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June 23, 2014

HNTB

Mr. Richard Knowland
Senior Planner
City of Portland
389 Congress Street
Portland, ME 04101

RE: Site Plan Application for Portland IMT, Existing Laydown and Connecting Corridor Connection
Site Plan Addendum #5

C/O: Pat Carroll, Carroll Associates (email: pcarroll@carroll-assoc.com)

Rick,

Please find attached responses to the City's latest questions and comments received regarding the Portland IMT subject project. We have copied the comments directly into this letter and provided our responses immediately following each comment.

We have already implemented many of your suggested changes to the design where we are in agreement, but since many comments require a fair amount of rework to the drawings, we have simply provided our response at this time indicating the manner by which modifications will be made. We will submit a final stamped plan set with all the changes on Friday June 27, 2014.

If you have any additional questions regarding these responses, please do not hesitate to contact me or our project liaison, Pat Carroll.

Regards,

Craig R. Morin, P.E.
Project Manager

C: Joel Kittredge, Project Manager, MaineDOT (via email: Joel.C.Kittredge@maine.gov)

Encl.: Response to Comments
Attachments

HNTB File No.: 62506-DS-001-001
M:\jobs\62506 - Portland IMT Corridor Connection (Stage1)\Communications\Letters
LTR 03 Response to City Comments 06-23-14.docx

COMMENTS FROM RICK KNOWLAND, SENIOR PLANNER (VIA PLANNING BOARD REPORT, JUNE 20, 2014) AND RESPONSES:

Comment 1
Section E. Coordination with Adjacent Development Parcels: An agreement to resolve access and utility issues has not been received as of the writing of this report, but appears to be close to resolution.

Response: An agreement has been reached which resolves the access and utility issues with New Yard, and is currently being drafted by the legal staff of both parties. A copy of the agreement can be made available to the City for its records upon request. A brief summary of the details of the agreement include the following:

- *Twelve 24-inch diameter RCP utility sleeves will be added across the railroad corridor for use by New Yard, LLC.*
- *Electrical provisions will be added along with a CMP easement leading up to the New Yard property line for permanent electrical service.*
- *A new 50-ft wide fenced accessway through the Unitil property will be added with 32-ft double-leaf swing gates.*

Comment 2
Section E. Coordination with Adjacent Development Parcels: In reviewing the IMT site plan, staff finds that the application has not met all of the site plan submission requirements of sec. 14-527(d), in particular, the following items of this section.

- (4) Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways.
- (22) Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets.
- (31) Location, dimensions and ownership of easements public or private rights of way, both existing and proposed.

Response: Updated site plans are attached which incorporate the information requested, and are included herein as Attachment A.

More specifically:

- *Commercial Street Plans H05 and H06 have been revised to show driveway, vehicle and pedestrian access way information.*
- *Site Plans C06, C07, and C08 have been revised to show required easement information.*
- *Site Grading and Drainage Plan C09 has been revised to include location, sizing, and directional flows of utilities.*

COMMENTS FROM MARGE SCHMUCKAL, ZONING ADMINISTRATOR (VIA PLANNING BOARD REPORT, JUNE 20, 2014) AND RESPONSES:

Comment 1
I have reviewed the responses to my comments dated May 6, 2014. The response did not address my questions concerning truck to truck activities. I wanted more detail on that specific activity. Will that activity be less than 20% of the total activities there? Please give me more of a specific idea as to the details concerning the truck to truck activities.

Response by Maine Port Authority: The planned use of the expanded area is for "drop-and-pick" operations as part of the intermodal services needed to sustain the IMT's competitive rail and maritime connections. A container is placed in the yard by terminal personnel, and picked up by a trucker at their convenience. This "truck to truck" freight is merely part of the intermodal transportation chain that allows shippers to use maritime transportation more competitively. The customers and carriers that participate in this operation are critical

to the growth of the marine freight volumes at the terminal. The IMT has been engaged in such operations and container movements since 2010. The percentage of truck-to-truck activity here would be approximately 15% of the total container activity occurring at the IMT. Furthermore, the "truck to truck" moves are not traditional trucks as seen in a trucking yard, these moves are intermodal containers on chassis that the truck cabs are picking up.

Comment 2
My second comment regarded meeting the shoreland requirements of clearing vegetation. The response was that the final construction site plans will show what is to be removed. I could not find a plan with sufficient detail that responds to my request. As offered, I would like backup calculations to be provided so that I can determine compliance with ordinances. Please let me know the specific number on which the information is provided.

Response: A plan has been prepared that shows all trees greater than 4" in diameter located within the 250' shoreland setback. The plan summarizes the number of trees to be removed within the project limits and is attached hereto as Attachment B.

COMMENTS FROM DAVID MARGOLIS-PINEO, DEPARTMENT OF PUBLIC SERVICES (VIA PLANNING BOARD REPORT, JUNE 20, 2014) AND RESPONSES:

Comment 1
The DPS is agreeable to support a waiver for Point 1, Incomplete Utility Information, and Point 2, Incomplete Topographic Information. However we do not support a waiver of the request to a scale of less than 1 inch to 50 feet. The applicant is requested to resubmit the site plans at a scale on no less than 1 inch to 50 feet. Match line shall be used and the plan size shall be no bigger than 24" x 36".

Response: The Boundary and Topographic Survey produced by Owen Haskell will be reissued at a scale no less than 1 inch to 50 feet on a sheet no bigger than 24" x 36".

COMMENTS FROM TOM ERRICO, TRAFFIC REVIEW CONSULTANT (VIA PLANNING BOARD REPORT, JUNE 20, 2014) AND RESPONSES:

Comment 1
The traffic signal plan includes special phasing for Nova Seafood. I would suggest that a City agreement with Nova Seafood be crafted related to traffic operations and a memorandum of understanding and for traffic control.

Status: The applicant shall be required to provide a draft agreement that specifies maintenance, traffic signal, pavement marking and signage requirements for review and approval. The City suggests that this be a three-party agreement (City/State/Property Owner).

Response: The applicant will consider drafting an agreement with the City and the Property Owner that specifies maintenance, traffic signal, pavement marking and signage requirements.

Comment 2
The driveway apron material at Nova Seafood does not meet City standards and a waiver will be required.

Status: The City supports a waiver from their technical standards for driveway apron material given pedestrian and truck movement conflicts. DPS requests that the driveway apron material be concrete with a color tint (to be determined in the future prior to construction) and be designed to accommodate heavy truck loads

Response: In recent dialogs with the City staff members, the determination was to use cobblestones as the preferred material of choice, and therefore is the material that continues to be shown on the drawings. The DPS provided specific instructions to use a cobblestone material for these areas with a 6-inch thick fiber reinforced concrete base.

Comment 3
Several of the driveways on Commercial Street (IMT, Nova Seafood, and Gray Bar) do not meet City width standards and thus waivers will be required.

Status: For the IMT Driveway, which is proposed to be 100 feet wide, the applicant has provided a "auto-turn" graphic for a WB-67 truck. Reviewing the graphic, I believe the driveway can be narrowed, although not substantially. I would also like to understand more about the truck characteristics before rendering a final decision on the driveway width. Additionally, understanding right and left-turning movements for these large trucks will be helpful. If most are turning left and destined to the Fore River Parkway and the Veterans Bridge, there may be an opportunity to narrow the driveway on the easterly edge, which may also have a positive impact on the design of the crosswalk. I have reviewed the "auto-turn" graphics for the Nova Seafood site and I support a waiver for driveway width given site operations and that it is an existing business with unique truck access/egress requirements.

The applicant has provided an "auto-turn" analysis for one of the Graybar Driveways. The applicant shall provide a similar analysis for the second driveway and provide specific truck delivery information before approval of the widths can be provided.

Response: The applicant and the design team has worked extensively with the City and the neighboring businesses over the last few months to ensure that the truck operations at Graybar and Nova Seafood remain unobstructed as a result of the final esplanade design and roadway geometry. Since the widths of the entranceways are not excessive and they function in a positive manner for these businesses, we suggest that no changes be made to the driveway entrances. We kindly request that waivers be granted for both the Graybar and the Nova Seafood driveways.

Comment 4
Several of the driveways on Commercial Street do not meet City corner clearance and separation standards.

Status: Both the Nova Seafood and Graybar driveways currently do not meet corner clearance standards and conditions will not worsen with the proposed project. Given site constraints and access and egress needs for large trucks, I support a waiver from the City's Technical standard.

Response: Agreed; waiver will be required.

Comment 5
The City is requesting that truck parking on in-bound Commercial Street be prohibited for to be specified distance in advance of the Beach Street intersection. The City will provide this restriction length.

Status: Trucks shall be prohibited from parking along Commercial Street from the new STOP bar at the signalized intersection to a point westerly of 200 feet. The applicant shall provide recommendations on how this prohibition will be regulated via signs or other measures for review and approval.

Response: The drawings will be revised to illustrate a white diagonal-striped area for 200 ft from the STOP bar and NO PARKING signs will be attached along the security fence.

Comment 7
I am concerned about traffic operations and congestion during peak time periods, particularly when the special Nova Seafood traffic signal phase is actuated. The applicant should investigate the ability to limit the traffic signal phase during peak time periods.

Status: Specific information needs to be provided by the applicant that helps the City understanding specific constraints to implementing time-of-day restrictions.

Response: We have adjusted the delay for the signal (Phase 9) through collaborative discussions with Nova Seafood and its traffic engineer. The Contractor will make field adjustments as needed to relieve peak hour congestion as best as possible. If there is a vehicle/truck presence within the detection zone for longer than 240 seconds, subsequent calls for Phase 9 will be skipped. The video thermal detection system allows for regulating calls from Phase 9 with the simple flip of a switch.

Comment 8
A sidewalk waiver has been requested and a review of the supporting information will be performed.

Status: The applicant has documented that two sidewalk waiver criteria are met for the project and are based on prior IMT and New Yard applications. Given these prior decisions, specifically that an alternative route on the opposite side of Commercial Street will serve pedestrian activity in this area and that a signalized crossing will be provided at the IMT Site Driveway/Beach Street intersection, I support a waiver from providing a sidewalk along the property frontage.

Response: Agreed; waiver will be required.

Comment 9
A granite curbing waiver has been requested and a review of the supporting information will be performed.

Status: DPS is reviewing this waiver request.

Comment 10
The applicant should provide information as it relates to use of the proposed traffic signal by existing IMT traffic. I believe there will be overall site traffic and safety benefits if all IMT traffic has the ability to use the traffic signal.

Status: I understand the security constraints, as noted by the applicant, but I would suggest that the applicant provide an overview of the entire site and whether the layout could be modified to allow for an internal driveway connecting the existing IMT facility and the new signalized entrance that avoids going through the fenced area of the chassis yard.

