

REVISIONS			
REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
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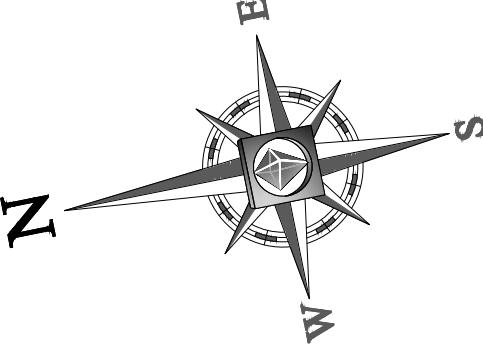
PERMIT SET
PROJECT No.: W181153
DRAWN BY: AWP/NPO/ZAP
CHECKED BY: SJM/JMJ
DATE: 07/3/2018
SCALE: AS NOTED
CAD I.D.: W181153SS

SITE DEVELOPMENT PLANS FOR WILLIAM WAY PARTNERS, LLC
LOCATION OF SITE
MAP #48, LOT #15
24 WILLIAM WAY
TOWN OF BELLINGHAM
NORFOLK COUNTY
MASSACHUSETTS

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-5080
www.BohlerEngineering.com



KEY PLAN
SHEET NUMBER:
3
OF 14
REV 1 - 9/4/2018



APPROVED

Bellingham Planning Board at 9:18 am, Nov 15, 2018

BOHLEER

ENGINEERING

WE CIVIL AND CONSULTING ENGINEERING
LANDSCAPE ARCHITECTURE
PROGRAM MANAGEMENT

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**PERMIT
SET**

PROJECT: SITE
DEVELOPMENT PLANS
FOR
WILLIAM WAY
PARTNERS,
LLC

**LOCATION OF SITE
MAP #48, LOT #15
24 WILLIAM WAY
TOWN OF BELLINGHAM
NORFOLK COUNTY
MASSACHUSETTS**

JESSIE M. JOHNSON
CIVIL
No. 43050
MASSACHUSETTS LICENSE No. 43050
REGISTERED

SHEET TITLE:

PLAN

SHEET NUMBER:
4
OF 14

WILLIAM WAY

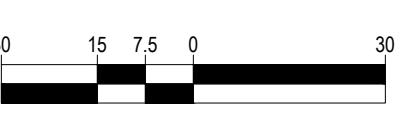
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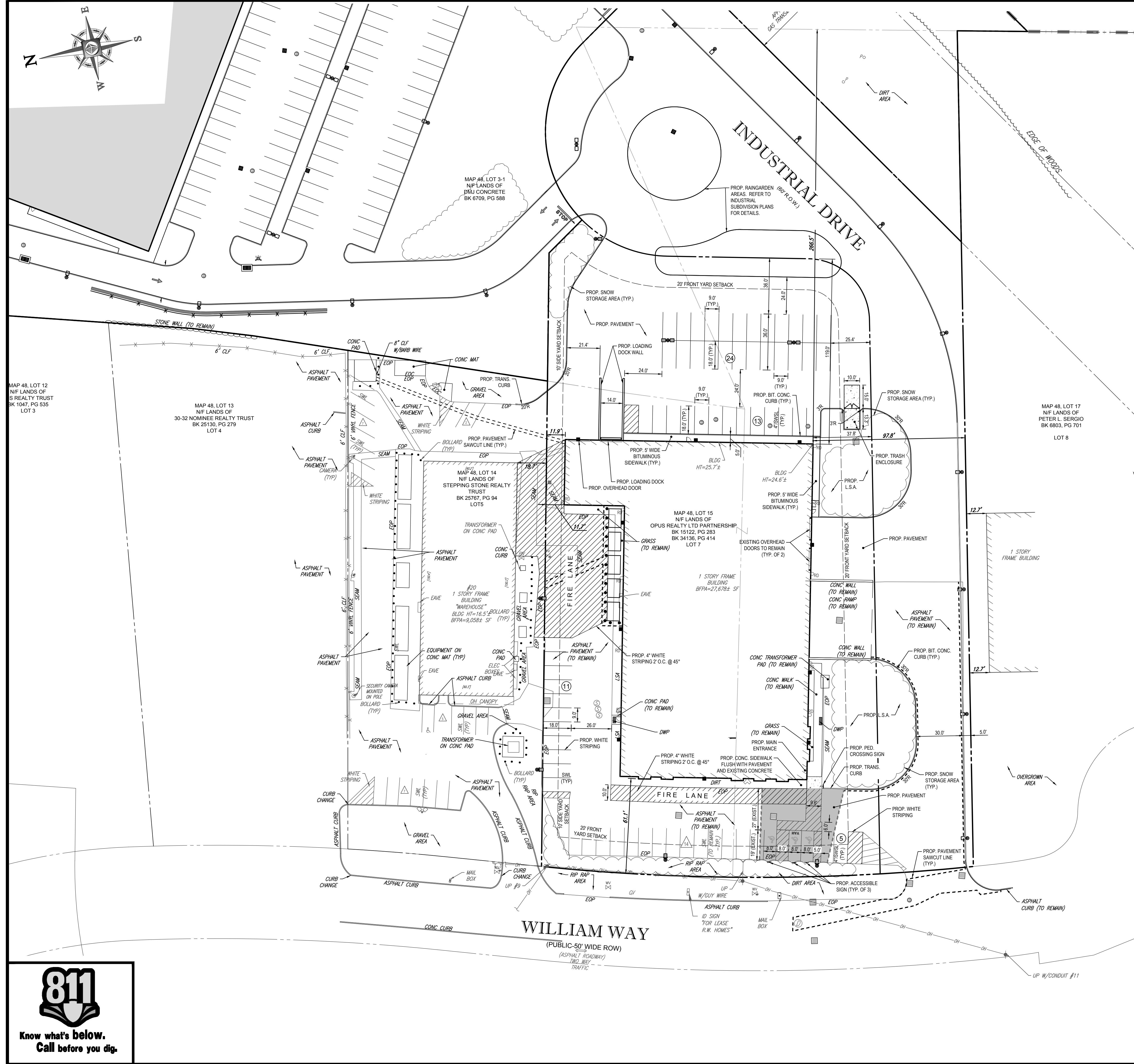
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Know what's below.
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REFER TO GENERAL NOTES SHEET FOR DEMOLITION NOTES

**THIS PLAN TO BE UTILIZED FOR
DEMOLITION/ REMOVAL
PURPOSES ONLY**





LAND USE / ZONING INFORMATION & NOTES

- APPLICANT: WILLIAM WAY PARTNERS, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019
- OWNER: WILLIAM WAY PARTNERS, LLC 24 WILLIAM WAY BELLINGHAM, MA 02019
- PARCEL: MAP #18 & LOT #15 24 WILLIAM WAY TOWN OF BELLINGHAM NORFOLK COUNTY, MA

ZONING ANALYSIS TABLE			
ZONING DISTRICT	INDUSTRIAL (I) ZONE WAREHOUSE USE ALLOWED BY RIGHT		
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	60,000 SF	129,793 SF	84,292 SF
MINIMUM LOT FRONTAGE	200 FT	278.1 FT	218.0 FT
MAX BUILDING COVERAGE	N/A	25.8%	39.4%
MIN. FRONT SETBACK	20 / 100 FT (1)	61.1 FT	37.8 FT
MIN. SIDE SETBACK	10 FT / 30 FT (1)	11.7 FT	NO CHANGE
MIN. REAR SETBACK	20 / 100 FT (1)	268.5 FT	N/A
MAX BUILDING HEIGHT	45 FT	25.7	NO CHANGE
IMPERVIOUS COVERAGE	N/A	50.8%	82.4%
PARKING SPACES	67	47	67
PARKING CRITERIA (9x18)	GENERAL LIGHT INDUSTRIAL/WHOLESALE/WAREHOUSE: 2 SPACES PER 1,000 SF GFA 2 SPACES / 1,000 SF x 33,440 SF = 66.9 = 67 SPACES REQUIRED		
ACCESSIBLE PARKING SPACES	3	4	3
ACCESSIBLE PARKING CRITERIA (STANDARD SPACE: 8x18' W/ 5' ACCESS AISLE) (VAN ACCESSIBLE SPACE: 8x18' W/ 8' ACCESS AISLE)	TOTAL PARKING 51 TO 100 = 3 ACCESSIBLE SPACES VAN ACCESSIBLE SPACES = 1 / 6 SPACES		

N/A - NOT APPLICABLE
(1) THE GREATER SETBACK DISTANCE IS REQUIRED WHEN FACING OR ADJOINING A RESIDENTIAL, SUBURBAN, OR AGRICULTURAL DISTRICT

