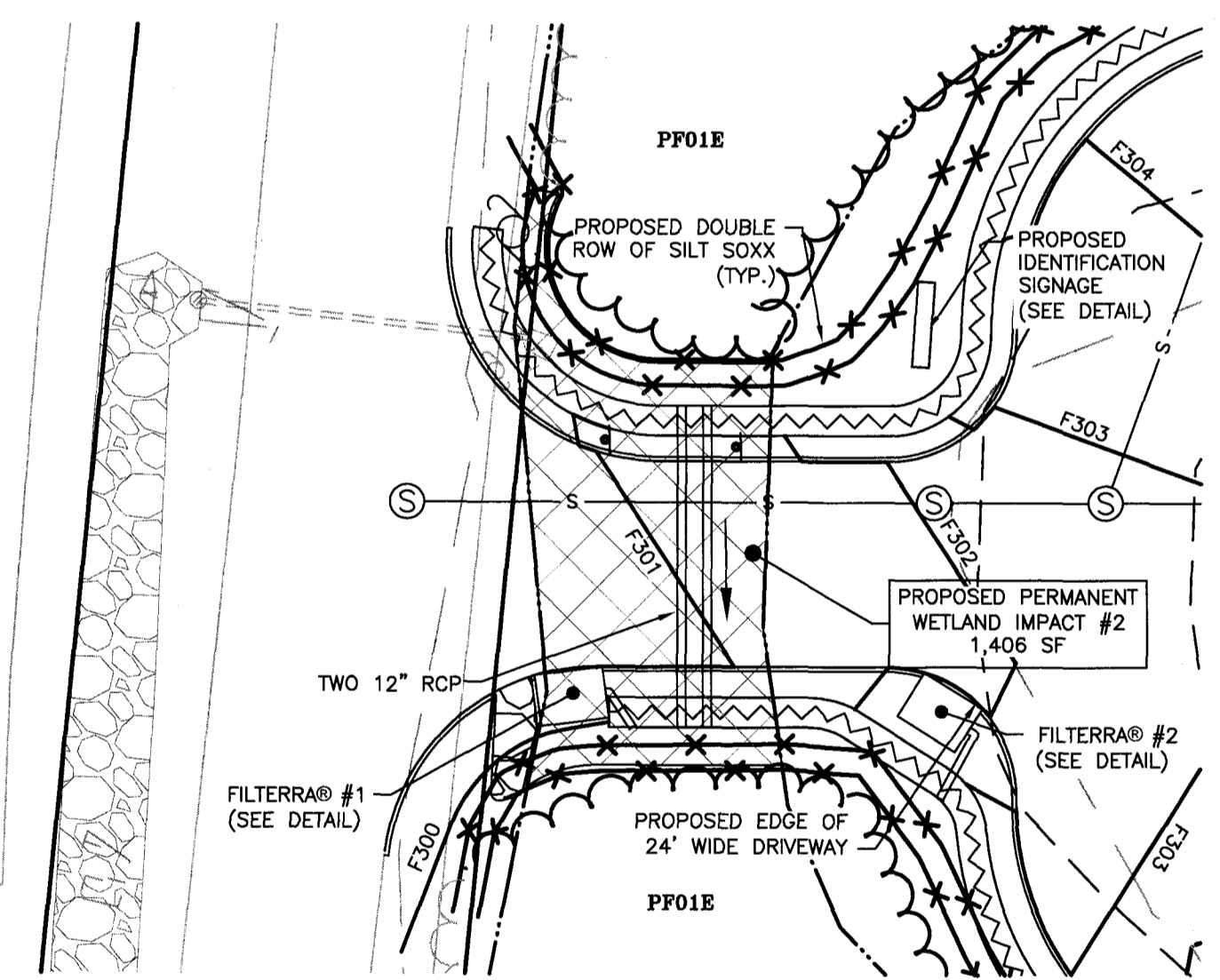
FLOR1 LIGHT
NOT TO SCALE



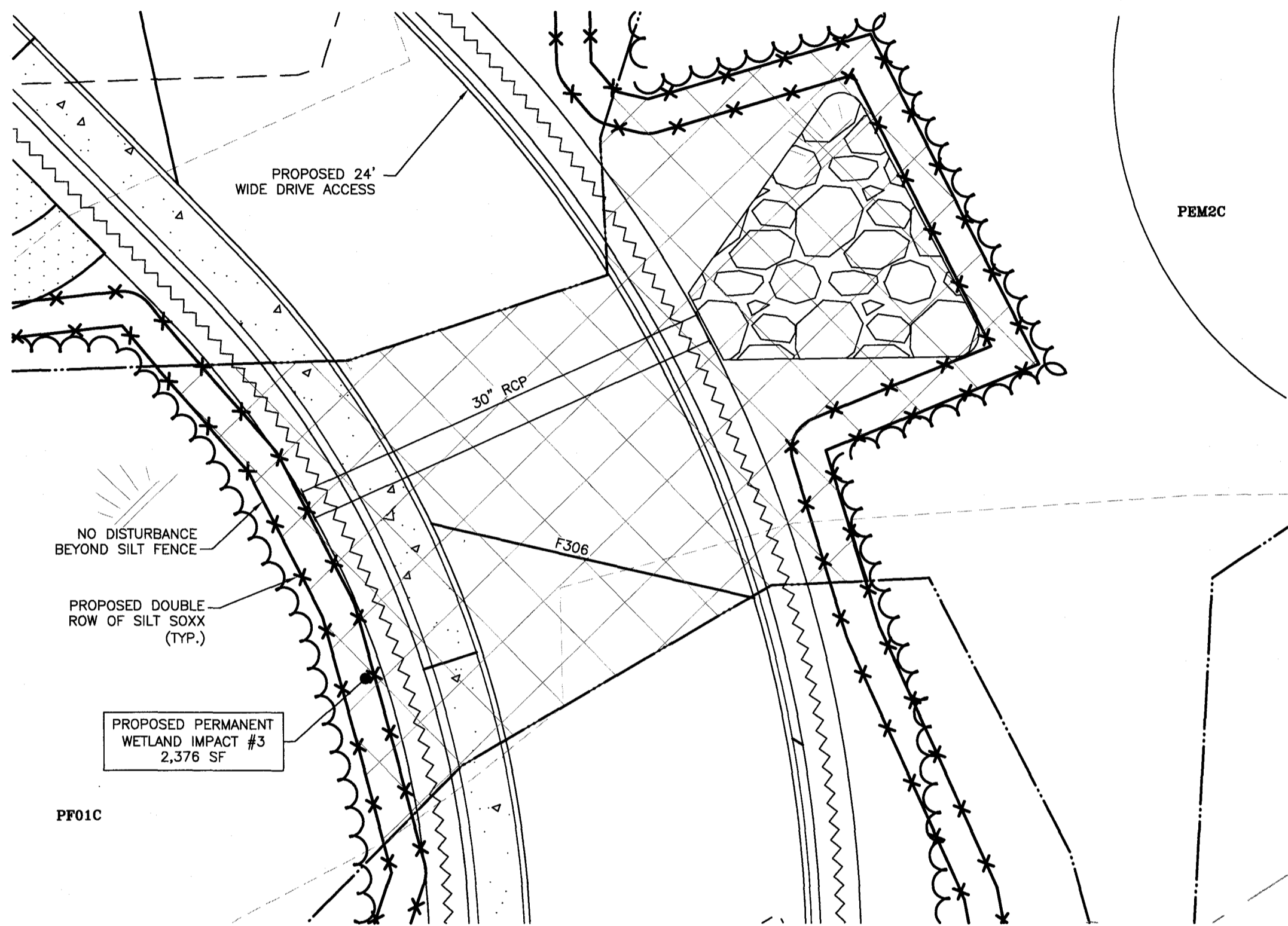
SYMBOL	QTY.	LABEL	ARRANGEMENT	DESCRIPTION
☆	4	P4	SINGLE	FLOR1-FA-40W4K-U-4-N-K-BK/ 414AST300NBK (14' POLE)
☆	11	S4	SINGLE	FLOR1-FA-50W4K-U-4-N-K-BK/ 414AST300NBK (14' POLE)
▲	15	W4	SINGLE	ISS-AF-600-LED-E1-SL4/ WALL MTD 15' AFG



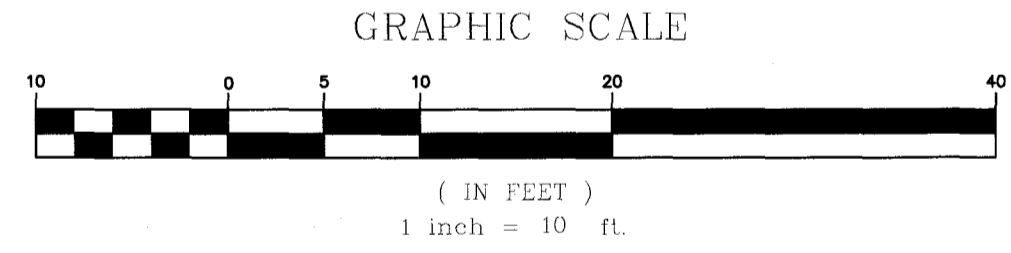
WETLAND IMPACT PLAN #1
SCALE: 1" = 20'



WETLAND IMPACT PLAN #2
SCALE: 1" = 20'

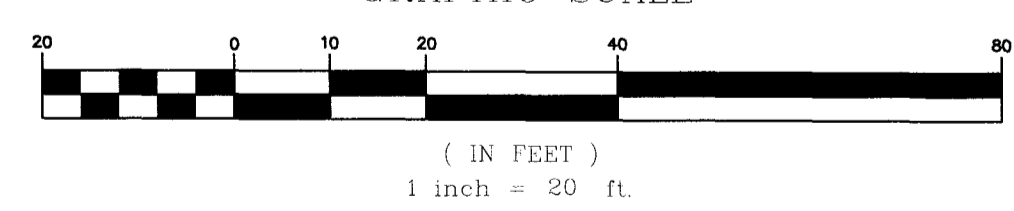


WETLAND IMPACT PLAN #3
SCALE: 1" = 10'



- NOTES:**
1. THE PURPOSE OF THIS PLAN IS TO PROPOSE WETLAND IMPACTS TO CONSTRUCT DRIVEWAY ACCESS FOR CARE FACILITY.
 2. PROPER EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED (I.E. SILT FENCE, HAY BALES, ETC.) PRIOR TO COMMENCING WITH EXCAVATION EFFORTS. THE CONTROLS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL COMPLETION OF CONSTRUCTION. THE TOWN OF ALLENSTOWN RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES DURING CONSTRUCTION, IF NECESSARY.
 3. TEMPORARY EROSION CONTROLS SHALL BE REMOVED UPON FINAL STABILIZATION OF DISTURBED AREAS.
 4. SITE CONTRACTOR MAY PROPOSE ALTERNATIVE MEANS FOR DEWATERING, TO BE REVIEWED AND APPROVED PRIOR TO INSTALLATION.
 5. THE TOTAL WETLAND IMPACTS ARE AS FOLLOWS:
WETLAND IMPACT #1 = 3,770 SF
WETLAND IMPACT #2 = 1,406 SF
WETLAND IMPACT #3 = 2,376 SF
TOTAL WETLAND IMPACT = 7,552 SF

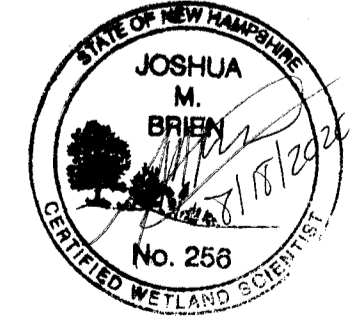
- LEGEND**
- ⊙ ROUND CATCH BASIN
 - DRAINAGE LINE
 - TREELINE
 - EDGE OF PAVEMENT
 - ABUTTER LINE
 - PROPERTY LINE
 - WETLAND
 - 10' CONTOUR
 - 2' CONTOUR
 - STONEWALL
 - EXISTING EASEMENT
 - PROPOSED PROPERTY LINE
 - PROPOSED EDGE OF PAVEMENT
 - PROPOSED DRAINAGE LINE
 - PROPOSED SEWER LINE
 - PROPOSED 2' CONTOUR
 - ⊗ AREA OF WETLAND IMPACT
 - PF01C COWARDIN WETLAND CLASSIFICATION



- EROSION & SEDIMENT CONTROL LEGEND**
- SILT SOXX
 - INLET CONTROL
 - STABILIZED CONSTRUCTION EXIT
 - STAGING AND STOCKPILE AREA
 - EROSION CONTROL BLANKETS

LOAM & SEED ALL DISTURBED AREAS (TYP.)

FURNISH & INSTALL EROSION CONTROL BLANKETS ON ALL SLOPES 3:1 OR STEEPER (TYP.)



THE LIMITS OF JURISDICTIONAL WETLANDS AS SHOWN ON THIS PLAN WERE DELINEATED BY JOSHUA BRIEN OF KEACH-NORDSTROM ASSOCIATES, INC. OF BEDFORD, NH IN ACCORDANCE WITH:

- US ARMY CORPS OF ENGINEERS REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH-CENTRAL AND NORTHEAST REGION, TECHNICAL REPORT ERDC/EL TR-12-1, JANUARY 2012, VERSION 2.0.
- NEW ENGLAND HYDRIC SOILS TECHNICAL COMMITTEE, 2018 VERSION 4, FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION, LOWELL, MA.
- NORTH AMERICAN DIGITAL FLORA: NATIONAL WETLAND PLANT LIST, CURRENT VERSION

WETLAND DELINEATION PREPARED BY:

 JOSHUA BRIEN
 CERTIFIED WETLAND SCIENTIST (#256)
 DATE: 8/17/20

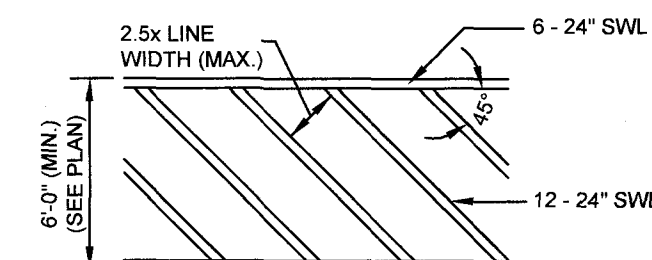
WETLAND IMPACT PLAN
OPTIMUS SENIOR LIVING
 MAP 109 LOT 17
 15 PINWOOD ROAD
 ALLENSTOWN, NEW HAMPSHIRE
 MERRIMACK COUNTY

OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554	APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073
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KN KEACH-NORDSTROM ASSOCIATES, INC.
 Civil Engineering Land Surveying Landscape Architecture
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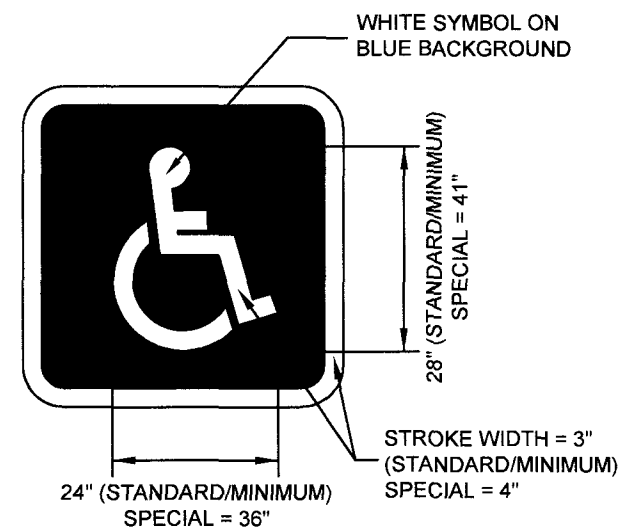
DATE: JUNE 2, 2020 SCALE: AS NOTED
 PROJECT NO: 19-1126-1 SHEET 10 OF 18



PEDESTRIAN WALK & CROSSING STRIPING

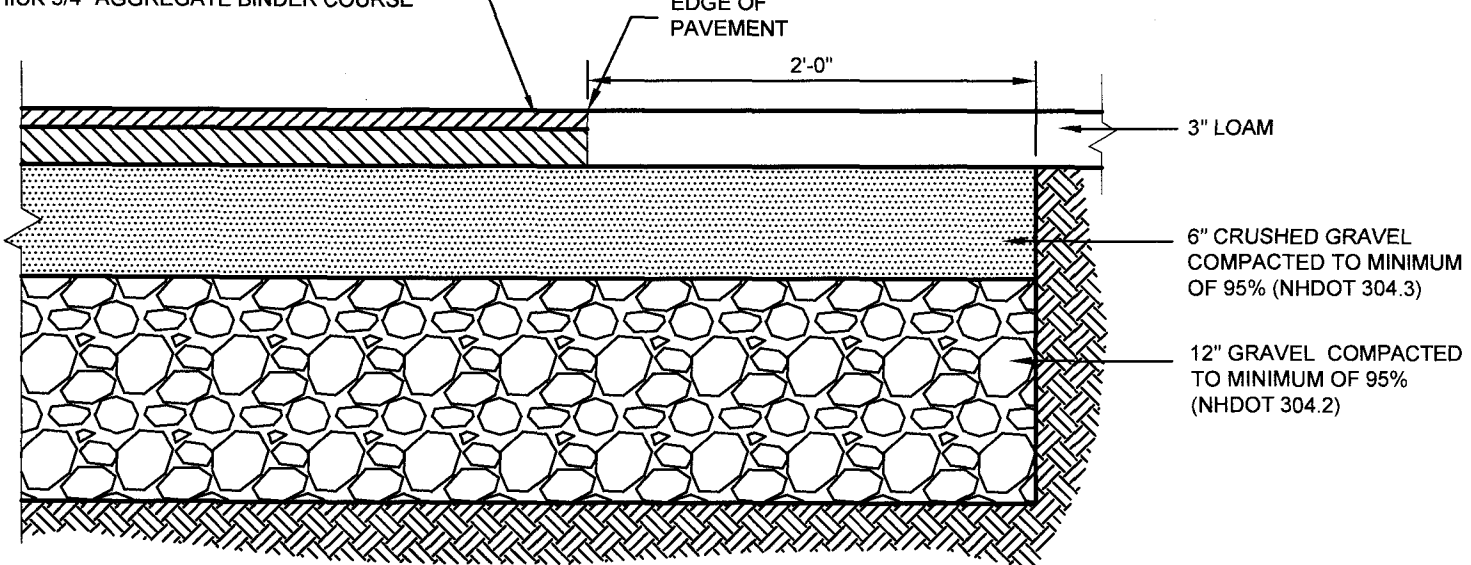
STRIPING NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THESE STANDARDS AND THE CURRENT EDITION OF MUTCD.
2. WIDTH OF LINES SHALL VARY NO MORE THAN = 1/4 INCH FROM THAT SPECIFIED.
3. THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.
4. OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.

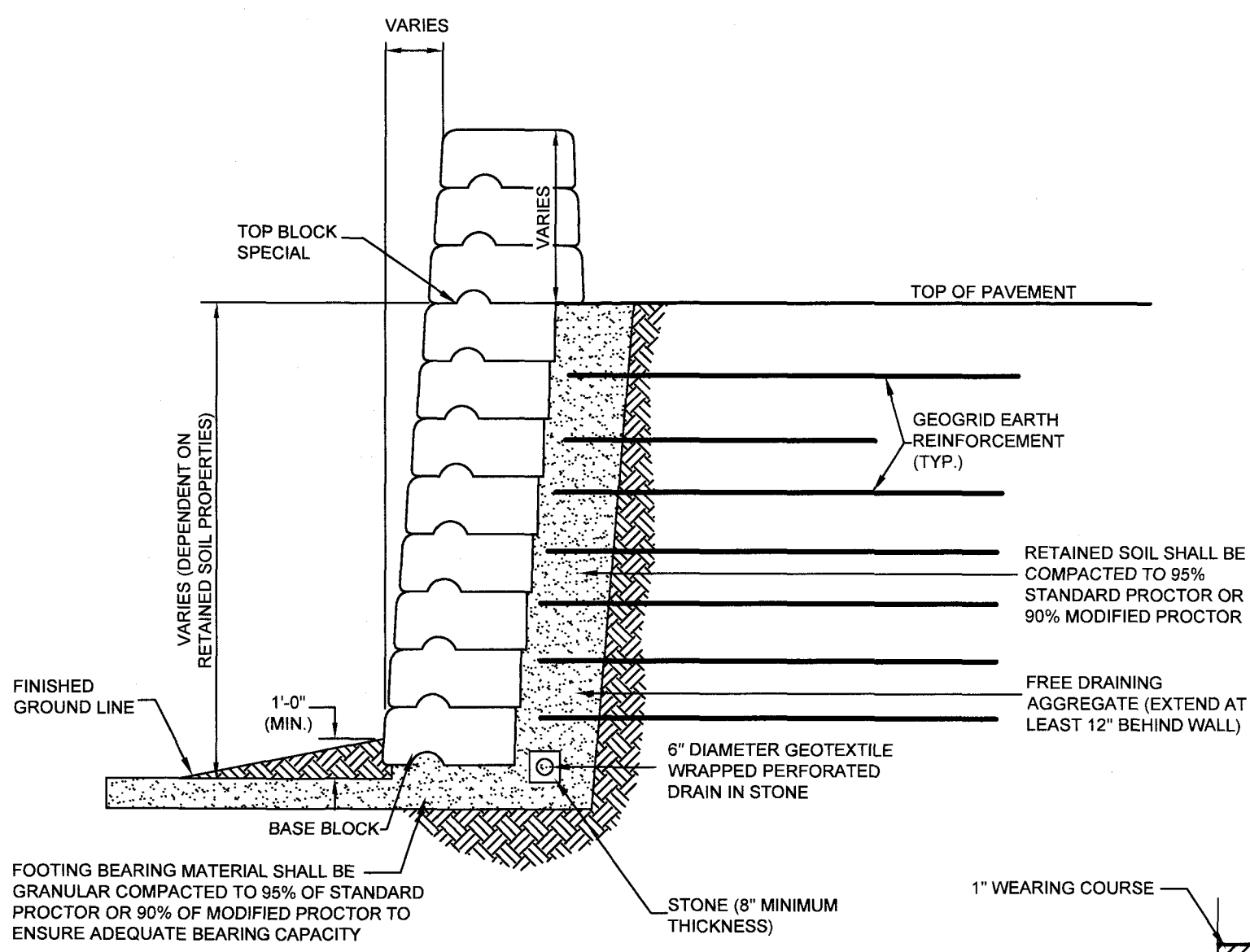


HANDICAP STRIPING DETAIL
NOT TO SCALE
(MARCH 2012)

- 3" HOT BITUMINOUS PAVEMENT (NHDOT 403.11)
- 1" THICK 1/2" AGGREGATE WEARING COURSE
- 2" THICK 3/4" AGGREGATE BINDER COURSE



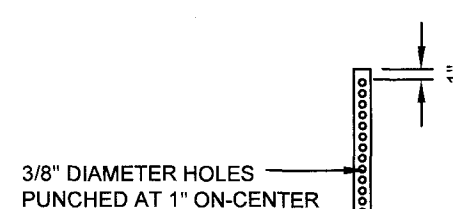
DRIVEWAY AND PARKING LOT SECTION
NOT TO SCALE
(MARCH 2008)



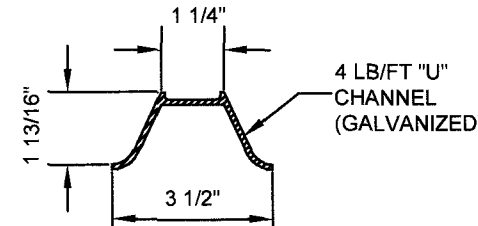
NOTES:

1. AS PERMISSIBLE, THE STRUCTURAL ENGINEER CHARGED WITH RETAINING WALL DESIGN SHALL SPECIFY SALT RESISTANT BLOCK CONSTRUCTION WHERE WALLS ARE TO BE CONSTRUCTED NEAR ROADWAYS OR PARKING AREAS.
2. RETAINING WALL DRAIN TO "DAYLIGHT" AT LOW POINT OR TIE TO DRAIN STRUCTURE AS SHOWN IN PLAN VIEW.
3. FINAL WALL DESIGN IS TO BE BY OTHERS. KEACH-NORDSTROM ASSOCIATES INC. ASSUMES NO RESPONSIBILITY OF THE WALL DESIGN.

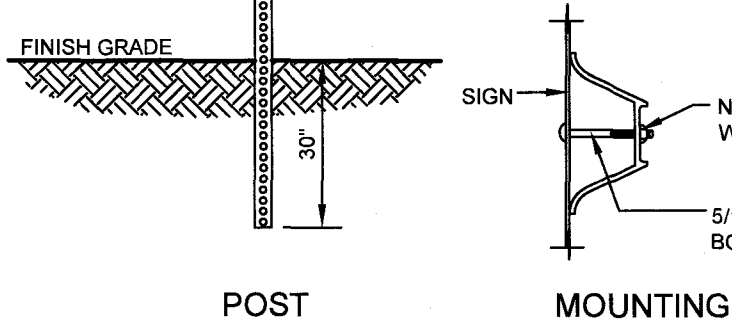
MODULAR BLOCK RETAINING WALL
(TO BE DESIGNED BY OTHERS)
NOT TO SCALE
(SEPTEMBER 2010)



STOP BAR

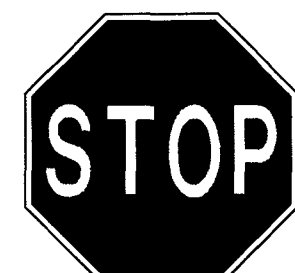


POST SECTION

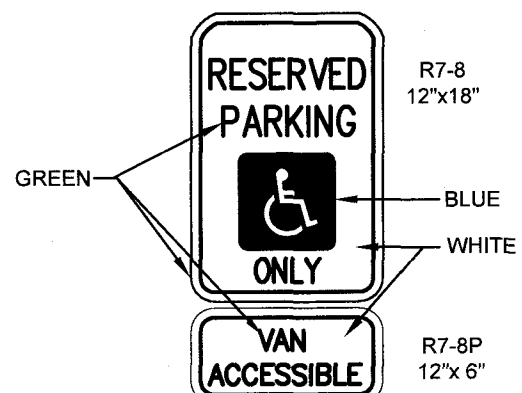


STEEL SIGN POST DETAIL
NOT TO SCALE
(MARCH 2008)

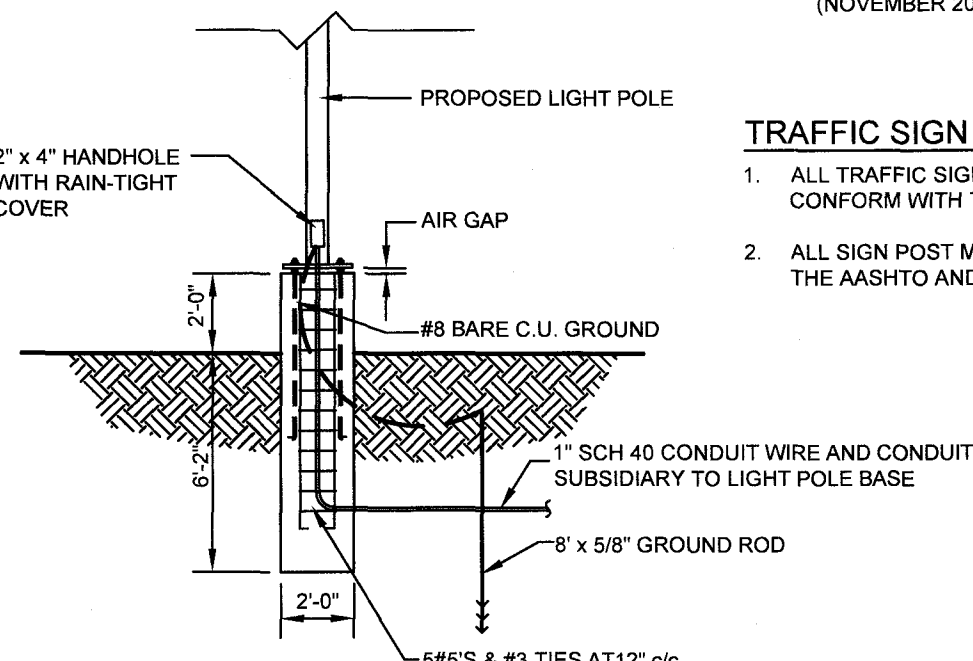
NOTE:
POST SHALL CONFORM TO NHDOT 615.2.5.3



STOP SIGN DETAIL
NOT TO SCALE
(MARCH 2008)



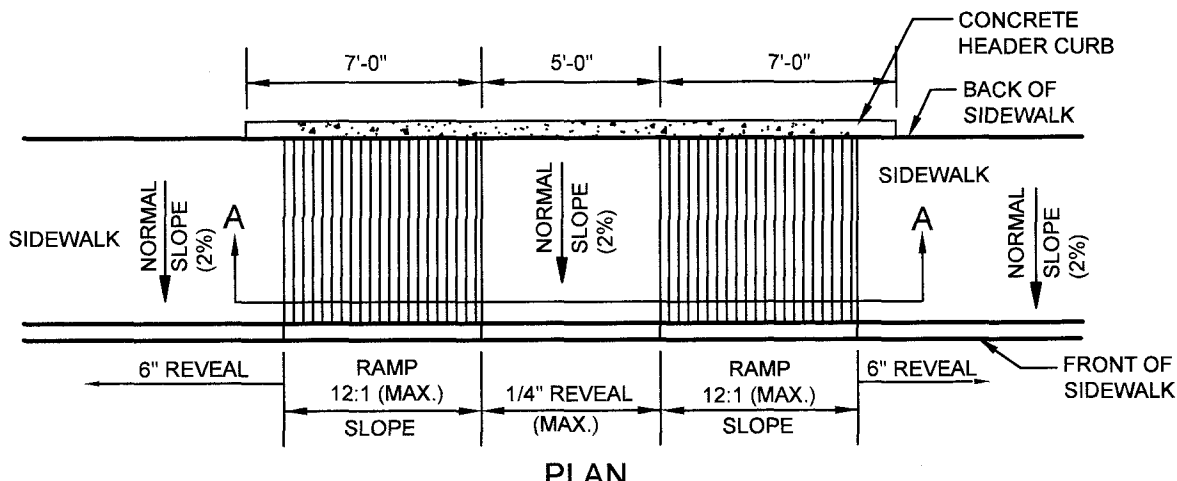
VAN ACCESSIBLE HANDICAP PARKING SIGN DETAIL
NOT TO SCALE
(NOVEMBER 2016)



CONCRETE LIGHT POLE BASE DETAIL
NOT TO SCALE
(MARCH 2008)

TRAFFIC SIGN NOTES:

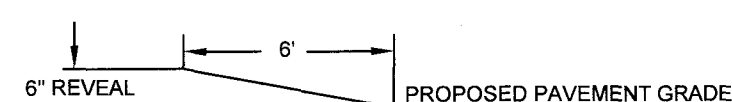
1. ALL TRAFFIC SIGN FACES AND SHAPES SHALL CONFORM WITH THE MUTCD.
2. ALL SIGN POST MOUNTS SHALL CONFORM WITH THE AASHTO AND NHDOT SPECIFICATIONS.



