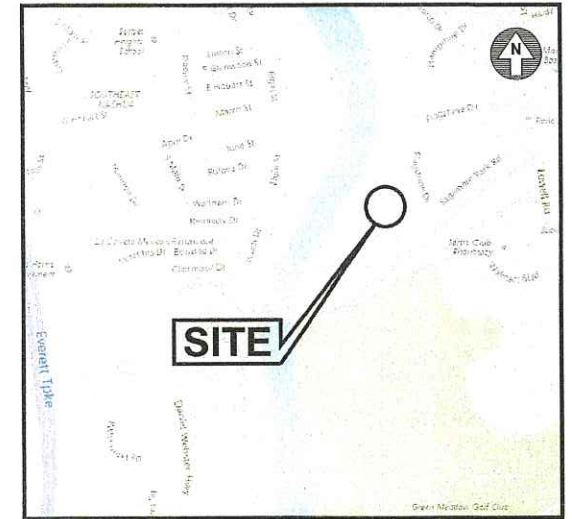


PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR 25 SAGAMORE PARK ROAD HUDSON, NEW HAMPSHIRE



LOCATION MAP

NOT TO SCALE



AERIAL MAP
SCALE: 1"=200'

PREPARED FOR
MASIMO SEMICONDUCTOR
25 SAGAMORE PARK DRIVE
HUDSON, NEW HAMPSHIRE 03051
PHONE: (603) 595-8900

OWNER
SAGAMORE PARK LLC
25 SAGAMORE PARK DRIVE
HUDSON, NEW HAMPSHIRE 03051
PHONE: (603) 595-8900

ENGINEERS



- Civil
- Transportation
- Environmental
- Site Planning
- Surveying
- Permitting
- Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone: (508) 695-1700

Email: cel@crossmaneng.com

AUGUST 2017
SHEET 1 of 14



LAND SURVEYORS
MERIDIAN LAND SERVICES, INC
PO BOX 118
MILFORD, NEW HAMPSHIRE 03055-0118
PHONE: (603) 673-1584

ARCHITECT



INDEX OF DRAWINGS

DRAWING No.	PLAN
C1	GENERAL NOTES and LEGEND
C2	AERIAL MAP
C3	200' ABUTTERS MAP
C4	EXISTING CONDITIONS PLAN
C5	SITE LAYOUT PLAN
C6	GRADING and DRAINAGE PLAN
C7	SOIL EROSION AND SEDIMENT CONTROL PLAN
C8	MISCELLANEOUS DETAIL PLAN No. 1
C9	MISCELLANEOUS DETAIL PLAN No. 2
C10	MISCELLANEOUS DETAIL PLAN No. 3
C11	MISCELLANEOUS DETAIL PLAN No. 4
A1	FLOOR PLAN
A2	EXTERIOR ELEVATIONS

REVISIONS:

No.:	DATE:	DESCRIPTION:
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APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____
SIGNATURE _____ SIGNATURE DATE _____
SIGNATURE _____ SIGNATURE DATE _____
SITE PLANS ARE VALID FOR ONE (1) YEAR FROM THE DATE OF PLANNING BOARD MEETING APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.




 • Civil
 • Transportation
 • Environmental
 • Site Planning
 • Surveying
 • Permitting
 • Landscape Architecture

CROSSMAN ENGINEERING
 Rhode Island: 151 Centerville Road, Warwick, RI 02886, Phone: (401) 738-6660
 Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02763, Phone: (508) 695-1700
 Email: cel@crossmaneng.com

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KEY PLAN

PROJECT TITLE/PROJECT TITLE:
PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR
 26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR:
 25 SAGAMORE PARK, LLC
 25 SAGAMORE PARK DRIVE HUDSON, NH 03051

DRAWING TITLE:
AERIAL MAP

DATE: AUGUST 2017 SCALE: 1"=150'

DWG. NAME: 2249-C02-AERIAL.dwg

REVISIONS		
NUMBER	REMARKS	DATE

DRAWING NUMBER:
C2
 SHEET: 3 OF 14



GRAPHIC SCALE
 (IN FEET)
 1 inch = 150 ft.

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APPROVED BY THE HUDSON, NH PLANNING BOARD
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 SIGNATURE _____ SIGNATURE DATE _____
 SIGNATURE _____ SIGNATURE DATE _____
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CROSSMAN ENGINEERING

Rhode Island: 151 Centerville Road, Warwick, RI 02886, Phone: (401) 738-5860
 Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02753, Phone: (508) 695-1700
 Email: cel@crossmaneng.com

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KEY PLAN

PROJECT TITLE/PROJECT TITLE:

PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR

26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR:

25 SAGAMORE PARK, LLC
 25 SAGAMORE PARK DRIVE HUDSON, NH 03051

DRAWING TITLE:

200' ABUTTERS MAP

DATE: AUGUST 2017 SCALE: 1"=80'

DWG. NAME: 2249-C03-RADIUS.dwg

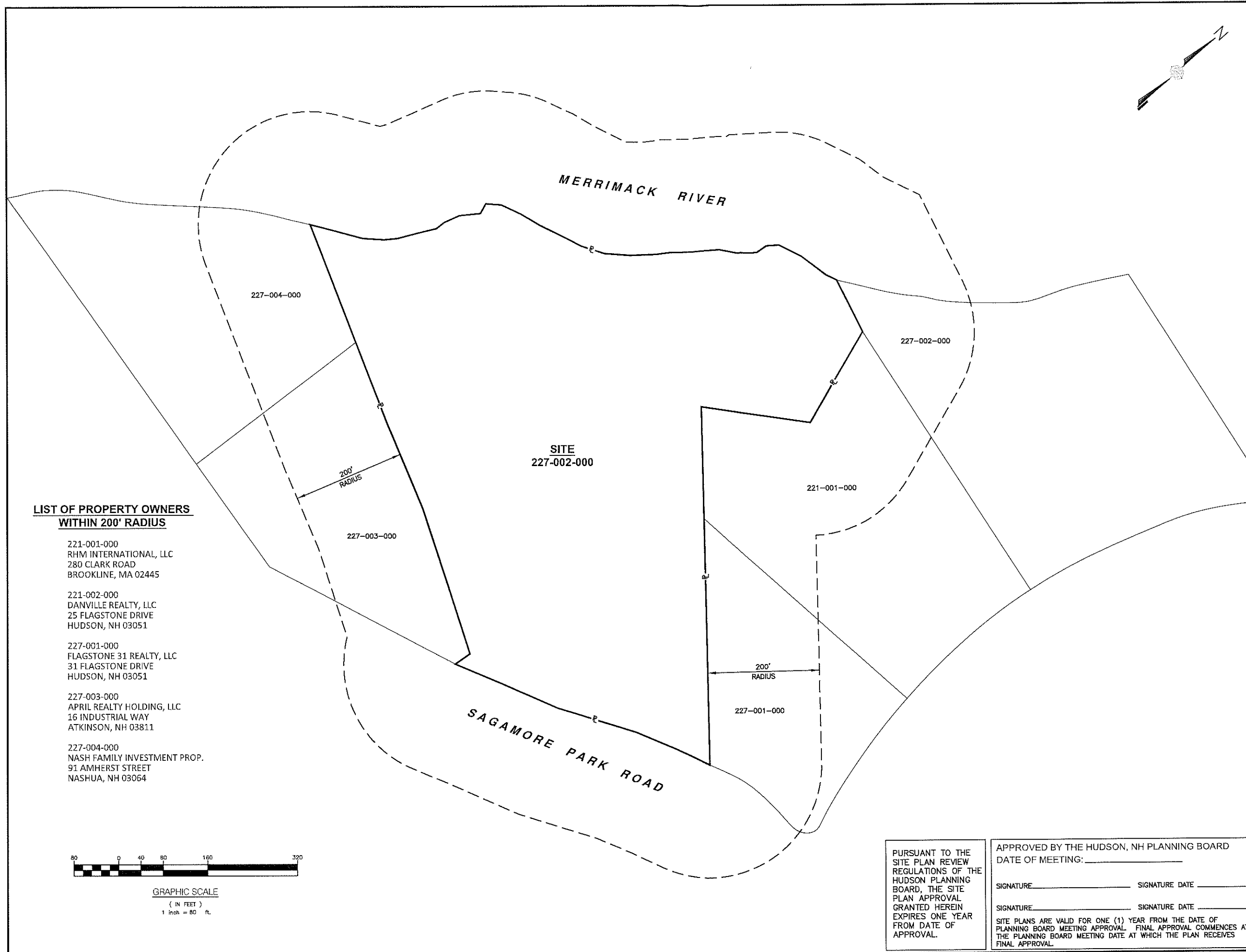
REVISIONS

NUMBER	REMARKS	DATE

DRAWING NUMBER

C3

SHEET: 4 OF 14



LIST OF PROPERTY OWNERS WITHIN 200' RADIUS

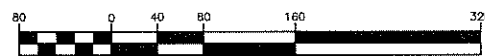
221-001-000
 RHM INTERNATIONAL, LLC
 280 CLARK ROAD
 BROOKLINE, MA 02445

221-002-000
 DANVILLE REALTY, LLC
 25 FLAGSTONE DRIVE
 HUDSON, NH 03051

227-001-000
 FLAGSTONE 31 REALTY, LLC
 31 FLAGSTONE DRIVE
 HUDSON, NH 03051

227-003-000
 APRIL REALTY HOLDING, LLC
 16 INDUSTRIAL WAY
 ATKINSON, NH 03811

227-004-000
 NASH FAMILY INVESTMENT PROP.
 91 AMHERST STREET
 NASHUA, NH 03064



GRAPHIC SCALE
 (IN FEET)
 1 inch = 80 ft.

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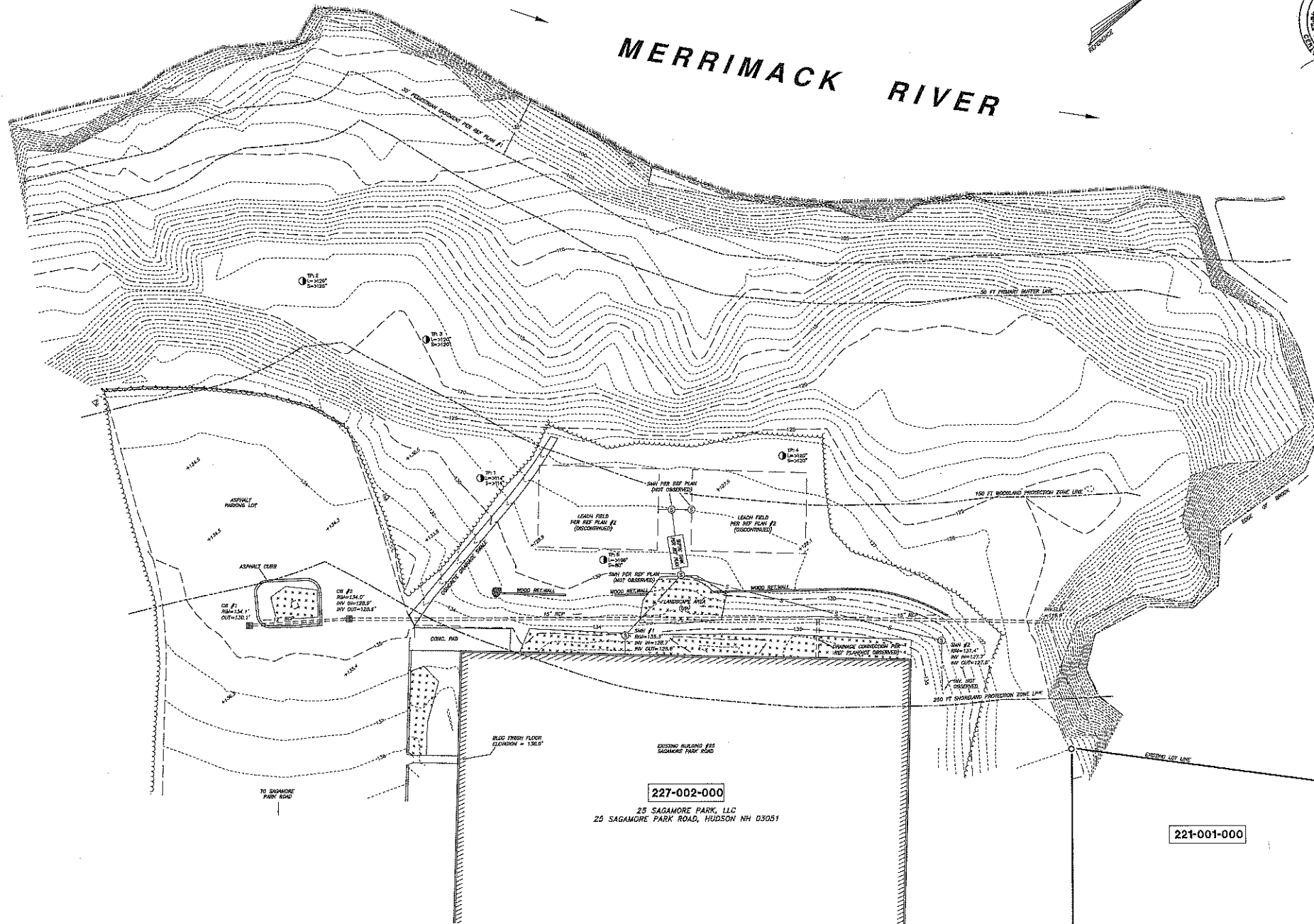
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REFERENCE PLANS:

1. "SUBDIVISION PLAN - SAGAMORE INDUSTRIAL PARK - SAGAMORE PARK ROAD - HUDSON, N.H." SCALE: 1"=100', DATED AUGUST, 1974. PREPARED BY A.E. MAYNARD CIVIL ENGINEER AND RECORDED AT H.C.R.D. AS PLAN # 14650.
2. "BANDWIDTH - CLEAN ROOM PROJECT - HUDSON, N.H. - ELECTRICAL - SITE PLAN" SCALE: 1"=40', DATED 4/12/01. PREPARED BY THE H.L. TURNER GROUP INC.

NOTES:

1. THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING OBSERVABLE CONDITIONS & TOPOGRAPHY ON A PORTION OF LOT 227-002-000
2. THIS PLAN IS PREPARED FOR CROSSMAN ENGINEERING INC, 151 CENTERVILLE ROAD WARWICK RI, 02886.
3. UNDERGROUND UTILITY INFORMATION SHOWN IS PER REFERENCE PLAN #2 AND OBSERVABLE PHYSICAL EVIDENCE FOUND.
4. HORIZONTAL AND VERTICAL DATUM(S) ARE BASED UPON REFERENCE PLAN #2.
5. WETLANDS WERE DELINEATED IN ACCORDANCE TO THE ARMY CORPS OF ENGINEERS WETLAND DELINEATION MANUAL, TECHNICAL REPORT Y-87-1, BY SPENCER TATE, C.W.S. OF THIS OFFICE IN JUNE 2017.
6. THIS PLAN IS BASED UPON A FIELD SURVEY PERFORMED BY THIS OFFICE IN JUNE, 2017.
7. LOT 227-002-000 MAY BE SUBJECT TO FURTHER OVERLAY ZONES, SETBACKS AND BUFFERS.



LEGEND:

- EXISTING PROPERTY LINE
- - - ABUTTING LOT LINE
- EDGE OF PAVEMENT
- - - SETBACK/BUFFER LINE
- - - EDGE OF WETLANDS
- - - EDGE OF WATER
- - - 5' CONTOUR INTERVAL
- - - 1' CONTOUR INTERVAL
- 227-002 EXISTING TAX MAP AND LOT NUMBER
- ▭ EXISTING BUILDING
- EXISTING TREE LINE
- EXIST. CATCH BASIN
- ⊙ EXIST. SEWER MANHOLE
- ⊙ EXIST. ROCK
- ⊙ EXIST. IRON PIPE FOUND
- ⊙ EXIST. LIGHT POST
- ⊙ EXIST. SPOT ELEVATION
- ⊙ TEST PIT

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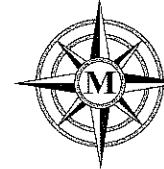
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227-002-000
 25 SAGAMORE PARK, LLC
 25 SAGAMORE PARK ROAD, HUDSON NH 03051

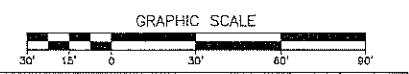
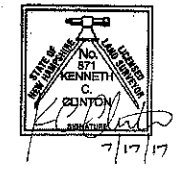
221-001-000

EXISTING CONDITIONS TOPOGRAPHIC PLAN
 PREPARED FOR:
CROSSMAN ENGINEERING, INC
 TAX MAP 227 LOT 002-000
 HUDSON, NEW HAMPSHIRE
 SCALE: 1" = 30' JUNE 26, 2017



MERIDIAN
LAND SERVICES, INC.
 ENGINEERING | SURVEYING | PERMITTING
 SOIL & WETLAND MAPPING | SEPTIC DESIGN
 31 OLD NASHUA ROAD, AMHERST, NH 03051 TEL: 603-673-1441
 MERIDIANLANDSERVICES.COM FAX: 603-673-1584

CERTIFICATION:
 "I HEREBY CERTIFY THAT THE EXISTING TOPOGRAPHY AND OBSERVABLE FEATURES SHOWN ARE THE RESULT OF AN ON-SITE FIELD SURVEY PERFORMED BY THIS OFFICE IN JUNE 2017."



REV.	DATE	DESCRIPTION	C/O	DR	CK
D					
C					
B					
A	7/17/17	ADD TEST PIT LOCATIONS		SDI	KCC
				DR	CK



Plotfile: 7/17/2017 7:13 AM By: SDI
 H:\GIS\10164\10164_010\Drawings\SURV\10164W00.dwg

DRAINAGE STRUCTURE SCHEDULE

STRUCTURE NO.	FRAME & GRATE	RIM	INV.(IN)	INV.(OUT)
CB1	TYPE B(2)	133.50	---	129.50(12"E) 130.10(12"N)
CB2	TYPE B	133.75	---	128.00(12")
DMH1	MH COVER	134.70	128.90(Exist) 128.90(12"W)	128.60(Exist)
DMH2	MH COVER	131.35	127.50(12")	127.40(12")
DMH3	MH COVER	129.00	125.25	125.25(12")
DMH4	MH COVER	129.00	125.00	125.00(WEIR) 125.00(12")
DMH5	MH COVER	133.50	123.00(Exist) 124.50(12"W)	122.90(Exist)

NOTES

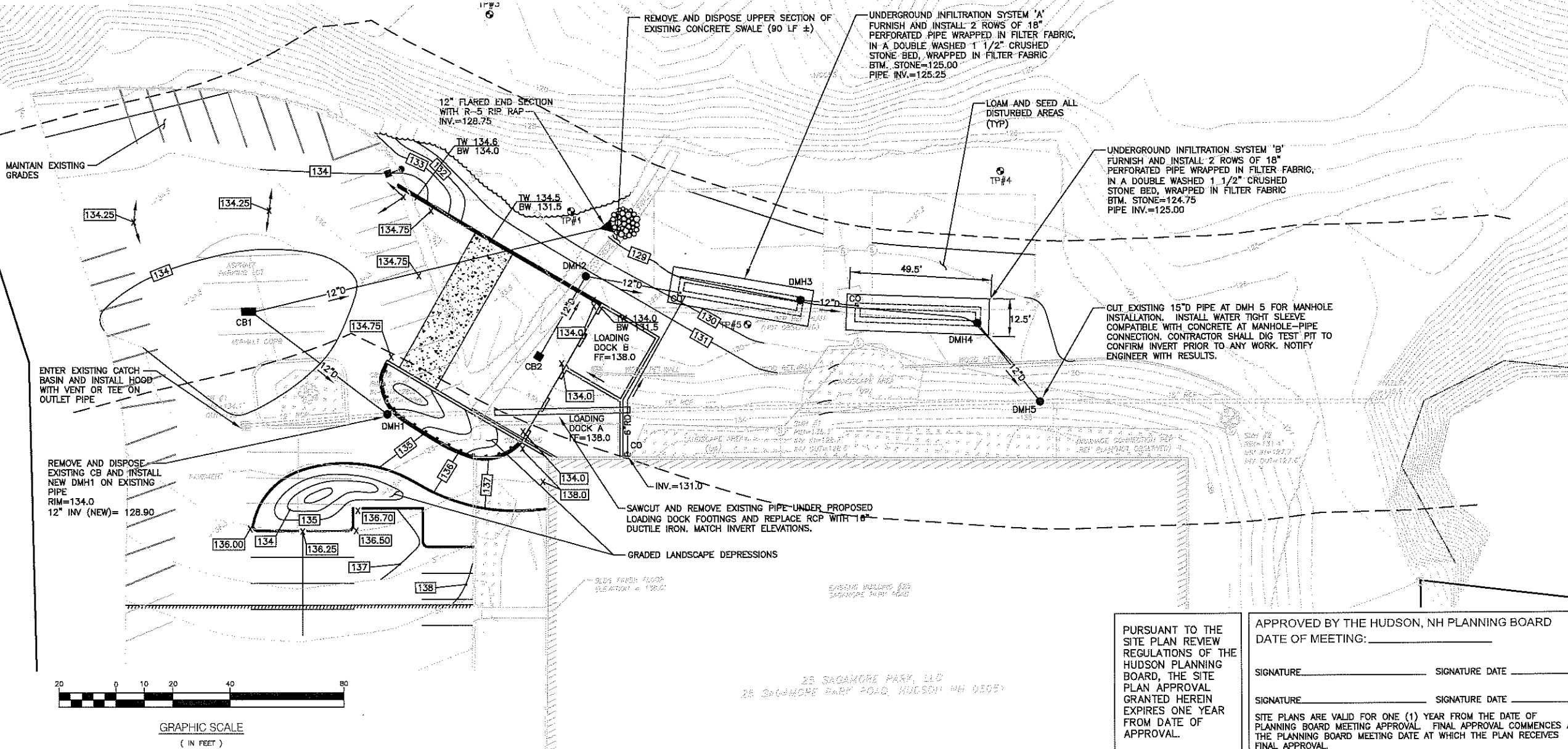
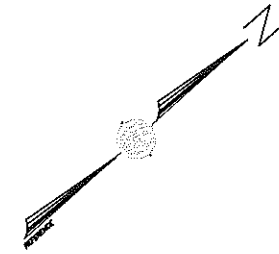
- REMOVE AND DISPOSE ALL SEPTIC SYSTEM AND LEACHFIELD COMPONENTS WITHIN PROPOSED DRAINAGE SYSTEM AND IMPROVEMENT AREA. STAINED SOIL AROUND ABANDONED LEACHFIELD SHALL BE REMOVED AND DISPOSED. REFER TO INFILTRATION SYSTEM DETAIL AND NOTES FOR APPROPRIATE SOIL BACKFILL AND EMBANKMENT MATERIAL.
- THE PROPOSED DRAINAGE SYSTEM DESIGNED ON THESE PLANS HAS BEEN SIZED FOR PHASE 1 AND 2. PHASE 2 WILL UTILIZE RETAINING WALLS FOR PAVEMENT ACCESS, SEE MISCELLANEOUS DETAILS.
- INFILTRATION SYSTEM FOOTPRINT IS 49.5' LONG X 12.5' WIDE X 2.25' HIGH. INSTALL TWO 40 FT ROWS OF 18" PERFORATED PIPE WITH MANIFOLD ON ENDS. DOUBLE WASHED CRUSHED STONE SHALL ON ALL SIDES, 3 FT WIDE ALL SIDES.

NOTE: TYPE B(2) REPRESENTS A "DOUBLE GRATE" INSTALLATION

DRAINAGE NOTES

- CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
- CONTRACTOR IS RESPONSIBLE TO OBTAIN SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS FOR REVIEW AND APPROVAL BY THE ENGINEER, PRIOR TO ORDERING. CONCRETE MANUFACTURER SHALL REVIEW RIM TO TOP OF PIPE ELEVATIONS AND PROVIDE SPECIFIC DETAILS.
- ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
- ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES)
- UNLESS OTHERWISE NOTED, ALL SOLID DRAINAGE PIPE SHALL BE ADS N-12 HDPE OR APPROVED EQUAL PIPE BEDDING SHALL BE IN CRUSHED STONE OR GRAVEL BORROW COMPACTED TO 95% DRY DENSITY (MODIFIED PROCTOR METHOD). ADS PIPE SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' REQUIREMENTS.
- ALL CATCH BASINS AND MANHOLES SHALL BE 4' DIAMETER PRECAST REINFORCED CONCRETE WITH H-20 LOADING.
- CATCH BASINS SHALL HAVE A 4' DEEP SUMP AND A HOOD WITH VENT OR TEE ON THE OUTLET PIPE.
- CONTRACTOR SHALL COORDINATE WITH ARCHITECT ON ROOF DOWNSPOUT LOCATIONS AND CONNECTIONS.

