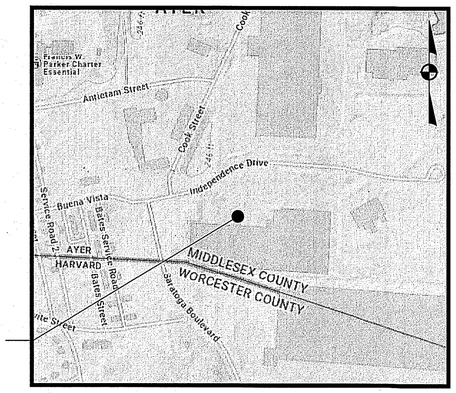
Level 2 Unified Permit Application Documents

July 3, 2025

SMC Ltd. Expansion & Addition

18 Independence Drive (Parcel ID#026.0-0013-0600.0)
Devens, Massachusetts 01434



PROJECT SITE

SCALE: 1"=500' ±

Applicant:
SMC Limited
18 Independence Drive
Devens, MA 01434
(978) 422-6800

Owner:
Mack Devens Development, LLC.
330 SMC Drive
Somerset, WI 54025
(715) 247-3500

Construction Manager:
McCarty Associates, Inc.
42 Tucker Drive
Leominster, MA 01453
(978) 534-8727

Civil Engineer/Landscape Architect:
McCarty Engineering, Inc.
42 Tucker Drive
Leominster, MA 01453
(978) 534-1318

Surveyor:
Tauper Land Survey, Inc.
701 Main Street
Oxford, MA 01537
(508) 987-2266

Architect:
J. Ferrera Associates, Inc.
2 Fern Lane
Sterling, MA 01564
(978) 407-8848

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE: _____

APPROVED: DATE: _____
DEVENS ENTERPRISE COMMISSION CHAIRMAN

OWNER
MACK DEVENS DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

FOR REGISTRY USE ONLY

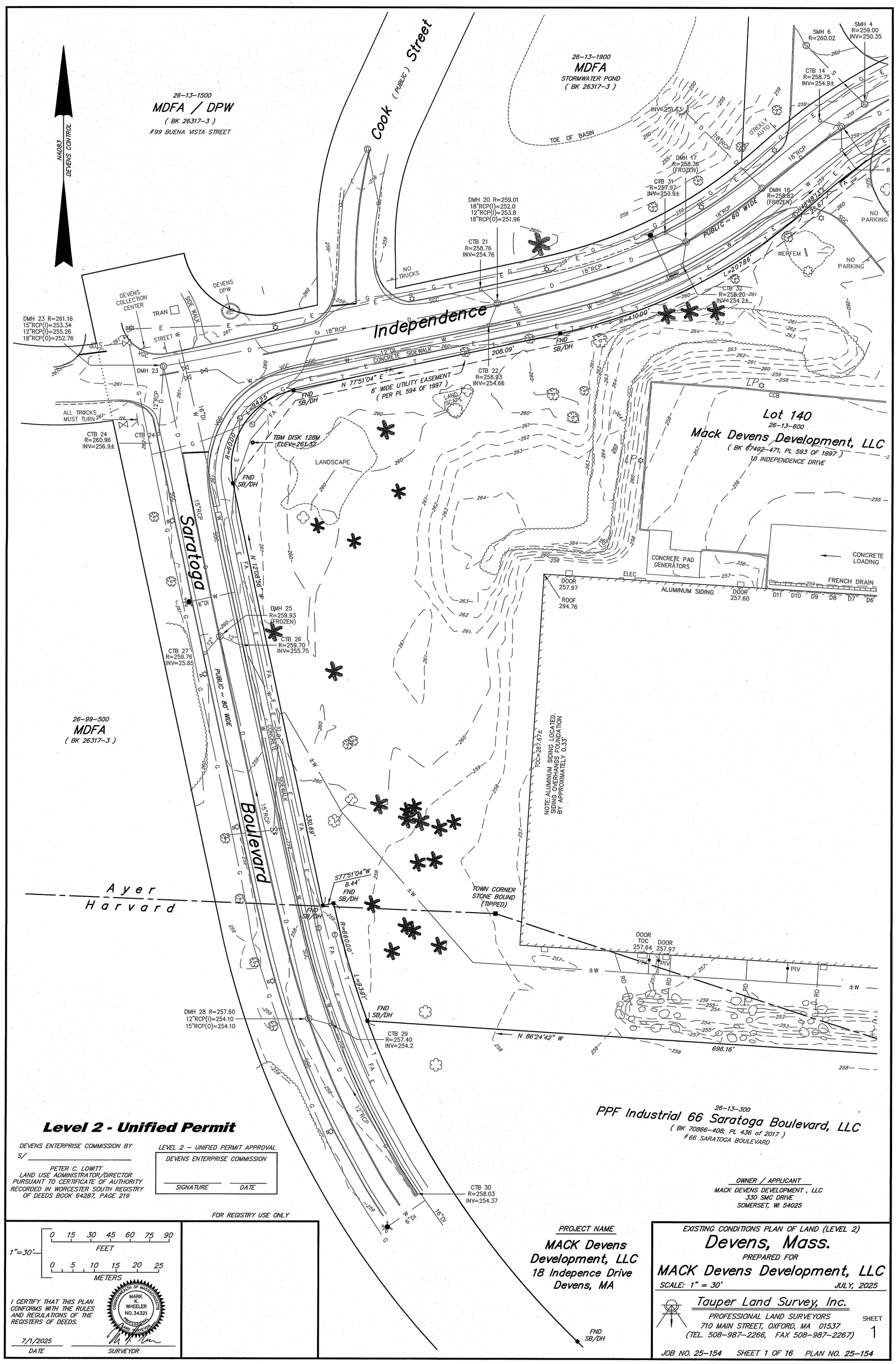
Table of Contents

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Cover Sheet

Job No: 127.01.001
File Name: 127.01.001P-CCV01
Date: July 3, 2023



Level 2 - Unified Permit

DEVENS ENTERPRISE COMMISSION BY

S/ _____

PETER C. LOWITT
LAND USE ADMINISTRATOR/DIRECTOR
PURSUANT TO CERTIFICATE OF AUTHORITY RECORDED IN WORCESTER SOUTH REGISTRY OF DEEDS BOOK 64287, PAGE 219

LEVEL 2 – UNIFIED PERMIT APPROVAL

DEVENS ENTERPRISE COMMISSION

_____ _____
SIGNATURE DATE

FOR REGISTRY USE ONLY

1"=30'

0 15 30 45 60 75 90
FEET
0 5 10 15 20 25
METERS

I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

COMMONWEALTH OF MASSACHUSETTS
MARK K. WHEELER
NO. 34321
REGISTERED PROFESSIONAL SURVEYOR

7/1/2025
DATE

SURVEYOR

PROJECT NAME

MACK Devens Development, LLC
18 Indepence Drive
Devens, MA

OWNER / APPLICANT
MACK DEVENS DEVELOPMENT , LLC
330 SMC DRIVE
SOMERSET, WI 54025

EXISTING CONDITIONS PLAN OF LAND (LEVEL 2)

Devens, Mass.

PREPARED FOR

MACK Devens Development, LLC

SCALE: 1" = 30' JULY, 2025

Tauper Land Survey, Inc.
PROFESSIONAL LAND SURVEYORS
710 MAIN STREET, OXFORD, MA 01537
(TEL. 508-987-2266, FAX 508-987-2267)

SHEET 1

JOB NO. 25-154 SHEET 1 OF 16 PLAN NO. 25-154


FOR REGISTRY USE ONLY
NAD83 DEVENS CONTROL
26-13-1500
MDFA / DPW
(BK 26317-3)
#99 BUENA VISTA STREET
Cook (PUBLIC) Street
26-13-1900
MDFA
STORMWATER POND
(BK 26317-3)
TOE OF BASIN
26-13-1300
O'Reilly Auto Enterpises, LLC
(BK 63222-533; PL 714 OF 2000)
#15 INDEPENDENCE DRIVE
Independence Drive
PUBLIC ~ 60' WIDE
8' WIDE UTILITY EASEMENT (PER PL 594 OF 1997)
N 77°51'04" E
S 86°24'42" E
Saratoga
PUBLIC ~ 80' WIDE
N 12°08'56" W
TBM DISK 128M ELEV=261.32
FND SB/DH
N 3024425.23
E 629110.69
FND SB/DH EL=260.95
Lot 140
26-13-600
Mack Devens Development, LLC
(BK 67492-471, PL 593 OF 1997)
18 INDEPENDENCE DRIVE
CONCRETE PAD GENERATORS
CONCRETE PAD LOADING AREA
FRENCH DRAIN (GRATE=253.92)
ALUMINUM SIDING
ROOF 294.76
ROOF 294.71
FF=258.00 GLASS
RESERVED PARKING
MOTOR CYCLE PARKING
VISITOR PARKING
NO PARKING
NO TRUCKS
LANDSCAPE
PAVEMENT CUT UGE?
GAS SERVICE
DMH 1 R=256.30
12"HDPE(I)=251.0±
18"HDPE(O)=SILTED
DMH 2 R=255.13
18"(I)251.16 DMH 1
12"(I)=251.36 CTB 3
12"(I)=251.16 BUILD
24"(O)=251.22 DMH4
PROJECT NAME
MACK Devens Development, LLC
18 Indepence Drive
Devens, MA
Level 2 - Unified Permit
DEVENS ENTERPRISE COMMISSION BY
S/
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LAND USE ADMINISTRATOR/DIRECTOR
PURSUANT TO CERTIFICATE OF AUTHORITY
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SOMERSET, WI 54025
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7/1/2025
DATE
SURVEYOR
EXISTING CONDITIONS PLAN OF LAND (LEVEL 2)
Devens, Mass.
PREPARED FOR
MACK Devens Development, LLC
SCALE: 1" = 30'
JULY, 2025
Tauper Land Survey, Inc.
PROFESSIONAL LAND SURVEYORS
710 MAIN STREET, OXFORD, MA 01537
(TEL. 508-987-2266, FAX 508-987-2267)
SHEET 2
JOB NO. 25-154
SHEET 2 OF 16
PLAN NO. 25-154

NOTE: DURING AND AFTER THE CONSTRUCTION PERIOD, THE RESPONSIBLE PARTY FOR THE OPERATION AND MAINTENANCE OF THE SITE WILL BE THE PROPERTY OWNER / APPLICANT.

PROJECT DESCRIPTION

THE SITE CONTAINS APPROXIMATELY 21.6 ACRES OF LAND.
THE PROPOSED ADDITION IS APPROXIMATELY 60,214 SQUARE FOOT (FOOTPRINT) ALONG WITH ASSOCIATED PARKING, LANDSCAPING AND UTILITIES. THE TOTAL DISTURBED AREA IS APPROXIMATELY 4.8 ACRES.

CONSTRUCTION PROCESS

A SIGN FOR ALL JOB NOTICES MUST BE POSTED CONSPICUOUSLY NEAR THE MAIN CONSTRUCTION ENTRANCE TO THE SITE.
BEFORE CONSTRUCTION BEGINS, SILTATION CONTROL BARRIERS CONSISTING OF SILT FENCING ATTACHED TO WOOD POSTS AND BACKED BY STAKED STRAW WATTLES WILL BE PLACED BETWEEN THE WORK AREAS AND RESOURCE AREAS. ADDITIONAL SILTATION CONTROL BARRIERS WILL BE INSTALLED AROUND THE PROPOSED DRAINAGE AND AT OTHER CRITICAL LOCATIONS.

THE CONTRACTOR WILL RECORD:
1) DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
2) DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
3) DATES WHEN STABILIZATION MEASURES ARE INITIATED.

THE TIME OF CONSTRUCTION REQUIRING THE MOST ATTENTION AND CARE OCCURS BETWEEN THE STRIPPING OF NATURAL OVERBURDEN AND THE STABILIZATION OF CONSTRUCTION AREAS. CUT AND FILL AREAS CREATE ADDITIONAL RISK BY INCREASING THE POSSIBILITY OF STORMWATER RUNOFF CAUSING EROSION.
THE CONTRACTOR WILL, AS MUCH AS POSSIBLE, LEAVE NATURAL COVER UNTOUCHED. THE CONTRACTOR WILL LIMIT TO THE SHORTEST TIME POSSIBLE THE TIME THAT SLOPES ARE EXPOSED. THE SLOPE STABILIZATION WILL BE COMPLETED AS EARLY AS CONSTRUCTION ACTIVITIES WILL ALLOW. DURING THE TIMES BETWEEN CLEARING AND LANDSCAPING, SLOPES WILL BE STABILIZED WITH A COMBINATION OF RIP-RAP, STRAW MULCH, TEMPORARY GRASS SEEDING AND OTHER MEASURES AS NECESSARY TO PREVENT ANY SIGNIFICANT EROSION OF SOILS.

WHEN NECESSARY, THE CONTRACTOR SHALL IMPLEMENT STRUCTURAL PRACTICES TO DIVERT FLOWS FROM EXPOSED SOILS, RETAIN/DETAIN FLOWS, OR OTHERWISE LIMIT RUNOFF AND THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SUCH MEASURES MUST BE DESIGNED AND INSTALLED IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE OR LOCAL REQUIREMENTS.
ALL SOLID MATERIALS SUCH AS WASHINGS FROM CONCRETE TRUCKS, BUILDING MATERIALS, OR SURPLUS CONCRETE, SHALL NOT BE DIRECTED TO ANY DRAINAGE SYSTEM OR WETLAND RESOURCE AREA.
IN CONJUNCTION WITH THE SITE GRADING PROCESS, A NUMBER OF SEDIMENTATION CONTROL PROCEDURES WILL BE FOLLOWED. THE OBJECT OF THE PROCEDURES IS TO PREVENT THE EROSION OF SOILS AND THE TRANSPORT OF SEDIMENTS TO THE RESOURCE AREAS AND OFF THE SITE.

THE PROPONENT SHALL MEET THE US EPA CONSTRUCTION GENERAL PERMIT REQUIREMENTS.

STABILIZATION

TEMPORARY AND PERMANENT STABILIZATION OF DISTURBED SURFACES IS THE MOST RELIABLE METHOD OF PREVENTING THE EROSION AND TRANSPORT OF SITE SOILS. TOWARD THAT END, THE AREAS THAT ARE DISTURBED WILL BE PROVIDED TEMPORARY STABILIZATION WITHIN TWO WEEKS AFTER THE LAST DISTURBANCE WHEN:
1) WORK IS NOT COMPLETE IN THAT AREA;
2) WORK WILL REMAIN INCOMPLETE FOR A PERIOD OF TWO WEEKS OR MORE, AND
3) THE PLANTING SEASON HAS NOT BEEN REACHED IN AREAS WHICH WILL BE RE-VEGETATED.

PERMANENT STABILIZATION WILL TAKE PLACE WHEN:
4) WORK IS COMPLETE IN THAT AREA AND
5) THE PLANTING SEASON HAS BEEN REACHED AND AREAS CAN BE REVEGETATED.

BEST MANAGEMENT PRACTICES EMPLOYED

TO GUARD AGAINST THE TRANSPORT OF SOILS TO RESOURCE AREAS, SEVERAL BEST MANAGEMENT PRACTICES (BMPS), WILL BE EMPLOYED. SILTATION CONTROL BARRIERS, SEDIMENT SUMPS, STRAW CHECK DIKES, SWALES, TEMPORARY SETTLING BASINS, VEGETATIVE FILTER STRIPS, SITE ENTRANCE MAT, RIP-RAP OUTLET PROTECTION, FLOCCULANTS WITH JUTE MESH OR OTHER BIOMEDIA, WILL OR MAY BE USED ON THIS SITE AS APPROPRIATE TO THE NEEDS OF EROSION CONTROL. SOME OF THESE ITEMS, SUCH AS SEDIMENT SUMPS, ARE TEMPORARY. OTHER FEATURES, SUCH AS CATCH BASINS AND AREA DRAINS ARE PERMANENT.

SEDIMENT FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS MUST BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT.

SOILS

BASED ON NCRS WEB SOIL SURVEY THE PROJECT AREA CONTAINS CHARLTON-HOLLIS ROCK OUTCROP, WINDSOR LOAMY SAND, AND UDORTHENTS.

INSPECTION AND MAINTENANCE OF EROSION CONTROLS

1) AT ALL TIMES, SILTATION FABRIC FENCING, STAKES AND FILTER SOCKS SUFFICIENT TO CONSTRUCT AN EROSION CONTROL BARRIER A MINIMUM 100 FEET LONG WILL BE STOCKPILED ON THE SITE IN ORDER TO REPAIR ESTABLISHED BARRIERS THAT MAY HAVE BEEN DAMAGED OR BREACHED.

2) THE APPLICANT WILL DESIGNATE AN INSPECTOR, A PERSON OR ENTITY OTHER THAN THE SITE CONTRACTOR. THE INSPECTOR MUST BE ACCESSIBLE SEVEN DAYS A WEEK AND BE RESPONSIBLE FOR INSPECTING AND COORDINATING THE MAINTENANCE AND REPAIR OF ALL EROSION CONTROL SYSTEMS ON THE SITE.

3) AN INSPECTION OF ALL EROSION CONTROL MEASURES SHALL BE CONDUCTED BY THE INSPECTOR AT LEAST ONCE EACH WEEK UNTIL THE COMPLETION OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL SYSTEMS DAILY AND SHALL NOTIFY THE INSPECTOR OF ANY BREACHES OR FAILURES. IN CASE OF ANY NOTED BREACH OR FAILURE, THE CONTRACTOR SHALL IMMEDIATELY MAKE APPROPRIATE REPAIRS.

4) THE INSPECTOR SHALL INSPECT ALL EROSION CONTROL SYSTEMS ON THE SITE BEFORE, DURING AND AFTER ANY STORM EVENT REACHING ONE OF THE FOLLOWING THRESHOLDS:
a) ANY STORM EVENT IN WHICH RAIN IS PREDICTED TO LAST FOR 12 CONSECUTIVE HOURS OR MORE;
b) ANY STORM EVENT FOR WHICH A FLASH FLOOD WATCH OR WARNING IS ISSUED;
c) ANY SINGLE STORM EVENT PREDICTED TO HAVE A CUMULATIVE RAINFALL GREATER THAN 1/2 INCH; OR
d) ANY STORM EVENT NOT MEETING THE PREVIOUS THREE THRESHOLDS BUT WHICH WOULD MARK THE THIRD CONSECUTIVE DAY OF MEASURABLE RAINFALL.

5) THE INSPECTOR SHALL INSPECT EROSION CONTROL MEASURES AT TIMES OF SIGNIFICANT INCREASE IN SURFACE WATER RUNOFF DUE TO RAPID THAWING WHEN THE RISK OF FAILURE OF THOSE MEASURES IS SIGNIFICANT.

6) IN SUCH INSTANCES AS REMEDIAL ACTION IS NECESSARY, THE INSPECTOR SHALL CAUSE TO BE REPAIRED WITHIN THREE DAYS, ANY AND ALL SIGNIFICANT DEFICIENCIES IN EROSION CONTROL MEASURES.

EROSION CONTROL DEVICES

1) CONSTRUCTION ENTRANCE BERM
A SITE ENTRANCE MAT WILL BE INSTALLED AT THE CONSTRUCTION ENTRANCE TO THE SITE. IT WILL CONSIST OF A 50-FOOT LONG MINIMUM, 6-INCH THICK LAYER OF 2" TO 4" CRUSHED STONE OVERLYING A 6-INCH THICK LAYER OF 3" TO 6" CRUSHED STONE. THE SITE ENTRANCE MAT WILL BE INSTALLED OVER A COMPACTED BASE. THE CRUSHED STONE WILL BE REFRESHED AS NECESSARY.
IF EARTHERN PRODUCTS ARE TRANSPORTED ONTO SURROUNDING STREETS DURING ANY OF THE CONSTRUCTION PHASES, THAN THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THESE EARTHERN PRODUCTS.
2) EROSION CONTROL BARRIERS
THE EROSION CONTROL BARRIERS WILL CONSIST OF AN APPROVED SILTATION FABRIC FENCING INSTALLED ON POSTS ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND BACKED BY STAKED UV DEGRADABLE STRAW WATTLES WHERE APPROPRIATE. THE FILTER FABRIC AND FILTER SOCKS WILL BE PLACED IN A MANNER THAT PREVENTS THE PASSAGE OF SOIL MATERIALS UNDER, AROUND OR OVER THE FENCING. ANY SEDIMENT THAT HAS BEEN CAPTURED AGAINST THE BARRIER WILL BE REMOVED PROMPTLY AND THE AREA THAT HAS AREAS OF EROSION WILL BE STABILIZED PROMPTLY.

EROSION CONTROL DEVICES (CONTINUED)

3) FILTER SOCK DIVERSION DIKES
FILTER SOCKS WILL BE PLACED IN OTHER LOCATIONS ON THE SITE IN ORDER TO FURTHER PREVENT THE FLOW OF SEDIMENT FROM THE SITE OR REDUCE THE VELOCITY OF RUNOFF CROSSING OPEN LAND OR RUNNING OFF OF STOCKPILE OR FILL AREAS. FILTER SOCK DIVERSION DIKES WILL ALSO BE PLACED WITHIN DEVELOPING RILLS TO REDUCE SURFACE RUNOFF VELOCITIES AND TO SHIFT THE PATH OF THE WATER FLOW. THE LOCATIONS WHERE FILTER SOCK DIVERSION DIKES ARE INSTALLED WILL BE DETERMINED IN THE FIELD AT THE INSPECTOR'S DISCRETION.
4) SLOPE STABILIZATION
SLOPES OR SURFACES THAT ARE CREATED DUE TO EXCAVATION OR FILLING OF THE SITE WILL BE STABILIZED WITH ONE OR MORE OF THE FOLLOWING:
- STRAW MULCH,
- SOFTWOOD AND HARDWOOD CHIPS, OR

PERMANENT STABILIZATION OF SLOPES AND SURFACES WILL EMPLOY ONE OR MORE OF THE FOLLOWING:
- LOAM AND GRASS,
- SOD,
- OR A COMBINATION OF GRASSES, JUTE NETTING AND/OR PLANTS AND SHRUBBERY.

5) RUNOFF DIVERSION SWALES
RUNOFF DIVERSION SWALES WILL BE PROVIDED IN ORDER TO INTERCEPT SHEET AND CONCENTRATED FLOWS ABOVE AREAS OF CUT, ABOVE ABUTTING PROPERTIES AND ABOVE RESOURCE AREAS. THE SWALES WILL DIRECT RUNOFF TO SEDIMENT SUMPS OR TEMPORARY SETTLING BASINS OR TO DETENTION BASINS.
6) SEDIMENT SUMPS
SEDIMENT SUMPS ARE EXCAVATED DEPRESSIONS 10-FOOT IN DIAMETER AND 2-FEET DEEP. THE SUMPS WILL COLLECT RUNOFF FROM THE UNFINISHED DRIVE AND SLOPES AND WILL ALLOW SEDIMENT TO SETTLE OUT BEFORE FLOW CONTINUES TO A DETENTION AREA OR SILTATION CONTROL BARRIER. SEDIMENT SUMPS WILL BE CLEANED WHENEVER THE ACCUMULATED SEDIMENT HAS REACHED ONE-HALF OF THE ORIGINAL DEPTH OF THE SUMP.
7) STONE-LINED SEDIMENT SUMPS
A 10-FOOT DIAMETER, 2-FOOT DEEP, STONE-LINED SEDIMENT SUMP WILL BE INSTALLED AT ALL POINTS WHERE STORM WATER IS DISCHARGED FROM THE PIPED COLLECTION SYSTEM. THESE SUMPS WILL SERVE TO COLLECT SEDIMENT WHICH MAY ERODE FROM THE SITE DURING THE CONSTRUCTION PERIOD. SEDIMENT WILL BE REMOVED FROM A STONE-LINED SEDIMENT SUMP WHEN IT HAS REACHED ONE-HALF OF THE ORIGINAL CAPACITY. STONE-LINED SEDIMENT SUMPS WILL BE CLEANED AND REMAIN IN PLACE AFTER PERMANENT STABILIZATION OF THE SITE HAS BEEN ACHIEVED.
8) TEMPORARY SETTLING BASINS
A TEMPORARY SETTLING BASIN IS A LARGE, EXCAVATED SEDIMENT SUMP THAT HAS A STONE FACE OVERFLOW LEADING TO A SWALE OR TO A DRAINAGE INLET STRUCTURE. THE SIZE VARIES WITH THE AREA DRAINING TO IT. TEMPORARY SETTLING BASINS WILL BE CLEANED WHENEVER THE ACCUMULATED SEDIMENT HAS REACHED ONE HALF OF THEIR ORIGINAL DEPTH.
9) RIP-RIP OUTLET PROTECTION
RIP-RAP OUTLET PROTECTION IS A STONE APRON BEGINNING AT A DRAINAGE SYSTEM DISCHARGE POINT AND EXTENDING DOWN THE SLOPE. THE RIP-RAP WILL SERVE TO REDUCE THE VELOCITY OF THE DISCHARGE, THEREBY PREVENTING EROSION.

CONSTRUCTION/WASTE MATERIAL

CONSTRUCTION/WASTE MATERIAL TO BE STORED ON SITE SHALL INCLUDE THE FOLLOWING:
- FILL MATERIAL
- DRAINAGE STRUCTURES/PIPING
- SEWER STRUCTURES/PIPING
- UTILITY CONDUIT/PIPING
- BUILDING MATERIAL

SEE BELOW FOR WASTE DISPOSAL PROCEDURE.

WASTE DISPOSAL

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED SECURELY IN METAL DUMPSTERS. THE DUMPSTER WILL MEET LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS WILL BE DEPOSITED IN THE DUMPSTER AND EMPTIED AS NECESSARY. A LICENSED COMPANY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS WILL TRANSPORT THE TRASH. NO TRASH OR CONSTRUCTION DEBRIS WILL BE BURIED ON SITE. THE DISPOSAL OF LIQUID WASTE IS NOT ALLOWED. INDIVIDUALS WORKING ON THE SITE WILL BE INFORMED OF THE APPROPRIATE PROCEDURE FOR THE DISPOSAL OF CONSTRUCTION DEBRIS.
THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PROJECT SITE IS FREE OF LITTER AND REFUSE.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INDIVIDUALS WORKING ON THE SITE WILL BE INFORMED OF THE APPROPRIATE PROCEDURES FOR WASTE DISPOSAL. THE CONSTRUCTION SUPERVISOR WILL BE RESPONSIBLE FOR OVERSEEING THAT THE PROPER PROCEDURES ARE FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED IN A TIMELY MANNER BY A LICENSED CONTRACTOR AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

EQUIPMENT & VEHICLE FUELING AND MAINTENANCE PRACTICES

LARGE EQUIPMENT WILL BE FUELED BY AN OVER THE ROAD FUEL TRUCK AND SMALL EQUIPMENT WILL BE FUELED BY PICKUP TRUCK FUEL TANKS. ALL EQUIPMENT WILL BE FUELED AT A MINIMUM 100 FEET FROM ANY WETLAND AND/OR WATER BODY. FUELING AREAS WILL BE INSPECTED FOR SIGNS OF LEAKS OR SPILLS.

EQUIPMENT & VEHICLE WASHING

NO HEAVY EQUIPMENT AND VEHICLE WASHING WILL BE ALLOWED ON THE SITE. ALL CONSTRUCTION EQUIPMENT WILL BE PARKED IN THE DESIGNATED STAGING AREA AT LEAST 100-FEET FROM ANY WETLAND OR WATER BODY.

SPILL PREVENTION AND CONTROL

ALL CONSTRUCTION PERSONNEL WILL BE INSTRUCTED REGARDING THE FOLLOWING MEASURES.
THE SITE CONSTRUCTION SUPERVISOR WILL BE RESPONSIBLE FOR OVERSEEING THAT ALL SPILL PREVENTION PROCEDURES WILL BE ADHERED TO. NO STORAGE , STOCKPILING, OR STAGING OF EQUIPMENT OR CONSTRUCTION MATERIAL WILL OCCUR WITHIN 100-FEET OF ANY WETLAND OR WATERBODY.
ALL MATERIALS STORED ONSITE WILL BE MAINTAINED IN AN ORDERLY MANNER AND IN THEIR APPROPRIATE CONTAINERS. MATERIALS WILL BE KEPT IN THERE ORIGINAL CONTAINERS WITH THEIR ORIGINAL LABELS. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER. THE MANUFACTURERS GUIDELINES FOR THE PROPER USE AND DISPOSAL WILL BE IMPLEMENTED.
THE CONSTRUCTION SUPERVISOR WILL INSPECT THE PREMISES REGULARLY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS.

PETROLEUM PRODUCTS

ALL ONSITE CONSTRUCTION MACHINERY AND VEHICLES WILL BE MONITORED FOR LEAKS AND WILL RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE LIKELIHOOD OF LEAKAGE. NO VEHICLE MAINTENANCE OR HANDLING OF PETROLEUM OF PRODUCTS WILL OCCUR WITHIN 100-FEET OF ANY WETLAND OR WATERBODY. NO PETROLEUM PRODUCTS WILL STORED ONSITE.

FERTILIZERS

FERTILIZERS WILL BE APPLIED AT THE MINIMUM AMOUNT RECOMMENDED BY THE MANUFACTURER. THE STORAGE OF FERTILIZER PRODUCTS WILL NOT BE ALLOWED ONSITE.

SOLVENTS & PAINTS

ALL CONTAINERS WILL BE SEALED AND STORED WHEN NOT USED. EXCESS MATERIAL WILL NOT BE DISCHARGED TO THE STORM AND OR SEWER SYSTEMS AND WILL BE PROPERLY DISPOSED OF ACCORDING TO THE MANUFACTURERS SPECIFICATIONS INCLUDING ALL FEDERAL, STATE, AND LOCAL REGULATIONS. NO STORAGE WILL OCCUR WITHIN 100' OF A WETLAND OR WATERBODY.

