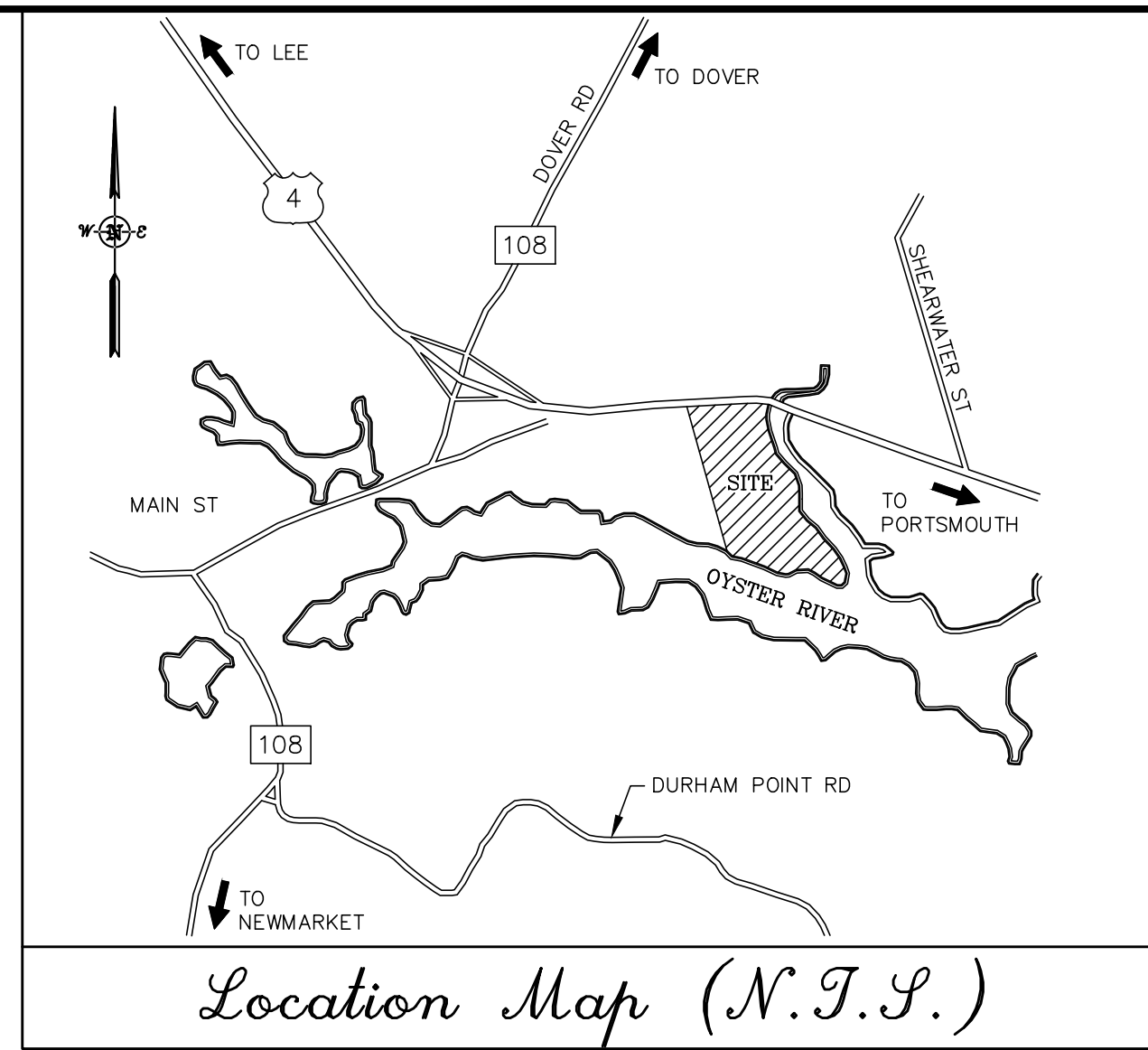


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REVISION TO HARMONY HOMES BY THE BAY HARMONY PLACE

**TAX MAP 11, LOTS 27-0
40 BRIGGS WAY
DURHAM, NH 03824
SUBMITTED: JUNE 4, 2020
REVISED: JULY 23, 2020**



LEGEND	
X X	WIRE FENCE
OHW	OVERHEAD WIRES
---	SEWER LINE
---	DRAIN LINE
D	APPROX. ABUTTERS LOT LINE
---	TREE LINE
---	STONE WALL
---	EDGE OF FRESHWATER WETLAND
---	EDGE OF TIDAL WETLAND
---	APPROX. MEAN HIGH WATER LINE
---	APPROXIMATE FLOOD ZONE LINE
---	100' TIDAL BUFFER
---	125' SHORELAND PROTECTION OVERLAY
---	FLOOD ZONE AE
---	PROPOSED FENCE
---	PROPOSED EVEN CONTOUR
---	PROPOSED ODD CONTOUR
---	PROPOSED WATER LINE
---	PROPOSED UNDERGROUND ELECTRIC
---	PROPOSED SEWER LINE
---	PROPOSED TRANSFORMER
---	PROPOSED BACKUP GENERATOR
---	GRANITE BOUND FOUND
---	DRILL HOLE FOUND
---	IRON PIPE/ROD FOUND
---	5/8" RE-BAR W/ ID CAP TO BE SET
---	FIRE HYDRANT
---	WATER GATE VALVE
---	CATCH BASIN
---	DRAIN MANHOLE
---	DECIDUOUS TREE
TYP.	TYPICAL
EP	EDGE OF PAVEMENT
DYL	DOUBLE YELLOW LINE
---	PROPOSED GRAVEL WETLAND SYSTEM BOUNDARY
---	PROPOSED PATH
---	PROPOSED FUTURE BUILDING 3 LOCATION
---	PROPOSED BUILDING
---	PROPOSED UNDERGROUND PROPANE TANK
---	PROPOSED ACCESSIBLE PARKING
---	PROPOSED CONSERVATION AREA
---	EXISTING PAVEMENT
---	PROPOSED DRAIN LINE
---	PROPOSED RIP RAP APRON
---	PROPOSED HYDRANT
---	PROPOSED DRAIN MANHOLE
12	PARKING SPACE COUNT
---	PROPOSED PAVEMENT
---	EDGE OF WATER
---	PROPOSED EDGE OF PAVEMENT
---	EXISTING EDGE OF PAVEMENT
---	TEMPORARY FENCING
---	SILT SOCK
---	PROPOSED STOCKPILE AREA
S/S	MATERIAL STOCKPILE AREAS