Response: The site traffic is dependent upon the level of security for each container, and therefore, the use of each entranceway is still required. Not all of the traffic generated at the IMT can utilize the traffic signal. The internal operations and layout of the facility are specific to an optimized and efficient container terminal and the use of internal roads are simply not possible given the site constraints.

Comment 11
A construction management plan has been prepared. Additional information will be required as it relates to specific traffic, pedestrian, and bicycle impacts during construction.

Status: The applicant has noted that the contractor will be responsible for development of a construction management plan. Site plan standards require applicants to prepare a plan in conjunction with site plan approval. The applicant is required to developed a conceptual management plan that should indicate how construction will occur on Commercial Street. The plan should note how vehicular traffic, pedestrians and bicyclists will be maintained during construction and should note any peak time period restrictions for construction activity (The City has arterial time restrictions). It may be necessary that some construction activities occur at night to avoid impacts to traffic flow.

Response: A construction management plan was provided in the previous Amendment submittal, Amendment #3, as Attachment I dated June 6, 2014. The plan is attached here for your reference as Attachment C.

Comment 24
It is my understanding that the Nova Seafood driveways will be restricted such that the easterly driveway will be an entrance only and the westerly driveway a exit only driveway. The plans do not reflect this.

Status: The applicant should include signs and pavement markings that support the one-way access/egress conditions for review and approval.

Response: Per conversations with the owner, signage will be installed by the owner to denote the entrance and exit locations.

Comment 25
There are areas of roadway pavement that appear to be located outside the public right-of-way. An agreement on maintenance may be required.

Status: The applicant shall provide a draft maintenance agreement for review and comment.

Response: The applicant will consider drafting a maintenance agreement with the City for its review and comment.

Comment 30
The bicycle lane on the outbound side of Commercial Street continues to the limit of work, while the in-bound bicycle lane begins at the point where the left-turn lane is starting. The applicant should note why the in-bound bicycle lane can't start at the project limits.

Status: Within the project limits along Commercial Street, a formal bicycle lane should be continuously marked and signed as appropriate. The plans should be revised to reflect this.

Response: We will update the plans to reflect the continuation of the marked bike lane to the westerly limits of the project.

Comment 31
The direction sign that note Casco Bay Bridge 500 Feet is being removed. This removal should be confirmed by City staff.

Status: A condition of approval shall be included that notes signage for the project is subject to change with final recommendations from the City to be provided prior to construction.

Comment 32
The plans illustrate that the sidewalk at the corner of the Nova Seafood building will not need to be reconstructed. Given that the curb is being relocated, the sidewalk will need to be upgraded.

Status: The applicant has agreed to make this change and revised plans will be reviewed for approval.

Comment 35
The plan replaces an existing Casco Bay Bridge 500 Feet sign with a sign that notes Casco Bay Bridge (right) and Fore River Parkway (through). City staff should determine if this replacement is acceptable.

Status: A condition of approval shall be included that notes signage for the project is subject to change with final recommendations from the City to be provided prior to construction.

Comment 36
It was my understanding that the bicycle lanes were going to have dashed line treatment through the intersection. The plans do not depict this.

Status: Enhanced pavements markings shall be provided in the subject area and final approval of the details shall be provided prior to construction.

ADDITIONAL COMMENTS FROM PLANNING BOARD REPORT (JUNE 20, 2014) AND RESPONSES:

Comment 1 (Pg.13)
DPS requests that the shared use path along Commercial Street within the project limits consist of brick material meeting city standards and the width be reduced to 8-feet. A revised plan that meets this directive shall be reviewed and approved by DPS.

Response: The applicant does not support the reduction of the width of the shared-use path along Commercial Street. The 12-ft width is considered a minimum standard. Lesser widths are only considered when space is limited, which is not the case on this project.

Comment 2 (Pg.19, Jeff Tarling's Review of Landscape Features)
The Karpick (Red Maple) may not be the best tree for the street frontage along Graybar. Mr. Tarling would like to consider another tree species.

Response: The design team is amenable to planting a different tree species as directed by the City.

Comment 3 (Pg.19, Jeff Tarling's Review of Landscape Features)
Stone benches should be relocated elsewhere because of conflicts with snow plowing operations.

Response: The design team notes that the existing sidewalks along Commercial Street already contain obstructions such as fire hydrants and utility poles; however the design team is amenable to placing the stone benches in a different location as directed by the City.

Comment 4 (Pg.19, Jeff Tarling's Review of Concrete Wall)
Vegetation along the concrete such as Boston Ivy might help mitigate the impact of the wall.

Response: Vegetation along the wall is not possible due to lack of areas for planting soil, and it is not desirable to have shelves or pockets for planting soil since these could be used as climbing devices to scale the security fence.

Comment 5 (Pg.20, Staff Review of Concrete Wall)
A four high concrete wall that is 750 feet long is a questionable design solution in a gateway location. The higher the concrete wall the greater the concern about graffiti. A high wall also raises concerns about graffiti. There are a number of options in achieving an eight foot high security fence without using a 4 foot high concrete wall.

Response: The concrete wall has a design height of 48 inches to provide a safe buffer for Commercial Street against the specialized equipment operating on the concrete slab within the Terminal. Please see Attachment D which depicts the size of these machines.

As a reference point, the typical highway railing height along bridges is commonly 32-inches due to several factors such as: the anticipated impact angle of passenger vehicles and trucks (commonly 15 degrees to 20 degrees from parallel, respectively); the low center-of-gravity of highway trucks; and the low percentage of trucks using the highways, and the weight of passenger cars and trucks (2 tons to 40 tons, respectively). All of these factors have contributed to the design height of Maine's concrete barrier heights.

By contrast, the reach-stacker device which will operate on the concrete slab is a 128-ton piece of machinery (three times greater than that of a standard highway truck) that will be moving perpendicular (90 degrees from parallel) to the concrete wall and has a higher center-of-gravity than any tractor truck on the road. Therefore, the height of the wall is necessary to accommodate the higher impact point of the reach-stacker, if the equipment should accidently hit the wall. Comparison of this concrete wall to a typical highway bridge rail is misleading due to the direction, type, and impact angles associated with the design criteria of highway railings. It is our professional opinion that a 48-inch high concrete wall is the safest manner to accommodate the reach-stacker device while maintaining openness to the corridor that enables views within the site.

Comment 6 (Pg.21, Staff Review of Stormwater Quantity)
The plan should clarify where new gravel will be installed on the site including a cross section of the depth and type of material.

Response: Site Grading and Drainage Plan C09 shows the limits for the new granular improvements in the Chassis Storage Yard and Site Details C13 shows the typical section which will be used for this area (see Attachments A and E).

Comment 7 (Pg.22, David Senus' Review of Stormwater Design)
Provide an updated stormwater treatment area plan that better identifies treated vs. untreated areas of the site plan in plan (via hatching or some other means).

Response: Treated and non-treated areas of the project have been shown graphically on the Post-Development Conditions plan attached hereto as Attachment F.

Comment 8 (Pg.22, David Senus' Review of Stormwater Design)
Provide an updated Stormwater Management Plan and Calculations that reflect the final design approach.

Response: The Post-Development Conditions plan has been updated to reflect the final design and calculations have also been revised for the final design and are attached hereto as Attachment F.

Comment 9 (Pg.23, David Senus' Review of Stormwater Design)
Provide an updated Stormwater Inspection & Maintenance Plan (or Stormwater Pollution Prevention Plan) that addresses the previous review comment: "The Stormwater Management Plan will need to

include a stormwater inspection and maintenance plan for the proposed stormwater measures, such as the porous crushed stone yard surface and the porous concrete, developed in accordance with and in reference to MaineDEP Chapter 500 guidelines and Chapter 32 of the City of Portland Code of Ordinances". Specific guidance will need to be included for both the inspection and maintenance of the porous concrete panels and the crushed stone yard surface.

Response: The Stormwater Pollution and Prevention Plan has been revised to better address the inspection, maintenance and repairs of the porous crushed stone yard surface and the porous concrete shoulder on Commercial Street. The revised SWPPP is attached hereto as Attachment G.

ATTACHMENT A

PLAN

25 0 25 50
Scale of Feet

CURVE DATA #1	
PI =	10+76.14
D =	77°57'12.4"
Δ =	40°00'45.9" Rt.
R =	73.50'
L =	51.33'
T =	26.76'
E =	4.72'

CURVE DATA #2	
PI =	11+10.87
D =	21°44'38.9"
Δ =	4°24'55.6" Rt.
R =	263.50'
L =	20.31'
T =	10.16'
E =	0.20'

DRIVEWAYS & ENTRANCES

STA.	DESCRIPTION	OPENING
208+09 LT	PAVED ENTRANCE	22'-8.25"
210+34 LT	PAVED ENTRANCE	65'
211+80 LT	PAVED ENTRANCE	50'
214+06 LT	PAVED ENTRANCE	176'-3"
216+00 LT	PAVED ENTRANCE	96'-2"

REMOVING SINGLE TREE TOP ONLY - ITEM #201.23

STA.	OFFSET	DESCRIPTION	QUANTITY
209+21.51	39.87' LT	12" TREE	1 EA

REMOVING STUMP - ITEM #201.24

STA.	OFFSET	DESCRIPTION	QUANTITY
209+21.51	39.87' LT	12" TREE	1 EA

BRICK SIDEWALK WITH BITUMINOUS BASE - ITEM #608.15

STA.	TO STA.	WIDTH
207+47.5 LT	207+96.7 LT	8.26'
208+21.9 LT	210+00.2 LT	12.0'
210+67.7 LT	211+49.0 LT	12.0'
212+01.5 LT	11+00.7 LT	VARIES
213+00.9 LT	213+32.9 LT	VARIES
215+15.8 LT	215+57.6 LT	12.0'