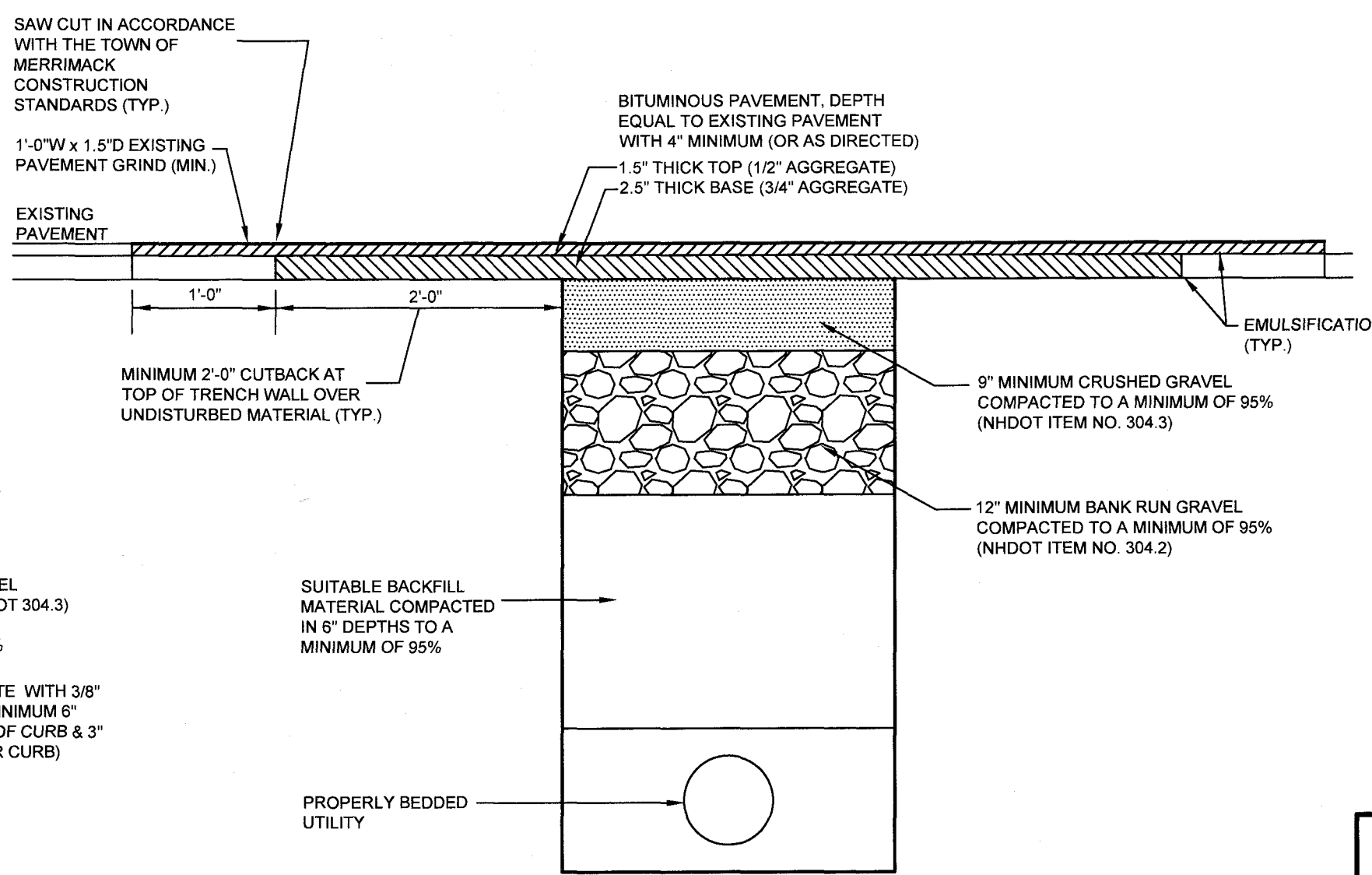
NOTES:

1. A BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP SHALL BE USED ON PORTLAND CEMENT CONCRETE RAMPS.
2. MAINTAIN THE NORMAL PAVEMENT PROFILE THROUGHOUT THE RAMP AREA.
3. MAINTAIN A MAXIMUM 1/4" OF CURB REVEAL AT THE RAMP. SEE SECTION A-A

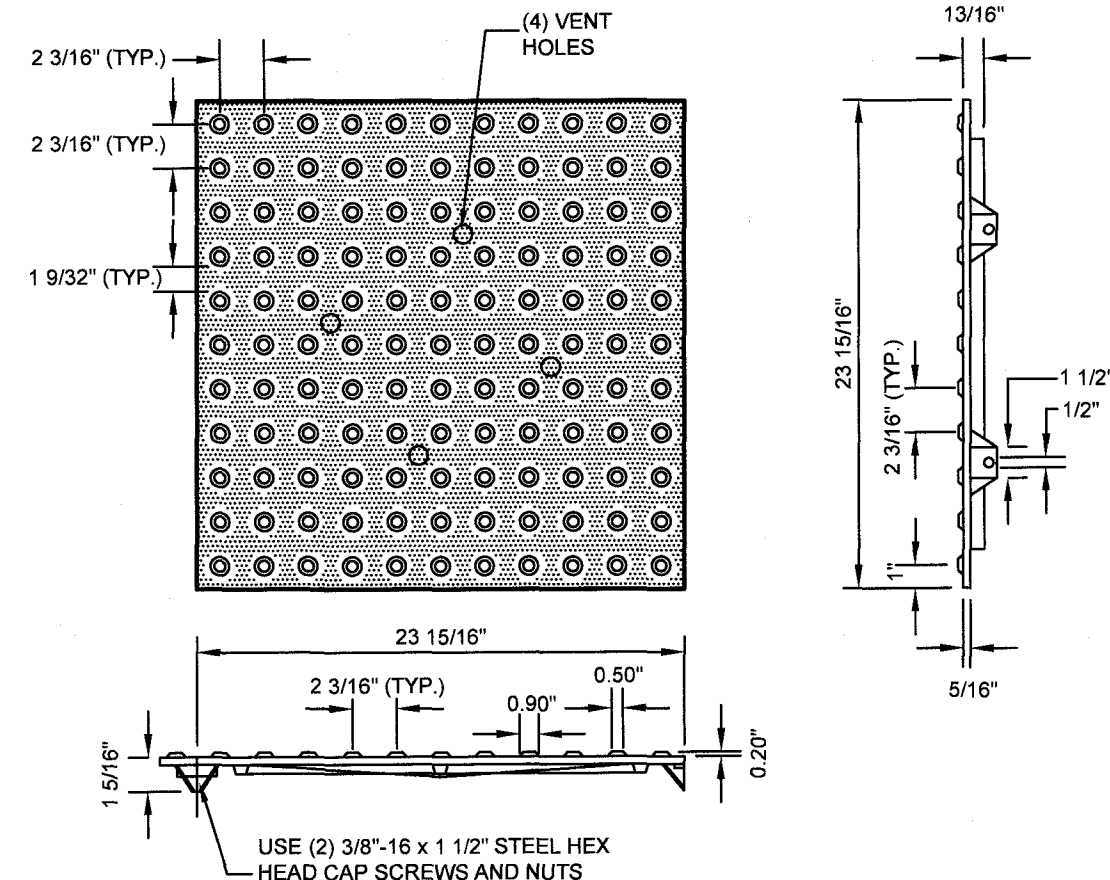
SIDEWALK RAMP
NOT TO SCALE
(JUNE 2012)



CURB TIP DOWN
NOT TO SCALE



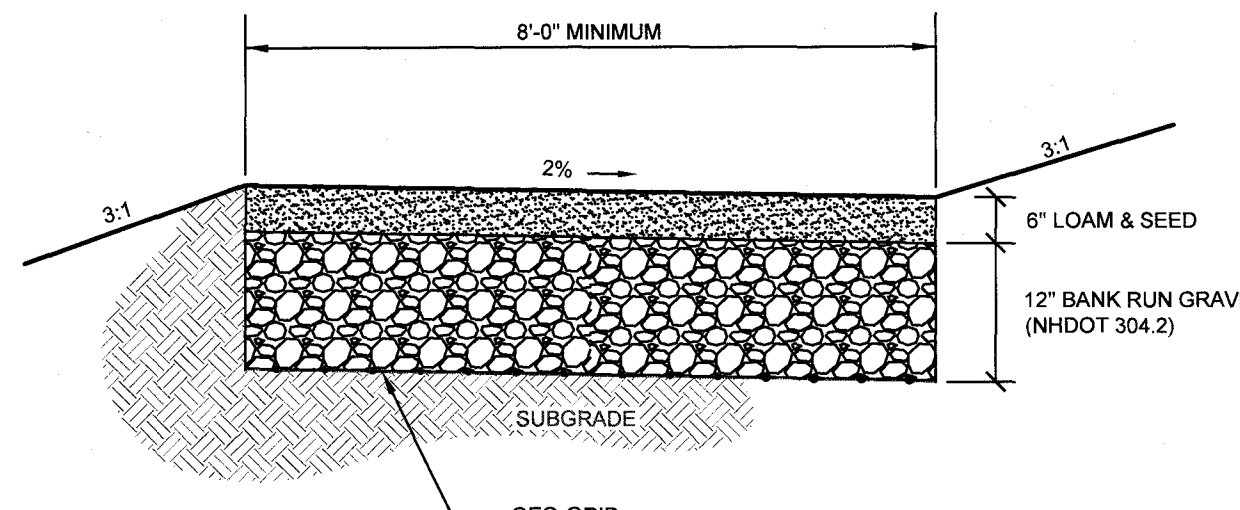
PERMANENT PAVEMENT REPAIR
NOT TO SCALE



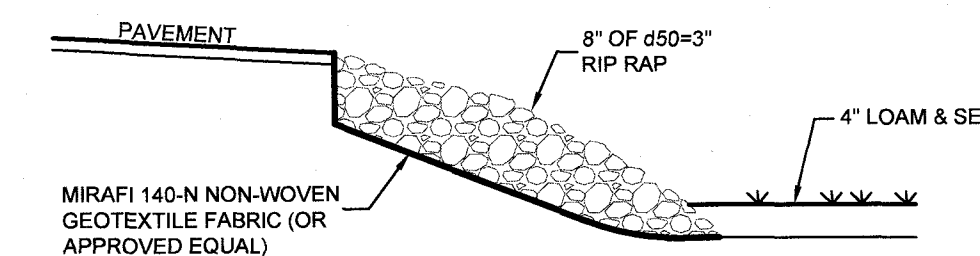
NOTES:

1. DETECTABLE WARNING PLATE SHALL BE NEENAH FOUNDRY OR APPROVED EQUAL.
2. THE PLATE MUST COMPLY WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND ARCHITECTURAL BARRIER ACT GUIDELINES.
3. MATERIAL SHALL BE CAST GRAY IRON
4. FINISH: NO PAINT

24"x24" DETECTABLE WARNING PLATE DETAIL
NOT TO SCALE
(MARCH 2009)



DRAINAGE ACCESS WAY DETAIL
NOT TO SCALE



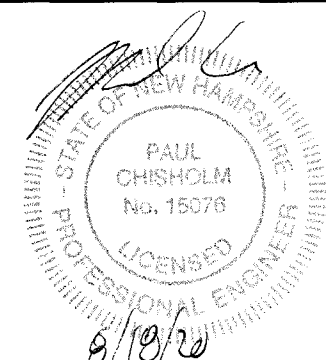
CURB BREAK DETAIL
NOT TO SCALE
(SEPTEMBER 2010)

CONSTRUCTION DETAILS
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
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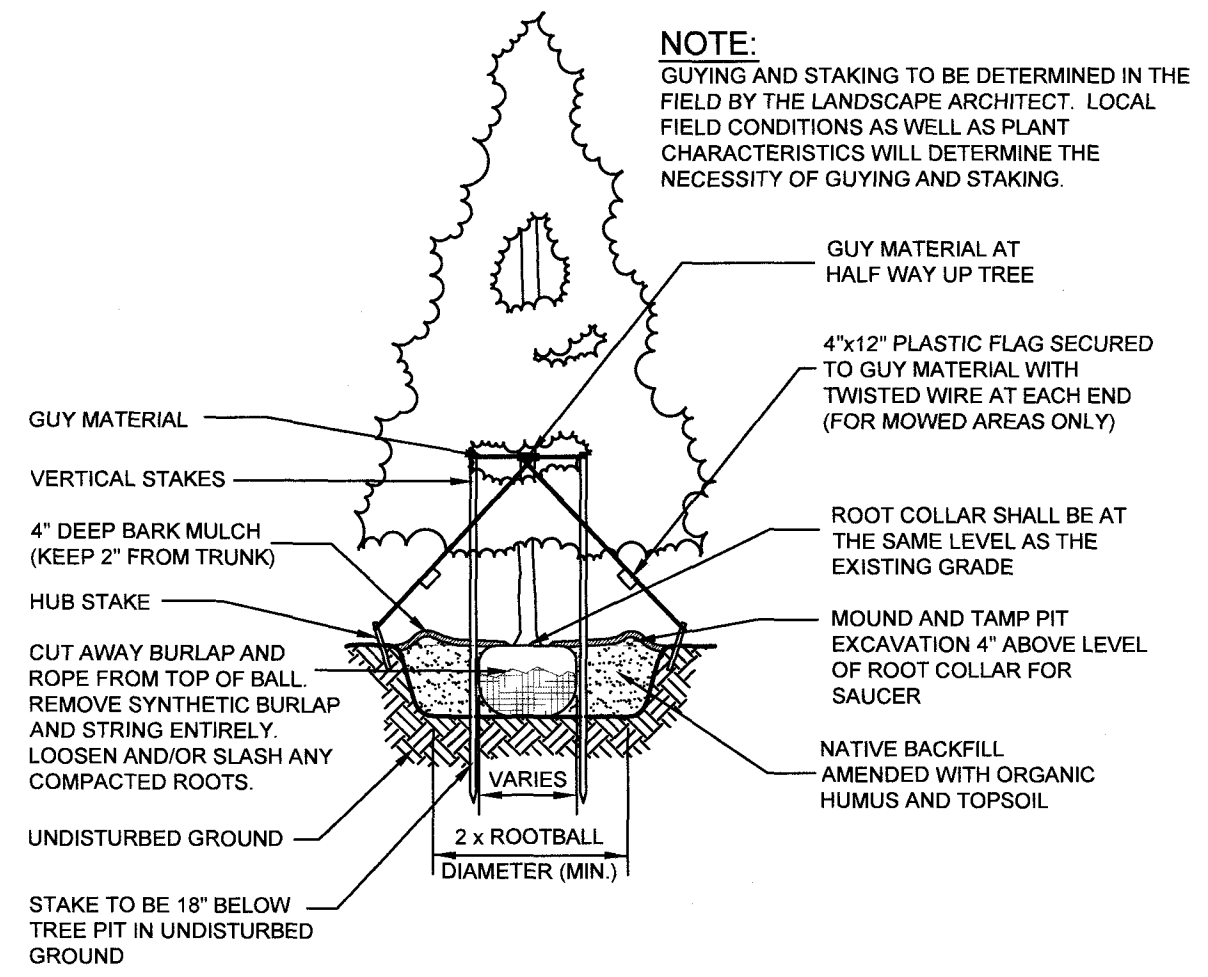
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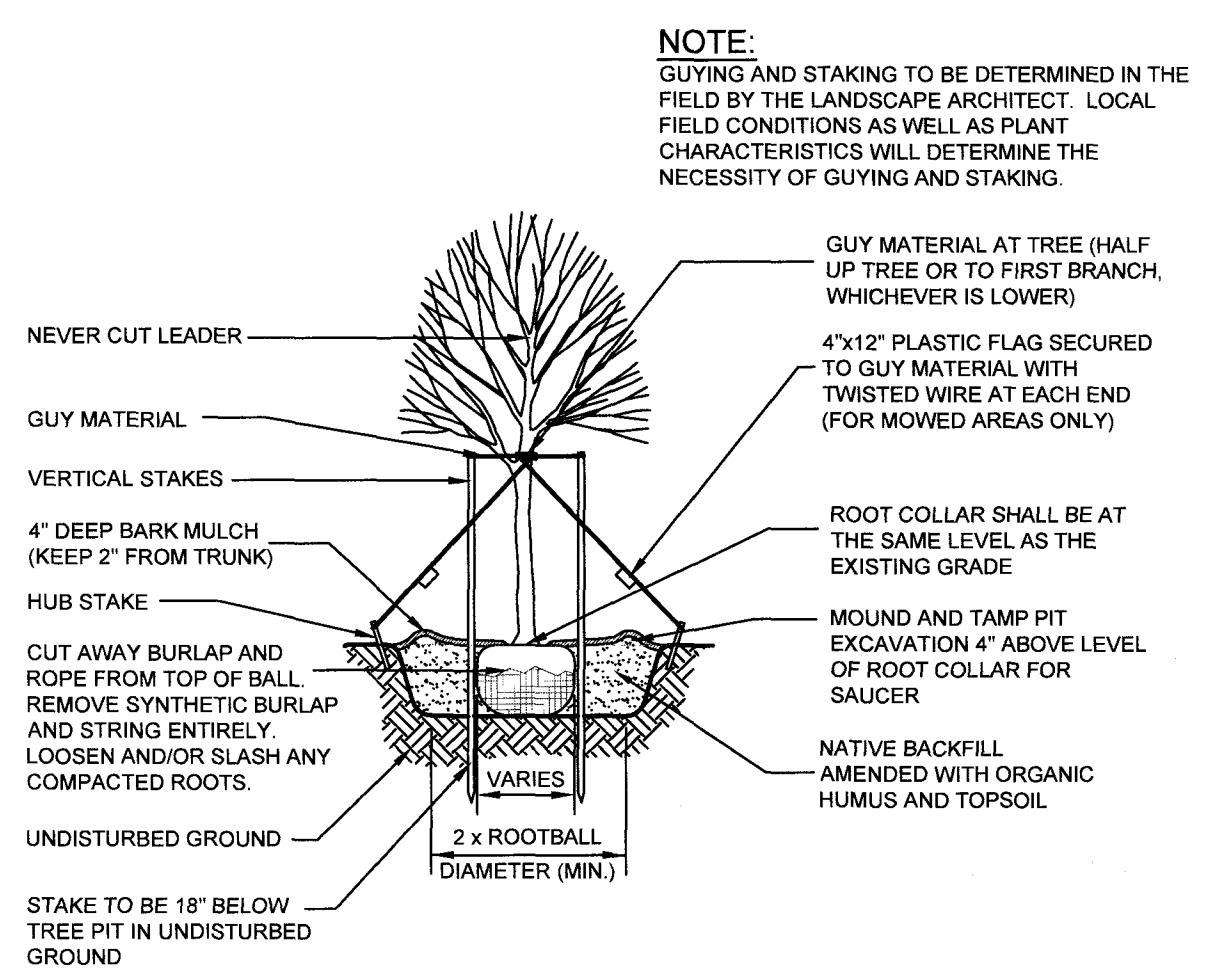


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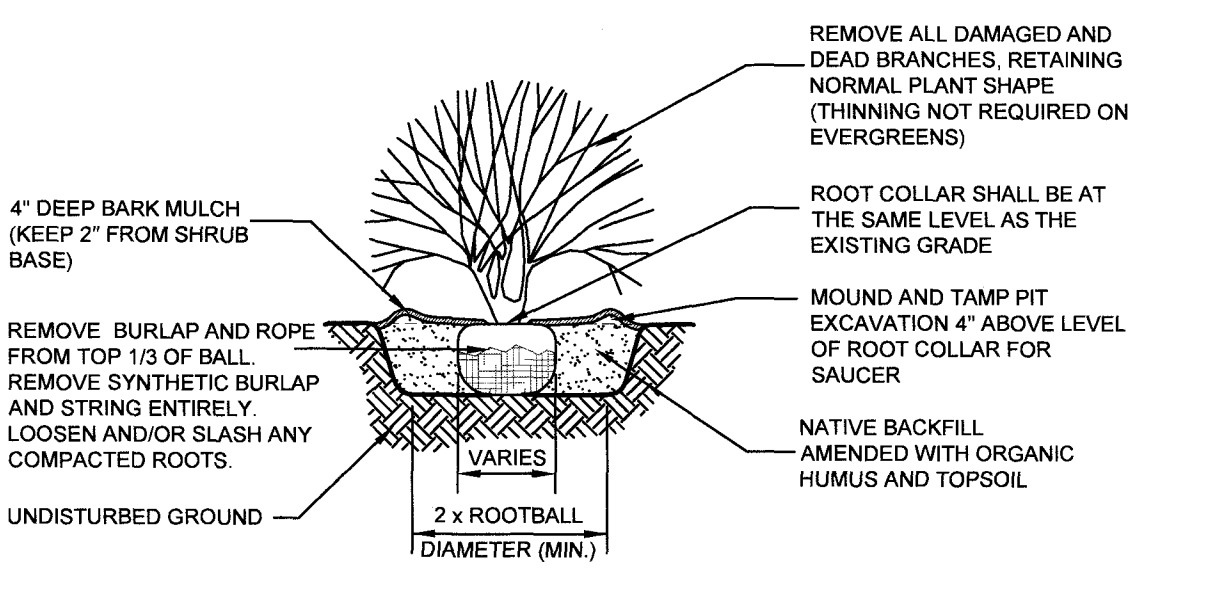
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SHEET 11 OF 18



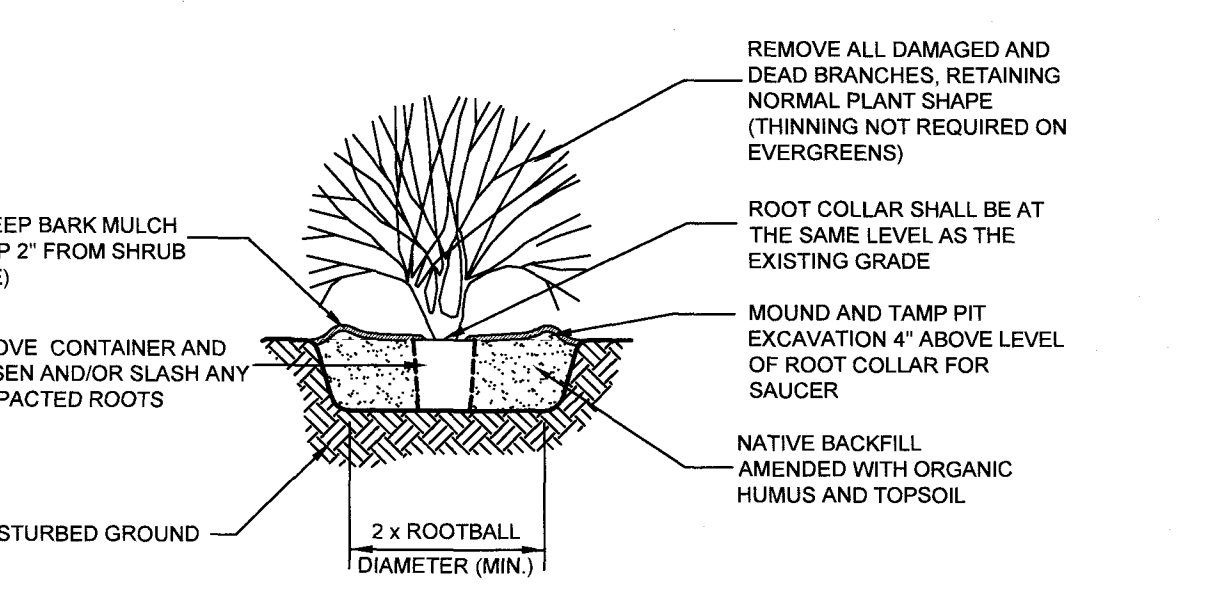
EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)



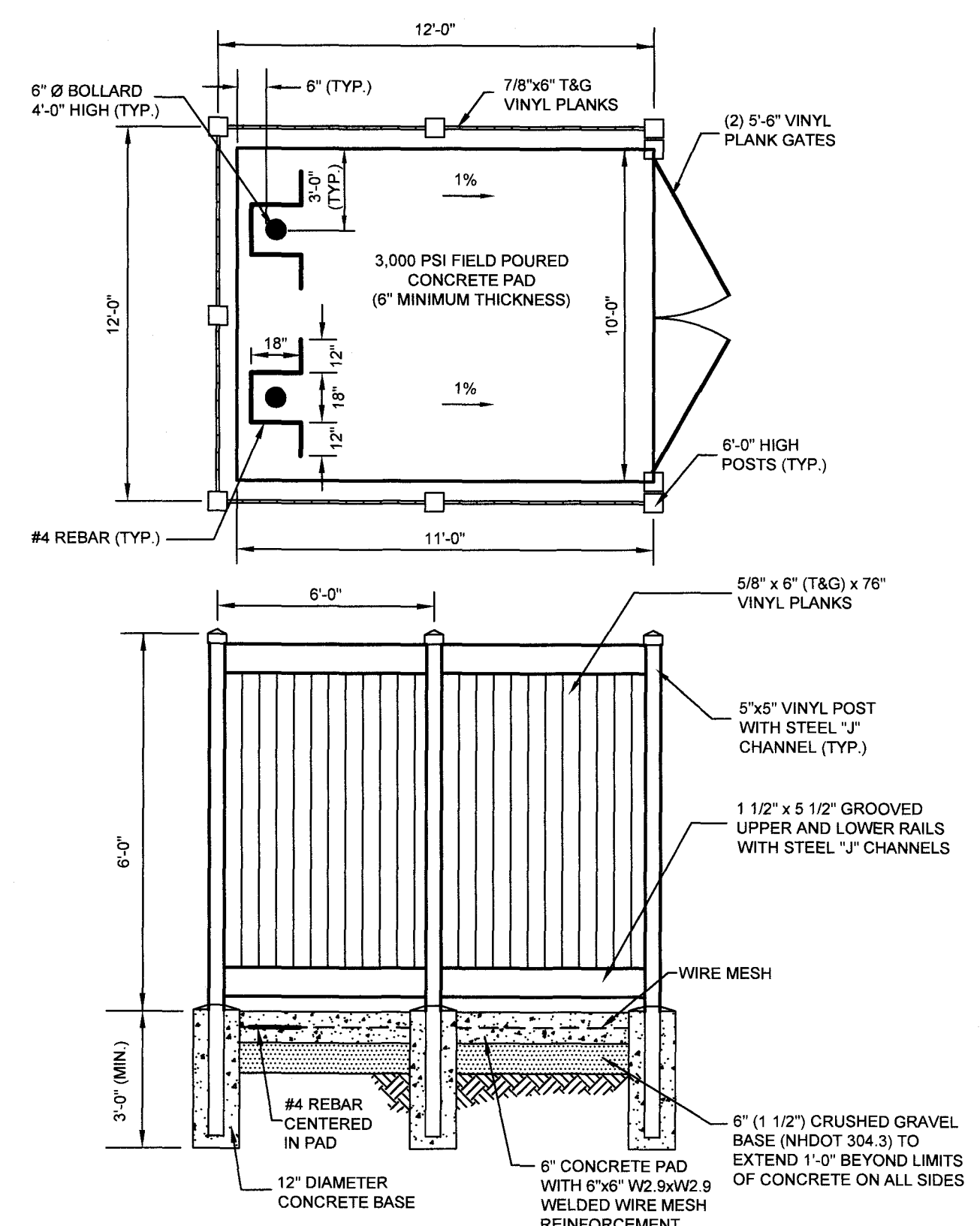
DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)



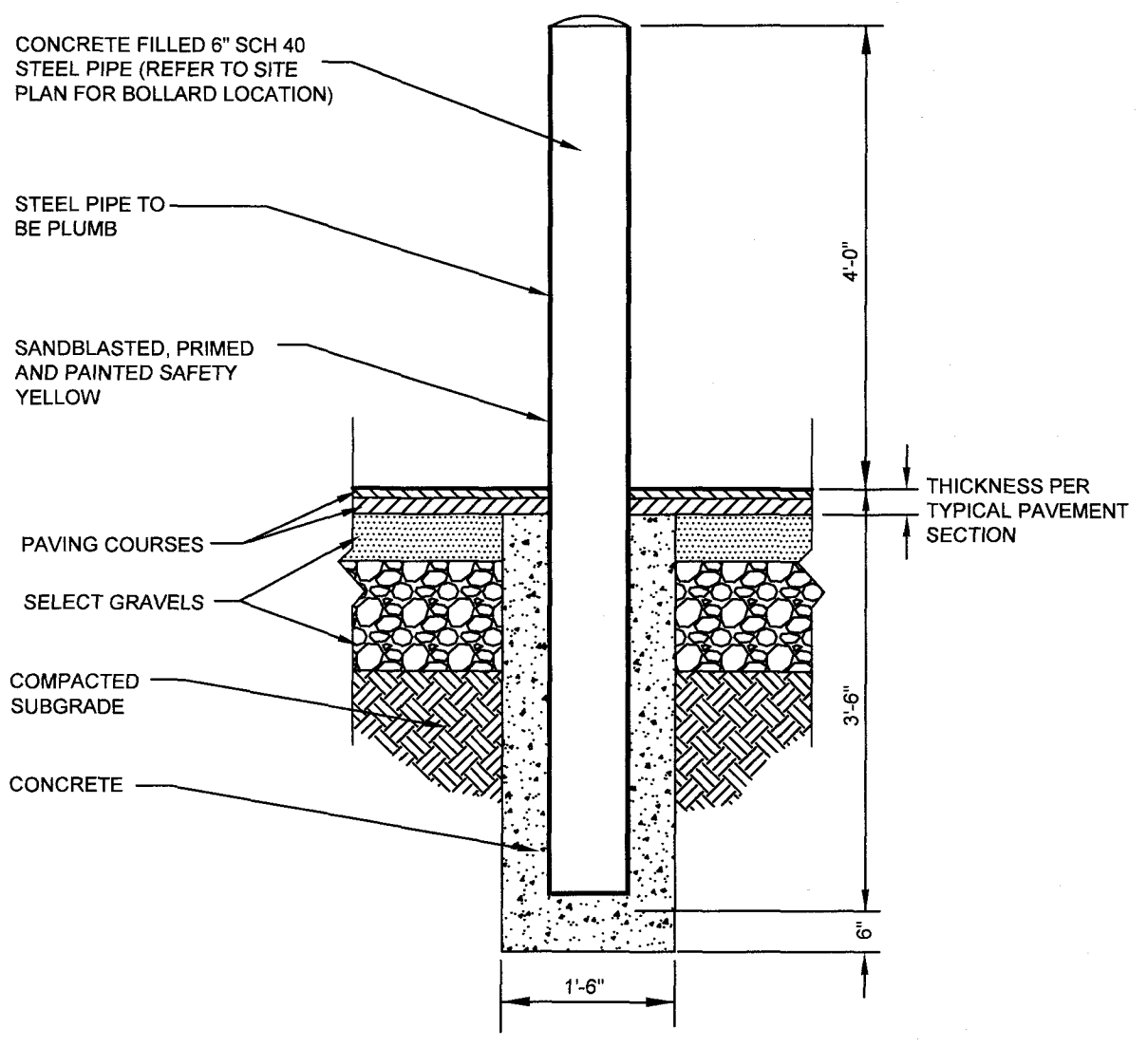
BALLED & BURLAP SHRUB PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)



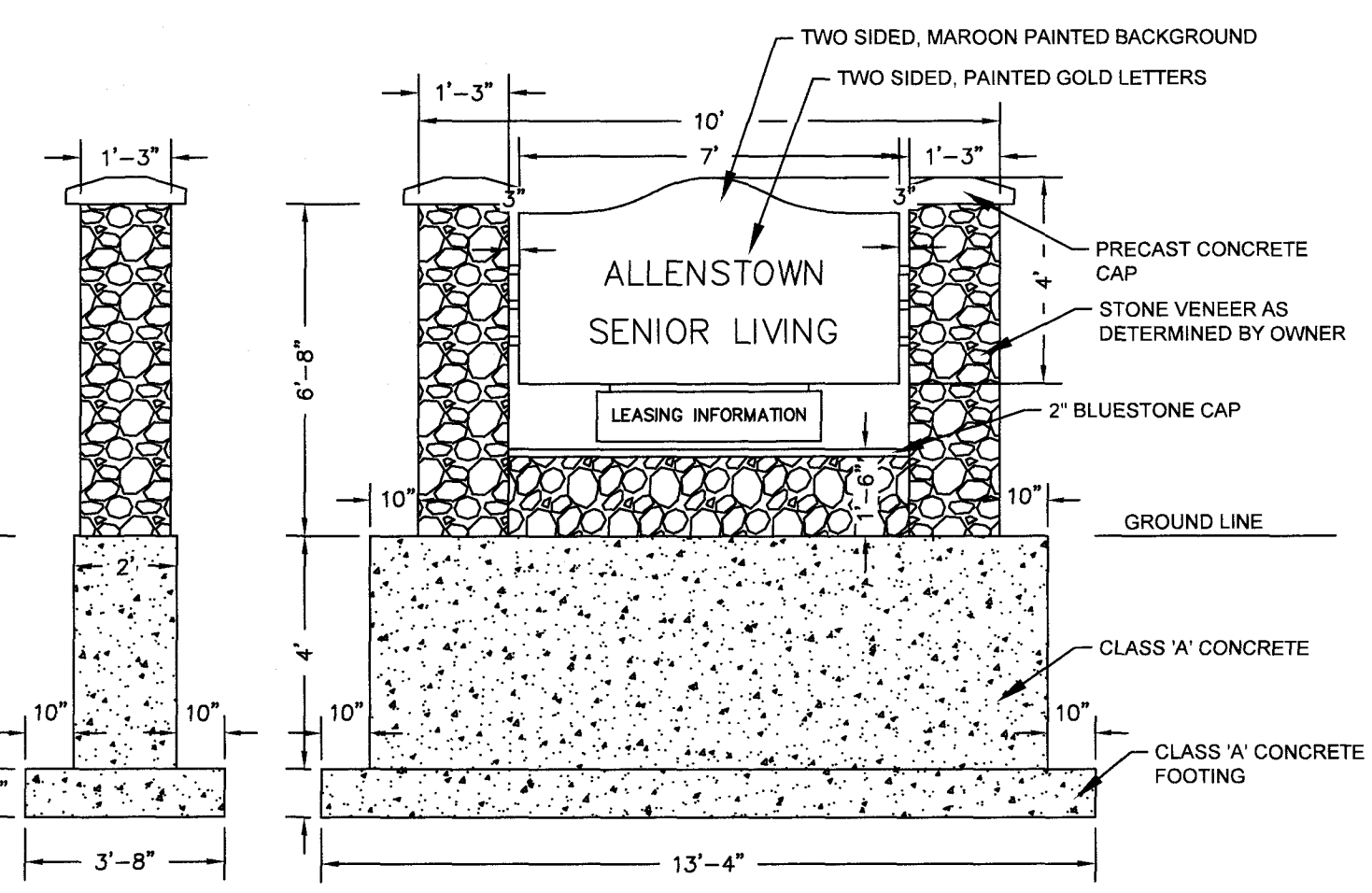
CONTAINER SHRUB PLANTING DETAIL
NOT TO SCALE
(JANUARY 2012)



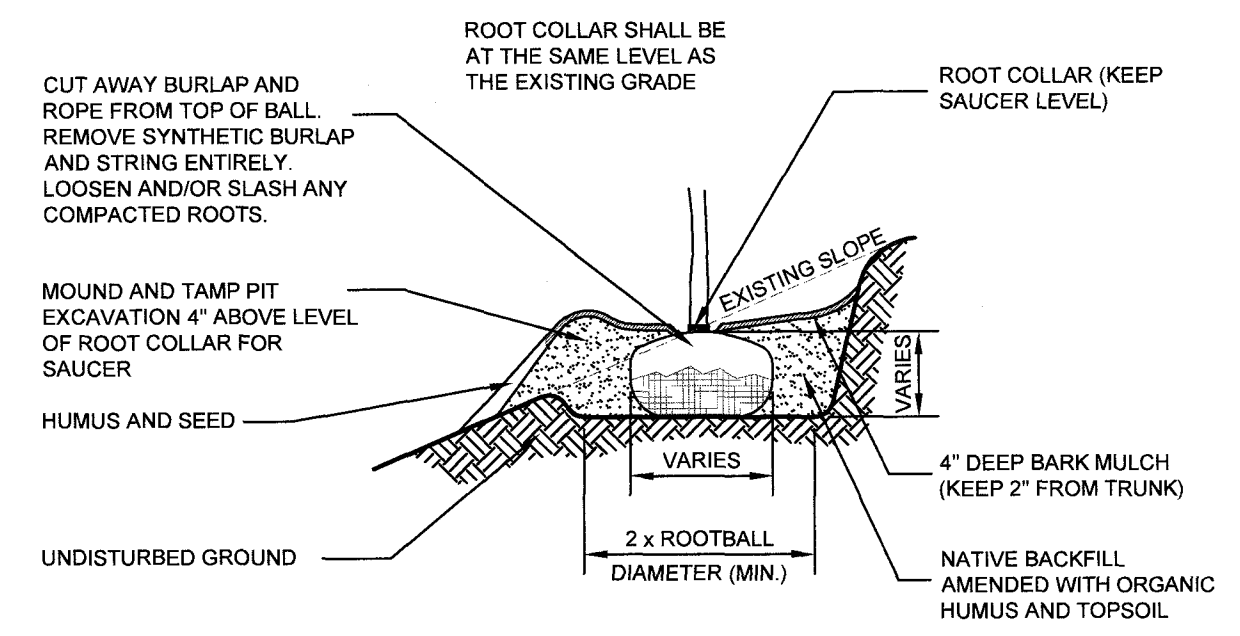
VINYL TRASH ENCLOSURE DETAIL
NOT TO SCALE
(MARCH 2008)



BOLLARD DETAIL
NOT TO SCALE
(MARCH 2008)



IDENTIFICATION SIGN
NOT TO SCALE



TYPICAL PLANTING PIT ON SLOPE 4:1 OR GREATER
NOT TO SCALE
(JANUARY 2012)

TURF ESTABLISHMENT SCHEDULE

PURPOSE: TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.