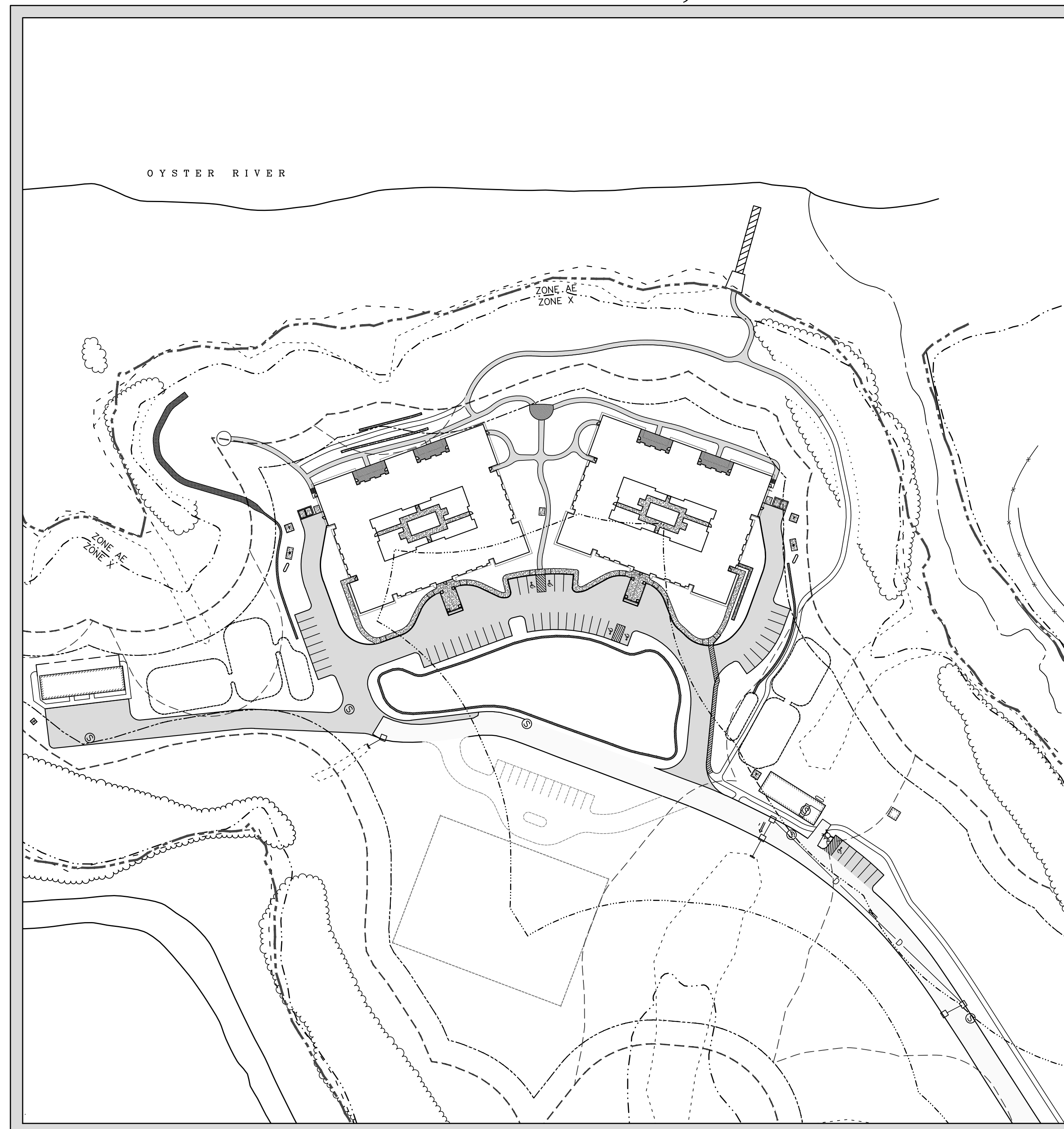


TABLE OF CONTENTS

TITLE	SHEET
APPROVED OVERALL SITE PLAN	C100
AS BUILT	C108
REVISED SITE PLAN	C101A
CONSTRUCTION DETAILS	D101-D104

PERMITS:

TITLE	PERMIT NUMBER
NHDOT DRIVEWAY	06-133-235
NHDES SHORELAND	2016-00384
NHDES AOT	AOT-1077
NHDES SEWER CONNECTION	D2016-0309

FINAL APPROVAL BY DURHAM PLANNING BOARD.
 CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
 CERTIFIED _____
 DATE _____

APPLICANT

HARMONY HOMES BY THE BAY, LLC
 JOHN RANDOLPH
 1 STAGECOACH ROAD
 DURHAM, NH 03824

ARCHITECT

MARGARET RANDOLPH
 22 JADY HILL
 EXETER, NH 03885

OWNER

FHP AT GRANT CIRCLE LLC
 1 STAGECOACH ROAD
 DURHAM, NH 03824

SOIL SCIENTIST

JOSEPH W. NOEL
 P.O. BOX 174
 S. BERWICK, ME
 (207) 384-5587

CIVIL ENGINEER

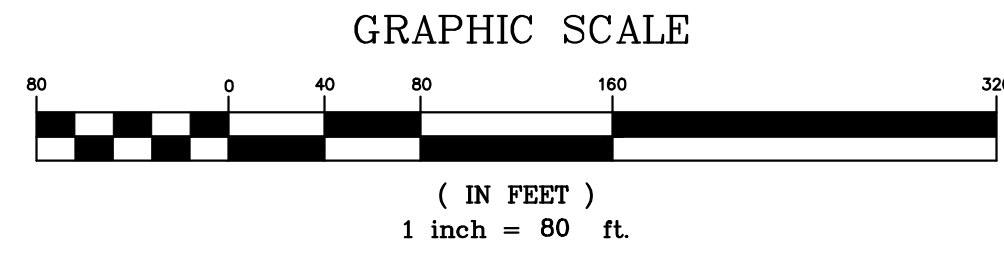
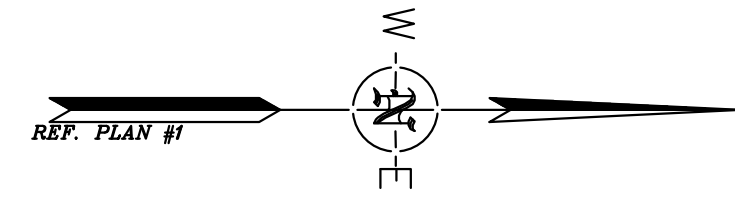
MJS ENGINEERING, P.C.
 CIVIL • STRUCTURAL • ENVIRONMENTAL
 5 RAILROAD ST., P.O. Box 359
 NEWMARKET, NH 03857
 PHONE: (603) 659-4979, FAX: (603) 659-4627
 E-MAIL: MJS@MJS-ENGINEERING.COM

SURVEYOR

DOUCET SURVEYING
 Serving Your Professional Surveying & Mapping Needs
 102 Kent Place, Newmarket, NH 03857
 Voice (603) 659-6560, Data (603) 659-4118

OWNER SIGNATURE BLOCK

NO.	REVISIONS	DATE	INT.
2.	REVISED PER COA	7/23/20	MCS
1.	REVISED PER TOWN PLANNER COMMENTS	6/15/20	MCS
0.	SUBMITTED TO DURHAM PLANNING BOARD	6/4/20	MCS



SITE DATA BLOCK

PLAN INTENT: DEVELOP THE VACANT PARCEL KNOWN AS THE DURHAM BUSINESS PARK WITH CONSTRUCTION OF AN ELDERCARE FACILITY.