BRICK DRIVEWAY WITH BITUMINOUS BASE - ITEM #608.16

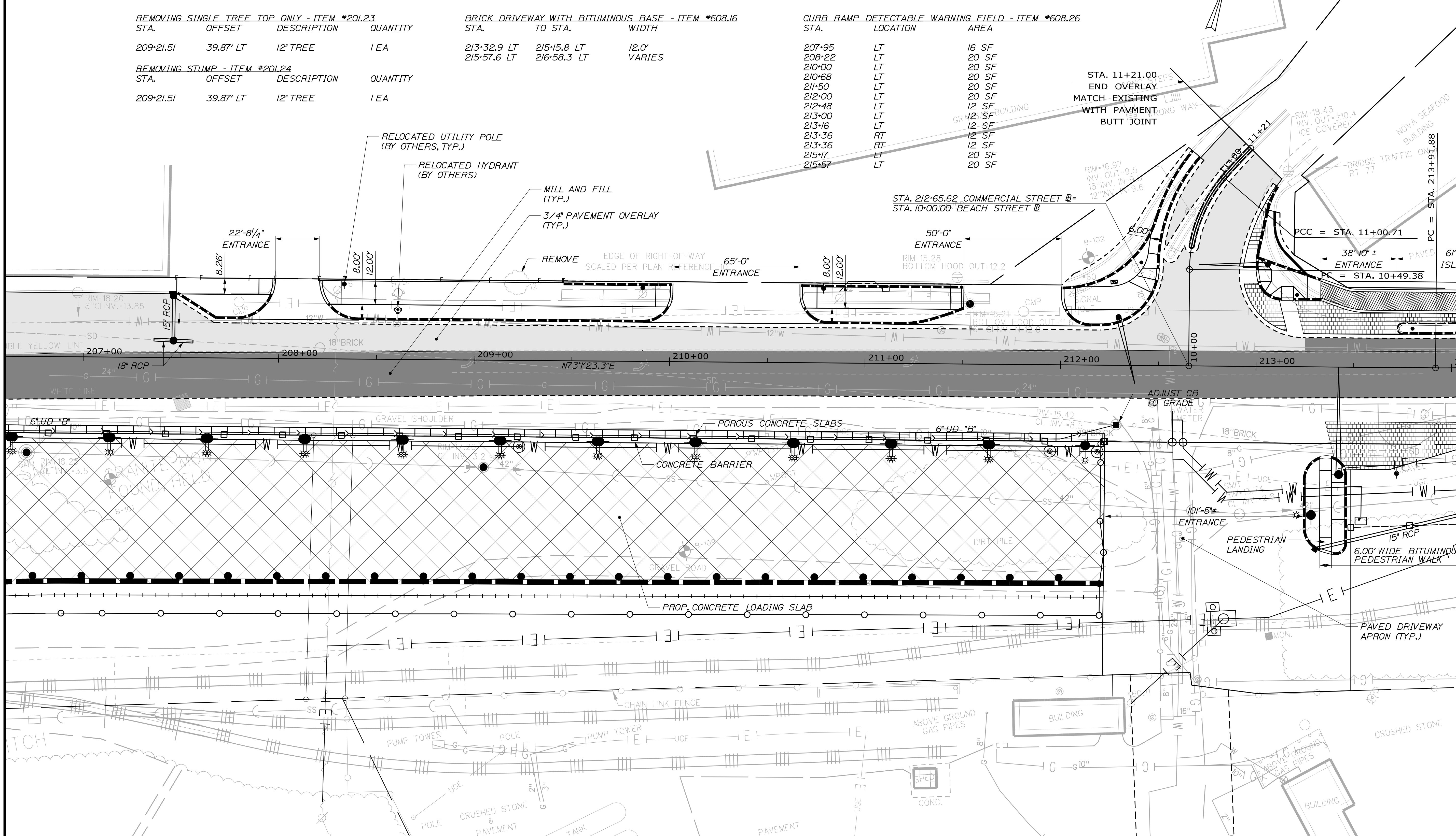
STA.	TO STA.	WIDTH
213+32.9 LT	215+15.8 LT	12.0'
215+57.6 LT	216+58.3 LT	VARIES

COBBLE STONE ROADWAY

STA.	TO STA.	AREA
212+93.2 LT	215+13.8 LT	169.45 SY
213+35.7 RT	214+91.5 RT	201.84 SY

CURB RAMP DETECTABLE WARNING FIELD - ITEM #608.26

STA.	LOCATION	AREA
207+95	LT	16 SF
208+22	LT	20 SF
210+00	LT	20 SF
210+68	LT	20 SF
211+50	LT	20 SF
212+00	LT	20 SF
212+48	LT	12 SF
213+00	LT	12 SF
213+16	LT	12 SF
213+36	RT	12 SF
213+36	RT	12 SF
215+17	LT	20 SF
215+57	LT	20 SF



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PROJECT NUMBER 022809.20
WIN
022809.20

PROJ. MANAGER	J. KITTREDGE		
DESIGN-DETAILED	RWH	TJW	06/14
CHECKED-REVIEWED		CRM	06/14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BY | DATE | SIGNATURE | P.E. NUMBER | DATE

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

COMMERCIAL STREET PLAN

SHEET NUMBER
H05
39 OF 113

Date:6/23/2014
Username:
Division:
Filename: 039_Highway_002.dgn

Date:6/23/2014

Username:

Division:

Filename: 040_Highway_003.dgn

CURVE DATA #2
PI = 215+21.08
D = 16°22'12.8"
Δ = 40°31'16.4" Lt.
R = 350.00'
L = 247.53'
T = 129.20'
E = 23.08'

PLAN

25 0 25 50
Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 022809.20

WIN
022809.20

	BY	DATE
PROJ. MANAGER	J. KITTREDGE	
DESIGN-DETAILED	RWH	06/14
CHECKED-REVIEWED	TJW	06/14
DESIGN2-DETAILED2	CRM	06/14
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE

P.E. NUMBER

DATE

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

COMMERCIAL STREET
PLAN

SHEET NUMBER

H06

40 OF 113

Filename: 009_SitePlan1.dgn Division: Username: Date:6/23/2014

PROPOSED UNDERDRAIN (TYP)

PROPOSED MAIN RUNNING TRACK

REMOVE TRACK

REMOVE TRACK

30' CSO #029 EASEMENT

25' SHORELAND SETBACK

SPRING HIGH TIDE EL. 7.4

MEAN LOW WATER ELEVATION -4.0 NGVD 1929

FORMER HARBOR COMMISSIONERS LINE OF 1929

FEDERAL CHANNEL LINE

24" BRICK STORM WATER OVERFLOW INV. = -1.4

TUNNEL

PAVED WALK

WEST COMMERICAL STREET

SIGNAL POLE

CONTROL BOX/PED.

SIGNAL VAULT SIGNAL POLE

RR CROSSING SIGN

RIPRAP (TYP.)

5/8"IRF

EMH

CASSIDY POINT ROAD

CMP MH

GRAVEL

TRANSFORMER

SHED

BUILDING

CHAIN LINK FENCE

CHAIN LINK FENCE ON JERSEY BARRIERS

BLOCK WALL

30"RCP INV.=5.48

15"RCP INV.=13.77

15"RCP

CMP MH

GAS VLT.

WAT. MH

CONC.

DROP INLET

CMP MH

SWITCH

WAL

5.89'

3.46'

5/8"IRF

NOTES:
1. SEE TRACK PLAN/PROFILE SHEETS FOR DRAINAGE ITEMS.

2. FOR CLEARING LIMITS ADJACENT TO TRACK SEE TRACK PLANS.

3. FOR TRACK REMOVAL LIMITS, SEE GENERAL NOTES AND TRACK PLANS.

PLAN

60 0 60 120

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 022809.20

WIN 022809.20

	BY	DATE
PROJ. MANAGER	J. KITTREDGE	
DESIGN-DETAILED	HME	06/14
CHECKED-REVIEWED	-	CRM 06/14
DESIGN2-DETAILED2	-	- -
DESIGN3-DETAILED3	-	- -
REVISIONS 1	-	- -
REVISIONS 2	-	- -
REVISIONS 3	-	- -
REVISIONS 4	-	- -
FIELD CHANGES	-	- -

SIGNATURE

P.E. NUMBER

DATE

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

SITE PLAN

SHEET NUMBER

C06

9 OF 113

DRIVE ENTRANCE (BY OTHERS)
PROPOSED CLEARING LIMIT LINE (TYP.)
DRIVE ENTRANCE (BY OTHERS)
PROPOSED DRAINAGE PIPE AND BASINS (SEE NOTE 1)
UTILITY SLEEVE
PROPOSED DRAINAGE PIPE AND BASINS (SEE NOTE 1)
PROPOSED UNDERDRAIN (TYP.)
PROPOSED RUN AROUND TRACK
25' UTILITY EASEMENT
50' ACCESS EASEMENT
PROPOSED 50' WIDE TIMBER GRADE CROSSING AND 4 UTILITY SLEEVES
PROPOSED MAIN RUNNING TRACK
REMOVE TRACK (SEE NOTE 3)
25' UTILITY EASEMENT (CANAL LANDING)
4 UTILITY SLEEVES
24' DOUBLE SWING GATE (SWING IN)
50' ACCESS EASEMENT
PROPOSED 24' WIDE TIMBER GRADE CROSSING AND 3 UTILITY SLEEVES
REMOVE TRACK
30' CSO #028 EASEMENT
25' SHORELAND SETBACK
SPRING HIGH TIDE EL.7.4
MEAN LOW WATER ELEVATION -4.0 NGVD 1929
FORMER HARBOR COMMISSIONERS LINE OF 1929
FEDERAL CHANNEL LINE
APPROXIMATE LIMITS OF DILAPIDATED PIER
GRANITE "M" MONUMENT FOUND
GRANITE MONUMENT FOUND
WEST COMMERICAL STREET
CMP MH'S
CMP MH
DROP INLET
GRAVEL
CONCRETE REMAINS
PAVED
205+00

NOTES:
1. SEE TRACK PLAN/PROFILE SHEETS FOR DRAINAGE ITEMS.
2. COORDINATE WITH NGL FOR TIMING AND TRACK REMOVALS.
3. FOR CLEARING LIMITS ADJACENT TO TRACK SEE TRACK PLANS.
4. UTILITY SLEEVES SHALL BE 24 INCH DIAMETER RCP, CLASS V, AND SHALL EXTEND FROM THE NORTH PROPERTY LINE TO THE SOUTH PROPERTY LINE.