CONCRETE TRUCK WASHOUT

CONCRETE TRUCKS WILL DISCHARGE INTO TEMPORARY BASINS, WHERE THE CONCRETE WILL BE ALLOWED TO CURE. ONCE THE CONCRETE IS CURED, THE CONCRETE WILL BE BROKEN UP AND USED AS COMMON FILL OR HAULED OFF SITE.

SPILL CONTROL PRACTICES

ALL OF THE MANUFACTURERS RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE INFORMED OF THE NECESSARY PROCEDURES AND THE LOCATION OF THE CLEANUP SUPPLIES.
MATERIALS AND THE EQUIPMENT NECESSARY FOR CLEANUP OF A SPILL WILL BE KEPT ON SITE IN A DESIGNATED AREA. EXAMPLES OF CLEANING EQUIPMENT ARE: SHOVELS, RAKES, WHEEL BARROWS, BROOMS, DUST PANS, MOPS ,RAGS, SAFETY GLOVES AND EYE WEAR, ABSORBENT FOAMS, SAND, SAWDUST, AND PLASTIC OR METAL BINS DESIGNATED SPECIFICALLY FOR SPILL CLEANUP. AFTER DISCOVERY, ALL SPILLS WILL BE REMOVED AS SOON AS POSSIBLE.

REPORTING

REPORTABLE SPILLS, TOXIC OR HAZARDOUS (10 GALLONS OR MORE FOR PETROLEUM), MATERIAL WILL BE REPORTED TO THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION, BUREAU OF WASTE SITE CLEANUP CENTRAL REGIONAL OFFICE, 8 NEW BOND STREET, WORCESTER, MA 01608-PH-508-792-7653
THE CONSTRUCTION SUPERINTENDENT WILL BE RESPONSIBLE FOR SPILL PREVENTION AND CLEANUP COORDINATOR AND SUPERVISOR. THE CONSTRUCTION SUPERVISOR IS RESPONSIBLE FOR EDUCATING THE CONSTRUCTION PERSONNEL OF THE PROTOCOL IN THE EVENT OF A SPILL.

COPIES OF ANY SPILL REPORTS SHALL BE SENT TO D.E.C. AS THE LOCAL BOARD OF HEALTH.

NON STORAGE DISCHARGES

THE FOLLOWING NON-STORMWATER DISCHARGES ARE EXPECTED AS PART OF THE PROPOSED PROJECT DURING THE CONSTRUCTION PHASE:
WATER FROM UTILITY FLUSHING AND DUST CONTROL, PAVEMENT WASH WATER, WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED, UNCONTAMINATED GROUNDWATER DURING THE DEWATERING EXCAVATIONS.
NON-STORMWATER DISCHARGES WILL BE DIRECTED TO VEGETATED SURFACES AND OR TEMPORARY SETTLING BASINS PRIOR TO DISCHARGE TO WETLANDS AND/OR WATERWAYS.

SEQUENCE OF INSTALLATION AND CONSTRUCTION

PRIOR TO THE START OF EARTH-MOVING ACTIVITIES, THE SEDIMENT CONTROL BARRIERS SHALL BE INSTALLED ALONG THE LIMIT OF WORK AS SHOWN ON THE SITE PLANS.

CONSTRUCTION ACCESS

AT EACH CONSTRUCTION ENTRANCE, A STONE ENTRANCE MAT SHALL BE INSTALLED TO REMOVE SOIL MATERIAL FROM THE EQUIPMENT TIRES. ANY OTHER BARE CONSTRUCTION ROUTES OR EQUIPMENT STAGING AREAS SHALL BE STABILIZED WITH GRAVEL, WOOD CHIPS, OR TEMPORARY VEGETATION. ANY TRACKING OF SEDIMENT ONTO SURROUNDING STREETS SHALL BE IMMEDIATELY SWEPT.

LAND CLEARING AND GRADING

SLOPE STABILIZATION TO FOLLOW 974 CMR 3.04

TO THE EXTENT PRACTICABLE, CLEARING, GRUBBING AND STRIPPING SHALL BE LIMITED. WHENEVER PRACTICAL,EXISTING STRIPS OF VEGETATIVE COVER WILL BE PRESERVED BETWEEN CLEARED AREAS AND RESOURCE AREAS TO PROVIDE RUNOFF FILTRATION. ALL SLOPES SHALL BE BROUGHT TO FINISH GRADE AND STABILIZED AS SOON AS POSSIBLE. SLOPES BETWEEN 1:1 AND 2:1 STEEPNESS SHALL BE FOLLOW THE FOLLOWING PROCESS: ONCE THE GRADE OF THIS SLOPE HAS BEEN ESTABLISHED, 4" OF LOAM SHALL BE SPREAD ON TOP OF THE SLOPE AND TRACKED VERTICALLY. ONCE THE LOAM HAS BEEN TRACKED, THE SOIL SHALL BE MODIFIED IN A THREE-STEP PROCESS.
STEP ONE- SLOPE SHALL BE SPRAYED WITH AGRICULTURAL LIME AT A RATE OF 8,668 LB/AC.

STEP TWO- 'PROGANICS" A BIOTIC SOIL MEDIA SHALL BE APPLIED TO THE SLOPE AT A RATE OF 3,500 LB/AC. ALONG WITH:
- 'NEUTRALLIME" AT A RATE OF 240 LB/AC
- "JUMPSTART" AT A RATE OF 1.25 GAL/AC,
- 'BIOPRIME" SHALL BE APPLIED AT A RATE OF 40 LB/AC
- 50% OF THE SLOPE SEED MIX

STEP THREE- THE SLOPE SHALL BE SPRAYED WITH 'FLEXTERRA HP-FGM AT A RATE OF 4,000 LB/AC. WITHIN THE HYDROSEED TANK, MEI RECOMMENDS THE FOLLOWING:
- NITROGEN BE ADDED AT A RATE OF 104.5 LB/AC
- PHOSPHOROUS BE ADDED AT A RATE OF 0.4 LB/AC
- POT ASH BE APPLIED AT A RATE OF 130.7 LB/AC.
- 50% OF THE SLOPE SEED MIX

SLOPES WHICH ARE 3:1 AND FLATTER SHALL BE STABILIZED WITH HYDROSEEDING AND/OR HAND SEEDING. ADDITIONAL RUN-OFF CONTROL MEASURES SHALL BE INSTALLED AS GRADING PROGRESSES, TO INCLUDE TEMPORARY BASINS, DIKES, AND SWALES.

TEMPORARY SEDIMENT BASINS AND SUMPS

AS NEEDED WITHIN CONSTRUCTION PHASES TEMPORARY SEDIMENT BASINS AND SUMPS WILL BE EXCAVATED PRIOR TO FURTHER SOIL DISTURBANCE ON THE SITE. THE BASINS SHALL INCLUDE STONE AND FILTER FABRIC. THE BASIN SLOPES AND BOTTOM SHALL BE STABILIZED WITH LOAM, SEED, AND/OR AN EROSION CONTROL PRODUCT, AND A STABILIZED EXIT SPILLWAY SHALL BE CONSTRUCTED WITH A FILTER FABRIC AND STONE APRON. TEMPORARY RISER PIPES MAY BE UTILIZED TO ALLOW RETENTION AND TREATMENT WITH CONTROLLED RELEASE OF STORMWATER RUNOFF DURING CONSTRUCTION. THE BASINS MAY BE OVER EXCAVATED AS NEEDED TO PROVIDE STORAGE FOR, AT A MINIMUM, 1,800CF PER DISTURBED ACRE OF RUN-OFF. ADDITIONAL TEMPORARY SEDIMENT BASINS OR SEDIMENT SUMPS, MAY BE CONSTRUCTED AS NECESSARY TO STORE AND INFILTRATE RUN OFF. SEDIMENT SUMPS ARE EXCAVATED DEPRESSIONS OF A MINIMUM 10-FOOT DIAMETER AND A 2-FOOT DEPTH AND STRATEGICALLY INSTALLED TO REDUCE VELOCITIES AND TO PROVIDE SEDIMENT TRAPPING. BASINS AND SUMPS WILL BE INSPECTED WEEKLY, BEFORE AND AFTER SIGNIFICANT STORM EVENTS. IF A SEDIMENTATION BASIN IS LOCATED WITHIN THE PROPOSED BASIN LOCATIONS, THE TEMPORARY BASIN GRADES SHALL BE LEFT A MINIMUM OF ONE FOOT ABOVE THE BOTTOM OF THE PROPOSED INFILTRATION BASIN BOTTOM AND WILL BE GRUBBED OUT AS PART OF THE FINAL GRADING OF THE PROPOSED INFILTRATION BASIN.

RUN OFF CONTROL AND CONVEYANCE SYSTEMS

AS NEEDED, DIVERSION SWALES AND /OR DIKES LEADING INTO THE BASINS SHALL BE CONSTRUCTED AND STABILIZED UTILIZING EARTH, CRUSHED STONE, OR FILTER SOCKS. ADDITIONAL SWALES OR DIKES SHALL BE CONSTRUCTED AS NECESSARY TO DIVERT RUNOFF INTO TEMPORARY SEDIMENT BASINS. STONE CHECK DAMS SHALL BE INSTALLED AT APPROPRIATE INTERVALS.

STOCKPILING

SOIL STOCKPILING SHALL TAKE PLACE IN DESIGNATED AREAS, OUTSIDE OF THE WETLAND BUFFER ZONES. ANY STOCKPILING THAT WILL REMAIN INACTIVE FOR MORE THAN 2 WEEKS SHALL BE HYDROSEEDED OR COVERED WITH PLASTIC COVERS.

SURFACE STABILIZATION

APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS COMPLETED OR DELAYED GREATER THAN 2 WEEKS. ANY FIBER PAPER USED FOR SLOPE STABILIZATION SHALL BE FREE OF PFAS (POLYFLUROALKYL SUBSTANCES).

PARKING LOT & UTILITY CONNECTIONS

AFTER THE PARKING LOT, TEMPORARY SWALES WITH CHECK DAMS OR DIKES AND SETTLING BASINS WILL BE UTILIZED TO CONTROL RUNOFF UNTIL THE CLOSED DRAINAGE SYSTEM IS FUNCTIONAL. AFTER THE UTILITIES, INCLUDING THE CATCH BASINS HAVE BEEN INSTALLED, THE PARKING LOT WILL BE FINISH GRADED AND STABILIZED WITH A BINDER COAT OF PAVEMENT.

STORM WATER INFILTRATION SYSTEM

THE INFILTRATION AREA SHALL BE BROUGHT TO FINISH GRADE, STABILIZED, AND THE OUTLET STRUCTURES SHALL BE INSTALLED BEFORE THE PROPOSED BUILDING ROOF DRAINS ARE CONNECTED TO THE SYSTEM.

INLET PROTECTION

FOLLOWING THE INSTALLATION OF THE CLOSED DRAINAGE SYSTEM, DRIVEWAY PAVING, CATCH BASIN INLETS WILL BE PROTECTED WITH CATCH BASIN FILTERS.

BUILDING SITE PREPARATION

THE PROPOSED BUILDING CONSTRUCTION AREA WILL BE CLEARED AND GRUBBED AND STABILIZATION SHALL BE PROVIDED BETWEEN CONSTRUCTION INCREMENTS.

LANDSCAPING AND FINAL STABILIZATION

AFTER CONSTRUCTION IS COMPLETE IN A GIVEN AREA ANY EXPOSED SOILS WILL BE STABILIZED BY HYDROSEEDING AND OR LANDSCAPING IN ACCORDANCE WITH 974 CMR 4.08 (3).

CONSTRUCTION SCHEDULE

THE FOLLOWING IS A GENERAL CONSTRUCTION SEQUENCE FOR THE CONSTRUCTION OF THE SITE. THE ACTUAL SCHEDULE MAY VARY SOMEWHAT FROM THAT STATED IF SITE OR WEATHER CONDITIONS REQUIRE A DIFFERENT SCHEDULE AND IF SUCH CHANGE DOES NOT NEGATIVELY AFFECT THE PREVENTION OF POLLUTION. AN EXAMPLE OF A LOGICAL CHANGE TO THE SCHEDULE WOULD BE DEVIATING FROM THE SEQUENCE BELOW TO ALLOW THE LAYING OF DRIVEWAY BERM PRIOR TO A WINTER FREEZE IN ORDER TO BETTER CONTROL THE SITE DRAINAGE.

CONSTRUCTION HOURS ARE 7 A.M. TO 6 P.M. MONDAY THROUGH FRIDAY. ALL OTHER TIMES ARE NOT EXEMPT FORM NOISE STANDARDS. APPLICANT IS REQUIRED TO NOTIFY D.E.C. AND PUBLIC SAFETY OFFICER OF ANY WEEKEND WORK IN ADVANCE.

- THE APPLICANT WILL HOLD A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE DEVENS ENTERPRISE COMMISSION, THE ENGINEER, CONTRACTOR'S EMPLOYEES AND THE INSPECTOR IN ORDER TO REVIEW PERMITS, PROCEDURES AND CONSTRUCTION METHODS.
- ESTABLISH THE SITE ENTRANCE MAT AT THE CONSTRUCTION ENTRANCE TO THE SITE.
- ESTABLISH A CONSTRUCTION STAGING AND EQUIPMENT STORAGE AREA PROTECTED AGAINST EROSION BY LINES OF STAKED STRAW WATTLES AND SILTATION FENCING.
- INSTALL THE SILTATION CONTROL BARRIERS BETWEEN THE WORK AREAS AND IN OTHER LOCATIONS AS SHOWN WITHIN THE PLAN SET. INSTALL TREE PROTECTION FENCING AS REQUIRED.
- INSTALL PERIMETER CONSTRUCTION FENCE.
- TREE AND BRUSH CLEARING
- STRIP AND STOCKPILE TOPSOIL AT PROPOSED LANDSCAPE BERM AREA(S)
- PLACE THE STRAW WATTLES OR FENCING AT LEAST FIVE FEET FROM THE BASE OF THE LOAM PILE, IF APPLICABLE
- ON-SITE CUTS & FILLS TO ESTABLISH SUBGRADE
- EXCAVATE FOR FOUNDATION
- POUR CONCRETE FOUNDATION FOOTINGS AND FOUNDATION
- BACKFILL OF FOUNDATION
- STEEL ERECTION
- EXCAVATE FOR INTERIOR PLUMBING & ELECTRICAL SERVICES
- IMPORT PROCESSED GRAVEL FOR SLAB BASE
- POUR INTERIOR SLAB
- CONSTRUCT DRAINAGE SYSTEM
- APPLY TEMPORARY OR PERMANENT STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS WHERE WORK IS COMPLETED OR DELAYED GREATER THAN 2 WEEKS
- COMPLETE SITE GRADING TO MATCH THE SITE DESIGN
- IMPORT PROCESSED GRAVEL FOR ALL PAVEMENT AREAS
- LAY THE BINDER COURSE OF PAVEMENT.
- INSTALL PERIMETER CURBING
- COMPLETE THE PERMANENT STABILIZATION OF SLOPES, REPAIR AREAS THAT HAVE BEEN DAMAGED, AND INSTALL ADDITIONAL EROSION CONTROL DEVICES AS REQUIRED.
- INSTALL CONCRETE FLATWORK
- INSTALL LANDSCAPE MATERIAL, REPLICATION AREAS AND SITE IMPROVEMENTS
- LAY FINISH COURSE OF PAVEMENT, SIGNAGE, FENCING
- REMOVE ACCUMULATED SEDIMENT AND TEMPORARY EROSION CONTROL MEASURES AFTER ALL SLOPES HAVE BEEN PERMANENTLY STABILIZED AND THE RISK OF EROSION HAS PASSED.
- EQUIPMENT MOVING, PROJECT PUNCHLIST AND CLOSEOUT

DEVENS UXO PROTOCOL AND PROCEDURES:

A. DEVENS UXO PROTOCOL AND PROCEDURES- PRIOR TO PERFORMING ANY INTRUSIVE SOIL WORK, ALL PERSONNEL ON SITE MUST VIEW AN INSTRUCTIONAL VIDEO DESCRIBING THE TYPES OF UNEXPLODED ORDNANCE ("UXO") WHICH COULD BE ENCOUNTERED AND PROVIDING INSTRUCTION OF THE PROCEDURES TO BE FOLLOWED IF A POTENTIAL UXO ITEM IS ENCOUNTERED. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING VIEWING OF THE VIDEO BY ALL PERSONNEL (BOTH CONTRACTOR AND SUB-CONTRACTORS) WHO WILL BE EXCAVATING (EITHER BY MACHINE OR HAND TOOLS), WILL BE WORKING WITHIN AN EXCAVATED AREA OR WHO WILL BE OVERSEEING OR SUPERVISING EITHER. ARRANGEMENTS CAN BE MADE FOR VIEWING OF THE INSTRUCTIONAL VIDEO BY CONTACTING THE DEVENS FIRE DEPARTMENT (978-772-4600) LOCATED AT 182 JACKSON ROAD, DEVENS, MA. CONTACT FIRE DEPARTMENT TO SCHEDULE VIEWING AS SOON AS POSSIBLE TO AVOID ANY DELAYS IN CONTRACTOR'S PROPOSED CONSTRUCTION SCHEDULE.

1.) IF ORDNANCE IS FOUND OR SUSPECTED, CONTRACTOR SHALL FOLLOW THE FOLLOWING PROCEDURES:
I. DO NOT TOUCH
II. STOP ALL OPERATIONS IN THE AREA OF THE ITEM
III. SHUT OFF ALL EQUIPMENT IN THE AREA OF THE ITEM
IV. EVACUATE THE AREA
V. CALL DEVENS DISPATCH AT 978-772-7200

2.) DISPATCH WILL NOTIFY THE APPROPRIATE EMERGENCY AND PUBLIC SAFETY PERSONNEL INCLUDING NOTIFICATION OF THE ARMY UXO RESPONSE COORDINATOR.

3.) STATE POLICE, IN CONJUNCTION WITH THE DEVENS FIRE CHIEF, AND THE U.S. ARMY WILL DETERMINE THE COURSE OF ACTION TO BE FOLLOWED REGARDING THE RELOCATION, REMOVING AND/OR DESTROYING OF FOUND UXO UPON FURTHER INVESTIGATION OF THE ITEM.

4.) THE CONTRACTOR WILL BE NOTIFIED WHEN PERSONNEL CAN RETURN TO THE AREA AND/OR WHEN AND WHERE OPERATION OF EQUIPMENT CAN RESUME.

5.) THE FOLLOWING DISCLOSURE AND NOTIFICATION IS PROVIDED BY OWNER IN DOCUMENTATION ALLOWING ACCESS TO AND GROUND RELATED WORK TO BE PERFORMED AT DEVENS. IN THIS CONTEXT, THE "LICENSEE" IS THE PARTY TO BE PERFORMING THE WORK AND THE "LICENSOR" OWNER AS THE OWNER OF THE PROPERTY.

"LICENSEE ACKNOWLEDGES THAT DEVENS IS THE SITE OF A FORMER ACTIVE MILITARY INSTALLATION, AND THAT THERE IS A POSSIBILITY THAT UNEXPLODED ORDNANCE (UXO) MAY BE ENCOUNTERED DURING ACTIVITIES LICENSED BY THIS AGREEMENT. SPECIFICALLY, THE DEED PURSUANT TO WHICH THE UNITED STATES ARMY CONVEYED DEVENS TO LICENSOR, STATES THAT "THE [ARMY] COMPLETED A COMPREHENSIVE RECORDS SEARCH AND, BASED ON THAT SEARCH, UNDERTOOK AND COMPLETED STATISTICAL AND PHYSICAL TESTING OF AREAS ON DEVENS WHERE THE EXISTENCE OF UNEXPLODED ORDNANCE ("UXO") WAS CONSIDERED TO BE PRESENT. BASED UPON SAID SEARCH AND TESTING, THE ARMY REPRESENTS THAT, TO THE BEST OF ITS KNOWLEDGE, NO UXO IS CURRENTLY PRESENT ON [DEVENS]. THE [ARMY] AND [LICENSOR] ACKNOWLEDGE THAT, DUE TO THE FORMER USE OF [DEVENS] AS AN ACTIVE MILITARY INSTALLATION, AND NOTWITHSTANDING THE ABOVE-REFERENCED RECORDS SEARCH AND TESTING, UXO MAY EXIST ON DEVENS. UPON DUE NOTICE, THE [ARMY] AGREES TO REMOVE ANY SUCH REMAINING UXO DISCOVERED ON [DEVENS], AS REQUIRED UNDER APPLICABLE LAW AND REGULATION, AS EXPEDITIOUSLY AS REASONABLE AND PRACTICABLE, SUBJECT TO THE AVAILABILITY OF FUNDS." LICENSEE ACKNOWLEDGES AND AGREES THAT: (1) ITS RIGHT OF ENTRY IS SUBJECT TO THE ARMY'S DISCLOSURE; (2) UXO HAVE IN FACT BEEN IDENTIFIED AT DEVENS SUBSEQUENT TO THE ARMY'S TESTING; (3) LICENSEE WILL TAKE APPROPRIATE PRECAUTIONS AS IT DEEMS NECESSARY TO BE ALERT TO THE POSSIBILITY OF UXO; (4) NEITHER LICENSEE NOR ITS EMPLOYEES, AGENTS, OR CONTRACTORS WILL TOUCH OR OTHERWISE DISTURB UXO OR SUSPECTED UXO; AND (5) LICENSEE WILL COOPERATE WITH LICENSOR WITH RESPECT TO ISSUES RELATING TO UXO OR SUSPECTED UXO. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, IF LICENSEE IDENTIFIES AN OBJECT THAT IT SUSPECTS IS UXO, IT WILL IMMEDIATELY STOP WORK AND ALTER LICENSOR. LICENSOR WILL PROMPTLY ALERT THE ARMY OR OTHER AUTHORITIES AND ASK THEM TO TAKE APPROPRIATE FURTHER ACTIONS. LICENSEE AGREES THAT ANY UXO IS THE RESPONSIBILITY OF THE ARMY (NOT LICENSOR), AND LICENSEE AGREES TO FOLLOW WHATEVER PRECAUTIONS OR OTHER ACTIONS ARE RECOMMEND BY THE ARMY. LICENSEE UNDERSTANDS THAT ACTIVITIES AUTHORIZED UNDER THIS AGREEMENT MAY BE INTERRUPTED, IMPEDED, DELAYED OR PROHIBITED BY THE ARMY AS A RESULT OF THE PRESENCE OR SUSPECTED PRESENCE OF UXO. NOTWITHSTANDING, THE OBLIGATIONS OF LICENSEE AND THE ARMY AS SPECIFIED IN THIS AGREEMENT, LICENSEE ALSO AGREES TO COOPERATE WITH LICENSOR AND RESPECT TO ACTIONS LICENSOR DETERMINES ARE NECESSARY WITH RESPECT TO UXO AT THE LICENSED PREMISES WHILE THIS AGREEMENT IS IN EFFECT. LICENSEE SHALL NOT CONDUCT ANY INTRUSIVE SOIL WORK ON THE LICENSED PREMISES WITHOUT FIRST VIEWING LICENSOR'S INSTRUCTION VIDEO ON UXO.

NOTES PER SECTION 974 CMR 3.02 (3) (E):

- PRIOR TO ANY LAND DISTURBANCE ACTIVITIES COMMENCING ON THE SITE, THE APPLICANT/CONTRACTOR SHALL BE RESPONSIBLE FOR PHYSICALLY MARKING THE LIMITS OF CONSTRUCTION ON THE SITE WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE, SO THAT WORKERS UNDERSTAND THE AREAS TO BE PROTECTED. THE PHYSICAL MARKERS SHALL BE INSPECTED DAILY AND REPAIRED AS NECESSARY THROUGHOUT THE DURATION OF THE PROJECT.
- PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE AND MAINTAINED TO CONTAIN SOILS ON-SITE. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST NOT BE DISTURBED, UNLESS THE APPLICANT HAS OBTAINED PRIOR APPROVAL FORM THE DEC.
- MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA AND STREET SWEEPING OF ADJACENT STREETS AND ROADS SHALL BE INCLUDED WHERE NECESSARY.
- ALL RESOURCE AREAS SHALL BE PROTECTED FROM SEDIMENT.
- MONITORING AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION SHALL BE REQUIRED. SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES 1/4 TO 1/2 THE HEIGHT OF THE EROSION CONTROL.
- DIVERT RUNOFF FROM OFF-SITE AND UNDISTURBED AREAS AWAY FROM CONSTRUCTION TO MINIMIZE SOIL EROSION AND SEDIMENTATION ON AND OFF-SITE. TEMPORARILY STABILIZE ALL HIGHLY ERODIBLE SOILS AND SLOPES IMMEDIATELY.
- LAND DISTURBANCE ACTIVITIES EXCEEDING ONE ACRE IN SIZE SHALL NOT BE DISTURBED WITHOUT A SEQUENCING PLAN THAT REQUIRES STORMWATER CONTROLS TO BE INSTALLED AND EXPOSED SOILS STABILIZED, AS DISTURBANCE BEYOND THE ONE ACRE CONTINUES. A CONSTRUCTION PHASING PLAN, INCLUDING EROSION AND SEDIMENT CONTROL PLAN FOR EACH PHASE, SHALL BE SUBMITTED TO THE DEC PRIOR TO ANY CONSTRUCTION ON SITE. MASS CLEARING AND GRADING OF THE ENTIRE SITE SHALL BE AVOIDED.
- DISTURBED AREAS REMAINING IDLE FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.
- PERMANENT SEEDING SHALL BE UNDERTAKEN IN THE SPRING FORM MARCH THROUGH MAY, AND IN LATER SUMMER AND EARLY FALL FROM AUGUST TO OCTOBER 15TH. DURING THE PEAK SUMMER MONTHS AND IN THE FALL AFTER OCTOBER 15TH, WHEN SEEDING IS FOUND TO IMPRACTICAL, AN APPROPRIATE TEMPORARY MULCH AND/OR NON-ASPHALTIC SOIL TACKIFIER WITH WINTER RYE SHALL BE APPLIED. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER IF PLANS PROVIDE FOR ADEQUATE MULCHING AND WATERING.
- ANTI-TRACKING PAD(S) SHALL BE CONSTRUCTED AT ALL ENTRANCE/EXITS POINTS OF THE SITE TO REDUCE THE AMOUNT OF SOIL CARRIED ONTO ROADWAYS AND OFF THE SITE. DUST SHALL ALSO BE CONTROLLED AT THE SITE.
- ALL SLOPES STEEPER THAN 3:1 (H:V 33.3%) AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS MUST, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES.
- TEMPORARY SEDIMENT TRAPPING DEVICES MUST NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONSTRUCTION AREAS ASSOCIATED WITH THE PROJECT. SIMILARLY, STABILIZATION MUST BE ESTABLISHED PRIOR TO CONVERTING TEMPORARY SEDIMENT TRAPS/BASINS INTO PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT FACILITIES. ALL FACILITIES USED FOR TEMPORARY MEASURES SHALL BE CLEANED AND RESTABILIZED PRIOR TO BEING PUT INTO FINAL OPERATION.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL.

LEGEND

Symbol	Description
——100——	EXISTING CONTOUR
——100——	PROPOSED CONTOUR
——E——E——E——	ELECTRIC LINE
——S——S——S——	SEWER LINE
	DRAIN LINE
——W——W——W——W——	WATER LINE
——G——G——G——	GAS LINE
——T——T——T——	TELEPHONE LINE
——OHW——OHW——	OVERHEAD WIRES
——C——C——C——	CABLE TELEVISION
——CW——CW——CW——	CONTROL WIRE
——SL——SL——SL——	SITE LIGHTING
——CCTV——CCTV——	CCTV/SECURITY
	STONEWALL
	EDGE OF PAVEMENT
	GUARD RAIL (AS NOTED)
	FENCING (AS NOTED)
	EROSION CONTROL BARRIER
	LIMIT OF WORK
	TREE LINE
	PROPERTY LINE
	ZONING SETBACK LINE
——GW——GW——GW——	GROUND WIRE
	VERTICAL GRANITE CURB
	BITUMINOUS BERM
	BITUMINOUS PAVEMENT
	CONCRETE
	RIP RAP

Symbol	Description
	IRON PIPE FOUND
	DRILL HOLE FOUND
	STONE OR CONCRETE MONUMENTS
	SEWER MANHOLE
	DRAIN MANHOLE
	ELECTRIC MANHOLE
	TELEPHONE MANHOLE
	UNDETERMINED MANHOLE
	CATCH BASIN/DOUBLE CATCH BASIN
	CLEANOUT
MW	MONITORING WELL
	ANCHOR
	UTILITY POLE
WV	WATER GATE VALVE
	WATER SHUT OFF
	HYDRANT
	BENCHMARK
GV	GAS VALVE
	SIGN
	LIGHT POLE / LAMP POST
	SPOT LIGHT
	FLAG POLE
MBX	MAILBOX (MBX)
	BOLLARD
	DECIDUOUS TREE
	EVERGREEN TREE
WF-26	WETLAND FLAG
	BOULDER

ABBREVIATION

Abbreviation	Meaning
ADA	AMERICANS WITH DISABILITIES ACT
BC	BOTTOM OF CURB
BIT.	BITUMINOUS
CB	CATCH BASIN
CEM.	CEMENT
CONC.	CONCRETE
DI	DUCTILE IRON
DMH	DRAIN MANHOLE
EMH	ELECTRIC MANHOLE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FWD	FIRE WATER DRAIN
GAL.	GALLON
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LA	LANDSCAPE
MIN.	MINIMUM
OT	OUTLET
PROP.	PROPOSED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RTWL	RETAINING WALL
SMH	SEWER MANHOLE
STC	STORMCEPTOR STRUCTURE
TC	TOP OF CURB
TEMP.	TEMPORARY
TYP.	TYPICAL
UGE	UNDER GROUND ELECTRIC
VGC	VERTICAL GRANITE CURB

OWNER
MACK DEVENS DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By:	Designed By:	Checked By:
JLL	JLL	PJM

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name

Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title

Erosion Control Notes

Job No: 127.01.001
File Name: 127.01.001P-ERN01
Date: July 3, 2025
Scale: N.T.S.

