

CITY OF PORTLAND PUBLIC SERVICES DEPARTMENT

CONTRACT DRAWINGS

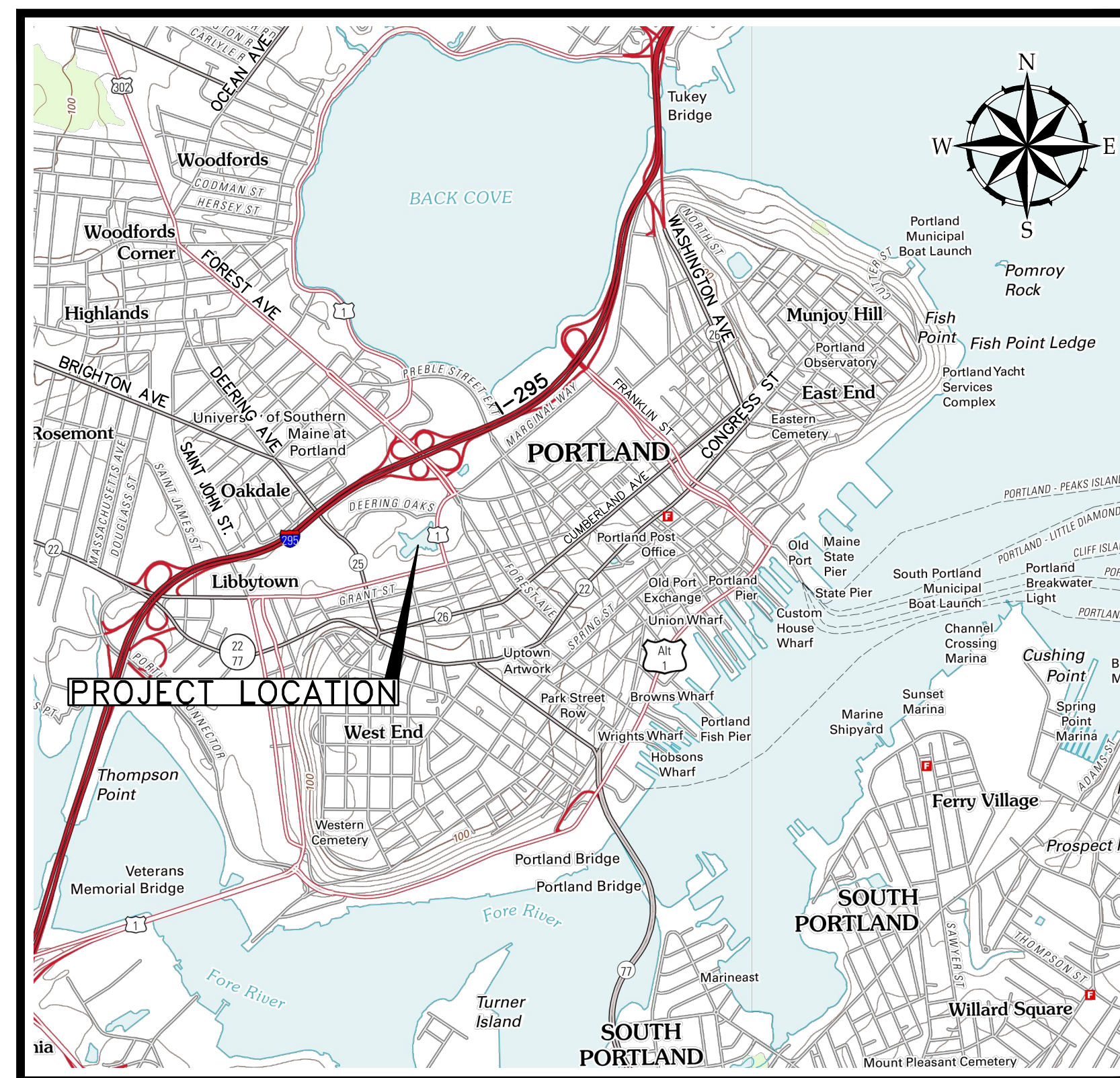
DEERING OAKS POND POND BOTTOM REPLACEMENT

YEAR
APPROVED
2014

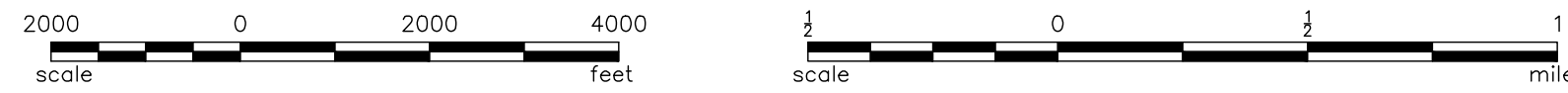
BID NUMBER: #XXXX
PERMIT SET – NOT FOR CONSTRUCTION
MAY 2014

KATHERINE A. EARLEY DATE
CITY ENGINEER

MIKE FARMER DATE
CITY PROJECT MANAGER



SITE LOCATION MAP



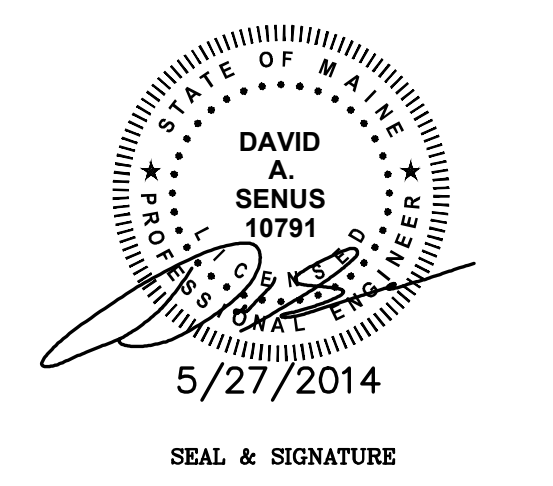
DRAWING INDEX

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Z:\222804-Portland-Cen-Eng-Services\wp_146-Deering-Oaks-Drawings\General\2013948_46-G000.dwg, May 27, 2014, 1:12pm



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Portland, Maine 04102
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COMMITMENT & INTEGRITY DRIVE RESULTS



DAVID A. SENUS
10791
5/27/2014
SEAL & SIGNATURE

GENERAL NOTES:

- EXISTING CONDITIONS BASE MAP WAS COMPILED USING THE FOLLOWING DATA:
 - PLANIMETRIC AND TOPOGRAPHIC DATA PROVIDED BY THE CITY OF PORTLAND DPW ENGINEERING OFFICE COMPILED USING 2000 AERIAL IMAGES BY BRADSTREET CONSULTANTS OF MANCHESTER, MAINE.
 - POND RETAINING WALL REPLACEMENT PLANS BY EPDA DATED 1980 (APPROX.).
 - FOUNTAIN REPLACEMENT AT DEERING OAKS PARK RECORD DRAWINGS PREPARED BY RBCC DATED 12/18/2006.
 - MELLEN STREET RECORD DRAWINGS PREPARED BY WOODARD & CURRAN DATED 4/2014.
- VERTICAL DATUM IS REFERENCED TO NGVD29. HORIZONTAL DATUM IS REFERENCED TO STATE PLANE NAD 1983 (FEET), MAINE WEST ZONE.
- PUSH PROBES COLLECTED BY HALEY & ALDRICH IN SPRING 2013, REFER TO CONTRACT SPECIFICATIONS.
- THE UTILITY LOCATIONS SHOWN IN PLAN AND PROFILE ARE APPROXIMATE AND REQUIRE FIELD VERIFICATION BY THE CONTRACTOR. CONTACT THE CITY IMMEDIATELY UPON DISCOVERING ANY CONFLICTS WITH EXISTING AND PROPOSED UTILITY LOCATIONS. NOT ALL EXISTING UTILITIES ARE SHOWN ON PLANS.
- CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITY WITH UTILITY COMPANIES, EMERGENCY SERVICES AND CITY. CONTACTS ARE LISTED IN SPECIFICATIONS. NOTIFY UTILITY COMPANIES WITHIN 48 HOURS OF WORK ACTIVITY ADJACENT TO THOSE UTILITIES.
- CONTRACTOR SHALL NOTIFY ALL UTILITIES PRIOR TO COMMENCING WORK, ALLOWING SUFFICIENT TIME TO LOCATE AND MARK THE LOCATION OF BURIED UTILITIES. CONTRACTOR SHALL CONTACT "DIG SAFE", TELEPHONE 888-344-7233, PRIOR TO EXCAVATION.
