

PEAK CAMPUS DEVELOPMENT, LLC MAST ROAD APARTMENTS PATH EXTENSION PLAN DURHAM, NEW HAMPSHIRE

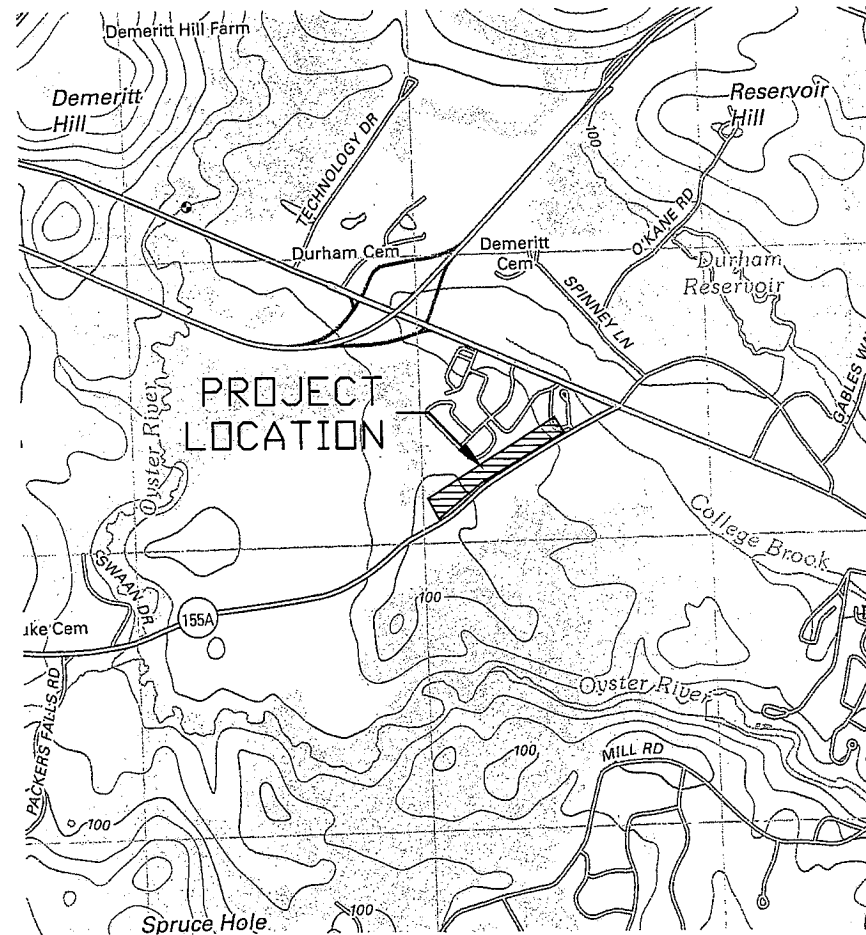
JANUARY 16, 2013

RECEIVED
Town of Durham
JAN 16 2013
Planning, Assessing,
Zoning & Code Enforcement

APPROVED DATE _____
DURHAM, N.H.
PLANNING BOARD

THE SITE PLAN REVIEW REGULATIONS OF THE TOWN OF DURHAM ARE A PART OF THIS PLAN, AND APPROVAL OF THIS PLAN IS CONTINGENT UPON COMPLETION OF ALL REQUIREMENTS OF SAID SITE PLAN REVIEW REGULATIONS, EXCEPTING ONLY MODIFICATIONS MADE IN WRITING BY THE BOARD AND ATTACHED HERETO.

SHEET NO.	TITLE	LAST REVISED
1	COVER SHEET	01/16/13
2	EXISTING CONDITION/DEMOLITION PLAN	01/16/13
3	SITE PLAN	01/16/13
4	DETAILS	01/16/13
5	PHOTOMETRICS PLAN	01/16/13



SCALE: 1"=1000'

PERMIT/APPROVAL	APPROVED	EXPIRES	NUMBER
Town of Durham Site Plan Approval	PENDING	PENDING	PENDING
Town of Durham Conditional Use Approval	PENDING	PENDING	PENDING
Town of Durham Zoning Board of Appeals Approval	PENDING	PENDING	PENDING
NHDES Wetland Permit	PENDING	PENDING	PENDING

PEAK CAMPUS DEVELOPMENT, LLC
2970 CLAIRMONT ROAD, SUITE 310
ATLANTA, GA 30329

Tighe & Bond

Consulting Engineers

177 Corporate Drive
Portsmouth, NH 03801



PERMIT SET
NOT FOR CONSTRUCTION
COMPLETE SET 5 SHEETS

NOTES:

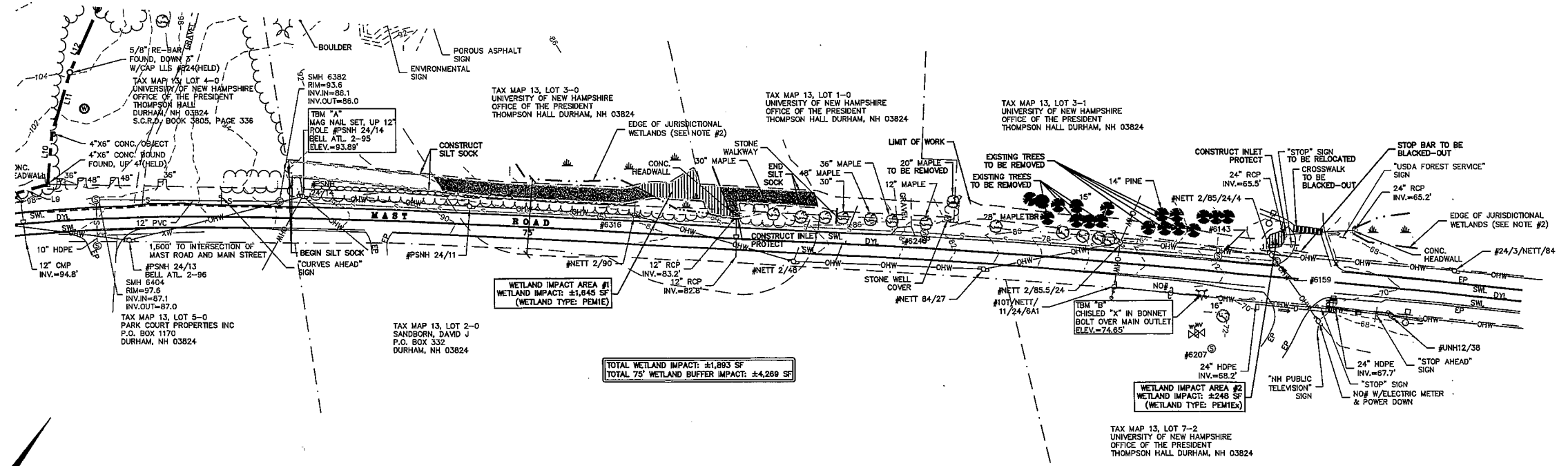
- REFERENCE: TAX MAP 13, LOT 3-0, 1-0, & 3-1
- OWNER OF RECORD: TAX MAP 13, LOT 3-0 UNIVERSITY OF NEW HAMPSHIRE OFFICE OF THE PRESIDENT THOMPSON HALL DURHAM, NH 03824
 TAX MAP 13, LOT 3-1 UNIVERSITY OF NEW HAMPSHIRE OFFICE OF THE PRESIDENT THOMPSON HALL DURHAM, NH 03824
 TAX MAP 13, LOT 1-0 UNIVERSITY OF NEW HAMPSHIRE OFFICE OF THE PRESIDENT THOMPSON HALL DURHAM, NH 03824
- ZONE: ORLI (OFFICE RESEARCH, LIGHT INDUSTRIAL)
 DIMENSIONAL REQUIREMENTS:
 MIN. LOT AREA 40,000 sq.ft.
 MIN. FRONTAGE 150 ft.
 MIN. FRONT SETBACK 50 ft.
 MIN. SIDE/REAR SETBACK 20 ft.
 MAX. BUILDING HEIGHT 40 ft.
 WETLAND SETBACK 75 ft.
 *PERMITTED WITH PLANNING BOARD APPROVAL UNDER RSA 676:4 50 ft. MAX. IMPERVIOUS SURFACE 50 %
- FIELD SURVEY PERFORMED BY DOUCET SURVEY, INC. USING A TRIMBLE S603 DR 200 PLUS TOTAL STATION WITH A RANGER TDS DATA COLLECTOR AND A SOKKIA B21 AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
 FIELD SURVEY PERFORMED BY DOUCET SURVEY, INC. ON 01/12 USING A TRIMBLE 5700 & 5800 SURVEY GRADE GPS UNIT WITH A TRIMBLE DATA COLLECTOR.
- JURISDICTIONAL WETLANDS DELINEATED BY CINDY BALCIUS, OF STONY RIDGE ENVIRONMENTAL IN ACCORDANCE WITH 1987 CORPS OF ENGINEERS WETLANDS DELINEATIONS MANUAL, TECHNICAL REPORT Y-87-1.
- FLOOD HAZARD ZONE: "X" PER FIRM MAP #33017C0314D, DATED 5/17/05.
- HORIZONTAL DATUM BASED ON NAD83(CORS96) NEW HAMPSHIRE STATE PLANE 2800 DERIVED FROM STATIC GPS OBSERVATIONS PROCESSED BY THE NATIONAL GEODETIC SURVEY ON-LINE POSITIONING USER SERVICE (OPUS).
- VERTICAL DATUM IS NGVD29 BASED ON PUBLISHED BENCHMARKS UNH 17 AND DURHAM CBL 430.
- THE EDGE OF MAST ROAD RIGHT OF WAY SHOWN HEREON IS BASED ON PHYSICAL EVIDENCE IN THE VICINITY OF THE PREMISES SURVEYED. THERE ARE SEVERAL REFERENCES TO A "MAST ROAD" OR "MAST PATH" IN "LANDMARKS IN ANCIENT DOVER", DATED 1892 BY MARY P. THOMPSON. THESE REFERENCES DATE BACK TO THE LATE 1800'S AND SOME OF THEM SUGGEST A 4-ROD WIDTH (66'). NO LAYOUT WAS FOUND BY DOUCET SURVEY, INC., AND TO DATE WE HAVE BEEN UNABLE TO FIND WRITTEN DOCUMENTATION SUBSTANTIATING A 4-ROD RIGHT OF WAY.

LEGEND

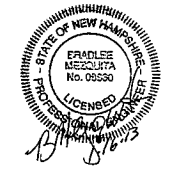
- UTILITY POLE & GUY WIRE
- LIGHT POLE (ONE ARM)
- METAL "U" POST
- GRANITE BOUND FOUND
- DRILL HOLE FOUND
- IRON PIPE/ROD FOUND
- BARBED WIRE FOUND ON GROUND
- ANGLE IRON
- 5/8" RE-BAR W/ ID CAP TO BE SET
- JURISDICTIONAL WETLAND SYMBOL
- BUSH
- CONIFEROUS TREE
- DECIDUOUS TREE
- CONCRETE
- RIP RAP
- LANDSCAPED AREA
- LEDGE OUTCROP
- WELL
- MONITORING WELL
- TYP. RETAINING
- EP
- SWL
- DYL
- CONC.
- BEARING
- DIST
- PROPERTY LINES
- ADJUTER LINES
- POST & RAIL FENCE
- CHAINLINK FENCE
- OVERHEAD WIRES
- DRAIN LINE
- SEWER LINE
- APPROX. WATER LINE
- EASEMENT LOT LINE
- TREE LINE
- STONE WALL
- CONTOUR LINE
- EDGE OF JURISDICTIONAL WETLAND
- 75' WETLAND SETBACK
- LIMIT OF WORK
- SILT FENCE/SILT SOXX
- INLET PROTECTION
- SAWOUT LIMIT
- LIMIT OF WETLAND IMPACT
- LIMIT OF WETLAND BUFFER IMPACT

DEMOLITION NOTES:

- THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
- ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES.
- COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
- ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
- SAWOUT AND REMOVE PAVEMENT ONE FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
- THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: TREES AND LANDSCAPING.
- COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE TOWN OF DURHAM AND THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION.
- REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
- CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY THE CONTRACTOR, HE SHALL EMPLOY A LICENSED SURVEYOR TO REPLACE IT.