Sheet No.
3

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY

26-13-1300
O'REILLY AUTO ENTERPRISES, LLC
(DK 69222-553; PL 714 OF 2000)
#15 INDEPENDENCE DRIVE

66-13-2100
INDUSTRIAL 66 SARATOGA BOULEVARD, LLC
(DK 70586-408; PL 436 OF 2017)
#66 SARATOGA BOULEVARD

COOK STREET

INDEPENDENCE DRIVE

SARATOGA BOULEVARD

PROPOSED CATCH BASIN INLET PROTECTION (TYP.)

PROTECT EXISTING TREES WITHIN RIGHT OF WAY (TYP.)

PROPOSED SAWCUT LINE (TYP.)

REMOVE AND DISPOSE OF EXISTING SIGN (TYP.)

REMOVE AND DISPOSE OF EXISTING LIGHT POLE (TYP.)

EXISTING TREE TO BE REMOVED (TYP.)

EXISTING TREE TO BE PROTECTED (TYP.)

LIMIT OF WORK AREA=4.8 AC

REMOVE AND DISPOSE OF EXISTING TRENCH DRAIN

PROTECT EXISTING TRANSFORMER DURING ALL PHASES OF CONSTRUCTION

PROPOSED SEDIMENTATION BASIN. SEDIMENTATION BASIN TO BE RELOCATED AS NECESSARY DURING CONSTRUCTION

REMOVE AND DISPOSE OF EXISTING DRAINAGE SYSTEM TO EXTENT SHOWN ON SHEET 6

PROVIDE CATCH BASIN INLET PROTECTION AT ALL PROPOSED CATCH BASIN'S AS THEY ARE INSTALLED

PULVERIZE EXISTING PAVEMENT TO SAWCUT LINE AND STOCKPILE FOR REUSE

CONTRACTOR TO VERIFY LOCATION OF UNDERGROUND TELECOMMUNICATION LINE PRIOR TO START OF CONSTRUCTION AND RELOCATE AS REQUIRED

REMOVE AND DISPOSE OF EXISTING CONCRETE PAD

CONTRACTOR TO VERIFY LOCATION OF FIRE SPRINKLER PRIOR TO START OF CONSTRUCTION

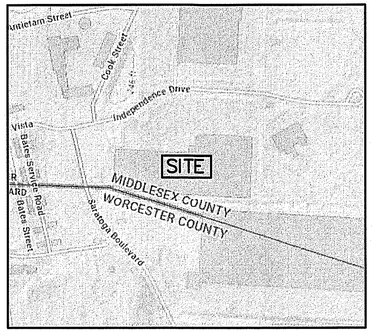
PROTECT TOWN LINE BOUND DURING CONSTRUCTION

POST CONSTRUCTION INFILTRATION BASIN SHALL BE USED AS AN INTERIM SEDIMENTATION BASIN. STORMWATER BASIN SHALL BE CLEANED AND EXCAVATED TO FINISH GRADE ONCE STORMWATER FEATURES ARE INSTALLED.

PROPOSED STRAW WATTLE AND SILT FENCE (TYP.)

PROPOSED CONSTRUCTION FENCE TO ENCLOSE ENTIRE PARCEL

PROPOSED CONSTRUCTION ENTRANCED BERM WITH GATE ACCESS. ACCESS GATE TO BE LOCATED ON PROPERTY TO ALLOW CONSTRUCTION VEHICLES TO PULL OFF THE MAIN ROAD WHEN GATE IS CLOSED. (TYP.)



LOCUS PLAN
1"=500 FT.±

GENERAL NOTES:

1. EXISTING CONDITIONS INFORMATION SHOWN IS FROM AN ON-THE-GROUND SURVEY COMPLETED BY TAUPER LAND SURVEY, 710 MAIN STREET OXFORD, MA 01537 IN MAY OF 2025.
2. THE LAND SHOWN HEREON IS NOT SITUATED IN THE 100-YEAR FLOOD HAZARD ZONE PER THE MASSGIS ONLINE DATA VIEW, OLIVER.
3. NO WETLAND RESOURCE AREAS WERE OBSERVED WITHIN 100-FEET OF THE PROJECT SITE.
4. PROPOSED USE WILL NOT GENERATE ELECTROMAGNETIC INTERFERENCE TO ANY SENSITIVE RECEPTOR. INTERFERENCE WITH THE HARVARD-SMITHSONIAN RADIO TELESCOPE (1400-1720 MHz) IS SPECIFICALLY PROHIBITED.
5. PROPOSED USE WILL NOT CAUSE PRONOUNCED, MULTIPLE PATTERNS OF NOISE OR VIBRATION NUISANCE TO, OR INTERFERE WITH ANY SENSITIVE RECEPTOR.
6. A DEP AIR QUALITY PERMIT IS NOT REQUIRED.

DEVENS SOIL MANAGEMENT POLICY:

THE FOLLOWING REPRESENTS THE POLICY OF THE MASSACHUSETTS DEVELOPMENT FINANCE AGENCY ("MASS DEVELOPMENT" OR THE "AGENCY"), WITH REGARD TO THE DISTURBANCE, EXCAVATION, MOVEMENT AND/OR REMOVAL OF SOILS LOCATE DIN THE DEVENS REGIONAL ENTERPRISE ZONE ("DEVENS").

MASS DEVELOPMENT, PURSUANT OF CHAPTER 498 OF THE ACTS OF 1993, HAS BEEN DESIGNATED AS THE PUBLIC AGENCY RESPONSIBLE FOR THE REDEVELOPMENT, REUSE, AND OPERATION OF DEVENS.

WHEREAS, DEVENS IS A FORMER ACTIVE MILITARY INSTALLATION, IT IS POSSIBLE THAT UNEXPLODED ORDNANCE ("UXO") OR MUNITIONS OF EXPLOSIVE CONCERN ("MEC") AND ENVIRONMENTAL CONTAMINANTS MAY EXIST AND/OR BE ENCOUNTERED AT DEVENS. WITH THIS POLICY, MASSDEVELOPMENT SEEKS TO REDUCE ANY RISK TO HUMAN HEALTH AND SAFETY AND THE ENVIRONMENT.
UNTIL AMENDED OR RESCINDED, IT SHALL BE THE POLICY OF THE AGENCY THAT:

1. PRIOR TO COMMENCING ANY INTRUSIVE EARTH WORK WITHIN DEVENS (DUE DILIGENCE, CONSTRUCTION OR OTHERWISE) ALL PERSONNEL TO BE ON SITE SHALL VIEW A UXO/MEC VIDEO BRIEFING PROVIDED BY MASSDEVELOPMENT. THIS VIDEO IS INTENDED TO INSTRUCT ON-SITE PERSONNEL AS TO HOW TO VISUALLY RECOGNIZE UXO/MEC IF FOUND DURING CONSTRUCTION ACTIVITIES AND TO PROVIDE INSTRUCTIONS ON WHAT TO DO IF POTENTIAL SUSPECTED UXO/MEC IS OBSERVED.

2. TO THE EXTENT REASONABLY PRACTICABLE, NO SOIL SHALL LEAVE ANY CONSTRUCTION SITE AT DEVENS. CONSTRUCTION SITES AT DEVENS SHOULD BE "BALANCED, I.E., ENGINEERED THAT ALL SOILS REMAIN ON THE DEVELOPMENT SITE AND RESULT IN NO EXCESS SOIL.

3. IN THE EVENT THAT EXCESS SOILS MUST BE REMOVED FORM A DEVELOPMENT SITE, THE FOLLOWING PROTOCOL SHALL APPLY:

(A) EXCESS SOILS MAY BE TRANSPORTED TO ANOTHER SUITABLE LOCATION WITHIN DEVENS, PROVIDED HOWEVER, THAT;
I. THE SOILS MUST BE RESTRICTED FOR USE ONLY AT A COMMERCIAL SITE.
II. THERE IS WRITTEN DOCUMENTATION EVIDENCING THE CONSENT AND APPROVAL OF THE PARTY AGREEING TO ACCEPT THE SOILS FOR A SPECIFIC USE AND THE USE, LOCATION AND DISPOSITION OF THE SOILS SHALL BE APPROVED IN WRITING BY MASSDEVELOPMENT;
III. CHEMICAL TESTING OF SOILS TO BE TRANSPORTED MUST BE PERFORMED IN CONFORMITY WITH THE SOIL MANAGEMENT PLAN DEVELOPED BY HALEY AND ALDRICH (TO BE PROVIDED BY MASSDEVELOPMENT UPON REQUEST) AND ANY SITE SPECIFIC REQUIREMENTS IMPOSED BY THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION ("MA DEP"). THE MA DEP MUST REVIEW AND APPROVE THE RESULTS OF THE SOILS TEST PRIOR TO THE SOILS BEING TRANSPORTED;
IV. UPON APPROVAL OF SOIL TEST RESULTS BY THE MA DEP, THE OWNER OF THE SOILS SHALL REQUEST THAT MASSDEVELOPMENT PROVIDE WRITTEN APPROVAL FOR THE SOILS TO BE TRANSPORTED; AND
V. ANY RELOCATION OF SOILS SHALL BE COMPLIANT WITH ALL APPLICABLE DEC REGULATIONS AND BYLAWS.

(b) IF THERE IS NO SUITABLE LOCATION ON DEVENS TO RELOCATE THE SOILS, THE SOILS MAY BE REMOVED TO A LOCATION OUTSIDE OF DEVENS, PROVIDED HOWEVER, THAT;
I. THE REQUIREMENTS OF PARAGRAPHS 3(A)(I-V) SHALL APPLY; AND
II. ALL SOILS TO BE RELOCATED OUTSIDE OF DEVENS SHALL BE PASSED THROUGH A 1" DIAMETER SCREEN UNDER THE SUPERVISION OF QUALIFIED PERSONNEL;
III. ALL TAILINGS (I.E. DEBRIS/MATTER NOT PASSING THROUGH THE SCREEN) SHALL BE UTILIZED ON SITE; AND
IV. IF UXO/MEC IS FOUND IN THE TAILINGS (OR ELSEWHERE), OPERATIONS IN THE VICINITY OF THE FOUND ITEM SHALL IMMEDIATELY CEASE AND THE MASSDEVELOPMENT AND STATE POLICE SHALL BE NOTIFIED BY THE CONTRACT (STATE POLICE PHONE #978-772-7200)

4. IN THE EVENT THAT AREAS OF SUSPECTED ENVIRONMENTAL CONTAMINATION (I.E UNDERGROUND STORAGE TANKS, FOREIGN MATERIALS, SUBSTANCES, ETC.) ARE FOUND, OPERATIONS IN THE AREAS IN THE VICINITY OF THE SUSPECTED CONTAMINATION SHALL CEASE AND THE CONTRACTOR SHALL IMMEDIATELY NOTIFY MASSDEVELOPMENT (DEVENS ENVIRONMENTAL MANAGER: PHONE#978-784-2917 OR DEVENS EVP: PHONE#978-784-2929)

MASSDEVELOPMENT SHALL WORK WITH ITS ENVIRONMENTAL CONSULTANTS AND MA DEP AND/OR EPA TO PROMPTLY AGREE UPON A PLAN TO TEMPORARILY RELOCATE THE FOREIGN MATERIALS, IF POSSIBLE, IN ORDER TO PERMIT WORK ON THE SITE CONTINUE WHILE A PERMANENT DISPOSAL/REMEDIATION PLAN IS ESTABLISHED.

PLEASE NOTE THAT ADDITIONAL SOIL MANAGEMENT POLICIES ARE IN FORCE AT CERTAIN SPECIFIC AREAS IN DEVENS. CONTACT THE DEVENS ENVIRONMENTAL MANAGER FOR DETAILS.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED
PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS
7/31/25

Drawn By: JLL | Designed By: JLL | Checked By: PJM

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Demolition & Erosion Control Plan

Job No: 127.01.001 Sheet No. 4
File Name: 127.01.001P-DEM01
Date: July 3, 2025
Scale: 1"=40'

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

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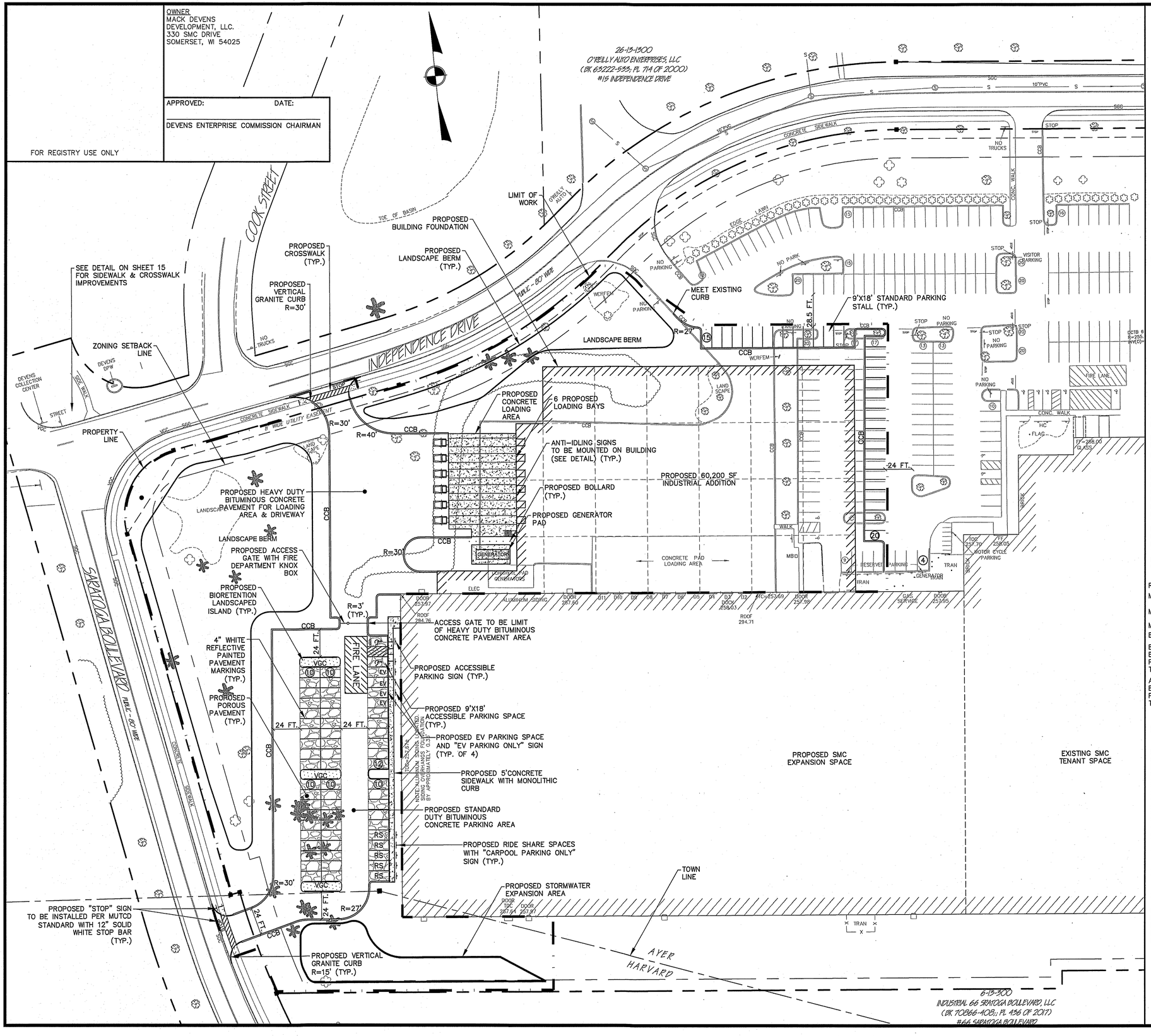

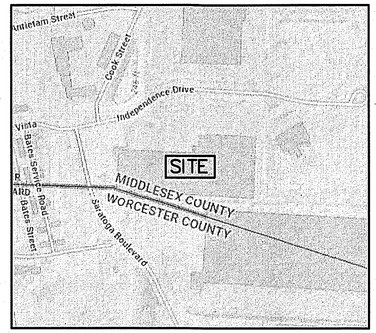

LOCUS PLAN
1"=500 FT.±

GENERAL NOTES:

1. EXISTING CONDITIONS INFORMATION SHOWN IS FROM AN ON-THE-GROUND SURVEY COMPLETED BY TAUPER LAND SURVEY, 710 MAIN STREET OXFORD, MA 01537 IN MAY OF 2025.
2. THE LAND SHOWN HEREON IS NOT SITUATED IN THE 100-YEAR FLOOD HAZARD ZONE PER THE MASSGIS ONLINE DATA VIEW, OLIVER.
3. NO WETLAND RESOURCE AREAS WERE OBSERVED WITHIN 100-FEET OF THE PROJECT SITE.
4. PROPOSED USE WILL NOT GENERATE ELECTROMAGNETIC INTERFERENCE TO ANY SENSITIVE RECEPTOR. INTERFERENCE WITH THE HARVARD-SMITHSONIAN RADIO TELESCOPE (1400-1720 MHz) IS SPECIFICALLY PROHIBITED.
5. PROPOSED USE WILL NOT CAUSE PRONOUNCED, MULTIPLE PATTERNS OF NOISE OR VIBRATION NUISANCE TO, OR INTERFERE WITH ANY SENSITIVE RECEPTOR.
6. A DEP AIR QUALITY PERMIT IS NOT REQUIRED.

ZONING SUMMARY:

DISTRICT: RAIL, INDUSTRIAL & TRADE RELATED

DIMENSIONAL REQUIREMENTS:	REQUIRED:	EXISTING:	PROPOSED:	CONFORMANCE:
MIN. LOT AREA:	2 AC.	21.6 AC.	21.6 AC.	Y
TOTAL AREA DIST:	N/A	4.8 AC.	4.8 AC.	Y
FRONTAGE:	100 FT.	2,077 FT.	2,007 FT.	Y
MIN. SIDE YARD:	10 FT.	65.3 FT.	65.3 FT.	N/A
MIN. FRONT YARD:	25 FT.	128.7 FT.	38.0 FT.	Y
MIN. REAR YARD:	25 FT.	N/A	N/A	N/A
MAX. BLDG HEIGHT:	75 FT.	<75 FT.	<75 FT.	Y
FAR COVERAGE:	0.5	0.34	0.41	Y
MAX IMP SURFACE:	0.73	0.58	0.63	Y
TOTAL IMP COV:	N/A	12.53 AC.	13.61 AC.	N/A
BUILDING IMP:	N/A	7.45 AC.	8.83 AC.	N/A
BUILDING IMP:	N/A	0.34	0.41	N/A
PERVIOUS PVMNT:	N/A	0 SF	10,229 SF.	N/A
TOTAL HARDSCAPE:	N/A	2,817 SF.	3,936 SF.	N/A
HARDSCAPE (%)	N/A	0.3 %	0.4%	N/A
OPEN SPACE	N/A	18,295 SF	16,117 SF	N/A

REQUIREMENTS:

MANUFACTURING/INDUSTRIAL: 2 SPACE/1,000 SF GFA

MAX PARKING REQUIRED:

MANUFACTURING/INDUSTRIAL: 60,214 SF X 2/1000 = 120.4 SPACES
EXISTING SPACES REQUIRED: 463 (PER 2015 APPROVAL)

EXISTING SPACES: 381
EXISTING SPACES LOST AS PART OF DEVELOPMENT: 24 SPACES
PROPOSED SPACES PROVIDE: 38 NEW SPACES
TOTAL SPACES: 419 SPACES

ADA ACCESSIBLE PARKING REQUIRED: 9 SPACES
EXISTING ADA ACCESSIBLE PARKING PROVIDED: 12 SPACES
PROPOSED ADA ACCESSIBLE PARKIGN PROVIDED: 2 SPACES
TOTAL ADA ACCESSIBLE PARKING PROVIDED: 14 SPACES

PARKING & TRAFFIC SUMMARY:

	REQUIRED:	EXISTING:	PROPOSED:	CHANGE:	CONFORMANCE:
MAX PARKING SP	584	381	419	38	Y
RESERVE PARKING	N/A	0	0	0	N/A
MAX TOTAL PARKING	584	381	419	38	Y
COMPACT SP	N/A	0	0	0	N/A
MIN EV/HYBRID PLUG IN SP	5%	0	4	4	Y
MIN EV/HYBRID PREFERRED SP	5%	0	4	4	Y
MIN RIDE SHARE SP	5%	0	5	5	Y
MIN HANDICAP SP	9	12	14	2	Y
ADT	N/A	N/A	N/A	N/A	N/A
EMPLOYEE COUNT	N/A	356	423	67	N/A
EMPLOYEE SHIFTS	N/A	2	2	0	N/A
EMPLOYEE COUNT PER SHIFT	N/A	223 1ST 70 2ND	298 1ST 125 2ND	75 50	N/A

BUILDING AREA & USE

	EXISTING:	PROPOSED:	CHANGE:	FAR BY USE:
GROSS FLOOR AREA	188,704± SF.	446,752± SF.	96,242 SF.	0.48
TOTAL AREA	341,946± SF.	384,635± SF.	42,689± SF.	0.41
COMMERCIAL	N/A	N/A	N/A	N/A
MANUFACTURING	130,615± SF.	291,028± SF.	160,413± SF.	0.31
OFFICE	26,842± SF.	32,290± SF.	5,448± SF.	0.03
OTHER (WAREHOUSE)	31,247± SF0	123,434± SF.	92,187± SF.	0.13
GENERATOR/CHILLERS				

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By: JLL | Designed By: JLL | Checked By: PJM

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Layout & Materials Plan

Job No: 127.01.001 | Sheet No. 5
File Name: 127.01.001P-CMA01
Date: July 3, 2025
Scale: 1"=40'

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

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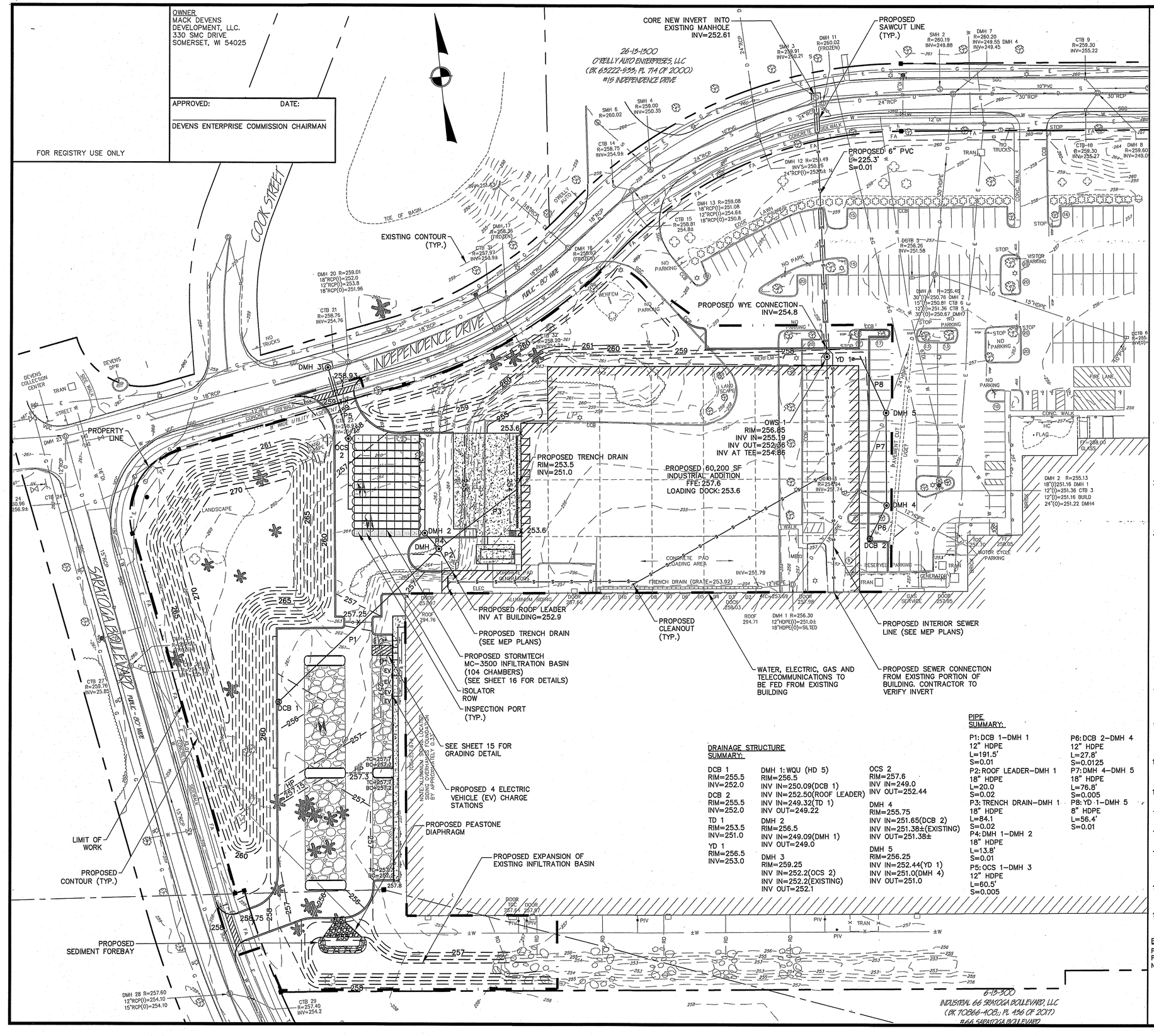

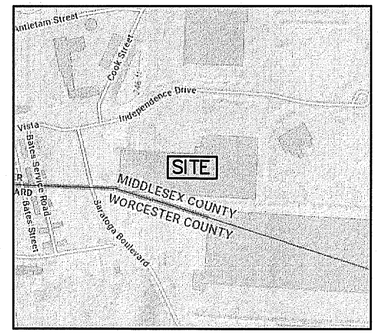

LOCUS PLAN
1"=500 FT.±

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6. A DEP AIR QUALITY PERMIT IS NOT REQUIRED.

GENERAL NOTES

1. THE CONSTRUCTION OF ALL PROPOSED UTILITIES SHALL CONFORM TO THE DEVENS UTILITY DEPARTMENT STANDARDS AND SPECIFICATIONS, LATEST EDITION, AS WELL AS THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS STANDARDS AND SPECIFICATIONS, LATEST EDITION. CONTRACTOR SHALL CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REQUIREMENTS DURING CONSTRUCTION.
2. THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF ANY UTILITIES SHOWN OR ENCOUNTERED DURING CONSTRUCTION SHALL BE REPORTED TO MCCARTY ENGINEERING, INC. AT 978-534-1318.
3. THE CONTRACTOR SHALL CALL "DIG-SAFE" AT 1-888-DIG-SAFE (344-7233) 72 HOURS PRIOR TO CONSTRUCTION TO INFORM THE UTILITY COMPANIES OF ANY EXCAVATION ADJACENT TO EXISTING UTILITIES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL WASTE MATERIAL AT AN APPROVED SITE. BURIAL OF WASTE MATERIAL ON-SITE IS NOT PERMITTED.
5. CONTRACTOR SHALL STRIP TOP SOIL AND STOCKPILE ON-SITE FOR REUSE. SOIL STOCKPILES SHALL BE NO HIGHER THAN 8'. STOCKPILES SHALL BE ENCLOSED BY TEMPORARY SILT FENCES TO PREVENT TRAVEL OF SEDIMENT TO ADJACENT DRAINAGE WAYS.
6. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL SURFACE RESTORATION IS COMPLETE AND SHALL BE MAINTAINED IN GOOD CONDITION AT ALL TIMES.
7. CONTRACTOR SHALL PROTECT ADJACENT PROPERTIES FROM ON-SITE CONSTRUCTION ACTIVITIES AND REMOVE ANY SEDIMENT OR DEBRIS DEPOSITED THEREON IMMEDIATELY.
8. DRAINAGE GENERATED AS A RESULT OF TRENCH DEWATERING SHALL BE DISCHARGED TO EXISTING DRAINAGE COURSES WITH PROPER EROSION CONTROL MEASURES. DISCHARGE ONTO PAVEMENT OR PRIVATE PROPERTY SHALL NOT BE ALLOWED.
9. WHEN TAPPING EXISTING PRECAST MANHOLES OR SEWER PIPE, DRILL HOLES AT 4" CENTER TO CENTER WITH A STARDRILL AROUND THE PERIPHERY OF THE OPENING TO CREATE A PLANE OF WEAKNESS BEFORE BREAKING THE SECTION OUT.
10. SANITARY SEWER AND WATER MAIN SHALL BE SEPARATED BY 10 FEET MINIMUM HORIZONTALLY. WHEN SEWER AND WATER CROSS, THE WATER MAIN SHALL BE A MINIMUM OF 18" ABOVE THE SEWER PIPE CROWN.
11. UNLESS OTHERWISE SPECIFIED ON THE PLANS, TOP OF ALL WATER MAINS SHALL BE 5.0 FEET BELOW FINISH GRADE.
12. VERIFY LOCATION OF BUILDING UTILITY CONNECTIONS WITH ARCHITECTURAL, MECHANICAL AND PLUMBING PLANS.
13. ALL CLEARING, GRADING, DRAINAGE, CONSTRUCTION AND DEVELOPMENT SHALL BE CONDUCTED WITH STRICT ACCORDANCE WITH THESE PLANS.
14. CONTRACTOR SHALL REFER TO THE STORMWATER POLLUTION PREVENTION PLAN PREPARED FOR THIS PROJECT SITE FOR ALL CONSTRUCTION PERIOD INSPECTIONS, CONTROLS, AND MANAGEMENT PRACTICES REQUIRED.
15. ANY UNSUITABLE FILL MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE INFILTRATION BASIN AND REPLACED WITH CLEAN SAND/STONE.
16. ANY WORK INCLUDING GAS, ELECTRIC, WATER, AND SEWER SHALL BE COORDINATED WITH THE DEVENS UTILITIES DEPARTMENT.