MERRIMACK RIVER



CROSSMAN ENGINEERING
 Rhode Island: 151 Centerville Road, Warwick, RI 02886, Phone: (401) 738-6660
 Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02753, Phone: (508) 695-1700
 Email: cel@crossmaneng.com

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KEY PLAN

PROJECT TITLE/PROJECT TITLE
 PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR
 26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR:
 25 SAGAMORE PARK, LLC
 25 SAGAMORE PARK DRIVE HUDSON, NH 03051

DRAWING TITLE:
 GRADING AND DRAINAGE PLAN

DATE: AUGUST 2017 **SCALE:** 1"=20'

DWG. NAME: 2249-C06-GRADE.dwg

REVISIONS

NUMBER	REMARKS	DATE

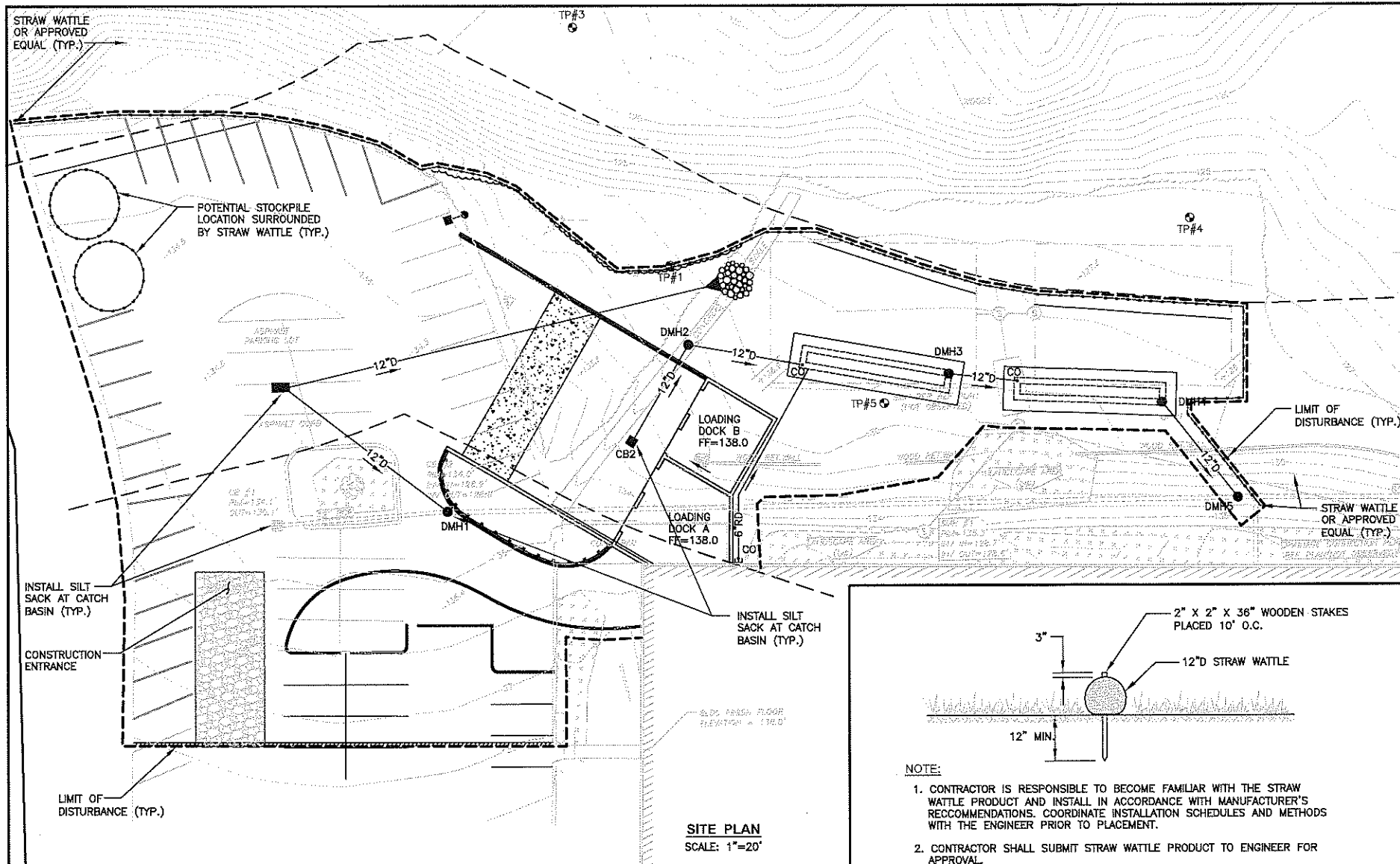
DRAWING NUMBER
C6
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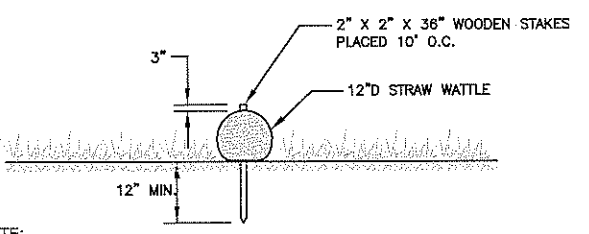
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25 SAGAMORE PARK, LLC
 25 SAGAMORE PARK ROAD, HUDSON, NH 03051



SITE PLAN
SCALE: 1"=20'



- NOTE:**
- CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE STRAW WATTLE PRODUCT AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.
 - CONTRACTOR SHALL SUBMIT STRAW WATTLE PRODUCT TO ENGINEER FOR APPROVAL.

STRAW WATTLE SECTION
NOT TO SCALE

GENERAL PROJECT WIDE NOTES

- THE LIMIT OF DISTURBANCE SHALL BE MARKED WITH STAKES AND SILT FENCE/STRAW WATTLE SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTIES AND WETLAND AREAS.
- THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL SILT FENCE/STRAW WATTLE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER/STABILIZATION IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
- TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE; THE AREA BEYOND THE DRIFLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
- AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESEDED, RESEEDING, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
- STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, FIBER MATTING OR APPROVED EQUAL.
- SILT FENCE OR COMPOST FILTER SOCK MAY BE USED IN LIEU OF THE STRAW WATTLE.
- THE OPERATOR IS RESPONSIBLE TO KEEP THE SITE CLEAN FROM TRASH. DAILY PATROL OF THE CONSTRUCTION SITE SHOULD BE CONDUCTED TO PICK-UP TRASH. THE OPERATOR SHALL REQUIRE THE CONTRACTOR TO HAVE PORTABLE SANITARY FACILITIES ONSITE.
- A CRUSHED STONE CONSTRUCTION ENTRANCE SHALL BE LOCATED AT THE SITE'S PRIMARY ACCESS DRIVE TO PREVENT SEDIMENT FROM BEING TRACKED OFFSITE. IF SEDIMENT IS TRACKED OFFSITE THE CONTRACTOR SHALL SWEEP AND REMOVE SEDIMENT AS NEEDED.

DUST CONTROL NOTES

ON AN AS-NEEDED BASIS OR AS DIRECTED BY NHDES OR OWNER, THE CONTRACTOR SHALL UTILIZE THE FOLLOWING METHOD (AS RECOMMENDED BY THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3 EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE COMPREHENSIVE ENVIRONMENTAL INC. AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, 2008.) TO CONTROL DUST:

THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

THE METHOD SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM

- EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE DRAINAGE SYSTEM, ADJACENT PROPERTY, WETLANDS AND ROADWAYS.
- TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
- HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 2 BALES PER 1,000 SQUARE FEET OR 1.5 TO 2 TONS PER ACRE.
- STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STRAW WATTLE OR SILT FENCING.
- STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
- ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER OR MUNICIPAL REPRESENTATIVES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
- THE PROPOSED AND EXISTING CATCH BASINS SHALL BE PROTECTED BY STRAW WATTLE, SILT FENCING OR SILT SACKS.
- CONTRACTOR SHALL INSPECT EROSION CONTROLS DAILY. IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL ADDITIONAL STRAW WATTLE IN LOCATIONS THAT CAN BE STAKED. THIS WORK IS INCLUDED IN THE PROJECT SCOPE.

INSPECTION/MAINTENANCE NOTES

- PRIOR TO COMMENCING GRUBBING OPERATIONS AND EARTHWORK, STRAW WATTLE SHALL BE PLACED AROUND THE PERIMETER OF THE SITE TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY, WETLANDS, AND ADJUTING PROPERTIES.
- ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSION TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION - SUCH AS RIP-RAP.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
- DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
- ADDITIONAL STRAW WATTLES, FILTERSOX, OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
- THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3 EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE COMPREHENSIVE ENVIRONMENTAL INC. AND THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES, 2008, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT-DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.

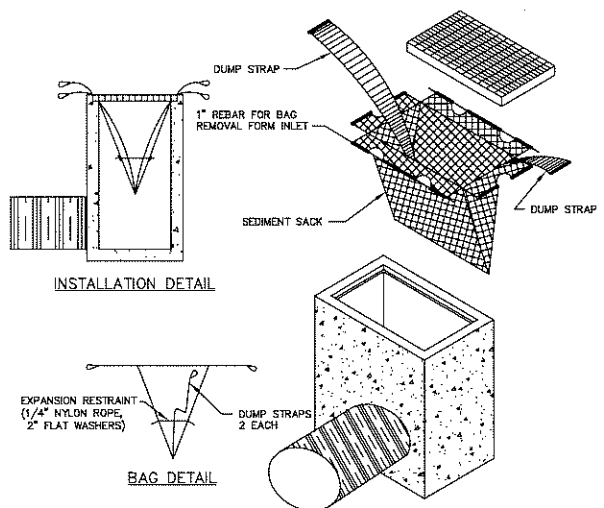
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APPROVED BY THE HUDSON, NH PLANNING BOARD
DATE OF MEETING: _____

SIGNATURE _____ SIGNATURE DATE _____

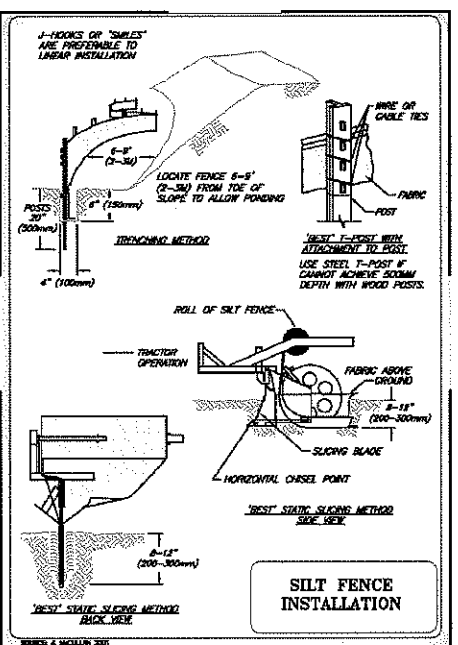
SIGNATURE _____ SIGNATURE DATE _____

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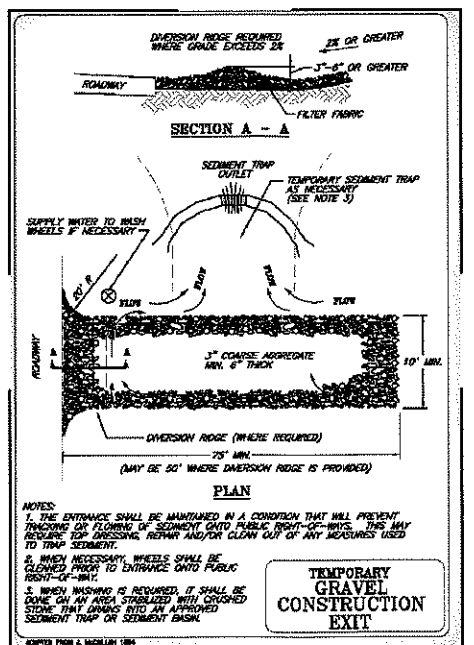


- NOTES:**
- INSTALL SILT SACK AT CATCH BASINS IN VICINITY OF CONSTRUCTION.
 - CONTRACTOR SHALL SUBMIT SILT SACK PRODUCT TO ENGINEER FOR APPROVAL.

TYPICAL SILT SACK DETAIL
NOT TO SCALE



SILT FENCE INSTALLATION



- NOTES:**
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE TOP SPRINGING, REPAIR AND/OR CLEAN UP OF ANY ADJACENT USED TO TRAP SEDIMENT.
 - WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE INTO PUBLIC RIGHT-OF-WAY.
 - WHEN REPAIRING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DROPS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION EXIT

Crossman Engineering
Rhode Island: 151 Centerville Road, Warwick, RI 02886, Phone: (401) 739-5650
Massachusetts: 103 Commonwealth Avenue, North Attleboro, MA 02763, Phone: (508) 695-1700
Email: cse@crossmaneng.com

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KEY PLAN

PROJECT TITLE/PROJECT TITLE

PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR
26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR:

25 SAGAMORE PARK, LLC
25 SAGAMORE PARK DRIVE HUDSON, NH 03051

DRAWING TITLE:

SOIL EROSION AND SEDIMENT CONTROL PLAN

DATE: AUGUST 2017 SCALE: AS SHOWN

DWG. NAME: 2249-C07-SOIL.dwg

REVISIONS

NUMBER	REMARKS	DATE

DRAWING NUMBER

C7
SHEET: 8 OF 14

CROSSMAN ENGINEERING

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KEY PLAN

PROJECT TITLE/PROJECT TITLE:

PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR

26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR:

25 SAGAMORE PARK, LLC
 25 SAGAMORE PARK DRIVE HUDSON, NH 03051

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN NO. 1

DATE: AUGUST 2017 **SCALE:** AS SHOWN

DWG. NAME: 2249-C08-DETAIL1.dwg

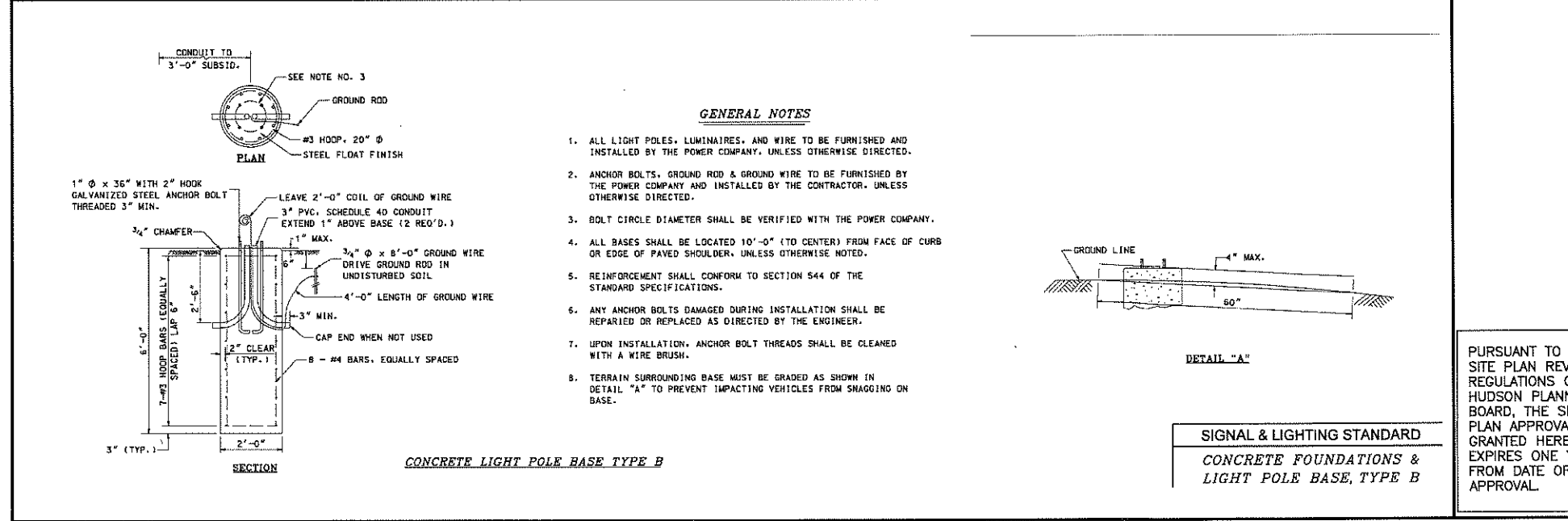
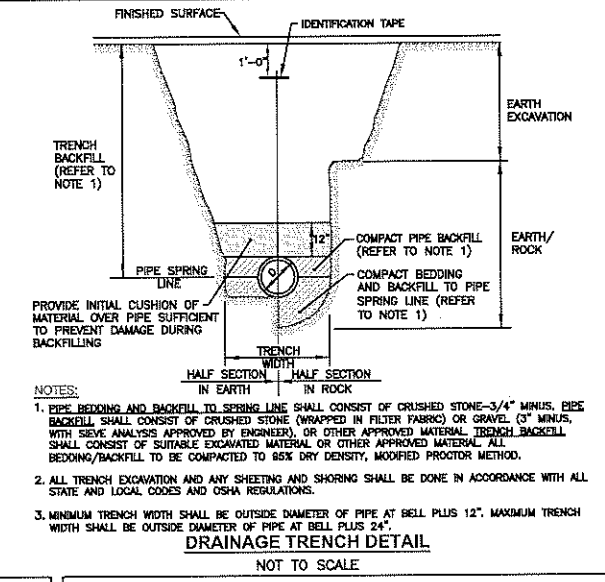
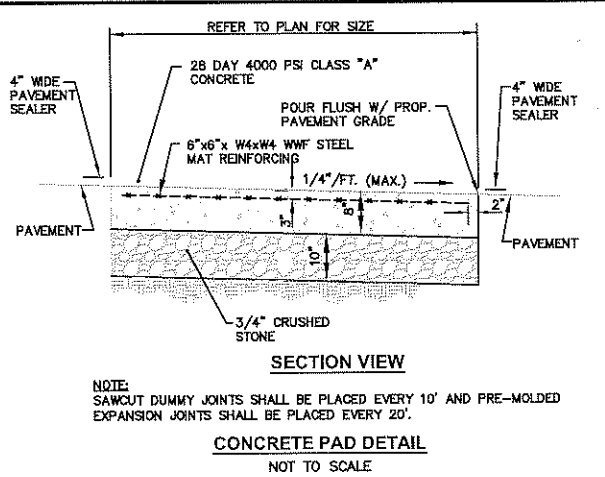
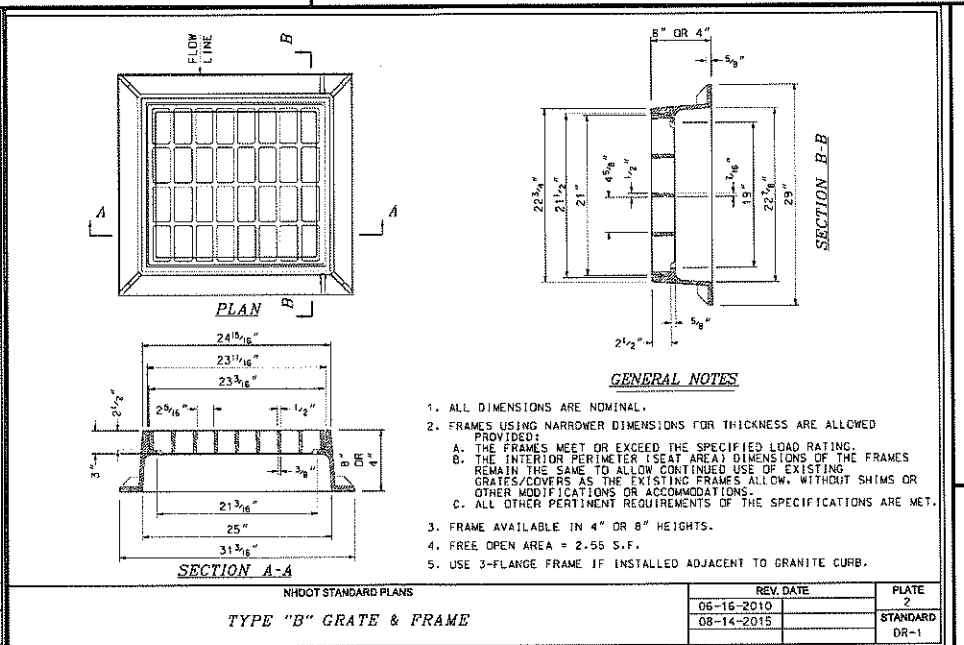
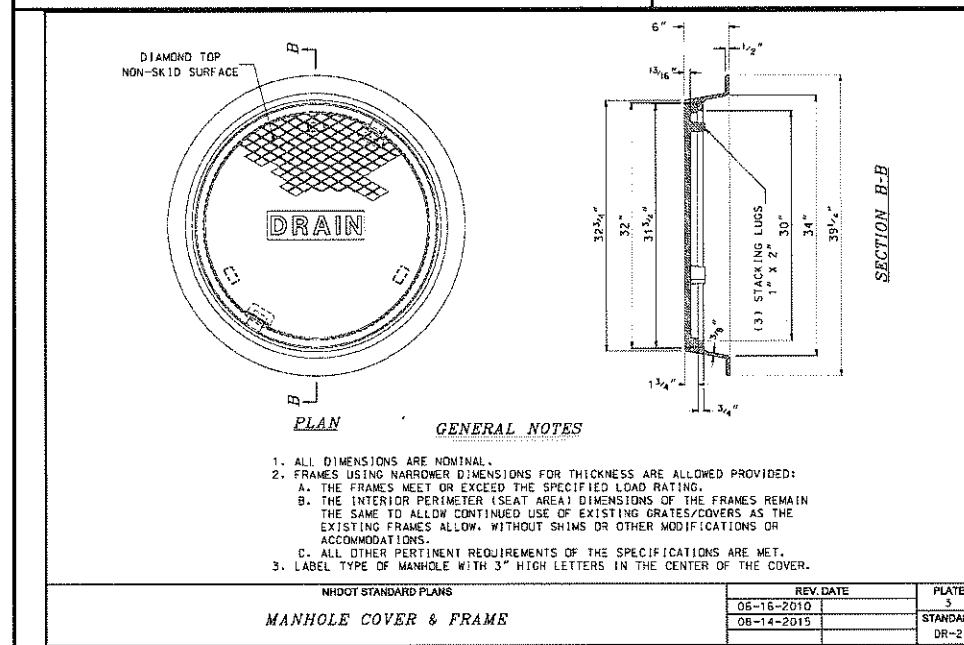
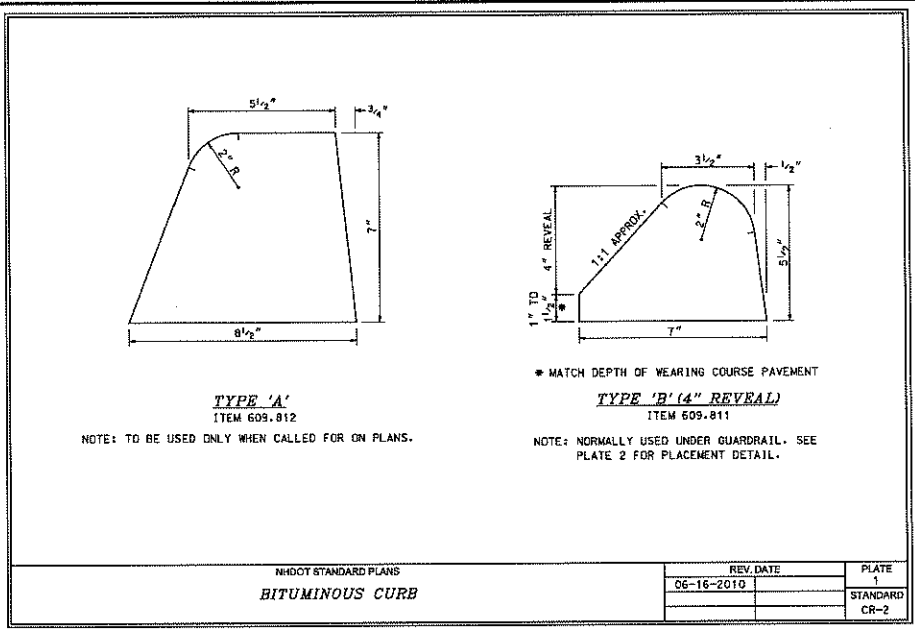
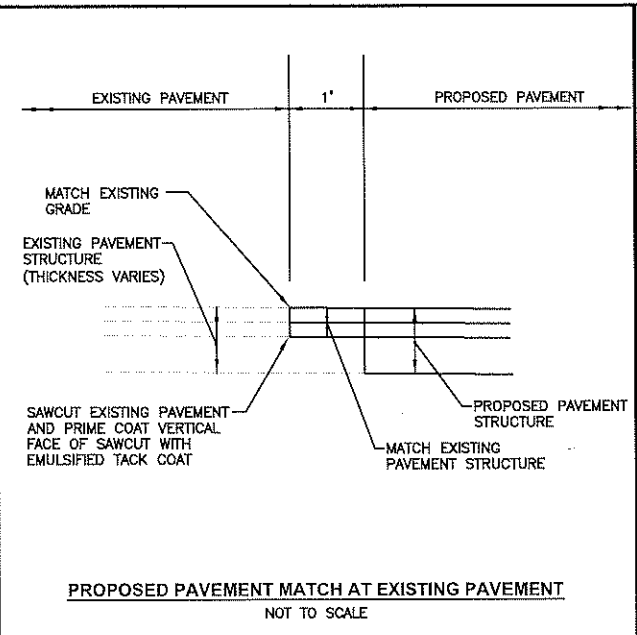
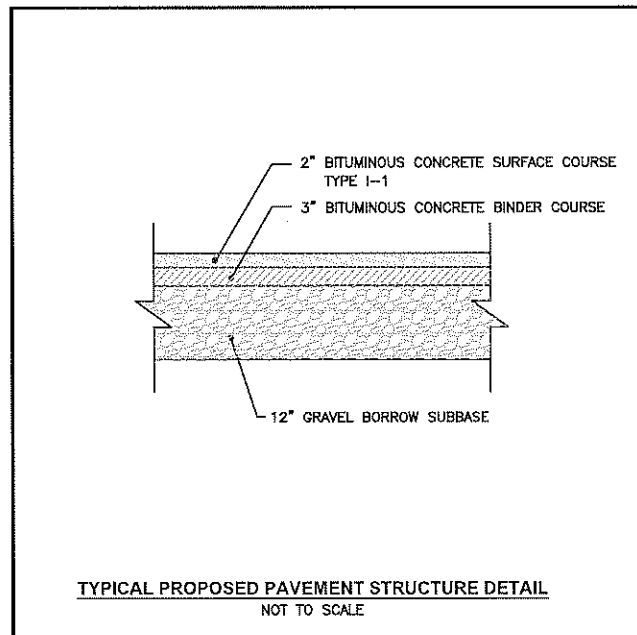
REVISIONS

