SITE PLAN SET

FOR

PROPOSED MANUFACTURING FACILITY

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

APPLICANT
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

OWNERS
Plat 51, Lot 1 and 109
First Mendon Associates LLC
C/O Ray Bourque
PO Box 3107
South Attleboro, MA 02703

Plat 51, Lot 108
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

ENGINEERS

- Civil
- Transportation
- Environmental
- Site Planning
- Surveying
- Permitting
- Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
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Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone: (508) 695-1700

Email: cei@crossmaneng.com

MAY 2020
SHEET 1 of 25

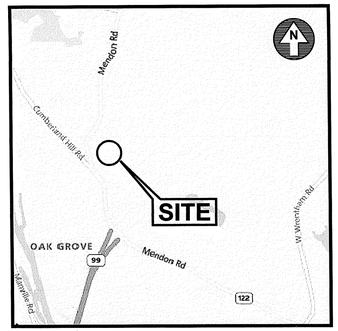
PREPARED FOR

The Economic Development
Foundation Of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency
of Woonsocket
169 Main Street
Woonsocket, RI 02895

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

Environmental Management
OCT 18 2021
Office of Water Resources

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10/12/21



LOCATION MAP
NOT TO SCALE

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INDEX OF DRAWINGS

DRAWING No.	PLAN
C1	GENERAL NOTES and LEGEND
C2	VICINITY MAP
C3	AERIAL MAP
C4	RADIUS MAP
C5	EXISTING CONDITIONS PLAN
C6	SITE LAYOUT PLAN
C7	GRADING and DRAINAGE PLAN
C8	UTILITY PLAN
C9	ROADWAY PLAN and PROFILE
C10	SOIL EROSION and SEDIMENT CONTROL PLAN
C11	MISCELLAMEOUS DETAIL PLAN No. 1
C12	MISCELLAMEOUS DETAIL PLAN No. 2
C13	MISCELLAMEOUS DETAIL PLAN No. 3
C14	MISCELLAMEOUS DETAIL PLAN No. 4
C15	MISCELLAMEOUS DETAIL PLAN No. 5
C16	MISCELLAMEOUS DETAIL PLAN No. 6
C17	MISCELLAMEOUS DETAIL PLAN No. 7
E1	SITE LIGHTING PLAN
L1	LANDSCAPE PLAN
L2	LANDSCAPE DETAIL PLAN
A101	PROPOSED FIRST FLOOR PLAN
A102	PROPOSED SECOND FLOOR PLAN
A201	PROPOSED ELEVATIONS
A301	SIGN DETAILS

REVISIONS

No.	DATE	DESCRIPTION
1	06/30/20	REVIEW COMMENTS
2	08/06/20	RIDEM COMMENTS
3	08/20/20	FINAL PLAN
4	09/16/20	RIDOT COMMENTS
5	10/02/20	CITY COMMENTS
6	11/03/20	FINAL COMMENTS
7	02/09/21	WATER SERVICE
8	07/29/21	WATER METER ENCLOSURE
9	07/29/21	FIRE DEPARTMENT COMMENTS
10	09/30/21	RIDEM PERMIT MODIFICATION

GENERAL NOTES

1. ALL EXISTING UTILITIES HAVE BEEN PLOTTED BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE RHODE ISLAND LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY MUNICIPALITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. A MINIMUM ADVANCE NOTICE OF 72 HOURS IS REQUIRED PRIOR TO START OF CONSTRUCTION.
2. SPECIFICATIONS TO GOVERN THIS PROJECT ARE R.I.D.O.T. STANDARD INSTALLATION, SPECIFICATIONS AND DETAILS. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE BITUMINOUS PAVEMENT, CUTTING INTO CATCHBASIN/MANHOLES, CONCRETE AND SAWCUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2018 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE "METHOD OF MEASUREMENT" AND "BASIS OF PAYMENT" ARE NOT APPLICABLE.
3. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
4. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS, SPECIFICATIONS OR PAYMENT ITEM DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE. THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER.
5. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.
6. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN OR OTHERWISE INSTRUCTED IN WRITING BY THE OWNER.
7. CONTRACTOR SHALL EXCAVATE TEST PITS TO CONFIRM UTILITY LOCATIONS/ELEVATIONS AT POTENTIAL CONFLICT POINTS (UTILITY/DRAIN CROSSINGS).
8. THE CONTRACTOR SHALL USE CARE WHEN WORKING NEAR UTILITY POLES AND WIRING SO AS TO NOT DISTURB ELECTRICAL/TELEPHONE/CABLE SERVICE TO THE CUSTOMERS. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THESE SERVICES AT ALL TIMES.
9. THE CONTRACTOR SHALL, AT NO ADDITIONAL EXPENSE, BRACE UTILITY POLES IF REQUIRED, AND REPAIR ANY DAMAGE TO EXISTING UTILITIES, SIDEWALKS, GUARDRAILS, CURBS, PAVING, SHRUBS, TREES, STONE WALLS, LAWNS, ETC.
10. CHANGE ORDERS MAY ONLY BE APPROVED FOR PAYMENT BY THE OWNER.
11. ALL OPEN EXCAVATIONS SHALL BE ADEQUATELY SAFEGUARDED BY PROVIDING TEMPORARY BARRICADES, CAUTION SIGNS, LIGHTS AND OTHER MEANS TO PREVENT ACCIDENTS TO PERSONS AND DAMAGE TO PROPERTY. THE CONTRACTOR SHALL AT NO ADDITIONAL EXPENSE TO THE OWNER, PROVIDE SUITABLE AND SAFE CONDITIONS AT ALL AREAS OF THE WORK SITE AND SHALL PROVIDE SAFE VEHICULAR AND PEDESTRIAN ACCESS AROUND ALL WORK AREAS.
12. CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL EXPENSE, ADEQUATE EROSION CONTROL, FRAC TANKS OR SEDIMENTATION CONTROLS SUBJECT TO THE APPROVAL OF THE CONSERVATION COMMISSION FOR THE DISCHARGE OF ANY TRENCH DEWATERING.
13. ALL STRUCTURES AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND STANDARD SPECIFICATIONS OF THE CITY OF WOONSOCKET DEPARTMENT OF PUBLIC WORKS. ALL EXCAVATION, BACKFILL AND RESTORATION WORK SHALL MEET THE CITY'S SPECIFICATIONS.
14. THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEM FOUND WHICH DOES NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.
15. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO REMOVAL AND/OR INSTALLATION OF UTILITIES ON SITE. THE COORDINATION IS NECESSARY FOR THE ENGINEER TO SCHEDULE SITE INSPECTIONS. INSTALLATIONS PERFORMED WITHOUT INSPECTIONS BY THE ENGINEER MAY WARRANT COMPLETE REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S SOLE EXPENSE.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN DETAILED AS-BUILT INFORMATION FOR ALL UTILITY INSTALLATIONS. AS-BUILT INFORMATION MUST INCLUDE MATERIAL LIST, PIPE DEPTH AND SWING TIE LOCATIONS (2 MINIMUM) FROM NEW PIPE TO BUILDING CORNERS. ALL PIPE BEND/ELBOW LOCATIONS SHALL BE DIMENSIONED. FINAL PAYMENT WILL NOT BE MADE UNTIL SUITABLE AS-BUILT DATA IS PROVIDED.
17. AS-BUILT AUTOCAD FILES AND HARD COPY PLANS SHALL BE PROVIDED UPON COMPLETION OF WORK. CONTRACTOR IS RESPONSIBLE FOR THIS INFORMATION. FINAL PAYMENT TO CONTRACTOR SHALL NOT BE PROVIDED UNTIL ACCEPTABLE AUTOCAD FILES OF THE AS-BUILTS ARE SUBMITTED AND APPROVED BY THE OWNER.

FLOOD ZONE NOTE

THE SITE IS LOCATED WITHIN FLOOD ZONE X, AREAS TO BE OUTSIDE THE 0.2% CHANCE FLOODPLAIN, ACCORDING TO FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND, PANEL 176 OF 451, MAP NUMBER 44007C 0176G, EFFECTIVE DATE MARCH 2, 2009.

PROPOSED PAVEMENT STRUCTURE

FOR ROADWAY, LOADING AREA AND DRIVE LANES

2" BITUMINOUS CONCRETE SURFACE COURSE, CLASS I-1
3" BITUMINOUS BASE COURSE
18" GRAVEL BASE

FOR PARKING SPACES

1 1/2" BITUMINOUS CONCRETE SURFACE COURSE, CLASS I-1
2 1/2" BITUMINOUS CONCRETE BASE COURSE
8" GRAVEL BASE

STANDARD NOTES

1. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CULVERTS, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED BY THE CONTRACTOR.
4. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS.
5. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, 2" MULCH IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED.
6. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
8. NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING OPERATIONS.
10. ALL EMBANKMENTS AND TRENCH BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.
2. ALL SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
6. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
7. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
9. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES.

LEGEND

EXISTING		PROPOSED
℄	PROPERTY LINE	
	EASEMENT LINE	
	CURB	
	BITUMINOUS BERM	
-○- No.	UTILITY POLE	-●- NO.
LP	LIGHT POLE	
-----(Size) D-----	DRAIN LINE	----(SIZE) D----
-----(Size) S-----	SANITARY SEWER	----(SIZE) S----
-----(Size) SFM-----	SANITARY FORCE MAIN	----(SIZE) SFM----
-----(Size) G-----	GAS LINE	----(SIZE) G----
-----6"W-----	WATER LINE	----(SIZE) W----
(D) DMH	DRAINAGE MANHOLE	● DMH
CB	CATCH BASIN	■ CB
(S) SMH	SEWER MANHOLE	● SMH
Hyd.	HYDRANT	HYD.
○ WG	WATER GATE	●WG
○ GG	GAS GATE	●GG
○ CO	CLEAN-OUT TO GRADE	●CO
	SAWCUT PAVEMENT	
-----XXX-----	CONTOURS	ELEV.
X ELEV.	SPOT GRADES	00x0
	CHAIN LINK FENCE	
	STOCKADE FENCE	
⊲ Sign	SIGN	◂
	STREET SIGN	◆
	RETAINING WALL	
	STONE WALL	
	GUARDRAIL	
	GRADE TO DRAIN	×←
	BUILDING/STRUCTURE	
○ #6	WETLAND FLAG	
- - - - - - - - - - - -	WETLAND EDGE	
— — — — — —	WETLAND BUFFER	
	LIMIT OF DISTURBANCE	
	FILTER SOXX	
	TEST PIT LOCATION	✣ TP9

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Nancy L. Freeman

SOIL EVALUATION DATA

SOIL EVALUATIONS WERE CONDUCTED BY BRIAN KING, LICENSE No. D4010, ON APRIL 7, 2020

TEST PIT 1

0"	Dark Brown Sandy Loam	A (Friable)
9"	Light Olive Brown Gravely Course Sand	C (Loose)
102"		

74" Water Seepage
NA Redox Features
NA Design ESHWT

TEST PIT 2

0"	Dark Brown Sandy Loam	A (Friable)
6"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
18"	Light Olive Brown Very Fine Sandy Loam/Silt Loam	Bw2 (Friable)
32"	Dark Yellowish Brown Gravely Loamy Sand	C (Friable)
72"		

18" Water Seepage
NA Redox Features
18" Design ESHWT

TEST PIT 3

0"	Dark Brown Sandy Loam	A (Friable)
5"	Dark Yellowish Brown Sandy Loam	Bw1 (Friable)
15"	Dark Yellowish Brown Gravely Loamy Course Sand	BC (Friable)
25"	Dark Yellowish Brown Stoney Gravely Course Sand	C1 (Firm in Place)
84"		

42" Water Seepage
40" Redox Features
40" Design ESHWT

TEST PIT 5

0"	Very Dark Grayish Brown Sandy Loam	A (Friable)
6"	Dark Yellowish Brown Sandy Loam	AB (Friable)
14"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
34"	Dark Brown Gravely Loamy Sand	C1 (Firm in Place)
102"		

No Water Seepage
38" Redox Features
38" Design ESHWT

TEST PIT 6

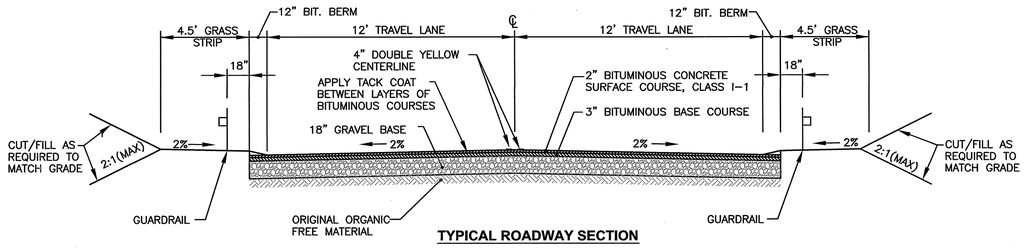
0"	Very Dark Grayish Brown Sandy Loam	A (Friable)
2"	Dark Yellowish Brown Sandy Loam	AB (Friable)
8"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
14"	Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
26"	Light Olive Brown Gravely Loamy Sand	C1 (Friable)
68"	Light Olive Brown Stoney Gravely Loamy Sand	C2 (Friable)
108"		

No Water Seepage
No Redox Features
68" Design ESHWT

TEST PIT 7

0"	Very Dark Grayish Brown Sandy Loam	A (Friable)
8"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
16"	Dark Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
26"	Light Olive Brown Gravely Loamy Sand	C1 (Friable)
44"	Strony Brown Loamy Very Fine Sand/Sandy Loam	2C (Firm in Place)
66"	Dark Yellowish Brown Gravely Loamy Fine Sand	3C (Friable)
110"		

No Water Seepage
44" Redox Features
44" Design ESHWT



TYPICAL ROADWAY SECTION
SCALE: 1"=4'

NOTES

1. ALL UNSUITABLE SUBGRADE MATERIAL WITHIN THE ROADWAY AREA SHALL BE REMOVED.
2. PROCESSED GRAVEL BASE FOR PAVEMENT SHALL BE PLACED IN 6" LIFTS AND COMPACTED PER R.I.D.O.T STANDARDS.
3. REFER TO GENERAL NOTES SHEET FOR UTILITY SEPARATION REQUIREMENTS.
4. GRAVEL BASE COURSE SHALL BE PLACED IN 2 LIFTS.
5. 6" LOAM AND SEED ALL DISTURBED AREAS.

• Civil
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10-7-21

KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

GENERAL NOTES and LEGEND

DATE:	SCALE:
MAY 2020	NO SCALE

DWG. NAME: 2456-C01-NOTES-R10.dwg

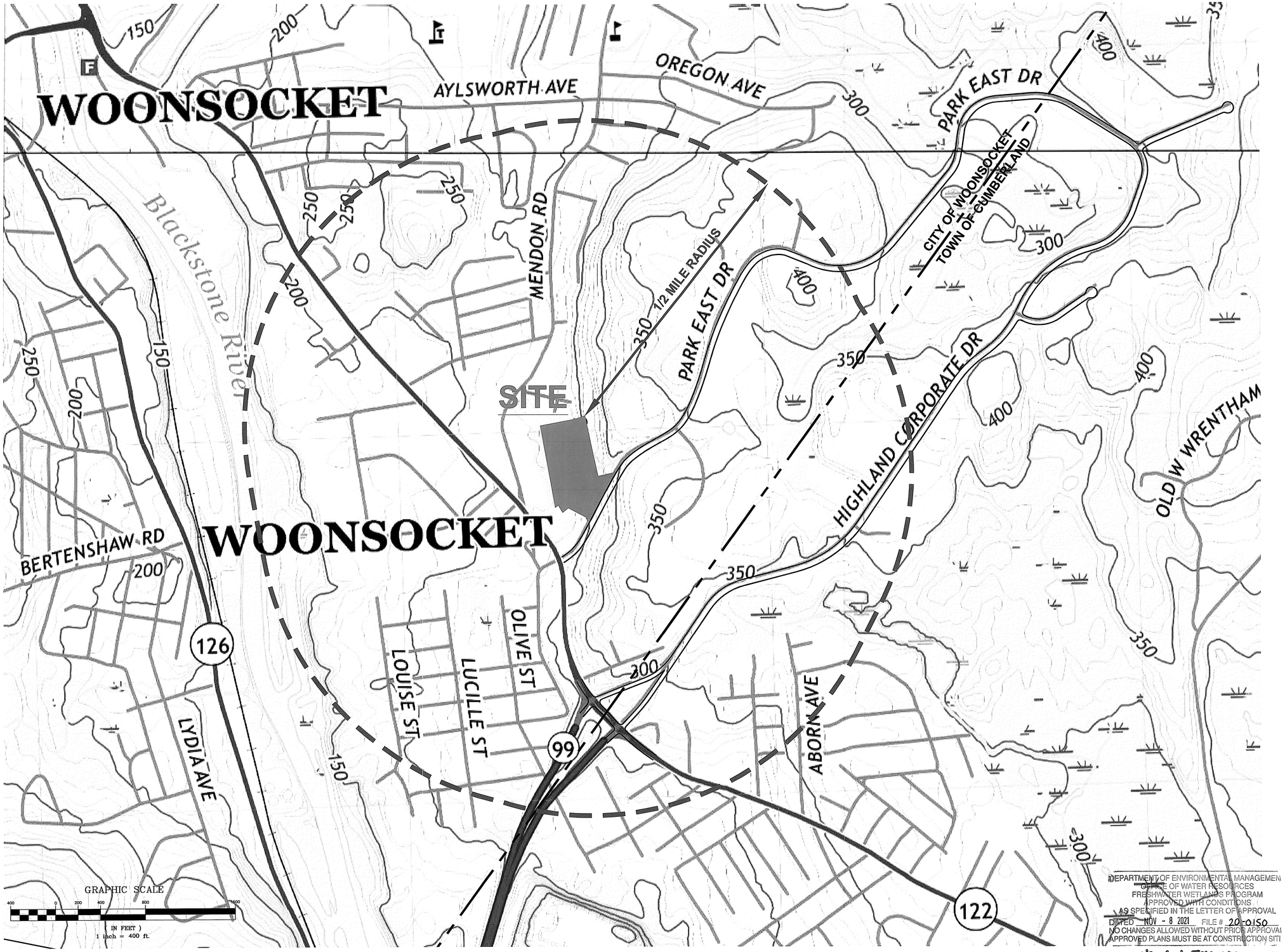
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DRAWING NUMBER

C1

SHEET: 2 OF: 25



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DRAWING TITLE:

VICINITY MAP

DATE:	*SCALE:*
MAY 2020	1"=400'

DWG. NAME: 2456-C02-VICINITY-R10.dwg

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10/18/21

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHINC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

AERIAL MAP

DATE:	*SCALE:*
MAY 2020	1"=40'

DWG. NAME: 2456-C03-AERIAL-R10.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL DESIGN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C3

SHEET: 4 *OF:* 25

ABUTTERS LIST

PLAT 43 LOT 15
CHERYL TAYLOR
516 KINGSTOWN ROAD
RICHMOND, RI 02892

PLAT 43 LOT 026
FOUNDERS REALTY LLC
1 MANUEL AVENUE
JOHNSTON, RI 02919

PLAT 43 LOT 49
STATE OF RHODE ISLAND
317 STATE OFFICE BUILDING
PROVIDENCE, RI 02893

PLAT 43 LOT 51
STATE OF RHODE ISLAND
317 STATE OFFICE BUILDING
PROVIDENCE, RI 02893

PLAT 50 LOT 1
JOSEPH ANDRE AND
NANCY M. PICARD
75 ARMAND STREET
WOONSOCKET, RI 02895-6101

PLAT 50A LOT 4
KEITH WAYNE BEAUCHAMP
PO BOX 84
MANVILLE, RI 02838

PLAT 50 LOT 7
CAROL A. MCDONALD
888 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 50 LOT 51
TECHNIC INC.
300 PARK EAST DRIVE
WOONSOCKET, RI 02895-6147

PLAT 50 LOT 191
JOSEPH ANDRE PICARD
75 ARMAND STREET
WOONSOCKET, RI 02895

PLAT 50 LOT 210
BRIAN J. BASTIEN
1914 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 50 LOT 230
ELAINE GAUVIN
57 ARMAND STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 1
FIRST MENDON ASSOCIATES LLC
C/O RAY BOURQUE
PO BOX 3107
SOUTH ATTLEBORO, MA 02703

PLAT 51 LOT 4
CUMBERLAND FARMS INC.
165 FLANDERS ROAD
WESTBOROUGH, MA 01581

PLAT 51A LOT 7
JOSEPH P. KIMBALL
20 DAWES STREET
BLACKSTONE, MA 01504

LAT 51 LOT 10
JAMES R. AND LORI A. DUMAS
2176 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 12
EMILE J. AND PAULINE J. RIENDEAU
2156 MENDON ROAD
WOONSOCKET, RI 02895-6122

PLAT 51 LOT 13
FIRST MENDON ASSOCIATES LLC
PO BOX 3107
SOUTH ATTLEBORO, MA 02703

PLAT 51 LOT 17
CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI 02895-4379

PLAT 51 LOT 18
RHODE ISLAND ECONOMIC
DEVELOPMENT CORPORATION
C/O LEE LAPIERRE
1 CVS DRIVE
WOONSOCKET, RI 02895

PLAT 51 LOT 19
STEVEN AND DEBORAH J. DENNIS
2036 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 23
NICHOLAS J. POIRIER
AND **CYNTHIA SAVARD**
2086 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 24
CATHERINE M. GLAUDE
AND DERIC MCGUIRE
269 COTTAGE STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 29
FENWAY REALTY CAPITAL LLC
38 WHITEHALL WAY
BELLINGHAM, MA 02019

PLAT 51 LOT 31
MATTHEW DISPIRITO
2012 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 32
HECTOR J. VAZQUEZ
2024 MENDON ROAD
WOONSOCKET, RI 02895

LAT 51 LOT 33
ROBINSON VARGAS
2050 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 38
JACQUES A. AND JANE M. GAGNON
2062 MENDON ROAD
WOONSOCKET, RI 02895-6120

PLAT 51 LOT 39
EDWARD C. AND AVIS M. AUBIN
2094 MENDON ROAD
WOONSOCKET, RI 02895-6120

PLAT 51 LOT 42
RAYMOND L. AND SU CHA GIARD
2108 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 48
DONNA DESROSIERS
2122 MENDON ROAD
WOONSOCKET, RI 02895-6122

PLAT 51 LOT 49
MICHELE A. LEDOUX
2134 MENDON ROAD
WOONSOCKET, RI 02895

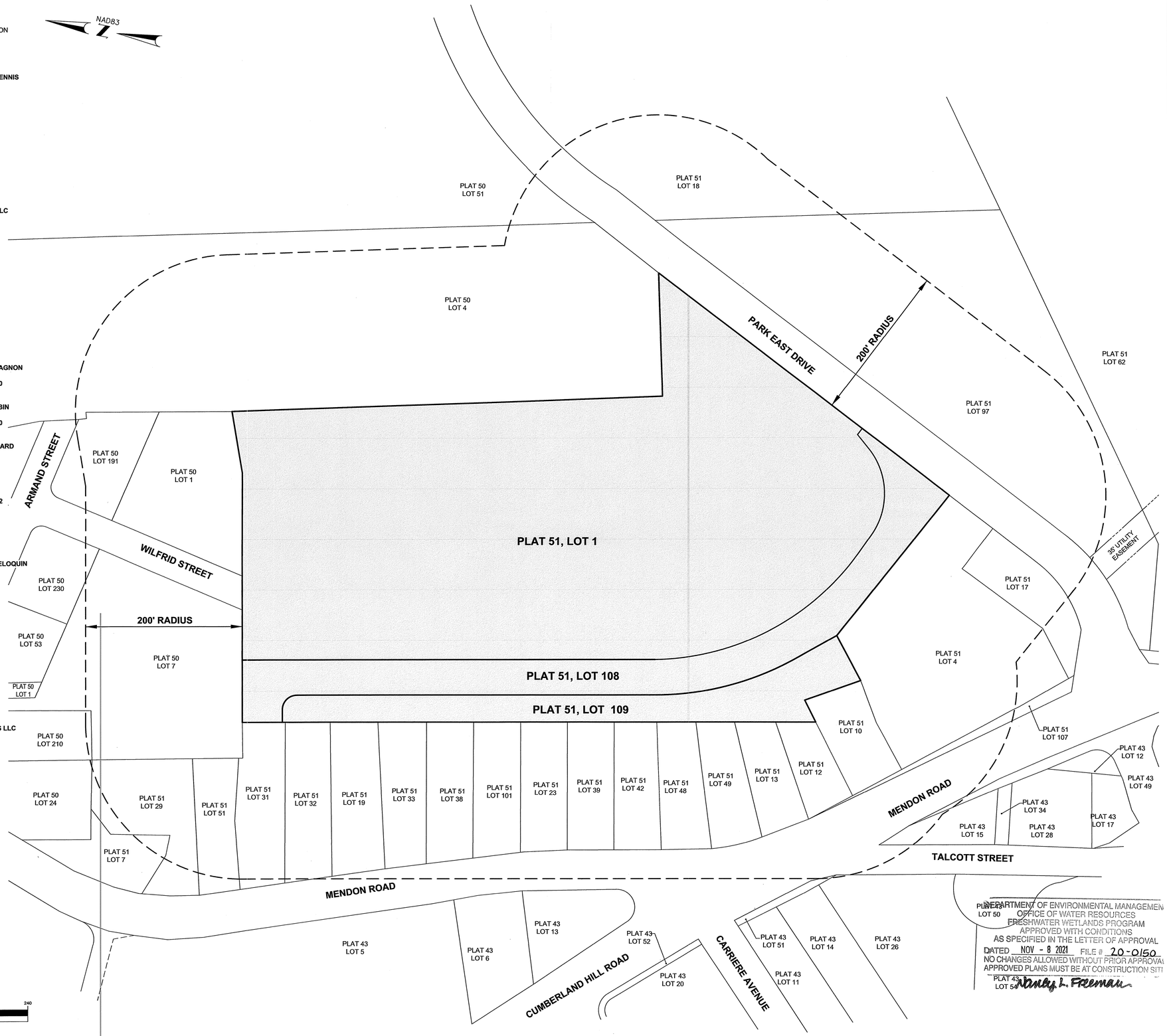
PLAT 51 LOT 51
MARCEL C. AND RENEE T. PELOQUIN
2000 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 97
CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 101
MICHAEL A. GRENON
2070 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 108
REDEVELOPMENT AGENCY
OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 109
FIRST MENDON ASSOCIATES LLC
C/O RAYMOND BOURQUE
PO BOX 3107
ATTLEBORO, MA 02703



GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Nancy L. Freeman

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone: (508) 695-1700

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH Inc.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

200' RADIUS MAP

DATE:	*SCALE:*
MAY 2020	1"=60'

DWG. NAME: 2456-C04-RADIUS-R10.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL DESIGN	08/20/20
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10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C4

SHEET: 5 *OF:* 25

NAD83

NOTES

1. FIELD SURVEY WORK PERFORMED BY CROSSMAN ENGINEERING IN MARCH OF 2020.
2. THE HORIZONTAL DATUM IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM (NAD83) AND THE VERTICAL DATUM IS NAVD88 UTILIZING GPS RTK NETWORK CONTROL.
3. UTILITY NOTE: ANY UTILITIES SHOWN HEREON ARE PLOTTED FROM FIELD LOCATION OF VISIBLE ABOVE GROUND STRUCTURES. ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON MUST BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS SITE. THE CONTRACTOR OR USERS OF THIS PLAN SHOULD CONTACT DIGSAFE PRIOR TO ANY WORK. CROSSMAN ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
4. WETLAND WERE DELINEATED IN APRIL 2020 BY NATURAL RESOURCE SERVICES.

PLAT 50 LOT 51

PLAT 51 LOT 18

PLAT 50 LOT 4

PLAT 51 LOT 97

PARK EAST DRIVE

PLAT 50 LOT 1

PLAT 51 LOT 1
6.15 ACRES

PLAT 51 LOT 108
1.14 ACRES

PLAT 51 LOT 109
0.662 ACRES

FORESTED WETLAND

100' RIVERBANK WETLAND

PLAT 50 LOT 7

PLAT 51 LOT 107

PLAT 51 LOT 17

PLAT 51 LOT 10

PLAT 51 LOT 12

PLAT 51 LOT 13

PLAT 51 LOT 29

PLAT 51 LOT 51

PLAT 51 LOT 31

PLAT 51 LOT 32

PLAT 51 LOT 19

PLAT 51 LOT 33

PLAT 51 LOT 38

PLAT 51 LOT 101

PLAT 51 LOT 23

PLAT 51 LOT 39

PLAT 51 LOT 42

PLAT 51 LOT 48

PLAT 51 LOT 49

PLAT 43 LOT 34

PLAT 43 LOT 15

PLAT 43 LOT 28

MENDON ROAD

Cumberland Farms

Iron Rod Found

Iron Pipe Found

Drillhole Found

Granite Bound Found

Boulder Pile

Debris Pile

Dirt Drive

Edge of Yard Use

Row Of Fence Post

Firepit

Stockade Fence

Shed

Garage

Bottom Of Slope

Top Of Slope

Old Wired Fence

Ground Flow

PVC Pipe

Conc. Curb

B-1

B-2

B-3

B-4

TP1

TP2

TP3

TP5

TP6

TP7

N79°15'29"E 157.58'

S27°28'00"W 309.94'

S12°00'32"E 235.25'

S11°58'00"E 314.75'

N80°05'49"E 239.03'

N80°05'49"E 79.91'

N80°05'49"E 79.50'

S62°34'00"E 10.00'

N41°15'07"E 22.82'

S27°28'00"W 139.77'

L=49.51' R=97.50'

N27°28'00"E 70.00'

S84°36'07"E 30.49'

N61°22'27"W 230.00'

S84°36'07"E 64.89'

N05°37'03"W 64.89'

N36°19'21"E 128.42'

L=300.64' R=325.00'

S61°18'06"W 64.87'

N39°08'43"W 59.24'

S29°18'12"W 75.73'

S33°28'33"W 31.19'

L=18.09' R=370.00'

S79°46'32"E 15.90'

R=18.50' L=29.12'

N10°01'23"W 51.25'

N10°01'23"W 527.51'

N10°01'23"W 457.99'

N10°01'23"W 681.17'

N79°35'00"E 79.91'

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

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OFFICE OF WATER RESOURCES
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH Inc.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

EXISTING CONDITIONS PLAN

DATE:	SCALE:
MAY 2020	1"=40'

DWG. NAME: 2456-C05-EXCN-R10.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL DESIGN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
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9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C5

SHEET: 6 OF: 25

NAD83

NOTES

1. ALL WORK TO BE DONE WITHIN THE STATE RIGHT–OF–WAY (R.O.W.) SHALL CONFORM TO THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED ON MARCH 2018 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS JUNE 21, 2019 EDITION WITH ALL REVISIONS.
2. THE CONTRACTOR MUST APPLY FOR A R.I.D.O.T. APPLICATION FOR UTILITY PERMIT PRIOR TO CONSTRUCTION WITHIN THE STATE RIGHT–OF–WAY.
3. SNOW SHALL NOT BE ALLOWED TO BE PLOWED INTO OR STOCKPILED INTO THE EXISTING WETLAND.
4. ALL GUARDRAIL SHALL CONFORM TO BUILDING CODE STANDARDS.
5. THE BUILDING SHALL BE DESIGNED TO HELP PREVENT GROUNDWATER FROM ENTERING THE BUILDING, AS REQUIRED BY SECTION 8.7.2–3 OF THE SUBDIVISION REGULATIONS.
6. RESH, INC. SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE RETAINING WALL ALONG THE SOUTHWEST PORTION OF THE PROJECT.
7. THE FINAL FDC AND OUTSIDE GAS METER SHUT–OFF SHALL NOT BE BLOCKED BY PARKED VEHICLES OR OTHER OBSTRUCTIONS.
8. RESH, INC. SHALL BE RESPONSIBLE TO REPLACE THE PROPOSED EVERGREEN SCREEN BETWEEN RESH AND THE RESIDENTIAL ABUTTERS IF THE EVERGREENS DIE.
9. IF A GENERATOR IS ADDED TO THE SITE, IT SHALL BE PLACED ON THE EAST SIDE OF THE BUILDING, AWAY FROM THE RESIDENTIAL PROPERTIES ALONG MENDON ROAD.
10. THE FINAL BUILDING PLANS MUST COMPLY WITH THE APPLICABLE SECTIONS OF THE NFPA 2015 CYCLE, R.I. FIRE 2015 CODE AND R.I. LIFE SAFETY CODE PRIOR TO BUILDING PERMIT APPROVAL.

DIMENSIONAL REGULATIONS ZONING DISTRICT:MU-2 - MIXIED USE INDUSTRIAL/COMMERCIAL	REQUIRED	PROPOSED
MINIMUM LOT SIZE	6,000 S.F.	267,818 S.F.
MINIMUM FRONT YARD SETBACK	20'	59'
MINIMUM SIDE YARD SETBACK	10'	270'
MINIMUM REAR YARD SETBACK	25'	89'
MAXIMUM STORIES	5 STORIES	2 STORIES
MAXIMUM BUILDING HEIGHT	60'	<30'
FLOOR AREA RATIO (MAXIMUM)	2.0	0.23

PARKING REQUIREMENT

INDUSTRIAL FACILITIES
2 SPACES PER 1,000 S.F. (INCLUDING WAREHOUSE SPACE)
PARKING SPACE SIZE: 9'x18'

INDUSTRIAL FACILITIY

62,000 S.F. x 2/1,000 = 124 SPACES
PROVIDED = 124 SPACES; 50 TO BE CONSTRUCTED
74 IN RESERVE

LOADING SPACE REQUIREMENT

1 SPACE PER 20,000 S.F. GFA
61,018 S.F. / 20,000 S.F. GFA = 4 SPACES
PROVIDED = 6 SPACES
LOADING SPACE = 10' x 60'

PLAT 50 LOT 51 · PLAT 51 LOT 18 · PLAT 50 LOT 4 · PLAT 50 LOT 1 · PLAT 50 LOT 7 · PLAT 51 LOT 17 · PLAT 51 LOT 10 · PLAT 51 LOT 29 · PLAT 51 LOT 51 · PLAT 51 LOT 31 · PLAT 51 LOT 32 · PLAT 51 LOT 19 · PLAT 51 LOT 33 · PLAT 51 LOT 38 · PLAT 51 LOT 101 · PLAT 51 LOT 23 · PLAT 51 LOT 39 · PLAT 51 LOT 42 · PLAT 51 LOT 48 · PLAT 51 LOT 49 · PLAT 51 LOT 13 · PLAT 51 LOT 12 · PLAT 43 LOT 34 · PLAT 43 LOT 15 · PLAT 43 LOT 28

Iron Rod Found · Iron Pipe Found · Drillhole Found · Granite Bound Found · R.I.H.B. (Found) · Old Wood Fence · Row Of Fence Post · Stockade Fence · Chain Link Fence · Gate · Shed · Garage · Chicken Coop · Conc. Pad · Gravel Path · Concrete Walk · Gravel Drive · Gravel Path · Gravel Curb · Granite Curb · CB · DMH · SMH · Top · Bot · Gross · Inv · Pipe Inv

PARK EAST DRIVE · WILFRID STREET · MENDON ROAD

FORESTED WETLAND · 100' RIVERBANK WETLAND · A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17

PROPOSED MANUFACTURING FACILITY
FIRST FLOOR = 54,837 S.F.
SECOND FLOOR =6,181 S.F.
(TOTAL = 61,018 S.F.)

HIGH BAY AREA · 2-STORY OFFICE AREA · PATIO · METAL · DUMPSTER · CARDBOARD · FDC

PROPOSED CONCRETE RETAINING WALL (R.I. STD. 10.3.0). PROVIDE 4' HIGH PEDESTRIAN RAIL FENCE
PROPOSED PAVEMENT STRUCTURE
50'x156' REINFORCED CONCRETE PAD FOR LOADING AREAS
60' LOADING AREA (6 BAYS)
5' WIDE CONCRETE SIDEWALK (TYP.) (R.I. STD. 43.1.0)
6' WIDE CONCRETE SIDEWALK (R.I. STD. 43.1.0)
WHEEL CHAIR RAMP (R.I. STD. 43.3.0)
BOLLARD (TYP.)
33 FUTURE PARKING SPACES
28 FUTURE PARKING SPACES
13 FUTURE PARKING SPACES
BITUMINOUS BERM (R.I. STD. 7.5.1)
LOAM AND SEED (TYP.)
SNOW STOCKPILE AREA
PAVED WATERWAY (R.I. STD. 8.4.0)
25' REAR YARD SETBACK
20' FRONT YARD SETBACK
10' SIDE YARD SETBACK
GUARDRAIL END SECTION (R.I. STD. 34.3.1)
STEEL BEAM GUARDRAIL (R.I. STD. 34.2.0)
ELECTRICAL TRANSFORMER ON REINFORCED CONCRETE PAD
PRECAST CONCRETE CURB' 6" REVEAL (TYP.) (R.I. STD. 7.1.0)
SAWCUT AND MATCH EXISTING PAVEMENT
PROPOSED MODULAR BLOCK WALL TO BE DESIGNED BY OTHERS (HEIGHT VARIES 1'–10')
INSTALL 3" CLASS 12.5 HMA SURFACE AND 6" GRAVEL BASE DRIVEWAY
REMOVE AND DISPOSE CONCRETE SIDEWALK AND BITUMINOUS DRIVEWAY
CEMENT CONCRETE DRIVEWAY (R.I. STD 43.5.0)
REMOVE AND RESET CURB (TYP.)
SAWCUT AND MATCH EXISTING PAVEMENT (TYP). REFER TO MISCELLANEOUS DETAIL PLAN No. 5 (SHEET C15) FOR PAVEMENT RESTORATION DETAIL WITHIN STATE RIGHT–OF–WAY.
Cumberland Farms

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

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KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH Inc.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
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PARK EAST DRIVE
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PREPARED FOR:

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and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

SITE LAYOUT PLAN

DATE:	*SCALE:*
MAY 2020	1"=40'

DWG. NAME: 2456–C06–SITE–R10.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
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DRAWING NUMBER

C6

SHEET: 7 *OF:* 25

DRAINAGE STRUCTURE TABLE

NUMBER	STRUCTURE	RIM	INVERT (IN)	INVERT (OUT)
CB 1	PRECAST CONCRETE (2' SQ. DROP INLET)	233.25	--	230.25 (12")
CB 2	PRECAST CONCRETE (2' SQ. DROP INLET)	233.25	--	230.05 (12")
CB 3	PRECAST CONCRETE (5' DIA.)	233.00	230.00 (12")(NE) 229.75 (12")(NW)	229.50 (18")
CB 4	PRECAST CONCRETE (5' DIA.)	233.00	229.00 (18")	229.00 (18")
CB 5	PRECAST CONCRETE (4' DIA.)	232.80	--	229.40 (12")
CB 6	PRECAST CONCRETE (5' DIA.)	232.30	228.70 (12")	228.60 (18")
CB 7	PRECAST CONCRETE (4' DIA.)	233.10	228.15 (18")	228.15 (18")
CB 8	PRECAST CONCRETE (4' DIA.)	244.85	--	241.35 (12")
CB 9	PRECAST CONCRETE (4' DIA.)	244.85	241.00 (12")	240.00 (12")
CB 10	PRECAST CONCRETE (4' DIA.)	237.30	--	233.80 (12")
CB 11	PRECAST CONCRETE (4' DIA.)	237.30	233.50 (12")(S) 233.50 (12")(W)	232.50 (12")
CB 12	PRECAST CONCRETE (4' DIA.)	233.00	--	229.50 (12")
CB 13	PRECAST CONCRETE (4' DIA.)	233.30	--	228.00 (12")
CB 14	PRECAST CONCRETE (4' DIA.)	230.15	--	226.65 (12")

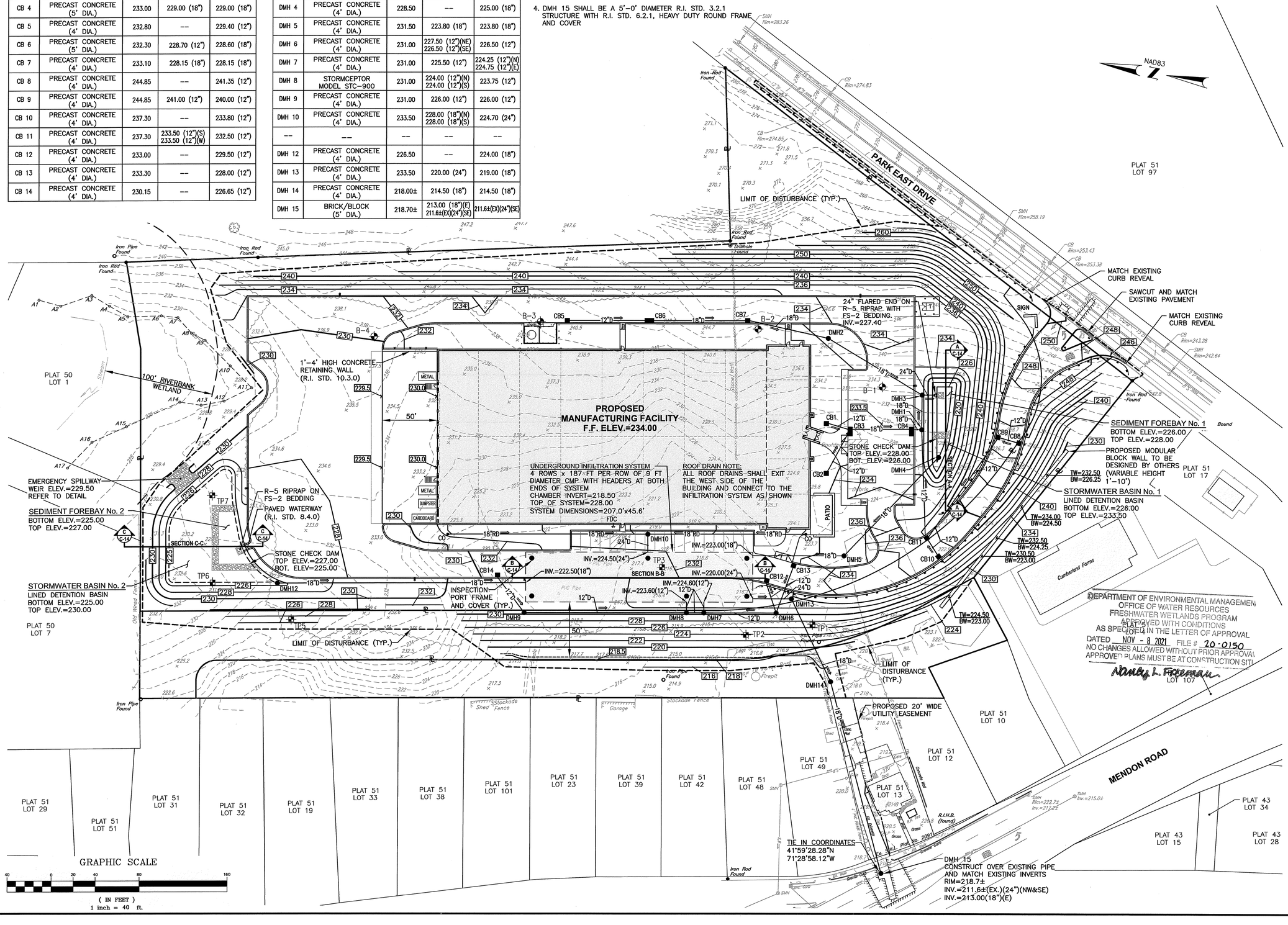
NUMBER	STRUCTURE	RIM	INVERT (IN)	INVERT (OUT)
DMH 1	PRECAST CONCRETE (4' DIA.)	233.10	228.90 (18")(N) 229.60 (12")(W)	228.80 (18")
DMH 2	PRECAST CONCRETE (4' DIA.)	234.10	227.75 (18")	227.75 (18")
DMH 3	PRECAST CONCRETE (5' DIA.)	233.10	227.25 (18")(N) 228.25 (18")(W)	227.25 (24")
DMH 4	PRECAST CONCRETE (4' DIA.)	228.50	--	225.00 (18")
DMH 5	PRECAST CONCRETE (4' DIA.)	231.50	223.80 (18")	223.80 (18")
DMH 6	PRECAST CONCRETE (4' DIA.)	231.00	227.50 (12")(NE) 226.50 (12")(SE)	226.50 (12")
DMH 7	PRECAST CONCRETE (4' DIA.)	231.00	225.50 (12")	224.25 (12")(N) 224.75 (12")(E)
DMH 8	STORMCEPTOR MODEL STC-900	231.00	224.00 (12")(N) 224.00 (12")(S)	223.75 (12")
DMH 9	PRECAST CONCRETE (4' DIA.)	231.00	226.00 (12")	226.00 (12")
DMH 10	PRECAST CONCRETE (4' DIA.)	233.50	228.00 (18")(N) 228.00 (18")(S)	224.70 (24")
--	--	--	--	--
DMH 12	PRECAST CONCRETE (4' DIA.)	226.50	--	224.00 (18")
DMH 13	PRECAST CONCRETE (4' DIA.)	233.50	220.00 (24")	219.00 (18")
DMH 14	PRECAST CONCRETE (4' DIA.)	218.00±	214.50 (18")	214.50 (18")
DMH 15	BRICK/BLOCK (5' DIA.)	218.70±	213.00 (18")(E) 211.6±(EX)(24")(SE)	211.6±(EX)(24")(SE)

DRAINAGE STRUCTURE NOTES

1. CATCH BASIN 3, 4, AND 6 SHALL HAVE DOUBLE FRAME AND GRATES
2. DMH 4 AND DMH 12 ARE OUTLET CONTROL STRUCTURES WITH TRASH RACKS OVER ORIFICE INLETS. REFER TO SHEET C14 FOR DETAILS.
3. DMH 13 HAS AN INTERNAL WEIR WALL WITH ORIFICES. REFER TO SHEET C14 FOR DETAILS.
4. DMH 15 SHALL BE A 5'-0" DIAMETER R.I. STD. 3.2.1 STRUCTURE WITH R.I. STD. 6.2.1, HEAVY DUTY ROUND FRAME AND COVER

NOTES

1. ALL WORK TO BE DONE WITHIN THE STATE RIGHT-OF-WAY (R.O.W.) SHALL CONFORM TO THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED ON MARCH 2018 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS JUNE 21, 2019 EDITION WITH ALL REVISIONS.
2. THE CONTRACTOR MUST APPLY FOR A R.I.D.O.T. APPLICATION FOR UTILITY PERMIT PRIOR TO CONSTRUCTION WITHIN THE STATE RIGHT-OF-WAY.



• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
12-9-21

KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

GRADING and DRAINAGE PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

DATE:	SCALE:
MAY 2020	1=40'

DWG. NAME: 2456-C07-GRADE-R10.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C7

SHEET: 8 OF: 25

NAD83

NOTES

1. ALL WORK TO BE DONE WITHIN THE STATE RIGHT-OF-WAY (R.O.W.) SHALL CONFORM TO THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AMENDED ON MARCH 2018 WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE R.I. STANDARD DETAILS JUNE 21, 2019 EDITION WITH ALL REVISIONS.
2. THE CONTRACTOR MUST APPLY FOR A R.I.D.O.T. APPLICATION FOR UTILITY PERMIT PRIOR TO CONSTRUCTION WITHIN THE STATE RIGHT-OF-WAY.
3. THE FDC AND GAS METER SHALL NOT BE BLOCKED BY PARKED CARS, STRUCTURES OR ANY OBSTRUCTION.
4. 6" FIRE SERVICE LINE WILL BE CL. 52 DUCTILE IRON PIPE.
5. FIRE AND DOMESTICE SERVICE LINES TO HAVE MINIMUM SEPARATION OF 3' AND CAN BE IN THE SAME TRENCH.

NOTE

PRIOR TO ANY UTILITY INSTALLATION ON PARK EAST DRIVE, CONTRACTOR MUST CONFIRM VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES TO IDENTIFY POTENTIAL CONFILCTS (PRIOR TO ANY WORK)

PLAT 50 LOT 51
PLAT 51 LOT 18
PLAT 50 LOT 4
PLAT 51 LOT 97
PLAT 50 LOT 1
PLAT 50 LOT 7
PLAT 51 LOT 29
PLAT 51 LOT 51
PLAT 51 LOT 31
PLAT 51 LOT 32
PLAT 51 LOT 19
PLAT 51 LOT 33
PLAT 51 LOT 38
PLAT 51 LOT 101
PLAT 51 LOT 23
PLAT 51 LOT 39
PLAT 51 LOT 42
PLAT 51 LOT 48
PLAT 51 LOT 49
PLAT 51 LOT 13
PLAT 51 LOT 12
PLAT 51 LOT 10
PLAT 51 LOT 17
PLAT 51 LOT 107
PLAT 43 LOT 34
PLAT 43 LOT 15
PLAT 43 LOT 28

PARK EAST DRIVE
MENDON ROAD
WILFRID STREET
FORESTED WETLAND
100' RIVERBANK WETLAND
DETENTION BASIN 1
DETENTION BASIN 2
PROPOSED MANUFACTURING FACILITY F.F. ELEV.=234.00
UNDERGROUND INFILTRATION SYSTEM
PATIO
Cumberland Farms

CONNECT ELECTRIC AND TELECOM LINES TO EXISTING UTILITY POLE
UNDERGROUND ELECTRIC SERVICE
12"x6" TAPPING SLEEVE, 6" GATE VALVE AND THRUST BLOCK
2" COPPER SERVICE FROM CURB STOP TO HOT BOX WITH 2" CORPORATION AND CURB STOP
CONNECT TO EXISTING GAS SERVICE. COORDINATE WITH UTILITY COMPANY
DOMESTIC WATER AND FIRE PROTECTION HOT BOX ENCLOSURE
45° BEND AND THRUST BLOCK
2 – 45° BEND AND THRUST BLOCK
22.5° BEND AND THRUST BLOCK
GAS SERVICE AND METER BY GAS COMPANY
6"x6" TEE, GATE VALVE AND THRUST BLOCK
6" SEWER INV.=226.83
CHECK VALVE
FDC
HYDRANT ASSEMBLY
45° BENDS AND THRUST BLOCK
6" FIRE SERVICE
2" DOMESTIC WATER
HYDRANT ASSEMBLY, GATE VALVE, 6"x6" TEE AND THRUST BLOCK (TYP.)
SMH1 STA. 2+95 RIM=233.75 INV.=225.50
SMH2 STA. 2+25 RIM=219.00 INV.=216.60
PROPOSED 20' WIDE UTILITY EASEMENT
APPROX. LOCATION EXISTING SEWER TO BE VERIFIED
CLEAN-OUT TO GRADE
6", CL.52 DIP
SMH3 STA. 0+00 EXTERNAL DROP CONSTRUCT OVER EXISTING PIPE RIM=218.7± INV.=215.7(6")(PROPOSED) INV.=211.2(8")(EXISTING)

CB5 CB6 CB7 DMH2 DMH3 DMH4 DMH5 DMH6 DMH7 DMH8 DMH9 DMH10 DMH12 DMH13 DMH14 DMH15
CB1 CB2 CB3 CB4 CB8 CB9 CB10 CB11 CB12 CB13 CB14
SMH1 SMH2 SMH3
SIGN

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Nancy L. Freeman

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STEVEN M. CABRAL
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KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

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RESHAPE INC.