PLAN
60 0 60 120
Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PROJECT NUMBER 022809.20
WIN 022809.20

	BY	DATE
DESIGNED	MPC	06/14
DRAWN	CRM	06/14
PROJ. MANAGER	J. KITTREDGE	-
DESIGN-DETAILED	HME	-
CHECKED-REVIEWED	_	-
DESIGN2-DETAILED2	-	-
DESIGN3-DETAILED3	-	-
REVISIONS 1	-	-
REVISIONS 2	-	-
REVISIONS 3	-	-
REVISIONS 4	-	-
FIELD CHANGES	-	-

SIGNATURE
P.E. NUMBER
DATE

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

SITE PLAN

SHEET NUMBER
C07
10 OF 113

Filename: 011_SitePlan3.dgn Division: Username: Date:6/23/2014

CONSTRUCTION BASELINE COORDINATES		
	NORTHING	EASTING
STA. 205+00.00	295911.7266	2926733.1119
PC STA. 213+91.88	296172.1435	2927586.1293
PT STA. 216+39.41	296318.8266	2927779.1151
POE STA. 218+90.84	296530.8706	2927914.2121

PROPOSED CLEARING LIMIT LINE (TYP.)
205+00
207+00
WEST COMMERCIAL STREET US ROUTE 1A
209+00
N 31°23.3'E
211+00
213+00
R=350'
215+00
217+00
N32°30'7E
FOR COMMERCIAL STREET STRIPING AND SIGNAL, SEE HIGHWAY PLANS.
SECONDARY IMT TRUCK ENTRANCE
20' EXISTING EASEMENT (CMP)
CONCRETE LOADING SLAB
CONSTRUCTION BASELINE
BEACH STREET
PC = STA. 213+91.88
PT = STA. 216+39.41
POE = STA. 218+90.84
PROPOSED 8' HIGH CHAIN LINK FENCE
CURBED ISLAND
REMOVE 24' SWING GATE
HEAVY STEEL PALISADE FENCE (TYP.)
CONNECT TO EXISTING FENCE
CHAIN LINK FENCE (TYP.)
REMOVE FENCE
30' EXISTING EASEMENT (CMP)
24' MOTORIZED SLIDING GATE
24' DOUBLE SWING GATE (SWING IN)
LOADING TRACK
SECURITY FENCE
DIRECTIONAL BORE UNDER TRACK
PROTECT NGL RAIL TRACKS
32' DOUBLE SWING GATE
EXISTING SECURITY GATE FOR UNITIL ACCESS TO REMAIN
PAVED ENTRANCE
PROPOSED EASEMENT (CMP)
REMOVE TRACK
24' MOTORIZED SLIDING GATE
CONTRACTOR STAGING AREA (SEE NOTE 3)
MODULAR SECURITY BUILDING SLAB (SEE SITE DETAILS)
HYDRANT W/ BOLLARDS (TYP.)
GRAVEL CHASSIS STORAGE LOT
SITE LIGHTING (TYP.)
16' SWING GATE
REMOVE LIGHT POLE
REMOVE 24' SWING GATE
REMOVE 4' PED GATE AND CARD ACCESS READER
REMOVE 16' MANUAL SLIDING GATE
REMOVE FENCE
REPAIR FENCE
PROPOSED 20' EASEMENT (CMP)
PROPOSED 50' EASEMENT (CANAL LANDING)
EXISTING FENCE AROUND UNITIL PARCEL TO REMAIN
PROPOSED EASEMENT (CANAL LANDING PEDESTRIAN AND VEHICULAR ACCESS ROUTE)
50' ±
CONTRACTOR STAGING AREA (SEE NOTE 3)
TRANSFORMER SLAB
REEFER CONTAINER STORAGE
30' EXISTING EASEMENT (24' CSO)
CASCO BAY BRIDGE
RELOCATE 11/2" GAS MAIN
REEFER PLUG IN (TYP.)
32' DOUBLE SWING GATE
75' SHORELAND SETBACK
25' SHORELAND SETBACK
SPRING HIGH TIDE EL. 7.4
APPROXIMATE EXTENT OF EXISTING WASTE AREA TO BE REMEDIATED AS PART OF UNITIL VRAP (BY OTHERS)
APPROXIMATE LIMIT OF GRAVEL SURFACE IMPROVEMENTS
FORMER HARBOR COMMISSIONERS LINE OF 1929
105' USACOE SETBACK LINE
50' HARBOR COMMISSION SETBACK
FEDERAL CHANNEL LINE
FORE RIVER
EBB
FLOOD

WORK TO INCLUDE
- PREPARE SELECTED SITE AREA FOR CONSTRUCTION INCLUDING SELECT CLEARING OF EXISTING VEGETATION
- GENERAL SITE CLEANUP
- PLACEMENT OF FENCE, LIGHTING, HYDRANTS, GATES
- RAIL IMPROVEMENTS AND LOADING SLAB.
- COMMERCIAL STREET IMPROVEMENTS INCLUDING BEACH STREET SIGNAL
- GRAVEL YARD IMPROVEMENTS INCLUDING DRAINAGE
- GAS MAIN RELOCATION

NOTES:
1. SEE ELECTRICAL PLANS FOR ALL ELECTRICAL ITEMS.
2. FOR LOCATIONS OF BOLLARDS AT LIGHT POLES, HYDRANTS, AND OTHER FEATURES, SEE SHEETS C18 AND C19.
3. ADDITIONAL CONTRACTOR STAGING AREAS MAY BE AVAILABLE. SEE SECTION 104 OF SPECIFICATIONS.
4. SEE COMMERCIAL STREET PLANS FOR DIMENSIONS OF ALL DRIVEWAYS.
5. FOR LIMITS OF TRACK, ROADWAY AND SITE WORK SEE DETAILS BY DISCIPLINE.

PLAN
60 0 60 120
Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
PROJECT NUMBER 022809.20
WIN 022809.20

BY	DATE
MPC	06/14
CRM	06/14
-	-
-	-
-	-
-	-
-	-
-	-

SIGNATURE
P.E. NUMBER
DATE

PROJ. MANAGER	J. KITTREDGE
DESIGN-DETAILED	TME
CHECKED-REVIEWED	-
DESIGN2-DETAILED2	-
DESIGN3-DETAILED3	-
REVISIONS 1	-
REVISIONS 2	-
REVISIONS 3	-
REVISIONS 4	-
FIELD CHANGES	-

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

SITE PLAN

SHEET NUMBER
C08
11 OF 113

STA. 207+46.41, 31.51' LT.
INSTALL 4' ϕ CB TYPE A5-C
RIM EL. = 18.38
INV. EL. = 13.90

15" RCP CLASS III
L = 19'

REBUILD SMH-1

6" UNDERDRAIN CLEANOUT

STA. 207+46.1, 8.72' LT.
INSTALL 4' ϕ DMH ON EXIST. 18" SD
RIM EL. = 18.88 ±
15" INV. IN = 13.80
18" INV. = UNK.
CONTRACTOR SHALL FIELD VERIFY
18" BRICK INVERT PRIOR TO
CASTING DMH AND CB.

INSTALL 2 - 8' X 18" RCP CLASS III
PIPES TO TIE INTO EXISTING 18" BRICK
STORM DRAIN WITH CONCRETE COLLAR.
INVERTS UNKNOWN.

18" UNDERDRAIN CLEANOUT

REBUILD SMH-2

STA. 215+12, 17.14 LT
INSTALL CB TYPE F6-C
RIM ELEV. = 12.73
INSTALL 12" X 16' UD TYPE C OUT

ALTER CB-7 FROM CURB
INLET TO TYPE C FRAME
WITH CASCADE GRATE

ADJUST CB-6
AND CORE FOR
PROP. 6" UD

REMOVE CB AND PLUG 30 LF OF 8" SD.
LABOR AND MATERIALS ASSOCIATED WITH
PLUG OF EXISTING SD IS INCIDENTAL TO 603 ITEMS.

STA. 215+33, 17.44' LT.
INSTALL CB TYPE F6-C
RIM ELEV. = 12.64
INSTALL 12" X 26' RCP CLASS III
CONTRACTOR TO TEST PIT
TO DETERMINE LOCATION
AND DEPTH OF ELECTRICAL
DUCT BANK. (SEE SECTION 104)

STA. 215+62, 17.57, LT.
INSTALL CB TYPE F6-C
RIM ELEV. 12.84
INSTALL 12" X 24' UD
TYPE C OUT

ADJUST DMH TO CB-1

ADJUST SMH-4

ADJUST DMH-1

BEGIN LINING
OF 24" CSO

LIMIT OF POROUS SURFACE
AT FENCE LINE ALONG
COMMERCIAL STREET

PAVEMENT SAWCUT
ALONG LIMITS OF
PAVEMENT REMOVAL

REMOVE EXISTING
PAVEMENT

ADJUST DMH TO CB-2
CORE FOR PROP. 15" SD
15" INV. IN = 5.38
(SEE NOTES 3 AND 4)

EXISTING PAVEMENT
TO REMAIN

STORM DRAIN INLET
PROTECTION (TYP.,
SEE NOTE 2)

ADJUST DMH TO CB-3
(SEE NOTES 3 AND 4)

CURED IN PLACE
LINING EXISTING 24" ϕ
VIT CSO, L = 266'±

END 24" VIT
BEGIN BOX CULVERT
SLIPLINING

LIMIT OF POROUS
SURFACE AT BRIDGE
MAINTENANCE BUILDING.
EXACT LIMITS TO BE
DETERMINED BY
RESIDENT.

SLIPLINE EXISTING
BOX CULVERT CSO.
L = 180'

EXISTING WOODEN BOX CSO

END SLIPLINING EXISTING
BOX CULVERT CSO

EXISTING CSO OUTLET, INV = -2.67

INSTALL 250' X 6" UD TYPE "B"
INV. IN = 8.45
INV. OUT = 7.20

CRUSHED STONE SURFACE

4' ϕ CB TYPE CI
RIM EL. = 13.5
18" INV. OUT = 7.5
18" INV. IN = 7.6

18" UD

18" HDPE UD
INV. IN = 9.75
INV. OUT = 7.60
L = 750'

BITUMINOUS RAMP TO
MATCH EXISTING PAVED
DRIVE

ADJUST SMH-3

DRAINAGE SCUPPER
SPACED @ 18' O.C.
(4I TOTAL)

ADJUST DMH-2
ADJUST DMH-3
CORE FOR
12" RCP, INV.
IN = 8.35
ADJUST CB-4
ADJUST CB-5

15" RCP CLASS III
L = 434'

UD-7

STA. 213+30.93, 93.20' RT.
INSTALL 4' ϕ CB TYPE CI
RIM EL. = 12.80
15" INV. OUT = 7.55

CONTRACTOR SHALL COORDINATE WORK
OVER 8" GAS MAIN WITH UNITIL

LIMITS OF POROUS SURFACE
YARD IMPROVEMENTS (TYP.)

STRIP DRAIN
(TYP.)

75' SHORELAND
SETBACK

25' SHORELAND
SETBACK

NEW YARD LLC BOAT YARD ACCESS ROAD TO REMAIN.
TIE IN WITH MAX. 2% LONGITUDINAL GRADE. PAVE.

RIPRAP SPILLWAY 8' WIDE X 14' LONG.
ELEVATION 9.2±.

SEDIMENT
BARRIER
(TYP.)

SPRING HIGH TIDE EL. 7.4

MEAN LOW WATER = -4.0

FORMER HARBOR COMMISIONERS LINE OF 1929

FEDERAL CHANNEL LINE

PLAN

60 0 60 120
Scale of Feet

NOTES:

1. THE CONTRACTOR SHALL INSTALL SEDIMENT BARRIER ALONG THE ENTIRE LENGTH OF THE RAIL CORRIDOR OR AS DIRECTED BY THE RESIDENT.

2. STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED ON ALL SURFACE INLETS WITHIN THE LIMITS OF DISTURBANCE AND ON ALL INLETS THAT MAY RECEIVE RUNOFF FROM THE DISTURBED PROJECT. CONTRACTOR SHALL MAINTAIN INLET FILTERS FOR THE DURATION OF THE PROJECT AND THEY SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION.

3. INSTALL 6" TYPE-B UNDERDRAIN AROUND PERIMETER OF CB-2 AND CB-3. UNDER DRAIN SHALL INTERCEPT ALL STRIP DRAINS AND SHALL HAVE A SINGLE OUTLET INTO CATCH BASIN.

4. STRUCTURE ADJUSTMENT SHALL ACCOMODATE NEW FRAME AND GRATE, NEENAH R-7516-C BALLAST SCREEN AND R-5901-E FRAME/LID (OR APPROVED EQUAL).

5. FOR SECTIONS A THRU E SEE SITE DETAILS SHEET 5.

DRAINAGE STRUCTURE ADJUSTMENT SCHEDULE

STRUCT. ID	EXIST. RIM	PROP. RIM	ADJ.	LOAD VEH.
SMH-1	18.25	14.65	-3.60	RAIL STACKER
SMH-2	17.2	14.6	-2.60	RAIL STACKER
SMH-3	13.74	13.75	0.01	HS-25
SMH-4	14.66	13.22	-1.44	HS-25
DMH-1	14.88	13.16	-1.72	HS-25
DMH-2	12.96	13.45	0.49	H-20
DMH-3	13.1	13.37	0.27	H-20
CB-1	14.08	13.3	-0.78	H-20
CB-2	10.4	12.7	2.30	HS-25
CB-3	10.37	12.45	2.08	HS-25
CB-4	12.73	12.73	0.00	H-20
CB-5	12.99	13.15	0.16	H-20
CB-6	15.42	14.6	-0.82	H-20
CB-7	15.21	15.21	0.00	H-20

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 022809.20

WIN
022809.20

	BY	DATE
SIGNATURE		
P.E. NUMBER		
DATE		

	J. KITTREDGE
PROJ. MANAGER	
DESIGN-DETAILED	HME
CHECKED-REVIEWED	-
DESIGN2-DETAILED2	-
DESIGN3-DETAILED3	-
REVISIONS 1	-
REVISIONS 2	-
REVISIONS 3	-
REVISIONS 4	-
FIELD CHANGES	-

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

SITE GRADING AND DRAINAGE PLAN

SHEET NUMBER
C09

ATTACHMENT B

ZONE 2

740 TREES > 4" DIA.
37 REMOVED

ZONE 3

147 TREES > 4" DIA.
9 REMOVED
138 REMOVED (BY OTHERS)

ZONE 1

85 TREES > 4" DIA.
0 REMOVED

MATCH LINE SEE BELOW

REMOVE 37 TREES

REMOVE NO TREES

250' SHORELINE OFFSET

250' SHORELINE OFFSET

MATCH LINE SEE ABOVE

PROPOSED LIMITS OF DISTURBANCE

TREES REMOVED BY OTHERS

SPRING HIGH TIDE ELEVATION 7.4

LIMIT OF DISTURBANCE (TYP)

SPRING HIGH TIDE ELEVATION 7.4

APPROXIMATE MEAN LOW WATER ELEVATION = 4.0 NGVD 1929

SPRING HIGH TIDE ELEVATION 7.4 NGVD 1929

DILAPIDATED PIER

TREE REMOVAL SUMMARY (WITHIN 250' SHORELAND SETBACK)
972 TOTAL TREES > 4" DIA.
184 TREES REMOVED WITHIN LIMITS OF DISTURBANCE (18.9%)

100 0 100 200
SCALE IN FEET

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 022809.20

WIN
022809.20

PROJ. MANAGER	J. KITTREDGE		
DESIGN-DETAILED	RWH	06\14	
CHECKED-REVIEWED	-	-	SIGNATURE
DESIGN2-DETAILED2	-	-	
DESIGN3-DETAILED3	-	-	P.E. NUMBER
REVISIONS 1		-	
REVISIONS 2		-	DATE
REVISIONS 3		-	
REVISIONS 4		-	
FIELD CHANGES		-	

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

TREE REMOVALS

SHEET NUMBER
1
1 OF 1

Username:
Division:
Date:6/23/2014
Filename: 010_TreeRemovals.dgn

ATTACHMENT C

Portland International Marine Terminal
Existing Laydown and Connecting Corridor Connection Project

CONSTRUCTION MANAGEMENT PLAN

The following outline represents the anticipated construction management plan that will be provided by the winning bidder for the project:

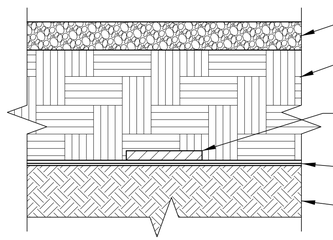
- The contractor shall maintain a minimum of a 11 foot lane through lane (and a 10 foot Left turn lane for eastbound commercial street) for each approach through the duration of the project unless otherwise noted.
- The contractor shall maintain a minimum of a 3 foot sidewalk for existing pedestrian approaches for the duration of the project unless otherwise noted.
- All full lane closures on Commercial street shall only be allowed from 7 PM to 7 AM Sunday night through Friday Morning. Full lane closures shall have a minimum of an 11 foot lane of alternating one way traffic.
- All Traffic Control Devices shall comply with the latest edition of the MUTCD.
- All temporary pedestrian facilities shall comply ADA requirements.
- No unpaved surfaces (gravel) shall be allowed within the work zone on Commercial Street.
- The Contractor Shall provide Certified Flaggers for any construction operation requiring short term stoppages of traffic.

ATTACHMENT D

REACH STACKER MACHINES

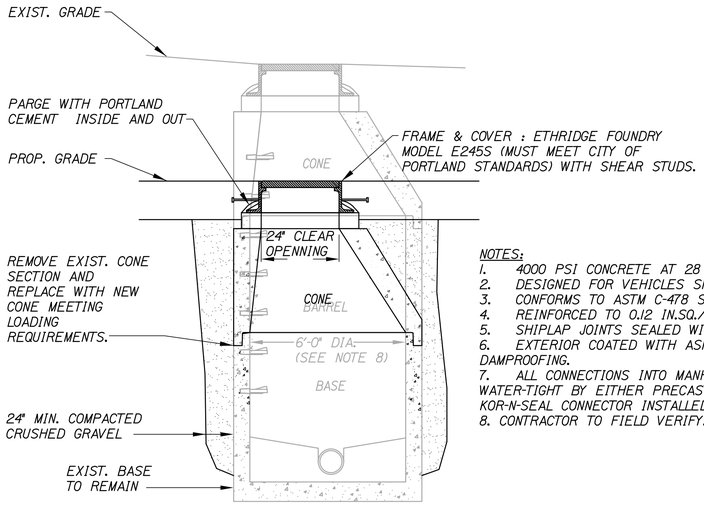
ATTACHMENT E

NOTE:
TYPE D AGGREGRATE SUBBASE SHALL HAVE BETWEEN 4% AND 7% FINES (PERCENT PASSING #200 SIEVE) TO ACT AS A FILTER LAYER.



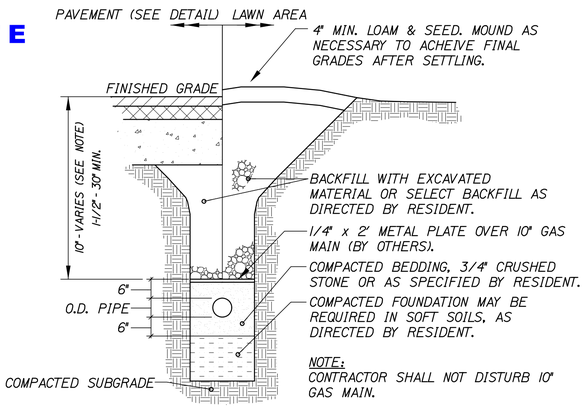
- 4" OF MDOT 703.12, CRUSHED STONE SURFACE; REFER TO SPECIAL PROVISION 304.
- 20" MDOT 703.06.B, TYPE D AGGREGATE SUBBASE COURSE; REFER TO NOTE ABOVE AND SPECIAL PROVISION 304.
- STRIP DRAIN - LOCATIONS AS SHOWN ON GRADING PLAN; REFER TO SPECIAL PROVISIONS 620 AND 722.
- SPECIAL SEPERATION GEOTEXTILE; REFER TO SPECIAL PROVISIONS 620 AND 722.
- PREPARED COMPACTED SUBGRADE. SOFT SUBGRADE SOILS SHALL BE REMOVED AND REPLACED WITH MDOT 703.19 GRANULAR BORROW FOR UNDERWATER BACKFILL; REFER TO SPECIAL PROVISION 203.

CHASSIS STORAGE YARD SURFACE DETAIL
NOT TO SCALE

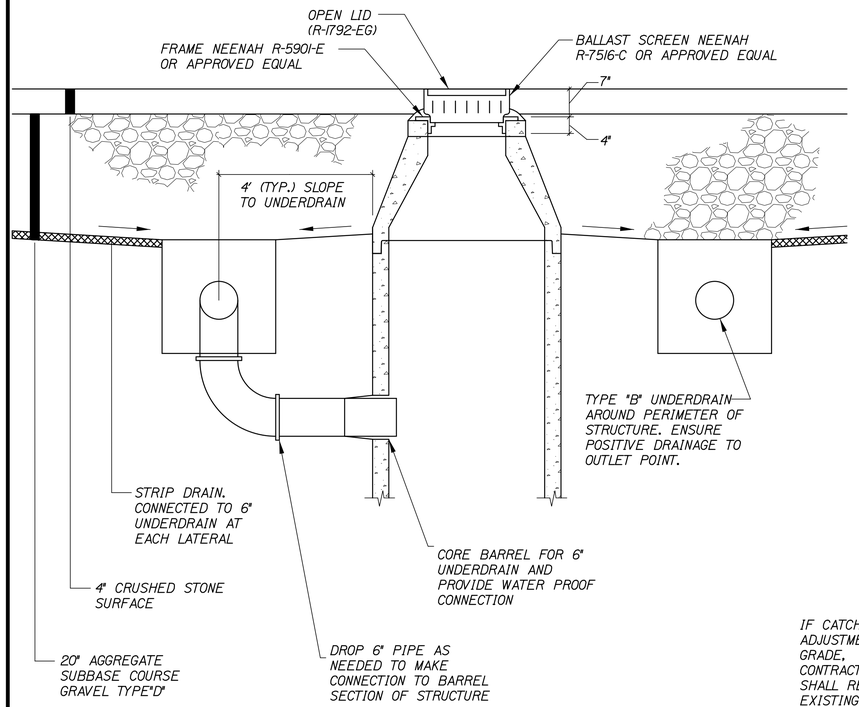


NOTES:
1. 4000 PSI CONCRETE AT 28 DAYS.
2. DESIGNED FOR VEHICLES SHOWN ON SHEET G3.
3. CONFORMS TO ASTM C-478 SPECIFICATIONS.
4. REINFORCED TO 0.12 IN.SQ./L.F.
5. SHIPLAP JOINTS SEALED WITH BUTYL RUBBER.
6. EXTERIOR COATED WITH ASPHALTIC PROTECTIVE DAMPROOFING.
7. ALL CONNECTIONS INTO MANHOLE SHALL BE WATER-TIGHT BY EITHER PRECAST FLEXIBLE BOOT OR KOR-N-SEAL CONNECTOR INSTALLED IN CORED HOLE.
8. CONTRACTOR TO FIELD VERIFY.