EARTHWORK VOLUMES:

PROPOSED CUT: 10,832 CU. YD.
PROPOSED FILL: 11,070 CU. YD.
NET: 238 CU. YD. (FILL)

GRAPHIC SCALE

40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By: JLL | Designed By: JLL | Checked By: PJM

McCarty Engineering, Inc.
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42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Grading, Drainage & Utility Plan

Job No: 127.01.001 Sheet No. 6
File Name: 127.01.001P-CPG01
Date: July 3, 2025
Scale: 1"=40'

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

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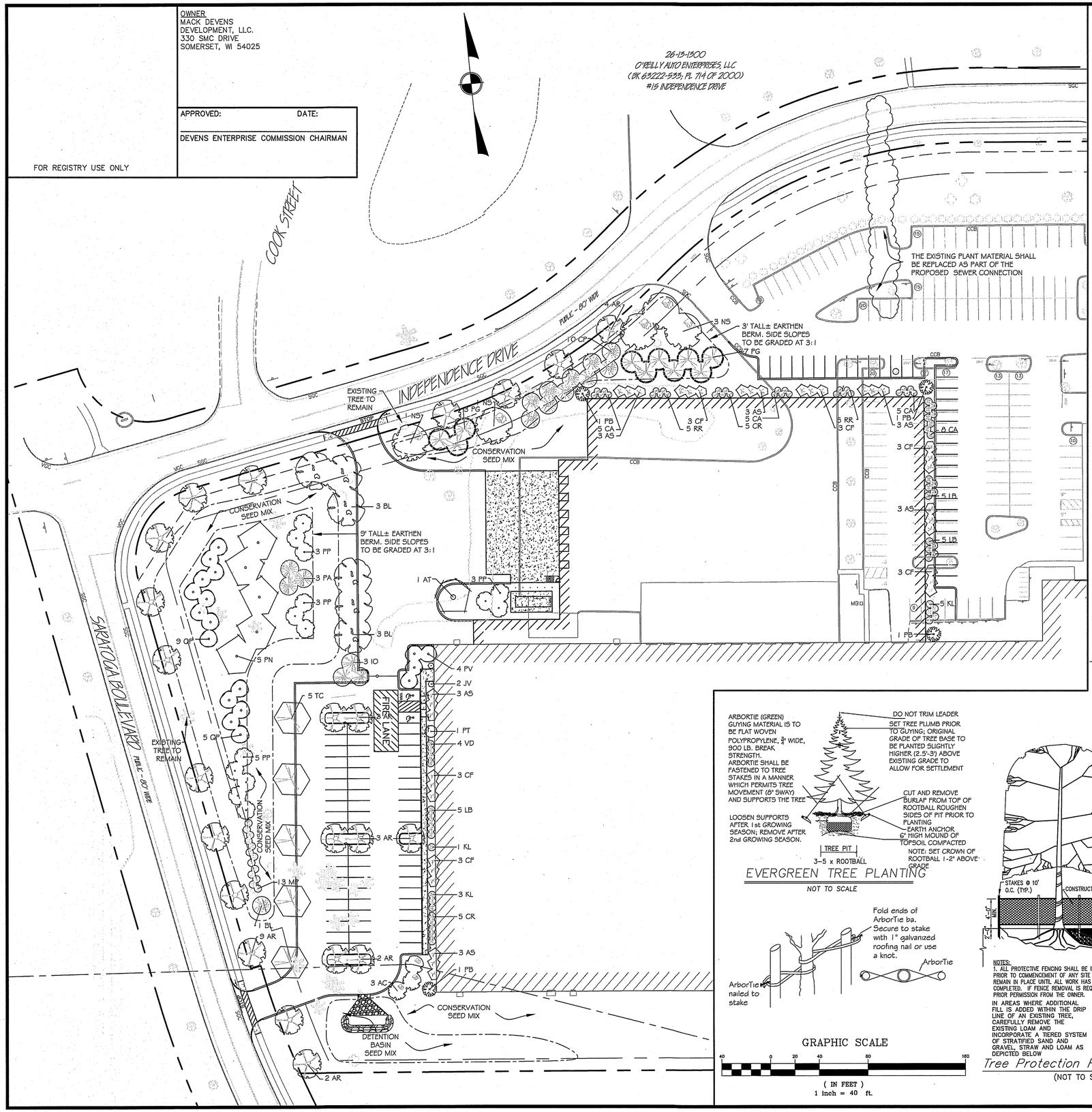
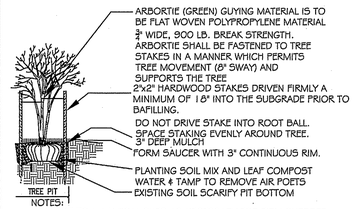


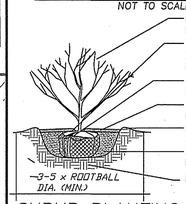
Qty.	Key	Common Name	Botanical Name	Size	Remarks
TREES					
3	AC	Hedge Maple	*Acer campestre*	3" Cal.	B&B
22	AR	'Red Sunset' Red Maple	*Acer rubrum 'Red Sunset'*	3" Cal.	B&B
18	AS	Shadblow Serviceberry	*Amelanchier canadensis*	12' Ht.	B&B(Multi-stem)
1	AT	Silver Maple	*Acer Saccharinum*	3" Cal.	B&B
7	BL	Yellow Birch	*Betula lenta*	12' Ht.	B&B(Multi-stem)
18	CF	Flowering Dogwood	*Cornus florida*	3" Cal.	B&B
10	CP	Pagoda Dogwood	*Cornus alternifolia*	3" Cal.	B&B
3	IO	American Holly	*Ilex opaca*	8' Ht.	B&B
2	JV	Eastern Red Cedar	*Juniperus virginiana*	8' Ht.	B&B
5	NS	Black Tupelo	*Nyssa sylvatica*	3" Cal.	B&B
3	PA	Norway Spruce	*Picea abies*	8' Ht.	B&B
4	PB	White Spruce	*Picea glauca*	8' Ht.	B&B
10	PG	Colorado Blue Spruce	*Picea pungens 'Glauca'*	8' Ht.	B&B
5	PN	Austrian Pine	*Pinus nigra*	8' Ht.	B&B
14	PP	Pitch Pine	*Pinus rigida*	8' Ht.	B&B
1	PT	Japanese Black Pine	*Pinus thunbergii*	8' Ht.	B&B
4	PV	Common Chokeberry	*Prunus virginiana*	3" Cal.	B&B
14	QP	Pin Oak	*Quercus palustris*	3" Cal.	B&B
5	TC	Redmond Linden	*Tilia americana 'Redmond'*	3" Cal.	B&B
SHRUBS					
23	CA	Silky Dogwood	*Cornus amomum*	36"Ht.	B&B
10	CR	Gray Dogwood	*Cornus racemosa*	36"Ht.	B&B
13	KL	Mountain Laurel	*Kalmia latifolia*	48" Ht.	B&B
15	LB	Common Spicebush	*Lindera benzoin*	36" Ht.	B&B
13	MP	Northern Bayberry	*Myrica pensylvanica*	48" Ht.	B&B
10	RR	Roseshell Rhododendron	*Rhododendron roseum*	48" Ht.	B&B
4	VD	Northern Arrowwood	*Viburnum dentatum*	48" Ht.	B&B



NOTES:
1. STAKE TO MAIN BRANCHES AS NECESSARY FOR FIRM SUPPORT.
2. PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
3. GUY WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES.
4. REMOVE ALL CONTAINERS AND BASKETS FROM ROOT BALL.
5. REMOVE BURLAP FROM TOP ONE THIRD OF ROOT BALL.
6. LOOSEN ROOTBALL PRIOR TO PLANTING.

DECIDUOUS TREE PLANTING

NOT TO SCALE



SHRUB PLANTING

(NOT TO SCALE)

EVERGREEN TREE PLANTING

NOT TO SCALE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

NOTES:
1. ALL PROTECTIVE FENCING SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY SITE WORK AND REMAIN IN PLACE UNTIL ALL WORK HAS BEEN COMPLETED. IF FENCE REMOVAL IS REQUIRED, OBTAIN PRIOR PERMISSION FROM THE OWNER.

IN AREAS WHERE ADDITIONAL FILL IS ADDED WITHIN THE DRIP LINE OF AN EXISTING TREE, CAREFULLY REMOVE THE EXISTING LOAM AND INCORPORATE A TIERED SYSTEM OF STRATIFIED SAND AND GRAVEL, STRAW AND LOAM AS DEPICTED BELOW

Tree Protection Fencing

(NOT TO SCALE)

LANDSCAPING NOTES

1. NOTIFY DIG-SAFE AT 1-888-DIG-SAFE AND LOCAL AUTHORITIES PRIOR TO ANY TYPE OF SITE PREPARATION OR CONSTRUCTION.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL AND MULCH IN SUFFICIENT QUANTITIES TO COMPLETE PLANTING AS SHOWN ON THE DRAWINGS.
3. DRAWING QUANTITIES TAKE PRECEDENCE OVER PLANT LIST QUANTITIES.
4. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES SET FORTH BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
5. ALL TREES AND SHRUBS SHALL BE PLANTED WITH THE 'BEST FACE' SHOWING. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
6. ALL CONTAINER GROWN STOCK SHALL BE HEALTHY, VIGOROUS, WELL ROOTED AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE GROWING. THEY SHALL HAVE TOPS OF GOOD QUALITY, NO APPARENT INJURY AND BE IN A HEALTHY GROWING CONDITION. A CONTAINER GROWN PLANT SHALL HAVE A WELL ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL.
7. THE QUALITY OF ALL TREES & SHRUBS IS TO BE NORMAL FOR THE SPECIES. ALL PLANTS ARE TO HAVE DEVELOPED ROOT SYSTEMS, TO BE FREE OF INSECTS AND DISEASES AS WELL AS MECHANICAL INJURIES, AND IN ALL RESPECTS BE SUITABLE FOR PLANTINGS.
8. ALL CONIFERS SHALL HAVE DORMANT BUDS AND SECONDARY NEEDLES. WHERE SPECIFIED, CALIPER SIZE IS TO BE THE OVERRIDING FACTOR IN TREE SELECTION. CALIPER SIZE SHALL BE MEASURED 12" ABOVE THE ROOTBALL.
9. PLANT SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED BY THE PROJECT LANDSCAPE ARCHITECT.
10. ALL DISTURBED AREAS NOT SHOWN OTHERWISE SHALL BE LOAMED AND SEEDED AND BLENDED INTO EXISTING GRADE AND CONDITIONS.
11. PRIOR TO INSTALLING ANY PLANT MATERIAL, THE CONTRACTOR SHALL SUBMIT A LOAM SOIL SAMPLE FOR A ROUTINE, ORGANIC, SALTS, AND NITRATE SOIL TEST. UPON THE RESULTS OF THIS TEST, THE SITE CONTRACTOR SHALL AMEND THE LOAM AS RECOMMENDED. LAWN SEED MIX SHALL BE THE PREVIOUS YEARS CROP: 35% JEFFERSON KENTUY BLUEGRASS, 35% CARMEN CHEWING FESCUE AND 30% STALLION PERENNIAL RYEGRASS, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150 SQUARE FEET.
12. ALL SLOPE STABILIZATION FOR SLOPES IN EXCESS OF 3:1 SHALL BE A COMBINATION OF JUTE NETTING AND A NATIVE NEW ENGLAND EROSION CONTROL OR CONSERVATION WILDLIFE SEED MIX (FOR LOW-NO MAINTENANCE SLOPE AREAS).
13. DETENTION BASIN SEED MIX SHALL BE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS. PLANT AT A RATE OF ONE POUND PER 1,750SF
14. CONSERVATION SEED MIX SHALL BE NEW ENGLAND CONSERVATION/WILDLIFE SEED MIX, FROM NEW ENGLAND WETLAND PLANTS INC. PLANT AT A RATE OF ONE POUND PER 1,750SF.
15. LAWN SEED AREAS SHALL BE NOT BE DEEMED ACCEPTABLE UNTIL IN EXCESS OF 90% OF EACH AREA, INDEPENDENTLY, IS GERMINATED, GROWING AND DISPLAYING HEALTHY, UNIFORM GROWTH AND HAS BEEN CUT TWICE. THE SITE CONTRACTOR IS RESPONSIBLE FOR APPLYING AT A MINIMUM 1" OF WATER A WEEK UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED. THE WATERING SHALL OCCUR IN SMALL DOSES. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY WEEDS (CRAB GRASS) WITHIN THE SEEDED AREAS UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED.
16. THE HYDRO SEED SLURRY SHALL BE A WOOD BASED BONDED FIBER MATRIX. THE APPLICATION RATE SHALL BE 2,500 LBS/ACRE. PER ACRE SPRAYED IN A LEAST TWO DIRECTIONS. DO NOT APPLY HYDRO SEED SLURRY IF RAIN IS EXPECTED WITHIN 12 HOURS, AND WHEN TEMPERATURES ARE BELOW 50 DEGREES.
17. PRIOR TO PLANTING, THE LANDSCAPER SHALL REVIEW AND COORDINATE WITH THE SITE UTILITY PLAN AND GRADING PLAN.
18. THE ROOTS OF NEWLY PLANTED TREES AND SHRUBS MUST BE KEPT STEADILY MOIST, AS THE DEVELOPING ROOTS ESTABLISH IN THE NEW SOIL. AT PLANTING, WATER THOROUGHLY TO SOAK THE ROOTS AND TO SETTLE THE NEW SOIL AROUND THE ROOT BALL THE AMOUNT OF SUPPLEMENTAL WATER NEEDED EACH WEEK DURING THE FIRST GROWING SEASON AFTER PLANTING DEPENDS ON RECENT RAINFALL, TEMPERATURE, AND WIND. IF LESS THAN ONE-INCH OF RAIN HAS FALLEN OVER THE PAST FIVE TO SEVEN DAYS, THE NEW PLANTINGS MUST BE WATERED. LAWNS, TREES, AND SHRUBS WATERING SHALL OCCUR AT A MINIMUM OF TWO (2) TIMES A DAY FOR THE FIRST TWO (2) MONTHS; ONCE IN THE EARLY MORNING AND THEN THE OTHER IN THE LATE AFTERNOON. IN GENERAL TEN GALLONS OF WATER APPLIED TWICE A WEEK WILL WET A 20'-24' ROOT BALL AND PROVIDE THE EQUIVALENT OF ONE INCH OF RAIN FALL. NEW LAWNS SHALL BE WATERED SO THAT IS RECEIVES AT A MINIMUM ONE INCH (1") OF WATER EVERY WEEK.
19. WITHIN THE LANDSCAPE BEDS ADJACENT TO THE BUILDING FOUNDATIONS, NO (HEMLOCK, PINE, SPRUCE, OR CEDAR) MULCH OR OTHER COMBUSTIBLE LANDSCAPE MATERIALS SHALL BE INSTALLED WITHIN 18" OF THE FOUNDATION.
20. ALL LANDSCAPE BEDS SHALL RECEIVE THREE-INCHES OF BARK MULCH.
21. LANDSCAPE AREAS SHALL BE DEEP TILLED TO A DEPTH OF TWELVE INCHES TO FACILITATE DEEP WATER PENETRATION.
22. ALL TREE AND VEGETATION REMOVAL SHALL BE IN COORDINATION WITH THE PROJECT LANDSCAPE ARCHITECT.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

Drawn By: LCG | Designed By: LCG | Checked By:

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Project Name

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Sheet Title

Landscape Plan

Job No: 127.01.001
File Name: 127.01.001P-LA01
Date: July 3, 2025
Scale: 1"=40'

Sheet No. 7

GENERAL NOTES:

1. THE GENERAL GOAL OF THE LANDSCAPE MAINTENANCE PLAN IS TO ESTABLISH AND MAINTAIN AESTHETIC AND FUNCTIONAL VALUES OF THE LANDSCAPE AND HARD SCAPE THROUGH A BALANCE OF ALL AVAILABLE METHODS. THE PLAN UTILIZES THE PRINCIPLES OF INTEGRATED PEST MANAGEMENT (IPM), I.E. FOCUSING ON PEST PREVENTION USING THE LEAST TOXIC, MOST EFFECTIVE & PRACTICAL METHODS; AND PLANT HEALTH CARE MANAGEMENT (PHM), FOCUSING ON MAINTAINING THE ECOSYSTEM TO PROMOTE HEALTHY GROWTH AND REDUCE SUSCEPTIBILITY TO PESTS. PLANTING THE BEST SUITED PLANTS AND THEN WATERING, MOWING AND FERTILIZING THEM PROPERLY HELPS TO REDUCE PEST DAMAGE AND PROVIDES A HABITAT FOR BENEFICIAL ORGANISMS.
2. TEE OTHER PLANS, WITHIN THIS SET, FOR INFORMATION REGARDING STRUCTURAL LOCATIONS, UNDERGROUND UTILITIES (PROPOSED AND EXISTING) AND OTHER SITE CONSTRUCTION INFORMATION. REFER TO THE LIGHTING PLAN FOR LIGHT POLE LOCATIONS AND MOUNTING HEIGHT. REFER TO THE LANDSCAPE PLAN FOR EXISTING TREE PROTECTION.
3. ALL PLANTS AND PLANTING METHODS SHALL BE IN CONFORMANCE WITH THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
4. LANDSCAPE INSTALLATION AND MAINTENANCE SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED AND EXPERIENCED FOREMAN OR MAINTENANCE PERSONNEL. SUCH EXPERIENCE SHALL CONSIST OF A MINIMUM OF FIVE YEARS EXPERIENCE IN LANDSCAPE INSTALLATION AND MAINTENANCE ON SIMILAR PROJECTS. ALL LABORERS SHALL BE SUPERVISED CONTINUOUSLY DURING LANDSCAPE OPERATIONS BY A FOREMAN OR MAINTENANCE SUPERVISOR. ALL PLANTED AREAS AND "MAINTAINED" LAWNS SHALL PITCH AT 1:50 MINIMUM SLOPE TO ENSURE POSITIVE DRAINAGE ON PLANTED AREAS.
5. LOCATION OF ALL TREES AND SHRUBS SHALL BE STAKED OR PLANTS PLACED IN THE FIELD FOR APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
6. LOCATION OF INDIVIDUAL PLANTS AND PLANTING GROUPINGS MAY BE MODIFIED IN THE FIELD, SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT, TO INSURE EQUAL SPACING, THE CORRECT PLANT FACING, AND TO PROVIDE ADJUSTMENT TO FIELD CONDITIONS AND CONFLICTS.

PREVENTING DAMAGE TO EXISTING TREES DURING CONSTRUCTION:
CONSTRUCTION EQUIPMENT CAN INJURE THE ABOVEGROUND PORTION OF A TREE BY BREAKING BRANCHES, TEARING THE BARK AND WOUNDING THE TRUNK. EXCAVATION NECESSARY FOR CONSTRUCTION AND UNDERGROUND UTILITY INSTALLATION CAN SEVER PORTIONS OF ROOTS AND CAN COMPACT SOILS, INHIBITING ROOT GROWTH AND DECREASING OXYGEN IN THE SOIL. PREVENTION METHODS FOLLOW:
1. ERECT CONSTRUCTION FENCES AROUND TREES THAT ARE TO BE RETAINED. PLACE FENCES OR OTHER PROTECTIVE MEASURES APPROVED BY THE DIRECTOR, 12" BEYOND THE DRIP-LINE OF THE TREES TO BE PROTECTED.
2. INSTRUCT CONSTRUCTION PERSONNEL TO KEEP THE FENCED AREA CLEAR OF BUILDING MATERIALS, WASTE AND EXCESS SOIL.
3. NO DIGGING, TRENCHING OR OTHER SOIL DISTURBANCE SHOULD BE ALLOWED IN THE FENCED AREA.
4. SPECIFY ACCESS ROUTE ON AND OFF THE PROPERTY AND STORAGE AREAS FOR EQUIPMENT, SOIL AND CONSTRUCTION MATERIALS FOR ALL CONTRACTORS.
5. KEEP AREAS FOR BURNING (IF PERMITTED), CEMENT WASHOUT PITS AND CONSTRUCTION WORK ZONES AWAY FROM PROTECTED TREES.
6. WHEN INSTALLING NEW LANDSCAPING MATERIALS, AVOID EVEN SMALL INCREASES IN GRADE; AS LITTLE AS 2" TO 6" OF ADDITIONAL SOIL OVER EXISTING TREE ROOTS CAN REDUCE THE RATIO OF OXYGEN TO CARBON DIOXIDE AROUND TREE ROOTS.
7. TREES THAT ARE DAMAGED DURING CONSTRUCTION MAY REQUIRE SEVERAL YEARS TO ADJUST, AND ARE MORE PRONE TO HEALTH PROBLEMS. MONITOR REGULARLY AND EVALUATE PERIODICALLY FOR DECLINING HEALTH OR SAFETY HAZARDS.

MAINTENANCE:
ESTABLISHED LAWN MAINTENANCE
1. MOWING:
* MOWING SHALL OCCUR AT A REGULAR WEEKLY SCHEDULE OR ACCORDING TO SEASONAL PRECIPITATION. THE SEASON'S FIRST MOWING SHALL OCCUR PRIOR TO MAY 1ST, PENDING ENVIRONMENTAL CONDITIONS. MOWING DIRECTION/ANGLE PATTERN SHALL BE ALTERED PERIODICALLY THROUGHOUT THE GROWING SEASON.
* A MULCHING MOWER SHALL BE UTILIZED FOR ALL MOWING.
* MOWER BLADES SHALL BE SHARPENED EVERY (4) FOUR MOWINGS.
* CLEAN AND SWEEP ALL WALKS AFTER MOWING OR AS NEEDED.
* EDGE ALL WALKS AFTER MOWING OR AS NEEDED.

ONCE ESTABLISHED FOR YEARS TWO AND THREE, MOW JUST REMOVING NO MORE THAN TWO INCHES AT A TIME BAG NEWLY CUT GRASS UNTIL GRASS IS 90% ESTABLISHED, REMOVE WEEDS AS NECESSARY IN SUMMER MONTHS RAISE MOWING HEIGHT AND IN THE FALL RETURN MOWING HEIGHT
TINE THATCH IN THE SPRING TO REMOVE WINTER DEBRIS AND ANY POTENTIAL SNOW MOLD, AERATE AS NECESSARY. APPLY FERTILIZERS, HERBICIDES AS NECESSARY, MONITOR FOR RODENTS AND TREAT AS NECESSARY IN THE FALL REMOVE THE LEAVES FROM THE LAWN AREA, IF THE GRASS AREAS DIE OUT, THE DEAD AREAS SHALL BE CUT OUT AND DISCARDED. EXPOSED SOIL SHALL BE AMENDED AS REQUIRED AFTER TESTING, (I.E. LIME OR FERTILIZER ADDED). SEED SHALL BE APPLIED AND IRRIGATED REGULARLY UNTIL GRASS AREAS IS ESTABLISHED. A LOOSE HAY MULCH SHALL BE APPLIED TO THE NEWLY PLANTED AREA TO A DEPTH OF 3/4", AND AERIAL COVER OF 70%. THERE SHOULD BE NO SEEDS IN THIS HAY. COORDINATE WITH MAINTENANCE SECTIONS OF THIS DOCUMENT

2. SOD/LAWN REPLACEMENT:
* EXISTING DEAD LAWN SHALL BE CUT OUT AND DISCARDED.
* EXPOSED SOIL SHALL BE AMENDED AS REQUIRED AFTER TESTING, (I.E. LIME OR FERTILIZER ADDED).
* GRASS SEED SHALL BE APPLIED AND IRRIGATED REGULARLY UNTIL LAWN IS ESTABLISHED.
* A LOOSE HAY MULCH SHALL BE APPLIED TO THE NEWLY PLANTED AREA TO A DEPTH OF 3/4", AND AERIAL COVER OF 70%. THERE SHOULD BE NO SEEDS IN THIS HAY.

3. FERTILIZATION
* ORGANIC FERTILIZATION APPLICATIONS WILL BE BASED UPON SOIL ANALYSES AND/OR MONITORING FOR SYMPTOMS OF NUTRIENT DEFICIENCY.
ROUND 1:
APPLICATION OF A BALANCED FERTILIZER WITH A PRE-EMERGENT CRABGRASS CONTROL (19-0-7 W/ PRODIAMINE OR EQUIVALENT) DONE APRIL / EARLY MAY DEPENDING ON SPRING WEATHER. SPOT SPRAY FOR BROADLEAF AND GRASSY WEEDS (SPEED ZONE HERBICIDE OR EQUIVALENT).
ROUND 2 :
SECOND APPLICATION OF A BALANCED FERTILIZER WITH A PRE-EMERGENT CRABGRASS CONTROL (19-0-6 W/ DIMENSION OR EQUIVALENT) DONE END OF MAY / EARLY JUNE. SPOT SPRAY FOR BROADLEAF AND GRASSY WEEDS (SPEED ZONE HERBICIDE OR EQUIVALENT)
ROUND 3:
APPLICATION OF A BALANCED SLOW RELEASE FERTILIZER WITH PREVENTATIVE GRUB CONTROL (20-0-5 W/ IMIDACLOPRID (MERIT) OR EQUIVALENT). SPOT TREAT FOR BROADLEAF AND GRASSY WEEDS (SPEED ZONE HERBICIDE OR EQUIVALENT)
ROUND 4:
APPLICATION OF A BALANCED SLOW RELEASE FERTILIZER (18-0-6 OR EQUIVALENT). SPOT SPRAY FOR BROADLEAF AND GRASSY WEEDS (Q4 HERBICIDE OR EQUIVALENT)
ROUND 5:
APPLICATION OF A BALANCED FERTILIZER TO PROMOTE HEALTHY ROOT GROWTH W/ LIME TO HELP MAINTAIN A NEUTRAL SOIL (12-0-4 W CALSTAR OR EQUIVALENT)

4. LAWN AREA ESTABLISHMENT FOR NEW CONSTRUCTION;
DETERMINE THE LIMITS OF AREAS THAT NEED TO BE SEEDED, PERFORM A SOIL ANALYSIS, REGRADE THE SITE AS NECESSARY, INSTALL THE TOPSOIL AND TILL THE SOIL TO A DEPTH OF 4-6", AMEND THE SOILS AS NECESSARY. PERFORM FINE GRADING, SELECT SEED MIX FOR DESIRED AREAS, CHOOSE HIGH QUALITY SEED. PERFORM HYDRO-SEEDING WITH THE DESIRED SEED MIX, SEED IN TWO DIRECTIONS, WITHIN HYDROSEED SLURRY INCORPORATE STARTER FERTILIZER,-HERBICIDES, WATER SEEDED AREAS, AND MINIMIZE TRAFFIC ON NEWLY SEEDED AREAS.

5. RESTORATION SEED ESTABLISHMENT FOR NEW CONSTRUCTION;
DETERMINE THE LIMITS OF AREAS THAT NEED TO BE SEEDED, PERFORM A SOIL ANALYSIS, REGRADE THE SITE AS NECESSARY, INSTALL THE TOPSOIL AND TILL THE SOIL TO A DEPTH OF 4-6", AMEND THE SOILS AS NECESSARY. PERFORM FINE GRADING, SELECT SEED MIX FOR DESIRED AREAS, CHOOSE HIGH QUALITY SEED. PERFORM HYDRO-SEEDING WITH THE DESIRED SEED MIX, SEED IN TWO DIRECTIONS, WITHIN HYDROSEED SLURRY INCORPORATE STARTER FERTILIZER,-HERBICIDES, WATER SEEDED AREAS, AND MINIMIZE TRAFFIC ON NEWLY SEEDED AREAS.

MAINTENANCE FOR CONSERVATION SEED MIX AREAS:

ONCE ESTABLISHED, MOW ONCE A YEAR IN THE MONTH OF SEPTEMBER, IN THE SPRING IF AREAS ARE COVERED WITH ROAD, SAND RAKE OUT ACCUMULATED SAND IN THE FALL IF HEAVY LEAF LITTER OCCURS REMOVE THE LEAVES ACCORDINGLY PERFORM SOIL ANALYSIS AND AMEND AS NECESSARY.

BED MAINTENANCE:

* PAVEMENT EDGES SHALL BE INSPECTED EVERY SPRING AND REINFORCED AS NEEDED.
* PULL WEEDS OUT OF BEDS AS NEEDED.
* RAKE FLOWER BEDS EVERY OTHER WEEK.
* EDGE PLANTER BEDS AS NEEDED.
* PINCH DEAD FLOWER HEADS TO PROMOTE NEW GROWTH AND TOO KEEP PLANT AESTHETICS.
* PROVIDE MONTHLY WEEDING OF GARDENS DURING GROWING SEASON, THROUGH THE FIRST YEAR.

WEED ONE TIME PER YEAR IN FOLLOWING YEARS.

SHRUB MAINTENANCE:

1. ANNUAL INSPECTION/MAINTENANCE: ALL LANDSCAPED SHRUBS SHALL BE INSPECTED PRIOR TO MAY 1ST. PRUNE/REMOVE DEAD LIMBS AND SUCKER GROWTH. IF NECESSARY, * PRUNE TO MAINTAIN PLANT SHAPE OR TO MAINTAIN LINE OF SITE VISIBILITY AFTER FLOWERING.

2. ORGANIC FERTILIZATION APPLICATIONS WILL BE BASED UPON SOIL ANALYSES AND/OR MONITORING FOR SYMPTOMS OF NUTRIENT DEFICIENCY.