- PREPARATION AND EXECUTION:**
1. RAKE THE SUBGRADE OF ALL AREAS TO BE LOAM AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
 2. PLACE LOAM OVER AREAS TO BE SEEDED AND SPREAD.
 3. FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED. TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
 4. IF THE PH OF THE SOIL NEEDS TO BE RAISED, APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
 5. APPLY NO PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
 6. DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH FINE SPRAY.
 7. SEEDING AND INITIAL FERTILIZING SHALL BE DONE BETWEEN APRIL 1 AND JUNE 1 OR BETWEEN AUGUST 15 AND OCTOBER 14, OR AS PERMITTED. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER OR WHEN THE GROUND IS FROZEN. EXCESSIVELY WET OR OTHERWISE UNTILLABLE.
 8. WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH STRAW. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
 9. PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEEDED.
 10. WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 14, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

MAINTENANCE: ALL SEEDED AREAS SHALL BE KEPT WATERED AND IN GOOD CONDITION. RESEED AS NECESSARY TO ESTABLISH HEALTHY UNIFORM GROWTH OVER THE ENTIRE SEEDED AREA. MAINTAIN SEEDED AREAS IN AN APPROVED CONDITION UNTIL FINAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE REPAIRS FOR DAMAGE CAUSED BY EROSION.

APPLICATION RATES:

1. LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 6 INCHES.
2. LIME SHALL BE USED WHEN NECESSARY TO RAISE THE PH OF THE SOIL AND APPLIED AT ONE OF THE FOLLOWING RATES:

EXISTING SOIL Ph	TONS/ACRE	POUNDS/CUBIC YARD
4.0 - 4.4	3	12
4.5 - 4.9	2	8
5.0 - 5.4	1	4

3. FERTILIZER SHALL BE APPLIED AT THE MANUFACTURER'S RECOMMENDED RATE. THE MIDDLE NUMBER OF THE FERTILIZER'S ANALYSIS RATIO, WHICH INDICATES PHOSPHORUS PERCENT ON A DRY WEIGHT BASIS, MUST BE ZERO (EX. 20-0-5, 19-0-6, 18-0-5, ETC.) CONTRACTOR MUST SUBMIT A "SOIL TESTING FORM-COMMERCIAL LANDSCAPE & GROUNDS MAINTENANCE" ALONG WITH A SOIL SAMPLE TO UNH COOPERATIVE EXTENSION PRIOR TO THE APPLICATION OF ANY FERTILIZER TO DETERMINE WHAT LEVELS AND RATES OF FERTILIZER ARE NECESSARY.
4. MULCH SHALL BE APPLIED AT A RATE OF 13 CUBIC YARDS PER 1,000 S.F. OF LANDSCAPE BED.
5. CONTRACTOR MUST SUBMIT A "SOIL TESTING FORM-COMMERCIAL LANDSCAPE & GROUNDS MAINTENANCE" ALONG WITH A SOIL SAMPLE TO UNH COOPERATIVE EXTENSION PRIOR TO THE APPLICATION OF ANY FERTILIZER.

MATERIALS:

1. LOAM SHALL CONSIST OF LOOSE, FRIABLE TOPSOIL WITH NO ADMIXTURE OF REFUSE OR MATERIAL TOXIC TO PLANT GROWTH. LOAM SHALL BE FREE OF VIABLE PARTS OF PROHIBITED INVASIVE PLANTS AND BE GENERALLY FREE OF STONES, LUMPS, STUMPS AND SIMILAR OBJECTS LARGER THAN 2 INCHES IN GREATEST DIAMETER, SUBSOIL, ROOTS AND WEEDS. THE MINIMUM AND MAXIMUM pH VALUE SHALL BE FROM 5.5 TO 7.6.
2. LIME SHALL BE A CALICIC OR DOLOMITIC GROUND AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 95% OF EITHER CALCIUM OR MAGNESIUM CARBONATE, OR BOTH. IT SHALL CONFORM TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS AND SHALL COMPLY WITH ALL STATE AND FEDERAL RULES AND REGULATIONS.
3. FERTILIZER SHALL BE STANDARD COMMERCIAL GRADE, NO PHOSPHORUS, SLOW RELEASE NITROGEN FERTILIZER CONFORMING TO ALL STATE AND FEDERAL RULES AND REGULATIONS AND TO THE STANDARDS OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS.
4. GRASS SEED SHALL MEET THE REQUIREMENTS OF THE NEW HAMPSHIRE AGRICULTURAL AND VEGETABLE SEED LAWS AND SHALL INCLUDE NO "PRIMARY NOXIOUS WEED SEEDS".
5. SEED MIXTURE FOR LAWN AREAS SHALL CONSIST OF THE FOLLOWING:

KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMANATION (%)	POUNDS/ACRE (TOTAL 120 POUNDS)
CREeping RED FESCUE	96	85	40
PERENNIAL RYEGRASS	98	90	50
KENTUCKY BLUEGRASS	97	85	25
REDTOP	95	80	5

6. SEED MIXTURE FOR SLOPE AREAS SHALL CONSIST OF THE FOLLOWING:

KIND OF SEED	MINIMUM PURITY (%)	MINIMUM GERMANATION (%)	POUNDS/ACRE (TOTAL 95 POUNDS)
CREeping RED FESCUE	96	85	35
PERENNIAL RYEGRASS	98	90	30
REDTOP	95	80	5
ALSIKE CLOVER	97	90	5
BIRDSFOOT TREFLOIL	98	80	5
LANCE-LEAVED COREOPSIS	95	80	4
OXEYE DAISY	95	80	3
BLACKKEYED SUSAN	95	80	4
WILD LUPINE	95	80	4

7. TEMPORARY SEEDING MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 SF AND SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:

- 15% BLACKWELL OR SHELTER SWITCHGRASS
- 30% NIAGRA OR KAW BIG BLUESTEM
- 30% CAMPER OR BLAZE LITTLESTEM
- 15% NE-27 OR BLAZE SAND LOVEGRASS
- 10% VIKING BIRDSFOOT TREFLOIL
- INOCULUM SPECIFIC TO BIRDSFOOT TREFLOIL MUST BE USED WITH THIS MIXTURE. IF SEEDING BY HAND, A STICKING AGENT SHALL BE USED. IF SEEDING WITH A HYDROSEEDER, USE FOUR TIMES THE RECOMMENDED AMOUNT OF INOCULUM.

8. SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS, INCLUDING DETENTION BASINS AND VEGETATED TREATMENT SWALES, SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 SF, AND SHALL CONSIST OF THE FOLLOWING:

- 25% CREEPING RED FESCUE
- 15% SWITCH GRASS
- 15% FOX SEDGE
- 15% CREEPING BENTGRASS
- 10% FLATPEA
- 20% WILDFLOWER VARIETY

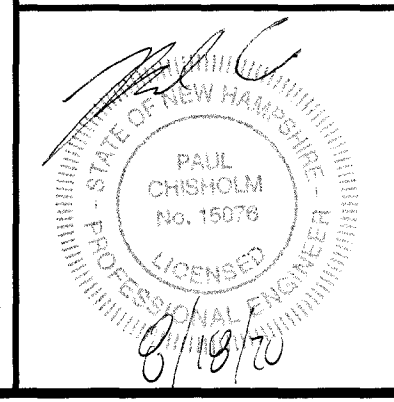
9. STRAW USED FOR MULCH SHALL CONSIST OF MOWED AND PROPERLY CURED GRASS OR LEGUME MOWINGS, FREE FROM WEEDS, TWIGS, DEBRIS, INVASIVE SPECIES OR OTHER DELETERIOUS MATERIAL AND ROT OR MOLD.
10. NATIVE PLANTINGS SHOULD BE USED FOR ALL NEW GREENSPACES, TO THE EXTENT PRACTICABLE.
11. ALL WILDFLOWER SEEDING MIXES SHOULD BE FREE OF INVASIVE SPECIES.

CONSTRUCTION DETAILS
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD:
RUI & MARIA J. LEITE, TRUSTEES
OCEAN REALTY TRUST
9772 BLUE STONE CIRCLE
FORT MYERS, FL 33913
M.C.R.D. BK. 3459 PG. 554

APPLICANT:
OPTIMUS SENIOR LIVING
162 COLLEGE HWY
P.O. BOX 363
SOUTHAMPTON, MA 01073

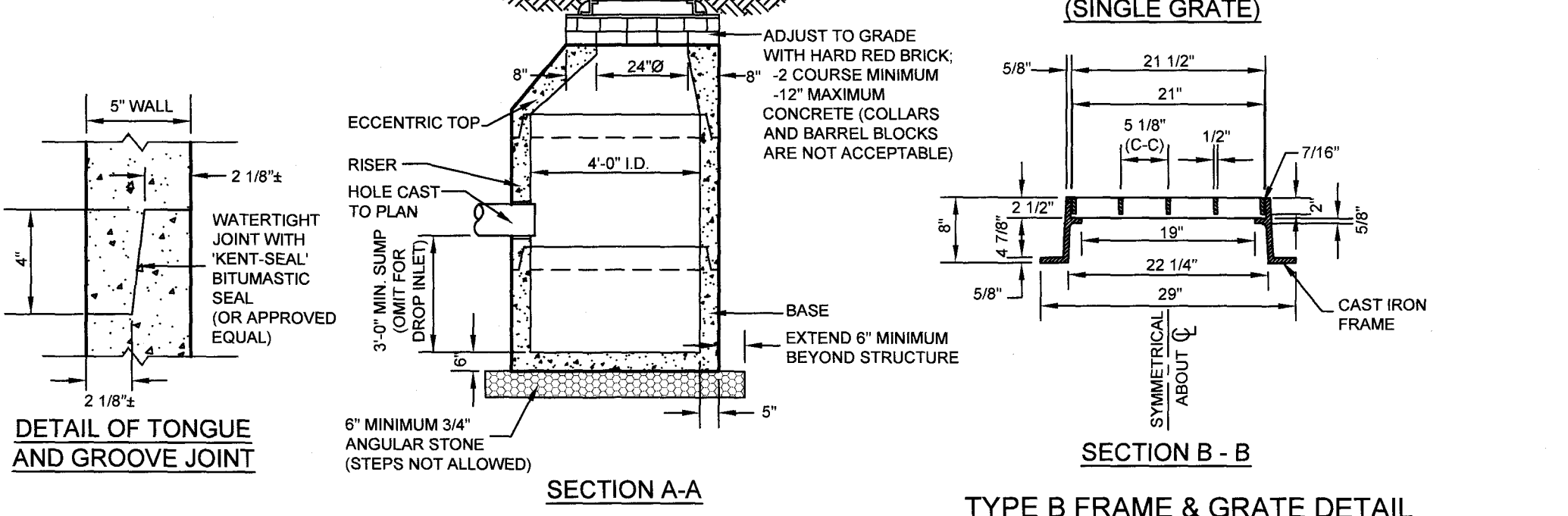
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS				
No.	DATE	DESCRIPTION	BY	PC
1	6/29/20	TOWN SEWER COMMENTS		PCM
2	8/10/20	NHDES SEWER COMMENTS		PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS		PCM

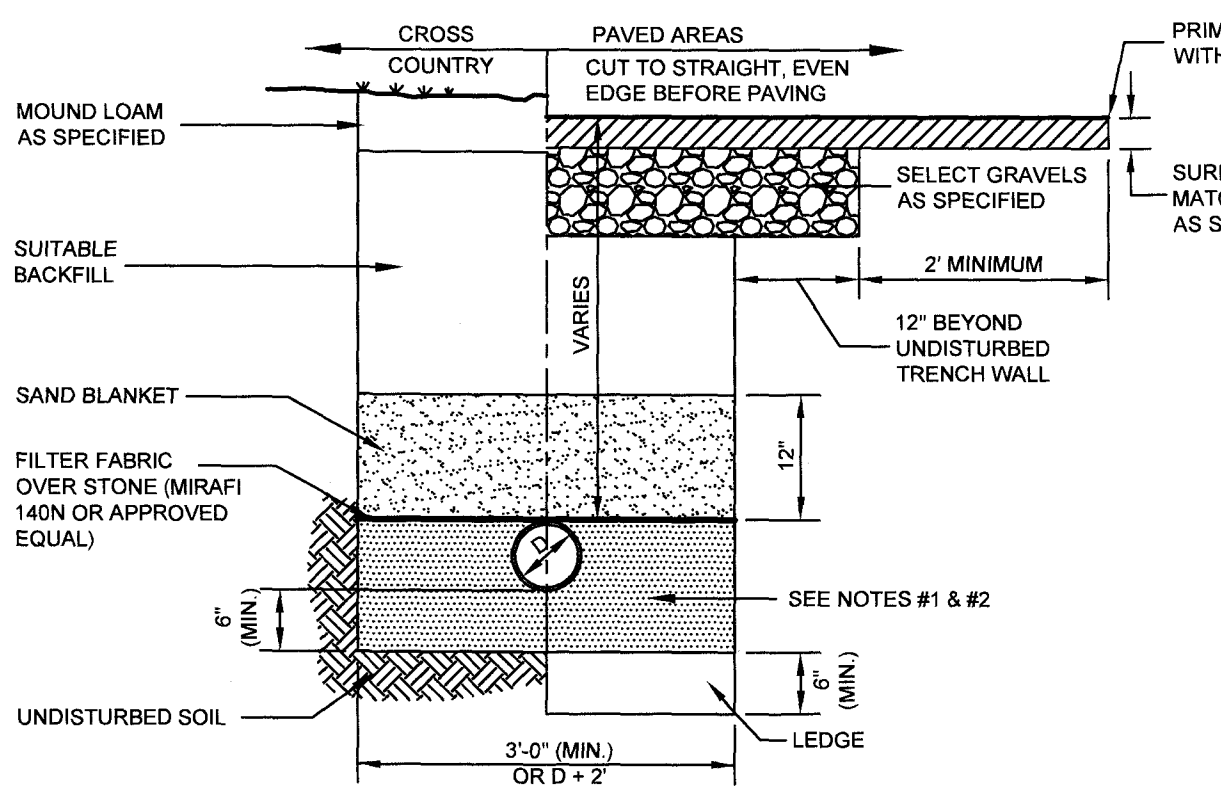
DATE: JUNE 2, 2020 SCALE: AS SHOWN
PROJECT NO: 19-1126-1 SHEET 12 OF 18

- NOTES:**
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCH PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
 2. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCH PER LINEAR FOOT.
 3. RISER OF 1", 2", 3" & 4" CAN BE USED TO REACH DESIRED DEPTH.
 4. MATERIALS AND CONSTRUCTION TO NHDOT STANDARDS.
 5. CATCH BASIN TO BE H2O LOADED.

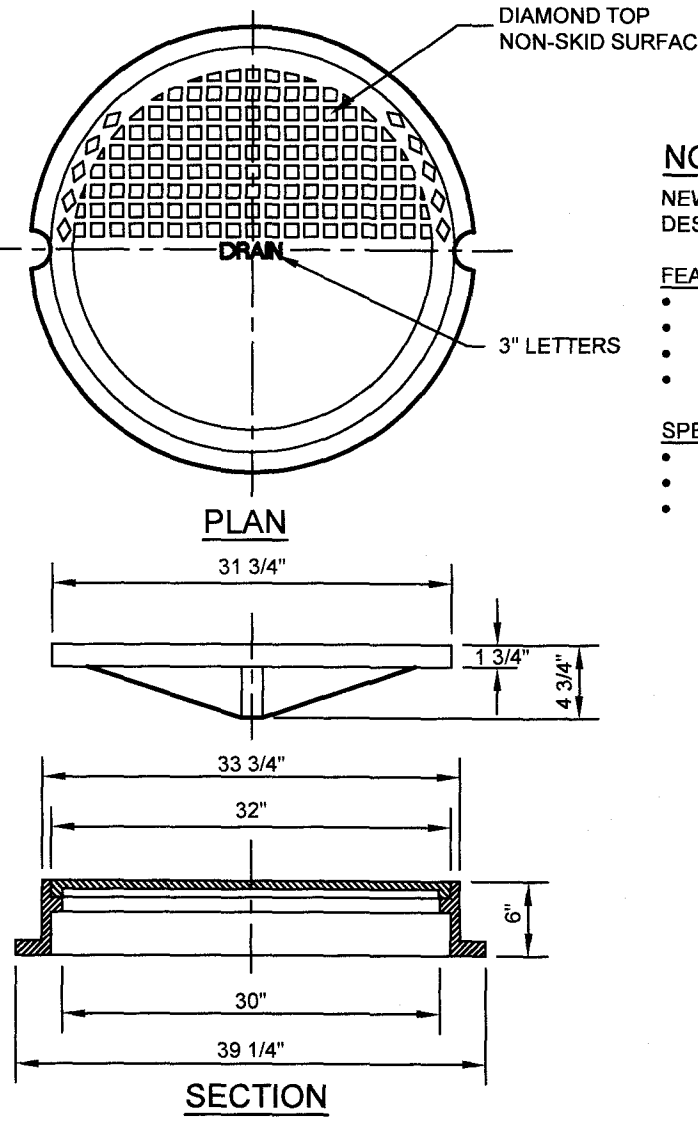


PRECAST REINFORCED CATCH BASIN
NOT TO SCALE
(MAY 2012)

TYPE B FRAME & GRATE DETAIL
NOT TO SCALE
(MARCH 2008)

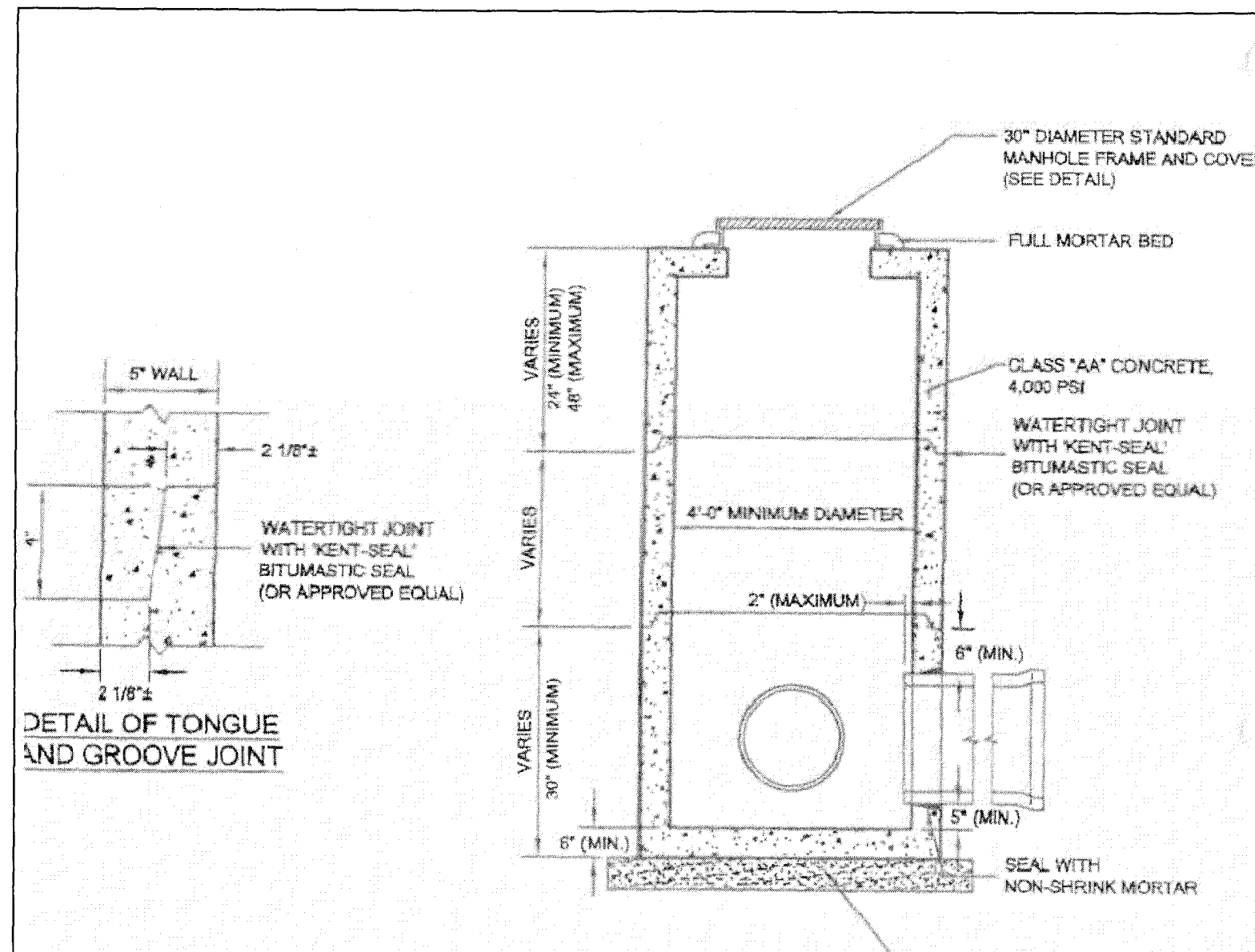


- NOTES:**
1. THOROUGHLY COMPACTED SCREENED GRAVEL FOR RCP PIPE. SCREENED GRAVEL TO EXTEND TO SELECT FILL LINE.
 2. FOR HDPE OR PVC PIPE, BEDDING SHALL BE 3/4" STONE TO THE TOP OF THE PIPE.



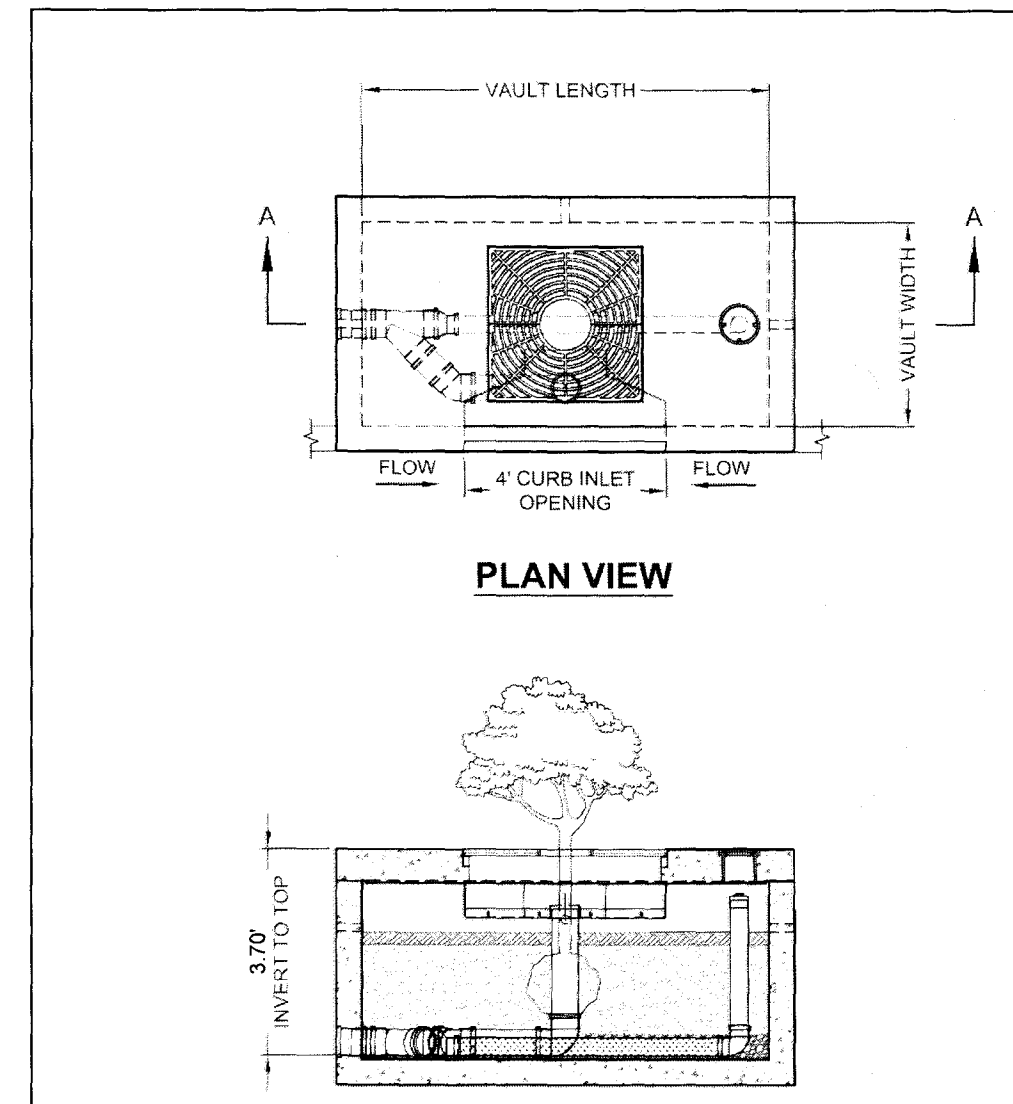
- NOTES:**
- NEW HAMPSHIRE MAINTAINS A CLEAR OPENING DESIGNATION OF 30" FOR ITS MANHOLE CASTINGS.
- FEATURES:**
- 3" LETTERING
 - COVERS MARKED DRAIN
 - NONROCKING COVER
 - DIAMOND SURFACE DESIGN
- SPECIFICATIONS:**
- FULLY MACHINED FRAME AND COVER
 - H-20 LOAD RATED
 - GRAY CAST IRON MEETS ASTM A48 CLASS 30

DRAIN MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE



PRECAST REINFORCED FLAT TOP DRAIN MANHOLE
NOT TO SCALE
(AUGUST 2011)

- NOTES:**
1. STEPS ARE NOT ALLOWED.
 2. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 PSI). CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER LF. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE WALL.
 3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LF.
 4. MATERIALS AND CONSTRUCTION TO NHDOT STANDARDS.

