SITE DEVELOPMENT PLANS

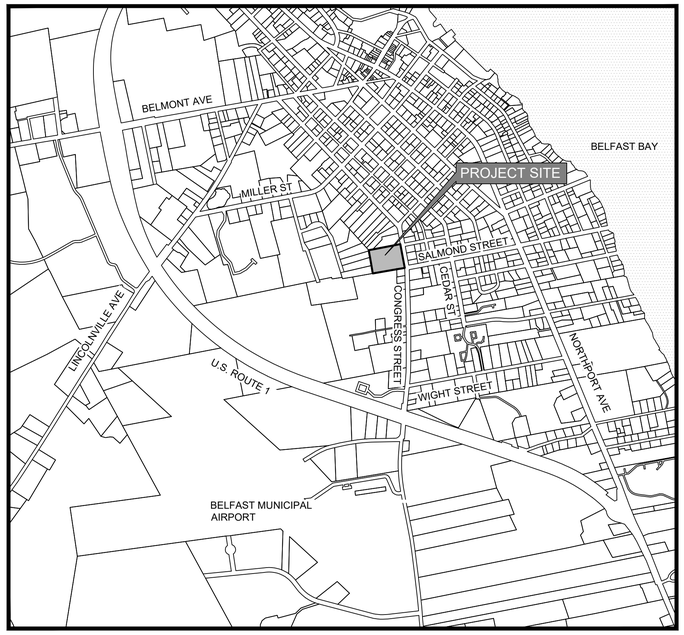
BELFAST MULTI-FAMILY HOUSING

115 CONGRESS STREET - BELFAST, MAINE

APPLICANT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

PROJECT PARCEL SITE
CITY OF BELFAST TAX ASSESSOR'S MAP & LOT NUMBERS

MAP	LOT	ZONING DISTRICT
35	43	RESIDENTIAL DISTRICT 2



LOCATION MAP
SCALE: 1"=500'

UTILITIES

SEWER
CITY OF BELFAST
WASTEWATER DEPARTMENT
54 FRONT STREET
BELFAST, ME 04915
(207) 338-1744

WATER
BELFAST WATER DISTRICT
285 NORTHPORT AVENUE
BELFAST, ME 04915
(207) 338-1200

ELECTRIC
CENTRAL MAINE POWER COMPANY
162 CANCO ROAD
PORTLAND, ME 04104
(207) 828-2683

TELEPHONE
FAIRPOINT COMMUNICATIONS
P.O. BOX 11560
PORTLAND, MAINE 04104
1-888-984-1515

CABLE
CHARTER COMMUNICATIONS, INC.
118 JOHNSON ROAD
PORTLAND, MAINE 04102
(207) 253-2291

DIG SAFE SYSTEM, INC.
TEL. 1-888-DIG-SAFE (344-7233)
FAX 1-781-721-0047
WWW.DIGSAFE.COM

PERMITS

TYPE OF PERMIT	GOVERNING BODY	STATUS
SITE PLAN APPROVAL	CITY OF BELFAST, MAINE PLANNING BOARD 131 CHURCH STREET BELFAST, ME 04915 TEL. 207-338-3370	SUBMITTED: 02/03/2021
STORMWATER PERMIT	ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, ME 04333 TEL. 207-287-7688	SUBMITTED: PENDING
BUILDING PERMIT	CITY OF BELFAST, MAINE CODE ENFORCEMENT OFFICER 131 CHURCH STREET BELFAST, ME 04915 TEL. 207-338-3370	TO BE SUBMITTED BY OWNER/CONTRACTOR

SHEET INDEX

PREPARED BY:

CIVIL ENGINEER:
TERRADYN CONSULTANTS, LLC
565 CONGRESS STREET, SUITE 201
PORTLAND, MAINE 04101
(207) 926-5111

ARCHITECT:
ARCHETYPE, PA
48 UNION WHARF
PORTLAND, ME 04101
(207) 772-6022

SURVEYOR:
PAUL H. RUOPP, JR. PLS
LAND SURVEYING & MAPPING
25 MAPLE STREET
MONMOUTH ME, 04259
(207) 933-3393

LANDSCAPE ARCHITECT:
ACETO LANDSCAPE ARCHITECTS
565 CONGRESS STREET, SUITE 310
PORTLAND, ME 04101
(207) 221-3390

MECHANICAL/ELECTRICAL:
BENNETT ENGINEERING, INC.
7 BENNETT ROAD
FREEPORT, ME 04032
(207) 865-9475

GENERAL NOTES

1. THE PROJECT WILL BE SUBJECT TO THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY THE CITY OF BELFAST AND THE LOCAL UTILITY COMPANIES.
2. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY THE CITY OF BELFAST OR THE LOCAL UTILITY COMPANIES SHALL BE COORDINATED BY THE CONTRACTOR.
3. THE LOCATION AND/OR ELEVATIONS OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION. IT SHALL BE THE RESPONSIBLE OF THE CONTRACTOR TO RELOCATE ANY EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. THE EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIRED TO PREVENT EROSION AND SEDIMENTATION. ADDITIONAL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY THE OWNER, ENGINEER, OR REGULATING AGENCIES.
5. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
6. ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE STRICTEST STANDARDS CONTAINED IN THE MAIN DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE PROJECT SPECIFICATIONS, AND THE UTILITY COMPANY AND CITY OF BELFAST REQUIREMENTS.
7. ALL DIMENSIONS, UNLESS OTHERWISE NOTED IS TO THE EDGE OF PAVEMENT, FACE OF CURB, OR THE FACE OF THE BUILDING.
8. ALL HANDICAP PARKING SPACES ARE TO BE CONSTRUCTED IN COMPLIANCE WITH ADA REQUIREMENTS.
9. ALL SIGNAGE SHALL BE SUPPLIED AND INSTALLED IN COMPLIANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

UTILITY NOTES

1. SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF SDR-35 FOR GRAVITY PIPE, UNLESS OTHERWISE NOTED ON THE PLANS. ALL SEWER UTILITY MATERIALS AND INSTALLATION METHODS SHALL CONFORM TO THE REQUIREMENTS OF THE MAINE STATE PLUMBING CODE.
2. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n=0.012 OR LESS.

LEGEND

- EXISTING PROPERTY LINE
- PROJECT SITE BOUNDARY
- EXISTING SETBACK LINE
- PROPOSED EASEMENT
- 124 EXISTING MINOR CONTOUR
- 124 EXISTING MAJOR CONTOUR
- 124 PROPOSED CONTOUR
- SD EXISTING STORMDRAIN
- SD PROPOSED STORMDRAIN
- S EXISTING SANITARY SEWER
- S PROPOSED SANITRY SEWER
- W EXISTING WATER LINE
- W PROPOSED WATER LINE
- UD EXISTING UNDERDRAIN
- UD PROPSED UNDERDRAIN
- OHE EXISTING OVERHEAD ELECTRIC & TELEPHONE
- OHE PROPOSED OVERHEAD ELECTRIC & TELEPHONE
- UGE EXISTING UNDERGROUND ELECTRIC & TELEPHONE
- UGE PROPOSED UNDERGROUND ELECTRIC & TELEPHONE
- EXISTING EDGE OF PAVEMENT
- PROPOSED EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OF GRAVEL
- EXISTING CURB
- PROPOSED CURB
- PROPOSED FENCE
- SF SILT FENCE
- TP-A TEST PIT
- EXISTING VALVE
- PROPOSED VALVE
- EXISTING HYDRANT
- EXISTING LIGHT POLE
- PROPOSED LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAIN MANHOLE
- PROPOSED DRAIN MANHOLE
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- 30.20 EXISTING SPOT GRADE
- 30.20 PROPOSED SPOT GRADE
- SURVEY CONTROL POINT
- EXISTING MONUMENT
- EXISTING IRON PIPE
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING BUILDING
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED PAVEMENT

STATE OF MAINE
ADRIENNE R. FINE
No. 14252
REGISTERED PROFESSIONAL ENGINEER

DATE: 03.23.21
P.E. ADRIENNE R. FINE

NO.	DATE	REVISIONS	APPVD BY
4	03.23.21	REVISED PER CITY AND DEP REVIEW COMMENTS	ARF
3	02.18.21	REVISED UTILITY PLAN PER CITY REVIEW COMMENTS	ARF
2	02.02.21	ADDED PHOTOMETRIC LIGHTING PLAN AND SUBMITTED TO CITY OF BELFAST	ARF
1	01.20.21	SUBMITTED TO DEP	ARF

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

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www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC

Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE:
COVER SHEET

CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	AS NOTED
DESIGNED:	ARF
JOB NO:	2033
FILE: 2033-COVER.DWG	

SHEET C-1.0

GRID NORTH MSPCS

1 INCH DIAMETER IRON ROD SET IN STONE

¾ INCH DIAMETER IRON PIPE BENT AND RUSTED AT BASE OF A 3 STEM MAPLE

(149 PER DEED) S78°17'54"E

1 INCH DIAMETER IRON ROD EXISTING, RUSTED, SOLID, NO IDENTIFICATION CAP, HELD BY GOOD DEEDS, INC AS SOUTHWESTERLY CORNER OF LOT FORMER OK JOSEPHINE THOMPSON

1 INCH DIAMETER IRON ROD SET IN STONE

WOVEN WIRE FENCE

SHIFRA STEIN PETRISKO
BOOK 1546 PAGE 167

MAP 35
LOT 44

1 INCH DIAMETER IRON ROD SET IN STONE

N78°17'54"E
275.22'
{16 RODS, (264 FT) PER DEED}

(268 FEET PER DEED)

18 INCH DIAMETER HDPE CULVERT INVERT IN 165.9'

DIRECTION OF FLOW NOT OBSERVABLE

SEWER MANHOLE RIM ELEV 171.6

BRADBURY STREET

6 INCH CAST II LINE

12 IN DUCT WATE

AMY E ARNETT
CHRISTIAN S HALL
BOOK 3796 PAGE 204

MAP 35
LOT 45

SEE BOOK 1119 PAGE 019

CORNER 380 FEET FROM LINE OF STONEWALL IN VICINITY OF SOUTHERLY LINE OF CITY OF BELFAST LOT

LINE PER SURVEY FOR JAY LEGORE AND CHRISTINE LEGORE BY GOOD DEEDS, INC, SEE PLAN RECORDED PLAN BOOK 15 PAGE 237

CORNER OF CITY OF BELFAST LOT PER SURVEY BY GOOD DEEDS, PLAN BOOK 15 PAGE 237

N11°28'11"W 17.48'

N11°28'11"W 10.89'

N78°17'54"E
229.84'
(230 FT PER DEED)

ANDREW C HOGLUND
BOOK 1985 PAGE 10

MAP 10
LOT 38-F
LOT 7 PLAN BOOK 16 PAGE 27

GRAVEL SURFACE

UNABLE TO VIEW PIPES OR OUTFLOW
CATCH BASIN RIM ELEV 180.4

ASPHALT PAVEMENT
LOT AREA = 183,802 SQ FT 4.22 ACRES

CITY OF BELFAST
BOOK 290 PAGE 57

MAP 35
LOT 43

CONGRESS STREET

[22 RODS, (363 FT) PER DEED]

S78°27'21"E 364.2'

30 INCH DIAMETER CMP CULVERT INVERT IN 176.9'

30 INCH DIAMETER CMP CULVERT INVERT OUT 174.5'

N11°28'11"W 118.47'

CHRISTIAN S HALL
BOOK 3811 PAGE 311

MAP 35
LOT 58

LOT 8 PLAN BOOK 16 PAGE 27

CITY OF BELFAST
BOOK 637 PAGE 399

MAP 35
LOT 43

GRAVEL SURFACE

ASPHALT PAVEMENT

FLOOD HAZARD AREA
A ZONE NO BASE FLOOD ELEVATION DETERMINED

FLOOD HAZARD BOUNDARY

GEORGE L SISCOE
NANCY U CROOKER
BOOK 3932 PAGE 035

MAP 35
LOT 57

LOT 9 PLAN BOOK 16 PAGE 27

N11°28'11"W 128.40'

(380 FEET PER DEED BOOK 637 PAGE 399)
361.74 FEET PER SURVEY BY GOOD DEEDS

N11°28'11"W 104.11'

(104.00 FEET PER PLAN BOOK 16 PAGE 27)

¾ INCH DIAMETER REINFORCING BAR EXISTING, WITH PLASTIC IDENTIFICATION CAP, CAP INSCRIPTION NOT LEGIBLE, BELIEVED TO HAVE BEEN SET BY COFFIN ENGINEERING

YOLANDE KOLMENT, TRUSTEE
YRK IRREVOCABLE TRUST
BOOK 3546 PAGE 141

MAP 35
LOT 56

LOT 10 PLAN BOOK 16 PAGE 27

18 INCH DIAMETER HDPE CULVERT INVERT OUT 177.5' SOURCE NOT VISIBLE

MATERIAL PILE

GRAVEL SURFACE

S78°33'20"W 381.41'

¾ INCH DIAMETER REINFORCING BAR EXISTING, WITH PLASTIC IDENTIFICATION CAP, CAP INSCRIPTION NOT LEGIBLE, BELIEVED TO HAVE BEEN SET BY GOOD DEEDS, INC/

ARTHUR WILLIAM SANDERSON
SYLVIA KYM SANDERSON
BOOK 1443 PAGE 53

MAP 34
LOT 33

1 INCH DIAMETER IRON ROD EXISTING

¾ INCH DIAMETER REINFORCING BAR EXISTING, WITH PLASTIC IDENTIFICATION CAP, CAP INSCRIBED MJC 2074

S78°39'13"W 120.00'

MARY G SALVATORE
ALBERT J SALVATORE SR
BOOK 2661 PAGE 165

MAP 35
LOT 42

CATCH BASIN RIM ELEV 176.9'

CATCH BASIN RIM ELEV 175.8'

SALMOND STREET

SEWER MANHOLE RIM ELEV 177.2

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

LEGEND:

SURVEY CONTROL (TRAVERSE) STATION	SANITARY SEWER LINE ss
IRON PIPE OR ROD EXISTING	STORM DRAIN LINE sd
STONE OR CONCRETE MONUMENT EXISTING	WATER LINE w
DRILL HOLE EXISTING	AERIAL ELECTRIC & TELEPHONE LINE oh&t
5/8 " DIA REINFORCING BAR SET WITH SURVEYORS ID CAP	BELOW GRADE ELECTRIC,TELEPHONE LINE uge/t
MONUMENT SET (OTHER THAN REBAR)	WIRE FENCE LINE x x
BENCH MARK OR TEMPORARY BENCH MARK B M	WOOD FENCE LINE
CATCH BASIN	CHAIN LINK FENCE
DRAIN MANHOLE	STONEWALL
SANITARY SEWER MANHOLE	PROPERTY LINE
WATER GATE VALVE	EASEMENT LINE
HYDRANT	PARCEL LINE PER DEED
WATER SHUT OFF	ZONING YARD SET BACK LINE
WELL	LOT/DIVISION LINE
UTILITY POLE	EXISTING CONTOUR LINE
UTILITY GUY POLE	WETLANDS LIMIT W/L
CONTROLLER CABINET	VEGETATION/TREELINE LIMIT
POLE LIGHT	
GAS/OIL FILL POINT COVER	LINE TABLE REFERENCE L1
SOIL TEST PIT LOCATION	CURVE TABLE REFERENCE C1
SOIL BORING LOCATION	
TRAFFIC DIRECTION FLOW DIRECTION	

NOTES:

1. THE SURVEY ON WHICH THIS PLAN IS BASED IS ORIENTED TO GRID NORTH MAINE STATE PLANE COORDINATE SYSTEM EAST ZONE, 1983 NORTH AMERICAN DATUM, OBSERVED AT THE PROJECT SITE ON AUGUST 03, 2020, WITH A LECIA GS 15 RECEIVER. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 1988 ESTABLISHED AT THE PROJECT SITE BY GPS OBSERVATIONS.