- RESTORE ALL AREAS DISTURBED BY CONTRACTOR'S OPERATIONS TO ORIGINAL FINISH (GRAVEL, PAVEMENT, GRASS, ETC.). RESTORATION OF PAVED SURFACES, GRAVEL SURFACES, DRIVEWAYS, AND LAWNS DAMAGED BY CONSTRUCTION ACTIVITIES OUTSIDE OF LIMITS OF WORK INDICATED ON THE PLANS SHALL BE PERFORMED AT NO ADDITIONAL COST TO OWNER. ANY CURB OR SIDEWALK DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN KIND AND SHALL CONFORM TO CITY OF PORTLAND AND MAINE DOT SPECIFICATIONS AT NO ADDITIONAL COST TO OWNER.
- PROPERLY PROTECT AND DO NOT DISTURB PROPERTY IRONS AND MONUMENTS. IF DISTURBED, THE PROPERTY MONUMENT SHALL BE RESET AT THE CONTRACTOR'S EXPENSE BY A LICENSED LAND SURVEYOR ACCEPTABLE TO THE CITY.
- EXISTING FACILITIES SHALL BE REMOVED AND PROTECTED DURING CONSTRUCTION AS REQUIRED TO COMPLETE THE WORK. CITY RETAINS RIGHT TO KEEP ANY AND ALL REMOVED FACILITIES. CONTRACTOR SHALL DISPOSE OF ANY REMOVED FACILITY AT THE REQUEST OF CITY AT CONTRACTOR'S EXPENSE.
- ALL TREES IN THE VICINITY OF THE CONSTRUCTION ACCESS SHALL BE PROTECTED BY CONTRACTOR DURING CONSTRUCTION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY TRAFFIC ENGINEER. THE CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN TO THE TRAFFIC ENGINEER AT LEAST 7 DAYS BEFORE BEGINNING CONSTRUCTION. THE PROPOSED TRAFFIC CONTROL PLAN SHALL BE SUBJECT TO APPROVAL BY THE TRAFFIC ENGINEER, WHO MAY ATTACH SPECIAL CONDITIONS TO, OR REQUIRE MODIFICATIONS OF, THE TRAFFIC CONTROL PLAN. WORK SHALL NOT BEGIN UNTIL THE PLAN IS APPROVED BY THE TRAFFIC ENGINEER.
- DO NOT PARK, IMPEDE ACCESS TO, OR STORE EQUIPMENT ON ADJACENT CITY OR PRIVATELY OWNED LOTS, UNLESS PERMISSION HAS BEEN GRANTED IN WRITING BY CITY AND/OR LAND OWNER.
- RESTRICT ACCESS TO SITE THROUGH THE USE OF APPROPRIATE SIGNAGE, BARRIERS, FENCES, ETC. SITE SHALL BE LEFT WITH APPROPRIATE SAFETY MEASURES IN PLACE DURING NON-WORKING HOURS. NO TRENCH SHALL BE LEFT OPEN DURING NON-WORKING HOURS. SITE SAFETY IS THE RESPONSIBILITY OF CONTRACTOR, DURING BOTH WORKING AND NON-WORKING HOURS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS. PERMIT APPLICATIONS SHALL BE SUBMITTED WITH ADEQUATE TIME SO AS NOT TO DELAY CONSTRUCTION.