APPROVED

By Bellingham Planning Board at 9:18 am, Nov 15, 2018

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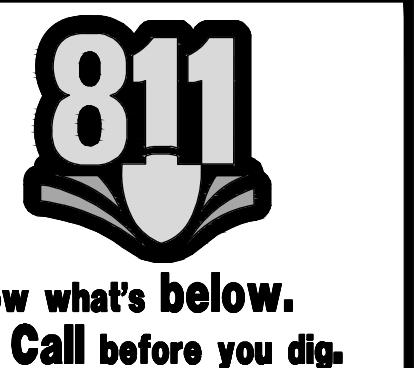
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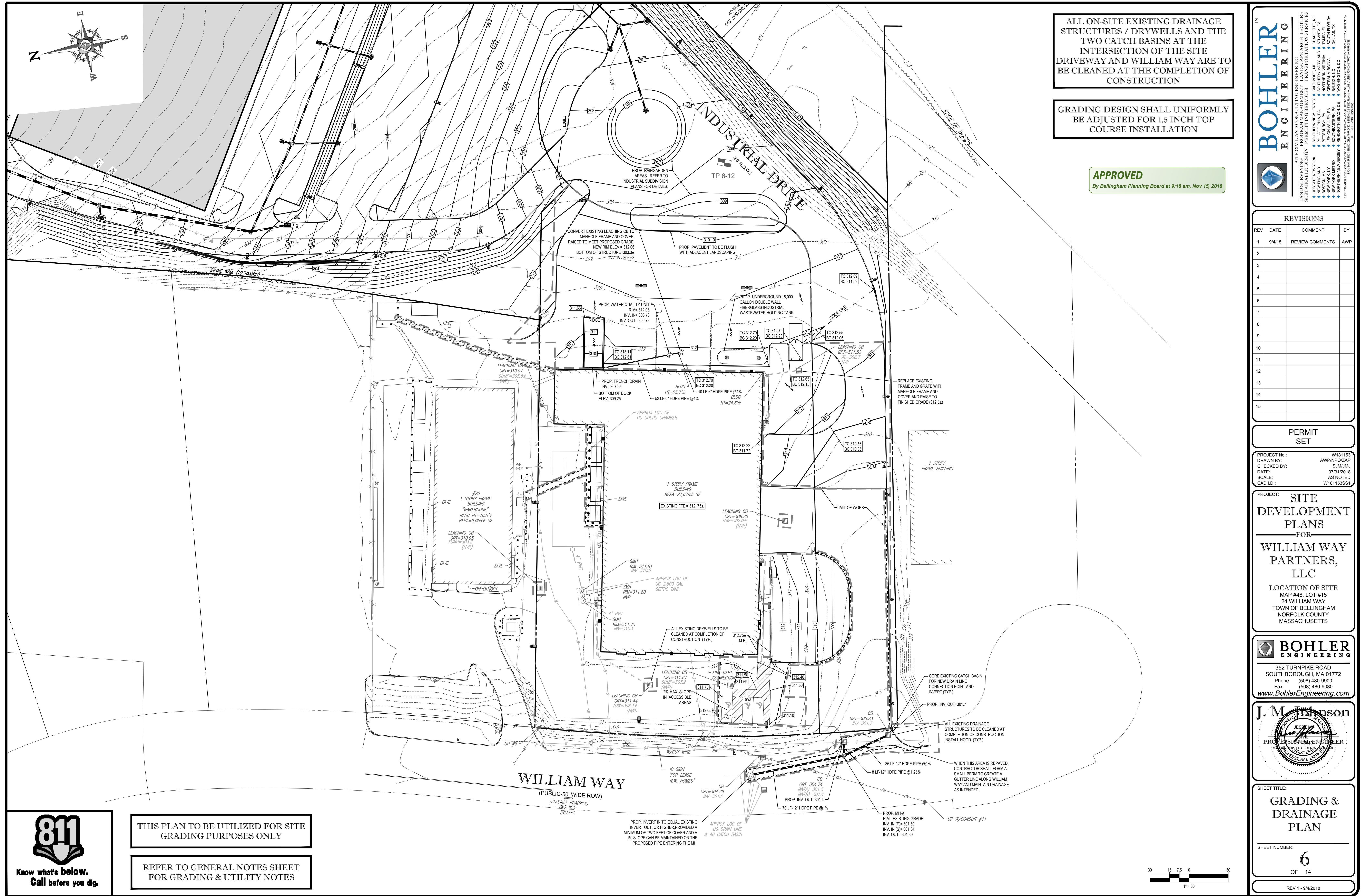
J. M. Johnson
PROFESSIONAL ENGINEER
MASS. STATE LICENSED
PROFESSIONAL ENGINEER
SHEET TITLE:

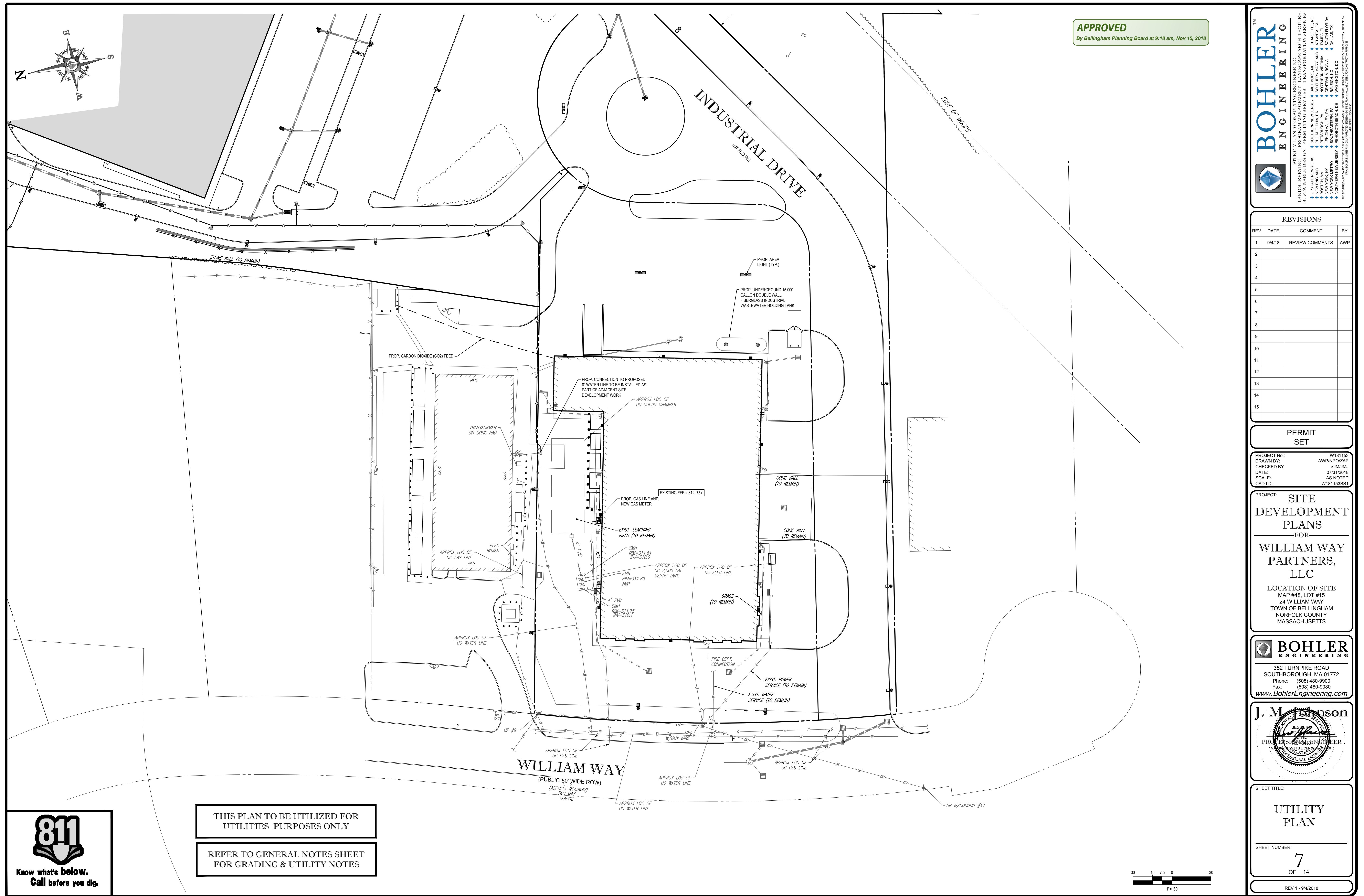
SITE PLAN
SHEET NUMBER: 5
OF 14
REV 1 - 9/4/2018

REFER TO GENERAL NOTES SHEET FOR NOTES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY







EROSION & SEDIMENT CONTROL NOTES

- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNEVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE STABILIZED WITHIN 15 DAYS OF FINISHING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIATION OF DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 10 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
- SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
- INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE FOR NOTE #5.
- ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAVED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY WASHAWAY OR RAPIDLY CRITICAL AREA WHERE CONCRETE IS UNSTABILE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE STABILIZED BY TURF.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).
- IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST TO PROTECT FROM SPRING RUNOFF PROBLEMS.
- DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED ONTO OPEN AREAS.
- REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:

 - SIX INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 80 LB PER ACRE OR 18.1 LB PER 1,000 SF USING 10-20-40 OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SF).
 - FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% KENTUCKY BLUE GRASS, 4% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF. LAWN QUALITY SOIL MAY BE SUBSTITUTED FOR SEED.
 - STRAW MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS WILL BE USED ON STRAW MULCH FOR WIND CONTROL.
 - ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
 - WETLANDS WILL BE PROTECTED WITH STRAWBALES AND/OR SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
 - ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
 - ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

MULCH

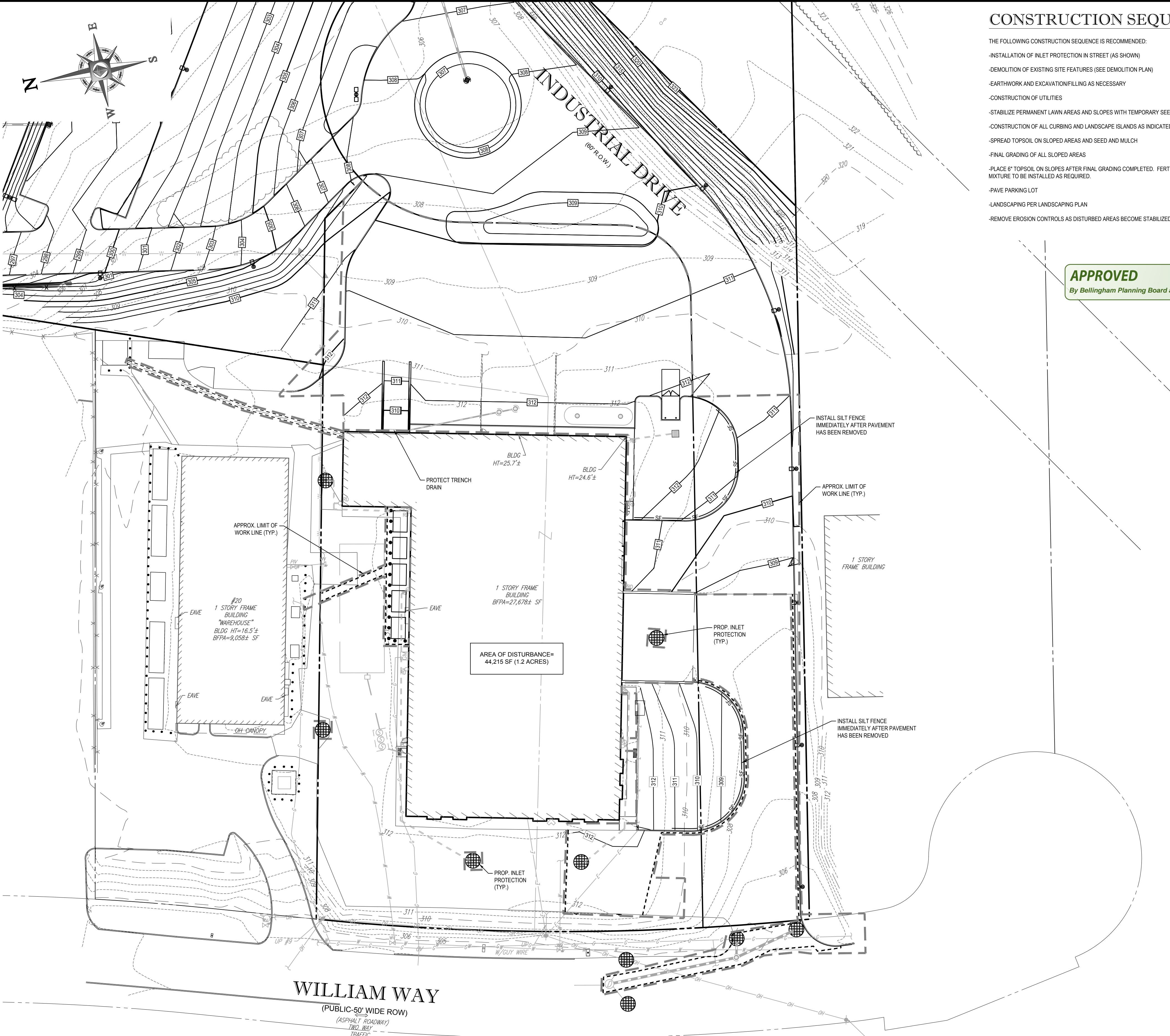
LOCATION	MULCH	RATE (1000 SF)
PROTECT AREA	STRAW	100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)*	165-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCLOSIR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