NUMBER	REMARKS	DATE

DRAWING NUMBER

C8

SHEET: 9 OF 14



PURSUANT TO THE SITE PLAN REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____

SIGNATURE _____ SIGNATURE DATE _____
 SIGNATURE _____ SIGNATURE DATE _____

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KEY PLAN

PROJECT TITLE: **PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR**
 26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR: **25 SAGAMORE PARK, LLC**
 25 SAGAMORE PARK DRIVE HUDSON, NH 03051

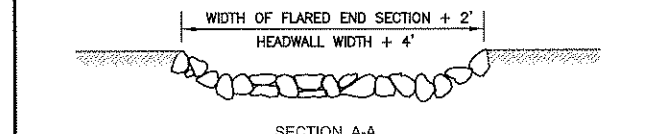
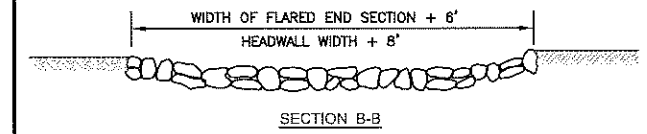
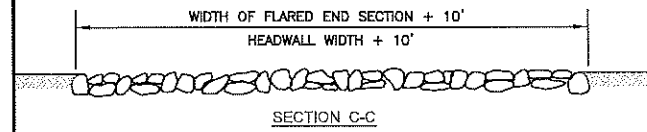
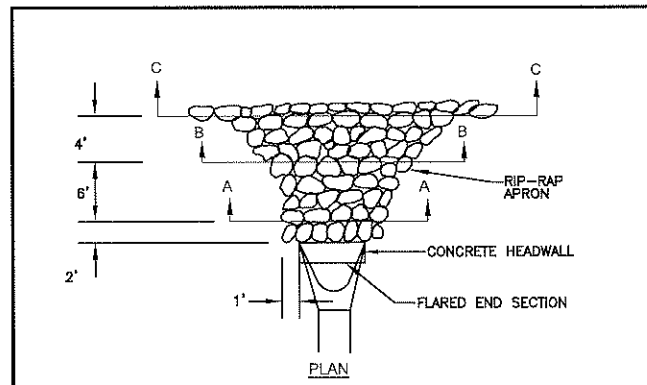
DRAWING TITLE: **MISCELLANEOUS DETAIL PLAN NO. 2**

DATE: **AUGUST 2017** SCALE: **AS SHOWN**

DWG. NAME: **2249-C09-DETAIL2.dwg**

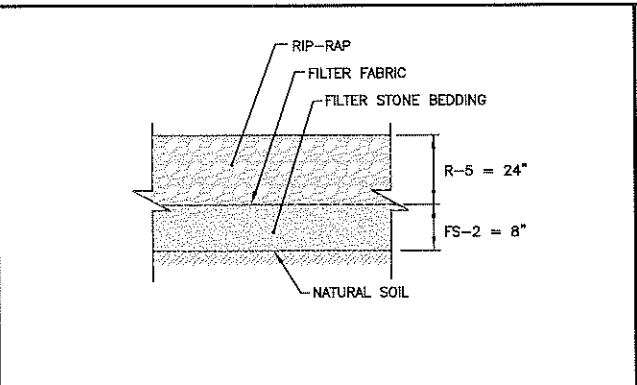
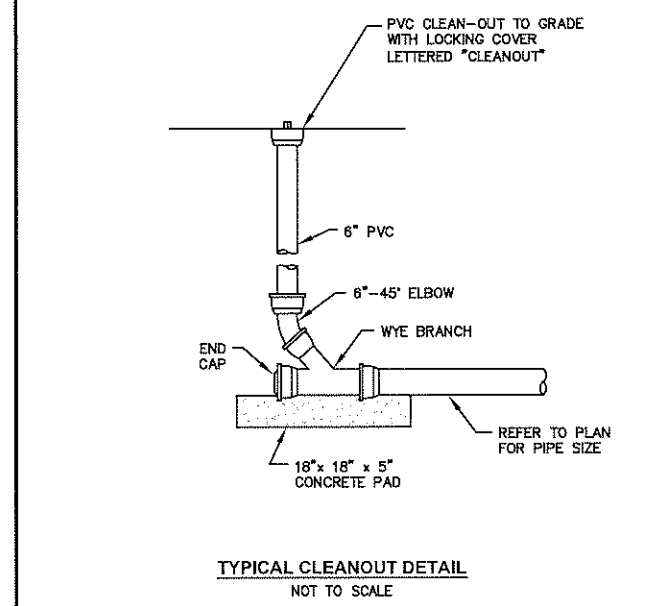
REVISIONS		
NUMBER	REMARKS	DATE

DRAWING NUMBER: **C9**
 SHEET: **10** OF: **14**

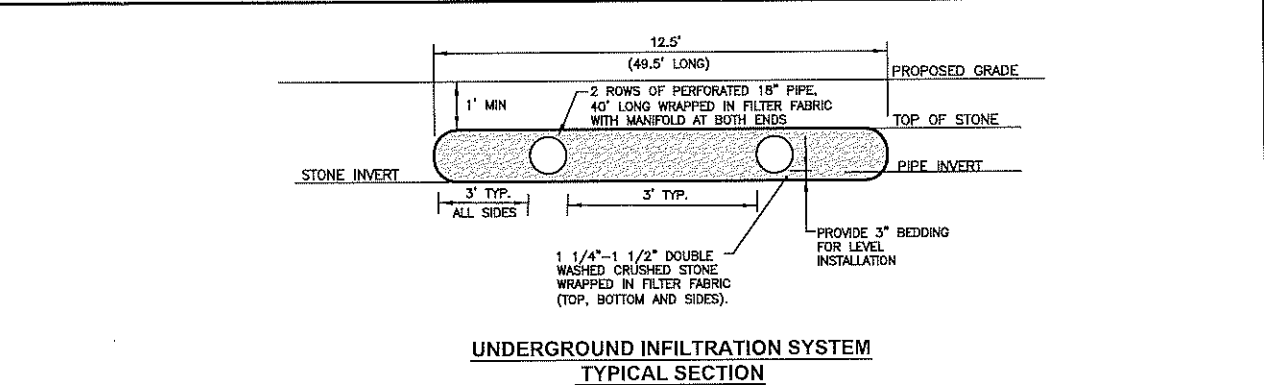


- NOTES:**
- UNLESS OTHERWISE SPECIFIED, DUMPED RIP-RAP SHALL BE USED.
 - DIMENSIONS MAY BE MODIFIED BY ENGINEER TO MEET FIELD CONDITIONS.
 - SEE "TYPICAL SECTION RIP RAP OUTLET PROTECTION" DETAIL FOR CONSTRUCTION MATERIAL SPECIFICATIONS.

TYPICAL LAYOUT OF RIP RAP OUTLET PROTECTION AT FLARED END SECTIONS and CONCRETE HEADWALLS
 NOT TO SCALE



TYPICAL RIP-RAP OUTLET PROTECTION DETAIL
 NOT TO SCALE



UNDERGROUND INFILTRATION SYSTEM SUMMARY

BMP NO. SYSTEM (MIN.)	STONE INVERT	PIPE INVERT	TOP OF STONE	DESIGN GWT	PROPOSED GRADE OVER
A	125.00	125.25	127.25	119.50	128.25
B	124.75	125.00	127.00	119.50	128.00

STANDARD PLANS

STANDARD NO. DR-5
 REVISION DATE: 02-13-2011
 06-16-2010

CORE HOLE SIZE

PIPE SIZE INCHES	RCP CORE HOLE DIA. INCHES	PLASTIC CORE HOLE DIA. FEET
6	7	0.5
12	16	1.5
18	22	1.8
24	28	2.2
30	34	2.8
36	42	3.5
42	48	4.0
48	54	4.5
54	64	5.3
60	72	6.0
60	78	6.5

GENERAL NOTES:

- ITEM NUMBERS: C.B. = 604.1XXX, D.I. = 604.2XXX, M.H. = 604.3XXX
- FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
- CB & DI GRATES IN PAVED AREAS SHALL BE SET ACCORDING TO THE PAVEMENT DEPRESSION DETAIL SHOWN ON PLATE 4 OF STANDARD NO. DR-2.
- CONCRETE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC. OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
- FOR STRUCTURES WITH DIAMETERS GREATER THAN 4', THE DIAMETER MAY BE CONSTANT FROM TOP TO BOTTOM WITH A FLAT SLAB TOP, OR A RISER SECTION THAT TRANSITIONS FROM A STANDARD 4' CONE SECTION TO THE LARGER DIAMETER RISER OR BASE SECTION MAY BE USED.
- PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
- OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
- PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
- ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF HORIZONTAL CROSS-SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

DRAINAGE STANDARD
 PRECAST REINFORCED CONCRETE
 C.B., D.I. AND M.H.

SECTION A-A
 *CATCH BASINS SHALL HAVE A 4' DEEP SUMP AND A HOOD WITH VENT OR A TEE ON THE OUTLET PIPE.

PURSUANT TO THE SITE PLAN REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
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CROSSMAN ENGINEERING

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KEY PLAN

PROJECT TITLE/SUBJECT TITLE

PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR

26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR:

25 SAGAMORE PARK, LLC
 25 SAGAMORE PARK DRIVE HUDSON, NH 03051

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN NO. 3

DATE: AUGUST 2017 SCALE: AS SHOWN

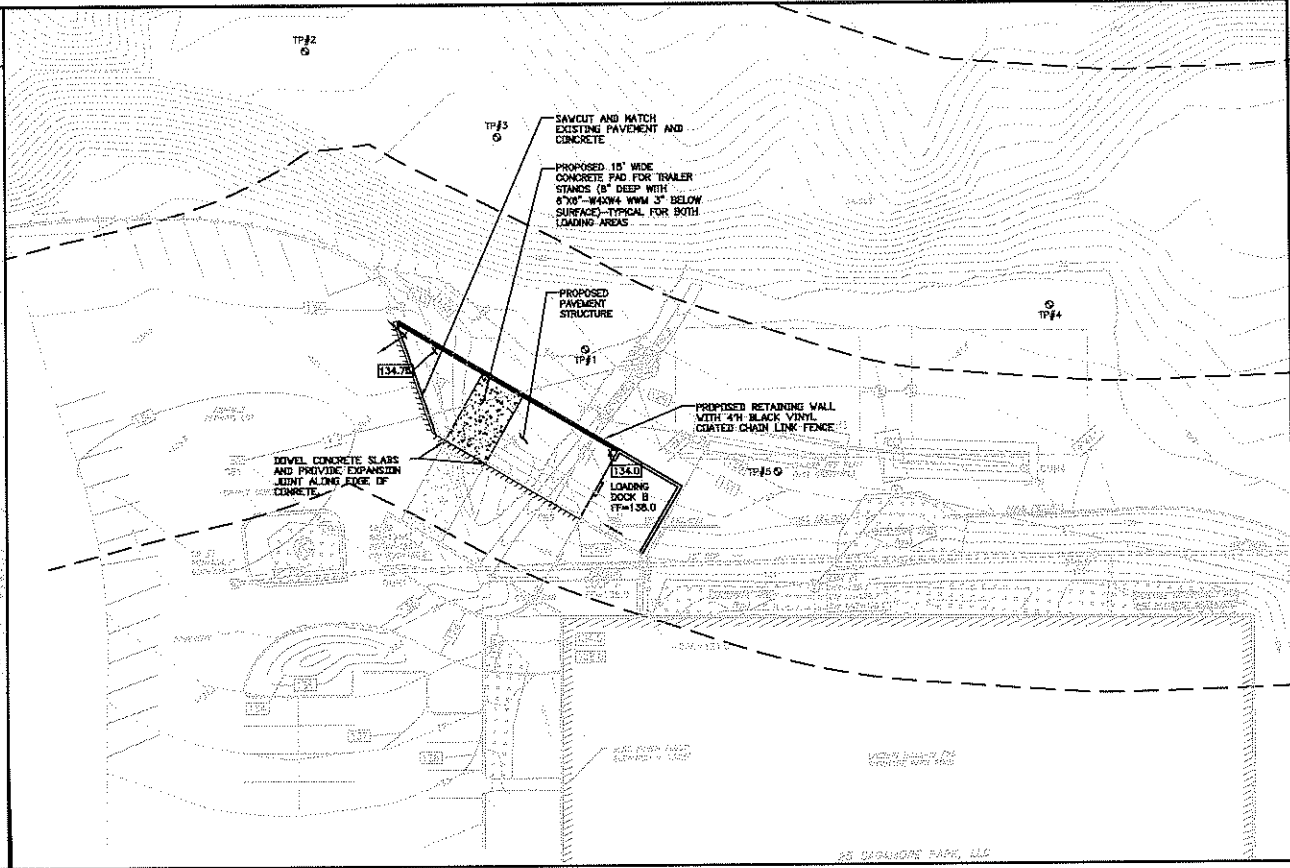
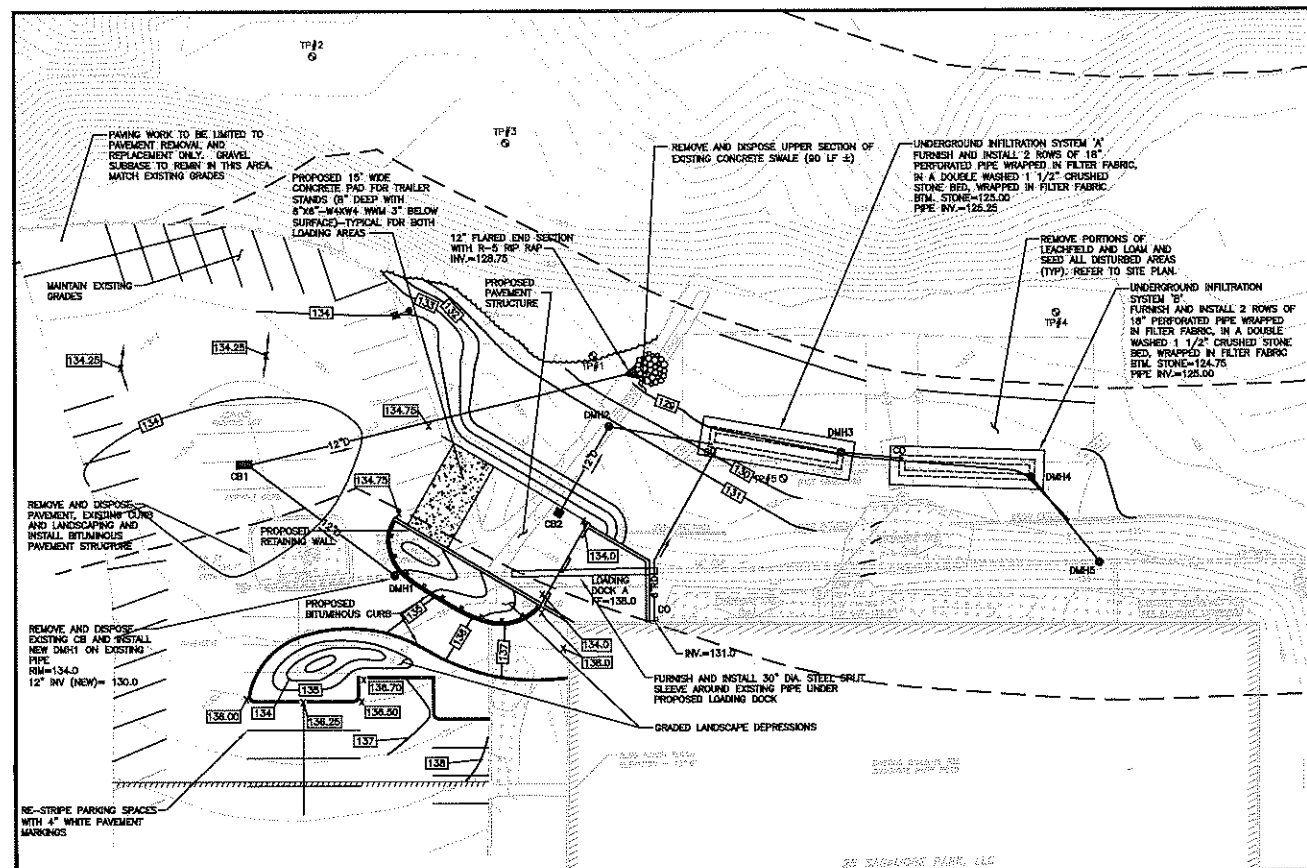
DWG. NAME: 2249-C10-DETAIL3.dwg

REVISIONS

NUMBER	REMARKS	DATE

DRAWING NUMBER

C10
 SHEET: 11 OF 14



PHASE 1
 SCALE: 1"=30'

PHASE 2
 SCALE: 1"=30'

PHASE 1 OPTION: SEQUENCE OF CONSTRUCTION:

PHASE 1 CONSTRUCTION ACTIVITIES WILL INCLUDE PARKING LOT AND DRAINAGE IMPROVEMENTS AND CONSTRUCTION OF LOADING DOCK A. IN GENERAL, THE SEQUENCE OF CONSTRUCTION WILL BE AS FOLLOWS:

1. SITE PREPARATION CONSISTING OF INSTALLING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY SOIL DISTURBANCE.
2. MARKING OF ALL AREAS TO BE LEFT UNDISTURBED AND TO BE PROTECTED.
3. INSTALLATION OF CONSTRUCTION ENTRANCE.
4. CLEARING AND GRUBBING OF ALL TREES, STUMPS AND VEGETATION WITHIN THE PROJECT AREA.
5. STRIPPING AND STOCKPILING OF TOPSOIL AT DESIGNATED LOCATION.
6. SAWCUTTING AND REMOVAL OF PAVEMENT AND CURB. EARTHWORK INCLUDING CUT AND FILL WORK.
7. REMOVE LEACHFIELD AND OTHER STRUCTURES WITHIN SITE IMPROVEMENT AREA, AND INSTALL DRAINAGE IMPROVEMENTS AND UNDERGROUND INFILTRATION SYSTEM A AND UNDERGROUND INFILTRATION SYSTEM B.
8. GRADING OF PARKING LOT.
9. CONSTRUCTION OF RETAINING WALLS AND LOADING DOCK A.
10. INSTALLATION OF BITUMINOUS PAVEMENT AND CONCRETE.
11. PLACE STOCKPILED LOAM AND SEED DISTURBED AREAS.
12. REMOVE SOIL EROSION CONTROLS AFTER AREA IS STABILIZED.

PHASE 2 OPTION: SEQUENCE OF CONSTRUCTION:

PHASE 2 CONSTRUCTION ACTIVITIES WILL INCLUDE CONSTRUCTION OF LOADING DOCK B. IN GENERAL, THE SEQUENCE OF CONSTRUCTION WILL BE AS FOLLOWS:

1. SITE PREPARATION CONSISTING OF INSTALLING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO ANY SOIL DISTURBANCE.
2. MARKING OF ALL AREAS TO BE LEFT UNDISTURBED AND TO BE PROTECTED.
3. STRIPPING AND STOCKPILING OF TOPSOIL AT DESIGNATED LOCATION.
4. SAWCUT EXISTING PAVEMENT.
5. EARTHWORK INCLUDING CUT AND FILL WORK AND CONSTRUCTION OF RETAINING WALLS AND LOADING DOCK B.
6. GRADING AND INSTALLATION OF BITUMINOUS PAVEMENT AND CONCRETE.
7. PLACE STOCKPILED LOAM AND SEED DISTURBED AREAS.
8. REMOVAL OF EROSION CONTROLS WHEN SITE IS STABILIZED.

PROPOSED PHASING OPTION

SCALE: 1"=30'

NOTE: THE PHASING OPTION MAY BE CONSTRUCTED UPON REQUEST OF THE OWNER. THE PLAN SET HAS BEEN PREPARED FOR A FULL BUILD, LOADING DOCK A AND B CONSTRUCTION AT THE SAME TIME. IF CONSTRUCTION PHASING IS CONDUCTED, THE PROPOSED SOIL EROSION AND SEDIMENT CONTROLS DOWN GRADE OF CONSTRUCTION SHALL BE INSTALLED.

PURSUANT TO THE SITE PLAN REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

SIGNATURE _____ SIGNATURE DATE _____

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SEEDING NOTES

1. LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 4" OVER ALL AREAS DESIGNATED ON PLANS.
2. SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
3. FERTILIZE WITH 10-10-10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 3 TO 4 INCHES OF THE PLANTING SOIL APPLY AT THE RATE OF 8 POUNDS PER 1,000 SQUARE FEET AT SEEDING.
4. LIME: SPREAD EVENLY AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DIGGING OR OTHER APPROVED METHOD. DISTRIBUTE LIME UNIFORMLY AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORMLY BLEND BY DIGGING OR ROTOTILLING.
5. APPLICATION OF SEED:
 - A. RATE OF APPLICATION OF SEED SHALL BE AS INDICATED ON PLANS.
6. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS, AND ONLY DURING THE FOLLOWING DATES:
 - SPRING SEEDING: MARCH 15 TO MAY 31
 - FALL SEEDING: AUGUST 15 TO OCTOBER 15
7. THE CONTRACTOR SHALL KEEP ALL SEEDING AREAS WATERED AND IN GOOD CONDITION, RESEEDING IF AND WHEN NECESSARY FOR AN 8 WEEK PERIOD OR UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL ALSO MAINTAIN THESE AREAS IN AN APPROVED CONDITION UNTIL PROVISIONAL ACCEPTANCE.
8. DURING THIS PERIOD, WATER TURF AS NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE WITHIN THE ROOT ZONE. AN ADEQUATE SUPPLY OF MOISTURE IS EQUIVALENT OF ONE INCH OF ABSORBED WATER PER WEEK THAT IS DELIVERED AT WEEKLY INTERVALS IN THE FORM OF NATURAL RAIN OR IS AUGMENTED AS REQUIRED BY PERIODIC WATERING.

