

# "RINTA'S WAY"

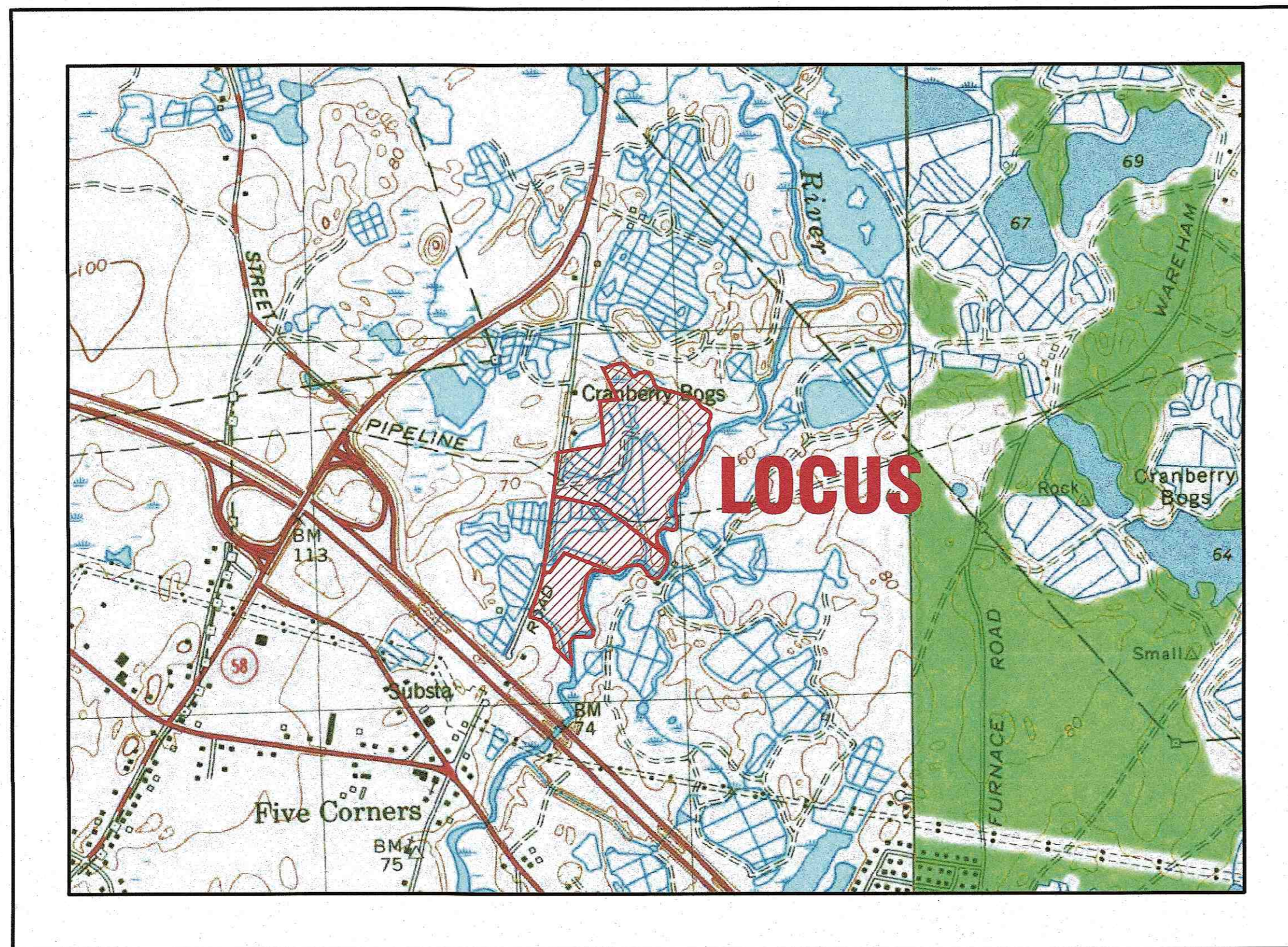
## DEFINITIVE SUBDIVISION PLAN

### NORTH CARVER ROAD

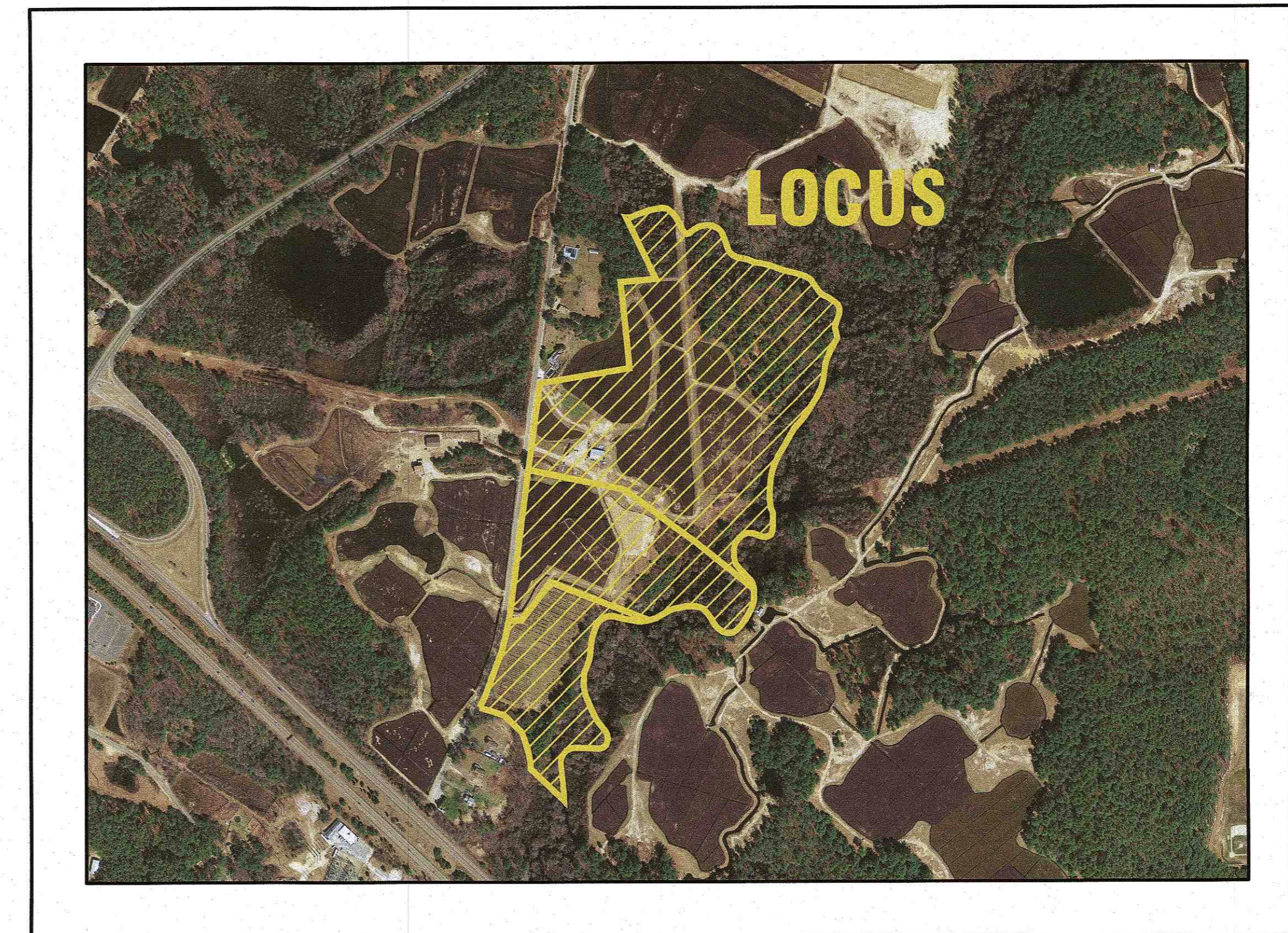
### WAREHAM, MASSACHUSETTS

OWNER: PAUL E. & LINDA A. RINTA  
34 NORTH CARVER ROAD  
WAREHAM, MA 02576

APPLICANT: LSE HYDRA, LCC  
40 TOWER LANE, SUITE 201  
AVON, CT 06001



— U.S.G.S. LOCUS PLAN —  
SCALE: 1"=1000'

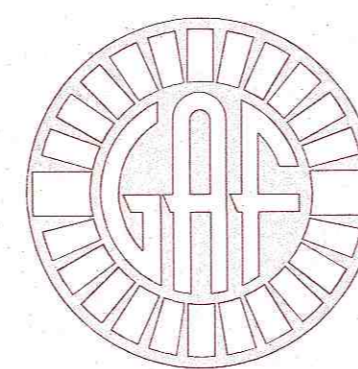


— AERIAL OVERVIEW —  
SCALE: 1"=500'

**LOT DATA:**  
ASSESSORS MAP: 104/ LOTS 1046, VB & VC  
ADDRESS: 36, 44 & 48 NORTH CARVER ROAD

**ZONING DATA:**  
ZONE: RESIDENCE 60 (R-60)

**SETBACKS:**  
MINIMUM LOT AREA: 60,000 S.F.  
(MIN. 48,000 S.F. CONTIGUOUS UPLAND)  
MINIMUM FRONTAGE: 180'  
MINIMUM FRONT SETBACK: 60'  
MINIMUM SIDE SETBACK: 20'  
MINIMUM REAR SETBACK: 20'  
MAXIMUM BUILDING HEIGHT: 35'



**G. A. F. ENGINEERING, INC.**  
PROFESSIONAL ENGINEERS & LAND SURVEYORS  
266 MAIN STREET, WAREHAM, MA 02571  
TEL: (508) 295-6600 FAX: (508) 295-6634  
E-MAIL: info@gafenginc.com

NOVEMBER 23, 2021

**PLAN INDEX:**

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES & LEGEND
3	TOPOGRAPHIC OVERVIEW
4	LOTING SHEET
5	ROADWAY PLAN & PROFILE
6	CONSTRUCTION DETAILS SHEET 1
7	CONSTRUCTION DETAILS SHEET 2

**FLOOD ZONE DATA:**

THE PROJECT IS LOCATED IN FLOOD ZONE X AND ZONE A AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP NUMBER 25023C0467J, DATED JULY 17, 2012. (FLOOD ZONE A ELEVATION NOT DETERMINED)

DATE: NOV. 23, 2021	DRAWN BY: JMP	CHECKED BY: WFM	JOB NO.: 20-9568	SCALE: AS NOTED
APPROVED BY: [Signature]				
APPROVED BY: [Signature]				
<b>G.A.F. ENGINEERING, INC.</b> PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: info@gafenginc.com <small>REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. IS PROHIBITED. ANY REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF G.A.F. ENGINEERING, INC. SHALL BE AT THE USER'S RISK.</small>				
<b>"RINTA'S WAY"</b> DEFINITIVE SUBDIVISION PLAN COVER SHEET NORTH CARVER ROAD WAREHAM, MA		PREPARED FOR: <b>LSE HYDRA, LLC</b> 40 TOWER LANE, SUITE 201 AVON, CT		
JOB NO.: 20-9568	DWG. 1 OF 7			



**GENERAL NOTES:**

- POSSESSION AND USE OF THE MATERIAL CONTAINED ON THIS PLAN SET IS GRANTED ONLY IN CONNECTION WITH ITS USE AS IT RELATES TO THE TITLED PROJECT, ANY OTHER USE, REPRODUCTION OR DISCLOSURE OF THE INFORMATION CONTAINED HEREON IS EXPRESSLY PROHIBITED WITHOUT THE WRITTEN CONSENT OF G.A.F. ENGINEERING, INC.
- ALL UNDERGROUND UTILITIES SHOWN OR NOT SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS AND IN PART FROM FIELD SURVEY AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD. BEFORE EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAIRING, ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE MGL CHAPTER 370, ACTS OF 1963. CONTRACTORS MUST CALL DIG-SAFE AT (1-888-DIG-SAFE OR 811) G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- EXISTING CONDITIONS INFORMATION IS BASED ON ACTUAL FIELD SURVEY, PRIVATE UTILITY PLANS, AND OTHER AVAILABLE SOURCES. FIELD SURVEY WAS PERFORMED BY G.A.F. ENGINEERING, INC., ON VARIOUS DATES AND MOST RECENTLY IN APRIL OF 2021.
- THE CONTRACTOR SHALL COORDINATE AND OBTAIN ALL REQUIRED PERMITS, GIVE ALL NOTICES, COMPLY WITH ALL LAWS AND REGULATIONS, AND PAY ALL FEES ASSOCIATED WITH THE INSTALLATION OF THIS WORK. THE CONTRACTOR SHALL ALSO COORDINATE AND SCHEDULE ALL REQUIRED INSPECTIONS. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE OWNER AND ENGINEER AS REQUIRED.
- THE CONTRACTOR SHALL FIELD VERIFY, PRIOR TO CONSTRUCTION ALL EXISTING UNDERGROUND UTILITY LOCATIONS AND POINTS OF INTERCONNECTION.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, SUPERVISION, TOOLS, EQUIPMENT, FUEL, POWER, SANITARY FACILITIES AND INCIDENTALS NECESSARY FOR THE FURNISHING, PERFORMANCE, TESTING, START-UP AND COMPLETION OF THIS WORK.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER OF ANY CONFLICTS DISCOVERED IN THE FIELD.
- ANY CHANGES TO THESE SITE PLANS THAT ARE MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS AND REPORTED TO THE OWNER AND ENGINEER.
- ALL CONTRACTORS ARE RESPONSIBLE FOR OBTAINING AN EXCAVATION AND TRENCH PERMIT PURSUANT TO 520 CMR 14.00 AS APPLICABLE PRIOR TO THE START OF CONSTRUCTION.

**CONSTRUCTION NOTES:**

- IN GENERAL, THE PLANS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY FITTING, CHANGE IN DIRECTION OR DETAIL OF CONSTRUCTION.
- THE LOCATION OF UTILITIES WERE OBTAINED FROM VARIOUS SOURCES OF INFORMATION. THE EXACT LOCATION AND COMPLETENESS IS NOT GUARANTEED. THE CONTRACTOR MUST NOTIFY DIG SAFE PRIOR TO THE START OF CONSTRUCTION (1-888-DIG-SAFE OR 811). G.A.F. ENGINEERING, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF PERSONNEL AND PROTECTION OF PROPERTY AT THE SITE OR ADJACENT THERETO INCLUDING TREES, SHRUBS, LAWNS, PAVEMENTS, ROADWAYS, STRUCTURES AND UNDERGROUND UTILITIES NOT DESIGNED FOR REMOVAL, RELOCATION, OR REPLACEMENT.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION REQUIRED FOR THE INSTALLATION OF THIS WORK.
- ALL MATERIALS SHALL BE NEW AND FREE FROM DEFECTS AND OF GOOD QUALITY.
- THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIAL AND OTHER DEBRIS RESULTING FROM THIS WORK.
- ALL PAVEMENT MARKINGS DISTURBED BY CONSTRUCTION SHALL BE RESTORED AS PART OF THIS WORK.
- THE CONTRACTOR SHALL INSTITUTE ALL SAFETY MEASURES NECESSARY TO PROTECT THE PUBLIC SAFETY. THIS SHALL INCLUDE, BUT NOT LIMITED TO, BARRICADES, SIGNS, LIGHTING, FENCES, POLICE DETAILS, AND ANY OTHER MEANS AS DIRECTED. NO TRENCHES ARE TO REMAIN OPEN OVERNIGHT.
- ELEVATIONS ARE IN FEET AND TENTHS AND ARE BASED ON THE DATUM OF NAVD-88.
- SIDE SLOPE GRADING SHALL BE AS NOTED ON THE SITE PLANS.
- ALL SIDE SLOPES SHALL BE DRESSED WITH 4 INCHES OF TOPSOIL. WHERE SIDE SLOPES EXCEED 3:1, PROVIDE AN EROSION CONTROL BLANKET OVER THE PLANTED SEED BED. SEE PLAN FOR LOCATIONS.
- PERMANENT SEEDING (BEFORE SEPTEMBER 15) LIME TO PH OF 6.5 ACCORDING TO SOIL TEST OR APPLY AT THE RATE OF 100 TO 150 LBS. PER 1,000 SQUARE FEET. APPLY 10-20-20 FERTILIZER AT 1,000 LBS. PER ACRE. INCORPORATE LIME AND FERTILIZER IN TOP 4 INCHES OF SOIL. SEED 100 LBS. PER ACRE OF THE FOLLOWING SEED MIX.  

PURE PERCENT	SEED
30-35%	CREeping RED FESCUE
30-35%	PERENNIAL RYEGRASS
20-25%	KENTUCKY BLUEGRASS
10-15%	ANNUAL RYEGRASS

HYDRO SEEDING IS AN ALTERNATIVE FOR THIS APPLICATION. A MIXTURE OF SEED WATER AND MULCH IS SPRAYED ON THE SEED BED COMBINING THREE (3) SEPARATE ACTIONS INTO ONE (1) OPERATION.
- ALL METHODS AND MATERIALS SHALL CONFORM WITH MassDOT STANDARDS AND SPECIFICATIONS, AND THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.
- ALL UTILITY INSTALLATIONS SHALL BE IN CONFORMANCE WITH ALL APPLICABLE TOWN, STATE AND FEDERAL REQUIREMENTS & REGULATIONS.
- DEWATERING IF REQUIRED SHALL BE DIRECTED TO A 5' MIN. DIAMETER RING OF HAYBALES OR A DIRTBAG. CONTRACTOR SHALL PROVIDE AND MAINTAIN DEWATERING EQUIPMENT FOR THE CONTROL, COLLECTION AND DISPOSAL OF GROUND AND SURFACE WATER WHERE NECESSARY TO COMPLETE THE WORK.