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY

MAINTENANCE FOR RESTORATION SEEDED AREA FOR YEARS TWO AND THREE (CONT):

TREE MAINTENANCE:
1. ANNUAL INSPECTION/MAINTENANCE:
* ALL LANDSCAPED TREES SHALL BE INSPECTED PRIOR TO MAY 1ST.
* ALL DEAD LIMBS SHALL BE PRUNED AND REMOVED.
* SUCKER GROWTH SHALL BE PRUNED.
* PRUNING SHALL BE PERFORMED IN ORDER TO MAINTAIN PLANT HEALTH, PUBLIC SAFETY AND WHERE APPLICABLE LINE OF SITE/VISIBILITY.
* IF REQUIRED, WHEN PLANTED, SAPLINGS SHALL BE SECURED WITH A GUY WIRE WITH * A TURNBUCKLE SECURED TO EITHER GUY STAKES OR 'DUCK BILL' STAKES.
* THE GUY WIRES SHALL INSTALLED PER THE TREE PLANTING DETAIL. A PIECE OF RUBBER HOSE OR EQUIVALENT SHALL COVER THE GUY WIRE WHERE IT WRAPS AROUND THE SAPLING'S TRUNK.
* THE GUY WIRE SHALL REMAIN LOOSE UNLESS DURING SPRING INSPECTION THE TREES ARE LEANING IN A UNHEALTHY AND OR UNSIGHTLY WAY, THE GUY-WIRES AND TURNBUCKLES SHALL BE TIGHTENED. IF INSTALLED THE GUY WIRE STABILIZATION SHALL BE REMOVED FROM THE TREE AFTER (3) YEARS.

2. FALL CLEANUP SHALL OCCUR BETWEEN SEPTEMBER 15TH AND NOVEMBER 15TH OR TO COINCIDE WITH LEAF DROP.

MULCHING:
* A COMMERCIAL UN-DYED BARK MULCH SHALL BE APPLIED TO ALL LANDSCAPING BEDS.
* A MINIMUM OF 3" OF PINE OR HEMLOCK MULCH SHALL BE APPLIED TO ALL BEDS.
* MULCHING SHOULD BE DONE IN A WIDE BAND, APPROXIMATELY THREE (3) TIMES THE DIAMETER OF THE ROOTBALL OF TREES OR SHRUBS, AND NO MORE THAN A 4" DEPTH, TAPERING TO BUT NOT TOUCHING THE TRUNK. CARE SHALL BE TAKEN TO AVOID 'MOUNDING' MULCH UP AGAINST TREE TRUNKS.
* MULCH SHALL BE REAPPLIED TO BEDS ANNUALLY, DURING SPRING INSPECTIONS.

WATERING:
FOR NEW INSTALLATION OF TREES, AND SHRUBS WATERING SHALL OCCUR AT A MINIMUM OF TWO (2) TIMES A DAY FOR THE FIRST TWO (2) MONTHS; ONCE IN THE EARLY MORNING AND THEN THE OTHER IN THE LATE AFTERNOON. IF DURING DROUGHT CONDITIONS, THE AMOUNT OF WATERING MAY BE EXTENDED TO UP TO THREE YEARS. ESTABLISHED LAWNS SHALL BE WATERED SO THAT IS RECEIVES AN INCH (1") OF WATER EVERY WEEK. ESTABLISHED TREES AND SHRUBS SHALL BE WATERED SO THAT THEY RECEIVE THREE AND A HALF INCHES (3½") OF WATER A MONTH. AN IRRIGATION SYSTEM IS NOT PROPOSED FOR THIS SITE. DROUGHT TOLERANT LAWN HAS BEEN SPECIFIED.
FOR WATERING NEWLY SEEDED AREAS, WATER SO THAT THE SOIL IS WET TO A DEPTH OF 4". FOR THE FIRST TWO WEEKS, WATER TWICE A DAY, ONCE IN THE EARLY MORNING AND THEN THE OTHER IN THE LATE AFTERNOON. WATER UNTIL THE SOIL IS DAMP FOR THE FIRST INCH. CONTINUE TO WATER UNTIL THE GRASS GERMINATES, IF THE SEED DOES NOT GERMINATE WITHIN FIFTEEN DAYS, RE-SOW. ONCE THE GRASS HAS GERMINATED, CUT THE WATERING BACK TO ONCE A DAY. WEED THE NEWLY PLANTED AREAS AS NECESSARY.

PESTICIDES:
THE TERM PESTICIDES INCLUDES INSECTICIDES, HERBICIDES AND FUNGICIDES. PESTICIDE USE WILL BE MINIMIZED THROUGH SELECTION OF SPECIES AND VARIETIES THAT ARE INSECT AND DISEASE RESISTANT. PESTICIDES ARE TO BE USED SECONDARY TO THE IPM PROGRAM, ONLY AS NECESSARY, AND ACCORDING TO "UMASS EXTENSION MANAGEMENT GUIDE FOR INSECTS, DISEASES, AND WEEDS OF TREES AND SHRUBS IN NEW ENGLAND", CURRENT EDITION AND THE FOLLOWING GUIDELINES:

1. INVENTORY:
* USE PESTICIDES WITH A LOW LEACHING POTENTIAL (PLP) INDEX. PLP INDICES ARE BASED ON THE SOIL RETENTION, PERSISTENCE, RATE OF APPLICATION AND PERCENT PESTICIDE REACHING THE GROUND.
* STORE PESTICIDES ONLY IN ORIGINAL CONTAINERS.
* KEEP CONTAINERS CLOSED TIGHTLY; MONITOR CONTAINERS FOR DAMAGE AND/OR LEAKS.
* STORE LIKE PESTICIDES TOGETHER.
* STORE FLAMMABLE PESTICIDES SEPARATELY.
* MAINTAIN AN UP-TO-DATE INVENTORY OF PESTICIDES.

2. APPLICATION & SAFETY
* COMPLY WITH EMERGENCY PLANNING AND RIGHT-TO-KNOW REGULATIONS.
* ENSURE APPLICATION IS BY INDIVIDUALS TRAINED IN PROPERTY APPLICATION TECHNIQUES AND ACCORDING TO LABEL DIRECTIONS. NOTE GROUNDWATER ADVISORIES AND OTHER SAFETY ADVISORIES. THE LABEL IS A LEGAL DOCUMENT.
* SPOT TREAT WHENEVER POSSIBLE.
* DETERMINE THE SIZE OF THE AREA OF APPLICATION AND MIX ONLY THE QUANTITY OF PESTICIDE NEEDED IN ORDER TO SAVE MONEY, AVOID DISPOSAL AND PROTECT PLANTS.
* MIX THE PESTICIDE AND LOAD THE SPREADER OR SPRAYER CAREFULLY TO AVOID SPILLS. MIX IN AREAS WHERE SPILLS MAY BE SAFELY CONTAINED.
* FILL SPRAY TANKS AWAY FROM WELLS AND/OR WATERBODIES.
* RECHECK CALIBRATION OF THE SPREADER OR SPRAYER BEFORE APPLICATION.
* APPLY RINSATE TO A LABELED SITE AT NOT MORE THAN LABELED RATES OR SAVE RINSATE AND USE IT TO MAKE UP WATER FOR SIMILAR APPLICATIONS. DO NOT RELEASE RINSATE IN UNCONTAINED AREAS.
* TRIPLE-RINSE EMPTY CONTAINERS AND PUNCTURE, CRUSH AND RECYCLE THEM, IF POSSIBLE, OR DISPOSE AT LANDFILL.

RODENT CONTROL:
DESIGN PREVENTATIVE MEASURES:
* SELECTION OF PLANTS AND TREES WILL BE MADE WITH THE CONSIDERATION OF SEED AND FRUIT AND SHALL BE KEPT AT A MINIMUM TO AVOID SUPPORT OF INSECTS, RODENTS AND UNDESIRED BIRDS.
* ALL DENSELY GROWING PLANTS WILL SEPARATED FROM EACH OTHER AND THE BUILDING AT A CONSIDERABLE DISTANCE TO REDUCE RODENT HARBORAGE AND PASSAGE.

OPERATIONAL PREVENTATIVE MEASURES:

* INSPECTIONS OF THE LAWN WILL OCCUR DURING WEEKLY SCHEDULED MOWING TO SCOUT FOR PEST ACTIVITY
* IF APPARENT PEST ACTIVITY IS FOUND, CAUSE OF THE ISSUE WILL BE IDENTIFIED AND APPROPRIATE CONTROL MEASURES WILL BE TAKEN TO CORRECT ISSUES.
* PROPERTY WILL BE INSPECTED REGULARLY TO AVOID THE ACCUMULATION OF MISCELLANEOUS ARTICLES TO ELIMINATE RODENT HARBORAGE.
* TREES LOCATED NEAR THE BUILDING WILL BE PRUNED ACCORDINGLY TO MAINTAIN AN ADEQUATE CLEARANCE TO AVOID PEST ACCESS.
* ALL WASTE MATERIALS WILL BE STORED IN A SECURE CONTAINER AT JUSTIFIABLE DISTANCE FROM THE BUILDING AND DISCARDED IN ACCORDANCE WITH WEEKLY SCHEDULED PICKUPS.

CASES THAT DO NOT WARRANT EMERGENCY TREATMENT

-PRIOR TO APPLYING CHEMICAL PESTICIDES OR BAITS, ALTERNATIVE PEST CONTROL METHODS WILL BE USED IN 100% OF CASES. IF ALTERNATIVE METHODS FAIL, LEAST TOXIC PESTICIDES WILL BE USED PRIOR TO RESORTING TO THE USE OF NON-LEAST TOXIC PESTICIDES OR BAITS IN 100% OF CASES

CASES THAT DO WARRANT EMERGENCY TREATMENT OR USE OF NON-LEAST TOXIC PESTICIDES
-IN 100% OF NON-LEAST TOXIC PESTICIDE APPLICATIONS, OCCUPANTS WILL RECEIVE NOTIFICATION ACCORDING TO THE NOTIFICATION PROCEDURES DESCRIBED BELOW.

PROPERTY MANAGER RESPONSIBILITIES:
* ENSURING THAT THIS PLAN IS EXECUTED
* ENSURING THAT THE CONTRACTED IPM VENDOR IS FULLY TRAINED ON THIS PLAN AND ADHERES TO THE PLAN PROCEDURES
* COORDINATING SITE VISITS BY THE VENDOR FOR REGULAR INSPECTIONS AND AS NEEDED FOR IMPLEMENTATION OF PEST CONTROLS
* OVERSEEING WORK PERFORMED BY THE VENDOR
* APPROVING THE USE OF PESTICIDES WHEN THEY ARE NECESSARY
* PROVIDING PROPER NOTIFICATION TO OCCUPANTS WHEN NON-LEAST TOXIC PESTICIDES ARE APPLIED
* ENSURING TENANT CONTRACTS ARE AWARE OF THE PROCEDURES IN THIS PLAN
* EVALUATING PERFORMANCE AND MAKING UPDATES TO THE PLAN AS NECESSARY

PEST CONTROL VENDOR RESPONSIBILITIES:
* ADHERING TO THE PROCEDURES OUTLINED IN THIS PLAN
* IDENTIFYING PEST DURING SITE VISITS AND INSPECTIONS
* REPORTING THE RESULTS OF THE SITE VISITS AND INSPECTIONS TO THE OVERALL

INVASIVE SPECIES
IF INVASIVE SPECIES HAVE ESTABLISHED THEMSELVES IN ONE OR MORE OF THE LANDSCAPE AND LAWNS AREA:
PULL THE SEEDLINGS AND SMALL OR SHALLOW-ROOTED PLANTS WHEN SOIL IS MOIST. DIG OUT LARGER PLANTS, INCLUDING THE ROOT SYSTEMS. USE A FORKED SPADE OR WEED WRENCH FOR TREES OR SHRUBS
DEADHEAD TO PREVENT SPREAD OF SEEDS OF INVASIVE PLANTS. CUT OFF SEEDS OR FRUITS BEFORE THEY RIPEN. BAG, AND BURN OR SEND TO A LANDFILL
MOW OR CUT AT LEAST 4 TIMES A SEASON TO DEPLETE PLANTS' STORE OF NUTRIENTS AND CARBOHYDRATES, REDUCE SEED FORMATION, AND KILL OR MINIMIZE SPREAD OF PLANTS. IF NECESSARY, REPEAT EACH YEAR.

*BITTERSWEET
FOR YOUNG VINES, HAND PULLING CAN WORK AND REPEATED MOWING MAY BE EFFECTIVE IN FIELDS. WHEN LARGE VINES HAVE GROWN INTO TREES, CUT THE VINES WHEN THE LEAVES AREN'T PRESENT, AND APPLY A SYSTEMIC HERBICIDE TO THE FRESHLY CUT STEM. ANY DEAD VINES THAT CANNOT EASILY REMOVED CAN BE LEFT TO DECAY ON THE TREES.

CONTROLLED BURNING
DURING THE SPRING, REPEATED OVER SEVERAL YEARS, ALLOWS NATIVE VEGETATION TO COMPETE MORE EFFECTIVELY WITH THE INVASIVE SPECIES. THIS REQUIRES A PERMIT. SPOT TREATMENT WITH GLYPHOSATE IN LATE FALL CAN BE USED TO MAKE THIS METHOD MORE EFFECTIVE.
USE A CORN-BASED PRE-EMERGENCE HERBICIDE ON ANNUAL WEEDS
IN LAWNS, SPOT TREAT WITH BROAD-LEAF WEEDKILLER.
CUT DOWN THE TREE. GRIND OUT THE STUMP, OR CLIP OFF RE-GROWTH
GIRDLE TREE: CUT THROUGH THE BARK AND GROWING LAYER (CAMBIUM) ALL AROUND THE TRUNK, ABOUT 6" ABOVE THE GROUND. GIRDLING IS MOST EFFECTIVE IN SPRING WHEN THE SAP IS RISING, AND FROM MIDDLE TO LATE SUMMER WHEN THE TREE IS SENDING DOWN FOOD TO THE ROOTS. CLIP OFF SUCKER SPROUTS.
FRILL: USING A MACHETE, HATCHET OR SIMILAR DEVICE, HACK SCARS (SEVERAL HOLES IN LARGER TREES) DOWNWARD INTO THE CAMBIUM LAYER, AND SQUIRT IN GLYPHOSATE (OR TRICLOPYR IF RECOMMENDED IN TEXT ABOVE). FOLLOW LABEL DIRECTIONS FOR INJECTION AND FRILL APPLICATIONS. THIS IS MOST EFFECTIVE FROM MIDDLE TO LATE SUMMER.
CLIP OFF ANY SUCKER SPROUTS OR TREAT WITH GLYPHOSATE
CUT STEM / CUT STUMP WITH GLYPHOSATE (OR TRICLOPYR IF SPECIFIED ABOVE).
FOLLOW LABEL DIRECTIONS FOR CUT STUMP APPLICATION. CLIP OFF SUCKER SPROUTS OR PAINT WITH GLYPHOSATE.
SEE NOTE ON HERBICIDES

FOLIAR SPRAY WITH GLYPHOSATE HERBICIDE (SEE NOTE ON HERBICIDES).
USE A BACKPACK OR GARDEN SPRAYER OR MIST BLOWER, FOLLOWING LABEL DIRECTIONS. AVOID OVERSPRAY AND/OR DRIPPING ONTO NON-TARGET PLANTS, BECAUSE GLYPHOSATE KILLS MOST PLANTS EXCEPT MOSS. IF IT ROLLS OFF WAXY OR GRASS-LIKE FOLIAGE, USE ADDITIONAL STICKER-SPREADER. DECIDUOUS TREES, SHRUBS, AND PERENNIALS MOVE NUTRIENTS DOWN TO THE ROOTS IN LATE SUMMER. GLYPHOSATE IS PARTICULARLY EFFECTIVE AT THIS TIME AND WHEN PLANTS HAVE JUST GONE OUT OF FLOWERING. SEVERAL INVASIVE SPECIES RETAIN THEIR FOLIAGE AFTER NATIVE PLANTS HAVE LOST THEIRS, AND RESUME GROWTH EARLIER IN SPRING THAN MOST NATIVES. THIS ALLOWS YOU TO TREAT THEM WITHOUT HARMING THE NATIVES. HOWEVER, THE PLANT MUST BE ACTIVELY GROWING FOR THE HERBICIDE TO WORK. RETREATMENTS MAY BE NECESSARY THE FOLLOWING YEAR IF SUCKERING OCCURS OR THE PLANT HASN'T BEEN ENTIRELY KILLED.

SEASONAL CLEANUP
1. SPRING CLEANUP:
* REMOVE ALL SAND AND DEBRIS FROM LAWN AREAS.
* RAKE OR THATCH OUT ALL WINTER DIE OUT FROM THE LAWN.
* PRUNE ALL WINTER DAMAGE FROM SHRUBS AND TREES AND ANY OTHER OTHER GROWTH TO HELP KEEP PLANT SHAPE.
* EDGE AND MULCH ALL BEDS.
* ALL TURF AREAS SHALL BE LIMED, FERTILIZED-IF NEEDED APPLY PRE-EMERGENT CRABGRASS CONTROL.

2. CRABGRASS CONTROL:
* IF NEEDED APPLY ANY INSECTICIDE.
* ALL PARKING AREAS SHALL BE SWEPT.
* CATCHBASINS SHALL BE CLEANED OUT.
* INSPECT DRAINAGE BASIN, CLEAN IF NEEDED. SEE EROSION & SEDIMENTATION PLAN.

3. FALL CLEANUP:
* REMOVE ALL LEAVES AND DEBRIS FROM LAWNS AND PLANT BEDS.
* LEAF MULCHING WILL OCCUR WHEN DEEMED APPROPRIATE.
* IN THE EVENT OF EXCESSIVE LEAF ACCUMULATION LEAVES WILL BE SHREDDED AND COMPOSTED OFFSITE.
* FERTILIZE AND APPLY BROADLEAF WEED CONTROL IF NEEDED.
* APPLY INSECT CONTROL IF NEEDED.
* RESEED LAWN AREAS IN SEPTEMBER AS NEEDED.
* IRRIGATION SHUT DOWN TO INCLUDE BLOWING ALL LINES FREE OF WATER.
* SWEEP ALL WALKWAYS, PARKING LOTS, AND DRIVEWAYS.
* INSPECT ALL CATCH BASINS AND CLEAN IF NEEDED.

INSPECT ALL RAIN LEADERS AND CLEAN OUT IF NEEDED.

LANDSCAPE MAINTENANCE:
VEGETATED AREAS IN THE LANDSCAPE WILL REDUCE EROSION, ENCOURAGE INFILTRATION OF RAINWATER, AND KEEP STORMWATER CLEAN. IT IS IMPORTANT TO MAINTAIN THE VEGETATED AREAS OF THE SITE.
-PROPER MOWING IS ONE OF THE MOST IMPORTANT WAYS TO MAINTAIN A HEALTHY LAWN. MOW ONLY WHEN THE GRASS IS DRY TO GET A CLEAN CUT AND MINIMIZE THE SPREAD OF DISEASE. MOW GRASS TO A HEIGHT OF 3". MOW FREQUENTLY, CUTTING NO MORE THAN ⅓ OF THE HEIGHT OF THE GRASS AT A TIME. SHARPEN YOUR MOWER BLADES AFTER EVERY 10 HOURS OF MOWING.
-GRASS CLIPPINGS CONTAIN HIGH AMOUNTS OF NITROGEN, A KEY INGREDIENT IN FERTILIZER. MAKE ALL ATTEMPTS TO USE YOUR GRASS CLIPPINGS BY LEAVING THEM ON YOUR LAWN. IF THE GRASS CLIPPINGS ARE NOT USED, DO NOT DISPOSE OF THEM NEAR ANY WETLANDS AND OR WATERBBODIES AND DESIGNATE A PLACE TO COMPOST THEM IN AN UPLAND AREA.
-IF YOUR LAWN AREAS AND PLANT MATERIAL DEMAND FERTILIZER THEN USE ORGANIC OR SLOW RELEASE FERTILIZERS. FERTILIZE IN THE FALL, BUT IN COORDINATION WITH WEATHER PATTERNS.
-THE BEST DEFENSE AGAINST PESTS WITHIN THE GRASS IS TO USE AN INTEGRATED PEST MANAGEMENT SYSTEM WHICH CONSISTS OF BENEFICIAL INSECTS(LADY BUGS, SPIDERS,CERTAIN NEMETODES AND BACTERIA.)
-MINIMIZE WATERING THE LAWN AREAS. IF NEEDED WATER IN THE EARLY MORNING AND WATER DEEPLY AND INFREQUENTLY.
-IF NEEDED, THE TREES AND SHRUBS SHALL BE PRUNED BUT AT A MINIMUM OF ONCE A YEAR.

IMPERVIOUS SURFACE MAINTENANCE:
THE PARKING LOTS SHALL BE SWEPT AT A MINIMUM OF TWICE A YEAR. ACCUMULATED LEAVES AND GRASS CLIPPINGS SHALL ALSO BE REMOVED FROM THE IMPERVIOUS SURFACES AT A MINIMUM OF TWICE A YEAR.

LONG TERM POLLUTION PREVENTION PLAN:

A LONG-TERM POLLUTION PREVENTION PLAN IS AN IMPORTANT ELEMENT OF THE ROUTINE OPERATION AND MAINTENANCE OF AN INDUSTRIAL FACILITY THAT IS DESIGNED TO REDUCE OR ELIMINATE THE CREATION OF POLLUTANTS AT THE SOURCE. IN ADDITION TO THE OBVIOUS ENVIRONMENTAL BENEFITS OF PROTECTING THE NATURAL RESOURCES DOWNSTREAM OF THE FACILITY, MAINTAINING A LONG-TERM POLLUTION PREVENTION PLAN WILL PROVIDE FOR A HEALTHIER AND SAFER WORK ENVIRONMENT. THE FOLLOWING LONG TERM POLLUTION PREVENTION PRACTICES WILL BE EMPLOYED AT THE FACILITY.

- GOOD HOUSEKEEPING PRACTICES:
  MAINTAINING A CLEAN PROPERTY WILL PREVENT OR REDUCE THE AMOUNT OF POLLUTANTS IN THE STORMWATER RUNOFF DISCHARGING FROM THE SITE. THIS WILL BE ACHIEVED THROUGH PERIODIC PARKING LOT SWEEPING, AT THE OWNERS DISCRETION, AND THROUGH CATCH BASIN AND INFILTRATION BASIN CLEANING AS DETAILED WITHIN THE SITES STORMWATER OPERATION AND MAINTENANCE PLAN.
- PROVISIONS FOR STORING MATERIALS AND WASTE PRODUCTS INSIDE OR UNDER COVER:
  MATERIALS WILL BE STORED IN THEIR APPROPRIATE CONTAINERS AND SHALL BE STORED UNDER COVER OR IN A SECURE ENCLOSURE TO REDUCE THE RISK OF SPILLS. WASTE PRODUCTS WILL BE PLACED IN PROPER BINS UNTIL EMPTIED BY A LICENSED SOLID WASTE MANAGEMENT COMPANY.
- VEHICLE WASHING CONTROLS:
  VEHICLE WASHING IS NOT ANTICIPATED TO OCCUR AT THIS SITE, HOWEVER IF WASHING IS NEEDED IT SHALL BE CONDUCTED IN PAVEMENT AREAS WHERE THE WAS WATER WILL BE COLLECTED AND CONVEYED THROUGH CATCH BASINS AND WATER QUALITY UNITS PRIOR TO DISCHARGING TO THE ONSITE INFILTRATION BASINS.
- REQUIREMENTS FOR ROUTINE INSPECTIONS AND MAINTENANCE OF STORMWATER BMPS:
  REFER TO THE MAINTENANCE SCHEDULE PROVIDED IN THE STORMWATER OPERATION AND MAINTENANCE PLAN.
- SPILL PREVENTION AND RESPONSE PLANS:
  MATERIALS SHALL BE STORED IN THEIR PROPER ORIGINAL CONTAINER IN A SECURE LOCATION. NO MIXING OF MATERIALS SHALL OCCUR UNLESS RECOMMENDED BY MANUFACTURER. THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHOULD BE STRICTLY ADHERED TO. IN THE CASE OF A SPILL THE MANUFACTURER'S METHOD FOR CLEANUP SHALL BE FOLLOWED. THE AREA SHALL BE KEPT VENTILATED AND PERSONNEL HANDLING THE CLEANUP SHALL WEAR PROPER PROTECTIVE CLOTHING. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE STATE AND/OR LOCAL AUTHORITY IN ACCORDANCE WITH LOCAL AND/OR STATE REGULATIONS.
- PROVISIONS FOR MAINTENANCE OF LAWNS, GARDENS, AND OTHER LANDSCAPED AREAS:
  OWNER WILL MAINTAIN SURROUNDING LANDSCAPED AREA AS NEEDED. THESE SERVICES SHALL BE PROVIDED BY A THIRD-PARTY LANDSCAPE PROFESSIONAL.
- REQUIREMENTS FOR STORAGE AND USE OF FERTILIZERS, HERBICIDES, AND PESTICIDES:
  FERTILIZERS, HERBICIDES AND PESTICIDES SHALL BE STORED IN THEIR APPROPRIATE CONTAINERS IN A SECURE LOCATION AS DESCRIBED ABOVE. PROTECTIVE CLOTHING SHALL BE USED WHEN HANDLED, AND QUANTITIES SHALL BE APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- PET WASTE MANAGEMENT PROVISIONS:
  PET WASTE MANAGEMENT IS NOT APPLICABLE AT THIS SITE.
- PROVISIONS FOR OPERATION AND MANAGEMENT OF SEPTIC SYSTEMS:
  SEPTIC SYSTEMS ARE NOT APPLICABLE AT THIS SITE.
- PROVISIONS FOR SOLID WASTE MANAGEMENT:
  SOLID WASTE MATERIAL SHALL BE PLACED IN OUTDOOR SECURE CONTAINERS UNTIL EMPTIED BY A LICENSED WASTE MANAGEMENT COMPANY.
- SNOW DISPOSAL AND PLOWING PLANS RELATIVE TO WETLAND RESOURCE AREAS:
  NO RESOURCE AREAS ARE LOCATED ON THE PROPERTY
- STREET SWEEPING SCHEDULES
  STREET SWEEPING WILL OCCUR AS NEEDED AT THE DISCRETION OF THE OWNER.
- PROVISIONS FOR PREVENTION OF ILLICIT DISCHARGES TO THE STORMWATER MANAGEMENT SYSTEM:
  THE STORMWATER MANAGEMENT SYSTEM ASSOCIATED WITH THE DEVELOPMENT HAS BEEN DESIGNED SUCH THAT PRIOR TO STORM WATER RUNOFF DISCHARGING FROM THE SITE, IT IS TREATED THROUGH A SERIES OF BEST MANAGEMENT PRACTICES. TO THE ENGINEER'S KNOWLEDGE, THERE ARE NO KNOWN OR DESIGNED NON-STORM WATER DISCHARGES THAT ARE OR WILL BE CONNECTED TO THE STORM WATER COLLECTION SYSTEM THAT WOULD CONVEY POLLUTANTS DIRECTLY TO GROUNDWATER OR SURFACE WATERS.
- DOCUMENTATION THAT STORMWATER BMPS ARE DESIGNED TO PROVIDE FOR SHUTDOWN AND CONTAINMENT IN THE EVENT OF A SPILL OR DISCHARGES TO OR NEAR CRITICAL AREAS, ADJACENT WETLANDS OR FROM A LUHPPL:
  WATER QUALITY UNITS ARE DESIGN TO CAPTURE AND STORE OILS AND FLOATABLE DEBRIS. ALL CATCH BASINS SHALL BE EQUIPPED WITH HOODS TO PREVENT OILS AND FLOATABLES FROM DISCHARGING.
- TRAINING FOR STAFF OR PERSONNEL INVOLVED WITH THE IMPLEMENTING LONG TERM POLLUTION PREVENTION PLAN:
  FACILITIES STAFF WILL BE RESPONSIBLE FOR IMPLEMENTING THE LONG TERM POLLUTION PREVENTION PLAN AND STAFF WILL BE TRAINED IN ACCORDANCE WITH COMPANY POLICY

REGULAR MAINTENANCE FOR POROUS ASPHALT

- STOCKPILING OF MATERIALS ON POROUS ASPHALT IS PROHIBITED
- REMOVAL OF LOOSE DEBRIS SUCH AS LEAVES OR TRASH SHOULD OCCUR WHENEVER PRESENT. REMOVAL MAY BE DONE SO BY USING A LEAVE BLOWER OR BROOM
- ASPHALT SHALL BE VACUUMED USING A VACUUM SWEEPER 1-2 TIMES PER YEAR.
- IN THE EVENT THAT STANDING WATER REMAINS ON THE SURFACE OF A THE PAVEMENT AFTER A PRECIPITATION EVENT WITHIN 30 MINUTES, ASPHALT SHOULD BE CLEANED USING A POWER WASHER OR COMPRESSED AIR BLOWER AT AN ANGLE OF 30 DEGREES OR LESS CAN BE EFFECTIVE, PARTICULARLY IN COMBINATION WITH VACUUM OR VACUUM SWEEPER.

STORMWATER MANAGEMENT OPERATION & MAINTENANCE PLAN:

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER COLLECTION SYSTEM INCLUDING DEEP SUMP CATCH BASINS, WATER QUALITY UNITS, UNDERGROUND INFILTRATION BASIN, TREE BOX FILTERS AND A RAIN GARDEN DURING CONSTRUCTION. AFTER CONSTRUCTION, THE PROPERTY OWNER IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE PROPOSED STORMWATER COLLECTION SYSTEM. THE FOLLOWING LONG-TERM OPERATION AND MAINTENANCE PLAN FOR THE PROJECT IS PROPOSED IN ACCORDANCE WITH DEP STORMWATER MANAGEMENT STANDARD NO. 9 TO ENSURE THAT THE STORMWATER COLLECTION AND TREATMENT SYSTEM OPERATES IN ACCORDANCE WITH THE MADEP STORMWATER MANAGEMENT POLICY.

SCHEDULE FOR INSPECTION AND MAINTENANCE AFTER CONSTRUCTION:

STORMWATER MANAGEMENT SYSTEM OWNER/OPERATOR

- THE PROPERTY OWNER WILL BE THE OWNER AND OPERATOR OF THE PROPOSED STORMWATER COLLECTION SYSTEM ON SITE.
- IF THE PROPERTY IS SOLD, A COPY OF THIS OPERATION AND MAINTENANCE PLAN WILL BE TRANSFERRED TO THE NEW PROPERTY OWNERS.