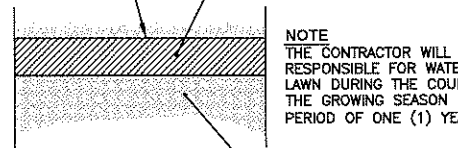
- E. OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
- F. REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
- G. SEED:
 - a. SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

SEED MIX

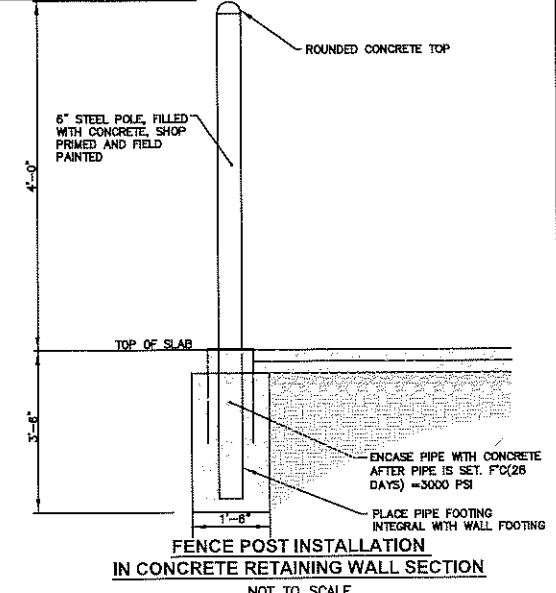
TYPE	POUNDS PER ACRE	POUNDS PER 1,000 SF
TALL FESCUE	20	0.45
CREEPING RED FESCUE	20	0.45
REDFEST	2	0.05
TOTAL	42	0.95

SEEDING GRASS - REFER TO NOTES AND/OR SPECS FOR SEED MIX TYPE

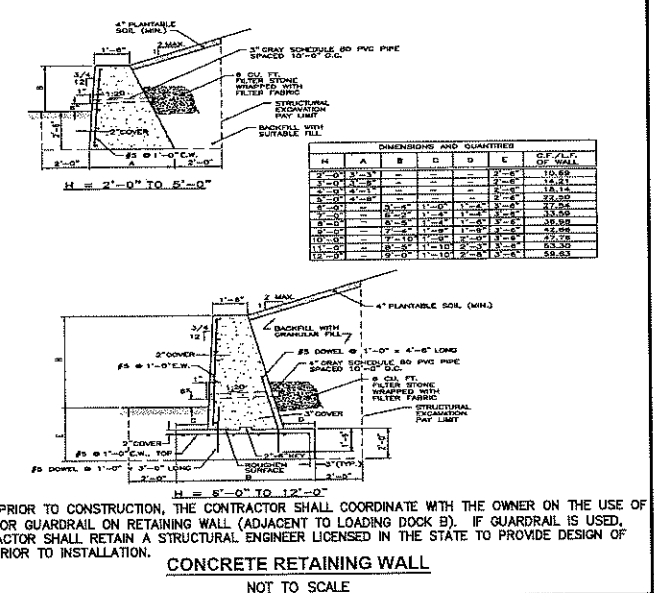
PROVIDE 4" GOOD QUALITY FERTILE LOAM OR REUSE EXISTING AND PROVIDE ADDITIONAL LOAM AS REQUIRED



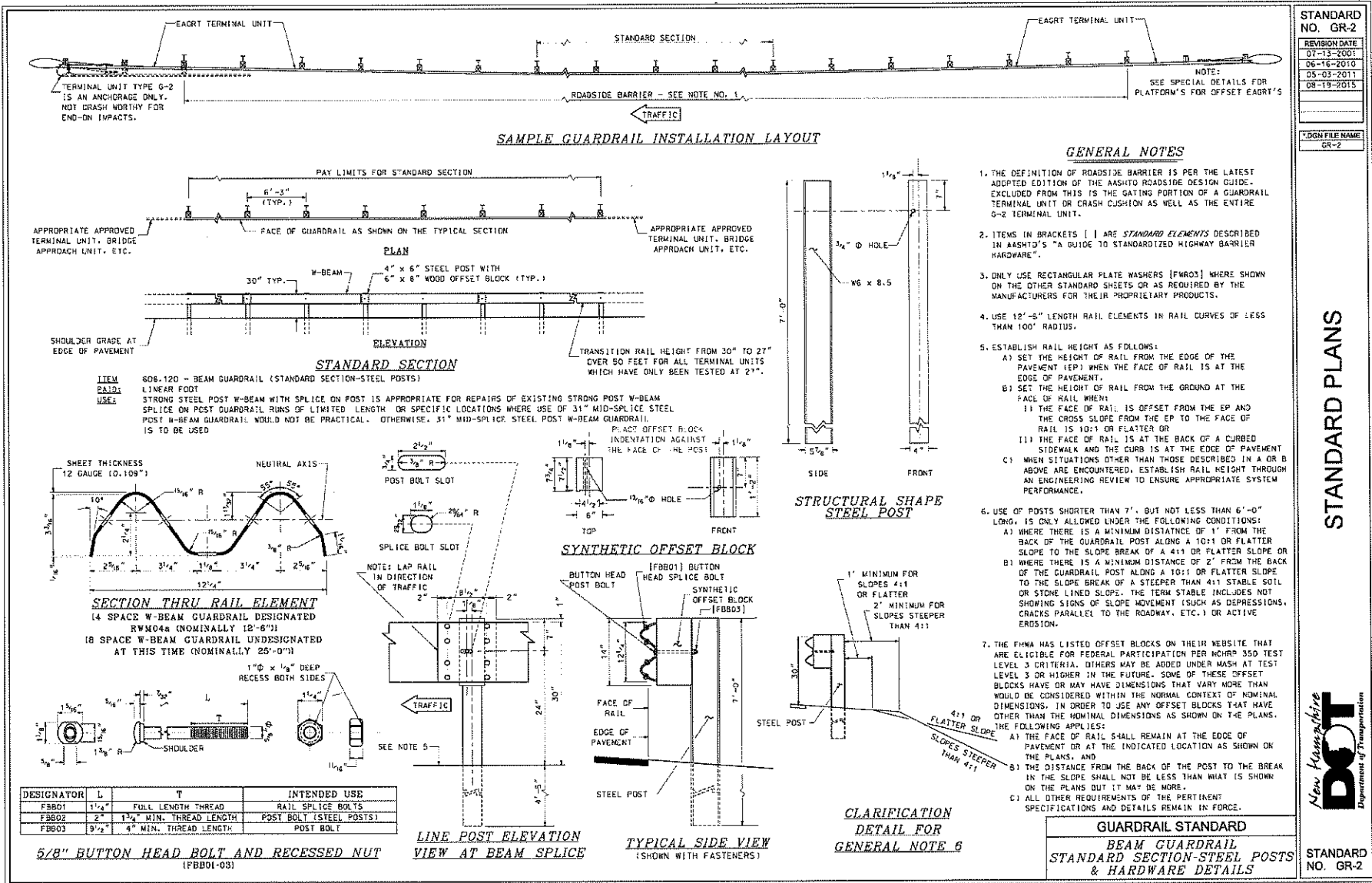
LOAM-SEED DETAIL
 NOT TO SCALE



FENCE POST INSTALLATION IN CONCRETE RETAINING WALL SECTION
 NOT TO SCALE



CONCRETE RETAINING WALL
 NOT TO SCALE



STANDARD NO. GR-2

REVISION DATE: 07-13-2001, 06-16-2010, 05-03-2011, 08-19-2015

NOTE: SEE SPECIAL DETAILS FOR PLATFORM'S FOR OFFSET EA0RT'S

DESIGN FILE NAME: GR-2

STANDARD PLANS

Department of Transportation

STANDARD NO. GR-2

CROSSMAN ENGINEERING

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PROJECT TITLE: **PROPOSED LOADING DOCK FOR MASIMO SEMICONDUCTOR**

26 SAGAMORE PARK DRIVE HUDSON, NH 03051

PREPARED FOR: **25 SAGAMORE PARK, LLC**

25 SAGAMORE PARK DRIVE HUDSON, NH 03051

DRAWING TITLE: **MISCELLANEOUS DETAIL PLAN NO. 4**

DATE: AUGUST 2017, SCALE: AS SHOWN

DWG. NAME: 2249-C11-DETAIL4.dwg

REVISIONS:

NUMBER	REMARKS	DATE

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APPROVED BY THE HUDSON, NH PLANNING BOARD

DATE OF MEETING: _____

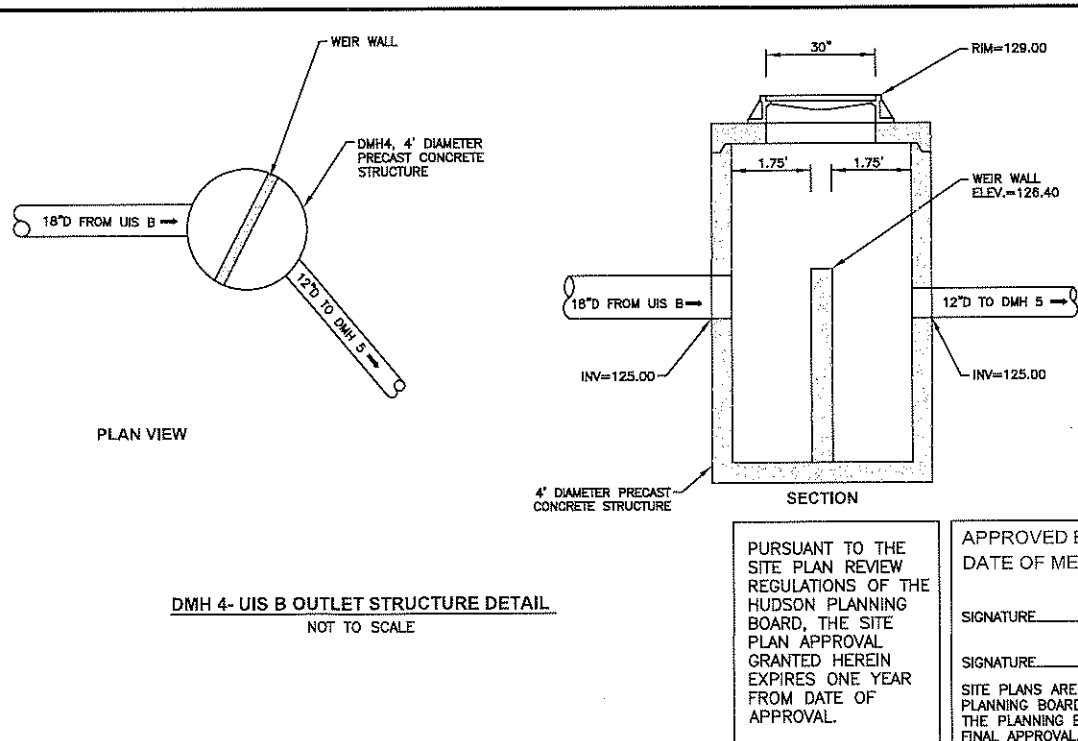
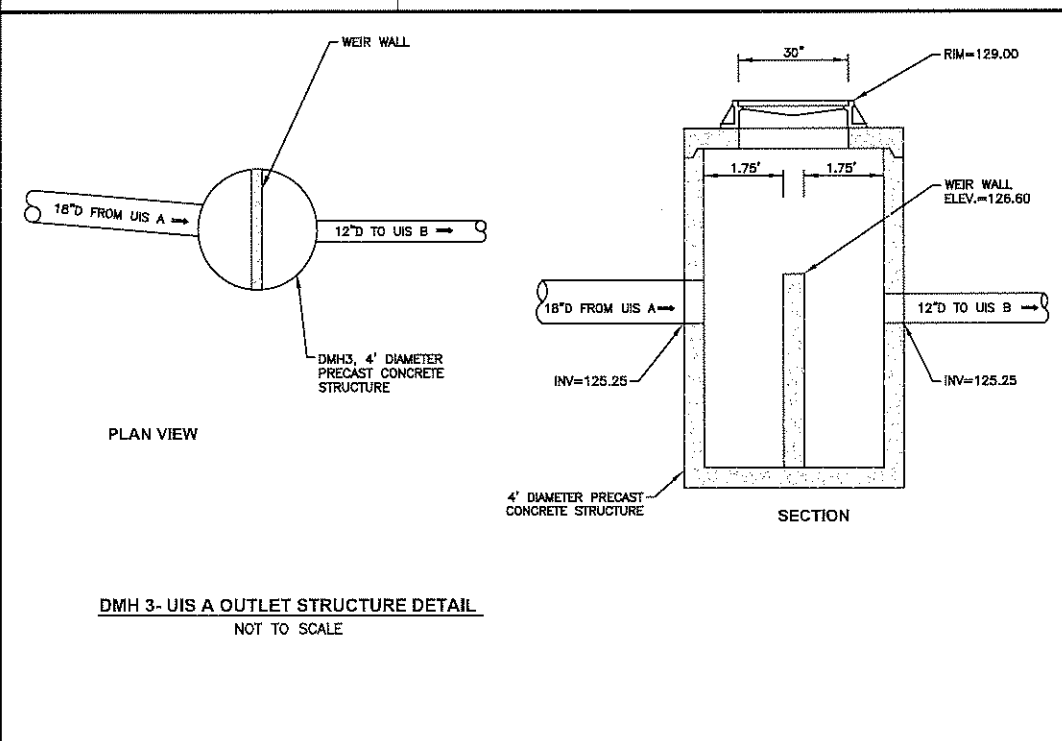
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SIGNATURE: _____ SIGNATURE DATE: _____

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DRAWING NUMBER: **C11**

SHEET: 12 OF 14



25 SAGAMORE PARK
DRIVE
HUDSON, NH



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SEAL AND

CONSULTANTS

DRAWINGS ISSUE

DATE	DESCRIPTION	DELTA

DATE:	08/08/17
DRAWN:	S.O.
REVIEWED:	T.H.
PROJECT NO.:	617553.01
SCALE:	As indicated
SHEET TITLE:	

FLOOR PLAN - PLANNING BOARD

SHEET NO: **A1**

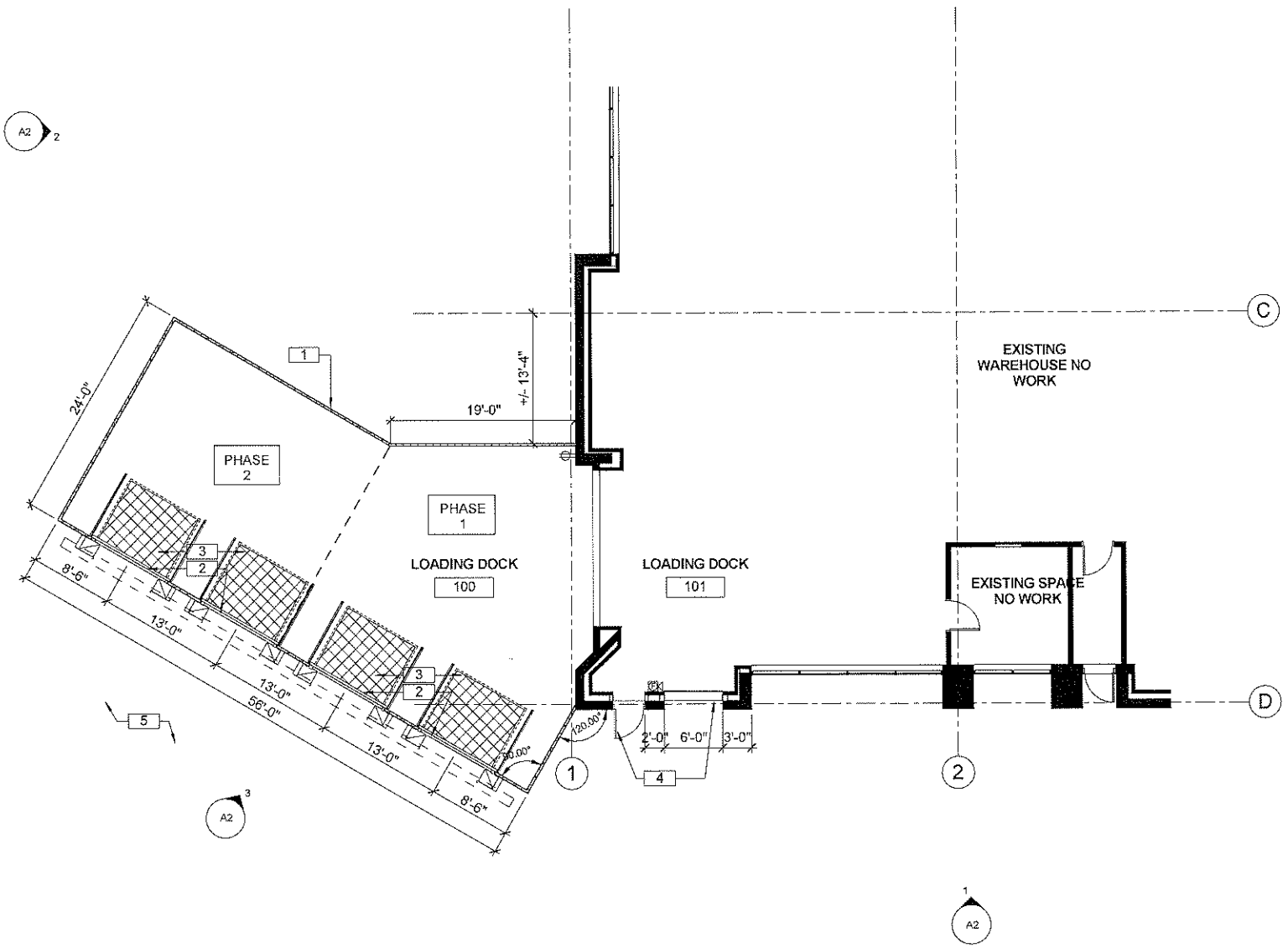
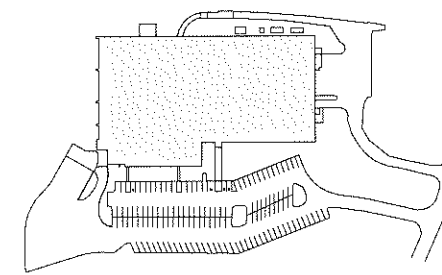
PLAN LEGEND

- AREA NOT IN CONTRACT (N.A.C.)
 - EXISTING WALL TO REMAIN
 - EXISTING STRUCTURE TO BE DEMOLISHED AND REMOVED FROM SITE.
 - EXISTING DOOR TO REMAIN, CLEAN, REPAIR AND REPAINT DOOR.
 - EXISTING DOOR, DOOR FRAME AND HARDWARE IS TO BE RE-USED AT NEW LOCATION.
 - NEW SINGLE DOOR, DOOR FRAME AND HARDWARE.
 - ROOM KEY SYMBOL
 NAME _____
 ROOM NAME _____
 ROOM NUMBER _____
 - PROJECT PHASING LINE
- NOTE: ALL NEW DOOR PULL HARDWARE TO BE ACCESSIBLE, APPROVED "LEVER" TYPE.
 NOTE: ALL NEW DOORS ARE TO BE 3'-0" WIDE MIN. UNLESS OTHERWISE NOTED.

KEY NOTES

- 1** INSULATED METAL PANEL WALL SYSTEM.
- 2** INSULATED PANEL OVERHEAD DOORS WITH VISION PANELS.
- 3** HYDRAULIC DOCK LEVELER.
- 4** NEW DOOR IN EXISTING WALL.
- 5** REFER TO CIVIL DRAWINGS FOR ALL SITE RELATED WORK.

KEY PLAN



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 Irvine, CA 92612
 515 South Flower Street T 213.929.1400
 Los Angeles, CA 90071
 535 Mission St., Suite 105 T 415.390.6793
 San Francisco, CA 94105
 485C US Rt. 1 South, Suite 105 T 848.200.1200
 Iselin, NJ 08830
 711 3rd Ave., 6th Floor T 848.200.1200
 New York, NY 10017
 www.saaia.com

SEAL AND

CONSULTANTS

DRAWINGS ISSUE

DATE	DESCRIPTION	DELTA

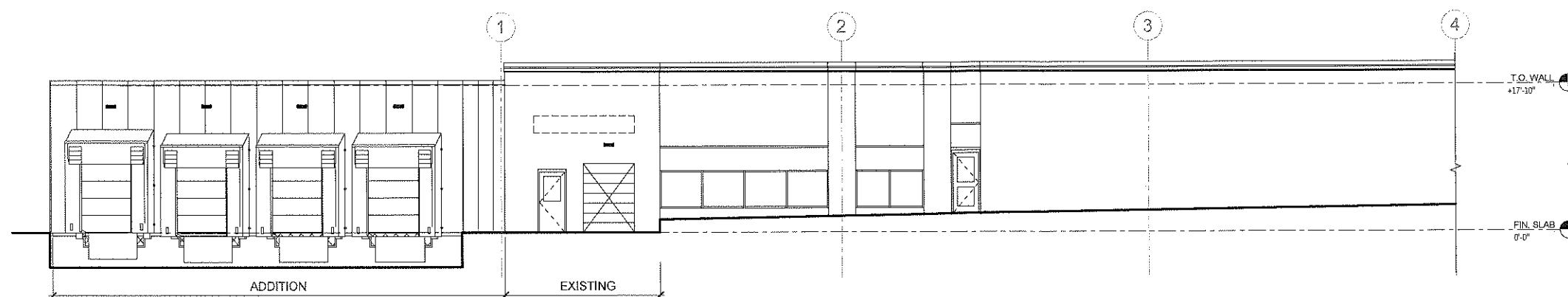
LOW PRICES... ALL... USE...
 This drawing is the property of SAAI and is to be used only for the project and site identified on the title block. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of SAAI.

DATE:	08/09/17
DRAWN:	S.O.
REVIEWED:	T.H.
PROJECT NO.:	617553.01
SCALE:	1/8" = 1'-0"
SHEET TITLE:	

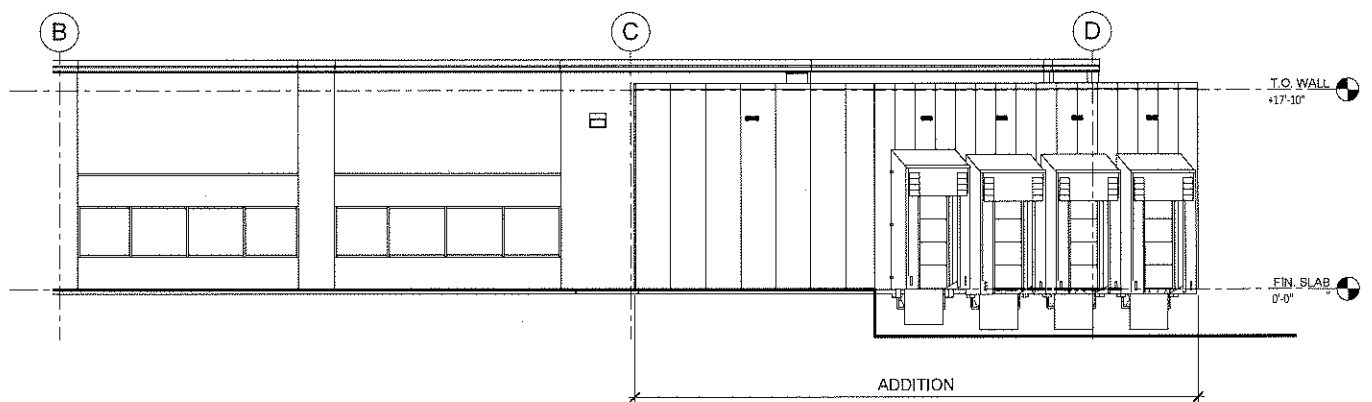
EXTERIOR ELEVATIONS -
PLANNING BOARD

SHEET NO.:

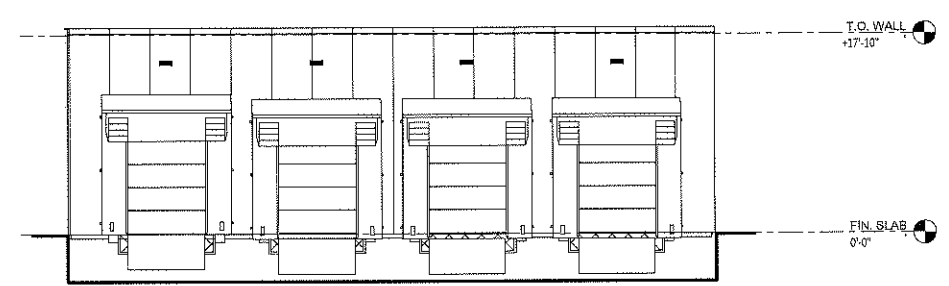
A2



1 SOUTH ELEVATION VIEW- PLANNING BOARD
1/8" = 1'-0"



2 WEST ELEVATION- - PLANNING BOARD
1/8" = 1'-0"



3 SOUTH-WEST-ELEVATION- PLANNING BOARD
1/8" = 1'-0"

PURSUANT TO THE SITE PLAN REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

APPROVED BY THE HUDSON, NH PLANNING BOARD
 DATE OF MEETING: _____
 SIGNATURE _____ SIGNATURE DATE _____
 SIGNATURE _____ SIGNATURE DATE _____
 SITE PLANS ARE VALID FOR ONE (1) YEAR FROM THE DATE OF PLANNING BOARD MEETING APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AT WHICH THE PLAN RECEIVES FINAL APPROVAL.