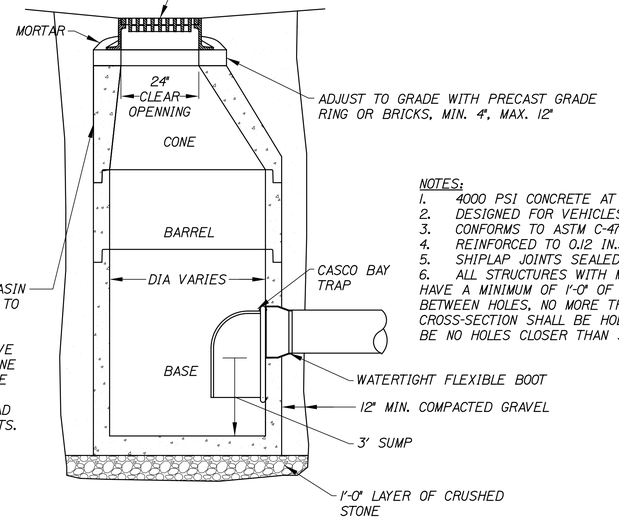
ADJUST LOADING SLAB MANHOLE (SMH) TO GRADE
NOT TO SCALE



GAS TRENCH SECTION
NOT TO SCALE

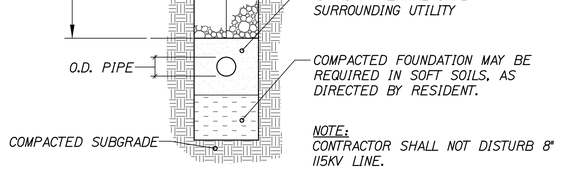


STRIP DRAIN CONNECTION TO CB2 AND CB3 DETAIL
NOT TO SCALE

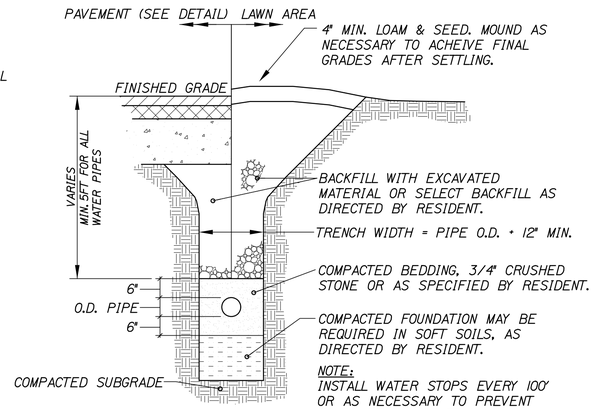


NOTES:
1. 4000 PSI CONCRETE AT 28 DAYS.
2. DESIGNED FOR VEHICLES SHOWN ON SHEET G3.
3. CONFORMS TO ASTM C-478 SPECIFICATIONS.
4. REINFORCED TO 0.12 IN.SQ./L.F.
5. SHIPLAP JOINTS SEALED WITH BUTYL RUBBER.
6. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 1'-0" OF OUTSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZONTAL CROSS-SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" FROM JOINTS.

CATCH BASIN (CB)
NOT TO SCALE



115KV ELECTRICAL TRENCH SECTION
NOT TO SCALE



UTILITY TRENCH SECTION
NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 022809.20

WIN 022809.20

	BY	DATE	SIGNATURE
J. KITTREDGE			
PROJ. MANAGER	HME	06/14	
DESIGN-DETAILED	MPC	06/14	
CHECKED-REVIEWED	CRM	-	
DESIGN2-DETAILED2	-	-	
DESIGN3-DETAILED3	-	-	
REVISIONS 1	-	-	
REVISIONS 2	-	-	
REVISIONS 3	-	-	
REVISIONS 4	-	-	
FIELD CHANGES	-	-	

P.E. NUMBER

DATE

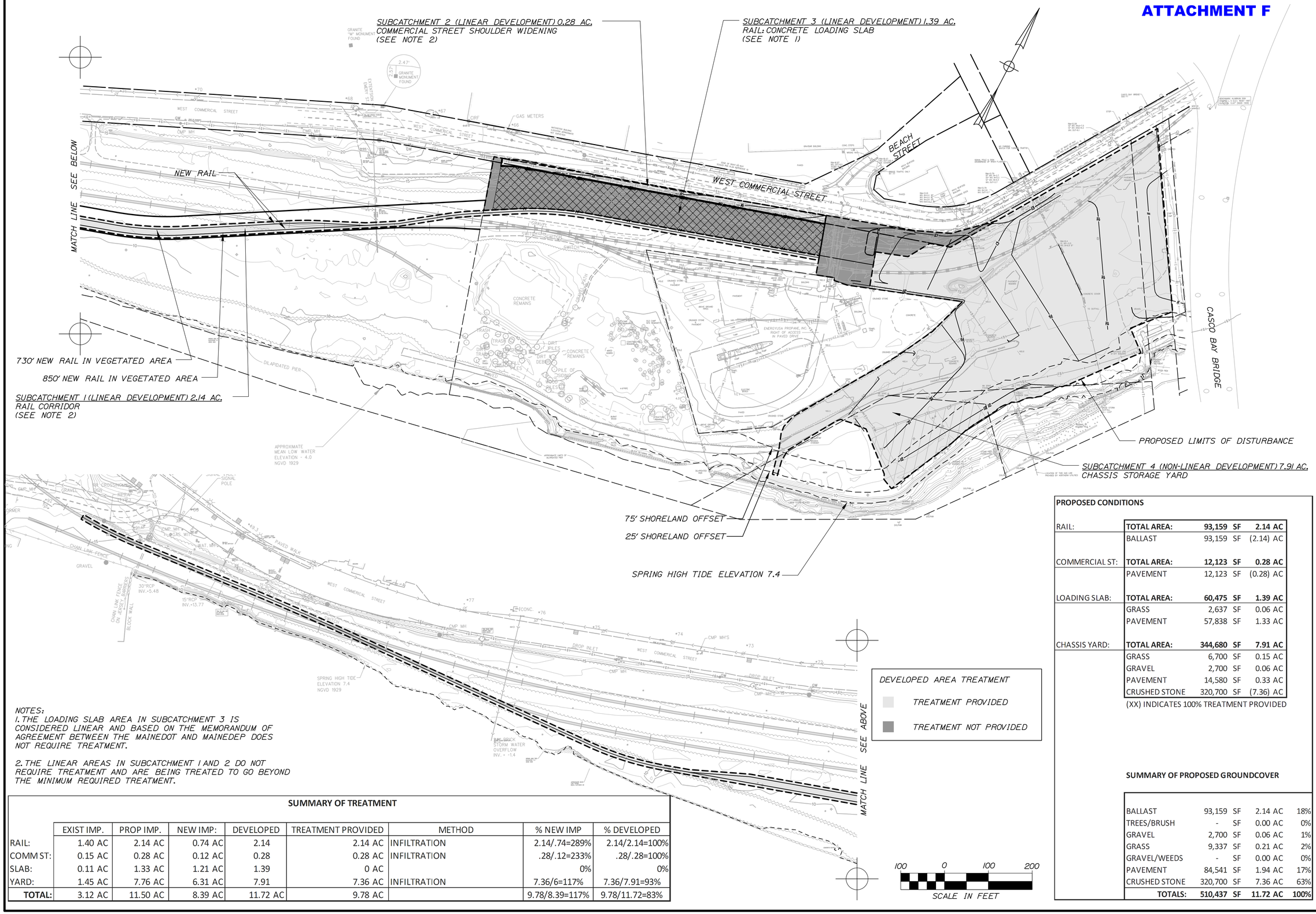
PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

SITE DETAILS

SHEET NUMBER
C13
16 OF 113

Date:6/6/2014
Username:
Division:
Filename: 016_SiteDets.dgn

ATTACHMENT F



PROPOSED CONDITIONS

RAIL:	**TOTAL AREA:**	**93,159**	**SF**	**2.14 AC**
	BALLAST	93,159	SF	(2.14) AC
COMMERCIAL ST:	**TOTAL AREA:**	**12,123**	**SF**	**0.28 AC**
	PAVEMENT	12,123	SF	(0.28) AC
LOADING SLAB:	**TOTAL AREA:**	**60,475**	**SF**	**1.39 AC**
	GRASS	2,637	SF	0.06 AC
	PAVEMENT	57,838	SF	1.33 AC
CHASSIS YARD:	**TOTAL AREA:**	**344,680**	**SF**	**7.91 AC**
	GRASS	6,700	SF	0.15 AC
	GRAVEL	2,700	SF	0.06 AC
	PAVEMENT	14,580	SF	0.33 AC
	CRUSHED STONE	320,700	SF	(7.36) AC

(XX) INDICATES 100% TREATMENT PROVIDED

SUMMARY OF PROPOSED GROUNDCOVER

BALLAST	93,159	SF	2.14 AC	18%
TREES/BRUSH	-	SF	0.00 AC	0%
GRAVEL	2,700	SF	0.06 AC	1%
GRASS	9,337	SF	0.21 AC	2%
GRAVEL/WEEDS	-	SF	0.00 AC	0%
PAVEMENT	84,541	SF	1.94 AC	17%
CRUSHED STONE	320,700	SF	7.36 AC	63%
TOTALS:	**510,437**	**SF**	**11.72 AC**	**100%**

DEVELOPED AREA TREATMENT

TREATMENT PROVIDED

TREATMENT NOT PROVIDED

100 0 100 200

SCALE IN FEET

NOTES:
1. THE LOADING SLAB AREA IN SUBCATCHMENT 3 IS CONSIDERED LINEAR AND BASED ON THE MEMORANDUM OF AGREEMENT BETWEEN THE MAINEDOT AND MAINEDEP DOES NOT REQUIRE TREATMENT.