DEEP SUMP CATCH BASINS

- INLETS SHOULD BE CLEANED A MINIMUM OF FOUR TIMES PER YEAR AND INSPECTED MONTHLY.
- ALL SEDIMENTS AND HYDROCARBONS SHOULD BE PROPERLY HANDLED AND DISPOSED, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES AND REGULATIONS.
- STRUCTURES SHOULD BE INSPECTED AND MAINTAINED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.

SEDIMENT FOREBAY

- THE FOREBAY WILL BE CLEANED FOUR TIMES PER YEAR AND INSPECTED MONTHLY.
- ALL SEDIMENTS WILL BE PROPERLY HANDLED AND DISPOSED OF OFF-SITE, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES AND REGULATIONS.

WATER QUALITY UNITS

- STRUCTURE COVER SHOULD BE INSPECTED MONTHLY FOR EVIDENCE OF REPAIR. VERIFY THAT INVERTS ARE SECURE AND FREE FLOWING. MEASURE DEPTH OF SEDIMENT BELOW WATER LINE.
- UNIT SHALL BE CLEANED A MINIMUM OF TWICE PER YEAR. ONE OF THESE CLEANINGS TO OCCUR BEFORE APRIL 15TH OF EACH YEAR AND ONE SHALL OCCUR BEFORE SEPTEMBER 15TH OF EACH YEAR. UNIT MUST BE CLEANED WITH A VACUUM PUMP.
- ALL LIQUID, SEDIMENT, AND HYDROCARBONS SHALL BE PUMPED FROM THE SUMP AT LEAST TWICE PER YEAR AT INTERVALS CORRESPONDING WITH THE UNIT CLEANING.
- ALL SEDIMENT, WATER AND HYDROCARBONS SHOULD BE PROPERLY HANDLED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS.
- REFER TO WATER QUALITY UNIT MANUFACTURERS SPECIFICATIONS FOR ADDITIONAL MAINTENANCE RECOMMENDATIONS.

BELOW GRADE INFILTRATION BASIN

- ONCE CONSTRUCTED, BASINS WILL BE INSPECTED AT A MINIMUM AFTER SEVERAL STORM EVENTS FOR THE FIRST YEAR AND ANNUALLY THEREAFTER TO CONFIRM DRAINAGE SYSTEM FUNCTIONS AS DESIGNED. PROBLEMS WILL BE ADDRESSED IMMEDIATELY.
- SYSTEM SHALL BE CLEANED AS REQUIRED PER THE MANUFACTURER'S RECOMMENDATIONS.

PEASTONE DIAPHRAGM

- THE PEA STONE FILTER LAYER SHALL BE INSPECTED EVERY 6 MONTHS AND AFTER EVERY MAJOR STORM EVENT TO VERIFY NO EROSION HAS OCCURRED AND THE SYSTEM IS FUNCTIONING AS DESIRED. A MAJOR STORM EVEN IS ANY STORM GREATER THAN 2-YEAR STORM WHICH IS 3.03 INCHES OF RAINFALL IN A 24-HOUR PERIOD.
- IF IT IS FOUND THAT THE PEA STONE FILTER IS CLOGGED WITH SEDIMENT, THE PEA STONE AND FILTER FABRIC SHOULD BE REPLACED ON AN AS NEEDED BASIS.
- ALL SEDIMENTS WILL BE PROPERLY HANDLED AND DISPOSED OF OFF-SITE, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES AND REGULATIONS

AT GRADE INFILTRATION BASIN

- ONCE CONSTRUCTED, THE BASIN WILL BE INSPECTED AT A MINIMUM AFTER SEVERAL STORM EVENTS TO CONFIRM DRAINAGE SYSTEM FUNCTIONS, BANK STABILITY, AND VEGETATION GROWTH. PROBLEMS WILL BE ADDRESSED IMMEDIATELY.
- DURING THE FIRST SIX MONTHS OF OPERATION, THE BASIN WILL BE INSPECTED IMMEDIATELY AFTER SIGNIFICANT STORM EVENTS AND CLEANED TO REMOVE SEDIMENT BUILDUP.
- THE OUTLET STRUCTURE WILL BE INSPECTED AND REPAIRED WHERE SEDIMENT APPEARS TO HAVE CLOGGED THE INVERT.
- A STAKE SHALL BE PLACED AT THE BOTTOM OF THE POND WITH MARKS AT 1" INCREMENTS TO MEASURE THE SEDIMENT ACCUMULATION. SEDIMENT WILL BE REMOVED FROM PONDS AT A MINIMUM WHEN ACCUMULATION IS AT 4", BUT AS OFTEN AS NECESSARY, AND AT LEAST ONCE EVERY 10 YEARS.
- AT LEAST TWICE DURING THE GROWING SEASON, THE SIDE SLOPES WILL BE MOWED, AND ACCUMULATED TRASH AND DEBRIS REMOVED. ACCUMULATED SEDIMENT IN FOREBAY WILL ALSO BE REMOVED AT THIS TIME

THE ROUTINE AND NON-ROUTINE MAINTENANCE TASKS TO BE UNDERTAKEN AFTER CONSTRUCTION AND A SCHEDULE FOR IMPLEMENTING THOSE TASK

- A SITE MAINTENANCE LOG WILL BE KEPT. THIS LOG WILL RECORD THE DATES WHEN MAINTENANCE TASKS WERE COMPLETED, THE PERSON WHO COMPLETED THE TASK, AND ANY OBSERVATIONS OF MALFUNCTIONS IN COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM. A SAMPLE MAINTENANCE LOG FORM IS ATTACHED.

SNOW AND ICE PROCEDURES

PRIOR TO THE COLD WEATHER SEASON, THE CONTRACTOR WHO IS RESPONSIBLE FOR SNOW REMOVAL SHALL INSPECT THE FACILITY AND FAMILIARIZE THEMSELVES WITH THE PARKING LOT AND SIDEWALK LAYOUT. WHILE ONSITE THEY SHALL ALSO LOOK FOR OBSTACLES SUCH AS MANHOLE COVERS, VALVE BOXES, CURB SECTIONS, ETC.

STEPS, ENTRANCEWAYS AND SIDEWALKS
REMOVAL OF SNOW FROM MAIN ENTRANCES, LANDINGS, FIRE LANES/EXITS, AND HANDICAP ROUTES/RAMPS WILL BE OF HIGH PRIORITY AND WILL BE CLEARED BEFORE ALL SECONDARY ENTRANCES AND WALKWAYS. SECONDARY WALKWAYS MAY BE TEMPORARILY RESTRICTED FROM USE TO DIRECT PEDESTRIANS TO DESIGNATED SNOW WALKS. IN THE EVENT OF SNOW, DUMP TRUCKS WITH PLOWS, TRACTORS WITH LOADER BUCKETS, SNOW BLOWERS, SKID STEER LOADERS AND/OR HAND TOOLS WILL BE USED TO CLEAR THE WALKS. CONDITIONS WILL BE MONITORED TO ASSURE ICY OR SLIPPERY AREAS TREATED. EVERY EFFORT WILL BE MADE TO USE ONLY A SALT PRODUCT FOR SIDEWALKS. STEPS, LARGE WALK-THRUS, AND LARGE ENTRYWAYS SHALL BE PARTIALLY SHOVELED WITH A PATH ALONG THE RAILINGS FOR INITIAL OPENING OF THESE AREAS. AT LEAST ONE (1) HANDICAP ROUTE MUST BE FULLY PASSABLE. SIDEWALKS MUST BE CLEARED FULL WIDTH WITHIN 24 HOURS AFTER SNOWFALL CEASES. STAFF IS ADVISED THAT SNOW SHOULD NOT BE SHOVELED OR MOVED ONTO THE ROADWAY OR INTO PARKING AREAS.

SNOW WALKS
IN ORDER TO KEEP FACILITIES OPERATIONAL DURING SNOW REMOVAL, A NETWORK OF PRIORITY SIDEWALKS (SNOW WALKS) HAS BEEN SELECTED. THE SNOW WALKS SHALL BE THE FIRST WALKS CLEARED DURING A SNOW EVENT AND EVERY ATTEMPT SHALL BE MADE TO KEEP THEM OPEN WHILE THE SNOW IS STILL FALLING. BUILDING ENTRANCES SHALL BE CLEARED ON A PRIORITY BASIS WITH THE HIGHEST PRIORITY GOING TO ENTRANCES THAT LEAD TO SNOW WALKS. BASED ON NECESSITY, STAIRS, AND ROUTES WITH STAIRS HAVE A LOWER PRIORITY THAN SNOW WALK ROUTES. THE SNOW WALK ARRANGEMENT IS DESIGNED TO GET PEOPLE EITHER TO BUS STOPS, PARKING LOTS, LEAD WALKS, AND MAIN ENTRANCES INTO FACILITIES.

PARKING LOTS
EMPLOYEES AND VISITORS MAY BE DIRECTED TO PARK ON ONE SIDE, OR IN DESIGNATED AREAS DURING SNOW REMOVAL OPERATIONS. FIRE LANES, DELIVERY, LOADING/UNLOADING ZONES, AND HANDICAPPED PARKING RECEIVE FIRST PRIORITY. ONCE OPEN AREAS OF THE PARKING LOT HAS BEEN CLEARED, THEY MAY BE REQUESTED TO MOVE THEIR VEHICLE TO OTHER LOCATIONS. TO HELP AVOID THE FRUSTRATION THAT OCCURS WHEN A SNOWPLOW COVERS SIDEWALKS, PLOWING OPERATIONS SHALL BE PERFORMED TO STOCKPILE SNOW IN PARKING SPACES, PREFERABLY IN A LOCATION THAT DOES NOT BLOCK STORM DRAIN INLETS, SIDEWALKS, OR ADA RAMP / ACCESS POINTS.

PARKING LOTS WILL BE PLOWED WITH THE PRIORITY OF VISITOR/COMMUTER LOTS AND HANDICAP SPACES BEING FIRST, AND EMPLOYEE PARKING AS A SECONDARY PRIORITY. IT MUST BE UNDERSTOOD THAT LOTS WITH VEHICLES PARKED IN THEM MAKE IT VERY DIFFICULT TO DO AN ADEQUATE JOB IN SNOW REMOVAL. EFFORTS WILL BE FIRST MADE TO OPEN AREAS WITH NO VEHICLE TRAFFIC IN AN EFFORT TO MAKE ROOM FOR INCOMING VEHICLES. IF THE SURFACE IN THE PARKING LOTS BECOMES SLIPPERY AND DETERMINED A SAFETY HAZARD, SAND/SALT WILL BE SPREAD IN THE MAIN DRIVING LANES AND LOT ENTRANCES. DURING PARKING LOT SNOW REMOVAL, IT MAY BECOME NECESSARY FOR STAFF AND VISITORS TO PARK IN AN ALTERNATE LOT OTHER THAN THE ONE THEY NORMALLY PARK IN UNTIL ALL LOTS ARE CLEARED AND AVAILABLE. EVERY REASONABLE EFFORT SHALL BE MADE TO OPEN PARKING LANES TO ALLOW FOR TWO-WAY TRAFFIC.

SNOW STORAGE IN BIOFILTRATION AREAS IS PROHIBITED.

SNOW HAULING / DISPOSAL. AS SNOWBANKS BUILD UP AROUND THE PARKING LOTS, SIDEWALKS AND ENTRANCES, CREWS MAY BE REQUIRED TO REMOVE NECESSARY SNOW AND HAUL TO A SNOW DUMP. HIS IS DONE TO PROVIDE ADEQUATE PARKING IN LOTS, ASSURE VISIBILITY FOR PEDESTRIANS AND VEHICLES, TO MAKE ROOM FOR MORE SNOW, AND TO CONTROL FLOODING PROBLEMS WHEN SNOW AND ICE MELTS. THIS IS TYPICALLY DONE OUTSIDE OF CONTRACT AND AT AN ADDITIONAL CHARGE.

SPREADING OF DE-ICING MATERIALS

APPLICATION RATES. THE APPLICATION RATE AND SPREADER CALIBRATION IS ESTABLISHED BY THE SNOW REMOVAL CONTRACTOR FOR VARYING CONDITIONS. NO TWO STORMS ARE ALIKE, SO NO SINGLE SET OF STANDARDS WILL GIVE THE PROPER SPREADING RATE FOR ALL STORM CONDITIONS. EXPERIENCE SHOWS THAT IT IS MOST EFFECTIVE TO SPREAD SALT/ICE-MELT AT A LOW (2) OR MEDIUM (6) SETTING, WITH A HIGH SETTING (10) IN AREAS REQUIRING A WIDER APPLICATION SUCH AS AT INTERSECTIONS, PARKING LOTS, AND/OR WHERE ICE CONDITIONS ARE PRESENT.

TIMING OF AN INITIAL SALT APPLICATION FOR SNOWSTORM EVENTS IS CRITICAL. IT SHOULD BE MADE AS SOON AS POSSIBLE AFTER SUFFICIENT PRECIPITATION HAS FALLEN TO PREVENT MATERIAL LOSS, BUT BEFORE SNOWPACK OR ICE BONDS TO THE PAVEMENT. SALT IS APPLIED AS SOON AS THE SNOW OR ICE BEGINS TO ACCUMULATE ON THE PAVEMENT. GENERALLY, ONLY ENOUGH SALT IS APPLIED TO PERMIT PLOWS TO REMOVE THE SNOW OR TO MELT GLARE ICE. SAND AND OTHER ABRASIVES MAY BE USED TO IMPROVE TRACTION ON SNOW AND ICE COVERED PAVEMENTS, ESPECIALLY WHEN IT IS TOO COLD (15-25° F) FOR SALT AND OTHER CHEMICAL DEICING TO WORK. IT IS IMPORTANT NOT TO PLOW OFF THE SALT OR OTHER TREATMENT UNTIL IT HAS HAD A CHANCE TO MELT THE SNOW AND/OR ICE. APPLYING SALT DURING BLOWING SNOW AND COLD TEMPERATURES IS NOT DESIRABLE, AS IT WILL CAUSE DRIFTING SNOW TO STICK TO THE PAVEMENT WHEN IT MIGHT OTHERWISE BLOW OFF THE SURFACE.

WHEN THE PAVEMENT IS COLD (I.E., BELOW 15° F) AND NEW OR BLOWING SNOW IS LIGHT AND COLD, TRAFFIC AND WIND (EQUAL OR GREATER THAN 15 MPH) MAY BE SUFFICIENT TO PREVENT ACCUMULATION AND COMPACTION. IN THIS CASE, APPLICATION OF ANY CHEMICAL MAY CREATE ADDITIONAL PROBLEMS RATHER THAN CURE THEM.

IF THE PAVEMENT AND SNOW ARE COLD AND DRY, AND IT IS APPARENT THAT SNOW WITHIN TIRE TRACKS IS NOT ADHERING TO THE PAVEMENT, PLOWING IS THE ONLY NECESSARY FUNCTION TO REMOVE ACCUMULATION.

IF THE WEATHER FORECAST IS FOR RISING TEMPERATURES, HOWEVER, CHEMICAL(S) SHOULD BE APPLIED WHEN THE TEMPERATURE RISES HIGH ENOUGH FOR THE CHEMICAL TO ACT RAPIDLY, USUALLY ABOVE 25° F. APPLICATION CAN BE MADE AT TEMPERATURES AS LOW AS 15° F IF RAPID RISE IN TEMPERATURE IS FORECASTED. APPLICATION OF SALT ONTO DRY PAVEMENT IS NOT RECOMMENDED.

ABRASIVE SIZE. STUDIES HAVE SHOWN THAT A SAND OR OTHER ABRASIVE MATERIAL LARGER THAN THE #50 SIEVE IS MOST EFFECTIVE AT IMPROVING VEHICLE TRACTION ON SNOW AND ICE-COVERED PAVEMENTS. IN ADDITION, THE USE OF PARTICLES SMALLER THAN 3/8" HAS BEEN PROVEN TO MINIMIZE THE POTENTIAL FOR WINDSHIELD DAMAGE. THE CONCRETE SAND (# 100 ABRASIVE) USED BY OUR CREWS IS SMALLER THAN THE #50 SIEVE; AND IS, THEREFORE, PRIMARILY UTILIZED FOR DEICING RATHER THAN FOR TRACTION. FOR AIRPORT USES, FINE SANDS (PASSING THE #30 SIEVE) WORK BETTER ON WARMER ICE (>20° F) AND COARSE SANDS SHOW BETTER PERFORMANCE ON COLDER ICE (<15F)

WINTER MAINTENANCE FOR POROUS ASPHALT

GENERAL MAINTENANCE
- PLOW AFTER EVERY STORM. RAISED BLADES ARE NOT RECOMMENDED
- 100% SALT APPLICATION IS PROHIBITED
- EXCESS SALT MAYBE REQUIRED IN PARTICULARLY CHALLENGING STORMS
- SALT REDUCTION SHOULD TYPICALLY OCCUR IN BETWEEN STORMS
- APPLY ANTI-ICING TREATMENTS PRIOR TO STORMS. ANTI-ICING HAS THE POTENTIAL TO PROVIDE THE BENEFIT OF INCREASED TRAFFIC SAFETY AT THE LOWEST COST AND WITH LESS ENVIRONMENTAL IMPACT.
- APPLY DEICING TREATMENTS DURING AND AFTER STORMS AS NECESSARY TO CONTROL COMPACT SNOW AND ICE NOT REMOVE BY PLOWING.
- SAND APPLICATION SHOULD BE LIMITED SINCE IT WILL INCREASE THE NEED FOR VACUUMING
- MIXED PRECIPITATION AND COMPACT SNOW AND ICE IS PROBLEMATIC FOR ALL PAVED SURFACES BUT IS PARTICULARLY PROBLEMATIC FOR POROUS SURFACES. THIS IS CORRECTED BY APPLICATION OF EXCESS DEICING CHEMICALS.

DURING EVENT
- APPLY STANDARD AMOUNTS OF DEICING AGENTS DURING STORM EVENTS
- AMOUNTS WILL BE ADJUSTED BASED ON SITE SPECIFIC REQUIREMENTS, HOURS OF OPERATION AND DEGREE OF SHADING
- ADDITIONAL DEICING MAY BE REQUIRED DURING CHALLENGING STORM EVENTS.

BETWEEN STORMS
- DEICING IS NOT REQUIRED FOR BLACK ICE DEVELOPMENT. MELTWATER READILY DRAINS THROUGH POROUS SURFACES THEREBY PREVENTING BLACK ICE.
- NIGHT TIME DEICING MAY REQUIRE ADDITIONAL MAINTENANCE ACTIVITIES.
- DAYTIME DEICING MAY BE MINIMAL ONCE PAVEMENT IS EXPOSED TO SUNLIGHT

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

7/3/25

Drawn By:	Designed By:	Checked By:
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Sheet Title
Landscape
Maintenance
Plan

Job No: 127.01.001
File Name: 127.01.001P-LA02
Date: July 3, 2025
Scale: N.T.S.

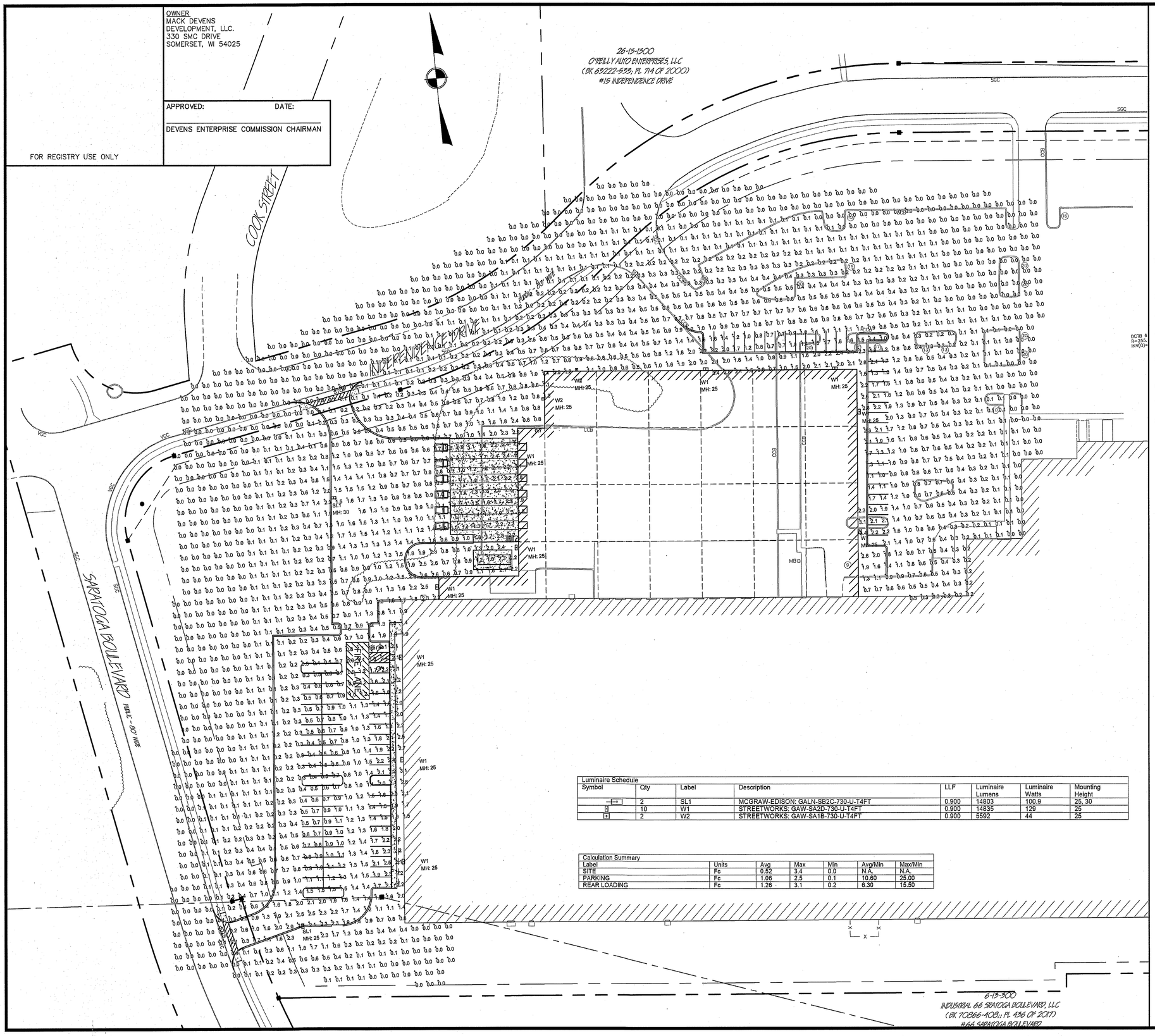
Sheet No.
8

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY

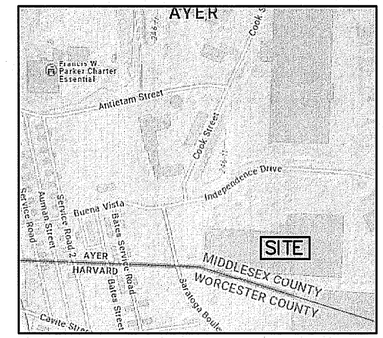


Luminaire Schedule

Symbol	Qty	Label	Description	LLF	Luminaire Lumens	Luminaire Watts	Mounting Height
	2	SL1	MCGRAW-EDISON: GALN-SB2C-730-U-T4FT	0.900	14803	100.9	25, 30
	10	W1	STREETWORKS: GAW-SA2D-730-U-T4FT	0.900	14835	129	25
	2	W2	STREETWORKS: GAW-SA1B-730-U-T4FT	0.900	5592	44	25

Calculation Summary

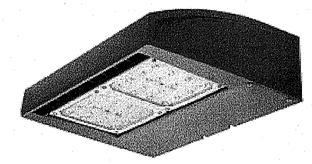
Label	Units	Avg	Max	Min	Avg/Min	Max/Min
SITE	Fc	0.52	3.4	0.0	N.A.	N.A.
PARKING	Fc	1.06	2.5	0.1	10.60	25.00
REAR LOADING	Fc	1.26	3.1	0.2	6.30	15.50



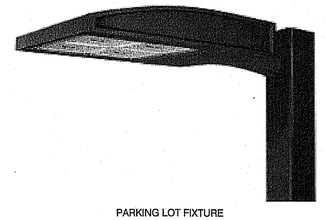
LOCUS PLAN
1"=500 FT.±

GENERAL NOTES:

1. EXISTING CONDITIONS INFORMATION SHOWN IS FROM AN ON-THE-GROUND SURVEY COMPLETED BY TAUPER LAND SURVEY, 710 MAIN STREET OXFORD, MA 01537 IN OCTOBER 2021.
2. THE LAND SHOWN HEREON IS NOT SITUATED IN THE 100-YEAR FLOOD HAZARD ZONE PER THE MASSGIS ONLINE DATA VIEW, OLIVER.
3. NO WETLAND RESOURCE AREAS WERE OBSERVED WITHIN 100-FEET OF THE PROJECT SITE.
4. PROPOSED USE WILL NOT GENERATE ELECTROMAGNETIC INTERFERENCE TO ANY SENSITIVE RECEPTOR. INTERFERENCE WITH THE HARVARD-SMITHSONIAN RADIO TELESCOPE (1400-1720 MHz) IS SPECIFICALLY PROHIBITED.
5. PROPOSED USE WILL NOT CAUSE PRONOUNCED, MULTIPLE PATTERNS OF NOISE OR VIBRATION NUISANCE TO, OR INTERFERE WITH ANY SENSITIVE RECEPTOR.
6. A DEP AIR QUALITY PERMIT IS NOT REQUIRED.
7. ALL FIXTURES TO BE BLACK AND 3000K TEMPERATURE
8. ALL FIXTURES SHALL HAVE RECESSED LIGHT SOURCES NOT GREATER THAN 90° FROM THE BUILDING AND PROPERLY SHIELDED TO PREVENT OFF-SITE GLARE TO COMPLY WITH 174 CMR 3.04 & 4.04



WALL MOUNTED FIXTURE



PARKING LOT FIXTURE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By: JLL | Designed By: JLL | Checked By: PJM

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Lighting Plan

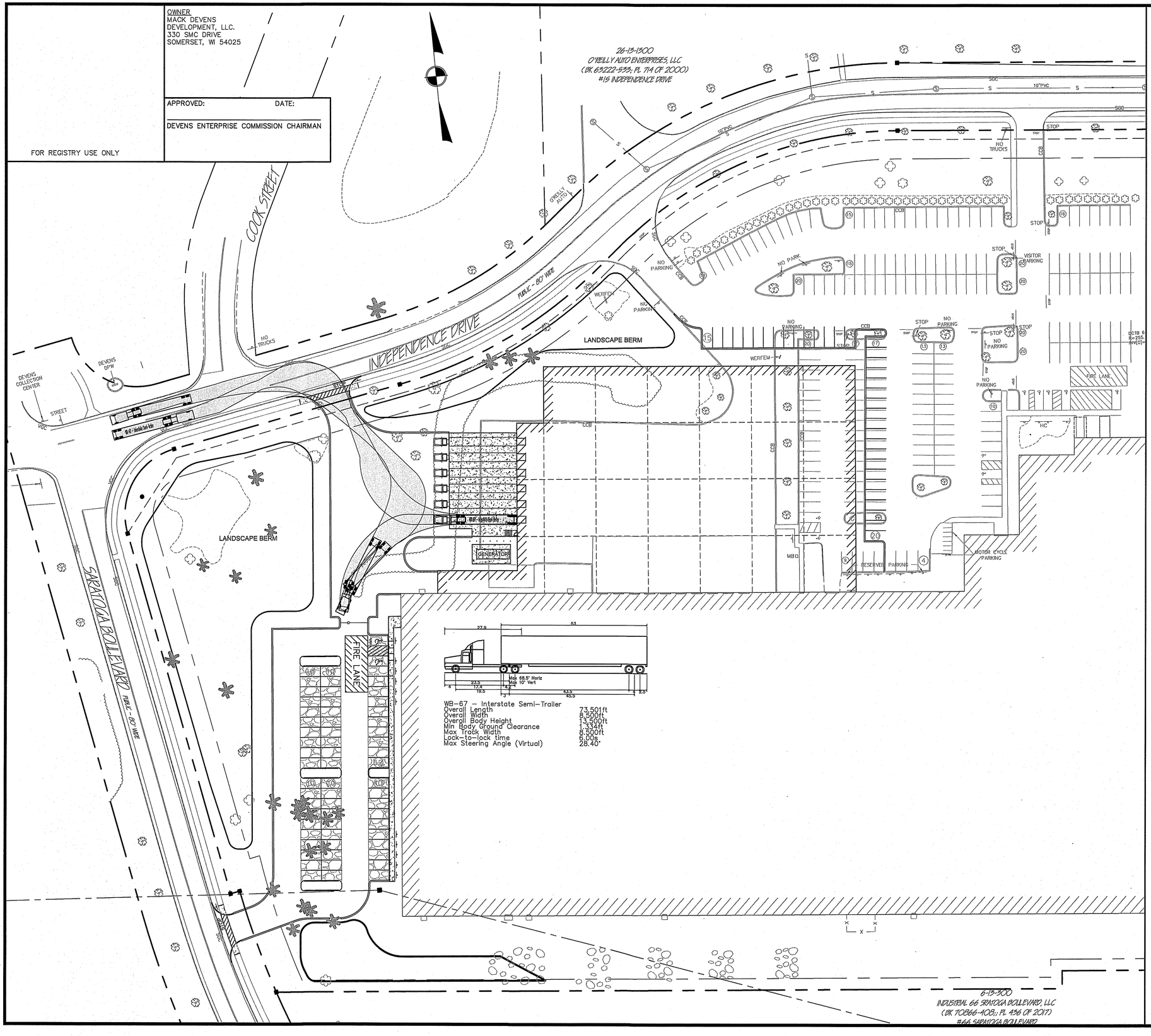
Job No: 127.01.001 | Sheet No. 9
File Name: 127.01.001P-LIT01
Date: July 3, 2025
Scale: 1"=40'