2. THE SURVEY WAS CONDUCTED WITH A TOTAL STATION IN A RADIAL MANNER FROM A CONTROL TRAVERSE NETWORK.

3. PROJECT BENCH MARK IS A 5/8 INCH DIAMETER REINFORCING BAR 4 FT IN LENGTH WITH A PLASTIC IDENTIFICATION CAP ON THE WESTERLY SIDE OF CONGRESS STREET, 55.8 FEET NORTHWESTERLY OF AN EXITING HYDRANT AT THE SOUTHERLY SIDE OF SALMOND STREET, 8.8 FEET WESTERLY OF THE WESTERLY EDGE OF PAVEMENT OF CONGRESS STREET. ELEVATION 177.83 FEET.

4. THE PROJECT PARCEL IS SHOWN AS LOT 43 ON MAP 35 TOWN OF BELFAST ASSESSORS MAPS.

5. THE PROJECT PARCEL IS SITUATED IS THE RESIDENTIAL DISTRICT 2 (RES-2)

6. WETLAND BOUNDARY SHOWN IS BASED ON DELINEATION BY OTHERS.

7. A PORTION OF THE PROJECT PARCEL ALONG THE WESTERLY BOUNDARY IS SHOWN AS BEING IN A DESIGNATED FLOOD HAZARD AREA, ZONE A NO BASE FLOOD ELEVATION DETERMINED.

8. CONGRESS STREET IS A PUBLIC MAINTAINED STREET. RIGHT OF WAY WIDTH WAS HELD AS 4 RODS, 66 FEET. LOCATION OF THE RIGHT OF WAY LIMITS ARE BASED ON PHYSICAL EVIDENCE AT THE SITE AND THE LOCATION OF THE CENTERLINE OF THE STREET.

I HEREBY CERTIFY, THAT TO THE BEST OF MY KNOWLEDGE, THE SURVEY REPRESENTED BY THIS PLAN CONFORMS WITH THE STANDARDS OF PRACTICE OF THE STATE OF MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS.

PAUL H. RUOPP, JR. P.L.S. NO 1165

THIS PLAN HAS BEEN PREPARED FOR THE CLIENT NAMED HEREON FOR THE PURPOSE OF SHOWING THE SITE DETAIL TO SUPPORT AN APPLICATION FOR A BUILDING PERMIT IN THE SHORELAND RESIDENTIAL ZONE.

THE PLAN REFLECTS CONDITIONS ON THE SURFACE OF THE EARTH AS OF THE DATE OF THE SURVEY IN .

USE OF THIS PLAN BY INDIVIDUALS AND OR PARTIES OTHER THAN THE CLIENT NAMED HEREON, AND / OR USE OF THIS SURVEY FOR PURPOSES OTHER THAN WHICH THE SURVEY WAS COMPLETED IS UNAUTHORIZED WITHOUT EXPRESSED WRITTEN CONSENT OF THE SURVEYOR.

UNAUTHORIZED USE OF THE PLAN OR RELEASE OF THE PLAN TO UNAUTHORIZED PARTIES OR AGENCIES WILL ENTITLE THE SURVEYOR TO ADDITIONAL COMPENSATION.

PLAN OF TOPOGRAPHIC SITE SURVEY
OF:
PROPERTY OF CITY OF BELFAST
115 CONGRESS STREET
BELFAST, MAINE
FOR:
DEVELOPERS COLLABORATIVE
PORTLAND, MAINE

NOT VALID WITHOUT EMBOSSED SEAL OF SURVEYOR

STATE OF MAINE
PAUL H. RUOPP, JR.
1165
PROFESSIONAL LAND SURVEYOR

24AUG2020

PAUL H. RUOPP JR., PLS
LAND SURVEYING & MAPPING
25 MAPLE STREET P O BOX 330
MONMOUTH, MAINE 04259
TEL & FAX: 207-933-3393

FIELD WK: PHR III	
DRAWN BY:PHR JR	
CHECKED BY:PHR JR	
DATE: 27OCT2020	
SCALE: 1" = 30'	
FIELD BK:0082	
PROJ: 14010004	
SHEET: 1 OF 1	
File No.: 14010003	

WOVEN WIRE FENCE

REMOVE FENCE

FLOOD HAZARD BOUNDARY

FLOOD HAZARD AREA
A ZONE NO BASE FLOOD
ELEVATION DETERMINED

WETLAND
BOUNDARY

GRADE TO REMOVE
MATERIAL MOUNDS
AND LOW AREAS
CREATED BY DPW
ACTIVITIES

30 INCH DIAMETER CMP
CULVERT INVERT IN 176.9'

25'

REMOVE ALL ON-SITE
COMPACT GRAVEL
AREAS AND PREPARE
FOR RE-VEGETATION
OR DEVELOPMENT

30 INCH DIAMETER CMP
CULVERT INVERT OUT
174.5'

REMOVE STORM DRAIN

GRAVEL SURFACE

REMOVE CATCH BASIN
AND AFFILIATED
STORM DRAIN

UNABLE TO VIEW PIPES
OR OUTFLOW

CATCH BASIN
RIM ELEV 180.4

ASPHALT PAVEMENT

REMOVE ALL ON-SITE
PAVED AREAS

ASPHALT PAVEMENT

GRADE TO REMOVE
MATERIAL MOUNDS
AND LOW AREAS
CREATED BY DPW
ACTIVITIES

REMOVE MATERIAL PILE

MATERIAL
PILE

REMOVE STORM DRAIN

18 INCH DIAMETER HDPE
CULVERT
INVERT OUT 177.5'
SOURCE NOT VISIBLE

GRAVEL SURFACE

SEWER MANHOLE
RIM ELEV 171.6

DISCONTINUE
WATER SERVICE

REMOVE UTILITY
POLE

BRADBURY
STREET

6 INCH DIAMETER
CAST IRON WATER
LINE

12 INCH DIAMETER
DUCTILE IRON
WATER LINE

CONGRESS STREET

SAWCUT
TRENCH

SAWCUT

SAWCUT

CATCH BASIN
RIM=178.18'
15" INV OUT=175.58'

REMOVE &
REPLACE
EXISTING CB

CATCH BASIN
RIM=177.07'
15" INV
IN=171.77

SALMOND
STREET

SEWER MANHOLE
RIM ELEV 177.2
INV. OUT 170.83

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

STATE OF MAINE
ADRIENNE R. FINE
No. 14252
REGISTERED
PROFESSIONAL ENGINEER

DATE: 03.23.21

P.E. ADRIENNE R. FINE

NO.	DATE	REVISIONS	APP'D BY
4	03.23.21	REVISED PER CITY AND DEP REVIEW COMMENTS	ARF
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565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

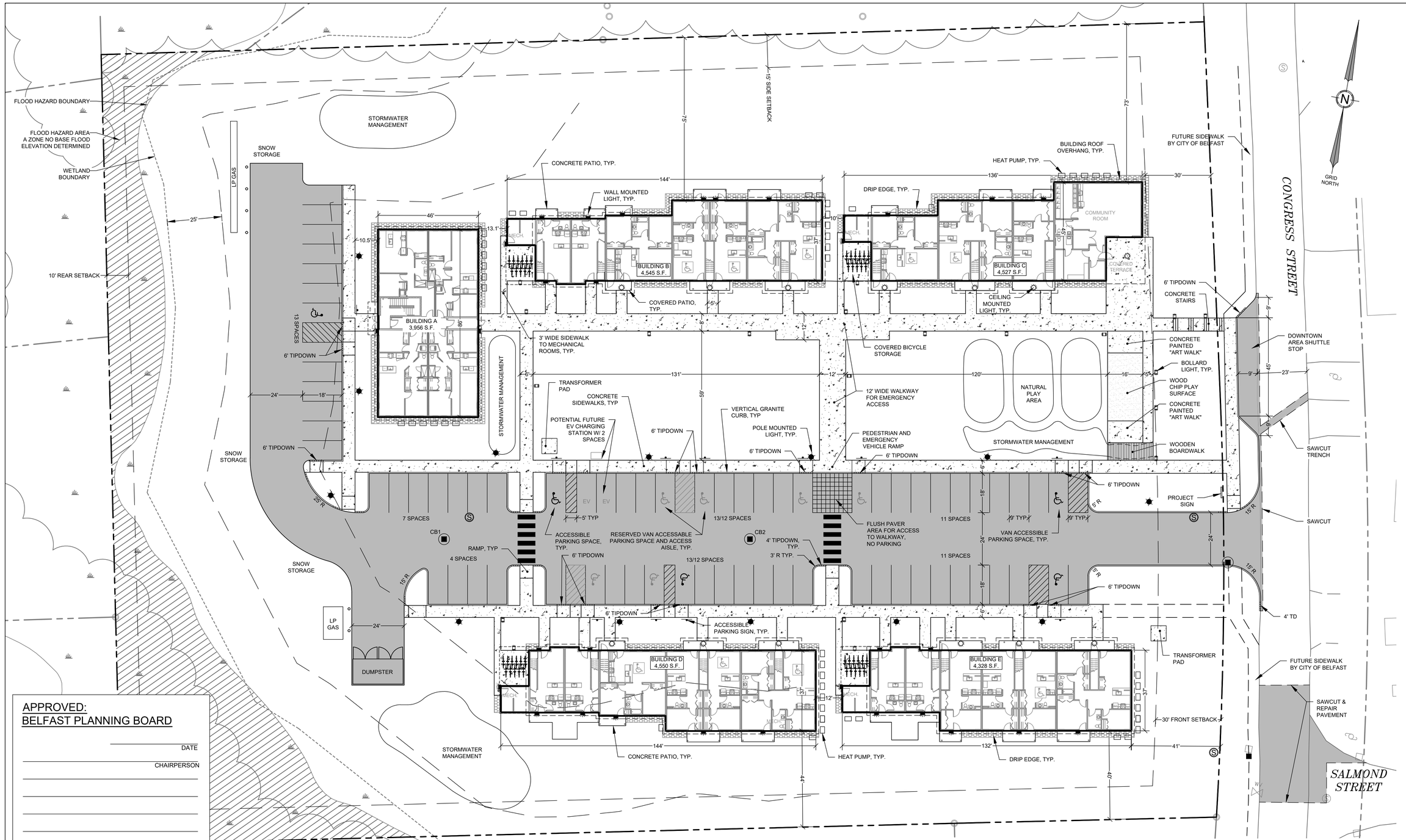
PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE:
EXISTING CONDITIONS & DEMOLITION PLAN

CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	1"=20'
DESIGNED:	ARF
JOB NO:	2033
FILE:	2033-BASE.DWG
SHEET	C-2.0



APPROVED:
BELFAST PLANNING BOARD

DATE

CHAIRPERSON

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

ZONING CRITERIA (RESIDENTIAL 2 ZONE)		
STANDARD	REQUIRED	PROPOSED
MINIMUM LOT SIZE	10,000 S.F.	188,849 S.F.
MINIMUM STREET FRONTAGE	60 FT	367 FT
MINIMUM FRONT SETBACK	30 FT	30.0 FT
MINIMUM SIDE SETBACK	15 FT	40.4 FT
MINIMUM REAR SETBACK	10 FT	122.3 FT
MAXIMUM RESIDENTIAL DENTSITY	1 UNIT / 2,000 S.F.	1 UNIT / 3,497 S.F.
MAXIMUM LOT COVERAGE	65%	36%
MAXIMUM STRUCTURE HEIGHT	38 FT	37 FT

BUILDING SUMMARY					
BUILDING ID	# UNITS	# 1 BR UNITS	# 2 BR UNITS	# 3 BR UNITS	INCOME RESTRICTION
BUILDING A	12	0	12	0	NO
BUILDING B	10	4	4	2	YES
BUILDING C	6	2	2	2	YES
BUILDING D	10	4	4	2	YES
BUILDING E	10	6	2	2	YES
TOTAL	48	16	24	8	-

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF BELFAST BY DEEDS RECORDED IN THE WALDO COUNTY REGISTRY OF DEEDS IN BOOK 290, PAGE 57 AND BOOK 637 PAGE 399.
2. THE PROPERTY IS SHOWN AS LOT 43 ON THE CITY OF BELFAST TAX MAP 35 AND IS LOCATED IN THE RESIDENTIAL 2 (RES-2) ZONING DISTRICT.
3. TOTAL AREA OF PARCEL: 4.34 ACRES
4. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED UPON A PLAN TITLED "PLAN OF TOPOGRAPHIC SITE SURVEY OF: PROPERTY OF CITY OF BELFAST, 115 CONGRESS STREET, BELFAST, MAINE FOR: DEVELOPERS COLLABORATIVE" PREPARED BY PAUL H. RUOPP JR., PLS AND DATED AUGUST 2020.
5. WETLAND INFORMATION SHOWN HEREON IS BASED UPON A WETLAND DELINEATION PERFORMED BY MARK HAMPTON IN JULY OF 2020. WETLAND FLAGS WERE SURVEY LOCATED BY THE PROJECT SURVEYOR.
6. TOTAL PROPOSED PARKING: 72 SPACES (1.50 SPACES PER UNIT)

   ALTERNATE STRIPING PLAN WITH ADDITIONAL ADA PARKING: 70 SPACES (1.46 SPACES PER UNIT)

OFF STREET PARKING				
	# RESIDENTIAL UNITS	# PARKING SPACES	# ADA PARKING SPACES	PARKING RATIO
MARKET RATE HOUSING (BUILDING A)	12	24	1	2 SPACES/UNIT
AFFORDABLE HOUSING (BUILDINGS B-E)	36	48	4	1.3 SPACES/UNIT
TOTAL	48	72	5	1.5 SPACES/UNIT

OFF STREET PARKING - ALTERNATE STRIPING PLAN				
	# RESIDENTIAL UNITS	# PARKING SPACES	# ADA PARKING SPACES	PARKING RATIO
MARKET RATE HOUSING (BUILDING A)	12	24	1	2 SPACES/UNIT
AFFORDABLE HOUSING (BUILDINGS B-E)	36	46	10	1.3 SPACES/UNIT
TOTAL	48	70	11	1.4 SPACES/UNIT

STATE OF MAINE
ADRIENNE R. FINE
No. 14252
REGISTERED
PROFESSIONAL ENGINEER

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SUITE 101
NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111 FAX: (207) 221-1317
www.terradynconsultants.com

TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE:
SITE PLAN

CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	1"=20'
DESIGNED:	ARF
JOB NO:	2033
FILE:	2033-BASE.DWG
SHEET	C-3.0

UDSF #2 OUTLET, 4"SD WITH BALL VALVE, LLS AND RIPRAP PROTECTION, INV OUT=177.00

SPILLWAY 181.00

LLS BERM=177.50 SUMP=176.50

TOP BERM 182.25

TOP BERM 182.25

UDSF #2 179.50

FLOOD HAZARD BOUNDARY

FLOOD HAZARD AREA A ZONE NO BASE FLOOD ELEVATION DETERMINED

WETLAND BOUNDARY

181.50

SEDIMENT SUMP 180.50

LP GAS

25'

GRADE TO REMOVE LOW AND HIGH AREAS ALONG TOP OF SLOPE

183.50

183.50

183.69

183.87

BUILDING A FFE 183.66

BUILDING B FFE 184.25

HIGH POINT 184.10

183.82

183.48

183.32

BUILDING C FFE 182.50

FFE 182.84

COMMUNITY ROOM

FFE 182.00

COVERED TERRACE

181.94

182.69

182.18

181.73

181.37

DRIP EDGE, TYP.

ROOF OVERHANG, TYP.

HEAT PUMP, TYP.

SILT BARRIER, TYP.