- ALL WORK ASSOCIATED WITH THE PROJECT SHALL BE COMPLETED IN ACCORDANCE WITH ARTICLES V, VII, AND IX OF CHAPTER 25-STREETS, SIDEWALKS, AND OTHER PUBLIC PLACES OF THE CITY OF PORTLAND CODE OF ORDINANCES.
- THE CITY OF PORTLAND ENGINEERING DIVISION REQUIRES THAT UPON COMPLETION OF CONSTRUCTION, A COMPLETE SET OF "RECORD" DRAWINGS THAT REFLECT ANY AND ALL MODIFICATIONS TO THE DESIGN BE SUBMITTED TO THE DIVISION. THESE DRAWINGS SHALL BE SUBMITTED IN BOTH DIGITAL AND HARD COPY FORMAT AS DEFINED IN THE SPECIFICATIONS PRIOR TO PAYMENT OF FINAL RETAINAGE.
- WORK IS PROPOSED IN CLOSE PROXIMITY TO EXISTING UTILITIES. PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION SHALL BE INCIDENTAL TO THE PAY ITEM UNDER WHICH WORK TO INSTALL SAID UTILITY IS PERFORMED.
- PROVIDE 6-INCHES OF LOAM AND MDOT SEEDING METHOD #1 IN ALL LAWN AREAS DISTURBED BY CONTRACTOR'S OPERATIONS.
- IF CONTRACTOR PROPOSES TO TEMPORARILY STOCKPILE ANY SURPLUS SOIL AND ROCK IN THE CITY OF PORTLAND, THE CONTRACTOR SHALL OBTAIN APPROVAL FOR EACH STOCKPILE LOCATION FROM THE ENGINEER. IF CONTRACTOR PROPOSES TO PERMANENTLY STOCKPILE ANY SURPLUS SOIL AND ROCK ON PROPERTY IN THE CITY OF PORTLAND, THE CONTRACTOR MUST OBTAIN ANY SITE PLAN PERMITS REQUIRED FROM THE CITY PLANNING AUTHORITY OR ANY FILL PERMITS REQUIRED FROM MDEP OR U.S. ARMY CORPS OF ENGINEERS. BOTH TEMPORARY AND PERMANENT STOCKPILE LOCATIONS SHALL MEET THE APPLICABLE SETBACK REQUIREMENTS IN THE CITY LAND USE CODE AND SHALL RECEIVE PROPER STABILIZATION AND EROSION & SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH APPROVED SOIL EROSION & WATER POLLUTION CONTROL PLAN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING PARK AVENUE FREE OF SEDIMENT. A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED AT ALL ACCESS POINTS AND PARK AVENUE WILL BE SWEEPED ON A DAILY BASIS OR AT A MORE FREQUENT RATE AS NECESSARY AS REQUESTED BY THE CITY.

SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
SANITARY SEWER MANHOLE	⊙	
STORM DRAIN MANHOLE	⊙	
CATCH BASIN W/ HEADSTONE	⊙	
CATCH BASIN, FIELD INLET	⊙	
UTILITY POLE W/GUY	⊙	⊙
UTILITY POLE	⊙	⊙
WATER GATE	⊙	⊙
WATER VALVE	⊙	⊙
WATER SHUT OFF	⊙	⊙
HYDRANT	⊙	⊙
SIGN	⊙	⊙
TREE	⊙	⊙
IRON PIN (FOUND)	⊙	⊙
MONUMENTS (FOUND)	⊙	⊙
PROBE & NUMBER	⊙	⊙
MONITORING WELL	⊙	⊙
BORING	⊙	⊙
SEDIMENT SAMPLE	⊙	⊙
SPOT GRADE	⊙	⊙
ROADWAY BITUMINOUS PAVEMENT	⊙	⊙
BLOCK MATTING	⊙	⊙
TEMPORARY GRAVEL ACCESS	⊙	⊙

LINE TYPES

DESCRIPTION	EXISTING	PROPOSED
CONTOUR (1' INTERVAL)	---	---
CONTOUR (INDEX)	---	---
SANITARY SEWER	---	---
STORM DRAIN	---	---
UNDERDRAIN	---	---
WATER MAIN	---	---
UNDERGROUND ELECTRIC	---	---
GAS LINE	---	---
OVERHEAD ELECTRIC	---	---
PROPERTY LINE	---	---
RIGHT OF WAY	---	---
EASEMENT	---	---
EDGE OF VEGETATION	---	---
FENCE	---	---
CENTERLINE	---	---
RETAINING WALL	---	---
CURB	---	---
EDGE OF PAVEMENT	---	---
EDGE OF GRAVEL	---	---
CONTOUR (1' INTERVAL)	---	---
CONTOUR (INDEX)	---	---
CURB	---	---
EDGE OF PAVEMENT	---	---
EDGE OF GRAVEL	---	---
TEMPORARY SEDIMENT BARRIER	---	---
LIMIT OF WORK	---	---

ABBREVIATIONS

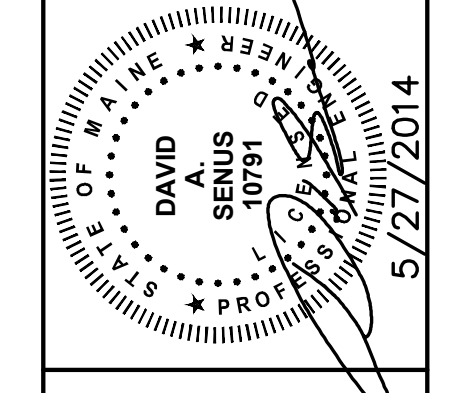
&	AND ABOVE GROUND
BIT	BITUMINOUS
B/W	BETWEEN
CB	CATCH BASIN
CI	CAST IRON
CMP	CENTRAL MAINE POWER
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
DI	DUCTILE IRON
DIA.	DIAMETER
DMH	DRAIN MANHOLE
DTL	DETAIL
E	UNDERGROUND ELECTRICAL
EL	ELEVATION
E.O.P.	EDGE OF PAVEMENT
EXIST.	EXISTING
FF	FINISH FLOOR
FT	FOOT/FEET
G	GAS MAIN
GS	GAS SERVICE
GALV.	GALVANIZED
GRAN.	GRANITE
HDPE	HIGH DENSITY POLYETHYLENE
HYD	HYDRANT
INV.	INVERT
LF	LINEAR FEET
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
MIN.	MINIMUM
MON	MONUMENT
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
NR	NO REFUSAL
N.T.S.	NOT TO SCALE
OE	OVERHEAD ELECTRIC
OH	OVERHEAD
±	PLUS OR MINUS
LLS	LICENSED LAND SURVEYOR
PROP.	PROPOSED
PT.	POINT
PVC	POLYVINYL CHLORIDE
PWD	PORTLAND WATER DISTRICT
R.O.W.	RIGHT-OF-WAY
RCF	REINFORCED CONCRETE PIPE
REINF.	REINFORCED
REQ'D	REQUIRED
S	SLOPE (FT./FT.)
SD	STORM DRAIN
SMH	SEWER MANHOLE
SCH	SCHEDULE
STA.	STATION
TYP.	TYPICAL
U.P.	UTILITY POLE
VC	VITRIFIED CLAY
VIT.	VITRIFIED CLAY
W	WEST
W	WATER
W	WITH
W	WATERMAIN
WS	WATER SERVICE
WV	WATER VALVE