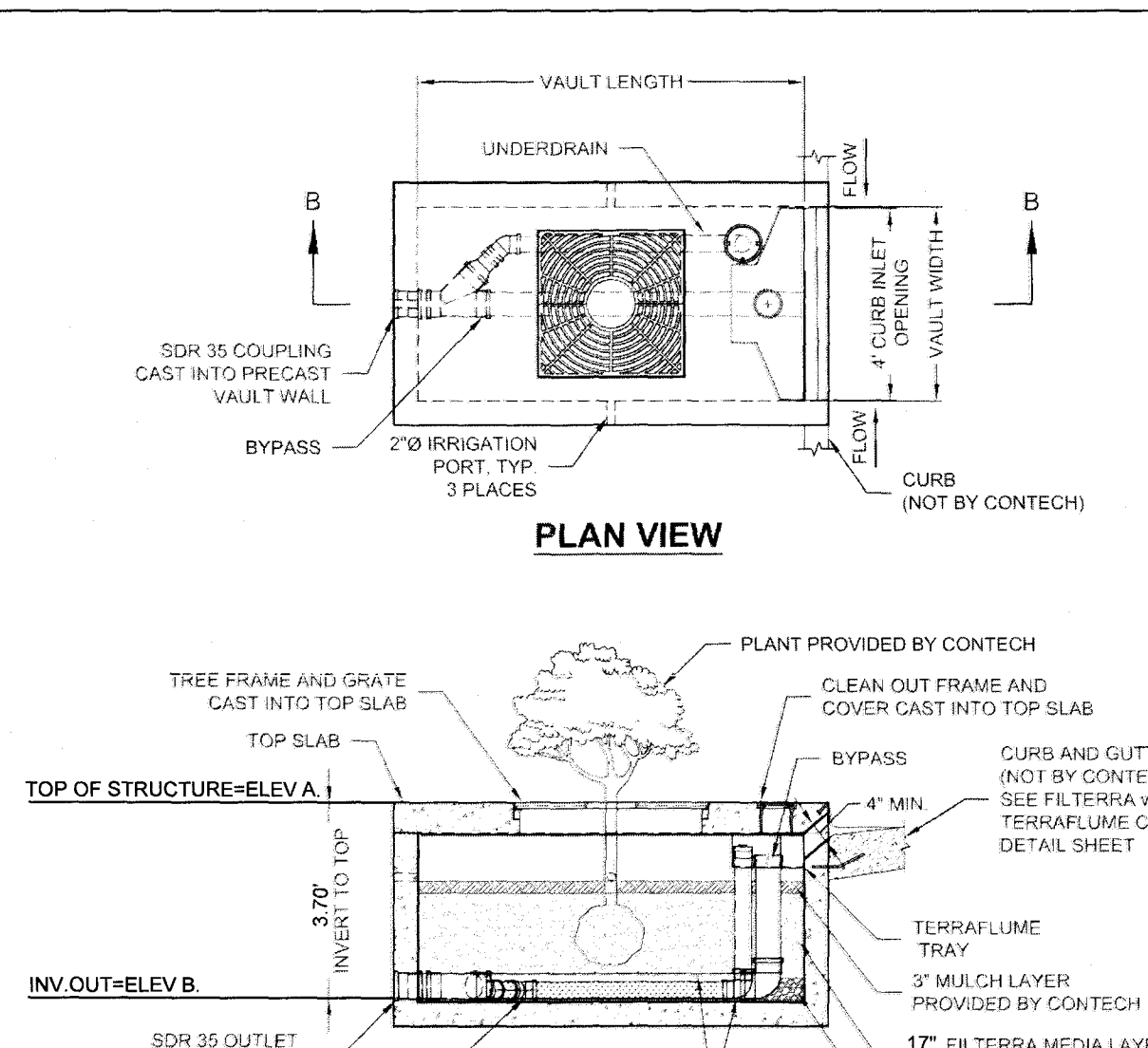


FTIBC LONG SIDE CURB INLET							
DESIGNATION	AVAIL-ABILITY	MEDIA BAY SIZE	VAULT SIZE (L x W)	MAX. OUTLET/BYPASS PIPE DIA.	MAX. BYPASS FLOW (CFS)	UNDER-DRAIN PIPE DIA. (PERF)	TREE GRATE QTY. & SIZE
FTIBC0604	N/A CA	6 x 4	6 x 4	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0604	CA ONLY	6.5 x 4	6.5 x 4	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC078045	MID-ATL ONLY	7.83 x 4.5	7.83 x 4.5	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0804	N/A MID-ATL	8 x 4	8 x 4	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0806	ALL	8 x 6	8 x 6	10" SDR 35	2.37	4" SDR 35	(1) 4' x 4'
FTIBC1006	ALL	10 x 6	10 x 6	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC1206	ALL	12 x 6	12 x 6	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'
FTIBC1307	ALL	13 x 7	13 x 7	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'

NOTES:

1. CONTRACTOR TO USE PRODUCT FROM CONTECH ENGINEERED SOLUTIONS OR APPROVED EQUAL.

INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE.

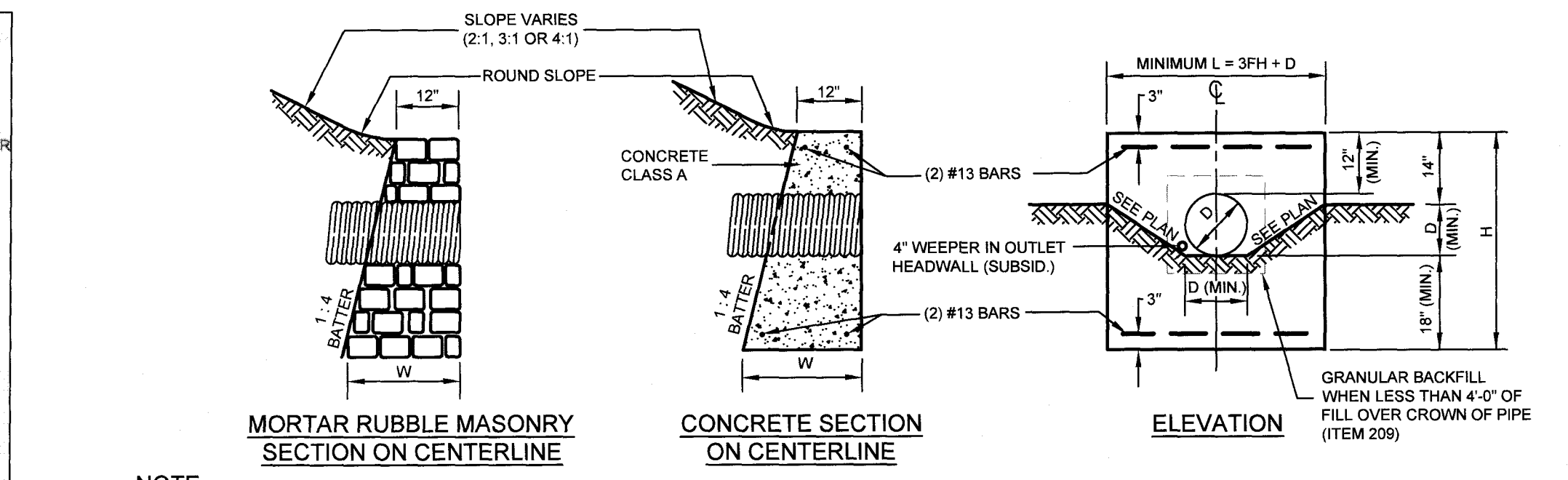


FTIBC SHORT SIDE CURB INLET							
DESIGNATION	AVAIL-ABILITY	MEDIA BAY SIZE	VAULT SIZE (W x L)	MAX. OUTLET/BYPASS PIPE DIA.	MAX. BYPASS FLOW (CFS)	UNDER-DRAIN PIPE DIA. (PERF)	TREE GRATE QTY. & SIZE
FTIBC0406	N/A CA	4 x 6	4 x 6	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0406	CA ONLY	4 x 6.5	4 x 6.5	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0408	N/A	4 x 8	4 x 8	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC04078	MID-ATL ONLY	4.5 x 7.83	4.5 x 7.83	8" SDR 35	1.89	4" SDR 35	(1) 3' x 3'
FTIBC0608	ALL	6 x 8	6 x 8	10" SDR 35	2.37	4" SDR 35	(1) 4' x 4'
FTIBC0610	ALL	6 x 10	6 x 10	10" SDR 35	2.37	6" SDR 35	(1) 4' x 4'
FTIBC0612	ALL	6 x 12	6 x 12	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'
FTIBC0713	ALL	7 x 13	7 x 13	10" SDR 35	2.37	6" SDR 35	(2) 4' x 4'

NOTES:

1. CONTRACTOR TO USE PRODUCT FROM CONTECH ENGINEERED SOLUTIONS OR APPROVED EQUAL.

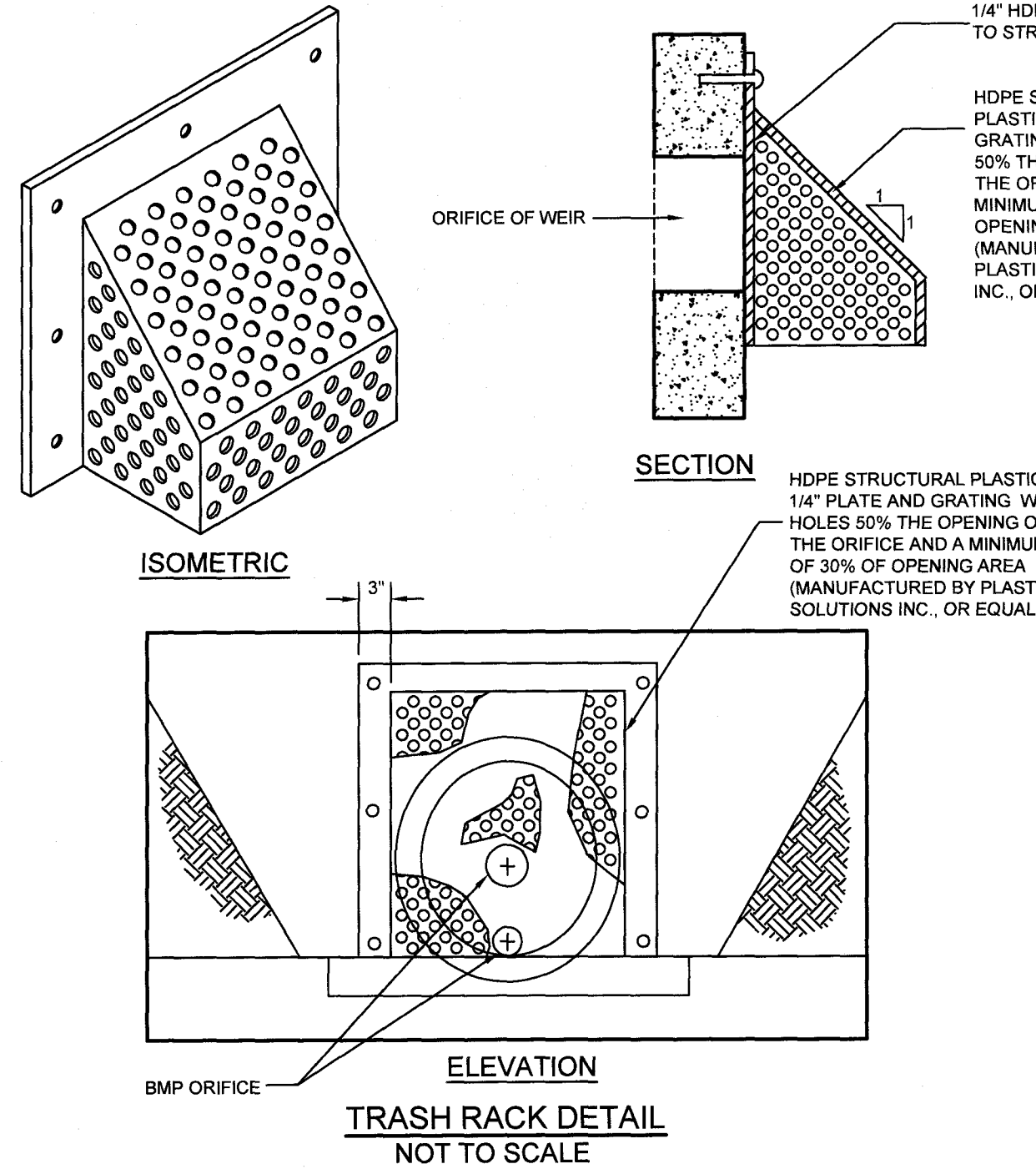
INTERNAL PIPE CONFIGURATION MAY VARY DEPENDING ON VAULT SIZE.



NOTE: DIMENSIONS SHOWN ARE TO PAYMENT LINES. MORTAR RUBBLE MASONRY TO BE STEPPED OUTSIDE PAYMENT LINES ON SLOPING FACES.

DIAMETER D (INCH)	AREA OF PIPE (SF)	MASONRY PER FOOT OF WALL (CU. YD.)		STEEL PER STANDARD HEADER (LB)	LENGTH OF BARS	PIPE EXC. 1' DEPTH (CU. YD.)	HEADER EXC. 1' DEPTH (CU. YD.)	ITEM 209 PER LINEAR FOOT	HEADER LENGTH L	HEADER HEIGHT H	FILL HEIGHT FT	"L" HEADWALL		
		MASONRY PER HOLE (CU. FT.)	MASONRY PER STANDARD HEADER (CU. YD.)									MASONRY IN CORNER FRUSTRUM (CU. YD.)	HEADER EXC. PER HEADER 1' DEPTH (CU. YD.)	
12"	0.79	0.188	1.08	0.61	9	3'-2"	0.789	0.30	3'-6"	3'-6"	10"	1'-10 1/2"	0.28	1.057
15"	1.23	0.202	1.73	0.85	11	3'-10"	0.947	0.35	4'-6"	3'-9"	1'-1"	1'-11 1/4"	0.31	1.232
18"	1.77	0.222	2.52	1.13	14	5'-2"	1.111	0.39	5'-6"	4'-0"	1'-4"	2'-0"	0.35	1.406
24"	3.14	0.260	4.71	1.78	20	7'-2"	1.451	0.48	7'-6"	4'-6"	1'-10"	2'-1 1/2"	0.42	1.776
30"	4.91	0.301	7.67	2.58	26	9'-2"	1.810	0.65	9'-8"	5'-0"	2'-4"	2'-3"	0.51	2.164

MORTAR RUBBLE MASONRY AND CONCRETE HEADWALLS



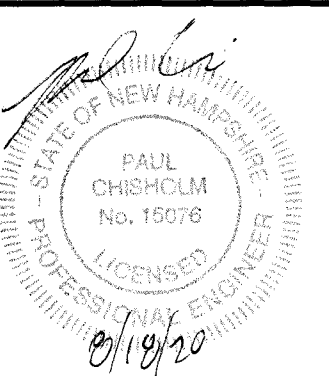
TRASH RACK DETAIL
NOT TO SCALE

CONSTRUCTION DETAILS
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD:
RUI & MARIA J. LEITE, TRUSTEES
OCEAN REALTY TRUST
9772 BLUE STONE CIRCLE
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M.C.R.D. BK. 3459 PG. 554

APPLICANT:
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P.O. BOX 363
SOUTHAMPTON, MA 01073

KMA KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881



REVISIONS

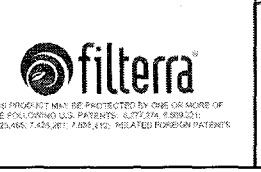
No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

DATE: JUNE 2, 2020 **SCALE:** AS SHOWN
PROJECT NO: 19-1126-1 **SHEET 13 OF 18**

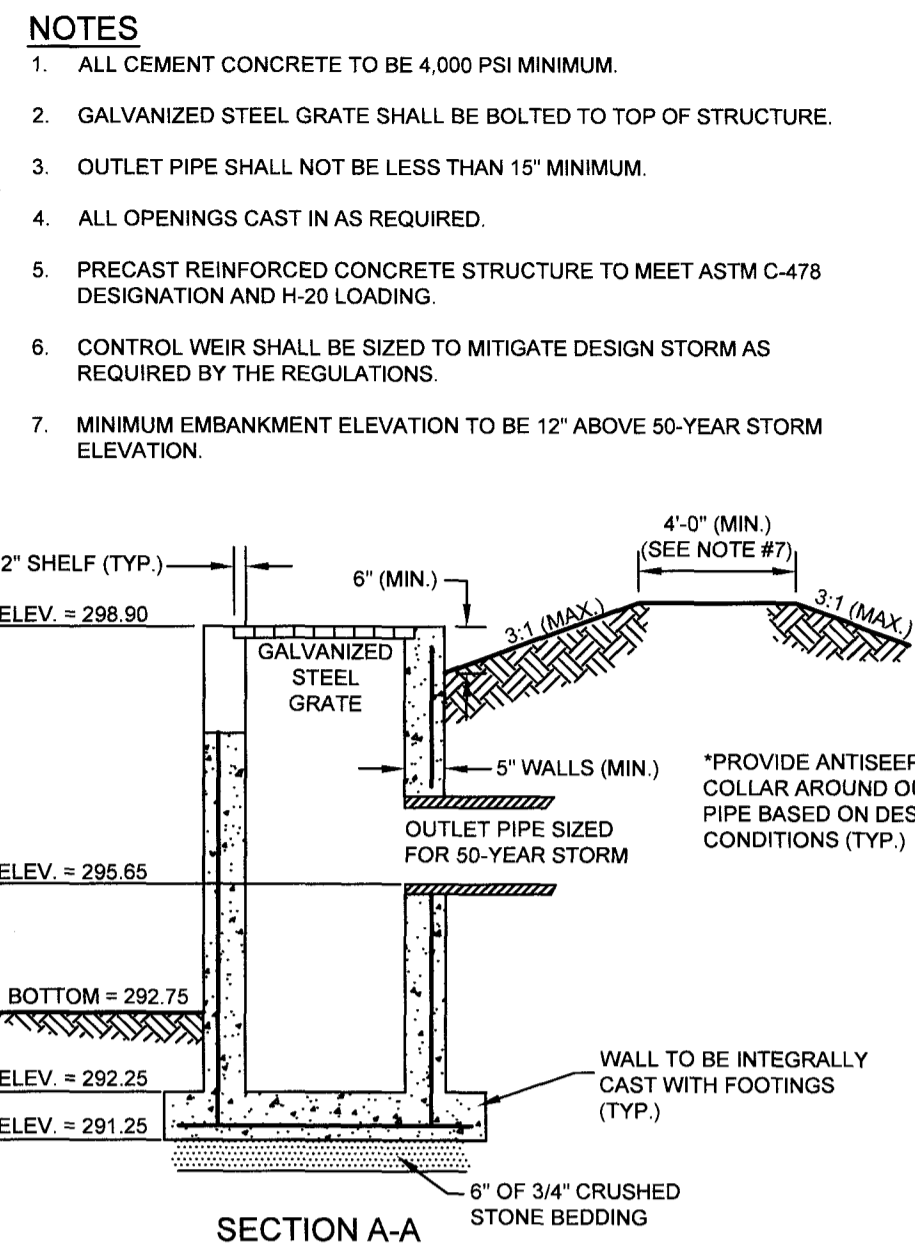
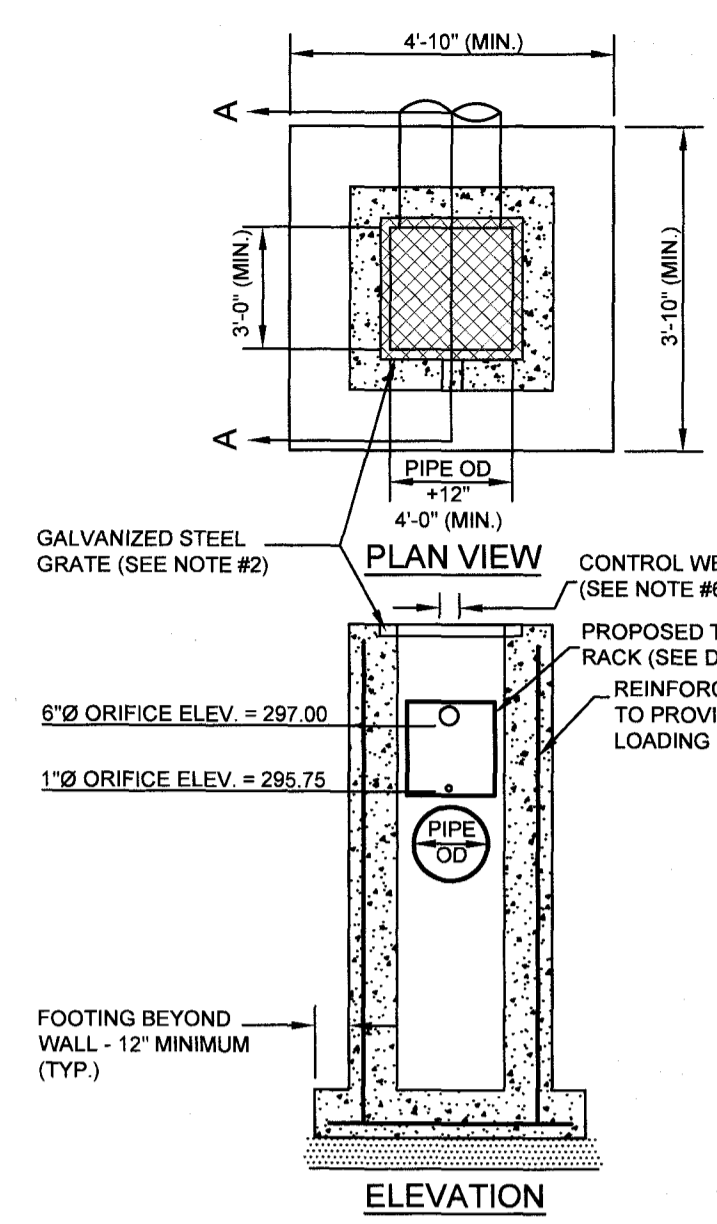
PRECAST FILTERRA® FTIBC LONG SIDE CURB INLET UNIT (FTIBC0806)
NOT TO SCALE

FILTERRA INTERNAL BYPASS CURB (FTIBC) CONFIGURATION DETAIL

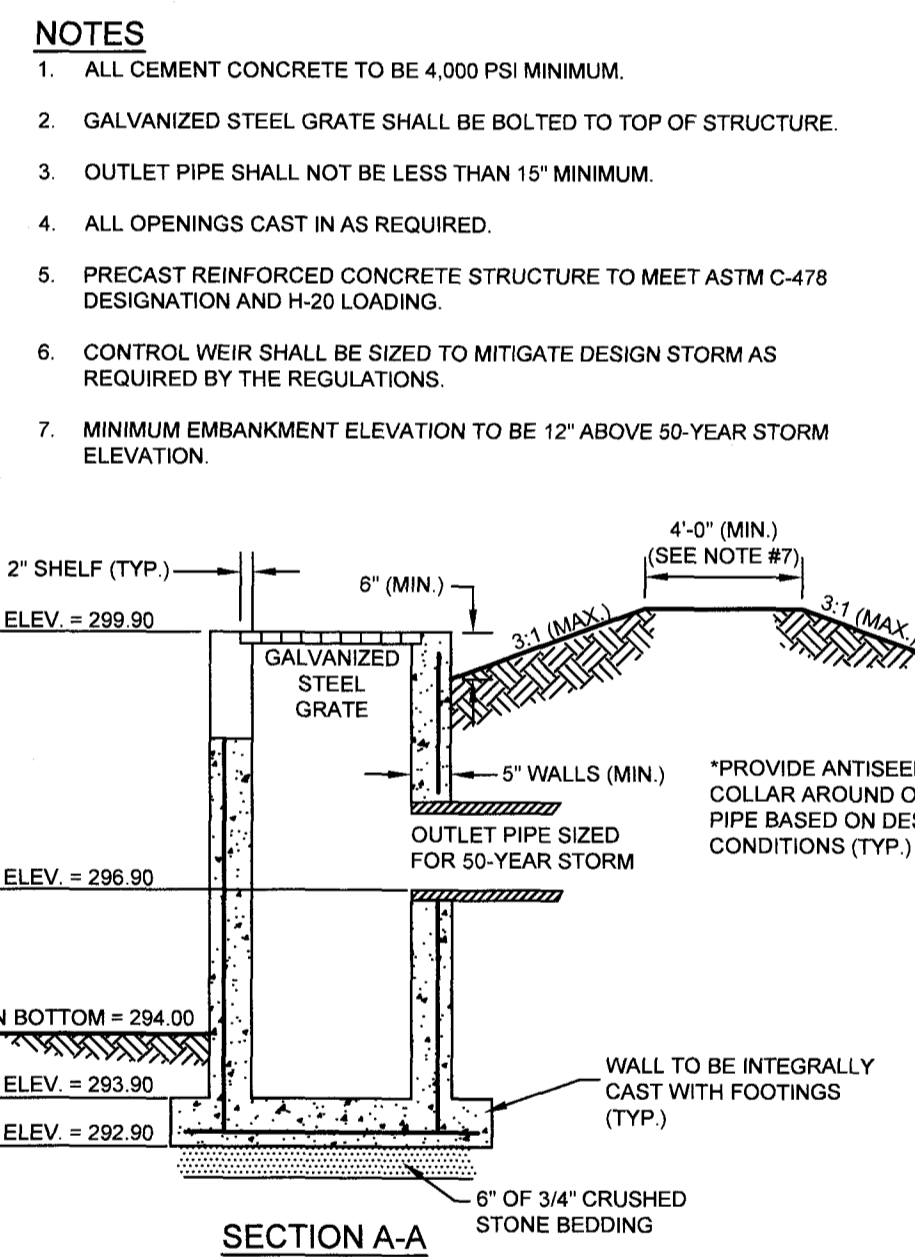
LOCATION	ELEVATION 'A'	ELEVATION 'B'
FILTERRA #1	301.17	297.42
FILTERRA #2	302.35	298.65



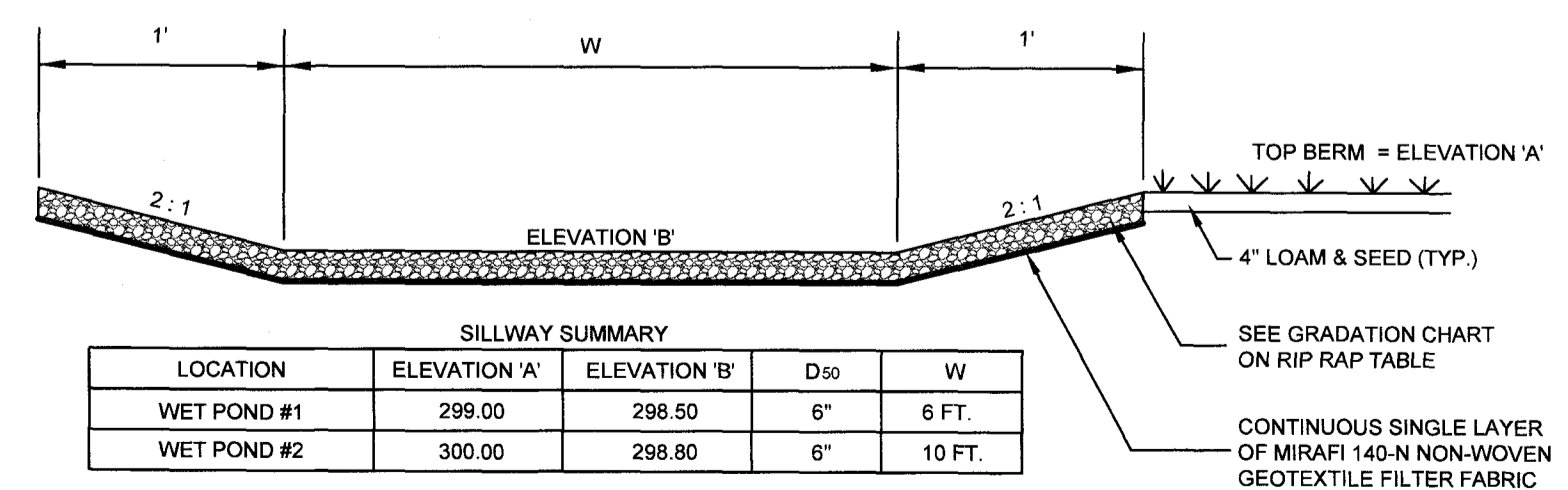
CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45399
953-338-1330 419-244-3000 419-244-3063 FAX



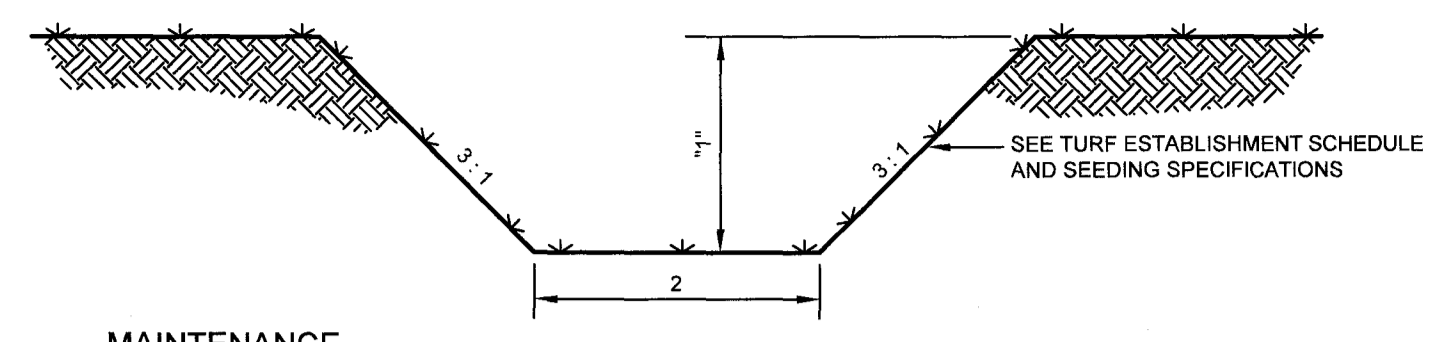
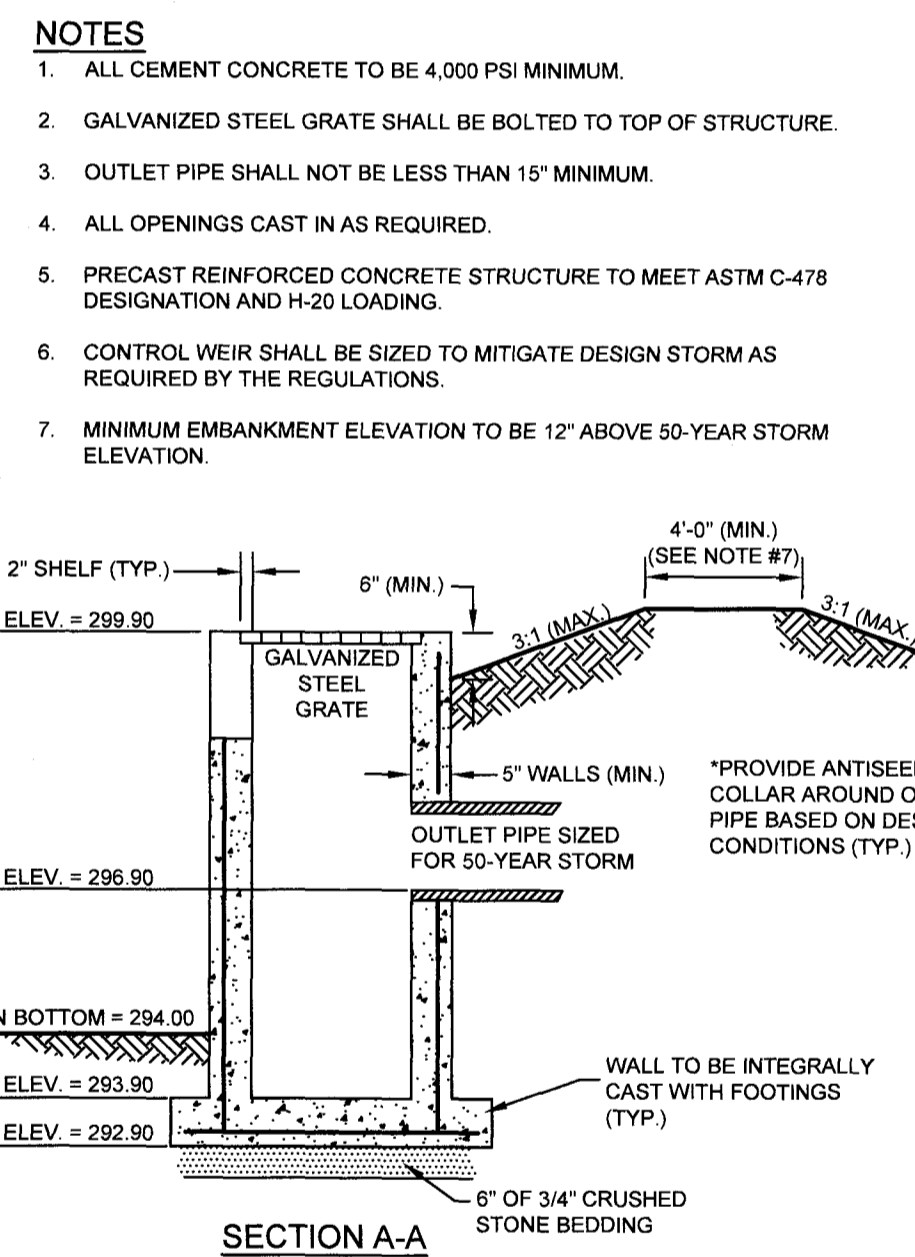
OUTLET STRUCTURE #2 AT WET POND #1
NOT TO SCALE
(AUGUST 2011)



OUTLET STRUCTURE #13 AT WET POND #2
NOT TO SCALE
(AUGUST 2011)



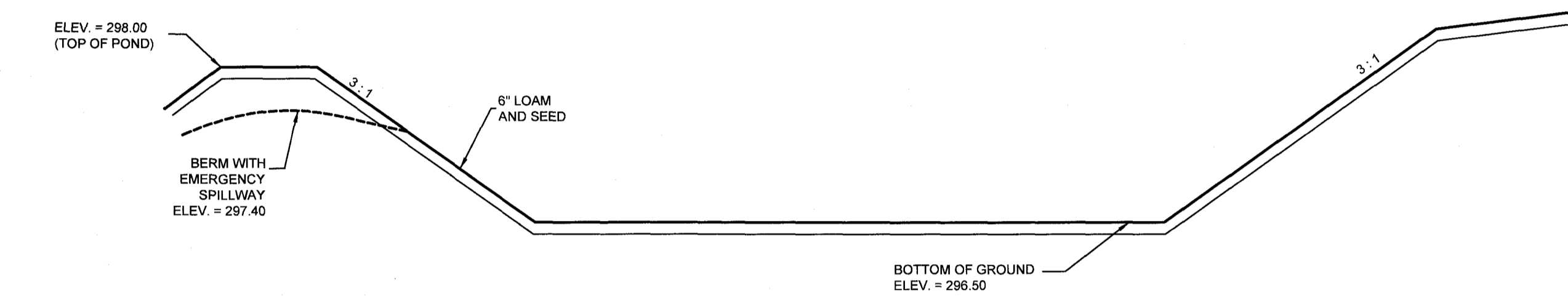
SPILLWAY DETAIL
NOT TO SCALE



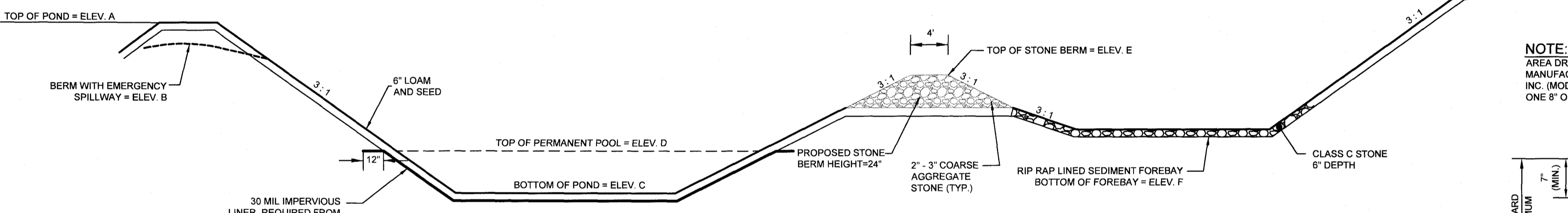
CONVEYANCE SWALE DETAIL
NOT TO SCALE
(MARCH 2008)

MAINTENANCE

- TIMELY MAINTENANCE IS IMPORTANT TO KEEP THE VEGETATION IN GOOD CONDITION. MOWING SHOULD BE DONE FREQUENTLY ENOUGH TO KEEP THE VEGETATION IN VIGOROUS CONDITION AND TO CONTROL ENCROACHMENT OF WEEDS AND WOODY VEGETATION. HOWEVER IT SHOULD NOT BE MOWED TOO CLOSELY SO AS TO REDUCE THE FILTERING EFFECT. FERTILIZE ON AN "AS NEEDED" BASIS TO KEEP THE GRASS HEALTHY. OVER FERTILIZATION CAN RESULT IN THE SWALE BECOMING A SOURCE OF POLLUTION.
- THE SWALE SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM TO DETERMINE THE CONDITION OF THE SWALE. RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS NECESSARY TO PREVENT FURTHER DETERIORATION.