SEWER MANHOLE RIM ELEV 171.6

BRADBURY STREET

GRID NORTH

6 INCH DIAMETER CAST IRON WATER LINE

12 INCH DIAMETER DUCTILE IRON WATER LINE

CONGRESS STREET

RAIN GARDEN #2

TRANSFORMER PAD

TUNNEL

RAIN GARDEN #1

179.90

5%

RAIN GARDEN #2 OUTLET, 4"SD WITH LLS & RIPRAP PROTECTION INV OUT=179.12

LLS BERM=179.50 SUMP=178.50

HIGH PT 183.40

CB1 RIM=182.60 INV IN=178.65 INV OUT=178.65

CB2 RIM=182.60 INV OUT=179.33

183.10

GRADE TO REMOVE LOW AND HIGH AREAS ALONG TOP OF SLOPE

LP GAS

STABILIZED CONSTRUCTION ENTRANCE

CB3 RIM=177.00 12" INV OUT=173.11

184.19

184.19

182.61

181.69

181.69

BUILDING D FFE 184.25

FFE 182.67

BUILDING E FFE 181.75

TRANSFORMER PAD

INV OUT =178.29

183.15

183.25

REMOVE EXISTING CB

CATCH BASIN RIM=178.18' 15" INV OUT=175.58'

CB4, TYPE F RIM=178.18 12" INV IN=172.25 15" INV OUT=172.25

CATCH BASIN RIM=177.07' 15" INV IN=171.77

UDSF #1 177.00

TOP BERM 180.50

DRIP EDGE, TYP.

REPLACE 15" SD & RECONNECT TO CB

SALMOND STREET

DOUBLE SILT BARRIER ALONG WETLANDS

SEWER MANHOLE RIM ELEV 177.2 INV. OUT 170.83

UDSF #1 OUTLET, 4"SD WITH BALL VALVE, LLS AND RIPRAP PROTECTION INV OUT=175.00

LLS BERM=175.50 SUMP=174.50

TOP BERM 180.50

SPILLWAY 179.00

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

STATE OF MAINE
ADRIENNE R. FINE
No. 14252
REGISTERED PROFESSIONAL ENGINEER

DATE: 03.23.21
P.E. ADRIENNE R. FINE

NO.	DATE	REVISIONS	APP'D BY
4	03.23.21	REVISED PER CITY AND DEP REVIEW COMMENTS	ARF
3	02.18.21	REVISED UTILITY PLAN PER CITY REVIEW COMMENTS	ARF
2	02.02.21	ADDED PHOTOMETRIC LIGHTING PLAN AND SUBMITTED TO CITY OF BELFAST	ARF
1	01.20.21	SUBMITTED TO DEP	ARF

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

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PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE:
GRADING, DRAINAGE & EROSION CONTROL PLAN

CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	1"=20'
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SHEET	C-4.0

GRID NORTH

WETLAND BOUNDARY

3 BURIED 1,000 GALLON PROPANE TANKS FOR BUILDINGS A, B & C

25'

PROTECTIVE BOLLARD, TYP

STORMWATER MANAGEMENT

GAS SERVICE

ELECTRICAL METER

6" FIRE WATER SERVICE ENTRY

2" DOMESTIC WATER SERVICE ENTRY

BUILDING A

2" BEND

CURB STOP

2"x2" TEE

6"x6" TEE WITH GATE VALVE

6" SANITARY SERVICE INV=178.55

GROUND MOUNTED HEAT PUMP UNIT, TYP.

STORMWATER MANAGEMENT

PAD MOUNTED TRANSFORMER

POTENTIAL FUTURE EV CHARGING STATION

SMH 3
RIM=182.79
INV IN=176.69
INV OUT=176.59

6" SANITARY SERVICE INV=178.00

BUILDING B

GROUND MOUNTED HEAT PUMP UNIT, TYP.

6" SANITARY SERVICE INV=176.54

BUILDING C

COMMUNITY ROOM

COVERED TERRACE

6"x2" TAPPING SLEEVE

12"x6" TAPPING SLEEVE & GATE VALVE

UTILITY DROP FROM EXISTING POLE & EXTEND UGE TO SITE

SEWER MANHOLE
RIM ELEV 171.6

BRADBURY STREET

CONGRESS STREET

6" INCH DIAMETER CAST IRON WATER LINE

12 INCH DIAMETER DUCTILE IRON WATER LINE

STORMWATER MANAGEMENT

CB1

6" ELBOW WITH GATE VALVE

CB2

6"x6" TEE WITH GATE VALVE

SMH 2
RIM=177.80
INV IN=173.28
INV OUT=173.18

CB3

12"x6" TAPPING SLEEVE & GATE VALVE

6"x2" TAPPING SLEEVE

PROTECTIVE BOLLARD, TYP

2 BURIED 1,000 GALLON PROPANE TANKS FOR BUILDINGS D & E

STROMWATER FEATURES SHOWN FOR REFERENCE, SEE SHEET C-4.0 FOR DETAILS AND STORM DRAIN

2" BEND

CURB STOP

2"x2" TEE

PAD MOUNTED TRANSFORMER

6" FIRE WATER SERVICE ENTRY

2" DOMESTIC WATER SERVICE ENTRY

BUILDING D

6" SANITARY SERVICE INV=176.80

BUILDING E

6" SANITARY SERVICE INV=175.30

GAS SERVICE

ELECTRICAL METER

STORMWATER MANAGEMENT

GROUND MOUNTED HEAT PUMP UNIT, TYP.

CATCH BASIN
RIM=178.18'
15" INV OUT=175.58'

CB4

SMH 1
RIM=178.80
INV IN=172.10
INV OUT=172.00

CONNECT TO EXISTING SMH WITH WATERTIGHT CORED AND BOOTED CONNECTION
INV IN=170.93

CATCH BASIN
RIM=177.07'
15" INV IN=174.97

UTILITY DROP FROM EXISTING POLE & EXTEND UGE TO SITE

SALMOND STREET

SEWER MANHOLE
RIM ELEV 177.2
INV. OUT 170.83

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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PROJECT: BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE: UTILITY PLAN

CLIENT: DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	1"=20'
DESIGNED:	ARF
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FILE:	2033-BASE.DWG
SHEET	C-5.0

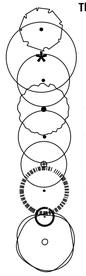
PLANTING NOTES

1. CONTACT UTILITY COMPANIES AS REQUIRED BY STATE AND LOCAL REGULATIONS BEFORE DIGGING. LOCATE AND MARK EXISTING UTILITIES.
2. REFER TO CIVIL ENGINEER'S GRADING PLANS FOR FINAL GRADING AND UTILITY LOCATIONS.
3. THE CONTRACTOR SHALL OBTAIN ALL PERMITS WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.
4. LANDSCAPE ARCHITECT TO REVIEW PLANT MATERIALS AT SOURCE OR BY PHOTOGRAPHS PRIOR TO DIGGING OR SHIPPING OF PLANT MATERIAL.
5. CONTRACTOR IS TO VERIFY ALL QUANTITIES. IF QUANTITIES ON PLANT LIST DIFFER FROM GRAPHIC INDICATIONS, GRAPHICS SHALL PREVAIL.
6. EXACT LOCATIONS OF TREES AND B&B SHRUBS ARE TO BE STAKED BY THE CONTRACTOR FOR LANDSCAPE ARCHITECT REVIEW AND APPROVAL PRIOR TO INSTALLATION. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO ADJUST PLANTS TO EXACT LOCATION IN THE FIELD.
7. PLANT MATERIAL NOT MEETING THE STANDARDS CONTAINED WITHIN CONTRACT DOCUMENTS SHALL BE REPLACED AT NO COST TO THE OWNER.
8. PROVIDE MATCHING SIZES AND FORMS FOR EACH PLANT OF THE SAME SPECIES DESIGNATED ON THE DRAWINGS UNLESS OTHERWISE INDICATED.
9. ALL PLANT MATERIAL IS TO BE INSTALLED PLUMB/PER THE SPECIFICATIONS CONTAINED WITHIN THE CONTRACT DOCUMENTS.
10. PRUNE EXISTING AND/OR NEWLY PLANTED TREES ONLY AS DIRECTED BY THE LANDSCAPE ARCHITECT.
11. PLANT MATERIAL SHALL HAVE ALL WIRE, TWINE, BASKETS, BURLAP, AND ALL OTHER NON-BIODEGRADABLE CONTAINMENT MATERIAL REMOVED FROM THE TRUNK AND/OR ROOT BALL OF THE PLANT PRIOR TO PLANTING. ROOT BALLS SHALL BE FREE OF WEEDS.
12. FINISH GRADE OF PLANTING BEDS SHALL BE ONE (1) INCH BELOW ADJACENT PAVER OR HEADER, UNLESS OTHERWISE SPECIFIED.
13. MULCH OR PLANTING BED DRESSING SHALL BE PLACED IN ALL PLANTING AREAS AS SPECIFIED. MULCH OR PLANTING BED DRESSING SHALL NOT BE PLACED WITHIN SIX (6) INCHES OF TREE TRUNKS. MULCHING SHOULD BE REPEATED ANNUALLY DURING THE AUTUMN TO A 3" DEPTH.
14. ALL PLANT MATERIAL SHOULD RECEIVE AN ORGANIC FERTILIZER IN LIMITED APPLICATION FOLLOWING INSTALLATION. TYPE AND APPLICATION RATE AND METHOD OF APPLICATION TO BE SPECIFIED BY THE CONTRACTOR & APPROVED BY THE LANDSCAPE ARCHITECT.
15. STOCKPILED PLANT MATERIAL TO BE PLACED IN THE SHADE AND PROPERLY HAND-WATERED UNTIL PLANTED.
16. PRESERVE & PROTECT ALL EXISTING VEGETATION INDICATED TO REMAIN AT ALL TIMES.
17. TO THE GREATEST EXTENT POSSIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION SHALL BE STOCKPILED FOR LATER USE IN AREAS REQUIRING REVEGETATION/PLANTING.
18. ALL MATERIALS USED SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARDS FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
19. ALL DISTURBED AREAS ARE TO BE REVEGETATED

SEEDING NOTES

1. REVEGETATED AREAS ARE TO BE HYRO-SEEDED, FOLLOWED BY THE APPLICATION OF STRAW MULCH.
2. APPLY STRAW MULCH AT A MINIMUM RATE OF 1.5 TONS PER ACRE OF AIR DRY MATERIAL. SPREAD STRAW MULCH UNIFORMLY OVER THE AREA WITH MECHANICAL MULCH SPREADER/CRIMPER. DO NOT MULCH WHEN WIND VELOCITY EXCEEDS 10 MPH.
3. IMMEDIATELY UPON COMPLETION OF THE MULCHING AND BINDING OPERATION, THE SEEDED AREAS SHALL BE IRRIGATED, KEEPING THE TOP 2 INCHES OF SOIL EVENLY MOIST UNTIL SEED HAS UNIFORMLY GERMINATED AND GROWN TO A HEIGHT OF 2 INCHES.
4. WATERING APPLICATION SHALL BE DONE IN A MANNER WHICH WILL PROVIDE UNIFORM COVERAGE BUT WHICH WILL NOT CAUSE EROSION, MOVEMENT, OR DAMAGE TO THE FINISHED SURFACE.
5. PERMANENT BIORETENTION AND WILDFLOWER SEED MIXES SHALL BE APPLIED BETWEEN MAY 1 - JUNE 1 OR AUG 15 - SEPT 15, OR NOVEMBER 1 - DECEMBER 1. OUTSIDE OF THOSE DATES THE CONTRACTOR SHALL APPLY A TEMPORARY SEED MIX OF ANNUAL RYE AT THE RATE OF 2 LBS PER 1000 SF, AND FOLLOW UP WITH INSTALLATION OF THE PERMANENT SEED MIXES WITHIN THE DATES SPECIFIED HERE.

PLANT LIST



SYMB.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	SPACING
TREES					
AM	AMELANCHIER CANADENSIS	SERVICEBERRY	TBD	7-8' MULTISTEM	PER PLAN
AR	ACER RUBRUM 'KARPICK'	RED MAPLE	TBD	2.5" CAL. MIN.	PER PLAN
BN	BETULA NIGRA	RIVER BIRCH	TBD	2.5" CAL. MIN.	PER PLAN
CC	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	TBD	2.5" CAL. MIN.	PER PLAN
CO	CARYA OVATA	SHAGBARK HICKORY	TBD	2.5" CAL. MIN.	PER PLAN
NS	NYSSA SYLVATICA 'TUPELO TOWER'	BLACK TUPELO (UPRIGHT)	TBD	2.5" CAL. MIN.	PER PLAN
PS	PINUS STROBUS	EASTERN WHITE PINE	TBD	7-8' HT. MIN. B&B	PER PLAN
TO	THUJA OCCIDENTALIS	NORTHERN WHITE CEDAR	TBD	7-8' HT. MIN. B&B	PER PLAN
UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON ELM	TBD	2.5" CAL. MIN.	PER PLAN

SHRUBS & WOODY GROUNDCOVER

CA	CLETHRA ALNIFOLIA	SUMMERSWEET	TBD	#5	PER PLAN
CS	CORNUS SERICEA 'FARROW'	REDTWIG DOGWOOD	TBD	#3	PER PLAN
TM	TAXUS × MEDIA 'EVERLOW'	EVERLOW YEW	TBD	#2	PER PLAN
RA	RHUS AROMATICA 'GRO-LOW'	GROW-LOW SUMAC	TBD	#2	PER PLAN
RH	RHODODENDRON 'BOULE DE NEIGE'	RHODODENDRON	TBD	#5	PER PLAN

PERENNIALS AND GRASSES

AD	ASTER DUMOSUS 'WOOD'S LIGHT BLUE'	NEW YORK ASTER	TBD	#1	PER PLAN
DP	DENNSTAEDTIA PUNCTILOBULA	HAY SCENTED FERN	TBD	SOD	PER PLAN
EP	ECHINACEA PURPUREA	ECHINACEA	TBD	#1	PER PLAN
CX	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	TBD	#1	PER PLAN
PV	PANICUM VIRGATUM 'PURPLE TEARS'	SWITCHGRASS	TBD	#1	PER PLAN

RAIN GARDEN PLANTING

PLUGS (18" O.C.) :

EUPATORIUM DUBIUM 'BABY JOE'	DWARF JOE PYEWEED	SOURCE PLUGS FROM NORTH CREEK
IRIS VERSICOLOR	BLUE FLAG IRIS	NURSERIES: TEL # (610) 255-0100
PANICUM VIRGATUM 'PURPLE TEARS'	SWITCHGRASS	
ECHINECEA SP.	PURPLE CONEFLOWER	
ASTERACEAE SP.	ASTER	
RUDBECKIA SP.	BLACK-EYED SUSAN	

NO-MOW FESCUE

(+/- 2000 SF)

LAWN (SEED MIX) (WILDFLOWER FARM'S ECO-LAWN GRASS SEED)
TOTAL AREA TBD / 5 POUND BAG OF SEED COVERS 1,000 SQUARE FEET.
ECO-LAWN IS A DROUGHT-RESISTANT GRASS THAT REQUIRES MOWING ONLY ONCE PER MONTH.

DISTURBED AREA

"NEW ENGLAND SHOWY WILDFLOWER MIX" BY NEW ENGLAND WETLAND PLANTS INC.
(TOTAL AREA TBD) APPLICATION RATE: 23 LBS/ACRE | 1900 SQ FT/LB

SPECIES: Little Bluestem (Schizachyrium scoparium), Red Fescue (Festuca rubra), Indian Grass (Sorghastrum nutans), Partridge Pea (Chamaecrista fasciculata), Canada Wild Rye (Elymus canadensis), Virginia Wild Rye (Elymus virginicus), Blue Vervain (Verbena hastata), Butterfly Milkweed (Asclepias tuberosa), Narrowleafed Blue Eyed Grass (Sisyrinchium angustifolium), Black Eyed Susan (Rudbeckia hirta), New England Aster (Symphyotrichum novae-angliae), Spiked Gayfeather/ Marsh Blazing Star (Liatris spicata), Starved/Calico Aster (Aster lateriflorus/Symphyotrichum lateriflorum), Early Goldenrod (Solidago juncea), Hollow-Stem Joe Pye Weed (Eupatorium fistulosum/Eutrochium fistulosum)

RAIN GARDEN & SWM SEEDING

"NEW ENGLAND WETMIX" BY NEW ENGLAND WETLAND PLANTS INC.
(TOTAL AREA TBD) APPLICATION RATE: 1 LB./2500 SQ. FT. | 18 LBS./ACRE SPREAD SEED IN EARLY SPRING OR FALL
The New England Wetmix (Wetland Seed Mix) contains a wide variety of native seeds that are suitable for most wetland restoration sites that are not permanently flooded. All species are best suited to moist ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The mix is well suited for detention basin borders and the bottom of detention basins not generally under standing water.
SPECIES: Fox Sedge (Carex vulpinoidea), Lurid Sedge (Carex lurida), Blunt Broom Sedge (Carex scoparia), Blue Vervain (Verbena hastata), Fowl Bluegrass (Poa palustris), Hop Sedge (Carex lupulina), Green Bulrush (Scirpus atrovirens), Creeping Spike Rush (Eleocharis palustris), Fringed Sedge (Carex crinita), Soft Rush (Juncus effusus), Spotted Joe Pye Weed (Eupatorium maculatum), Rattlesnake Grass (Glyceria canadensis), Swamp aster (Aster puniceus), Blueflag (Iris versicolor), Swamp Milkweed (Asclepias incarnata), Square stemmed Monkey Flower (Mimulus ringens).