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PREPARED FOR:

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1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

UTILITY PLAN

DATE:	SCALE:
MAY 2020	1"=40'

DWG. NAME: 2456-C08-UTILITY-R10.dwg

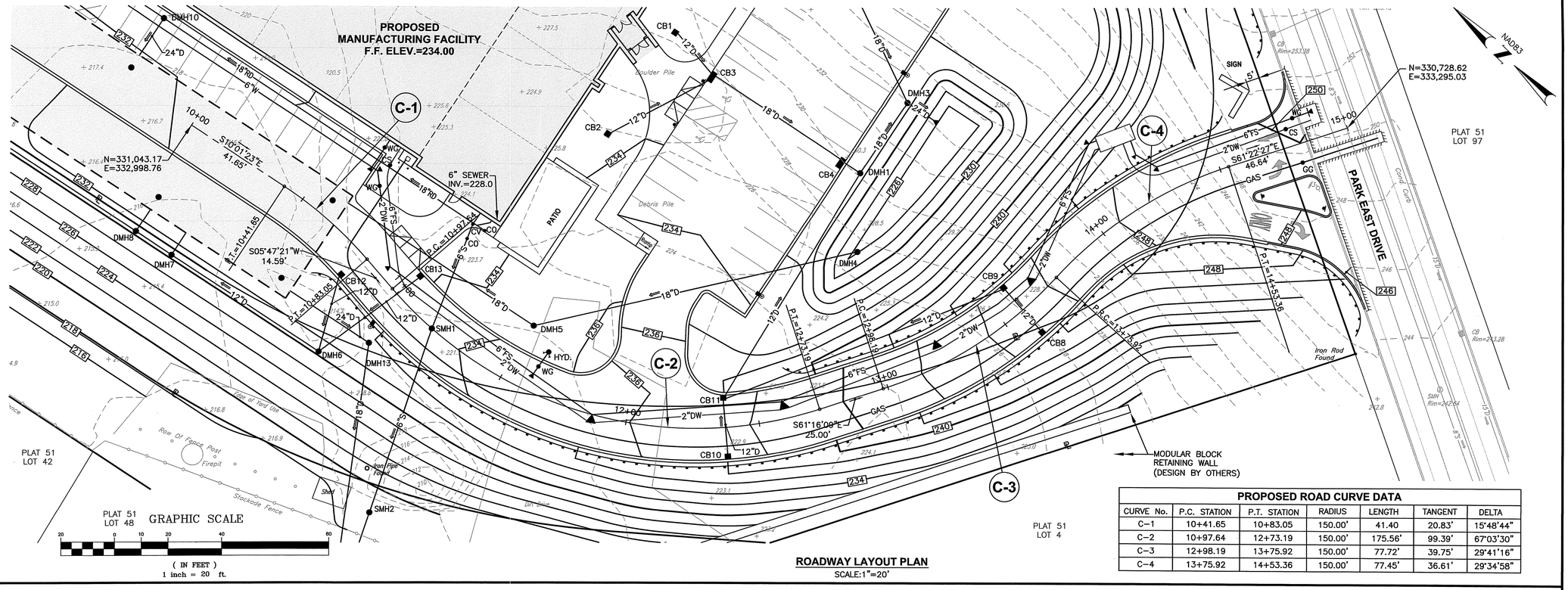
REVISIONS

NUMBER	REMARKS	DATE
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10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C8

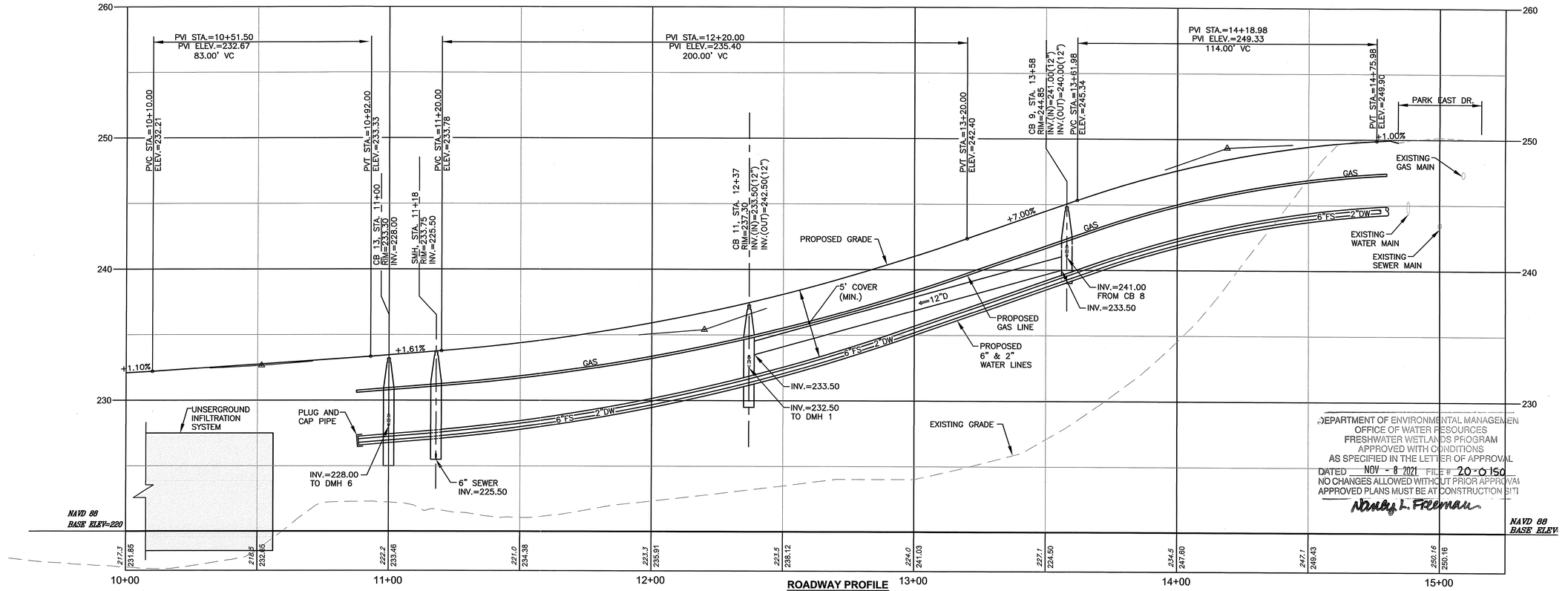
SHEET: 9 OF: 25



ROADWAY LAYOUT PLAN
SCALE:1"=20'

PROPOSED ROAD CURVE DATA

CURVE No.	P.C. STATION	P.T. STATION	RADIUS	LENGTH	TANGENT	DELTA
C-1	10+41.65	10+83.05	150.00'	41.40	20.83'	15°48'44"
C-2	10+97.64	12+73.19	150.00'	175.56'	99.39'	67°03'30"
C-3	12+98.19	13+75.92	150.00'	77.72'	39.75'	29°41'16"
C-4	13+75.92	14+53.36	150.00'	77.45'	36.61'	29°34'58"



ROADWAY PROFILE
SCALE: HORZ. 1"=20'
VERT. 1"=4'

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STEVEN M. CABRAL
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10/27/21

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OCT 18 2021
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PREPARED FOR:

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Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

ROADWAY PLAN and PROFILE

DATE:	*SCALE:*
MAY 2020	AS SHOWN

DWG. NAME: 2456-C09-ROAD-R10.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
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10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C9

SHEET: 10 *OF:* 25

DUST CONTROL NOTES

ON AN AS–NEEDED BASIS OR AS DIRECTED BY THE CITY OF WOONSOCKET OR OWNER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK") TO CONTROL DUST:

A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

B. CALCIUM CHLORIDE SHOULD BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.

THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

INSPECTION/MAINTENANCE NOTES

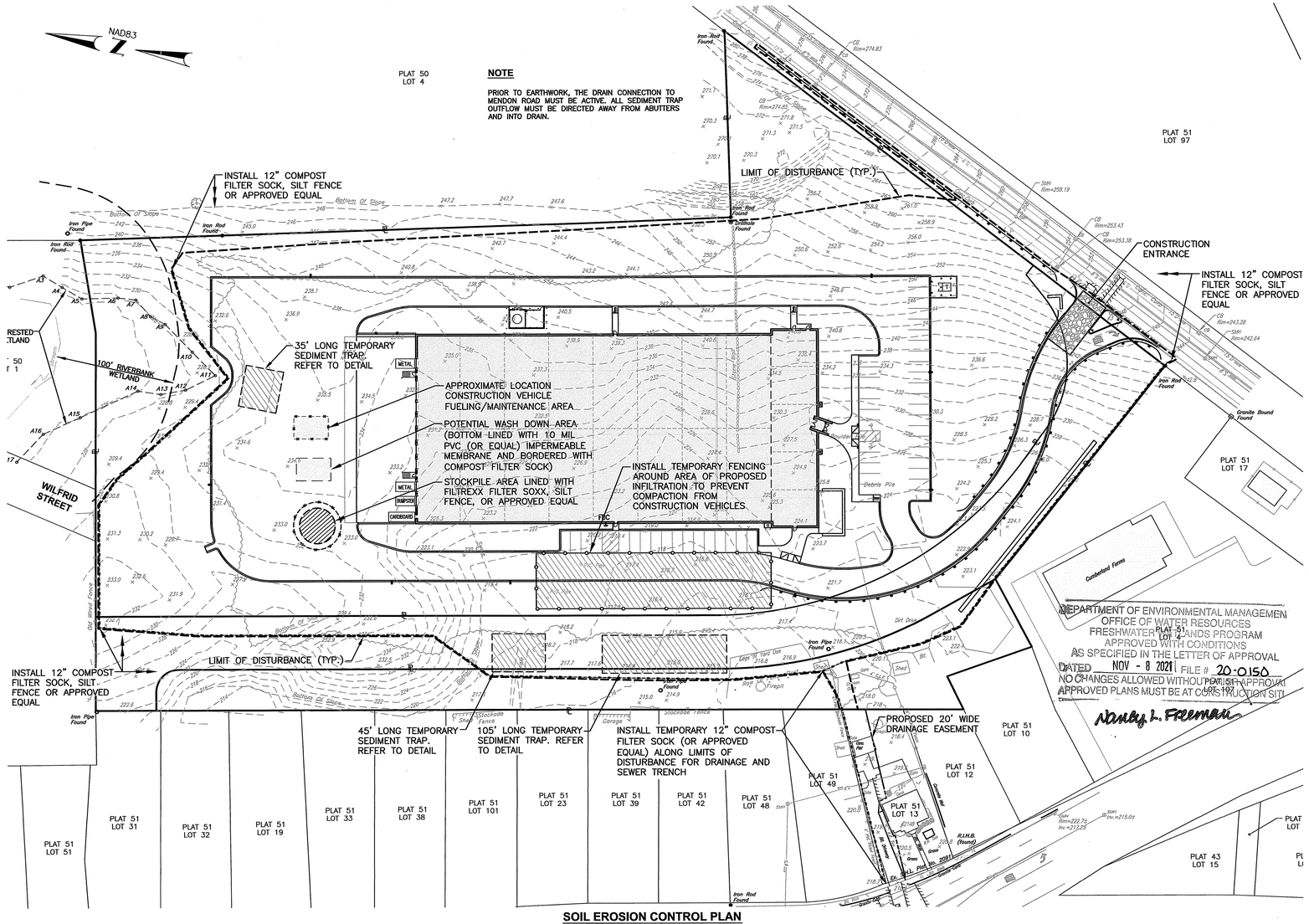
1. PRIOR TO COMMENCING CLEARING AND GRUBBING OPERATIONS, FILTERSOXX SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM AND ABUTTING PROPERTIES.
2. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE ROADWAY DRAINAGE SYSTEM.
3. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSIVE TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION – SUCH AS RIP–RAP.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
6. ADDITIONAL FILTERSOXX OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
7. THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE RHODE ISLAND STATE CONSERVATION COMMITTEE, 2014, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT–DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.

GENERAL PROJECT WIDE NOTES

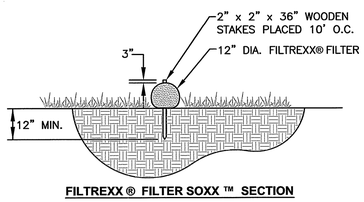
1. FILTERSOXX SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY.
2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO CITY OF WOONSOCKET OR THE OWNER.
3. ALL FILTERSOXX OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
4. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE; THE AREA BEYOND THE DRIPLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
5. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
6. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED FILTERSOXX.
7. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, FIBER MATTING OR APPROVED EQUAL.
8. SILT FENCE OR STAKED HAYBALES MAY BE USED IN LIEU OF THE FILTREXX FILTER SOXX.
9. CONCRETE WASHOUT SHALL OCCUR WITHIN THE LIMITS OF THE PERIMETER CONTROLS, ON GRAVEL SURFACES, AND ON 10 MIL PLASTIC LINING SURROUNDED BY FILTER SOXX OR APPROVED EQUAL.
10. IF REQUIRED, VEHICLE FUELING AND MAINTENANCE SHALL OCCUR WITHIN THE LIMITS OF THE PERIMETER CONTROLS AND SURROUNDED BY FILTER SOXX OR APPROVED EQUAL.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM

1. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
2. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000–4,000 LBS/ACRE.
3. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STRAW WATTLE.
4. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
6. ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER OR CITY OF WOONSOCKET.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
8. ALL CATCH BASINS ADJACENT TO THE CONSTRUCTION AREA SHALL BE PROTECTED BY SILT SACKS.
9. ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY STAKED HAY BALES, STRAW WATTLE OR SILT SACKS.
10. THE STRAW WATTLE MAY BE INSTALLED ON THE EXISTING PAVEMENT /IMPERVIOUS AREAS WITH OUT STAKES. CONTRACTOR SHALL INSPECT DAILY, IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL ADDITIONAL STRAW WATTLE IN LOCATIONS THAT CAN BE STAKED.
11. SILT FENCE OR STAKED HAYBALES MAY BE USED IN LIEU OF STRAW WATTLE.
12. SEDIMENT TRACKED ON PAVED SURFACES OUTSIDE THE WORK AREA OR ONTO THE ROADWAY WILL REQUIRE SWEEPING. DAILY SWEEPING MAY BE REQUIRED.



SOIL EROSION CONTROL PLAN
SCALE: 1"=50'



FILTREXX ® FILTER SOXX ™ SECTION

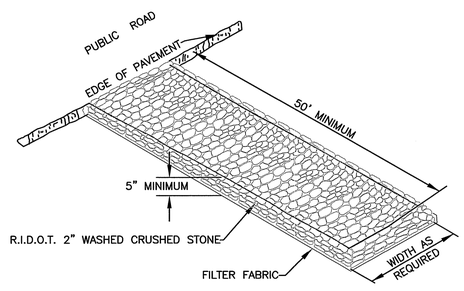
NOTES

1 CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE FILTREXX PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.

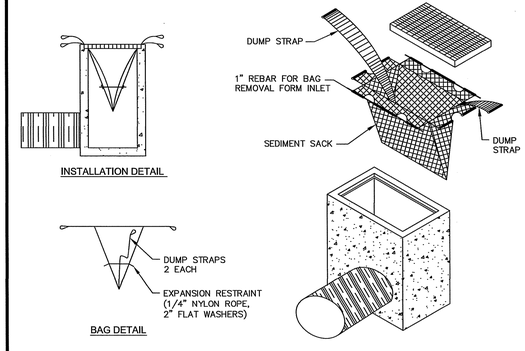
2. ALL MATERIAL SHALL MEET FILTREXX SPECIFICATIONS.

3. COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.

FILTREXX ® FILTER SOXX ™ DETAIL
NOT TO SCALE



TEMPORARY CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



NOTES

1. INSTALL SILT SACK AT CATCH BASINS IN VICINITY OF CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT SILT SACK PRODUCT TO ENGINEER FOR APPROVAL.

TYPICAL SILT SACK DETAIL
NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10/12/21

KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH, LLC

MAP F6, LOTS 51-1, 51-108 and 51-109
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PREPARED FOR:

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1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

SOIL EROSION and SEDIMENT CONTROL PLAN

DATE:	*SCALE:*
MAY 2020	AS SHOWN

DWG. NAME: 2456–C10–SOIL–R10.dwg

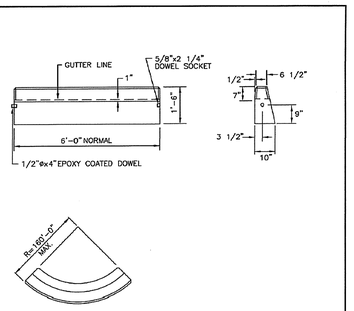
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C10

SHEET: 11 *OF:* 25



CIRCULAR CURB

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
5. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

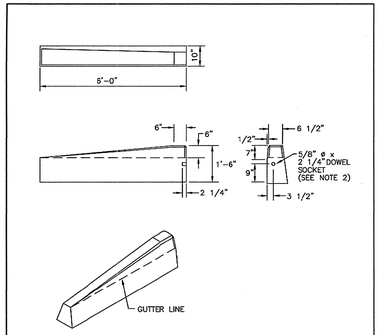
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

PRECAST CONCRETE CURB

Jean K. Cipolla, CHIEF ENGINEER OPERATIONS; Edward Gallagher, CHIEF DESIGN ENGINEER TRANSPORTATION; JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.1.0



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. DRAWING SHOWS TRANSITION CURB FOR ONE DIRECTION. FOR OTHER DIRECTION USE OPPOSITE HAND AND INCLUDE A 1/2" ø x 4" EPOXY COATED DOWEL.
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

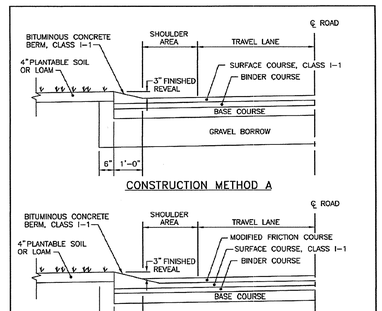
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

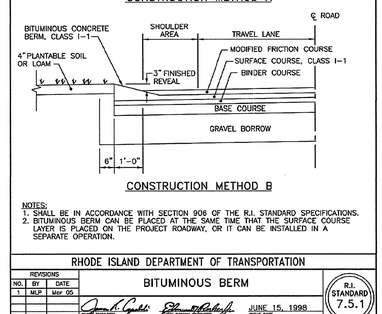
6'-0" PRECAST CONCRETE TRANSITION CURB

Jean K. Cipolla, CHIEF ENGINEER OPERATIONS; Edward Gallagher, CHIEF DESIGN ENGINEER TRANSPORTATION; JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.1.2



CONSTRUCTION METHOD A



CONSTRUCTION METHOD B

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 908 OF THE R.I. STANDARD SPECIFICATIONS.
2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

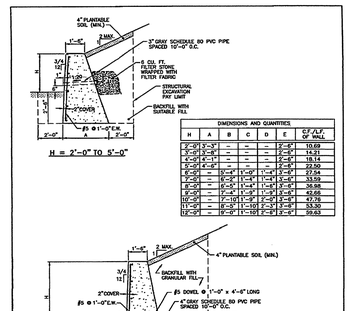
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

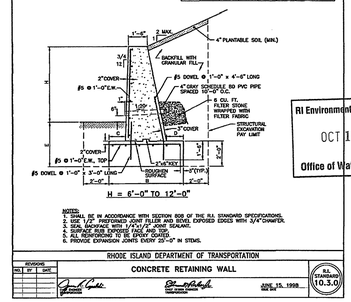
BITUMINOUS BERM

Jean K. Cipolla, CHIEF ENGINEER OPERATIONS; Edward Gallagher, CHIEF DESIGN ENGINEER TRANSPORTATION; JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 7.5.1



DIMENSIONS AND QUANTITIES						
H	A	B	C	D	E	C.F./L.F. 6" WALL
2'-0"	2'-3"	–	–	–	2'-6"	10.69
2'-6"	2'-4"	–	–	–	2'-6"	13.01
3'-0"	2'-5"	–	–	–	2'-6"	15.14
3'-6"	2'-6"	–	–	–	2'-6"	17.50
4'-0"	–	0'-4"	1'-0"	2'-3"	2'-6"	27.54
4'-6"	–	0'-4"	1'-0"	2'-3"	2'-6"	33.59
5'-0"	–	0'-5"	1'-0"	2'-3"	2'-6"	36.86
5'-6"	–	0'-5"	1'-0"	2'-3"	2'-6"	42.66
6'-0"	–	1'-0"	1'-0"	2'-3"	2'-6"	47.76
11'-0"	–	0'-5"	1'-10"	2'-3"	2'-6"	53.30
12'-0"	–	0'-0"	1'-10"	2'-3"	2'-6"	59.63



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 908 OF THE R.I. STANDARD SPECIFICATIONS.
2. USE 1'-0" PREFORMED JOINT FILLER AND SEWEL EXPOSED EDGES WITH 3/4" CHAMFER.
3. FOR WALLS OVER 8'-0" HIGH, USE #5 @ 6" C.W. FOR VERTICAL REINFORCEMENT.
4. ALL REINFORCING TO BE EPOXY COATED.
5. PROVIDE EXPANSION JOINTS EVERY 20'-0" IN STEMS.

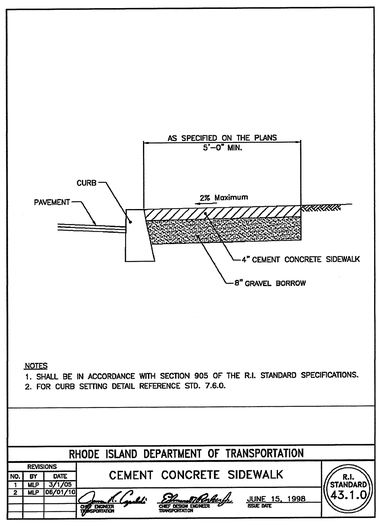
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

CONCRETE RETAINING WALL

Jean K. Cipolla, CHIEF ENGINEER OPERATIONS; Edward Gallagher, CHIEF DESIGN ENGINEER TRANSPORTATION; JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 10.3.0



NOTES
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.

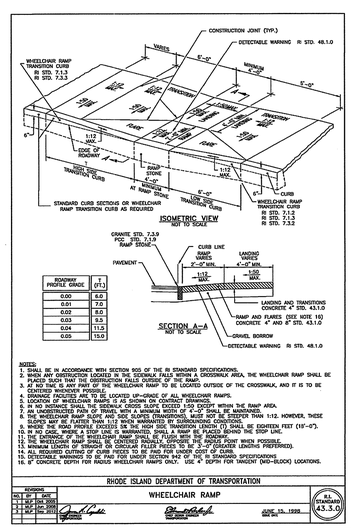
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	3/1/05
2	MLP	06/01/16

CEMENT CONCRETE SIDEWALK

CHIEF ENGINEER OPERATIONS; CHIEF DESIGN ENGINEER TRANSPORTATION; JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 43.1.0



ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	13.0

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATIONS.
2. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP SHALL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
3. IF THERE IS NO ROOM FOR BOTH RAMPS, THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
4. DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
5. NO RAMP SHALL BE LOCATED IN THE PATH OF MOVING TRAFFIC.
6. IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
8. THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (STANDARDIZED), MUST NOT BE STEEPER THAN 1:12. HOWEVER, THESE SLOPES MAY VARY, AS NECESSARY, TO MEET FIELD CONDITIONS WITHIN THE RAMP AREA.
9. WHEELCHAIR RAMP TRANSITION CURB TO BE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'-0").
10. IF NO CURB, WHERE A STOP LINE IS WARRANTED, SHALL BE PLACED BEHIND THE STOP LINE.
11. THE DISTANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
12. THE RAMP SHALL BE LOCATED AT THE CROSSWALK CENTERLINE AT THE POINT WHEN POSSIBLE.
13. MINIMUM LENGTH OF SHINGLE OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 646 OF THE R.I. STANDARD SPECIFICATIONS.
16. 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID-BLOCK) LOCATIONS.

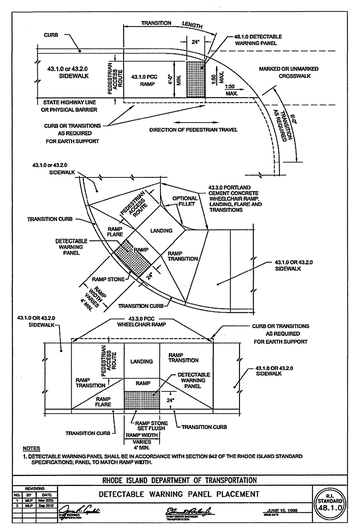
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Oct 2005
2	MLP	Mar 2007
3	MLP	Mar 2008

WHEELCHAIR RAMP

JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 43.3.0



NOTES
1. DETECTABLE WARNING PANEL SHALL BE IN ACCORDANCE WITH SECTION 642 OF THE RHODE ISLAND STANDARD SPECIFICATIONS; PANEL TO MATCH RAMP WIDTH.

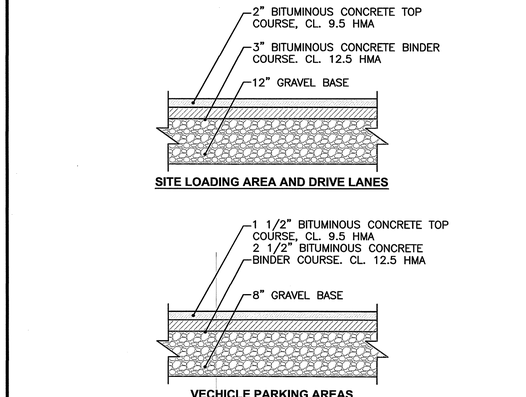
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 2007
2	MLP	Mar 2008

DETECTABLE WARNING PANEL PLACEMENT

JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 48.1.0



SITE LOADING AREA AND DRIVE LANES

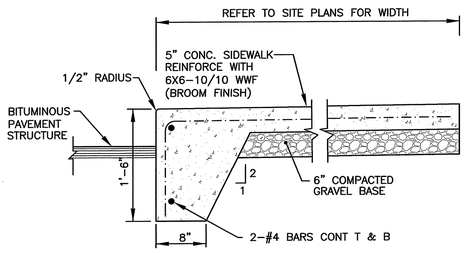
VECHICLE PARKING AREAS

NOTES

1. THE ABOVE PAVEMENT THICKNESS REPRESENTS THE MINIMUM THICKNESS FOR ROADWAY, LOADING AREA AND DRIVE LANES.
2. PROPOSED BITUMINOUS PAVEMENT SHALL BE CLASS 12.5 OR CLASS 9.5 HMA

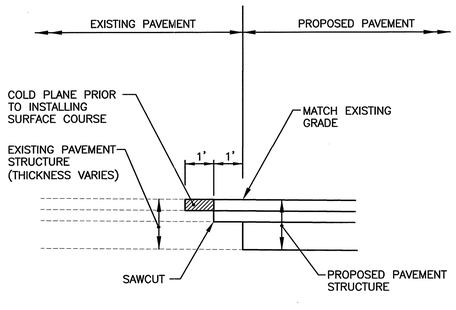
PROPOSED PAVEMENT STRUCTURE DETAIL

NOT TO SCALE



TYPICAL CONCRETE WALK WITH CAST-IN-PLACE CURB

NOT TO SCALE

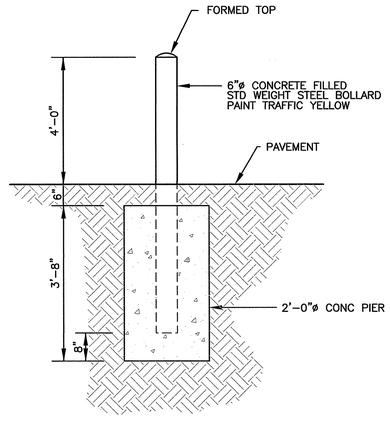


NOTE

PROPOSED BITUMINOUS PAVEMENT SHALL BE CLASS 12.5 OR CLASS 9.5 HMA

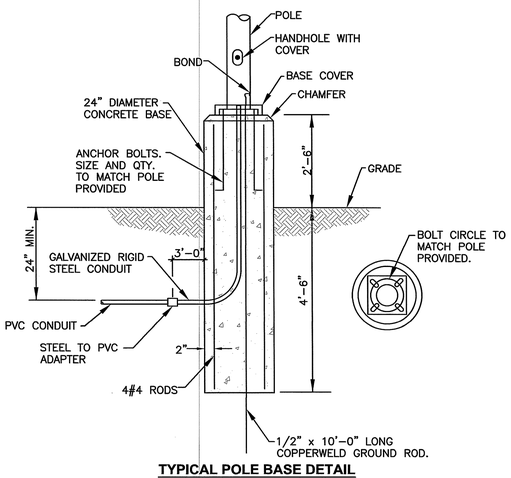
PROPOSED PAVEMENT MATCH AT EXISTING PAVEMENT

NOT TO SCALE



TYPICAL BOLLARD DETAIL

NOT TO SCALE



TYPICAL POLE BASE DETAIL

NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

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103 Commonwealth Avenue
North Attleboro, MA 02763
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
11/6/21

RI Environmental Management
OCT 18 2021
Office of Water Resources

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 1

DATE: MAY 2020
SCALE: AS SHOWN

DWG. NAME: 2456-C11-DETAIL1-R10.dwg

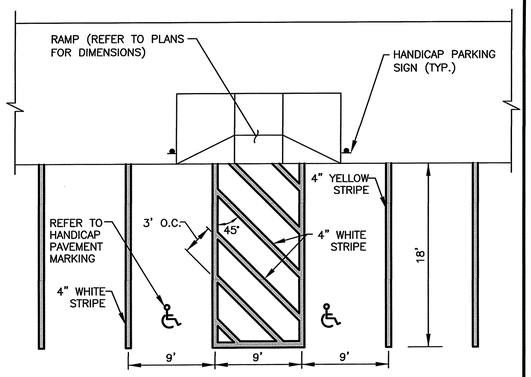
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
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7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C11

SHEET: 12 OF: 25

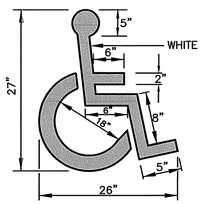


NOTE

ALL HANDICAP PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

ADA PARKING STALLS

NOT TO SCALE

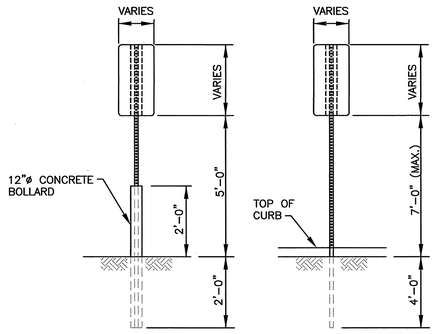


NOTE

ALL ADA PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

ADA PAVEMENT MARKING

NOT TO SCALE

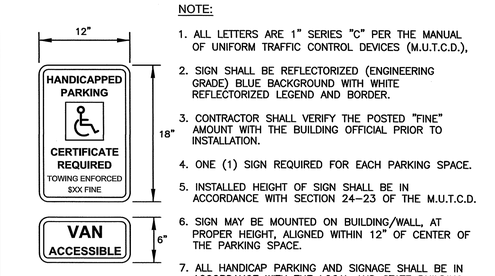


(MOUNTING DETAIL FOR SIGNS WITH NO SIDEWALK)

(MOUNTING DETAIL FOR SIGNS BEHIND SIDEWALK)

SIGN MOUNTING DETAIL

NOT TO SCALE



NOTE:

1. ALL LETTERS ARE 1" SERIES "C" PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.),
2. SIGN SHALL BE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. CONTRACTOR SHALL VERIFY THE POSTED "FINE" AMOUNT WITH THE BUILDING OFFICIAL PRIOR TO INSTALLATION.
4. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
5. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE M.U.T.C.D.
6. SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, ALIGNED WITHIN 12" OF CENTER OF THE PARKING SPACE.
7. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE.

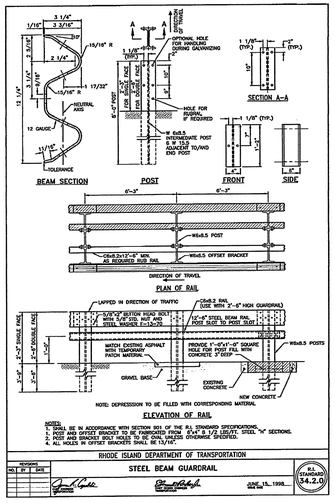
SIGN NOTES:

1. SIGN POSTS SHALL BE GALVINIZED STEEL U-CHANNEL (3 1/2" WIDE-MIN.) AND INSTALLED IN CONFORMANCE WITH MUTCD AND LOCAL STANDARDS AND SPECIFICATIONS.
2. POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN.)
3. THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.
4. WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 8"x8"x6" SQUARE BOX FORM.

PROPOSED HANDICAPPED PARKING SIGNS

NOT TO SCALE

RI Environmental Management
OCT 18 2021
Office of Water Resources



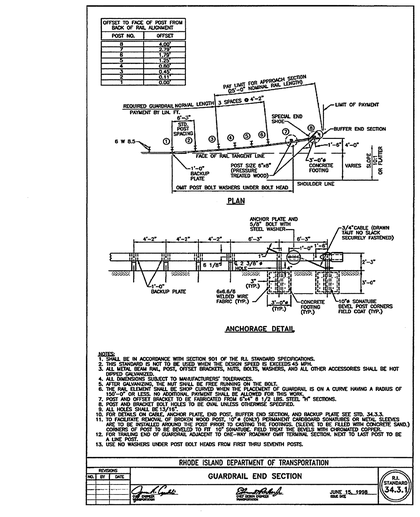
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO. | BY | DATE

STEEL BEAM GUARDRAIL

JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 34.2.0



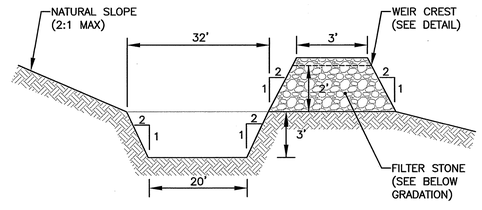
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO. | BY | DATE

GUARDRAIL END SECTION

JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 34.3.1



TEMPORARY SEDIMENT TRAP DETAIL

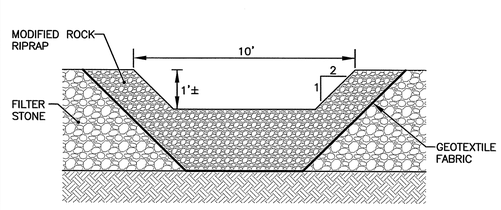
NOT TO SCALE

NOTE

FILTER STONE SHALL MEET THE REQUIREMENTS OF R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.09 TABLE 1, COLUMN V FILTER STONE.

US STANDARD SIEVE SIZE (INCHES)	FILTER STONE
1	100
3/4	70-85
1/2	10-40
3/8	0-20
#4	0-5

GRADATION OF FILTER STONE MATERIAL

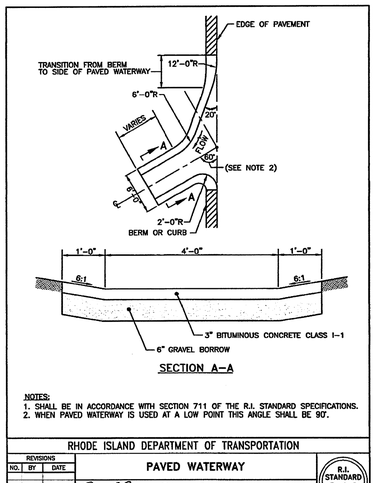


TEMPORARY SEDIMENT TRAP OUTLET DETAIL

NOT TO SCALE

NOTES

1. THE TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO UNDISTURBED, STABILIZED GROUND.
2. CONTRACTOR SHALL INSTALL 1 OUTLET PER 100' LENGTH OF TEMPORARY SEDIMENT TRAP (1 OUTLET MIN. PER TEMPORARY SEDIMENT TRAP).
3. THE MODIFIED ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF THE R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.0.3.2.
4. CONTRACTOR MUST REFER TO THE INSTALLATION, INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS PROVIDED IN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, AS AMENDED.



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 711 OF THE R.I. STANDARD SPECIFICATIONS.
2. WHEN PAVED WATERWAY IS USED AT A LOW POINT THIS ANGLE SHALL BE 90°.

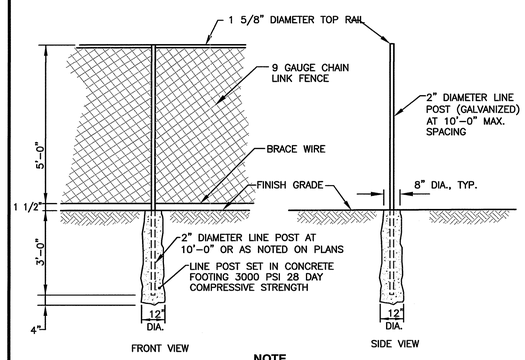
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO. | BY | DATE

PAVED WATERWAY

JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 8.4.0

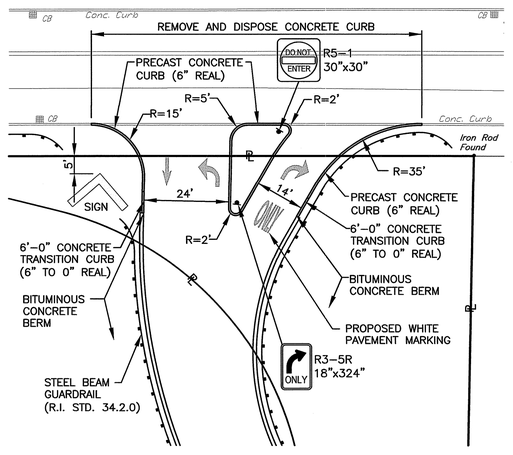


NOTE

FENCE WILL BE BLACK VINYL COATED.

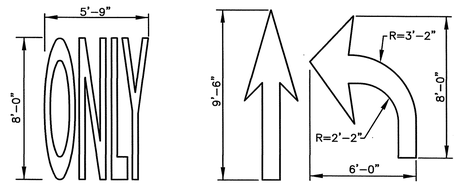
CHAIN LINK FENCE DETAIL

NOT TO SCALE



ENTRANCE DETAIL

NOT TO SCALE



NOTES

1. THE LONGITUDINAL SPACE BETWEEN LINES OR SYMBOL MESSAGES, INCLUDING ARROWS, SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTER FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTER UNDER ANY CONDITIONS.
2. THE SPACING OF THE PAVEMENT MARKINGS WILL BE AS SHOWN ON THE PLAN AND AS PER THE MUTCD.
3. SYMBOLS AND WORDS SHALL MEET THE REQUIREMENTS OF THE FHWA "STANDARD ALPHABET AND SYMBOLS FOR HIGHWAY PAVEMENT MARKINGS.

PAVEMENT MARKING DETAIL

NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

Massachusetts
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Email: cei@crossmaneng.com

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
11/8/21

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 2

DATE: MAY 2020

SCALE: AS SHOWN

DWG. NAME: 2456-C12-DETAIL2-R10.dwg

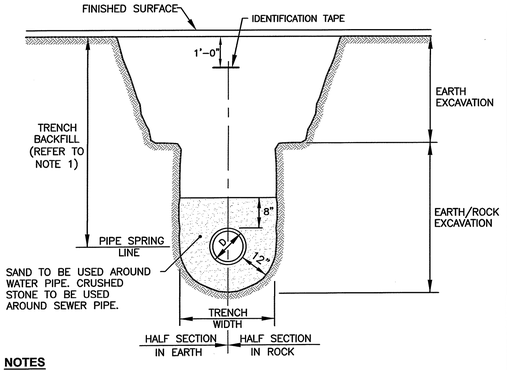
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C12

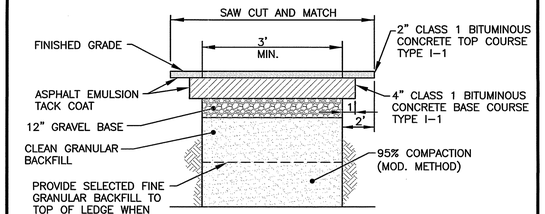
SHEET: 13 OF: 25



NOTES

1. BEDDING/BACKFILL TO BE COMPACTED TO 95% DRY DENSITY, MODIFIED PROCTOR METHOD.
2. ALL TRENCH EXCAVATION AND ANY SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND OSHA REGULATIONS.
3. MINIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 12". MAXIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 24".

TRENCH DETAIL
NOT TO SCALE

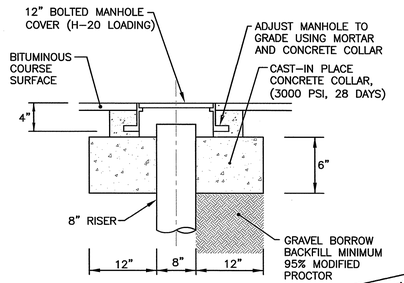


NOTE

THE PAVEMENT DEPTH IN TRENCH AREAS FOR PROPOSED UTILITY PIPE AND CONNECTIONS WITHIN ROADWAY SHALL BE REPLACED IN-KIND. BASE COURSE SHALL BE PLACES IN 2 1/2" MINIMUM LIFT AND 4" MAXIMUM LIFT. THE CONTRACTOR SHALL COORDINATE ALL PAVING OPERATIONS WITHIN THE ROADWAY WITH THE CITY PRIOR TO PLACEMENT.

TYPICAL TRENCH PATCH DETAIL (PARK EAST DRIVE)
NOT TO SCALE

TRENCH WIDTH Ws OR Wu		
DIAMETER OF PIPE D	Wu UNSHEETED	Ws SHEETED
12" AND SMALLER	3'-4"	4'-6"
15"	3'-6"	4'-8"
18"	3'-10"	5'-0"
21"	4'-2"	5'-4"
24"	4'-6"	5'-8"
27"	4'-10"	6'-0"
30"	5'-6"	6'-8"
36"	6'-2"	7'-4"
42"	6'-10"	8'-0"
48"	7'-6"	8'-8"

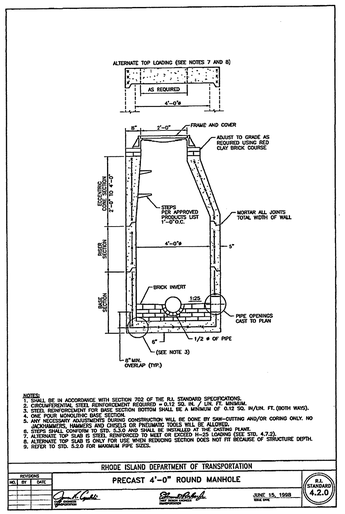


NOTE

CONCRETE COLLAR IS NOT REQUIRED IN LANDSCAPE AREAS

ROOF DRAIN CLEAN-OUT DETAIL IN PAVEMENT
NOT TO SCALE

RI Environmental Management
OCT 18 2021
Office of Water Resources

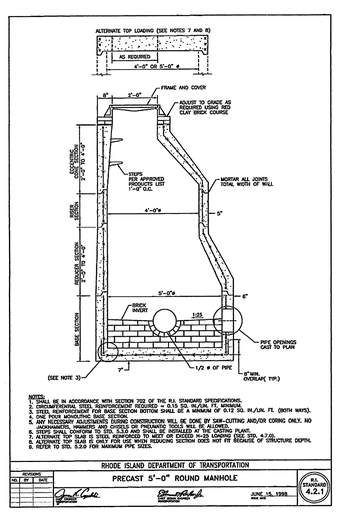


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.13 SQ. IN./ LIN. FT. MINIMUM.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. ONE POUR MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
8. WHERE THE CLEARANCE FROM THE TOP OF THE PIPE TO THE RIM IS LESS THAN 12" OR WHERE THE ROCKING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH, REFER TO STD. 5.2.0 FOR MINIMUM PIPE SIZES.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

PRECAST 4'-0" ROUND MANHOLE — R.I. STANDARD 4.2.0 — JUNE 15, 1998 ISSUE DATE

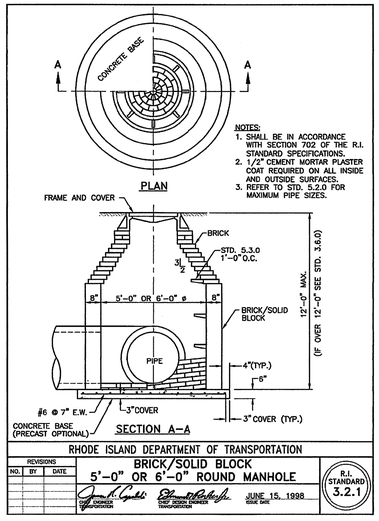


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.13 SQ. IN./LIN. FT. MINIMUM.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. ONE POUR MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
8. WHERE THE CLEARANCE FROM THE TOP OF THE PIPE TO THE RIM IS LESS THAN 12" OR WHERE THE ROCKING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH, REFER TO STD. 5.2.0 FOR MINIMUM PIPE SIZES.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

PRECAST 5'-0" ROUND MANHOLE — R.I. STANDARD 4.2.1 — JUNE 15, 1998 ISSUE DATE



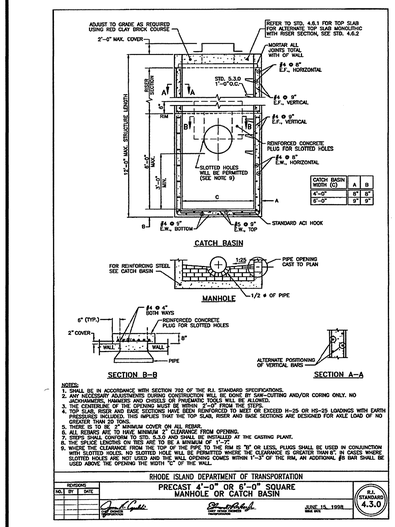
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. 1/2" CEMENT MORTAR PLASTER COAT REQUIRED ON ALL INSIDE AND OUTSIDE SURFACES.
3. REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

SECTION A-A

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND MANHOLE — R.I. STANDARD 3.2.1 — JUNE 15, 1998 ISSUE DATE

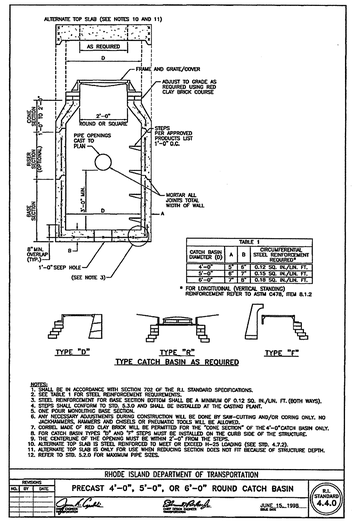


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
3. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
4. THE SPACE BETWEEN THE OPENING AND THE BOTTOM OF THE SLAB SHALL NOT EXCEED H=25 OR HS-25 LOADINGS WITH EARTH SURCHARGE INCLUDED, THIS IMPLIES THAT THE TOP SLAB, RISER AND BASE SECTIONS ARE DESIGNED FOR AXLE LOAD OF NO GREATER THAN 20 TONS.
5. THERE IS TO BE 8" MINIMUM COVER ON ALL REBAR.
6. ALL REBARS ARE TO HAVE MINIMUM OF CLEARANCE FROM OPENING.
7. CONCRETE BASE SHALL CONFORM TO STD. 5.3.0 AND SHALL BE OVERPOURED AT THE CASTING PLANT.
8. THE SPLICED LENGTHS ON TIES ARE TO BE A MINIMUM OF 1'-0".
9. WHERE THE CLEARANCE FROM THE TOP OF THE PIPE TO THE RIM IS 7'0" OR LESS, PLUGS SHALL BE USED IN CONJUNCTION WITH SLOTTED HOLES. WHERE THE CLEARANCE FROM THE TOP OF THE PIPE TO THE RIM IS GREATER THAN 7'0", PLUGS SHALL BE USED WHERE SLOTTED HOLES ARE NOT USED AND THE WALL OPENING COMES WITHIN 1'-3" OF THE RIM. AN ADDITIONAL ø6 BAR SHALL BE USED ABOVE THE OPENING THE WIDTH "C" OF THE WALL.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

PRECAST 4'-0" OR 5'-0" SQUARE MANHOLE OR CATCH BASIN — R.I. STANDARD 4.3.0 — JUNE 15, 1998 ISSUE DATE

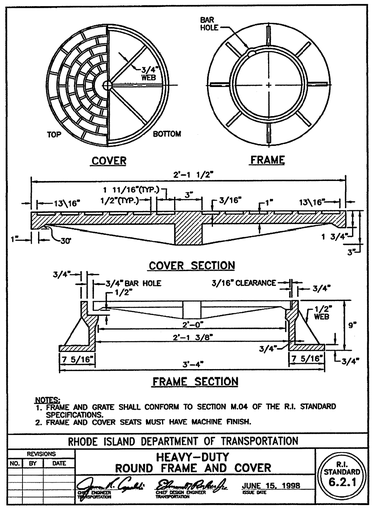


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
3. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
4. STEPS SHALL CONFORM TO STD. 5.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
5. ONE POUR MONOLITHIC BASE SECTION.
6. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
7. CORING, MAKE OF RED CLAY BRICK WILL BE PERMITTED FOR THE FULL LENGTH OF THE 4"-0" CATCH BASIN ONLY.
8. FOR CATCH BASIN TYPES "D" AND "F" STEPS MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
9. THE CENTERLINE OF THE OPENING MUST BE WITHIN 2'-0" FROM THE STEPS.
10. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
11. WHERE THE CLEARANCE FROM THE TOP OF THE PIPE TO THE RIM IS LESS THAN 12" OR WHERE THE ROCKING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH, REFER TO STD. 5.2.0 FOR MAXIMUM PIPE SIZES.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN — R.I. STANDARD 4.4.0 — JUNE 15, 1998 ISSUE DATE

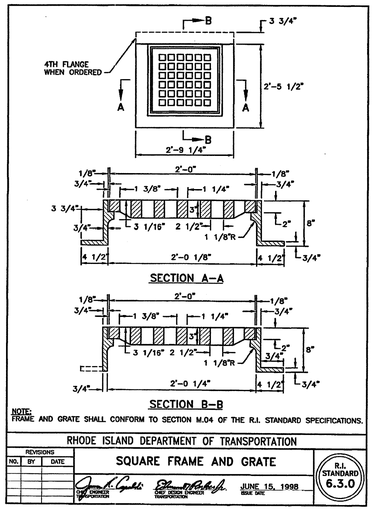


NOTES:
1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

HEAVY-DUTY ROUND FRAME AND COVER — R.I. STANDARD 6.2.1 — JUNE 15, 1998 ISSUE DATE

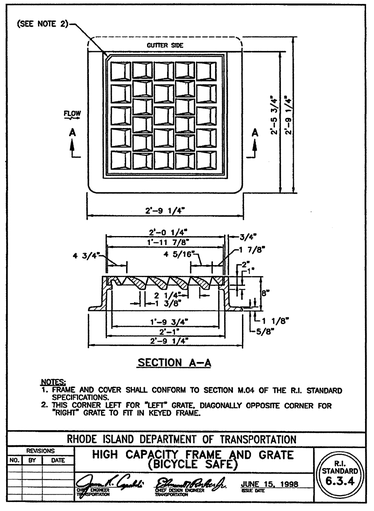


NOTE:
FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

SQUARE FRAME AND GRATE — R.I. STANDARD 6.3.0 — JUNE 15, 1998 ISSUE DATE

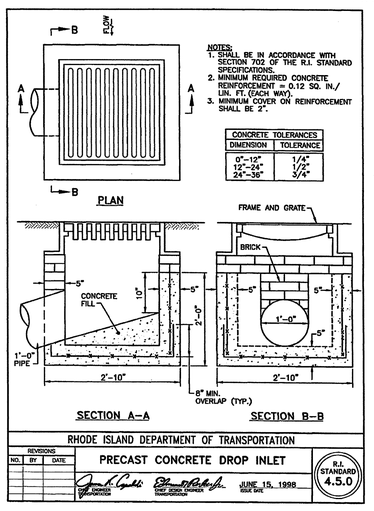


NOTES:
1. FRAME AND COVER SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. THIS CORNER LEFT FOR "LEFT" GRATE, DIAGONALLY OPPOSITE CORNER FOR "RIGHT" GRATE TO FIT IN KEYED FRAME.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE) — R.I. STANDARD 6.3.4 — JUNE 15, 1998 ISSUE DATE



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM REQUIRED CONCRETE REINFORCEMENT = 0.12 SQ. IN./ LIN. FT. (EACH WAY).
3. MINIMUM COVER ON REINFORCEMENT SHALL BE 2".