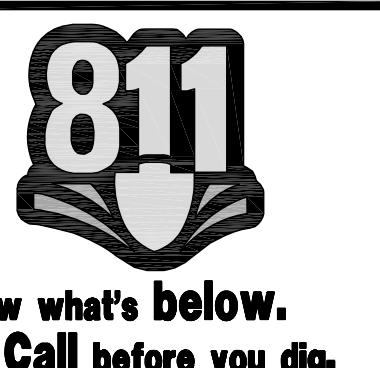
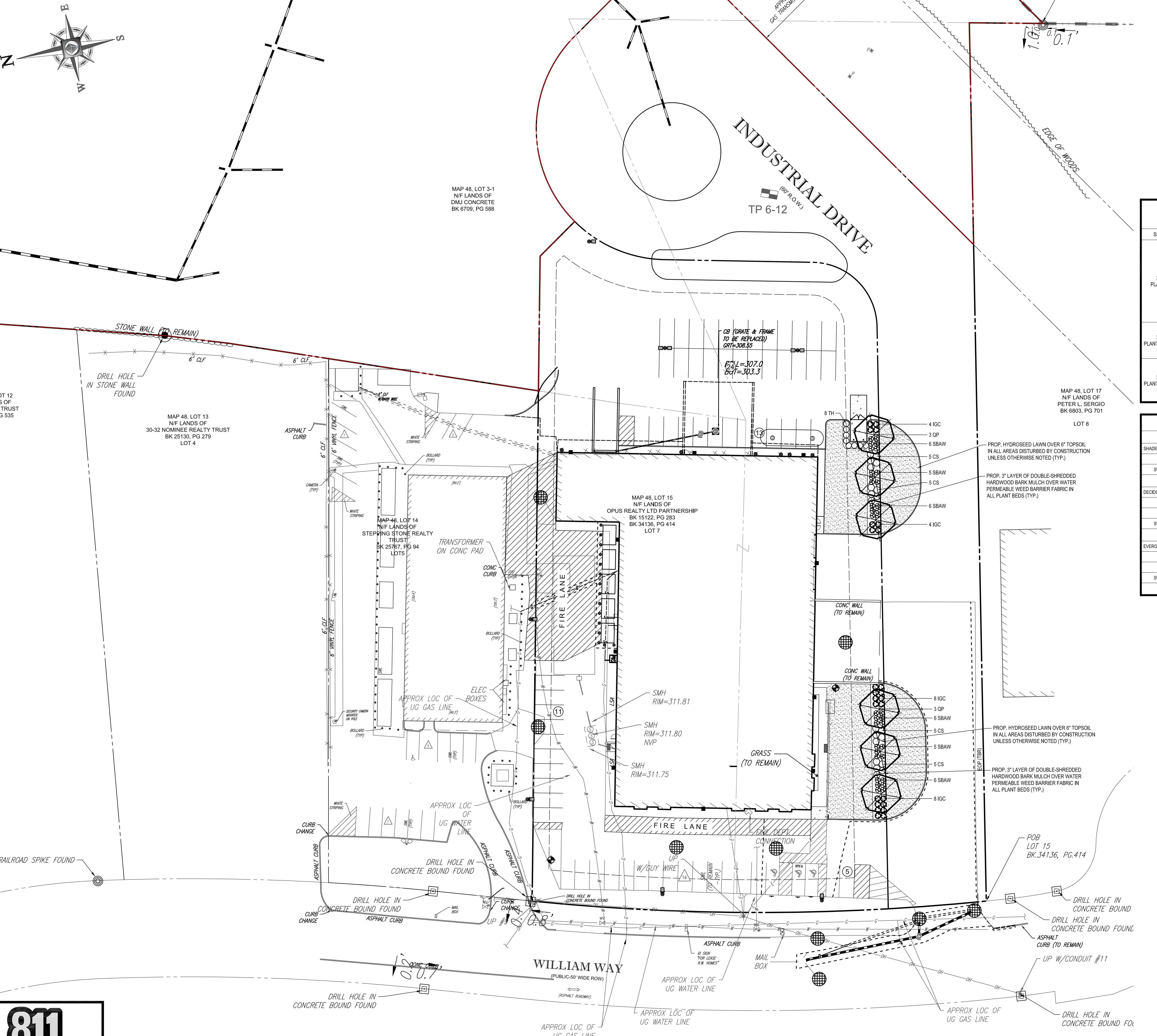
* A HYDRO-APPLICATION OF WOOD, OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER SUCH AS CURASOL OR RMB PLUS SHALL BE USED ON STRAW MULCH FOR WIND CONTROL.

MULCH ANCHORING
ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISK WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

- WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
- WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.
- EXPOSED AREA SHOULD BE LIMITED TO THAT WHICH CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
- CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.
- AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.
- BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1ST, LOAM OR SEED WILL NOT BE REQUIRED DURING PERIODS OF ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINISH TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED AND THEN SMOOTH, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 200 - 300% HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUED TO BE PROTECTED WITH MULCH OR SEED UNTIL THE EXPOSED AREA IS STABILIZED. MULCH SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OR WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT. EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF STRAW OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS.
- MULCHING REQUIREMENTS:
 - BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WIND AND FOR ALL OTHER SLOPES GREATER THAN 8%.
 - MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.
- AFTER NOVEMBER 1ST THE CONTRACTOR SHALL APPLY DORMANT SEEDING OR MULCH AND ANCHORING ON ALL BARE EARTH AT THE END OF EACH WORK DAY.
- DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.
- STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.
- EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.





**Know what's below.
Call before you dig.**

OWNER MAINTENANCE RESPONSIBILITIES

UPON OWNER'S (OR OWNER CONTRACTOR'S) COMPLETION OF LANDSCAPING WORK, THE OWNER IS FULLY RESPONSIBLE FOR ALL FUTURE MAINTENANCE, CARE, UPKEEP, WATERING, AND TRIMMING OF ALL INSTALLED VEGETATION, PLANTS, TREE, BUSHES, SHRUBS, GRASSES, GRASS, ORNAMENTAL PLANTS AND FLOWERS, FLOWERS, GROUND COVER, AND LANDSCAPING, INCLUDING ALL LANDSCAPE ISLANDS AND AREAS ADJACENT OR PART OF THE LANDSCAPED AREAS. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:

- TREES ADJACENT TO WALKWAYS AND AREAS OF PEDESTRIAN TRAFFIC MUST BE MAINTAINED TO ASSURE THAT ANY BRANCHES MUST BE LIMBED UP TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PEDESTRIAN SURFACES) OR PRUNED BACK TO AVOID ANY INTERFERENCE WITH THE TYPICAL PATH OF TRAVEL.
- TREES WITHIN VEHICULAR SIGHT LINES, AS ILLUSTRATED ON THE LANDSCAPE PLAN, ARE TO BE TRIMMED TO A CLEARANCE HEIGHT OF 7 FT. (FROM ALL PAVED, TRAVELED SURFACES), OR AS OTHERWISE INDICATED ON THE PLANS.
- VEGETATIVE GROUND COVER, SHRUBS AND ORNAMENTAL PLANTS AND GRASSES MUST BE TRIMMED SO THAT NO PORTION OF THE PLANT EXCEEDS 30 INCHES ABOVE GRADE (OF ALL PAVED, TRAVEL SURFACES) ALONG AND WITHIN THE SIGHT LINES OF PARKING LOTS AND INGRESS-EGRESS WAYS.
- FALLEN PLANT FLOWERS, FRUIT, SEEDS AND DEBRIS DROPPINGS ARE TO BE REMOVED IMMEDIATELY FROM VEHICULAR AND PEDESTRIAN TRAFFIC AREAS TO PREVENT TRIPPING, SLIPPING OR ANY OTHER HAZARDS.

THESE REQUIREMENTS DO NOT AFFECT THE PLANT LIFE GUARANTEES THE LANDSCAPE CONTRACTOR IS REQUIRED TO PROVIDE.