WETLAND TRANSITION PLANTING

"NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES" BY NEW ENGLAND WETLAND PLANTS INC.
(TOTAL AREA TBD) APPLICATION RATE: 35 LBS/ACRE | 1250 SQ FT/LB SPREAD SEED IN EARLY SPRING OR FALL
The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation.
SPECIES: Riverbank Wild Rye (Elymus riparius), Creeping Red Fescue (Festuca rubra), Little Bluestem (Schizachyrium scoparium), Big Bluestem (Andropogon gerardii), Switch Grass (Panicum virgatum), Upland Bentgrass (Agrostis perennans), Nodding Bur Marigold (Bidens cernua), Hollow-Stem Joe Pye Weed (Eupatorium fistulosum/Eutrochium fistulosum), New England Aster (Aster novae-angliae), Boneset (Eupatorium perfoliatum), Blue Vervain (Verbena hastata), Soft Rush (Juncus effusus), Wool Grass (Scirpus cyperinus).

ACETO LANDSCAPE ARCHITECTS
207 221 3390 | ACETOLA.COM

SEAL

PROJECT TITLE

BELFAST HOUSING
115 CONGRESS STREET
BELFAST, ME

PREPARED FOR

DEVELOPERS COLLABORATIVE

REVISIONS DATE

ISSUE DATE

SITE PLAN RE- SUBMITTAL
MARCH 24, 2021

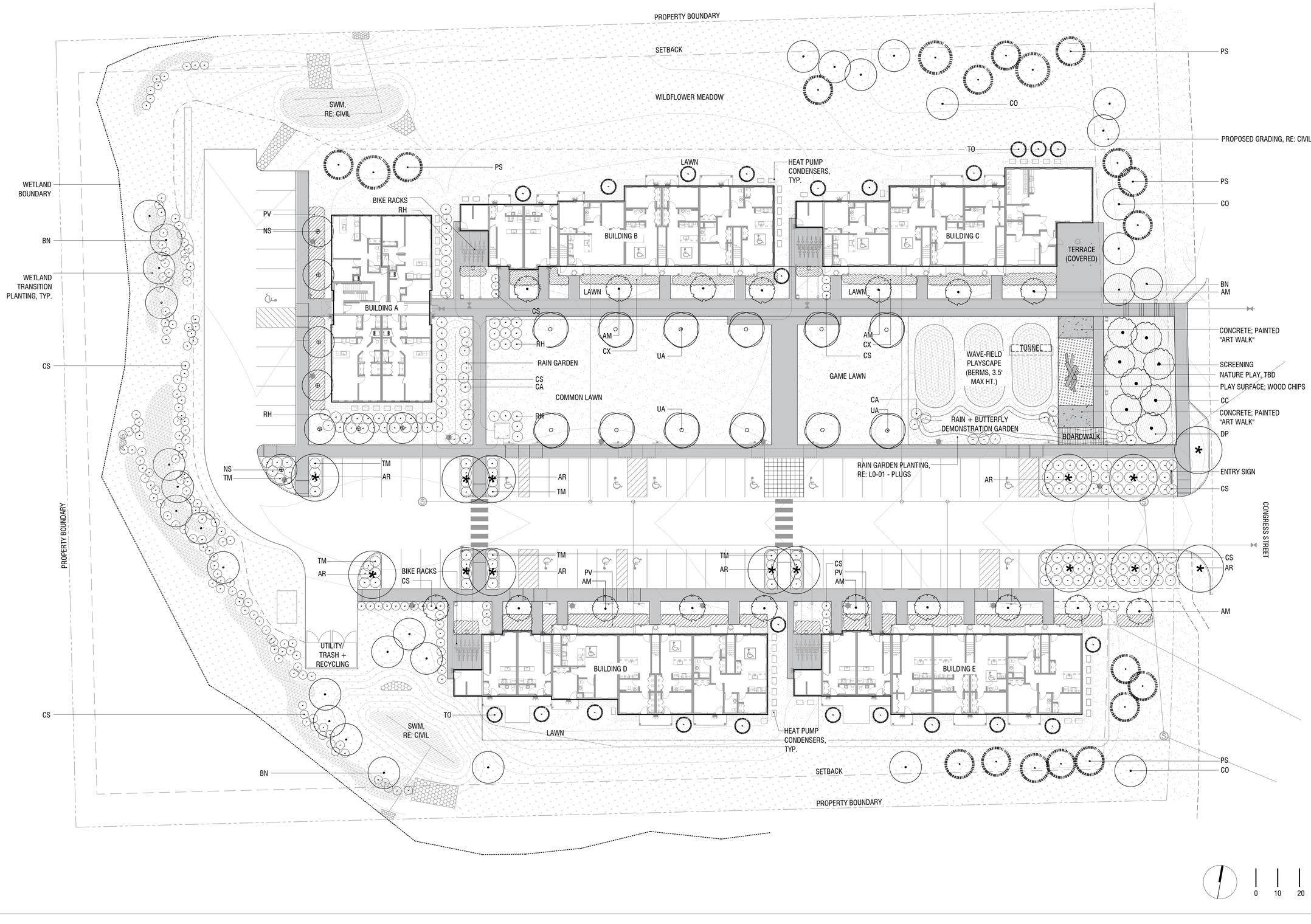
SHEET TITLE

PLANT SCHEDULE

SHEET INFORMATION

L 0-01

NOT FOR CONSTRUCTION



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MARCH 24, 2021

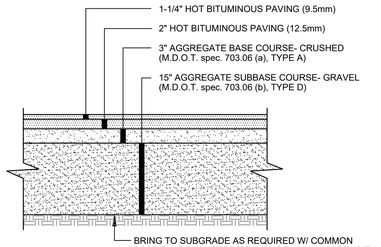
SHEET TITLE

PLANTING PLAN

SHEET INFORMATION

L 1-00

NOT FOR CONSTRUCTION

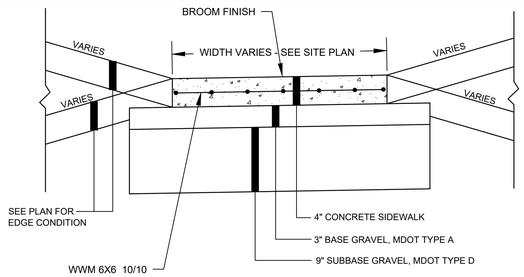


NOTES:

1. COMPACT GRAVEL SUBBASE COURSE TO 92% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.
2. CONTRACTOR SHALL SET GRADE STAKES MARKING SUBBASE AND FINISH GRADE ELEVATIONS FOR CONSTRUCTION REFERENCE.

TYP. PAVED PARKING LOT SECTION

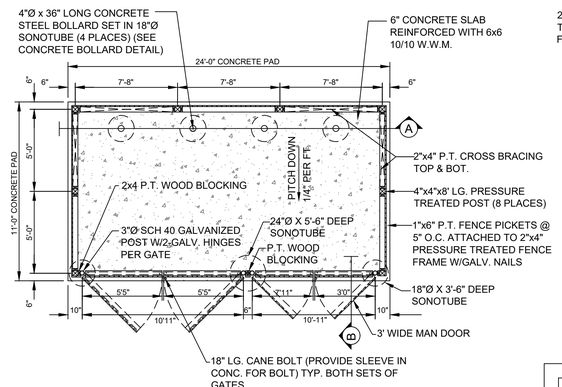
NOT TO SCALE

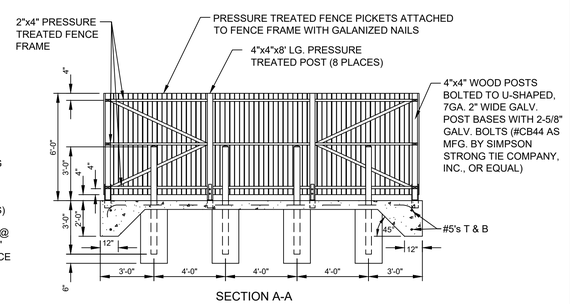


NOTE:
INSTALL 4.5' DEEP SELECT FILL BELOW ENTRANCE SIDEWALKS AT BUILDING. EXTEND SELECT FILL TO A POINT 5 FEET DISTANT FROM BUILDING FOUNDATION WALL.

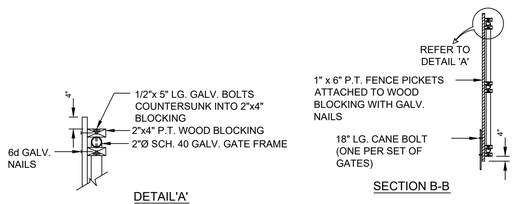
CONCRETE SIDEWALK, NO CURB

NOT TO SCALE



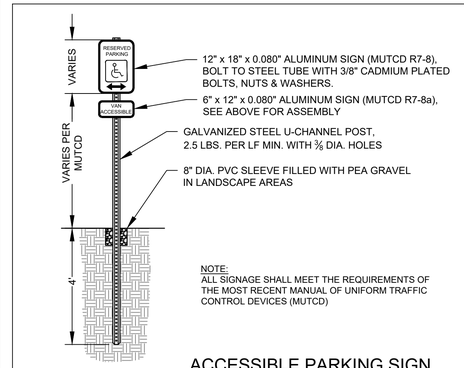


SECTION A-A



DUMPSTER PAD & ENCLOSURE DETAIL

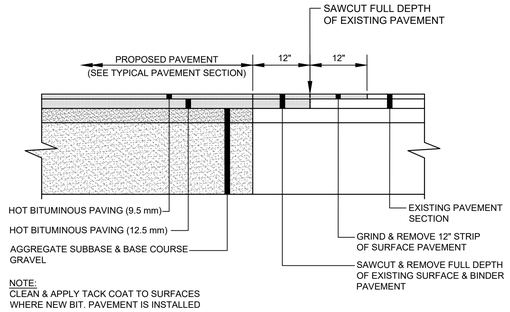
NOT TO SCALE



NOTE:
ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE MOST RECENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

ACCESSIBLE PARKING SIGN

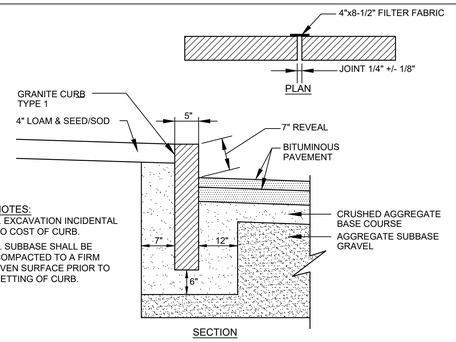
NOT TO SCALE



NOTE:
CLEAN & APPLY TACK COAT TO SURFACES WHERE NEW BIT. PAVEMENT IS INSTALLED

TYPICAL PAVEMENT JOINT

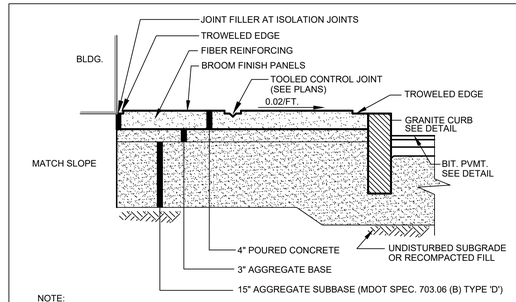
NOT TO SCALE



NOTES:
1. EXCAVATION INCIDENTAL TO COST OF CURB.
2. SUBBASE SHALL BE COMPACTED TO A FIRM EVEN SURFACE PRIOR TO SETTING OF CURB.

VERTICAL GRANITE CURB

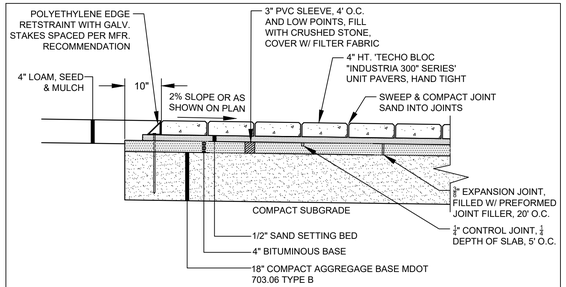
NOT TO SCALE



NOTE:
INSTALL 4.5' DEEP SELECT FILL BELOW ENTRANCE SIDEWALKS AT BUILDING. EXTEND SELECT FILL TO A POINT 5 FEET DISTANT FROM BUILDING FOUNDATION WALL.

CONCRETE PAVING

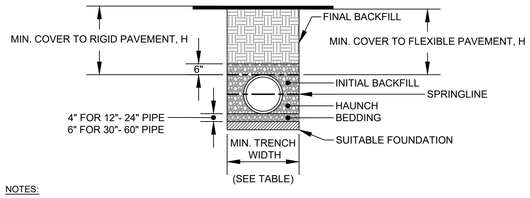
NOT TO SCALE



NOTES:
1. JOINT SAND SHALL BE MASONRY SAND CONFORMING TO ASTM C-144
2. EDGE RESTRAINT USED WHEN PAVERS ABUT LANDSCAPED AREA

TYPICAL PAVER DETAIL

NOT TO SCALE



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

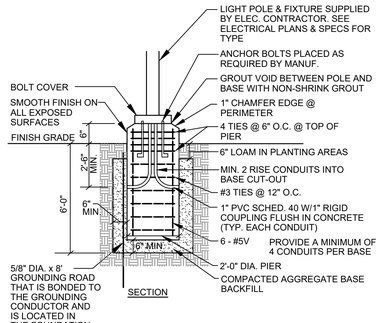
MINIMUM RECOMMENDED COVER BASED ON VECHICLE LOADING CONDITIONS

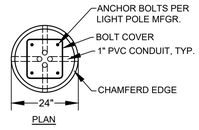
PIPE DIAM.	SURFACE LIVE LOADING CONDITION H-25	SURFACE LIVE LOADING CONDITION HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

TYPICAL TRENCH DETAIL

NOT TO SCALE

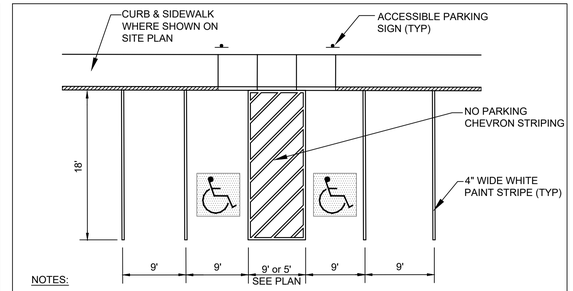




NOTES:
1. CONCRETE f'c=4000 psi.
2. REINF. STEEL GRADE 60 NEW BARS.
3. CONCRETE 3/4" AGG., 6 +/- 1% ENTRAINED AIR.
4. PROVIDE 2 COATS BITUMINOUS DAMPROOFING FOR ALL CONCRETE BELOW GRADE.
5. EXPOSED CONCRETE TO BE PAINTED WITH 2 COATS OF ACRYLIC PAINT. COLOR TO MATCH POLE COLOR.
6. INSTALL BASE 3'-0" ABOVE FINISH GRADE IN LOCATIONS WHERE POLES ARE IN PARKING LOT PAVEMENT.