ZONE: DBP - DURHAM BUSINESS PARK

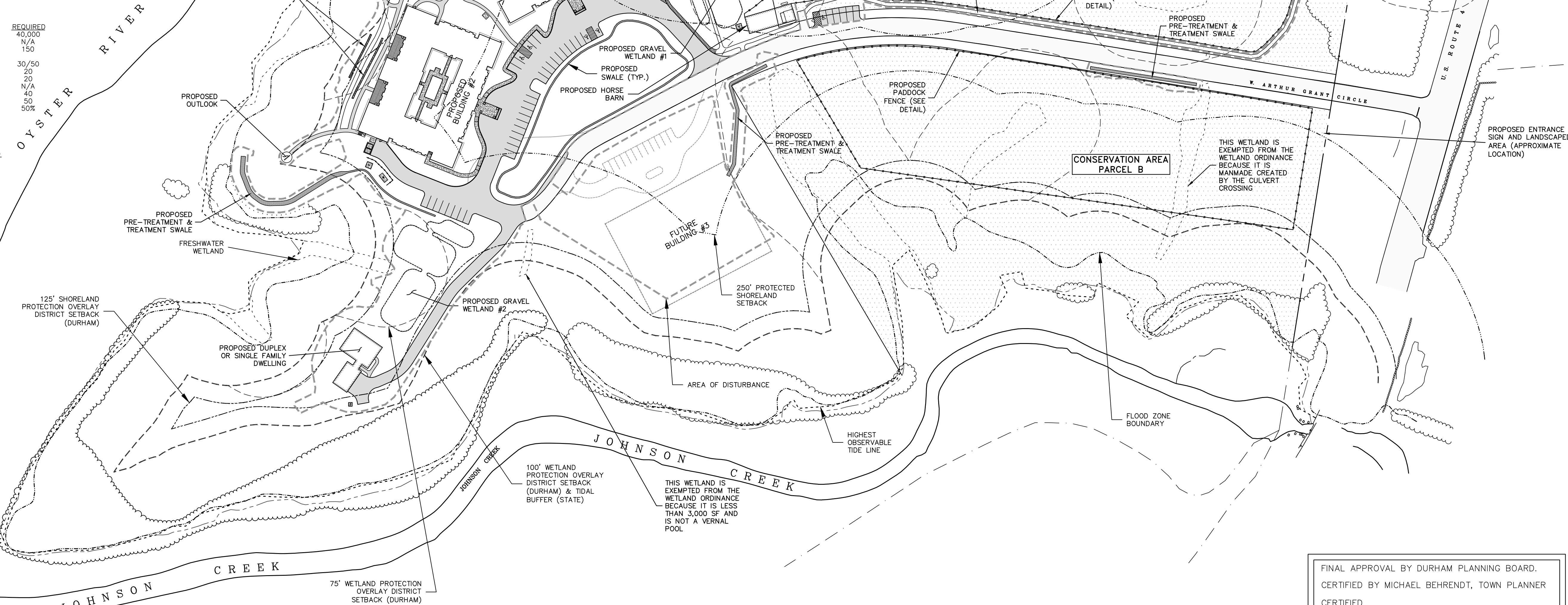
USE: RESIDENTIAL - ELDERCARE / ELDERLY HOUSING

DIMENSIONAL REQUIREMENTS

	REQUIRED
MINIMUM LOT SIZE (SQUARE FEET)	40,000
MINIMUM LOT AREA PER DWELLING UNIT (S.F.)	N/A
MINIMUM FRONTAGE (FEET)	150
MINIMUM LOT SETBACKS:	
FRONT (FEET)	30/50
SIDE (FEET)	20
REAR (FEET)	20
MAXIMUM ROAD SETBACK (FEET)	N/A
MAXIMUM HEIGHT (FEET)	40
MAXIMUM HEIGHT W/ P.B. APPROVAL (FEET)	50
IMPERVIOUS SURFACE RATIO	50%

PARKING CALCULATIONS:

175-113:
 HOMES FOR AGED, DISABLED, OR HANDICAPPED
 1 SPACE PER 5 BEDS + 1 PER EMPLOYEE
 = (110)/5 + (20 EMPLOYEES) X 1
 TOTAL PARKING SPACES REQ'D = 42
 TOTAL PARKING SPACES PROVIDED:
 45 FOR PROPOSED DEVELOPMENT
 6 FOR PUBLIC USE



SITE PLAN NOTES:

- THE GENERAL CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE SITE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. THIS INCLUDES DISCREPANCIES BETWEEN THESE PLANS AND ANY OTHER PLANS OR CONTRACT DOCUMENTS.
- ALL UTILITY PIPING AND WIRING SHALL BE LOCATED UNDERGROUND.
- NO CUT TREES, STUMPS, DEBRIS, JUNK, RUBBISH, OR OTHER WASTE MATERIALS SHALL BE BURIED IN THE LAND, OR LEFT OR DEPOSITED ON SITE AT THE TIME THE CERTIFICATE OF OCCUPANCY IS ISSUED, OR AT ANY TIME AFTER THAT.
- THIS PROJECT WILL DISTURB OVER ONE ACRE OF GROUND COVER AND/OR MEETS OTHER THRESHOLDS RELATED TO PERMIT CRITERIA FOR EPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) COMPLIANCE. THE SITE CONTRACTOR IS RESPONSIBLE FOR DEVELOPMENT AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), SUBMISSION OF A NOTICE OF INTENT (NOI) TO EPA, INSPECTION AND MAINTENANCE OF SEDIMENT CONTROL MEASURES, DOCUMENTATION OF MAINTENANCE ACTIVITIES, AND SUBMISSION A NOTICE OF TERMINATION (NOT) TO EPA. THE SITE CONTRACTOR IS ALSO RESPONSIBLE TO COMPLY WITH ALL OTHER FEDERAL, STATE AND LOCAL STORMWATER OR NPDES REQUIREMENTS.
- ACCESS INTO THE SITE FOR FIRE APPARATUS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 868-5531 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.
- SNOW SHALL NOT BE PUSHED AGAINST TREES OR SHRUBS IN ANY MANNER THAT COULD DAMAGE THEM.
- FOR MORE INFORMATION ABOUT THIS SITE PLAN, OR TO SEE THE COMPLETE PLAN SET, CONTACT THE TOWN OF DURHAM PLANNING DEPARTMENT, 8 NEWMARKET ROAD, DURHAM, NH 03824. (603) 868-8064.
- IT IS THE APPLICANT'S, SITE CONTRACTOR'S, AND BUILDING CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL REQUIREMENTS RELATED TO THIS SITE PLAN APPROVAL. PLEASE REVIEW THESE PLANS AND THE PLANNING BOARD NOTICE OF DECISION CAREFULLY. CONTACT THE DURHAM PLANNING DEPARTMENT AT (603) 868-8064 WITH ANY QUESTIONS OR CONCERNS.
- THE USE OF SODIUM-CHLORIDE BASED MATERIALS FOR WINTER ROAD MAINTENANCE SHALL BE THE MINIMUM NECESSARY FOR ROADWAY SAFETY.

GENERAL NOTES:

- REFERENCE: TAX MAP 11, LOT (27-1) - (27-7)
- TOTAL PARCEL AREA= 1,235,700± Sq. Ft. OR 28.4± Ac. (SEE NOTES #10 & #11)
- OWNER OF RECORD: GRANT DEVELOPMENT, LLC
8 NEWMARKET ROAD
DURHAM, NH 03824
S.C.R.D. BOOK 3384 PAGE 510
- ZONE: DURHAM BUSINESS PARK (DBP)
DIMENSIONAL REQUIREMENTS:
MIN. LOT SIZE=40,000 Sq. Ft.
MIN. FRONTAGE=150'
MIN. FRONT SETBACK=150'
MIN. SIDE/REAR SETBACK=20'
50' (ARTERIAL STREET)
DURHAM WETLAND CONSERVATION OVERLAY DISTRICT:
FRESHWATER WETLANDS-75'
TIDAL WETLANDS-100'
DURHAM SHORELAND PROTECTION OVERLAY DISTRICT:
TIDAL WETLANDS-125'
-PORTIONS OF THE PROPERTY LIE WITHIN THE TOWN OF DURHAM SHORELAND PROTECTION, WETLAND CONSERVATION, AND FLOOD PROTECTION OVERLAY DISTRICTS. SEE THE ZONING ORDINANCE FOR SPECIFIC REGULATIONS.
-LAND WITHIN 250' OF THE HIGHEST OBSERVABLE TIDE LINE IS SUBJECT TO THE STATE OF NH COMPREHENSIVE SHORELAND PROTECTION ACT.
- FIELD WORK PERFORMED BY DOUCET SURVEY INC. ON 5/96 & 11/00 USING A SOKKIA SET 481 & POWERSET 3000 AND ON 12/07 USING A LEICA TOR TOTAL STATION WITH A RANGER 105 DATA COLLECTOR AND A SOKKIA 820 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.

- WETLAND DELINEATION OF NON TIDAL WETLANDS PERFORMED BY JIM GOVE OF GOVE ENVIRONMENTAL IN 2012. TIDAL WETLANDS DELINEATED BY MARK WEST OF WEST ENVIRONMENTAL IN 2011.
- VERTICAL DATUM BASED ON NGVD29 PER NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION DISK 133-0340 HAVING A REPORTED ELEVATION OF 32.87'.
- THE PARCEL IS SUBJECT TO THE FOLLOWING:
A) UTILITY EASEMENT TO NETT & PSNH, SEE S.C.R.D. BOOK 1349 PAGE 118.
B) SEWER AND DRAINAGE EASEMENTS AS SHOWN ON S.C.R.D. PLAN #28A-89.
C) TERMS OF AGREEMENT BETWEEN W&O REALTY PARTNERSHIP AND THE TOWN OF DURHAM, SEE S.C.R.D. BOOK 1523 PAGE 443.
D) COMMISSIONERS RETURN OF HIGHWAY LAYOUT, SEE S.C.R.D. BOOK 796 PAGE 2.
E) WARRANTY DEED FROM STANLEY F. LANGLEY TO THE STATE OF NEW HAMPSHIRE, SEE S.C.R.D. BOOK 746 PAGE 437.
- THE AREAS SHOWN HEREON ARE CALCULATED TO APPROXIMATE MEAN HIGH WATER (ELEVATION 5').
- THE NON-CONTIGUOUS UPLAND PORTION OF LAND (±235 Sq. Ft.) AT THE WESTERLY SIDE OF THE PARCEL IS NOT INCLUDED IN THE OVERALL AREA CALCULATIONS OF LOT 27-0 AS SHOWN ON THIS PLAN. THIS AREA IS PART OF LOT #6.
- WATER BOUNDARIES ARE DYNAMIC IN NATURE AND ARE SUBJECT TO CHANGE DUE TO NATURAL CAUSES SUCH AS EROSION OR ACCRETION.
- FLOOD ZONE AE (ELEV. 6' PER NAVD88) AND ZONE X PER F.E.M.A. #33017C0320E DATED 9/30/15.
- THE TOTAL DISTURBED AREA SHOWN ON THE PLANS IS 322,000 SF. THE TOTAL IMPERVIOUS AREA ON THE LOT IS 149,984 SF INCLUDING THE EXISTING ROADWAY. THIS IS EQUAL TO 12.1% IMPERVIOUS SURFACE RATIO.
- "COAST" BUS STOP LOCATED APPROXIMATELY 1,000 FT TO EAST OF SITE ENTRANCE.
- ALL AREAS WHICH ARE NOT LAWN OR LANDSCAPED SHALL REMAIN UNDISTURBED AND SHALL BE MOWED ANNUALLY.