2. THE LINEAR AREAS IN SUBCATCHMENT 1 AND 2 DO NOT REQUIRE TREATMENT AND ARE BEING TREATED TO GO BEYOND THE MINIMUM REQUIRED TREATMENT.

SUMMARY OF TREATMENT

	EXIST IMP.	PROP IMP.	NEW IMP:	DEVELOPED	TREATMENT PROVIDED	METHOD	% NEW IMP	% DEVELOPED
RAIL:	1.40 AC	2.14 AC	0.74 AC	2.14	2.14 AC	INFILTRATION	2.14/.74=289%	2.14/2.14=100%
COMM ST:	0.15 AC	0.28 AC	0.12 AC	0.28	0.28 AC	INFILTRATION	.28/.12=233%	.28/.28=100%
SLAB:	0.11 AC	1.33 AC	1.21 AC	1.39	0 AC		0%	0%
YARD:	1.45 AC	7.76 AC	6.31 AC	7.91	7.36 AC	INFILTRATION	7.36/6=117%	7.36/7.91=93%
TOTAL:	3.12 AC	11.50 AC	8.39 AC	11.72 AC	9.78 AC		9.78/8.39=117%	9.78/11.72=83%

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 022809.20

WIN 022809.20

PROJ. MANAGER	J. KITTREDGE		
DESIGN-DETAILED	RWH	BY	DATE
CHECKED-REVIEWED	_	REVISIONS 1	TREATMENT TABLES 03/14
DESIGN2-DETAILED2	_	REVISIONS 2	TREATMENT NOTES 4/9/14
DESIGN3-DETAILED3	_	REVISIONS 3	TREATMENT HATCH 6/23/14
		REVISIONS 4	- -
		FIELD CHANGES	- -

SIGNATURE

P.E. NUMBER

DATE

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

POST-DEVELOPMENT CONDITIONS

SHEET NUMBER

SW2

2 OF 9

Username:
Division:
Filename: 002_developPost.dgn
Date:6/23/2014

ATTACHEMENT G

STORMWATER POLLUTION PREVENTION PLAN

PORTLAND INTERNATIONAL MARINE TERMINAL

June 2014

FACILITY NAME: Port of Portland, International Marine Terminal
FACILITY ADDRESS: 460 Commercial Street Portland, Maine
OWNER/OPERATOR:

Maine Port Authority: John Henshaw (207) 200-2401; Patrick Arnold (207) 408-5391
Ports America: Jack Humeniuk, Bobby Connolly (207) 232-5178
Maine Department of Transportation: Joel Kittredge (207) 624-3550

WATER BODY: Fore River, Portland Harbor

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) OVERVIEW

This Stormwater Pollution Prevention Plan:

- Identifies the SWPPP coordinator with a description of the coordinator's duties;
- Identifies members of the SWPPP team and lists their responsibilities;
- Describes the facility operational areas and description of stormwater drainage features;
- Identifies potential stormwater contaminants;
- Describes stormwater management controls and BMP's required to reduce pollutants in stormwater discharges;
- Describes the facilities Operations and Monitoring plan;
- Inspections, Maintenance, repair and annual reporting requirements of stormwater BMP's, and;
- Describes the implementation schedule and provisions for amendment of the plan.

1 PLANNING AND ORGANIZATION

1.1 SWPPP COORDINATOR AND TEAM

The team members and list of responsibilities is as follows:

Person in Charge: Patrick Arnold, (207) 408-5391
Title: Maine Port Authority

Responsibilities: Coordinates all stages of plan development, inspections and implementations. Coordinates employee training programs, keep all records and ensures that monitoring and inspection reports are maintained as part of the SWPPP. Coordinates container storage layout, movement, loading, unloading and site operations. Coordinates and implements other plans such as Spill Containment and Countermeasure (SPCC).

Member: Jack Humeniuk, Bobby Connolly (207) 232-5178
Title: Ports America

Responsibilities: Implement the preventative maintenance program. Oversee good housekeeping activities, serves as spill response coordinator. Conduct/assist with inspections and training program, conduct and document visual sampling and comprehensive inspections.

Member: Joel Kittredge, (207) 624-3550
Title: Maine Department of Transportation

Responsibilities: Assurance of quality control implementation.

2 ASSESSMENT

2.1 SITE DESCRIPTION

The following is an overview of the IMT facility, description of site usage and identification of possible stormwater pollutant areas. Each of the following areas are defined:

- Site activities
- Address
- Number of acres
- Length of waterfront
- Buildings and use
- Storage locations
- Container movement
- Type of vehicles used on site
- Vehicle maintenance activities
- Site restrictions
- Other potential hazards

The International Marine Terminal (IMT) is located at 460 Commercial Street in Portland, Maine, between Commercial Street and the Fore River, and at the same location as the Casco Bay Bridge. The site covers approximately 33 acres and has approximately 2,500 linear feet of frontage on the Fore River.

Activities on site include on and off loading of cargo containers from international shipping, storage of containers and deliver and pickup of containers by trucking and rail. Containers are moved on site with a Liebherr LHM 320 Mobile Harbor Crane, Taylor TEC-950L Top Lifter, Fantuzzi Reach Stacker, Kalmar Reach stacker DRF450-65S5 and Kalmar Ottawa 4x2 Yard Tractors.

The site contains three buildings, a 3,300 square foot office building for facility management staff near the Commercial Street entrance, a 4,500 square foot maintenance building located at the pier and a 6,300 square foot cold storage building (the Rubb Building).

The facility utilizes a concrete loading slab to load rail cars with containers. The loading slab is located along Commercial Street and includes a concrete retaining wall to separate operations from vehicle and pedestrian traffic along Commercial Street.

Stormwater runoff from the facility drains to one of five outlets and is described from east to west as follows:

- The eastern most outlet is a 15” PVC storm drain that collects stormwater runoff from the upper yard where various containers are stored including refrigerated and flammable liquid. Runoff is collected via catch basins and storm drains. The outlet is located on the southern end of the site in the seawall and is shown as Outlet #1 on the Site Map.
- A catch basin with 4” PVC storm drain is located directly in front of the Maintenance Building overhead door and collects a small amount of stormwater from the area around the overhead door. The outlet is located beneath the Maintenance Building in the sea wall and is shown as Outlet #2 on the Site Map.
- A catch basin with 12” PVC storm drain is located east of the Rubb Building and collects a small amount of stormwater from the area around the concrete loading slab east of the Rubb Building. The outlet is located beneath the dilapidated wood pier in the sea wall and is shown as Outlet #3 on the Site Map.
- The middle portion of the site, east of the Casco Bay Bridge, outlets in the seawall via two separate storm drain systems. A 24” RCP and 30” RCP collect stormwater runoff from the lower container storage lot via catch basins and storm drains. The outlets are located near the Casco Bay Bridge and are shown as Outlet #4 on the Site Map.
- The western most portion of the site is the chassis storage yard and concrete loading ramp. The chassis storage yard is constructed of a porous crushed stone surface. All stormwater runoff from this portion of the site percolates into the existing ground. In the event the porous media becomes clogged, overflow is provided via two catch basins within the chassis storage yard. The catch basins are connected to the Combined Sewer Overflow (CSO) owned by the City of Portland and discharge into the Fore River near the Bridge Maintenance Building. The concrete slab drains into scuppers which also are connected the the CSO. The CSO outlet is located along the seawall near the Bridge Maintenance Building and is shown as CSO Outlet on the Site Map.

Vehicle Maintenance will only take place at the maintenance building (with the exception of in-place breakdown repairs). Residuals such as oil, grease or paint scrapings from typical maintenance operations will be collected and stored in 55 gallon drums and removed from the site as needed.

Container Cargo Ships will dock at the facility and will on and off-load container boxes. Bunkering and sewage management is performed by accredited vendors in accordance with United States Coast Guard regulations. Boats may replenish their supply of fresh water and may also recharge electrical capacitors while docked at the facility.

Containers and general cargo will be stored throughout the facility. Loaded containers will be sealed while stored at the facility. Loading and unloading of containers generally occurs at the Rubb Building. Containers and general cargo will not be stacked in the chassis storage lot.

Rail cars will be stored along the concrete loading slab at the western side of the facility and will allow for on and off-loading container boxes.

RESTRICTED USE: The chassis storage yard allows for infiltration of stormwater runoff into the underlying soils therefore use of this area is restricted to prevent contaminants from entering the groundwater. The following uses are strictly prohibited in this portion of the facility:

- Storage of salt/sand mixtures
- Bulk storage of petroleum products

- Maintenance of vehicles and equipment (excluding in-place breakdowns)
- Long term storage of vehicles and equipment that has potential to leak pollutants
- Other activities that present a risk of significant pollutant discharges to groundwater

A Site Map of the IMT facility for use with this SWPPP shows buildings, storage areas, parking areas, stormwater drainage outlets, vehicle maintenance areas, restricted areas and site access is shown on the following page.

SITE MAP

PORTLAND INTERNATIONAL MARINE TERMINAL
EXISTING LAYDOWN AND CONNECTING CORRIDOR CONNECTION
PORTLAND CUMBERLAND COUNTY

SHEET NUMBER 1 OF -

PROJ. MANAGER	J. KITTREDGE	BY	DATE	
DESIGN-DET'ALED	RMH	RMH	DIVN	
CHECKED-REVIEWED	-	-	-	SIGNATURE
DESIGN2-DET'ALED2	-	-	-	
DESIGN3-DET'ALED3	-	-	-	
REVISIONS 1	-		-	P.E. NUMBER
REVISIONS 2	-		-	
REVISIONS 3	-		-	
REVISIONS 4	-		-	DATE
FIELD CHANGES	-		-	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER 022809.00

WIN
022809.00

Filename: 020_SiteMap.dgn Division: Username: Date:3/31/2014

2.2 SIGNIFICANT MATERIAL INVENTORY

SWPPP MATERIAL INVENTORY:

AREA	POTENTIAL SOURCE	POLLUTANT
Maintenance Bldg	Vehicles, waste containers	Oil, grease, metal chips, paint
Container on/off loading	Vehicles, vessel, rail, containers	Oil, grease
Container storage	Containers, transport vehicles	Oil, grease, metal chips
Travel ways	Transport vehicles	Oil, grease, sand, salt
Waste handling	Vehicles, waste containers	Trash, non-hazardous waste
Flammable liquids storage	Containers	Flammable liquids
Parking	vehicles	Oil, grease, sand, salt

Incoming Container Inspection: As part of the normal operating procedures for the facility, containers are monitored for leaks at time of arrival whether the arrival is from vessel, rail, or highway. Any leaks will be contained and cleaned up immediately and this information is recorded in the stevedore's "Statement of Fact".