Proposed Retail 120 & 126 Derry Road Staff Report

20 September 2017

SITE: 120 & 126 Derry Rd -- Map 156/Lots 15 & 16 --SP# 11-17

ZONING: I

PURPOSE OF PLAN: To develop a retail store, convenience store with fueling islands, and a future restaurant. Application Acceptance & Hearing.

PLAN UNDER REVIEW ENTITLED: Commercial Development "120 Derry Road", Tax Map 156, Lots 15 & 16, Derry Road (Rte 102) Hudson, NH, prepared by Jones & Beach Engineers, Inc., 85 Portsmouth Ave., Stratham, NH, , dated 14 AUG 17, revised thru 28 AUB 17, consisting of Sheets CS, C1-1 -3, C2, C2-1, C2-2, C3, C3-1 – C3-2, C4, C4-1, C4-2, C4-3, LP1, L1.0, D1 – D10, E1, E2, A-4 and A-200, plans attached hereto.

ATTACHMENTS:

1. Site Plan Application, Project Narrative, and application submissions 14 JUL 17 – Attachment "A".
2. Zoning Compliance Determination dated 25 JAN 16 – "B".
3. Deputy Fire Chief review comments, dated 24 JULY 17 – "C".
4. CLD peer review comments, dated 13 SEPT 17 – "D".
5. Vanasse & Associates Transportation Engineers response to CLD comments dated 18 AUG 17 – "E".

REQUESTED WAIVERS:

- 1) HR 193.10.G. – 1 Driveway per parcel
- 2) HR 276 – 11.B (12) – No parking in front setback

NOTE: Due to the prior plan to subdivide the lot into three lots, the applicant did not submit a request for multiple driveways. There is also some question as to whether a waiver is required to allow parking in the front setback as proposed on the plan.

OUTSTANDING ISSUES:

1. CLD, the Town's peer review consultant submitted a comprehensive review analysis of the submitted site plans noting numerous discrepancies on site planning and design issues and details. The applicant has revised the plans to meet most of those peer review comments.
2. The most significant area of concern with respect to the peer review and staff review of the project is vehicular access to the site and traffic impacts on the surrounding road network. In regard to the proposed offsite road improvements to Derry Rd. (NH Rte. 102) and Elm Ave., as shown on the attached Site Plans, together with access driveways on both of these roads, these improvements evolved from the Applicant's traffic engineers, over the past 3 years,

working with NHDOT officials and the following Town staff: Town Engineer, Elvis Dhima, Road Agent, Kevin Burns, Fire Chief, Rob Buxton and former Town Planner, John Cashell.

In addition to the above-cited review parties involved in said on and offsite road improvements, CLD, in their most recent Comments Report, address all of their initial concerns, as well as those remaining. Please note, as with all multi-use commercial projects planned along heavily travelled corridors, it is of utmost importance to implement safe and adequate off and onsite traffic improvements. This being said, at this point staff feels confident that the proposed off and onsite traffic improvements included in the attached site plans can achieve safe and adequate means of associated travel. One remaining concern being the left-turn egress lane at the northernmost driveway. The level of service for this access in the evening peak hour will be LOS F or "failing," in terms of traffic delays for vehicles making left turns out of the driveway. Please note, this is an onsite traffic condition that staff feels site patrons will either be willing (or not) to tolerate, and thus, decide whether or not to use the subject egress lane or, in substitute, use the left-turn egress lane onto Elm St. or, perhaps, not patronize the site uses at all.

For Wed. night's hearing, staff requested the Applicant to make certain that his traffic engineers are prepared to give a full presentation on the proposed off and onsite traffic improvements, and for them to validate that these proposed improvements provide safe and adequate means of ingress/egress for the proposed uses to be served, as well as for the travelers along Derry Rd. and Elm Ave.

3. CAP fees for this project have not been calculated because the applicant is proposing to do off-site improvements and in such cases the need for and amount of impact fees is a matter for discussion with the Planning Board. The Board should request of the Applicant information as to the estimated costs of off-site improvements and their proposed contribution. The Town has available funds in the traffic impact fee accounts that could be brought in to play to maximize safety and functionality of the off-site roadways, something that has been discussed for the past three years with the applicant.

RECOMMENDATION: For this initial hearing, staff recommends application acceptance, conduct public hearing and for continued or final action to be considered in accordance with the below DRAFT MOTIONS. That is, depending on whether or not the board deems that more time is needed to come to a conclusion on this application.

APPLICATION TRACKING:

14 JUL 17 - Application submitted.
20 SEPT 17- Initial public hearing scheduled.

DRAFT MOTIONS:

I move to accept the Site Plan application for 120 Derry Rd, Tax Map 156, Lots 15& 16.

Motion by: _____ Second: _____ Carried/Failed: _____

I move to defer further review of the 120 Derry Road Site Plan application, date specific, to the 11 OCT 17 meeting.

Motion by: _____ Second: _____ Carried/Failed: _____

WAIVER MOTIONS:

- 1) HR 193.10.G. – 1 Driveway per parcel
- 2) HR 276 – 11.B (12) – No parking in front setback

- 1) HTC 193.10.G. – 1 Driveway per parcel

I move to grant the requested waiver -HR 193.10.G. – 1 Driveway per parcel - based on the testimony of the Applicant’s representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

Motion by: _____ Second: _____ Carried/Failed: _____.

- 2) HR 276 – 11.B (12) – No parking in front setback

I move to grant the requested waiver - 2) HR 276 – 11.B (12) – No parking in front setback - based on the testimony of the Applicant’s representative here this evening, and in accordance with the language included in the submitted Waiver Request Form for said waiver.

MOTION TO APPROVE:

I move to approve the Site Plan entitled: Commercial Development “120 Derry Road” Tax Map 156, Lots 15 & 16, Derry Road (Rte 102), Hudson, NH, prepared by Jones and Beach Engineers, 85 Portsmouth Ave., Stratham, NH 03885, dated 14 AUG 17, revised thru 28 AUB 17, consisting of Sheets CS, C1-1 -3, C2, C2-1, C2-2, C3, C3-1 – C3-2, C4, C4-1, C4-2, C4-3, LP1, L1.0, D1 – D10, E1, E2, A-4 and A-200, Notes 1 – 29 on Sheet C2, in accordance with the following terms and conditions:

1. All stipulations of approval shall be incorporated into the Development Agreement, which shall be recorded at the HCRD, together with the Site Plan-of-Record and all agreed upon easement deeds, which shall be favorably reviewed by Town Counsel prior to Planning Board endorsement of the Plan.
2. All improvements shown on the Site Plan-of-Record, including Notes 1- 29, shall be completed in their entirety and at the expense of the Applicant or his assigns.
3. Prior to the issuance of a final certificate of occupancy, a L.L.S. certified "As Built" site plan shall be provided to the Town of Hudson Community Development Department, confirming that the site conforms with the Planning Board approved site plan.
4. Maintenance of the onsite drainage system shall be constructed and maintained in compliance with NHDES requirements for such systems.
5. Construction activities involving the subject lot shall be limited to the hours between 7:00 A.M. and 7:00 P.M., Monday through Saturday. No construction activities shall be allowed on Sundays.
6. Hrs. of refuse removal shall be exclusive to the hrs. between 7:00 A.M. and 9:00 P.M.

Mon – Sat. only and prohibited on Sunday.

7. This plan shall be subject to final engineering review and approval.

Motion by: _____ Second: _____ Carried/Failed: _____



PRELIMINARY & FINAL SITE PLAN APPLICATION
FOR PLAN REVIEW (Also for Wireless)
TOWN OF HUDSON, NEW HAMPSHIRE

Date of Application: July 14, 2017 Tax Map # 156 Lot # 15 & 16

Name of Project: Proposed Retail Development

Zoning District: General SP# 11-17
(For Town Use) (For Town Use)

ZBA Action:

PROPERTY OWNER:

DEVELOPER:

Name: Five N Associates/Nash Family Investment Prop.

Hudson Enterprises, LLC

Address: 91 Amherst Street

c/o Jeff Gove

Address: Nashua, NH 03064

7 Swain Dr., Hampton Falls, NH 03844

Telephone #

(508) 341-2263

Fax #

Email:

jeffreygove@yahoo.com

PROJECT ENGINEER

SURVEYOR

Name: Wayne Morrill

David M. Collier, L.L.S.

Address: Jones & Beach Engineers, Inc.

Jones & Beach Engineers, Inc.

Address: PO Box 219, Stratham, NH 03885

PO Box 219, Stratham, NH 03885

Telephone # (603) 772-4746, Ext. 122

(603) 772-4746, Ext. 124

Fax # (603) 772-0227

(603) 772-0227

Email: wmorrill@jonesandbeach.com

dcollier@jonesandbeach.com

PURPOSE OF PLAN:

To design a proposed retail, convenience store with fueling islands and a future restaurant, all with proposed parking and to be serviced by municipal utilities.

Plan Routing Date: 7-20-17 For Town Use Sub/Site Date: 8-16-17
I have no comments I have comments (attach to form)
Title: Date:
DEPT: Zoning Engineering Assessor Police Fire Planning
Fees Paid: \$11418.71

JONES & BEACH ENGINEERS INC.

85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com



July 14, 2017

Hudson Planning Department
Attn: John Cashell, Planner
12 School Street
Hudson, NH 03051

**RE: Site Plan Application
120 & 126 Derry Road, Hudson, NH
Tax Map 156, Lots 15 & 16
JBE Project No. 14053**

Dear Mr. Cashell,

On behalf of client, Hudson Enterprises, LLC, Jones & Beach Engineers, Inc., respectfully submits a Site Plan Application for the property referenced above. JBE received Town Zoning Compliance/ Determination Approval on January 25, 2016. The reason for the application is to design a proposed retail, convenience store with fueling islands and a future restaurant all with proposed parking and to be served by municipal utilities.

The following is provided in support of this application:

1. Seventeen copies of cover letter/project narrative.
2. One original and one copy of completed Site Plan Application.
3. Town of Hudson Zoning Compliance/ Determination Approval on January 25, 2016.
4. Letters of Authorization.
5. Current Deed.
6. Test Pits.
7. Abutters List with Tax Map and 3 Sets of Mailing Labels.
8. Tax Maps.
9. Aerial Photograph of site and area within 200'.
10. A check for application and abutter notification fees in the amount of \$9,918.71.
11. Traffic Study (Traffic Review Fee of \$1,500.00).
12. Drainage Analysis.
13. One (1) Building Elevation Plans.
14. Nine (8) full-size plan sets (folded).

Thank you very much for your time. If you have any questions, or any additional information, please contact our office.

Very truly yours,
JONES & BEACH ENGINEERS, INC.

Wayne Morrill
Vice President



cc: Jeff Gove, Hudson Enterprises, LLC (via email)

JONES & BEACH
ENGINEERS INC.

JONES & BEACH ENGINEERS INC.

85 Portsmouth Avenue, PO Box 219, Stratham, NH 03885
603.772.4746 - JonesandBeach.com

September 13, 2017

Hudson Planning Department
Attn: George Theborge, Planner
12 School Street
Hudson, NH

**Re: Project Narrative
120 & 126 Derry Road, Hudson, NH
Tax Map 156, Lots 15 & 16
JBE Job No.: 14053**

Dear Mr. Theborge:

On behalf of client, Hudson Enterprises, LLC, Jones & Beach Engineers, Inc. respectfully submits a Site Plan Application for the property referenced above. JBE received Town Zoning Compliance/Determination Approval on January 25, 2016 for the proposed project. The proposed project consists of the construction of a 13,111 S.F. retail structure, a 5,275 S.F. retail structure with associated fueling station, and a proposed 5,000 S.F. restaurant with associated parking area, utilities, and stormwater features. The proposed project will utilize two new driveways on Derry Road and relocate an existing driveway on Elm Ave. The proposed project will have no impact to wetlands or wetland buffer areas.

Please let me know if you have any questions and thank you for your time.

Very truly yours,
Jones & Beach Engineers, Inc.



Wayne Morrill
Vice President

cc: Hudson Enterprises, LLC (by email)



SITE DATA SHEET

PLAN NAME: Retail Development "120 Derry Road"

PLAN TYPE: SITE PLAN

LEGAL DESCRIPTION: MAP 156 LOT 15 & 16

DATE: July 14, 2017

Location by Street 120 & 126 Derry Street

Zoning: Industrial

Proposed Land Use: Retail Development

Existing Use: Industrial Warehouse

Surrounding Land Use(s): Commercial, Industrial, Residential

Number of Lots Occupied: One

Existing Area Covered by Building: 15,530 SF

Existing Buildings to be removed: One

Proposed Area Covered by Building: 24,079

Open Space Proposed: SEE SHEET C2

Open Space Required: 35%

Total Area: S.F.: 415,650 Acres: 9.54

Area in Wetland: _____ Area Steep Slopes: _____

Required Lot Size: 30,000 SF

Existing Frontage: SEE SHEET C2

Required Frontage: 150'

Building Setbacks:	<u>Required*</u>	<u>Proposed</u>
Front:	<u>50'</u>	<u>>50'</u>
Side:	<u>15'</u>	<u>>15'</u>
Rear:	<u>15'</u>	<u>>15'</u>

**SITE PLAN DATA SHEET
(Continued)**

Flood Zone Reference: 3300C0512D & 33011C0514E

Width of Driveways: 24' & 30'

Number of Curb Cuts: 3







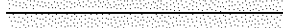

Proposed Parking Spaces: 181

Required Parking Spaces: 155

Basis of Required Parking (Use): RETAIL & RESTAURANT

Dates/Case #/Description/Stipulations
of ZBA, Conservation Commission,
NH Wetlands Board Actions:
(Attach stipulations on separate sheet)

Hudson Town Code

<u>Waivers Requested:</u>	<u>Reference</u>	<u>Regulation Description</u>
	1. _____	_____
	2. _____	_____
	3. _____	_____
	4. _____	_____
	5. _____	_____
	6. _____	_____
	7. _____	_____
	8. _____	_____

(Left column for Town Use)

Impact Fees:
C.A.P Fee: _____

Development Agreement
Proposed: _____

<i>For Town Use</i>	
Data Sheet Checked By: _____	Date: _____

**APPLICATION FOR SITE PLAN REVIEW
TOWN OF HUDSON, NEW HAMPSHIRE**

Thirty (30) days prior to Planning Board Meeting, a complete site plan to include all supporting materials/documents must be submitted in final form. The site plan shall comply with the following specifications/requirements:

Applicant Initials		Staff Initials
<u>WGM</u>	a) Submission of nine (9) full sets of Site Plans (sheet size: 22" x 34") shall be submitted at the time of application filing, followed by the submission of seventeen (17) 11" X 17" plan sets (revised if applicable) to the Community Development Department no later than 10:00 A.M., Tuesday the week prior to the scheduled public hearing/conceptual review date.	_____
<u>WGM</u>	b) A Site Plan narrative, describing the purpose, locations, long-range plans, impacts on traffic, schools, and utilities	_____
<u>WGM</u>	c) Plan scale at not less the one inch equals fifty feet (1" = 50')	_____
<u>WGM</u>	d) Locus plan with 1,000' minimum radius of site to surrounding area	_____
<u>WGM</u>	e) Plan date by day/month/year	_____
<u>WGM</u>	f) Revision block inscribed on the plan	_____
<u>WGM</u>	g) Planning Board approval block inscribed on the plan	_____
<u>WGM</u>	h) Title of project inscribed on the plan	_____
<u>WGM</u>	i) Names and addresses of property owners and their signatures inscribed on the plan	_____
<u>WGM</u>	j) North point inscribed on the plan	_____
<u>WGM</u>	k) Property lines: exact locations and dimensions	_____
<u>WGM</u>	l) Square feet and acreage of site	_____
<u>WGM</u>	m) Square feet of each building (existing and proposed)	_____
<u>WGM</u>	n) Names and addresses of bordering abutters, as shown on Tax Assessor's records not more than five (5) days prior to application date to be listed on the plan.	_____

Applicant
Initials

Staff
Initials

<u>WGM</u>	o)	Location of all structures, roads, wetlands, hydrants, wells, septic systems, 4k reserve areas, floodways/floodplains, driveways, travel areas, parking areas and natural features within 200 feet of the tract	_____
<u>WGM</u>	p)	Locations of existing and proposed permanent monuments and bench marks within 200 feet of the development tract	_____
<u>WGM</u>	q)	Pertinent highway projects	_____
<u>WGM</u>	r)	Assessor's Map and Lot number(s)	_____
<u>WGM</u>	s)	Waiver application form shall be submitted with the site plan application, note on plan listing waivers requested/granted; and all waivers granted to the site plan regulations shall be listed on the final plan; waivers to checklist shall be reduced to writing and be signed by the Planning Board Chairman and Planning Board Secretary and recorded with the plan	_____
<u>WGM</u>	t)	Delineate zoning district on the plan	_____
<u>WGM</u>	u)	Storm water drainage plan	_____
<u>WGM</u>	v)	Topographical elevations at 2-foot intervals contours: existing and proposed	_____
<u>WGM</u>	w)	Utilities: existing and proposed	_____
<u>WGM</u>	x)	Parking: existing and proposed	_____
<u>WGM</u>	y)	Parking space: length and width	_____
<u>WGM</u>	z)	Aisle width/maneuvering space	_____
<u>WGM</u>	aa)	Landscaping: existing and proposed	_____
<u>WGM</u>	ab)	Building and wetland setback lines	_____
<u>WGM</u>	ac)	Curb cuts	_____
<u>WGM</u>	ad)	Rights of way: existing and proposed	_____
<u>WGM</u>	ae)	Sidewalks: existing and proposed	_____
<u>WGM</u>	af)	Exterior lighting plan	_____
<u>WGM</u>	ag)	Sign locations: size and design	_____
<u>WGM</u>	ah)	Water mains and sewerage lines	_____
<u>WGM</u>	ai)	Location of dumpsters on concrete pads	_____
<u>WGM</u>	aj)	All notes from plats	_____

Applicant Initials		Staff Initials
<u>WGM</u>	ak) Buffer as required by site plan regulations	_____
<u>WGM</u>	al) Green and open space requirements met with both types of spaces inscribed on the plan	_____
<u>WGM</u>	am) Soil types and boundaries, Note: If site contains marginal or questionable soils, a High Intensity Soil, Survey (HISS) may be deemed necessary to submit as part of the application. Said HISS, if required, shall be performed by a State of New Hampshire Certified Soil Scientist, who shall affix his/her stamp and signature shall be inscribed on the plan.	_____
<u>WGM</u>	an) Wetlands (and poorly-drained and very poorly-drained soils, also identified as Class 5 and Class 6 High Intensity Soil Survey (HISS soils), and permanent and seasonal wetlands shall be identified on the plan by a New Hampshire certified wetland or soil scientist, who shall affix his/her stamp and signature to the respective plan.	_____
<u>WGM</u>	ao) "Valid for one year after approval" statement inscribed on the plan.	_____
<u>WGM</u>	ap) Loading bays/docks	_____
<u>WGM</u>	aq) State of New Hampshire engineer's stamp, signature, surveyor's stamp, and signature	_____
<u>WGM</u>	ar) Error of closure (1 in 10,000 or better)	_____
<u>WGM</u>	as) Drafting errors/omissions	_____
<u>WGM</u>	at) Developer names, addresses, telephone numbers and signatures	_____
<u>WGM</u>	au) Photographs, electronic/digital display or video of site and area	_____
<u>WGM</u>	av) Attach one (1) copy of the building elevations	_____
_____	aw) Fiscal impact study	_____
<u>WGM</u>	ax) Traffic study	_____
_____	ay) Noise study	_____

Applicant
Initials

Staff
Initials

- WGM az) Copies of any proposed or existing easements, covenants, deed restrictions, right of way agreements or other similar documents _____
- WGM ba) Copy of applicable Town, State, Federal approval/permits to include but not limited to the following: _____
- industrial discharge application
 - sewer application
 - flood plain permit
 - wetlands special exception
 - variance
 - erosion control permit (149:8a)
 - septic construction approval
 - dredge and fill permit
 - curb cut permit
 - shore-land protection certification in accordance with RSA483-B
 - if applicable, review application with Lower Merrimack River Local Advisory Committee (LMRLAC) and attach LMRLAC project comments hereto.
- WGM bb) Presentation plan (colored, with color-coded bar chart) _____
- WGM bc) Fees paid to clerk _____
- WGM bd) Five (5) 22" x 34" copies of the plan shall be brought to the Planning Board meeting and distributed to the Planning Board members at the meeting. Note: for all subsequent meetings involving revised plans, five 22" x 34" copies of said plan shall be brought to the meeting for distribution to the board members. _____

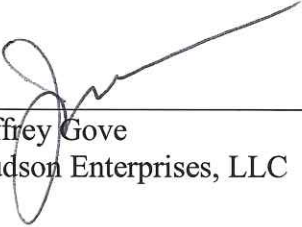
*Under the purview of the Planning Board, any and all items may be waived.

Letter of Authorization

I, Jeffrey Gove, Hudson Enterprises, LLC, 7 Swain Drive, Hampton Falls, NH 03844, developer of properties located in Hudson, NH, known as Tax Map 156, Lots 15 & 16, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned properties. The parcels are located on Derry Street in Hudson, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Stephanie Michals
Witness



Jeffrey Gove
Hudson Enterprises, LLC

7/11/17
Date

Letter of Authorization

I, Q. Peter Nash, Managing Partner, Five N Associates and Nash Family Investment Prop., ~~156~~, 91 Amherst Street, Nashua, NH 03064, owner of properties located in Hudson, NH, known as Tax Map 156, Lots 15 & 16, do hereby authorize Jones & Beach Engineers, Inc., PO Box 219, Stratham, NH, to act on my behalf concerning the previously mentioned properties. The parcels are located on Derry Street in Hudson, NH.

I hereby appoint Jones & Beach Engineers, Inc., as my agent to act on my behalf in the review process, to include any required signatures.

Witness

Q. Peter Nash
Five N Associates
Nash Family Investment Prop.

Date

WARRANTY DEED

(EXEMPT TRANSACTION)

KNOW ALL MEN BY THESE PRESENTS, that Q. Peter Nash, Trustee and Debra A. Nash, Trustee of the Gerald Q. Nash 1987 Trust, having a mailing address of 40 Temple Street, Nashua, New Hampshire, for consideration paid, do hereby grant to Five N Associates, a New Hampshire General Partnership, with a principal place of business at 91 Amherst Street, Nashua, New Hampshire, with **WARRANTY COVENANTS**, the following described premises:

A certain tract or parcel of land, with the buildings thereon, together with all and singular the improvements thereon, situated in Hudson, County of Hillsborough and State of New Hampshire, more particularly bounded and described as follows:

Beginning at a concrete bound on the westerly line of Derry Road, said bound being fifteen (15) feet north of the intersection of the easterly line of Derry Road projected and the northerly line of Elm Avenue projected; thence

(1) By a curve to the right with a radius of fourteen (14) feet a distance of twenty-two and five tenths (22.5) feet to a point; thence

(2) North 61° 50' West along the northerly line of Elm Avenue a distance of two hundred ninety-two and two-tenths (292.2) feet to a stone bound; thence

(3) North 10° 42' East by land of Contact, Inc., a distance of four hundred fifty and ninety-two hundredths (450.92) feet to a stone bound; thence

(4) South 59° 31' East four hundred seventy-two and six-tenths (472.6) feet to a stone bound; thence

(5) Southerly by a curve having a radius of fourteen hundred fifty-five and five-tenths (1455.5) feet a distance of four hundred two and one-tenth (402.1) feet along the westerly line of Derry Road to the point of beginning.