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

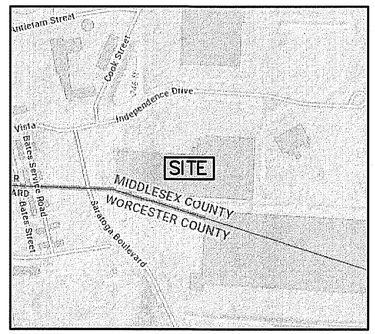
DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY



WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°



LOCUS PLAN
1"=500 FT.±

GENERAL NOTES:

1. EXISTING CONDITIONS INFORMATION SHOWN IS FROM AN ON-THE-GROUND SURVEY COMPLETED BY TAUPER LAND SURVEY, 710 MAIN STREET OXFORD, MA 01537 IN MAY OF 2025.
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3. NO WETLAND RESOURCE AREAS WERE OBSERVED WITHIN 100-FEET OF THE PROJECT SITE.
4. PROPOSED USE WILL NOT GENERATE ELECTROMAGNETIC INTERFERENCE TO ANY SENSITIVE RECEPTOR. INTERFERENCE WITH THE HARVARD-SMITHSONIAN RADIO TELESCOPE (1400-1720 MHz) IS SPECIFICALLY PROHIBITED.
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6. A DEP AIR QUALITY PERMIT IS NOT REQUIRED.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 45065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By: JLL | Designed By: JLL | Checked By: PJM

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Truck Turning Plan

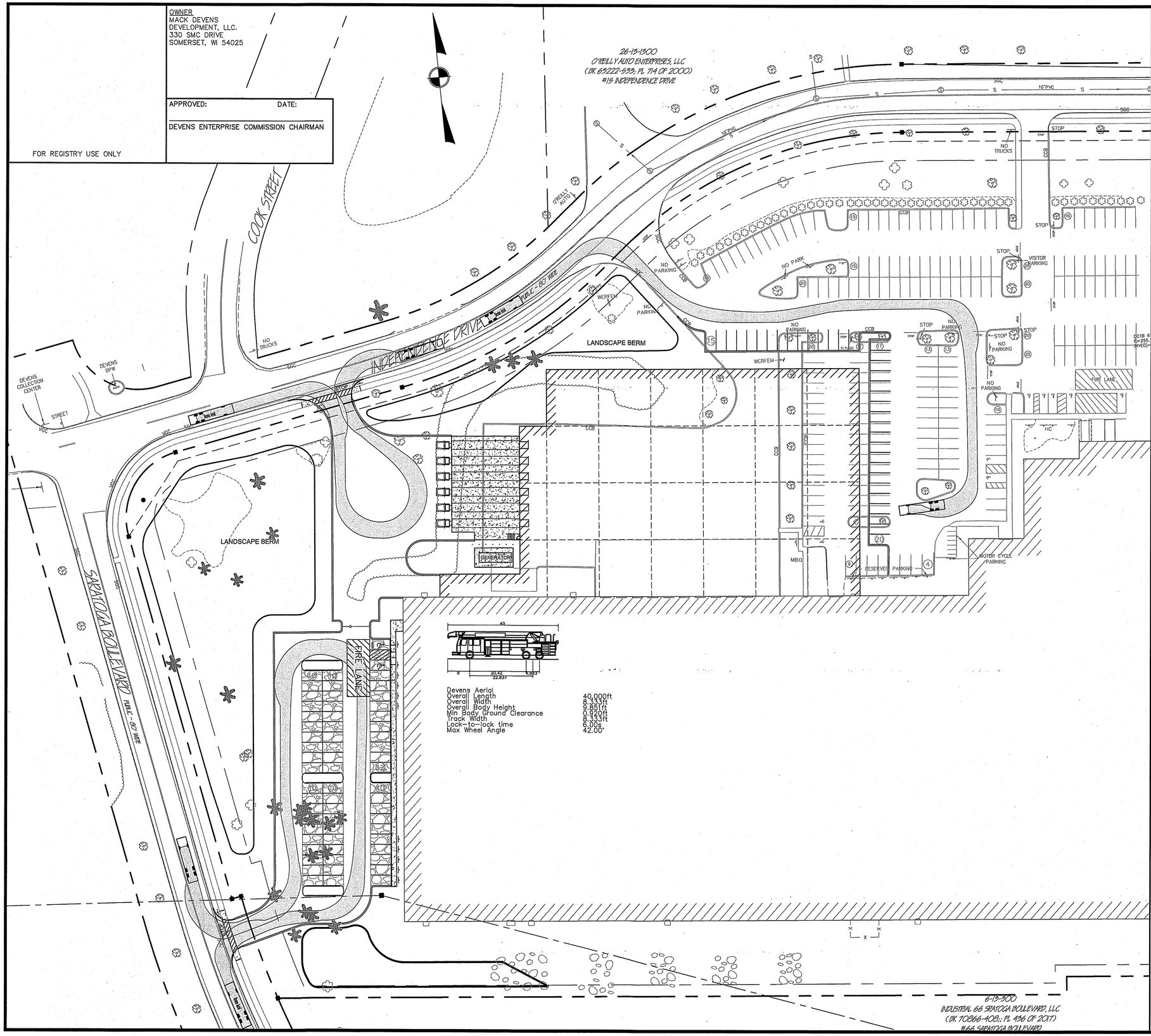
Job No: 127.01.001 | Sheet No. 10
File Name: 127.01.001P-TRN01
Date: July 3, 2025
Scale: 1"=40'

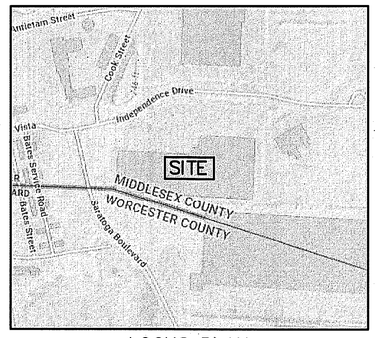
OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY





LOCUS PLAN
1"=500 FT.±

GENERAL NOTES:

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GRAPHIC SCALE

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(IN FEET)
1 inch = 40 ft.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By: JLL | Designed By: JLL | Checked By: PJM

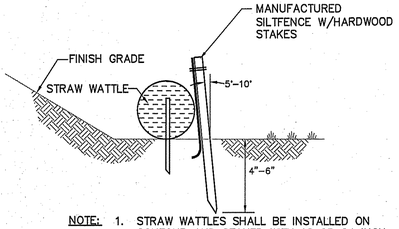
McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Fire Truck Turning Plan

Job No: 127.01.001
File Name: 127.01.001P-TRN02
Date: July 3, 2025
Scale: 1"=40'

Sheet No.
11

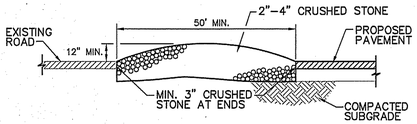


NOTE: 1. STRAW WATTLES SHALL BE INSTALLED ON CONTOUR AND STAKED WITH 18 OR 24 INCH WOOD STAKES AT FOUR FEET ON CENTER

2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES ½ OF ROLL HEIGHT

STRAW WATTLE / SILT FENCE DETAIL

N.T.S.



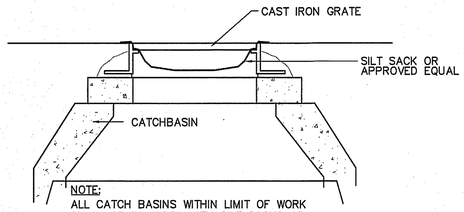
NOTES:

THE PURPOSE OF THIS TEMPORARY BERM IS TO REMOVE MUD FROM THE TIRES OF VEHICLES LEAVING THE SITE DURING CONSTRUCTION.

PROVIDE LEVEL AREA OF CRUSHED STONE 50 FEET IN FROM EDGE OF EXISTING ROAD.

CONSTRUCTION ENTRANCE BERM

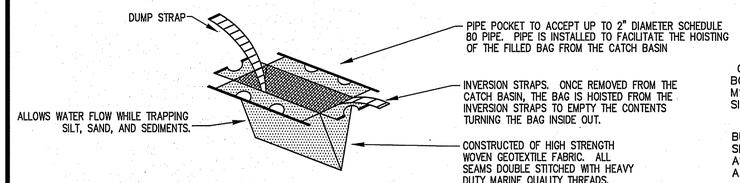
N.T.S..



NOTE:
ALL CATCH BASINS WITHIN LIMIT OF WORK SHALL BE EQUIPPED WITH SILT SACKS OR APPROVED EQUAL.

TEMPORARY CATCHBASIN FILTER

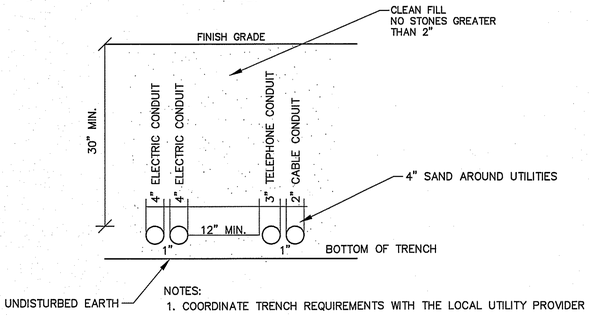
N.T.S.



NOTES:
1. PRODUCT TO BE "SILT SACK" MANUFACTURED BY REED AND GRAHM, INC. SACRAMENTO, CA, OR APPROVED EQUAL.

SILT BAG

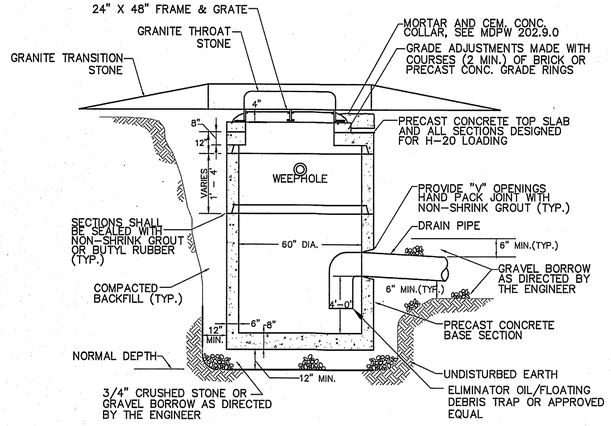
N.T.S.



NOTES:
1. COORDINATE TRENCH REQUIREMENTS WITH THE LOCAL UTILITY PROVIDER

TYPICAL UTILITY TRENCH DETAIL

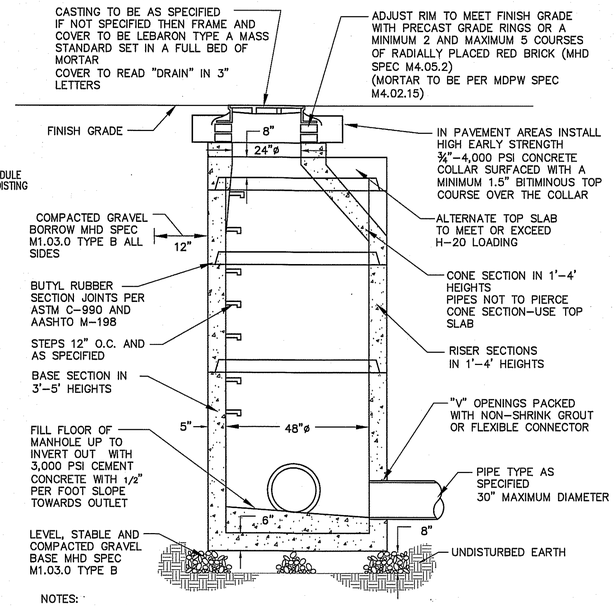
N.T.S.



NOTES:
1. CATCH BASIN SHALL BE PRECAST CEMENT CONCRETE MANUFACTURED IN ACCORDANCE WITH ASTM C-478 DESIGNED FOR H-20 LOADING.
2. DRAIN PIPE FOR LATERAL CONNECTIONS SHALL BE INSTALLED AND TEMPORARILY PLUGGED AS REQUIRED OR DIRECTED.
3. SEE GENERAL PLANS FOR PIPE SIZE, LINE AND GRADE.
4. BACKFILL MATERIAL SHALL CONSIST OF SUITABLE EXCAVATED MATERIAL AND/OR GRAVEL BORROW AS DIRECTED BY THE ENGINEER.
5. INSTALL FRAME & GRATE WITH 24" SIDE ALONG CURB INLET.

PRECAST CONCRETE 60" DIAMETER DOUBLE CATCH BASIN DETAIL

N.T.S.

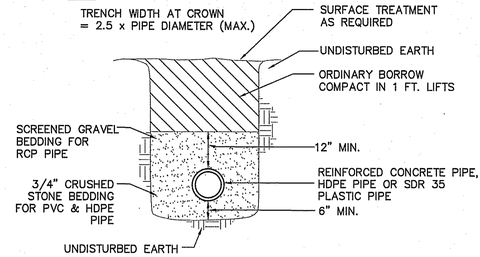


NOTES:
1. EXCAVATION TO ALLOW FOR FREE TRAVEL OF COMPACTION EQIPMENT
2. ALL COMPACTION TO A MINIMUM 95 PERCENT DRY DENSITY DETERMINED BY ASTM D1557 SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
3. ALL PRECAST TO MEET OR EXCEED ASTM C-478 AND ASSHTO M 199 SPECIFICATIONS
4. REINFORCED STEEL TO MEET OR EXCEED ASTM A185 AND H-20 LOADING REQUIREMENTS
5. ALL PRECAST CONCRETE TO BE 4,000 PSI MIMIMUM AND MEET ASTM C-478 (6.1)
6. IF NO STEPS ARE SPECIFIED THAN AS THE LOCAL MUNICIPALITY REQUIRES OR IF NO MUNICIPLAITY REQUIREMENTS THEN COPOLYMER POLYPROPYLENE COATED REINFORCED PER ASTM C-478 AND OSHA (STD 1-1.9)
7. CONTRACTOR TO CONFIRM WITH CITY OR TOWN DPW THAT BRICK INVERTS ARE NOT A REQUIREMENT
8. FILL ALL INTERNAL AND EXTERNAL HOLES WITH NON-SHRINK GROUT

PRECAST CONCRETE DRAIN MANHOLE DETAIL

N.T.S.

NOTE

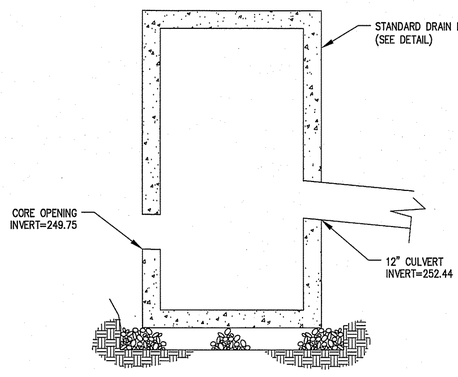


NOTES:

1. TRENCH EXCAVATION WIDTH TO ALLOW FOR FREE TRAVEL OF COMPACTION EQUIPMENT
2. ALL COMPACTION TO A MINIMUM 95 PERCENT DRY DENSITY DETERMINED BY ASTM D1557.
3. SEE MANUFACTURERS SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS
4. AVOID HEAVY EQUIPMENT LOADS OVER PIPE DURING CONSTRUCTION

DRAIN PIPE TRENCH DETAIL

N.T.S.



OUTLET CONTROL STRUCTURE BASIN 1 DETAIL

N.T.S.

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By: JLL | Designed By: JLL | Checked By: RW

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

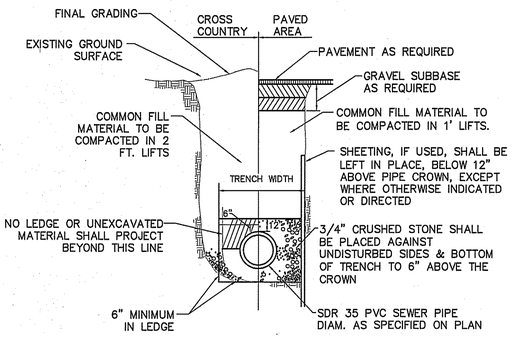
Project Name

Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title

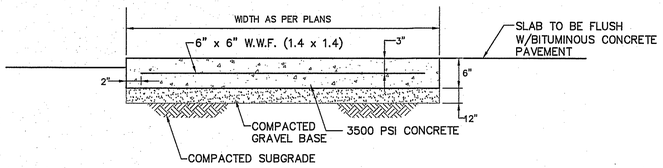
Construction Details

Job No: 127.01.001 | Sheet No. 12
File Name: 127.01.001P-DET01
Date: July 3, 2025
Scale: N.T.S.



SEWER TRENCH SECTION

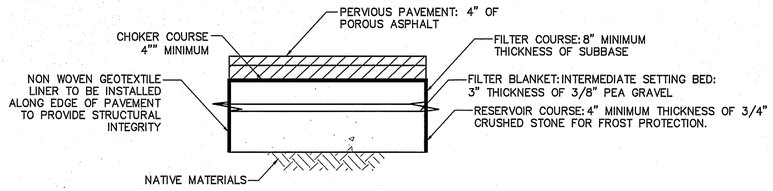
N.T.S.



NOTE:
CONSTRUCTION JOINTS ARE TO BE AT 6' INTERVALS

CONCRETE LOADING AREA PAD DETAIL

N.T.S.



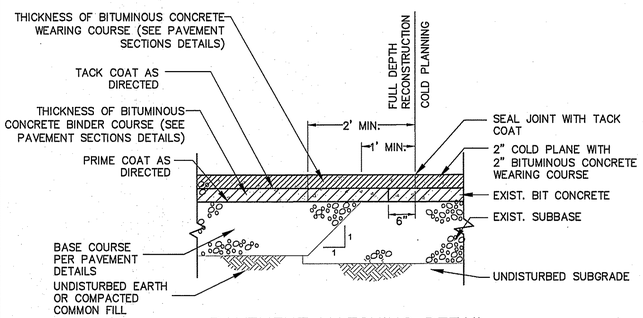
POROUS PAVEMENT DETAIL

N.T.S.

NOTES:

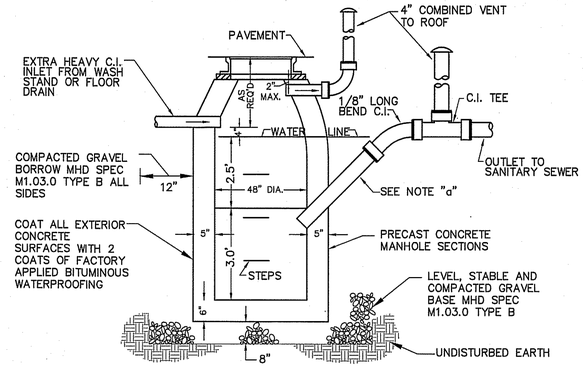
1.POROUS ASPHALT TO BE CONSTRUCTED IN ACCORDANCE WITH UNHSC DESIGN SPECIFICATIONS FOR POROUS ASPHALT PAVEMENT AND INFILTRATION BEDS.

2.POROUS ASPHALT TO BE INSTALLED BY A QUALITY CONTRACTOR EXPERIENCED INTO PERMEABLE PAVING INSTALLATION



PAVEMENT MATCHING DETAIL

N.T.S.



(a) HUBLESS C.I. SOIL PIPE AND FITTINGS WITH APPROVED COUPLINGS
(b) SERVICE WEIGHTS SOIL PIPE WITH APPROVED RESILIENT GASKETS OR LEAD AND OKUM JOINTS.
(c) EXTRA HEAVY SOIL PIPE WITH APPROVED RESILIENT GASKETS OR LEAD AND OKUM JOINTS.

GENERAL CONSTRUCTION NOTES

WHERE SUBJECT TO FROST OR CRUSHING CONDITIONS, OUTLET SHALL BE AT LEAST THREE FEET BELOW THE SURFACE.

THE NEW SEPERATOR MUST BE FILLED WITH CLEAN WATER BEFORE USING, AND AFTER BEING EMPTIED FOR PERIODIC CLEANING.

ALL OIL AND GASOLINE MUST BE REMOVED BEFORE CLEANING OUT THE BASIN, AND MUST NOT BE DISCHARGED INTO THE SEWER THROUGH OTHER FIXTURES.

SPECIFICATIONS FOR COVERING SPECIAL CASES OR CONDITIONS, SHALL BE APPROVED BY THE LOCAL AUTHORITIES, AND THE AUTHORITIES OF THE COMMONWEALTH OF MASSACHUSETTS.

STEPS SHALL BE SPACED 12" APART

BOTH VENTS SHALL BE EXTENDED INDEPENDENTLY 18" ABOVE THE ROOF, OR AS APPROVED BY THE LOCAL AUTHORITIES, AND THE AUTHORITIES OF THE COMMONWEALTH OF MASSACHUSETTS.

SEPERATOR TO BE LOCATED OUTSIDE OF BUILDING WHERE POSSIBLE, COVER TO HAVE A CENTER HOLE.

A TIGHT COVER MUST BE USED IF SEPERATOR IS LOCATED INSIDE OF BUILDING.

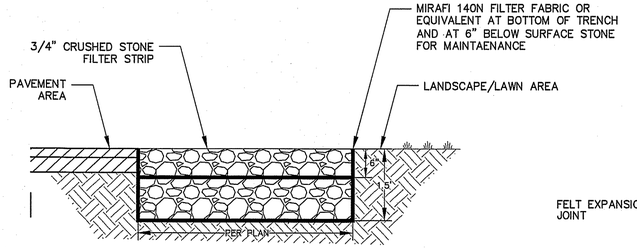
OPENING SHALL BE NOT LESS THAN 24" DIA.

THE SEPERATOR SHALL BE SO LOCATED AND CONSTRUCTED THAT SURFACE WATER SHALL BE EXCLUDED.

INLET PIPE SHALL BE AT LEAST FOUR INCHES ABOVE NORMAL WATER LINE.

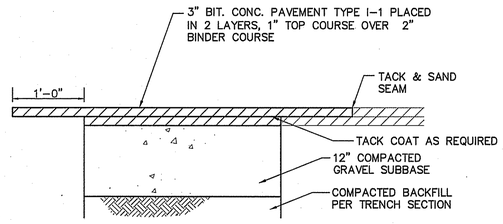
OIL/WATER SEPARATOR

N.T.S.



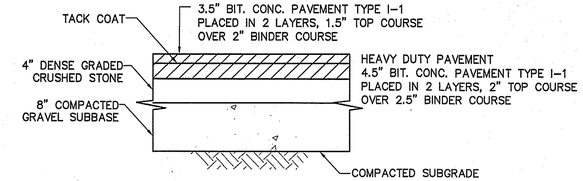
PEA STONE DIAPHRAGM DETAIL

N.T.S.



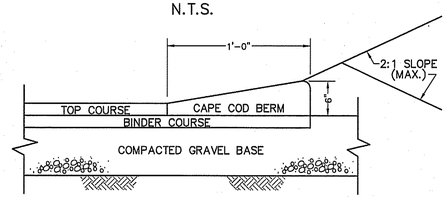
PERMANENT TRENCH REPAIR DETAIL

N.T.S.



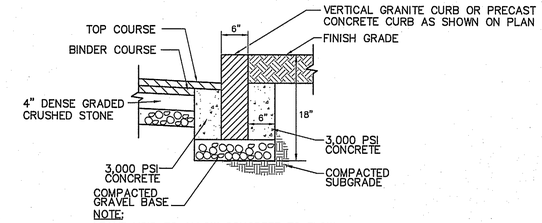
BITUMINOUS CONCRETE PAVEMENT DETAIL

N.T.S.



BITUMINOUS CONCRETE BERM DETAIL

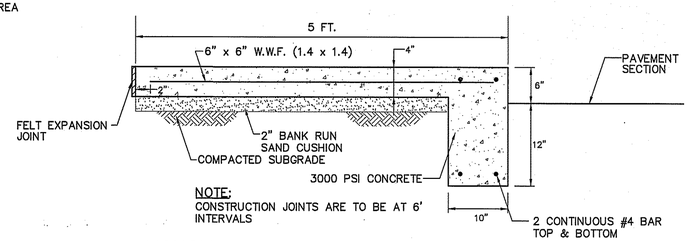
N.T.S.



NOTE:
LEAVE VOID TO ALLOW CONCRETE TO FLOW UNDER AND AROUND CURB

VERTICAL GRANITE/PRECAST CONCRETE CURB DETAIL

N.T.S.



NOTE:
CONSTRUCTION JOINTS ARE TO BE AT 6' INTERVALS

MONOLITHIC CONCRETE CURB & SIDEWALK DETAIL

N.T.S.

OWNER
MACK DEVENS DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

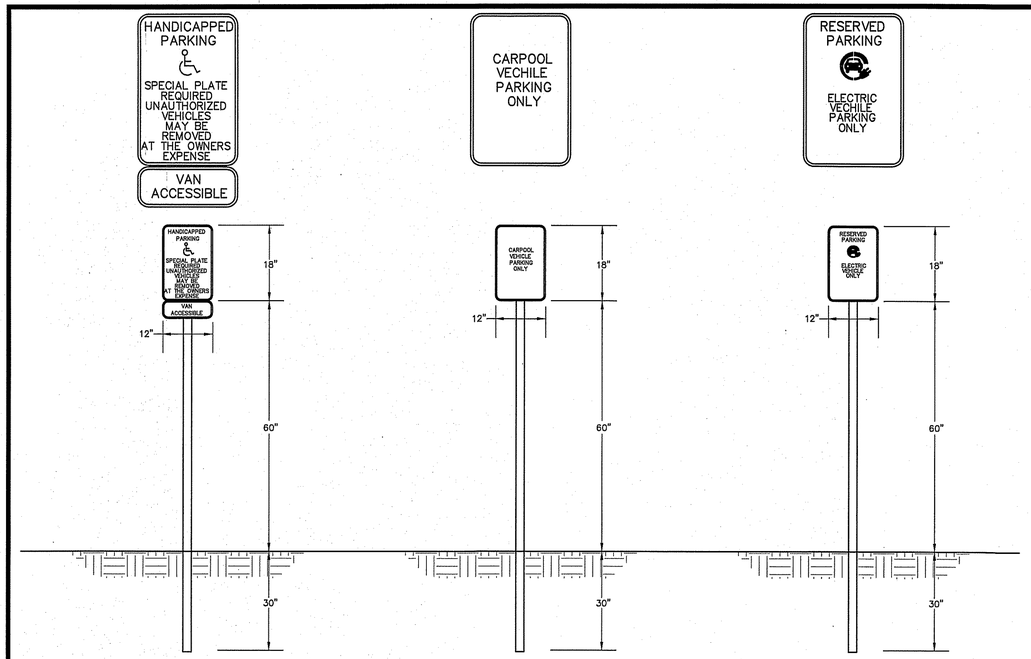
Drawn By: JLL | Designed By: JLL | Checked By: PJM

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title
Construction Details

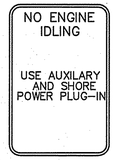
Job No: 127.01.001 | Sheet No. 13
File Name: 127.01.001P-DET02
Date: July 3, 2025
Scale: N.T.S.



HANDICAP PARKING SIGN DETAIL
N.T.S.

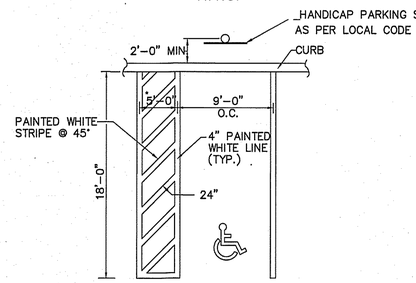
RIDE SHARING PARKING SIGN DETAIL
N.T.S.

ELECTRIC VEHICLE PARKING SIGN DETAIL
N.T.S.



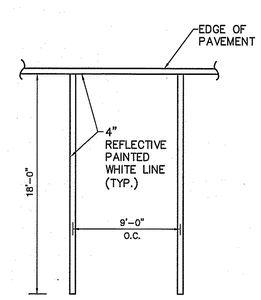
NOTE:
TO BE MOUNTED ON BUILDING

NO IDILING SIGN DETAIL
N.T.S.



* PAINTED AISLE 8'-0" MIN WIDE FOR HC VAN SPACES.

HANDICAP PARKING SPACE DETAIL
N.T.S.



STANDARD SPACE DETAIL
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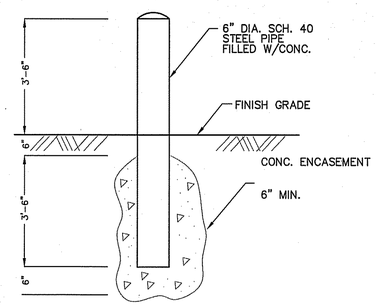
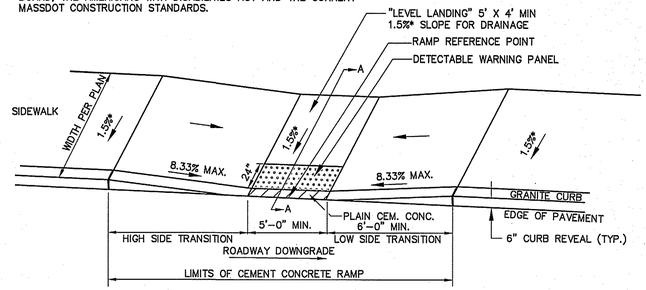
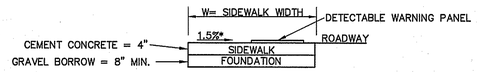


BOLLARD DETAIL
N.T.S.

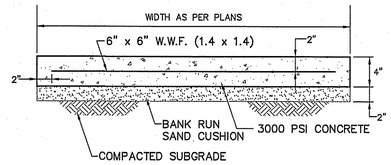
WHEELCHAIR RAMPS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CURRENT REGULATIONS OF THE ARCHITECTURAL ACCESS BOARD, THE AMERICANS WITH DISABILITIES ACT AND THE CURRENT MASSDOT CONSTRUCTION STANDARDS.