TOWN OF BELLINGHAM LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENTS	CALCULATIONS/PROPOSED
240-66 PLANTINGS	<p>A. REQUIRED PLANTING AREAS SHALL INCLUDE BOTH TREES AND SHRUBS, AND MAY INCLUDE ONES EXISTING ON SITE. TREES MUST BE AT LEAST $2\frac{1}{2}$" CAL. AND REACH 30'. SHRUBS MUST BE AT LEAST 24" HT. AT TIME OF BUILDING OCCUPANCY AND REACH 36". BOTH TREES AND SHRUBS MUST BE OF SPECIES COMMON TO THE AREA.</p> <p>B. NUMBER OF TREES IN PLANTING AREAS MUST EQUAL NOT LESS THAN THE PLANTING AREA LENGTH /30 AND NUMBER OF SHRUBS MUST EQUAL NOT LESS THAN THE PLANTING AREA /3. PLANTINGS PREFERABLY WILL BE GROUPED, NOT EVENLY SPACED.</p>	<p>PROPOSED</p> <p>PROPOSED</p>
240-67 PLANTING AREAS	A. STREET PLANTING AREA. STREET PLANTING SHALL BE PROVIDED WITHIN 15' OF THE STREET PROPERTY LINE ALONG THE ENTIRE STREET FRONTAGE EXCEPT AT DRIVES.	$375 \text{ LN. FT.} / 30 = 13 \text{ TREES}$ $375 \text{ LN. FT.} / 3 = 125 \text{ SHRUBS}$ 6 TREES PROPOSED 86 SHRUBS PROPOSED
240-67 PLANTING AREAS	<p>C. PARKING AREA PLANTINGS. A MIN. OF 5% OF INTERIOR AREA OF PARKING LOTS MUST BE PLANTED TO CONTAIN A MIN. OF 1 TREE AND 5 SHRUBS FOR EVERY 1,500 SF OF PARKING LOT.</p> $\pm 14,820 \text{ SF} \times 0.05 = \pm 741 \text{ SF REQUIRED INTERIOR LANDSCAPE}$ $\pm 14,820 \text{ SF} / 1,500 \text{ SF} = 10 \text{ TREES}$ $\pm 14,820 \text{ SF} / 1,500 \text{ SF} \times 4 = 40 \text{ SHRUBS}$	

LANDSCAPE SCHEDULE

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	CONT.
SHADE TREES					
QP	6	QUERCUS PALUSTRIS	PIN OAK	2 1/2-3" CAL.	B+B
SUBTOTAL:	6				
DECIDUOUS SHRUBS					
CS	20	CORNUS SERICEA "MIDWINTERFIRE"	MIDWINTERFIRE DOGWOOD	2-3'	B+B
SBAW	34	SPIRAEA X BUMALDA 'ANTHONY WATERER'	ANTHONY WATERER SPIREA	24-30"	#5 CAN
SUBTOTAL:	54				
EVERGREEN SHRUBS					
IGC	24	ILEX GLABRA 'COMPACTA'	DWARF INKBERRY HOLLY	24-30"	#5 CAN
TH	8	TAXUS MEDIA 'HICKSII'	HICKS YEW	30-36"	B+B
SUBTOTAL:	32				

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PROJECT: SITE
DEVELOPMENT
PLANS
FOR
WILLIAM WAY
PARTNERS,
LLC

LOCATION OF SITE
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TOWN OF BELLINGHAM
NORFOLK COUNTY
MASSACHUSETTS

E N G I N E E R I N G

CONNECTICUT No. 1359

**THIS PLAN TO BE UTILIZED FOR
LANDSCAPE PURPOSES ONLY**

REFER LANDSCAPE NOTES & DETAILS SHEET FOR LANDSCAPE NOTES AND DETAILS

LANDSCAPE SPECIFICATIONS

1. SCOPE OF WORK:
1.1. THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS:
2.1. GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATIONS SPECIFICATIONS.
2.2. TOPSOIL - NATURAL FRIBBLE LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0, IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.
2.3. LAWN - ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN

2.3.1. LAWN SEED MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.
2.3.2. SOIL SHALL BE STRONGLY ROOTED, WELD AND DISEASE/FEST FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1 SHALL BE PEGGED TO HOLD SOD IN PLACE.
2.4. MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES /DETAILS.

2.5. FERTILIZER:
2.5.1. FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.
2.5.2. FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

2.6. PLANT MATERIAL:
2.6.1. ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).
2.6.2. IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.
2.6.3. PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.
2.6.4. TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4" WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE FOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BRANCHES.
2.6.5. ALL PLANTS SHALL BE OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVA.
2.6.6. CALPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE NATURAL GRADE FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALPER SIZE. IF THE CALPER AT SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALPER, THE CALPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.
2.6.7. SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.
2.6.8. TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES:
3.1. CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.
3.2. WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS:
4.1. BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINED HEREIN.
4.2. ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT A 45° ANGLE. BRANCHES THAT ARE DRY, DROOPING AND DRAFTY, ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPS OF SHOT PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT OR BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY.
4.3. CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNINGS OF WORK.

5. TREE PROTECTION:
5.1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE Drip LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.
5.2. A FORTY-EIGHT INCH (48") HIGH WOODEN SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "VISI-FENCE" OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE LOCATED AT A MAXIMUM OF EIGHT FEET (8') ON CENTER OR AS INDICATED WITHIN THE TREE PROTECTION DETAIL.
5.3. WHEN THE TREE PROTECTION FENCE HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION. THE FENCE ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

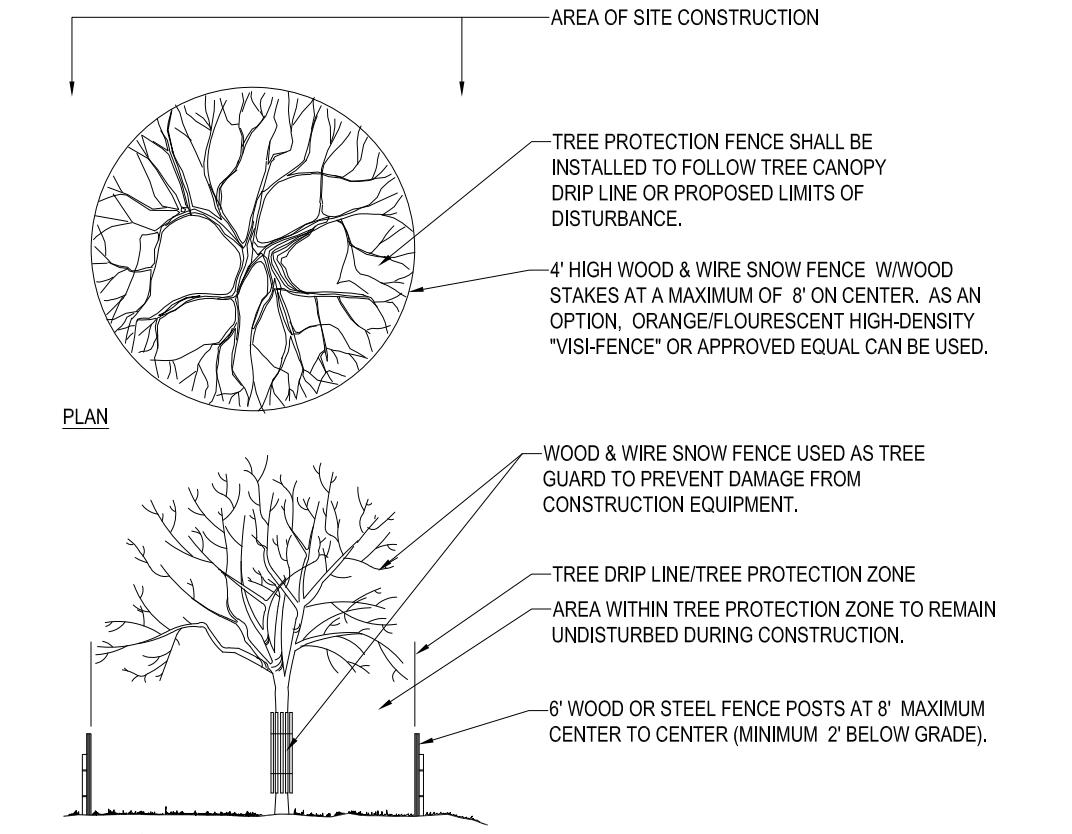
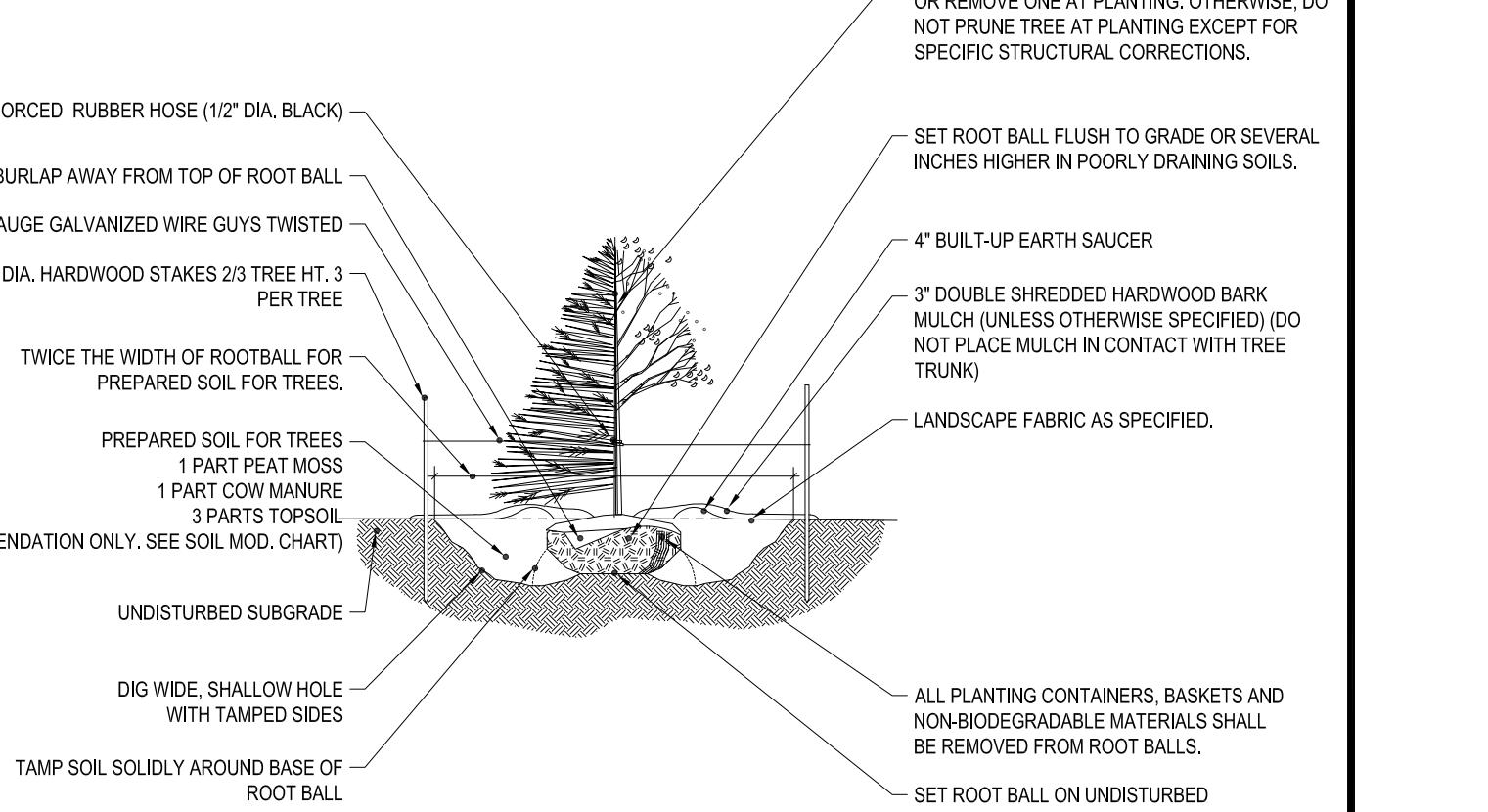
5.4. AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS:
6.1. CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.
6.2. LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETERMINANT TO THE GROWTH OF PLANT MATERIAL. SOIL MODIFICATIONS, AS SPECIFIED HEREIN, MAY NEED TO BE CONDUCTED BY THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.
6.3. THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.
6.3.1. TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND NUTRIENTS, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 12", USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE OF PIECES WITH IDENTIFIABLE WOOD OR WOOD STRUCTURE. AVOID MATERIAL WITH A PH HIGHER THAN 7.5.
6.3.2. TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.
6.3.3. MODIFY EXTREMELY SANDY SOILS (MORE THAN 65%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING:
7.1. UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINISH-GRADING WITHIN THE SITE OF THE SITE.
7.2. LANDSCAPE CONTRACTOR SHALL VERIFY THAT SUBGRADE FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS ("").
7.3. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.
7.4. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOILING:
8.1. CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, IN ALL PLANTING AREAS. TOPSOIL SHOULD BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS.
8.2. ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.
8.3. CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS NEEDED TO ACHIEVE THE REQUIRED LEVELS AS SPECIFIED IN THE MATERIALS SECTION ABOVE.
8.4. ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE TOP FOUR INCHES (4") IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY (SEE SPECIFICATION 6.A.):
8.4.1. 20 POUNDS GRO-POWER OR APPROVED SOIL CONDITIONER/FERTILIZER
8.4.2. 20 POUNDS NITRO-FORM (COURSE) 38-0-0 BLUE CHIP OR APPROVED NITROGEN FERTILIZER