TYPICAL INFILTRATION POND SECTION
NOT TO SCALE



TYPICAL WET POND SECTION
NOT TO SCALE

POND NUMBER	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F
WET POND #1	299.00	298.50	292.75	295.75	SEE NOTE	SEE NOTE
WET POND #2	300.00	298.80	294.00	297.00	299.50	297.50

NOTES

- WET POND #1 HAS A DETACHED SEDIMENT FOREBAY. SEE THE GRADING AND DRAINAGE PLAN FOR INFORMATION REGARDING THE DESIGN OF THE STANDALONE FOREBAY.

TABLE 7-24 -- RECOMMENDED RIP RAP GRADATION RANGES

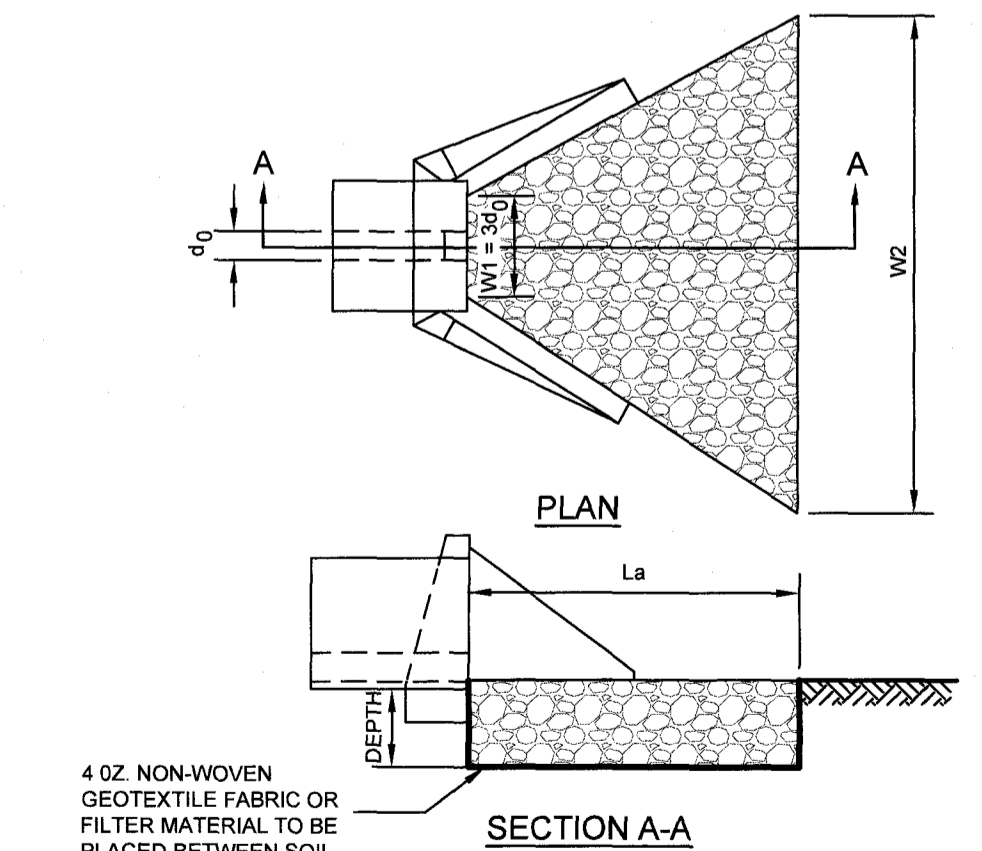
PERCENT OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE
100%	1.5 TO 2.0 d50
85%	1.3 TO 1.8 d50
50%	1.0 TO 1.5 d50
15%	0.3 TO 0.5 d50

CONSTRUCTION SPECIFICATIONS:

- THE SUBGRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC AND RIP RAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- FRACTURED ROCK USED FOR FILTER OR RIP RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIP RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- STONE FOR THE RIP RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

MAINTENANCE:

THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR RAIN EVENT. IF THE RIP RAP HAS BEEN DISPLACED, UNDERMINED, OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.



PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL
NOT TO SCALE
(MARCH 2008)

LOCATION	La	W1	W2	d50	DEPTH
PROP. HW#1	9'	3'	12'	4"	10"
PROP. HW#3	23'	8'	31'	4"	10"
PROP. HW#12	9'	3'	12'	4"	10"
PROP. HW#14	21'	8'	28'	4"	10"

MAINTENANCE REQUIREMENTS:

SEDIMENT FOREBAYS:

- INSPECT AT LEAST ANNUALLY;
- CONDUCT PERIODIC MOWING OF EMBANKMENTS (GENERALLY TWO TIMES PER YEAR) TO CONTROL GROWTH OF WOODY VEGETATION ON EMBANKMENTS;
- REMOVE DEBRIS FROM OUTLET STRUCTURES AT LEAST ONCE ANNUALLY;
- REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION;
- INSTALL AND MAINTAIN A STAFF GAGE OR OTHER MEASURING DEVICE, TO INDICATE DEPTH OF SEDIMENT ACCUMULATION AND LEVEL AT WHICH CLEAN-OUT IS REQUIRED.

INFILTRATION:

- REMOVAL OF DEBRIS FROM INLET AND OUTLET STRUCTURES;
- REMOVAL OF ACCUMULATED SEDIMENT;
- INSPECTION AND REPAIR OF OUTLET STRUCTURES AND APPURTENANCES;
- INSPECTION OF INFILTRATION COMPONENTS AT LEAST TWICE ANNUALLY, AND FOLLOWING ANY RAINFALL EVENT EXCEEDING 2.5 INCHES IN A 24 HOUR PERIOD, WITH MAINTENANCE OR REHABILITATION CONDUCTED AS WARRANTED BY SUCH INSPECTION;
- INSPECTION OF PRETREATMENT MEASURES AT LEAST TWICE ANNUALLY, AND REMOVAL OF ACCUMULATED SEDIMENT AS WARRANTED BY INSPECTION, BUT NO LESS THAN ONCE ANNUALLY;
- PERIODIC MOWING OF EMBANKMENTS;
- REMOVAL OF WOODY VEGETATION FROM EMBANKMENTS;
- INSPECTION AND REPAIR OF EMBANKMENTS AND SPILLWAYS;
- IF AN INFILTRATION SYSTEM DOES NOT DRAIN WITHIN 72-HOURS FOLLOWING A RAINFALL EVENT, THEN A QUALIFIED PROFESSIONAL SHOULD ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE INFILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE INFILTRATION TRENCH.

WET POND:

- THE BOTTOMS, INTERIOR AND EXTERIOR SIDE SLOPES AND CREST OF EARTHEN DETENTION BASINS SHOULD BE MOWED, AND THE VEGETATION MAINTAINED IN HEALTHY CONDITION, AS APPROPRIATE TO THE FUNCTION OF THE FACILITY AND TYPE OF VEGETATION;
- VEGETATED EMBANKMENTS THAT SERVE AS "BERMS" OR "DAMS" THAT IMPOUND WATER SHOULD BE MOWED AT LEAST ONCE ANNUALLY TO PREVENT THE ESTABLISHMENT OF WOODY VEGETATION;
- INLET AND OUTLET PIPES, INLET AND OUTLET STRUCTURES, ENERGY DISSIPATION STRUCTURES OR PRACTICES AND OTHER STRUCTURAL APPURTENANCES SHOULD BE INSPECTED AT LEAST ANNUALLY BY A QUALIFIED PROFESSIONAL AND CORRECTIVE ACTION IMPLEMENTED (EG. MAINTENANCE, REPAIRS OR REPLACEMENT) AS INDICATED BY SUCH INSPECTION;
- TRASH AND DEBRIS SHOULD BE REMOVED FROM THE BASIN AND ANY INLET OR OUTLET STRUCTURES WHENEVER OBSERVED BY INSPECTION;
- ACCUMULATED SEDIMENT SHOULD BE REMOVED WHEN IT SIGNIFICANTLY AFFECTS BASIN CAPACITY.

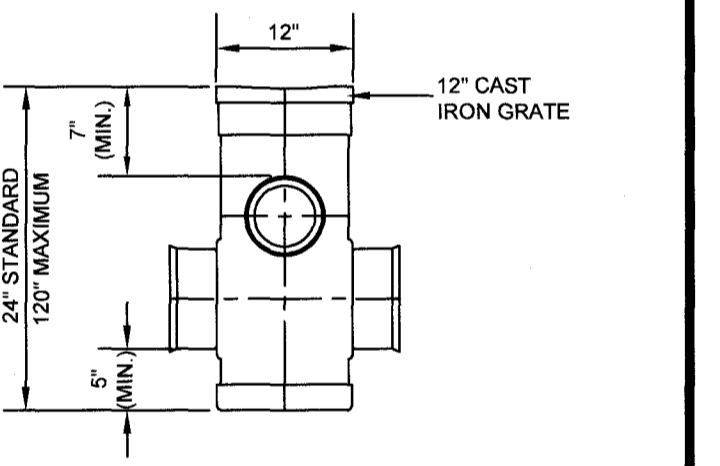
SWALE:

- INSPECT AT LEAST TWICE ANNUALLY
- CONDUCT PERIODIC MOWING OF EMBANKMENTS (GENERALLY TWO TIMES PER YEAR) TO CONTROL GROWTH OF WOODY VEGETATION ON EMBANKMENTS;
- REMOVE TRASH AND DEBRIS AT LEAST EACH INSPECTION;
- REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT BASED ON INSPECTION;

CONSTRUCTION PRACTICE REQUIREMENTS:

- STORMWATER PONDS, INFILTRATION BASINS, AND SWALES MUST BE INSTALLED BEFORE ROUGH GRADING TO SITE.
- RUNOFF MUST BE DIRECTED TO TEMPORARY PRACTICES UNTIL STORMWATER BMPs ARE STABILIZED.
- STORMWATER PONDS, INFILTRATION BASINS, AND SWALES MUST BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATION WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
- AFTER THE INFILTRATION SYSTEM AREA IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
- DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- INFILTRATION BASIN FLOOR PREPARATION WILL INCLUDE GRASS TURF THAT CAN BE INUNDATED FOR UP TO 72 HOURS.
- INFILTRATION AREAS ARE TO BE PROTECTED FROM OVER-COMPACTING DURING CONSTRUCTION.

NOTE:
AREA DRAINS TO BE 12" DIAMETER PVC DRAIN BASINS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, INC. (MODEL #2812AG) OR APPROVED EQUAL WITH ONE 6" OUTLET PIPE CONNECTION PER DRAIN.



APPROXIMATE WEIGHT, BASIN ONLY 40 LBS.
APPROXIMATE WEIGHT, GRATE ONLY 50 LBS.

AREA DRAIN DETAIL
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION DETAILS
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554	APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073
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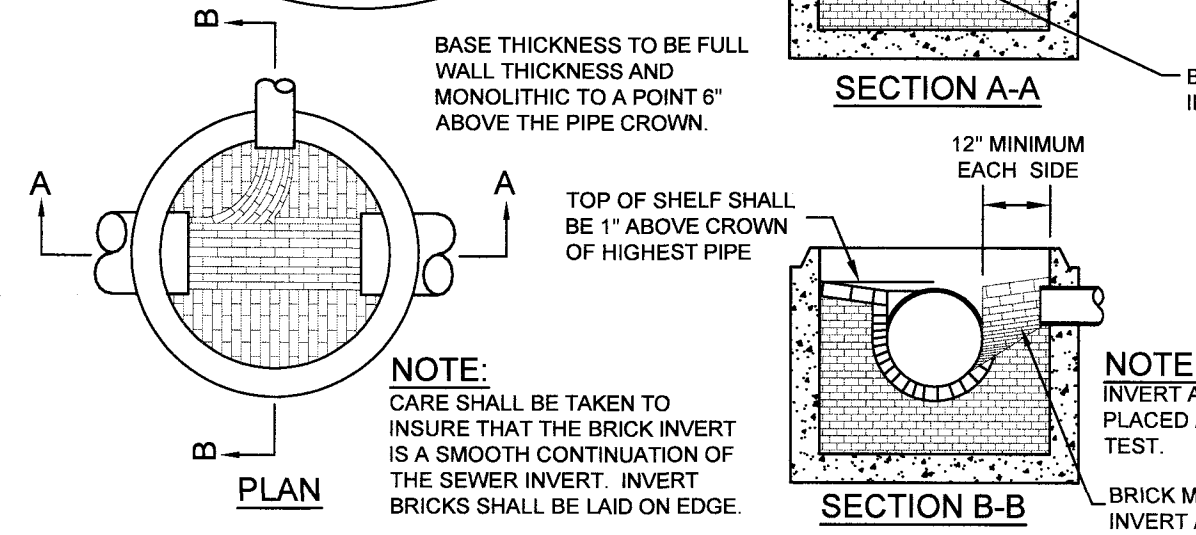
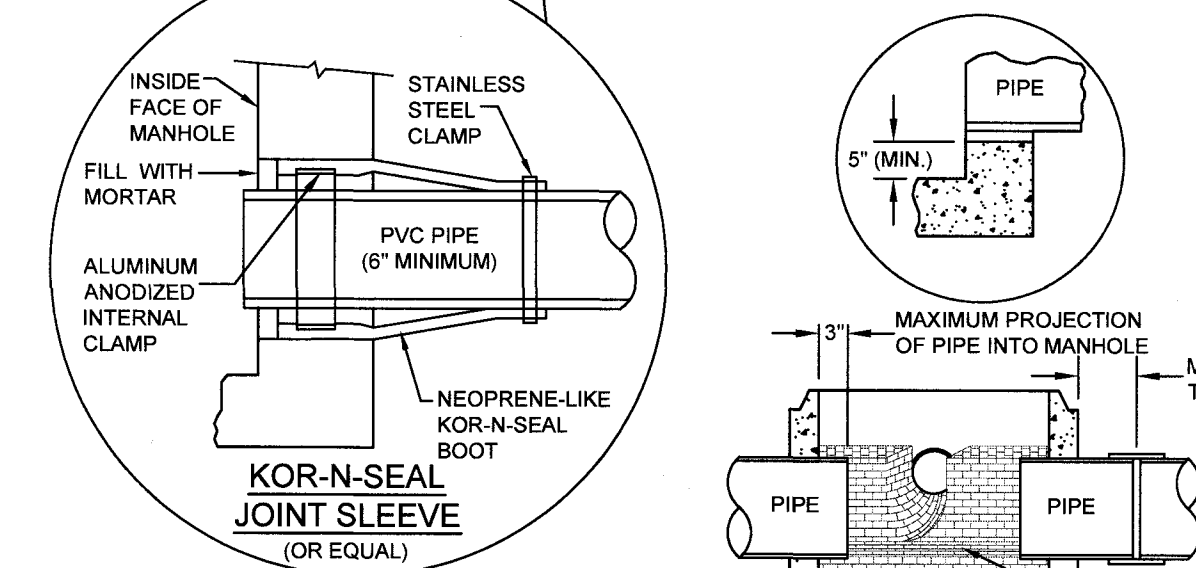
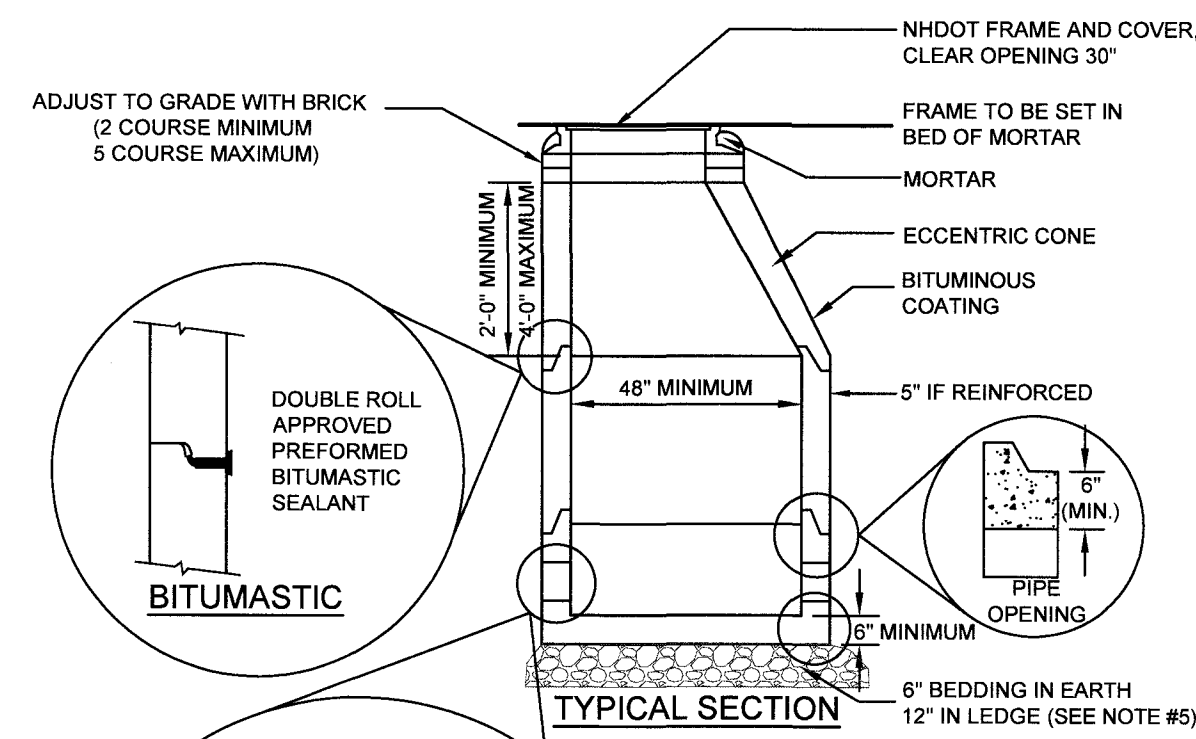
KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

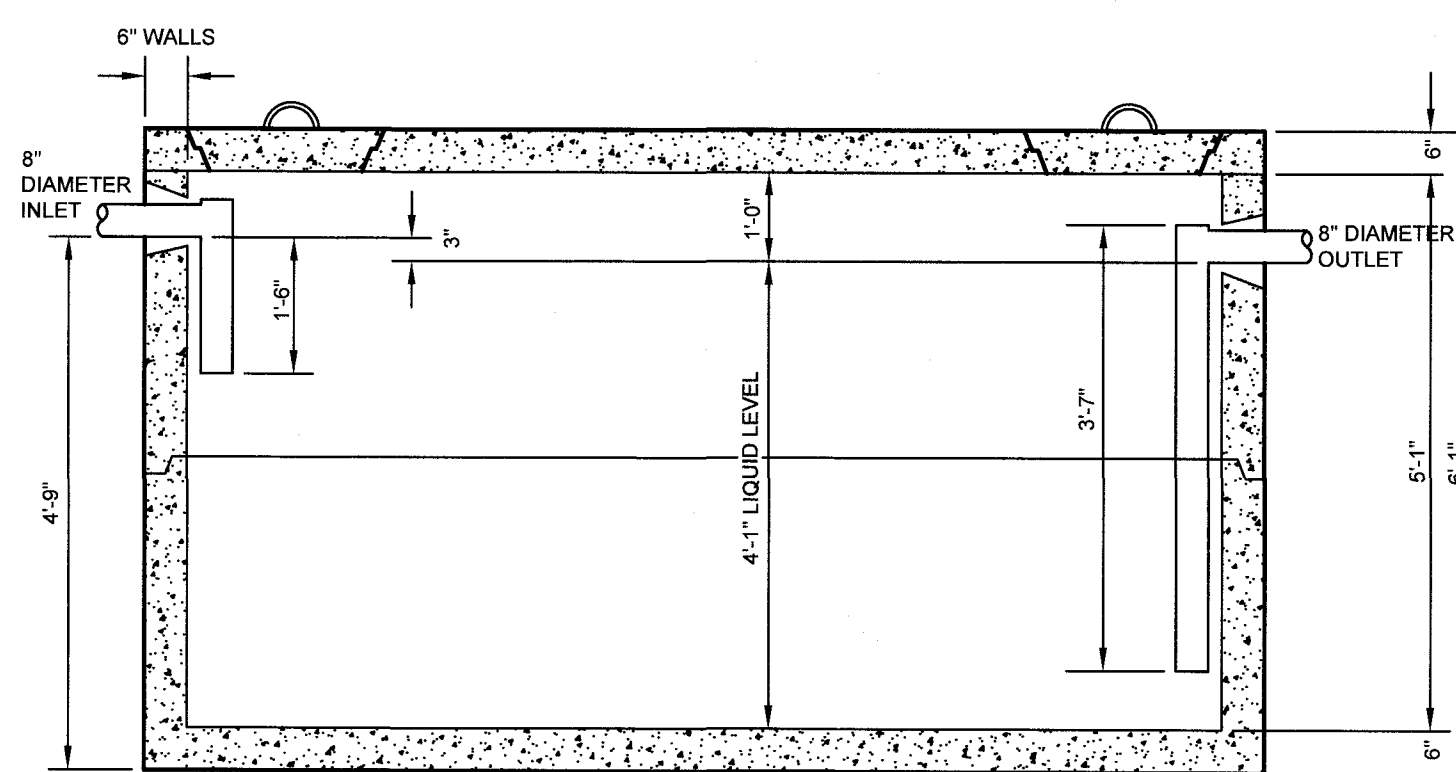
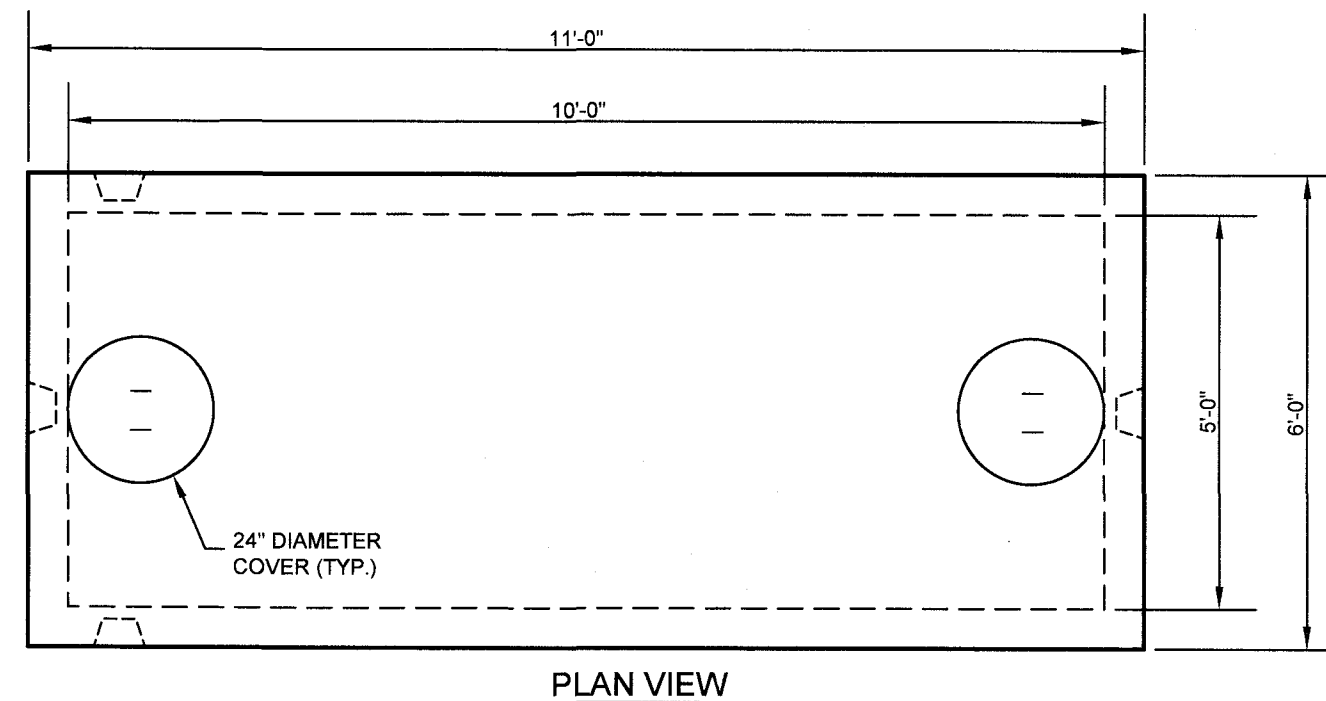
DATE: JUNE 2, 2020 SCALE: AS SHOWN
PROJECT NO: 19-1126-1 SHEET 14 OF 18

NOTES: (NHDES ENV WQ700 - 2015)

- ALL COMPONENT PARTS OF MANHOLE STRUCTURES SHALL HAVE THE STRENGTH, LEAK RESISTANCE AND SPACE NECESSARY FOR THE INTENDED SERVICE.
- MANHOLE STRUCTURES SHALL HAVE A LIFE EXPECTANCY IN EXCESS OF 25 YEARS.
- MANHOLE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING AND SHALL NOT LEAK IN EXCESS OF ONE GPD PER VERTICAL FOOT OF MANHOLE FOR THE LIFE OF THE STRUCTURE.
- BARRELS, CONCRETE GRADE RINGS AND CONE SECTIONS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE AND SHALL CONFORM TO ASTM C478.
- BEDDING: CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING ASTM C33 100% PASSING 1 INCH SCREEN 90% PASSING 3/4 INCH SCREEN 20-55% PASSING 3/8 INCH SCREEN 0-10% PASSING #4 SIEVE 0-5% PASSING #8 SIEVE
- WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, CRUSHED STONE 1/2 INCH TO 1-1/2 INCH SHALL BE USED. BASE SECTIONS SHALL BE OF MONOLITHIC CONSTRUCTION TO A POINT AT LEAST 8 INCHES ABOVE THE CROWN OF THE INCOMING PIPE.
- HORIZONTAL JOINTS BETWEEN SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE OF AN OVERLAPPING TYPE. SEALED FOR WATER-TIGHTNESS USING A DOUBLE ROW OF AN ELASTOMERIC OR MASTIC-LIKE SEALANT.
- PIPE TO MANHOLE JOINTS SHALL BE AS FOLLOWS:
 - ELASTOMERIC RUBBER SLEEVE WITH WATER-TIGHT JOINTS AT THE MANHOLE OPENING AND PIPE SURFACES.
 - CAST INTO THE WALL OR SECURED WITH STAINLESS STEEL CLAMPS.
 - ELASTOMERIC SEALING RING CAST IN THE MANHOLE OPENING WITH SEAL FORMED ON THE SURFACE OF THE PIPE BY COMPRESSION OF THE RING, AND
 - NON-SHRINK GROUTED JOINTS WHERE WATER-TIGHT BONDING TO THE MANHOLE AND PIPE CAN BE OBTAINED.
- MANHOLE CONE SECTIONS SHALL BE ECCENTRIC IN SHAPE.
- ALL PRECAST SECTIONS AND BASES SHALL HAVE THE DATE OF MANUFACTURE AND THE NAME OR TRADEMARK OF THE MANUFACTURER IMPRESSED OR INDELIBLY MARKED ON THE INSIDE WALL.
- ALL PRECAST SECTIONS AND BASES SHALL BE COATED ON THE EXTERIOR WITH A BITUMINOUS DAMP-PROOFING COATING.
- MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE SHELVES SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPED TO DRAIN TOWARD THE FLOWING THROUGH CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF BRICK MASONRY. INVERTS AND SHELVES SHALL BE PLACED AFTER TESTING.
- MATERIALS OF CONSTRUCTION FOR MANHOLES SHALL BE AS FOLLOWS:
 - CONCRETE FOR PRECAST BASES OR GRADE RINGS SHALL CONFORM TO THE REQUIREMENTS FOR CLASS AA CONCRETE IN THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
 - REINFORCING FOR PRECAST CONCRETE SHALL BE STEEL OR STRUCTURAL FIBERS THAT CONFORM TO THE REQUIREMENTS OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
 - PRECAST CONCRETE BARREL SECTIONS, CONES AND BASES SHALL BE CERTIFIED BY THEIR MANUFACTURE(S) AS CONFORM TO ASTM C478.
 - THE MANHOLE FRAME AND COVER SHALL PROVIDE A 30-INCH DIAMETER CLEAR OPENING.
 - THE MANHOLE COVER SHALL HAVE THE WORD "SEWER" IN 3-INCH LETTERS CAST INTO THE TOP SURFACE.
 - THE CASTINGS SHALL BE OF EVEN-GRAINED CAST IRON, SMOOTH AND FREE FROM SCALE, LUMPS, BLISTERS, SAND HOLES AND DEFECTS.
 - CONTACT SURFACES OF COVERS AND FRAMES SHALL BE MACHINED AT THE FOUNDRY TO PREVENT ROCKING OF COVERS IN ANY ORIENTATION.
 - CASTINGS SHALL BE EQUAL TO CLASS 30, BE CERTIFIED BY THEIR MANUFACTURE(S) AS CONFORMING TO ASTM A48/48M.
 - BRICK MASONRY FOR SHELF, INVERT AND GRADE ADJUSTMENT SHALL BE CERTIFIED BY THEIR MANUFACTURE(S) AS CONFORMING TO ASTM C32, CLAY OR SHALE, FOR GRADE SS HARD BRICK.
 - MORTAR SHALL BE COMPOSED OF TYPE II PORTLAND CEMENT AND SAND WITH OR WITHOUT HYDRATED LIME ADDITION.
 - PROPORTIONS IN MORTAR OF PARTS BY VOLUMES SHALL BE:
 - 4.5 PARTS SAND AND 1.5 PARTS CEMENT; OR
 - 4.5 PARTS SAND, ONE PART CEMENT AND 0.5 PARTS HYDRATED LIME.
 - CEMENT SHALL BE TYPE II PORTLAND CEMENT CONFORMING TO ASTM C150/C150M.
 - HYDRATED LIME SHALL BE TYPE S CONFORMING TO THE ASTM C207 "STANDARD SPECIFICATIONS FOR HYDRATED LIME FOR MASONRY PURPOSES".
 - SAND SHALL CONSIST OF INERT NATURAL SAND CONFORMING TO THE ASTM C33 "STANDARD SPECIFICATIONS FOR CONCRETE, FINE AGGREGATES".
 - CONCRETE FOR DROP SUPPORTS SHALL CONFORM TO THE REQUIREMENT FOR CLASS AAA CONCRETE OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
 - SUBJECT TO (Q) BELOW, A FLEXIBLE PIPE JOINT SHALL BE PROVIDED WITHIN THE FOLLOWING DISTANCES FROM ANY MANHOLE CONNECTION:
 - WITHIN 48-INCHES FOR REINFORCED CONCRETE (RC) PIPE; AND
 - WITHIN 60-INCHES FOR PVC PIPE LARGER THAN 15-INCH DIAMETER.
 - NO FLEXIBLE JOINT SHALL BE REQUIRED FOR D.I. PIPE OR FOR PVC PIPE UP THROUGH 15-INCH DIAMETER, AND WHEN MANHOLE DEPTH IS LESS THAN 6 FEET. A REINFORCED CONCRETE SLAB COVER MAY BE USED IN LIEU OF A CONE SECTION, PROVIDED THE SLAB HAS AN ECCENTRIC ENTRANCE OPENING AND IS CAPABLE OF SUPPORTING H-20 LOADS.
- MANHOLE TESTING:
 - MANHOLES SHALL BE TESTED FOR LEAKAGE USING A VACUUM TEST.
 - THE MANHOLE VACUUM TEST SHALL CONFORM TO THE FOLLOWING:
 - THE INITIAL VACUUM GAUGE TEST PRESSURE SHALL BE 10 INCHES Hg; AND
 - THE MINIMUM ACCEPTABLE TEST HOLD TIME FOR A 1-INCH Hg PRESSURE DROP TO 9 INCH Hg SHALL BE:
 - NOT LESS THAN 2 MINUTES FOR MANHOLES LESS THAN 10 FEET DEEP IN DEPTH,
 - NOT LESS THAN 2.5 MINUTES FOR MANHOLES 10 TO 15 FEET DEEP, AND
 - NOT LESS THAN 3 MINUTES FOR MANHOLES MORE THAN 15 FEET DEEP.
 - THE MANHOLE SHALL BE REPAIRED AND RETESTED IF THE TEST HOLD TIMES FAIL TO ACHIEVE THE ACCEPTANCE LIMITS SPECIFIED IN (B) ABOVE.
 - FOLLOWING COMPLETION OF THE LEAKAGE TEST, THE FRAME AND COVER SHALL BE PLACED ON THE TOP OF THE MANHOLE OR SOME OTHER MEANS USED TO PREVENT ACCIDENTAL ENTRY BY UNAUTHORIZED PERSONS, CHILDREN OR ANIMALS UNTIL THE CONTRACTOR IS READY TO MAKE FINAL ADJUSTMENTS TO GRADE.