REFERENCE PLANS

- "STATE OF NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS PLANS OF PROPOSED FEDERAL AID PRIMARY PROJECT NO. F 012-2(4), NH PROJECT NO. P-3877-B, DURHAM BY-PASS" DATED 5/19/65, S.C.R.D. FOLDER 15 FOLDER 3 PLAN 79
- "FINAL SUBDIVISION PLAN, JOHNSON CREEK DRIVE, DURHAM, NH" DATED JANUARY 1985, BY G.L. DAVIS & ASSOCIATES, S.C.R.D. PLAN #28A-89.
- "SEWAGE DISPOSAL PLANT AREA, UNIVERSITY OF NEW HAMPSHIRE, DURHAM, NH" DATED 10/6/64 AND REVISED 12/22/64, NOT RECORDED.
- "DURHAM BUSINESS PARK WATERLINE EXTENSION, PREPARED FOR PUBLIC WORKS DEPT. TOWN OF DURHAM" BY MAGUIRE GROUP, INC. AND DATED 7/8/97

FINAL APPROVAL BY DURHAM PLANNING BOARD.
 CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
 DATE _____

NO.	REVISIONS	DATE	INT.
5.	REVISIONS PER CONDITIONS OF APPROVAL	4/26/16	JLG
4.	REVISIONS PER ACT REVIEW LETTER DATED 3/31/16	4/21/16	MS
3.	SUBMISSION FOR ALTERATION OF TERRAIN PERMIT	2/10/16	JLG
2.	REVISED PER TOWN PLANNER COMMENTS DATED 10/16/15	10/28/15	JLG
1.	REVISIONS FOR ADDITIONAL SITE DESIGN	9/17/15	RD
0.	INITIAL SUBMISSION TO DURHAM PLANNING BOARD	9/2/15	JLG

SEAL: MICHAEL BEHRENDT, TOWN PLANNER, No. 6887

DATE: 9/2/15
 SCALE: 1"=80'
 DESIGNED BY: MS/JLG
 DRAWN BY: JLG
 APPROVED BY: MAJ
 DWG FILE: 15-027 C100.dwg

OVERALL SITE PLAN prepared for HARMONY HOMES BY THE BAY
 TAX MAP 11, LOTS (27-1)-(27-7)
 W. ARTHUR GRANT CIRCLE DURHAM, NH

MJS ENGINEERING, P.C. CIVIL • STRUCTURAL • ENVIRONMENTAL
 5 VALLEY ROAD ST., P.O. BOX 259
 DURHAM, NH 03824
 PHONE: (603) 659-9797, FAX: (603) 659-4627
 E-MAIL: MJS@MJS-ENGINEERING.COM

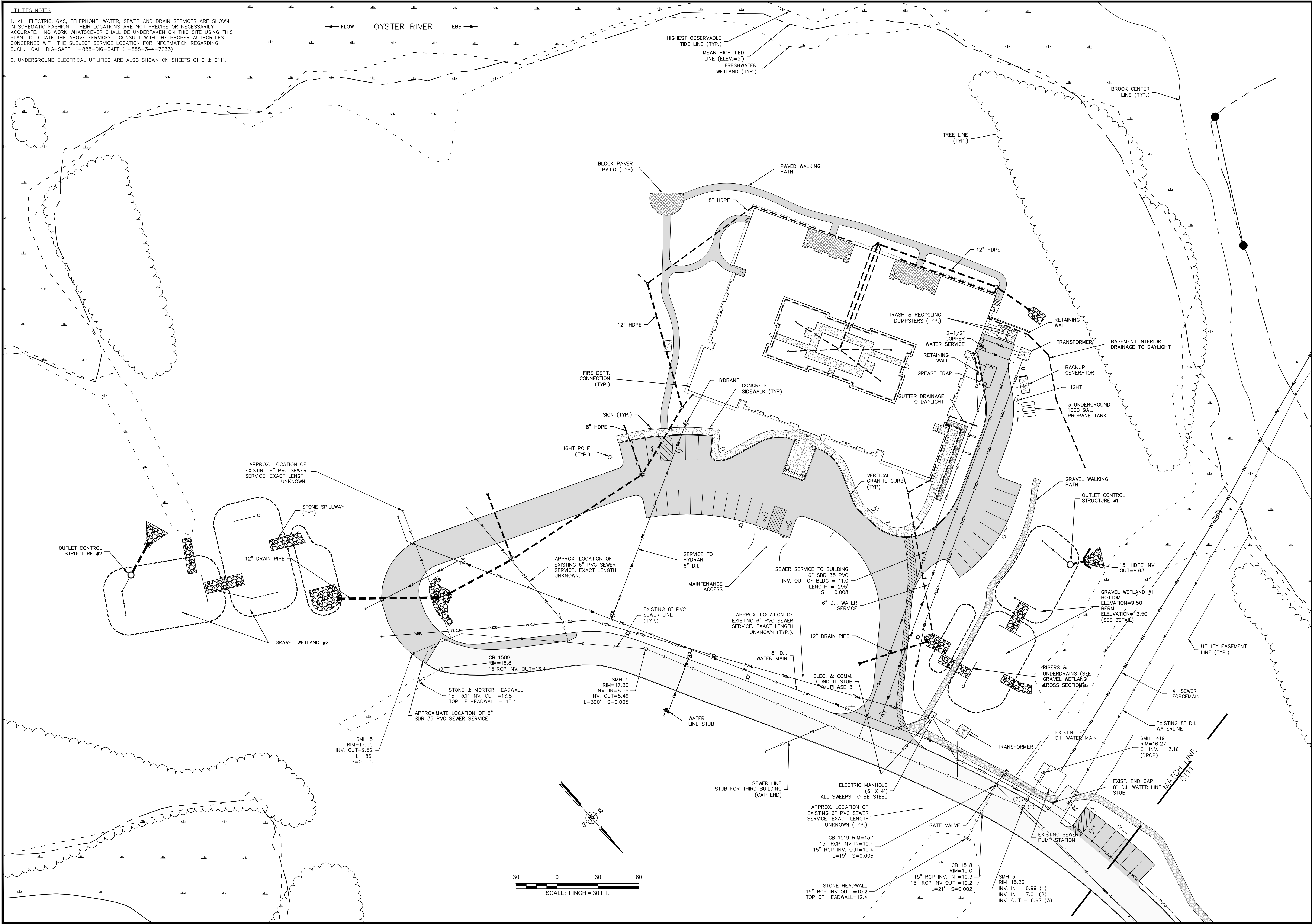
JOB: 15-027
 C100

UTILITIES NOTES:

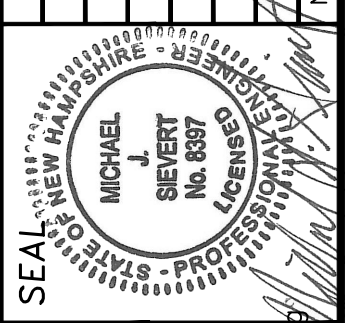
1. ALL ELECTRIC, GAS, TELEPHONE, WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH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