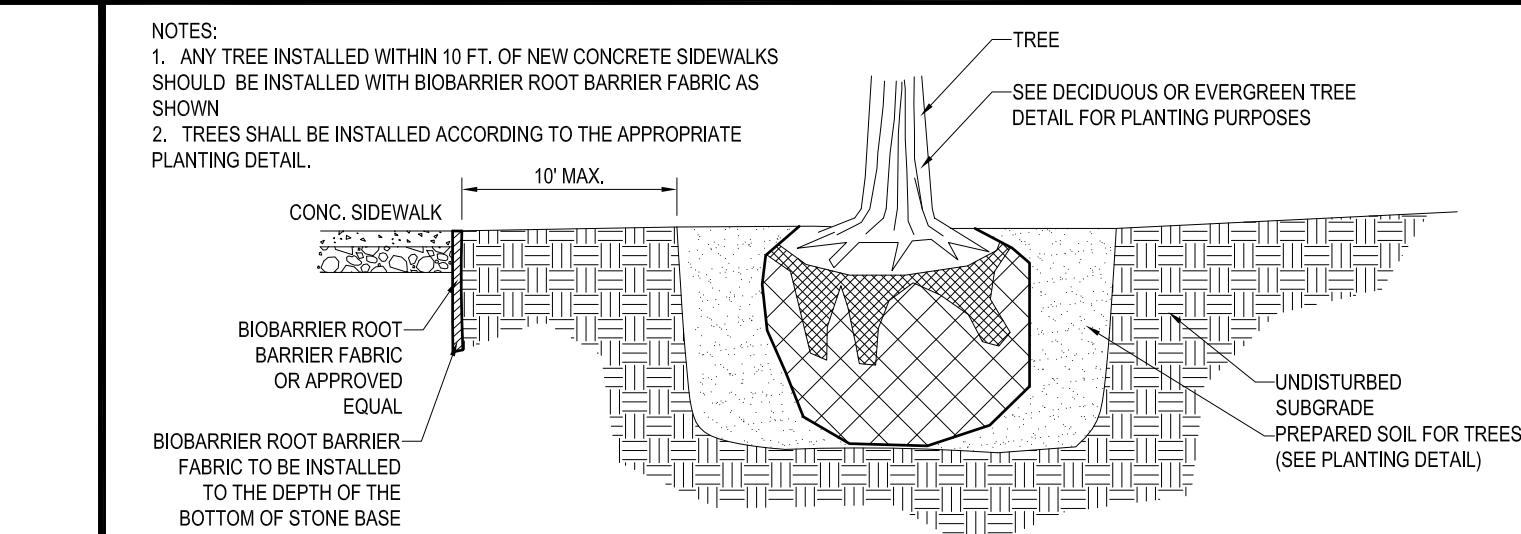
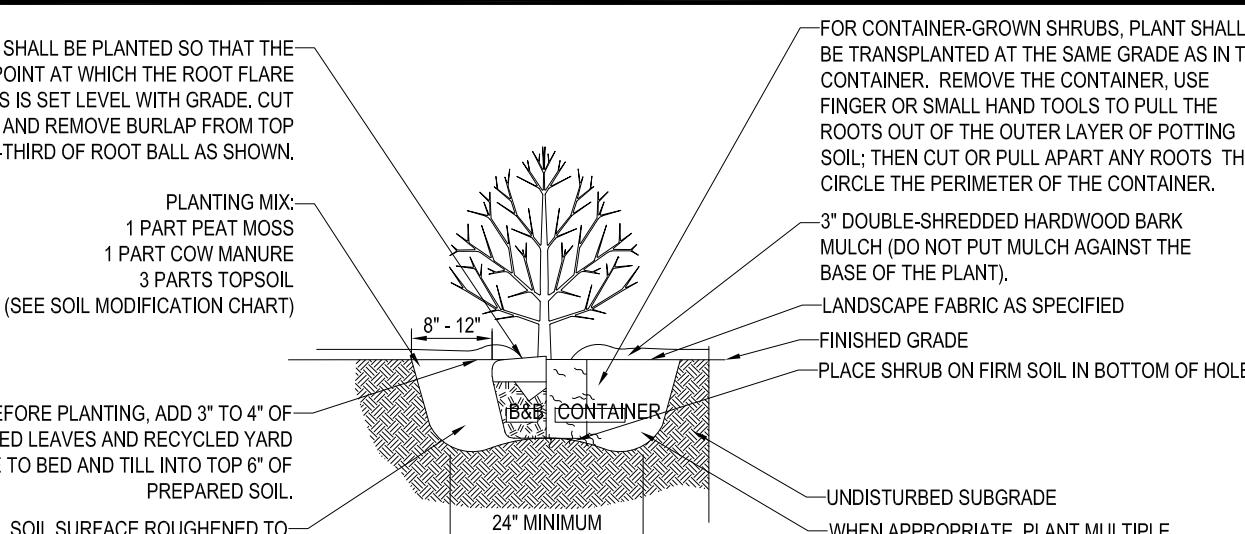
NOTES:
1) NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2) REMOVE ALL NON-BIODEGRADABLE MATERIAL AND ROPE FROM TRUNK & TOP OF ROOT BALL. FOLD BURLAP BACK 1/3 FROM ROOT BALL.
3) THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
4) THE BOTTOM OF PLANTING EXCAVATIONS SHOULD BE ROUGH TO AVOID MATTING OF SOIL LAYERS AS NEW SOIL IS ADDED. IT IS PREFERABLE TO TILL THE FIRST LIFT (2 TO 3 IN) OF PLANTING SOIL INTO THE SUBSOIL.
5) REFER TO THE CHART "GENERAL RANGE OF SOIL MODIFICATIONS & VOLUMES FOR VARIOUS SOIL CONDITIONS" TO DETERMINE MINIMUM WIDTH OF PREPARED SOIL (X).
7) SUBSTITUTE ARBORVITAE STAKING SYSTEM WHEN SPECIFIED.



TREE PLANTING DETAIL

TREE PROTECTION DURING SITE CONSTRUCTION

N.T.S.

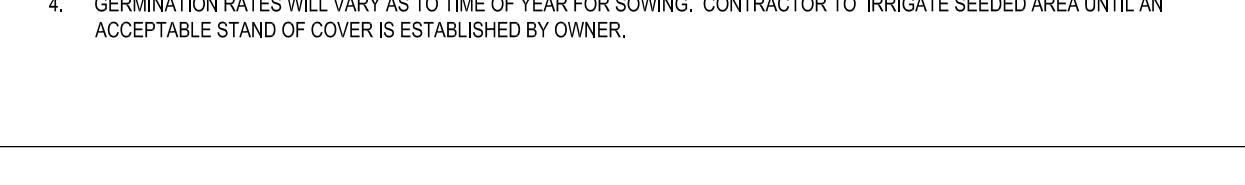


SHRUB PLANTING DETAIL

BIOCARRIER ROOT BARRIER DETAIL

N.T.S.

- PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 2" DIAMETER.
- PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- SEEDING RATES:
 - FERENNIKE RYEGRASS 1/2 LB/1000 SQ FT
 - HEAVY RYEGRASS 1/2 LB/1000 SQ FT
 - RED FESCUE 1/2 LB/1000 SQ FT
 - SPREADING FESCUE 1/2 LB/1000 SQ FT
 - FERTILIZER (16.32.16) 2 LB/1000 SQ FT
 - LIQUID LIME 1 GAL/800 GAL
 - TANK TACKIFIER 35 LB/800 GAL
 - TANK FIBER MULCH 30 LB/1000 SQ FT
- GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL AN ACCEPTABLE STAND OF COVER IS ESTABLISHED BY OWNER.



HYDROSEED SPECIFICATIONS

TREE PLANTING DETAIL - ON SLOPE

N.T.S.