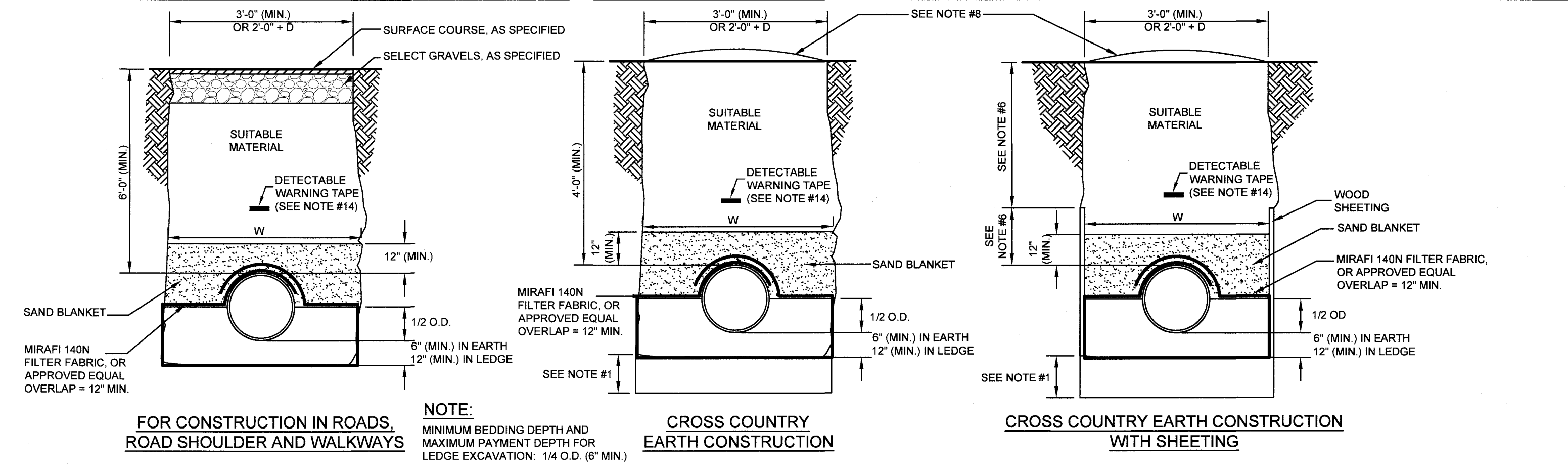


SANITARY SEWER MANHOLE



1,500 GALLON GREASE TRAP DETAIL

NOT TO SCALE (MARCH 2008)



SANITARY SEWER TRENCH DETAIL

NOT TO SCALE (NOVEMBER 2016)

NOTES:

- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE. REFILL WITH BEDDING MATERIAL, ALSO SEE NOTE #7.
 - 100% PASSING 1 INCH SCREEN
 - 90 - 100% PASSING 3/4 INCH SCREEN
 - 20 - 55% PASSING 3/8 INCH SCREEN
 - 0 - 10% PASSING #4 SIEVE
 - 0 - 5% PASSING #8 SIEVE
- WHERE ORDERED BY THE ENGINEER TO STABILIZE THE TRENCH BASE, GRADED CRUSHED STONE 1/2 INCH TO 1-1/2 INCHES SHALL BE USED. SAND BLANKET: GRADED CLEAN SAND FREE FROM ORGANIC MATTER, SO THAT 100% PASSES A 1/2 INCH SIEVE AND NOT MORE THAN 15% WILL PASS A # 200 SIEVE. BLANKET MAY BE OMITTED FOR CAST IRON, DUCTILE IRON AND REINFORCED CONCRETE PIPE PROVIDED, HOWEVER, THAT NO SUTURE LARGER THAN 2 INCHES IS IN CONTACT WITH THE PIPE.
- MIRAFI 140 N FILTER FABRIC, OR APPROVED EQUAL, SHALL BE INSTALLED ABOVE PIPE.
- SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT OR CLAY, ALL EXCAVATED LEDGE MATERIAL AND ALL ROCKS OVER 8 INCHES IN LARGEST DIMENSION, OR ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION.
- BASE COURSE, IF ORDERED BY THE ENGINEER, SHALL MEET THE REQUIREMENTS OF DIVISION 300 OF THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE STATE OF NEW HAMPSHIRE, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS."
- WOOD SHEETING, IF REQUIRED, WHERE PLACED ALONGSIDE THE PIPE AND EXTENDING BELOW MID-DIAMETER, SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
- W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE O.D. W SHALL ALSO BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
- NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES DESIGN STANDARDS REQUIRE 10 FEET OF SEPARATION BETWEEN WATER AND SEWER. HOWEVER, SHOULD CONSTRUCTION REVEAL OR EXPOSE A WATERLINE (MAIN OR SERVICE) RUNNING APPROXIMATELY PARALLEL AND LESS THAN 10 FEET HORIZONTALLY FROM THE PROPOSED SEWER INSTALLATION AND WHERE IT IS NOT PRACTICAL TO RELOCATE THE SEWER, A DEVIATION MAY BE GRANTED PROVIDED THAT THE SEWER IS CONSTRUCTED IN ACCORDANCE WITH THE FORCE MAIN CONSTRUCTION REQUIREMENT SPECIFIED BELOW.
 - FORCE MAINS SHALL BE CONSTRUCTED FROM DUCTILE IRON, HIGH DENSITY POLYETHYLENE, OR PVC PER ENV-WQ 704.06(a). PVC SHALL CONFORM TO ASTM D2241-05 OR ASTM D1785-05 HDPE SHALL CONFORM TO ASTM D3035-03a
 - D.I. SHALL BE CORROSION PROTECTED IN CORROSIVE ENVIRONMENTS
- WHERE WATER LINES AND SEWER LINES CROSS, THEY SHOULD CROSS AS PERPENDICULAR AS POSSIBLE AND THE WATER MAIN SHALL CROSS AT LEAST 18" INCHES ABOVE THE SEWER. FURTHER, THE SEWER JOINTS SHALL BE LOCATED AT LEAST 6 FEET HORIZONTALLY FROM THE WATER MAIN.

10K Muffin series Monster

Materials of Construction
 Housings: Ductile iron
 Cutters: Hardened alloy steel
 Shafts: Hardened alloy steel
 Mechanical Seals: Tungsten carbide faces

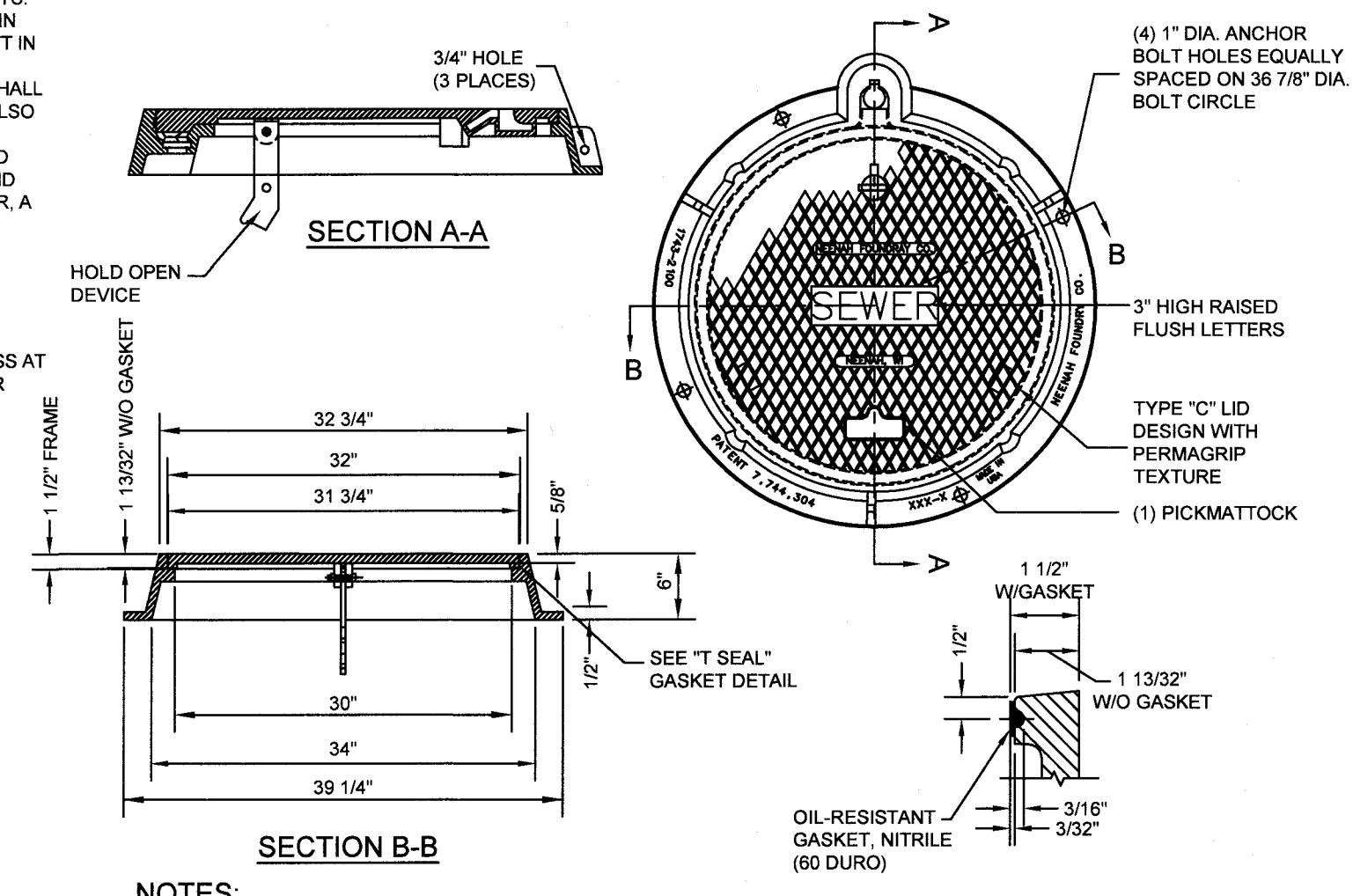
Specifications
 2" (50 mm) hex shafts
 Standard 2 hp (1.5 kW) gear motor
 Cutter Size: 4-3/4" (120 mm) diameter cutters
 Seal Max Working Pressure: 90 psi (6 bar)

MODEL 10000

In-line Model	Flow Rate - gpm (lpm)	Pipe Size - inches (mm)	Pressure Drop - psi (bar)	Standard Dimensions - inches (mm)					Flange Dimensions - inches (mm)			Approximate Net Weight - lbs (kg)
				A - 2 hp (1.5 kW)	B	C	D	E	F	G	H	
10000-0806-D1	275 (62)	4 (102)	0.36 (0.03)	33-7/16 (850)	35-7/16 (900)	6-1/4 (158)	16 (406)	7-1/2 (188)	3/4 (19)	303 (132)		
10000-0806-D1	550 (125)	6 (152)	1.33 (0.09)	33-7/16 (850)	35-7/16 (900)	7-1/4 (184)	19 (483)	9-1/2 (240)	7/8 (23)	323 (147)		

* 0.2% safety - in-line unit typically installed upstream of the pump - Consult factory for analysis of application - Drive dimensions are based on a unit with gear motor.

IN-LINE MUFFIN MONSTER® GRINDER
NOT TO SCALE



SEWER MANHOLE FRAME AND LID DETAIL

NOT TO SCALE

CONSTRUCTION DETAILS

OPTIMUS SENIOR LIVING

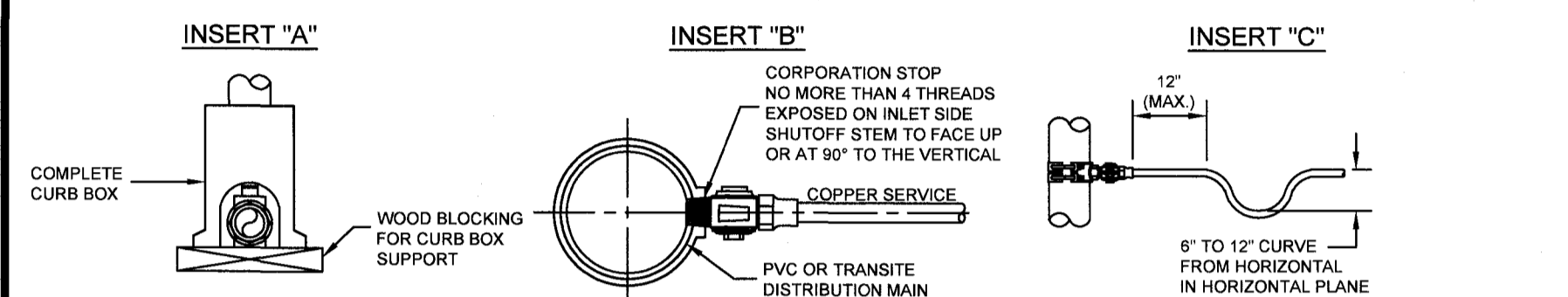
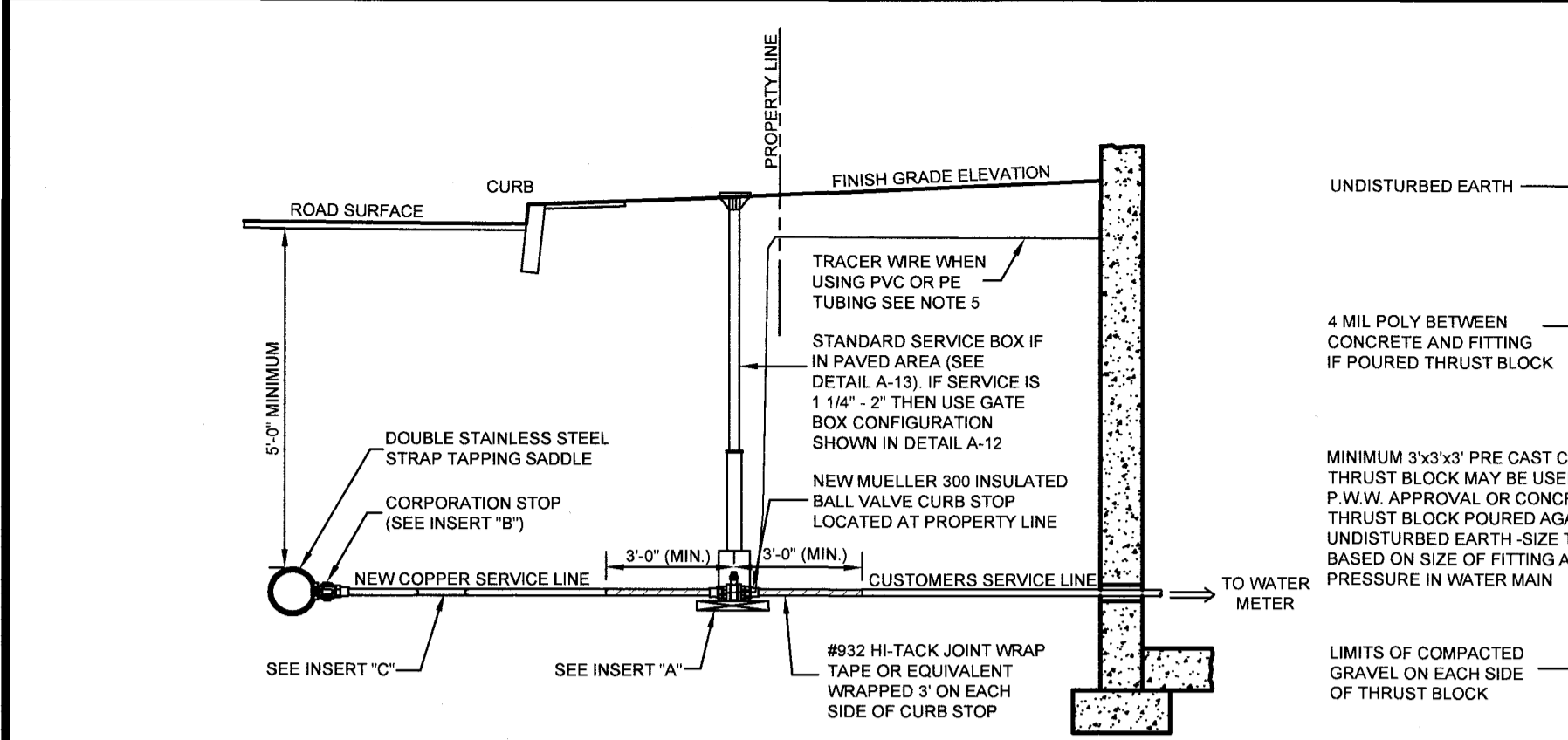
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554	APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073
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KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

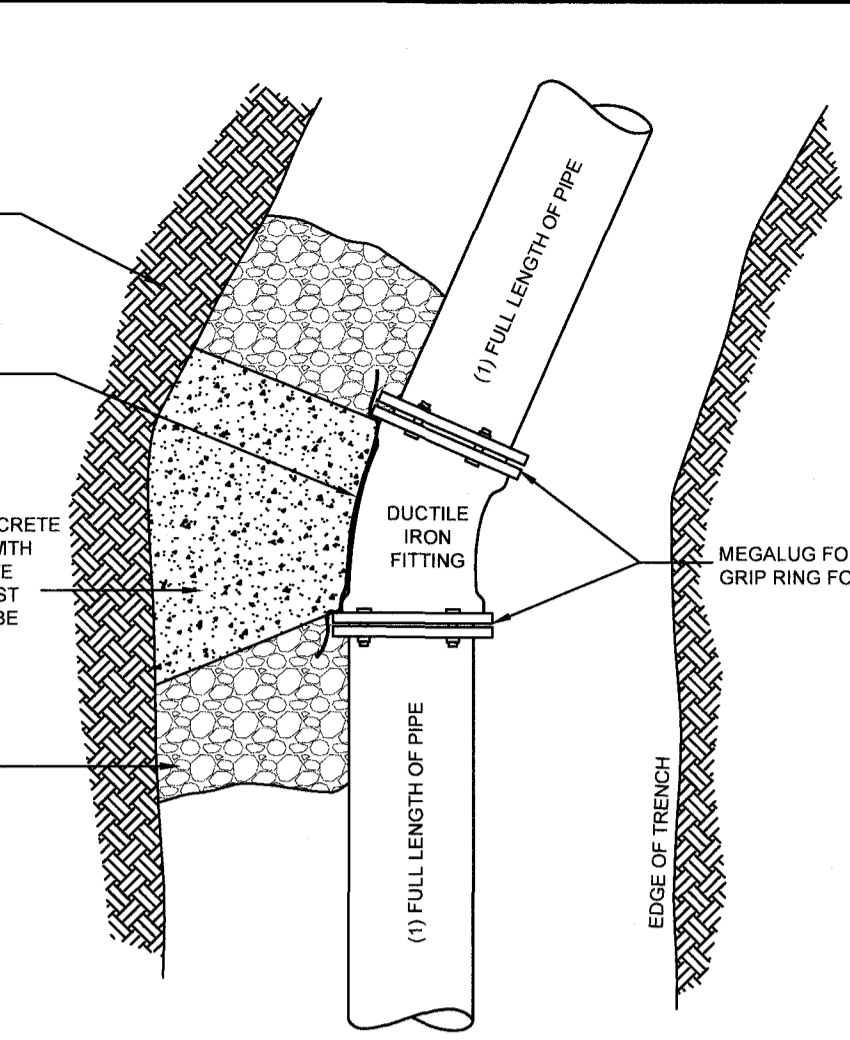
REVISIONS			
No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

DATE: JUNE 2, 2020 SCALE: AS SHOWN
PROJECT NO: 19-1126-1 SHEET 15 OF 18



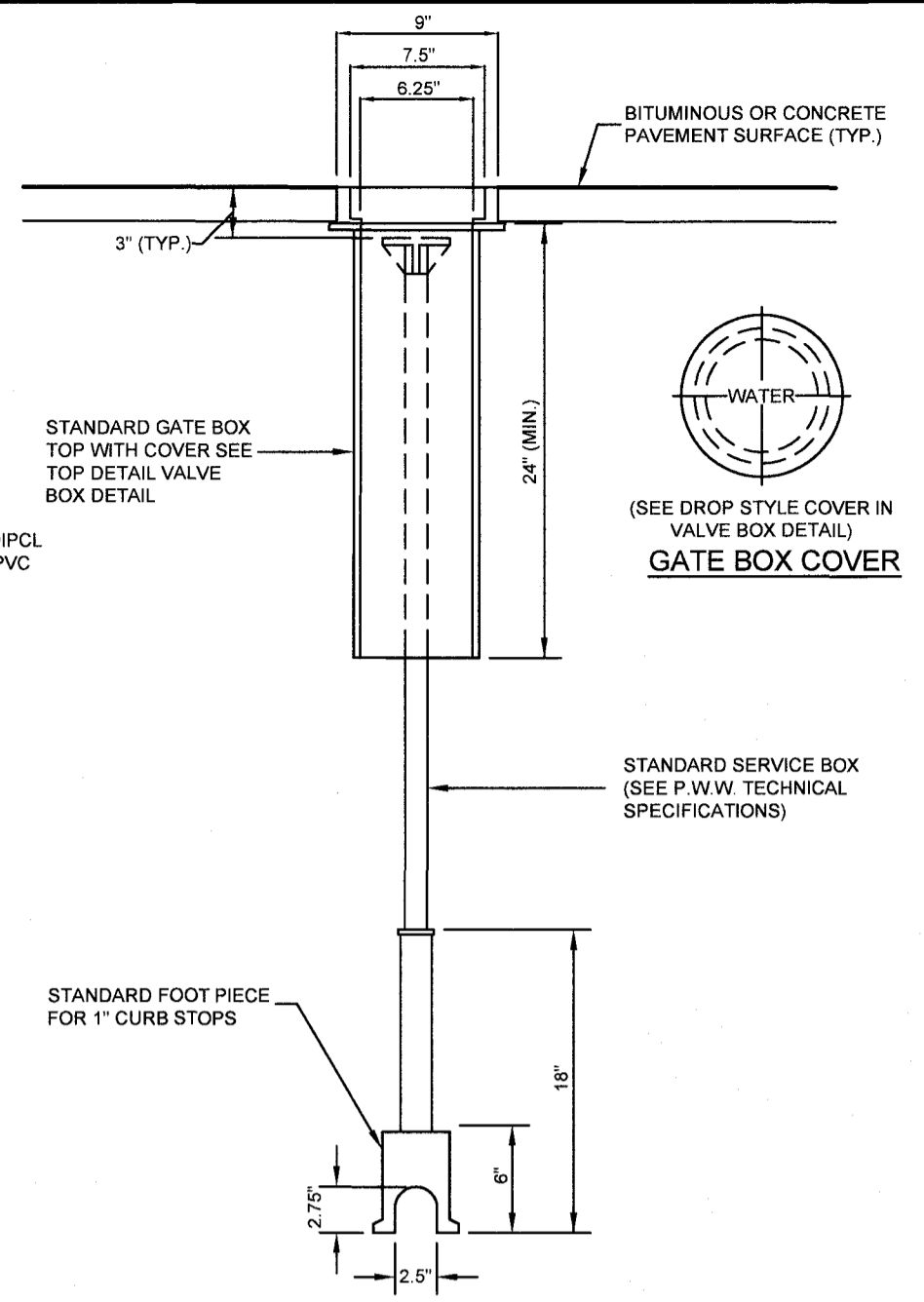
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. A DOUBLE STAINLESS STEEL STRAP TAPPING SADDLE MUST BE USED TO CONNECT THE CORPORATION TO THE WATER MAIN.
 4. IF WATER MAIN IS A FIRE SERVICE, THEN SEE DETAIL A-24.
 5. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT

COPPER SERVICE ON PVC AND TRANSITE MAINS
(A-19)
NOT TO SCALE
(MARCH 2008)



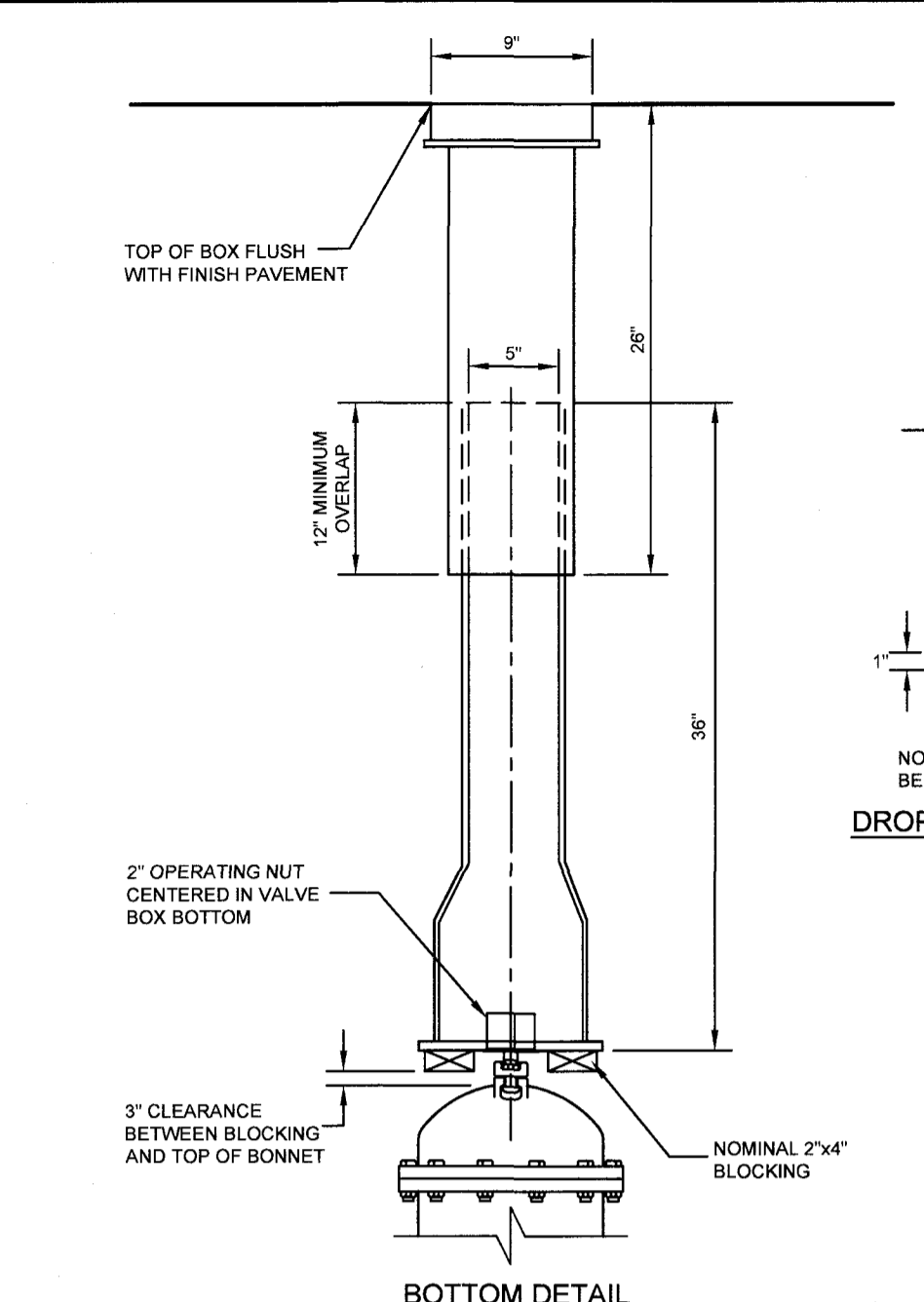
- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" Ø S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" Ø S.S. RODS & ASSOCIATED HARDWARE. 12" FITTING OR LARGER = (4) 3/4" Ø S.S. RODS & ASSOCIATED HARDWARE.
 4. MIN 3'x3'x3' PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH LOCAL UTILITY COMPANY APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN.