LIGHT POLE BASE

NOT TO SCALE



NOTES:

1. SEE SITE PLAN FOR NUMBER AND LOCATION OF ACCESSIBLE PARKING SPACES.
2. BARRIER FREE GRAPHIC SYMBOL (PAINTED WHITE) TO BE CENTERED IN PARKING STALL. SYMBOL TO BE PAINTED ON BLUE NON-SKID BACKGROUND.

TYPICAL PARKING STALL DIMENSIONS

NOT TO SCALE

STATE OF MAINE
ADRIENNE R. FINE
No. 14252
REGISTERED PROFESSIONAL ENGINEER

DATE: 03.23.21
P.E. ADRIENNE R. FINE

NO.	DATE	REVISIONS	APP'D BY
4	03.23.21	REVISED PER CITY AND DEP REVIEW COMMENTS	ARF
3	02.18.21	REVISED UTILITY PLAN PER CITY REVIEW COMMENTS	ARF
2	02.02.21	ADDED PHOTOMETRIC LIGHTING PLAN AND SUBMITTED TO CITY OF BELFAST	ARF
1	01.20.21	SUBMITTED TO DEP	ARF

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260

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TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

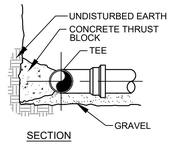
PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE:
SITE DETAILS

CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

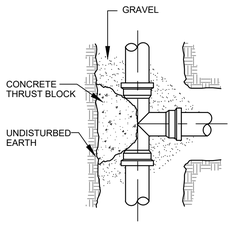
DATE:	12/2/2020
SCALE:	AS NOTED
DESIGNED:	ARF
JOB NO:	2033
FILE: 1662-DETAILS.DWG	

SHEET C-6.0

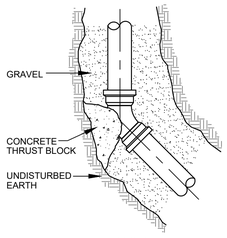


SECTION

CONCRETE THRUST BLOCK SIZE REQUIREMENTS				
		SQ. FT. OF BEARING ON UNDISTURBED SOIL		
FITTINGS		90° BENDS	45° BENDS	TEES AND PLUGS
PIPE SIZE	6"	4.0	2.0	3.0
	8"	8.0	4.0	6.0
	12"	15	10	10

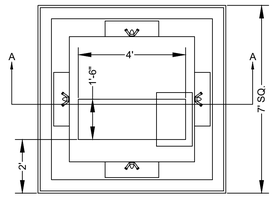


PLAN

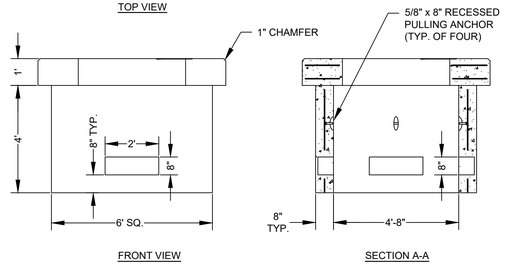


45° BEND

TEE & BEND DETAIL
NOT TO SCALE



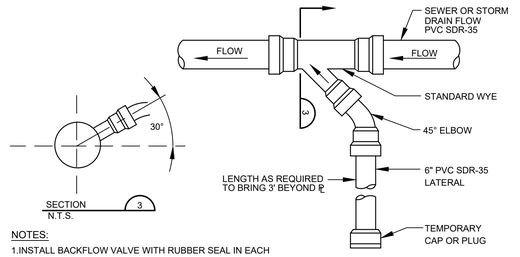
TOP VIEW



FRONT VIEW SECTION A-A

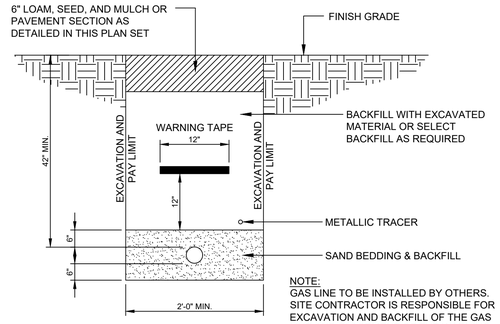
NOTES:
1. CONCRETE f'c=4000 psi. AT 28 DAYS.
2. REINF. PER CMP SPECIFICATIONS.
3. DUCT OPENINGS SHOWN ARE TYPICAL AND CAN BE MODIFIED PER REQUEST.
4. CENTRAL MAINE POWER CO. SPECIFICATION

7'X7' TRANSFORMER PAD (75-500 KVA)
NOT TO SCALE



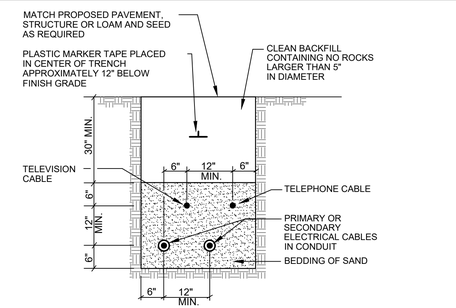
NOTES:
1.INSTALL BACKFLOW VALVE WITH RUBBER SEAL IN EACH FOUNDATION DRAIN SERVICE.
2. IF SUMP PUMP IS UTILIZED INSTALL CHECK VALVE AT SUMP PUMP.

SEWER / FOUNDATION DRAIN SERVICE CONNECTION
NOT TO SCALE



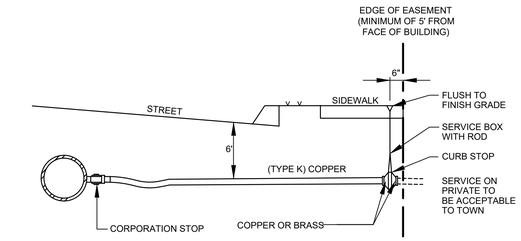
NOTE:
GAS LINE TO BE INSTALLED BY OTHERS. SITE CONTRACTOR IS RESPONSIBLE FOR EXCAVATION AND BACKFILL OF THE GAS LINE AND PLACEMENT OF THE WARNING TAPES AND TRACER.

GAS SERVICE TRENCH SECTION
NOT TO SCALE

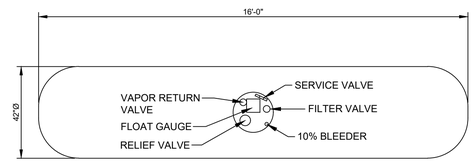


CABLES TO BE ENCASED IN SCHEDULE 40 PVC CONDUIT WHEN RUN BENEATH PAVED AREAS.

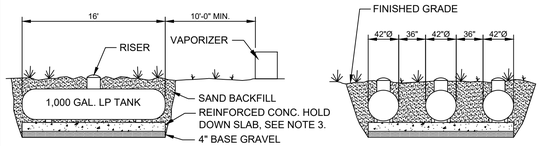
TYPICAL UNDERGROUND CABLE INSTALLATION
NOT TO SCALE



TYPICAL WATER SERVICE CONNECTION
NOT TO SCALE

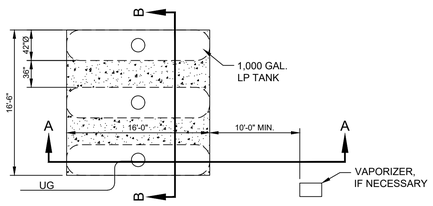


1,000 GALLON UNDERGROUND PROPANE GAS STORAGE TANK



SECTION A-A

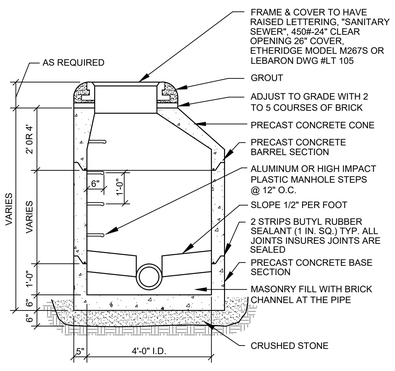
SECTION B-B



PLAN VIEW

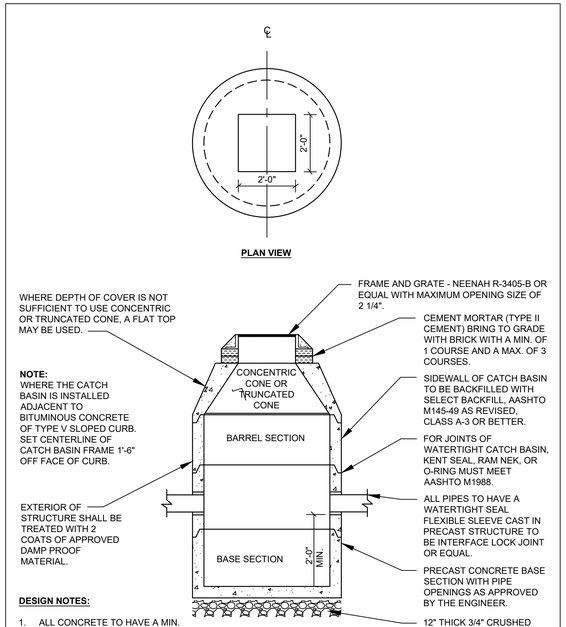
NOTES:
1. TANK AND ASSOCIATED PIPING TO BE INSTALLED BY OTHERS IN ACCORDANCE WITH ALL FEDERAL AND STATE REGULATIONS. SITE CONTRACTOR SHALL PERFORM ALL NECESSARY EARTHWORK AND BACKFILL PROCEDURES.
2. TANKS TO BE LOCATED A MINIMUM OF 25 FEET FROM BUILDINGS AND 10 FEET FROM PROPERTY LINES.
3. CONCRETE PAD TO EXTEND BELOW FULL LENGTH AND WIDTH OF TANK. THE THICKNESS, REINFORCING AND TANK ANCHORS ARE TO BE SHOWN ON SHOP DRAWING SUBMITTALS.
4. TANK BACKFILL SHALL BE COARSE SAND WITH NO PARTICLES GREATER THAN 1/2" DIA.

UNDERGROUND PROPANE TANK DETAIL
NOT TO SCALE



NOTE: PIPE CONNECTIONS SHALL BE WATERTIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAKPROOF CONNECTION

PRECAST SEWER MANHOLE
NOT TO SCALE

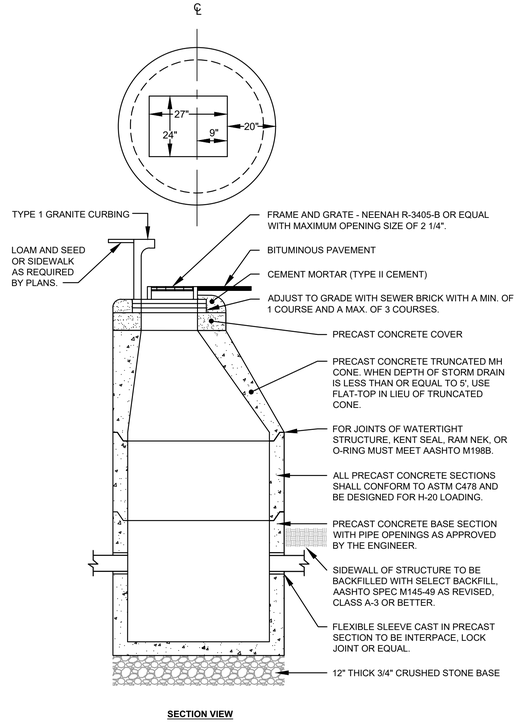


SECTION VIEW

DESIGN NOTES:
1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF..

NOTE:
CASCADE GRATES SHALL BE INSTALLED ON GRADIENT OF GUTTER IF PROFILE GRADE EXCEEDS 5% GRATES SHALL BE DEPRESSED 2" BELOW NORMAL GUTTER GRADE UNLESS THIS DEPRESSION INTERFERES WITH TRAFFIC. PARALLEL BAR GRATES SHALL BE INSTALLED ON A LEVEL GRADIENT.

TYPICAL CATCH BASIN
NOT TO SCALE



SECTION VIEW

CATCH BASIN - CURB INLET
NOT TO SCALE

STATE OF MAINE
ADRIENNE R. FINE
No. 14252
LICENSED PROFESSIONAL ENGINEER

DATE: 03.23.21
P.E. ADRIENNE R. FINE

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4	03.23.21	REVISED PER CITY AND DEP REVIEW COMMENTS	ARF
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PORTLAND, ME 04102

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PERMIT DRAWING
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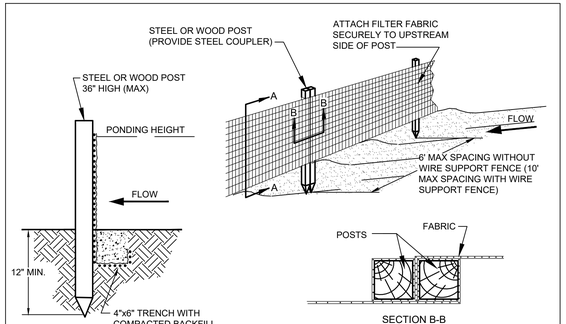
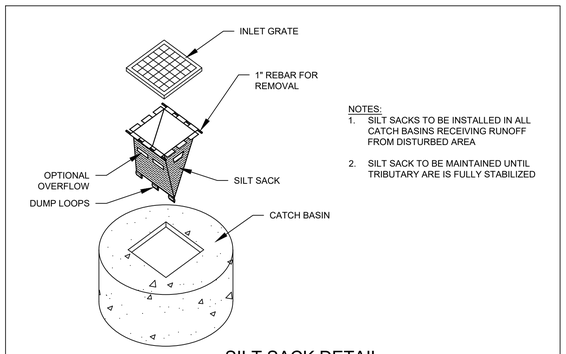
PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

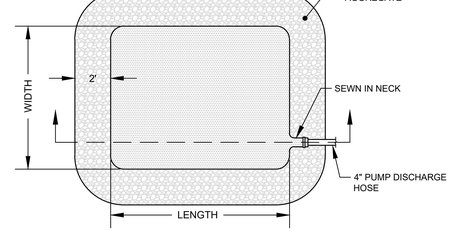
SHEET TITLE:
UTILITY DETAILS

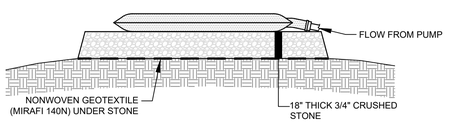
CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

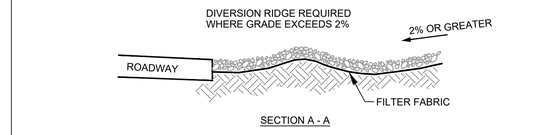
DATE:	12/2/2020
SCALE:	AS NOTED
DESIGNED:	ARF
JOB NO:	2033
FILE: 1705-DETAILS.DWG	
SHEET	C-6.1

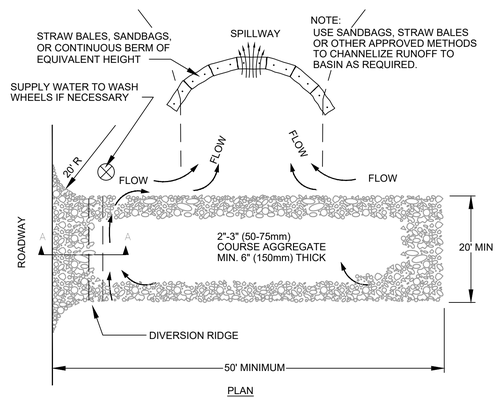












EROSION AND SEDIMENT CONTROL PLAN

PRE-CONSTRUCTION PHASE

A PERSON WHO CONDUCTS, OR CAUSES TO BE CONDUCTED, AN ACTIVITY THAT INVOLVES FILLING, DISPLACING OR EXPOSING SOIL OR OTHER EARTHEN MATERIALS SHALL TAKE MEASURES TO PREVENT UNREASONABLE EROSION OF SOIL OR SEDIMENT BEYOND THE PROJECT SITE OR INTO A PROTECTED NATURAL RESOURCE AS DEFINED IN 38 MRSA § 480-B. EROSION CONTROL MEASURES MUST BE IN PLACE BEFORE THE ACTIVITY BEGINS. MEASURES MUST REMAIN IN PLACE AND FUNCTIONAL UNTIL THE SITE IS PERMANENTLY STABILIZED. ADEQUATE AND TIMELY TEMPORARY AND PERMANENT STABILIZATION MEASURES MUST BE TAKEN. THE SITE MUST BE MAINTAINED TO PREVENT UNREASONABLE EROSION AND SEDIMENTATION. MINIMIZE DISTURBED AREAS AND PROTECT NATURAL DOWNGRADIENT BUFFER AREAS TO THE EXTENT PRACTICABLE.