**WETLAND NOTES:**

- ALL WETLAND FLAG LOCATIONS DEPICTED ON THESE PLANS WERE DELINEATED IN THE FIELD BY CARON ENVIRONMENTAL CONSULTING ON MARCH 12, 2020 AND DECEMBER 22, 2020 AND WERE FIELD LOCATED BY G.A.F. ENGINEERING, INC. IN OCTOBER AND DECEMBER 2020.
- THE EDGE OF BORDERING VEGETATED WETLANDS (BVW) ARE DELINEATED WITH FLAGS A1 TO A112. FLAGS B1 TO B9 DELINEATE AN INTERMITTENT STREAM AND ANY BVW ASSOCIATED WITH IT. SEE OVERVIEW PLAN FOR LOCATIONS.
- THE ANNUAL HIGH WATER (AHW) MARK OF THE WEWANTIC RIVER IS DELINEATED WITH FLAGS AHW1 TO AHW90. SEE OVERVIEW PLAN FOR LOCATIONS.

**EROSION CONTROL NOTES:**

- THE SITE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SUITABLE EROSION AND SEDIMENTATION CONTROL DEVICES ON SITE DURING CONSTRUCTION AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE. SILT WILL NOT BE ALLOWED BEYOND CONSTRUCTION LIMITS. ADDITIONAL PROTECTION: ON-SITE PROTECTION MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLANS DOES NOT PROVIDE SUFFICIENT EROSION AND SEDIMENT CONTROL, ADDITIONAL CONTROL MEASURES SHALL BE IMPLEMENTED. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING EROSION CONTROL DEVICES WHICH BECOME INEFFECTIVE.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR ALL GRADING AND OTHER LAND DISTURBING ACTIVITIES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES FROM THE SITE.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING SILT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON THE COMPLETION OF CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE FOR VIOLATIONS OF EROSION CONTROL REGULATIONS.
- CONTRACTOR SHALL PROVIDE TEMPORARY GROUND COVER FOR ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF THIRTY DAYS OR MORE.
- IF WORK ON THIS PROJECT IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROL FACILITIES IN GOOD CONDITION DURING THE SUSPENSION OF WORK.
- SPRINKLE OR APPLY DUST SUPPRESSERS TO MINIMIZE DUST AT THE CONSTRUCTION SITE. MAINTAIN DUST CONTROL MEASURES UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- THE CONTRACTOR WILL ALSO NEED TO COMPLY TO ANY ORDER OF CONDITIONS THAT WILL BE ISSUED BY THE TOWN OF WAREHAM CONSERVATION COMMISSION.

**DRAINAGE OPERATION AND MAINTENANCE SCHEDULE:**

- THE OPERATION AND MAINTENANCE (O&M) SCHEDULE DURING THE CONSTRUCTION PERIOD IS THE RESPONSIBILITY OF THE CONTRACTOR. THE OUTLINE BELOW SHALL BE FOLLOWED TO ENSURE THE PROPER CONSTRUCTION AND FUNCTION OF THE DRAINAGE FACILITIES.
- IN CONJUNCTION WITH THE ROADWAY CONSTRUCTION, ALL DRAINAGE STRUCTURES, INCLUDING THE DRAINAGE BASIN SHALL BE INSTALLED AND THE AFFECTED AREAS STABILIZED (LOAM AND SEED, HYDROSEED, PLANTED, RIP-RAP, ETC.). PERMANENT STABILIZATION OF THESE AREAS SHALL BE STARTED AS SOON AS POSSIBLE.
  - EROSION CONTROL SHALL BE PLACED ALONG THE LIMITS OF WORK WHERE SHOWN ON THE PLAN.
  - ALL CATCH BASINS SHALL HAVE TEMPORARY SILT SACKS OR AN APPROVED EQUAL INSTALLED IN THEM AS SOON AS THE STRUCTURE IS SET. CONTRACTOR SHALL REMOVE AND DISPOSE OF THEM AT THE COMPLETION OF CONSTRUCTION. THE CATCH BASINS SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
  - THE WATER QUALITY CATCH BASIN SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURE SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
  - THE DRAINAGE BASIN SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED AREA SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
  - ALL AREAS SHALL BE INSPECTED WEEKLY, AND AFTER ALL STORMS. IF THERE IS EVIDENCE OF EROSION, THE ERODED AREA SHALL BE RE-STABILIZED, AND MEASURES SHALL BE TAKEN TO PREVENT REOCCURRENCE. THIS SCHEDULE MUST BE ADHERED TO BY THE CONTRACTOR UNTIL THE PROJECT IS ACCEPTED BY THE OWNER.

**POST-CONSTRUCTION OPERATION AND MAINTENANCE PLAN:**

- UPON THE COMPLETION OF ROADWAY CONSTRUCTION, MAINTENANCE SHALL BE CONDUCTED BY LSE HYDRA, LLC. AND ITS SUCCESSORS OR THE HOME OWNER'S ASSOCIATION ON THE ROADWAY AND DRAINAGE FACILITIES. THE FOLLOWING SHALL BE CARRIED OUT BY THE RESPONSIBLE PARTY AND SHALL BE ADHERED TO ENSURE THE PROPER OPERATION OF THE DRAINAGE FACILITIES.
- STREET SWEEPING IS AN EFFECTIVE NONSTRUCTURAL SOURCE CONTROL THAT WILL REMOVE SEDIMENT FROM PAVED SURFACES. STREET SWEEPING SHOULD BE DONE BY THE USE OF A HIGH EFFICIENCY VACUUM SWEEPER OR REGENERATIVE AIR SWEEPER. STREET SWEEPING SHALL BE DONE TWICE PER YEAR, ONCE REMOVED FROM PAVED SURFACES, THE SWEEPINGS MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS APPROVED BY MASSDEP (SEE POLICY # BAW-18-001: REUSE & DISPOSAL OF STREET SWEEPINGS).
  - PROPRIETARY CATCH BASINS (WATER QUALITY CATCH BASINS) ARE UNDERGROUND RETENTION SYSTEMS DESIGNED TO REMOVE TRASH, DEBRIS AND COARSE SEDIMENT FROM STORMWATER RUNOFF AND SERVE AS TEMPORARY SPILL CONTAINMENT DEVICES FOR FLOATABLES SUCH AS OILS AND GREASE. INSPECT THE UNITS MONTHLY AND CLEAN AT LEAST TWO TIMES PER YEAR AND AT THE END OF THE FOLIAGE AND SNOW-REMOVAL SEASONS. SEDIMENTS MUST ALSO BE REMOVED WHENEVER THE DEPTH OF DEPOSITS IS GREATER THAN OR EQUAL TO ONE HALF THE DEPTH FROM THE BOTTOM OF THE INVERT. SEDIMENT SHALL BE REMOVED THROUGH THE USE OF A VACUUM TRUCK. SEDIMENT MUST BE HANDLED AND DISPOSED OF PROPERLY IN ONE OF THE WAYS ALREADY APPROVED BY MASSDEP (SEE MASSDEP POLICY ON MANAGEMENT OF CATCH BASIN CLEANINGS). IF THERE IS EVIDENCE THAT THEY HAVE BEEN CONTAMINATED BY A SPILL OR OTHER MEANS, THE CLEANINGS MUST BE EVALUATED IN ACCORDANCE WITH THE MASSDEP HAZARDOUS WASTE REGULATIONS, 310 CMR 30.00 AND HANDLED AS HAZARDOUS WASTE.
  - FLARED END SECTIONS AND STONE AT PIPE ENDS SHALL BE CLEANED FOUR TIMES PER YEAR AND INSPECTED MONTHLY. ALL SEDIMENTS AND HYDROCARBONS SHOULD BE REMOVED AND DISPOSED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
  - DRAINAGE BASIN AREAS SHALL BE INSPECTED AT LEAST FOUR TIMES PER YEAR TO ENSURE THE BASINS ARE OPERATING AS INTENDED. ALSO INSPECT THE BASINS DURING AND AFTER MAJOR STORM EVENTS TO DETERMINE IF THE BASINS ARE MEETING THE EXPECTED DETENTION TIMES. EXAMINE THE OUTLET STRUCTURE FOR EVIDENCE OF CLOGGING OR OUTFLOW RELEASE VELOCITIES GREATER THAN THE DESIGN FLOW. POTENTIAL PROBLEMS THAT SHALL BE CHECKED INCLUDE: SUBSIDENCE, EROSION, CRACKING OR TREE GROWTH ON THE EMBANKMENT; DAMAGE TO THE EMERGENCY SPILLWAY; SEDIMENT ACCUMULATION AROUND THE OUTLET; INADEQUACY OF THE INLET/OUTLET CHANNEL EROSION CONTROL MEASURES; CHANGES IN THE CONDITION OF THE PILOT CHANNEL; AND EROSION WITHIN THE BASIN AND BANKS. MAKE ANY NECESSARY REPAIRS IMMEDIATELY. MOW THE UPPER-STAGE, SIDE SLOPES AND EMBANKMENTS AT LEAST TWICE PER YEAR. REMOVE SEDIMENT AS NECESSARY, BUT AT LEAST ONCE EVERY FIVE YEARS. SEDIMENT SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

**DRAINAGE INSTALLATION NOTES:**

- ALL DRAINAGE PIPES, UNLESS OTHERWISE NOTED, ARE TO BE ADS N-12 PIPE WITH SOIL TIGHT JOINTS AND FITTINGS. REFER TO PLAN FOR LOCATION, SIZE AND SLOPES.
- MIN. COVER ON PIPES SHALL NOT BE LESS THAN 1.5 FEET.
- ALL PERFORATED PIPE SHALL BE ADS HDPE PIPE WITH AASHTO CLASS II PERFORATION PATTERN.
- ALL WORK AND MATERIAL SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.

**ABBREVIATIONS**

AC	ASBESTIC CONCRETE
ADS	ADVANCED DRAINAGE SYSTEM
APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BIT. CONC.	BITUMINOUS CONCRETE
BLDRS	BOULDERS
BW	BOTTOM OF WALL
BVW	BORDERING VEGETATED WETLANDS
CB	CATCH BASIN
CB/DH	CONCRETE BOUND/DRILL HOLE
CCB	CAPE COD BERM
CEM.	CEMENT
C.I.	CAST IRON
CONC.	CONCRETE
C.O.	CLEANOUT
C.L.D.I.	CEMENT LINED DUCTILE IRON
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
C.T.B.	CONCRETE THRUST BLOCK
DIA	DIAMETER
DMH	DRAIN MANHOLE
D.I.	DUCTILE IRON
D.CS	DRAINAGE CONTROL STRUCTURE
E	ELECTRIC
ELEV., EL.	ELEVATION
EXP.	EDGE OF PAVEMENT
EX.	EXISTING
F.D.C.	FIRE DEPARTMENT CONNECTION
F.E.S.	FLARED END SECTION
F.F.E.	FINISHED FLOOR ELEVATION
FND.	FOUND
FP	FIRE PROTECTION
G	GAS
GG, GV	GAS GATE, GAS VALVE
H.C.	HANDICAP PARKING
H.D.P.E.	HIGH DENSITY POLYETHYLENE
HYD	HYDRANT
INV.	INVERT
MAX	MAXIMUM
MED	MEDIUM
MIN.	MINIMUM
N.T.S.	NOT TO SCALE
N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRE
PCC	PRECAST CONCRETE CURBING
PVC	POLYVINYL CHLORIDE PIPE
PROP.	PROPOSED
RAP	RECYCLED ASPHALT PRODUCT
RCP	REINFORCED CONCRETE PIPING
R	RADIUS
R&D	REMOVE AND DISPOSE
R&S	REMOVE AND STOCK
SB/DH	STONE BOUND/DRILL HOLE
S	SEWER
SGC	SLOPED GRANITE CURBING
SMH	SEWER MANHOLE
STA	STATION
TC	TOP OF CURB
TW	TOP OF WALL
TYP.	TYPICAL
T/O/F	TOP OF FOUNDATION
UP	UTILITY POLE
UE	UNDERGROUND ELECTRIC
VGC	VERTICAL GRANITE CURB
W	WATER
WG, WV	WATER GATE, WATER VALVE
WQS	WATER QUALITY STRUCTURE
WQ	WATER QUALITY CATCH BASIN

**LEGEND**

EXISTING	DESC.	PROPOSED
	CONTOURS	
	SPOT GRADES	
	WETLANDS	
	50' NO ACTIVITY ZONE	
	100' BUFFER ZONE	
	200' RIVERFRONT AREA	
	F.E.M.A. FLOOD ZONE	
	DRAIN LINE	
	CATCH BASIN (CB)	
	DRAIN MANHOLE (DMH)	
	ELECTRIC MANHOLE (EMH)	
	UNDERGROUND UTILITIES	
	OVERHEAD WIRES	
	UTILITY POLE	
	GUY POLE	
	WATER GATE VALVE	
	WATER SHUTOFF/CURB STOP	
	HYDRANT	
	POST INDICATOR VALVE	
	WATER LINE	
	FIRE PROTECTION LINE	
	SEWER MANHOLE (SMH)	
	SEWER LINE	
	TREE/BRUSH LINE	
	LIGHT POST	
	GAS LINE	
	GAS GATE/VALVE	
	GAS SHUTOFF	
	GAS METER	
	SIGN	
	FENCE	
	BOUND	
	TEST PIT/PERC TEST	
	SILT FENCE	
	GUARD RAIL	
	FLARED END SECTION	
	STONE WALL	
	WELL	

DATE: NOV. 23, 2021  
 DRAWN BY: JMP  
 CHECKED BY: WFM  
 JOB NO.: 20-9568  
 SCALE: N.T.S.

APPROVED BY:

Murray Madet

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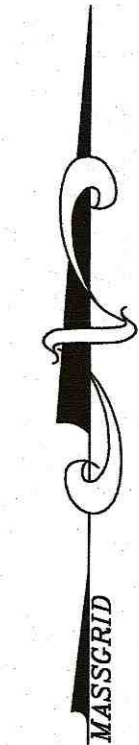
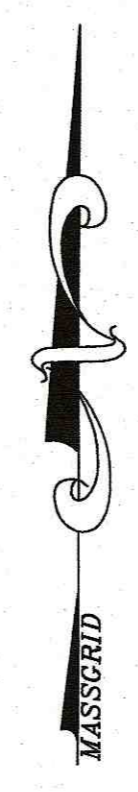
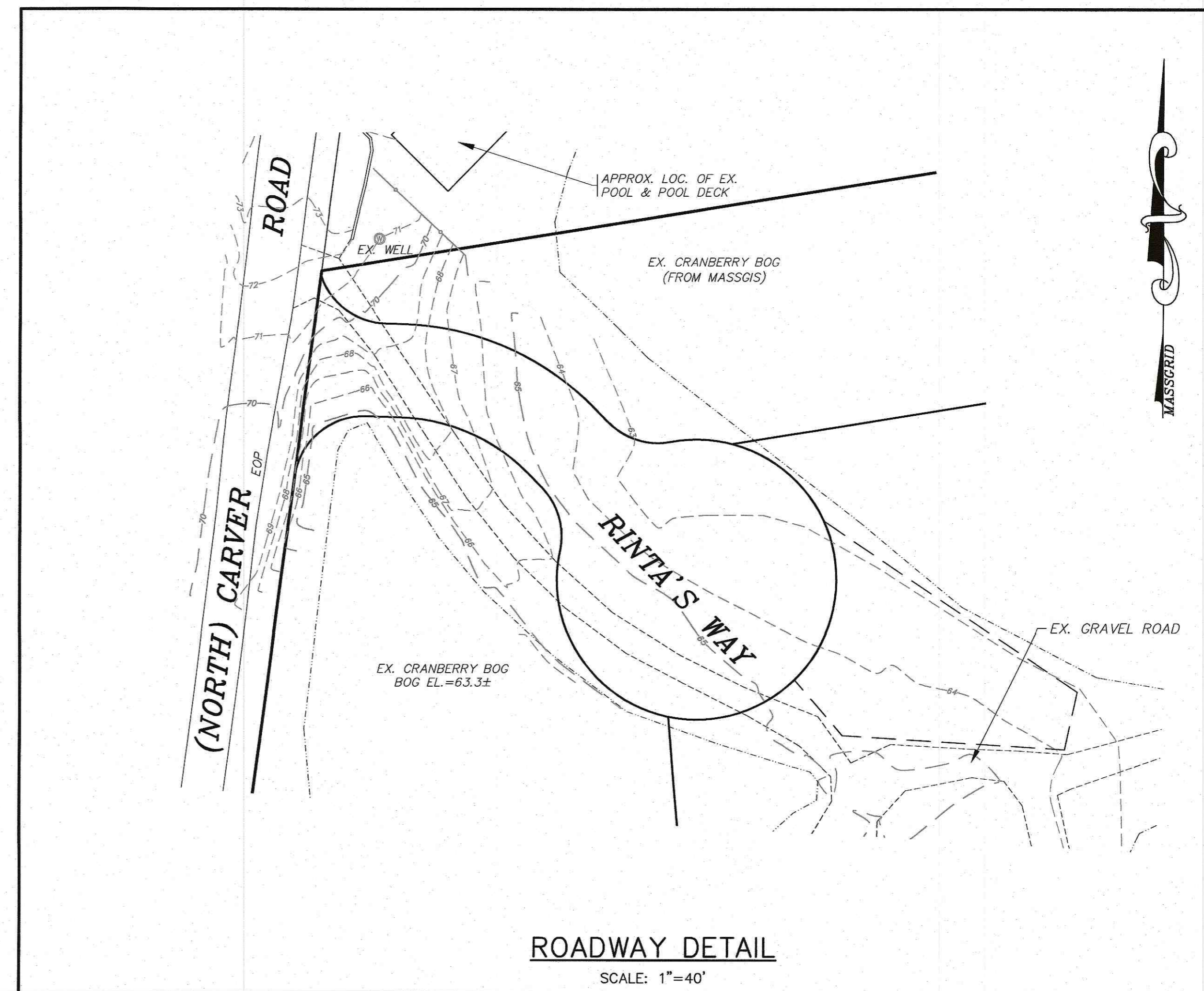
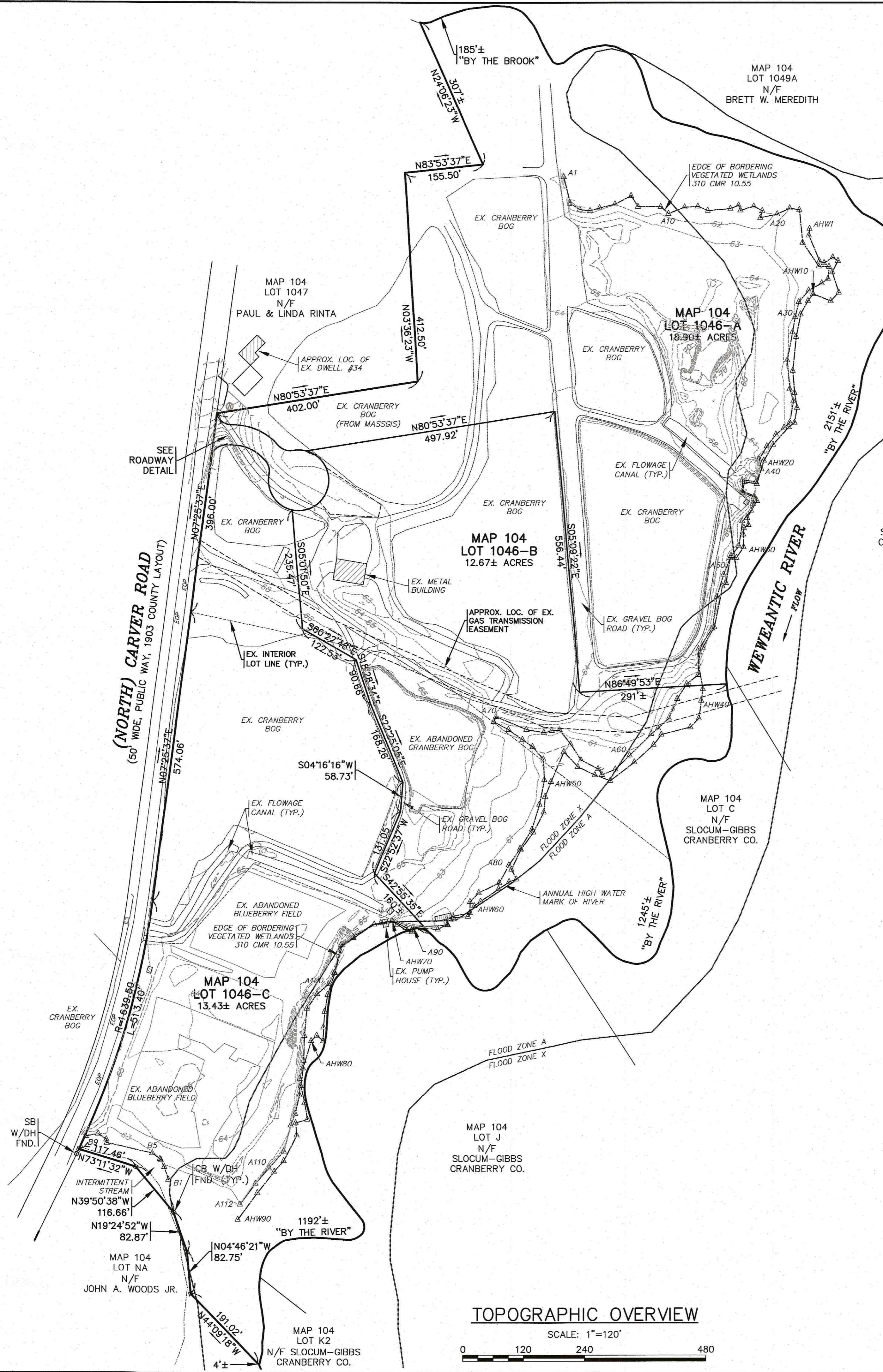
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PREPARED FOR:  
**"RINTA'S WAY"**  
 DEFINITIVE SUBDIVISION PLAN  
 GENERAL NOTES & LEGEND  
 NORTH CARVER ROAD WAREHAM, MA

LSE HYDRA, LLC  
 40 TOWER LANE, SUITE 201 AVON, CT

JOB NO.: 20-9568  
 DWG. 2 OF 7





<b>G.A.F. ENGINEERING, INC.</b> PROFESSIONAL ENGINEERS & LAND SURVEYORS 266 MAIN STREET - WAREHAM, MA 02571 TEL: (508) 295-6600 FAX: (508) 295-6634 E-MAIL: info@gafengr.com		DATE: NOV. 23, 2021 DRAWN BY: JMP CHECKED BY: WFM JOB NO.: 20-9568 SCALE: 1" = 120'
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<b>"RINTA'S WAY"</b> DEFINITIVE SUBDIVISION PLAN TOPOGRAPHIC OVERVIEW NORTH CARVER ROAD WAREHAM, MA	PREPARED FOR: <b>LSE HYDRA, LLC</b> 40 TOWER LANE, SUITE 201 AVON, CT	REV. DATE BY APP'D DESCRIPTION 1 11/23/21 2 11/23/21 3 11/23/21 4 11/23/21 5 11/23/21 6 11/23/21 7 11/23/21 8 11/23/21 9 11/23/21 10 11/23/21
JOB NO.: 20-9568 DWG. NO.: 3 OF 7	MAP 104 LOT 1046-A 18.90± ACRES MAP 104 LOT 1046-B 12.67± ACRES MAP 104 LOT 1046-C 13.43± ACRES MAP 104 LOT J N/F SLOCUM-GIBBS CRANBERRY CO.	MAP 104 LOT 1049A N/F BRETT W. MEREDITH MAP 104 LOT A N/F SLOCUM-GIBBS CRANBERRY CO.

H:\DWG DRAWINGS\2020 DRAWINGS\20-9568 (LSE HYDRA, LLC)\6668.dwg (1568 SITE PLAN) - 2 REV - 1.dwg

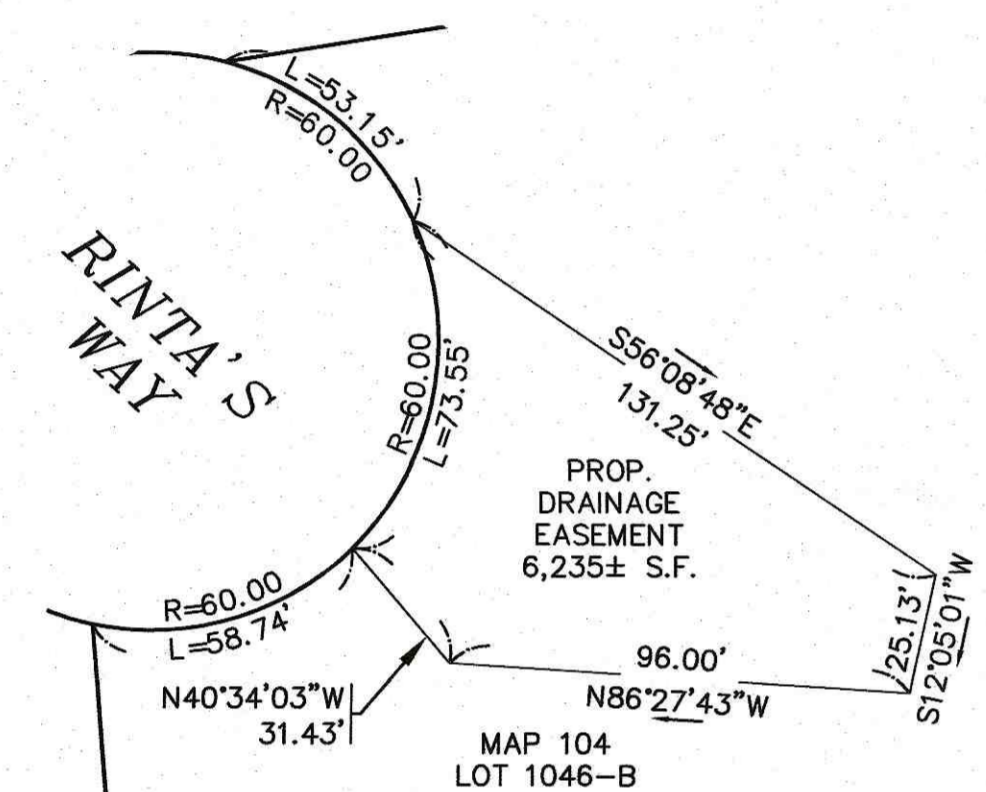


**WETLAND FLAG NOTES:**

1. ALL WETLAND FLAG LOCATIONS DEPICTED ON THESE PLANS WERE DELINEATED IN THE FIELD BY CARON ENVIRONMENTAL CONSULTING ON MARCH 12, 2020 AND DECEMBER 22, 2020 AND WERE FIELD LOCATED BY G.A.F. ENGINEERING, INC. IN OCTOBER AND DECEMBER 2020.
2. THE EDGE OF BORDERING VEGETATED WETLANDS (BVW) ARE DELINEATED WITH FLAGS A1 TO A112. FLAGS B1 TO B9 DELINEATE AN INTERMITTENT STREAM AND ANY BVW ASSOCIATED WITH IT.
3. THE ANNUAL HIGH WATER (AHW) MARK OF THE WEWANTIC RIVER ARE DELINEATED WITH FLAGS AHW1 TO AHW90.

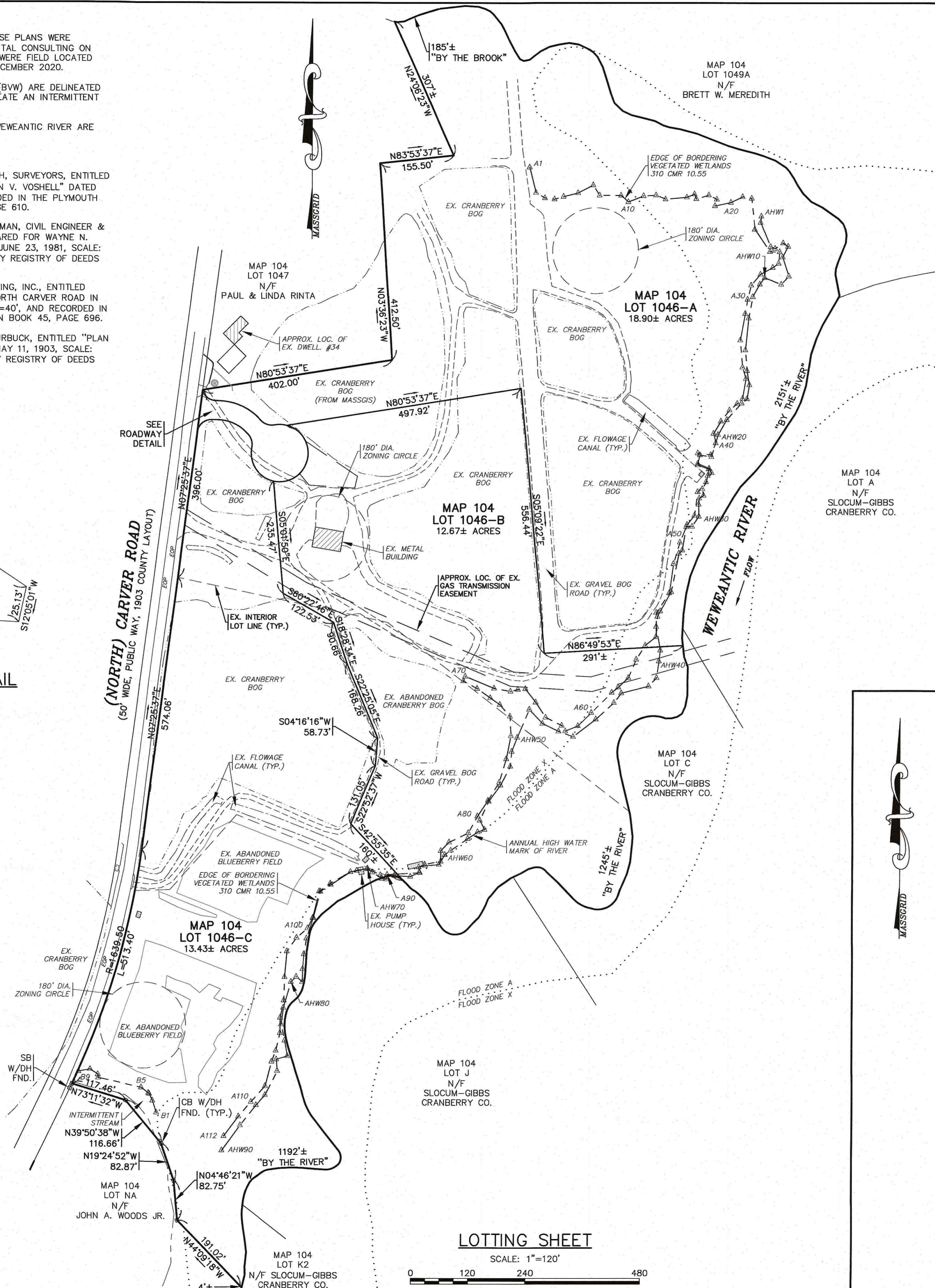
**PLAN REFERENCES:**

1. REFER TO A PLAN PREPARED BY DELANO & KEITH, SURVEYORS, ENTITLED "LAND IN WAREHAM TO BE CONVEYED TO ROSALIN V. VOSHELL" DATED JANUARY 13, 1965, SCALE: 1"=100', AND RECORDED IN THE PLYMOUTH COUNTY REGISTRY OF DEEDS PLAN BOOK 13, PAGE 610.
2. REFER TO A PLAN PREPARED BY ROBERT A. BRAMAN, CIVIL ENGINEER & SURVEYOR, ENTITLED "A DIVISION OF LAND PREPARED FOR WAYNE N. BOOTH, CARVER ROAD, WAREHAM, MASS" DATED JUNE 23, 1981, SCALE: 1"=40', AND RECORDED IN THE PLYMOUTH COUNTY REGISTRY OF DEEDS PLAN BOOK 22, PAGE 575.
3. REFER TO A PLAN PREPARED BY G.A.F. ENGINEERING, INC., ENTITLED "APPROVAL NOT REQUIRED PLAN OF LAND ON NORTH CARVER ROAD IN WAREHAM, MA" DATED APRIL 8, 2002, SCALE: 1"=40', AND RECORDED IN THE PLYMOUTH COUNTY REGISTRY OF DEEDS PLAN BOOK 45, PAGE 696.
4. REFER TO A PLAN PREPARED BY THOMAS A. CHURBUCK, ENTITLED "PLAN OF HIGHWAY IN WAREHAM AND CARVER" DATED MAY 11, 1903, SCALE: 1"=40', AND RECORDED IN THE PLYMOUTH COUNTY REGISTRY OF DEEDS PLAN BOOK CC7, PAGE 493.