2. UNDERGROUND ELECTRICAL UTILITIES ARE ALSO SHOWN ON SHEETS C110 & C111.

← FLOW OYSTER RIVER EBB →



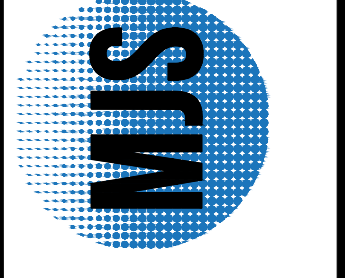
NO.	REVISIONS	DATE	INT.
1	FORMAL SUBMISSION	12/1/17	ENK



DATE: 9/2/15
 SCALE: 1"=30'
 DESIGNED BY: MS/JLG
 DRAWN BY: JLG
 APPROVED BY: MJS
 DWG FILE: 15-027_CIDD AS BUILT.dwg

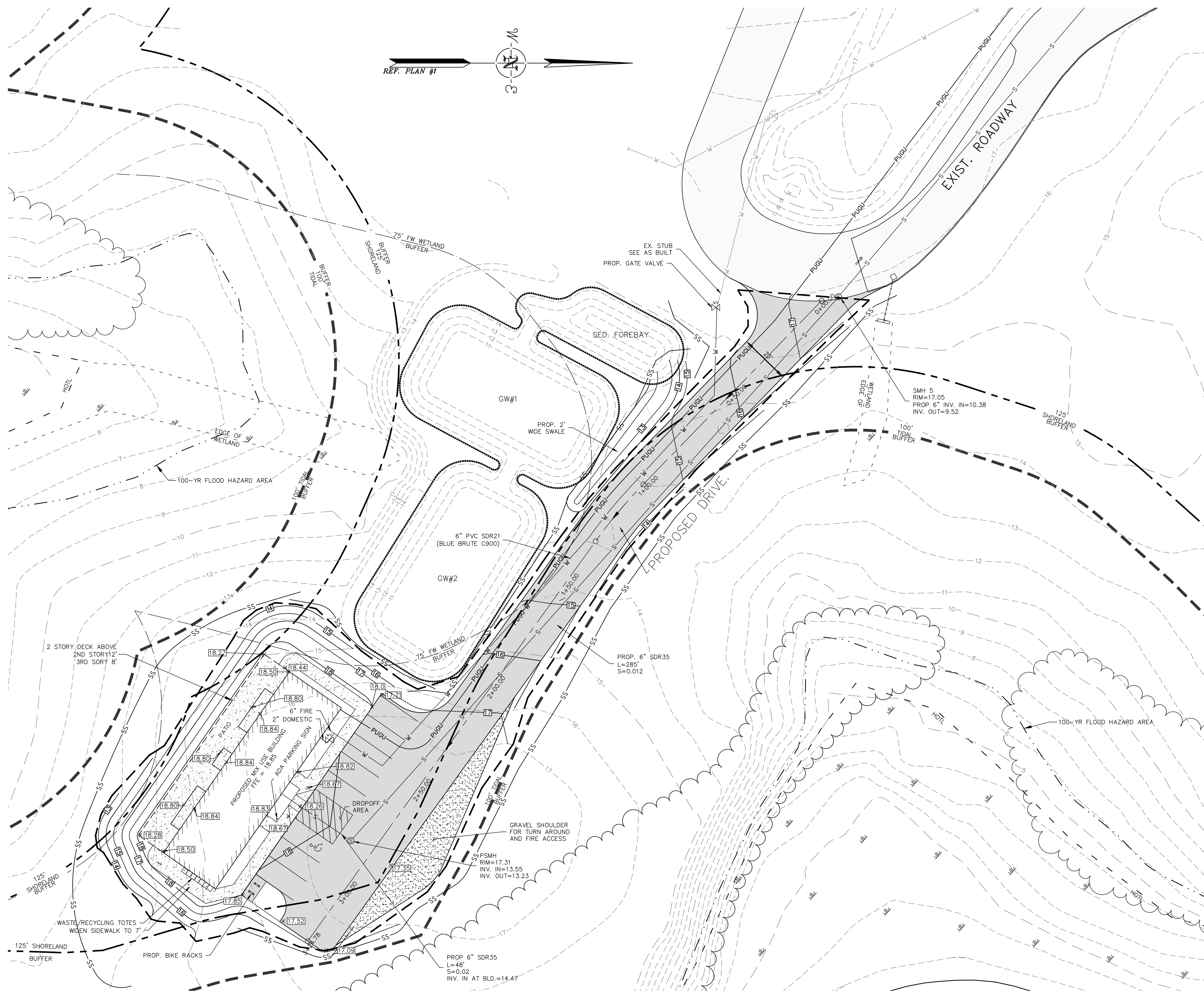
AS-BUILT SITE PLAN
 prepared for
HARMONY HOMES BY THE BAY
 TAX MAP 11, LOTS (27-1)-(27-7)
 W. ARTHUR GRANT CIRCLE DURHAM, NH

MJS ENGINEERING, P.C.
 CIVIL • STRUCTURAL • ENVIRONMENTAL
 5 HALLSBORO ST., NASHUA, NH 03085
 PHONE: (603) 659-4979, FAX: (603) 659-4627
 E-MAIL: MJS@MJS-ENGINEERING.COM



JOB: 15-027

C108



LEGEND

- HIGHEST OBSERVABLE TIDE LINE (HOTL)
- - - - - EDGE OF FRESHWATER WETLAND
- - - - - 100-YR FLOOD HAZARD AREA
- 125' SHORELAND BUFFER
- 100' TIDAL WETLAND BUFFER
- 75' FRESHWATER WETLAND BUFFER
- EXIST. TREELINE

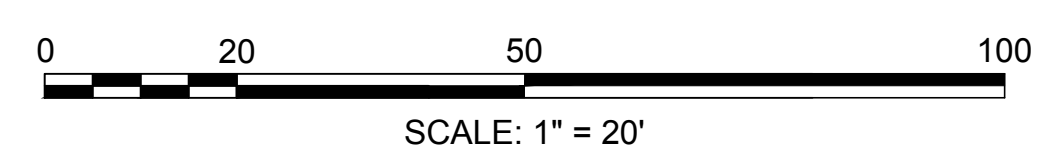
GENERAL NOTES:

1. SEE SHEET C100 FOR ALL GENERAL SITE PLAN AND ZONING NOTES.
2. THE TOTAL DISTURBED AREA FOR THIS PHASE IS 19,400 SF. THIS AREA WAS INCLUDED IN THE ORIGINAL AREA OF DISTURBANCE CALCULATIONS FOR THE ENTIRE PROJECT.

SITE PLAN NOTES:

1. THE GENERAL CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE SITE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. THIS INCLUDES DISCREPANCIES BETWEEN THESE PLANS AND ANY OTHER PLANS OR CONTRACT DOCUMENTS.
2. ALL UTILITY PIPING AND WIRING SHALL BE LOCATED UNDERGROUND.
3. GARBAGE AND RECYCLING TOTES WILL BE PROVIDED FOR ALL RESIDENTS AND EMPLOYEES AT THIS BUILDING. THE MAINTENANCE CREW WILL PICK UP THE TOTES ON A WEEKLY BASIS AND EMPTY THEM INTO THE RECEPTACLES AT THE MAIN BUILDING. THE TRASH AND RECYCLING FROM THIS BUILDING WILL BE INCORPORATED INTO THE CURRENT TRASH AND RECYCLING PROGRAM AT THE FACILITY.
4. NO CUT TREES, STUMPS, DEBRIS, JUNK, RUBBISH, OR OTHER WASTE MATERIALS SHALL BE BURIED IN THE LAND, OR LEFT OR DEPOSITED ON SITE AT THE TIME THE CERTIFICATE OF OCCUPANCY IS ISSUED, OR AT ANY TIME AFTER THAT.
5. THIS PROJECT WILL DISTURB OVER ONE ACRE OF GROUND COVER AND/OR MEETS OTHER THRESHOLDS RELATED TO PERMIT CRITERIA FOR EPA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) COMPLIANCE. THE SITE CONTRACTOR IS RESPONSIBLE FOR DEVELOPMENT AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), SUBMISSION OF A NOTICE OF INTENT (NOI) TO EPA, INSPECTION AND MAINTENANCE OF SEDIMENT CONTROL MEASURES, DOCUMENTATION OF MAINTENANCE ACTIVITIES, AND SUBMISSION A NOTICE OF TERMINATION (NOT) TO EPA. THE SITE CONTRACTOR IS ALSO RESPONSIBLE TO COMPLY WITH ALL OTHER FEDERAL, STATE AND LOCAL STORMWATER OR NPDES REQUIREMENTS.
6. ACCESS INTO THE SITE FOR FIRE APPARATUS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. PLEASE CONTACT THE FIRE DEPARTMENT AT 868-5531 WITH ANY QUESTIONS ABOUT ACCESS REQUIREMENTS.
7. SNOW SHALL NOT BE PUSHED AGAINST TREES OR SHRUBS IN ANY MANNER THAT COULD DAMAGE THEM.
8. FOR MORE INFORMATION ABOUT THIS SITE PLAN, OR TO SEE THE COMPLETE PLAN SET, CONTACT THE TOWN OF DURHAM PLANNING DEPARTMENT, 8 NEWMARKET ROAD, DURHAM, NH 03824. (603) 868-8064.
9. IT IS THE APPLICANT'S, SITE CONTRACTOR'S, AND BUILDING CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL REQUIREMENTS RELATED TO THIS SITE PLAN APPROVAL. PLEASE REVIEW THESE PLANS AND THE PLANNING BOARD NOTICE OF DECISION CAREFULLY. CONTACT THE DURHAM PLANNING DEPARTMENT AT (603) 868-8064 WITH ANY QUESTIONS OR CONCERNS.
10. THE USE OF SODIUM-CHLORIDE BASED MATERIALS FOR WINTER ROAD MAINTENANCE SHALL BE THE MINIMUM NECESSARY FOR ROADWAY SAFETY.