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REFERENCES:

DESIGNED BY:	BOM/LLS
DRAWN BY:	BOM
CHECKED BY:	BOM
SCALE:	DAS
AS NOTED	DATE: MAY 2014



DEERING OAKS POND
POND BOTTOM REPLACEMENT

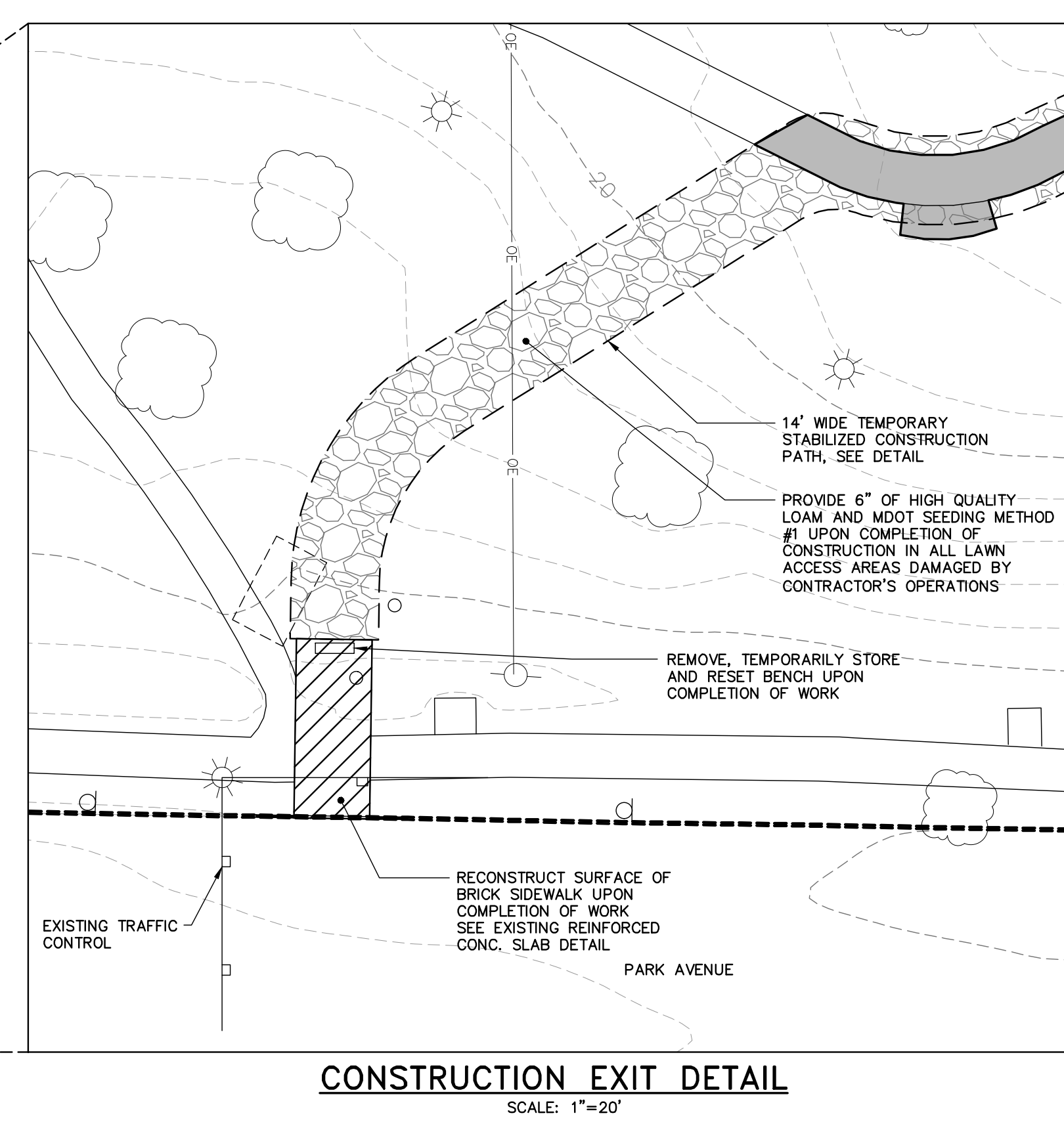
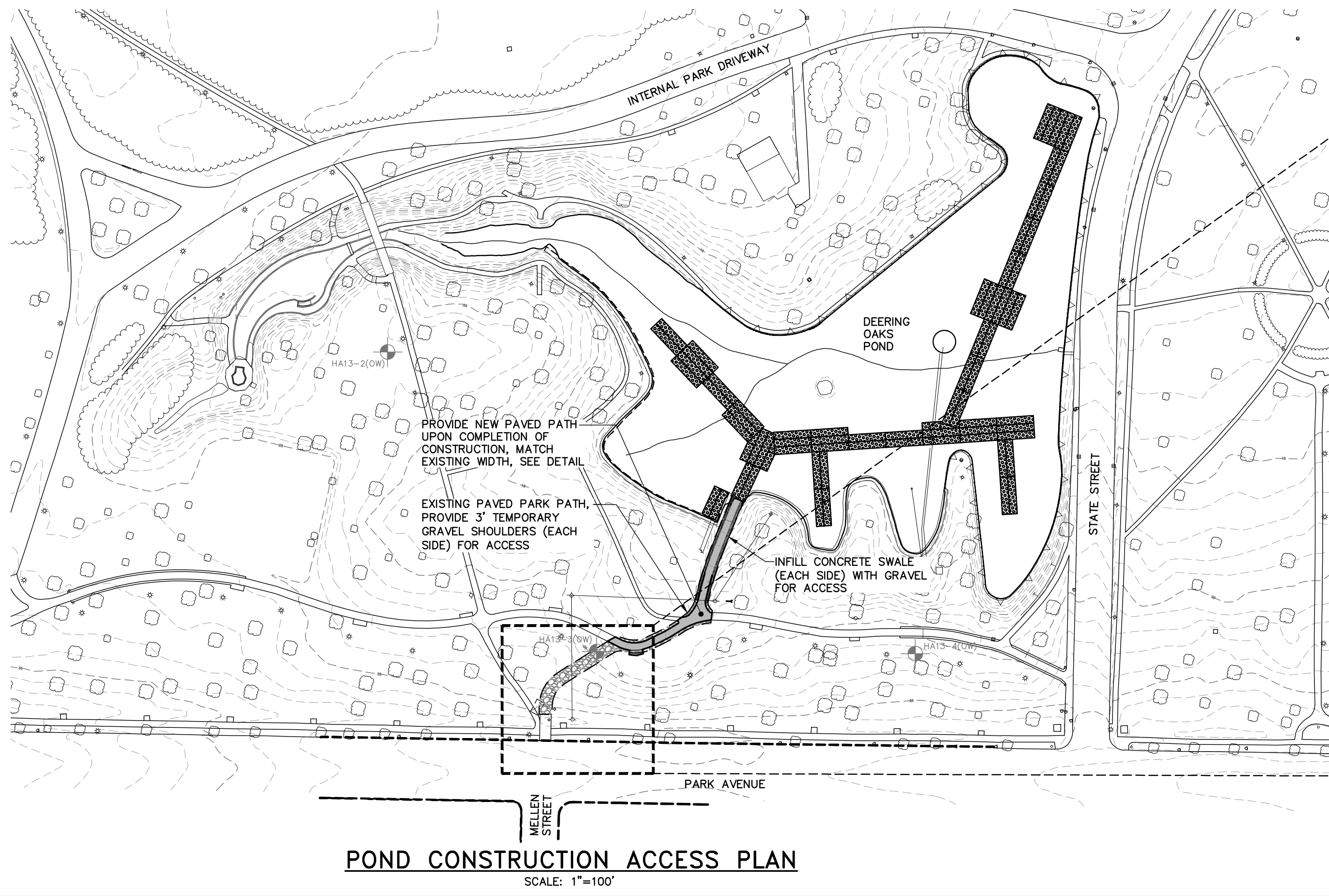
GENERAL NOTES, LEGEND &
ABBREVIATIONS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