Peak Campus Development, LLC
 Mast Road Apartments Path Extension
 Durham, NH



Mark	Date	Description
PROJECT NO:		P0637
FILE:		P0637_DEMO.dwg
DRAWN BY:		CML
CHECKED:		JMP2
APPROVED BY:		GMM

EXISTING CONDITIONS/
 DEMOLITION PLAN
 SCALE: AS SHOWN
 SHEET 2 OF 5

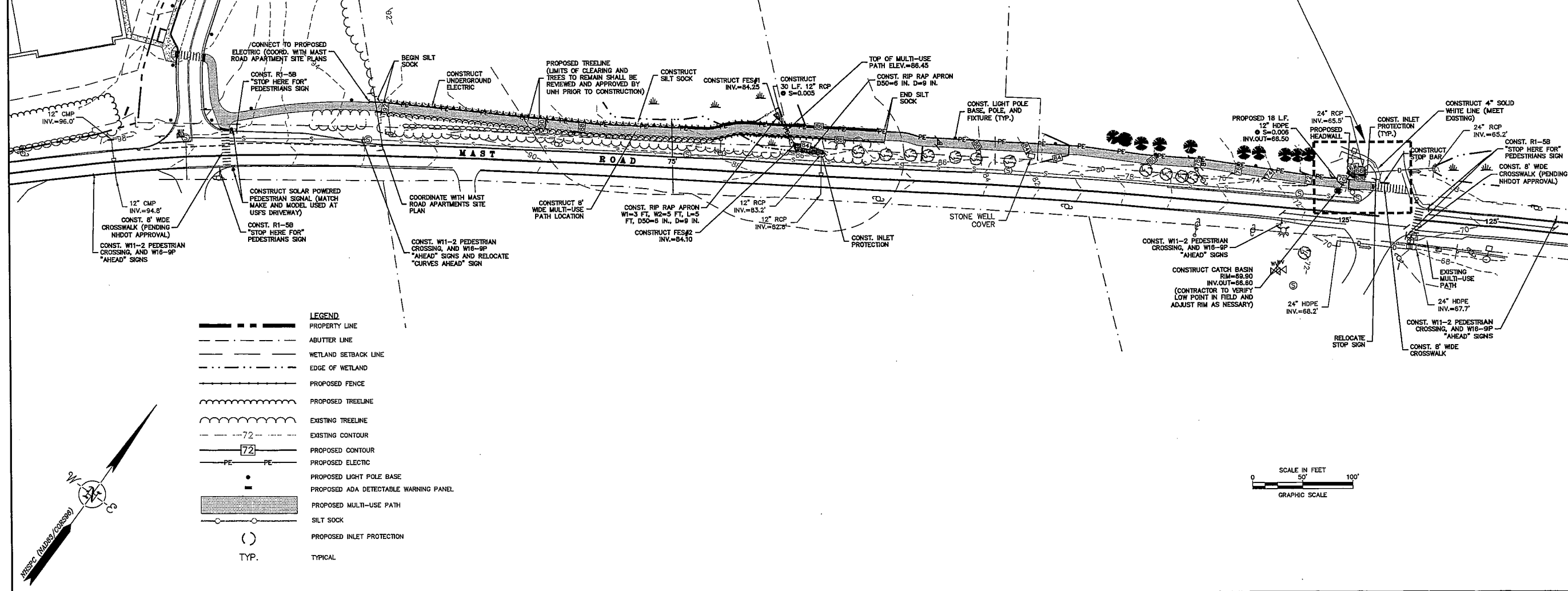
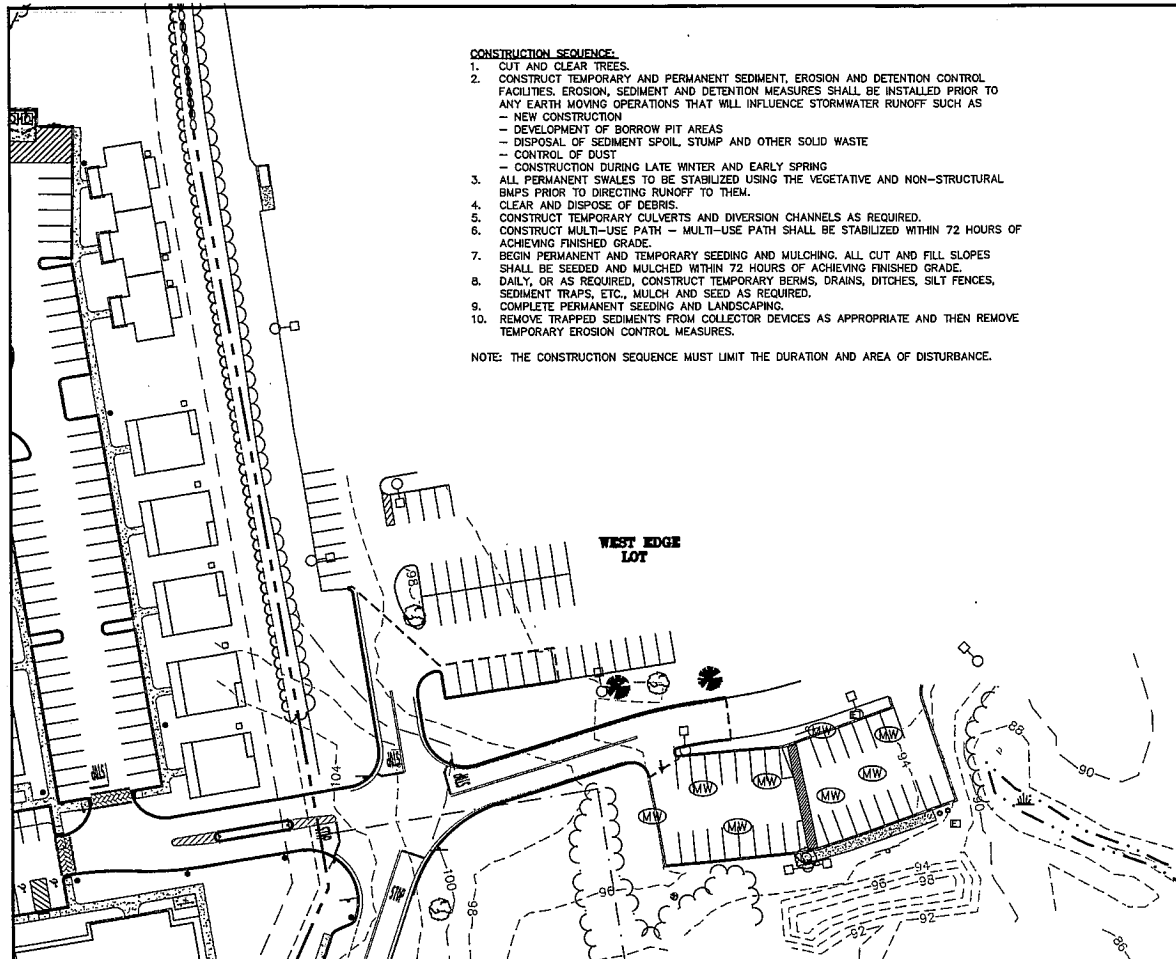
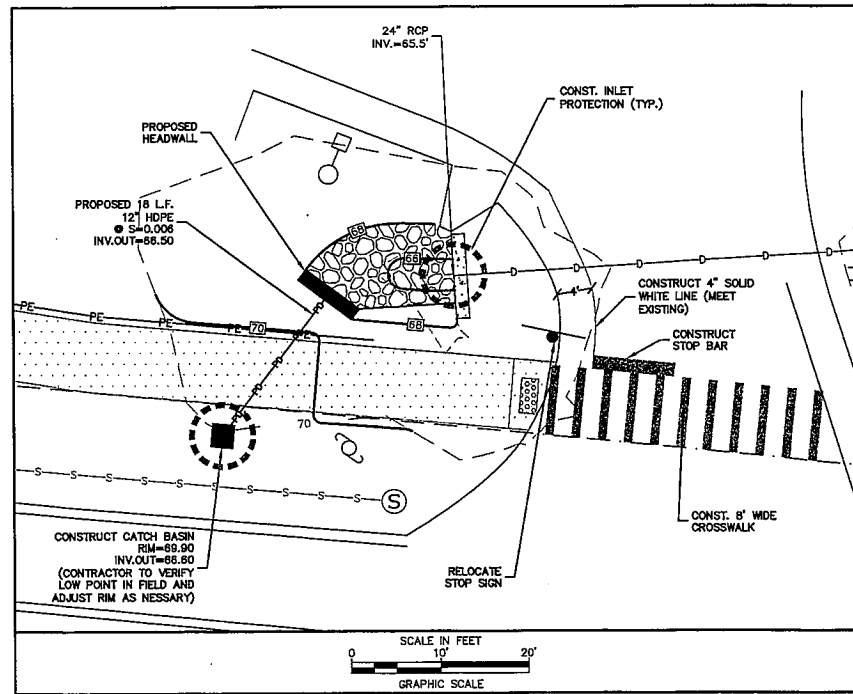
- CONSTRUCTION SEQUENCE:**
- CUT AND CLEAR TREES.
 - CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
 - NEW CONSTRUCTION
 - DEVELOPMENT OF BORROW PIT AREAS
 - DISPOSAL OF SEDIMENT SPOIL, STUMP AND OTHER SOLID WASTE
 - CONTROL OF DUST
 - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
 - ALL PERMANENT SWALES TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPs PRIOR TO DIRECTING RUNOFF TO THEM.
 - CLEAR AND DISPOSE OF DEBRIS.
 - CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
 - CONSTRUCT MULTI-USE PATH - MULTI-USE PATH SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
 - DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, SILT FENCES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
 - COMPLETE PERMANENT SEEDING AND LANDSCAPING.
 - REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