FINAL APPROVAL BY DURHAM PLANNING BOARD.
CERTIFIED BY MICHAEL BEHRENDT, TOWN PLANNER
CERTIFIED _____
DATE _____

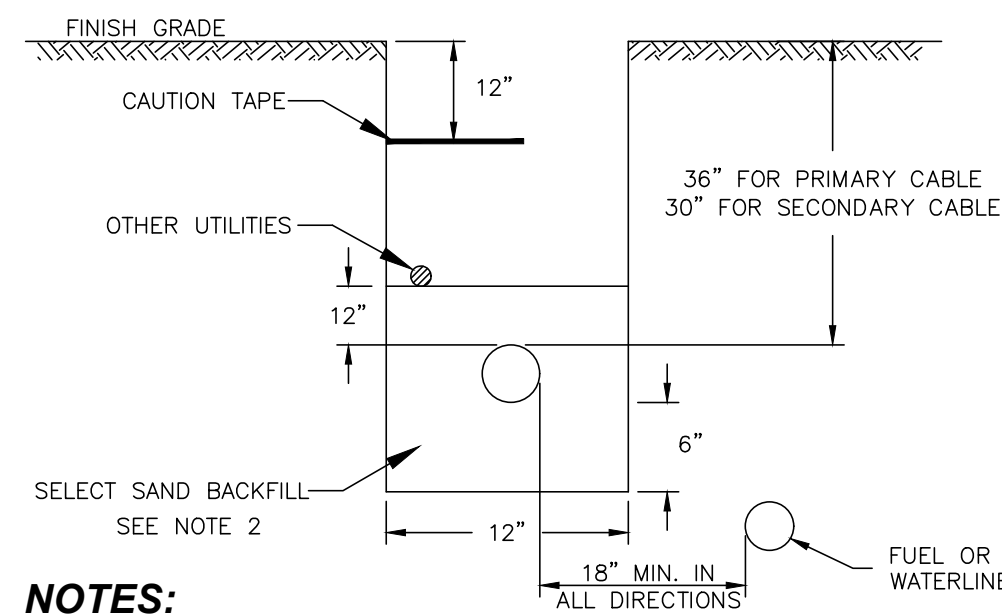


DATE:	2/26/20	NO.	
SCALE:	1" = 20'	REVISIONS	
DESIGNED BY:	MJS	1.	REVISED PER NOTICE OF DECISION 6/24/20
DRAWN BY:	MCS	2.	REVISIONS PER COMMENTS FROM TOWN PLANNER
APPROVED BY:	MJS	3.	INITIAL SUBMISSION TO DURHAM PLANNING BOARD
FILE:	19-070_civil.dwg	DATE	INT.

REVISED SITE PLAN
MIXED USE BUILDING
prepared for
HARMONY PLACE
TAX MAP 11, LOT 27-0
40 BRIGGS WAY, DURHAM NH

MJS ENGINEERING, P.C.
CIVIL • STRUCTURAL • ENVIRONMENTAL
5 RAILROAD ST., SUITE 309
DURHAM, NH 03824
PHONE: (603) 659-4979, FAX: (603) 659-4627
E-MAIL: mjs@mjs-engineering.com

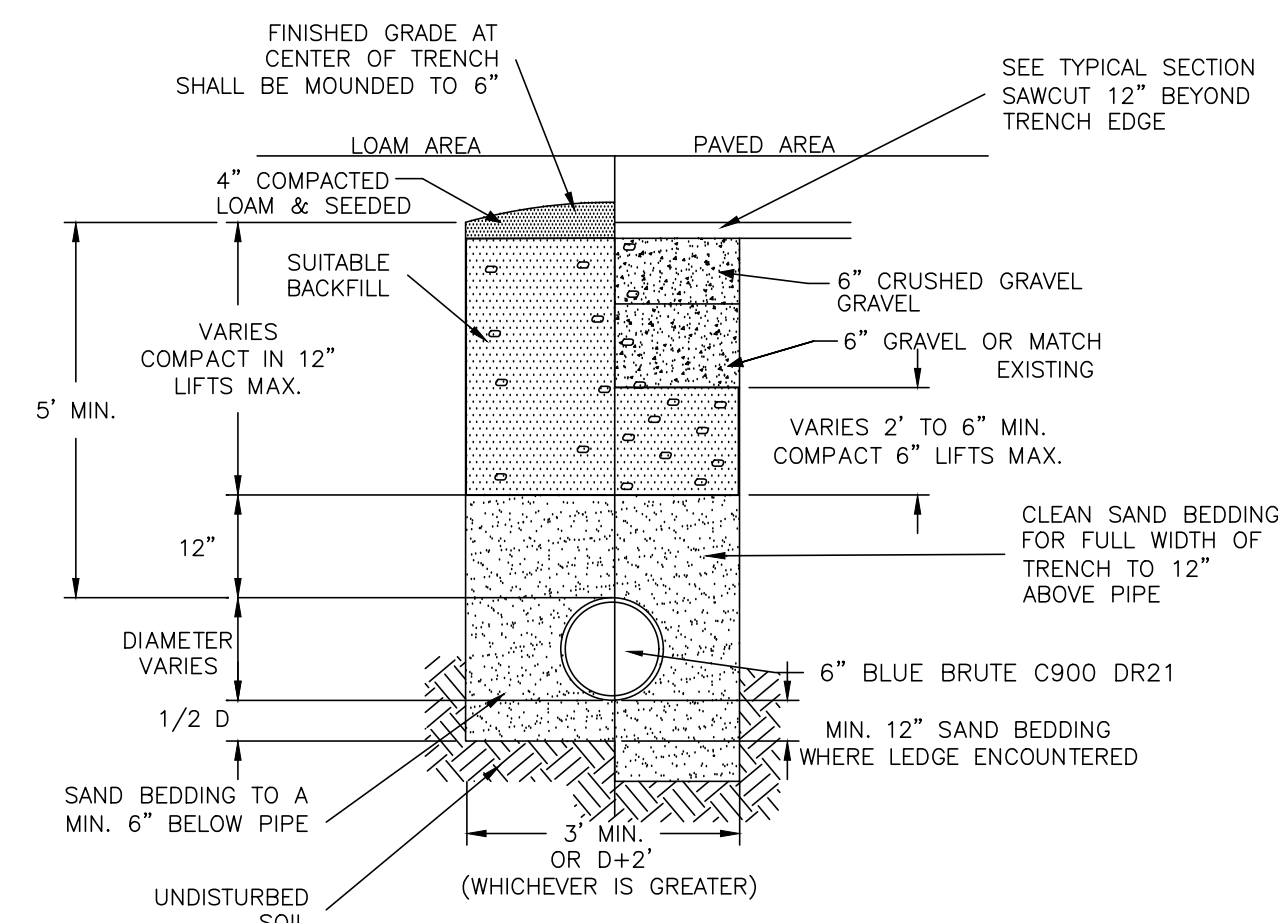
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C101A