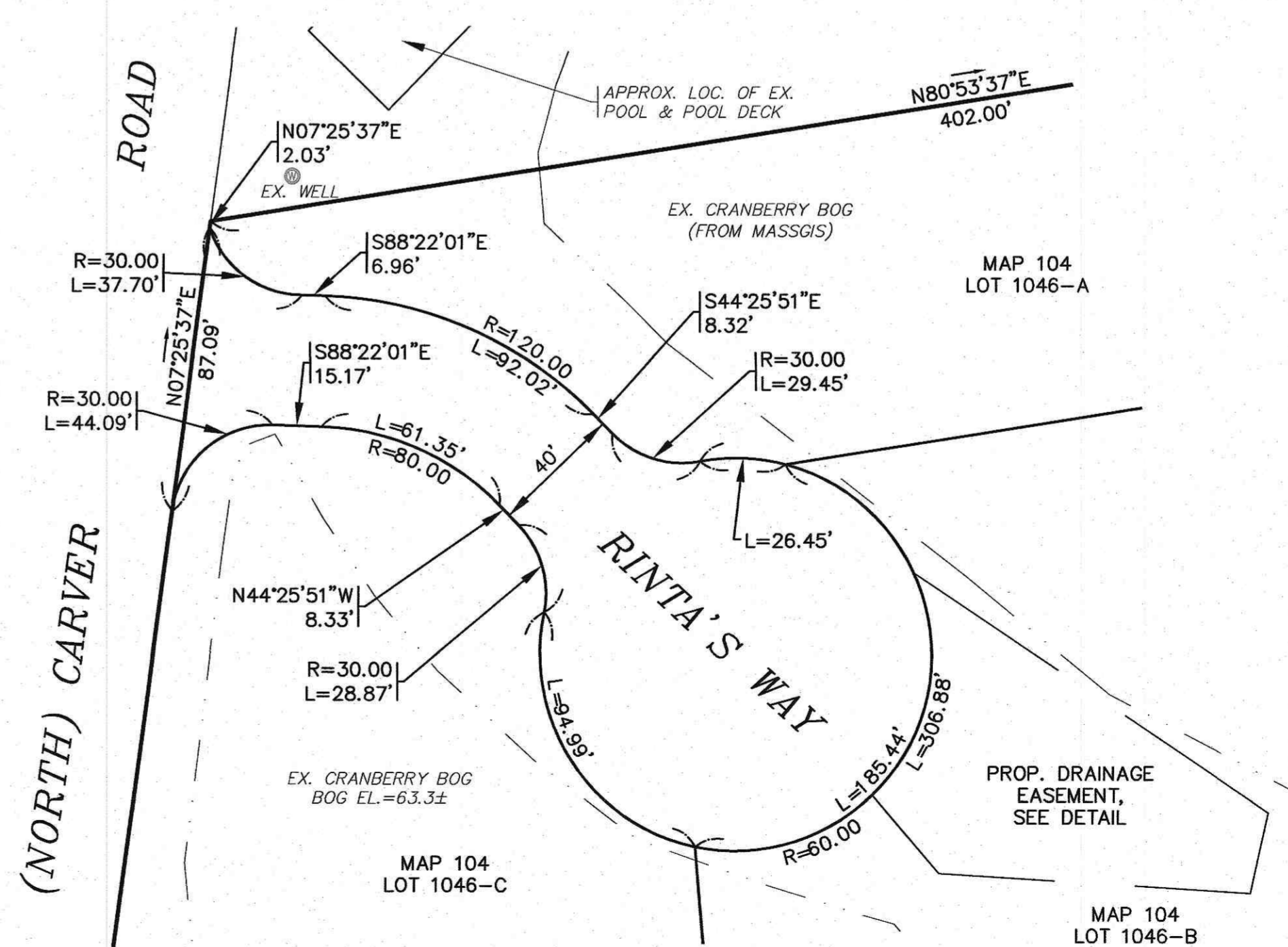
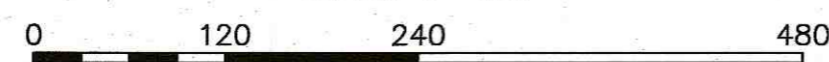
**DRAINAGE EASEMENT DETAIL**

SCALE: 1"=40'



**LOTTING SHEET**

SCALE: 1"=120'



**ROADWAY DETAIL**

SCALE: 1"=40'

APPROVED BY THE TOWN OF WAREHAM PLANNING BOARD

DATE APPROVED \_\_\_\_\_

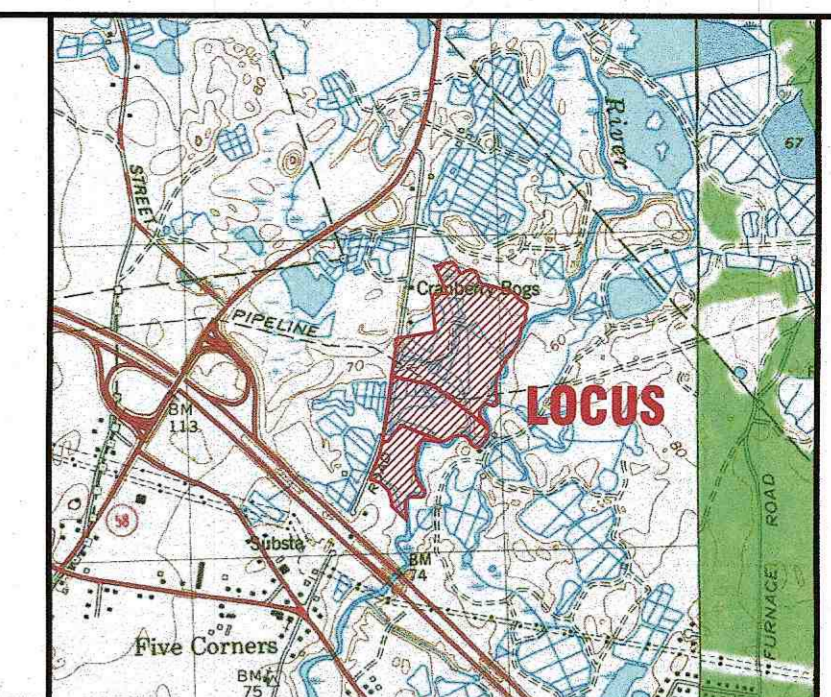
DATE SIGNED \_\_\_\_\_

TOWN OF WAREHAM

I HEREBY CERTIFY THAT TWENTY DAYS HAVE ELAPSED SINCE THE NOTICE OF THE APPROVAL FROM THE PLANNING BOARD WAS RECEIVED AND RECORDED, AND THAT NO NOTICE OF APPEAL HAS BEEN FILED IN THIS OFFICE

TOWN CLERK \_\_\_\_\_

DATE SIGNED \_\_\_\_\_



LOCUS MAP : SCALE 1" = 2000'

FOR REGISTRY USE ONLY

**ZONING DATA:**

ZONE: RESIDENCE 60 (R-60)

SETBACKS:  
 MINIMUM LOT AREA: 60,000 S.F.  
 (MIN. 48,000 S.F. CONTIGUOUS UPLAND)  
 MINIMUM FRONTAGE: 180'  
 MINIMUM FRONT SETBACK: 60'  
 MINIMUM SIDE SETBACK: 20'  
 MINIMUM REAR SETBACK: 20'  
 MAXIMUM BUILDING HEIGHT: 35'

**FLOOD ZONE DATA:**

THE PROPERTY IS WITHIN FLOOD ZONE X AND ZONE A. REFER TO THE F.E.M.A. FLOOD INSURANCE RATE MAP PANEL NUMBER 25023C0467J, DATED: JULY 17, 2012. (FLOOD ZONE A ELEVATION NOT DETERMINED).

**PLAN STATEMENT:**

THE PURPOSE OF THIS PLAN IS TO CREATE A 3 LOT SUBDIVISION FROM LOTS 1046, VB & VC.

**NOTE:**

ALL LOTS SHOWN HEREON WILL BE SERVICED BY PRIVATE WELLS & ON SITE SEWAGE DISPOSAL SYSTEMS.

**LOT DATA:**

ASSESSORS MAP: 104/ LOTS 1046, VB & VC  
 ADDRESS: 36, 44 & 48 NORTH CARVER ROAD

OWNER:  
 PAUL E. & LINDA A. RINTA  
 34 NORTH CARVER ROAD  
 WAREHAM, MA 02576

DEED REF.:  
 BOOK: 3898, PAGE: 120 (LOT 1046)  
 BOOK: 30666, PAGE: 54 (LOTS VB&VC)

APPLICANT:  
 LSE HYDRA, LLC  
 6 RIDGEBURY ROAD  
 AVON, CT 06001

"I CERTIFY THAT THIS PLAN WAS PREPARED IN CONFORMANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS."

THE CERTIFICATION MADE HEREON IS INTENDED TO MEET THE REGISTRY OF DEEDS REQUIREMENTS AND IS NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN.

ABUTTERS SHOWN ARE ACCORDING TO THE TOWN OF WAREHAM TAX ASSESSMENT RECORDS.

ROBERT A. BRAMAN, JR.  
 P.L.S. # 45850

DATE: NOV. 23, 2021  
 DRAWN BY: JH/JMP  
 CHECKED BY: RAB  
 JOB NO.: 20-9568  
 SCALE: 1" = 120'

APPROVED BY: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_

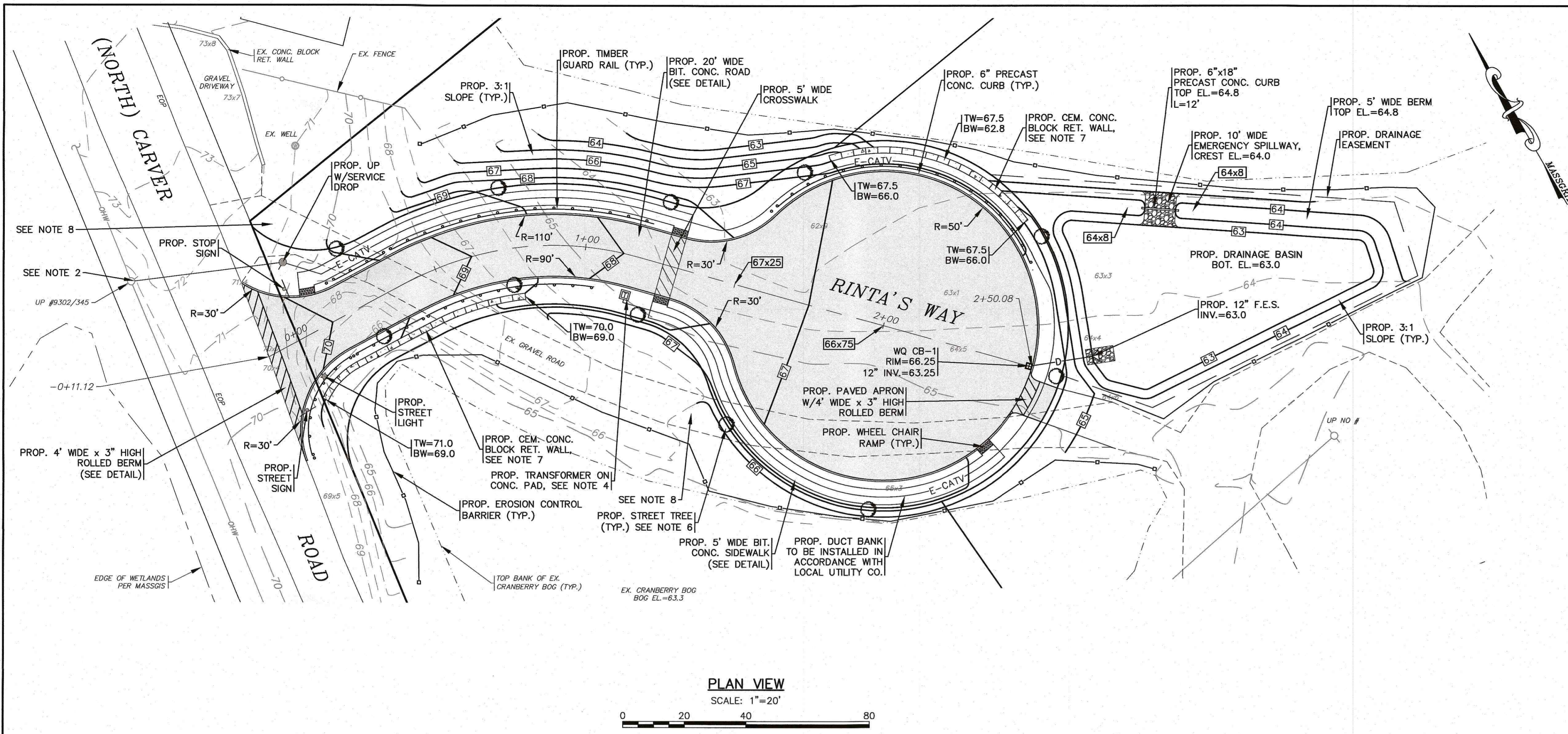
**G.A.F. ENGINEERING, INC.**  
 PROFESSIONAL ENGINEERS & LAND SURVEYORS  
 286 MAIN STREET - WAREHAM, MA 02571  
 TEL: (508) 295-6600 FAX: (508) 295-6634  
 E-MAIL: info@gafenginc.com

**"RINTA'S WAY" DEFINITIVE SUBDIVISION PLAN LOTTING SHEET**

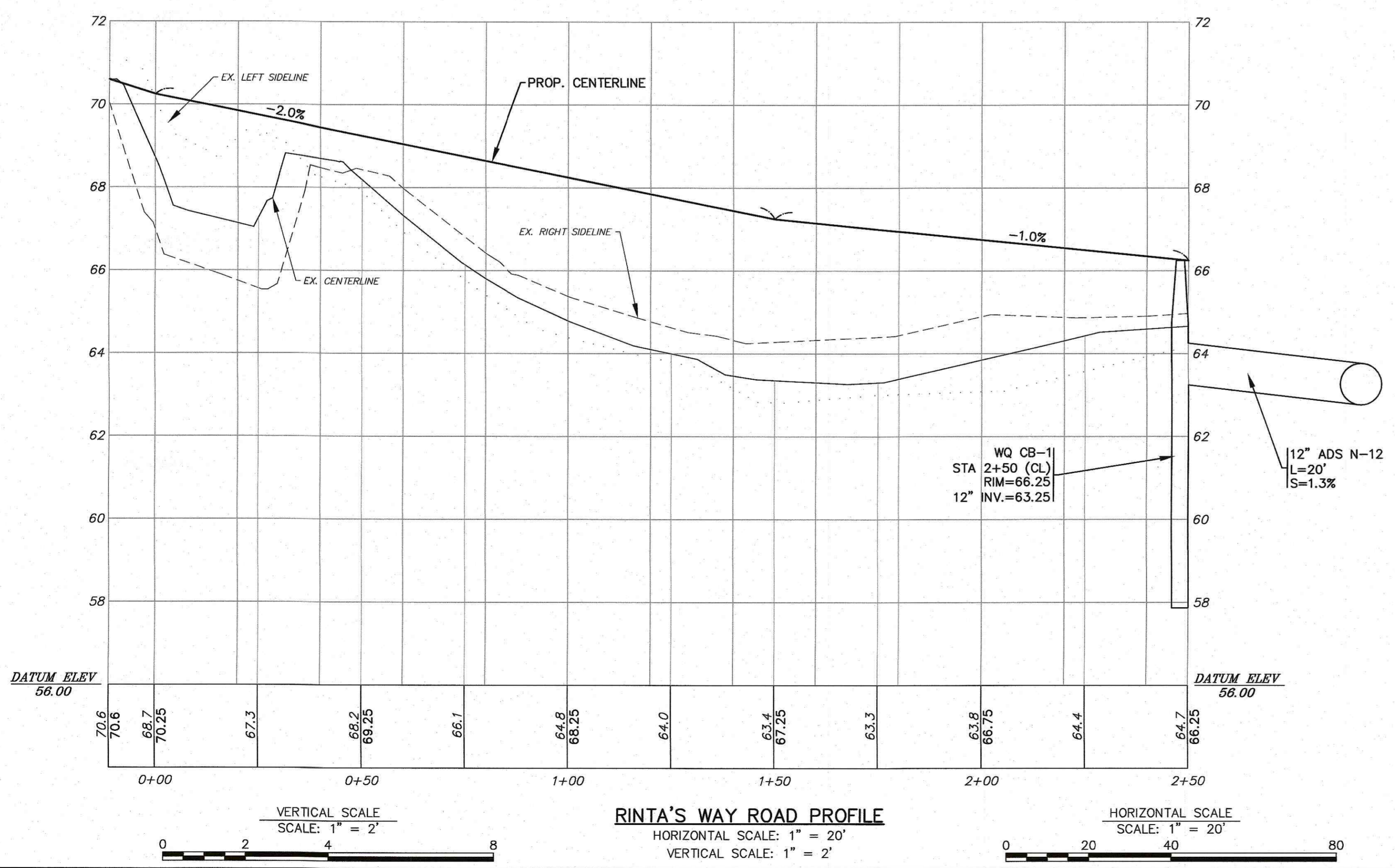
PREPARED FOR:  
**LSE HYDRA, LLC**  
 40 TOWER LANE, SUITE 201  
 AVON, CT

JOB NO.: 20-9568  
 DWG. 4 OF 7





**PLAN VIEW**  
SCALE: 1" = 20'



**RINTA'S WAY ROAD PROFILE**  
HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 2'

**NOTES:**

- ALL PROPOSED CATCH BASINS SHALL HAVE A TEMPORARY SILT SACK OR AN APPROVED EQUAL INSTALLED IN THEM AS SOON AS THE STRUCTURE IS SET. CONTRACTOR SHALL REMOVE AND DISPOSE OF THE SILT SACKS AT THE COMPLETION OF CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY COMPANY FOR CONNECTION POINT OF THE PROPOSED UNDERGROUND ELECTRIC SERVICE PRIOR TO CONSTRUCTION.
- FINAL LOCATIONS, DEPTHS AND CONSTRUCTION OF UNDERGROUND UTILITY SERVICES SHALL BE DETERMINED BY THEIR RESPECTIVE UTILITIES COMPANY.
- CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANY FOR FINAL LOCATION, SIZE AND CONFIGURATION OF TRANSFORMERS. PROTECT TRANSFORMERS WITH BOLLARDS.
- THE PROPOSED WATER QUALITY CATCH BASIN (WQ CB) SHALL BE A STC450I UNIT FROM CONTECH ENGINEERED SOLUTIONS LLC, SEE DETAIL.
- STREET TREES SHALL BE PLACED AT 50' ON CENTER AND WHERE SHOWN ON THE PLAN IN ORDER TO ALLOW MAXIMUM SIGHT DISTANCE AT THE INTERSECTION. STREET TREES SHALL BE RED MAPLES (ACER RUBRUM) WITH NO BRANCHES CLOSER THAN 7' TO GRADE.
- PROPOSED CEMENT CONCRETE BLOCK RETAINING WALLS DESIGNED BY OTHERS, CONTRACTOR SHALL COORDINATE WITH OWNER. RETAINING WALLS SHALL BE PROVIDED WITH SAFETY GUARDRAILS/HANDRAILS PER 780 CMR AND OSHA REGULATIONS AND SPECIFICATIONS. CONTRACTOR SHALL SUBMIT STAMPED SHOP DRAWINGS FOR RETAINING WALL CONSTRUCTION TO BUILDING DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION.
- REMOVE EXISTING GRAVEL AND SUBBASE AS REQUIRED, LOAM AND SEED ALL DISTURBED AREAS.
- A BENCHMARK WILL BE SET PRIOR TO THE START OF CONSTRUCTION.
- LOAM AND SEED ALL AREAS DISTURBED BY CONSTRUCTION.