PERMIT SET

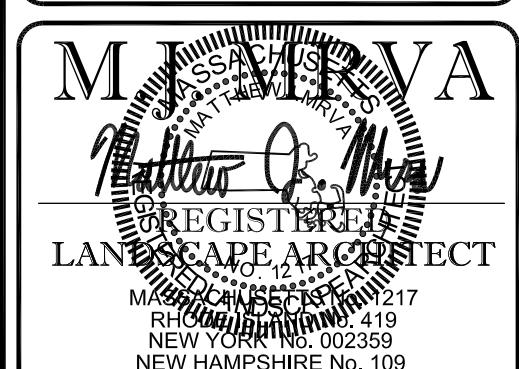
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DRAWN BY: AWP/NPO/ZAP
CHECKED BY: SJM/JMU
DATE: 07/31/2018
SCALE: AS NOTED
CAD ID.: XREF:W181153SS1-LAND

SITE DEVELOPMENT PLANS

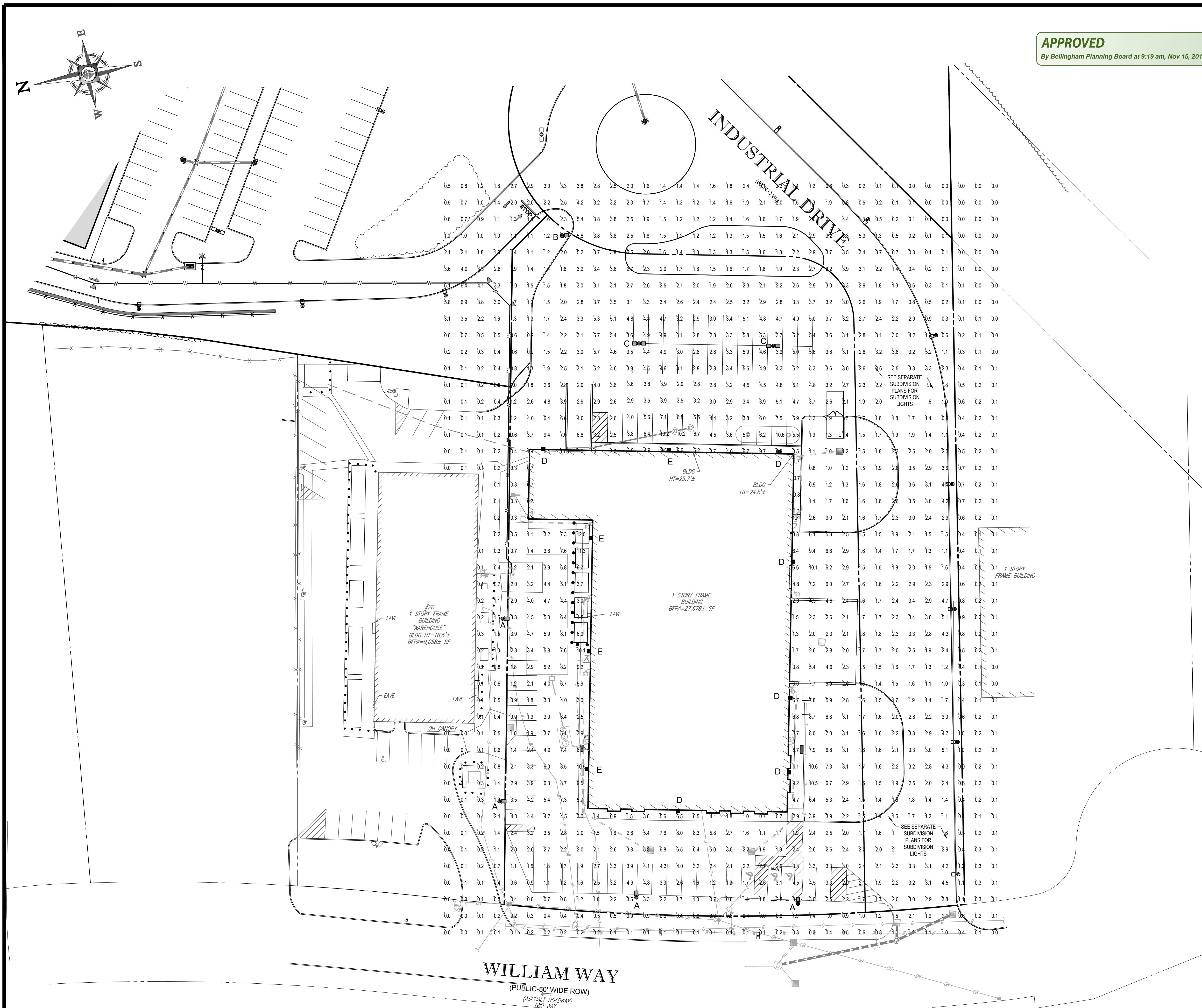
FOR:
WILLIAM WAY PARTNERS, LLC
LOCATION OF SITE
MAP #48, LOT #15
24 WILLIAM WAY
TOWN OF BELLINGHAM
NORFOLK COUNTY
MASSACHUSETTS

BOHLER ENGINEERING

352 TURNPIKE ROAD
SOUTH BELLINGHAM, MA 02350
Phone: (508) 480-9900
Fax: (508) 480-0806
www.BohlerEngineering.com



SHEET TITLE:
LANDSCAPE NOTES & DETAILS SHEET
SHEET NUMBER:
10
OF 14



LIGHTING NOTES:

1. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
2. THE LIGHT LOSS FACTORS USED IN THESE LIGHTING CALCULATIONS ARE 0.90 FOR ALL LED LUMINAIRES, 0.80 FOR ALL HIGH PRESSURE SODIUM LUMINAIRES OR 0.72 FOR ALL METAL HALIDE LUMINAIRES UNLESS OTHERWISE SPECIFIED. THESE FACTORS ARE INDICATIVE OF TYPICAL LIGHTING INDUSTRY MODELING STANDARDS.
3. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES.
4. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT NOT BE LIMITED TO, FREQUENT VISUAL INSPECTIONS, CLEANING OF LENSES, AND RELAMPING (IF NECESSARY) AT LEAST ONCE EVERY SIX (6) MONTHS. FAILURE TO FOLLOW THE ABOVE STEPS COULD CAUSE THE LUMINAIRES, LAMPS AND LENSES TO FAIL PROPERLY TO FUNCTION.
5. WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER AND ARE, CONSEQUENTLY, APPROXIMATIONS ONLY. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC., ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
6. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF LIGHT POLE BASES ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APERTURES/RECESSES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
7. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
8. IT IS LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING THE POWER SOURCE(S) FROM WITHIN THE BUILDING, AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT.
9. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
10. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
11. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.



TM
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING, PROGRAM MANAGEMENT, LANDSCAPE ARCHITECTURE,
STRUCTURE, CONSTRUCTION MANAGEMENT, LANDSCAPE ARCHITECTURE,
TRANSPORTATION SERVICES
SOUTHERN NEW JERSEY BALTIMORE, MD CHARLOTTE, NC
UPSTATE NEW YORK BOSTON, MA COASTAL FLORIDA
NEW ENGLAND NEW JERSEY, NEW YORK, NY
PHILADELPHIA, PA NEW YORK, NY
LEHIGH VALLEY, PA SOUTHEASTERN PA
RALEIGH, NC NEW JERSEY
WASHINGTON, DC REVERE BEACH, MA
THE BOHLER GROUP CONSULTING ENGINEERS, INC. 2018 Bellingham

REVISIONS			
REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP
2			
3			
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PERMIT SET	
PROJECT No.:	W181153
DRAWN BY:	AWP/NPO/ZAP
CHECKED BY:	SJM/JMJ
DATE:	07/31/2018
SCALE:	AS NOTED
CAD ID.:	W181153SS1

SITE DEVELOPMENT PLANS FOR WILLIAM WAY PARTNERS, LLC	
LOCATION OF SITE MAP #48, LOT #15 24 WILLIAM WAY TOWN OF BELLINGHAM NORFOLK COUNTY MASSACHUSETTS	

BOHLER
ENGINEERING

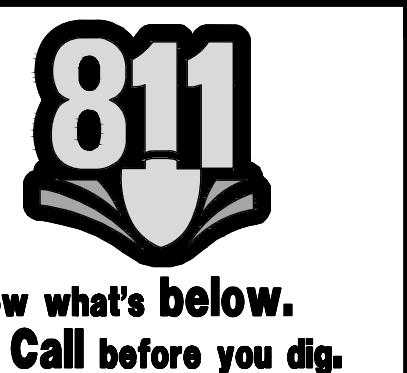
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-5080
www.BohlerEngineering.com

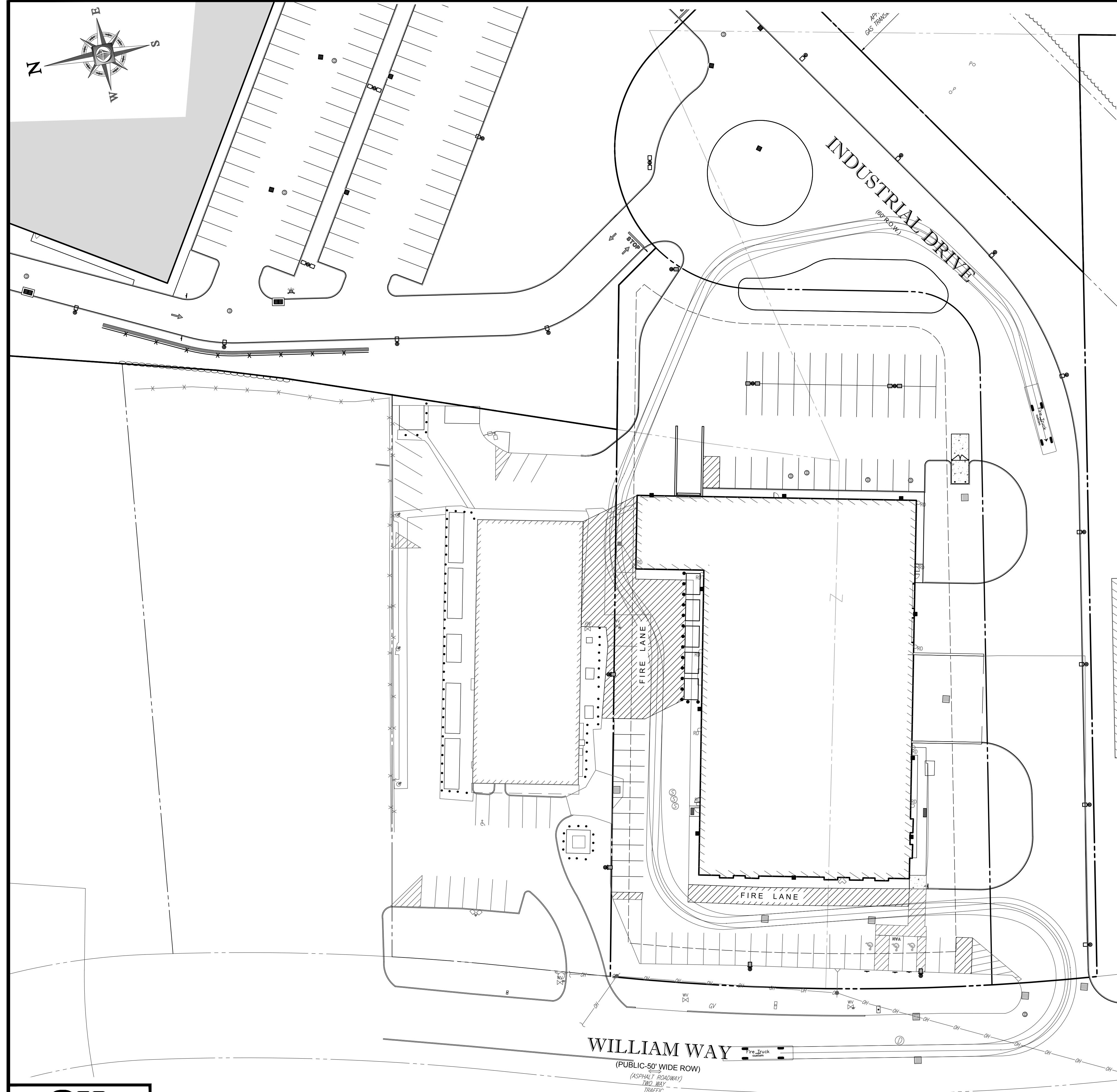
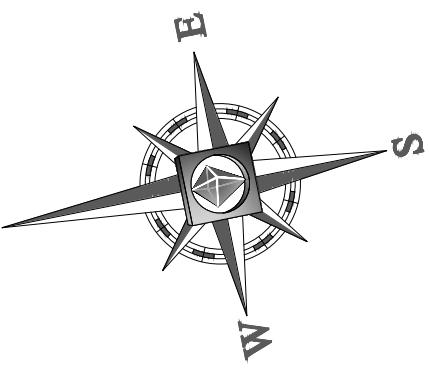