CONCRETE TOLERANCES	
DIMENSION	TOLERANCE
0"-12"	1/2"
12"-24"	1/2"
24"-36"	3/4"

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

PRECAST CONCRETE DROP INLET — R.I. STANDARD 4.5.0 — JUNE 15, 1998 ISSUE DATE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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Warwick, RI 02886
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10/12/21

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH, INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 3

DATE: MAY 2020
SCALE: AS SHOWN
DWG. NAME: 2456-C13-DETAIL3-R10.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C13

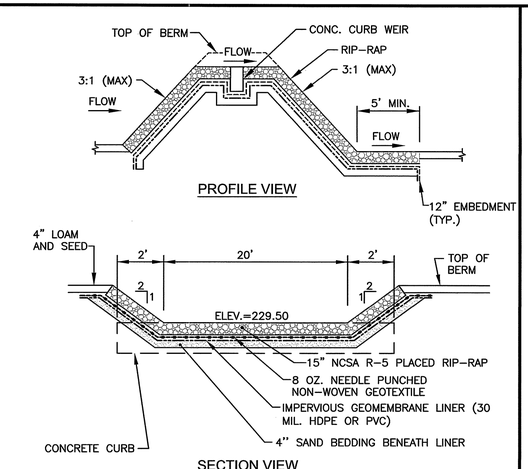
SHEET: 14 *OF:* 25

DRAINAGE NOTES

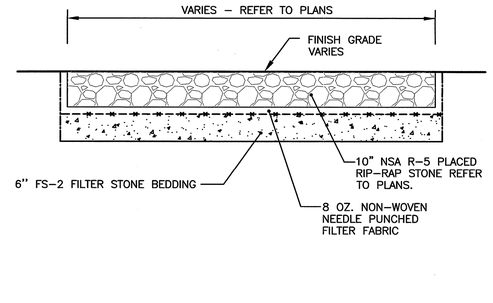
1. CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
2. CONTRACTOR IS RESPONSIBLE TO PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS FOR REVIEW AND APPROVAL BY THE ENGINEER, PRIOR TO ORDERING. CONCRETE MANUFACTURER SHALL REVIEW RIM TO TOP OF PIPE ELEVATIONS AND PROVIDE SPECIFIC DETAILS.
3. ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
4. ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES).
5. UNLESS OTHERWISE NOTED, ALL SOLID DRAINAGE PIPE SHALL BE ADS N-12 HDPE OR APPROVED EQUAL. PIPE BEDDING SHALL BE IN CRUSHED STONE OR GRAVEL BORROW COMPACTED TO 95% DRY DENSITY (MODIFIED PROCTOR METHOD). ADS PIPE SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' REQUIREMENTS. PIPES SHALL BE INSTALLED WITH CLAY TRENCH DAMS EVERY 50' (MINIMUM 1 PER PIPE).
6. GRADES WITHIN HANDICAP ACCESSIBLE PARKING SPACES AND AISLES SHALL NOT BE LESS THAN 1% OR GREATER THAN 2%.
7. ALL ROOF DRAINS SHALL BE INSTALLED AT A 1.0% MINIMUM SLOPE.
8. CONTRACTOR MAY NEED TO RELOCATE PIPE TO AVOID CONFLICTS WITH EXISTING UTILITIES. COORDINATE RELOCATION WITH ENGINEER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR DAMAGE TO EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE TO INCLUDE ALL WORK NECESSARY TO INSTALL THIS PIPE, INCLUDING TRANSPLANTING OR PLANTING NEW TREES IF NECESSARY.

INFILTRATION SYSTEM CONSTRUCTION NOTE

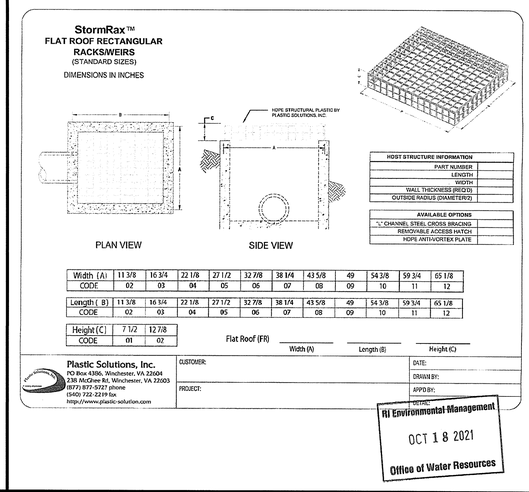
1. WITHIN THE INFILTRATION SYSTEM, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND SUBSOIL AREAS (A AND B HORIZONS) AND ANY EXISTING SOILS THAT YIELD A PERMEABILITY RATE <1.02 INCHES/HOUR. CONTRACTOR SHALL COORDINATE A BOTTOM BED INSPECTION WITH OWNER AND ENGINEER. IF NECESSARY THE AREA SHALL BE PREPARED WITH SAND FILL SOIL MEETING THE MEDIA REQUIREMENTS OF SAND FILTERS, AS DESCRIBED IN THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, LATEST EDITION. THE DEPTH OF EXISTING SOIL REMOVAL SHALL BE VERIFIED BY THE ENGINEER. PLACEMENT OF THE SAND FILL (ASTM C-33 SAND), SHALL BE USED TO BRING THE BOTTOM OF BASIN TO THE DESIGN ELEVATIONS.
2. INFILTRATION SYSTEM CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, LATEST EDITION. AFTER CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE FINAL INSPECTIONS WITH THE OWNER.
3. THE CONTRACTOR IS REQUIRED TO SUBMIT A LIST OF MATERIALS, GRADATIONS AND THE NAME AND ADDRESS OF THE SUPPLIERS TO THE ENGINEER FOR APPROVAL PRIOR TO BRINGING MATERIAL ON SITE. MATERIAL CERTIFICATIONS SHALL ALSO BE REQUIRED FOR REVIEW AND APPROVAL.
4. THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE ABOVE REFERENCED MANUAL. THE MANUAL CAN BE FOUND AT: http://www.dem.ri.gov/pubs/regs/regs/water/swmanual15.pdf
5. GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION; BY MARKING OFF THE INFILTRATION UNDERGROUND SYSTEM LOCATION BEFORE THE START OF CONSTRUCTION, AND BY CONNECTING UPSTREAM DRAINAGE AREAS ONLY AFTER CONSTRUCTION IS COMPLETE AND THE CONTRIBUTING AREA IS STABILIZED.
6. IF LARGE ROCKS OR BOULDERS ARE FOUND WITHIN 36" BELOW THE INFILTRATION SYSTEMS, OR WITHIN A 10' PERIMETER AROUND SYSTEM, THE CONTRACTOR SHALL REMOVE THE ROCKS/BOULDERS AND REPLACE WILL GRAVEL BORROW. CONTRACTOR SHALL COORDINATE WITH ENGINEER.
6. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR THE PIPES TO BE USED IN THE UNDERGROUND INFILTRATION SYSTEMS TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SHOP DRAWINGS MUST VERIFY THAT THE PIPES CAN SUPPORT H-20 LOADING WITH THE SYSTEM SPECIFIC COVER.
7. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH A STORMTRAP REPRESENTATIVE FOR INSTALLATION SPECIFICATIONS AND PROCEDURES.



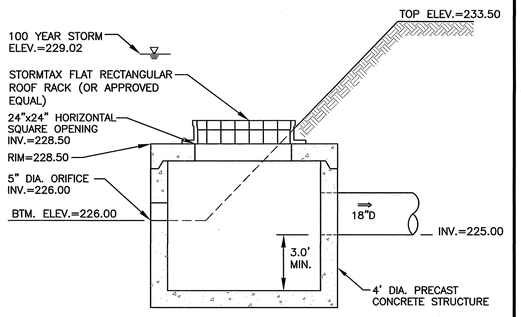
EMERGENCY SPILLWAY DETAIL (STORMWATER BASIN No. 2)
NOT TO SCALE



RIP-RAP OUTLET PROTECTION TYPICAL SECTION
NOT TO SCALE

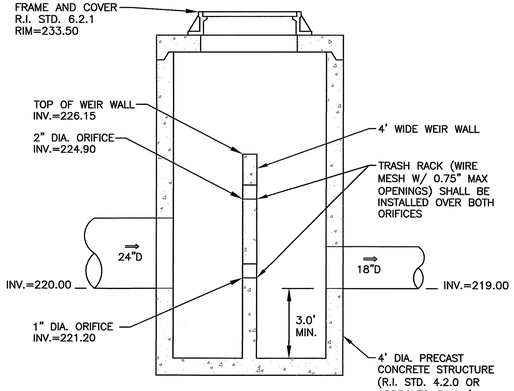


RI Environmental Management
OCT 18 2021
Office of Water Resources

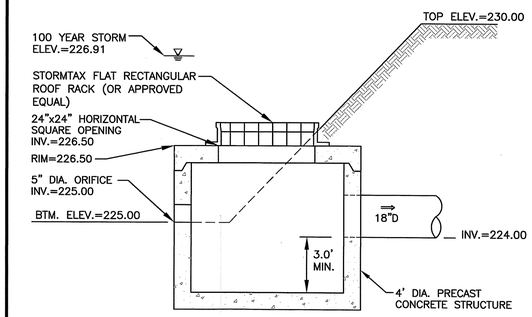


NOTE:
TRASH RACK ENCLOSURE WITH 1" MAXIMUM OPENINGS SHALL BE INSTALLED OVER OUTLET CONTROL STRUCTURE ORIFICE AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION

STORMWATER BASIN No. 1 OUTLET CONTROL STRUCTURE (DMH 4) DETAIL
NOT TO SCALE

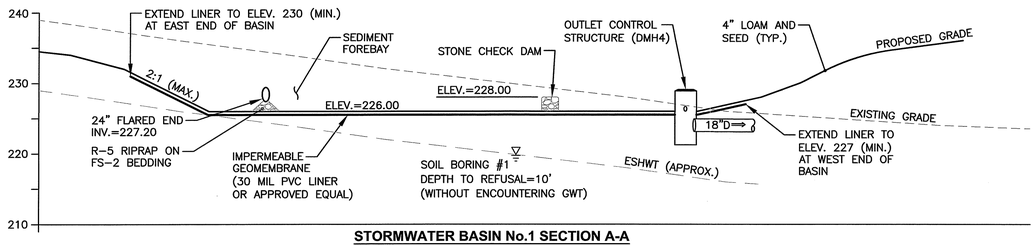


UNDERGROUND INFILTRATION SYSTEM OUTLET CONTROL STRUCTURE (DMH 13) DETAIL
NOT TO SCALE

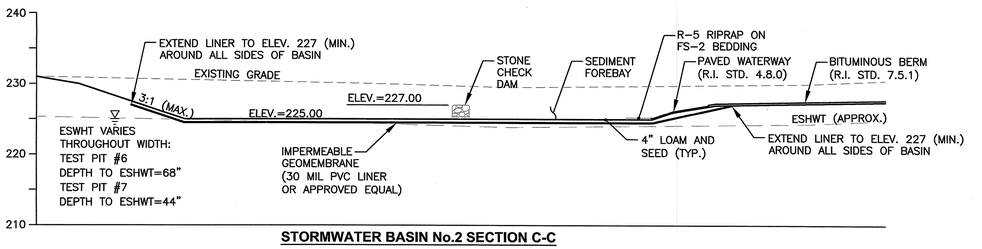


NOTE:
TRASH RACK ENCLOSURE WITH 1" MAXIMUM OPENINGS SHALL BE INSTALLED OVER OUTLET CONTROL STRUCTURE ORIFICE AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION

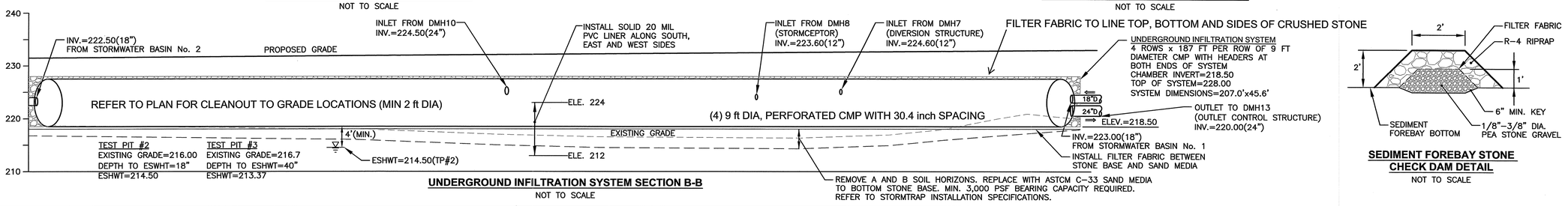
STORMWATER BASIN No. 2 OUTLET CONTROL STRUCTURE (DMH 12) DETAIL
NOT TO SCALE



STORMWATER BASIN No.1 SECTION A-A
NOT TO SCALE



STORMWATER BASIN No.2 SECTION C-C
NOT TO SCALE



UNDERGROUND INFILTRATION SYSTEM SECTION B-B
NOT TO SCALE

SEDIMENT FOREBAY STONE CHECK DAM DETAIL
NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10/7/21

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Wendy L. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 4

DATE: MAY 2020
SCALE: AS SHOWN
DWG. NAME: 2456-C14-DETAIL4-R10.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C14

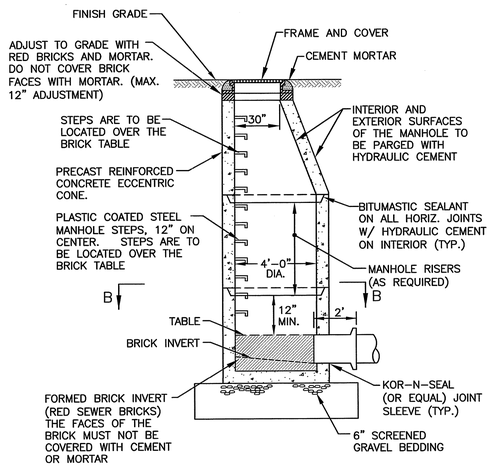
SHEET: 15 *OF:* 25

GENERAL SEWER NOTES

1. INSTALLATION OF THE SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE CITY OF WOONSOCKET SPECIFICATIONS AND REQUIREMENTS.
2. PRIOR TO RECEIVING AUTHORIZATION TO CONSTRUCT, ALL MATERIALS SHALL MEET THE STANDARDS AND RECEIVE THE WRITTEN APPROVAL, BASED ON MANUFACTURER'S DRAWINGS AND OTHER DATA, OF THE CITY OF WOONSOCKET.
3. ALL SEWERAGE FACILITIES SHALL MEET TESTING AND CLEANING REQUIREMENTS PRIOR TO ACCEPTANCE.
4. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE AS-BUILT LOCATIONS PRIOR TO PIPE BACKFILL. AS-BUILT DRAWINGS SHALL BE FURNISHED AS A CONDITION FOR ACCEPTANCE OF THE NEW SEWERAGE FACILITIES. PLANS SHALL INCLUDE LOCATION OF WYES.
5. NO FLOW WILL BE ACCEPTED UNTIL ALL ABOVE STEPS ARE COMPLETED AND COMPLETION CERTIFICATE IS ISSUED.
6. AFTER THE CONTRACTOR HAS "STAKED OUT" THE FACILITIES TO BE CONSTRUCTED AND HAS THE APPROVED MATERIALS ON THE JOB, THE CITY OF WOONSOCKET SHALL BE NOTIFIED IN ADVANCE OF CONSTRUCTION IN ORDER FOR THEM TO ARRANGE FOR THEIR INSPECTOR. THE NOTIFICATION MUST MEET THE CITY OF WOONSOCKET SEWER COMMISSION REQUIREMENTS.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND MATERIALS, STANDARDS AND SPECIAL DETAILS, AND STANDARD SPECIFICATIONS, ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION WITHIN THE LIMITS OF WORK AS SHOWN ON THE DRAWINGS.
9. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEEDED.
10. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITIES INCLUDING "DIG-SAFE" PRIOR TO STARTING WORK. ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
11. RELATION TO WATER LINES:
    A. HORIZONTAL SEPARATION: WHENEVER POSSIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET (3.0 m), HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER LINE. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, A SEWER MAY BE LAID CLOSER THAN 10 FEET TO A WATER LINE IF:
        1. IT IS LAID IN A SEPARATE TRENCH, OR IF
        2. IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND IF
        3. IN EITHER CASE THE ELEVATION OF THE TOP (CROWN) OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM (INVERT) OF THE WATER LINE.
    B. VERTICAL SEPARATION: WHENEVER A SEWER MUST CROSS UNDER WATER LINES, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM OF THE WATER LINE. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER LINE SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET (3.0 m) ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER LINE SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
    C. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER LINE AND SEWER SHALL BE CONSTRUCTED OF MECHANICAL-JOINT CEMENT LINED DUCTILE IRON PIPE OR OTHER EQUIVALENT BASED ON WATER TIGHTNESS AND STRUCTURAL SOUNDNESS. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING REQUIRED IN THE SEWER INSTALLATION.
13. THE PROPOSED GRAVITY SANITARY SEWER PIPE SHALL BE PVC ASTM 3034 SDR 35, UNLESS OTHERWISE SHOWN ON PLANS. PIPE SIZE TO MATCH UTILITY PLAN.
14. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ELEVATION OF EXISTING SEWER LINE PRIOR TO INSTALLATION.

SEWER TRENCH NOTES

1. MINIMUM WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12" EACH SIDE.
2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR TO ATTAIN 95% MAX. DENSITY (MOD. METHOD).
3. CRUSHED STONE FOUNDATION 3/4" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE AND UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
4. CRUSHED STONE HAUNCHING 3/4" MAXIMUM SIZE SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE.

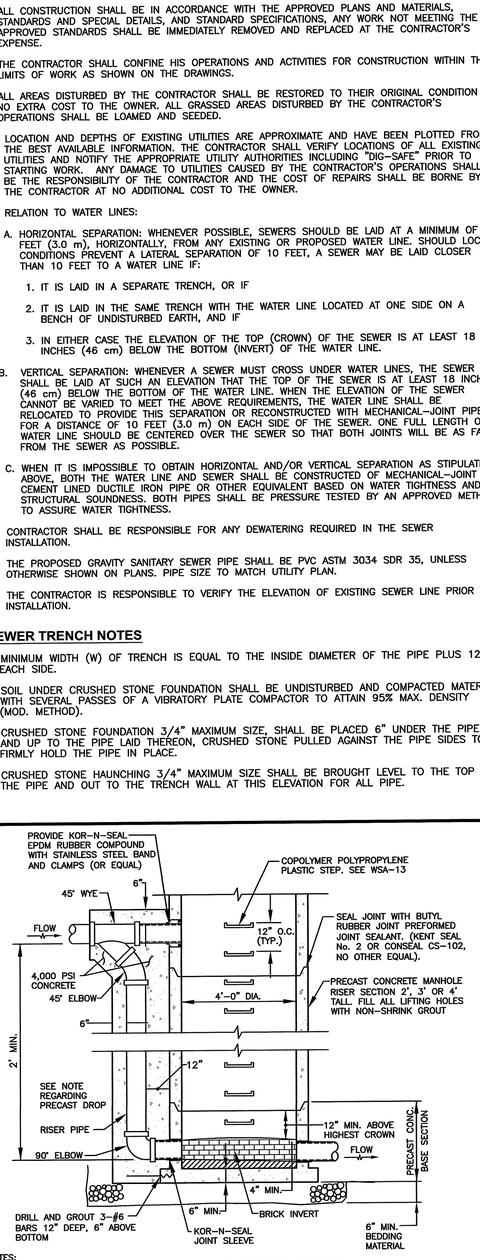


NOTES

1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN. / LIN. FT. MINIMUM.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN/LIN. FT. (BOTH WAYS).
4. ONE POUR MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. STEPS SHALL CONFORM TO R.I.D.O.T. STD. 5.3.0 (OR AS SPECIFIED IN THE CONTRACT) AND SHALL BE INSTALLED AT THE CASTING PLANT.
7. ALTERNATE FLAT TOP SLAB CAN BE USED WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
8. ALTERNATE FLAT TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE R.I.D.O.T. STD. 4.7.2).
9. ALL JOINTS AND PINHOLES TO BE PLUGGED INSIDE AND OUTSIDE WITH HYDRAULIC CEMENT.
10. EXTERIOR OF MANHLE SHALL HAVE A BITUMINOUS COATING.

SANITARY MANHOLE DETAIL - TYPICAL

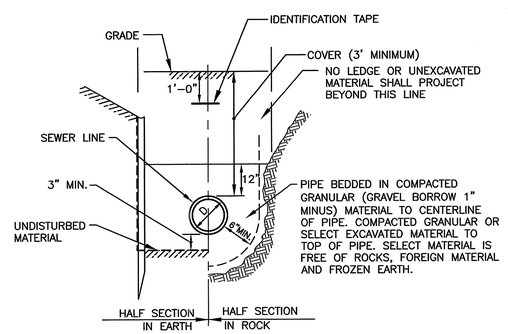
NOT TO SCALE



NOTES:
1. WHERE PRECAST DROPS ARE REQUIRED, THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS OF THE DROP UNITS FOR APPROVAL OF THE ENGINEER PRIOR TO CONSTRUCTION.
2. RISER PIPE SHALL BE THE SAME DIAMETER AS THE INLET PIPE OR 8" DIAMETER, WHICHEVER IS LARGER.

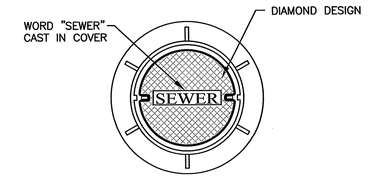
OUTSIDE DROP MANHOLE DETAIL

NOT TO SCALE

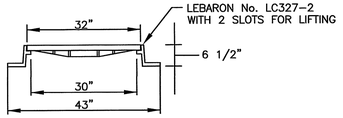


TYPICAL SEWER LINE TRENCH DETAIL

NOT TO SCALE



PLAN



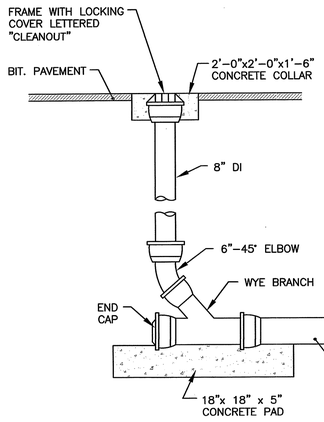
SECTION

NOTES

1. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.
2. THE WORD "SEWER" SHALL BE CAST IN THE COVER.
3. VENTILATION HOLES OF ANY SIZE ARE NOT ALLOWED.

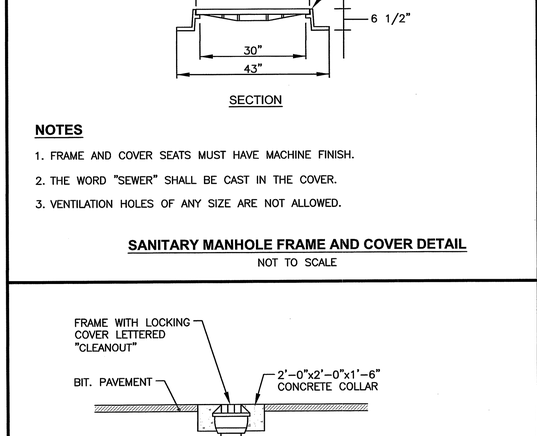
SANITARY MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE



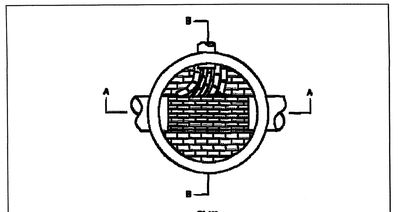
SEWER CLEANOUT DETAIL

NOT TO SCALE



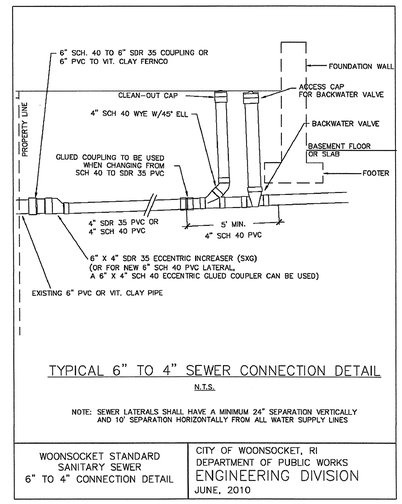
PAVEMENT RESTORATION LIMITS DETAIL (WITHIN STATE RIGHT-OF-WAY)

NOT TO SCALE



SEWER BRICK INVERT DETAIL N.T.S.

WOONSOCKET STANDARD SEWER BRICK INVERT DETAIL	CITY OF WOONSOCKET, RI DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION NOVEMBER, 2006

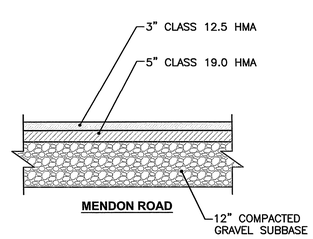


TYPICAL 6" TO 4" SEWER CONNECTION DETAIL

N.T.S.

NOTE: SEWER LATERALS SHALL HAVE A MINIMUM 24" SEPARATION VERTICALLY AND 10' SEPARATION HORIZONTALLY FROM ALL WATER SUPPLY LINES

WOONSOCKET STANDARD SANITARY SEWER 6" TO 4" CONNECTION DETAIL	CITY OF WOONSOCKET, RI DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION JUNE, 2010



MENDON ROAD

NOTES

1. PROPOSED PAVEMENT STRUCTURE WITHIN MENDON ROAD SHALL MATCH THE EXISTING PAVEMENT THICKNESSES OR EIGHT (8) INCHES, WHICHEVER IS GREATER, OVER A MINIMUM OF TWELVE (12) INCHES OF COMPACTED GRAVEL SUBBASE TRIMMED AND FINE GRADED. IF A CONCRETE BASE IS PRESENT, THEN IT SHALL BE REPLACED IN KIND AS WELL.
2. THE PROPOSED PAVEMENT MAERIALS AND INSTALLATION WITHIN THE STATE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE R.I.D.OT. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION.

PROPOSED PAVEMENT STRUCTURE DETAIL (WITHIN STATE RIGHT-OF-WAY)

NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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Email: cei@crossmaneng.com

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10-12-21

RI Environmental Management
OCT 18 2021
Office of Water Resources

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE LLC

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 5

DATE:	*SCALE:*
MAY 2020	AS SHOWN

DWG. NAME: 2456-C15-DETAIL5-R10.dwg

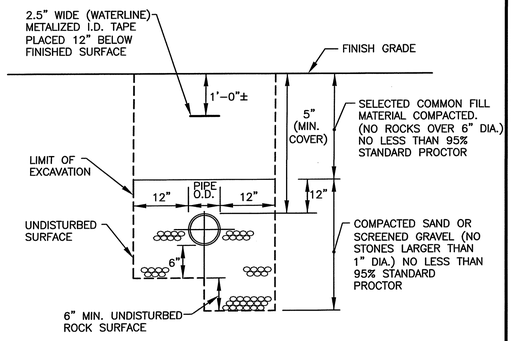
REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
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4	RIDOT COMMENTS	09/16/20
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10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

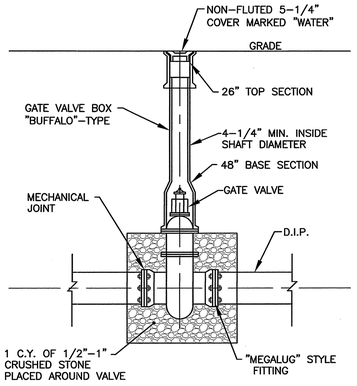
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SHEET: 16 *OF:* 25



TYPICAL WATER LINE TRENCH DETAIL

NOT TO SCALE

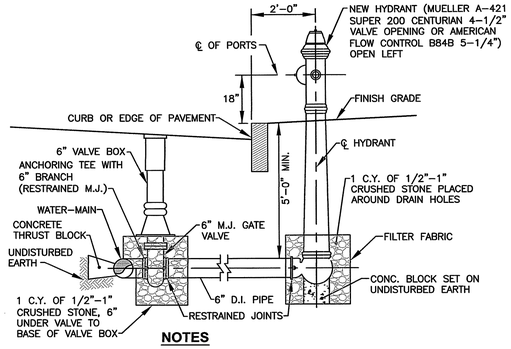


ELEVATION

NOTE:
WRAP CRUSHED STONE WITH 4 oz. NON-WOVEN GEOTEXTILE FABRIC BEFORE FILLING EXCAVATION.

TYPICAL WATER GATE BOX INSTALLATION

NOT TO SCALE



NOTES

1. INSTALLATION SHALL NOT OBSTRUCT SIDEWALK TO PEDESTRIAN OR PHYSICALLY IMPAIRED.
2. MECHANICAL JOINT PIPE W/ RESTRAINED JOINTS FOR BRANCHES OVER ONE LENGTH OF PIPE.
3. PRIOR TO ORDERING, HYDRANT MUST BE APPROVED BY MUNICIPAL WATER DEPTMENT AND FIRE DISTRICT.

TYPICAL HYDRANT INSTALLATION

NOT TO SCALE

WATER NOTES

1. ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO THE WOONSOCKET WATER DEPARTMENT REQUIREMENTS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
2. ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CLASS 350 CEMENT MORTAR LINED COMPACT STYLE (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C153/A21.53. MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11.
3. WATER PIPE SHALL BE DOUBLE CEMENT MORTAR LINED DUCTILE IRON PIPE CL52 AND SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C151/A21.51.
4. CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, "MEGA-LUG" RESTRAINED MECHANICAL JOINTS, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
5. "MEGA-LUG" RESTRAINED MECHANICAL JOINTS SHALL BE INSTALLED IN LOCATIONS INDICATED AND AT ALL BENDS, FITTINGS, PLUGS, ETC.
6. PRESSURE AND LEAKAGE TESTS AND DISINFECTING PIPES SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, CUMBERLAND WATER DEPARTMENT REQUIREMENTS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.
7. ALL FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 150 PSI.
8. WATER PIPE SHALL TYPICALLY BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM SEWER PIPE, AND AT A MINIMUM DEPTH OF COVER EQUAL TO 5'. WHERE A NEW WATER MAIN IS LESS THAN 18 INCHES CLEAR DISTANCE ABOVE A SEWER OR WHERE A WATER MAIN PASSES BENEATH A SEWER OR STORM DRAIN, ENCASE THE SEWER OR WATER IN 6" OF CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING WATER MAIN. THE USE OF DUCTILE IRON TIGHT JOINT SEWER PIPE IN LIEU OF CONCRETE ENCASEMENT WILL BE CONSIDERED UPON CONTRACTORS SUBMITTAL OF SPECIFICATIONS TO ENGINEERS FOR APPROVAL.
9. ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS PIPE, RESTRAINED MECHANICAL JOINTS, FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE WOONSOCKET WATER DEPARTMENT AND ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
10. WATER LINE TRENCH TO BE AWWA TYPE 5. A METALIZED DETECTABLE IDENTIFICATION TAPE 2" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'-0" BELOW FINISHED GRADE.
11. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL COMPLETE AND SUBMIT THE "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE" FOR UNDERGROUND PIPING TO THE WOONSOCKET WATER DEPARTMENT AND ENGINEER. IN ADDITION, THE CONTRACTOR IS REQUIRED TO SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER FOR THEIR REVIEW AND APPROVAL:

    - TYPE AND MANUFACTURER OF SERVICE BOXES
    - TYPE AND MANUFACTURER OF CORPORATIONS AND CURB STOPS
    - TYPE AND MANUFACTURER OF VALVE BOXES (OPEN LEFT)
    - TYPE AND MANUFACTURER OF D.I. MECHANICAL JOINTS AND FITTINGS
    - TYPE AND MANUFACTURER OF TAPPING SLEEVES
    - TYPE AND MANUFACTURER OF DI PIPING
    - TYPE AND MANUFACTURER OF RESILIENT SEALED GATE VALVES (OPEN LEFT)
    - TYPE AND MANUFACTURER OF COPPER SERVICE LINE

12. WHEN THIS PROJECT IS COMPLETE, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE WATER DEPARTMENT AND ENGINEER TWO SETS OF AS BUILT PLANS (ONE BLUE LINE, ONE REPRODUCIBLE COPY-MYLAR OR SEPIA) WHICH INDICATES:

    a. ALL CURB STOPS WITH APPROPRIATE LOCATING MEASUREMENTS - MAIN-TO-CURB AND MEASUREMENTS FROM PERMANENT STRUCTURES.

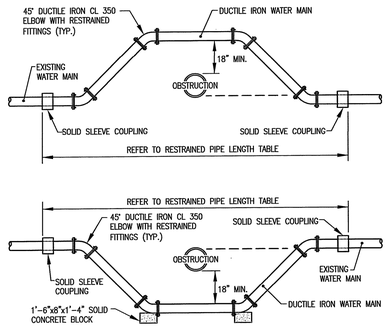
    b. A SCHEDULE OF MATERIALS WHICH INDICATES:

        1. ITEM QUANTITY
        2. MANUFACTURER
        3. DESCRIPTION
            a. INCLUDE SERIAL #'S AS APPLICABLE
            b. MATERIAL
            c. OPERATION CHARACTERISTICS

    AND MEASUREMENTS FROM PERMANENT STRUCTURES.

13. THE CONTRACTOR SHALL VERIFY THE FIRE SERVICE PIPE SIZE REQUIREMENT WITH THE BUILDING ARCHITECT AND PLUMBING/FIRE SPRINKLER CONTRACTOR PRIOR TO ORDERING PIPE, METERS AND BACKFLOW PREVENTORS. COORDINATION WITH THE WOONSOCKET FIRE CHIEF AND WOONSOCKET WATER DEPARTMENT IS REQUIRED TO DETERMINE THE EXISTING WATER PRESSURE AVAILABLE.
14. ALL VALVES TO BE RESILIENT WEDGE GATE VALVES (OPEN LEFT).
15. ALL FITTINGS TO BE RESTRAINED WITH MECHANICAL JOINTS. RESTRAINTS TO BE MEGA-LUG OR EQUAL. ALL DESIGN AND/OR PLACEMENT SHALL BE REVIEWED AND APPROVED BY THE WOONSOCKET WATER DEPARTMENT.
16. RESTRAIN ALL PUSH-ON BELL JOINTS WITHIN 20 FEET OF MECHANICAL JOINTS. RESTRAINTS TO BE SERIES 800 COVER-ALL BY EBAA IRON OR EQUAL.
17. DOMESTIC WATER SERVICE LINES SHALL BE DUCTILE IRON OR COPPER.
18. ALL HYDRANTS SHALL OPEN LEFT.

DEPARTMENT OF ENVIRONMENTAL MANAGEMEN
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

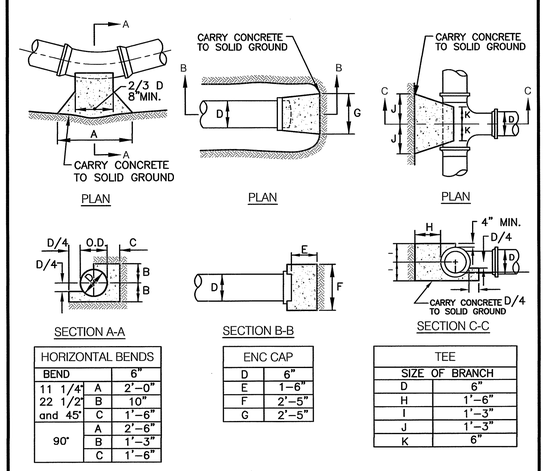


NOTES

1. TRANSITION COUPLING, DRESSER STYLE, TO BE USED ONLY WHEN EXISTING WATER MAIN IS OF DIFFERENT MATERIAL OTHER THAN DUCTILE IRON.
2. SOLID SLEEVE COUPLING TO BE RESTRAINED WITH APPROVED RESTRAINT FITTINGS.
3. SOLID SLEEVE COUPLING ONLY TO BE USED WHEN CALCULATED FRICTION LOSS WILL NOT ADVERSELY EFFECT DISTRIBUTION PRESSURE AND FLOW
4. MINIMUM DEPTH OF COVER SHALL BE 5'-0" (UNLESS AUTHORIZED IN WRITING BY TOWN.
5. THE WATER PIPE SHALL BE CLASS 54 AND INSULATED WITH 2" FOAMGLASS INSULATION WITH PITT WRAP OR EQUAL WHERE THE WATER PIPE HAS LESS THAN 5' OF COVER.

WATER MAIN HORIZONTAL OR VERTICAL RELOCATION DETAIL

NOT TO SCALE



HORIZONTAL BENDS		
BEND		6"
11 1/4° and 22 1/2° and 45°	A	2'-0"
	B	10"
	C	1'-6"
90°	A	2'-6"
	B	1'-3"
	C	1'-6"

ENC CAP	
D	6"
E	1-6"
F	2'-5"
G	2'-5"

TEE	
SIZE OF BRANCH	
D	6"
H	1'-6"
I	1'-3"
J	1'-3"
K	6"

CONCRETE THRUST BLOCKS FOR CAPS, TEES AND HORIZONTAL BENDS

NOT TO SCALE

THRUST BLOCK NOTES

1. ALL CONCRETE TO BE CLASS B.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 1500 P.S.F. LATERAL AND STATIC WATER PRESSURE OF 150 P.S.I. WHERE PRESSURE EXCEEDS 150 P.S.I. OR WHERE SOIL BEARING PRESSURE IS LESS THAN 1500 P.S.F. LATERAL; OR SOIL CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY. THE CONTRACTOR SHALL DESIGN, GET APPROVAL OF, AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST THE FULL THRUST OF THE LINE UNDER TEST AND OPERATING PRESSURES. THE DESIGN OF SUCH BLOCKS SHALL BE SUBJECT TO THE APPROVAL OF THE CUMBERLAND WATER DEPARTMENT AND THE ENGINEERS AND SHALL BE SUBMITTED TO THE WATER DEPARTMENT BEFORE ACTUAL INSTALLATION TAKES PLACE.
3. ALL THRUST BLOCKS SHALL BE CONCRETE 3,000 P.S.I. @ 28 DAYS AND BEARING AGAINST UNDISTURBED EARTH.

RESTRAINED PIPE LENGTHS FOR RESTRAINED FITTINGS

FITTING	RESTRAINED LENGTH
12" PLUG	94'
12" TEE	44'
12" 90°	58'
12" 45°	44'
12" 22 1/2°	22'
12" 11 1/4°	22'
8" PLUG	58'
8" TEE	44'
8" 90°	44'
8" 45°	22'
8" 22 1/2°	22'
8" 11 1/4°	22'
8" X 6"	44'
6" PLUG	44'
6" TEE	22'
6" 90°	22'
6" 45°	22'
6" 22 1/2°	22'
6" 11 1/4°	22'

NOTE:
1. ALL JOINTS, INCLUDING PIPE JOINTS, VALVE JOINTS, AND FITTING JOINTS, SHALL BE RESTRAINED WITHIN THE LIMITS OF RESTRAINED LENGTHS LISTED ON THIS TABLE. MECHANICAL JOINT PIPE AND MECHANICAL RESTRAINTS WILL BE IN ACCORDANCE WITH THE ABOVE TABLE.
2. THE TABLE SHOWS LENGTHS OF PIPES WHICH MUST BE RESTRAINED ON BOTH SIDES OF THE FITTING.
3. ALL DEAD END PIPE SHALL BE PROPERLY RESTRAINED PRIOR TO PRESSURE TESTING.
4. REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF SHALL VERIFY ALL RESTRAINING CALCULATIONS & LENGTHS DURING DESIGN

RESTRAINED PIPE LENGTH TABLE

NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
11/2/21

KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE LLC

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 6

DATE:	*SCALE:*
MAY 2020	AS SHOWN

DWG. NAME: 2456-C16-DETAIL6-R10.dwg

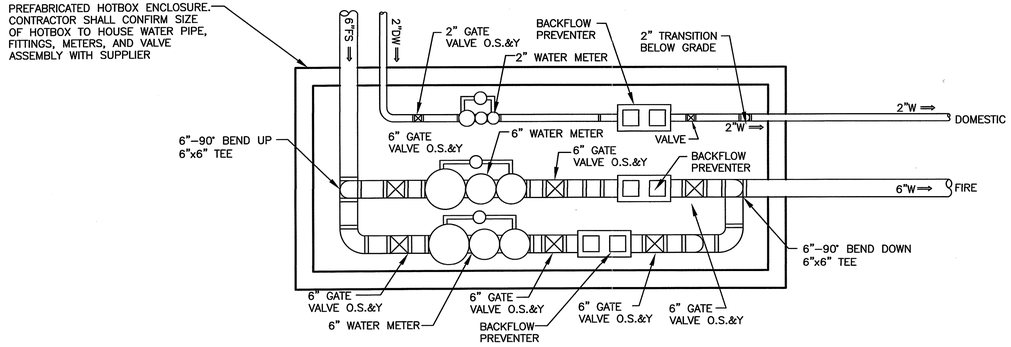
REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C16

SHEET: 17 *OF:* 25



DOMESTIC WATER AND FIRE PROTECTION HOTBOX ENCLOSURE AND METERING SCHEMATIC

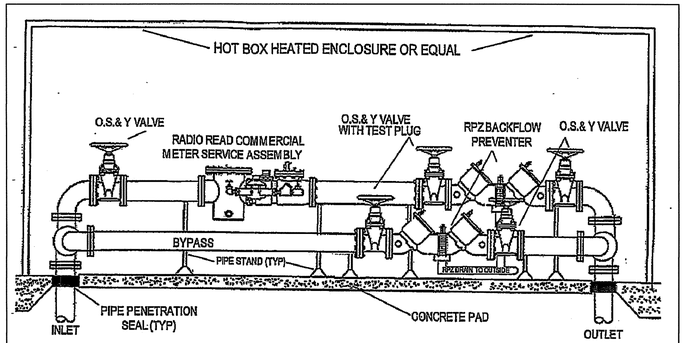
NOT TO SCALE

HOT BOX NOTES

1. THE ELECTRICAL SERVICE MUST BE INSTALLED BY A R.I. LICENSED ELECTRICIAN AS PART OF THE CONTRACTOR'S INSTALLATION BID. SUB–CONTRACTOR COORDINATION AND ELECTRICAL PERMITTING TO BE COORDINATED BY CONTRACTOR.
2. CONTRACTOR TO OBTAIN SHOP DRAWINGS/CATALOG CUTS OF ALL METER AND BACKFLOW ASSEMBLY COMPONENTS, INCLUDING BUT NOT LIMITED TO BACKFLOW PREVENTERS, METERS, FITTINGS, HOT BOX, PIPES, ETC., TO VERIFY SIZES PRIOR TO CONSTRUCTING HOT BOX. ALL COMPONENTS AND HOT BOX SHOP DRAWINGS SHALL BE REVIEWED BY ENGINEER PRIOR TO ORDERING/CONSTRUCTION. CONTRACTOR TO PROVIDE ENGINEER WITH DRAWING SHOWING THE LAYOUT OF ALL INTERIOR COMPONENTS WITHIN THE HOT BOX IF DIFFERENT THAN ABOVE DETAIL. CONTRACTOR IS RESPONSIBLE FOR HOT BOX AND ALL INSTALLATION ASSOCIATED WITH HOT BOX.
3. ALL SYSTEM COMPONENTS AND THE COMPLETE INSTALLATION PACKAGE MUST CONFORM TO THE PROJECT SPECIFICATIONS, THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS, INCLUDING BUT NOT LIMITED TO NFPA–20, AND STATE, LOCAL AND FEDERAL REGULATIONS AND CODES.
4. HOTBOX SHALL BE EQUIPPED WITH LIGHTING, HEATER WITH THERMOSTAT, POWERED VENTILATION SYSTEM, AND DEHUMIDIFICATION SYSTEM. VENTILATION SYSTEM AND LIGHTS TO BE SWITCHED AT HOTBOX ENTRANCE. ELECTRIC HEATERS ARE TO MAINTAIN A 45° F MINIMUM TEMPERATURE INSIDE THE HOTBOX AT ALL TIMES.
5. CONCRETE THRUST, ANCHOR, OR BEARING BLOCKS SHALL BE INSTALLED IN LOCATION INDICATED AND AT ALL BENDS, FITTINGS, PLUGS, ETC.. WHEN A THRUST BLOCK CANNOT BE PLACED AGAINST UNDISTURBED EARTH CONTRACTOR SHALL CONTACT ENGINEER FOR RECOURSE.
6. ALL PIPING AND COMPONENTS SHALL BE PROPERLY BRACED ABOVE GROUND. DETAILS FOR BRACING TO BE SUPPLIED BY CONTRACTOR AND SUBMITTED TO ENGINEER FOR REVIEW.
7. INTERIOR PIPING AND FITTINGS TO BE FLANGED JOINT AND SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C115/A21.15.
8. WATER METER SHALL BE ELSTER–AMCO METERS C–700 AND C3000 COMPOIND, AN ITRON RADIO READ ERT AND WOONSOCKET ROCL, COMPATIBLE WITH THE WOONSOCKET METERING SYSTEM.
9. BACKFLOW PREVENTERS SHALL BE WATTS SERIES LF909 REDUCED PRESSURE ZONE OR APPROVED EQUAL.
10. THE CONTRACTOR SHALL PROVIDE THE REINFORCED CONCRETE SLAB AND FOOTINGS TO SUPPORT THE HOT BOX STRUCTURE. THE SLAB SHALL BE AT MINIMUM 6" THICK WITH 6"x6" W1.2xW1.2 STEEL MAT REINFORCEMENT, PLACED ON AN 8" CRUSHED STONE BASE. THE SLAB SHALL BE INSTALLED TO PROVIDE FREE DRAINAGE.
11. THE CONTRACTOR SHALL PROVIDE LOCK AND CHAIN OR APPROVED MEANS TO LOCKOUT VALVES ON BYPASS SEGMENT.

WATER HOTBOX ENCLOSURE SCHEMATIC

NOT TO SCALE



1. PROVIDE MAKE-UP OR SPOOL PIECES AS REQUIRED
2. PROVIDE ACCESS AND BLOWOUT PANELS AS REQUIRED
3. DESIGN FOR FROST AND FREEZING PROTECTION
4. PROVIDE LIGHTING AND TEMPERATURE ALARM.
5. LOCATE ENCLOSURE AT SERVICE CONNECTION ENTRANCE.
6. LOCATE IN AN AN ELEVATED AREA NOT PRONE TO FLOODING
7. PROVIDE LOCK AND CHAIN FOR VALVE ON BYPASS

PROFILE VIEW

WOONSOCKET WATER DEPARTMENT REVIEW NOTES

1. FIRE AND DOMESTIC LINES ARE TO BE 2 SEPARATE TAPS ON PARK EAST DRIVE.
2. FIRE AND DOMESTIC SERVICE LINES TO HAVE MINIMUM SEPARATION OF 3' AND CAN BE IN THE SAME TRENCH.
3. THE 6" FIRE SERVICE LINE WILL HAVE A BACKFLOW PREVENTER AND A 5/8" BYPASS METER
4. THE 6" FIRE SERVICE LINE BYPASS SHALL HAVE A BACKFLOW PREVENTER AND 5/8" METER.
5. THE 2" DOMESTIC SERVICE LINE SHALL HAVE A BACKFLOW PREVENTER AND A 2" METER.
6. THE 5/8" METERS TO BE PROVIDED NY THE WOONSOCKET WATER DIVISION.
7. THE 2" METER SHALL BE EVO SERIES.
8. 6" FIRE SERVICE LINE WILL BE CL. 52 DUCTILE IRON PIPE.
9. 2" COPPER SHALL BE USED ON DOMESTIC SERVICE LINE FROM THE CURB STOP TO THE HOT BOX.