APPROVED BY:

DATE: NOV. 23, 2021  
 DRAWN BY: JIMP  
 CHECKED BY: WFM  
 JOB NO.: 20-9568  
 SCALE: AS NOTED

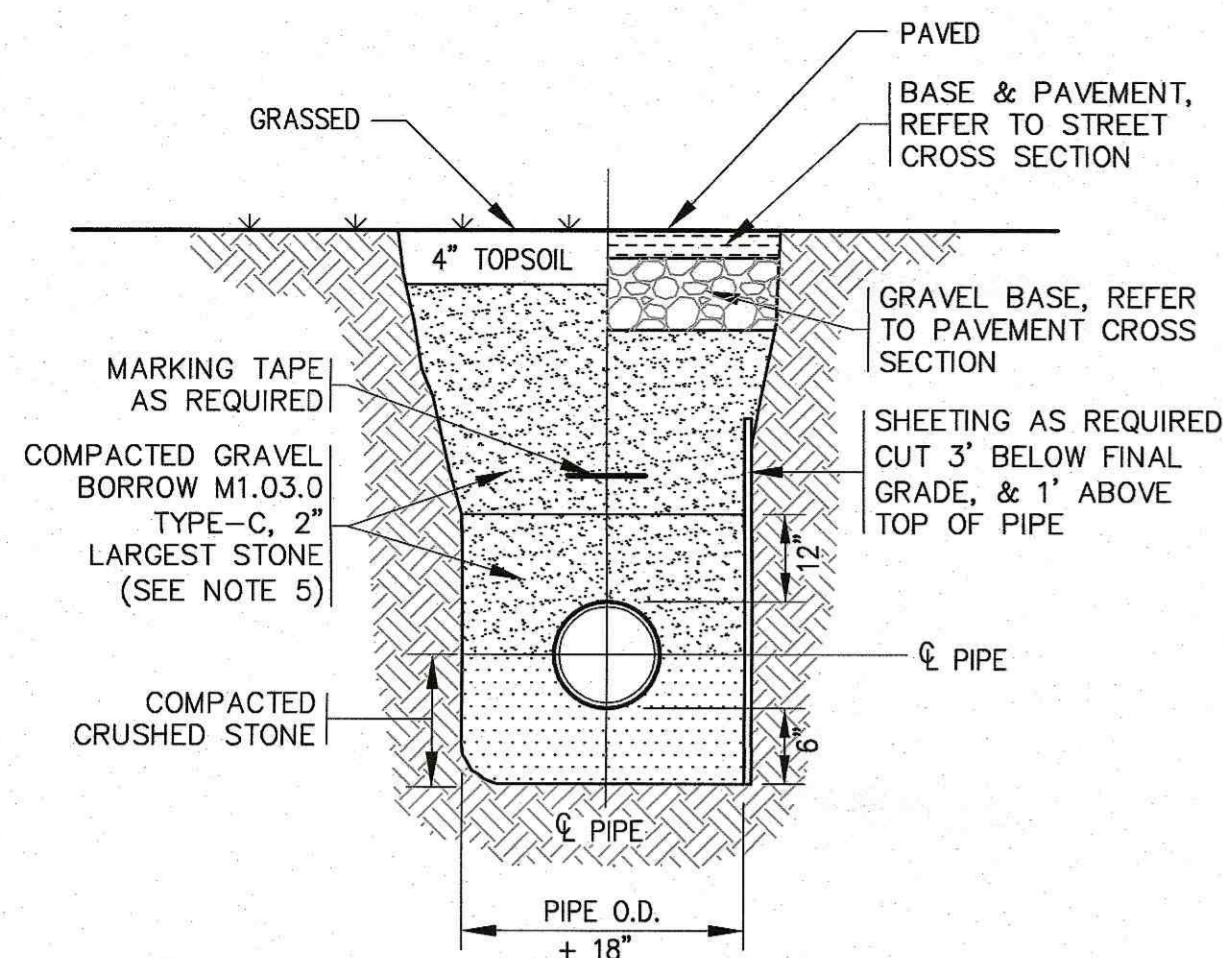
REV.	DATE	BY	APP'D	DESCRIPTION

**G.A.F. ENGINEERING, INC.**  
 PROFESSIONAL ENGINEERS & LAND SURVEYORS  
 266 MAIN STREET - WAREHAM, MA 02571  
 TEL: (508) 295-6600 FAX: (508) 295-6634  
 E-MAIL: info@gafenginc.com

**"RINTA'S WAY" DEFINITIVE SUBDIVISION PLAN ROADWAY PLAN & PROFILE**  
 NORTH CARVER ROAD WAREHAM, MA  
 PREPARED FOR: LSE HYDRA, LLC  
 40 TOWER LANE, SUITE 201 AVON, CT

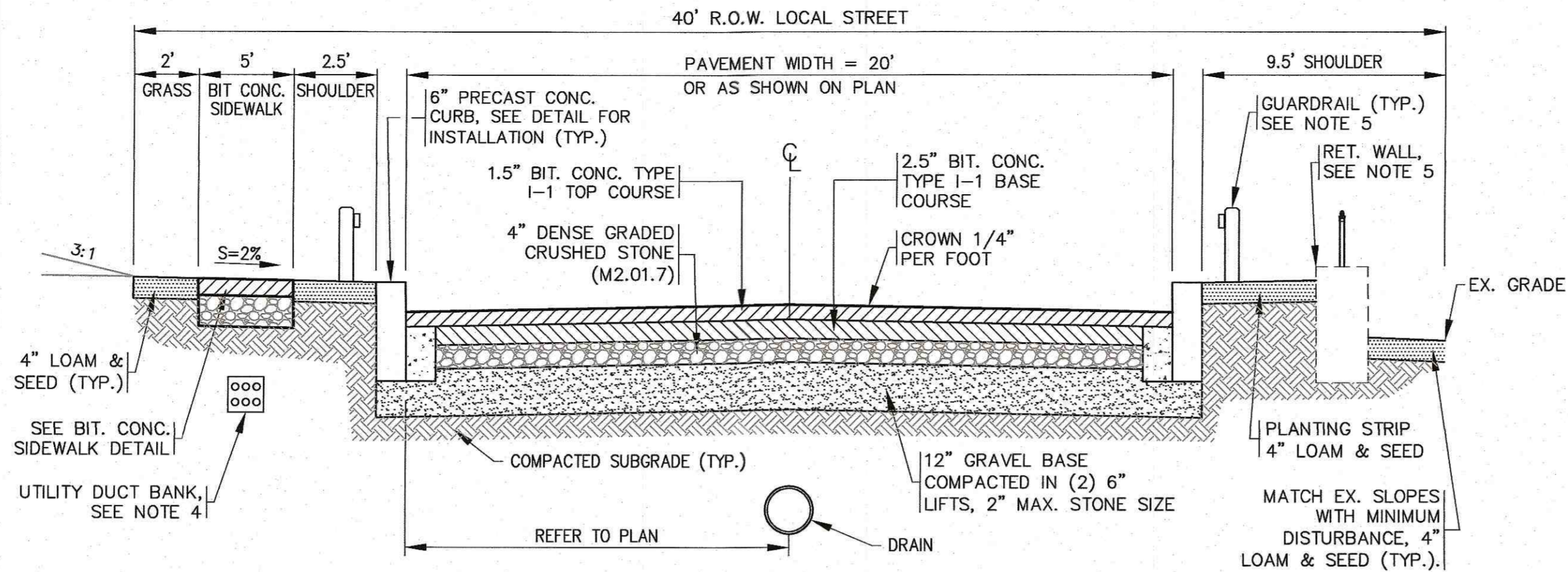
JOB NO.: 20-9568  
 DWG. 5 OF 7





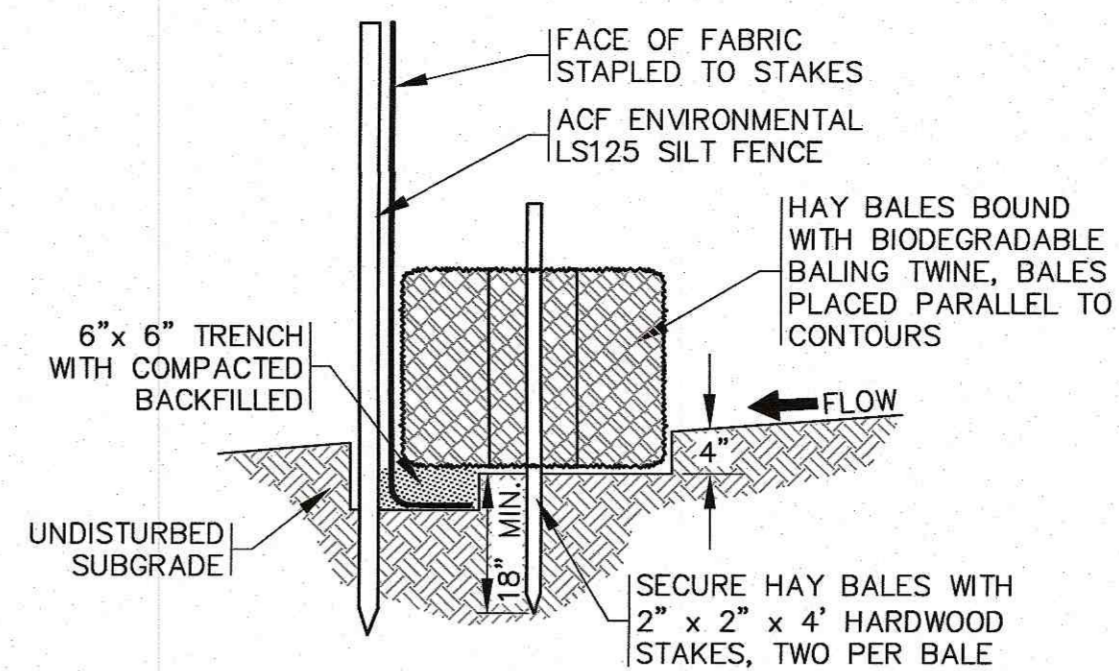
- NOTES:**
- PIPE BEDDING SHALL BE COMPACTED BEFORE PIPE INSTALLATION.
  - COMPACTION AROUND PIPE SHALL BE BY TAMPER AT 6" MAX. LIFTS.
  - MIN. COVER OVER PIPE = 1'-6"
  - MIN. COVER OVER WATER SERVICES/MAINS = 5'-0"
  - FOR ALL WORK IN NORTH CARVER ROAD USE FLOWABLE FILL AS REQUIRED BY THE TOWN OF WAREHAM MUNICIPAL MAINTENANCE DEPARTMENT.

**TYPICAL PIPE TRENCH**  
N.T.S.



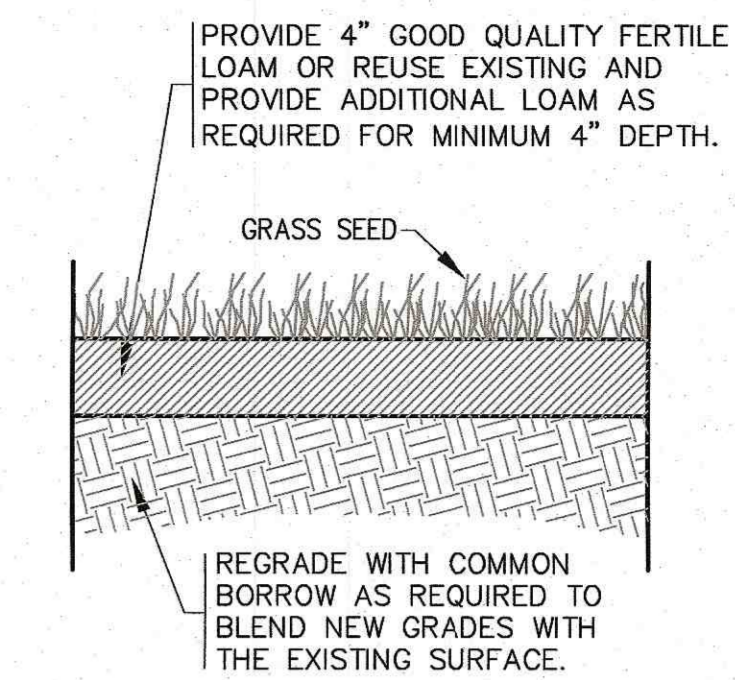
- NOTES:**
- ALL PAVEMENT SHALL BE IN ACCORDANCE WITH MassDOT SPEC. SECTION 460 & 401, UNLESS OTHERWISE NOTED, AND SHALL MEET TOWN OF WAREHAM SPECIFICATIONS.
  - GRAVEL BASE SHALL CONFORM TO MassDOT MATERIAL SPEC. SECTION M1.03.0 TYPE C.
  - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.
  - FINAL LOCATIONS, DEPTHS AND CONSTRUCTION OF UNDERGROUND ELECTRIC SERVICE SHALL BE DETERMINED BY THEIR RESPECTIVE UTILITIES COMPANY.
  - REFER TO PLAN VIEW FOR PROPOSED GUARDRAIL AND RETAINING WALL LOCATIONS.

**TYPICAL STREET CROSS SECTION**  
N.T.S.



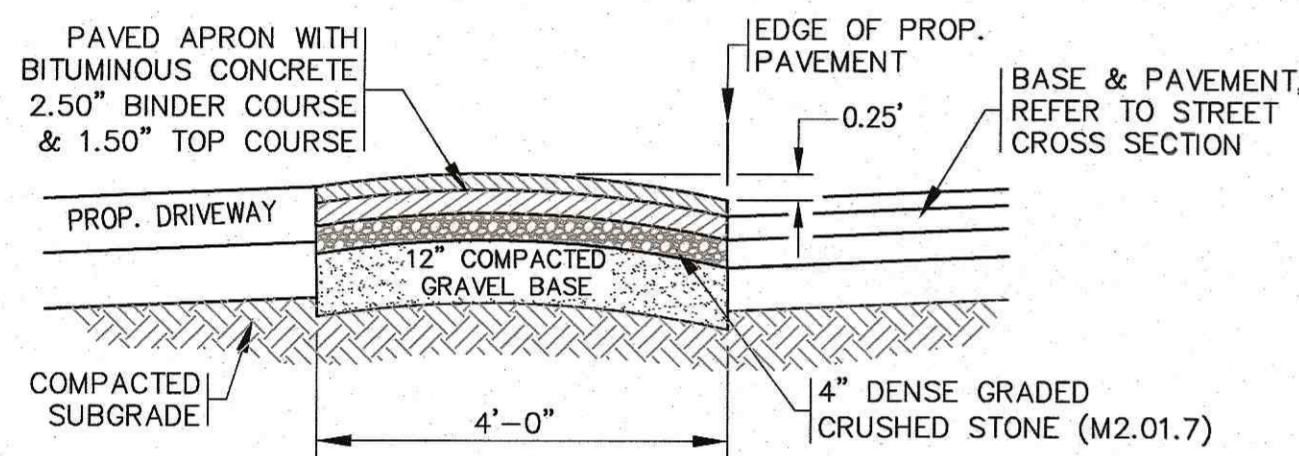
- NOTES:**
- THE SILTATION FENCE SHALL BE ACF ENVIRONMENTAL, MODEL LS125.
  - SILTATION FENCING SHALL BE INSTALLED DOWNSLOPE OF ALL PROPOSED AND EXISTING DISTURBED AREAS, OR AS SHOWN ON THE PLANS.
  - THE EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL A VEGETATIVE COVER HAS BEEN FIRMLY ESTABLISHED.
  - EROSION CONTROL MEASURES SHALL FOLLOW THE PERFORMANCE STANDARDS OF THE USDA SOIL CONSERVATION SERVICE, AND ANY APPLICABLE STATE AND/OR LOCAL CONSERVATION AUTHORITY.

**HAY BALE / SILTATION FENCE BARRIER**  
N.T.S.



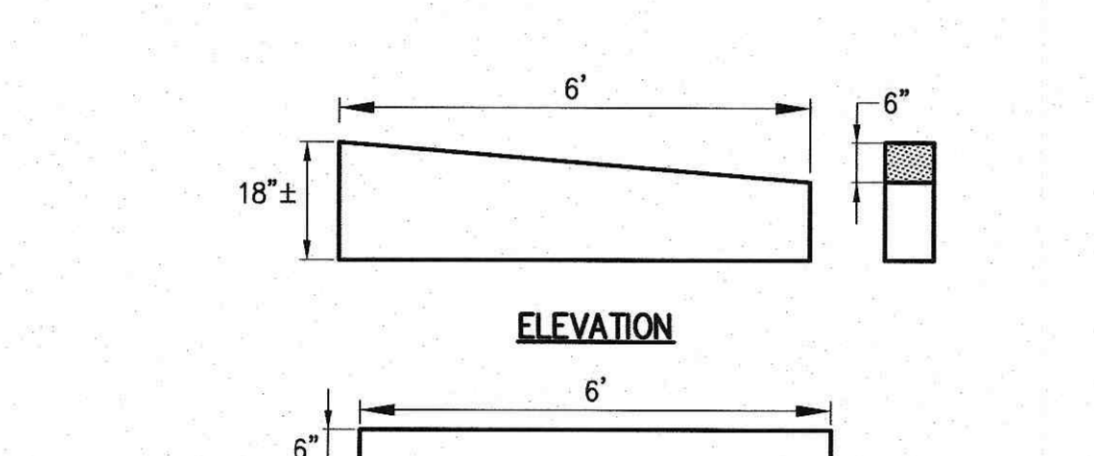
- NOTES:**
- MATERIALS AND CONSTRUCTION METHODS FOR LOAM BORROW AND TOPSOIL SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 751 OF THE MassDOT STANDARD SPECIFICATIONS AND WITH THE PROCEDURES DESCRIBED HEREIN.
  - MATERIALS AND CONSTRUCTION FOR SEEDING SHALL CONFORM TO THE RELEVANT PROVISIONS OF SECTION 765 OF THE MassDOT STANDARD SPECIFICATIONS.
  - SEED FOR GRASS STRIPS SHALL CONFORM TO MassDOT MATERIAL SPEC. M6.03.0, GRASSPLOTS AND ISLANDS.
  - GRASS SHALL BE MAINTAINED A MINIMUM OF 4" HIGH WITHIN THE DRAINAGE AREAS.
  - LOAM AND SEED ALL DISTURBED AREAS.