Containing approximately 3.70 acres and being Lot "A" on a plan entitled "Plan of Land of Arthur J. & Ida E. Kashulines, Derry Road, Hudson, N.H. July 1966, A.E. Maynard, Civil Eng." which plan is recorded in the Registry of Deeds for Hillsborough County as Plan #3372 (3-43).

The premises is subject to any rights and slope easements which the State of New Hampshire may have acquired under a deed of Arthur J. Kashulines and Ida E. Kashulines being dated July 28, 1961, and recorded in the Hillsborough County Registry of Deeds at Book 1651, Page 341.

897999

98DEC 29 PM 3:19

BK6045PG0844

The premises is subject to any rights and slope easements which the State of New Hampshire may have acquired under a deed of Victorine J. Sears being dated September 17, 1949, and recorded in the Hillsborough County Registry of Deeds at Book 1235, Page 53.

The premises is subject to an easement to Public Service Company of New Hampshire described in deed of Victorine J. Sears dated January 18, 1949, and recorded in the Hillsborough County Registry of Deeds at Book 1218, Page 369.

The premises is subject to water rights granted to Myrtie E. Hardy and described in deed of Elijah R. Reed and Hardy Greenhouses, Inc. dated November 10, 1933, and recorded in the Hillsborough County Registry of Deeds at Book 925, Page 272.

The premises is subject to an easement to Public Service Company of New Hampshire described in deed of Elijah R. Reed dated February 8, 1919, and recorded in the Hillsborough County Registry of Deeds at Book 879, Page 274.

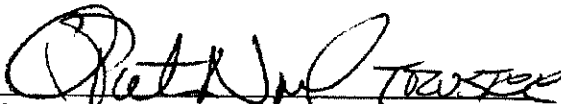
Meaning and intending to describe and convey the same premises conveyed to the within grantor by Warranty Deed of Nash Family Investment Properties dated February 2, 1996, and recorded in the Hillsborough County Registry of Deeds at Book 5690, Page 1309.


This conveyance is exempt from the New Hampshire transfer tax under RSA 78-B:2 by RSA 78-B:2 XVII.

The within described premises is not homestead property.

EXECUTED this 28th day of December, 1998.

THE GERALD Q. NASH 1987 TRUST

By: 
Q. Peter Nash, Trustee of the Gerald Q. Nash
1987 Trust

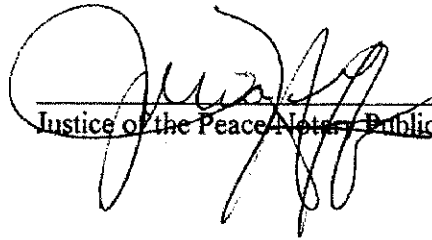
By: 
Debra A. Nash, Trustee of the Gerald Q. Nash
1987 Trust

BK 6045PG0845

STATE OF NEW HAMPSHIRE
COUNTY OF HILLSBOROUGH

On this the 28th day of December, 1998, before me, personally appeared Q. Peter Nash, Trustee, and Debra A. Nash, Trustee, of the Gerald Q. Nash 1987 Trust, known to me (or satisfactorily proven to be) the persons whose name are subscribed to the foregoing instrument, and being authorized so to do, made oath that they executed the same for the purposes therein contained on behalf of the Gerald Q. Nash 1987 Trust.

Before me,



Justice of the Peace Notary Public

December 28, 1998
F:\PUBLIC\1998\06-605\DEED.WPD

BK6045PG0846

EASEMENT DEED

HCR Corporation, N.V., a Curacao corporation with a principal place of business at 375 Park Avenue, New York, New York, for consideration received, grants to the Town of Hudson, a municipal corporation established under the laws of the State of New Hampshire, the easements described below:

A permanent easement thirty (30) feet wide, fifteen (15) feet on each side of the centerline of the sewer line, as shown on the Plan referred to hereinbelow, and a construction easement fifty (50) feet wide, twenty-five (25) feet on each side of said sewer line running through land of the grantor situated on Derry Road in said Hudson.

Said easements begin on said centerline at station 10+91, more or less, at land now or formerly of Harry Daw et ux, and end at station 19+03, more or less, at Derry Road, said centerline being shown on plan entitled "TOWN OF HUDSON Proposed Easement On Land Of: H.C.R. Corp HUDSON, N.H." dated February 1, 1974, revised December 16, 1977, revised again September 19, 1978, and recorded in the Hillsborough County Registry of Deeds as Plan No. 11618.

The permanent easement includes the right to lay, construct, reconstruct, operate, maintain, replace and remove a sewer pipe line, with manholes and manhole covers as shown, with appurtenances, and all other rights and benefits necessary or convenient for the full enjoyment and use of the rights granted, including, but without limiting the same to, the right of ingress and egress over, under and across said permanent easement.

It is agreed that within these described easements, the grantor conveys to the Town the right to remove trees, bushes, undergrowth, and other obstructions interfering with the location, construction, maintenance and replacement of said sewer line. The grantor further agrees that no building or structure will be constructed within or over the permanent easement.

The Town, by acceptance of this deed, agrees to do no unnecessary damage to the premises and to return the soil to as near the original grade as is practical.

Said construction easement shall be used during construction and installation of the sewer line and may be used in replacing or repairing the line.

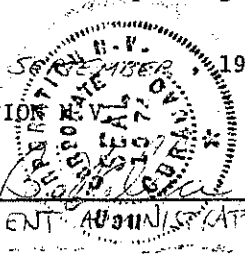
WITNESS its hand and seal this 29th day of SEPTEMBER, 1978.

WITNESS:

HCR CORPORATION

Patricia Sauer

By: *John B. Wallace*
Title: RESIDENT ADMINISTRATOR



STATE OF NEW YORK
COUNTY OF SUFFOLK

On this the 29th day of SEPTEMBER, 1978, before me, the undersigned officer, personally appeared JOHN B. WALLACE who acknowledged himself to be the RESIDENT ADMINISTRATOR of HCR Corporation N.V. and that he as such RESIDENT ADMINISTRATOR being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing the name of the corporation by himself as RESIDENT ADMINISTRATOR. In Witness Whereof I have hereunto set my hand.

Edward J. May III
Notary Public

EDWARD J. MAY III
NOTARY PUBLIC, State of New York
No. 22-1612053, Qual. in Suffolk Co.
Commission Expires March 31, 1979

OCT 6 11 53 AM '78
HILLSBOROUGH COUNTY
REGISTRY OF DEEDS

SMITH, CURRIER,
CONNOR, WILDER &
LIEBERMAN, P.A.
PROFESSIONAL
ASSOCIATION
ATTORNEYS AT LAW
47 FACTORY STREET
NASHUA, NEW HAMPSHIRE
03081

BOOK
1218
PAGE
370
310

beginning at a point in the westerly line of the highway leading from Hudson to Derry, said point being 752 feet southerly by said highway from the northeast corner of above described premises; thence N. 85° 00' W. 1161 feet to the easterly line of a 125 foot right-of-way now owned by the grantee recorded in the Hillsborough County Registry of Deeds, Book 879 Page 274, containing approximately 6 acres.

Meaning and intending to include and only to include all that part of the above described premises that lies 75 feet southerly and 150 feet northerly of said line or said line extended.

This conveyance shall include (1) the right to cut, trim and remove all trees and underbrush, and to remove all structures or obstructions, which are now or may hereafter be found within the limits of the above described right of way strip and (2) the right to remove from the premises of the grantor above described such trees as in the judgment of the grantee may interfere with or endanger said lines or their operation.

In consideration aforesaid, the grantor, on behalf of the grantor and the heirs, legatees, devisees, administrators, executors, successors and assigns of the grantor, agrees that all timber and wood on the above described strip cut by the grantee shall become the property of the grantee.

And the parties hereto, by delivering and accepting this deed, agree that all agreements, understandings and negotiations, written or verbal, heretofore made or entered into by the parties hereto or their representatives with respect to this conveyance are hereby waived and cancelled, and that there are no agreements, promises, representations or understandings with respect to this conveyance not herein mentioned.

To have and to hold to the grantee, its successors and assigns forever.

The grantor covenants and agrees that she has full right, title and authority to convey the foregoing rights and privileges and will defend same to said grantee against the lawful claims or demands of all persons.

And I, Ann A. Winton, wife of said hereby release all my rights of dower in the foregoing premises so far as affected by this conveyance.

And I, George N. Haffty, husband of said hereby release all my rights of custody in the foregoing premises so far as affected by this conveyance.

WITNESS my hand and seal this 18th day of JANUARY, 1949

In the presence of

George N. Haffty

Victorine J. Sears

Commonwealth of Massachusetts
~~The State of Massachusetts~~

Victorine J. Sears

Worcester, SS.

.. January 16, 1949. 19

personally appeared and acknowledged the foregoing instrument to be her voluntary act and deed. Before me.

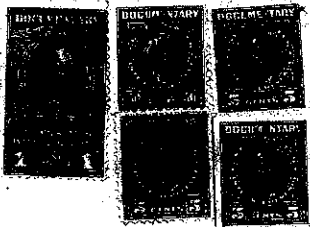
George N. Haffty
Justice of the Peace
Notary Public

George N. Haffty
My commission expires November 26, 1954

SS.

personally appeared and acknowledged the foregoing instrument to be voluntary act and deed. Before me.

Justice of the Peace
Notary Public



HILLSBOROUGH SS: Received and recorded 8-00 A. M., April 9, 1949

Examined by Ernest Corvino Register



120 Derry St

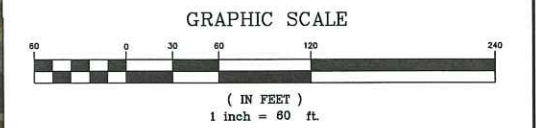
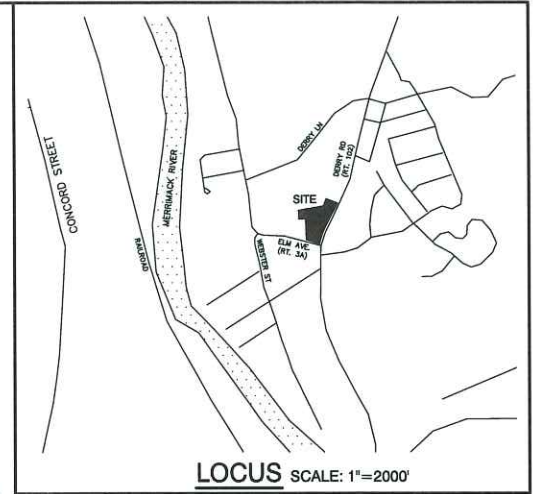
© 2017 Google

1992

Google Earth

42°46'46.60" N 71°26'42.43" W elev 156 ft eye alt 3437 ft

F:\Land Projects\3\14053-HUDSON-ELM-AVENUE-TOPSFIELD-ASSOCIATES\dwg\14053-EX-CONDITIONS.dwg 8/29/2017 7:35:42 AM EDT



ISSUED FOR REVIEW	BY	DATE	REVISION
0	ISM	8/29/17	

AERIAL VICINITY PLAN			
"120 DERRY ROAD" DERRY ROAD (RT. 102), HUDSON, NH MAP 156. LOTS 15 & 18 TOTAL PROJECT AREA: 415,870 S.F. (9.54 AC)			
Owner of Record: FIVE N ASSOCIATES PETER Q. NASH, TRUSTEE 91 AMHERST STREET NASHUA, NH 03064	Applicant: HUDSON ENTERPRISES, LLC 7 SWAIN DRIVE, HAMPTON FALLS, NH 03844		
Jones & Beach Engineers, Inc. <i>Civil Engineering Services</i>			
85 Portsmouth Ave. PO Box 219 Stratham, NH 03885	603-772-4746 FAX: 603-772-0227 E-MAIL: JBE@JONESANDBEACH.COM		
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM JONES & BEACH ENGINEERS, INC. (JBE). ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO JBE.			
DATE: 7/14/17	DESIGN: DMC	DRAFT: ISM	CHECKED: CWW
DRAWING NAME: 14053-EX-CONDITIONS.dwg			
PROJECT No.: 14053 SCALE: AS NOTED SHEET 1 OF 1			

DRAWING NO.
EX-A



TOWN OF HUDSON

FIRE DEPARTMENT

INSPECTIONAL SERVICES DIVISION



12 SCHOOL STREET, HUDSON, NEW HAMPSHIRE 03051

Emergency 911
Business 603-886-6005
Fax 603-594-1142

Robert M. Buxton
Chief of Department

Zoning Compliance/Determination

January 25, 2016

#16- 04

Wayne G Morrill
Jones and Beach Engineers, Inc
85 Portsmouth Avenue
Stratham, NH 03885

Re: 120 Derry Road Map 156 / Lot 15 &16
District: I

Dear Mr. Morrill,

I have received your request for zoning compliance/determination regarding the above referenced property.

Your inquiry is: do setback requirements apply to underground storage tanks?

My Determination is: Yes, tanks would need to comply with setback requirements, due to the definition section #334-6 from the Zoning Ordinance:

*Structure: A combination of materials assembled at a fixed location to give support or shelter, such as a building, bridge, trestle, tower, framework, retaining wall, **tank**, tunnel, tent, stadium, reviewing stand, platform, bin, fence, sign, flagpole or the like.*

The Zoning Ordinance section #334-7 requires all structures to conform with the Zoning Ordinance:

No building or land shall hereafter be used or occupied and no building or structure or part thereof shall be erected, moved or altered unless in conformity with the regulations specified in this chapter for the district in which it is located.

Please contact me if you have any questions.

Sincerely,



Bruce Buttrick, MCP
Zoning Administrator/Code Enforcement Officer
Hudson Fire Department - Inspectional Services Division
12 School Street
Hudson, NH 03051
(603) 816-1275
bbuttrick@hudsonnh.gov

cc: Zoning Board of Adjustment
J.Michaud, Town Assessor
J.Cashell, Town Planner
Chief Buxton
Deputy O'Brien
File

This determination may be appealed to the Hudson Zoning Board of Adjustment within 30 days of the receipt of this letter.



TOWN OF HUDSON

FIRE DEPARTMENT

INSPECTIONAL SERVICES DIVISION



12 SCHOOL STREET, HUDSON, NEW HAMPSHIRE 03051

Emergency 911
603-594-1142

Robert M. Buxton Business 603-886-6005

Chief of Department Fax

24 July, 2017

To: John Cashell
Interim Town Planner

Fr: John J. O'Brien
Deputy Fire Chief

Re: Commercial Development 120 Derry Rd Tax Map 156 Lot 15,16

A review of the approved site plan was conducted by this office. No additional comments are necessary. The following are required

All fire alarm systems are required to be connected to the municipal system.

Addressing must be approved by the Fire Department.

Each building must be Knox Box equipped.

If you have questions feel free to email jobrien@hudsonnh.gov or call 603-886-6021

John J. O'Brien *Job*
Deputy Fire Chief
Town of Hudson N.H

CLD | Fuss & O'Neill

540 Commercial Street • Manchester, NH 03101
ph: 603.668.8223 • fx: 603.668.8802
cld@cldengineers.com • www.cldengineers.com

Connecticut | Maine | Massachusetts | New Hampshire | New York | Rhode Island | South Carolina | Vermont

TO: File

FROM: Steven W. Reichert, PE *SWR*

DATE: September 13, 2017

RE: Town of Hudson Planning Board Review
120 Derry Road Retail Development
Tax Map 156, Lots 15 & 16; Acct. #1350-899
CLD | Fuss & O'Neill Reference No. 03-0249.1630

The following list itemizes the set of documents reviewed related to the "120 Derry Road" Retail Development Site Plan at 120 & 126 Derry Road, Hudson, New Hampshire.

- Package from Jones & Beach Engineers Inc. hand delivered and received at CLD | Fuss & O'Neill (CLD|F&O) dated August 29, 2017, including the following:
 1. Review Response Letter, prepared by Jones & Beach Engineers Inc., dated August 29, 2017.
 2. Copy of *Deed*, dated January 18, 1949.
 3. Copy of *Easement Deed*, dated September 29, 1978.
 4. Copy of Alternative Site Plans, prepared by Jones & Beach Engineers, Inc. dated August 28, 2017, unless otherwise noted, and including the following:
 - a. *Alternate Site Plan #1*
 - b. *Alternate Site Plan #2*
 - c. *Alternate Site Plan #3*
 5. Copy of *Aerial Vicinity Plan*, prepared by Jones & Beach Engineers, Inc., dated July 14, 2017.
 6. Copy of *Truck Turning Plan*, prepared by Jones & Beach Engineers, Inc., dated August 14, 2017, with latest revision dated August 28, 2017.
 7. Copy of *Traffic Response Letter*, prepared by Vanasse & Associates, Inc., dated August 18, 2017.
 8. Copy of *Drainage Analysis/Erosion and Sediment Control Plan*, prepared by Jones & Beach Engineers Inc., dated July 14, 2017, Rev. #1 dated August 28, 2017.
 9. Copy of *Commercial Development "120 Derry Road", Tax Map 156, Lots 15 & 16, Derry Road (Route 102), Hudson, NH Plan Set*, prepared by Jones & Beach Engineers Inc., dated August 14, 2017, with latest revision dated August 28, 2017, unless otherwise noted, and including the following:
 - a. *Cover Sheet, CS*, Sheet 1 of 30.
 - b. *Existing Conditions Plan, C1-1*, Sheet 2 of 30, dated July 14, 2017.
 - c. *Existing Conditions Notes, C1-2*, Sheet 3 of 30, dated July 14, 2017.

CLD | Fuss & O'Neill

Memorandum to File

CLD | Fuss & O'Neill Reference No. 03-0249.1630

September 13, 2017

Page - 2

- d. *Demolition Plan, C1-3*, Sheet 4 of 30.
- e. *Overall Site Plan, C2*, Sheet 5 of 30.
- f. *Site Plan, C2-1 and C2-2*, Sheets 6 and 7 of 30.
- g. *Overall Grading & Drainage Plan, C3*, Sheet 8 of 30.
- h. *Grading & Drainage Plan, C3-1 and C3-2*, Sheets 9 and 10 of 30.
- i. *Overall Utility Plan, C4*, Sheet 11 of 30.
- j. *Utility Plan, C4-1 and C4-2*, Sheets 12 and 13 of 30.
- k. *Sewer Plan & Profile, C4-3*, Sheet 14 of 30.
- l. *Lighting Plan, LP1*, Sheet 15 of 30.
- m. *Landscape Plan, Map 156, Lot 15, L1.0*, Sheet 17 [sic] of 30, dated Aug. 12, 2017, with latest revision dated August 29, 2017.
- n. *Detail Sheet, D1 to D10*, Sheets 17 through 26 of 30.
- o. *Erosion & Sediment Control Details, E1 and E2*, Sheets 27 and 28 of 30.
- p. *Color Elevations, A4*, dated 7/13/17.
- q. *Exterior Elevations, A-200*, not dated.

SWR:mjt

cc: Brooke Dubowik – Town of Hudson
Town of Hudson Engineering Division – File



September 13, 2017

Ms. Brooke Dubowik
Town of Hudson
12 School Street
Hudson, NH 03051

Re: Town of Hudson Planning Board Review
120 Derry Road Commercial Development Site Plan, 120 Derry Road
Tax Map 156, Lots 15 & 16; Acct. #1350-899
CLD | Fuss & O'Neill Reference No. 03-0249.1630

Dear Ms. Dubowik:

CLD | Fuss & O'Neill, Inc. (CLD | Fuss & O'Neill) has reviewed the second submission of materials received on August 29, 2017, related to the above-referenced project. The scope of our review is based on the Site Plan Review Codes, Stormwater Codes, Driveway Review Codes, Sewer Use Ordinance 77, Zoning Regulations, and criteria outlined in the Proposal approved September 16, 2003, revised September 20, 2004, June 4, 2007, September 3, 2008, and October 2015.

The project appears to consist of the redevelopment of a two lot site into a multi-use facility with a retail building, a convenience store and automotive fuel station, and a future restaurant. After demolition of the existing building, proposed improvements to the site include the construction of several driveways, parking areas, drainage improvements, an underground fuel storage system, and other associated site improvements. The proposed buildings within the site will be serviced by Municipal sewer and water. We note that the proposed subdivision of Lots 15 and 16 has been revised to a consolidation, with a condition of site plan approval noted as being a subdivision plan demonstrating the consolidation of those lots. No subdivision documents demonstrating this consolidation were included in the plan set received for review.

The following items have outstanding issues:

1. Site Plan Review Codes and Administrative Requirements and Definitions

- b. *Former CLD | Fuss & O'Neill Comment: HR 275-6.T.(d). The applicant has proposed installation of sidewalks and a crosswalk crossing Derry Road at the Elm Street intersection. No details were included in the plan set for pedestrian signal installations at this crosswalk. A crosswalk striping detail was also not provided in the plan set.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that off-site design plans and details will be provided upon approval as part of the final approved plan set. Adequacy and applicability of design elements for the crosswalk and pedestrian signals cannot be reviewed and verified by CLD | Fuss & O'Neill until they are included in a review package.

- f. *Former CLD | Fuss & O'Neill Comment: HR 275-8.C.(6)(a) and (b). The applicant has not shown specific loading spaces on the plan set other than a hatched area at the retail building. No dimensions were provided for this hatched area.*

Current CLD | Fuss & O'Neill Comment: The applicant has annotated loading areas at each building and included dimensions for each area. We note that the length of loading spaces at the Convenience Store and Retail building are less than the minimum of 60 feet. The applicant should verify that these spaces will only be used by shorter trucks and that the proposed lengths are adequate.

- k. *Former CLD | Fuss & O'Neill Comment:* HR 275-9.F. and 276-11.1.B.(20). The applicant has noted several existing easements on the plan set but did not include copies of any existing easements in the Site Plan Application materials received for review. Also, the applicant is proposing construction of some site features within these existing easements. The applicant should verify that installation of these features is not contrary to the terms of the easements.

Current CLD | Fuss & O'Neill Comment: The applicant has included copies of two existing easements with their response, and noted that they are working with Eversource to obtain design approval for items located within their easement. The applicant has relocated the dumpster pad outside the existing sewer easement. Copies of design approval documentation received from Eversource should be forwarded to the Town for their review and records.

- p. *Former CLD | Fuss & O'Neill Comment:* HR 276-11.1.B.(6). The Owner's signature is not on the plans.

Current CLD | Fuss & O'Neill Comment: The applicant has added a signature block for the Owner, but this signature has not been provided on the plan set.

- r. *Former CLD | Fuss & O'Neill Comment:* HR 276-11.1.B.(12) and ZO 334-64. The applicant has proposed parking areas within front setbacks on Elm Avenue and Derry Road, and with the new subdivision of the lots there is parking proposed within the side setback of lot 15-1.

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the proposed subdivision of land has been removed from the plans at this time. The proposed parking areas within the front setbacks remain and were not addressed by the applicant.

- v. *Former CLD | Fuss & O'Neill Comment:* HR 276-11.1.B.(21) and 290.5.K.(22). The applicant has noted that snow will be stored in the locations shown on the plans, but we were unable to locate any proposed snow storage areas depicted. The applicant has noted that any excess snow will be trucked off site.

Current CLD | Fuss & O'Neill Comment: The applicant has added snow storage locations to the plans. We note that the areas near the restaurant are located behind proposed guardrail, and areas east of the fuel pumps may conflict with proposed plantings. The applicant should review these proposed locations for feasibility/alternate snow storage locations.

2. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)

- d. *Former CLD | Fuss & O'Neill Comment:* HR 193.10.J. The applicant has not provided a tie-in detail for the connections of the proposed driveways to the existing pavement. Also the limits for reconstruction/paving at each driveway need to be clearly shown on the plans.

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the final off-site design plans will provide more detail for the driveway/roadway tie-ins. Adequacy and applicability of design elements for the driveway tie-ins cannot be reviewed and verified by CLD | Fuss & O'Neill until they are included in a plan set review package.

- k. **New Comment:** HR 193-10.6. With proposed consolidation of lots, the applicant is creating a single lot with multiple driveways which is not allowed by the Regulation.

3. Traffic

- d. *Former CLD | Fuss & O'Neill Comment:* On page 11, the first paragraph under Sight Distance Evaluation refers to MassDOT standards, which do not apply to this project.

Current CLD | Fuss & O'Neill Comment: The applicant acknowledged general agreement with this comment, but did not provide an updated/corrected document.