BMP CONSTRUCTION PHASE

A. SEDIMENT BARRIERS. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, PROPERLY INSTALL SEDIMENT BARRIERS AT THE EDGE OF ANY DOWNGRADIENT DISTURBED AREA AND ADJACENT TO ANY DRAINAGE CHANNELS WITHIN THE PROPOSED DISTURBED AREA. MAINTAIN THE SEDIMENT BARRIERS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

B. CONSTRUCTION ENTRANCE: PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE INTERSECTION WITH THE PROPOSED ACCESS DRIVE AND THE EXISTING ROADWAY TO AVOID TRACKING OF MUD, DUST AND DEBRIS FROM THE SITE. TRACKED MUD OR SEDIMENT SHALL BE REMOVED PRIOR TO A STORM EVENT BY VACUUM SWEEPING.

C. RIPRAP: SINCE RIPRAP IS USED WHERE EROSION POTENTIAL IS HIGH, CONSTRUCTION MUST BE SEQUENCED SO THAT THE RIPRAP IS PUT IN PLACE WITH THE MINIMUM DELAY. DISTURBANCE OF AREAS WHERE RIPRAP IS TO BE PLACED SHOULD BE UNDERTAKEN ONLY WHEN FINAL PREPARATION AND PLACEMENT OF THE RIPRAP CAN FOLLOW IMMEDIATELY BEHIND THE INITIAL DISTURBANCE. WHERE RIPRAP IS USED FOR OUTLET PROTECTION, THE RIPRAP SHOULD BE PLACED BEFORE OR IN CONJUNCTION WITH THE CONSTRUCTION OF THE PIPE OR CHANNEL SO THAT IT IS IN PLACE WHEN THE PIPE OR CHANNEL BEGINS TO OPERATE. MAINTAIN TEMPORARY RIPRAP, SUCH AS TEMPORARY CHECK DAMS UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.

D. TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEEDING, MULCH, OR OTHER NON-ERODABLE COVER ANY EXPOSED SOILS THAT WILL REMAIN UNWORKED FOR MORE THAN 14 DAYS EXCEPT, STABILIZE AREAS WITHIN 100 FEET OF A WETLAND OR WATERBODY WITHIN 7 DAYS OR PRIOR TO A PREDICTED STORM EVENT, WHICHEVER COMES FIRST. IF HAY OR STRAW MULCH IS USED, THE APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SF OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE. HAY MULCH MUST BE KEPT MOIST OR ANCHORED TO PREVENT WIND BLOWING. AN EROSION CONTROL BLANKET OR MAT SHALL BE USED AT THE BASE OF GRASSED WATERWAYS, STEEP SLOPES (15% OR GREATER) AND ON ANY DISTURBED SOIL WITHIN 100 FEET OF LAKES, STREAMS AND WETLANDS. GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE SECOND PHASE, AND SO ON.

E. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH SUCH AS FLY ASH OR YARD SCRAPING. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. THE MIX COMPOSITION SHOULD MEET THE FOLLOWING STANDARDS:

- THE ORGANIC MATTER CONTENT SHOULD BE BETWEEN 80% AND 100%, DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 6" SCREEN AND 70% TO 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- SOLUBLE SALTS CONTENT SHALL BE <4.0 MMHOS/CM
- THE pH SHALL BE BETWEEN 5.0 AND 8.0

F. VEGETATED WATERWAY. UPON FINAL GRADING, THE DISTURBED AREAS SHALL BE IMMEDIATELY SEEDED TO PERMANENT VEGETATION AND MULCHED AND WILL NOT BE USED AS OUTLETS UNTIL A DENSE, VIGOROUS VEGETATIVE COVER HAS BEEN OBTAINED. ONCE SOIL IS EXPOSED FOR WATERWAY CONSTRUCTION, IT SHOULD BE IMMEDIATELY SHAPED, GRADED AND STABILIZED. VEGETATED WATERWAYS NEED TO BE STABILIZED EARLY DURING THE GROWING SEASON (PRIOR TO SEPTEMBER 15). IF FINAL SEEDING OF WATERWAYS IS DELAYED PAST SEPTEMBER 15, EMERGENCY PROVISIONS SUCH AS SOD OR RIPRAP MAY BE REQUIRED TO STABILIZE THE CHANNEL. WATERWAYS SHOULD BE FULLY STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.

PERMANENT STABILIZATION DEFINED

A. SEEDED AREAS. FOR SEEDED AREAS, PERMANENT STABILIZATION MEANS AN 90% COVER OF THE DISTURBED AREA WITH MATURE, HEALTHY PLANTS WITH NO EVIDENCE OF WASHING OR RILLING OF THE TOPSOIL.

B. SODDED AREAS. FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THE COMPLETE BINDING OF THE SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.

C. PERMANENT MULCH. FOR MULCHED AREAS, PERMANENT MULCHING MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL. EROSION CONTROL MIX MAY BE USED AS MULCH FOR PERMANENT STABILIZATION ACCORDING TO THE APPROVED APPLICATION RATES AND LIMITATIONS.

D. RIPRAP. FOR AREAS STABILIZED WITH RIPRAP, PERMANENT STABILIZATION MEANS THAT SLOPES STABILIZED WITH RIPRAP HAVE AN APPROPRIATE BACKING OF A WELL-GRADED GRAVEL OR APPROVED GEOTEXTILE TO PREVENT SOIL MOVEMENT FROM BEHIND THE RIPRAP. STONE MUST BE SIZED APPROPRIATELY. IT IS RECOMMENDED THAT ANGULAR STONE BE USED.

E. AGRICULTURAL USE. FOR CONSTRUCTION PROJECTS ON LAND USED FOR AGRICULTURAL PURPOSES (E.G., PIPELINES ACROSS CROP LAND), PERMANENT STABILIZATION MAY BE ACCOMPLISHED BY RETURNING THE DISTURBED LAND TO AGRICULTURAL USE.

F. PAVED AREAS. FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE COMPACTED GRAVEL SUBBASE IS COMPLETED.

G. DITCHES, CHANNELS, AND SWALES. FOR OPEN CHANNELS, PERMANENT STABILIZATION MEANS THE CHANNEL IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH WELL-GRADED RIPRAP, OR WITH ANOTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE MUST BE NO EVIDENCE OF SLUMPING OF THE LINING, UNDERCUTTING OF THE BANKS, OR DOWN-CUTTING OF THE CHANNEL.

GENERAL CONSTRUCTION PHASE

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT:

A. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDED WITH RYE AT 3 POUNDS/1,000 SF AND MULCHED, AND REUSED AS REQUIRED. SILT FENCING SHALL BE PLACED DOWN GRADIENT FROM THE STOCKPILED LOAM. STOCKPILE TO BE LOCATED BY DESIGNATION OF THE OWNER AND INSPECTING ENGINEER.

B. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTAL VEGETATIVE PROVISIONS TO MAINTAIN STABILITY OF EARTHWORKS AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.

C. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISH SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.

D. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE ADEQUATELY STABILIZED.

E. ALL EROSION, AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

F. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS.

G. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.

H. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.

I. ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.

J. EXCEPT FOR APPROVED LANDFILLS OR NON-STRUCTURAL FILLS, FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS.

K. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS.

L. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION.

M. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY.

N. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

O. REMOVE ANY TEMPORARY CONTROL MEASURES, SUCH AS SILT FENCE, WITHIN 30 DAYS AFTER PERMANENT STABILIZATION IS ATTAINED. REMOVE ANY ACCUMULATED SEDIMENTS AND STABILIZE.

PERMANENT VEGETATION

PERMANENT VEGETATIVE COVER SHOULD BE ESTABLISHED ON DISTURBED AREAS WHERE PERMANENT, LONG LIVED VEGETATIVE COVER IS NEEDED TO STABILIZE THE SOIL, TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE ENVIRONMENT.

SEEDBED PREPARATION

A. GRADE AS FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.

B. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY THE UNIVERSITY OF MAINE SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P2O5-K2O) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT
A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQ. FT).

C. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.D. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.

E. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.

F. PERMANENT SEEDING SHOULD BE MADE 45 DAYS PRIOR TO THE FIRST KILLING FROST OR AS A DORMANT SEEDING WITH MULCH AFTER THE FIRST KILLING FROST AND BEFORE SNOWFALL. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SEEDING DATES, MULCH ACCORDING TO THE TEMPORARY MULCHING BMP AND OVERWINTER STABILIZATION AND CONSTRUCTION TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

G. FOLLOWING SEED BED PREPARTATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEEDED AT A RATE OF 3 LBS./1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED FESCUE, 6% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.

I. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

J. AREAS WHICH CANNOT BE SEEDED WITHIN THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION AND THE AREA SHOULD BE SEEDED AT THE BEGINNING OF THE GROWING SEASON.

WINTER CONSTRUCTION PHASE

IF AN AREA IS NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES BY NOVEMBER 15, THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES.

A. PERMANENT STABILIZATION CONSISTS OF AT LEAST 90% VEGETATION, PAVEMENT/GRAVEL BASE OR RIPRAP.

B. DO NOT EXPOSE SLOPES OR LEAVE SLOPES EXPOSED OVER THE WINTER OR FOR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS FULLY PROTECTED WITH MULCH.

C. APPLY HAY MULCH AT TWICE THE STANDARD RATE (150 LBS. PER 1,000 SF). THE MULCH MUST BE THICK ENOUGH SUCH THAT THE GROUND SURFACE WILL NOT BE VISIBLE AND MUST BE ANCHORED.

D. USE MULCH AND MULCH NETTING OR AN EROSION CONTROL MULCH BLANKET OR ALL SLOPES GREATER THAN 8 % OR OTHER AREAS EXPOSED TO DIRECT WIND.

E. INSTALL AN EROSION CONTROL BLANKET IN ALL DRAINAGEWAYS (BOTTOM AND SIDES) WITH A SLOPE GREATER THAN 3 %.

F. SEE THE VEGETATION MEASURES FOR MORE INFORMATION ON SEEDING DATES AND TYPES.

G. WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SO THAT NO MORE THAN 1 ACRE OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

H. AN AREA WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIER.

I. TEMPORARY MULCH MUST BE APPLIED WITHIN 7 DAYS OF SOIL EXPOSURE OR PRIOR TO ANY STORM EVENT, BUT AFTER EVERY WORKDAY IN AREAS WITHIN 100 FEET FROM A PROTECTED NATURAL RESOURCE.

J. AREAS THAT HAVE BEEN BROUGHT TO FINAL GRADE MUST BE PERMANENTLY MULCHED THAT SAME DAY.

K. IF SNOWFALL IS GREATER THAN 1 INCH (FRESH OR CUMULATIVE), THE SNOW SHALL BE REMOVED FROM THE AREAS DUE TO BE SEEDED AND MULCHED.

L. LOAM SHALL BE FREE OF FROZEN CLUMPS BEFORE IT IS APPLIED.

M. ALL VEGETATED DITCH LINES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED DURING THE WINTER CONSTRUCTION PERIOD, MUST BE STABILIZED WITH AN APPROPRIATE STONE LINING BACKED BY AN APPROPRIATE GRAVEL BED OR GEOTEXTILE UNLESS SPECIFICALLY RELEASED FROM THIS STANDARD BY THE DEPARTMENT.

N. EROSION CONTROL MUST BE INSPECTED AFTER EACH RAINFALL, SNOW STORM, OR THAWING EVENT AND AT LEAST ONCE A WEEK BETWEEN NOVEMBER 15 AND APRIL 15.

MAINTENANCE AND INSPECTION PHASE

A. MINIMUM EROSION CONTROL MEASURES WILL NEED TO BE IMPLEMENTED AND THE APPLICANT WILL BE RESPONSIBLE TO MAINTAIN ALL COMPONENTS OF THE EROSION CONTROL PLAN UNTIL THE SITE IS FULLY STABILIZED. HOWEVER, BASED ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY NEED TO BE IMPLEMENTED. ALL AREAS OF INSTABILITY AND EROSION MUST BE REPAIRED IMMEDIATELY DURING CONSTRUCTION AND NEED TO BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED OR VEGETATION IS ESTABLISHED. A CONSTRUCTION LOG MUST BE MAINTAINED FOR THE EROSION AND SEDIMENTATION CONTROL INSPECTIONS AND MAINTENANCE

B. A LOG (REPORT) MUST BE KEPT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF THE PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, AND MAJOR OBSERVATIONS RELATING TO OPERATION OF EROSION AND SEDIMENTATION CONTROLS AND POLLUTION PREVENTION MEASURES. MAJOR OBSERVATIONS MUST INCLUDE: BMPS THAT NEED TO BE MAINTAINED; LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION; AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION. FOLLOW-UP TO CORRECT DEFICIENCIES OR ENHANCE CONTROLS MUST ALSO BE INDICATED IN THE LOG AND DATED, INCLUDING WHAT ACTION WAS TAKEN AND WHEN.

DEWATERING

A DEWATERING PLAN IS NEEDED TO ADDRESS EXCAVATION DE-WATERING FOLLOWING HEAVY RAINFALL EVENTS OR WHERE THE EXCAVATION MAY INTERCEPT THE GROUNDWATER TABLE DURING CONSTRUCTION. THE COLLECTED WATER NEEDS TREATMENT AND A DISCHARGE POINT THAT WILL NOT CAUSE DOWNGRADIENT EROSION AND OFFSITE SEDIMENTATION OR WITHIN A RESOURCE.

GOOD HOUSEKEEPING NOTES:

1. **SPILL PREVENTION.** CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR OR OPERATOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

   NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT : HTTP://WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/

2. **GROUNDWATER PROTECTION.** DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION.

   SEE MAINE DEP CHAPTER 500 APPENDIX D FOR LICENSE BY RULE STANDARDS FOR INFILTRATION OF STORMWATER.

   NOTE: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPS) MAY RESULT IN VIOLATIONS OF THE GROUNDWATER QUALITY STANDARD ESTABLISHED BY 38 M.R.S.A. §465-C(1).

3. **FUGITIVE SEDIMENT AND DUST.** ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHOULD BE INCLUDED TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

   NOTE: DEWATERING A STREAM WITHOUT A PERMIT FROM THE DEPARTMENT MAY VIOLATE STATE WATER QUALITY STANDARDS AND THE *NATURAL RESOURCES PROTECTION ACT*.

4. **DEBRIS AND OTHER MATERIALS.** MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

   NOTE: TO PREVENT THESE MATERIALS FROM BECOMING A SOURCE OF POLLUTANTS, CONSTRUCTION AND POST-CONSTRUCTION ACTIVITIES RELATED TO A PROJECT MAY BE REQUIRED TO COMPLY WITH APPLICABLE PROVISION OF RULES RELATED TO SOLID, UNIVERSAL, AND HAZARDOUS WASTE, INCLUDING, BUT NOT LIMITED TO, THE MAINE SOLID WASTE AND HAZARDOUS WASTE MANAGEMENT RULES; MAINE HAZARDOUS WASTE MANAGEMENT RULES; MAINE OIL CONVEYANCE AND STORAGE RULES; AND MAINE PESTICIDE REQUIREMENTS.