**LOAM AND SEED DETAIL**  
N.T.S.



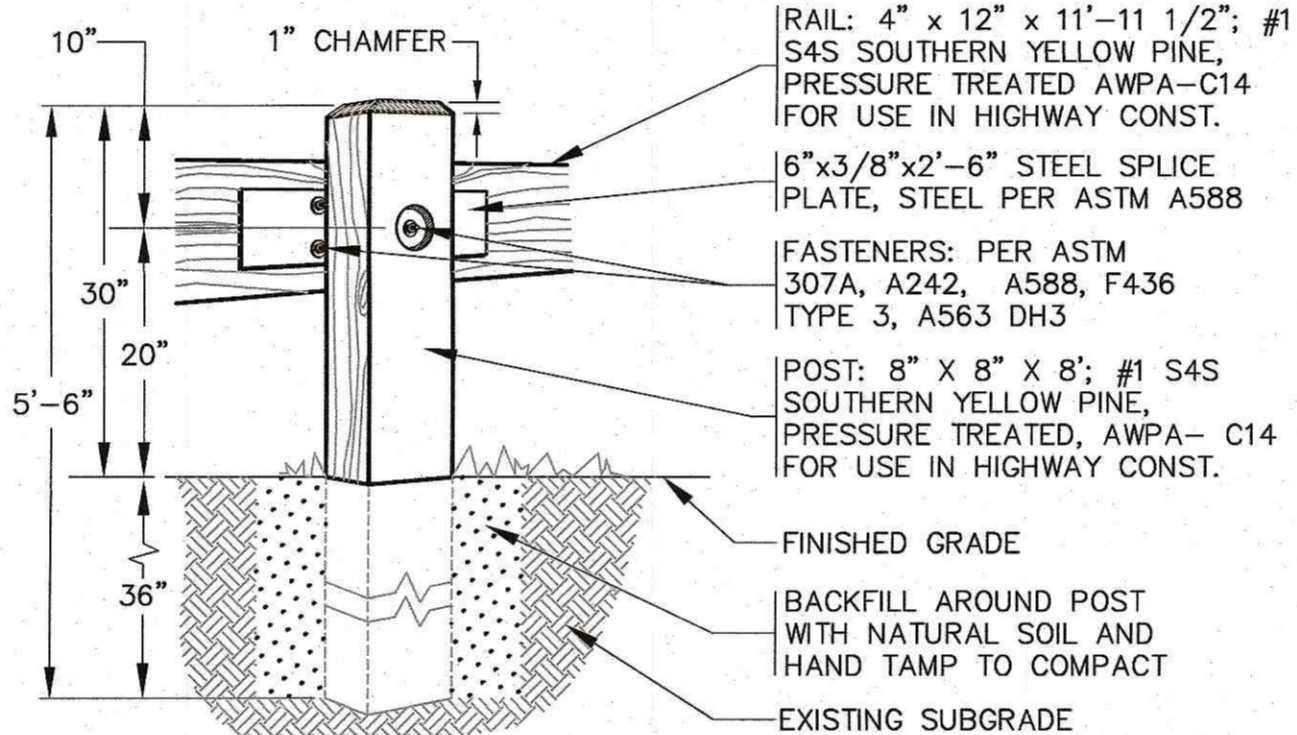
- NOTES:**
- ALL PAVEMENT SHALL BE IN ACCORDANCE WITH MassDOT SPEC. SECTION 460 & 401, UNLESS OTHERWISE NOTED, AND SHALL MEET TOWN OF WAREHAM SPECIFICATIONS.
  - THE 12" GRAVEL BASE SHALL BE COMPACTED IN (2) 6" LIFTS. GRAVEL BASE SHALL CONFORM TO MassDOT MATERIAL SPEC. SECTION M1.03.0 TYPE C.
  - SUBGRADE & BASE SHALL BE COMPACTED TO MINIMUM 95% MAXIMUM DRY DENSITY.

**ROLLED BERM**  
N.T.S.



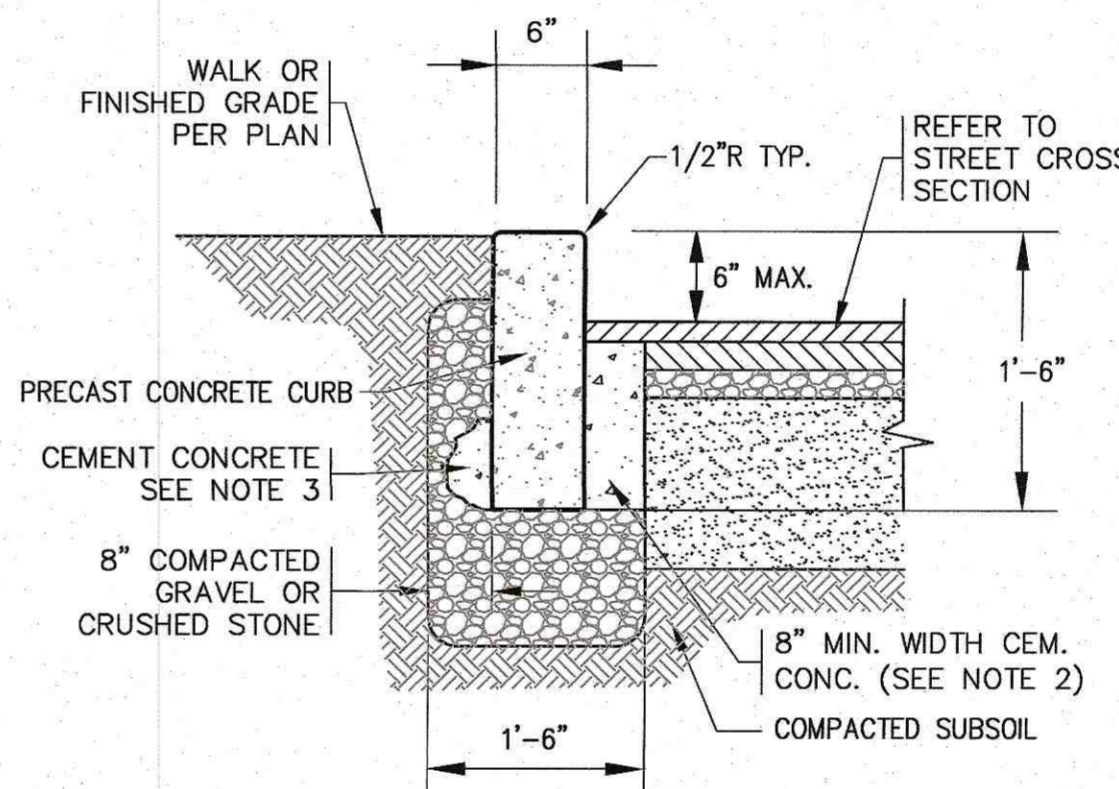
- NOTES:**
- REFER TO PLAN FOR LOCATIONS.
  - PROVIDE RADIAL TRANSITION CURBING WHERE REQUIRED. REFER TO MANUFACTURER'S INSTALLATION DETAILS.
  - ALL WORK SHALL CONFORM TO MassDOT SPECIFICATIONS AND DETAILS. REFER TO THE LATEST REVISIONS OF THE MassDOT STANDARD SPECIFICATIONS AND DETAILS FOR HIGHWAY AND BRIDGES.
  - SEE PRECAST CONCRETE CURB DETAIL FOR CURBING INSTALLATION.

**TRANSITION CURB DETAIL**  
N.T.S.



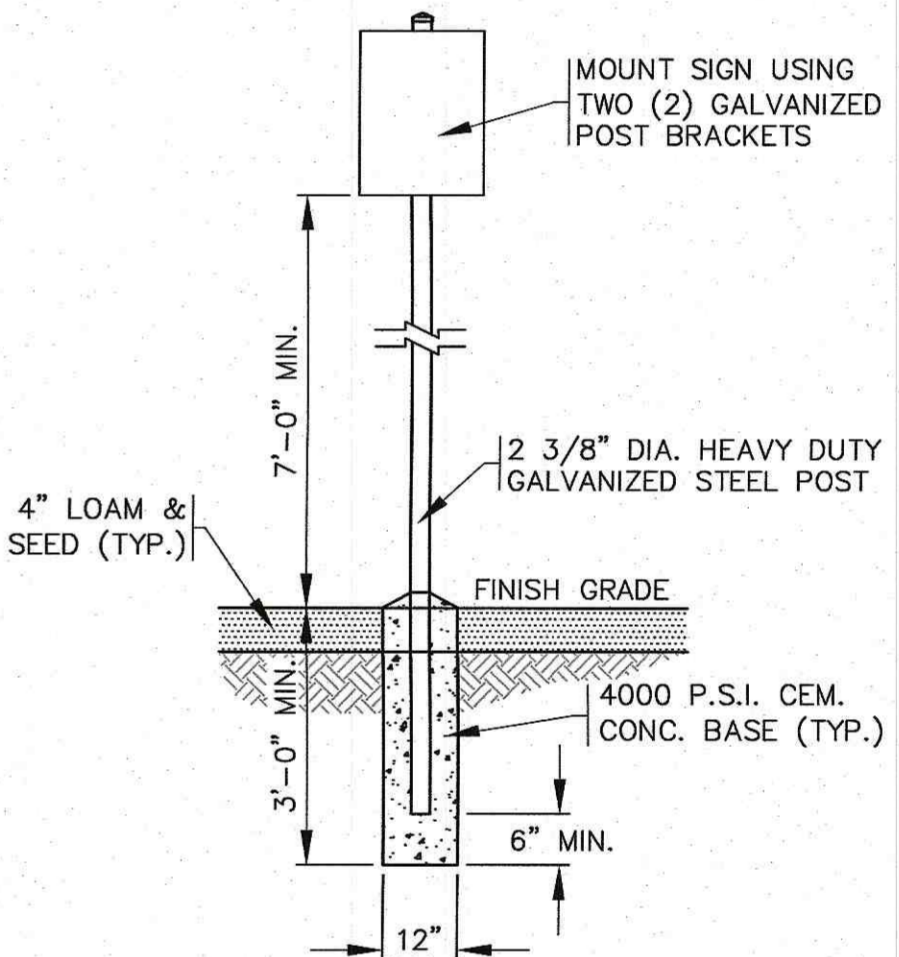
- NOTES:**
- CONTRACTOR TO COORDINATE WITH OWNER FOR FINAL TIMBER GUARD RAIL SPECIFICATIONS AND DETAILS.

**TYPICAL TIMBER GUARD RAIL DETAIL**  
N.T.S.



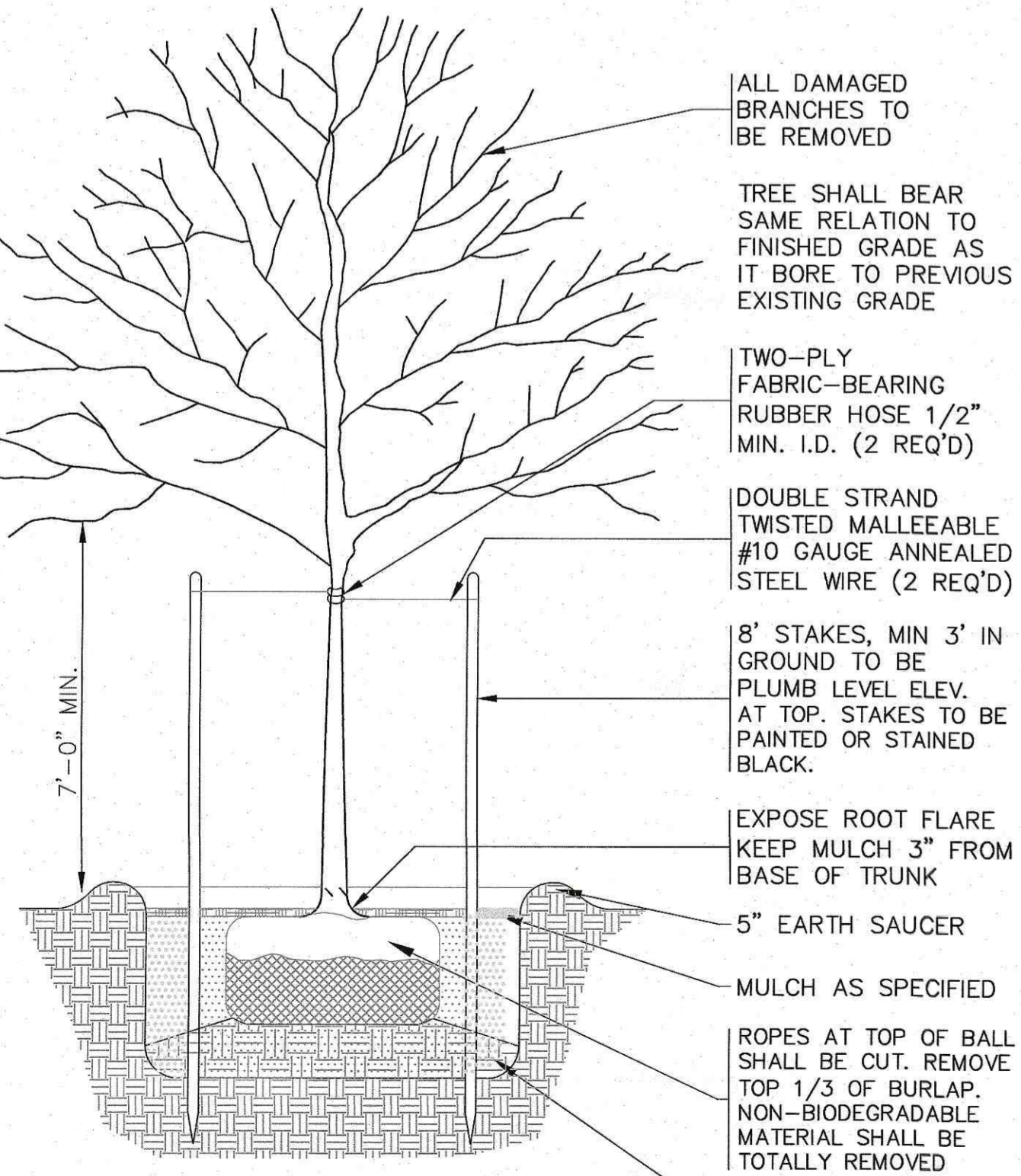
- NOTES:**
- CEMENT CONCRETE SHALL CONFORM TO SECTION M4 OF THE LATEST REVISION OF MassDOT STANDARD SPECIFICATIONS. BIT. CONC. NOT ACCEPTABLE.
  - 4000 PSI CEMENT CONCRETE WILL BE CONTINUOUS FOR ENTIRE LENGTH OF CURB.
  - 1 CU.YD. OF 4000 PSI CEMENT CONCRETE WILL BE PLACED WITHIN 12" OF ALL JOINTS AT BACK OF CURBING. AS SHOWN

**PRECAST CONCRETE CURB**  
N.T.S.



- NOTES:**
- ALL SIGNS, MARKINGS AND DIMENSIONS SHALL BE IN CONFORMANCE WITH THE MOST RECENT EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), MassDOT AND TOWN OF WAREHAM STANDARDS AND SPECIFICATIONS.
  - REFER TO PLAN FOR LOCATIONS.
  - ALL HARDWARE USED SHALL BE CADMIUM OR ZINC PLATED.