LIGHTING PLAN	
SHEET NUMBER:	11 OF 14 REV 1 - 9/4/2018

THIS PLAN TO BE UTILIZED FOR
LIGHTING PURPOSES ONLY

30 15 7.5 0 30
1' = 30'





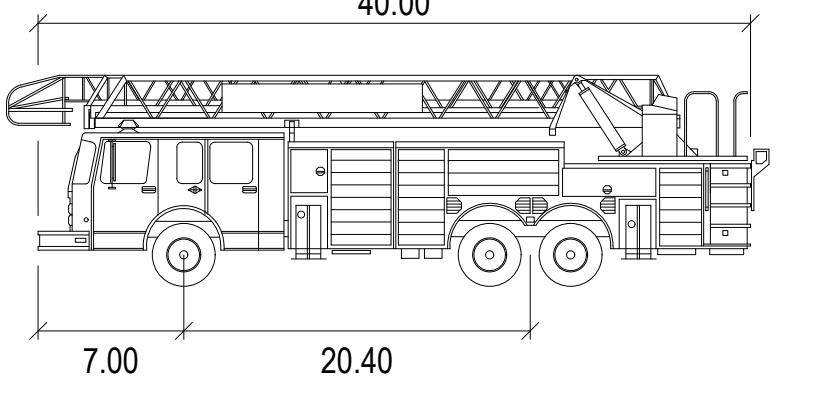
WILLIAM WA

(PUBLIC-50' WIDE ROW)
(ASPHALT ROADWAY)
TWO WAY TRAFFIC

The logo for 811 features the number '811' in a large, bold, black font. Below the '11' is a white shield shape. A black shovel is positioned behind the shield, with its handle pointing towards the bottom left and its head pointing towards the bottom right, resting on the shield.

**Know what's below.
Call before you dig.**

THIS PLAN TO BE UTILIZED FOR
REFERENCE PURPOSES ONLY



Fire Truck

Width	:	8.00
Track	:	6.91
Lock to Lock Time	:	6.0
Steering Angle	:	36.2



REVISIÓN

REV	DATE	COMMENT	BY
1	9/4/18	REVIEW COMMENTS	AWP

PERMISSION
SET

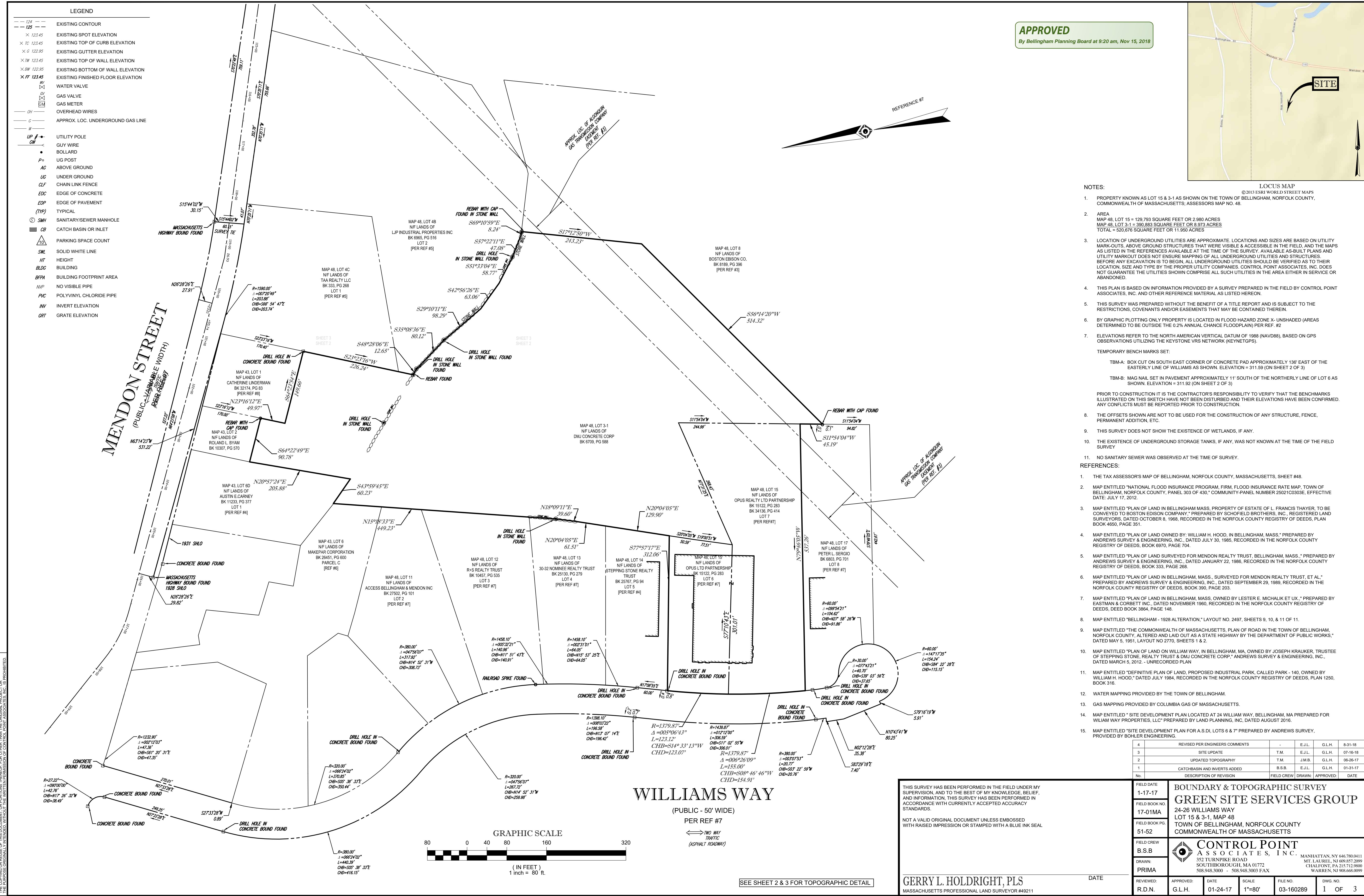
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CHECKED BY:	SJM/JMJ
DATE:	07/31/2018
SCALE:	AS NOTED