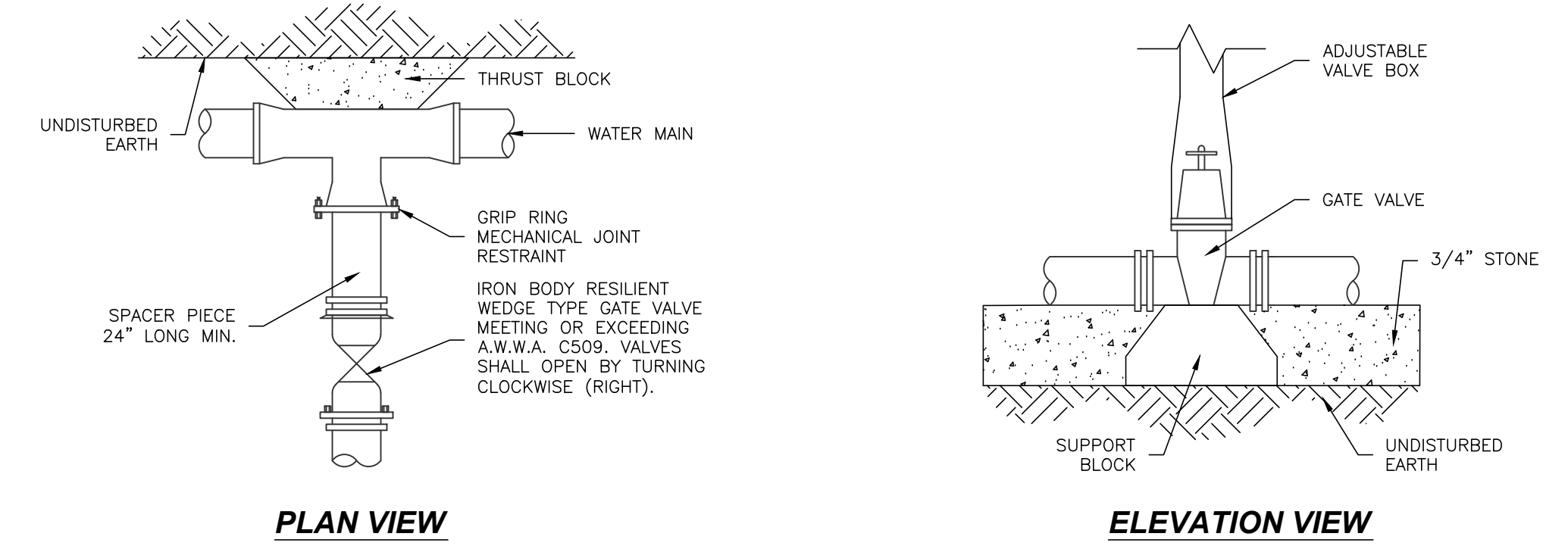
NOTES:

1. CONSTRUCTION TO BE IN ACCORDANCE WITH PSNH CONSTRUCTION STANDARDS FOR NEW ELECTRICAL SERVICE WORK BY CONTRACTORS, MOST RECENT EDITION.
2. SELECT SAND BACKFILL SHALL CONSIST OF A FINE GRANULAR MATERIAL OF WHICH 100% SHALL PASS THROUGH A 1/4" SIEVE, EXCEPT NATURALLY OCCURRING SMOOTH ROUND PEBBLES NO GREATER THAN 3/8" IN DIAMETER ARE PERMITTED AS LONG AS THEIR TOTAL VOLUME PER CUBIC FOOT OF SAND DOES NOT EXCEED 1%. THE SAND SHALL BE COMPLETELY FREE OF FROZEN LUMPS, ROCKS, STONES, DEBRIS AND RUBBISH. BACKFILL SHALL BE THOROUGHLY COMPACTED IN 6" LIFTS.
3. CONDUIT SIZES TO BE 5" 3-PHASE PRIMARY AND 4" 3-PHASE SECONDARY. ALL CONDUIT SIZES TO BE VERIFIED BY PSNH.
4. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE THE NATIONAL ELECTRIC CODE.

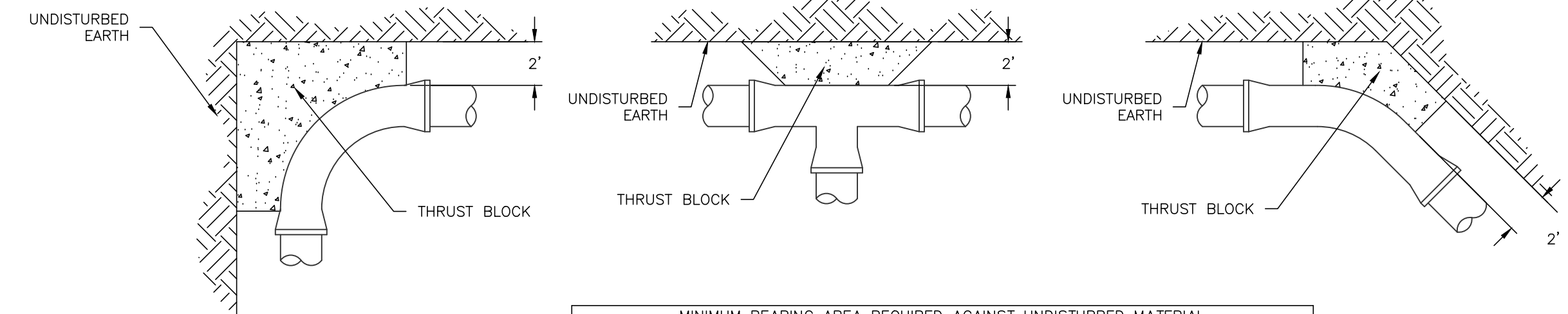
TELEPHONE & ELECTRIC TRENCH
N.T.S.



STANDARD WATER MAIN TRENCH
N.T.S.



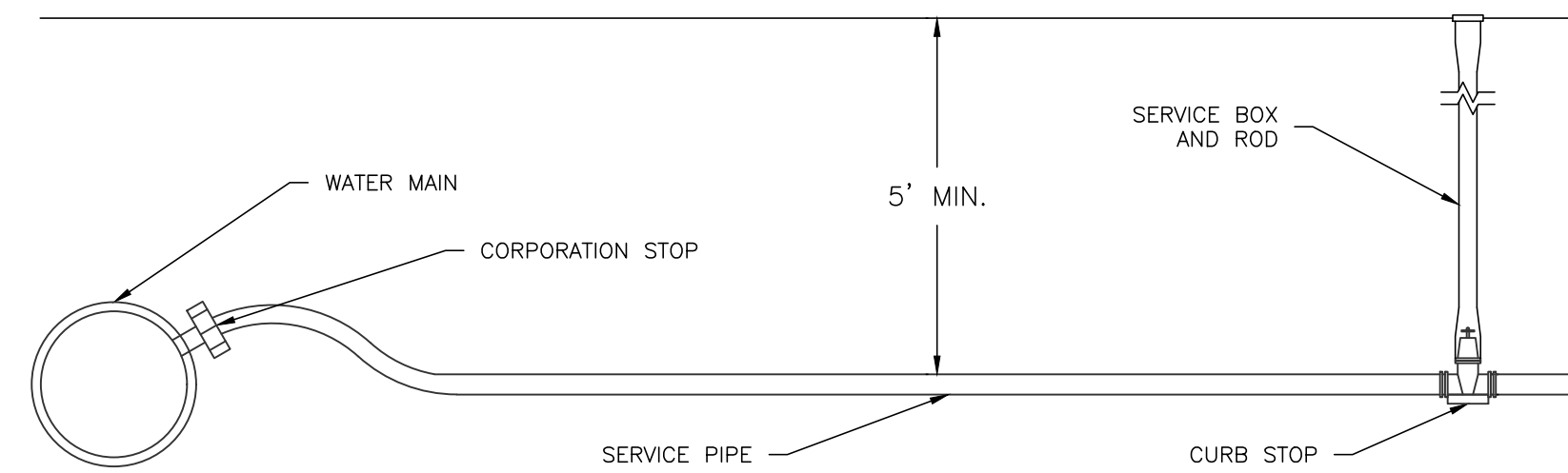
TYPICAL VALVE CONNECTION
N.T.S.