DEPARTMENT OF ENVIRONMENTAL MANAGEMEN
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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Nancy L. Freeman

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10/22/21

KEY PLAN

RI Environmental Management
OCT 18 2021
Office of Water Resources

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 7

DATE:	*SCALE:*
MAY 2020	AS SHOWN

DWG. NAME: 2456–C17–DETAIL7–R10.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

C17

SHEET: 18 *OF:* 25

LED AREA LIGHTS - (XGBM)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **XGBM FT LED LW CW UE BLK**

Prefix	Distribution	LED Count	Drive Current	Color Temperature	Input Voltage	Finish	Optional Controls	Optional Sensor/Options
XGBM = LSI Greenscape	FT – Forward Throw FTA – Forward Throw Automotive S – Type S 5 – Type V	120 160	LW – Low Watt (530mA) HO – High Output (700mA)	CW – Cool White (4000K) NW – Neutral White (4000K)	UE – Universal Voltage (120-277)	BLK – Black DBZ – Bronze GPT – Graphite MGR – Medium Gray WHT – White (RAL9016) RAL – Call for RAL Color BNT – Bronze **Optional Color Finish** #1 – LUMIGRAY 25 – Charcoal Matte 26 – Black 27 – Black Metallic 28 – Dark Green 31 – Dark Bed 32 – Dark Brown 33 – Bronze 100 – Matte Silver Metallic	**Wireless Control System[1]** XCWS – None XCW – Wireless Control System XCWH – Hi-Watt Wireless Control System XCWS – Wireless Control System XCW-SV – Wireless Control System with Super Vision XCWH-SV – Hi-Watt Wireless Control System with Super Vision XCW-SV-S – Wireless Control System with Super Vision and Sensor XCWH-SV-S – Hi-Watt Wireless Control System with Super Vision and Sensor **Stand-Alone Control** XBASIC – None XAE – 3-Hr Astronomical Timer[2] XAE-S – 3-Hr Astronomical Timer with Sensor[2] XPE – Photocell Only[3] (Dusk-to-Dawn Operation - Requires Separate Photocell) XPE-DT – Photocell with Dusk-to-Dawn Operation[3]	**Optical Lens** HSS – Horizontal Side Shooter[4] PD1020 – 120W Bottom-Type Photometric PD1040 – 240W Bottom-Type Photometric PD1060 – 240W Bottom-Type Photometric PD1080 – 320W Bottom-Type Photometric PD1040 – 240W Bottom-Type Photometric **Options** SC – Sidecut (if HSS only) TB – Internal Backlight

LUMINAIRE EPA CHART - XGBM

	# Socket	EPA (ft²)
Single	2.3	2.4
Double	4.7	4.8
90°	4.7	4.7
180°	1/2 Loaded	7.2
Quad	Required	7.3
360°		8.9

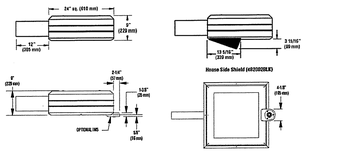
Note: House Side Shield adds 1 to Max EPA. Consult Factory

ACCESSORY ORDERING INFORMATION[5] (Accessories are field installed)

Description	Order Number	Description	Order Number
Internal House Side Shield (Black only)	XHSSCBLK	SPD20K, 20KV Surge Protective Device	SPD20KVR
4.5FBC – Round Base Plate	XBASEBLK	XTWIST Double Fixture Arm	XTWIST
9.0-9.5-10-BSP – 9.0 – 10.0 Mount Plate	XSHORTBLK	FLOAT Anchor Base Kit (Set of 4)	XFLOAT
10.0-10.5-11-BSP – 10.5 – 11.5 Mount Plate	XMEDIUMBLK	PMSD013 – 120V Pre-Mount Occupancy Sensor	XMSD013LW
11.5-12-12.5-BSP – 12.5 – 13.5 Mount Plate	XLARGEBLK	PMSD014 – 277V Pre-Mount Occupancy Sensor	XMSD014LW
XCOSSHSBLK (Set of 2) (Only)	XCOSSHSBLK	PMSD017 – 277V Pre-Mount Occupancy Sensor	XMSD017LW
XCOSSHSWHT (Set of 2) (Only)	XCOSSHSWHT	PMSD403 – 480V Pre-Mount Occupancy Sensor	XMSD403LW
XSPD10K – 10KV Surge Protective Device	XSPD10K		

FOOTNOTES:
1 – Kit with 3' Hardwired drilling required
2 – For wireless controls information and accessories, see Controls section
3 – Requires Wireless Manager and override switch. Not compatible with BSS or HSS options
4 – Not compatible with 4th TBS or BLS option
5 – Not compatible with wireless controls system, EMA or BSS option
6 – Not compatible with wireless controls system, EMA or HSS option
7 – Requires Wireless Manager and override switch. Not compatible with BSS or HSS options
8 – Not compatible with 4th TBS or BLS option
9 – Not compatible with wireless controls system, EMA or BSS option
10 – Not compatible with wireless controls system, EMA or HSS option
11 – Requires Wireless Manager and override switch. Not compatible with BSS or HSS options
12 – Not compatible with 4th TBS or BLS option
13 – Not compatible with wireless controls system, EMA or BSS option
14 – Not compatible with wireless controls system, EMA or HSS option

DIMENSIONS



Project Name _____ Fixture Type _____ 10/16/17
Catalog # _____ D-SERIES LED AUTOMOTIVE

ALUMINUM SQUARE POLES (SOFT CORNER)

POLE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **4SQB3 A125 20 S BLK**

Pole Series	Material	Height	Mounting Configuration	Pole Finish	Options
Bolt-On Mount – See selection guide for hardware and bolt pattern matching 4SQB3 – 3" Reduced Drilling Pattern 5SQB3 – 3" Reduced Drilling Pattern 4SQB5 – 5" Traditional Drilling Pattern 5SQB5 – 5" Traditional Drilling Pattern 5SQB6 – 6" Traditional Drilling Pattern **Tenon Mount – See selection guide for tenon and fixture bracket matches** 4SQW 5SQW 6SQW **Internal Slip-fitter[1]** **Slip mounting holes or pole caps – Use with EMA 4SIF, 5SIF, 6SIF, 8SA X4SIF & 8SA X5SIF** 4SQI 5SQI	A125 – 12ft. Aluminum A150 – 15ft. Aluminum A20 – 20ft. Aluminum **Consult Pole Selection Chart on opposite page**	8 10 12 14 16 18 20 22 24 25 30 35 40	S – Single/Parallel D180° – Double D90° – Double T90° – Triple Q90° – Quad W – Tenon Mount	BLK – Black DBZ – Bronze SVG – Satin Verde Green MED – Metallic Silver	BP – Bottom Outlet Provision Less ARTMT BPG – Fastener Outlet Provision With QF MAT EAD – Less Anchor Bolts

FOOTNOTES
1 – Size the pole 1 gift size larger than the slip fitter. Example: Use a 5" pole with a 4" slip fitter.
2 – Poles are 0.188" wall thickness.
3 – Poles include factory installed internal pole damper.
4 – 7" (178) mounting provides a custom wall surface.
5 – Specify location of hand hole base of pole and pole orientation for proper hand hole alignment with the fixture.

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

Description	Order Number
4SQA – 4" Square Cast 2 Piece Base Cover	4SQACBLK
5SQA – 5" Square Cast 2 Piece Base Cover	5SQACBLK
6SQA – 6" Square Cast 2 Piece Base Cover	5SQACBLK

BOLT CIRCLE

	4" (102mm) Square 9 1/16" (230mm) Square Base Plate	5" (127mm) Square 11 13/16" (300mm) Square Base Plate	6" (152mm) Square 13 3/4" (349mm) Square Base Plate
	9" (229mm) Sq. Bolt Circle w/ 1/2" (13mm)	10" (254mm) Sq. Bolt Circle w/ 5/8" (16mm)	12" (305mm) Sq. Bolt Circle w/ 5/8" (16mm)
Bolt Circle	12" x 12" (305mm x 305mm)	14" x 14" (356mm x 356mm)	15 1/2" x 15 1/2" (393mm x 393mm)
Anchor Bolt Slots	3/4" x 4 1/2" x 2" thick (19mm x 432mm x 76mm)	3/4" dia. x 12" x 3" thick (19mm x 432mm x 76mm)	1" x 2 3/4" x 4" thick (25mm x 914mm x 102mm)
Anchor Bolt Projection	3 1/2" (89mm)	3 5/8" (92mm)	4" (102mm)
Base Plate Dimensions	9-1/16" sq. x 1/2" thk (230mm sq. x 13mm)	11-13/16" sq. x 5/8" thk (300mm sq. x 16mm)	13-3/4" sq. x 5/8" thk (349mm sq. x 16mm)

Note: Based on 4 anchor bolts. Many more configurations are available. Consult factory for other base plate templates.

EPA INFORMATION

All poles are guaranteed to meet the EPA requirements listed. The manufacturer assumes no responsibility for any failure of the pole due to inadequate wind load strength provided it is the responsibility of the purchaser to determine the adequacy of the pole for the intended use. Pole manufacturer cannot be responsible for determining the wind load strength for any luminaire or accessory used on their poles.

NOTE: Pole projected area EPA is based on tower only and excludes any luminaire, mast arm, or other attachments. Pole manufacturer cannot be responsible for determining the wind load strength for any luminaire or accessory used on their poles. Pole manufacturer limits are the EPA(B) limit. Pole manufacturer assumes no responsibility for any failure of the pole due to inadequate wind load strength provided it is the responsibility of the purchaser to determine the adequacy of the pole for the intended use. For applications in Canada, wind and ice loading requirements may be determined by local codes, which may vary.

Project Name _____ Fixture Type _____ 5/22/20
Catalog # _____ D-SERIES LED AUTOMOTIVE

MCOWP43W
43 Watt LED Medium Cut-Off Wall Pack



LSI Wall Lights feature traditional housings that provide familiar design with known applications. These fixtures make the switch from Metal Halide to LED easy. Mid-power LEDs provide glare-free white light.

Features & Specifications

Performance

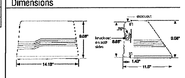
4560K		
Delivered Lumens	Efficacy	Wattage
5,366	133.2	41.20

Optical System
- Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.
- Positioning of the LEDs result in the light being directed to desired locations eliminating glare and offensive light.
- 4560K color temperature.
- Minimum CRI of 82

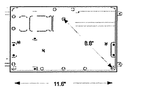
Electrical
- High performance driver features over-voltage, under voltage, short-circuit and over temperature protection.
- 0-10 volt dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz
- L70 Calculated Life: >100K Hours
- Total harmonic distortion: <20%
- Power factor: > .85
- Input power stays constant over life.
- Driver Off-State Power is 0 watts.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Minimum 4kV surge rating

Construction
- Rugged traditional aluminum die cast housing provides proven environmental protection for LED modules.
- Traditional fixture designs provide a familiar look and standard installation requirements.
- Retaining this look allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility.
- The smooth housing prevents debris build up and maximizes airflow over housing.

Dimensions



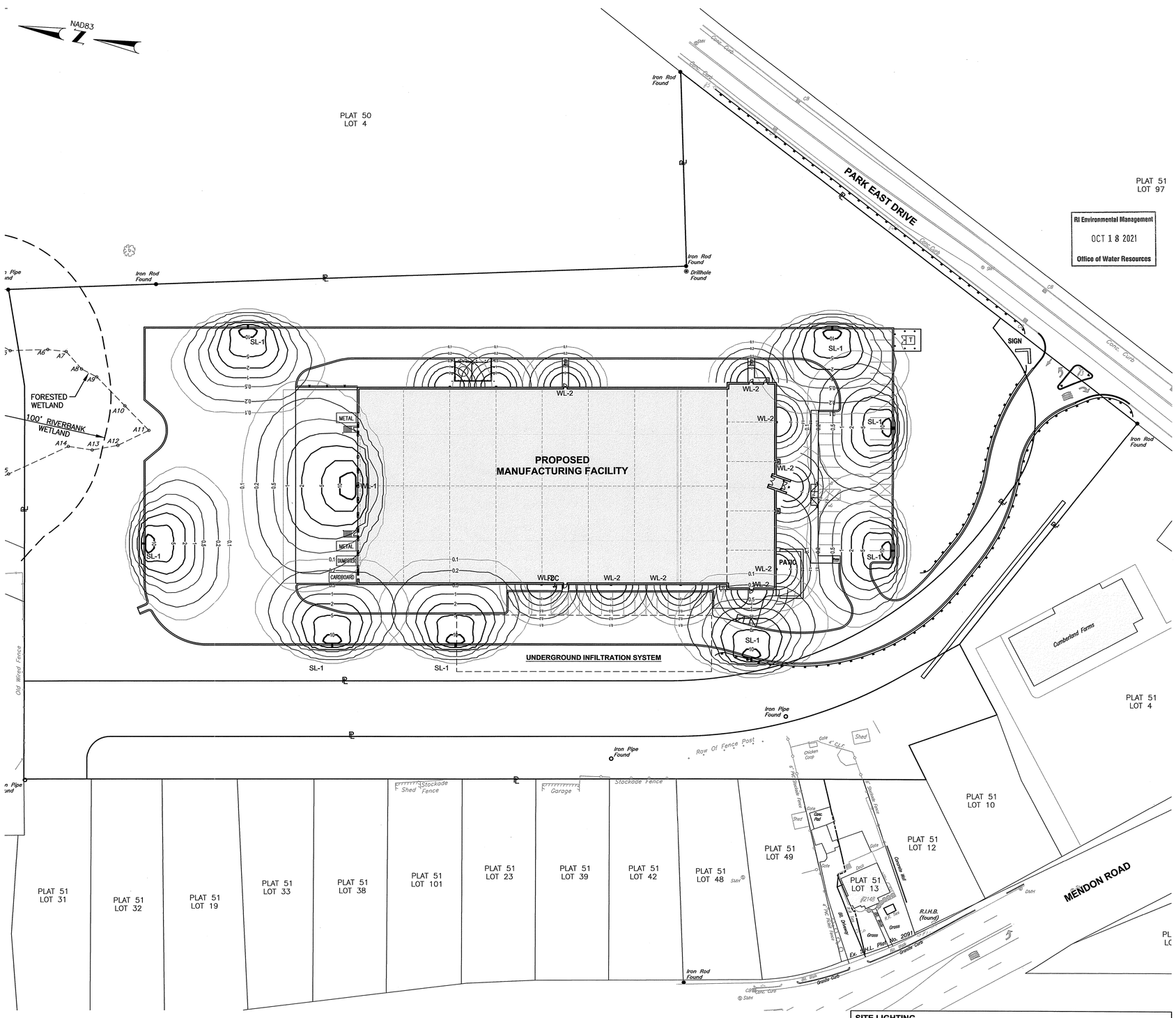
Mounting Detail



Luminaire Ordering Guide

TYPICAL ORDER EXAMPLE: **MCOWP 43W 45K BZ PC120**

Family	Wattage	Color Temp	Finishes	Options / Controls
MCOWP	43W	45K - 4,500K	BZ – Bronze	PC019 – 120V Button Photocontrol PC040 277 – 240-277V Photocontrol


NAD83
PLAT 50
LOT 4
PLAT 51
LOT 97
Iron Rod Found
Drillhole Found
PARK EAST DRIVE
Conc. Curb
CB
RI Environmental Management
OCT 18 2021
Office of Water Resources
SIGN
FORESTED WETLAND
100' RIVERBANK WETLAND
A6
A7
A8
A9
A10
A11
A12
A13
A14
PROPOSED MANUFACTURING FACILITY
METAL
CARDBOARD
WL-1
WL-2
WLFDC
PATIO
SL-1
UNDERGROUND INFILTRATION SYSTEM
Old Wired Fence
Iron Pipe Found
Row Of Fence Post
Stockade Fence
Shed
Gate
Chicken Coop
Garage
Gas Pad
Dock
Concrete Pad
Gravel Drive
Bit. Driveway
Ex. Gravel
Grass
Ex. Dwlg.
Ex. Shed
Ex. Gar.
Ex. Pool
Ex. Patio
Ex. Deck
Ex. Fence
Ex. Tree
Ex. Utility Pole
Ex. Guy Wire
Ex. Sign
Ex. Curb
Ex. Conc. Curb
Ex. Bit. Curb
Ex. Granite Curb
Ex. Stone Curb
Ex. Bit. Path
Ex. Conc. Path
Ex. Granite Path
Ex. Stone Path
Ex. Dirt Path
Ex. Grass Path
Ex. Gravel Path
Ex. Brick Path
Ex. Flagstone Path
Ex. Slate Path
Ex. Concrete Path
Ex. Asphalt Path
Ex. Dirt Road
Ex. Gravel Road
Ex. Paved Road
Ex. Concrete Road
Ex. Asphalt Road
Ex. Brick Road
Ex. Flagstone Road
Ex. Slate

PLANTING SCHEDULE

TREES

Key	Botanical Name / Common Name	Size	Remarks
AR	Acer rubrum 'October Glory' / *October Glory Red Maple*	2 - 2 1/2 " cal.	B &B
BN	Betula nigra 'Heritage Clump' / *River Birch Clump*	8' - 10'	B &B
CA	Cedrus atlantica 'Glauca Pendula' / *Weeping Blue Atlas Cedar*	2 - 2 1/2 " cal.	B &B
PC	Pyrus calleryana 'Cleveland Select' / *Flowering Pear*	2 - 2 1/2 " cal.	B &B
PP	Picea pungens 'Glauca' / *Colorado Blue Spruce*	6' - 8'	B & B
PS	Pinus strobus' / *White Pine*	6' - 8'	B &B
QP	Quercus palustris / *Pin Oak*	2 - 2 1/2 " cal.	B &B
SP	Stewartia pseudocamelia / *Japanese Stewartia*	1 -1 1/2 " cal.	B &B
TG	Thuja plicata 'Green Giant' / *Green Giant Arborvitae*	6' - 8'	B &B
ZS	Zeikova serrata 'Green Vase' / *Green Vase Japanese Zelkova*	2 - 2 1/2 " cal.	B &B

SHRUBS

AZ	Azalea 'Girard's Rose' / *Girard's Rose Azalea*	#2	Cont.
BM	Buxux m. 'Green Mountain' / *Green Mountain Boxwood*	#2	Cont.
HC	Hybiscus syriacus 'Blue Chiffon' / *Blue Rose of Sharon*	#5	Cont.
IG	Ilex glabra 'Compacta' / *Compact Inkberry*	#5	Cont.
JT	Juniperus chin. 'Torulosa' / *Hollywood Juniper*	4' - 5'	B & B
JCP	Juniperus chin. 'Pfitzeriana' / *Pfitzer Juniper*	#3	Cont.
HL	Hydrangea p. 'Little Lime' / *Little Lime Hydrangea*	#5	Cont.
RB	Rhododendron 'Boule de Neige' / *White Rhododendron*	#5	Cont.
RP	Rhododendron 'P.J.M Compacta' / *Lavender Rhododendron*	#5	Cont.
WF	Weigela florida 'Sonic Bloom Pink" / *Pink Weigela*	#5	Cont.

GROUNDCOVER/PERENNIALS/GRASSES

HSD	Hemerocallis 'Stella D'Oro' / *Dwarf Yellow Daylily*	#2	Cont.
JC	Juniperus procumbens / *Japanese Garden Juniper*	#2	Cont.
ML	Miscanthus sinensis 'Little Zebra' / *Dwarf Variegated Maidenhair Grass*	#2	Cont.
MZ	Miscanthus sinensis 'Zebrinsis' / *Variegated Maidenhair Grass*	#2	Cont.
RC	Rosa 'Scarlet Flower Carpet' / *Scarlet Flower Carpet Rose*	#2	Cont.
RF	Rudbeckia fulgida 'Goldsturm" / *Black-eyed Susan*	#2	Cont.
SD	Sedum spectabilis 'Autum Joy' / *Autum Joy Sedum*	#2	Cont.

IRRIGATION NOTE

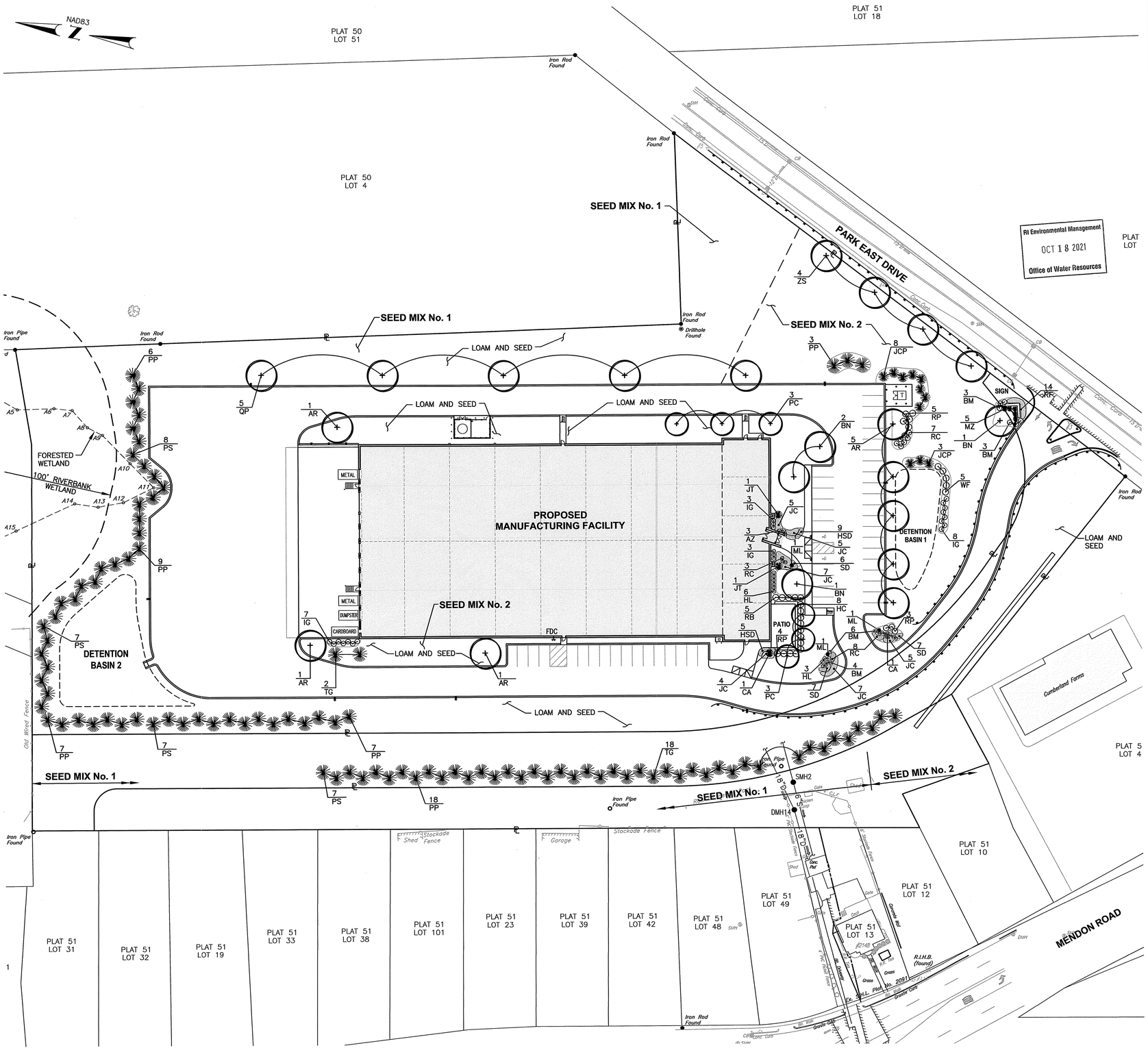
THE CONTRACTOR'S BID PRICE SHALL INCLUDE THE DESIGN/BUILD COST OF AN IRRIGATION SYSTEM THAT PROVIDES IRRIGATION TO ALL NEW LANDSCAPED AREAS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

1 inch = 40 ft.



RI Environmental Management
OCT 18 2021
Office of Water Resources

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10-12-21

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMEN
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy J. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

LANDSCAPE PLAN

DATE:	SCALE:
MAY 2020	1"=40'

DWG. NAME: 2456-L01-LAND-R10.dwg

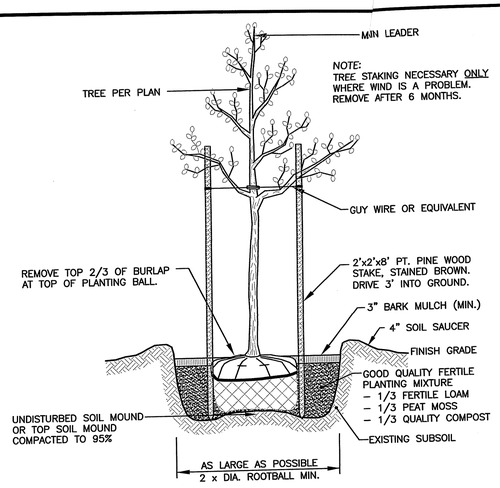
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

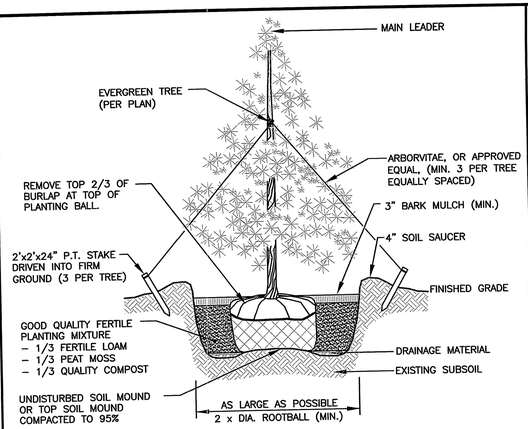
L1

SHEET: 20 OF: 25



DECIDUOUS TREE PLANTING DETAIL

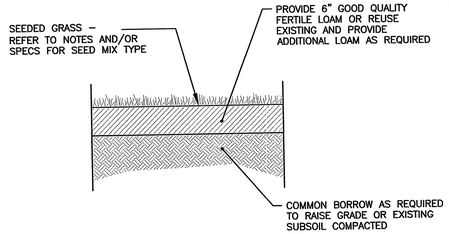
NOT TO SCALE



NOTE:
TREE STAKING OR SUPPORT NECESSARY ONLY WHERE WIND IS A PROBLEM, REMOVE AFTER SIX (6) MONTHS.

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE



NOTE:

THE CONTRACTOR WILL BE RESPONSIBLE FOR WATERING LAWN DURING THE COURSE OF THE GROWING SEASON FOR A PERIOD OF ONE (1) YEAR.

LOAM-SEED DETAIL

NOT TO SCALE

SEEDING NOTES

1. LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 6" OVER ALL AREAS DESIGNATED ON PLANS.
2. SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
3. FERTILIZE WITH 10–10–10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 3 TO 4 INCHES OF THE PLANTING SOIL. APPLY AT THE RATE OF 8 POUNDS PER 1,000 SQUARE FEET AT SEEDING.
4. LIME: SPREAD EVENLY AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DICING OR OTHER APPROVED METHOD. DISTRIBUTE LIME UNIFORMLY AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORMLY BLEND BY DICING OR ROTOTILLING.
5. APPLICATION OF SEED:
   A. RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1,000 SQUARE FEET OR AS INDICATED ON PLANS.
   B. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS, AND ONLY DURING THE FOLLOWING DATES:
      SPRING SEEDING: MARCH 15 TO MAY 31
      FALL SEEDING: AUGUST 15 TO OCTOBER 15
   C. THE CONTRACTOR SHALL KEEP ALL SEEDED AREAS WATERED AND IN GOOD CONDITION, RESEEDING IF AND WHEN NECESSARY FOR AN 8 WEEK PERIOD OR UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL ALSO MAINTAIN THESE AREAS IN AN APPROVED CONDITION UNTIL PROVISIONAL ACCEPTANCE.
   D. DURING THIS PERIOD, WATER TURF AS NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE WITHIN THE ROOT ZONE. AN ADEQUATE SUPPLY OF MOISTURE IS EQUIVALENT OF ONE INCH OF ABSORBED WATER PER WEEK THAT IS DELIVERED AT WEEKLY INTERVALS IN THE FORM OF NATURAL RAIN OR IS AUGMENTED AS REQUIRED BY PERIODIC WATERING.
   E. OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
   F. REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
   G. SEED:
      a. SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

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OCT 18 2021
Office of Water Resources

SEED MIX No. 1

(SLOPES, MEADOWS AND GENERAL RESTORATION AREA)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	70%
ASTORIA BENTGRASS	5%
BIRDSFOOT TREFOIL	15%
PERENNIAL RYE GRASS	10%

APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 2

(ENDOPHYTE ENCHANED MIX)

TYPE (MOWED AREAS)	% BY WEIGHT
IMPROVED PERENNIAL RYE	30%
TURF TYPE TALL FESCUE	30%
CHEWINGS FESCE	30%
KENTUCKY BLUEGRASS 98/85	10%

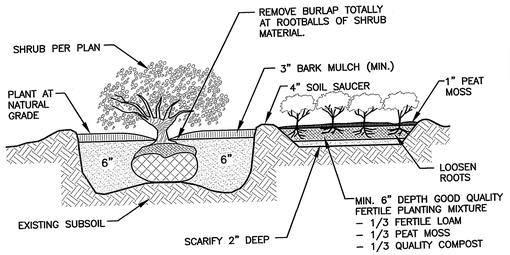
APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 3

(DETENTION/RETENTION AREAS)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	28%
TALL FESCUE	24%
PERENNIAL RYE GRASS	18%
LITTLE BLUESTEM	15%
REDTOP	4%
NORTHEAST WILDFLOWER MIX	4%

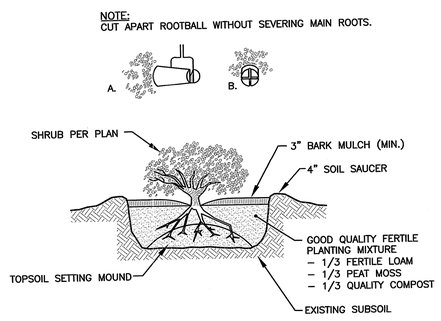
APPLICATION RATE = 220 lbs. / ACRE
OR 5 LBS. PER 1,000 S.F.



BALL and BURLAP

SHRUB and GROUNDCOVER PLANTING DETAIL

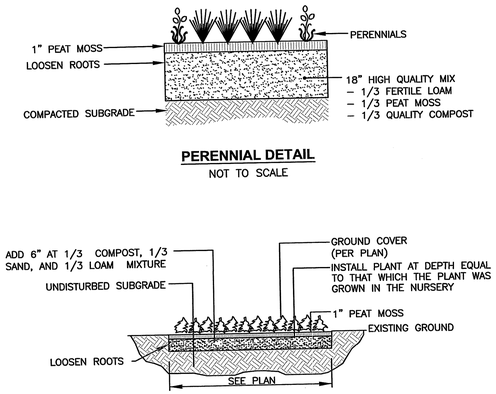
NOT TO SCALE



REMOVE CONTAINER AND BUTTERFLY ROOTBALL TO SPREAD ROOTS OVER SETTING MOUND. PLANT SHRUBS 1"–2" ABOVE EXISTING GRADE.

CONTAINER GROWN PLANTING DETAIL

NOT TO SCALE



PERENNIAL DETAIL

NOT TO SCALE

PERENNIAL and GROUNDCOVER PLANTING DETAIL

NOT TO SCALE

LANDSCAPE CONSTRUCTION NOTES

1. FURNISH AND INSTALL ALL PLANTS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND IN THE QUANTITIES LISTED ON THE PLANT LIST. NO SUBSTITUTIONS WILL BE PERMITTED, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT.
2. LOAM TO BE SCREENED, GOOD QUALITY, FERTILE, FREE OF WEEDS, STICKS, STONES OVER 3/4", AND ROOTS. SPREAD TO A MINIMUM OF 6" OVER ALL PLANTED AREAS.
3. BIO–DETENTION AREAS–PLANTING SOIL AND MULCH: LOAMY SAND TO A SANDY LOAM–80% SAND <20% SILT, <2% CLAY. WELL AGED GRADED COMPOST (25% OF SOIL MIX). WELL AGED, AERATED DARK BROWN HARD–WOOD MULCH (AGED 6 MONTHS).
4. NURSERY STOCK SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AS TO GRADING AND QUALITY.
5. ONLY NURSERY–GROWN PLANTS, GROWN IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS, WILL BE ACCEPTED.
6. CALIPER MEASURMENTS FOR ALL NEW PLANT STOCK SHALL BE TAKEN SIX (6) INCHES ABOVE GRADE FOR TREES UNDER FOUR (4) INCHES AND TWELVE (12) INCHES ABOVE GRADE FOR TREES OVER FOUR (4) INCHES.
7. ALL TREES SHALL BE A MINIMUM OF SEVEN (7) FEET ABOVE FINISHED GRADE WHEN TREES ARE LOCATED WITHIN VEHICULAR AND PEDESTRIAN TRAVEL WAYS.
8. SET PLANTS PLUMB AND AT A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BACKFILL MATERIAL FOR PLANTS, THOROUGHLY AND PROPERLY BY FIRMING OR TAMPING. FORM SAUCERS, CAPABLE OF HOLDING WATER ABOUT INDIVIDUAL PLANTS, BY PLACING RIDGES OF PLANTING SOIL AROUND EACH.
9. STAKE ALL TREES OVER 5 FEET AS SHOWN ON PLANS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
10. WATERING: WATER ALL PLANTS WITHIN 48 HOURS AFTER PLANTING. IF CONDITIONS WARRANT, AND AS MANY TIMES THEREAFTER TO SUSTAIN HEALTHY CONDITIONS UNTIL LANDSCAPE INSTALLATION IS COMPLETED. SATURATE THE SOIL AROUND EACH PLANT THOROUGHLY AT EACH WATERING.
11. PRUNING: PRUNE PLANTS, AS DIRECTED BY OWNER, AT THE PROJECT SITE BEFORE OR IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICE. CUT BROKEN, DEAD OR INJURED BRANCHES IMMEDIATELY ABOVE THE STEM COLLAR ON THE TRUNK OR LIMB. PRUNE ALL BROKEN ROOTS ON THE PLANT SIDE OF THE BREAK. PAINT CUTS OVER 3/4" IN DIAMETER WITH TREE WOUND PAINT. PRUNING SHALL NOT DEFORM OR OTHERWISE DESTROY THE TYPICAL SHAPE OR SYMMETRY OF THE PLANT, AND SHALL NOT REDUCE THE HEIGHT BY MORE THAN ONE–THIRD. DO NOT CUT BACK THE LEADER OF THE PLANT UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
12. FERTILIZING: FERTILIZE SHRUB BEDS WITH 10–10–10 FERTILIZER BROADCAST AT A RATE OF THREE POUNDS PER 100 SQUARE FEET OF SURFACE AREA BROADCAST. APPLY THE FERTILIZER UNIFORMLY TO THE SURFACE BEDS AND WORK INTO THE UPPER TWO INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AS PER MANUFACTURER'S INSTRUCTIONS. APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT ITEMS AT THE SAME SPECIFIED RATES OVER THE MULCH AT THE END OF AN EIGHT WEEK PERIOD.
13. LIMING: ADD POWDERED LIME EVERY SIX MONTHS – OR SLOW RELEASE GRANULAR LIME–AS PER MANUFACTURER'S INSTRUCTION.
14. MULCHING: WITHIN A 72 HOUR PERIOD AFTER PLANTING, COVER ALL PLANTED AREAS WITH 3" SHREDDED BARK MULCH. NO RED OR DYED MULCH IS TO BE USED. MULCH SHOULD BE PULLED ONE INCH AWAY FROM PLANT TRUNK OR STEM, AND NOT ALLOWED TO REST DIRECTLY AGAINST THE TRUNK OR STEM.
15. GUARANTEE: ALL PLANTS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER PRELIMINARY INSPECTION AND SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD. ALL DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED AT ONCE BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
10-12-21

KEY PLAN

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV - 8 2021 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L. Freeman

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

LANDSCAPE DETAIL PLAN

DATE:	*SCALE:*
MAY 2020	AS SHOWN

DWG. NAME: 2456–L02–LNDET–R10.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20
3	FINAL PLAN	08/20/20
4	RIDOT COMMENTS	09/16/20
5	CITY COMMENTS	10/02/20
6	FINAL COMMENTS	11/03/20
7	WATER SERVICE	02/09/21
8	WATER METER ENCLOSURE	07/29/21
9	FIRE DEPARTMENT COMMENTS	07/29/21
10	RIDEM PERMIT MODIFICATION	09/30/21

DRAWING NUMBER

L2

SHEET: 21 *OF:* 25

PERMIT SET 8-19-2020
FIRST FLOOR PLAN
19 AUGUST 2020
Scale: 3/32" = 1'-0"
A101

RESH INC.
PARK EAST DRIVE WOONSOCKET RI
NEW MANUFACTURING FACILITY

RI Environmental Management
OCT 18 2021
Office of Water Resources

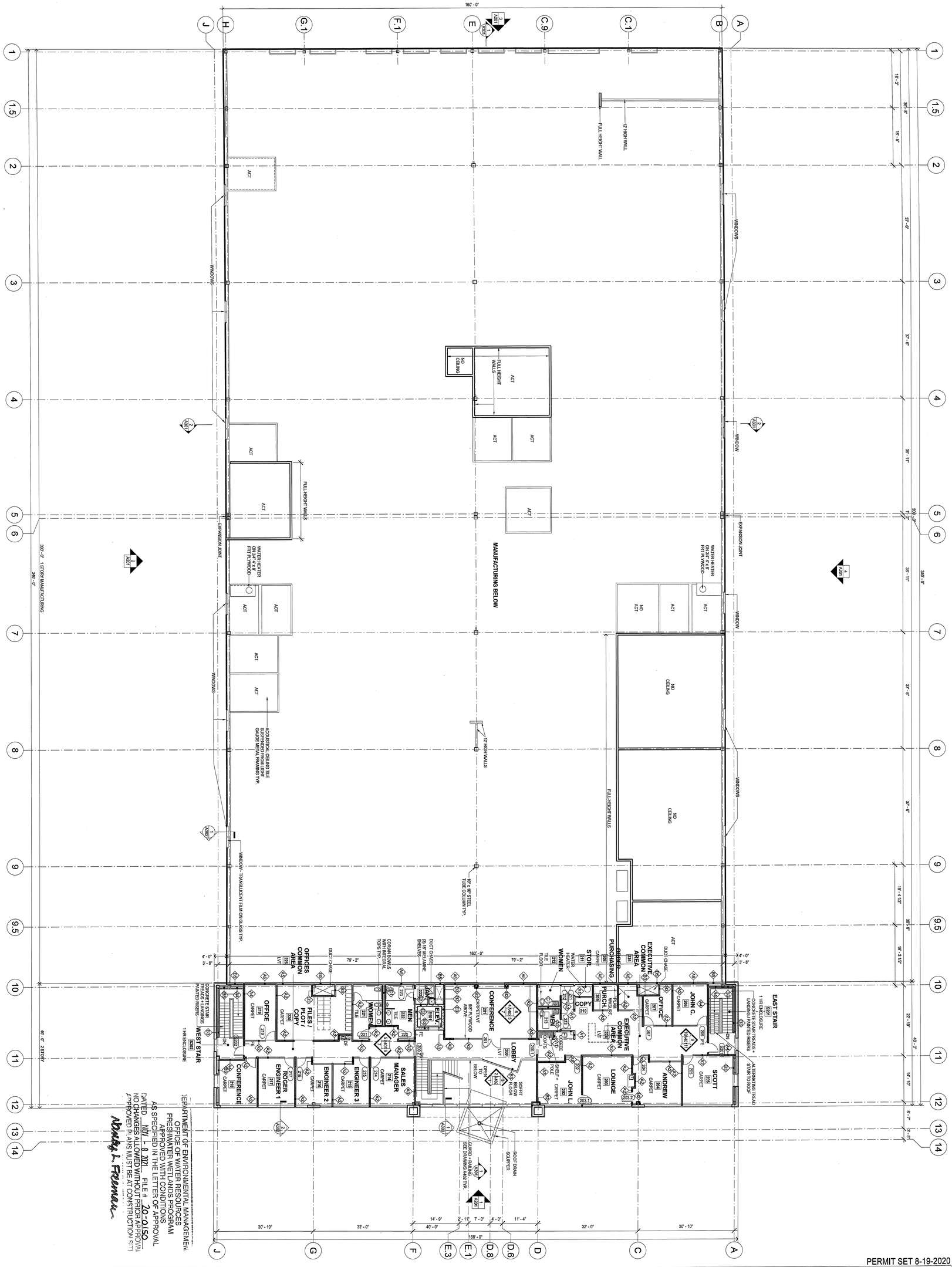
1 GROUND FLOOR PLAN
3/32" = 1'-0"

AREA SUMMARY

	FIRST FLOOR	MEZZANINE	TOTAL
MANUFACTURING	48,000 GSF	0 GSF	48,000 GSF
OFFICE	6,824 GSF	6,171 GSF	12,995 GSF
TOTAL	54,824 GSF	6,171 GSF	60,995 GSF

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Gary Moyer Architect, Inc.
28 Linwood Street Uxbridge, MA 508 278 3707
Gary@GaryMoyerArchitect.net



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Wendy L. Freeman

RI Environmental Management
OCT 1 8 2021
Office of Water Resources

PERMIT SET 8-19-2020

MEZZANINE - FLOOR PLAN

19 AUGUST 2020
Scale: 3/32" = 1'-0"
0' 2' 4' 8' 16'

A102

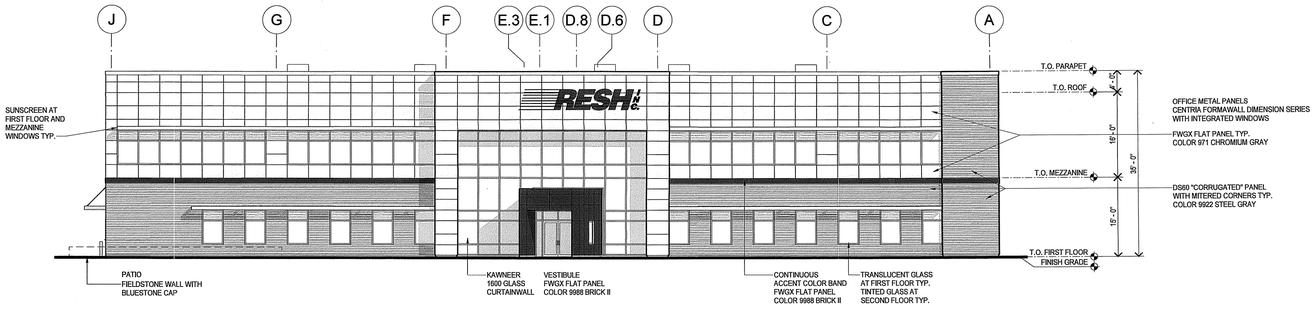
8/20/2020 11:07:39 AM

Gary Moyer Architect, Inc.
28 Linwood Street Uxbridge, MA 508 278 3707
Gary@GaryMoyerArchitect.net

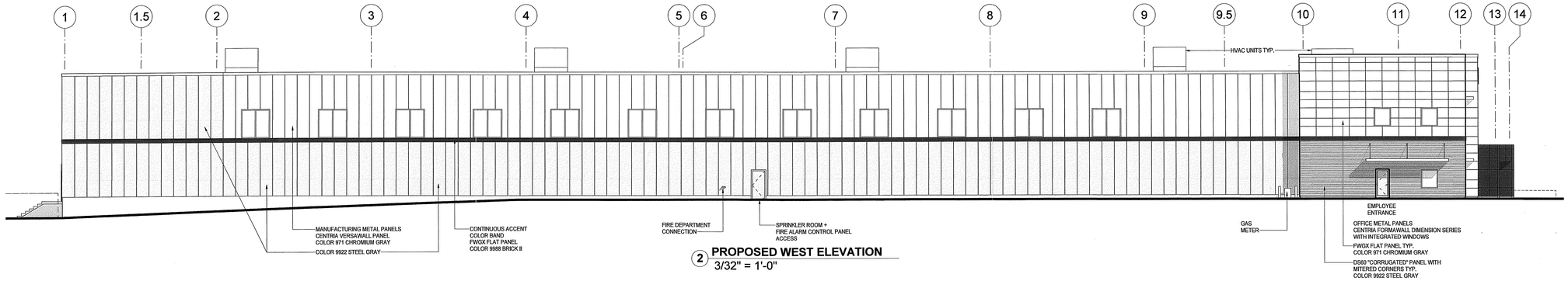
GARY MOYER REGISTERED ARCHITECT RI 5240

NORTH

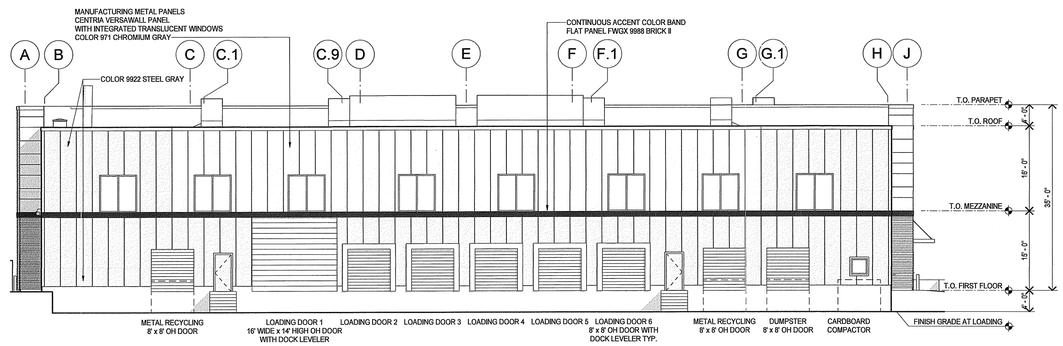
RESH INC.
PARK EAST DRIVE WOONSOCKET, RI
NEW MANUFACTURING FACILITY



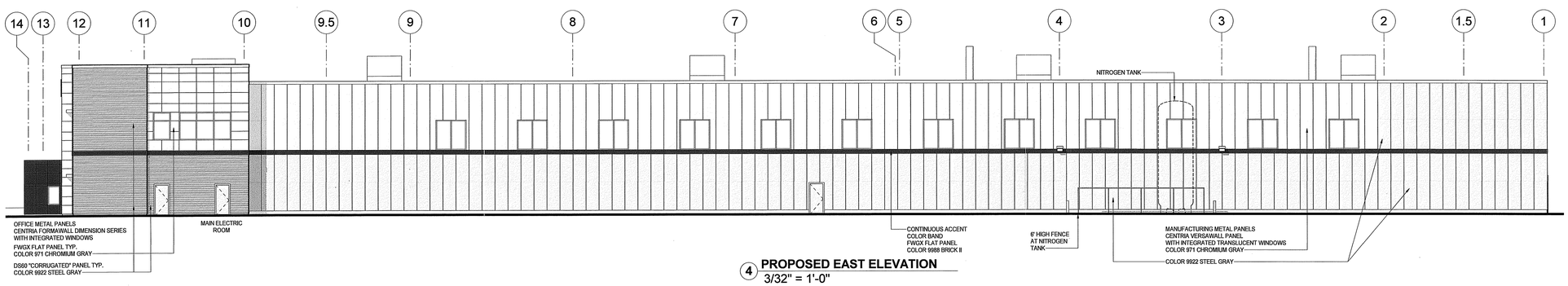
1 **PROPOSED SOUTH ELEVATION**
3/32" = 1'-0"



2 **PROPOSED WEST ELEVATION**
3/32" = 1'-0"



3 **PROPOSED NORTH ELEVATION**
3/32" = 1'-0"



4 **PROPOSED EAST ELEVATION**
3/32" = 1'-0"

Progress Drawing
Not for Construction

PROPOSED ELEVATIONS

26 MAY 2020
Scale: 3/32" = 1'-0"
0' 2" 4" 8" 16"

A201

X:\2020\2027\E\2027E01.PMT

RESH! INC.
NEW MANUFACTURING FACILITY
WOONSOCKET, RI

CONSULTANT 1

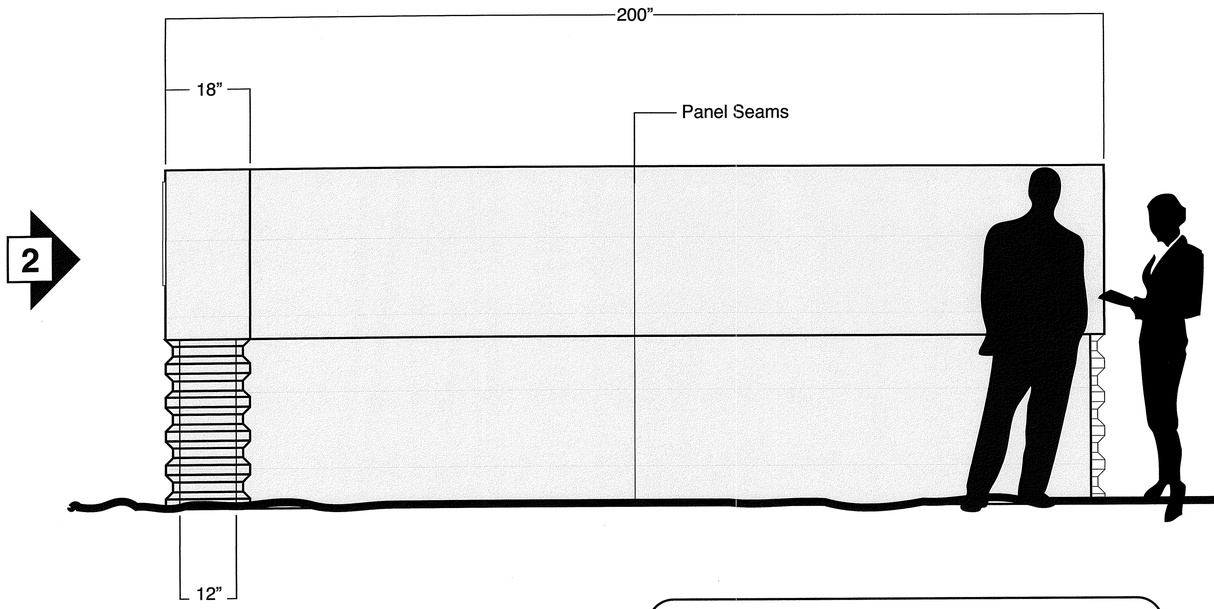
RI Environmental Management
OCT 18 2021
Office of Water Resources

CONSULTANT 2

STEVEN M. CABRAL
No. 4347
REGISTERED PROFESSIONAL ENGINEER

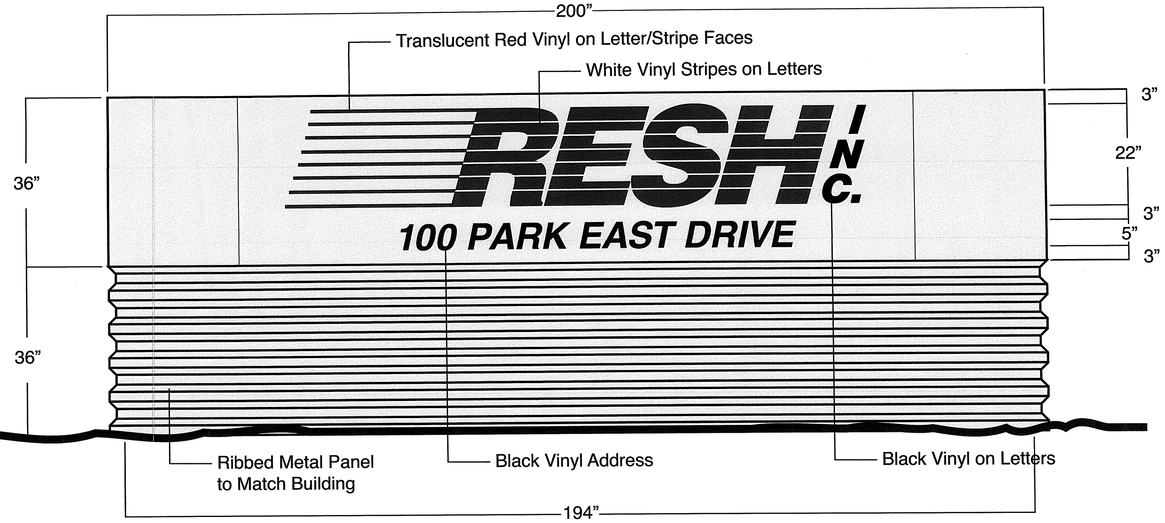
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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DATED NOV - 8 2021 FILE # 20-0150
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Nancy L. Freeman

Gary Moyer Architect, Inc.
28 Linwood Street Uxbridge, MA 508 278 3707
Gary@GaryMoyerArchitect.net



NOTE: Provide VE option for non-illuminated sign with 1/2" dimensional logo

1 SIDE VIEW/BACK VIEW:
SCALE: 1/32" = 1"



2 ELEVATION:
SCALE: 1/32" = 1"

RI Environmental Management
OCT 18 2021
Office of Water Resources

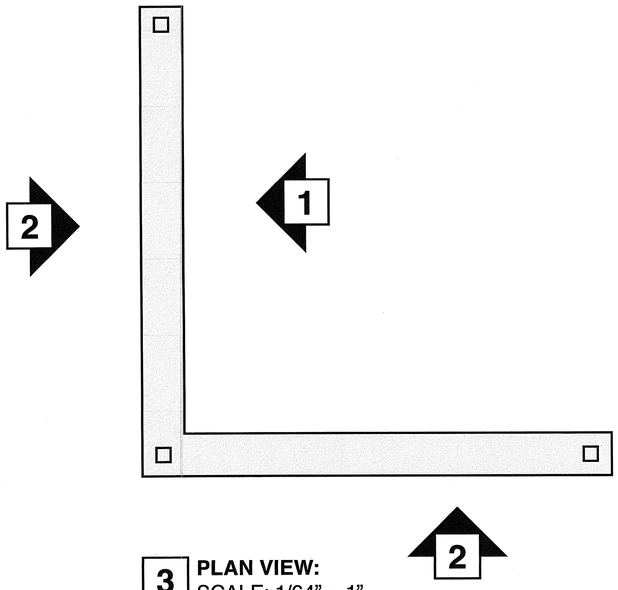
DESCRIPTION:
Fabricated aluminum "L Shaped" internally illuminated monument sign. Stencil cut faces with (x2) push through acrylic company logo. Logo to stand 1/2 proud of sign face. Surface applied vinyl address graphics. Mounted to fabricated aluminum base shroud and clad in ribbed metal panel (provided by and installed by GC).