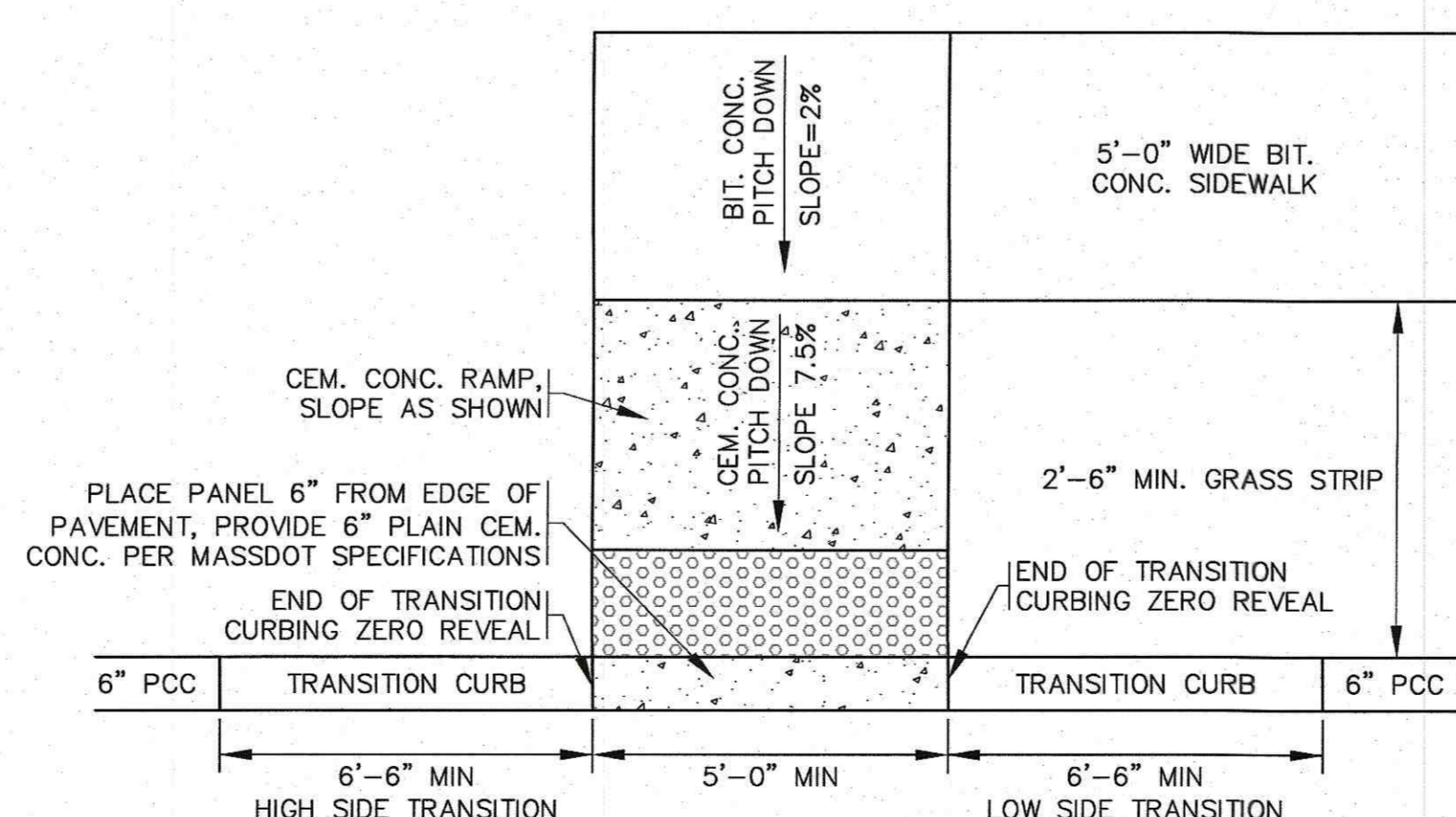
**SIGN & SIGN POST DETAIL**  
N.T.S.



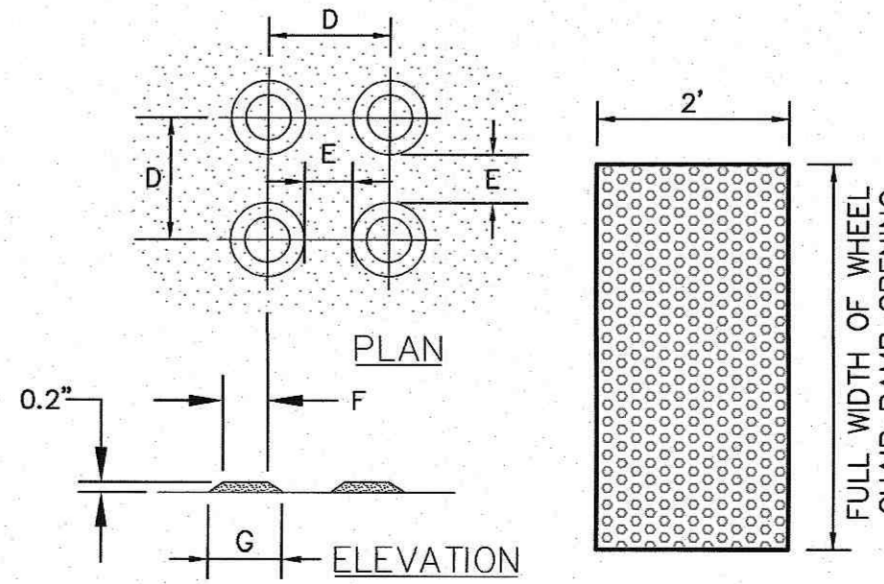
- NOTES:**
- REFER TO THE PLAN FOR PLANTING LOCATIONS.

**STREET TREE PLANTING DETAIL**  
N.T.S.

- NOTES:**
- SIDEWALK CROSS SLOPES, AS INDICATED IN STANDARD SPECIFICATIONS, WILL BE AT 1.6% MAX., 1.5% PREFERRED FOR BRICK, CEMENT CONCRETE AND BITUMINOUS CONCRETE WITH EXCEPTION ONLY TO SIDEWALK CROSS SLOPE ON BRIDGES WHICH WILL BE 1% (REFER TO STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, SECTION 700.) IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 2%.
  - AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 3.5' SHALL BE MAINTAINED. THE DESIRABLE WIDTH IS 4.0'.
  - THE WHEEL CHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS) MUST NOT EXCEED 7.5% HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
  - THE ENTRANCE OF A WHEEL CHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
  - SURFACE TESTING, WHEN TESTING WITH A STRAIGHTEDGE PLACED PARALLEL TO THE LINE OF SLOPE, THERE SHALL BE NO DEVIATION FROM A TRUE SURFACE IN EXCESS OF 1/4".
  - ALL HANDICAP RAMPS SHALL HAVE DETECTABLE WARNINGS INSTALLED IN ACCORDANCE WITH ADA SPECIFICATIONS & MassDOT CONSTRUCTION STANDARD DETAILS.
  - ALL WORK SHALL COMPLY TO ADA SPECIFICATIONS AND MassDOT CONSTRUCTION STANDARD DETAILS.

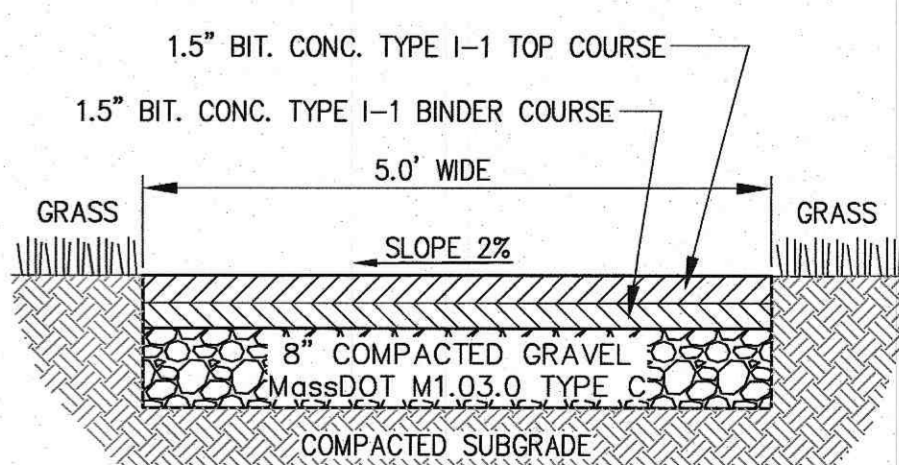


**WHEEL CHAIR RAMP**  
N.T.S.



- NOTES:**
- REFER TO PLAN FOR LOCATIONS.
  - ALL WORK SHALL COMPLY TO ADA SPECIFICATIONS AND MassDOT CONSTRUCTION STANDARD DETAILS.

**TRUNCATED DOME DETECTABLE WARNING PAD**  
N.T.S.



- NOTES:**
- SEE PLAN FOR LOCATIONS.
  - ALL METHODS AND MATERIALS OF CONSTRUCTION SHALL COMPLY WITH THE LATEST REVISION OF MassDOT STANDARD SPECIFICATIONS.

**BITUMINOUS CONCRETE SIDEWALK**  
N.T.S.

DATE	NOV. 23, 2021	BY	APPD
DRAWN BY	JMP	REV.	
CHECKED BY	WFM	DATE	
JOB NO.	20-9568	SCALE	N.T.S.

APPROVED BY: *[Signature]*

**G.A.F. ENGINEERING, INC.**  
PROFESSIONAL ENGINEERS & LAND SURVEYORS  
266 MAIN STREET - WAREHAM, MA 02571  
TEL: (508) 295-6600 FAX: (508) 295-6634  
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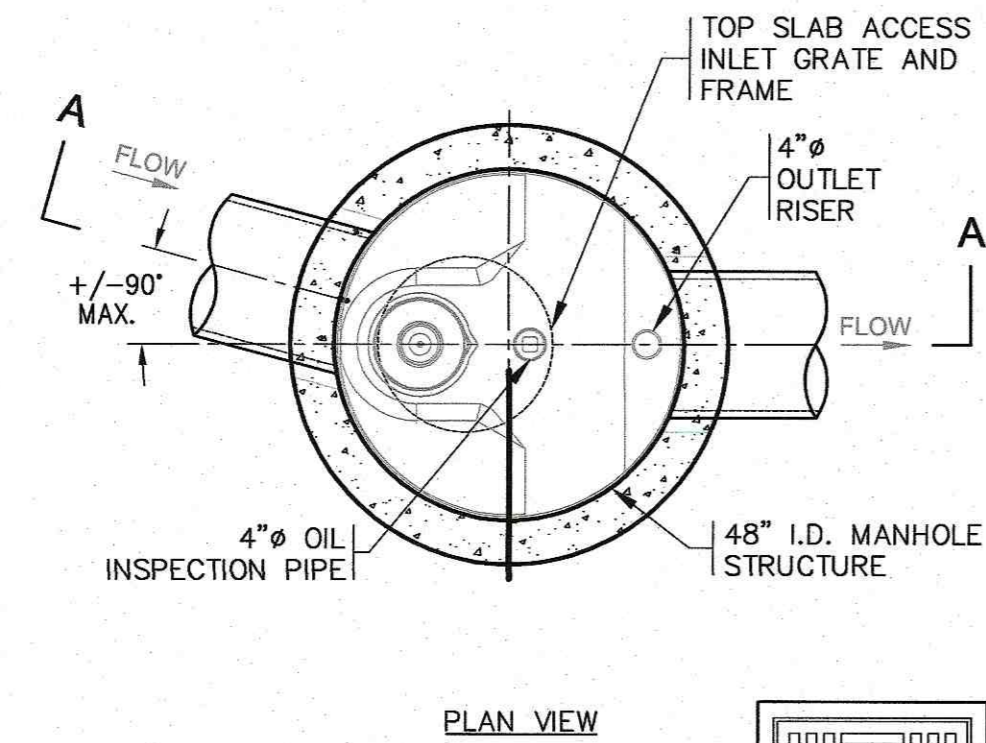
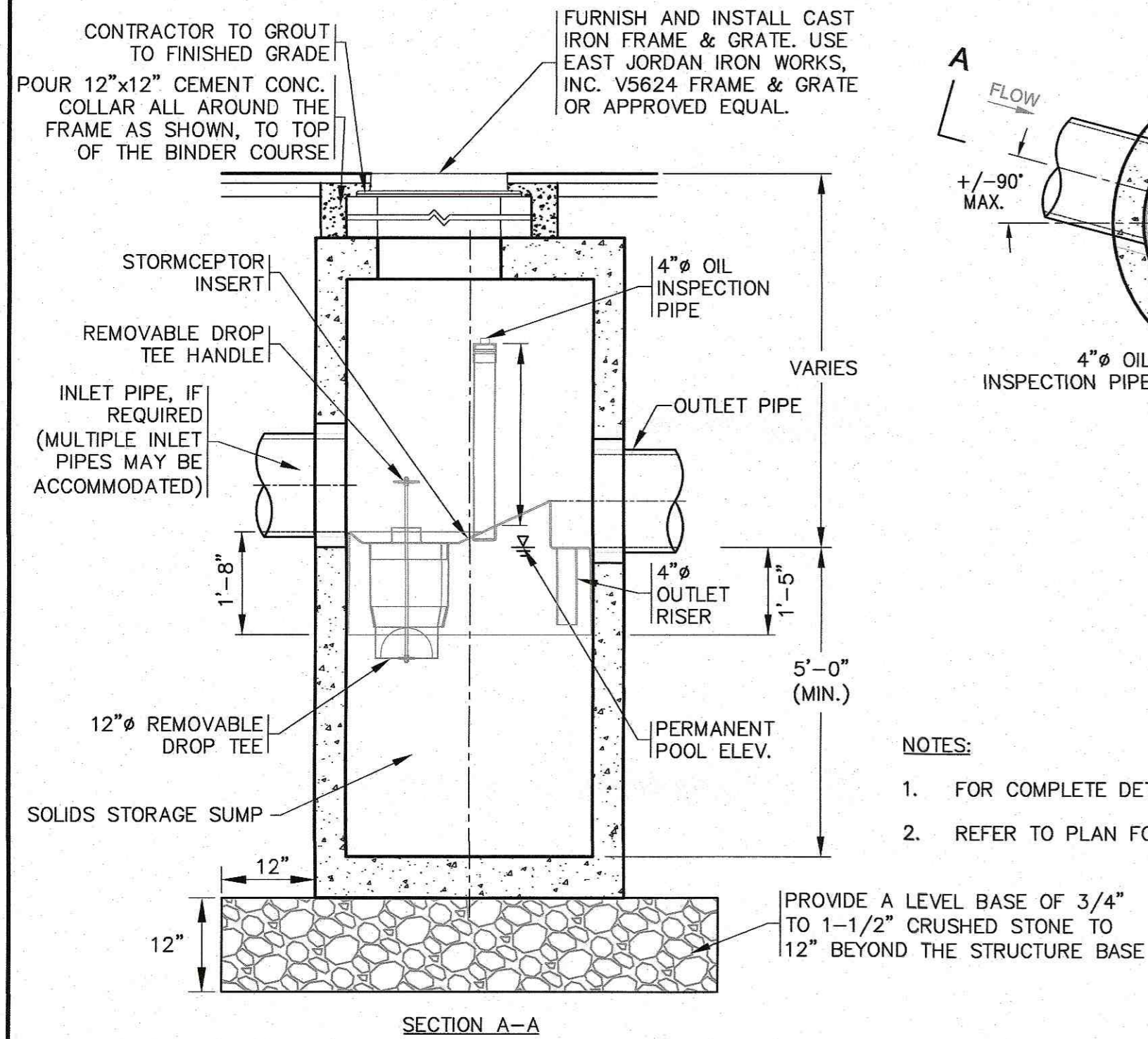
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**"RINTA'S WAY"**  
DEFINITIVE SUBDIVISION PLAN  
CONSTRUCTION DETAILS SHEET 1  
NORTH CARVER ROAD WAREHAM, MA

PREPARED FOR:  
**LSE HYDRA, LLC**  
40 TOWER LANE, SUITE 201 AVON, CT

JOB NO.: 20-9568  
DWG. 6 OF 7

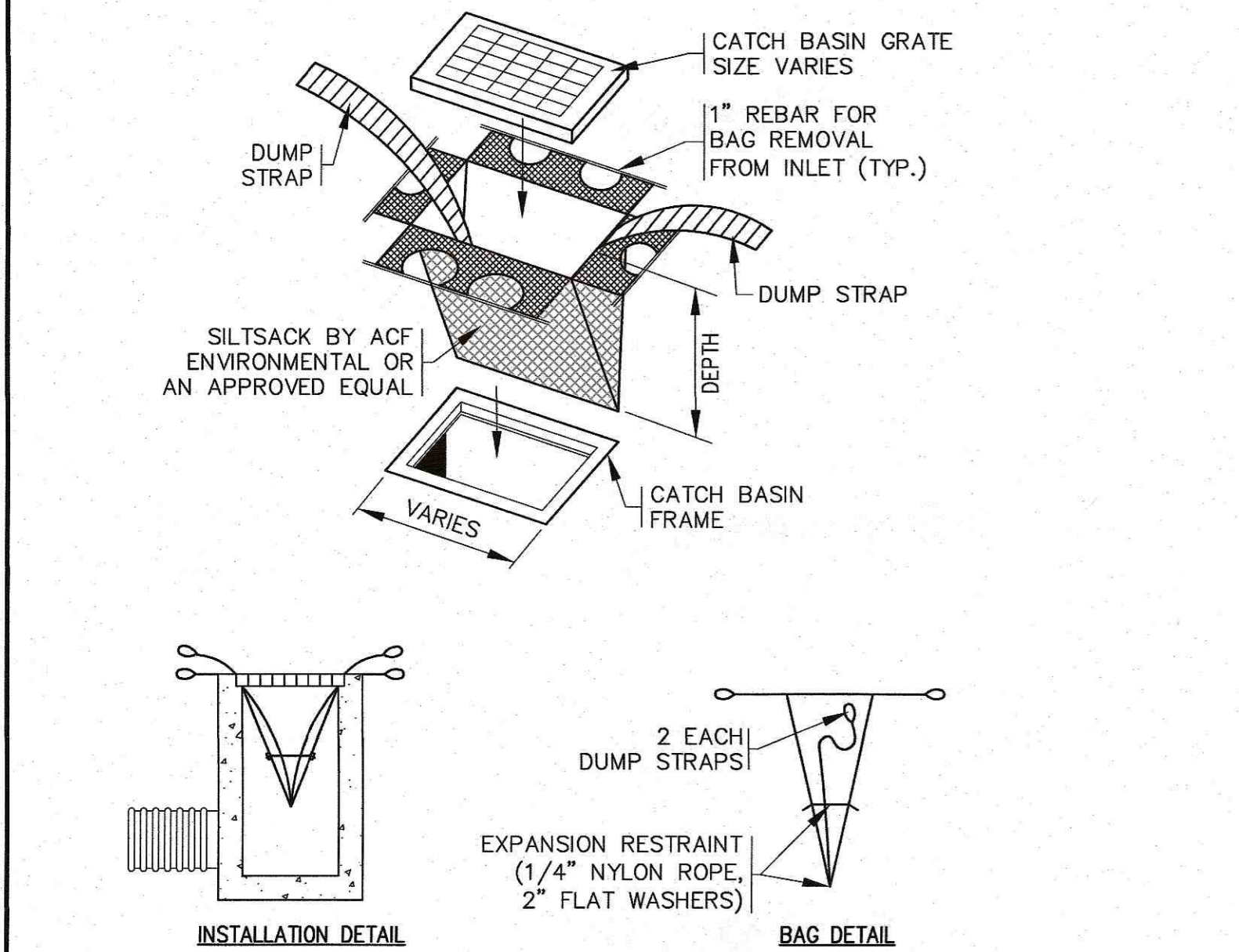




- GENERAL NOTES:**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  - DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
  - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH STORMWATER SOLUTIONS LLC REPRESENTATIVE. [www.ContechES.com](http://www.ContechES.com)
  - STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR SHALL CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
  - STORMCEPTOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING. ALL CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
  - STORMCEPTOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.