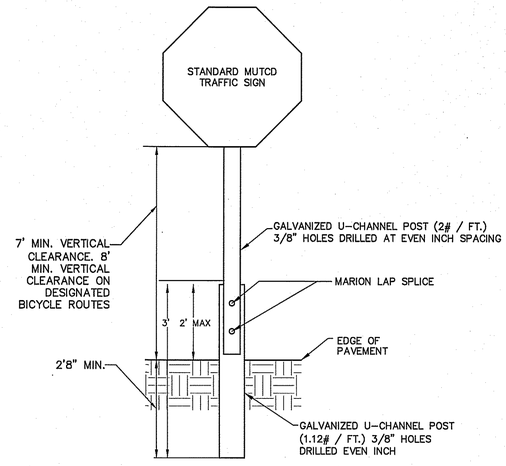
SECTION A–A

WHEELCHAIR RAMP TYPE A
N.T.S.



NOTE:
CONSTRUCTION JOINTS ARE TO BE AT 6' INTERVALS

CONCRETE SIDEWALK DETAIL
N.T.S.



TRAFFIC SIGN DETAIL
N.T.S.

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

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Project Name
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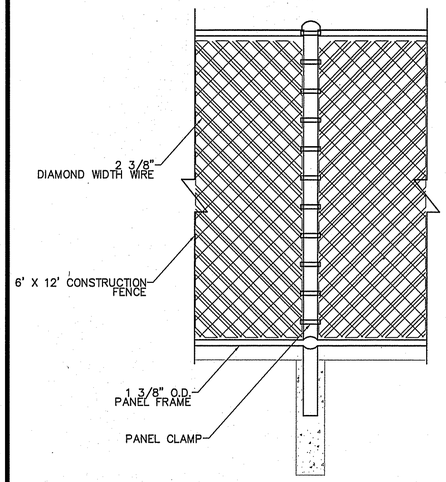
18 Independence Drive
Devens, MA

Sheet Title
Construction Details

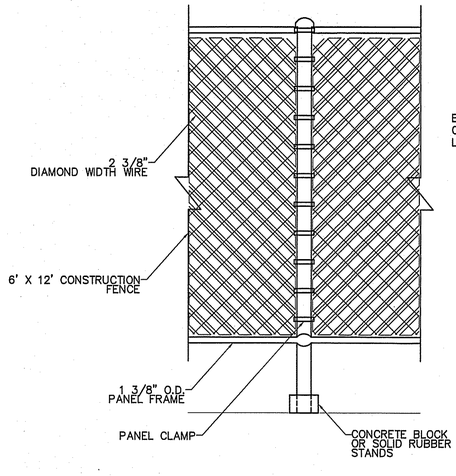
Job No: 127.01.001
File Name: 127.01.001P-DET03
Date: July 3, 2025
Scale: N.T.S.

Sheet No.
14



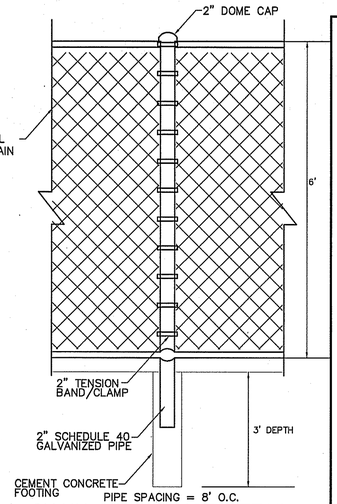
CONSTRUCTION FENCE DETAIL WITH POST

N.T.S.



CONSTRUCTION FENCE DETAIL WITH BLOCK

N.T.S.



CHAIN LINK FENCE DETAIL

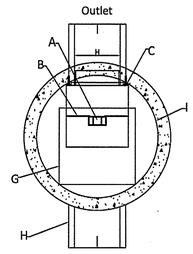
N.T.S.

Specifications

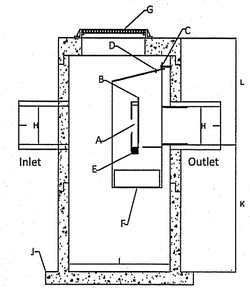
1. The separator must be designed based on the following criteria:

HydroDome Components

A. Siphon
B. Overflow Weir
C. Wall Anchor
D. Air Check Valve
E. Foam Debris Screen
F. Perforated Bottom
G. Grate or Cover
H. Inlet and Outlet Pipes
I. Structure Diameter
J. Base Extension
K. Sump Depth
L. Invert to Top of Structure



Plan



Profile

2. The separator must be independently tested and verified to the 2013 NJDEP separator protocol and 2014 ETV Canada Separator protocol

3. Vendor testing and/or field testing is not acceptable to determine an alternate equal due to the lack of repeatability.

Notes:

1. Sump depths shown are typical. Additional depth can be added as required.

2. Single or multiple Inlet pipes allowed.

3. Drops allowed.

4. Inlet Grate Shown. HydroDome can be design with a closed cover if required.

5. Oil capacities given are spill capacities.

6. Sediment depths are maximum holding capacities and not recommended capacities for regular maintenance.

7. Capacities are rounded down to nearest 5 gal or ft3 (5L or 0.1 m3 for metric units)

8. Minimum rim to top of structure [L] required may vary for HydroDome. Please call Hydroworks for site-specific design questions.

9. Hydraulics vary with pipe size and model number. Please call Hydroworks for site-specific headloss calculations.

HydroDome by Hydroworks, LLC
U.S. Patent # 10,801,196
www.hydroworks.com
888-290-7900

HydroDome Dimensions / Capacities *

Model	Diameter ft (m)	Sump Depth ft (m) K	Max. Pipe In H	Total Volume gal (L)	Oil Spill Volume gal (L)	Sediment Volume ft3 (m3)
HD 3	3 (0.9)	4 (1.2)	18 (450)	210 (800)	30 (120)	15 (0.5)
HD 4	4 (1.2)	4.5 (1.4)	21 (525)	420 (1600)	70 (285)	30 (0.9)
HD 5	5 (1.5)	5.5 (1.7)	27 (675)	805 (3055)	125 (480)	60 (1.7)
HD 6	6 (1.8)	6.5 (2.0)	33 (825)	1375 (5200)	210 (800)	100 (2.9)
HD 7	7 (2.1)	7.5 (2.3)	39 (975)	2155 (8170)	320 (1225)	160 (4.6)
HD 8	8 (2.4)	8.5 (2.6)	42 (1050)	3195 (12095)	490 (1880)	235 (6.8)
HD 10	10 (3.0)	10.5 (3.2)	54 (1350)	6165 (23350)	955 (3615)	455 (13.0)
HD 12	12 (3.6)	12.5 (3.8)	66 (1650)	10575 (40030)	1640 (6220)	780 (22.2)

* HD dimensions can be customized to provide site specific oil or sediment volumes

Hydroworks HydroDome

PROJECT:

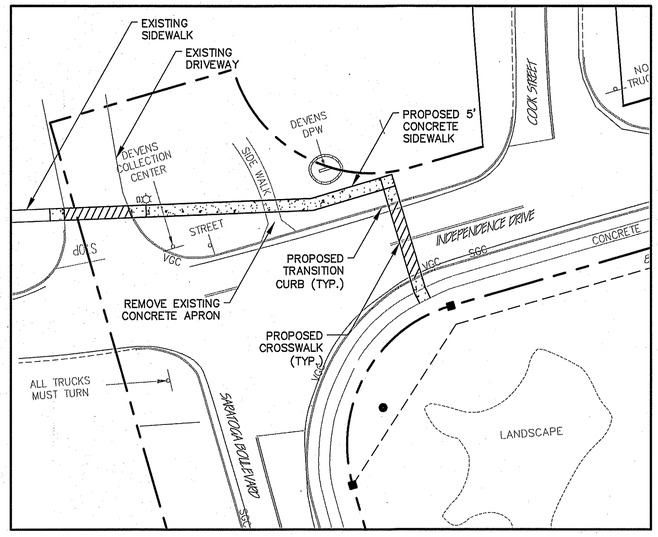
LOCATION:

REVISION DATE: 08/08/2022

Hydroworks

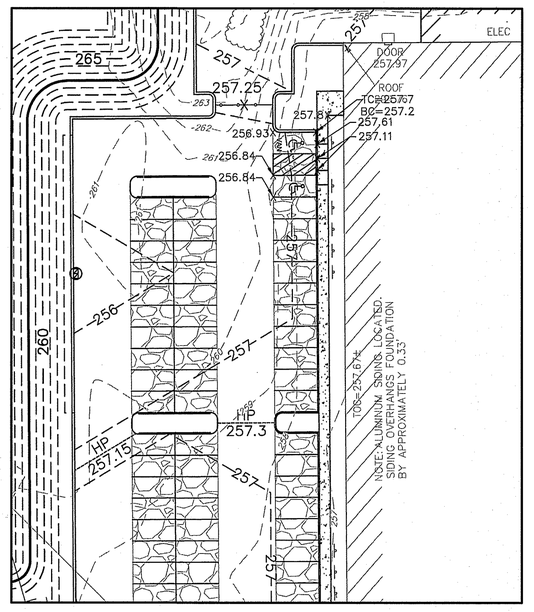
HYDROWORKS HYDRODOME HD5 DETAIL

N.T.S.



SIDEWALK IMPROVEMENT DETAIL

1"=30'



ACCESSIBLE RAMP DETAIL

1"=20'

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

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NOT FOR CONSTRUCTION

THESE PLANS WERE PREPARED FOR THE PURPOSE OF OBTAINING STATE AND LOCAL PERMITS AND ARE NOT INTENDED TO BE USED AS CONSTRUCTION DOCUMENTS.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
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COMMONWEALTH OF MASSACHUSETTS
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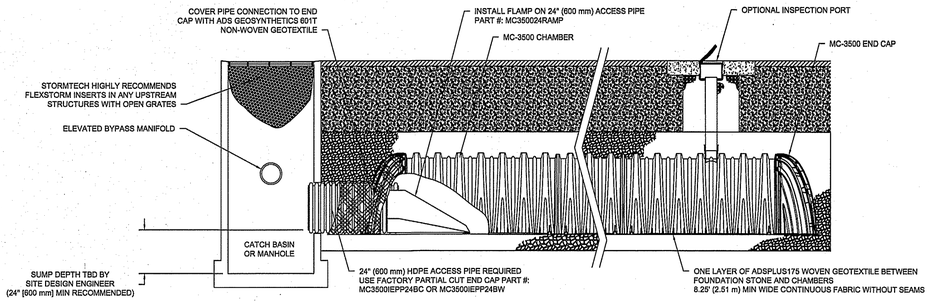
Project Name

Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title

Construction Details

Job No: 127.01.001 Sheet No. 15
File Name: 127.01.001P-DET04
Date: July 3, 2025
Scale: N.T.S.



MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

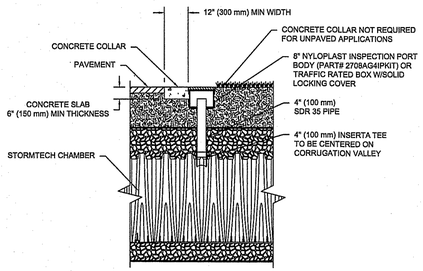
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



NOTE:
INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.

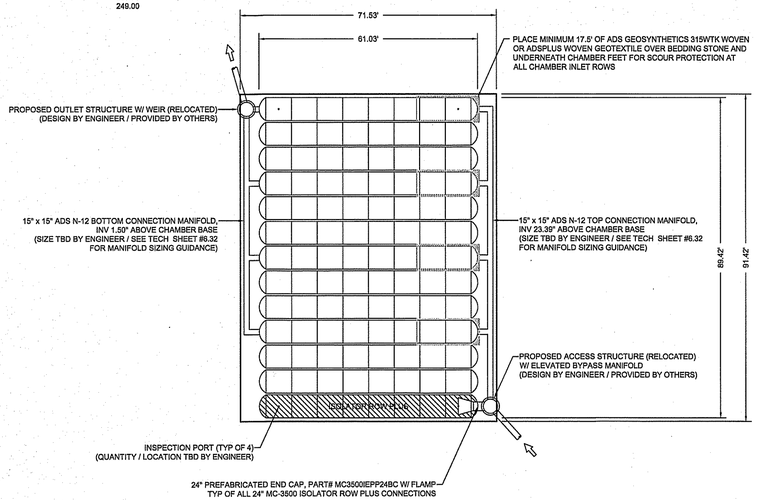
4" PVC INSPECTION PORT DETAIL (MC SERIES CHAMBER)
NTS

CONCEPTUAL LAYOUT

(104) STORMTECH MC-3500 CHAMBERS
(26) STORMTECH MC-3500 END CAPS
INSTALLED WITH 12" COVER STONE, 9" BASE STONE, 40% STONE VOID
INSTALLED SYSTEM VOLUME: 21479 CF
AREA OF SYSTEM: 6539 **FT²**
PERIMETER OF SYSTEM: 326 **FT**

PROPOSED ELEVATIONS

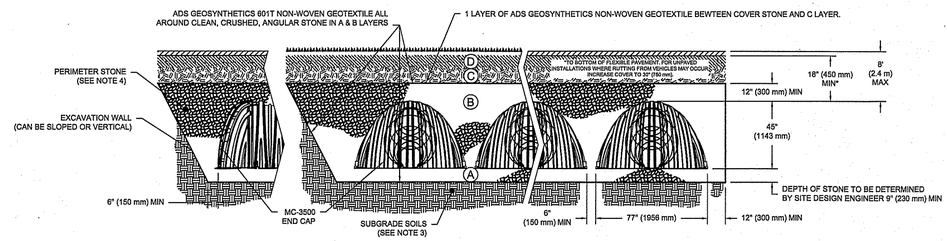
MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	261.50
MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	255.50
MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	255.00
MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	255.00
MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	255.00
TOP OF STONE:	254.50
TOP OF CHAMBER:	253.50
15" TOP CONNECTION INVERT:	251.70
24" BOTTOM (ISOLATOR ROW PLUS) CONNECTION INVERT:	249.92
15" BOTTOM CONNECTION INVERT:	249.88
BOTTOM OF CHAMBER:	249.75
BOTTOM OF STONE:	249.00



ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 4	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'B' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

FOR REGISTRY USE ONLY

OWNER
MACK DEVENS DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

ADVANCED DRAINAGE SYSTEMS, INC.

SiteASSIST by Stormtech
FOR STORMTECH INSTRUCTIONS, DOWNLOAD THE INSTALLATION APP

SMC DEVENS

DEVENS, MA

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

MC-3500 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH MC-3500.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 500 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF MC-3500 CHAMBER SYSTEM

1. STORMTECH MC-3500 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" SPACING BETWEEN THE CHAMBER ROWS.
7. INLET AND OUTLET MANIFOLDS MUST BE INSERTED A MINIMUM OF 12" (300 mm) INTO CHAMBER END CAPS.
8. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE MEETING THE AASHTO M43 DESIGNATION OF #3 OR #4.
9. STONE MUST BE PLACED ON THE TOP CENTER OF THE CHAMBER TO ANCHOR THE CHAMBERS IN PLACE AND PRESERVE ROW SPACING.
10. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
11. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH MC-3500 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
2. THE USE OF EQUIPMENT OVER MC-3500 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADER, DUMP TRUCK, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH MC-3500/MC-4500 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY USING THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

APPROVED BY THE DEVENS ENTERPRISE COMMISSION
DATE:

No.	Date	Revision

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCARTY
CIVIL
No. 46065
REGISTERED PROFESSIONAL ENGINEER
7/3/25

Drawn By: JLL | Designed By: JLL | Checked By: PJM

McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone:(978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name

Mack Devens Development, LLC.
18 Independence Drive
Devens, MA

Sheet Title

Stormtech Detail Sheet

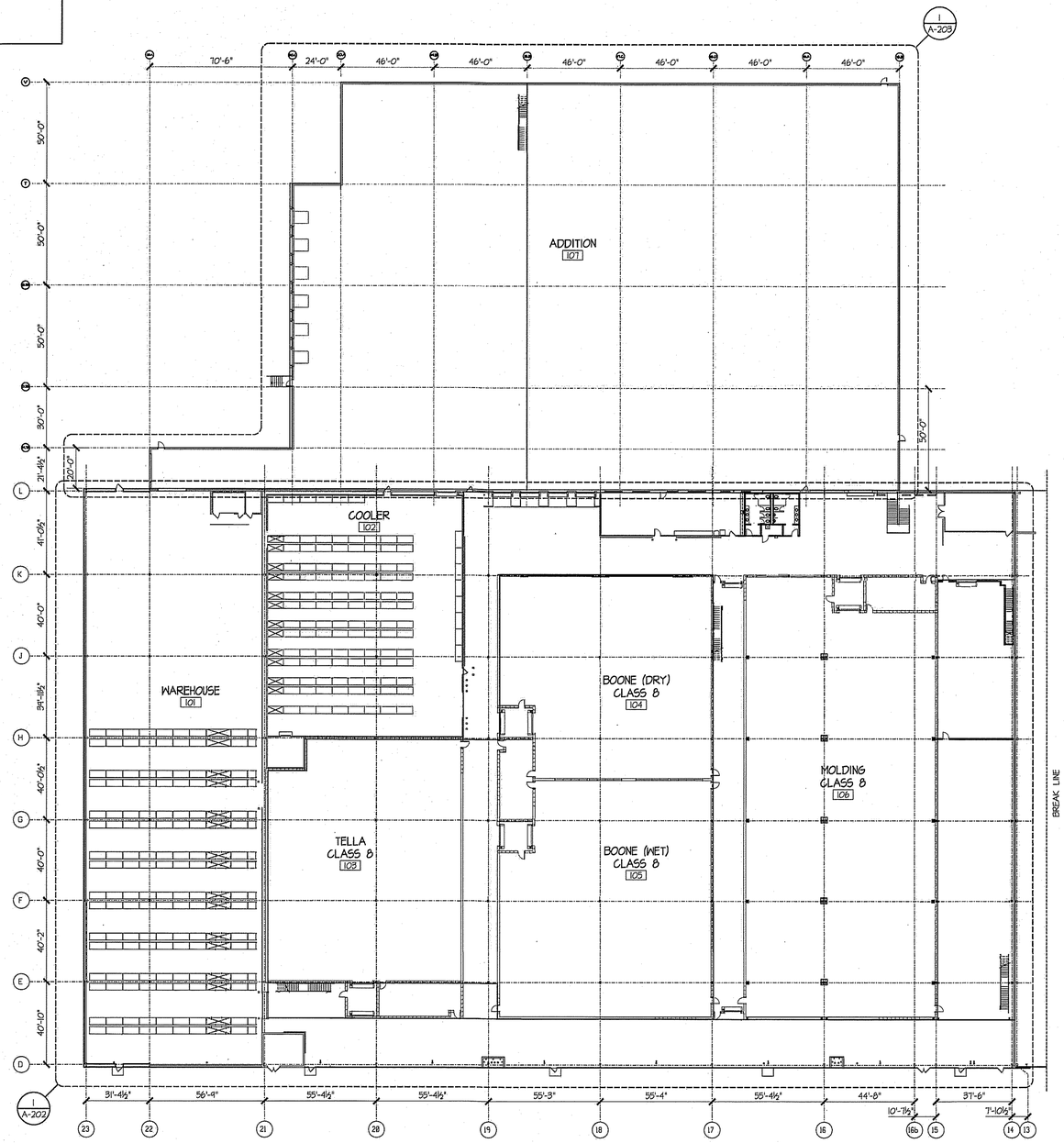
Job No: 127.01.001 | Sheet No. 16
File Name: 127.01.001P-DET05
Date: July 3, 2025
Scale: N.T.S.

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

FOR REGISTRY USE ONLY



1 OVERALL FLOOR PLAN
SCALE: 1/32" = 1'-0"

SMC ltd.

18 Independence Drive
Devens, MA

Renovation

J FERRERA ASSOCIATES INC.
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2 Fern Lane - Sterling, MA 01564
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McCARTY companies
Total Project Solutions
From Concept to Completion
42 Tucker Drive- Leominster, MA 01453
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NO.	DATE	DESCRIPTION
4	06-30-25	GENERAL REVISIONS
3	06-27-25	GENERAL REVISIONS
2	02-20-25	GENERAL REVISIONS
1	01-23-25	GENERAL REVISIONS

SHEET TITLE:

OVERALL
MAIN FLOOR PLAN

Job No.:	24150
FILE:	
DRAWN:	
SCALE :	1/32" = 1'-0"
DATE:	01/09/2025

SHEET IDENTIFICATION:

A-201

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

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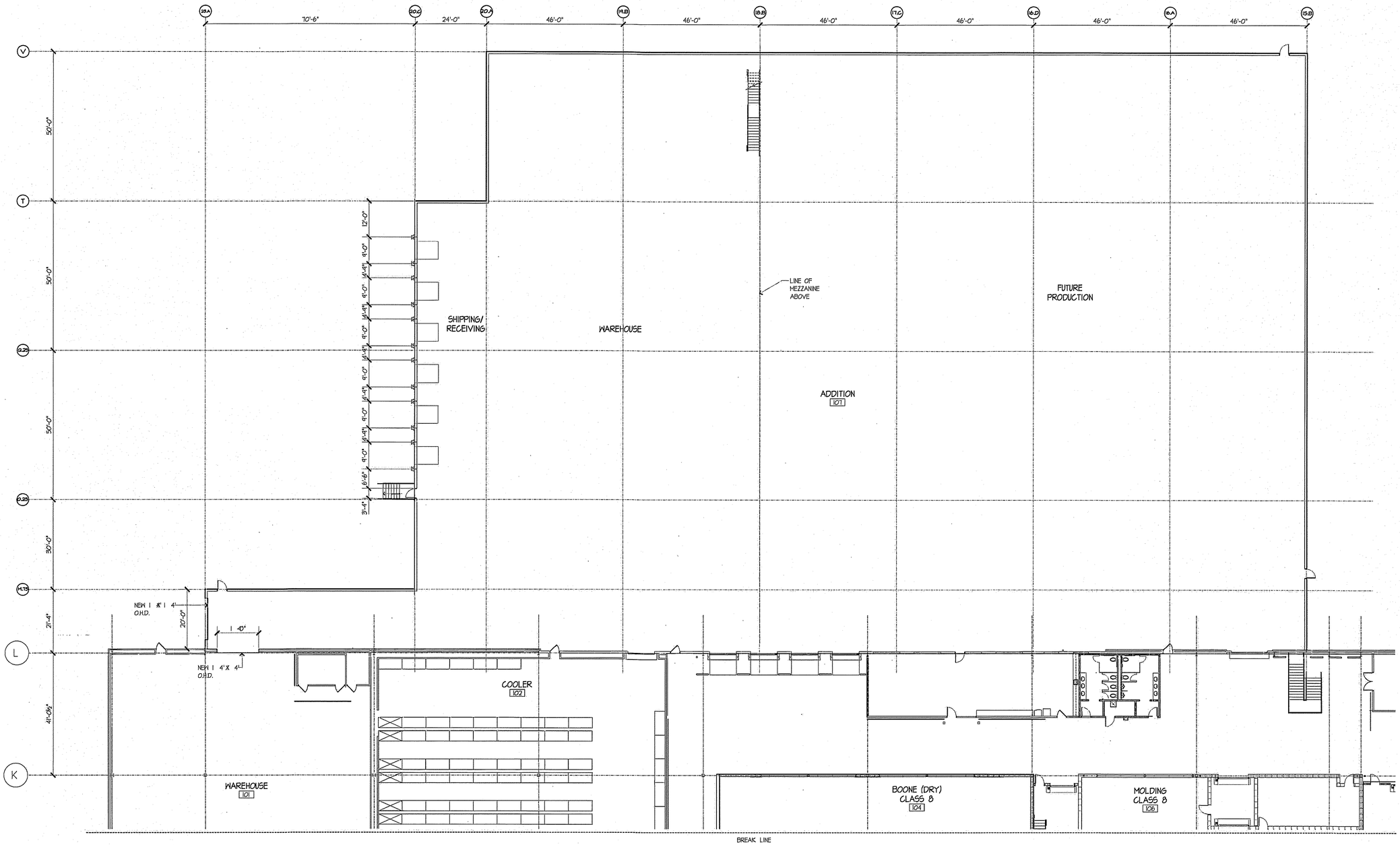

1 ENLARGED FLOOR PLAN - AREA "B"

SCALE: 1/16" = 1'-0"

SMC ltd.

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Devens, MA

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NO.	DATE	DESCRIPTION
3	06-27-25	GENERAL REVISIONS
2	02-20-25	GENERAL REVISIONS
1	01-23-25	GENERAL REVISIONS

SHEET TITLE:

ENLARGED AREA "B"
FLOOR PLAN

Job No.:	24150
FILE:	
DRAWN:	
SCALE :	1/16" = 1'-0"
DATE:	01/09/2025

SHEET IDENTIFICATION:

A-203

OWNER
MACK DEVENS
DEVELOPMENT, LLC.
330 SMC DRIVE
SOMERSET, WI 54025

APPROVED: DATE:

DEVENS ENTERPRISE COMMISSION CHAIRMAN

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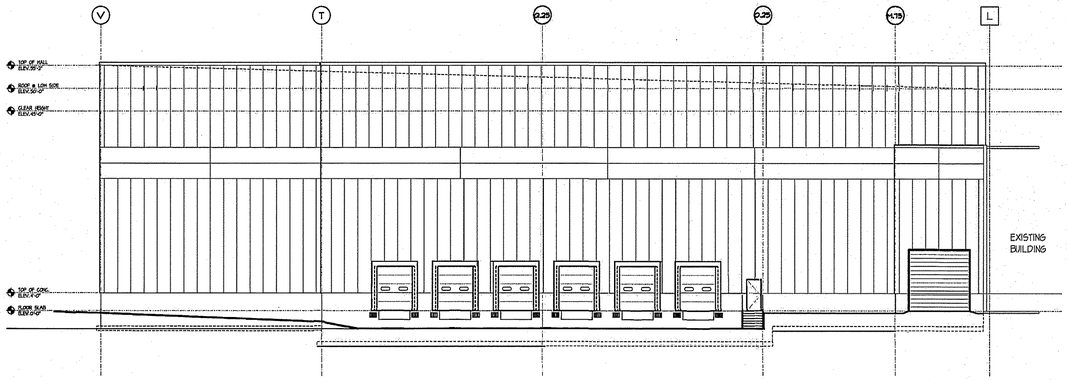
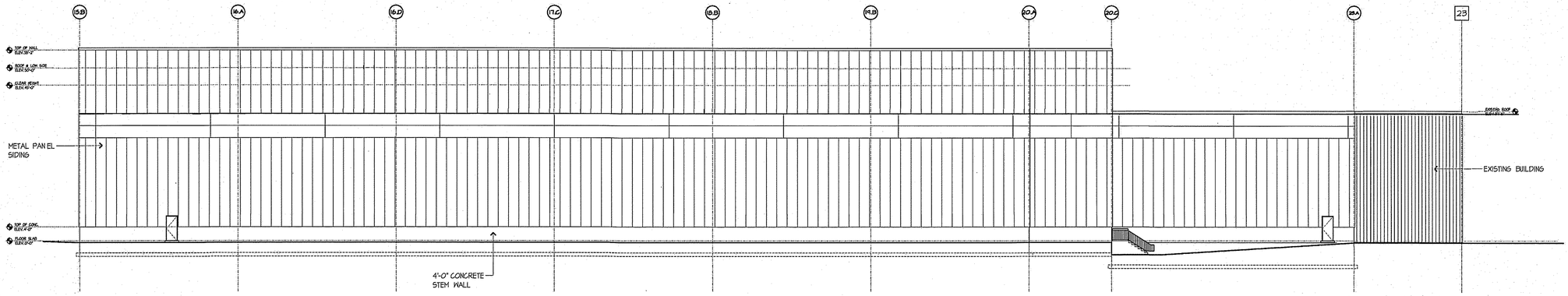
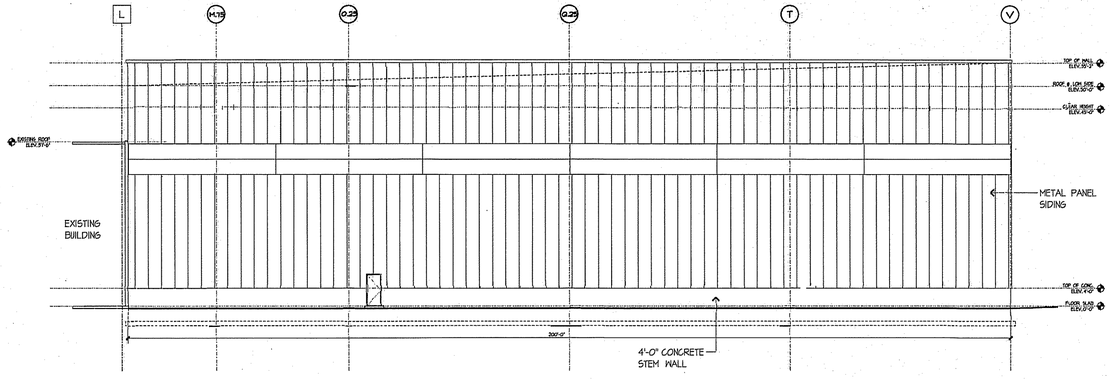


3 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"



2 WEST ELEVATION
SCALE: 1/16" = 1'-0"



1 NORTH ELEVATION
SCALE: 1/16" = 1'-0"

SMC ltd.

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NO.	DATE	DESCRIPTION
3	06-27-25	GENERAL REVISIONS
2	02-20-25	GENERAL REVISIONS
1	01-23-25	GENERAL REVISIONS

SHEET TITLE:

EXTERIOR ELEVATIONS

Job No.:	24150
FILE:	
DRAWN:	
SCALE:	1/16" = 1'-0"
DATE:	01/09/2025

SHEET IDENTIFICATION:

A-301