- h. *Former CLD | Fuss & O'Neill Comment:* It does not appear that left turn lane warrants were conducted for the site drive on Elm Street and should be completed for all periods. Given the potential impact of queued vehicles from the signal, some sort of bypass treatment might be reasonably considered here as well.

Current CLD | Fuss & O'Neill Comment: The left turn warrants analysis for the Elm Avenue site drive were conducted only for the 2018 Build condition. In both the weekday PM and Saturday midday peaks, the limiting advancing volumes are within 10 vehicles of meeting the warrant. The 2028 cases should also be evaluated to determine if the warrants would be satisfied by then, since they are so close to meeting it in 2018.

- j. *Former CLD | Fuss & O'Neill Comment:* The capacity calculations for NH 102/3A suggest that the natural cycle length is 70 seconds, whereas 120 seconds is shown as the existing/proposed cycle length, with 40 seconds of it being dedicated to serve the right turn exit from Elm Street. Given the volume of left turns into Elm Street, either with or without the project, consideration should be given to making this a protected only phase in the signal phasing, since it is unknown how many of these turns are able to safely proceed on the permissive phase given the opposing volumes. The left turn lane on Elm Street could be designated as a left-thru lane, and the heavy right turns from Elm Street could overlap with the protected northbound left turn phase from an exclusive turn lane, thus potentially minimizing the overall time given to the side street traffic, particularly with such a low volume left turn exiting movement (60 vph or less per the study projections).

Current CLD | Fuss & O'Neill Comment: No documentation of the effectiveness of intersection operations with the suggested protected only left turn phasing option was provided. We concur that the NHDOT review of these comments should be completed before any changes to the signal phasing are implemented.

- l. *Former CLD | Fuss & O'Neill Comment:* The study recommendations include the installation of a sidewalk along the north side of Elm Street to the west site drive before entering the site. This appears to be a more circuitous route than if a sidewalk was provided along the west side of NH 102 and entered the site at the southerly site drive and connected down to the pharmacy and, eventually via the proposed crosswalk, over to the convenience store. This may be the more frequently used path for pedestrians from the residential areas on the east side.

Current CLD | Fuss & O'Neill Comment: The applicant should reconsider the additional utility of providing the suggested sidewalk along the Route 102 site frontage in addition to the sidewalk along Elm Avenue.

4. Utility Design/Conflicts

- e. *Former CLD | Fuss & O'Neill Comment:* The applicant has not provided any sizing calculations for the proposed grease traps.

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the final restaurant layout is unknown at this time and the proposed grease trap is a place holder for that location until the final design is known. Once the restaurant layout has been finalized grease trap information should be forwarded to the Town for their review. The applicant also noted that the grease trap at the C-store is their typical design which utilizes a 1,500 gallon grease trap.

- f. *Former CLD | Fuss & O'Neill Comment:* The applicant has noted the need for an internal drop in existing manhole SMH 2011 but has not provided a detail for its construction.

Current CLD | Fuss & O'Neill Comment: The applicant has added an internal drop manhole detail to the plans. The applicant should review the detail and the height of the drop with the Town Sewer Department to ensure they are comfortable with this design.

- j. *Former CLD | Fuss & O'Neill Comment:* The applicant has indicated that the parcel is expected to generate 6,069 gallons per day, but has not indicated whether there are any downstream restrictions on receiving the flow, or whether the Sewer Utility has granted any required flow increase.

Current CLD | Fuss & O'Neill Comment: The applicant has noted that they have submitted to NHDES for review and will keep the Town up to date on any changes requested by NHDES. No information was provided regarding coordination with the Hudson Sewer Department or capacity in downstream lines.

- m. *Former CLD | Fuss & O'Neill Comment:* The applicant has provided sewer flow calculations but they do not appear to take peaking factors into account for each use.

Current CLD | Fuss & O'Neill Comment: The applicant has provided a sewer flow table with peak flows shown. The total sewer flows in the table don't appear to correlate with the values in the columns above. The applicant should review these totals and revise as necessary.

7. Erosion Control/Wetland Impacts

- c. *Former CLD | Fuss & O'Neill Comment:* HR 290-5.K.(20). The applicant should review the need for erosion controls west of proposed level spreader #1.

Current CLD | Fuss & O'Neill Comment: The applicant has added a note to the plans showing installation of slope protection on all disturbed ground downhill of level spreader #1. As this feature is near a wetlands area, additional erosion controls should be considered for installation prior to construction.

8. Landscaping (HR 276-11.1.B.(20)) and Lighting (HR 276-11.1.B.(14))

- b. *Former/Current CLD | Fuss & O'Neill Comment:* HR 275-8.C.(7)(c). *The applicant has included existing trees in the shade tree count to meet the Regulation.*

10. Other

- d. *Former CLD | Fuss & O'Neill Comment:* *The applicant has proposed guardrail installation along the west side of the project site. No installation details were included in the plans.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a guardrail detail to the plans. We note that information related to end/terminal treatments was not provided.

- e. *Former CLD | Fuss & O'Neill Comment:* *The applicant is proposing construction of new sidewalk on the east side of Derry Road where there is a utility pole anchor in the center of the sidewalk at the top of the accessible ramp. The applicant should review this proposed layout for Americans with Disability Act (ADA) compliance. Also, further north there appears to be a speed limit sign that will conflict with the proposed sidewalk. The applicant should note whether and how this sign will be relocated.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that sidewalk improvements/construction on Derry Road and Elm Avenue will be included in the final off-site improvement plans and detail by others. Adequacy and applicability of design elements for the sidewalks cannot be reviewed and verified by CLD | Fuss & O'Neill until they are included in a plan set review package.

- f. *Former CLD | Fuss & O'Neill Comment:* *The applicant has located the Derry Road crosswalk near an existing catch basin on the east side of the road. On the plans it is unclear if this catch basin is within the crosswalk or adjacent to it. The applicant should clarify the location of this structure and propose an alternative layout if it conflicts with the crosswalk.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that modifications to off-site designs will be made in the final off-site design and will take into consideration catch basins and similar items. Adequacy and applicability of design elements for the crosswalk, sidewalk, and drainage cannot be reviewed and verified by CLD | Fuss & O'Neill until they are included in a plan set review package.

- g. *Former CLD | Fuss & O'Neill Comment:* *The applicant should show and detail a handicapped accessible ramp at the Phillips Drive end of the Derry Road east side sidewalk.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that a detail will be added to the final off-site design plans. Adequacy and applicability of design elements for this sidewalk cannot be reviewed and verified by CLD | Fuss & O'Neill until they are included in a plan set review package.

- j. *Former CLD | Fuss & O'Neill Comment:* *The applicant should show the type of sidewalk intended for the convenience store as the plan does not define the proposed material. The building elevation calls the area out as concrete sidewalk.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that additional annotation for curbing has been added to the plans. However, we were unable to find any further clarification of sidewalk material type at the convenience store in the site plans.

- m. *Former CLD | Fuss & O'Neill Comment: The applicant should review incomplete note references that are shown as "xx".*

Current CLD | Fuss & O'Neill Comment: The applicant has modified incomplete note references except on Sheet A-200, which should be corrected.

The following items require Town evaluation or input:

1. Site Plan Review Codes and Administrative Requirements and Definitions

- a. HR 275-6.I. The scope of this review does not include the adequacy of any fire protection provisions for the fuel station or buildings. No proposed measures were included in CLD | Fuss & O'Neill's review package.

- g. *Former CLD | Fuss & O'Neill Comment: HR 275-8.C.(8). The subject lot abuts a residential zone to the north. The applicant should review the proposed clearing, landscaping, and existing vegetation to confirm that adequate screening will exist upon completion of the project.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that in accordance with the PSNH (Eversource) easement, they are unable to plant a full vegetated buffer in this area as PSNH (Eversource) has the right to remove any such vegetation. There is an existing wooded area along the north edge of the easement area that will act as a vegetated buffer.

- i. *Former CLD | Fuss & O'Neill Comment: HR 275-9.C. The applicant has not provided a Noise Study.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that they will be confirming with the Planning Board that a Noise Study is not required for this project.

- j. *Former CLD | Fuss & O'Neill Comment: HR 275-9.D. The applicant has not provided a Fiscal Impact Study.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that they will be confirming with the Planning Board that a Fiscal Impact Study is not required for this project.

- l. *Former CLD | Fuss & O'Neill Comment: HR 275-9.I. The applicant has not provided an Environmental Impact Study.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that they will be confirming with the Planning Board that an Environmental Impact Study is not required for this project.

- n. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(4)(a) and (b). The applicant has not provided an approval block with language that meets the Regulation. The approval block provided is not located in the lower left corner and is not on each sheet of the plan set.*

Current CLD | Fuss & O'Neill Comment: The applicant has provided an approval block on all plans except the Landscape Plan that meets the Regulation. (The approval block on the Landscape Plan does not quite meet the size requirement.)

- o. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(5). The applicant has not provided the one-year expiration statement block with language that meets the Regulation. The block provided is only on the Overall Site Plan sheet and not located adjacent to the approval block.*

Current CLD | Fuss & O'Neill Comment: The applicant has provided the one-year expiration statement block on all plans except the Landscape Plan that meets the Regulation. (The expiration block on the Landscape Plan does not quite meet the size requirement.)

- s. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(13). The applicant has not included details for the proposed pylon signs for each lot.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that sign details will be submitted to the Town prior to receiving a permit. The applicant has also revised the plans to remove two of the three proposed pylon signs.

- w. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(21)(b). The applicant has not provided any alternative proposals for consideration in the review package received for review.*

Current CLD | Fuss & O'Neill Comment: The applicant has included three alternative proposals in the review response package. The alternative proposals appear to be mostly revisions to the restaurant area on the north end of the site, associated changes to the convenience store parking lot layout, and changes to the fuel dispenser layout. Due to the reconfiguring of parking around the convenience store none of the alternative proposals provide enough parking to meet the minimums required by the Regulation.

3. Traffic

- i. *Former CLD | Fuss & O'Neill Comment: Capacity analysis of the northerly drive does not include any influence from Megan Drive traffic, even though the volumes would be low. It also finds that left turn exits would experience significant delays at LOS F levels. It is noted that this condition would be 'self-regulating' and traffic would likely be redistributed to the signalized intersection to turn left onto NH 102 at a controlled location if delays got too long. As such, the distribution of this many left turns at that location appears unrealistic, given that recent NHDOT traffic counts on NH 102 just north of the site indicate that NH 102 volumes are fairly consistent during the day. Therefore, some of these trips should be reallocated to the signalized intersection to assess any impact from these additional left turn demands at the signal.*

Current CLD | Fuss & O'Neill Comment: The revised findings of reduced delays are not surprising, given the excessive delay for left turns from the north drive in the original analyses. Nevertheless, this left turn exit will still operate at LOS F levels of delay with queues of 3-4 vehicles on-site during the PM peak. Furthermore, given the large amount of green time given to the Elm Avenue approach despite the existing low levels of left turn volumes, it would not be expected that any additional left turns diverted from the northerly drive to the signal would have an appreciable impact on the signalized intersection operations. No further CLD | Fuss & O'Neill comment.

- k. *Former CLD | Fuss & O'Neill Comment: The queue analysis of the Elm Street approach shows that the eastbound right turn movement would be close to extending beyond the available lane storage for the left turn lane in the 2018 Build AM peak case, and certainly by the 2028 AM peak case. Queues on NH 102 would also extend beyond either end of Phillips Drive, delaying any movements out of these side streets as they do today. Southbound queues would also routinely block the southerly right turn out only driveway, so these vehicles would have to queue on site or exit via Elm Street.*

Current CLD | Fuss & O'Neill Comment: While the location of the existing streets and driveways are out of the control of the applicant, the increased intensity of activity in the vicinity of the intersection will exacerbate any existing issues in the area.

4. Utility Design/Conflicts

- h. *Former CLD | Fuss & O'Neill Comment: The applicant has not shown a fire service connection to the convenience store building. The applicant should verify that none is required or provide appropriate details.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the convenience store's typical design does not require a fire service connection, and that architectural plans including MEP layout will be submitted to and reviewed by the Building Inspector.

5. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- i. *Former CLD | Fuss & O'Neill Comment: HR 290-5.L(1). The applicant should keep the Town informed of all communication with New Hampshire Department of Environmental Services (NHDES) in relation to the Alteration of Terrain (AoT) Permit discussions to ensure NHDES comments do not alter drainage design/calculations.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that they will forward comments from NHDES and NH AoT if they affect drainage design/calculations.

6. Zoning (ZO 334)

- c. *Former CLD | Fuss & O'Neill Comment: ZO 334-27.2. The lots created by the proposed subdivision of lots 15 and 16 appear to conform to the minimum lot area, frontage, and building setback requirements noted in the Regulation. Boundary dimensions and bearings for the new lots are not shown on the plans. The applicant has noted that a condition of the site plan approval will be a subdivision plan demonstrating the consolidation of Lots 15 and 16 and the division of these lots into three lots. This subdivision plan was not included in CLD | Fuss & O'Neill's review package.*

Current CLD | Fuss & O'Neill Comment: The applicant noted that a subdivision plan was now included in the plan set, but we did not find a separate subdivision plan in the package received for review. The applicant has noted in other review responses that the lots will not be subdivided at this time and they will instead be consolidating lots 15 and 16 into one lot. The applicant has also noted that a condition of site plan approval is the subdivision plan demonstrating the consolidation of those lots.

9. State and Local Permits (HR 275-9.G.)

- a. *Former CLD | Fuss & O'Neill Comment: HR 275-9.G. No copies of applicable approvals or permits were provided in the package received for review.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that a copy of the NH AoT application was sent to the Town and included a copy with the review response package (located within the Drainage Analysis). Copies of any approvals or permits received should be forwarded to the Town for their records.

- d. *Former CLD | Fuss & O'Neill Comment: HR 275-9.G. The applicant has noted that a New Hampshire Department of Transportation (NHDOT) Driveway permit is required. The applicant should forward all relevant NHDOT permit documentation to the Town for their records.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that copies of the recently submitted driveway permit materials have been forwarded to the Town planning staff.

- e. *Former/Current CLD | Fuss & O'Neill Comment: Evidence of NHDES approval of the proposed underground fuel storage facility was not included in CLD | Fuss & O'Neill's review package.*
- f. The applicant has noted the need for a tree clearing permit.
- h. The applicant has noted the intent to remove the existing subsurface disposal system in accordance with NHDES requirement.

10. Other

- h. *Former CLD | Fuss & O'Neill Comment: The applicant is proposing construction of new sidewalk on the west side of Derry Road where it appears to conflict with the existing pedestal mounted traffic signal. The applicant should verify that proposed sidewalk construction will provide at least the minimum ADA required sidewalk width at this location.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the off-site design plans will account for these adjustments, and the revised site and utility plans note the need for the relocated traffic signal and utility meter.

- i. *Former CLD | Fuss & O'Neill Comment: The applicant has noted a proposed monument sign south of the retail building. The leader on the note does not connect with anything on the plan, and no additional information or details are provided for this. The applicant should clarify the intent of this item.*

Current CLD | Fuss & O'Neill Comment: The applicant has corrected the annotation to point to the proposed locations, and noted that a monument sign detail will be submitted prior to permitting.

- k. *Former CLD | Fuss & O'Neill Comment: Details for the fuel area slab/positive limiting barrier, were not included in the submittal. Details showing the relationship of the canopy and slab were also not provided.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that additional details for the fuel slab area/positive limiting barrier will be included in building plans submitted prior to receiving a building permit.

The following items are resolved or have no further CLD | Fuss & O'Neill input:

1. Site Plan Review Codes and Administrative Requirements and Definitions

- c. *Former CLD | Fuss & O'Neill Comment: HR 275-6.T.(d). The applicant has included a note for a 5' wide striped crosswalk near the retail store loading area but did not actually depict the crosswalk on the plans. The crosswalk striping should be detailed, including proposed layout within the loading area.*

Current CLD | Fuss & O'Neill Comment: The applicant has depicted a crosswalk through the loading area on the plans and added a detail for the crosswalk striping. No further CLD | Fuss & O'Neill comment.

- d. *Former CLD | Fuss & O'Neill Comment: HR 275-8.C.(2)(a) and ZO 334-15.A. The applicant has provided parking calculations for the convenience store with fueling island which were calculated based solely on the square footage of the retail space. The Regulation requires one additional space per employee on the largest shift. Anticipated employee needs were not noted in the plan set. In addition to the building uses, the Regulation requires one parking space per fuel dispenser.*

Current CLD | Fuss & O'Neill Comment: The applicant has added three employee parking spaces to conform with the Regulation. The applicant has also indicated the parking spaces at the fuel dispensers. No further CLD | Fuss & O'Neill comment.

- e. *Former CLD | Fuss & O'Neill Comment: HR 275-8.C.(2)(c). The applicant has not indicated whether the proposed restaurant will have a bar. We note that the proposed parking space count is adequate for a restaurant with a bar.*

Current CLD | Fuss & O'Neill Comment: The applicant has updated the parking calculation note to include a bar at the restaurant. No further CLD | Fuss & O'Neill comment.

- h. *Former CLD | Fuss & O'Neill Comment: HR 275-8.C.(11). The applicant should revise sign R7-8A within the traffic control schedule to note that the text should read "Van Accessible", not "Van".*

Current CLD | Fuss & O'Neill Comment: The applicant has revised the detail. No further CLD | Fuss & O'Neill comment.

- m. *Former CLD | Fuss & O'Neill Comment: HR 276.11.1.B.(3). The applicant has provided a title block that does not meet the Regulation (location and contents).*

Current CLD | Fuss & O'Neill Comment: The applicant has provided a title block on the plans that meets the Regulation. No further CLD | Fuss & O'Neill comment.

- q. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(8). The locus plan scale does not meet the Regulation.*

Current CLD | Fuss & O'Neill Comment: The applicant has revised the locus plan scale to meet the Regulation. No further CLD | Fuss & O'Neill comment.

- t. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(15). The applicant has not shown all buildings within 50 feet of the tract.*

Current CLD | Fuss & O'Neill Comment: The applicant has added the building located at lot 14 to meet the Regulation requirement. No further CLD | Fuss & O'Neill comment.

- u. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(16). The applicant has not shown all travel or parking areas within 200 feet of the tract. The applicant has provided an aerial photograph of the subject lot; however, no scale is noted and the tract is not fully identified.*

Current CLD | Fuss & O'Neill Comment: The applicant has provided an aerial vicinity plan with the site identified. No further CLD | Fuss & O'Neill comment.

- x. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(23). The applicant has not noted any pertinent highway projects on the plan set.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a note regarding highway projects. No further CLD | Fuss & O'Neill comment.

- y. *Former CLD | Fuss & O'Neill Comment: HR 276.11.1.B.(24)(a). The applicant has provided open space percentage values for lots 15 and 16, but the applicant did not provide open space calculations for each of these proposed lots. Areas of the new subdivided lots were not provided on the plans.*

Current CLD | Fuss & O'Neill Comment: The applicant has removed the proposed subdivision of the lots from the plans and updated the open space calculations to now include the entire consolidated lot. No further CLD | Fuss & O'Neill comment.

- z. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(25). The applicant has proposed travelways within the side setbacks created by the new subdivision of the lots. Also, the applicant should review the need for cross easements for the use of these travelways between the new lots.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the proposed subdivision of land has been removed from the plans at this time. No further CLD | Fuss & O'Neill comment.

2. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)

- a. *Former CLD | Fuss & O'Neill Comment: HR 193.10.B. The applicant should review the need for a "Do Not Enter" sign at the exit driveway onto Derry Road from lot 15.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a "Do Not Enter" sign to the exit driveway as recommended. No further CLD | Fuss & O'Neill comment.

- b. *Former CLD | Fuss & O'Neill Comment: HR 193.10.E. The applicant has not shown sight distances for any driveway on the plan set.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a note regarding sight distances for the project driveways all exceeding 500 feet. No further CLD | Fuss & O'Neill comment.

- c. *Former CLD | Fuss & O'Neill Comment: HR 193.10.I. The applicant has proposed shared driveways between the three new subdivided lots.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the proposed subdivision of land has been removed from the plans at this time. No further CLD | Fuss & O'Neill comment.

- e. *Former CLD | Fuss & O'Neill Comment: HR 193.10.J. The applicant has shown a paver island at the southern Derry Road driveway, but has not provided any details for its construction.*

Current CLD | Fuss & O'Neill Comment: The applicant has added detail for construction of the paver island. No further CLD | Fuss & O'Neill comment.

- f. *Former CLD | Fuss & O'Neill Comment: The applicant has shown multiple signs in one location. A detail should be provided that includes mounting heights and mounting order where multiple signs are to be mounted on a single support.*

Current CLD | Fuss & O'Neill Comment: The applicant has modified the sign detail to include specifications for the installation of a secondary sign. No further CLD | Fuss & O'Neill comment.

- g. *Former CLD | Fuss & O'Neill Comment: The applicant should review and confirm the intent for large truck access for fuel and other materials deliveries to the site as it appears that vehicles larger than WB-50 may have trouble safely negotiating the site driveways and accessways.*

Current CLD | Fuss & O'Neill Comment: The applicant has provided a truck turning plan that shows proposed access to the site for WB-67 and WB-50 trucks. We note that no additional signing for truck access restrictions was proposed. No further CLD | Fuss & O'Neill comment.

- h. *Former CLD | Fuss & O'Neill Comment:* The applicant has shown the word "STOP" at many internal intersections, but has not indicated whether it is intended to paint the word on pavement. If it is intended to be painted, construction details including size should be provided. (Details for stop bar painting and "DO NOT ENTER" and "DRIVE THRU" painting should also be provided.)

Current CLD | Fuss & O'Neill Comment: The applicant has added details for stop bars and pavement symbol markings. No further CLD | Fuss & O'Neill comment.

- i. *Former CLD | Fuss & O'Neill Comment:* The grading plan does not clearly show how handicapped access will be provided to the proposed C-Store.

Current CLD | Fuss & O'Neill Comment: The applicant has added a handicapped accessible ramp to the sidewalk in front of the C-Store. No further CLD | Fuss & O'Neill comment.

- j. *Former CLD | Fuss & O'Neill Comment:* The applicant should clarify the difference between solid arrow and hollow arrow pavement markings.

Current CLD | Fuss & O'Neill Comment: The applicant has replaced all hollow arrows with solid arrows. No further CLD | Fuss & O'Neill comment.

3. Traffic

- a. *Former CLD | Fuss & O'Neill Comment:* The intersection traffic counts focused only the signal at NH Routes 102/3A but did not include either Megan Drive or either/both ends of Phillips Drive, both relatively low-volume residential intersections near the site. Since the northerly site drive is proposed across from Megan Drive, it will have some influence on the operation of this unsignalized intersection despite the expected low volumes. The Phillips Drive intersections are in close proximity to the signalized intersection and are already affected by queuing along NH 102 at the signal, so any increase in traffic in this area may exacerbate these conditions.

Current CLD | Fuss & O'Neill Comment: The applicant has noted their general agreement with this comment. No further CLD | Fuss & O'Neill comment.

- b. *Notwithstanding the above comment, we concur with the derivation of the base and future No-Build traffic volumes using the 0.5% annual background growth rate without the need for a seasonal adjustment factor.*
- c. *It should be noted that the average (37 mph) and 85th percentile (41 mph) speeds northbound exceed the posted 35 mph speed limit. These values affect the sufficiency analysis of the proposed northbound storage lane for the northerly site drive discussed below.*
- e. *We concur with the trip generation calculations for the three proposed uses on the site, including the calculated pass-by trip percentages.*

- f. *Former CLD | Fuss & O'Neill Comment: The trip distribution and assignment process appears to apply the same percentages for both 'new' and 'pass-by' trips, which is normally not the case. The 'new' trips are a function of the likely origins of trips going directly to and from the site. Given the prevalence of similar uses along the NH 102 corridor north and south of the site and, conversely, the lack of such uses along NH 3A, it suggests that there would be more 'new' trips coming from the west than assumed here. Furthermore, the 'pass-by' trip rates would vary by time of day, given the directional flows of traffic through the area, primarily to and from NH 102.*

Figure 6 shows a summary of the assumed trip distribution without providing supporting documentation as to which trips are 'new' versus 'pass-by', so verifying the application of these percentages is difficult. It is our opinion that the trip distribution and assignment calculations need to be revisited to better define the 'new' and 'pass-by' trips based on their individualized distributions. Our current comments on the intersection capacity and left turn lane warrants analyses are based on the volumes contained in the report and will need to be reassessed upon the revised trip distributions and any subsequent capacity analysis results.