NOTE: THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.

- SITE NOTES:**
- THE CONTRACTOR SHALL EMPLOY A LICENSED ENGINEER/SURVEYOR TO DETERMINE ALL LINES AND GRADES. DESIGN ENGINEER TO PROVIDE COORDINATES FOR EDGE OF PAVEMENT, PC'S & PT'S.
 - CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
 - ALL WORK SHALL CONFORM TO THE TOWN OF DURHAM DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING RETAINING WALL DESIGN FROM WALL MANUFACTURERS, AND SUBMITTING DESIGN TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO CONSTRUCT WALL IN ACCORDANCE WITH DESIGN APPROVED BY THE ENGINEER. RETAINING WALL SHALL BE SEGMENTED BLOCK WALL SYSTEM AS OUTLINED IN THE SPECIFICATIONS.
 - THE TOTAL IMPERVIOUS SURFACE INCREASE FOR THE MULTI-USE PATH ON LOTS 3-0, 1-0, AND 3-1 IS ±7,981 SF

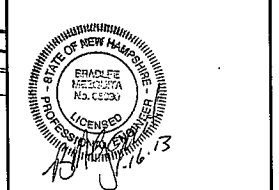
- GRADING AND DRAINAGE NOTES:**
- ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR APPROVED EQUAL) OR RCP CLASS IV, UNLESS OTHERWISE SPECIFIED.
 - ADJUST ALL MANHOLES, CATCHBASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
 - CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
 - CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCHBASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
 - ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 4" LOAM, SEED FERTILIZER AND MULCH.
 - ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDT) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
 - PROPOSED INVERT ELEVATIONS AND LOCATIONS TO BE FIELD VERIFIED BY THE CONTRACTOR AND REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION. THE INTENT IS TO CONSTRUCT THE CULVERT WITHIN THE EXISTING DRAINAGE CHANNEL.

- EROSION CONTROL NOTES:**
- PROVIDE INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CULVERT INLETS WITHIN THE WORK LIMITS. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
 - INSPECT INLET PROTECTION AND SILT FENCES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
 - CONSTRUCT EXCELISIOR MAT ON ALL SLOPES STEEPER THAN 3:1.
 - CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
 - THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
 - TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED BY SILT FENCE AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLAND.