TYPEFACE:
Supplied logo art & Helvetica Bold Italic

INSTALLATION METHOD:
Direct burial/post mount into concrete footings
Ribbed metal panel installed by GC (or panels provided by GC)

COLORS:

- Maroon/Red Color TBD, Translucent Vinyl
- Black Vinyl
- White Vinyl Stripes
- MAP Brushed Aluminum Paint



3 PLAN VIEW:
SCALE: 1/64" = 1"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Stanley L. Freeman

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

wayfinder COLLABORATIVE

CLIENT:	PROJECT/LOCATION:	PROJECT NUMBER:	DRAWING/REVISION DATE:	DRAWING:
Resh Inc.	**Woonsocket, RI**	**010140**	**07-09-20**	**FS.1**

SITE PLAN SET

FOR

PROPOSED MANUFACTURING FACILITY

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

APPLICANT
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

OWNERS
Plat 51, Lot 1 and 109
First Mendon Associates LLC
C/O Ray Bourque
PO Box 3107
South Attleboro, MA 02703

Plat 51, Lot 108
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

ENGINEERS

- Civil
- Transportation
- Environmental
- Site Planning
- Surveying
- Permitting
- Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone: (508) 695-1700

Email: cei@crossmaneng.com

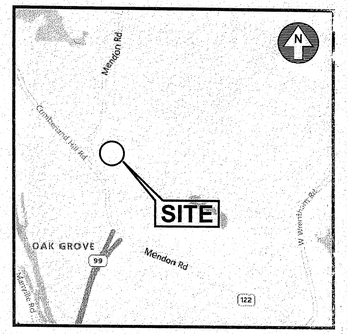
MAY 2020
SHEET 1 of 24

PREPARED FOR

The Economic Development
Foundation Of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency
of Woonsocket
169 Main Street
Woonsocket, RI 02895

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Nancy Freeman

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20



LOCATION MAP
NOT TO SCALE

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Environmental Management
AUG 07 2020
Office of Water Resources

INDEX OF DRAWINGS

DRAWING No.	PLAN
C1	GENERAL NOTES and LEGEND
C2	VICINITY MAP
C3	AERIAL MAP
C4	RADIUS MAP
C5	EXISTING CONDITIONS PLAN
C6	SITE LAYOUT PLAN
C7	GRADING and DRAINAGE PLAN
C8	UTILITY PLAN
C9	ROADWAY PLAN and PROFILE
C10	SOIL EROSION and SEDIMENT CONTROL PLAN
C11	MISCELLAMEOUS DETAIL PLAN No. 1
C12	MISCELLAMEOUS DETAIL PLAN No. 2
C13	MISCELLAMEOUS DETAIL PLAN No. 3
C14	MISCELLAMEOUS DETAIL PLAN No. 4
C15	MISCELLAMEOUS DETAIL PLAN No. 5
C16	MISCELLAMEOUS DETAIL PLAN No. 6
E1	SITE LIGHTING PLAN
L1	LANDSCAPE PLAN
L2	LANDSCAPE DETAIL PLAN
A101	PROPOSED FIRST FLOOR PLAN
A102	PROPOSED SECOND FLOOR PLAN
A201	PROPOSED ELEVATIONS
A301	SIGN DETAILS

REVISIONS

No.	DATE	DESCRIPTION
1	06/30/20	REVIEW COMMENTS
2	08/06/20	RIDEM COMMENTS

GENERAL NOTES

1. ALL EXISTING UTILITIES HAVE BEEN PLOTTED BASED UPON BEST AVAILABLE INFORMATION AND REPRESENT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES, BOTH UNDERGROUND AND OVERHEAD, BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH "DIG SAFE PROGRAM LAW" ENACTED BY THE RHODE ISLAND LEGISLATURE AND BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY MUNICIPALITY, STATE OR FEDERAL AGENCY THAT MAY APPLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. A MINIMUM ADVANCE NOTICE OF 72 HOURS IS REQUIRED PRIOR TO START OF CONSTRUCTION.
2. SPECIFICATIONS TO GOVERN THIS PROJECT ARE R.I.D.O.T. STANDARD INSTALLATION, SPECIFICATIONS AND DETAILS. FOR ALL EXCAVATION, PLACEMENT OF FILL, PIPE BITUMINOUS PAVEMENT, CUTTING INTO CATCHBASIN/MANHOLES, CONCRETE AND SAWCUTTING, THE CONTRACTOR SHALL PERFORM THE WORK IN FULL COMPLIANCE WITH THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2018 EDITION, WITH LATEST REVISIONS UNLESS OTHERWISE SHOWN ON PLANS. THE "METHOD OF MEASUREMENT" AND "BASIS OF PAYMENT" ARE NOT APPLICABLE.
3. THE CONTRACTOR MUST VERIFY PRIOR TO CONSTRUCTION THAT ALL REQUIRED AUTHORIZATION TO PERFORM WORK HAS BEEN OBTAINED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION OPERATIONS INCLUDING ALL ACTIONS OR OMISSIONS OF ANY SUBCONTRACTORS, AGENTS OR EMPLOYEES. THE CONTRACTOR MUST ENSURE THAT THE CONDITIONS OF ALL PERMITS, SPECIFICATIONS AND FEDERAL, STATE AND LOCAL REGULATIONS ARE STRICTLY ENFORCED. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ASPECTS OF ON-SITE SAFETY INCLUDING ANY DAMAGE TO EXISTING STRUCTURES.
4. WORK SHOWN ON THE PLANS FOR WHICH THERE ARE NO PARTICULAR DETAILS, SPECIFICATIONS OR PAYMENT ITEM DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THE WORK. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE CONTRACT DOCUMENTS AND PLANS AND INSPECT THE SITE. THE BID PRICE SHALL INCLUDE ALL SERVICES AND MATERIALS NECESSARY TO COMPLETE THE PROJECT. ANY CHANGES TO THE PROJECT OR THE INSTALLATION OF AN ITEM FOR WHICH NO PARTICULAR DETAIL OR SPECIFICATION WAS PROVIDED MUST BE REVIEWED BY AND MUST BE ACCEPTABLE TO THE ENGINEER.
5. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ANY WORK.
6. ALL DISTURBED AREAS SHALL BE REPLACED IN KIND UNLESS OTHERWISE SHOWN OR OTHERWISE INSTRUCTED IN WRITING BY THE OWNER.
7. CONTRACTOR SHALL EXCAVATE TEST PITS TO CONFIRM UTILITY LOCATIONS/ELEVATIONS AT POTENTIAL CONFLICT POINTS (UTILITY/DRAIN CROSSINGS).
8. THE CONTRACTOR SHALL USE CARE WHEN WORKING NEAR UTILITY POLES AND WIRING SO AS TO NOT DISTURB ELECTRICAL/TELEPHONE/CABLE SERVICE TO THE CUSTOMERS. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THESE SERVICES AT ALL TIMES.
9. THE CONTRACTOR SHALL, AT NO ADDITIONAL EXPENSE, BRACE UTILITY POLES IF REQUIRED, AND REPAIR ANY DAMAGE TO EXISTING UTILITIES, SIDEWALKS, GUARDRAILS, CURBS, PAVING, SHRUBS, TREES, STONE WALLS, LAWNS, ETC.
10. CHANGE ORDERS MAY ONLY BE APPROVED FOR PAYMENT BY THE OWNER.
11. ALL OPEN EXCAVATIONS SHALL BE ADEQUATELY SAFEGUARDED BY PROVIDING TEMPORARY BARRICADES, CAUTION SIGNS, LIGHTS AND OTHER MEANS TO PREVENT ACCIDENTS TO PERSONS AND DAMAGE TO PROPERTY. THE CONTRACTOR SHALL AT NO ADDITIONAL EXPENSE TO THE OWNER, PROVIDE SUITABLE AND SAFE CONDITIONS AT ALL AREAS OF THE WORK SITE AND SHALL PROVIDE SAFE VEHICULAR AND PEDESTRIAN ACCESS AROUND ALL WORK AREAS.
12. CONTRACTOR SHALL PROVIDE, AT NO ADDITIONAL EXPENSE, ADEQUATE EROSION CONTROL, FRAC TANKS OR SEDIMENTATION CONTROLS SUBJECT TO THE APPROVAL OF THE CONSERVATION COMMISSION FOR THE DISCHARGE OF ANY TRENCH DEWATERING.
13. ALL STRUCTURES AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND STANDARD SPECIFICATIONS OF THE CITY OF WOONSOCKET DEPARTMENT OF PUBLIC WORKS. ALL EXCAVATION, BACKFILL AND RESTORATION WORK SHALL MEET THE CITY'S SPECIFICATIONS.
14. THE LAYOUT SHOWN REPRESENTS A GRAPHICAL DESIGN. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS ARE TO BE CONFIRMED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY ITEM FOUND WHICH DOES NOT MATCH THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION FOR REVIEW. NO WORK SHALL PROCEED UNTIL AUTHORIZED BY THE ENGINEER.
15. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO REMOVAL AND/OR INSTALLATION OF UTILITIES ON SITE. THE COORDINATION IS NECESSARY FOR THE ENGINEER TO SCHEDULE SITE INSPECTIONS. INSTALLATIONS PERFORMED WITHOUT INSPECTIONS BY THE ENGINEER MAY WARRANT COMPLETE REMOVAL AND REINSTALLATION AT THE CONTRACTOR'S SOLE EXPENSE.
16. THE CONTRACTOR IS REQUIRED TO MAINTAIN DETAILED AS-BUILT INFORMATION FOR ALL UTILITY INSTALLATIONS. AS-BUILT INFORMATION MUST INCLUDE MATERIAL LIST, PIPE DEPTH AND SWING TIE LOCATIONS (2 MINIMUM) FROM NEW PIPE TO BUILDING CORNERS. ALL PIPE BEND/ELBOW LOCATIONS SHALL BE DIMENSIONED. FINAL PAYMENT WILL NOT BE MADE UNTIL SUITABLE AS-BUILT DATA IS PROVIDED.
17. AS-BUILT AUTOCAD FILES AND HARD COPY PLANS SHALL BE PROVIDED UPON COMPLETION OF WORK. CONTRACTOR IS RESPONSIBLE FOR THIS INFORMATION. FINAL PAYMENT TO CONTRACTOR SHALL NOT BE PROVIDED UNTIL ACCEPTABLE AUTOCAD FILES OF THE AS-BUILTS ARE SUBMITTED AND APPROVED BY THE OWNER.

FLOOD ZONE NOTE

THE SITE IS LOCATED WITHIN FLOOD ZONE X, AREAS TO BE OUTSIDE THE 0.2% CHANCE FLOODPLAIN, ACCORDING TO FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, RHODE ISLAND, PANEL 176 OF 451, MAP NUMBER 44007C 0176G, EFFECTIVE DATE MARCH 2, 2009.

PROPOSED PAVEMENT STRUCTURE

FOR ROADWAY, LOADING AREA AND DRIVE LANES

2" BITUMINOUS CONCRETE SURFACE COURSE, CLASS I-1
3" BITUMINOUS BASE COURSE
18" GRAVEL BASE

FOR PARKING SPACES

1 1/2" BITUMINOUS CONCRETE SURFACE COURSE, CLASS I-1
2 1/2" BITUMINOUS CONCRETE BASE COURSE
8" GRAVEL BASE

STANDARD NOTES

1. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CULVERTS, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD.
3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED BY THE CONTRACTOR.
4. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS.
5. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, 2" MULCH IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED.
6. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
8. NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING OPERATIONS.
10. ALL EMBANKMENTS AND TRENCH BACKFILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.
2. ALL SIGN MOUNTINGS SHALL BE IN ACCORDANCE WITH THE STATE D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
6. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
7. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
9. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES.

LEGEND

EXISTING		PROPOSED
R	PROPERTY LINE	
	EASEMENT LINE	
	CURB	
	BITUMINOUS BERM	
-○- No.	UTILITY POLE	-●- NO.
LP	LIGHT POLE	
-(Size) D-	DRAIN LINE	(SIZE) D
-(Size) S-	SANITARY SEWER	(SIZE) S
-(Size) SFM-	SANITARY FORCE MAIN	(SIZE) SFM
-(Size) G-	GAS LINE	(SIZE) G
-6"W-	WATER LINE	(SIZE) W
DMH	DRAINAGE MANHOLE	● DMH
CB	CATCH BASIN	■ CB
SMH	SEWER MANHOLE	● SMH
Hyd.	HYDRANT	HYD.
WG	WATER GATE	●WG
GG	GAS GATE	●GG
CO	CLEAN-OUT TO GRADE	●CO
-XXX-	SAWCUT PAVEMENT	
X ELEV.	CONTOURS	ELEV.
	SPOT GRADES	00x0
○ Sgn	CHAIN LINK FENCE	
	STOCKADE FENCE	
	SIGN	
	STREET SIGN	
	RETAINING WALL	
	STONE WALL	
	GUARDRAIL	
	GRADE TO DRAIN	
○ #6	BUILDING/STRUCTURE	
	WETLAND FLAG	
	WETLAND EDGE	
	WETLAND BUFFER	
	LIMIT OF DISTURBANCE	
	FILTER SOXX	
TP9	TEST PIT LOCATION	

Environmental Management
AUG - 7 2020
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 0 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Tiffany L. Freeman

SOIL EVALUATION DATA

SOIL EVALUATIONS WERE CONDUCTED BY BRIAN KING, LICENSE No. D4010, ON APRIL 7, 2020

TEST PIT 1

0"	Dark Brown Sandy Loam	A (Friable)
9"	Light Olive Brown Gravely Course Sand	C (Loose)
102"		

74" Water Seepage
NA Redox Features
NA Design ESHWT

TEST PIT 2

0"	Dark Brown Sandy Loam	A (Friable)
6"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
18"	Light Olive Brown Very Fine Sandy Loam/Silt Loam	Bw2 (Friable)
32"	Dark Yellowish Brown Gravelly Loamy Sand	C (Friable)
72"		

18" Water Seepage
NA Redox Features
18" Design ESHWT

TEST PIT 3

0"	Dark Brown Sandy Loam	A (Friable)
5"	Dark Yellowish Brown Sandy Loam	Bw1 (Friable)
15"	Dark Yellowish Brown Gravelly Loamy Course Sand	BC (Friable)
25"	Dark Yellowish Brown Stoney Gravelly Course Sand	C1 (Firm in Place)
84"		

42" Water Seepage
40" Redox Features
40" Design ESHWT

TEST PIT 5

0"	Very Dark Grayish Brown Sandy Loam	A (Friable)
6"	Dark Yellowish Brown Sandy Loam	AB (Friable)
14"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
34"	Dark Brown Gravelly Loamy Sand	C1 (Firm in Place)
102"		

No Water Seepage
38" Redox Features
38" Design ESHWT

TEST PIT 6

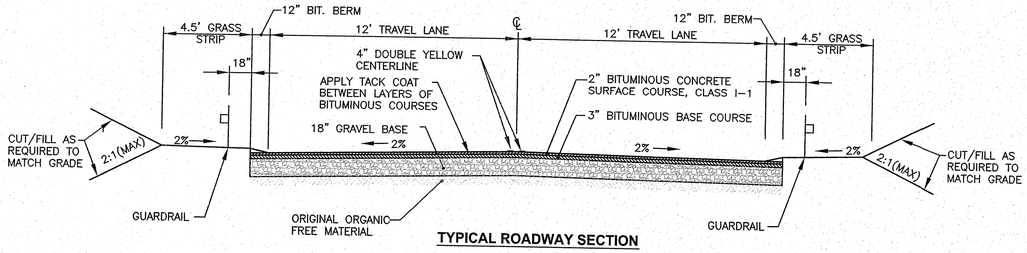
0"	Very Dark Grayish Brown Sandy Loam	A (Friable)
2"	Dark Yellowish Brown Sandy Loam	AB (Friable)
8"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
14"	Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
26"	Light Olive Brown Gravelly Loamy Sand	C1 (Friable)
68"	Light Olive Brown Stoney Gravelly Loamy Sand	C2 (Friable)
108"		

No Water Seepage
No Redox Features
68" Design ESHWT

TEST PIT 7

0"	Very Dark Grayish Brown Sandy Loam	A (Friable)
8"	Dark Yellowish Brown Fine Sandy Loam	Bw1 (Friable)
16"	Dark Yellowish Brown Fine Sandy Loam	Bw2 (Friable)
26"	Light Olive Brown Gravelly Loamy Sand	C1 (Friable)
44"	Strony Brown Loamy Very Fine Sand/Sandy Loam	2C (Firm in Place)
66"	Dark Yellowish Brown Gravelly Loamy Fine Sand	3C (Friable)
110"		

No Water Seepage
44" Redox Features
44" Design ESHWT



TYPICAL ROADWAY SECTION
SCALE: 1"=4'

NOTES

1. ALL UNSUITABLE SUBGRADE MATERIAL WITHIN THE ROADWAY AREA SHALL BE REMOVED.
2. PROCESSED GRAVEL BASE FOR PAVEMENT SHALL BE PLACED IN 6" LIFTS AND COMPACTED PER R.I.D.O.T STANDARDS.
3. REFER TO GENERAL NOTES SHEET FOR UTILITY SEPARATION REQUIREMENTS.
4. GRAVEL BASE COURSE SHALL BE PLACED IN 2 LIFTS.
5. 6" LOAM AND SEED ALL DISTURBED AREAS.

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

Massachusetts
103 Commonwealth Avenue
North Attleboro, MA 02763
Phone: (508) 695-1700

Email: cei@crossmaneng.com

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

GENERAL NOTES and LEGEND

DATE:	SCALE:
MAY 2020	NO SCALE

DWG. NAME: 2456-C01-NOTES-R2.dwg

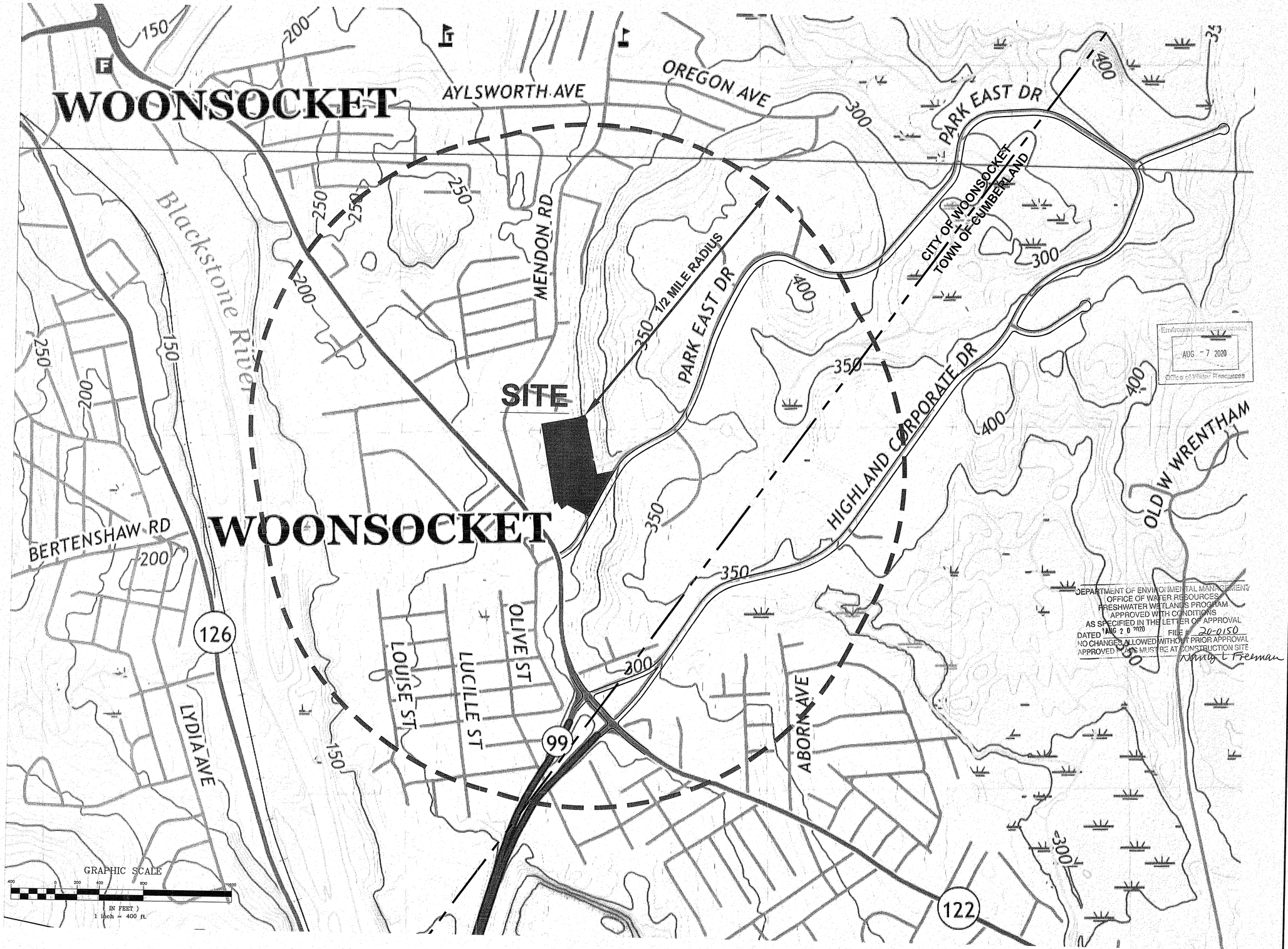
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C1

SHEET: 2 OF: 24



Environmental Management
AUG - 7 2020
Office of Water Resources

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Nancy L Freeman

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8-6-20

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RESHAPE

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MIXED USE INDUSTRIAL/COMMERCIAL
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WOONSOCKET, RHODE ISLAND

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Suite 202
Cumberland, RI 02864
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Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

VICINITY MAP

DATE:	SCALE:
MAY 2020	1"=400'

DWG. NAME: 2456-C02-VICINITY-R1.dwg

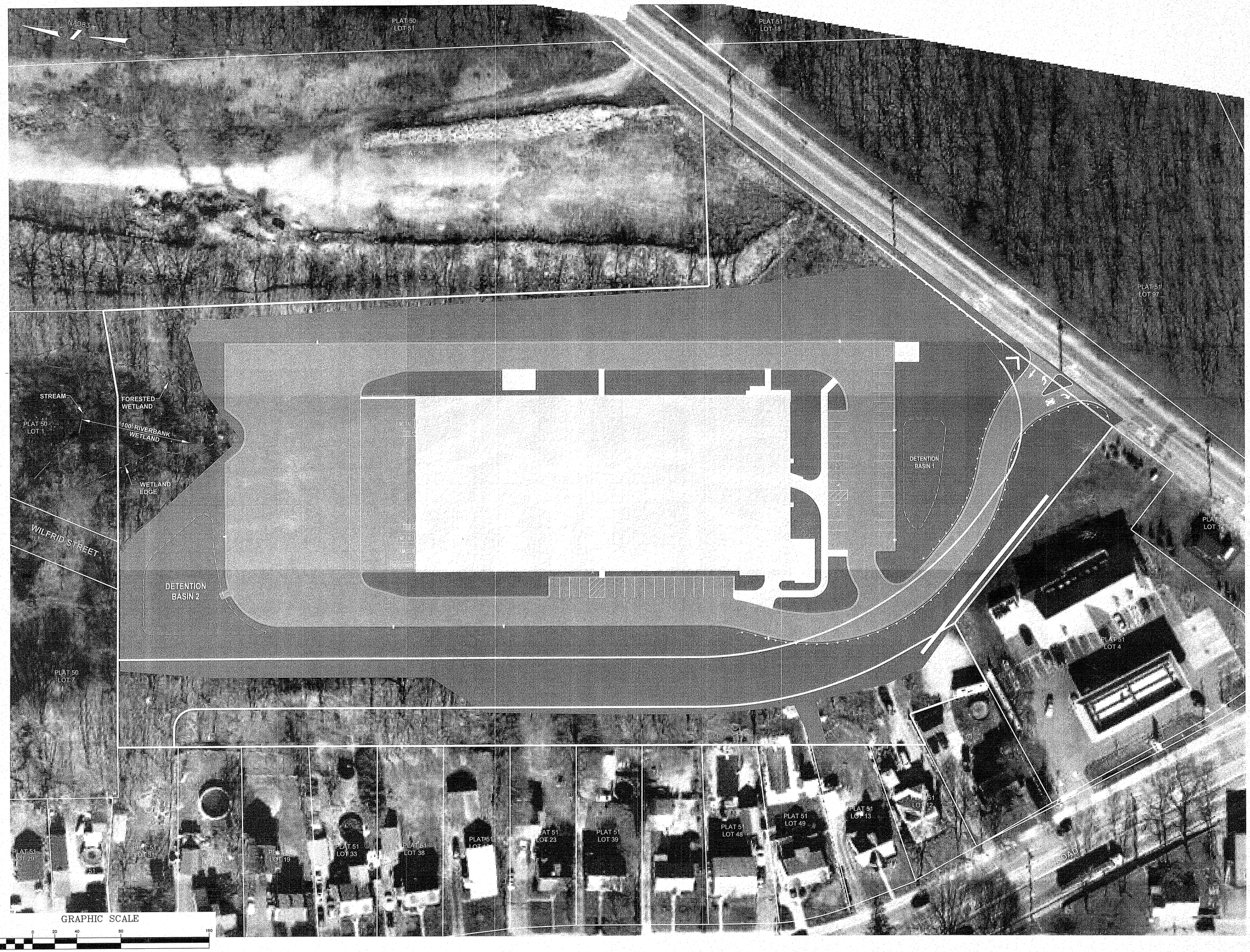
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C2

SHEET: 3 OF: 24



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

• Civil
• Transportation
• Environmental
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• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

AUG 7 2020

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 0 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
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PROPOSED
MANUFACTURING FACILITY

RESH INC.

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ZONING DISTRICT MU-2
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PREPARED FOR:

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1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

AERIAL MAP

DATE:	*SCALE:*
MAY 2020	1"=40'

DWG. NAME: 2456-C03-AERIAL-R2.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C3

SHEET: 4 *OF:* 24

ABUTTERS LIST

PLAT 43 LOT 15
CHERYL TAYLOR
516 KINGSTOWN ROAD
RICHMOND, RI 02892

PLAT 43 LOT 026
FOUNDERS REALTY LLC
1 MANUEL AVENUE
JOHNSTON, RI 02919

PLAT 43 LOT 49
STATE OF RHODE ISLAND
317 STATE OFFICE BUILDING
PROVIDENCE, RI 02893

PLAT 43 LOT 51
STATE OF RHODE ISLAND
317 STATE OFFICE BUILDING
PROVIDENCE, RI 02893

PLAT 50 LOT 1
JOSEPH ANDRE AND
NANCY M. PICARD
75 ARMAND STREET
WOONSOCKET, RI 02895-6101

PLAT 50A LOT 4
KEITH WAYNE BEAUCHAMP
PO BOX 84
MANVILLE, RI 02838

PLAT 50 LOT 7
CAROL A. MCDONALD
888 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 50 LOT 51
TECHNIC INC.
300 PARK EAST DRIVE
WOONSOCKET, RI 02895-6147

PLAT 50 LOT 191
JOSEPH ANDRE PICARD
75 ARMAND STREET
WOONSOCKET, RI 02895

PLAT 50 LOT 210
BRIAN J. BASTIEN
1914 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 50 LOT 230
ELAINE GAUVIN
57 ARMAND STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 1
FIRST MENDON ASSOCIATES LLC
C/O RAY BOURQUE
PO BOX 3107
SOUTH ATTLEBORO, MA 02703

PLAT 51 LOT 4
CUMBERLAND FARMS INC.
165 FLANDERS ROAD
WESTBOROUGH, MA 01581

PLAT 51A LOT 7
JOSEPH P. KIMBALL
20 DAWES STREET
BLACKSTONE, MA 01504

LAT 51 LOT 10
JAMES R. AND LORI A. DUMAS
2176 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 12
EMILE J. AND PAULINE J. RIENDEAU
2156 MENDON ROAD
WOONSOCKET, RI 02895-6122

PLAT 51 LOT 13
FIRST MENDON ASSOCIATES LLC
PO BOX 3107
SOUTH ATTLEBORO, MA 02703

PLAT 51 LOT 17
CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI 02895-4379

PLAT 51 LOT 18
RHODE ISLAND ECONOMIC
DEVELOPMENT CORPORATION
C/O LEE LAPIERRE
1 CVS DRIVE
WOONSOCKET, RI 02895

PLAT 51 LOT 19
STEVEN AND DEBORAH J. DENNIS
2036 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 23
NICHOLAS J. POIRIER
AND **CYNTHIA SAVARD**
2086 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 24
CATHERINE M. GLAUDE
AND DERIC MCGUIRE
269 COTTAGE STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 29
FENWAY REALTY CAPITAL LLC
38 WHITEHALL WAY
BELLINGHAM, MA 02019

PLAT 51 LOT 31
MATTHEW DISPIRITO
2012 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 32
HECTOR J. VAZQUEZ
2024 MENDON ROAD
WOONSOCKET, RI 02895

LAT 51 LOT 33
ROBINSON VARGAS
2050 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 38
JACQUES A. AND JANE M. GAGNON
2062 MENDON ROAD
WOONSOCKET, RI 02895-6120

PLAT 51 LOT 39
EDWARD C. AND AVIS M. AUBIN
2094 MENDON ROAD
WOONSOCKET, RI 02895-6120

PLAT 51 LOT 42
RAYMOND L. AND SU CHA GIARD
2108 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 48
DONNA DESROSIERS
2122 MENDON ROAD
WOONSOCKET, RI 02895-6122

PLAT 51 LOT 49
MICHELE A. LEDOUX
2134 MENDON ROAD
WOONSOCKET, RI 02895

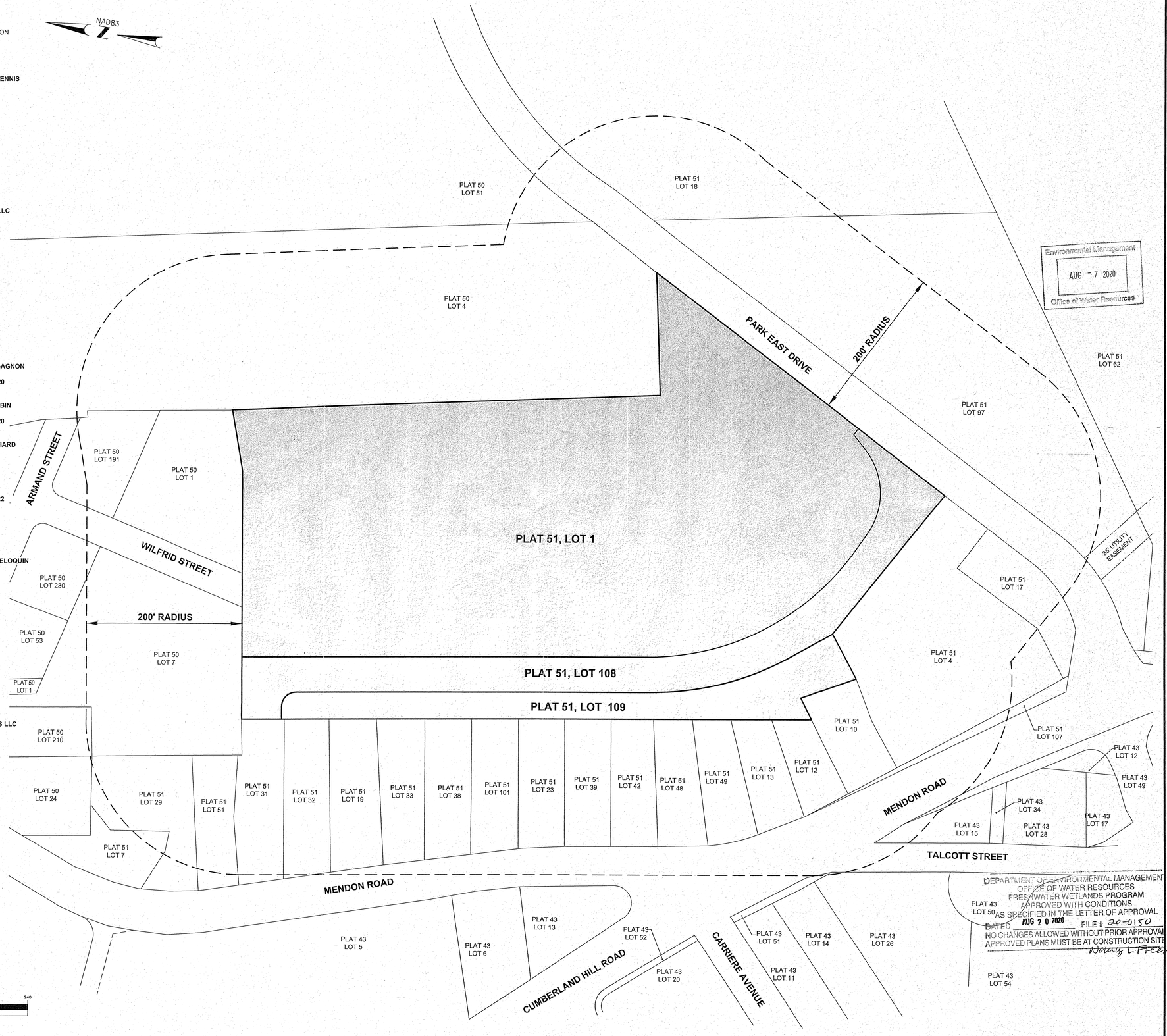
PLAT 51 LOT 51
MARCEL C. AND RENEE T. PELOQUIN
2000 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 97
CITY OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 101
MICHAEL A. GRENON
2070 MENDON ROAD
WOONSOCKET, RI 02895

PLAT 51 LOT 108
REDEVELOPMENT AGENCY
OF WOONSOCKET
169 MAIN STREET
WOONSOCKET, RI 02895

PLAT 51 LOT 109
FIRST MENDON ASSOCIATES LLC
C/O RAYMOND BOURQUE
PO BOX 3107
ATTLEBORO, MA 02703



Environmental Management
AUG - 7 2020
Office of Water Resources

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OFFICE OF WATER RESOURCES
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Wendy L Freeman

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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151 Centerville Road
Warwick, RI 02886
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North Attleboro, MA 02763
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

200' RADIUS MAP

DATE:	*SCALE:*
MAY 2020	1"=60'

DWG. NAME: 2456-C04-RADIUS-R2.dwg

REVISIONS

NUMBER	*REMARKS*	*DATE*
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C4

SHEET: 5 *OF:* 24

NAD83

NOTES

1. FIELD SURVEY WORK PERFORMED BY CROSSMAN ENGINEERING IN MARCH OF 2020.
2. THE HORIZONTAL DATUM IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM (NAD83) AND THE VERTICAL DATUM IS NAVD88 UTILIZING GPS RTK NETWORK CONTROL.
3. UTILITY NOTE: ANY UTILITIES SHOWN HEREON ARE PLOTTED FROM FIELD LOCATION OF VISIBLE ABOVE GROUND STRUCTURES. ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON MUST BE VERIFIED IN THE FIELD PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS SITE. THE CONTRACTOR OR USERS OF THIS PLAN SHOULD CONTACT DIGSAFE PRIOR TO ANY WORK. CROSSMAN ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
4. WETLAND WERE DELINEATED IN APRIL 2020 BY NATURAL RESOURCE SERVICES.

PLAT 50 LOT 51
PLAT 51 LOT 18
PLAT 50 LOT 4
PLAT 51 LOT 97
PLAT 50 LOT 1
PLAT 50 LOT 7
PLAT 51 LOT 29
PLAT 51 LOT 51
PLAT 51 LOT 31
PLAT 51 LOT 32
PLAT 51 LOT 19
PLAT 51 LOT 33
PLAT 51 LOT 38
PLAT 51 LOT 101
PLAT 51 LOT 23
PLAT 51 LOT 39
PLAT 51 LOT 42
PLAT 51 LOT 48
PLAT 51 LOT 49
PLAT 51 LOT 13
PLAT 51 LOT 12
PLAT 51 LOT 10
PLAT 51 LOT 107
PLAT 51 LOT 17
PLAT 43 LOT 34
PLAT 43 LOT 15
PLAT 43 LOT 28

PLAT 51 LOT 1
6.15 ACRES

PLAT 51 LOT 108
1.14 ACRES

PLAT 51 LOT 109
0.662 ACRES

PARK EAST DRIVE

MENDON ROAD

Iron Rod Found
Iron Pipe Found
Drillhole Found
Granite Bound Found

S11°58'00"E 314.75'
S12°00'32"E 235.25'
N76°15'29"E 157.50'
S27°28'00"W 326.94'
S62°34'00"E 10.00'
N41°15'07"E 22.82'
S27°28'00"W 139.77'
L=119.51' R=91.50'
N07°28'00"E 70.00'
S84°36'57"E 30.49'
N07°22'27"W 230.00'
N64°45'03"W 64.89'
N08°19'31"E 128.42'
L=300.84' R=325.00'
N39°08'43"W 59.24'
S81°51'09"W 82.81'
S29°18'12"W 75.73'
S27°25'50"W 51.19'
527.51' N10°01'23"W
457.99' N10°01'23"W
681.17' N10°01'23"W
N07°05'49"E 79.81'
N80°05'49"E 239.03'
N80°05'49"E 79.50'
N79°46'32"E 15.90'
R=18.50' L=29.12'
51.25' N10°01'23"W
L=18.96' R=370.00'

FORESTED WETLAND
100' RIVERBANK WETLAND
A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17

TP1 TP2 TP3 TP5 TP6 TP7

B-1 B-2 B-3 B-4

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Nancy L. Freeman

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

• Civil
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STEVEN M. CABRAL
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8-6-20

KEY PLAN

PROJECT TITLE:

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RESH INC

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ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

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169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

EXISTING CONDITIONS PLAN

DATE:	SCALE:
MAY 2020	1"=40'

DWG. NAME: 2456-C05-EXCN-R2.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C5

SHEET: 6 OF: 24

NAD83

PLAT 50
LOT 51

PLAT 51
LOT 18

PLAT 50
LOT 4

Iron Rod Found

Iron Pipe Found

Drillhole Found

PARK EAST DRIVE

GUARDRAIL END SECTION
(R.I. STD. 34.3.1)

STEEL BEAM GUARDRAIL
(R.I. STD. 34.2.0)

25' REAR
YARD SETBACK

32 FUTURE
PARKING SPACES

BITUMINOUS BERM
(R.I. STD. 7.5.1)

LOAM AND SEED (TYP.)

WHEEL CHAIR RAMP

ELECTRICAL
TRANSFORMER
ON REINFORCED
CONCRETE PAD

PROPOSED CONCRETE
RETAINING WALL (R.I. STD.
10.3.0). PROVIDE 4' HIGH
PEDESTRIAN RAIL FENCE

BOLLARD (TYP.)

28 FUTURE
PARKING SPACES

5' WIDE CONCRETE
SIDEWALK (TYP.)
(R.I. STD. 43.1.0)

FORESTED
WETLAND

PLAT 50
LOT 1

100' RIVERBANK
WETLAND

60' LOADING AREA
(6 BAYS)

50'x156' REINFORCED
CONCRETE PAD FOR
LOADING AREAS

PROPOSED
MANUFACTURING FACILITY
FIRST FLOOR = 54,837 S.F.
SECOND FLOOR =6,181 S.F.
(TOTAL = 61,018 S.F.)

HIGH BAY AREA

2-STORY
OFFICE AREA

PROPOSED
PAVEMENT
STRUCTURE

BITUMINOUS BERM
(R.I. STD. 7.5.1)

WILFRID STREET

10' SIDE
YARD SETBACK

PAVED WATERWAY
(R.I. STD. 8.4.0)

14 FUTURE
PARKING SPACES

FDC

PATIO

BITUMINOUS BERM
(R.I. STD. 7.5.1)

LOAM AND SEED (TYP.)

20' FRONT
YARD SETBACK

GUARDRAIL END SECTION
(R.I. STD. 34.3.1)

STEEL BEAM GUARDRAIL
(R.I. STD. 34.2.0)

WHEEL CHAIR RAMP
(R.I. STD. 43.3.0)

PROPOSED MODULAR
BLOCK WALL TO BE
DESIGNED BY OTHERS
(HEIGHT VARIES 1'–10')

6' WIDE CONCRETE
SIDEWALK (R.I. STD.
43.1.0)

WHEEL CHAIR RAMP
(R.I. STD. 43.3.0)

BITUMINOUS BERM
(R.I. STD. 7.5.1)

LOAM AND
SEED (TYP.)

PRECAST CONCRETE
CURB' 6" REVEAL (TYP.)
(R.I. STD. 7.1.0)

SAWCUT AND MATCH
EXISTING PAVEMENT

STEEL BEAM GUARDRAIL
(R.I. STD. 34.2.0)

GUARDRAIL END SECTION
(R.I. STD. 34.3.1)

STEEL BEAM
GUARDRAIL
(R.I. STD. 34.2.0)

GUARDRAIL END SECTION
(R.I. STD. 34.3.1)

Granite Bound Found

PLAT 51
LOT 17

Cumberland Farms

PLAT 50
LOT 7

Old Wood Fence

Iron Pipe Found

Stockade Fence

Shed

Garage

PLAT 51
LOT 29

PLAT 51
LOT 51

PLAT 51
LOT 31

PLAT 51
LOT 32

PLAT 51
LOT 19

PLAT 51
LOT 33

PLAT 51
LOT 38

PLAT 51
LOT 101

PLAT 51
LOT 23

PLAT 51
LOT 39

PLAT 51
LOT 42

PLAT 51
LOT 48

PLAT 51
LOT 49

PLAT 51
LOT 13

PLAT 51
LOT 12

PLAT 51
LOT 10

PLAT 51
LOT 107

MENDON ROAD

PLAT 43
LOT 34

PLAT 43
LOT 15

PLAT 43
LOT 28

INSTALL 3" CLASS 12.5
HMA SURFACE AND 6"
GRAVEL BASE DRIVEWAY

REMOVE AND DISPOSE
CONCRETE SIDEWALK
AND BITUMINOUS
DRIVEWAY

CEMENT CONCRETE DRIVEWAY
(R.I. STD 43.5.0)

REMOVE AND RESET CURB (TYP.)

SAWCUT AND MATCH EXISTING
PAVEMENT. PROVIDE FULL–DEPTH
PAVEMENT TO MATCH EXISTING
PAVEMENT COMPOSITION

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

DIMENSIONAL REGULATIONS ZONING DISTRICT:MU-2 - MIXIED USE INDUSTRIAL/COMMERCIAL		
	REQUIRED	PROPOSED
MINIMUM LOT SIZE	6,000 S.F.	267,818 S.F.
MINIMUM FRONT YARD SETBACK	20'	59'
MINIMUM SIDE YARD SETBACK	10'	270'
MINIMUM REAR YARD SETBACK	25'	89'
MAXIMUM STORIES	5 STORIES	2 STORIES
MAXIMUM BUILDING HEIGHT	60'	<30'
FLOOR AREA RATIO (MAXIMUM)	2.0	0.23

PARKING REQUIREMENT

INDUSTRIAL FACILITIES
2 SPACES PER 1,000 S.F. (INCLUDING WAREHOUSE SPACE)
PARKING SPACE SIZE: 9'x18'

INDUSTRIAL FACILITIY

62,000 S.F. x 2/1,000 = 124 SPACES
PROVIDED = 124 SPACES; 50 TO BE CONSTRUCTED
74 IN RESERVE

LOADING SPACE REQUIREMENT

1 SPACE PER 20,000 S.F. GFA
61,018 S.F. / 20,000 S.F. GFA = 4 SPACES
PROVIDED = 6 SPACES
LOADING SPACE = 10' x 60'

Environmental Management
AUG - 7 2020
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 0 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nowell Fredericks

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

SITE LAYOUT PLAN

DATE: MAY 2020
SCALE: 1"=40'

DWG. NAME: 2456–C06–SITE–R2.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C6

SHEET: 7 OF: 24

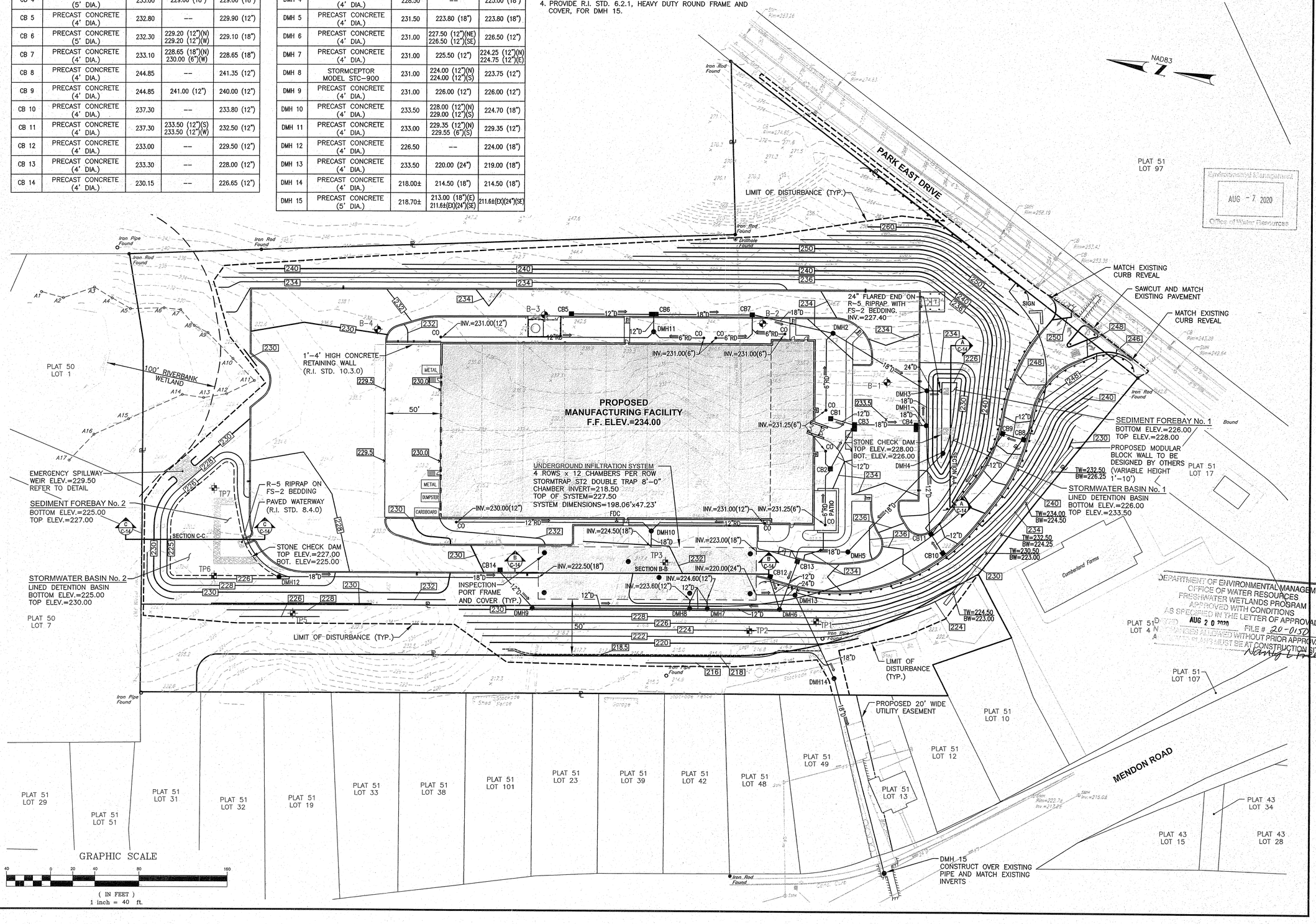
DRAINAGE STRUCTURE TABLE

NUMBER	STRUCTURE	RIM	INVERT (IN)	INVERT (OUT)
CB 1	PRECAST CONCRETE (2' SQ. DROP INLET)	233.25	--	230.25 (12")
CB 2	PRECAST CONCRETE (2' SQ. DROP INLET)	233.25	231.00 (6")(E) 231.00 (6")(W)	230.50 (12")
CB 3	PRECAST CONCRETE (5' DIA.)	233.00	230.00 (12")(NE) 230.00 (12")(NW)	229.50 (18")
CB 4	PRECAST CONCRETE (5' DIA.)	233.00	229.00 (18")	229.00 (18")
CB 5	PRECAST CONCRETE (4' DIA.)	232.80	--	229.90 (12")
CB 6	PRECAST CONCRETE (5' DIA.)	232.30	229.20 (12")(N) 229.20 (12")(W)	229.10 (18")
CB 7	PRECAST CONCRETE (4' DIA.)	233.10	228.65 (18")(N) 230.00 (6")(W)	228.65 (18")
CB 8	PRECAST CONCRETE (4' DIA.)	244.85	--	241.35 (12")
CB 9	PRECAST CONCRETE (4' DIA.)	244.85	241.00 (12")	240.00 (12")
CB 10	PRECAST CONCRETE (4' DIA.)	237.30	--	233.80 (12")
CB 11	PRECAST CONCRETE (4' DIA.)	237.30	233.50 (12")(S) 233.50 (12")(W)	232.50 (12")
CB 12	PRECAST CONCRETE (4' DIA.)	233.00	--	229.50 (12")
CB 13	PRECAST CONCRETE (4' DIA.)	233.30	--	228.00 (12")
CB 14	PRECAST CONCRETE (4' DIA.)	230.15	--	226.65 (12")

NUMBER	STRUCTURE	RIM	INVERT (IN)	INVERT (OUT)
DMH 1	PRECAST CONCRETE (4' DIA.)	233.10	228.90 (18")(N) 229.60 (12")(W)	228.80 (18")
DMH 2	PRECAST CONCRETE (4' DIA.)	234.10	228.25 (18")(N) 230.00 (6")(W)	228.25 (18")
DMH 3	PRECAST CONCRETE (5' DIA.)	233.10	227.70 (18")(N) 228.50 (18")(W)	227.50 (24")
DMH 4	PRECAST CONCRETE (4' DIA.)	228.50	--	225.00 (18")
DMH 5	PRECAST CONCRETE (4' DIA.)	231.50	223.80 (18")	223.80 (18")
DMH 6	PRECAST CONCRETE (4' DIA.)	231.00	227.50 (12")(NE) 226.50 (12")(SE)	226.50 (12")
DMH 7	PRECAST CONCRETE (4' DIA.)	231.00	225.50 (12")	224.25 (12")(N) 224.75 (12")(E)
DMH 8	STORMCEPTOR MODEL STC-900	231.00	224.00 (12")(N) 224.00 (12")(S)	223.75 (12")
DMH 9	PRECAST CONCRETE (4' DIA.)	231.00	226.00 (12")	226.00 (12")
DMH 10	PRECAST CONCRETE (4' DIA.)	233.50	228.00 (12")(N) 229.00 (12")(S)	224.70 (18")
DMH 11	PRECAST CONCRETE (4' DIA.)	233.00	229.35 (12")(N) 229.55 (6")(S)	229.35 (12")
DMH 12	PRECAST CONCRETE (4' DIA.)	226.50	--	224.00 (18")
DMH 13	PRECAST CONCRETE (4' DIA.)	233.50	220.00 (24")	219.00 (18")
DMH 14	PRECAST CONCRETE (4' DIA.)	218.00±	214.50 (18")	214.50 (18")
DMH 15	PRECAST CONCRETE (5' DIA.)	218.70±	213.00 (18")(E) 211.6±(EX)(24")(SE)	211.6±(EX)(24")(SE)

DRAINAGE STRUCTURE NOTES

1. CATCH BASIN 3, 4, AND 6 SHALL HAVE DOUBLE FRAME AND GRATES
2. DMH 4 AND DMH 12 ARE OUTLET CONTROL STRUCTURES WITH TRASH RACKS OVER ORIFICE INLETS. REFER TO SHEET C14 FOR DETAILS.
3. DMH 13 HAS AN INTERNAL WEIR WALL WITH ORIFICES. REFER TO SHEET C14 FOR DETAILS.
4. PROVIDE R.I. STD. 6.2.1, HEAVY DUTY ROUND FRAME AND COVER, FOR DMH 15.