THRUST BLOCK BEHIND FITTINGS INSTALLATION
(A-07)
NOT TO SCALE
(MARCH 2008)



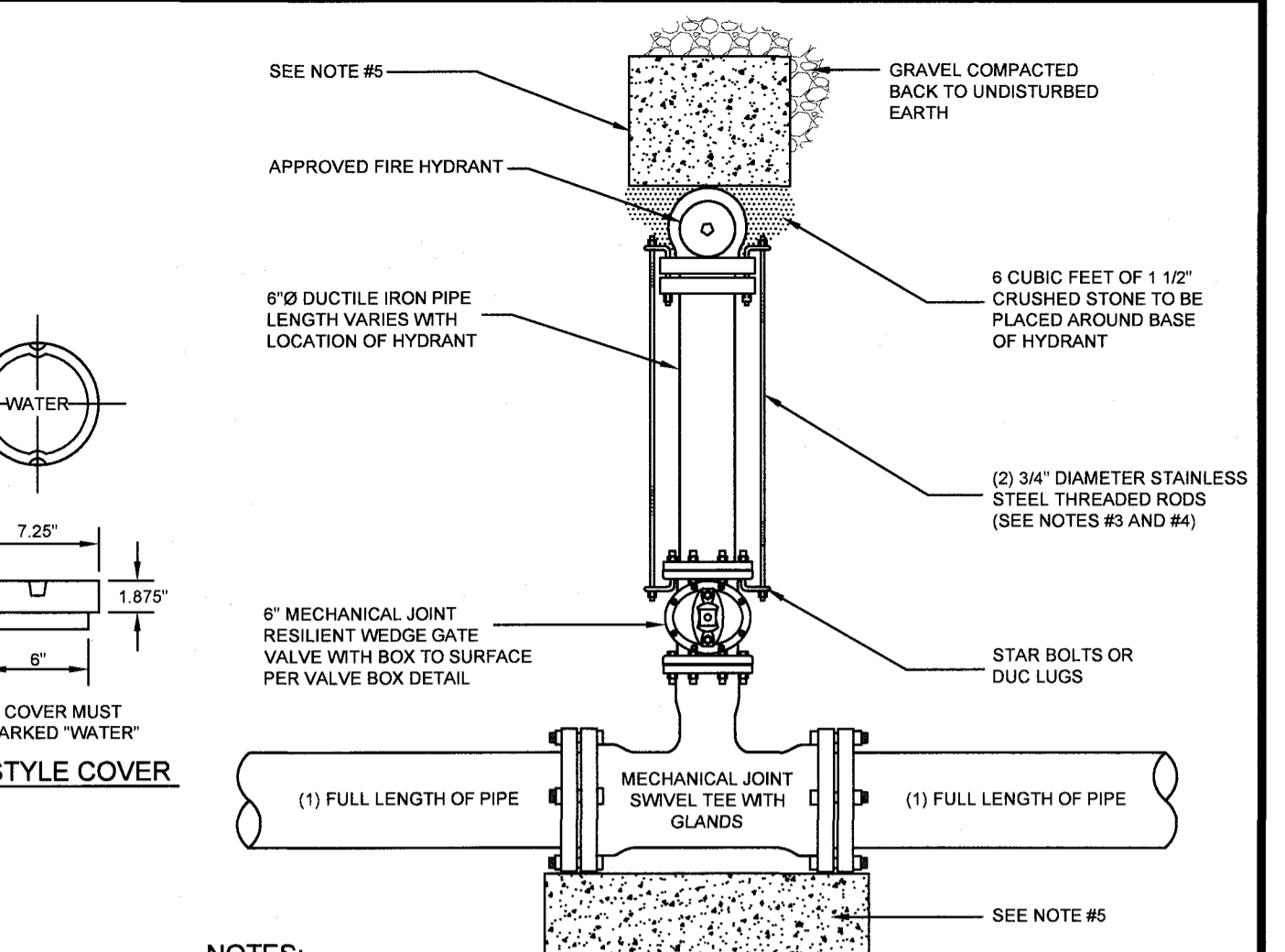
- NOTE:**
ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.

SERVICE BOX DETAIL IN PAVED AREAS
(A-13)
NOT TO SCALE
(MARCH 2008)



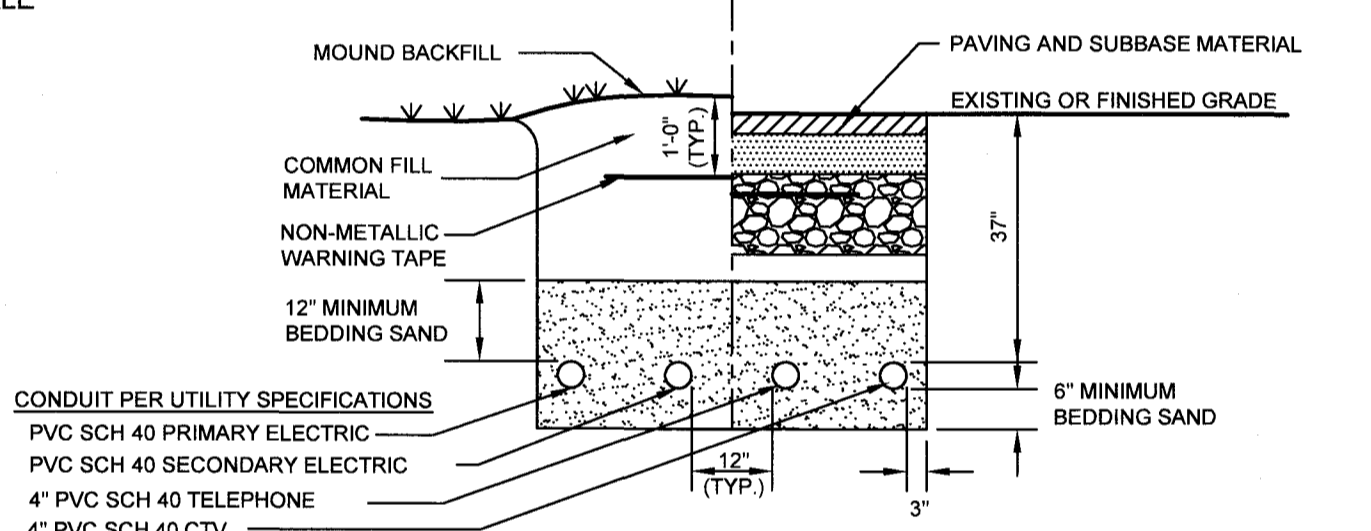
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

VALVE BOX DETAIL
(A-09)
NOT TO SCALE
(MARCH 2008)



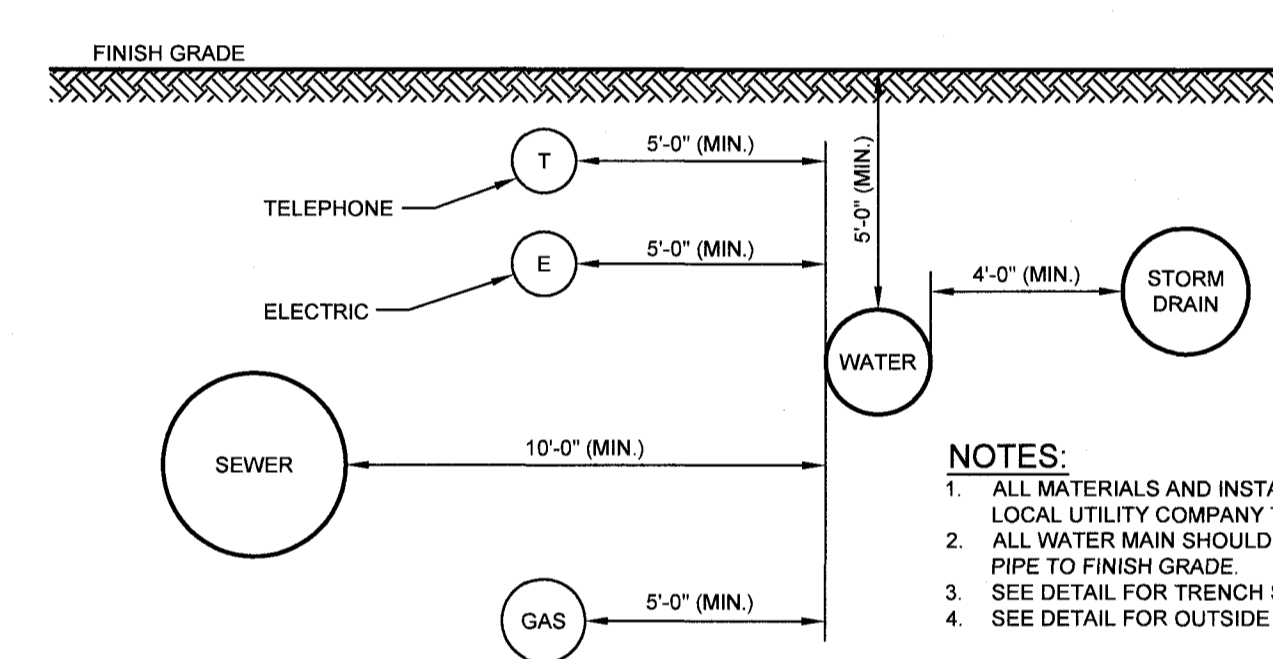
- NOTES:**
1. ALL MATERIAL AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTHS OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. 3/4" Ø S.S. RODS SHALL BE USED IN CONJUNCTION WITH REQUIRED S.S. NUTS. RODS ARE TO BE ATTACHED TO FITTINGS WITH EITHER STAR BOLTS OR DUC LUGS. 10" FITTING OR SMALLER = (2) 3/4" Ø S.S. RODS & ASSOCIATED HARDWARE. 12" FITTING OR LARGER = (4) 3/4" Ø S.S. RODS & ASSOCIATED HARDWARE.
 4. WHEN DISTANCE FROM WATER MAIN TO HYDRANT IS MORE THAN 10'-0" SUBSTITUTE MEGALUGS (OR GRIP RINGS) IN LIEU OF THREADED RODS.
 5. MINIMUM 3'x3'x3' PRE CAST CONCRETE THRUST BLOCK MAY BE USED WITH LOCAL UTILITY COMPANY APPROVAL OR CONCRETE THRUST BLOCK POURED AGAINST UNDISTURBED EARTH - SIZE TO BE BASED ON SIZE OF FITTING AND PRESSURE IN WATER MAIN. SEE THRUST BLOCK BEHIND FITTINGS DETAIL.

HYDRANT INSTALLATION
(A-10)
NOT TO SCALE
(MARCH 2008)



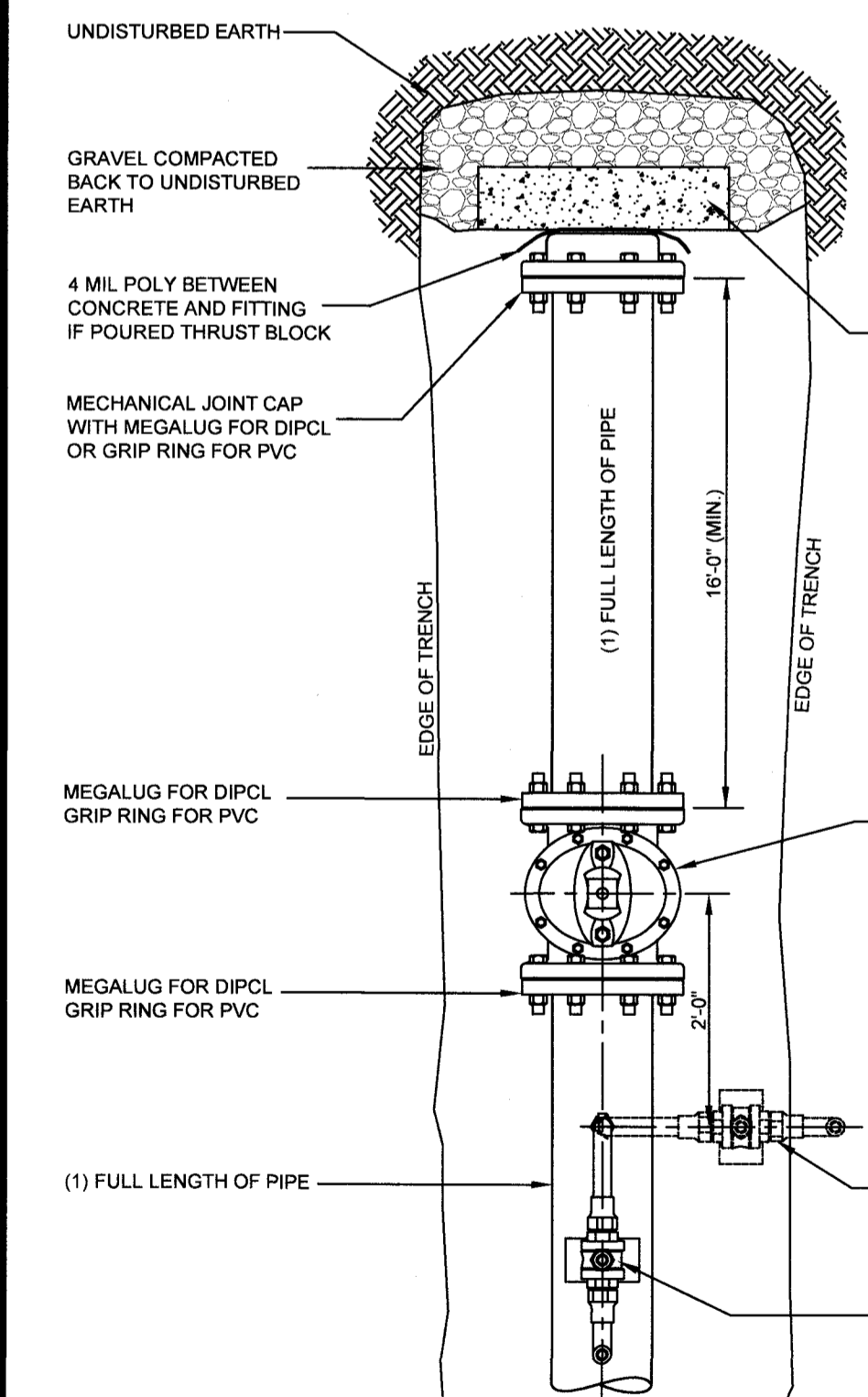
- NOTE:**
INSTALLATION AND MATERIALS OF UNDERGROUND UTILITIES SHALL CONFORM TO LOCAL UTILITY COMPANY SPECIFICATIONS.

UTILITY TRENCH DETAIL
NOT TO SCALE
(MARCH 2008)



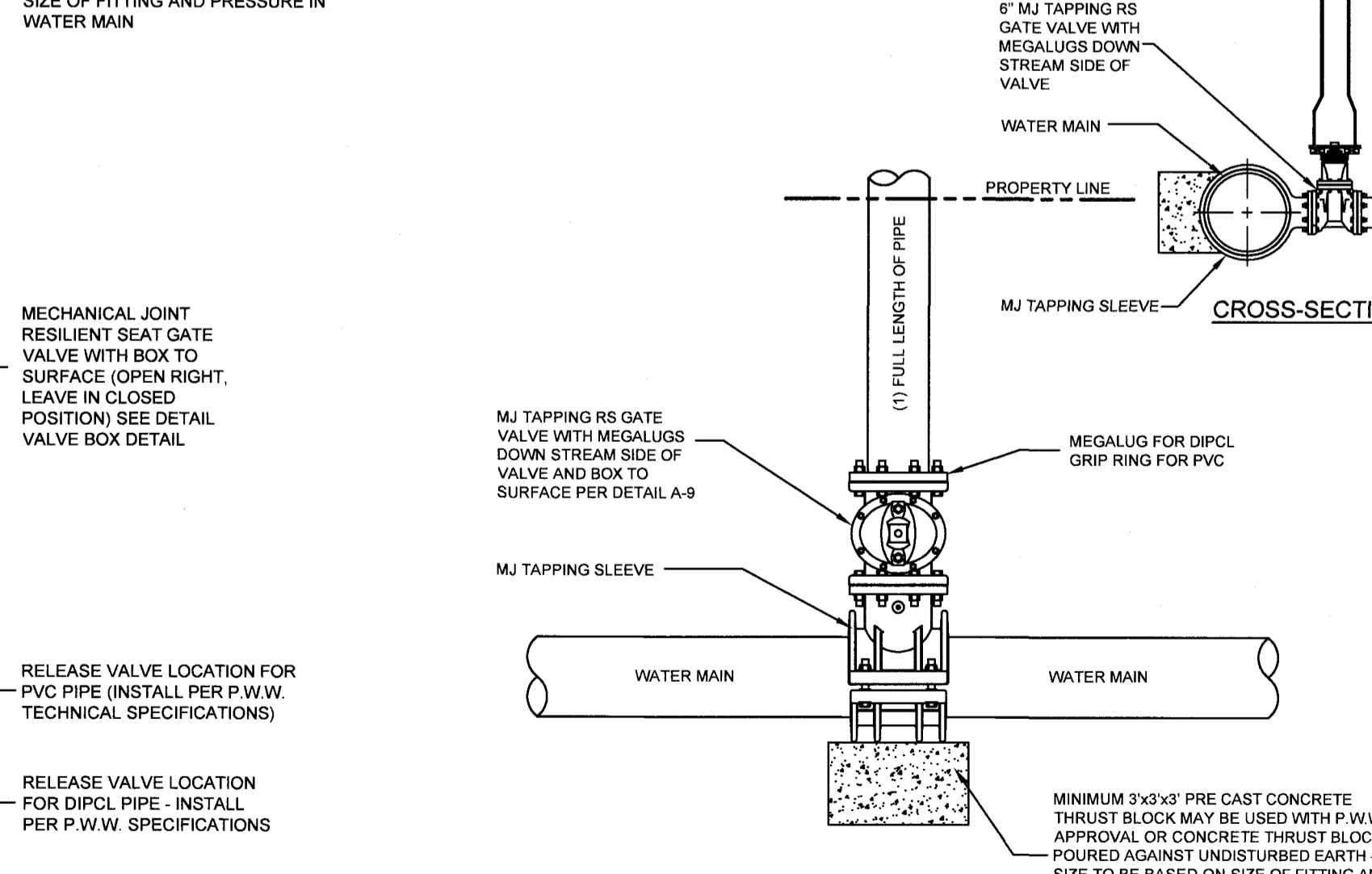
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL WATER MAIN SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. SEE DETAIL FOR TRENCH SPECIFICATIONS.
 4. SEE DETAIL FOR OUTSIDE SERVICE ENTRANCE SPECIFICATIONS.

UTILITY SEPARATION (MAIN) DETAIL
(A-01)
NOT TO SCALE



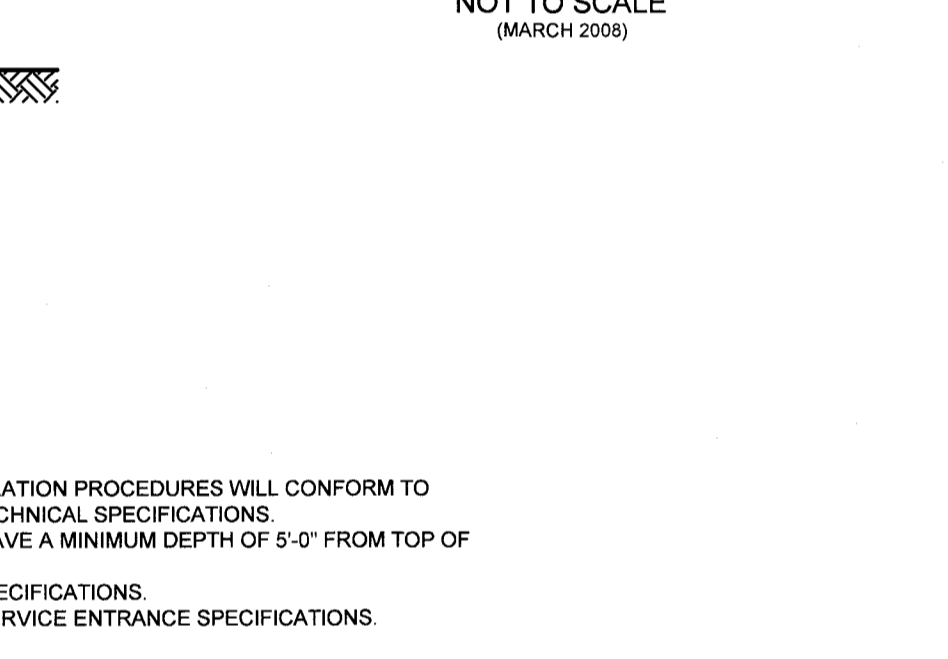
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO PENNICKCHUCK WATER WORKS, INC. TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

END OF MAIN INSTALLATION
(A-08)
NOT TO SCALE
(MARCH 2008)



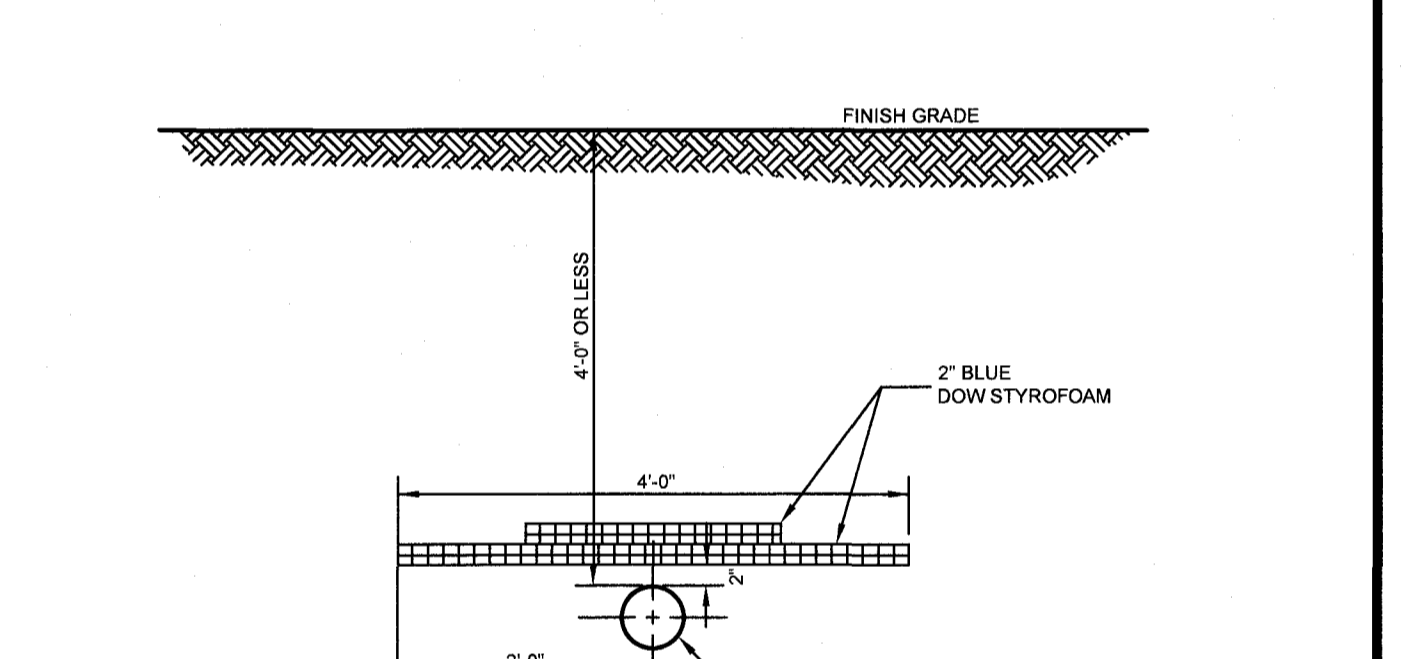
- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.

LARGE SERVICE AND/OR TAPPING SLEEVE DETAIL
(A-21)
NOT TO SCALE
(MARCH 2008)



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" 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. 10 GAUGE TRACER WIRE AS MANUFACTURED BY BMS, DIVISION OF ALBESTAR CORP., AVON, MA OR EQUIVALENT.
 6. ALL DUCTILE IRON WATER PIPE SHALL BE POLYETHYLENE ENCASED (WRAPPED IN PLASTIC) - SEE NOTE 1.

TRENCH DETAIL
(A-02)
NOT TO SCALE
(MARCH 2008)



- NOTES:**
1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO LOCAL UTILITY COMPANY TECHNICAL SPECIFICATIONS.
 2. ALL PIPE SHOULD HAVE A MINIMUM DEPTH OF 5'-0" FROM TOP OF PIPE TO FINISH GRADE.
 3. THE LOCAL UTILITY COMPANY RESERVES THE RIGHT TO MODIFY INSULATION REQUIREMENTS AS NECESSARY BASED ON FIELD CONDITIONS, ETC.
 4. ALL BUTT JOINT SEAMS TO BE OVERLAPPED WITH 2" PIECE OF INSULATION CENTERED OVER SEAM.

INSULATION DETAIL FOR LESS THAN 4'-0" OF COVER
(A-31)
NOT TO SCALE
(MARCH 2008)

CONSTRUCTION DETAILS
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

OWNER OF RECORD:
RUI & MARIA J. LEITE, TRUSTEES
OCEAN REALTY TRUST
9772 BLUE STONE CIRCLE
FORT MYERS, FL 33913
M.C.R.D. BK. 3459 PG. 554

APPLICANT:
OPTIMUS SENIOR LIVING
162 COLLEGE HWY
P.O. BOX 363
SOUTHAMPTON, MA 01073

KM KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 627-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

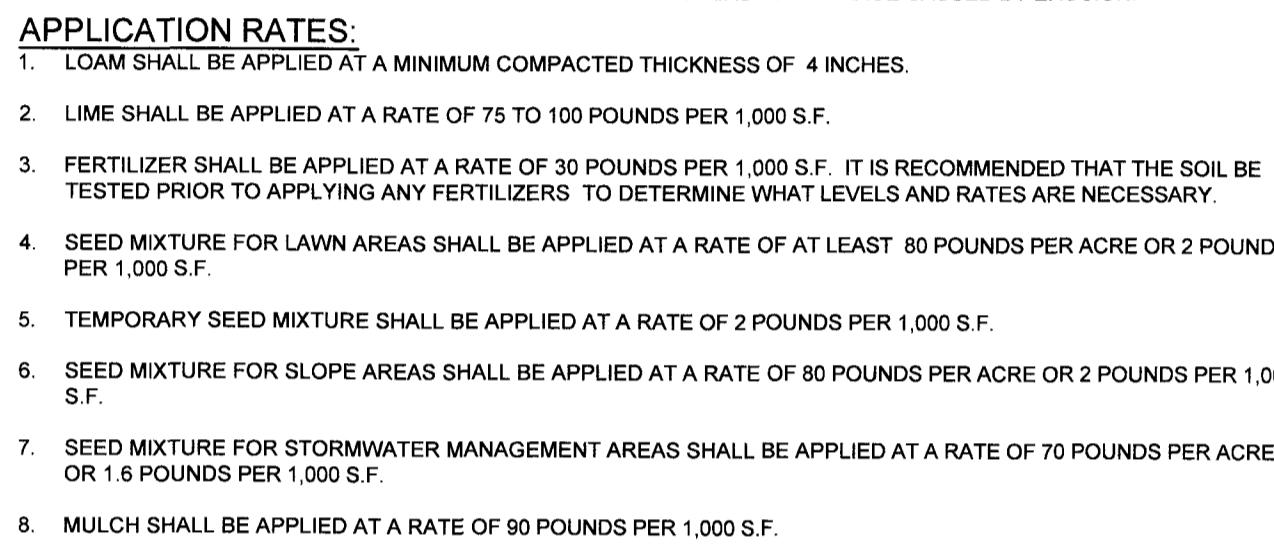
DATE: JUNE 2, 2020 **SCALE:** AS SHOWN
PROJECT NO: 19-1126-1 **SHEET:** 16 OF 18

TURF ESTABLISHMENT SCHEDULE

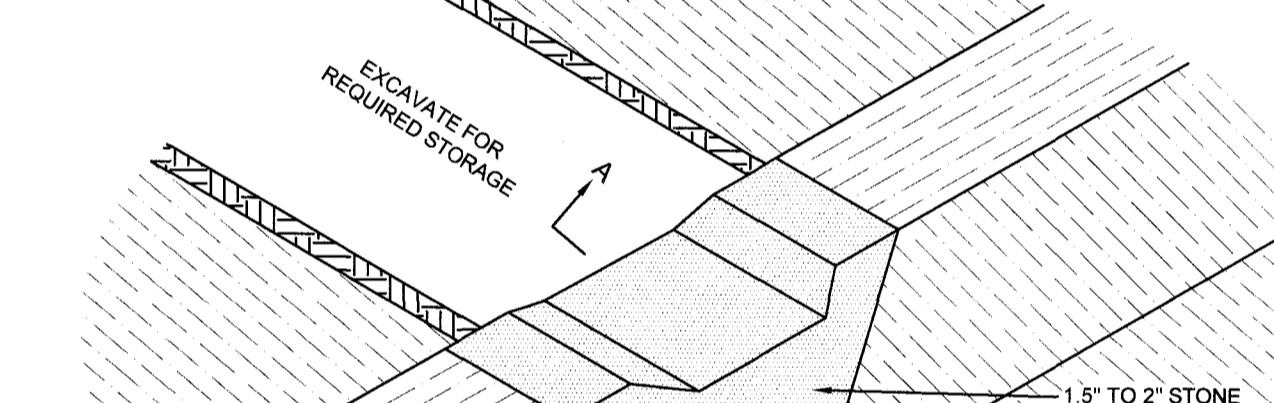
- PURPOSE:**
TO ESTABLISH AND MAINTAIN PERMANENT AND TEMPORARY TURF AREAS, RESTORE GROWTH TO EXISTING TURF AREAS DISTURBED DURING CONSTRUCTION AND CONTROL SOIL EROSION.
- PREPARATION AND EXECUTION:**
- RAKE THE SUBGRADE OF ALL AREAS TO BE LOAMED AND SEEDED TO REMOVE RUBBISH, STICKS, ROOTS AND STONES LARGER THAN 1 INCH.
 - PLACE LOAM OVER AREAS TO BE SEEDED AND SPREAD.
 - FINE GRADE SURFACE AND SUPPLEMENT WITH SUITABLE LOAM WHERE NEEDED TO CREATE A UNIFORM SURFACE ACCORDING TO THE FINISH GRADES INDICATED. TOP AND BOTTOM OF SLOPES SHALL BE ROUNDED. NO LOAM SHALL BE SPREAD IF THE SUBGRADE IS EXCESSIVELY WET OR FROZEN.
 - APPLY LIME EVENLY OVER LOAM SURFACE AND THOROUGHLY INCORPORATE LIME INTO THE LOAM BY HEAVY RAKING TO AT LEAST ONE-HALF THE DEPTH OF THE LOAM.
 - APPLY NO PHOSPHATE, SLOW RELEASE FERTILIZER AND MIX WITH THE UPPER 2 INCHES OF LOAM.
 - DETERMINE APPROPRIATE MIXTURE FOR AREA TO BE SEEDED BASED ON EXAMINATION OF PROJECT PLANS. UNIFORMLY SPREAD THE SEED BY BROADCASTING OR HYDROSEEDING. IF BROADCASTING, LIGHTLY RAKE INTO THE PREPARED SURFACE AND ROLL. IF, HYDROSEEDING, USE 4 TIMES THE RECOMMENDED RATE OF INOCULANT. AFTER SEED IS SPREAD, WATER THOROUGHLY WITH A FINE SPRAY.
 - SEEDING FOR PERMANENT COVER SHALL OCCUR BETWEEN SEPTEMBER 15 AND OCTOBER 15 AND BETWEEN APRIL 15 AND JUNE 15. SEEDING SHALL NOT BE DONE DURING WINDY WEATHER, WHEN THE GROUND IS FROZEN OR EXCESSIVELY WET OR OTHERWISE UNTILLABLE.
 - WITHIN 24 HOURS AFTER SEEDING OPERATION, UNIFORMLY MULCH THE AREA WITH STRAW. ANCHOR MULCH ON ALL SLOPES EXCEEDING 3:1 USING MULCH NETTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER.
 - PROTECT AND PREVENT AGAINST WASHOUTS, ANY WASHOUTS WHICH OCCUR SHALL BE PROMPTLY REGRADED AND RESEED.
 - WHEN IT IS IMPRACTICAL TO ESTABLISH PERMANENT GROWTH ON DISTURBED EARTH BY OCTOBER 15, A TEMPORARY SEED MIXTURE SHALL BE USED. WHEN TEMPORARY SEEDING CANNOT ESTABLISH VISIBLE GROWTH, THE DISTURBED AREA SHALL BE COVERED WITH SIX INCHES OF MULCH FOR THE WINTER.