Current CLD | Fuss & O'Neill Comment: The revisions to the new and 'pass-by' trip distribution percentages are acceptable. We note that the new trip percentage in Figure 5R for Elm Avenue is shown as 15% while the calculations reflect a 30% distribution, which is accurate.

- g. *Former CLD | Fuss & O'Neill Comment: The Left Turn Warrants analysis shows that the turn lane for the north drive is needed and is of adequate length. The turn bay length used the posted speed limit, whereas the spreadsheet asks that the 85th percentile speed be entered. When this value (41 vs 35 mph) is used, the calculations show that the bay length is not adequate. Also, all three peak periods should be tested for bay length adequacy.*

Current CLD | Fuss & O'Neill Comment: We concur with the revised analysis for the north drive. No further CLD | Fuss & O'Neill comment.

4. Utility Design/Conflicts

- a. *Former CLD | Fuss & O'Neill Comment: HR 275-9.E. and 276-13. The applicant has not provided any installation details for the underground utilities proposed for the site.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a utility trench detail to the plans and noted that all underground utility installations will be coordinated with the appropriate utility company. No further CLD | Fuss & O'Neill comment.

- b. *Former CLD | Fuss & O'Neill Comment: HR 275-9.E and 276-13. The applicant has not shown any proposed electrical connections between the fuel dispenser area and the proposed convenience store.*

Current CLD | Fuss & O'Neill Comment: The applicant has shown a typical electrical connection on plan sheet C4-1 for the fuel dispensers. No further CLD | Fuss & O'Neill comment.

- c. *Former CLD | Fuss & O'Neill Comment: HR 275-9.E and 276-13. The applicant has not shown electrical connections to the proposed site lighting or pylon signs.*

Current CLD | Fuss & O'Neill Comment: The applicant has shown a typical conduit layout for the proposed site lighting and pylon sign on plan sheet LP-1. No further CLD | Fuss & O'Neill comment.

- d. *Former CLD | Fuss & O'Neill Comment: HR 276-13. D. The applicant has not proposed any screening around the transformer to be installed in lot 15.*

Current CLD | Fuss & O'Neill Comment: The applicant has added shrubbery to screen the transformer. No further CLD | Fuss & O'Neill comment.

- g. *Former CLD | Fuss & O'Neill Comment: The applicant has indicated several locations where proposed utilities cross each other. Water/sewer crossing details were included in the plan set but no details were provided for these utilities crossing with drainage.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a note to the plan set requiring rigid foam insulation installation where these utilities cross within 12 inches of a drain line. No further CLD | Fuss & O'Neill comment.

- i. *Former CLD | Fuss & O'Neill Comment: The applicant has shown two sewer manholes labelled SMH-302 on the plan set.*

Current CLD | Fuss & O'Neill Comment: The applicant has corrected the manhole annotation. No further CLD | Fuss & O'Neill comment.

- k. *Former CLD | Fuss & O'Neill Comment: The applicant has proposed installation of a dumpster pad and enclosure over an existing sewer easement. If the sewer is Town-owned, we recommend that the concrete pad and dumpster be relocated out of the easement.*

Current CLD | Fuss & O'Neill Comment: The applicant has moved the dumpster pad out of the sewer easement area. No further CLD | Fuss & O'Neill comment.

- l. *Former CLD | Fuss & O'Neill Comment: The applicant has proposed guardrail installations within the sewer easement. If the easement is in favor of the Town, additional installation details should be provided demonstrating how the sewer will be protected during construction.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that with the embedment depth of the guard rail posts there will still be 17.5' – 18.5' of cover over the sewer. No further CLD | Fuss & O'Neill comment.

5. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)

- a. *Former CLD | Fuss & O'Neill Comment: The applicant should review the height and type of fence (4' black chain link fence) that is illustrated surrounding the Gravel Wetland #2 on Detail Sheet D7 to ensure it meets safety standards where children might be exposed to drainage structures. (Fence details were not included in the plan set.)*

Current CLD | Fuss & O'Neill Comment: The applicant has raised the fence height to six feet. No further CLD | Fuss & O'Neill comment.

- b. *Former CLD | Fuss & O'Neill Comment: There is a discrepancy between the Drainage Analysis and Detail Sheet D5 for DMH 003 and DMH 006 inverts. The applicant should coordinate elevations and sizes accordingly.*

Current CLD | Fuss & O'Neill Comment: The applicant has coordinated the inverts on detail sheet D7 to match Hydrocad elevations. No further CLD | Fuss & O'Neill comment.

- c. *Former CLD | Fuss & O'Neill Comment: HR 275-9.A(1), 289-20.C(1), and 290-5.L(10)(m),(o), and (p). There is an increase in volume within the 10-Year and 25-Year analysis between the pre and post conditions at Analysis Points 2 and 3; nearly a 190% increase at AP2 and nearly 150% increase at AP3 from the pre to post 25-Year analysis. The applicant should provide additional information on the downstream abutter(s), ensure the downstream drainage system can handle the increase in volume.*

Current CLD | Fuss & O'Neill Comment: The applicant has converted the proposed gravel wetlands to infiltration basins, reducing the overall discharge volume. No further CLD | Fuss & O'Neill comment.

- d. *Former CLD | Fuss & O'Neill Comment: HR 290-5.C. There are discrepancies between the calculations provided within the Drainage Analysis with the rip rap sizes noted upon Grading and Drainage Plans C3-1 and C3-2 where lengths and widths do not match. Also there appear to be seven calculation sheets missing within the Drainage Analysis. The applicant should review and correct these items.*

Current CLD | Fuss & O'Neill Comment: The applicant has revised the rip rap calculations to include all rip rap locations and are included in the revised drainage report. All rip rap locations now match in plan and design. No further CLD | Fuss & O'Neill comment.

- e. *Former CLD | Fuss & O'Neill Comment: HR 290-5.G. The applicant should provide test pit data/logs upon the plan set or within the Drainage Report. (They were provided in the application.)*

Current CLD | Fuss & O'Neill Comment: The applicant has added test pit logs to the drainage report. No further CLD | Fuss & O'Neill comment.

- f. *Former CLD | Fuss & O'Neill Comment: HR 290-5.G. The applicant should provide additional information on the intended pretreatment of stormwater that makes its way into the Rain Gardens. Proper pretreatment (forebay, swale, etc.) ensures the treatment BMP does not become clogged with sediment over time, reducing the treatment of stormwater.*

Current CLD | Fuss & O'Neill Comment: The applicant has revised rain gardens #1 and #3 to include gravel forebay berms as pretreatment. No further CLD | Fuss & O'Neill comment.

- g. *Former CLD | Fuss & O'Neill Comment: HR 290-5.H: The applicants Drainage Report calculations do not account for frozen ground conditions. The applicant should provide additional information or request a waiver for this requirement.*

Current CLD | Fuss & O'Neill Comment: The applicant has added stand pipes to each infiltration practice and added a detail for their construction to prevent frozen ground conditions. No further CLD | Fuss & O'Neill comment.

- h. *Former CLD | Fuss & O'Neill Comment: HR 290-5.L(1). The 25 Year Post-Development nodes 2P, 3P, CB107, CB109, CB110, DMH1, and DMH6 have an outflow greater than an inflow. This represents a system under pressure; most likely that is not the intent of this design. The applicant should review these nodes and address this issue. This also occurs during the 50-Year Post-Development nodes 2P, 3P, CB101, CB105, CB107, CB 109, CB111, CB121, CB122, CB124, CB126, CB129, DMH1, and DMH6.*

Current CLD | Fuss & O'Neill Comment: The applicant has revised the HydroCAD model to ensure outflows are not greater than inflows. No further CLD | Fuss & O'Neill comment.

- j. *Former CLD | Fuss & O'Neill Comment: HR 290-9.A. Site Specific Soil Delineation is used upon the Existing Conditions Plan Sheet C1-1, as well as a letter from Luke Hurley within the Drainage Analysis. The applicant should provide additional soil information upon the plan; including but not limited to soil scientist, date of delineation, soil types, etc.*

Current CLD | Fuss & O'Neill Comment: The applicant has added soil information to the Existing Conditions plan. No further CLD | Fuss & O'Neill comment.

- k. *Former CLD | Fuss & O'Neill Comment: HR 290-9.A. The Drainage Analysis states that a 2-Year and 50-Year 24-Hour Summary Analysis for the pre-development conditions is provided. The 2-Year or 50-Year Summary could not be located within the drainage report.*

Current CLD | Fuss & O'Neill Comment: The applicant has added the requested summaries. No further CLD | Fuss & O'Neill comment.

- l. *Former CLD | Fuss & O'Neill Comment: The applicant has shown a four foot curb break near the south driveway at Elm Avenue. If this is intended to correlate with rip rap area #10 the applicant needs to coordinate the plan details as this rip rap area is shown further south along the driveway.*

Current CLD | Fuss & O'Neill Comment: The applicant has removed the curb break. No further CLD | Fuss & O'Neill comment.

- m. *Former CLD | Fuss & O'Neill Comment: The applicant should clarify which rain garden detail is to be utilized for the current project. Unused details should be removed from the plan set.*

Current CLD | Fuss & O'Neill Comment: The applicant has removed unused rain garden details from the plan set. No further CLD | Fuss & O'Neill comment.

- n. *Former CLD | Fuss & O'Neill Comment: The applicant has proposed a rain garden ten feet below adjacent drivable area. The applicant should note the intent for a drivable access for maintenance purposes. The applicant should also note the intent for access to all gravel wetland areas for maintenance. We are unable to tell how access will be provided to the southwest end of the exterior gravel wetland and we are unable to tell if a fence limits access to the proposed interior gravel wetland area.*

Current CLD | Fuss & O'Neill Comment: The applicant has widened the berm around infiltration basin #1 to provide access around the perimeter and noted the proposed access points for infiltration basins #2 and #3. No further CLD | Fuss & O'Neill comment.

- o. *Former CLD | Fuss & O'Neill Comment: The applicant should clarify the intent for any mature plants to be used in the rain gardens. The detail and landscape plan only reference a seed mix.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the rain gardens will be planted with wetlands seed mixes as depicted on the landscape plans. No further CLD | Fuss & O'Neill comment.

6. Zoning (ZO 334)

- a. *Former CLD | Fuss & O'Neill Comment: ZO 334-14. The applicant has not provided an architectural elevation or other detail noting the proposed height of the future restaurant building.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that elevations will be provided prior to receiving a building permit, and that any modifications to the footprint of the building will require going back to the Planning Board. No further CLD | Fuss & O'Neill comment.

- b. *ZO 334-20. The subject site is located in the Industrial (I) zoning district and all proposed uses are permitted within this district.*

- d. *ZO 334-33. The applicant has shown wetlands within a portion of the subject site. There are no improvements proposed within these wetland areas.*

- e. *ZO 334-83. The applicant has noted that the subject parcel does not fall within a special flood hazard area.*

7. Erosion Control/Wetland Impacts

- a. *Former CLD | Fuss & O'Neill Comment: HR 290-5.K.(16). The applicant has not indicated the proposed method of stump disposal.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that stumps will be ground on-site and used for erosion control. A detail for an organic filter berm was also added to the plans. No further CLD | Fuss & O'Neill comment.

- b. *Former CLD | Fuss & O'Neill Comment: HR 290-5.K.(20). The applicant should consider the installation of a stabilized construction exit to be used during demolition activities and show this on the plan set.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a stabilized construction exit to the demolition plan. No further CLD | Fuss & O'Neill comment.

- d. *Former CLD | Fuss & O'Neill Comment: HR 290-5.K.(20). The applicant has provided a detail for temporary catch basin inlet protection and noted in the Construction Sequence that they should be installed at all catch basins as they are constructed. This should also be noted on plans view. We note that due to traffic levels, the inlet protection detail provided for Catch Basin 101 is not suitable to be installed on Elm Avenue. A detail for a more appropriate erosion control (silt sack, etc.) should be provided.*

Current CLD | Fuss & O'Neill Comment: The applicant has provided a detail for silt-sack inlet protection and modified the Construction Sequence accordingly. No further CLD | Fuss & O'Neill comment.

- e. *Former CLD | Fuss & O'Neill Comment: The Town should reserve the right to require additional erosion control measures.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that they are aware of this condition. No further CLD | Fuss & O'Neill comment.

8. Landscaping (HR 276-11.1.B.(20)) and Lighting (HR 276-11.1.B.(14))

- a. *Former CLD | Fuss & O'Neill Comment: HR 275-8.C.(7). The applicant has provided a landscaping plan for the subject site. We note that the lot numbers shown within the landscaping plan do not agree with those shown in the rest of the site plan.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that the proposed subdivision of land has been removed from the plans at this time and Lot 15 will be used as the overall lot number. No further CLD | Fuss & O'Neill comment.

- c. *Former CLD | Fuss & O'Neill Comment: HR 275-8.C.(7)(d). The applicant has provided a calculation for the minimum number of shrubs required to be planted. However, the totals calculated do not appear to agree with the formula in the Regulation.*

Current CLD | Fuss & O'Neill Comment: The applicant has revised the number of proposed shrubs to conform with the Regulation. No further CLD | Fuss & O'Neill comment.

- d. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(14). The applicant has not provided information detailing the proposed hours of operation for the site lighting.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a note to the plan set indicating hours of operation. No further CLD | Fuss & O'Neill comment.

- e. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(14). and (21). The applicant should coordinate proposed tree and lighting installations to determine if there will be any conflicts between these features. Several trees are shown immediately adjacent to proposed lighting.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that tree locations have been adjusted per light pole locations. No further CLD | Fuss & O'Neill comment.

- f. *Former CLD | Fuss & O'Neill Comment: HR 276-11.1.B.(14). The applicant has included a note on the Lighting Plan regarding night light (NL) and flood light (FL) designations. We were unable to locate these designations on the plans. Also, the note mentions that flood lights for poles closest to the storefront shall be mounted 25 feet above the bottom of the pole base, but all light mounting heights shown in the luminaire schedule are 20 feet above finish grade except the canopy mounted lights. The applicant should clarify the intent of this note and how it relates to the proposed lighting and photometric plan provided.*

Current CLD | Fuss & O'Neill Comment: The applicant has removed the subject note. No further CLD | Fuss & O'Neill comment.

9. State and Local Permits (HR 275-9.G.)

- b. *Former CLD | Fuss & O'Neill Comment: HR 275-9.G. The applicant has noted that a New Hampshire Department of Environmental Services (NHDES) Alteration of Terrain Permit is required. The applicant should forward all relevant AoT permit documentation to the Town for their records.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that a copy of the NH AoT application was sent to the Town and included a copy with the review response package (located within the Drainage Analysis). No further CLD | Fuss & O'Neill comment.

- c. *Former CLD | Fuss & O'Neill Comment: HR 275-9.G. The applicant has noted that a NHDES Sewer Connection permit is required. The applicant should forward all relevant documentation for this permit to the Town for their records.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that they are in the process of having plans reviewed by the Town and NHDES and will be sure the Town has copies of all applications to the State. No further CLD | Fuss & O'Neill comment.

- g. *Additional local permitting may be required.*

10. Other

- a. *Former CLD | Fuss & O'Neill Comment: The applicant should provide a legend for the plan sheets that accurately depicts the symbols and abbreviations used in the plans.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a legend to the plan set. No further CLD | Fuss & O'Neill comment.

- b. *Former CLD | Fuss & O'Neill Comment: The applicant should include slope information (maximum 2.0% cross slope) on the proposed concrete sidewalk detail.*

Current CLD | Fuss & O'Neill Comment: The applicant has modified the sidewalk detail to include this information. No further CLD | Fuss & O'Neill comment.

- c. *Former CLD | Fuss & O'Neill Comment: Fuel storage and mechanical details were not provided. Compliance with local, state and federal codes and requirements for underground fuel storage, fuel dispensers, and fuel island fire protection systems was not included in this review.*

Current CLD | Fuss & O'Neill Comment: The applicant has noted that all necessary plans will be submitted as required prior to receiving a building permit for construction of the underground fuel storage, fuel dispensers, and fuel island fire protection systems. No further CLD | Fuss & O'Neill comment.

1. *Former CLD | Fuss & O'Neill Comment: The applicant has not shown a proposed air filling or vacuum station for the fueling station/convenience store. If either of these is proposed they should be shown on the plans in order to assess utility requirements and potential parking impacts.*

Current CLD | Fuss & O'Neill Comment: The applicant has added a proposed air compressor southwest of the proposed C-Store. No further CLD | Fuss & O'Neill comment.

Please feel free to call if you have any questions.

Very truly yours,



Heidi J. Marshall, P.E.



Paul Konieczka, AICP

HJM:PK:mjt

Enclosure

cc: Town of Hudson Engineering Division – File
Jones & Beach Engineers, Inc.
85 Portsmouth Ave., PO Box 218
Stratham, NH 03885
Fax: 603-772-0227



Ref: 7660

August 18, 2017

Ms. Brooke Dubowik
Town of Hudson
12 School Street
Hudson, NH 03051

Re: Responses to Peer Review Comments on Traffic Assessment
120 Derry Road
Hudson, New Hampshire

Dear Ms. Dubowik:

Vanasse & Associates, Inc. (VAI) is pleased to submit responses to the August 10, 2017 letter from the town of Hudson's Peer Review consultant CLD/Fuss & O'Neill. In most cases, where comments did not require a specific response, we have provided the subject area identified by the peer consultant followed by a general response. Where comments did require a specific response, we have provided the comments followed by our responses.

Traffic

Comments a – e

Response: Due to general agreement with the TIA, no response is necessary.

Comment f: *"The trip distribution and assignment process appears to apply the same percentages for both 'new' and 'pass-by' trips, which is normally not the case. The 'new' trips are a function of the likely origins of trips going directly to and from the site. Given the prevalence of similar uses along the NH 102 corridor north and south of the site and, conversely, the lack of such uses along NH 3A, it suggests that there would be more 'new' trips coming from the west than assumed here. Furthermore, the 'pass-by' trip rates would vary by time of day, given the directional flows of traffic through the area, primarily to and from NH 102. Figure 6 shows a summary of the assumed trip distribution without providing supporting documentation as to which trips are 'new' versus 'pass-by', so verifying the application of these percentages is difficult. It is our opinion that the trip distribution and assignment calculations need to be revisited to better define the 'new' and 'pass-by' trips based on their individualized distributions. Our current comments on the intersection capacity and left turn lane warrants analyses are based on the volumes contained in the report and will need to be reassessed upon the revised trip distributions and any subsequent capacity analysis results."*

Response: The diagram shown in Figure 6 depicts new trip percentages only, which were based on traffic patterns that indicated nearly identical volume proportions of the total intersection volume for all three time periods. Pass-by trips were calculated at an equal distribution from Route 102 (50 percent northbound/50 percent southbound). However, based on the

comment, the new trip percentage from Elm Street was increased and the pass-by percentages were varied for each time period based on volumes passing the proposed driveway locations on Elm Street and Derry Road. The revised percentages were then applied to the project trips and revised trip networks were developed for the Build conditions. The revised figures are shown on Figure 5R through 8R provided in the Appendix to this letter. Revised Level-of-Service (LOS) summary tables are also provided for review. With the revisions suggested, delays at the Route 102 driveways have decreased substantially (approximating 50 percent) and increased by approximately 2 seconds at the Elm Street driveway. Delays are generally unchanged or decreased at the Elm Street/Route 102 intersection with the changes.

Comment g: *The Left Turn Warrants analysis shows that the turn lane for the north drive is needed and is of adequate length. The turn bay length used the posted speed limit, whereas the spreadsheet asks that the 85th percentile speed be entered. When this value (41 vs 35 mph) is used, the calculations show that the bay length is not adequate. Also, all three peak periods should be tested for bay length adequacy.*

Response: The left-turn lane warrants analyses were revised given the new distribution and for all peak periods as requested. The left-turn lane on Route 102 is shown to continue to be warranted. The left-turn storage bay has been increased to 190 feet in length and a revised concept plan is attached.

Comment h: *"It does not appear that left turn lane warrants were conducted for the site drive on Elm Street and should be completed for all periods. Given the potential impact of queued vehicles from the signal, some sort of bypass treatment might be reasonably considered here as well."*

Response: Left-turn lane warrants analyses were conducted for the Elm Street driveway as requested. A left-turn lane on Elm Street is shown to not be warranted.

Comment i: *"Capacity analysis of the northerly drive does not include any influence from Megan Drive traffic, even though the volumes would be low. It also finds that left turn exits would experience significant delays at LOS F levels. It is noted that this condition would be 'self-regulating' and traffic would likely be redistributed to the signalized intersection to turn left onto NH 102 at a controlled location if delays got too long. As such, the distribution of this many left turns at that location appears unrealistic, given that recent NHDOT traffic counts on NH 102 just north of the site indicate that NH 102 volumes are fairly consistent during the day. Therefore, some of these trips should be reallocated to the signalized intersection to assess any impact from these additional left turn demands at the signal."*

Response: A supplemental traffic analysis was prepared to assess the effect of up to 50 percent of the left-turning traffic at the north drive re-routing to the west drive to Elm Street and the left turn at the Route 102/Elm Street signal. This is shown in Table 12 and Table 13, attached to this letter. Analysis indicates delays decrease further at the North Site Drive, to approximately 25 percent of the initial analysis results. Slight increases in delay were recorded for the Elm Street left-turn movement; however LOS for this movement and the overall intersection remain unchanged from the initial analysis.

Comment j: *“The capacity calculations for NH 102/3A suggest that the natural cycle length is 70 seconds, whereas 120 seconds is shown as the existing/proposed cycle length, with 40 seconds of it being dedicated to serve the right turn exit from Elm Street. Given the volume of left turns into Elm Street, either with or without the project, consideration should be given to making this a protected only phase in the signal phasing, since it is unknown how many of these turns are able to safely proceed on the permissive phase given the opposing volumes. The left turn lane on Elm Street could be designated as a left-thru lane, and the heavy right turns from Elm Street could overlap with the protected northbound left turn phase from an exclusive turn lane, thus potentially minimizing the overall time given to the side street traffic, particularly with such a low volume left turn exiting movement (60 vph or less per the study projections).”*

Response: Observations indicate the right turns from Elm Street currently operate as an overlap due to the Right Turn on Red operation permitted. A review of signal timing modifications was conducted for the 2018 Build conditions based on the suggestions above. The review indicated that reducing the signal cycle and changing phasing as suggested has benefits for the Elm Street approach; however, most other approaches have either a minor decrease in delay or a substantial increase in delay in the case of the Route 102 northbound left-turn movement. The additional delay for this movement (from LOS B to LOS D during all time periods reviewed) causes the overall intersection delay to increase from between five and eight seconds during the weekday evening and Saturday midday peak hours. Based on these results, it is suggested that the protected/permitted operation be retained pending NHDOT review of signal operations.

Comment k: *“The queue analysis of the Elm Street approach shows that the eastbound right turn movement would be close to extending beyond the available lane storage for the left turn lane in the 2018 Build AM peak case, and certainly by the 2028 AM peak case. Queues on NH 102 would also extend beyond either end of Phillips Drive, delaying any movements out of these side streets as they do today. Southbound queues would also routinely block the southerly right turn out only driveway, so these vehicles would have to queue on site or exit via Elm Street.”*

Response: So noted. Driveways in close proximity to busy intersections typically operate in a manner subservient to the intersection. It is likely that the traffic patterns of the site may be dictated by queues present at the intersection, similarly to existing conditions.

Comment l: *“The study recommendations include the installation of a sidewalk along the north side of Elm Street to the west site drive before entering the site. This appears to be a more circuitous route than if a sidewalk was provided along the west side of NH 102 and entered the site at the southerly site drive and connected down to the pharmacy and, eventually via the proposed crosswalk, over to the convenience store. This may be the more frequently used path for pedestrians from the residential areas on the east side.”*

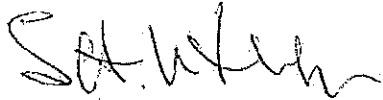
Response: So noted; however, the sidewalk orientation was determined in consultation with the Town and provides a sidewalk segment along Elm Street that can eventually connect to sidewalks that may be constructed in the future.

Ms. Brooke Dubowik
August 18, 2017
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We trust that this information addresses the comments. Please feel free to contact me directly, if there should be any further clarification needed.

Sincerely,

VANASSE & ASSOCIATES, INC.



Scott W. Thornton, P.E.
Associate

SWT/mef
Enclosures

cc: CLD/Fuss & O'Neill
J. Gove – Hudson Enterprises, LLC
W. Morrill, P.E. – Jones & Beach