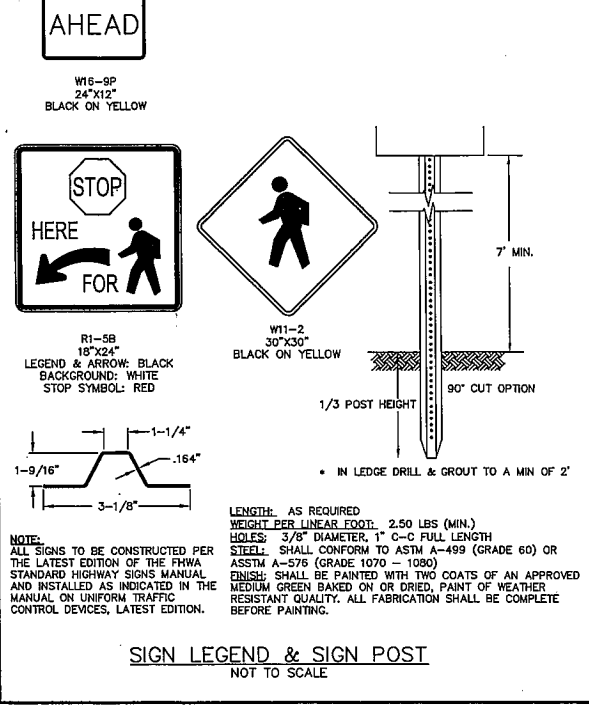
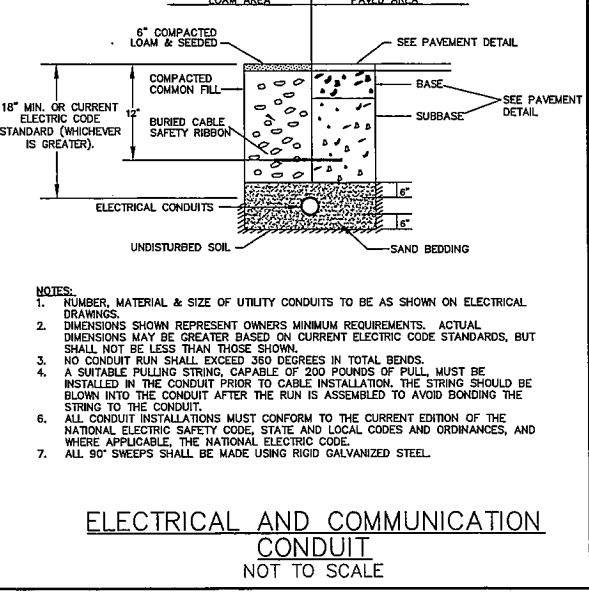
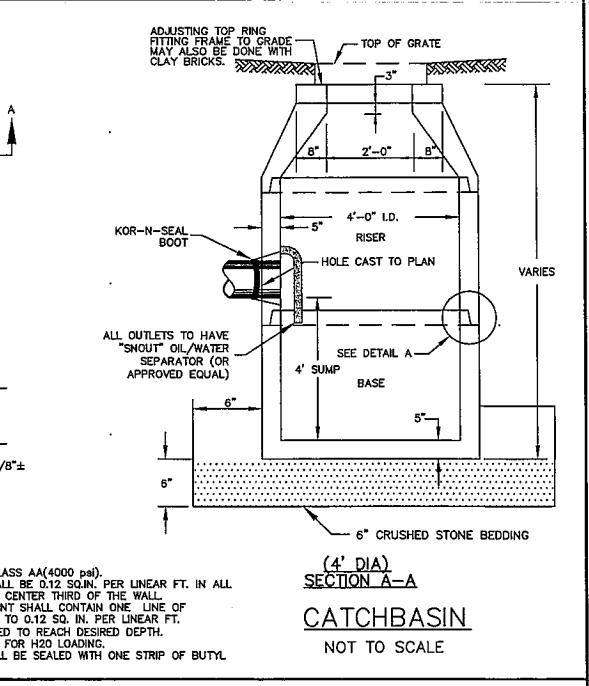
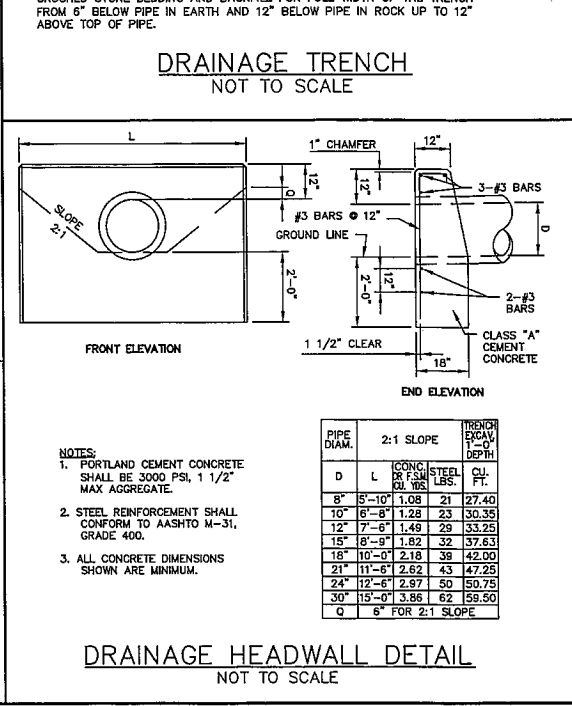
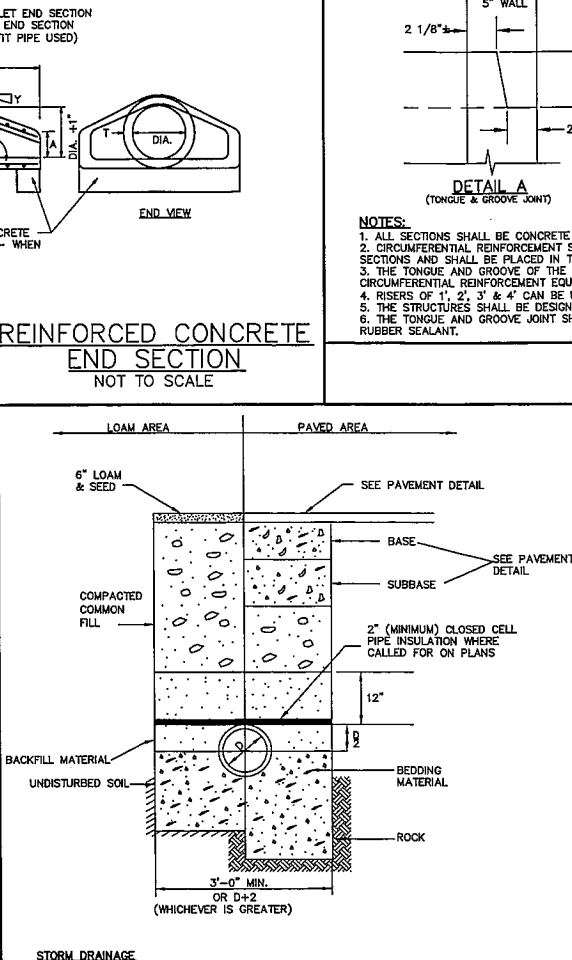