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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

GRADING and DRAINAGE PLAN

DATE: MAY 2020
SCALE: 1=40'

DWG. NAME: 2456-C07-GRADE-R1.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C7

SHEET: 8 OF: 24

NAD83

PLAT 50
LOT 51

PLAT 50
LOT 4

PLAT 51
LOT 18

PLAT 51
LOT 97

Iron Rod Found

Iron Rod Found

Iron Pipe Found

Iron Rod Found

Iron Rod Found

Drillhole Found

NOTE

PRIOR TO ANY UTILITY INSTALLATION ON PARK EAST DRIVE, CONTRACTOR MUST CONFIRM VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES TO IDENTIFY POTENTIAL CONFILCTS (PRIOR TO ANY WORK)

CONNECT ELECTRIC AND TELECOM LINES TO EXISTING UTILITY POLE

PARK EAST DRIVE

12"x8" TAPPING SLEEVE, 8" GATE VALVE AND THRUST BLOCK

CONNECT TO EXISTING GAS SERVICE. COORDINATE WITH UTILIY COMPANY

Environmental Management
AUG - 7 2020
Office of Water Resources

UNDERGROUND ELECTRIC SERVICE

UTC

UE

SIGN

22.5° BEND AND THRUST BLOCK

FORESTED WETLAND

PLAT 50
LOT 1

100' RIVERBANK WETLAND

A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17

WILFRID STREET

PROPOSED MANUFACTURING FACILITY
F.F. ELEV.=234.00

METAL

CO

CB5 12"D CB6 12"D DMH11 12"RD 6"RD CO CO 6"RD CB7 18"D 6"RD CO 18"D DMH2

18"D

DMH3 18"D

24"D

DETENTION BASIN 1

CB1 12"D CB3 18"D CB4 DMH1

DMH4

CB2 12"D

CB9 12"D CB8

CB11 12"D

CB10

CB13 18"D DMH5

CB14 18"D DMH12

DMH9 12"D

DMH8 DMH7 12"D

CB12 12"D SMH1 24"D DMH13 DMH6 18"D

DMH14

DMH15

SMH3

METAL

DUMPSTER

CARDBOARD

DETENTION BASIN 2

FDC

12"RD 6"W DMH10 6"FS 2"DW 12"RD CO 6"W CO 6"S

GAS SERVICE AND METER BY GAS COMPANY

6" SEWER INV.=228.0

CHECK VALVE

6"RD PATIO CO

HYDRANT ASSEMBLY

6"x6" TEE, GATE VALVE AND THRUST BLOCK

6" FIRE SERVICE
2" DOMESTIC SERVICE

45° BENDS AND THRUST BLOCK

PLUG AND CAP
8" WATER MAIN
2" CORPORATION
8"x6" TEE, GATE VALVE AND THRUST BLOCK

UNDERGROUND INFILTRATION SYSTEM

22.5° BEND AND THRUST BLOCK

HYDRANT ASSEMBLY, GATE VALVE, 8"x6" TEE AND THRUST BLOCK (TYP.)

SMH1
RIM=233.75
INV.=225.50

SMH2
RIM=219.00
INV.=216.60

PROPOSED 20' WIDE UTILITY EASEMENT

s=0.4%

6", CL.52 DIP

SMH3
CONSTRUCT OVER EXISTING PIPE
RIM=218.7±
INV.=215.7(6")(PROPOSED)
INV.=211.2(8")(EXISTING)

Granite Bound Found

Cumberland Farms

MENDON ROAD

PLAT 50 LOT 7

PLAT 51 LOT 29

PLAT 51 LOT 51

PLAT 51 LOT 31

PLAT 51 LOT 32

PLAT 51 LOT 19

PLAT 51 LOT 33

PLAT 51 LOT 38

PLAT 51 LOT 101

PLAT 51 LOT 23

PLAT 51 LOT 39

PLAT 51 LOT 42

PLAT 51 LOT 48

PLAT 51 LOT 49

PLAT 51 LOT 10

PLAT 51 LOT 12

PLAT 51 LOT 13

PLAT 51 LOT 17

PLAT 43 LOT 34

PLAT 43 LOT 15

PLAT 43 LOT 28

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 20 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L Freeman

• Civil
• Transportation
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

UTILITY PLAN

DATE:	SCALE:
MAY 2020	1"=40'

DWG. NAME: 2456-C08-UTILITY-R2.dwg

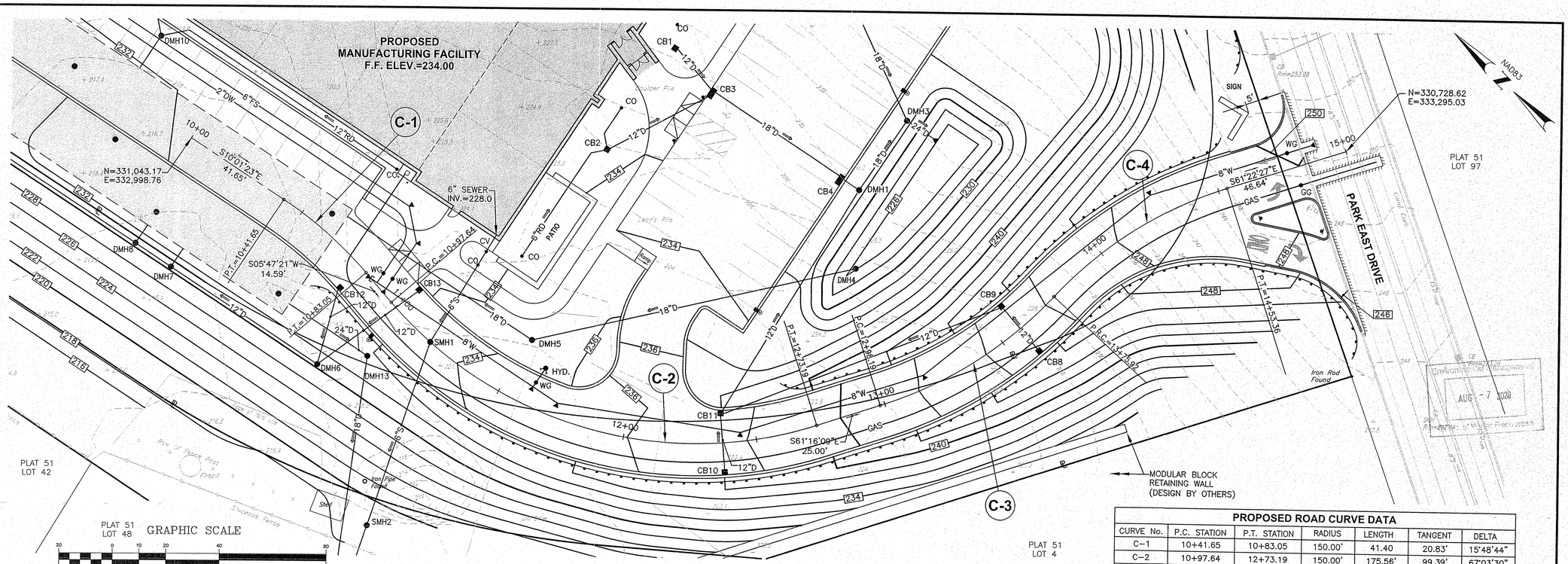
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C8

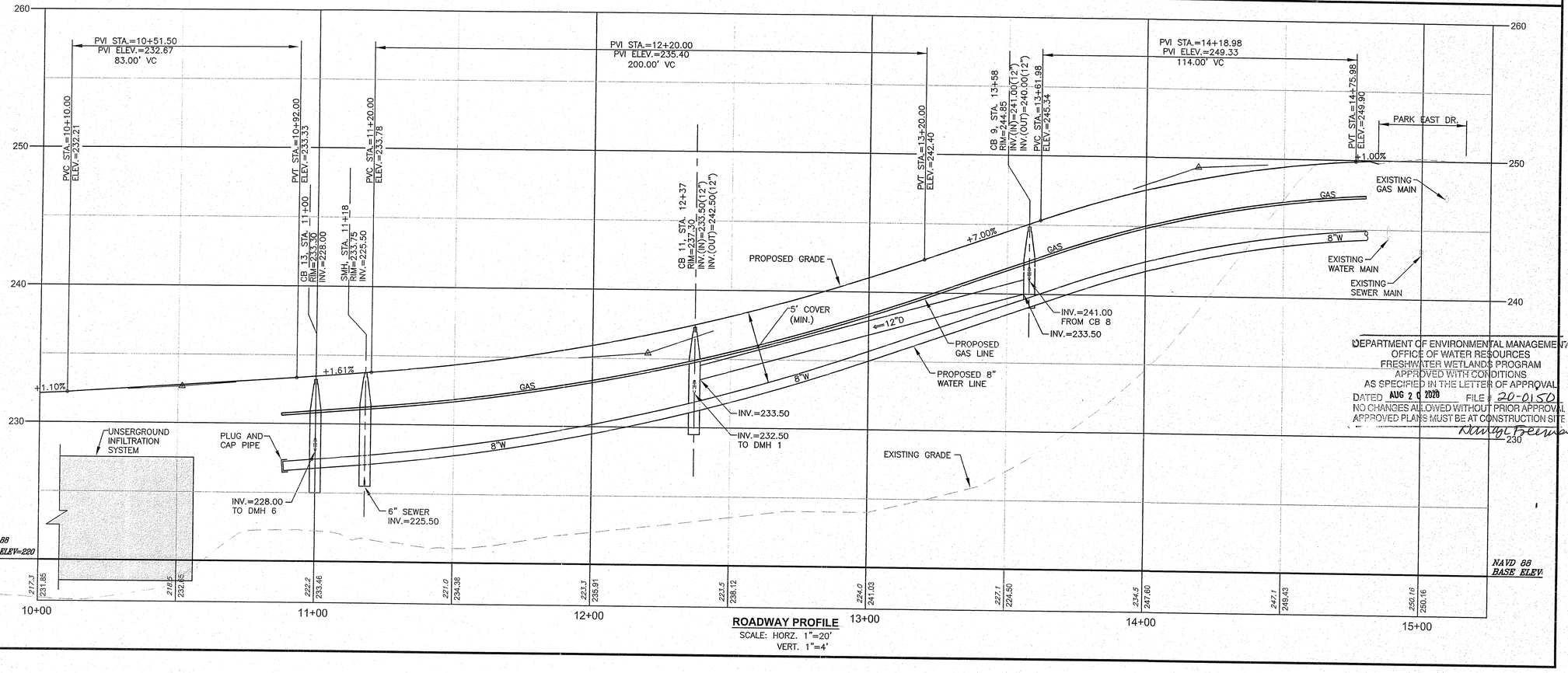
SHEET: 9 OF: 24



ROADWAY LAYOUT PLAN
SCALE:1"=20'

PROPOSED ROAD CURVE DATA

CURVE No.	P.C. STATION	P.T. STATION	RADIUS	LENGTH	TANGENT	DELTA
C-1	10+41.65	10+83.05	150.00'	41.40	20.83'	15°48'44"
C-2	10+97.64	12+73.19	150.00'	175.56'	99.39'	67°03'30"
C-3	12+98.19	13+75.92	150.00'	77.72'	39.75'	29°41'16"
C-4	13+75.92	14+53.36	150.00'	77.45'	36.61'	29°34'58"



ROADWAY PROFILE
SCALE: HORZ. 1"=20'
VERT. 1"=4'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
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Margit Beirne

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8-6-20

KEY PLAN

PROJECT TITLE:
PROPOSED MANUFACTURING FACILITY
RESH INC.
MAP F6, LOTS 51-1, 51-108 and 51-109
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MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
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PREPARED FOR:
The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:
ROADWAY PLAN and PROFILE

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456-C09-ROAD-R2.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER
C9
SHEET: 10 OF: 24

DUST CONTROL NOTES

ON AN AS–NEEDED BASIS OR AS DIRECTED BY THE CITY OF WOONSOCKET OR OWNER, THE CONTRACTOR SHALL UTILIZE ONE OF THE FOLLOWING METHODS (AS RECOMMENDED BY THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK") TO CONTROL DUST:

A. THE EXPOSED SOIL SURFACE SHOULD BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

B. CALCIUM CHLORIDE SHOULD BE EITHER LOOSE DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH A SPREADER AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE.

THE METHODS SHOULD BE REPEATED AS NEEDED, AND SPECIAL ATTENTION MUST BE GIVEN TO THE ACCESS DRIVES.

INSPECTION/MAINTENANCE NOTES

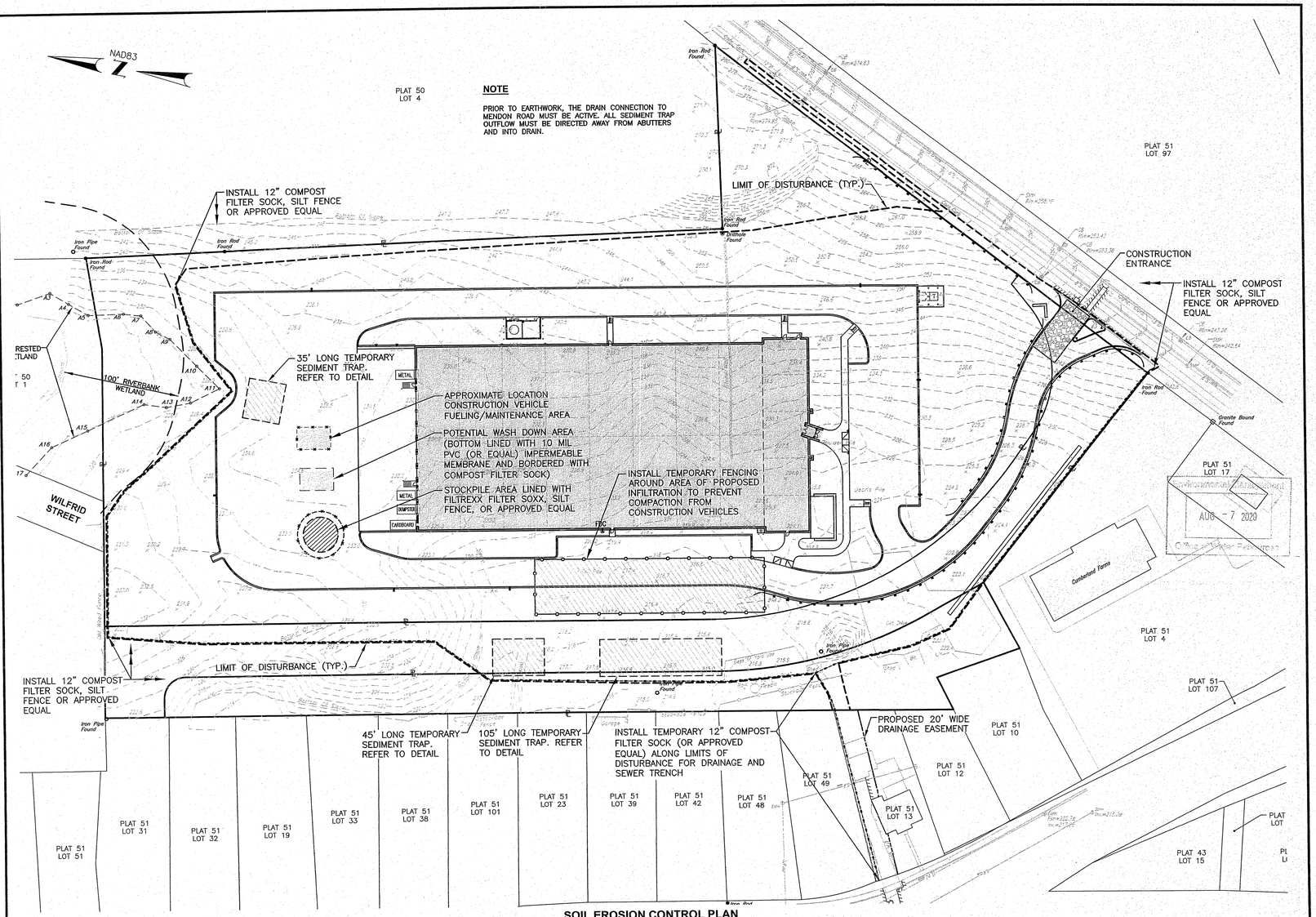
1. PRIOR TO COMMENCING CLEARING AND GRUBBING OPERATIONS, FILTERSOXX SHALL BE PLACED SO AS TO PREVENT SEDIMENT FROM ENTERING EXISTING ROADWAY DRAINAGE SYSTEM AND ABUTTING PROPERTIES.
2. EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING THE ROADWAY DRAINAGE SYSTEM.
3. ALL DISTURBED AREAS WHICH BECOME SUBJECT TO EROSIVE TENDENCIES WHETHER THEY BE NEWLY FILLED OR EXCAVATED SHALL RECEIVE SLOPE PROTECTION – SUCH AS RIP–RAP.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING PERIODS OF RAINFALL.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT / REPLACE DAILY DURING CONSTRUCTION, FOLLOWING RAINFALL AND WEEKLY DURING NON CONSTRUCTION PERIODS.
6. ADDITIONAL FILTERSOXX OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER.
7. THE "R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK" PREPARED BY THE RHODE ISLAND STATE CONSERVATION COMMITTEE, 2014, MUST BE UTILIZED BY THE CONTRACTOR AS A GUIDE.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DUST CONTROL AND FOR THE ENTIRE PROJECT DURATION, INCLUDING TEMPORARY SHUT–DOWN PERIODS, MUST MONITOR AND REPAIR, AS NEEDED, ALL SLOPES TO ENSURE A STABLE PRODUCT.

GENERAL PROJECT WIDE NOTES

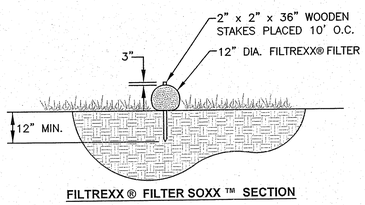
1. FILTERSOXX SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, MAINTAINED ON A REGULAR BASIS, AND SHALL BE PLACED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTY.
2. THE CONTRACTOR MUST REPLACE AND/OR RESEED ANY VEGETATION THAT DOES NOT DEVELOP/SURVIVE WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO CITY OF WOONSOCKET OR THE OWNER.
3. ALL FILTERSOXX OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
4. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE; THE AREA BEYOND THE DRIPLINE SHALL BE FENCED OR ROPED OFF TO PROTECT TREES FROM CONSTRUCTION EQUIPMENT.
5. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR OTHERWISE RESTORED AT THE CONTRACTOR'S EXPENSE.
6. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED FILTERSOXX.
7. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW, FIBER MATTING OR APPROVED EQUAL.
8. SILT FENCE OR STAKED HAYBALES MAY BE USED IN LIEU OF THE FILTREXX FILTER SOXX.
9. CONCRETE WASHOUT SHALL OCCUR WITHIN THE LIMITS OF THE PERIMETER CONTROLS, ON GRAVEL SURFACES, AND ON 10 MIL PLASTIC LINING SURROUNDED BY FILTER SOXX OR APPROVED EQUAL.
10. IF REQUIRED, VEHICLE FUELING AND MAINTENANCE SHALL OCCUR WITHIN THE LIMITS OF THE PERIMETER CONTROLS AND SURROUNDED BY FILTER SOXX OR APPROVED EQUAL.

EROSION CONTROL AND SOIL STABILIZATION PROGRAM

1. TEMPORARY TREATMENTS SHALL CONSIST OF A HAY, STRAW, OR FIBER MULCH PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURLAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE OWNER.
2. HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000–4,000 LBS/ACRE.
3. STOCKPILES SHALL HAVE NO SLOPE STEEPER THAN 2:1 AND SHALL BE SURROUNDED BY STRAW WATTLE.
4. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
6. ADDITIONAL HAY BALES OR SANDBAGS SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER, OWNER OR CITY OF WOONSOCKET.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL AT NO ADDITIONAL COST TO THE OWNER.
8. ALL CATCH BASINS ADJACENT TO THE CONSTRUCTION AREA SHALL BE PROTECTED BY SILT SACKS.
9. ALL PROPOSED CATCH BASINS SHALL BE PROTECTED BY STAKED HAY BALES, STRAW WATTLE OR SILT SACKS.
10. THE STRAW WATTLE MAY BE INSTALLED ON THE EXISTING PAVEMENT /IMPERVIOUS AREAS WITH OUT STAKES. CONTRACTOR SHALL INSPECT DAILY, IF SOIL EROSION OR SEDIMENT IS OBSERVED IN THESE AREAS, THE CONTRACTOR SHALL RELOCATE OR INSTALL ADDITIONAL STRAW WATTLE IN LOCATIONS THAT CAN BE STAKED.
11. SILT FENCE OR STAKED HAYBALES MAY BE USED IN LIEU OF STRAW WATTLE.
12. SEDIMENT TRACKED ON PAVED SURFACES OUTSIDE THE WORK AREA OR ONTO THE ROADWAY WILL REQUIRE SWEEPING. DAILY SWEEPING MAY BE REQUIRED.



SOIL EROSION CONTROL PLAN
SCALE: 1"=50'



FILTREXX ® FILTER SOXX ™ SECTION

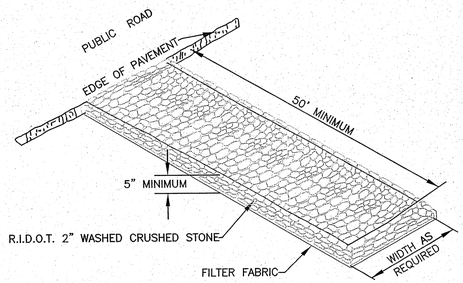
NOTES

1 CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE FILTREXX PRODUCTS AND COORDINATE INSTALLATION SCHEDULES AND METHODS WITH THE ENGINEER PRIOR TO PLACEMENT.

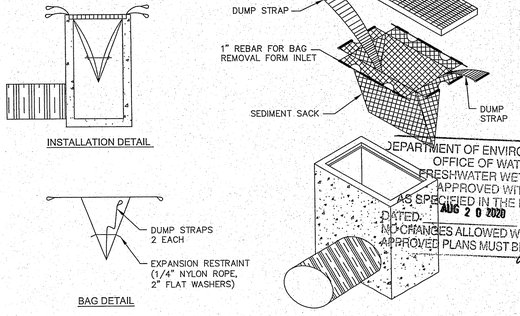
2. ALL MATERIAL SHALL MEET FILTREXX SPECIFICATIONS.

3. COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.

FILTREXX ® FILTER SOXX ™ DETAIL
NOT TO SCALE



TEMPORARY CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



NOTES

1. INSTALL SILT SACK AT CATCH BASINS IN VICINITY OF CONSTRUCTION.
2. CONTRACTOR SHALL SUBMIT SILT SACK PRODUCT TO ENGINEER FOR APPROVAL.

TYPICAL SILT SACK DETAIL
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: AUG 2 0 2020
FILE # 20-0152
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

SOIL EROSION and SEDIMENT CONTROL PLAN

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456–C10–SOIL–R1.dwg

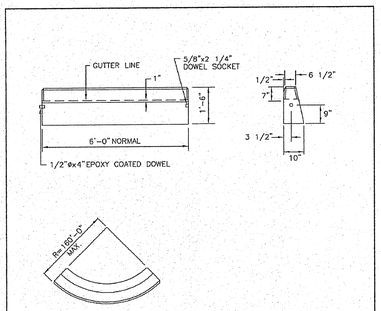
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C10

SHEET: 11 OF: 24



CIRCULAR CURB

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0".
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. CIRCULAR CURB IS REQUIRED ON CURVES WITH RADII OF 160'-0" OR LESS. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
5. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

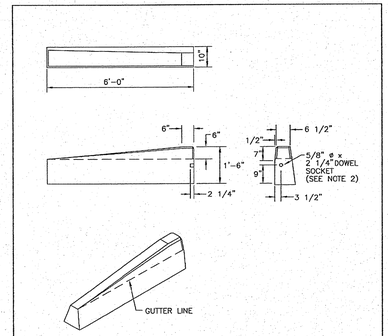
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

PRECAST CONCRETE CURB

R.I. STANDARD 7.1.0

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. DRAWING SHOWS TRANSITION CURB FOR ONE DIRECTION. FOR OTHER DIRECTION USE OPPOSITE HAND AND INCLUDE A 1/2" ø x 4" EPOXY COATED DOWEL.
3. EXPOSED SURFACES TO HAVE A SPONGE FLOAT FINISH.
4. EXPOSED EDGES TO HAVE A 3/4" CHAMFER.

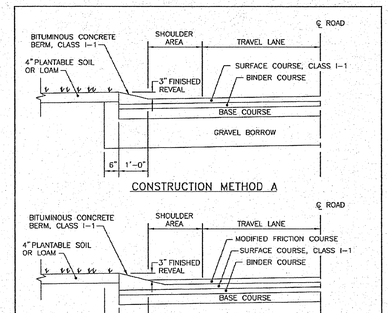
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

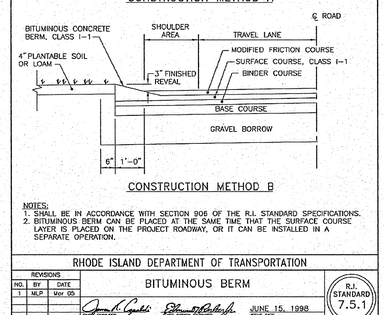
6'-0" PRECAST CONCRETE TRANSITION CURB

R.I. STANDARD 7.1.2

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE



CONSTRUCTION METHOD A



CONSTRUCTION METHOD B

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. BITUMINOUS BERM CAN BE PLACED AT THE SAME TIME THAT THE SURFACE COURSE LAYER IS PLACED ON THE PROJECT ROADWAY, OR IT CAN BE INSTALLED IN A SEPARATE OPERATION.

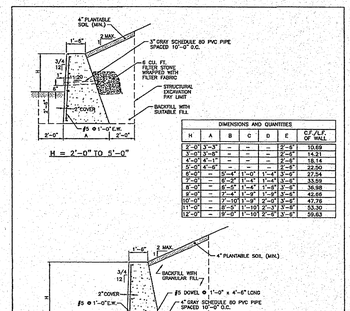
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Mar 05

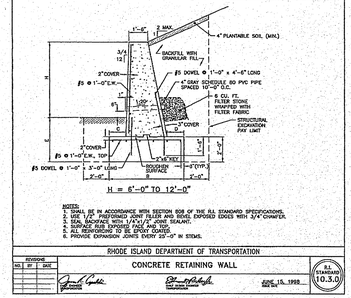
BITUMINOUS BERM

R.I. STANDARD 7.5.1

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE



DIMENSIONS AND QUANTITIES						
H	A	B	C	D	E	C.F./L.F. OF WALL
2'-0"	3'-3"	–	–	–	2'-3"	10.69
3'-0"	3'-9"	–	–	–	2'-9"	14.31
4'-0"	4'-1"	–	–	–	3'-1"	18.14
5'-0"	4'-6"	–	–	–	3'-6"	22.50
6'-0"	–	3'-4"	1'-0"	1'-4"	3'-10"	27.54
7'-0"	–	3'-7"	1'-0"	1'-4"	4'-1"	33.59
8'-0"	–	3'-11"	1'-0"	1'-4"	4'-5"	36.98
9'-0"	–	4'-3"	1'-0"	1'-4"	4'-9"	42.66
10'-0"	–	4'-7"	1'-0"	1'-4"	5'-1"	47.76
11'-0"	–	4'-11"	1'-0"	1'-4"	5'-5"	53.30
12'-0"	–	5'-2"	1'-10"	2'-0"	5'-8"	59.63



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. USE 1/2" PREFORMED JOINT FILLER AND BOND EXPOSED EDGES WITH 3/4" CHAMFER.
3. SEAL BACKFACE WITH 1/4"x1/2" BEAD SEALANT.
4. SURFACE RUB EXPOSED FACES OF WALL.
5. USE CLASS A CONCRETE FOR CAST-IN-PLACE WALLS.
6. PROVIDE EXPANSION JOINTS EVERY 20'-0" IN STEMS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

CONCRETE RETAINING WALL

R.I. STANDARD 10.3.0

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

NOTES
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. FOR CURB SETTING DETAIL REFERENCE STD. 7.6.0.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	3/1/05
2	MLP	06/01/10

CEMENT CONCRETE SIDEWALK

R.I. STANDARD 43.1.0

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

ROADWAY PROFILE GRADE	i (ft.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.0
0.05	13.0

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATIONS.
2. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP SHALL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
3. WHERE A CURB RAMP IS PROVIDED, THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
4. DRAINAGE FACILITIES ARE TO BE LOCATED UP-GRADE OF ALL WHEELCHAIR RAMPS.
5. LOCATE UTILITY FACILITIES OUTSIDE OF WHEELCHAIR RAMP AREA.
6. WHERE SIDEWALK WIDTH EXCEEDS THE SPECIFIED 4'-0" MIN. WIDTH THE RAMP AREA.
7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'-0" SHALL BE MAINTAINED.
8. THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT BE STEEPER THAN 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
9. THE MAXIMUM RISE FOR ANY RUN SHALL BE 6'-0". THE MINIMUM LENGTH OF RAMP SHALL BE EIGHTEEN FEET (18'-0").
10. IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
11. THE ENTRANCE OF THE WHEELCHAIR RAMP SHALL BE FLUSH WITH THE ROADWAY.
12. THE WHEELCHAIR RAMP SHALL BE PLACED SO THAT IT IS PERPENDICULAR TO THE TRAVEL WAY WHEN POSSIBLE.
13. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'-0" (GREATER LENGTHS PREFERRED).
14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 842 OF THE RI STANDARD SPECIFICATIONS.
16. 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID-BLOCK) LOCATIONS.

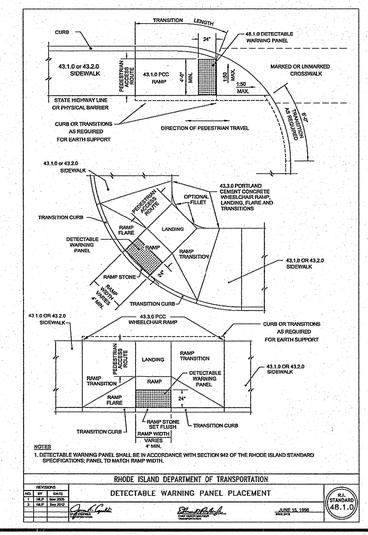
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Dec 2005
2	MLP	Dec 2005
3	MLP	Dec 2005

WHEELCHAIR RAMP

R.I. STANDARD 43.3.0

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE



NOTES
1. DETECTABLE WARNING PANEL SHALL BE IN ACCORDANCE WITH SECTION 842 OF THE RHODE ISLAND STANDARD SPECIFICATIONS; PANEL TO MATCH RAMP WIDTH.

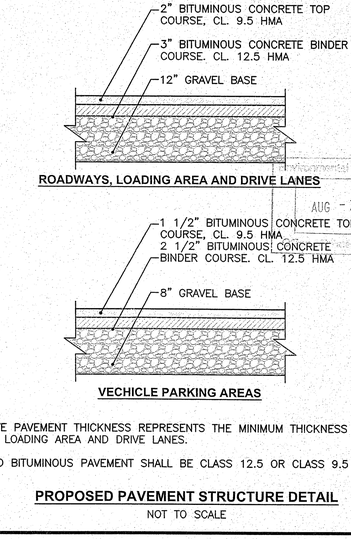
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Dec 2005
2	MLP	Jan 2006

DETECTABLE WARNING PANEL PLACEMENT

R.I. STANDARD 48.1.0

CHIEF ENGINEER, OPERATIONS — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE



ROADWAYS, LOADING AREA AND DRIVE LANES

VECHICLE PARKING AREAS

NOTES

1. THE ABOVE PAVEMENT THICKNESS REPRESENTS THE MINIMUM THICKNESS FOR ROADWAY, LOADING AREA AND DRIVE LANES.
2. PROPOSED BITUMINOUS PAVEMENT SHALL BE CLASS 12.5 OR CLASS 9.5 HMA

PROPOSED PAVEMENT STRUCTURE DETAIL

NOT TO SCALE

TYPICAL CONCRETE WALK WITH CAST-IN-PLACE CURB

NOT TO SCALE

NOTE

PROPOSED BITUMINOUS PAVEMENT SHALL BE CLASS 12.5 OR CLASS 9.5 HMA

PROPOSED PAVEMENT MATCH AT EXISTING PAVEMENT

NOT TO SCALE

TYPICAL BOLLARD DETAIL

NOT TO SCALE

PLAN VIEW
NOT TO SCALE

TYPICAL POLE BASE DETAIL

NOT TO SCALE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 1

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456-C11-DETAIL1-R2.dwg

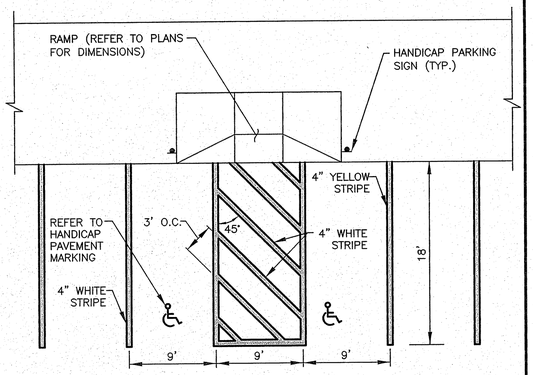
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C11

SHEET: 12 OF: 24

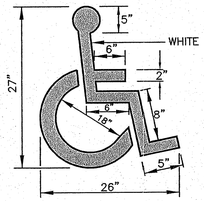


NOTE

ALL HANDICAP PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

ADA PARKING STALLS

NOT TO SCALE

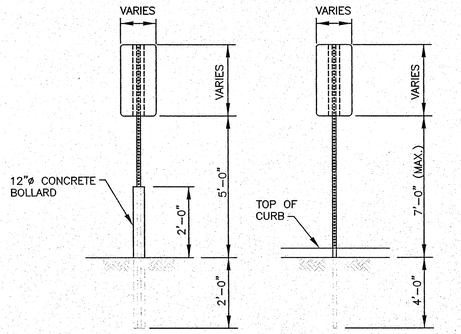


NOTE

ALL ADA PARKING SPACES SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE AND ADA REQUIREMENTS.

ADA PAVEMENT MARKING

NOT TO SCALE



(MOUNTING DETAIL FOR SIGNS WITH NO SIDEWALK)

(MOUNTING DETAIL FOR SIGNS BEHIND SIDEWALK)

SIGN MOUNTING DETAIL

NOT TO SCALE



NOTE:

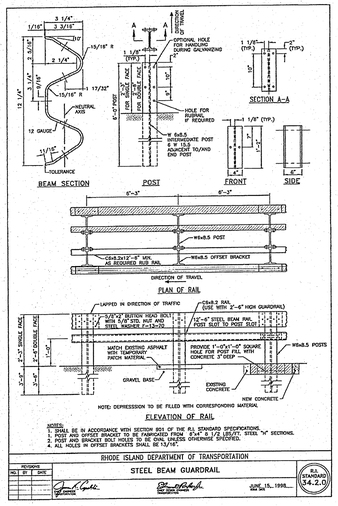
1. ALL LETTERS ARE 1" SERIES "C" PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.),
2. SIGN SHALL BE REFLECTORIZED (ENGINEERING GRADE) BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND AND BORDER.
3. CONTRACTOR SHALL VERIFY THE POSTED "FINE" AMOUNT WITH THE BUILDING OFFICIAL PRIOR TO INSTALLATION.
4. ONE (1) SIGN REQUIRED FOR EACH PARKING SPACE.
5. INSTALLED HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE M.U.T.C.D.
6. SIGN MAY BE MOUNTED ON BUILDING/WALL, AT PROPER HEIGHT, ALIGNED WITHIN 12" OF CENTER OF THE PARKING SPACE.
7. ALL HANDICAP PARKING AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE LOCAL AND STATE BUILDING CODE.

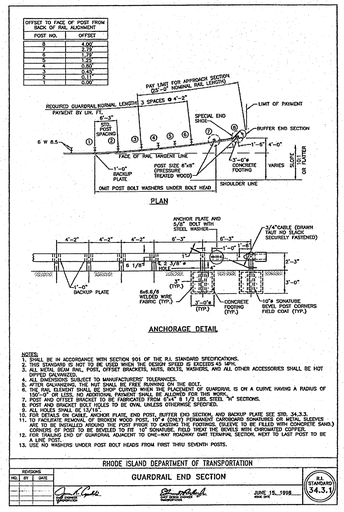
SIGN NOTES:

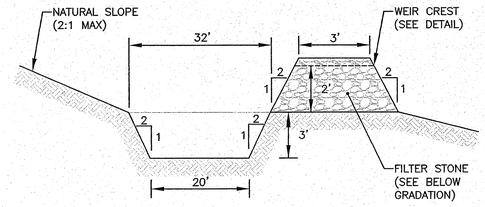
1. SIGN POSTS SHALL BE GALVINIZED STEEL U-CHANNEL (3 1/2" WIDE-MIN.) AND INSTALLED IN CONFORMANCE WITH MUTCD AND LOCAL STANDARDS AND SPECIFICATIONS.
2. POSTS SHALL BE DRIVEN TO A DEPTH OF 4 FEET (MIN.)
3. THE EDGE OF THE SIGN SHALL BE 18" FROM THE FACE OF THE CURB.
4. WITHIN SIDEWALK LOCATIONS THE SIGN POST WILL BE INSTALLED WITHIN A 8"x8"x6" SQUARE BOX FORM.

PROPOSED HANDICAPPED PARKING SIGNS

NOT TO SCALE







TEMPORARY SEDIMENT TRAP DETAIL

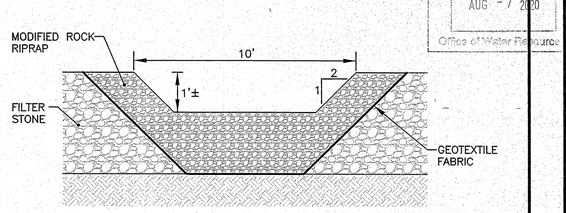
NOT TO SCALE

NOTE

FILTER STONE SHALL MEET THE REQUIREMENTS OF R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.09 TABLE 1, COLUMN V FILTER STONE.

US STANDARD SIEVE SIZE (INCHES)	FILTER STONE
1	100
3/4	70-85
1/2	10-40
3/8	0-20
#4	0-5

GRADATION OF FILTER STONE MATERIAL

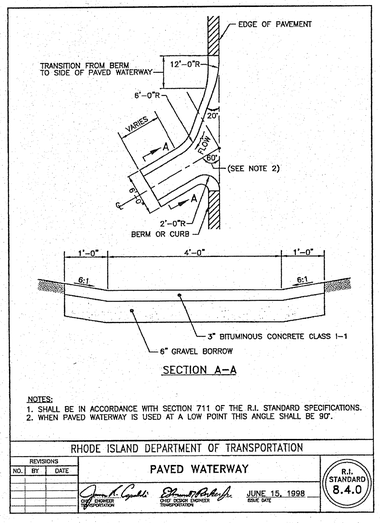


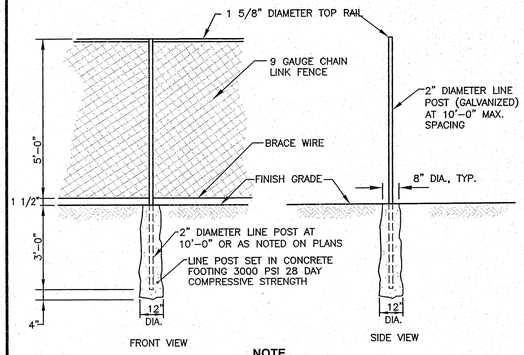
TEMPORARY SEDIMENT TRAP OUTLET DETAIL

NOT TO SCALE

NOTES

1. THE TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO UNDISTURBED, STABILIZED GROUND.
2. CONTRACTOR SHALL INSTALL 1 OUTLET PER 100' LENGTH OF TEMPORARY SEDIMENT TRAP (1 OUTLET MIN. PER TEMPORARY SEDIMENT TRAP).
3. THE MODIFIED ROCK RIPRAP SHALL MEET THE REQUIREMENTS OF THE R.I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.0.3.2.
4. CONTRACTOR MUST REFER TO THE INSTALLATION, INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS PROVIDED IN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, AS AMENDED.



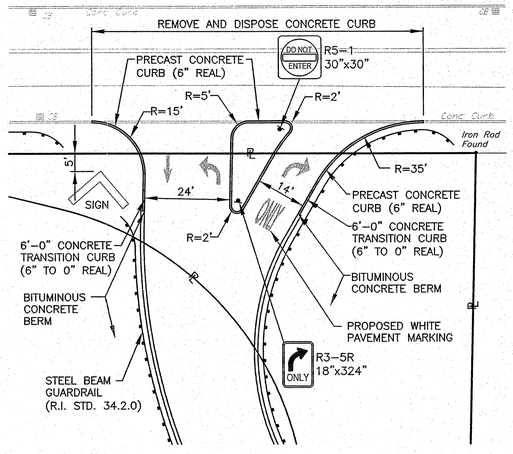


NOTE

FENCE WILL BE BLACK VINYL COATED.

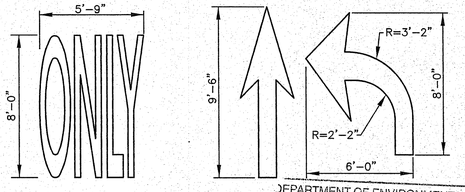
CHAIN LINK FENCE DETAIL

NOT TO SCALE



ENTRANCE DETAIL

NOT TO SCALE



NOTES

1. THE LONGITUDINAL SPACE BETWEEN LINES OR SYMBOL MESSAGES, INCLUDING ARROWS, SHOULD BE AT LEAST FOUR TIMES THE HEIGHT OF THE CHARACTER FOR LOW SPEED ROADS BUT NOT MORE THAN TEN TIMES THE HEIGHT OF THE CHARACTER UNDER ANY CONDITIONS.
2. THE SPACING OF THE PAVEMENT MARKINGS WILL BE AS SHOWN ON THE PLAN AND AS PER THE MUTCD.
3. SYMBOLS AND WORDS SHALL MEET THE REQUIREMENTS OF THE FHWA "STANDARD ALPHABET AND SYMBOLS FOR HIGHWAY PAVEMENT MARKINGS.

PAVEMENT MARKING DETAIL

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 20 2020
SYMBOL FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
THESE PLANS MUST BE AT CONSTRUCTION SITE

Wendy L Waldman

Environmental Program
AUG - 7 2020
Office of Water Resources

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 2

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456-C12-DETAIL2-R2.dwg

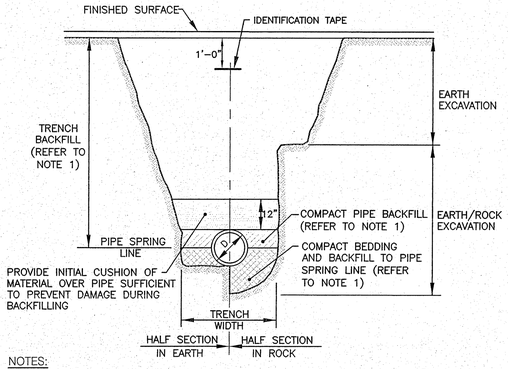
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C12

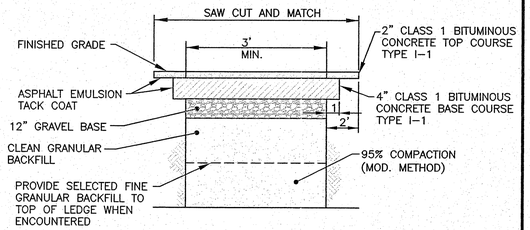
SHEET: 13 OF: 24



NOTES:

1. PIPE BEDDING AND BACKFILL TO SPRING LINE SHALL CONSIST OF CRUSHED STONE-3/4" MINUS. PIPE BACKFILL SHALL CONSIST OF CRUSHED STONE (WRAPPED IN FILTER FABRIC) OR GRAVEL (3" MINUS, WITH SIEVE ANALYSIS APPROVED BY ENGINEER), OR OTHER APPROVED MATERIAL. TRENCH BACKFILL SHALL CONSIST OF SUITABLE EXCAVATED MATERIAL OR OTHER APPROVED MATERIAL. ALL BEDDING/BACKFILL TO BE COMPACTED TO 95% DRY DENSITY, MODIFIED PROCTOR METHOD.
2. ALL TRENCH EXCAVATION AND ANY SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND OSHA REGULATIONS.
3. MINIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 12". MAXIMUM TRENCH WIDTH SHALL BE OUTSIDE DIAMETER OF PIPE AT BELL PLUS 24".

TRENCH DETAIL
NOT TO SCALE

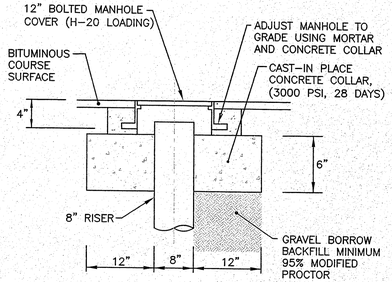


NOTE

THE PAVEMENT DEPTH IN TRENCH AREAS FOR PROPOSED UTILITY PIPE AND CONNECTIONS WITHIN ROADWAY SHALL BE REPLACED IN-KIND. BASE COURSE SHALL BE PLACES IN 2 1/2" MINIMUM LIFT AND 4" MAXIMUM LIFT. THE CONTRACTOR SHALL COORDINATE ALL PAVING OPERATIONS WITHIN THE ROADWAY WITH THE CITY PRIOR TO PLACEMENT.

TYPICAL TRENCH PATCH DETAIL
NOT TO SCALE

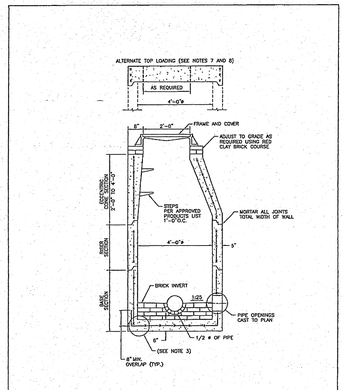
TRENCH WIDTH Ws OR Wu		
DIAMETER OF PIPE D	Wu UNSHEETED	Ws SHEETED
12" AND SMALLER	3'-4"	4'-6"
15"	3'-6"	4'-8"
18"	3'-10"	5'-0"
21"	4'-2"	5'-4"
24"	4'-6"	5'-8"
27"	4'-10"	6'-0"
30"	5'-6"	6'-8"
36"	6'-2"	7'-4"
42"	6'-10"	8'-0"
48"	7'-6"	8'-8"



NOTE

CONCRETE COLLAR IS NOT REQUIRED IN LANDSCAPE AREAS.