5. **EXCAVATION DE-WATERING.** EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.

   NOTE: DEWATERING CONTROLS ARE DISCUSSED IN THE “MAINE EROSION AND SEDIMENT CONTROL BMPS, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.”

6. **AUTHORIZED NON-STORMWATER DISCHARGES.** IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

   (a) DISCHARGES FROM FIREFIGHTING ACTIVITY;
   (b) FIRE HYDRANT FLUSHINGS;
   (c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);
   (d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3);
   (e) ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE DETERGENTS;
   (f) PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;
   (g) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE;
   (h) UNCONTAMINATED GROUNDWATER OR SPRING WATER;
   (i) FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;
   (j) UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));
   (k) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND
   (l) LANDSCAPE IRRIGATION.

7. **UNAUTHORIZED NON-STORMWATER DISCHARGES.** THE DEPARTMENT'S APPROVAL UNDER THIS CHAPTER DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH APPENDIX C (6). SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

   (a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;
   (b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE;
   (c) SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND
   (d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

8. **ADDITIONAL REQUIREMENTS.** ADDITIONAL REQUIREMENTS MAY BE APPLIED ON A SITE-SPECIFIC BASIS.

SILT FENCE

NOT TO SCALE

NOTES:
1. SILT SACKS TO BE INSTALLED IN ALL CATCH BASINS RECEIVING RUNOFF FROM DISTURBED AREA
2. SILT SACK TO BE MAINTAINED UNTIL TRIBUTARY ARE IS FULLY STABILIZED

SILT SACK DETAIL

NOT TO SCALE

NOTES:
1. DIRTBAG BY ACF ENVIRONMENTAL
2. SEAMS MUST BE HIGH STRENGTH DOUBLE STITCHED "J" SEAMS.
3. CONSTRUCTION DEWATERING OF TURBID WATER SHALL BE PUMPED THROUGH A DIRTBAG AND RELEASED THROUGH A VEGETATED BUFFER AT LEAST 50' UPSTREAM OF WETLAND AREAS.
4. THE LOCATION OF THE DIRTBAG SHALL BE DETERMINED BY THE CONTRACTOR, BUT SHALL IT SHALL NOT BE SITED IN CRITICAL AREAS, SUCH AS WETLANDS.

DIRTBAG DETAIL

NOT TO SCALE

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

NOTES:
1. DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15), THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.
2. ECM BERMS ARE NOT TO BE USED AT THE BASE OF A SLOPE STEEPER THAN 8% OR WHERE WATER IS FLOWING WITHOUT THE SUPPORT OF ADDITIONAL MEASURES, SUCH AS SILT FENCE.

EROSION CONTROL MIX:

EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- ph SHALL FALL BETWEEN 5.0 - 8.0.

EROSION CONTROL MIX BERM

NOT TO SCALE

NOTES:
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET

NOT TO SCALE

ADRIENNE R. FINE
No. 14252

DATE: 03.23.21
P.E. ADRIENNE R. FINE

NO.	DATE	REVISIONS	APP'D BY
4	03.23.21	REVISED PER CITY AND DEP REVIEW COMMENTS	ARF
3	02.18.21	REVISED UTILITY PLAN PER CITY REVIEW COMMENTS	ARF
2	02.02.21	ADDED PHOTOMETRIC LIGHTING PLAN AND SUBMITTED TO CITY OF BELFAST	ARF
1	01.20.21	SUBMITTED TO DEP	ARF

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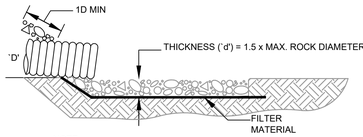
PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE:
EROSION CONTROL NOTES & DETAILS

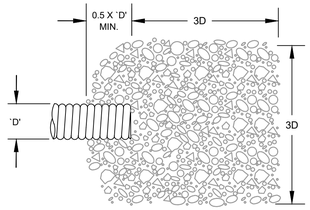
CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	AS NOTED
DESIGNED:	ARF
JOB NO:	2033
FILE: 1662-DETAILS.DWG	
SHEET	C-6.2



NOTE:
1. GEOTEXTILE FILTER FABRIC BENEATH STONE BASED ON UNDISTURBED SOILS, OR 6" OF 4" MINUS BAN RUN GRAVEL FREE OF FINES, CLAYS, SILTS.
2. GEOTEXTILE TO BE MIRAFI 600X OR APPROVED EQUAL.

SECTION



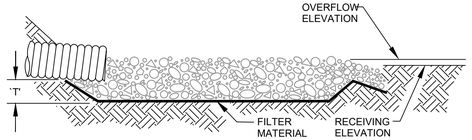
PLAN

PIPE INLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	LENGTH (FT)	WIDTH (FT)
6	2.0	1.5
12	3.5	3.0
15	4.5	3.75
18	5.25	4.5
24	7.0	6.0
30	8.75	7.5
36	10.5	9.0
42	12.25	10.5
48	14.0	12.0
60	17.5	15.0

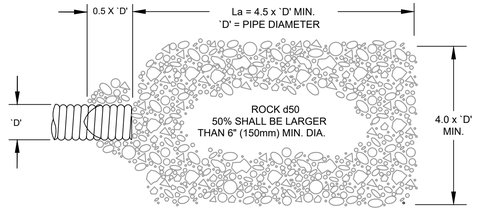
NOTES:
1. IN DEFINED CHANNELS, APRON SHALL EXTEND FULL WIDTH OF BOTTOM AND ONE FOOT ABOVE MAX. HEADWATER OR UP TO BANK FULL, WHICHEVER IS LESS.

PIPE INLET PROTECTION
NOT TO SCALE



THICKNESS (`T') = 1.5 x MAX. ROCK DIAMETER - 6" (150mm) MIN.

SECTION



PLAN

PIPE OUTLET PROTECTION SIZING TABLE

PIPE SIZE (IN)	LENGTH (FT)	WIDTH (FT)
6	2.5	2.0
12	5.0	4.0
15	6.25	5.0
18	7.5	6.0
24	10.0	8.0
30	13.0	10.0
36	15.0	12.0
42	17.5	14.0
48	20.0	16.0
60	25.0	20.0

NOTES:
1. `La' = LENGTH OF APRON. DISTANCE `La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC (MIRAFI 600X OR APPROVED EQUAL) OR 6" (150mm) THICK MINIMUM GRADED GRAVEL LAYER.

PIPE OUTLET PROTECTION
NOT TO SCALE

CONSTRUCTION OVERSIGHT NOTES:
1. CONSTRUCTION OVERSIGHT: INSPECTION BY A PROFESSIONAL ENGINEER WILL OCCUR AT A MINIMUM:
   - AFTER THE PRELIMINARY CONSTRUCTION OF THE FILTER GRADES AND ONCE THE UNDERDRAIN PIPES ARE INSTALLED BUT NOT BACKFILLED.
   - AFTER THE DRAINAGE LAYER IS CONSTRUCTED AND PRIOR TO THE INSTALLATION OF THE FILTER MEDIA.
   - AFTER THE FILTER MEDIA HAS BEEN INSTALLED, PLANTED, AND MULCHED. BIO-RETENTION CELLS MUST BE STABILIZED PER THE PROVIDED PLANTING SCHEME AND DENSITY FOR THE CANOPY COVERAGE OF 30 AND 50%.
   - AFTER ONE YEAR TO INSPECT HEALTH OF THE VEGETATION AND MAKE CORRECTIONS.
2. ALL THE MATERIAL USED FOR THE CONSTRUCTION OF THE FILTER BASIN MUST BE CONFIRMED AS SUITABLE BY THE DESIGN ENGINEER. TESTING MUST BE DONE BY A CERTIFIED LABORATORY TO SHOW THAT THEY ARE PASSING DEP SPECIFICATIONS.
3. TESTING AND SUBMITTALS: THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF THE SOURCE OF EACH COMPONENT OF THE FILTER MEDIA. ALL RESULTS OF FIELD AND LABORATORY TESTING SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR CONFIRMATION. THE CONTRACTOR SHALL:
   - SELECT SAMPLES FOR SAMPLING OF EACH TYPE OF MATERIAL TO BE BLENDED FOR THE MIXED FILTER MEDIA AND SAMPLES OF THE UNDERDRAIN BEDDING MATERIAL. SAMPLES MUST BE A COMPOSITE OF THREE DIFFERENT LOCATIONS (GRABS) FROM THE STOCKPILE OR PIT FACE. SAMPLE SIZE REQUIRED WILL BE DETERMINED BY THE TESTING LABORATORY.
   - PERFORM A SIEVE ANALYSIS CONFORMING TO STM C136 (STANDARD TEST METHOD FOR SIEVE ANALYSIS OF FINE AND COURSE AGGREGATES 1996A) ON EACH TYPE OF THE SAMPLE MATERIAL. THE RESULTING SOIL FILTER MEDIA MIXTURE MUST HAVE 6% TO 12% BY WEIGHT PASSING THE #200 SIEVE, A CLAY CONTENT OF LESS THAN 2% (DETERMINED HYDROMETER GRAIN SIZE ANALYSIS) AND HAVE 10% DRY WEIGHT OF ORGANIC MATTER.
   - PERFORM A PERMEABILITY TEST ON THE SOIL FILTER MEDIA MIXTURE CONFORMING TO ASTM D2434 WITH THE MIXTURE COMPACTED TO 90-92% OF MAXIMUM DRY DENSITY BASED ON ASTM D698.

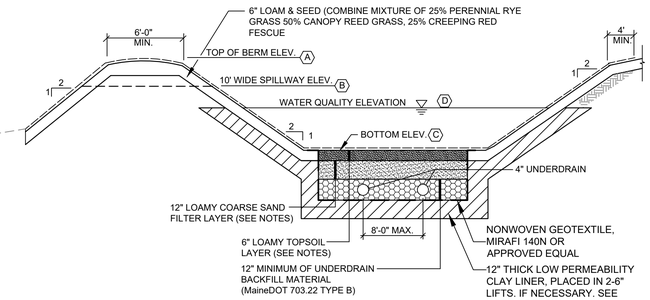
CONSTRUCTION PHASE NOTES:
CONSTRUCTION SEQUENCE: THE SOIL FILTER MEDIA AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.

COMPACTION OF SOIL FILTER: FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST 2 LIFTS OF 9 INCHES TO PREVENT POCKETS OF LOOSE MEDIA. OVERCOMPACTION SHOULD BE AVOIDED.

ADJUST DRAWDOWN TIME: AFTER THE FILTER BASIN IS STABILIZED, THE CONTRACTOR SHALL FILL THE BASIN UP TO THE ELEVATION OF THE WATER QUALITY VOLUME WITH CLEAN WATER AND ADJUST THE BALL VALVE TO ACHIEVE A 24-32 HR. RELEASE TIME.

UNDERDRAINED SOIL FILTER SCHEDULE

		UDSF #1	UDSF #2
A	TOP OF BERM ELEV.	180.50	182.25
B	SPILLWAY ELEV.	179.00	181.00
C	SURFACE ELEV.	177.00	179.50
D	WATER QUALITY ELEV.	178.50	181.00
	FILTER SURFACE AREA (SF)	670	711
	WATER QUALITY VOLUME (CF)	1,431	1,515



FILTER BASIN
NOT TO SCALE

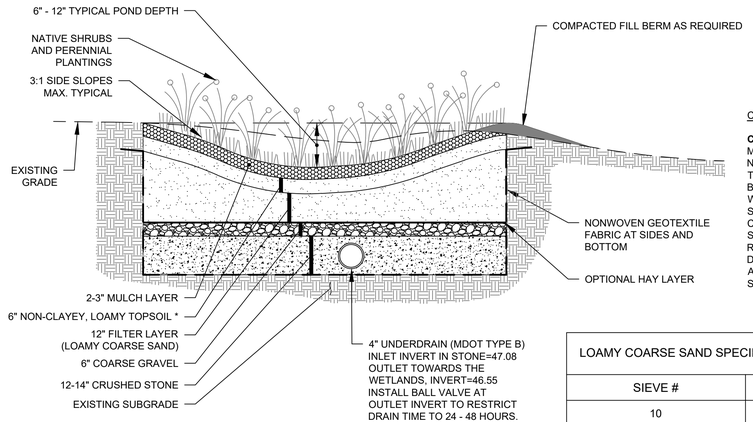
GENERAL NOTES:
1. THE FILTER LAYER AND TOPSOIL LAYER SHALL MEET THE GRADATION REQUIREMENTS IN THE TABLES BELOW AND SHALL CONTAIN LESS THAN 2% CLAY CONTENT, AS DETERMINED BY HYDROMETER TESTING
2. COMPACTION OF THE FILTER AND TOPSOIL LAYERS SHALL BE COMPLETED PRIOR TO SEEDING OR SODDING.
3. A DENSE COVER OF GRASS OR SOD SHALL BE ESTABLISHED AND MAINTAINED ON THE SURFACE TO PREVENT CLOGGING.
4. PLACE NON WOVEN GEOTEXTILE FABRIC (MIRIFI 140N OR APPROVED EQUAL) ON ALL SIDES AND BOTTOM OF SOIL & GRAVEL FILTER AREA.
5. THE CONTRACTOR SHALL CONDUCT A TEST PIT IN THE FILTER AREA IN THE PRESENCE OF THE DESIGN ENGINEER OR SOIL SCIENTIST PRIOR TO CONSTRUCTION OF THE BASIN TO DETERMINE THE SEASONAL HIGH GROUNDWATER ELEVATION. IF EVIDENCE OF SEASONAL HIGH GROUNDWATER IS FOUND WITHIN 1' OF THE ELEVATION OF THE BOTTOM OF THE UNDERDRAIN BACKFILL MATERIAL, A LOW PERMEABILITY CLAY OR PVC LINER SHALL BE INSTALLED AS SHOWN ON THE DETAIL ABOVE.
6. THE BOTTOM OF THE FILTER BASIN SHALL BE PLANTED WITH THE FOLLOWING SEED MIXTURE OR APPROVED ALTERNATIVE:

SEED MIXTURE:
CREEPING RED FESCUE: 20 LB/ACRE
TALL FESCUE: 20 LB/ACRE
BIRDSFOOT TREFOIL: 8 LB/ACRE
TOTAL: 48 LBS/ACRE

LOAMY COARSE SAND (12" FILTER LAYER)	
SIEVE #	% PASSING BY WEIGHT
10	85-100
20	70-100
60	15-40
200	8-15

LOAMY TOPSOIL (6" TOP LAYER)	
SIEVE #	% PASSING BY WEIGHT
4	75-95
10	60-90
40	38-85
200	20-70

FILTER BASIN DETAILS
NOT TO SCALE



CONSTRUCTION PHASE NOTES:

CONSTRUCTION SEQUENCE: THE MULCH AND VEGETATION MUST NOT BE INSTALLED UNTIL THE AREA THAT DRAINS TO THE FILTER HAS BEEN PERMANENTLY STABILIZED WITH PAVEMENT OR OTHER STRUCTURE, 90% VEGETATION COVER, OR OTHER PERMANENT STABILIZATION UNLESS THE RUNOFF FROM THE CONTRIBUTING DRAINAGE AREA IS DIVERTED AROUND THE FILTER UNTIL STABILIZATION IS COMPLETED.