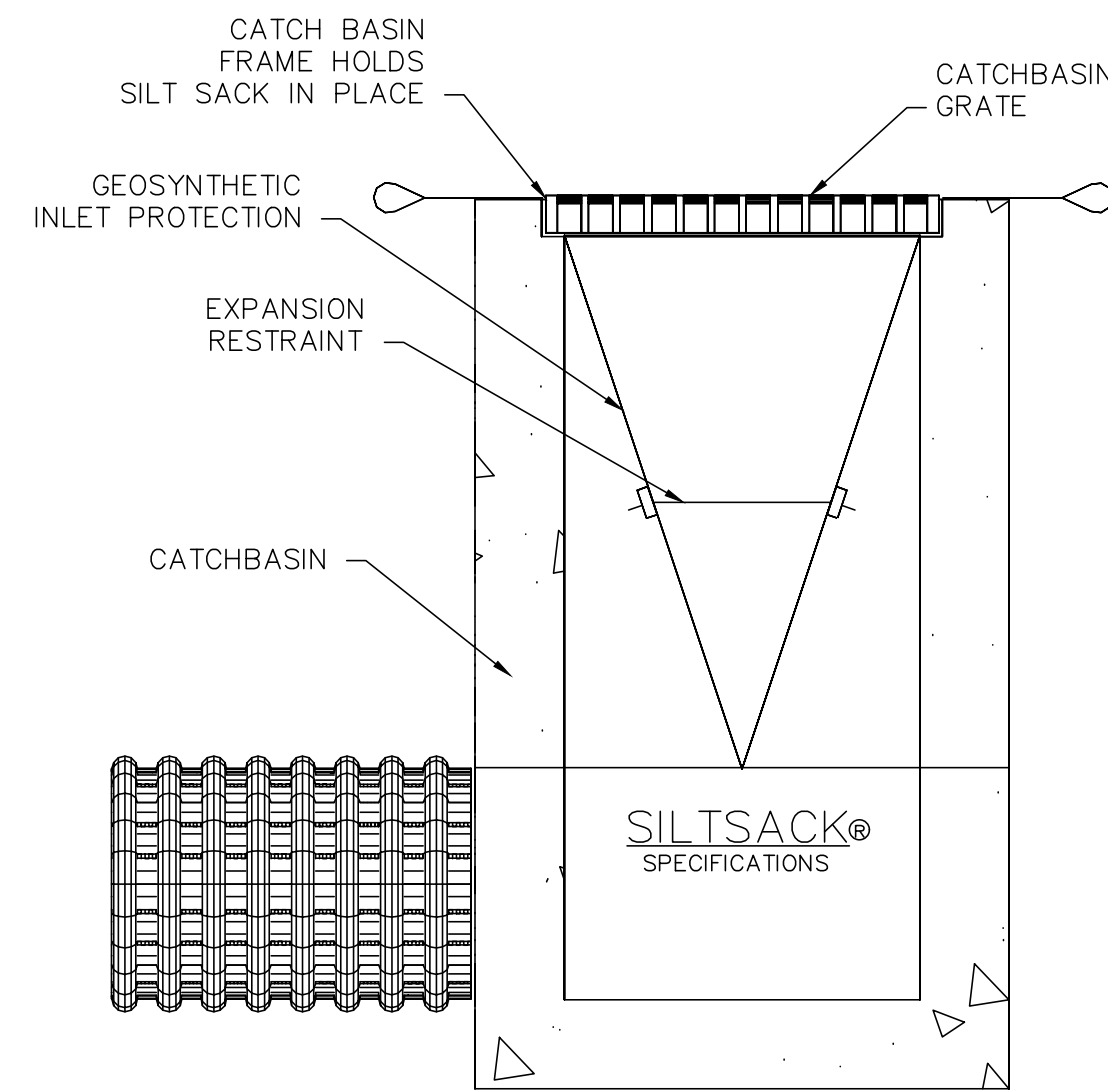
MINIMUM BEARING AREA REQUIRED AGAINST UNDISTURBED MATERIAL (SQ. FT.)					
PIPE DIAMETER	90° BEND	TEE	PLUG	45° BEND	22.5° BEND OR LESS
4-6"	3	3	3	3	3
8"	6	4	6	4	3
10"	9	6	9	5	3.5
12"	12	9	12	7	4

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

TYPICAL THRUST BLOCK DETAILS



TYPICAL WATER SERVICE CONNECTION
N.T.S.



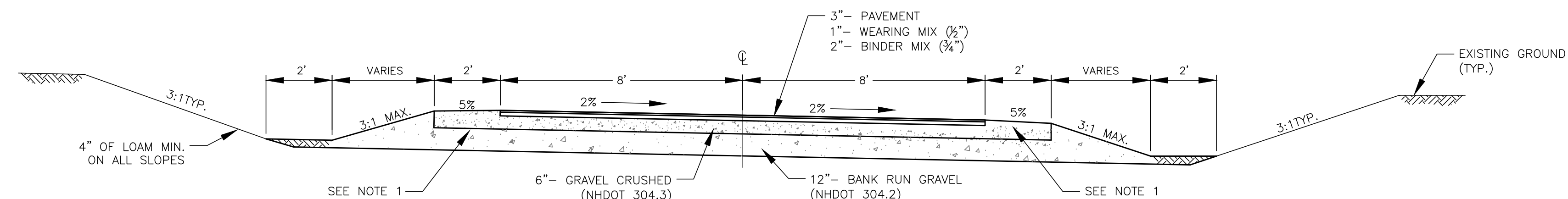
REGULAR FLOW SILTSACK®
(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

NOTES:

1. GEOSYNTHETIC SEDIMENT FILTER TRAP SHALL BE 'REGULAR FLOW SILTSACK®' OR APPROVED EQUAL. SPECIFICATIONS FOR SILTSACK® ARE DETAILED.
2. FILTER TRAPS SHALL BE INSPECTED AFTER EVERY RAIN EVENT OF 0.25" OR GREATER AND SEDIMENTS SHALL BE REMOVED FROM TRAP WHEN SEDIMENT HAS REACHED TWO THIRDS OF THE DEPTH OF THE TRAP, OR IF PONDING OF WATER AT SURFACE BEGINS TO OCCUR. DO NOT PUNCTURE FILTER TRAP TO MITIGATE PONDING.

CATCH BASIN GEOSYNTHETIC SEDIMENT TRAP
N.T.S.



TYPICAL ROAD CROSS SECTION
SCALE: NO SCALE

NOTES:

1. AT ALL SHOULDER LOCATIONS, NHDOT ITEM 304.33 - MODIFIED CRUSHED GRAVEL IS REQUIRED.
2. ACCESS DRIVE CROSS SLOPE DIRECTION VARIES. REFER TO GRADING PLAN.
3. ROAD CROSS-SECTION VARIES AT PARKING AND DROP-OFF AREAS. REFER TO SITE PLAN FOR WIDTHS AND GRADES.

FINAL APPROVAL BY DURHAM PLANNING BOARD.
 CERTIFIED BY MICHAEL BEHRENT, TOWN PLANNER
 DATE _____

NO.	REVISIONS	DATE
1.	INITIAL SUBMISSION TO THE DURHAM PLANNING BOARD	6/24/20
2.	REVISED PER NOTICE OF DECISION	7/23/20
3.		6/4/20
4.		MCS
5.		INT.



DATE: 6/14/20
 SCALE: AS SHOWN
 DESIGNED BY: MJS
 DRAWN BY: BOB
 APPROVED BY: MJS
 DWG FILE: 19-070 Data.dwg

SITE CONSTRUCTION
 DETAILS
 prepared for
HARMONY PLACE
 TAX MAP 11, LOT 27-0
 40 BRIGGS WAY, DURHAM NH

MJS ENGINEERING P.C.
 CIVIL & STRUCTURAL • ENVIRONMENTAL
 5 HALL ROAD, SUITE 200, DURHAM, NH 03824
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JOB: 19-070
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