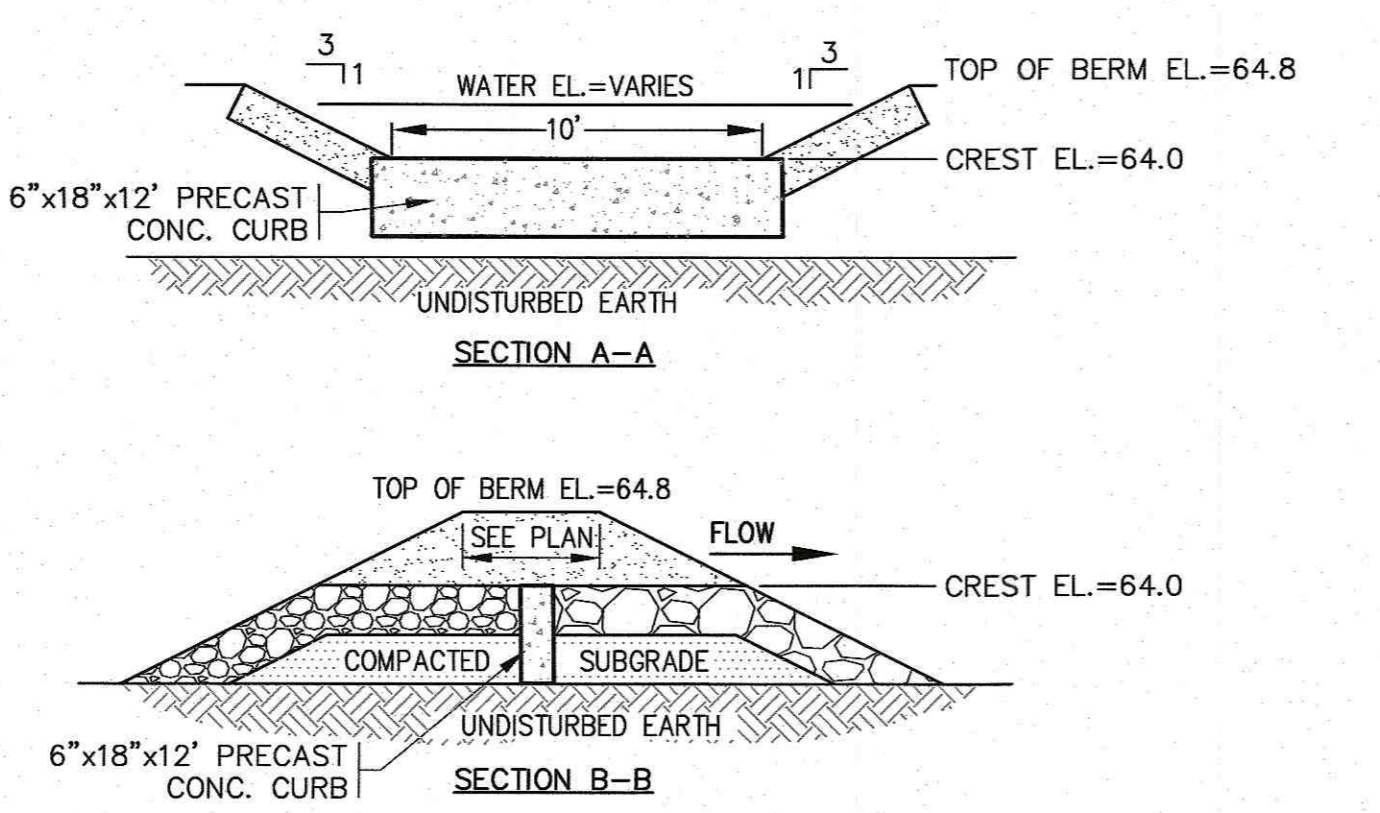
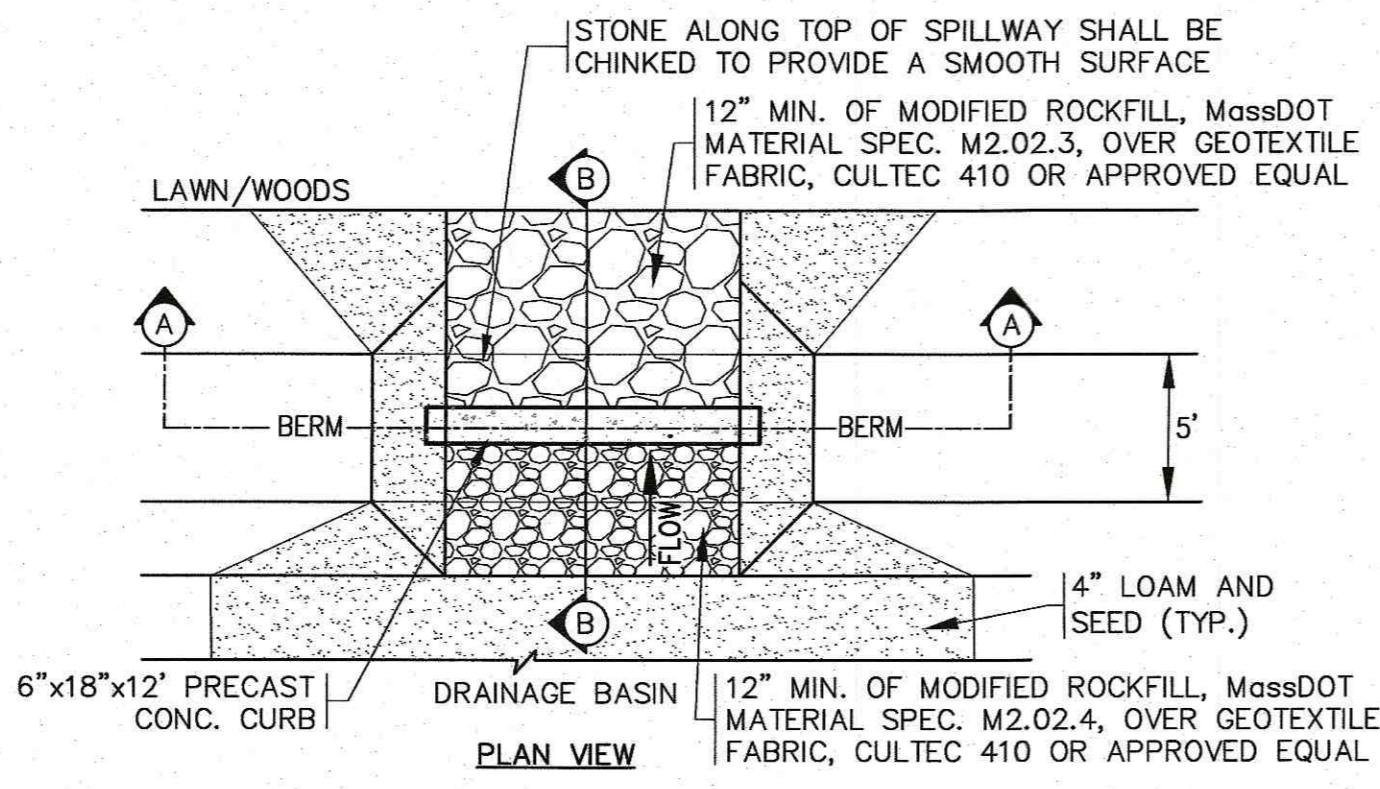
- INSTALLATION NOTES:**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLotation PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
  - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
  - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
  - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**PRECAST CONCRETE WATER QUALITY CATCH BASIN (STC450i)**  
N.T.S.



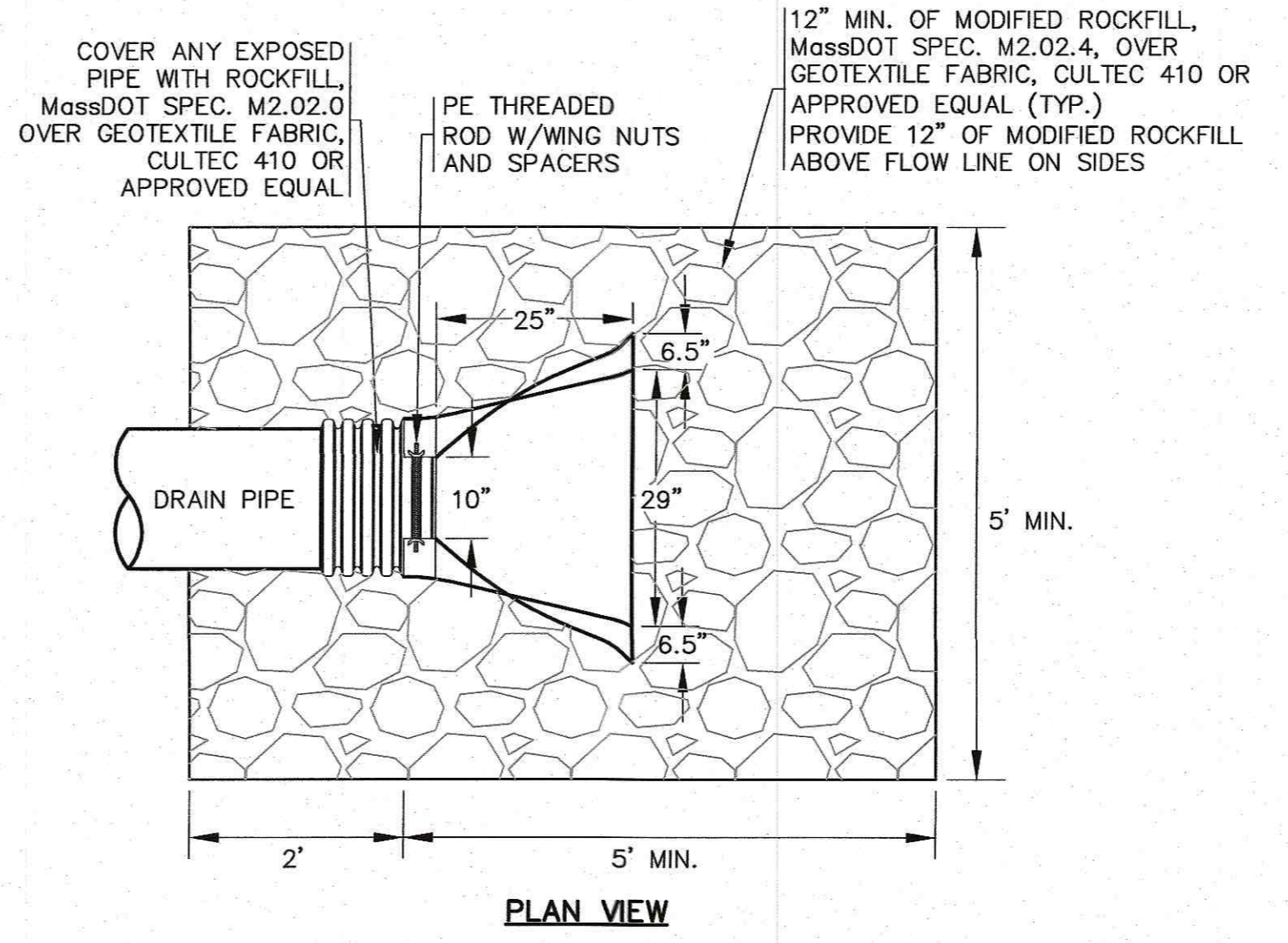
- NOTES:**
- ALL PROPOSED WATER QUALITY CATCH BASINS (WQS) SHALL HAVE TEMPORARY SILT SACKS OR AN APPROVED EQUAL INSTALLED IN THEM AS SOON AS THE STRUCTURE IS SET. CONTRACTOR SHALL REMOVE AND DISPOSE OF THEM AT THE COMPLETION OF CONSTRUCTION. ALL PROPOSED WATER QUALITY CATCH BASINS (WQS) SHALL BE INSPECTED WEEKLY DURING CONSTRUCTION. IF THERE IS ANY SEDIMENT BUILDUP, THE AFFECTED STRUCTURES SHALL BE CLEANED IMMEDIATELY, AND ALL MATERIAL REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS.
  - REFER TO PLAN FOR CATCH BASINS AND/OR WATER QUALITY CATCH BASINS LOCATIONS.

**SILT SACK DETAIL**  
N.T.S.



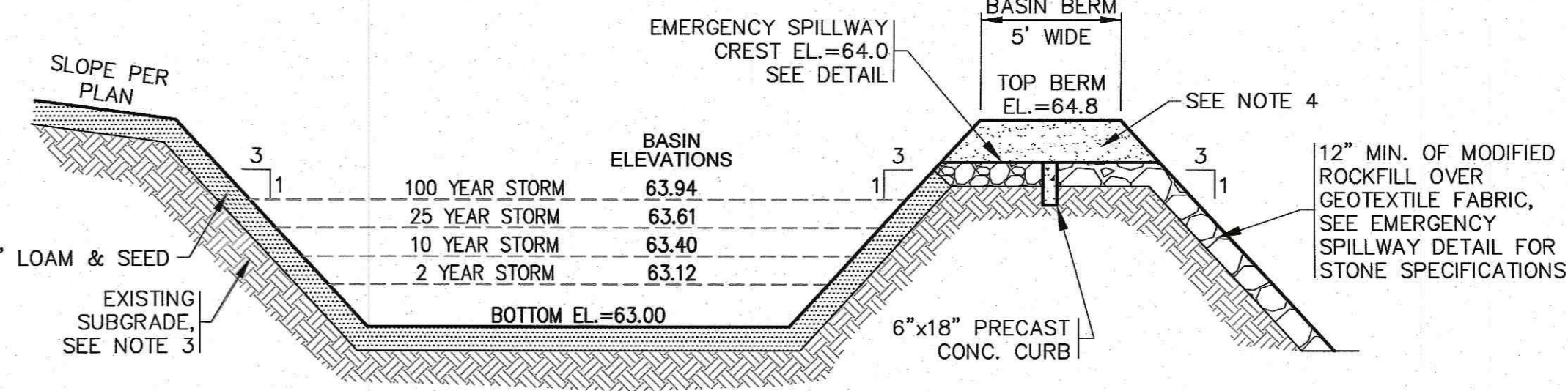
- NOTES:**
- REFER TO PLAN FOR SIDE SLOPES, WIDTHS & ELEVATIONS.
  - ALL STONE TO BE 12\"/>

**EMERGENCY SPILLWAY**  
N.T.S.



- NOTES:**
- REFER TO PLAN FOR LOCATIONS AND INVERTS.

**FLARED END SECTION**  
N.T.S.

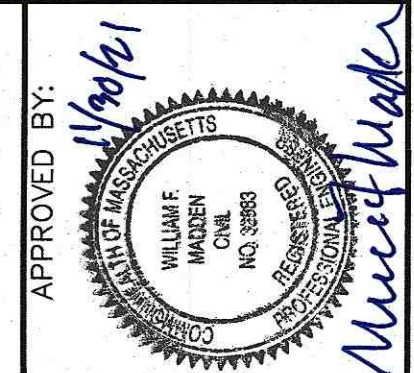


- NOTES:**
- GRASS SHALL BE MAINTAINED APPROXIMATELY 4\"/>
  - SLOPES SHALL BE CLEAR OF ALL OTHER VEGETATION.
  - WHERE REQUIRED CONTRACTOR TO REMOVE ALL UNSUITABLE SOILS AND REPLACE WITH CLEAN SAND AND GRAVEL APPROVED BY DESIGN ENGINEER.
  - CONTRACTOR SHALL PLACE COMPACTED ORDINARY BORROW (M1.01.0) WITH STONE SIZE NO LARGER THAN 6\"/>

**DRAINAGE BASIN DETAIL**  
N.T.S.

DATE: NOV. 23, 2021  
DRAWN BY: JIMP  
CHECKED BY: WFM  
JOB NO.: 20-9568  
SCALE: AS NOTED

APPROVED BY:



**G.A.F. ENGINEERING, INC.**  
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**"RINTA'S WAY"**  
DEFINITIVE SUBDIVISION PLAN  
CONSTRUCTION DETAILS SHEET 2  
NORTH CARVER ROAD WAREHAM, MA  
PREPARED FOR:  
**LSE HYDRA, LLC**  
40 TOWER LANE, SUITE 201 AVON, CT

JOB NO.: 20-9568  
DWG. 7 OF 7