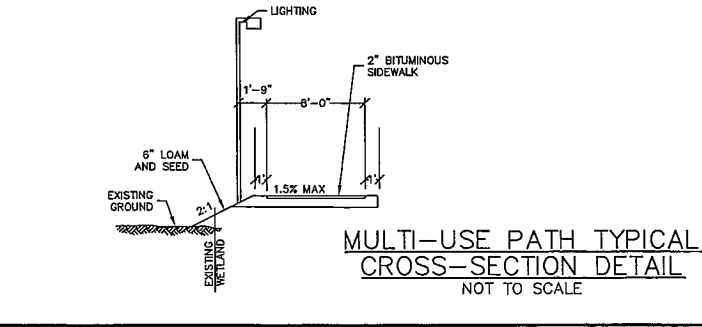
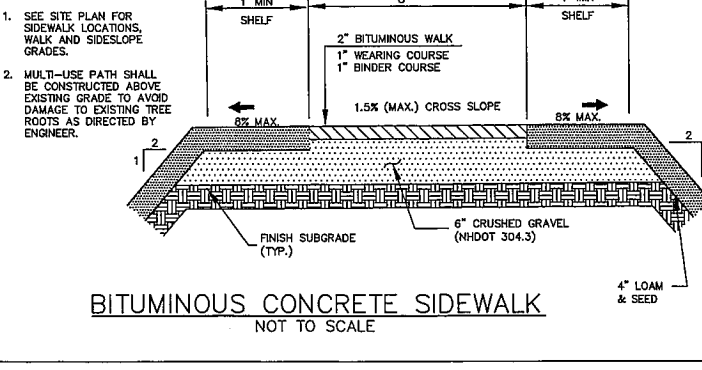
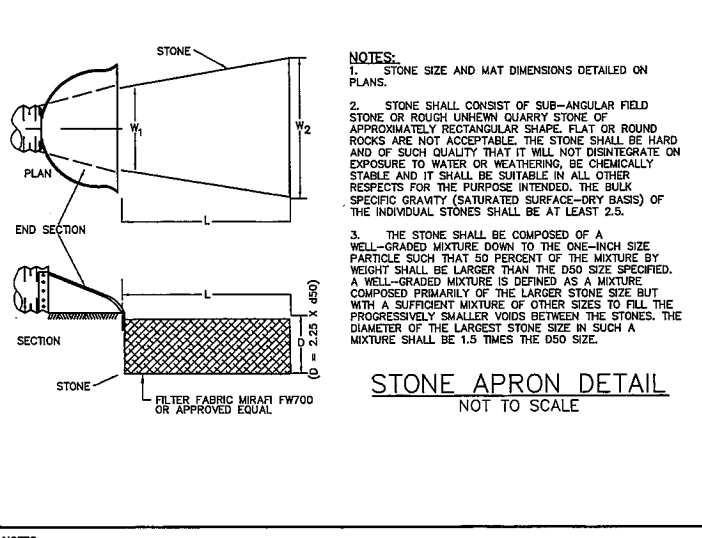
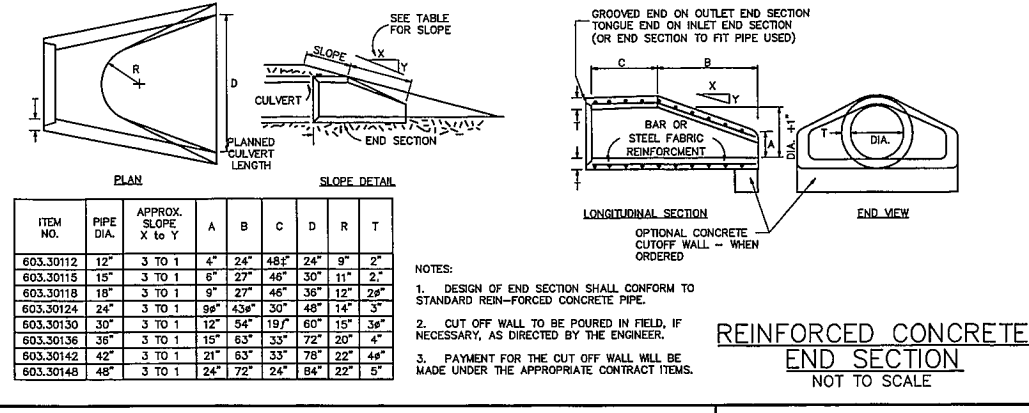