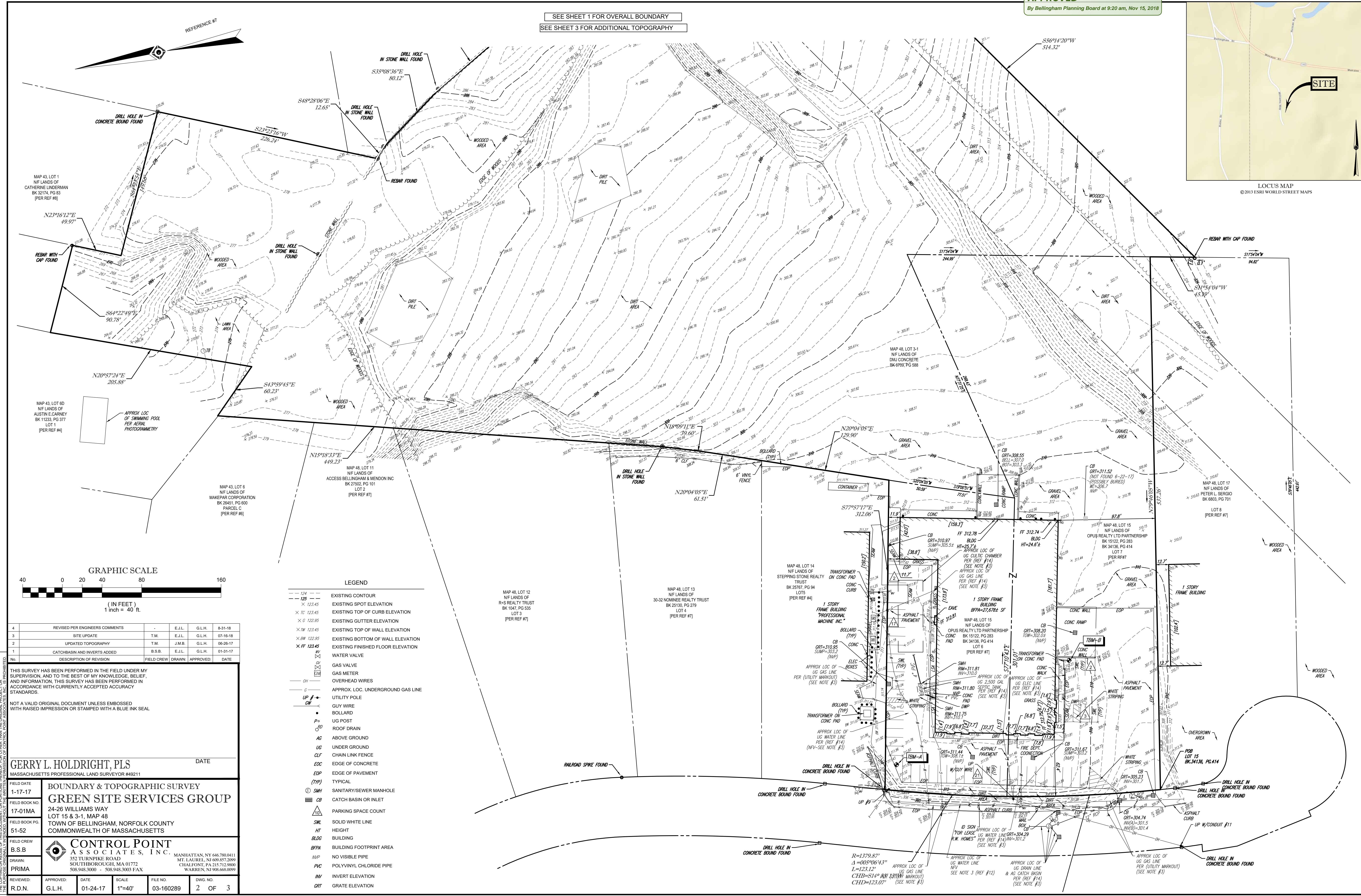
PROJECT: SITE
DEVELOPMENT
PLANS
FOR
WILLIAM WAY
PARTNERS,
LLC

SHEET TITLE: **FIRE TRUCK
ACCESS PLAN**

14
OF 14

REV 1 - 9/4/2018



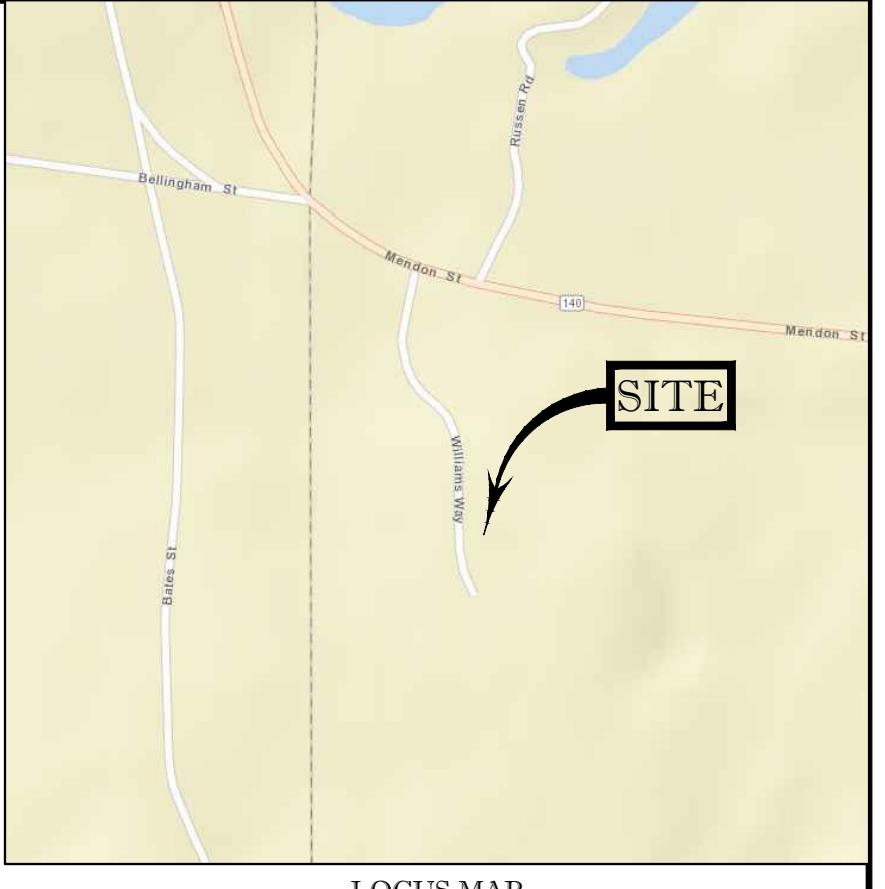


REFERENCES:

1. THE TAX ASSESSOR'S MAP OF BELLINGHAM, NORFOLK COUNTY, MASSACHUSETTS, SHEET #48.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, TOWN OF BELLINGHAM, NORFOLK COUNTY, PANEL 303 OF 430." COMMUNITY-PANEL NUMBER 25021C0303E, EFFECTIVE DATE: JULY 17, 2012.
3. MAP ENTITLED "PLAN OF LAND IN BELLINGHAM MASS, PROPERTY OF ESTATE OF L. FRANCIS THAYER, TO BE CONVEYED TO BOSTON EDISON COMPANY," PREPARED BY SCHOFIELD BROTHERS, INC., REGISTERED LAND SURVEYORS, DATED OCTOBER 8, 1968, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, PLAN BOOK 4850, PAGE 351.
4. MAP ENTITLED "PLAN OF LAND OWNED BY: WILLIAM H. HOOD, IN BELLINGHAM, MASS." PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED JULY 30, 1985, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 6970, PAGE 704.
5. MAP ENTITLED "PLAN OF LAND SURVEYED FOR MENDON REALTY TRUST, BELLINGHAM, MASS." PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED JANUARY 22, 1986, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 333, PAGE 268.
6. MAP ENTITLED "PLAN OF LAND IN BELLINGHAM, MASS., SURVEYED FOR MENDON REALTY TRUST, ET AL." PREPARED BY ANDREWS SURVEY & ENGINEERING, INC., DATED SEPTEMBER 29, 1989, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, BOOK 390, PAGE 203.
7. MAP ENTITLED "PLAN OF LAND IN BELLINGHAM, MASS., OWNED BY LESTER E. MICHALIK ET UX." PREPARED BY EASTMAN & CORBETT INC., DATED NOVEMBER 1990, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, DEED BOOK 3864, PAGE 148.
8. MAP ENTITLED "BELLINGHAM - 1928 ALTERATION," LAYOUT NO. 2497, SHEETS 9, 10, & 11 OF 11.
9. MAP ENTITLED "THE COMMONWEALTH OF MASSACHUSETTS, PLAN OF ROAD IN THE TOWN OF BELLINGHAM, NORFOLK COUNTY, ALTERED AND LAID OUT AS A STATE HIGHWAY BY THE DEPARTMENT OF PUBLIC WORKS," DATED MAY 5, 1951, LAYOUT NO 2770, SHEETS 1 & 2.
10. MAP ENTITLED "PLAN OF LAND ON WILLIAM WAY, IN BELLINGHAM, MA, OWNED BY JOSEPH KRAUKER, TRUSTEE OF STEPPING STONE, REALTY TRUST & DMJ CONCRETE CORP." ANDREWS SURVEY & ENGINEERING, INC., DATED MARCH 5, 2012 - UNRECORDED PLAN
11. MAP ENTITLED "DEFINITIVE PLAN OF LAND, PROPOSED INDUSTRIAL PARK, CALLED PARK - 140, OWNED BY WILLIAM H. HOOD," DATED JULY 1994, RECORDED IN THE NORFOLK COUNTY REGISTRY OF DEEDS, PLAN 1250, BOOK 316.
12. WATER MAPPING PROVIDED BY THE TOWN OF BELLINGHAM.
13. GAS MAPPING PROVIDED BY COLUMBIA GAS OF MASSACHUSETTS.
14. MAP ENTITLED "SITE DEVELOPMENT PLAN LOCATED AT 24 WILLIAM WAY, BELLINGHAM, MA PREPARED FOR WILLIAM WAY PROPERTIES, LLC" PREPARED BY LAND PLANNING, INC., DATED AUGUST 2016.
15. MAP ENTITLED "SITE DEVELOPMENT PLAN FOR A.S.D.I. LOTS 6 & 7" PREPARED BY ANDREWS SURVEY, PROVIDED BY BOHLER ENGINEERING.

APPROVED

By Bellingham Planning Board at 9:20 am, Nov 15, 2018



LOCUS MAP
©2013 ESRI WORLD STREET MAPS

NOTES:

1. PROPERTY KNOWN AS LOT 15 & 3-1 AS SHOWN ON THE TOWN OF BELLINGHAM, NORFOLK COUNTY, COMMONWEALTH OF MASSACHUSETTS; ASSESSORS MAP NO. 48.
2. AREA
MAP 48, LOT 15 = 129,793 SQUARE FEET OR 2.880 ACRES
MAP 48, LOT 3-1 = 390,893 SQUARE FEET OR 8.973 ACRES
TOTAL = 520,676 SQUARE FEET OR 11.850 ACRES
3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS; ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY, AVAILABLE AS-BUILT PLANS AND UTILITY MARKOUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMprise ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIALS AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE X- UNSHADeD (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS).

TEMPORARY BENCH MARKS SET:

TBM-A: BOX CUT ON SOUTH EAST CORNER OF CONCRETE PAD APPROXIMATELY 136' EAST OF THE EASTERNLY LINE OF WILLIAMS AS SHOWN, ELEVATION = 311.59 (ON SHEET 2 OF 3)

TBM-B: MAG NAIL SET IN PAVEMENT APPROXIMATELY 11' SOUTH OF THE NORTHERLY LINE OF LOT 6 AS SHOWN, ELEVATION = 311.92 (ON SHEET 2 OF 3)

PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.

8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
9. THIS SURVEY DOES NOT SHOW THE EXISTENCE OF WETLANDS, IF ANY.
10. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
11. NO SANITARY SEWER WAS OBSERVED AT THE TIME OF SURVEY.

4	REVISED PER ENGINEERS COMMENTS	-	E.J.L.	G.L.H.	8-31-18
3	SITE UPDATE	T.M.	E.J.L.	G.L.H.	07-16-18
2	UPDATED TOPOGRAPHY	T.M.	J.M.B.	G.L.H.	06-26-17
1	CATCHBASIN AND INVERTS ADDED	B.S.B.	E.J.L.	G.L.H.	01-31-17

THIS SURVEY HAS BEEN PERFORMED IN THE FIELD UNDER MY SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE, BELIEF, AND INFORMATION, THIS SURVEY HAS BEEN PERFORMED IN ACCORDANCE WITH CURRENTLY ACCEPTED ACCURACY STANDARDS.

NOT A VALID ORIGINAL DOCUMENT UNLESS EMBOSSED WITH RAISED IMPRESSION OR STAMPED WITH A BLUE INK SEAL

GERRY L. HOLDRIGHT, PLS
MASSACHUSETTS PROFESSIONAL LAND SURVEYOR #49211

DATE
1-17-17

FIELD DATE
24-26 WILLIAMS WAY

FIELD BOOK NO.
17-01MA

FIELD BOOK PG.
51-52

FIELD CREW
B.S.B.

DRAWN
PRIMA

REVIEWED
R.D.N.

APPROVED
G.L.H.

DATE
01-24-17

SCALE
1"=40'

FILE NO.
03-160289

DWG. NO.
3 OF 3



SEE SHEET 1 FOR OVERALL BOUNDARY

SEE SHEET 2 FOR ADDITIONAL TOPOGRAPHY