ROOF DRAIN CLEAN-OUT DETAIL IN PAVEMENT
NOT TO SCALE



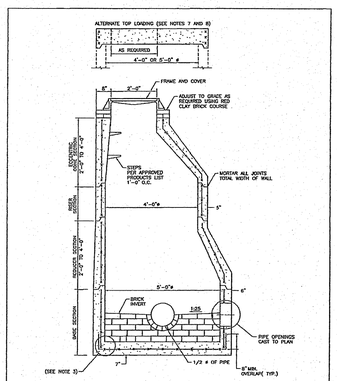
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN./ LIN. FT. MINIMUM.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. STEPS SHALL CONFORM TO STD. 8.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. THE CENTERLINE OF THE OPENING MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 OR HS-25 LOADINGS (SEE STD. 4.7.2).
8. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
9. REFER TO STD. 8.3.0 FOR MAXIMUM PIPE SIZES.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST 4'-0" ROUND MANHOLE

R.I. STANDARD 4.2.0

JUNE 15, 1998



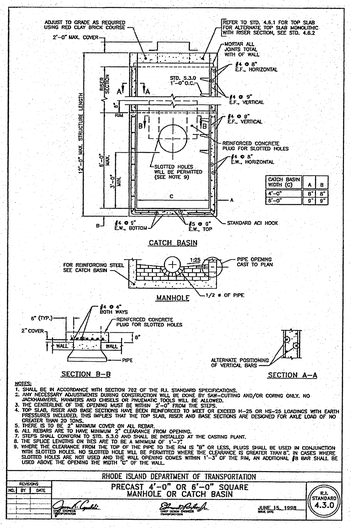
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.15 SQ. IN./LIN. FT. MINIMUM.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. ONE FOOT MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. STEPS SHALL CONFORM TO STD. 8.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
7. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 OR HS-25 LOADINGS (SEE STD. 4.7.2).
8. REFER TO STD. 8.3.0 FOR MAXIMUM PIPE SIZES.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST 5'-0" ROUND MANHOLE

R.I. STANDARD 4.2.1

JUNE 15, 1998



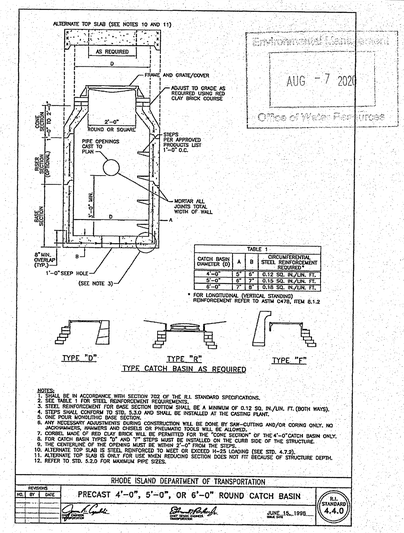
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
3. TOP SLAB, RISER AND BASE SECTIONS ARE DESIGNED FOR AXLE LOAD OF 16 KIPS. WHERE THE DEPTH EXCEEDS H-25 OR HS-25 LOADINGS WITH EARTH PRESSURES INCLUDED, THIS IMPLIES THAT THE TOP SLAB, RISER AND BASE SECTIONS ARE DESIGNED FOR AXLE LOAD OF NO GREATER THAN 32 KIPS.
4. THERE IS TO BE 30 MINIMUM COVER ON #3 REBAR.
5. STEPS SHALL BE 12" WIDE AND SHALL BE INSTALLED AT THE CASTING PLANT.
6. STEPS SHALL CONFORM TO STD. 8.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
7. THE SPLICE LENGTHS OR DOS ARE TO BE A MINIMUM OF 1'-7".
8. WHERE THE CLEARANCE IS GREATER THAN 6" BUT LESS THAN OR EQUAL TO 9" OR LESS, PLUGS SHALL BE USED IN CONJUNCTION WITH SLOTTED HOLES. NO SLOTTED HOLE WILL BE PERMITTED WHERE THE CLEARANCE IS GREATER THAN 9". IN CASES WHERE SLOTTED HOLES ARE NOT USED AND THE WALL OPENING COMES WITHIN 1'-3" OF THE RIM, AN ADDITIONAL #4 BAR SHALL BE USED ABOVE THE OPENING THE WIDTH "C" OF THE WALL.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN

R.I. STANDARD 4.3.0

JUNE 15, 1998



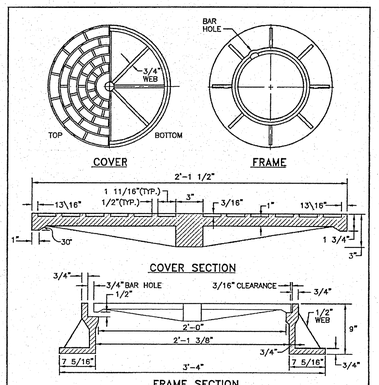
NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. SEE TABLE 1 FOR STEEL REINFORCEMENT REQUIREMENTS.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
4. STEPS SHALL CONFORM TO STD. 8.3.0 AND SHALL BE INSTALLED AT THE CASTING PLANT.
5. THE CENTERLINE OF THE OPENING MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
6. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
7. FOR USE WITH 4" OF RED CLAY BRICK WILL BE PERMITTED FOR THE "CORE DESIGN" OF THE 4'-0" CATCH BASIN ONLY.
8. FOR USE WITH 4" OF RED CLAY BRICK AND 1" STEPS MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
9. THE CENTERLINE OF THE OPENING MUST BE INSTALLED ON THE CURB SIDE OF THE STRUCTURE.
10. ALTERNATE TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE STD. 4.7.2).
11. ALTERNATE TOP SLAB IS ONLY FOR USE WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
12. REFER TO STD. 8.3.0 FOR MAXIMUM PIPE SIZES.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN

R.I. STANDARD 4.4.0

JUNE 15, 1998



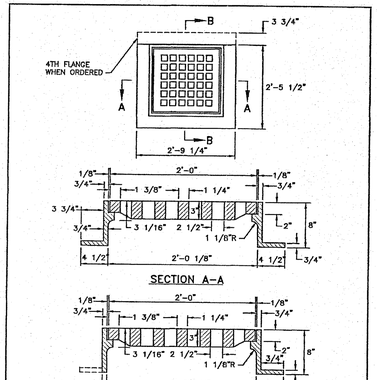
NOTES:
1. FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

HEAVY-DUTY ROUND FRAME AND COVER

R.I. STANDARD 6.2.1

JUNE 15, 1998



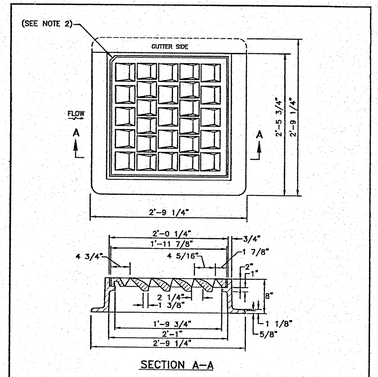
NOTE:
FRAME AND GRATE SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

SQUARE FRAME AND GRATE

R.I. STANDARD 6.3.0

JUNE 15, 1998



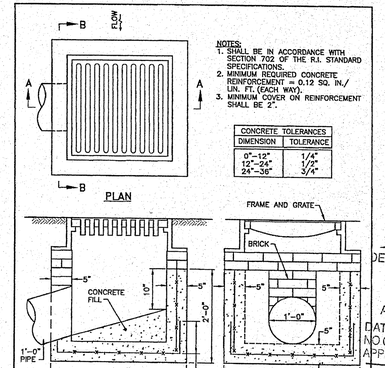
NOTES:
1. FRAME AND COVER SHALL CONFORM TO SECTION M.04 OF THE R.I. STANDARD SPECIFICATIONS.
2. THIS CORNER LEFT FOR "LEFT" GRATE, DIAGONALLY OPPOSITE CORNER FOR "RIGHT" GRATE TO FIT IN KEYED FRAME.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)

R.I. STANDARD 6.3.4

JUNE 15, 1998



NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I. STANDARD SPECIFICATIONS.
2. MINIMUM REQUIRED CONCRETE REINFORCEMENT = 0.12 SQ. IN./ LIN. FT. (EACH WAY).
3. MINIMUM COVER ON REINFORCEMENT SHALL BE 2".

CONCRETE TOLERANCES	
DIMENSION	TOLERANCE
0"-12"	1/4"
12"-24"	1/2"
24"-36"	3/4"

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

PRECAST CONCRETE DROP INLET

R.I. STANDARD 4.5.0

JUNE 15, 1998

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
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FILE # 20-0150
Nancy Friedman

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 3

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456-C13-DETAIL3-R2.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C13

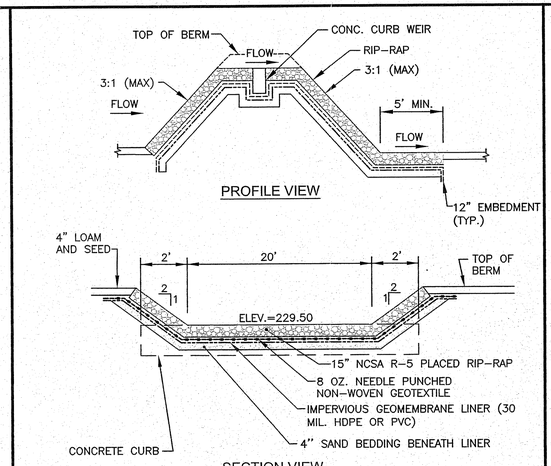
SHEET: 14 OF: 24

DRAINAGE NOTES

1. CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
2. CONTRACTOR IS RESPONSIBLE TO PROVIDE SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS FOR REVIEW AND APPROVAL BY THE ENGINEER, PRIOR TO ORDERING. CONCRETE MANUFACTURER SHALL REVIEW RIM TO TOP OF PIPE ELEVATIONS AND PROVIDE SPECIFIC DETAILS.
3. ALL STRUCTURES SHALL BE DESIGNED FOR H–20 LOADING.
4. ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES).
5. UNLESS OTHERWISE NOTED, ALL SOLID DRAINAGE PIPE SHALL BE ADS N–12 HDPE OR APPROVED EQUAL. PIPE BEDDING SHALL BE IN CRUSHED STONE OR GRAVEL BORROW COMPACTED TO 95% DRY DENSITY (MODIFIED PROCTOR METHOD). ADS PIPE SHALL BE INSTALLED ACCORDING TO MANUFACTURERS' REQUIREMENTS. PIPES SHALL BE INSTALLED WITH CLAY TRENCH DAMS EVERY 50' (MINIMUM 1 PER PIPE).
6. GRADES WITHIN HANDICAP ACCESSIBLE PARKING SPACES AND AISLES SHALL NOT BE LESS THAN 1% OR GREATER THAN 2%.
7. ALL ROOF DRAINS SHALL BE INSTALLED AT A 1.0% MINIMUM SLOPE.
8. CONTRACTOR MAY NEED TO RELOCATE PIPE TO AVOID CONFLICTS WITH EXISTING UTILITIES. COORDINATE RELOCATION WITH ENGINEER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR DAMAGE TO EXISTING UTILITIES. CONTRACTOR IS RESPONSIBLE TO INCLUDE ALL WORK NECESSARY TO INSTALL THIS PIPE, INCLUDING TRANSPLANTING OR PLANTING NEW TREES IF NECESSARY.

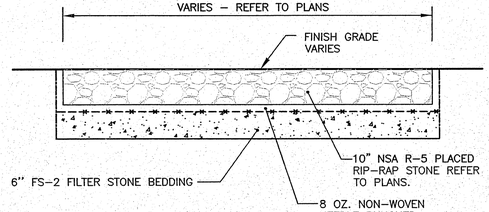
INFILTRATION SYSTEM CONSTRUCTION NOTE

1. WITHIN THE INFILTRATION SYSTEM, THE CONTRACTOR SHALL REMOVE ALL TOPSOIL AND SUBSOIL AREAS (A AND B HORIZONS) AND ANY EXISTING SOILS THAT YIELD A PERMEABILITY RATE <1.02 INCHES/HOUR. CONTRACTOR SHALL COORDINATE A BOTTOM BED INSPECTION WITH OWNER AND ENGINEER. IF NECESSARY THE AREA SHALL BE PREPARED WITH SAND FILL SOIL MEETING THE MEDIA REQUIREMENTS OF SAND FILTERS, AS DESCRIBED IN THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, LATEST EDITION. THE DEPTH OF EXISTING SOIL REMOVAL SHALL BE VERIFIED BY THE ENGINEER. PLACEMENT OF THE SAND FILL (ASTM C–33 SAND), SHALL BE USED TO BRING THE BOTTOM OF BASIN TO THE DESIGN ELEVATIONS.
2. INFILTRATION SYSTEM CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, LATEST EDITION. AFTER CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE FINAL INSPECTIONS WITH THE OWNER.
3. THE CONTRACTOR IS REQUIRED TO SUBMIT A LIST OF MATERIALS, GRADATIONS AND THE NAME AND ADDRESS OF THE SUPPLIERS TO THE ENGINEER FOR APPROVAL PRIOR TO BRINGING MATERIAL ON SITE. MATERIAL CERTIFICATIONS SHALL ALSO BE REQUIRED FOR REVIEW AND APPROVAL.
4. THE CONTRACTOR IS RESPONSIBLE TO BECOME FAMILIAR WITH THE ABOVE REFERENCED MANUAL. THE MANUAL CAN BE FOUND AT: http://www.dem.ri.gov/pubs/regs/regs/water/swmanual15.pdf
5. GREAT CARE MUST BE TAKEN TO PREVENT THE INFILTRATION AREA FROM COMPACTION; BY MARKING OFF THE INFILTRATION UNDERGROUND SYSTEM LOCATION BEFORE THE START OF CONSTRUCTION, AND BY CONNECTING UPSTREAM DRAINAGE AREAS ONLY AFTER CONSTRUCTION IS COMPLETE AND THE CONTRIBUTING AREA IS STABILIZED.
6. IF LARGE ROCKS OR BOULDERS ARE FOUND WITHIN 36" BELOW THE INFILTRATION SYSTEMS, OR WITHIN A 10' PERIMETER AROUND SYSTEM, THE CONTRACTOR SHALL REMOVE THE ROCKS/BOULDERS AND REPLACE WILL GRAVEL BORROW. CONTRACTOR SHALL COORDINATE WITH ENGINEER.
6. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS FOR THE PIPES TO BE USED IN THE UNDERGROUND INFILTRATION SYSTEMS TO THE ENGINEER PRIOR TO CONSTRUCTION. THE SHOP DRAWINGS MUST VERIFY THAT THE PIPES CAN SUPPORT H–20 LOADING WITH THE SYSTEM SPECIFIC COVER.
7. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS AND SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH A STORMTRAP REPRESENTATIVE FOR INSTALLATION SPECIFICATIONS AND PROCEDURES.



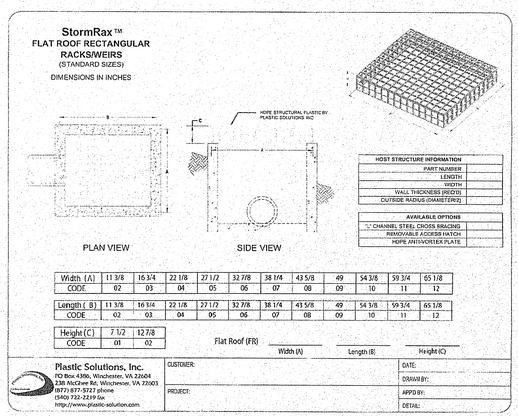
EMERGENCY SPILLWAY DETAIL (STORMWATER BASIN No. 2)

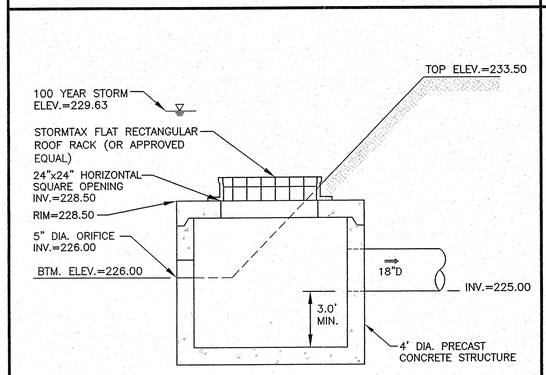
NOT TO SCALE



RIP-RAP OUTLET PROTECTION TYPICAL SECTION

NOT TO SCALE



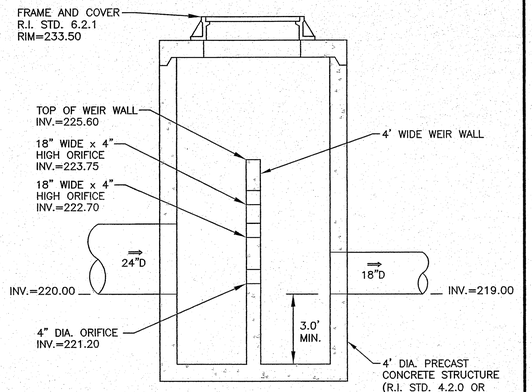


NOTE:

TRASH RACK ENCLOSURE WITH 1" MAXIMUM OPENINGS SHALL BE INSTALLED OVER OUTLET CONTROL STRUCTURE ORIFICES AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION

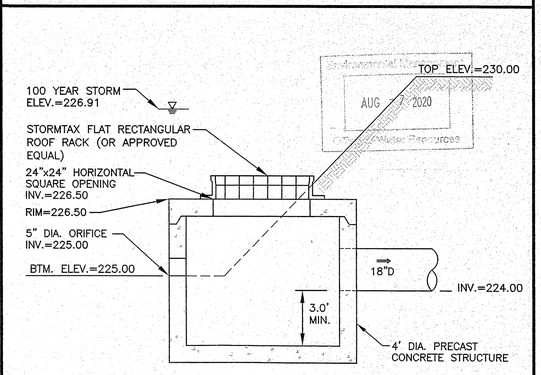
STORMWATER BASIN No. 1 OUTLET CONTROL STRUCTURE (DMH 4) DETAIL

NOT TO SCALE



UNDERGROUND INFILTRATION SYSTEM OUTLET CONTROL STRUCTURE (DMH 13) DETAIL

NOT TO SCALE

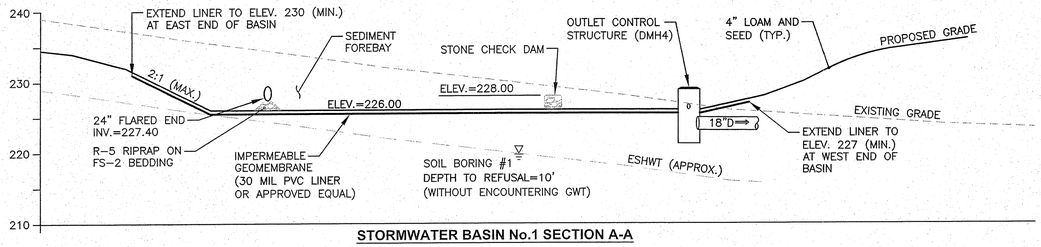


NOTE:

TRASH RACK ENCLOSURE WITH 1" MAXIMUM OPENINGS SHALL BE INSTALLED OVER OUTLET CONTROL STRUCTURE ORIFICE AND APPROVED BY ENGINEER PRIOR TO CONSTRUCTION

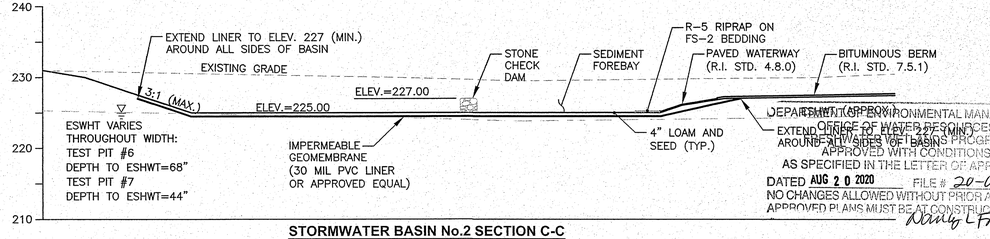
STORMWATER BASIN No. 2 OUTLET CONTROL STRUCTURE (DMH 12) DETAIL

NOT TO SCALE



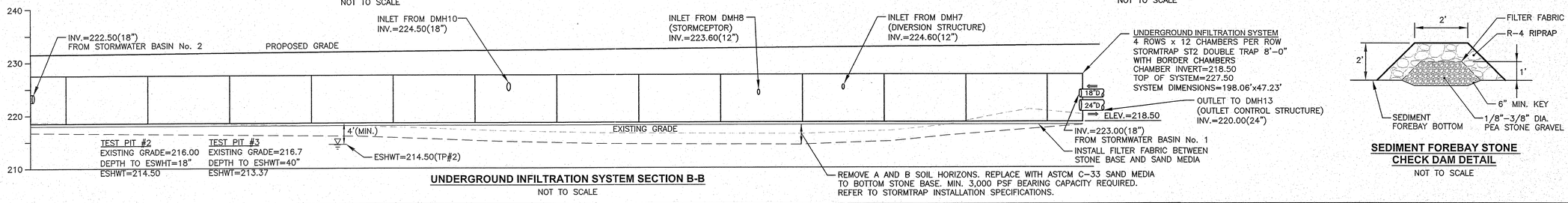
STORMWATER BASIN No.1 SECTION A-A

NOT TO SCALE



STORMWATER BASIN No.2 SECTION C-C

NOT TO SCALE



UNDERGROUND INFILTRATION SYSTEM SECTION B-B

NOT TO SCALE

SEDIMENT FOREBAY STONE CHECK DAM DETAIL

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 20 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Wendy L Freeman

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

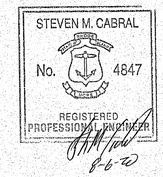
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KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 4

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456–C14–DETAIL4–R2.dwg

REVISIONS

△ NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C14

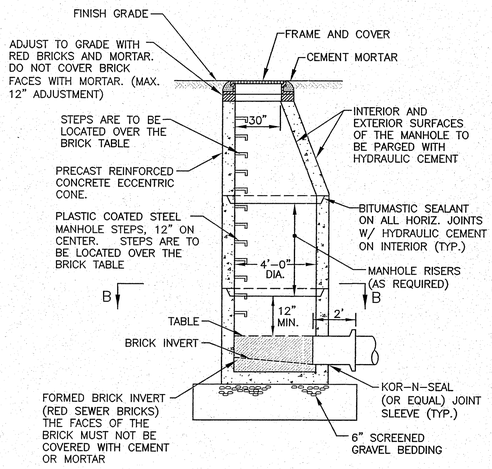
SHEET: 15 OF: 24

GENERAL SEWER NOTES

1. INSTALLATION OF THE SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE CITY OF WOONSOCKET SPECIFICATIONS AND REQUIREMENTS.
2. PRIOR TO RECEIVING AUTHORIZATION TO CONSTRUCT, ALL MATERIALS SHALL MEET THE STANDARDS AND RECEIVE THE WRITTEN APPROVAL, BASED ON MANUFACTURER'S DRAWINGS AND OTHER DATA, OF THE CITY OF WOONSOCKET.
3. ALL SEWERAGE FACILITIES SHALL MEET TESTING AND CLEANING REQUIREMENTS PRIOR TO ACCEPTANCE.
4. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE AS-BUILT LOCATIONS PRIOR TO PIPE BACKFILL. AS-BUILT DRAWINGS SHALL BE FURNISHED AS A CONDITION FOR ACCEPTANCE OF THE NEW SEWERAGE FACILITIES. PLANS SHALL INCLUDE LOCATION OF WYES.
5. NO FLOW WILL BE ACCEPTED UNTIL ALL ABOVE STEPS ARE COMPLETED AND COMPLETION CERTIFICATE IS ISSUED.
6. AFTER THE CONTRACTOR HAS "STAKED OUT" THE FACILITIES TO BE CONSTRUCTED AND HAS THE APPROVED MATERIALS ON THE JOB, THE CITY OF WOONSOCKET SHALL BE NOTIFIED IN ADVANCE OF CONSTRUCTION IN ORDER FOR THEM TO ARRANGE FOR THEIR INSPECTOR. THE NOTIFICATION MUST MEET THE CITY OF WOONSOCKET SEWER COMMISSION REQUIREMENTS.
7. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND MATERIALS, STANDARDS AND SPECIAL DETAILS, AND STANDARD SPECIFICATIONS, ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
8. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION WITHIN THE LIMITS OF WORK AS SHOWN ON THE DRAWINGS.
9. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEEDED.
10. LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITIES INCLUDING "DIG-SAFE" PRIOR TO STARTING WORK. ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
11. RELATION TO WATER LINES:
    - A. HORIZONTAL SEPARATION: WHENEVER POSSIBLE, SEWERS SHOULD BE LAID AT A MINIMUM OF 10 FEET (3.0 m), HORIZONTALLY, FROM ANY EXISTING OR PROPOSED WATER LINE. SHOULD LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET, A SEWER MAY BE LAID CLOSER THAN 10 FEET TO A WATER LINE IF:
        1. IT IS LAID IN A SEPARATE TRENCH, OR IF
        2. IT IS LAID IN THE SAME TRENCH WITH THE WATER LINE LOCATED AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH, AND IF
        3. IN EITHER CASE THE ELEVATION OF THE TOP (CROWN) OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM (INVERT) OF THE WATER LINE.
    - B. VERTICAL SEPARATION: WHENEVER A SEWER MUST CROSS UNDER WATER LINES, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES (46 cm) BELOW THE BOTTOM OF THE WATER LINE. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER LINE SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR RECONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET (3.0 m) ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER LINE SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE.
    - C. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL AND/OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER LINE AND SEWER SHALL BE CONSTRUCTED OF MECHANICAL-JOINT CEMENT LINED DUCTILE IRON PIPE OR OTHER EQUIVALENT BASED ON WATER TIGHTNESS AND STRUCTURAL SOUNDNESS. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING REQUIRED IN THE SEWER INSTALLATION.
13. THE PROPOSED GRAVITY SANITARY SEWER PIPE SHALL BE PVC ASTM 3034 SDR 35, UNLESS OTHERWISE SHOWN ON PLANS. PIPE SIZE TO MATCH UTILITY PLAN.
14. THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ELEVATION OF EXISTING SEWER LINE PRIOR TO INSTALLATION.

SEWER TRENCH NOTES

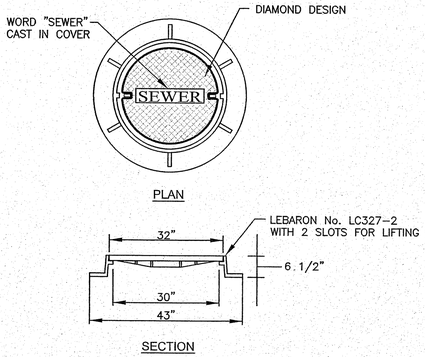
1. MINIMUM WIDTH (W) OF TRENCH IS EQUAL TO THE INSIDE DIAMETER OF THE PIPE PLUS 12" EACH SIDE.
2. SOIL UNDER CRUSHED STONE FOUNDATION SHALL BE UNDISTURBED AND COMPACTED MATERIAL WITH SEVERAL PASSES OF A VIBRATORY PLATE COMPACTOR TO ATTAIN 95% MAX. DENSITY (MOD. METHOD).
3. CRUSHED STONE FOUNDATION 3/4" MAXIMUM SIZE, SHALL BE PLACED 6" UNDER THE PIPE AND UP TO THE PIPE LAID THEREON, CRUSHED STONE PULLED AGAINST THE PIPE SIDES TO FIRMLY HOLD THE PIPE IN PLACE.
4. CRUSHED STONE HAUNCHING 3/4" MAXIMUM SIZE SHALL BE BROUGHT LEVEL TO THE TOP OF THE PIPE AND OUT TO THE TRENCH WALL AT THIS ELEVATION FOR ALL PIPE.



NOTES

1. SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS.
2. CIRCUMFERENTIAL STEEL REINFORCEMENT REQUIRED = 0.12 SQ. IN. / LIN. FT. MINIMUM.
3. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN/LIN. FT. (BOTH WAYS).
4. ONE POUR MONOLITHIC BASE SECTION.
5. ANY NECESSARY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW-CUTTING AND/OR CORING ONLY. NO JACKHAMMERS, HAMMERS AND CHISELS OR PNEUMATIC TOOLS WILL BE ALLOWED.
6. STEPS SHALL CONFORM TO R.I.D.O.T. STD. 5.3.0 (OR AS SPECIFIED IN THE CONTRACT) AND SHALL BE INSTALLED AT THE CASTING PLANT.
7. ALTERNATE FLAT TOP SLAB CAN BE USED WHEN REDUCING SECTION DOES NOT FIT BECAUSE OF STRUCTURE DEPTH.
8. ALTERNATE FLAT TOP SLAB IS STEEL REINFORCED TO MEET OR EXCEED H-25 LOADING (SEE R.I.D.O.T. STD. 4.7.2).
9. ALL JOINTS AND PINHOLES TO BE PLUGGED INSIDE AND OUTSIDE WITH HYDRAULIC CEMENT.

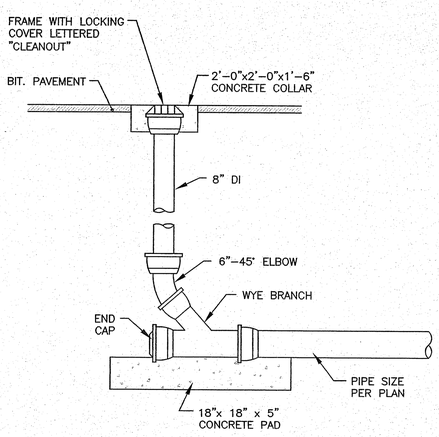
SANITARY MANHOLE DETAIL - TYPICAL
NOT TO SCALE



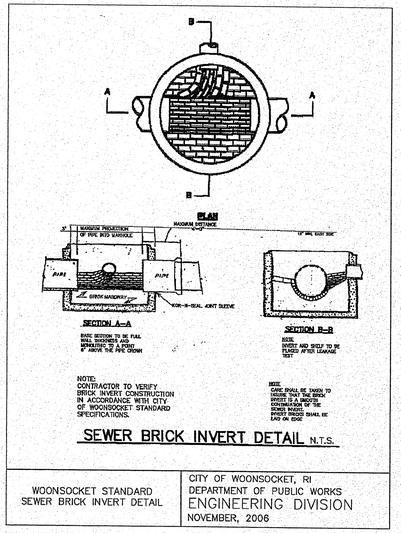
NOTES

1. FRAME AND COVER SEATS MUST HAVE MACHINE FINISH.
2. THE WORD "SEWER" SHALL BE CAST IN THE COVER.
3. VENTILATION HOLES OF ANY SIZE ARE NOT ALLOWED.

SANITARY MANHOLE FRAME AND COVER DETAIL
NOT TO SCALE

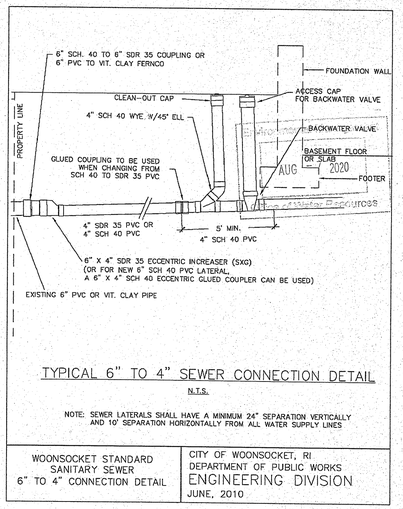


SEWER CLEANOUT DETAIL
NOT TO SCALE



SEWER BRICK INVERT DETAIL N.T.S.

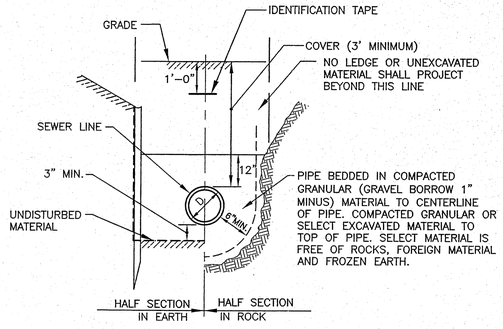
WOONSOCKET STANDARD SEWER BRICK INVERT DETAIL	CITY OF WOONSOCKET, RI DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION NOVEMBER, 2006



TYPICAL 6" TO 4" SEWER CONNECTION DETAIL
N.T.S.

NOTE: SEWER LATERALS SHALL HAVE A MINIMUM 24" SEPARATION VERTICALLY AND 10' SEPARATION HORIZONTALLY FROM ALL WATER SUPPLY LINES

WOONSOCKET STANDARD SANITARY SEWER 6" TO 4" CONNECTION DETAIL	CITY OF WOONSOCKET, RI DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION JUNE, 2010



TYPICAL SEWER LINE TRENCH DETAIL
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 0 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Daniel L Freeman

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHI INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 5

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456-C15-DETAIL5-R2.dwg

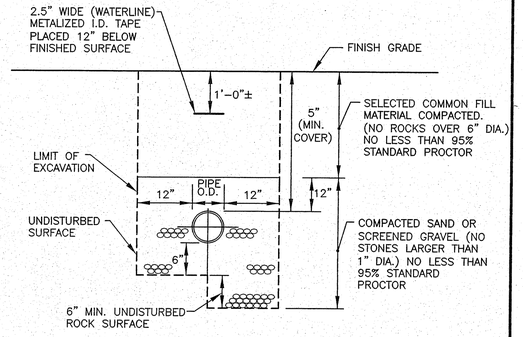
REVISIONS

NUMBER	REMARKS	DATE
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2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

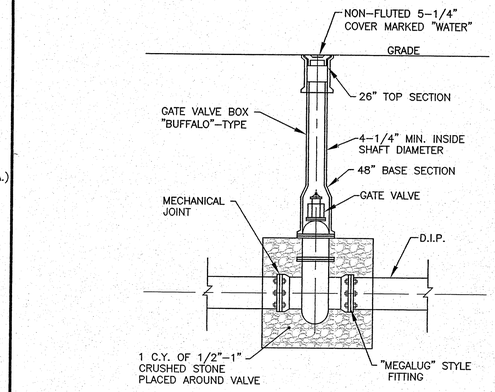
C15

SHEET: 16 OF: 24



TYPICAL WATER LINE TRENCH DETAIL

NOT TO SCALE

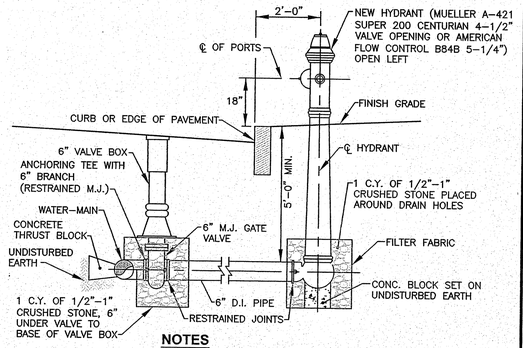


ELEVATION

NOTE:
WRAP CRUSHED STONE WITH 4 oz. NON-WOVEN GEOTEXTILE FABRIC BEFORE FILLING EXCAVATION.

TYPICAL WATER GATE BOX INSTALLATION

NOT TO SCALE



NOTES

1. INSTALLATION SHALL NOT OBSTRUCT SIDEWALK TO PEDESTRIAN OR PHYSICALLY IMPAIRED.
2. MECHANICAL JOINT PIPE W/ RESTRAINED JOINTS FOR BRANCHES OVER ONE LENGTH OF PIPE.
3. PRIOR TO ORDERING, HYDRANT MUST BE APPROVED BY MUNICIPAL WATER DEPTMENT AND FIRE DISTRICT.

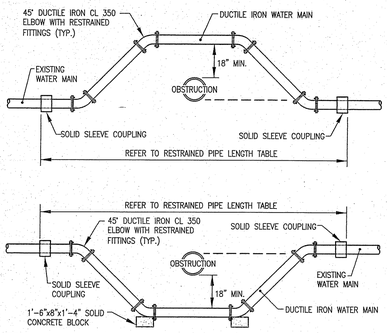
TYPICAL HYDRANT INSTALLATION

NOT TO SCALE

WATER NOTES

1. ALL INSTALLATION, JOINTS, CONSTRUCTION METHODS AND MATERIALS SHALL BE ACCORDING TO THE WOONSOCKET WATER DEPARTMENT REQUIREMENTS, AWWA STANDARDS AND GOVERNMENTAL REQUIREMENTS.
2. ALL FITTINGS SHALL BE DUCTILE IRON MECHANICAL JOINT CLASS 350 CEMENT MORTAR LINED COMPACT STYLE (BY AMERICAN MANUFACTURER ONLY). FITTINGS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C153/A21.53. MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C111/A21.11.
3. WATER PIPE SHALL BE DOUBLE CEMENT MORTAR LINED DUCTILE IRON PIPE CL52 AND SHALL MEET THE REQUIREMENTS OF ANSI/AWWA C151/A21.51.
4. CONSTRUCTION SHALL INCLUDE ALL PIPE, JOINTS, BENDS, TEES, FITTINGS, "MEGA-LUG" RESTRAINED MECHANICAL JOINTS, SERVICE CONNECTIONS AND ALL MISCELLANEOUS ITEMS REQUIRED TO CONSTRUCT THE PROPOSED SYSTEM.
5. "MEGA-LUG" RESTRAINED MECHANICAL JOINTS SHALL BE INSTALLED IN LOCATIONS INDICATED AND AT ALL BENDS, FITTINGS, PLUGS, ETC.
6. PRESSURE AND LEAKAGE TESTS AND DISINFECTING PIPES SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, CUMBERLAND WATER DEPARTMENT REQUIREMENTS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.
7. ALL FITTINGS, PIPE, JOINTS, ETC. SHALL BE DESIGNED FOR 1.5 TIMES WORKING PRESSURE BUT NOT LESS THAN 150 PSI.
8. WATER PIPE SHALL TYPICALLY BE LOCATED AT LEAST TEN (10) FEET HORIZONTALLY FROM SEWER PIPE, AND AT A MINIMUM DEPTH OF COVER EQUAL TO 5' WHERE A NEW WATER MAIN IS LESS THAN 18 INCHES CLEAR DISTANCE ABOVE A SEWER OR WHERE A WATER MAIN PASSES BENEATH A SEWER OR STORM DRAIN, ENCASE THE SEWER OR WATER IN 6" OF CONCRETE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING WATER MAIN. THE USE OF DUCTILE IRON TIGHT JOINT SEWER PIPE IN LIEU OF CONCRETE ENCASEMENT WILL BE CONSIDERED UPON CONTRACTORS SUBMITTAL OF SPECIFICATIONS TO ENGINEERS FOR APPROVAL.
9. ALL SYSTEM COMPONENTS AND CONSTRUCTION METHODS, SUCH AS PIPE, RESTRAINED MECHANICAL JOINTS, FITTINGS, CASTINGS, ETC. SHALL BE SUBMITTED TO THE WOONSOCKET WATER DEPARTMENT AND ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION. THIS SUBMISSION SHALL INCLUDE MANUFACTURER'S LITERATURE, SHOP DRAWINGS, PROPOSED CONSTRUCTION METHODS, ETC.
10. WATER LINE TRENCH TO BE AWWA TYPE 5. A METALIZED DETECTABLE IDENTIFICATION TAPE 2" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'-0" BELOW FINISHED GRADE.
11. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL COMPLETE AND SUBMIT THE "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE" FOR UNDERGROUND PIPING TO THE WOONSOCKET WATER DEPARTMENT AND ENGINEER. IN ADDITION, THE CONTRACTOR IS REQUIRED TO SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER FOR THEIR REVIEW AND APPROVAL:
    - TYPE AND MANUFACTURER OF SERVICE BOXES
    - TYPE AND MANUFACTURER OF CORPORATIONS AND CURB STOPS
    - TYPE AND MANUFACTURER OF VALVE BOXES (OPEN LEFT)
    - TYPE AND MANUFACTURER OF D.I. MECHANICAL JOINTS AND FITTINGS
    - TYPE AND MANUFACTURER OF TAPPING SLEEVES
    - TYPE AND MANUFACTURER OF DI PIPING
    - TYPE AND MANUFACTURER OF RESILIENT SEALED GATE VALVES (OPEN LEFT)
    - TYPE AND MANUFACTURER OF COPPER SERVICE LINE
12. WHEN THIS PROJECT IS COMPLETE, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE THE WATER DEPARTMENT AND ENGINEER TWO SETS OF AS BUILT PLANS (ONE BLUE LINE, ONE REPRODUCIBLE COPY-MYLAR OR SEPIA) WHICH INDICATES:
    a. ALL CURB STOPS WITH APPROPRIATE LOCATING MEASUREMENTS
       - MAIN-TO-CURB
       AND MEASUREMENTS FROM PERMANENT STRUCTURES.
    b. A SCHEDULE OF MATERIALS WHICH INDICATES:
       1. ITEM QUANTITY
       2. MANUFACTURER
       3. DESCRIPTION
          a. INCLUDE SERIAL #'S AS APPLICABLE
          b. MATERIAL
          c. OPERATION CHARACTERISTICS

       AND MEASUREMENTS FROM PERMANENT STRUCTURES.
13. THE CONTRACTOR SHALL VERIFY THE FIRE SERVICE PIPE SIZE REQUIREMENT WITH THE BUILDING ARCHITECT AND PLUMBING/FIRE SPRINKLER CONTRACTOR PRIOR TO ORDERING PIPE, METERS AND BACKFLOW PREVENTORS. COORDINATION WITH THE WOONSOCKET FIRE CHIEF AND WOONSOCKET WATER DEPARTMENT IS REQUIRED TO DETERMINE THE EXISTING WATER PRESSURE AVAILABLE.
14. ALL VALVES TO BE RESILIENT WEDGE GATE VALVES (OPEN LEFT).
15. ALL FITTINGS TO BE RESTRAINED WITH MECHANICAL JOINTS. RESTRAINTS TO BE MEGA-LUG OR EQUAL. ALL DESIGN AND/OR PLACEMENT SHALL BE REVIEWED AND APPROVED BY THE WOONSOCKET WATER DEPARTMENT.
16. RESTRAIN ALL PUSH-ON BELL JOINTS WITHIN 20 FEET OF MECHANICAL JOINTS. RESTRAINTS TO BE SERIES 800 COVER-ALL BY EBAA IRON OR EQUAL.
17. DOMESTIC WATER SERVICE LINES DHALL BE DUCTILE IRON OR COPPER.
18. ALL HYDRANTS SHALL OPEN LEFT.

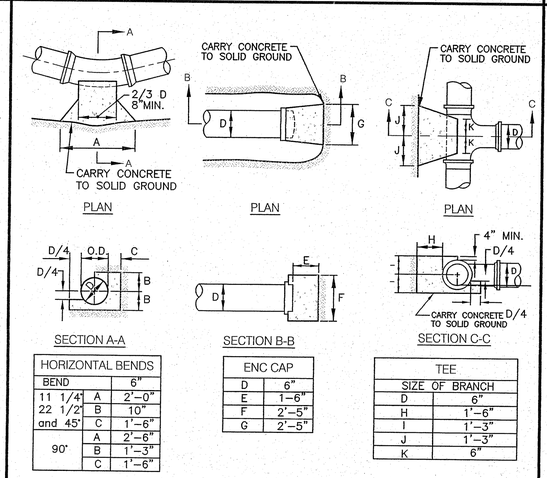


NOTES

1. TRANSITION COUPLING, DRESSER STYLE, TO BE USED ONLY WHEN EXISTING WATER MAIN IS OF DIFFERENT MATERIAL OTHER THAN DUCTILE IRON.
2. SOLID SLEEVE COUPLING TO BE RESTRAINED WITH APPROVED RESTRAINT FITTINGS.
3. SOLID SLEEVE COUPLING ONLY TO BE USED WHEN CALCULATED FRICTION LOSS WILL NOT ADVERSELY EFFECT DISTRIBUTION PRESSURE AND FLOW
4. MINIMUM DEPTH OF COVER SHALL BE 5'-0" (UNLESS AUTHORIZED IN WRITING BY TOWN.
5. THE WATER PIPE SHALL BE CLASS 54 AND INSULATED WITH 2" FOAMGLASS INSULATION WITH PITT WRAP OR EQUAL WHERE THE WATER PIPE HAS LESS THAN 5' OF COVER.

WATER MAIN HORIZONTAL OR VERTICAL RELOCATION DETAIL

NOT TO SCALE



HORIZONTAL BENDS		
BEND		6"
11 1/4°	A	2'-0"
22 1/2°	B	10"
and 45°	C	1'-6"
90°	A	2'-6"
	B	1'-3"
	C	1'-6"

ENC CAP	
D	6"
E	1-6"
F	2'-5"
G	2'-5"

TEE	
SIZE OF BRANCH	
D	6"
H	1'-6"
I	1'-3"
J	1'-3"
K	6"

CONCRETE THRUST BLOCKS FOR CAPS, TEES AND HORIZONTAL BENDS

NOT TO SCALE

THRUST BLOCK NOTES

1. ALL CONCRETE TO BE CLASS B.
2. BUTTRESS DIMENSIONS SHOWN ARE MINIMUM. DIMENSIONS ARE BASED UPON SOIL BEARING PRESSURE OF 1500 P.S.F. LATERAL AND STATIC WATER PRESSURE OF 150 P.S.I. WHERE PRESSURE EXCEEDS 150 P.S.I. OR WHERE SOIL BEARING PRESSURE IS LESS THAN 1500 P.S.F. LATERAL; OR SOIL CONDITIONS OR EXCAVATION LIMITS ENCOUNTERED DURING CONSTRUCTION MAKE IT UNFEASIBLE TO PLACE THRUST BLOCKS AGAINST UNDISTURBED EARTH OF THE PROPER BEARING CAPACITY, THE CONTRACTOR SHALL DESIGN, GET APPROVAL OF, AND PLACE SPECIAL REACTION BLOCKS OF SUFFICIENT WEIGHT TO RESIST THE FULL THRUST OF THE LINE UNDER TEST AND OPERATING PRESSURES. THE DESIGN OF SUCH BLOCKS SHALL BE SUBJECT TO THE APPROVAL OF THE CUMBERLAND WATER DEPARTMENT AND THE ENGINEERS AND SHALL BE SUBMITTED TO THE WATER DEPARTMENT BEFORE ACTUAL INSTALLATION TAKES PLACE.
3. ALL THRUST BLOCKS SHALL BE CONCRETE 3,000 P.S.I. @ 28 DAYS AND BEARING AGAINST UNDISTURBED EARTH.

RESTRAINED PIPE LENGTHS FOR RESTRAINED FITTINGS

FITTING	RESTRAINED LENGTH
12" PLUG	94'
12" TEE	44'
12" 90°	66'
12" 45°	44'
12" 22 1/2°	22'
12" 11 1/4°	22'
8" PLUG	58'
8" TEE	44'
8" 90°	44'
8" 45°	22'
8" 22 1/2°	22'
8" 11 1/4°	22'
8" X 6"	44'
6" PLUG	44'
6" TEE	22'
6" 90°	22'
6" 45°	22'
6" 22 1/2°	22'
6" 11 1/4°	22'

NOTE:
1. ALL JOINTS, INCLUDING PIPE JOINTS, VALVE JOINTS, AND FITTING JOINTS SHALL BE RESTRAINED WITHIN THE LIMITS OF RESTRAINED LENGTHS LISTED ON THIS TABLE. MECHANICAL JOINT PIPE AND MECHANICAL RESTRAINTS WILL BE IN ACCORDANCE WITH THE ABOVE TABLE.
2. THE TABLE SHOWS LENGTHS OF PIPES WHICH MUST BE RESTRAINED ON BOTH SIDES OF THE FITTING.
3. ALL DEAD END PIPE SHALL BE PROPERLY RESTRAINED PRIOR TO PRESSURE TESTING.
4. REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF SHALL VERIFY ALL RESTRAINING CALCULATIONS & LENGTHS DURING DESIGN

RESTRAINED PIPE LENGTH TABLE

NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 0 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Nancy L Freeman

AUG - 7 2020
COASTAL RESOURCES

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

Rhode Island
151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

Massachusetts
103 Commonwealth Avenue
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Email: cel@crossmaneng.com

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH Inc.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

MISCELLANEOUS DETAIL PLAN No. 6

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456-C16-DETAIL6-R2.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

C16

SHEET: 17 OF: 24

LED AREA LIGHTS - (XGBM)

COMPLETE ORDERING INFORMATION

SAMPLE NUMBER: XGBM FT LED LW CW UE BLK

Prefix	Distribution	Light Source	Optical Control	Input Voltage	Finish	Optional Controls	Optional Sensor Options
XGBM - 150 Watt Equiv.	FT - Forward Throw FTA - Forward Throw Asymmetric Beam 1 - Type I	LED	LW - Low Watt MW - Mid Watt HW - High Watt	120 - 120V 208 - 208V 240 - 240V 277 - 277V 347 - 347V 480 - 480V	BLK - Black DBZ - Dark Bronze GRA - Gray WHT - White	Wireless Control System? WSC - Yes Wireless Control Options: SCW - Sensor Switch w/ Integral Wireless Control SCWPE - Sensor Switch w/ Integral Wireless Control, Programmed for Eaton's Pathway Control System SCWPS - Sensor Switch w/ Integral Wireless Control, Programmed for Sensor Switch's Pathway Control System	Photocell PCR - Photocell, Button Type, Turn-On Only PCRDD - Photocell, Button Type, Dusk-to-Dawn PCRDD - Photocell, Button Type, Dusk-to-Dawn PCRDD - Photocell, Button Type, Dusk-to-Dawn PCRDD - Photocell, Button Type, Dusk-to-Dawn Extras: EBS - 7 Pin Bullet Receptacle EBS - Bronze Finish

LUMINAIRE EPA CHART - XGBM	
	Excluded EPA* Values
Single	0.3 / 0.4
Twin	0.7 / 0.9
Triple	1.0 / 1.3
Quad	1.3 / 1.7
90° Double	1.0 / 1.3
90° Triple	1.3 / 1.7
Asymmetrical	1.3 / 1.7
Pendant	0.7 / 0.9
Round Pole	0.3 / 0.4
Wall Mount	0.3 / 0.4

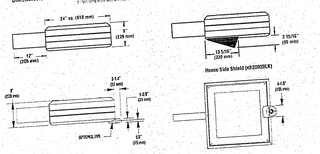
*EPA Values Based on Flat Surface Perpendicular to Wind

ACCESSORY ORDERING INFORMATION (Accessories are field installed)

Description	Order Number
Lumark Utility Hook (Specify Finish)	HOOK BLKT
Utility Hook (Specify Finish)	HOOK BLKT
Knuckle Mount Kit (Specify Finish)	XMOUNTA
Knuckle Mount Kit (1 - 360 Adjustment)	XMOUNTA
Universal Square Pole Mount Bracket	XMOUNTUSP
Universal Round Pole Mount Bracket	XMOUNTURP
Tenon Mount Bracket (Specify Finish)	XTMT
Tenon Mount Bracket (Specify Finish)	XTMT
House Side Shield	HSS

FOOTNOTES:
1. Can add 2 more 90 degree arms for a total of 4 arms. Use Quadrupole Universal Drilling Pattern (XQUADUNI) when ordering 4 arms.
2. Requires a handhole for wiring. Not available with 480 volt.
3. Not available with 480 volt or 347 volt.
4. Not available with wireless control system. Order SSS option.
5. Not available with wireless control system. Order SSS option.
6. Not available with wireless control system. Order SSS or PCR option.
7. Not available with 480 volt.
8. Not available with 347 volt or 480 volt.
9. Not available with 347 volt.
10. Not available with wireless control system. Order SSS or PCR option.
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100. Not available with wireless control system. Order SSS option.