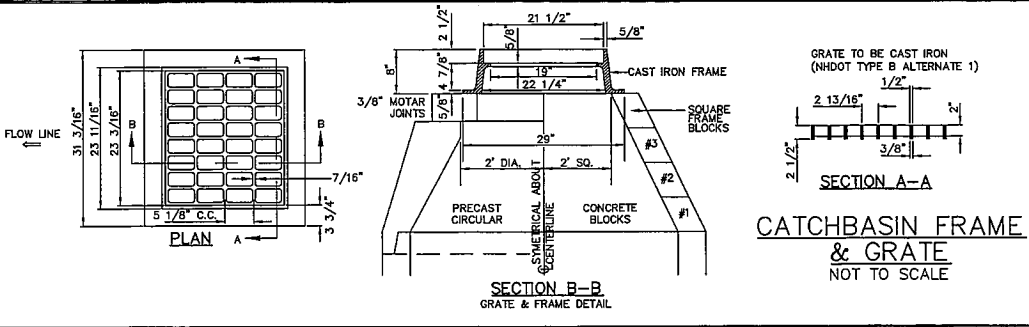
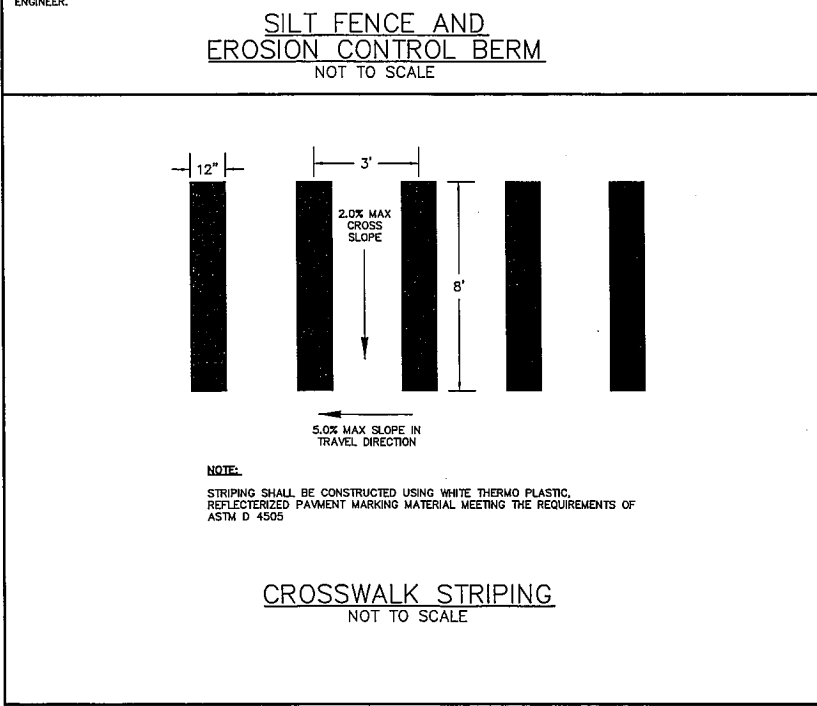
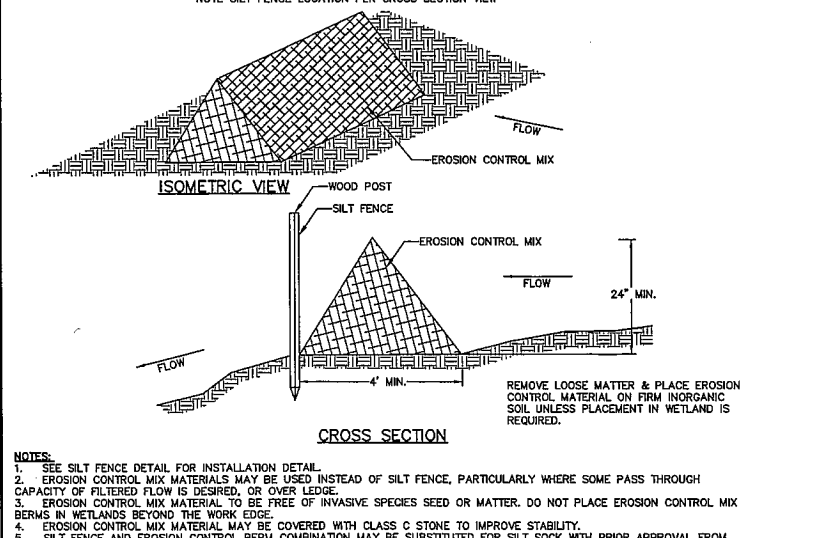
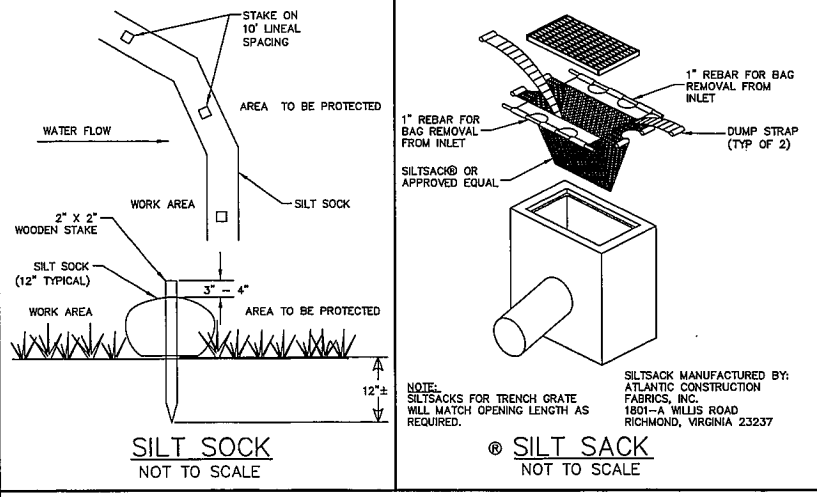
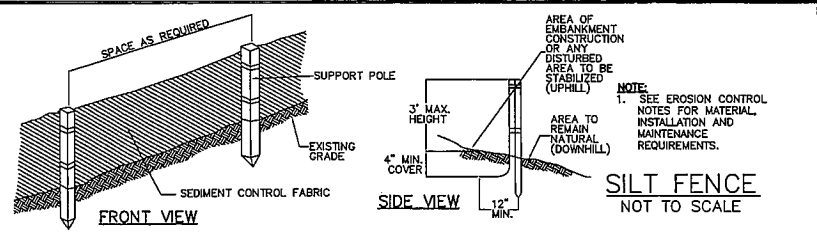