Stored Container Inspections: Stored containers will be visually monitored as part of daily reconnaissance which includes visual observations.

Vehicles: Vehicles used at the IMT facility for container on and off loading as well as on-site transporting will be monitored by the Port Operator according to the standard operating procedures. Otherwise, monitoring will occur on a weekly basis. This will typically occur in the Maintenance Building where immediate repairs may be implemented. Vehicles stored in the chassis storage lot shall be visually monitored and relocated and repaired immediately if dripping fluid is observed.

Methods and Location of Storage & Disposal: Waste materials such as oils, grease and coolants will be stored at the Maintenance Building in specifically marked containers. All containers will be securely closed at all times. Transport will be limited to reduce risk of spills and will be conducted by equipment intended for transporting such containers. Disposal of waste materials will be in accordance with all local, state and federal regulations and will occur as needed. Waste products will be disposed of frequently enough as to prevent large quantities of storage at the facility.

All paved surfaces will be maintained, cleaned, and swept by a certified vendor as sediments buildup. Winter sanding will be kept to a minimum and salt will be primarily used during snow removal to limit sediment buildup.

Training and spill prevention for stormwater pollution prevention will become part of the IMT site operations program. New employees will be trained and become knowledgeable with this manual, locations of hazardous materials, storage locations, spill prevention, inspections, cleanup and reporting.

2.3 SPILLS AND LEAKS

All spills will be cleaned immediately and reported if necessary depending on the material, size and location of the spill. Spill kits will be located at the Maintenance Building and throughout the facility as deemed necessary depending on hazard type. Spill kits will be restocked as needed. In the event of spills, priority will be given to

preventing pollutants from entering into the stormwater drainage systems. Absorbent pads will be located between spill and catch basin inlets if applicable.

Chassis storage yard porous stone surface: Spills and leaks that occur in the chassis yard will require complete cleanup and may also require some level of reconstruction depending on the extent and nature of the spill. All spills must be inspected and removal of all pollutants will be required and replacement of granular materials and crushed stone surface will be required. The porous surface also contains separation geotextile at a depth of 24" below grade and must be replaced if spills extend into deeper soils. The Chassis storage yard porous surface is constructed of the following:

- 4" of MDOT 703.12, Crushed Stone Surface;
- 20" of MDOT 703.06.B, Type-D Aggregate Subbase Course
- Special Separation Geotextile

Compaction requirements for the Type-D subbase course shall be per the MDOT Standard Specifications.

2.4 NON-STORMWATER DISCHARGES

Vehicle maintenance could result in non-stormwater discharges. Maintenance will occur in the Maintenance Building to prevent non-stormwater discharges from entering the drainage system except in the event of a breakdown in the yard. Non-stormwater pollutant and discharges that may result in contamination will be monitored and pollutants will be picked up with absorbent pads.

2.5 SITE SUMMARY

The IMT facility will be used for cargo container on- and off-loading from vessels, rail and highway transport vehicles and the movement and storage of cargo containers on site prior to their transport. Potential pollutants are those generally associated with vehicles and within storage containers.

3 IMPLEMENTATION

This section describes practices that are in place to control pollutants that have the potential to contaminate stormwater.

3.1 GOOD HOUSEKEEPING

Good housekeeping practices are the most effective first step towards preventing pollution in stormwater. The following is a list of good housekeeping practices that apply to the IMT facility:

- Immediately clean up spills with an absorbent material;
- Spills and leaks around containers are monitored as part of daily security;
- Vehicle monitoring is part of the operator standard operating procedures;
- Store fuel and wastes indoors and in sealed containers;
- Fuel storage containers are periodically monitored during fueling operations;
- Changing of fluids, painting, sandblasting, sanding and scraping is done in designated areas with proper containment for waste materials. Drip pans and tarps are used to capture drips or spills. Absorbent pads and quick-dry granular materials are used to clean up spills and leaks;
- Prohibit use and transport of contaminants in porous stone chassis storage yard;

- Crane maintenance procedures are performed in accordance with terminal's stevedore as part of their standard operating procedure.

3.2 PREVENTATIVE MAINTENANCE

This preventative maintenance program involves inspections and maintenance of stormwater management controls and routine monitoring of facility operations to detect faulty vehicles or containers. Such equipment will be routinely monitored for signs of deterioration. Preventative maintenance measures will include but not be limited to:

- Visual monitoring of incoming vessels, trucks and cargo containers;
- Regular monitoring of stored cargo containers;
- A written spill prevention and response policy;
- A spill prevention and response procedure;
- Spill response equipment is located at potential spill areas;
- Waste fluids are stored inside and are properly stored in sealed/labeled containers;
- Batteries are stored in a secure area and are properly disposed of as needed;
- Catch basins and sediment chambers are checked and cleaned as needed;
- Chassis storage yard porous stone surface is monitored and replenished as needed;
- Hydraulic equipment is kept in good repair to prevent leaks;
- Outdoor drum and storage tank containment areas are routinely checked for leaks;

3.3 BEST MANAGEMENT PRACTICES (BMP'S)

The following is a list of BMP's for the IMT facility. When implemented the following BMP's will prevent or reduce the discharge of potential pollutants in stormwater runoff.

- Hazardous materials that are in easily ripped or breakable containers (such as bags or plastic buckets) are handled with care;
- Staff members are present during all fueling operations and loading/unloading operations;
- Cover catch basin inlets in the vicinity of drum handling operations;
- Prohibit bulk contaminants from being stored or used on the porous chassis storage yard;
- Keep dumpster lid closed except for when in use.
- Periodic inspection of the Chassis Storage Yard porous surface to determine crushed stone depth and quality of filter media. Ponding during rain events will be an indicator that sediment clogging has occurred.

3.4 SEDIMENT AND EROSION CONTROL

The existing shorefront has the potential for erosion in locations where soils are present. Soil areas along the shorefront will be inspected annually and after major storm events to ensure erosion does not occur and will be reported if noticed.

Winter sanding and salting have the potential for depositing sediments and therefore will be very limited at the facility. The porous crushed stone surface in the chassis storage yard also has the potential for clogging with winter sanding sediment therefore this area will not be sanded and will be limited to salt. Inspections will monitor sediments in the stone surface as well as ensuring crushed stone surface thickness is maintained at 4".

If clogging, rutting or ponding occurs, the crushed stone surface will be removed, sediments removed, and stone surface replaced to a thickness of 4".

The SWPPP team for the IMT facility will act as a qualified post-construction stormwater inspector to inspect BMP's annually. The inspector will observe parking areas, catch basins, chassis storage yard spillway and outlet pipes.

3.5 MANAGEMENT OF STORMWATER RUNOFF

The following management practices for runoff are used at the IMT facility:

- Stormwater catch basins are deep sump with hoods and are monitored and cleaned as necessary;
- Chassis storage yard porous crushed stone surface is monitored and repaired/replaced as necessary;
- Drainage outfalls discharge to riprap pads;

3.6 SPILL PREVENTION AND RESPONSE

- Spill response equipment is stored throughout the facility and includes absorbent pads and quick dry granular materials;
- All personnel are made aware of spill kit locations and trained in use;
- The pollution prevention team leader or spill coordinator will be advised immediately of all spills of hazardous materials or regulated materials, regardless of quantity;
- Spills will be evaluated to determine the necessary response. If there is a health hazard, fire or explosion potential, 911 will be called. If a spill is large or threatens surface waters, including storm drains, the MaineDEP will be called at (800) 482-0777;
- Spills will be contained as close to the source as possible with a berm of absorbent materials from the emergency spill kit. Additional berms will be deployed to protect stormwater.
- Spills in the porous chassis storage lot may require additional response and clean up such as removal and replacement of stone surfacing and underlying gravel media. This will depend on the nature and magnitude of the spill.

3.7 EMPLOYEE TRAINING

All employees will be properly trained in the implementation of this SWPPP. Pollution prevention team members will meet annually to discuss the effectiveness of and improvements to the plan.

4 EVALUATION

4.1 ANNUAL VISUAL MONITORING

Annually and after large storm events, SWPPP team members will examine the stormwater discharges at each outfall at the IMT facility. Monitoring should occur at or near LOW TIDE. Team members will document observed contamination/problems with date and time and will determine the source of contamination, if observed, and take action to eliminate it. The monitoring log will contain at a minimum the following information:

- Date, time, tide level and weather conditions;
- Outfall location and description;
- Observations and contaminants;

- Possible source of contaminant;
- Action taken to prevent future discharges;

4.2 ANNUAL SITE INSPECTIONS (COMPREHENSIVE SITE COMPLIANCE EVALUATION)

The SWPPP team for the IMT facility will prepare a Compliance Evaluation Report on an annual basis. The report will include the following information:

- Date;
- Name of person conducting inspection
- Observations;
- Evidence of pollution;
- Inspection of equipment and cargo containers;
- Evaluation and assessment of BMP's
- Corrective actions taken;
- Signed/dated certification;

Reports will be kept with the site SWPPP. Both the Evaluation Report and reports of follow-up action must be certified as follows: "This Compliance Evaluation Report has been prepared by qualified personnel who properly gathered and evaluated information submitted for this Report. The information provided in this Report, to the best of my knowledge, is accurate and complete."

4.3 RECORDKEEPING AND REPORTING

The IMT facility will maintain records of spills, leaks, inspections and maintenance activities as described in this SWPPP for at least three (3) years from the date the permit coverage expires or is terminated. These records will be made available to state or federal inspectors upon request. Additionally, employee training records shall be maintained by Ports America and verified by the Maine Port Authority.

4.4 PLAN REVISIONS

If the IMT facility expands its operations or changes and significant material handling or storage practices which could impact stormwater, this SWPPP will be amended. The amended Plan will describe the new activities and planned control measures. This plan will also be amended if a state or federal inspector determines that it is not effective in controlling stormwater pollutants discharged to waterways.

5 CERTIFICATIONS

Certifications will be signed by an "authorized representative, "i.e., someone who is at or near the top of the IMT facility's management team that has the authority to sign and certify this type of document.

- Non-stormwater Discharges;
- Stormwater Pollution Prevention Plan;

NON-STORMWATER DISCHARGES:

Example 1: “All stormwater outfalls to surface waters at this facility have been evaluated and found to be free of non-stormwater discharges.”

Example 2: “With the exception of run-off from the salt storage area, all stormwater outfalls to surface waters at this facility have been evaluated and found to be free of non-stormwater discharges.”

STORMWATER POLLUTION PREVENTION PLAN:

This Stormwater Pollution Prevention Plan has been prepared in accordance with good engineering practices. Qualified personnel gathered and evaluated information submitted for this Plan. The information in this Plan, to the best of my knowledge, is accurate and complete.

Name_____
Title_____