DIMENSIONS



Project Name _____ Fixture Type _____

Catalog # _____

ALUMINUM SQUARE POLES (SOFT CORNER)

POLE ORDERING INFORMATION

SAMPLE NUMBER: 4SQB3 A125 20 S BLK

Pole Series	Material	Height	Mounting Configuration	Pole Finish	Options
Bolt-On Shaft - Specify Anchor Base Below 4SQB3 - 3" Square Tapered Aluminum Shaft 4SQB5 - 5" Square Tapered Aluminum Shaft 4SQB6 - 6" Square Tapered Aluminum Shaft 4SQB8 - 8" Square Tapered Aluminum Shaft 4SQB9 - 9" Square Tapered Aluminum Shaft	A125 - 12.5 Feet A150 - 15 Feet A175 - 17.5 Feet A200 - 20 Feet	S - Single D - Double T - Triple Q - Quad R - Round Tenon	DNC - Direct BA - Black WHT - White SVG - Dark Grey MED - Medium Bronze	FF - Factory Fitted Photocell TFG - Tenon Fitted Glare Shield EBS - Bronze Finish Photocell EBW - Bronze Finish Photocell LHR - Two Anchor Bolts

Tenon Mount - Specify Tenon Mount Below

Tenon Mount Bolt-On Adapter
4SQB
5SQB
6SQB
8SQB
9SQB

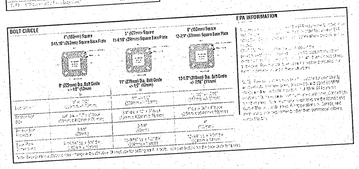
Consult Pole Selection Chart on opposite page

Internal Slip-fitter
Fits accepting tenon on pole type - Slip-fitter ONLY - SPECIFY
4SQB3 - 3" SQ. 4SQB5 - 5" SQ. 4SQB6 - 6" SQ. 4SQB8 - 8" SQ. 4SQB9 - 9" SQ.

FOOTNOTES:

ACCESSORY ORDERING INFORMATION (Accessories are field installed)	
Description	Order Number
Single Universal Mast Arm Adapter	SMA4C
Twin Universal Mast Arm Adapter	TMA4C
Single Universal Mast Arm Adapter	SMA5C
Twin Universal Mast Arm Adapter	TMA5C
Single Universal Mast Arm Adapter	SMA6C
Twin Universal Mast Arm Adapter	TMA6C
Single Universal Mast Arm Adapter	SMA8C
Twin Universal Mast Arm Adapter	TMA8C
Single Universal Mast Arm Adapter	SMA9C
Twin Universal Mast Arm Adapter	TMA9C

BOLT CIRCLE



EPA INFORMATION

Pole Top Tenon Size	Single	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	4 @ 90°
2" (51mm)	0.5	0.8	0.9	1.1	1.2	1.4
2.5" (64mm)	0.5	0.8	0.9	1.1	1.2	1.4
3" (76mm)	0.5	0.8	0.9	1.1	1.2	1.4
4" (102mm)	0.5	0.8	0.9	1.1	1.2	1.4

Project Name _____ Fixture Type _____

Catalog # _____

MCOWP43W
43 Watt LED Medium Cut-Off Wall Pack



LSI wall Lights feature traditional housings that provide familiar design with known applications. These fixtures make the switch from Metal Halide to LED easy. Mid-power LEDs provide glare-free white light.

Features & Specifications

Performance

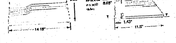
4560K		
Delivered Lumens	Efficacy	Wattage
5,566	130.2	41.20

Optical System
- Lens assembly is designed to provide high efficiency and to target the light where needed to satisfy outdoor lighting requirements.
- Positioning of the LEDs result in the light being directed to desired locations eliminating glare and offensive light.
- 4,000K color temperature.
- Minimum CRI of 80

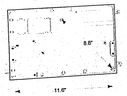
Electrical
- High-performance driver features over-voltage, under voltage, short-circuit, and over temperature protection.
- 0-10 volt dimming (10% - 100% standard).
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz
- L70 Calculated Life: >100k Hours
- Total harmonic distortion: <20%
- Power factor: >.95
- Input power stays constant over life.
- Driver Off State Power is 0 watts.
- Components are fully encased by potting material for environmental resistance. Entire complies with FCC standards. Driver and key electronic components can easily be accessed.
- Maximum WAY surge rating

Construction
- Rugged traditional aluminum die-cast housing provides process and environmental protection for LED modules.
- Traditional fixture designs provide a familiar look and standard installation.
- Modular design allows the ability to upgrade fixtures gradually, while retaining the same overall fixture appearance throughout a facility.
- The smooth housing prevents debris build up and maximizes airflow over housing.

Dimensions



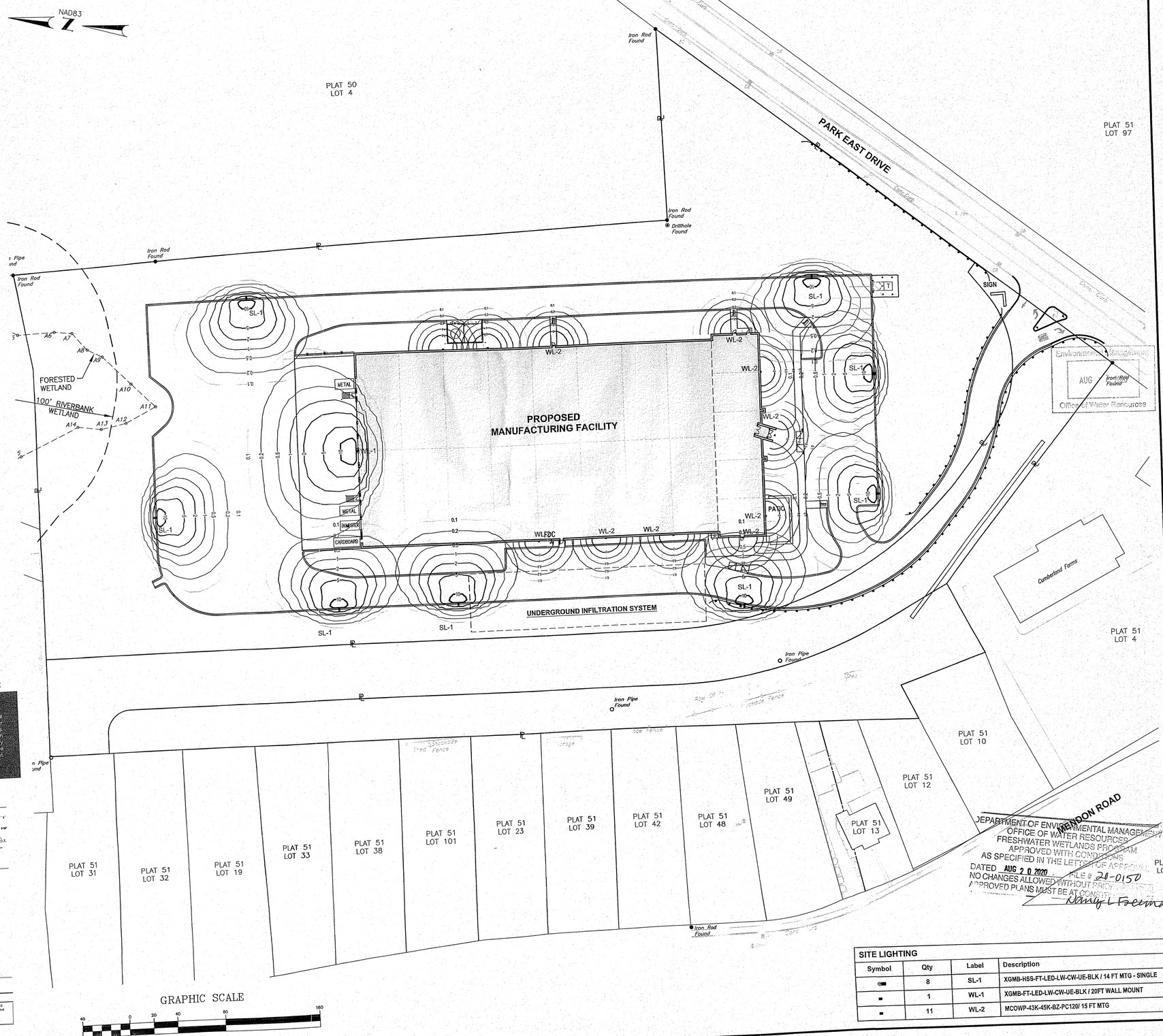
Mounting Detail



Luminaire Ordering Guide

TYPICAL CATALOG NUMBER: MCOWP 43W 45K BZ PC120

Family (Prefix)	Wattage	Color Temp	Finishes	Options / Controls
MCOWP	43W	4,5 - 4,5K	BZ - Bronze	PCOW - ECOsmart Photocell PCOW-347 - 340-347V Photocell



GRAPHIC SCALE

40 0 20 40 80 160

SITE LIGHTING			
Symbol	Qty	Label	Description
▭	8	SL-1	XGMB-HSS-FT-LED-LW-CW-UE-BLK / 14 FT MTG - SINGLE
▬	1	WL-1	XGMB-FT-LED-LW-CW-UE-BLK / 20FT WALL MOUNT
▬	11	WL-2	MCOWP-43K-45K-BZ-PC120/ 15 FT MTG

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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151 Centerville Road
Warwick, RI 02886
Phone: (401) 738-5660

Massachusetts
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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESH INC.

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

SITE LIGHTING PLAN

DATE:	SCALE:
MAY 2020	1"=40'

DWG. NAME: 2456-E01-LIGHT-R2.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/2

DRAWING NUMBER

E1

SHEET: 18 OF: 24

PLANTING SCHEDULE

TREES

Key	Botanical Name / Common Name	Size	Remarks
AR	Acer rubrum 'October Glory' *October Glory Red Maple*	2 - 2 1/2 " cal.	B &B
BN	Betula nigra 'Heritage Clump' *River Birch Clump*	8' - 10'	B &B
CA	Cedrus atlantica 'Glauca Pendula' *Weeping Blue Atlas Cedar*	2 - 2 1/2 " cal.	B &B
PC	Pyrus calleryana 'Cleveland Select' *Flowering Pear*	2 - 2 1/2 " cal.	B &B
PP	Picea pungens 'Glauca' *Colorado Blue Spruce*	6' - 8'	B & B
PS	Pinus strobus' *White Pine*	6' - 8'	B &B
QP	Quercus palustris *Pin Oak*	2 - 2 1/2 " cal.	B &B
SP	Stewartia pseudocamelia *Japanese Stewartia*	1 -1 1/2 " cal.	B &B
TG	Thuja plicata 'Green Giant' *Green Giant Arborvitae*	6' - 8'	B &B
ZS	Zeikova serrata 'Green Vase' *Green Vase Japanese Zelkova*	2 - 2 1/2 " cal.	B &B

SHRUBS

AZ	Azalea 'Girard's Rose' *Girard's Rose Azalea*	#2	Cont.
BM	Buxux m. 'Green Mountain' *Green Mountain Boxwood*	#2	Cont.
HC	Hybiscus syriacus 'Blue Chiffon' *Blue Rose of Sharon*	#5	Cont.
IG	Ilex glabra 'Compacta' *Compact Inkberry*	#5	Cont.
JT	Juniperus chin. 'Torulosa' *Hollywood Juniper*	4' - 5'	B & B
JCP	Juniperus chin. 'Pfitzeriana' *Pfitzer Juniper*	#3	Cont.
HL	Hydrangea p. 'Little Lime' *Little Lime Hydrangea*	#5	Cont.
RB	Rhododendron 'Boule de Neige' *White Rhododendron*	#5	Cont.
RP	Rhododendron 'P.J.M Compacta' *Lavender-Rhododendron*	#5	Cont.
WF	Weigela florida 'Sonic Bloom Pink" *Pink Weigela*	#5	Cont.

GROUNDCOVER/PERENNIALS/GRASSES

HSD	Hemerocallis 'Stella D'Oro' *Dwarf Yellow Daylily*	#2	Cont.
JC	Juniperus procumbens *Japanese Garden Juniper*	#2	Cont.
ML	Miscanthus sinensis 'Little Zebra' *Dwarf Variegated Maidenhair Grass*	#2	Cont.
MZ	Miscanthus sinensis 'Zebrinsis' *Variegated Maidenhair Grass*	#2	Cont.
RC	Rosa 'Scarlet Flower Carpet' *Scarlet Flower Carpet Rose*	#2	Cont.
RF	Rudbeckia fulgida 'Goldsturm" *Black-eyed Susan*	#2	Cont.
SD	Sedum spectabilis 'Autum Joy' *Autum Joy Sedum*	#2	Cont.

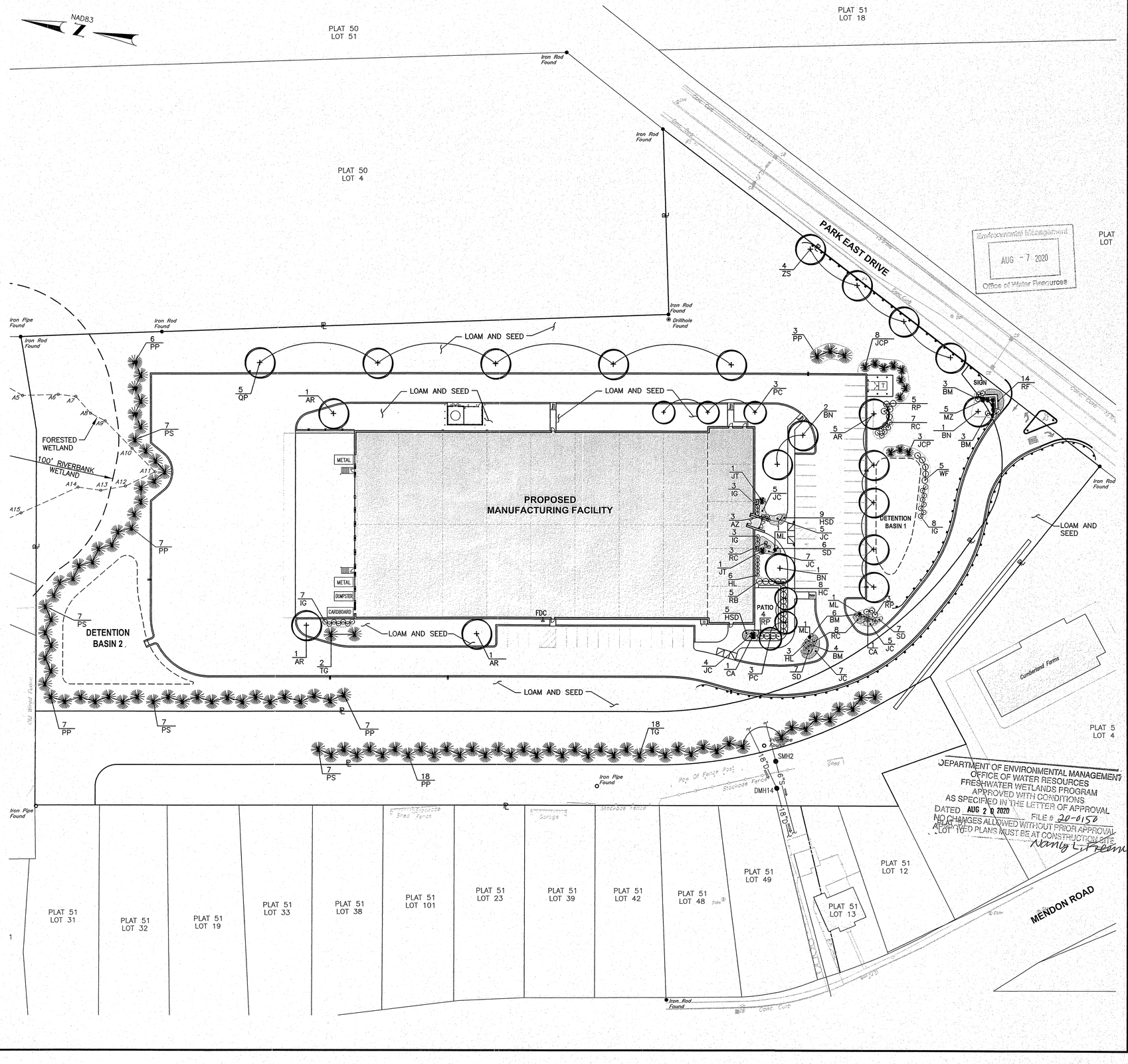
IRRIGATION NOTE

THE CONTRACTOR'S BID PRICE SHALL INCLUDE THE DESIGN/BUILD COST OF AN IRRIGATION SYSTEM THAT PROVIDES IRRIGATION TO ALL NEW LANDSCAPED AREAS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 40 ft.



• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHM LLC

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

LANDSCAPE PLAN

DATE:	SCALE:
MAY 2020	1"=40'

DWG. NAME: 2456-L01-LAND-R2.dwg

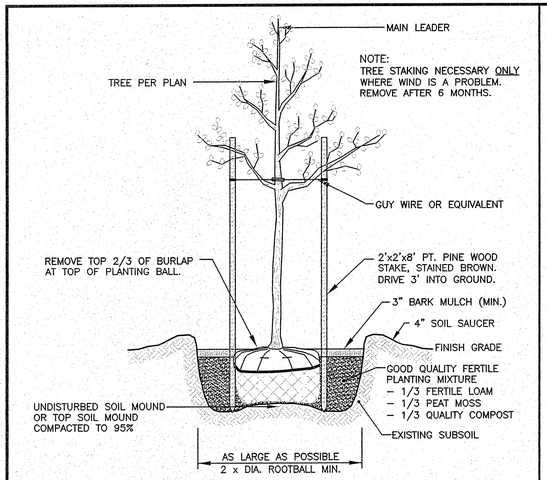
REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

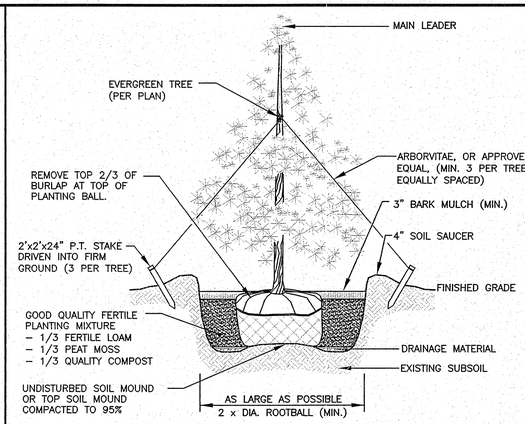
L1

SHEET: 19 OF: 24



DECIDUOUS TREE PLANTING DETAIL

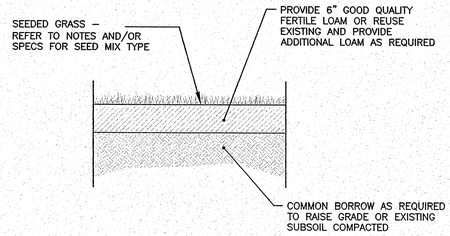
NOT TO SCALE



NOTE:
TREE STAKING OR SUPPORT NECESSARY ONLY WHERE WIND IS A PROBLEM, REMOVE AFTER SIX (6) MONTHS.

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE



NOTE:

THE CONTRACTOR WILL BE RESPONSIBLE FOR WATERING LAWN DURING THE COURSE OF THE GROWING SEASON FOR A PERIOD OF ONE (1) YEAR.

LOAM-SEED DETAIL

NOT TO SCALE

SEEDING NOTES

1. LOAM SHALL BE SPREAD TO A MINIMUM DEPTH OF 6" OVER ALL AREAS DESIGNATED ON PLANS.
2. SHAPE AND SMOOTH THE SURFACE TO THE LINES AND GRADES AS SHOWN ON PLANS.
3. FERTILIZE WITH 10–10–10 OR EQUIVALENT ANALYSIS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE IN A SLOW RELEASE FORM. INCORPORATE THE FERTILIZER INTO THE TOP 3 TO 4 INCHES OF THE PLANTING SOIL. APPLY AT THE RATE OF 8 POUNDS PER 1,000 SQUARE FEET AT SEEDING.
4. LIME: SPREAD EVENLY AND WORK INTO THE SOIL DURING PREPARATION OF SEED BED AT THE RATE OF ONE TON PER ACRE. INCORPORATE INTO THE SOIL BY DICING OR OTHER APPROVED METHOD. DISTRIBUTE LIME UNIFORMLY AND WORK INTO TOP 4 INCHES OF TOP SOIL (MINIMUM) AND UNIFORMLY BLEND BY DICING OR ROTOTILLING.
5. APPLICATION OF SEED:
   A. RATE OF APPLICATION OF SEED SHALL BE 8 POUNDS PER 1,000 SQUARE FEET OR AS INDICATED ON PLANS.
   B. SEEDING SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS, AND ONLY DURING THE FOLLOWING DATES:
      SPRING SEEDING: MARCH 15 TO MAY 31
      FALL SEEDING: AUGUST 15 TO OCTOBER 15
   C. THE CONTRACTOR SHALL KEEP ALL SEEDED AREAS WATERED AND IN GOOD CONDITION, RESEEDING IF AND WHEN NECESSARY FOR AN 8 WEEK PERIOD OR UNTIL A GOOD, HEALTHY, UNIFORM GROWTH IS ESTABLISHED OVER THE ENTIRE AREA. THE CONTRACTOR SHALL ALSO MAINTAIN THESE AREAS IN AN APPROVED CONDITION UNTIL PROVISIONAL ACCEPTANCE.
   D. DURING THIS PERIOD, WATER TURF AS NECESSARY TO MAINTAIN AN ADEQUATE SUPPLY OF MOISTURE WITHIN THE ROOT ZONE. AN ADEQUATE SUPPLY OF MOISTURE IS EQUIVALENT OF ONE INCH OF ABSORBED WATER PER WEEK THAT IS DELIVERED AT WEEKLY INTERVALS IN THE FORM OF NATURAL RAIN OR IS AUGMENTED AS REQUIRED BY PERIODIC WATERING.
   E. OVERSEED WHEN NECESSARY TO PROMOTE GRASS GROWTH.
   F. REPLANT AREAS VOID OF TURF ONE SQUARE FOOT OR LARGER.
   G. SEED:
      a. SEED ALL AREAS DESIGNATED ON PLAN AS WELL AS ALL DISTURBED EXISTING AREAS WITH THE FOLLOWING SEED MIX:

SEED MIX No. 1

(SLOPES, MEADOWS AND GENERAL RESTORATION AREA)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	70%
ASTORIA BENTGRASS	5%
BIRDSFOOT TREFOIL	15%
PERENNIAL RYE GRASS	10%

APPLICATION RATE = 200 lbs. / ACRE

SEED MIX No. 2

(ENDOPHYTE ENCHANED MIX)
(MOWED AREAS)

TYPE	% BY WEIGHT
IMPROVED PERENNIAL RYE	30%
TURF TYPE TALL FESCUE	30%
CHEWINGS FESCE	30%
KENTUCKY BLUEGRASS 98/85	10%

APPLICATION RATE = 200 lbs. / ACRE

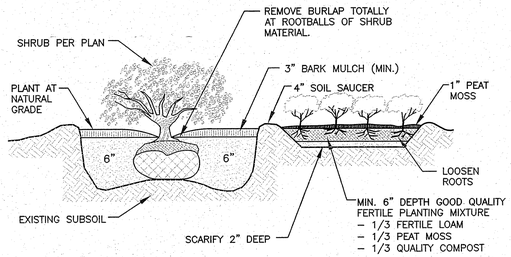
SEED MIX No. 3

(DETENTION/RETENTION AREAS)

TYPE	% BY WEIGHT
CREEPING RED FESCUE	28%
TALL FESCUE	24%
PERENNIAL RYE GRASS	18%
LITTLE BLUESTEM	15%
REDTOP	4%
NORTHEAST WILDFLOWER MIX	4%

APPLICATION RATE = 220 lbs. / ACRE
OR 5 LBS. PER 1,000 S.F.

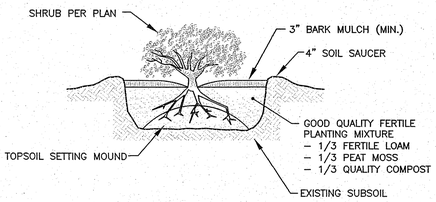
Environmental Management
AUG – 7 2020
Office of Water Resources



BALL and BURLAP

SHRUB and GROUNDCOVER PLANTING DETAIL

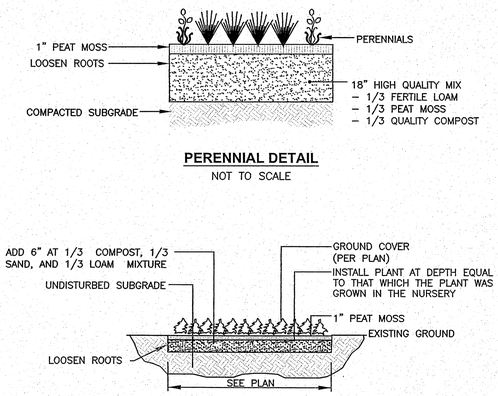
NOT TO SCALE



REMOVE CONTAINER AND BUTTERFLY ROOTBALL TO SPREAD ROOTS OVER SETTING MOUND. PLANT SHRUBS 1"–2" ABOVE EXISTING GRADE.

CONTAINER GROWN PLANTING DETAIL

NOT TO SCALE



PERENNIAL DETAIL

NOT TO SCALE

PERENNIAL and GROUNDCOVER PLANTING DETAIL

NOT TO SCALE

LANDSCAPE CONSTRUCTION NOTES

1. FURNISH AND INSTALL ALL PLANTS SHOWN ON THE DRAWINGS SPECIFIED HEREIN, AND IN THE QUANTITIES LISTED ON THE PLANT LIST. NO SUBSTITUTIONS WILL BE PERMITTED, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT.
2. LOAM TO BE SCREENED, GOOD QUALITY, FERTILE, FREE OF WEEDS, STICKS, STONES OVER 3/4", AND ROOTS. SPREAD TO A MINIMUM OF 6" OVER ALL PLANTED AREAS.
3. BIO–DETENTION AREAS–PLANTING SOIL AND MULCH:
   LOAMY SAND TO A SANDY LOAM–80% SAND <20% SILT, <2% CLAY. WELL AGED GRADED COMPOST (25% OF SOIL MIX). WELL AGED, AERATED DARK BROWN HARD–WOOD MULCH (AGED 6 MONTHS).
4. NURSERY STOCK SHALL MEET THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AS TO GRADING AND QUALITY.
5. ONLY NURSERY–GROWN PLANTS, GROWN IN ACCORDANCE WITH ACCEPTED HORTICULTURAL PRACTICES, AND GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO TO THOSE IN THE LOCALITY OF THE PROJECT FOR AT LEAST TWO (2) YEARS, WILL BE ACCEPTED.
6. CALIPER MEASURMENTS FOR ALL NEW PLANT STOCK SHALL BE TAKEN SIX (6) INCHES ABOVE GRADE FOR TREES UNDER FOUR (4) INCHES AND TWELVE (12) INCHES ABOVE GRADE FOR TREES OVER FOUR (4) INCHES.
7. ALL TREES SHALL BE A MINIMUM OF SEVEN (7) FEET ABOVE FINISHED GRADE WHEN TREES ARE LOCATED WITHIN VEHICULAR AND PEDESTRIAN TRAVEL WAYS.
8. SET PLANTS PLUMB AND AT A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATION TO THE SURROUNDING GROUND AS THEY BORE TO THE GROUND FROM WHICH THEY WERE DUG. SETTLE BACKFILL MATERIAL FOR PLANTS, THOROUGHLY AND PROPERLY BY FIRMING OR TAMPING. FORM SAUCERS, CAPABLE OF HOLDING WATER ABOUT INDIVIDUAL PLANTS, BY PLACING RIDGES OF PLANTING SOIL AROUND EACH.
9. STAKE ALL TREES OVER 5 FEET AS SHOWN ON PLANS. REMOVE STAKES AT THE END OF THE GUARANTEE PERIOD.
10. WATERING: WATER ALL PLANTS WITHIN 48 HOURS AFTER PLANTING. IF CONDITIONS WARRANT, AND AS MANY TIMES THEREAFTER TO SUSTAIN HEALTHY CONDITIONS UNTIL LANDSCAPE INSTALLATION IS COMPLETED. SATURATE THE SOIL AROUND EACH PLANT THOROUGHLY AT EACH WATERING.
11. PRUNING: PRUNE PLANTS, AS DIRECTED BY OWNER, AT THE PROJECT SITE BEFORE OR IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE BEST HORTICULTURAL PRACTICE. CUT BROKEN, DEAD OR INJURED BRANCHES IMMEDIATELY ABOVE THE STEM COLLAR ON THE TRUNK OR LIMB. PRUNE ALL BROKEN ROOTS ON THE PLANT SIDE OF THE BREAK. PAINT CUTS OVER 3/4" IN DIAMETER WITH TREE WOUND PAINT. PRUNING SHALL NOT DEFORM OR OTHERWISE DESTROY THE TYPICAL SHAPE OR SYMMETRY OF THE PLANT, AND SHALL NOT REDUCE THE HEIGHT BY MORE THAN ONE–THIRD. DO NOT CUT BACK THE LEADER OF THE PLANT UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
12. FERTILIZING: FERTILIZE SHRUB BEDS WITH 10–10–10 FERTILIZER BROADCAST AT A RATE OF THREE POUNDS PER 100 SQUARE FEET OF SURFACE AREA BROADCAST. APPLY THE FERTILIZER UNIFORMLY TO THE SURFACE BEDS AND WORK INTO THE UPPER TWO INCHES OF SOIL. FERTILIZE INDIVIDUAL TREES AS PER MANUFACTURER'S INSTRUCTIONS. APPLY A SECOND APPLICATION OF FERTILIZER TO ALL PLANT ITEMS AT THE SAME SPECIFIED RATES OVER THE MULCH AT THE END OF AN EIGHT WEEK PERIOD.
13. LIMING: ADD POWDERED LIME EVERY SIX MONTHS – OR SLOW RELEASE GRANULAR LIME–AS PER MANUFACTURER'S INSTRUCTION.
14. MULCHING: WITHIN A 72 HOUR PERIOD AFTER PLANTING, COVER ALL PLANTED AREAS WITH 3" SHREDDED BARK MULCH, NO RED OR DYED MULCH IS TO BE USED. MULCH SHOULD BE PULLED ONE INCH AWAY FROM PLANT TRUNK OR STEM, AND NOT ALLOWED TO REST DIRECTLY AGAINST THE TRUNK OR STEM.
15. GUARANTEE: ALL PLANTS FURNISHED BY THE CONTRACTOR SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER PRELIMINARY INSPECTION AND SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD. ALL DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED AT ONCE BY THE CONTRACTOR, AT NO ADDITIONAL COST TO THE OWNER.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 20 2020
FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE ON CONSTRUCTION SITE

• Civil
• Transportation
• Environmental
• Site Planning
• Surveying
• Permitting
• Landscape Architecture

CROSSMAN ENGINEERING

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Phone: (401) 738-5660

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STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

KEY PLAN

PROJECT TITLE:

PROPOSED MANUFACTURING FACILITY

RESHAPE

MAP F6, LOTS 51-1, 51-108 and 51-109
ZONING DISTRICT MU-2
MIXED USE INDUSTRIAL/COMMERCIAL
PARK EAST DRIVE
WOONSOCKET, RHODE ISLAND

PREPARED FOR:

The Economic Development Foundation of Rhode Island
1300 Highland Corporate Drive
Suite 202
Cumberland, RI 02864
and
Redevelopment Agency of Woonsocket
169 Main Street
Woonsocket, RI 02895

DRAWING TITLE:

LANDSCAPE DETAIL PLAN

DATE:	SCALE:
MAY 2020	AS SHOWN

DWG. NAME: 2456–L02–LNDET–R2.dwg

REVISIONS

NUMBER	REMARKS	DATE
1	REVIEW COMMENTS	06/30/20
2	RIDEM COMMENTS	08/06/20

DRAWING NUMBER

L2

SHEET: 20 OF: 24

Progress Drawing
Not for Construction

PROPOSED FIRST FLOOR PLAN

1 JUNE 2020
Scale: 3/32" = 1'-0"
0' 2' 4' 8' 16'

A101

RESH, INC.
NEW MANUFACTURING FACILITY
WOONSOCKET, RI

CONSULTANT 1

CONSULTANT 2

AUG - 7 2020

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 0 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Harvey & Freedman

STEVEN M. CABRAL
No. 4847
REGISTERED
PROFESSIONAL ENGINEER
8-6-20

Gary Moyer Architect, Inc.
28 Linwood Street Uxbridge, MA 508 278 3707
Gary@GaryMoyerArchitect.net

1 1.5 2 3 4 5 6 7 8 9 9.5 10 11 12 13 14

340' - 0"
300' - 0"
36' - 3 1/2" 18' - 5" 37' - 6" 37' - 6" 37' - 6" 37' - 0" 37' - 6" 37' - 6" 38' - 5" 40' - 0" 15' - 1" 8' - 4" 2' - 5"
18' - 3 1/2" 19' - 4 1/2" 19' - 0 1/2" 23' - 1"

A B C.1 C.9 E F.1 G.1 H J C D D.6 D.8 E.1 E.3 F G J

BOLLARD TYP. · LIGHT FIXTURE · FENCE · NITROGEN TANK · VAPORIZER · 30' x 19' CONCRETE SLAB · WALL-MOUNTED LIGHT FIXTURE · EXPANSION JOINT

AIR COMP. 10' CEILING 12' x 18' · METAL · DN · 12" HIGH WALL

LASER
TBD
THICKENED AND REINFORCED CONCRETE SLAB UNDER
15'2' x 35'

COMBO - PUNCH + LASER
TBD
THICKENED AND REINFORCED CONCRETE SLAB UNDER

MEN 10' CEILING · WOMEN 10' CEILING · 6' - 0" AISLE · TOOL ROOM 10' CEILING 15' x 13'

TIME SAVER NO CEILING 36' x 35' · SPW-316 · SPW-316

WELDING NO CEILING 48' x 35' · WELDER 1 · WELDER 2 · SMOKE EATER · NOTCHER · SPOT WELDER · SPOT WELDER · PUNCH PRESS · DIES · EYE WASH · EYE WASH

GRINDING 15' CEILING 28' x 35' · STROKE SANDER · BELT STORAGE · GRINDER · BELT STORAGE · GRINDER · GRINDER · GRINDER · WORKTABLE BACKDRAFT

EAST STAIR · UP · MAIN ELECTRIC ROOM

ASSEMBLY 35' x 54' POLISHED CONCRETE FLOOR TYP.

12' x 7' OPENING · 12' - 5" AISLE · 8' x 7' DOOR W / GLASS PUSH BUTTON OPEN AUTO CLOSE · COLLECTION · 8' x 7' DOOR W / GLASS PUSH BUTTON OPEN AUTO CLOSE · 79' - 2 1/2" · 4' - 0" · 3' - 10 1/2"

15' WIDE x 14' HIGH OVERHEAD DOOR + DOCK LEVELER · LOADING DOCK 1 · 15' - 0" AISLE

MANUFACTURING
POLISHED CONCRETE FLOOR TYP.

TABLES / SKIDS 116' x 8' · 8' - 0" AISLE

DISPLAY · RECESSED ENTRANCE MAT · TEL. / DATA · IT · VESTIBULE · KNOX BOX · FIRE ALARM ANNUNCIATOR · COLORED CONCRETE

BOLLARDS AT OVERHEAD DOORS TYP. · LOADING DOCK 2 · LOADING DOCK 3 · LOADING DOCK 4 · LOADING DOCK 5 · LOADING DOCK 6 · RESH BOX TRUCK 1 · RESH BOX TRUCK 2 · RESH VAN RACK TAILGATE · 8' x 8' OVERHEAD DOOR DOCK LEVELER TYP.

SHEET METAL RACKS · IN-PROCESS INSPECTION 10' CEILING 22' x 24' · ENGINEER 10' CEILING 14' x 12' · ENGINEER 10' CEILING 14' x 12' · 8' - 0" AISLE · PROD. MANAGER 10' CEILING 14' x 14'

STAGING 132' x 20'

ROOF DRAIN LEADER TYP. · 10" x 10" STEEL TUBE COLUMN TYP. · 165' - 0"

SHIPPING / RECEIVING

STORAGE 50 PALLET RACKS 66' x 65'

LISTA TOOLS · HAEGER 824 · HAEGER 824 · HAEGER 824 · HAEGER 824 · HARDWARE SHELVES

AMADA HG-1003-ATC · THICKENED AND REINFORCED CONCRETE SLAB UNDER · TRUMPF V850SX

PACKING 38' x 40'

FORMING / BENDING 109' x 47'

AMADA HG-1003-ATC · THICKENED AND REINFORCED CONCRETE SLAB UNDER · TRUMPF V850SX

STORAGE 37' x 47' · STORAGE · STORAGE · 79' - 2 1/2"

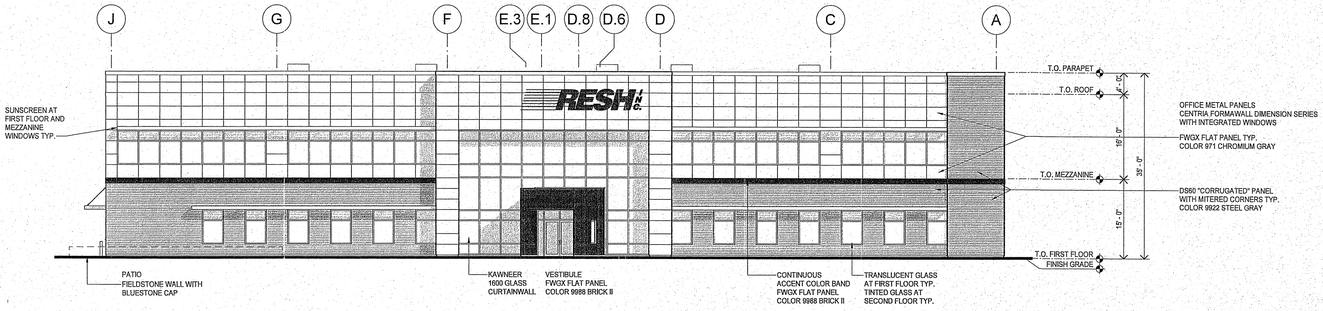
STORAGE

LOBBY TILE · CONF. CARPET · ELEV. ACCESS · ELEV. · UP · MEN TILE · DF · WOMEN TILE · WH · JAN. · STORAGE · UNIFORMS · EYE WASH · FIRST AID · CAFETERIA EXPANSION · OPERABLE PARTITION · CONCRETE SIDEWALK · 1' - 0" · EPOXY PAINT ON FLOOR TYP.

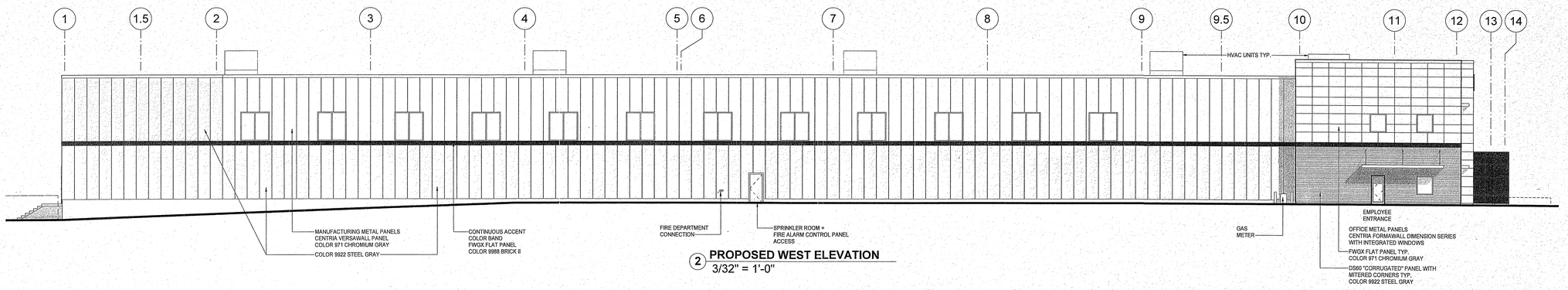
SCALE · SHRINK WRAP · FORK TRUCK CHARGER · SHIP / RECEIVE 10' CEILING 10' x 15' · IN-PROC. INSPECTOR 10' CEILING 12' x 15' · STAGING 52' x 20' · TOGGLE + RIVETER 10' CEILING 12' x 15' · QUALITY MGR. 10' CEILING 12' x 15' · FINAL INSPECTION 10' CEILING 24' x 15' · ELEC. · SPRINKLER EQUIP. WATER METER P.A. CONTROL PNL. · 6' - 0" AISLE · WOMEN 10' CEILING · MEN 10' CEILING · MAINT. TOOL ROOM 10' CEILING 12' x 15' · HARDWARE STORAGE 10' CEILING 12' x 15' · STAGING 87' x 20' · ELEC. · LOCKERS · BULLETIN BOARD · TIME CLOCK · R · V · V · COFFEE · PATIO COLORED CONCRETE · RECESSED ENTRANCE MAT · WEST STAIR · EMPLOYEE ENTRANCE · GAS METER · BOLLARDS · STONE WALL WITH BLUESTONE CAP

EXPANSION JOINT · FIRE DEPARTMENT CONNECTION

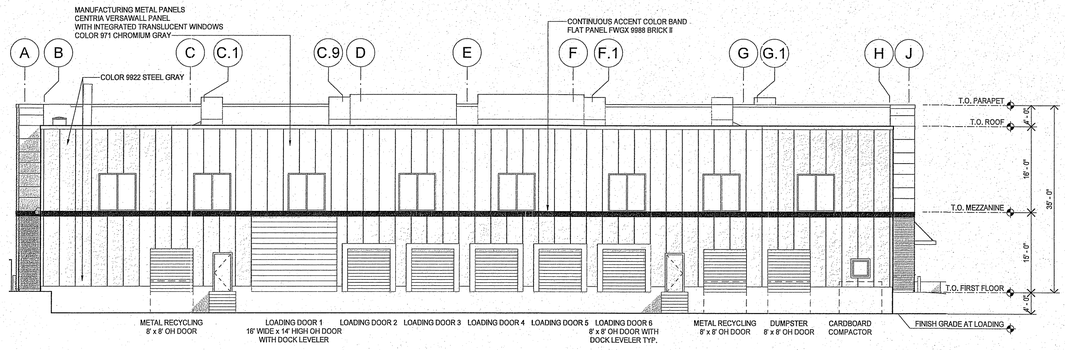
300' - 0" 1 STORY MANUFACTURING
340' - 0"
40' - 0" 2 STORY



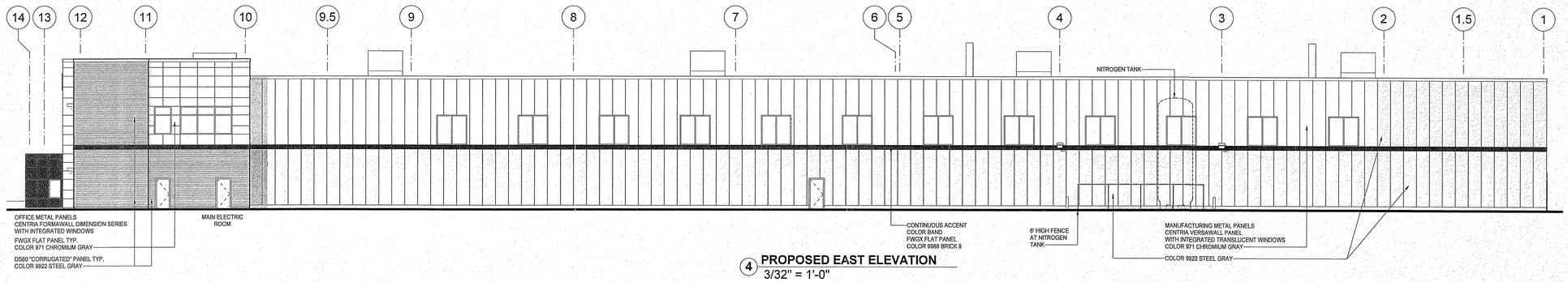
1 PROPOSED SOUTH ELEVATION
3/32" = 1'-0"



2 PROPOSED WEST ELEVATION
3/32" = 1'-0"



3 PROPOSED NORTH ELEVATION
3/32" = 1'-0"



4 PROPOSED EAST ELEVATION
3/32" = 1'-0"

Progress Drawing
Not for Construction

RECEIVED
AUG - 7 2020
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 8 2020 FILE # 20-0150
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Mary L. Freeman

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

PROPOSED ELEVATIONS
26 MAY 2020
Scale: 3/32" = 1'-0"
A201

RESH INC.
NEW MANUFACTURING FACILITY
WOONSOCKET, RI

CONSULTANT 1

CONSULTANT 2

Gary Moyer Architect, Inc.
28 Linwood Street Uxbridge MA 508 278 3707
Gary@GaryMoyerArchitect.net

Progress Drawing
Not for Construction

PROPOSED MEZZANINE PLAN

1 JUNE 2020

Scale: 3/32" = 1'-0"

0" 2" 4" 8" 16"

A102

M:\2020\2 FOSS\T1.PLN

RESH INC.

NEW MANUFACTURING FACILITY
WOONSOCKET, RI

CONSULTANT 1

CONSULTANT 2

NITROGEN TANK

EXPANSION JOINT

MANUFACTURING BELOW

FULL-HEIGHT WALLS

10" x 10" STEEL TUBE COLUMN TYP.

ACOUSTICAL CEILING TILE SUSPENDED FROM LIGHT GAUGE METAL FRAMING TYP.

WINDOW - TRANSLUCENT GLASS TYP.

EAST STAIR

WEST STAIR

SCOTT CARPET

JOHN C. CARPET

OFFICE CARPET

VINYL PLANK

LOUNGE CARPET

ORD. PRC.

WS1

WS2

PURCH.

STOR.

COPY

ANDREW CARPET

JOHN L. ANDREW

COFFEE

WOMEN TILE

MEN TILE

JANITOR'S

CARPET

CONFERENCE CARPET

OPEN TO BELOW

VESTIBULE ROOF - RIVER ROCK ROOF DRAIN

STOR.

ELEV.

JAN.

MEN TILE

WOMEN TILE

SALES MANAGER CARPET

ENGINEER 3 CARPET

FILES CARPET

ENGINEER 2 CARPET

PLOT / COPY CARPET

ROGER ENGINEER 1 CARPET

OFFICE CARPET

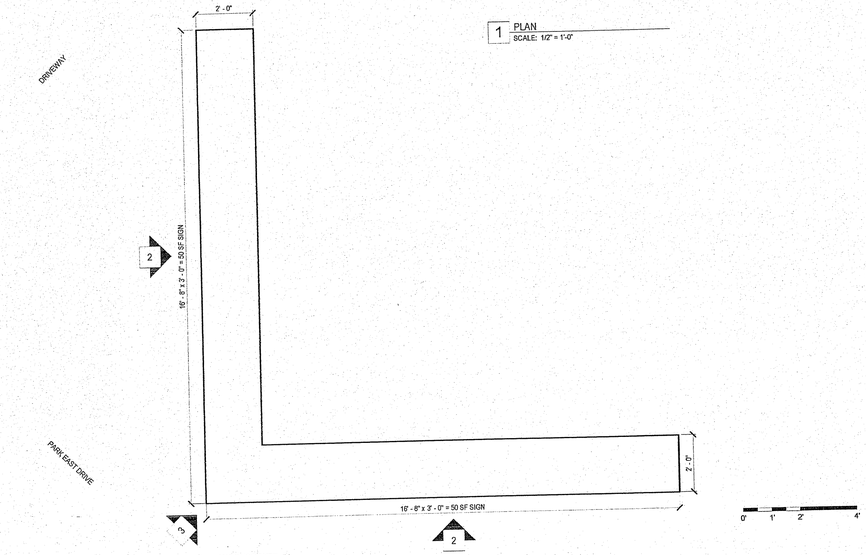
CONFERENCE CARPET

Environmental Management
AUG - 7 2020
Office of Water Resources

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 2 0 2020 FILE # 20-0150
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Mary L. Freeman

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER
8-6-20

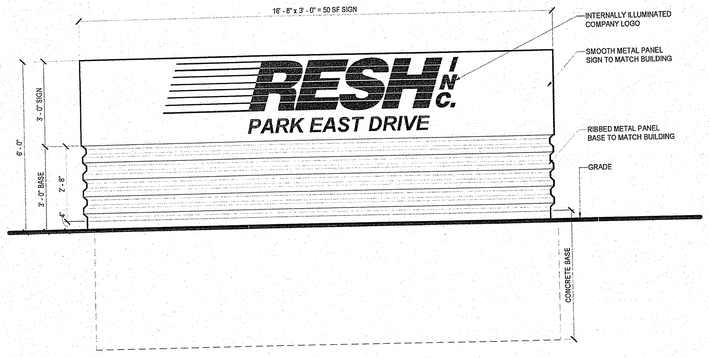
Gary Moyer Architect, Inc.
28 Linwood Street Uxbridge, MA 508 278 3707
Gary@GaryMoyerArchitect.net



1 PLAN
SCALE: 1/2" = 1'-0"

0' 1' 2' 4'

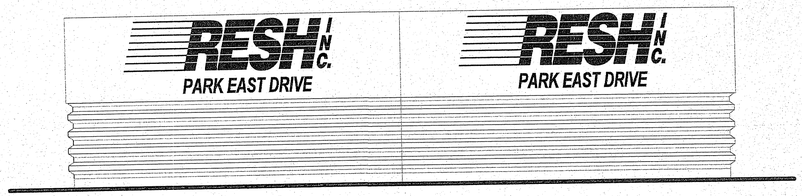
RESH, INC. NEW MANUFACTURING FACILITY WOONSOCKET, RI
PLAN Scale: 1/2" = 1'-0" 9 June 2020
Gary Moyer Architect, Inc. Uxbridge, MA 508 278 3707



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

0' 8' 32' 64'

RESH, INC. NEW MANUFACTURING FACILITY WOONSOCKET, RI
ELEVATION Scale: 1/2" = 1'-0" 9 June 2020
Gary Moyer Architect, Inc. Uxbridge, MA 508 278 3707



3 ELEVATION
SCALE:

0' 1' 2' 4'

RESH, INC. NEW MANUFACTURING FACILITY WOONSOCKET, RI
ELEVATION Scale: 9 June 2020
Gary Moyer Architect, Inc. Uxbridge, MA 508 278 3707

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Darcy L Freeman

STEVEN M. CABRAL
No. 4847
REGISTERED PROFESSIONAL ENGINEER

SIGN DETAILS
9 JUNE 2020
Scale: As Shown
A301

RESH INC.
NEW MANUFACTURING FACILITY
WOONSOCKET, RI

CONSULTANT 1

CONSULTANT 2

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