- LEGEND**
- PROPERTY LINE
 - ABUTTER LINE
 - WETLAND SETBACK LINE
 - EDGE OF WETLAND
 - PROPOSED FENCE
 - PROPOSED TREELINE
 - EXISTING TREELINE
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - PROPOSED ELECTRIC
 - PROPOSED LIGHT POLE BASE
 - PROPOSED ADA DETECTABLE WARNING PANEL
 - PROPOSED MULTI-USE PATH
 - SILT SOCK
 - PROPOSED INLET PROTECTION
 - TYP. TYPICAL

Peak Campus Development, LLC
Mast Road Apartments Path Extension
 Durham, NH



Mark	Date	Description
PROJECT NO: P0637		
FILE: P0637_SITE.dwg		
DRAWN BY: CML		
CHECKED BY: JMP2		
APPROVED BY: GMM		
SITE PLAN		
SCALE: AS SHOWN		
SHEET 3 OF 5		



Peak Campus Development, LLC
 Mast Road Apartments Path Extension
 Durham, NH

Mark Date Description

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DRAWN BY: CML

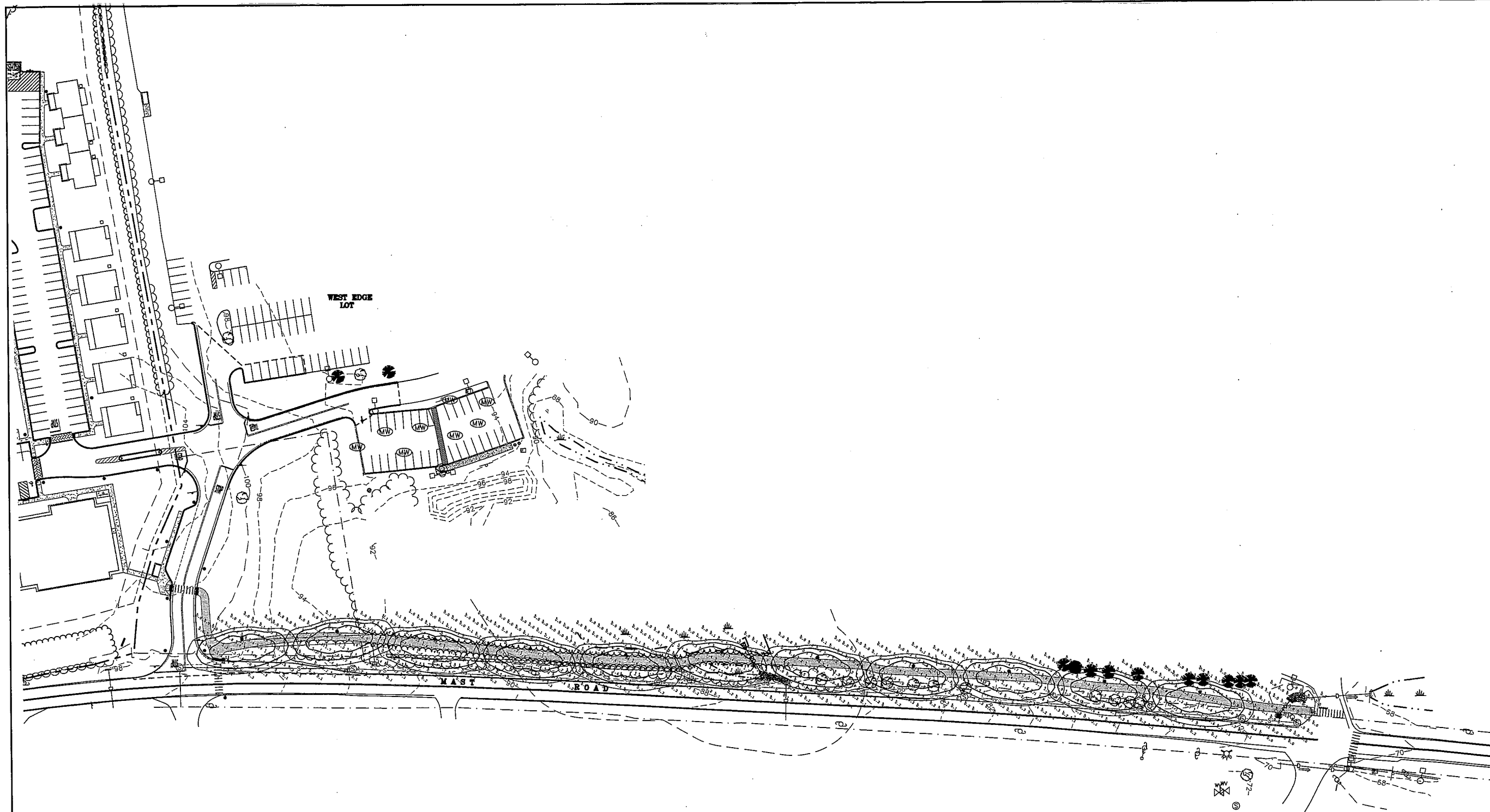
CHECKED: JMP2

APPROVED BY: GMM

DETAILS SHEET

SCALE: AS SHOWN

SHEET 4 OF 5



LIGHT LEVEL ON SIDEWALK
 DOES NOT INCLUDE UNLIGHTED END OF SIDEWALK
 Illuminance (Fc)
 Average = 1.18
 Maximum = 1.6
 Minimum = 0.7
 Avg/Min Ratio = 1.69
 Max/Min Ratio = 2.29

NOTES:
 1. PHOTOMETRICS PROVIDED BY KEN SWEENEY OF CHARRON INC. FROM EMAIL DATED JANUARY 7, 2013
 2. FIXTURE AND POLE SHALL BE MCGRAW-EDISON TALON MEDIUM (TLM) OR APPROVED EQUAL

Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
[Symbol]	11	S1	SINGLE	TLM-B02-LED-E1-SL2/ 20' APG

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 Durham, NH



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PHOTOMETRICS PLAN		
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SHEET 5 OF 5		