- MATERIALS:**
- LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM, FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOD LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
 - LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND MAGNESIUM CARBONATES.
 - FERTILIZER SHALL BE NO PHOSPHORUS, SLOW RELEASE.
 - SEED MIXTURE FOR LAWN AREAS SHALL BE 99% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
25% KENTUCKY BLUEGRASS
25% REDTOP
25% MANHATTAN PERENNIAL RYEGRASS
 - TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
15% BLACKWELL OR SHELTER SWITCHGRASS
30% NIAGRA OR KAW BIG BLUESTEM
30% CAMPER OR BLAZE LITTLESTEM
15% NE 27 OR BLAZE SAND LOVEGRASS
10% VIKING BIRDSFOOT TREFOIL

- APPLICATION RATES:**
- LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
 - LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
 - FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F. IT IS RECOMMENDED THAT THE SOIL BE TESTED PRIOR TO APPLYING ANY FERTILIZERS TO DETERMINE WHAT LEVELS AND RATES ARE NECESSARY.
 - SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
 - TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
 - SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
 - SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
 - MULCH SHALL BE APPLIED AT A RATE OF 90 POUNDS PER 1,000 S.F.



STABILIZED CONSTRUCTION EXIT DETAIL



MAINTENANCE:

- MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.
- IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

- STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 3 INCH MINIMUM STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 3 INCHES.
- THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

CONSTRUCTION SEQUENCE

- THE CONTRACTOR WILL ENSURE THAT NO MORE THAN 5 ACRES IS DISTURBED AT ANY ONE TIME.
- FIRST CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS NECESSARY TO FACILITATE PROPOSED CONSTRUCTION. ALL TREES, BRANCHES AND OTHER VEGETATIVE MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430.53 AND AGR 3800 RELATED TO INVASIVE SPECIES.
- PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS, ALL APPLICABLE EROSION CONTROL MEASURES, INCLUDING SPECIFIED PERIMETER SILTATION FENCING AND STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLANS.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTION ACTIVITIES. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED WITH STRAW BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION.
- BEGIN EARTHMOVING OPERATIONS, COMMENCING WITH WORK NEEDED TO BALANCE SITE AND FACILITATE BUILDING FOUNDATION AND RETAINING WALL CONSTRUCTION. PERMANENT DOWNSLOPE WORK SHALL BE PROTECTED FROM UPGRADING STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY DRAINAGE DITCHES OR EXCAVATED SWALES.
- ONCE BUILDING FOUNDATION WORK IS UNDERWAY, CONTINUE EARTHMOVING OPERATIONS UNTIL DESIGN SUBGRADE IS ACHIEVED.
- DETENTION BASINS/SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
- DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED.
- INSTALL DRAINAGE SWALES SYSTEMS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED.
- DEEPLY TILL THE BASE OF THE INFILTRATION BASIN TO RESTORE INFILTRATION RATES FOLLOWED BY A PASS WITH A LEVELING DRAG.
- STORMWATER FLOWS ARE NOT TO BE DIRECTED TO THE INFILTRATION AREA UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- PLACE GRAVEL AND CRUSHED GRAVEL OVER PROPOSED DRIVEWAY, WALKS AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS.
- COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY. TO LEAVE A THICKNESS OF 4 INCHES OF FRIABLE LOAM.
- FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS.
- CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.
- INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
- COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

CERTIFICATE OF OCCUPANCY PHASING PLAN AGREEMENT:

- THE FOLLOWING SITE IMPROVEMENTS ARE REQUIRED FOR INDIVIDUAL CERTIFICATES OF OCCUPANCY AS CONSTRUCTION PROGRESSES:
A. ROAD BASE COAT.
B. STOP SIGNS AND TEMPORARY STRIPING OF STOP BARS.
C. GRADING AND DRAINAGE.
D. LOAM AND SEED THAT SUPPORTS THE SUBJECT UNIT OF THE CERTIFICATE OF OCCUPANCY.
E. TEMPORARY STRIPING OF VISITOR PARKING, AND
F. UTILITIES.

EROSION CONTROL NOTES:

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION UNLESS AN ENVIRONMENTAL ENGINEER HAS BEEN OBTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. NO CONSTRUCTION SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING FORTY-FIVE (45) CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25\"/>

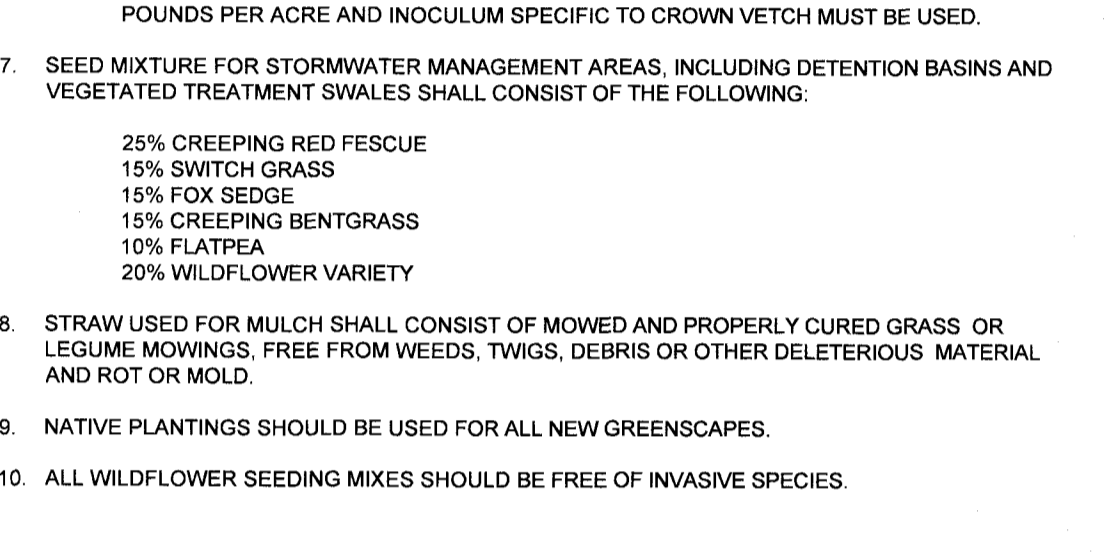
WINTER CONSTRUCTION NOTES:

- ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED.
B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
C. A MINIMUM OF 3\"/>

TURF ESTABLISHMENT SCHEDULE

- LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM, FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOD LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
- LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND MAGNESIUM CARBONATES.
- FERTILIZER SHALL BE NO PHOSPHORUS, SLOW RELEASE.
- SEED MIXTURE FOR LAWN AREAS SHALL BE 99% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
25% KENTUCKY BLUEGRASS
25% REDTOP
25% MANHATTAN PERENNIAL RYEGRASS
- TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
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30% NIAGRA OR KAW BIG BLUESTEM
30% CAMPER OR BLAZE LITTLESTEM
15% NE 27 OR BLAZE SAND LOVEGRASS
10% VIKING BIRDSFOOT TREFOIL

- APPLICATION RATES:**
- LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
 - LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
 - FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F. IT IS RECOMMENDED THAT THE SOIL BE TESTED PRIOR TO APPLYING ANY FERTILIZERS TO DETERMINE WHAT LEVELS AND RATES ARE NECESSARY.
 - SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
 - TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
 - SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
 - SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
 - MULCH SHALL BE APPLIED AT A RATE OF 90 POUNDS PER 1,000 S.F.



STABILIZED CONSTRUCTION EXIT DETAIL



MAINTENANCE:

- MUD AND SOIL PARTICLES WILL EVENTUALLY CLOG THE VOIDS IN THE CRUSHED STONE AND THE EFFECTIVENESS OF THE CRUSHED STONE PAD WILL NOT BE SATISFACTORY. WHEN THIS OCCURS, THE PAD SHOULD BE TOPDRESSED WITH NEW CRUSHED STONE OR COMPLETE REPLACEMENT OF THE PAD MAY BE NECESSARY WHEN THE PAD BECOMES COMPLETELY CLOGGED.
- IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

CONSTRUCTION SPECIFICATIONS:

- STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 3 INCH MINIMUM STONE, RECLAIMED STONE OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET, EXCEPT FOR A SINGLE RESIDENTIAL LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.
- THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 3 INCHES.
- THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

CONSTRUCTION SEQUENCE

- THE CONTRACTOR WILL ENSURE THAT NO MORE THAN 5 ACRES IS DISTURBED AT ANY ONE TIME.
- FIRST CUT AND CLEAR TREES AND BRUSH ONLY WITHIN DESIGNATED LIMITS OF CLEARING AS NECESSARY TO FACILITATE PROPOSED CONSTRUCTION. ALL TREES, BRANCHES AND OTHER VEGETATIVE MATERIALS SHALL BE PROPERLY DISPOSED OF OFF SITE BY THE CONTRACTOR. THIS PROJECT IS MANAGED TO MEET THE REQUIREMENTS AND INTENT OF RSA 430.53 AND AGR 3800 RELATED TO INVASIVE SPECIES.
- PRIOR TO COMMENCEMENT OF ANY EARTHMOVING OPERATIONS, ALL APPLICABLE EROSION CONTROL MEASURES, INCLUDING SPECIFIED PERIMETER SILTATION FENCING AND STABILIZED CONSTRUCTION EXIT SHALL BE IN PLACE AS SHOWN ON THE PROJECT PLANS.
- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTION ACTIVITIES. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED WITH STRAW BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION.
- BEGIN EARTHMOVING OPERATIONS, COMMENCING WITH WORK NEEDED TO BALANCE SITE AND FACILITATE BUILDING FOUNDATION AND RETAINING WALL CONSTRUCTION. PERMANENT DOWNSLOPE WORK SHALL BE PROTECTED FROM UPGRADING STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY DRAINAGE DITCHES OR EXCAVATED SWALES.
- ONCE BUILDING FOUNDATION WORK IS UNDERWAY, CONTINUE EARTHMOVING OPERATIONS UNTIL DESIGN SUBGRADE IS ACHIEVED.
- DETENTION BASINS/SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
- DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED.
- INSTALL DRAINAGE SWALES SYSTEMS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED.
- DEEPLY TILL THE BASE OF THE INFILTRATION BASIN TO RESTORE INFILTRATION RATES FOLLOWED BY A PASS WITH A LEVELING DRAG.
- STORMWATER FLOWS ARE NOT TO BE DIRECTED TO THE INFILTRATION AREA UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- PLACE GRAVEL AND CRUSHED GRAVEL OVER PROPOSED DRIVEWAY, WALKS AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS.
- COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY. TO LEAVE A THICKNESS OF 4 INCHES OF FRIABLE LOAM.
- FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS.
- CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.
- INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
- COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

CERTIFICATE OF OCCUPANCY PHASING PLAN AGREEMENT:

- THE FOLLOWING SITE IMPROVEMENTS ARE REQUIRED FOR INDIVIDUAL CERTIFICATES OF OCCUPANCY AS CONSTRUCTION PROGRESSES:
A. ROAD BASE COAT.
B. STOP SIGNS AND TEMPORARY STRIPING OF STOP BARS.
C. GRADING AND DRAINAGE.
D. LOAM AND SEED THAT SUPPORTS THE SUBJECT UNIT OF THE CERTIFICATE OF OCCUPANCY.
E. TEMPORARY STRIPING OF VISITOR PARKING, AND
F. UTILITIES.

EROSION CONTROL NOTES:

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION UNLESS AN ENVIRONMENTAL ENGINEER HAS BEEN OBTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. NO CONSTRUCTION SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING FORTY-FIVE (45) CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25\"/>

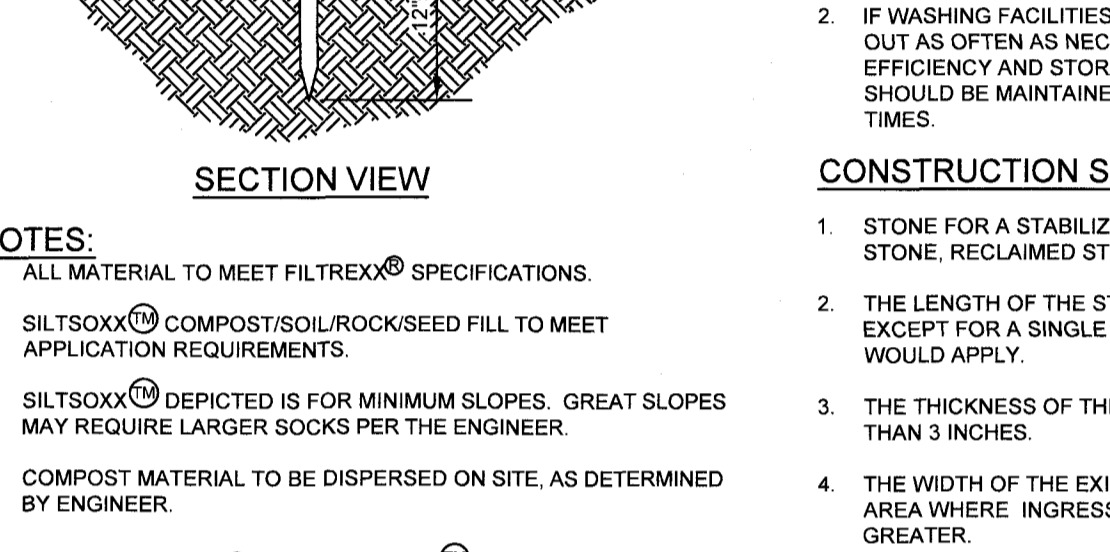
WINTER CONSTRUCTION NOTES:

- ALL PROPOSED POST-DEVELOPMENT VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 4:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE PLACEMENT OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- AFTER OCTOBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3 OR, IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
A. BASE COURSE GRAVELS ARE INSTALLED IN AREAS TO BE PAVED.
B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
C. A MINIMUM OF 3\"/>

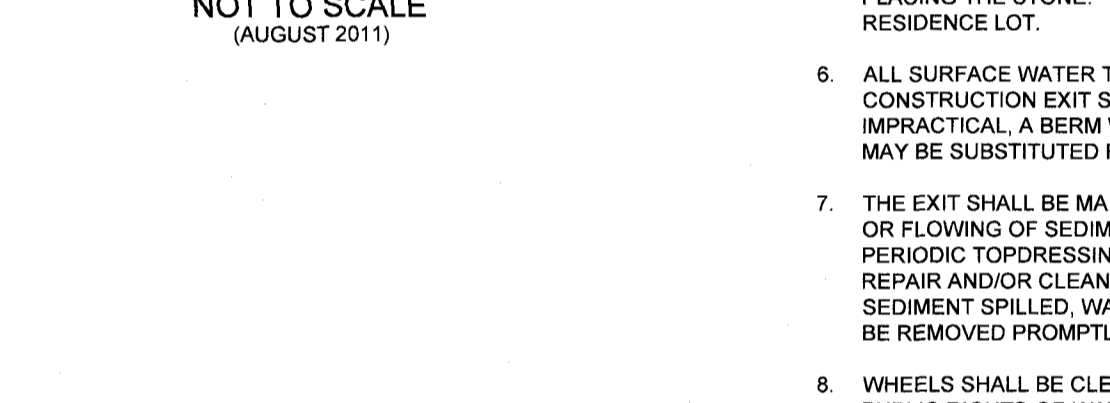
TURF ESTABLISHMENT SCHEDULE

- LOAM USED FOR TOPSOIL SHALL BE FRIABLE, FERTILE, NATURAL FREE-DRAINING LOAM, FREE OF ROOTS, GRASS, STICKS, WEEDS, CLAY, SOD LUMPS, DEBRIS AND STONES LARGER THAN 1 INCH IN ANY DIMENSION. SOIL SHALL NOT BE EXCESSIVELY ACID OR ALKALINE AND CONTAIN NO TOXIC MATERIALS.
- LIME SHALL BE GROUND LIMESTONE CONTAINING NO LESS THAN 95% CALCIUM AND MAGNESIUM CARBONATES.
- FERTILIZER SHALL BE NO PHOSPHORUS, SLOW RELEASE.
- SEED MIXTURE FOR LAWN AREAS SHALL BE 99% PURE LIVE SEED AND CONSIST OF THE FOLLOWING:
25% CREEPING RED FESCUE
25% KENTUCKY BLUEGRASS
25% REDTOP
25% MANHATTAN PERENNIAL RYEGRASS
- TEMPORARY SEEDING MIXTURE SHALL BE AN APPROVED CONSERVATION MIX OR CONSIST OF THE FOLLOWING:
15% BLACKWELL OR SHELTER SWITCHGRASS
30% NIAGRA OR KAW BIG BLUESTEM
30% CAMPER OR BLAZE LITTLESTEM
15% NE 27 OR BLAZE SAND LOVEGRASS
10% VIKING BIRDSFOOT TREFOIL

- APPLICATION RATES:**
- LOAM SHALL BE APPLIED AT A MINIMUM COMPACTED THICKNESS OF 4 INCHES.
 - LIME SHALL BE APPLIED AT A RATE OF 75 TO 100 POUNDS PER 1,000 S.F.
 - FERTILIZER SHALL BE APPLIED AT A RATE OF 30 POUNDS PER 1,000 S.F. IT IS RECOMMENDED THAT THE SOIL BE TESTED PRIOR TO APPLYING ANY FERTILIZERS TO DETERMINE WHAT LEVELS AND RATES ARE NECESSARY.
 - SEED MIXTURE FOR LAWN AREAS SHALL BE APPLIED AT A RATE OF AT LEAST 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
 - TEMPORARY SEED MIXTURE SHALL BE APPLIED AT A RATE OF 2 POUNDS PER 1,000 S.F.
 - SEED MIXTURE FOR SLOPE AREAS SHALL BE APPLIED AT A RATE OF 80 POUNDS PER ACRE OR 2 POUNDS PER 1,000 S.F.
 - SEED MIXTURE FOR STORMWATER MANAGEMENT AREAS SHALL BE APPLIED AT A RATE OF 70 POUNDS PER ACRE OR 1.6 POUNDS PER 1,000 S.F.
 - MULCH SHALL BE APPLIED AT A RATE OF 90 POUNDS PER 1,000 S.F.



STABILIZED CONSTRUCTION EXIT DETAIL



MAINTENANCE:

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- IF WASHING FACILITIES ARE USED, THE SEDIMENT TRAPS SHOULD BE CLEANED OUT AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE TRAPPING EFFICIENCY AND STORAGE VOLUME IS AVAILABLE. VEGETATIVE FILTER STRIPS SHOULD BE MAINTAINED TO INSURE A VIGOROUS STAND OF VEGETATION AT ALL TIMES.

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- THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 3 INCHES.
- THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE AREA WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FILTER CLOTH IS NOT REQUIRED FOR A SINGLE FAMILY RESIDENCE LOT.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.
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- THE CONTRACTOR WILL ENSURE THAT NO MORE THAN 5 ACRES IS DISTURBED AT ANY ONE TIME.
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- COMPLETE GRUBBING OPERATIONS. ALL STUMPS AND SIMILAR ORGANIC DEBRIS SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR. NATIVE ORGANIC SOIL MATERIALS SUITABLE FOR USE AS TOPSOIL SHALL BE STOCKPILED WITHIN AREAS OUT OF THE WAY OF OTHER CONSTRUCTION ACTIVITIES. STOCKPILES SHALL BE TEMPORARILY SEEDED WITH WINTER RYE AND BE SURROUNDED WITH STRAW BALES AND/OR FABRIC SILTATION FENCE IN ORDER TO PREVENT LOSS DUE TO EROSION.
- BEGIN EARTHMOVING OPERATIONS, COMMENCING WITH WORK NEEDED TO BALANCE SITE AND FACILITATE BUILDING FOUNDATION AND RETAINING WALL CONSTRUCTION. PERMANENT DOWNSLOPE WORK SHALL BE PROTECTED FROM UPGRADING STORMWATER FLOW BY THE CONSTRUCTION OF TEMPORARY DRAINAGE DITCHES OR EXCAVATED SWALES.
- ONCE BUILDING FOUNDATION WORK IS UNDERWAY, CONTINUE EARTHMOVING OPERATIONS UNTIL DESIGN SUBGRADE IS ACHIEVED.
- DETENTION BASINS/SWALES SHALL BE INSTALLED BEFORE ROUGH GRADING THE SITE.
- DITCHES/SWALES/BASINS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- TEMPORARY WATER DIVERSION (SWALES, BASINS, ETC.) MUST BE USED AS NECESSARY UNTIL SOILS ARE STABILIZED.
- INSTALL DRAINAGE SWALES SYSTEMS AND OTHER UTILITIES WORKING FROM LOW TO HIGH. INCOMPLETE WORK SHALL BE PROTECTED FROM SILTATION BY THE USE OF SILTATION BARRIERS AROUND SWALES UNTIL THE SITE HAS BECOME FULLY STABILIZED.
- DEEPLY TILL THE BASE OF THE INFILTRATION BASIN TO RESTORE INFILTRATION RATES FOLLOWED BY A PASS WITH A LEVELING DRAG.
- STORMWATER FLOWS ARE NOT TO BE DIRECTED TO THE INFILTRATION AREA UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- PLACE GRAVEL AND CRUSHED GRAVEL OVER PROPOSED DRIVEWAY, WALKS AND PARKING AREAS AND COMPACT IN SPECIFIED LIFT THICKNESS.
- COMPLETE EXCAVATION/STABILIZATION GRADING ACTIVITIES. WHEN COMPLETE, IMMEDIATELY BEGIN TOPSOILING PROPOSED TURF AREAS USING STOCKPILED LOAM SUPPLEMENTED WITH BORROW LOAM, IF NECESSARY. TO LEAVE A THICKNESS OF 4 INCHES OF FRIABLE LOAM.
- FINE GRADE ALL FUTURE TURF AREAS AND HYDROSEED WITH THE SPECIFIED SEED MIXTURE IMMEDIATELY AFTER FINE GRADING IS COMPLETED. ALL AREAS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- INSTALL THE BINDER COURSE OF PAVEMENT OVER ALL DESIGNATED AREAS.
- CONTINUE TO MONITOR AND RECTIFY MINOR SITE AND SLOPE EROSION UNTIL ENTIRE SITE APPEARS TO BE COMPLETELY STABILIZED AND VEGETATED WITH A HEALTHY STAND OF TURF OR GROUND COVER. MAINTAIN SPECIFIED SILTATION/EROSION CONTROL MEASURES THROUGH ONE WINTER.
- INSTALL THE SPECIFIED WEARING COURSE OF PAVEMENT OVER THE BINDER COURSE.
- COMPLETE INSTALLATION OF LANDSCAPING, SIGNAGE AND OTHER SITE AMENITIES.

CERTIFICATE OF OCCUPANCY PHASING PLAN AGREEMENT:

- THE FOLLOWING SITE IMPROVEMENTS ARE REQUIRED FOR INDIVIDUAL CERTIFICATES OF OCCUPANCY AS CONSTRUCTION PROGRESSES:
A. ROAD BASE COAT.
B. STOP SIGNS AND TEMPORARY STRIPING OF STOP BARS.
C. GRADING AND DRAINAGE.
D. LOAM AND SEED THAT SUPPORTS THE SUBJECT UNIT OF THE CERTIFICATE OF OCCUPANCY.
E. TEMPORARY STRIPING OF VISITOR PARKING, AND
F. UTILITIES.

EROSION CONTROL NOTES:

- EXPOSED EARTHWORK SHALL BE CONFINED TO AS LIMITED AN AREA AS IS PRACTICAL AT ANY GIVEN TIME THROUGHOUT THE CONSTRUCTION SEQUENCE. AT NO TIME SHALL MORE THAN FIVE (5) ACRES OF SITE AREA BE IN AN UNSTABLE CONDITION UNLESS AN ENVIRONMENTAL ENGINEER HAS BEEN OBTAINED THROUGHOUT THE DURATION OF CONSTRUCTION. NO CONSTRUCTION SHALL BE LEFT IN AN UNSTABILIZED CONDITION FOR A PERIOD OF TIME EXCEEDING FORTY-FIVE (45) CALENDAR DAYS.
- TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PROJECT PLANS. IN ADDITION, SIMILAR MEASURES SHALL BE INSTALLED WHERE AND WHEN THE FIELD CONDITION, OR FIELD OPERATION OF THE INDIVIDUAL SITE CONTRACTOR, MAY WARRANT. ALL TEMPORARY EROSION CONTROL MEASURES USED SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER 0.25\"/>

WINTER CONSTRUCTION NOTES:

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

TP #1

LOGGED BY JMB
PERC TEST @ 26"
DATE: 3/18/20
PERC RATE: 12 MIN./INCH
IMPERVIOUS LAYER: N/A

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 46"
0"	Ap	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
7"	Bhs	10YR 5/6 FINE SANDY LOAM WSBK, FRIABLE
28" ESHWT @ 31"	Bh	2.5Y 5/6 FINE SANDY LOAM WSBK FRIABLE REDOX STARTING @ 31"
34"	C	2.5Y 5/4 FINE SANDY LOAM MASSIVE, FRIABLE 10YR 5/6 CONCENTRATIONS THROUGHOUT
72" BOTTOM OF HOLE		

TP #2

LOGGED BY JMB
PERC TEST @ 22"
DATE: 3/18/20
PERC RATE: 12 MIN./INCH
IMPERVIOUS LAYER: N/A

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 46"
0"	Ap	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
10"	Bhs	10YR 5/6 FINE SANDY LOAM WSBK, FRIABLE
24" ESHWT @ 24"	Bh1	2.5Y 5/6 LOAMY FINE SAND WSBK FRIABLE 10YR 5/8 REDOX CONC 2.5Y 6/3 DEPLETIONS
36"	Bh2	2.5Y 5/4 LOAMY FINE SAND WSBK FRIABLE 10YR 5/6 REDOX CONC 2.5Y 6/3 DEPLETIONS THROUGHOUT
49"	C	2.5Y 6/3 FINE SANDY LOAM MASSIVE, FRIABLE 2.5Y 6/2 DEPLETIONS 10YR 5/6 CONCENTRATIONS THROUGHOUT
78" BOTTOM OF HOLE		

TP #3

LOGGED BY JMB
PERC TEST @ 21"
DATE: 3/18/20
PERC RATE: 12 MIN./INCH
IMPERVIOUS LAYER: N/A

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 62"
0"	Ap	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
8"	Bhs	10YR 5/6 FINE SANDY LOAM WSBK, FRIABLE
17"	Bh1	2.5Y 5/6 FINE SANDY LOAM WSBK FRIABLE
24" ESHWT @ 24"	Bh2	2.5Y 5/4 LOAMY FINE SAND WSBK FRIABLE 10YR 5/8 REDOX CONC 2.5Y 6/2 DEPLETIONS THROUGHOUT
39"	C	2.5Y 6/3 FINE SANDY LOAM MASSIVE, FRIABLE 2.5Y 6/2 DEPLETIONS 10YR 5/6 CONCENTRATIONS THROUGHOUT
73" BOTTOM OF HOLE		

TP #4

LOGGED BY JMB
PERC TEST @ 23"
DATE: 3/18/20
PERC RATE: 10 MIN./INCH
IMPERVIOUS LAYER: NONE TO 77"

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 51"
0"	A	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
12"	B	10YR 5/6 SANDY LOAM WSBK, FRIABLE
28" ESHWT @ 28"		2.5Y 5/4 LOAMY FINE SAND WSBK FRIABLE 2.5Y 6/3 DEPLETIONS 10YR 5/8 CONCENTRATIONS THROUGHOUT
44"	C1	2.5Y 6/3 LOAMY FINE SAND MASSIVE, FRIABLE 2.5Y 6/2 DEPLETIONS 10YR 5/6 CONCENTRATIONS THROUGHOUT
77" BOTTOM OF HOLE		

TP #5

LOGGED BY JMB
PERC TEST @ 18"
DATE: 3/18/20
PERC RATE: 10 MIN./INCH
IMPERVIOUS LAYER: N/A

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 51"
0"	Ap	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
12"	Bh1	2.5Y 5/6 LOAMY SAND WSBK, FRIABLE
22" ESHWT @ 22"	Bh2	2.5Y 5/4 LOAMY SAND WSBK FRIABLE 10YR 5/8 REDOX CONC 2.5Y 6/3 DEPLETIONS
47"	C1	2.5Y 6/3 SILT LOAM WSBK FRIABLE 2.5Y 5/6 REDOX CONC 2.5Y 6/1 DEPLETIONS THROUGHOUT
62"	C2	2.5Y 5/2 SILT CLAY MASSIVE, FRIABLE 2.5Y 6/2 DEPLETIONS 2.5Y 6/4 CONCENTRATIONS THROUGHOUT
78" BOTTOM OF HOLE		

TP #6

LOGGED BY JMB
PERC TEST @ 20"
DATE: 3/18/20
PERC RATE: 10 MIN./INCH
IMPERVIOUS LAYER: N/A

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 60"
0"	Ap	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
8"	Bhs	10YR 5/6 SANDY LOAM WSBK, FRIABLE
14"	Bh1	2.5Y 5/6 SANDY LOAM WSBK FRIABLE
24" ESHWT @ 24"	Bh2	2.5Y 5/4 LOAMY SAND WSBK FRIABLE 10YR 5/6 REDOX CONC 2.5Y 6/2 DEPLETIONS THROUGHOUT
32"	C	2.5Y 6/3 LOAMY FINE SAND MASSIVE, FRIABLE 2.5Y 6/2 DEPLETIONS 10YR 5/6 CONCENTRATIONS THROUGHOUT
74" BOTTOM OF HOLE		

TP #7

LOGGED BY JMB
PERC TEST @ 20"
DATE: 3/18/20
PERC RATE: 10 MIN./INCH
IMPERVIOUS LAYER: N/A

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 60"
0"	Ap	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
13"	Bhs	10YR 5/6 SANDY LOAM WSBK, FRIABLE
22" ESHWT @ 22"	Bh1	2.5Y 5/6 SANDY LOAM WSBK FRIABLE
31"	Bh2	2.5Y 5/4 LOAMY SAND WSBK FRIABLE 10YR 5/6 REDOX CONC 2.5Y 6/2 DEPLETIONS THROUGHOUT
68"	C	2.5Y 6/3 LOAMY FINE SAND MASSIVE, FRIABLE 2.5Y 6/2 DEPLETIONS 10YR 5/6 CONCENTRATIONS THROUGHOUT
118" BOTTOM OF HOLE		

TP #8

LOGGED BY JMB
PERC TEST @ 23"
DATE: 3/18/20
PERC RATE: 10 MIN./INCH
IMPERVIOUS LAYER: NONE TO 77"

DEPTH	HORIZON	WATER ENCOUNTERED: SEEPS @ 51"
0"	A	10YR 3/2 LOAM WEAK GRAN., VERY FRIABLE
12"	B	10YR 5/6 SANDY LOAM WSBK, FRIABLE
28" ESHWT @ 28"		2.5Y 5/4 LOAMY FINE SAND WSBK FRIABLE 2.5Y 6/3 DEPLETIONS 10YR 5/8 CONCENTRATIONS THROUGHOUT
44"	C1	2.5Y 6/3 LOAMY FINE SAND MASSIVE, FRIABLE 2.5Y 6/2 DEPLETIONS 10YR 5/6 CONCENTRATIONS THROUGHOUT
77" BOTTOM OF HOLE		

CONSTRUCTION DETAILS
OPTIMUS SENIOR LIVING
MAP 109 LOT 17
15 PINWOOD ROAD
ALLENSTOWN, NEW HAMPSHIRE
MERRIMACK COUNTY

<p>OWNER OF RECORD: RUI & MARIA J. LEITE, TRUSTEES OCEAN REALTY TRUST 9772 BLUE STONE CIRCLE FORT MYERS, FL 33913 M.C.R.D. BK. 3459 PG. 554</p>	<p>APPLICANT: OPTIMUS SENIOR LIVING 162 COLLEGE HWY P.O. BOX 363 SOUTHAMPTON, MA 01073</p>
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KEACH-NORDSTROM ASSOCIATES, INC.
Civil Engineering Land Surveying Landscape Architecture
10 Commerce Park North, Suite 3B, Bedford, NH 03110 Phone (603) 827-2881

REVISIONS			
No.	DATE	DESCRIPTION	BY
1	6/29/20	TOWN SEWER COMMENTS	PCM
2	8/10/20	NHDES SEWER COMMENTS	PCM
3	8/17/20	AOT & TOWN ENGINEER COMMENTS	PCM

DATE: JUNE 2, 2020
PROJECT NO: 19-1126-1

SCALE: AS SHOWN
SHEET 18 OF 18