LOAMY COARSE SAND SPECIFICATIONS (FILTER LAYER)	
SIEVE #	% BY WEIGHT
10	85-100
20	70-100
60	15-40
200	8-15
200 (CLAY SIZE)	< 2.0

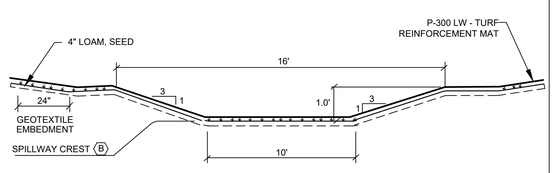
* TOPSOIL SHALL BE NON-CLAYEY, LOAMY TOPSOIL SUCH AS USDA LOAMY SAND TOPSOIL WITH 5-8% HUMIFIED ORGANIC MATTER. TOPSOIL FROM THE DEVELOPMENT SITE MAY BE APPROPRIATE BUT SHOULD BE TESTED FOR ORGANIC CONTENT AND CLAY CONTENT (HYDROMETER TEST). THE SOIL MUST BE SCREENED, LOOSE, FRIABLE, AND SHALL BE FREE FROM ADMIXTURES OF SUBSOIL, REFUSE, STONES (>2" DIA.) CLOGS, ROOT AND OTHER UNDESIRABLE FOREIGN MATTER. THE TOPSOIL SHOULD BE GENTLY MIXED WITHIN THE FILTER LAYER TO PROVIDE CONTINUITY FOR DEEP ROOT PENETRATION. THE TEETH OF A BACKHOE, A HAND RAKE, A SHOVEL OR ROTOTILLING 2-3" MAY BE USED TO CREATE A LOOSENED TRANSITION.

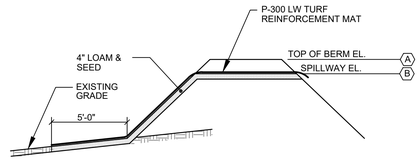
RAIN GARDEN INSPECTION NOTES:

EACH MAINTENANCE VISIT CONSISTS OF THE FOLLOWING TASKS:
1. INSPECTION OF RAIN GARDEN FILTER BASIN AND SURROUNDING AREA.
   - 1.a. CHECK FOR ACCUMULATION OF SEDIMENT OR TRASH IMPAIRING FREE FLOW OF WATERS INTO THE RAIN GARDEN.
   - 1.b. CHECK FOR EXCESSIVE TRASH OR DEBRIS ACCUMULATION.
   - 1.c. PONDING OF WATER IN THE BASIN COULD BE INDICATIVE OF CLOGGING DUE TO EXCESSIVE FINE SEDIMENT ACCUMULATION OR SPILL OF PETROLEUM OILS.
   - 1.d. ASSESS THE PLANTS. IF THE SOIL/MULCH IS TOO WET IT COULD BE EVIDENCE OF A SPILL. CHECK FOR PESTS AND VANDALISM TO PLANTS.
   - 1.e. CHECK FOR EXCESSIVE PLANT GROWTH THAT NEEDS TRIMMING.
2. REMOVAL OF DEBRIS, TRASH AND MULCH.
3. MULCH REPLACEMENT.
4. PLANT HEALTH EVALUATION (INCLUDING MEASUREMENTS) AND PRUNING OR REPLACEMENT AS NECESSARY.
5. CLEAN AREA AROUND RAIN GARDEN SURFACE.
6. COMPLETE PAPERWORK, INCLUDING DATE STAMPED PHOTOS OF THE TASKS LISTED ABOVE.

COPIES OF ALL FIELD REPORTS ASSOCIATED WITH INSPECTIONS SHALL BE COMPILED AND SUBMITTED WITH A STORMWATER CERTIFICATION IN ACCORDANCE WITH THE TOWN OF OLD ORCHARD BEACH INFRASTRUCTURE INSPECTION PROCEDURES.

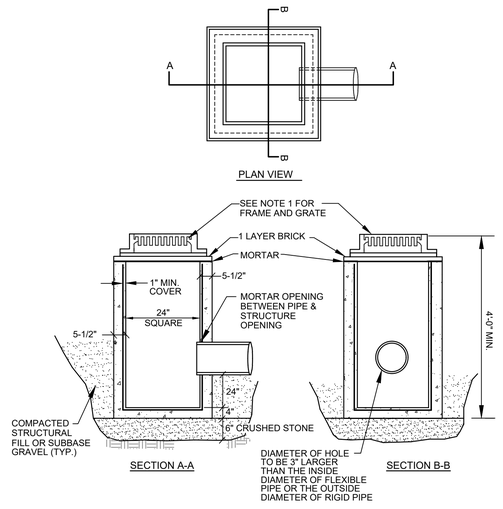
RAIN GARDEN FILTER BASIN DETAILS
NOT TO SCALE





EMBANKMENT CONSTRUCTION
1. CONSTRUCTION OF COMMON BORROW MATERIAL MEETING M.D.O.T. SPECIFICATION 703.
2. PLACE BORROW MATERIAL IN 12" LIFTS COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. INSTALL RIPRAP AND EROSION CONTROL MESH WHERE SPECIFIED ON PLANS
4. LOAM, SEED, AND STABILIZE IN ACCORDANCE WITH SEDIMENTATION AND EROSION CONTROL PLAN.

REINFORCED TURF SPILLWAY DETAILS
NOT TO SCALE



NOTES:
1. FRAME SHALL BE FOR 24" SQUARE GRATE - LEBARON TYPE "F" SQUARE FRAME (LF 245) 4 FLANGE OR ETHERIDGE SQUARE FRAME S24G. GRATE SHALL BE 24"x24" CAST IRON.
2. ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK FRAME AND GRATE TO BE PRECAST AS SINGLE PORTLAND CEMENT CONCRETE UNIT.

TYP. TYPE "F" CATCH BASIN
NOT TO SCALE

STATE OF MAINE — ADRIENNE R. FINE — No. 14252 — LICENSED PROFESSIONAL ENGINEER

DATE: 03.23.21
P.E. ADRIENNE R. FINE

NO.	DATE	REVISIONS	APP'D BY
4	03.23.21	REVISED PER CITY AND DEP REVIEW COMMENTS	ARF
3	02.18.21	REVISED UTILITY PLAN PER CITY REVIEW COMMENTS	ARF
2	02.02.21	ADDED PHOTOMETRIC LIGHTING PLAN AND SUBMITTED TO CITY OF BELFAST	ARF
1	01.20.21	SUBMITTED TO DEP	ARF

565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102
FAX: (207) 221-1317

41 CAMPUS DRIVE
SUITE 101
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TERRADYN CONSULTANTS, LLC
Civil Engineering | Land Planning | Stormwater Design | Environmental Permitting

PERMIT DRAWING
NOT FOR CONSTRUCTION

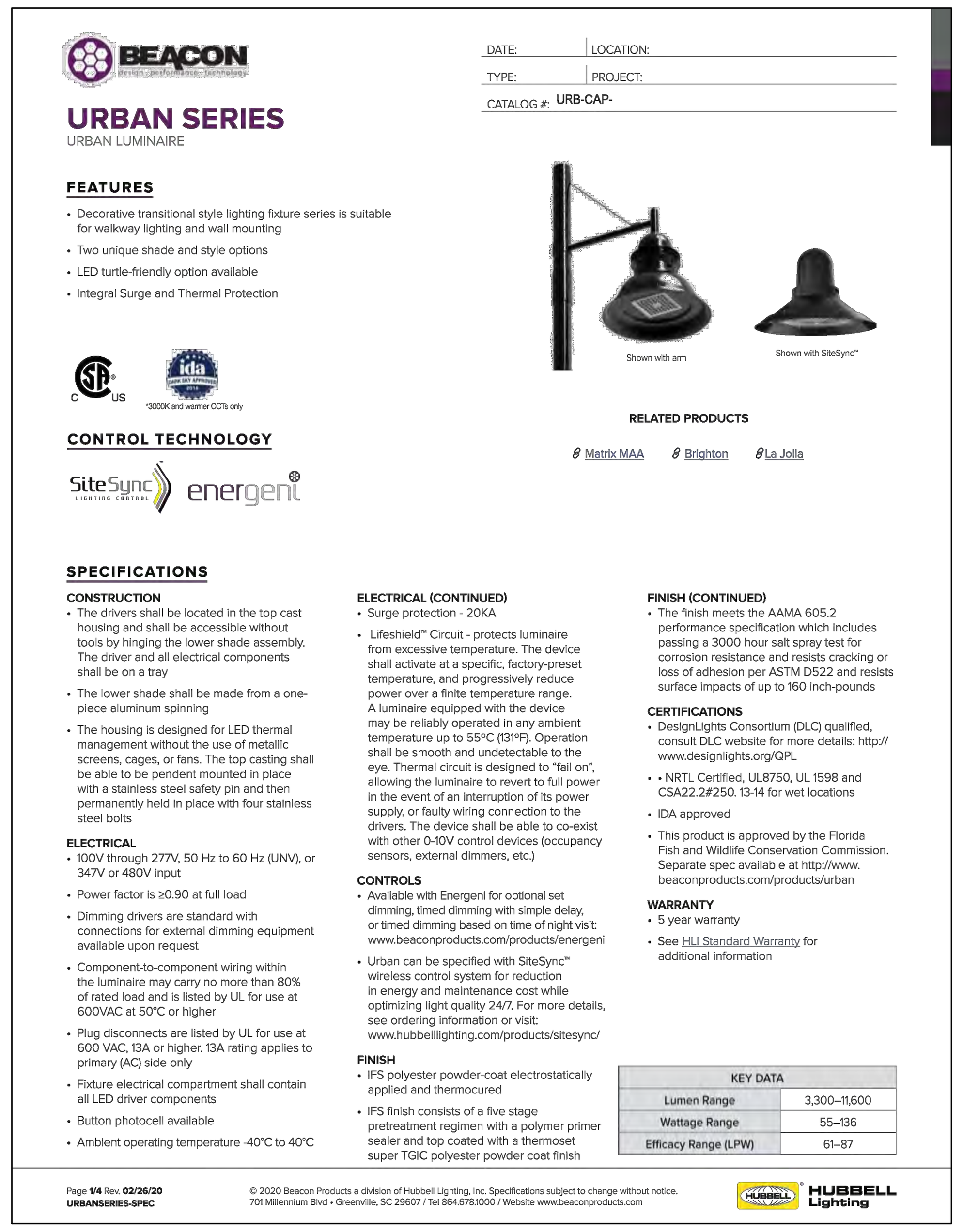
PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

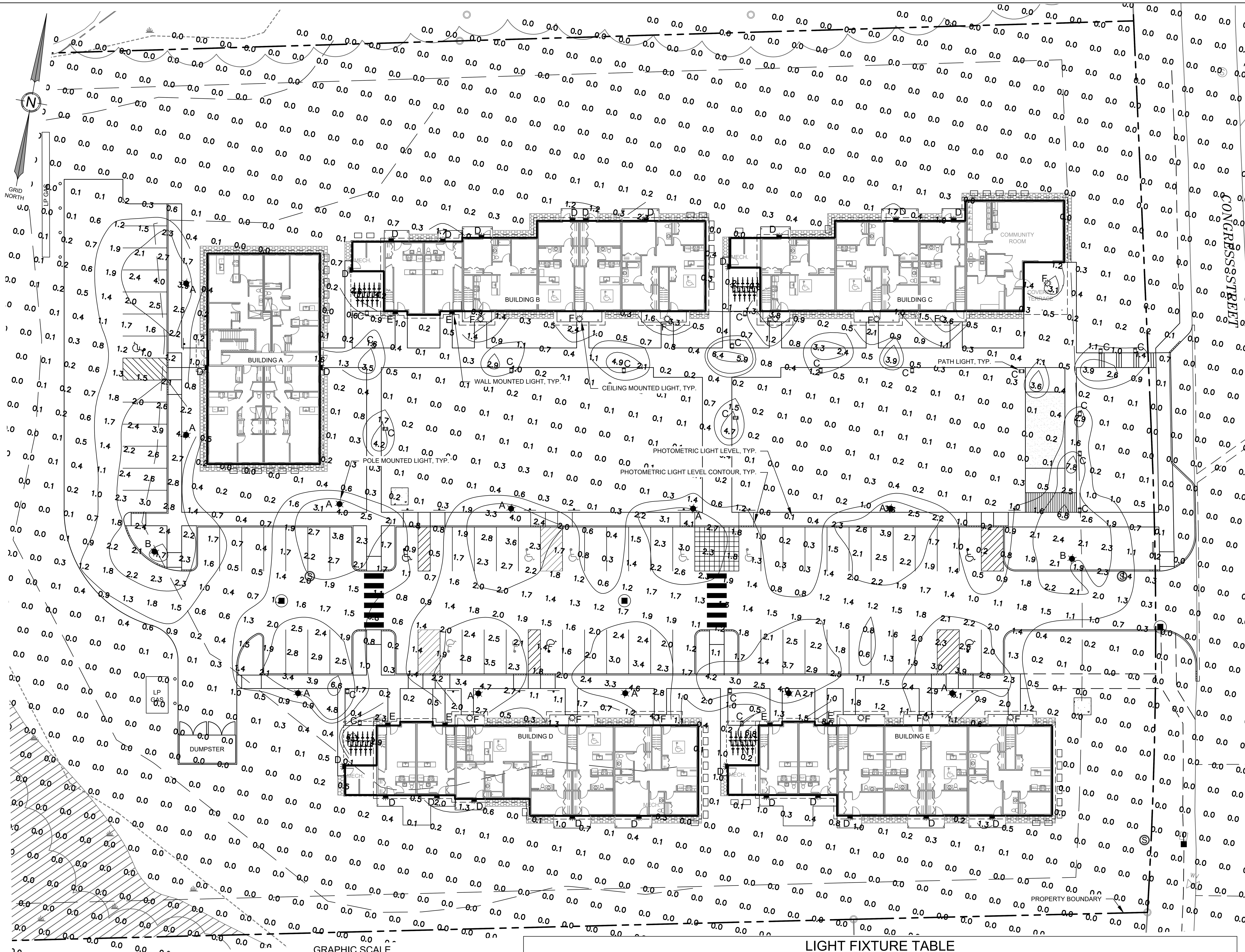
SHEET TITLE:
DRAINAGE DETAILS

CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	AS NOTED
DESIGNED:	ARF
JOB NO:	2033
FILE: 1705-DETAILS.DWG	

SHEET C-6.3





GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch =20 ft.

LIGHT FIXTURE TABLE

LABEL	LIGHT FIXTURE	MANUFACTURER	MANUFACTURERS ID	NUMBER OF LIGHTS	MOUNTING HEIGHT	MOUNTING LOCATION
A	URBAN 21" CAPITOL *	BEACON	URB-CAP-21-24L-55-3K7-4-UNV	11	14'	POLE
B	URBAN 21" CAPITOL *	BEACON	URB-CAP-21-24L-55-3K7-5QM-UNV	2	14'	POLE
C	PAVILION BOLLARD	KIM LIGHTING	PA7S-CL3-12L-010-3K7	20	3'-6"	BOLLARD
D	ONE-LIGHT WALL SCONCE	PROGRESS LIGHTING	PROG-P5635-2030K9	25	7'	WALL
E	COMPASS CUSO SLIM LED	COMPASS BY HUBBELL	CUSO AC 3000K	6	7'	WALL
F	EVS SERIES 11" ROUND LED CEILING LIGHT	DUAL LITE BY HUBBELL	EVS_20.00971 AC	13	9'	PORCH CEILING

NOTES:
1. LIGHTING PLAN PREPARED USING DESIGN MASTER PHOTOMETRICS SOFTWARE
2. ONLY PROPOSED LIGHTING FIXTURES ARE MODELED
3. DEPRECIATION FACTOR FOR LED IS 0.90
* THE POLE MOUNTED PARKING LOT LIGHTS (URBAN 21" CAPITOL) SHALL BE DIMMABLE AND/OR INCLUDE CONTROLS TO BE PARTIALLY TURNED OFF AT NIGHT.

STATE OF MAINE
ADRIENNE R. FINE
No. 14252
LICENSED
PROFESSIONAL ENGINEER

DATE: 03.23.21
P.E. ADRIENNE R. FINE

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PERMIT DRAWING
NOT FOR CONSTRUCTION

PROJECT:
BELFAST HOUSING
115 CONGRESS STREET, BELFAST, MAINE

SHEET TITLE:
PHOTOMETRIC LIGHTING PLAN

CLIENT:
DEVELOPERS COLLABORATIVE
100 COMMERCIAL STREET, SUITE 414
PORTLAND, MAINE 04101

DATE:	12/2/2020
SCALE:	1"=20'
DESIGNED:	ARF
JOB NO:	2033
FILE: 2033-P.DWG	
SHEET	C-7.0