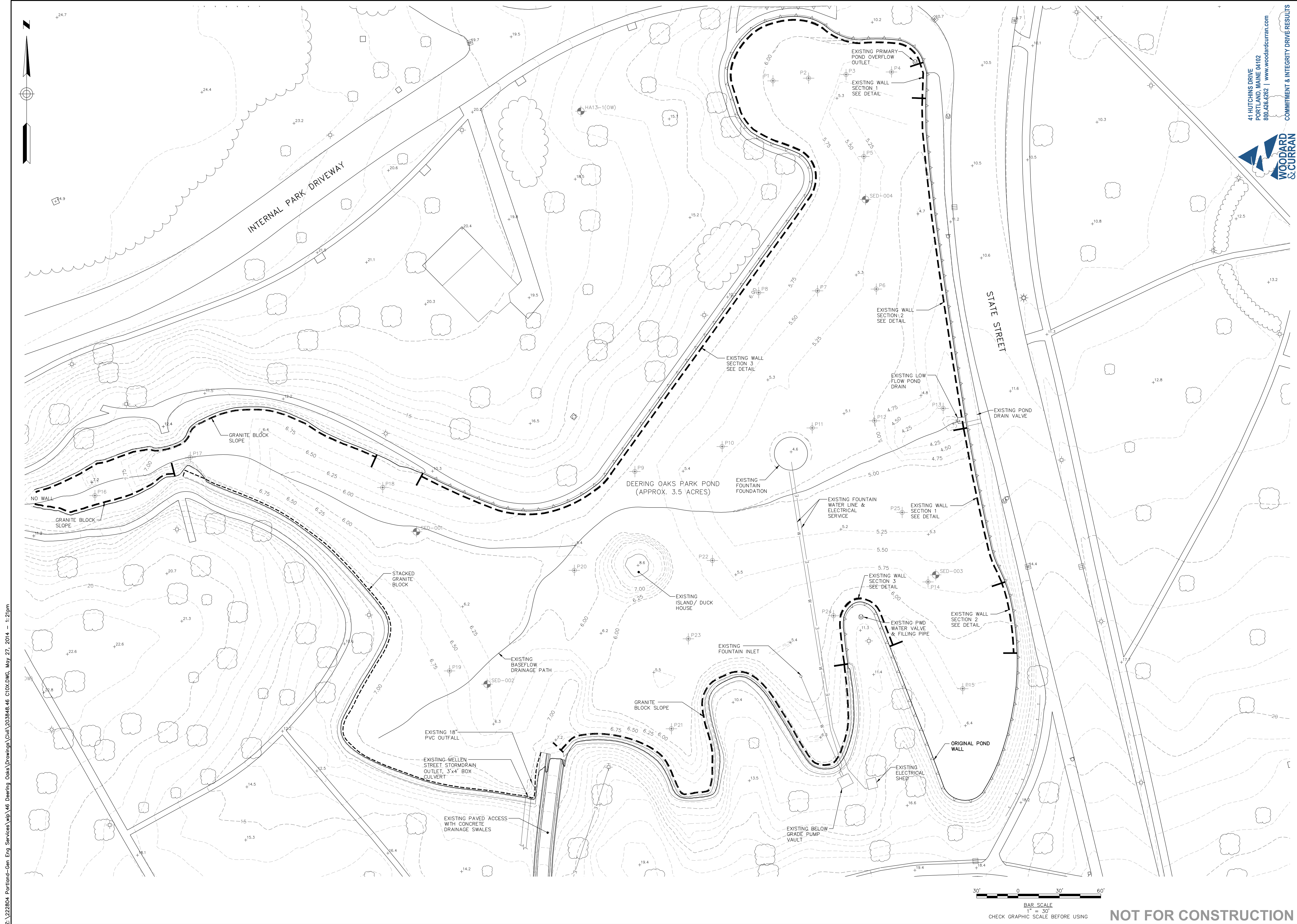


SHEET #
1 OF 9

PLAN NUMBER
G-001



NOT FOR CONSTRUCTION



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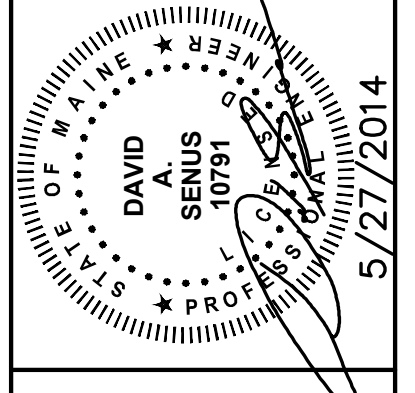
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DRAWING NAME:
 203546.46 CIOX.DWG

FIELD BOOK USED:
 N/A

REFERENCES:

DESIGNED BY:	BCM/ALB
DRAWN BY:	BCM
CHECKED BY:	DAS
SCALE:	AS NOTED
DATE:	MAY 2014



DEERING OAKS POND
 POND BOTTOM REPLACEMENT

EXISTING CONDITIONS

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING SECTION



SHEET #
 2 OF 9

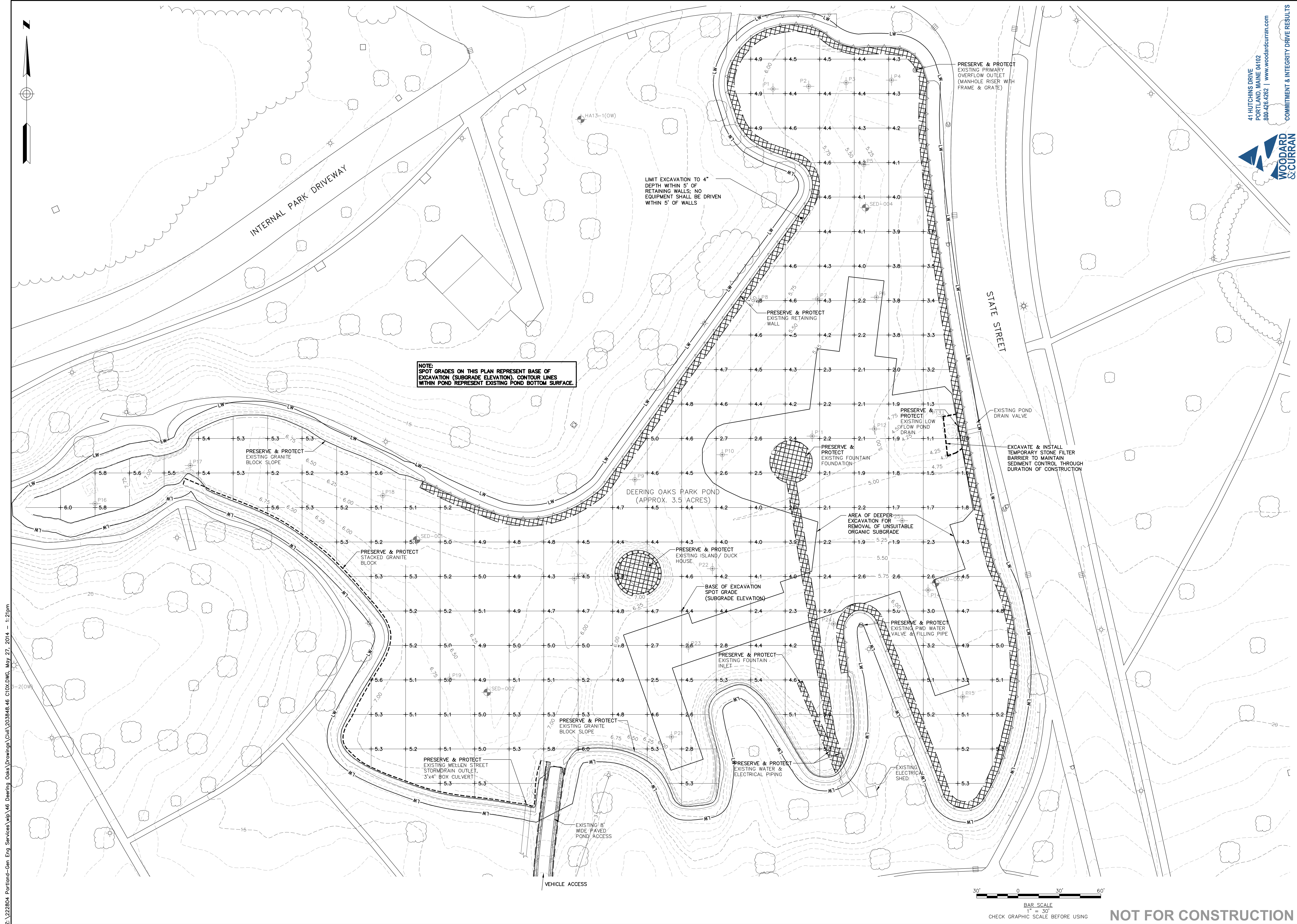
PLAN NUMBER
 C-100

30' 0 30' 60'

BAR SCALE
 1" = 30'

CHECK GRAPHIC SCALE BEFORE USING

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NOTE:
 SPOT GRADES ON THIS PLAN REPRESENT BASE OF EXCAVATION (SUBGRADE ELEVATION). CONTOUR LINES WITHIN POND REPRESENT EXISTING POND BOTTOM SURFACE.

LIMIT EXCAVATION TO 4" DEPTH WITHIN 5' OF RETAINING WALLS; NO EQUIPMENT SHALL BE DRIVEN WITHIN 5' OF WALLS

PRESERVE & PROTECT EXISTING PRIMARY OVERFLOW OUTLET (MANHOLE RISER WITH FRAME & GRATE)

PRESERVE & PROTECT EXISTING RETAINING WALL

PRESERVE & PROTECT EXISTING GRANITE BLOCK SLOPE

PRESERVE & PROTECT EXISTING STACKED GRANITE BLOCK

DEERING OAKS PARK POND (APPROX. 3.5 ACRES)

PRESERVE & PROTECT EXISTING ISLAND / DUCK HOUSE

BASE OF EXCAVATION SPOT GRADE (SUBGRADE ELEVATION)

PRESERVE & PROTECT EXISTING FOUNTAIN INLET

PRESERVE & PROTECT EXISTING GRANITE BLOCK SLOPE

PRESERVE & PROTECT EXISTING WATER & ELECTRICAL PIPING

PRESERVE & PROTECT EXISTING PWD WATER VALVE & FILLING PIPE

AREA OF DEEPER EXCAVATION FOR REMOVAL OF UNSUITABLE ORGANIC SUBGRADE

PRESERVE & PROTECT EXISTING LOW FLOW POND DRAIN

EXCAVATE & INSTALL TEMPORARY STONE FILTER BARRIER TO MAINTAIN SEDIMENT CONTROL THROUGH DURATION OF CONSTRUCTION

STATE STREET

INTERNAL PARK DRIVEWAY

VEHICLE ACCESS



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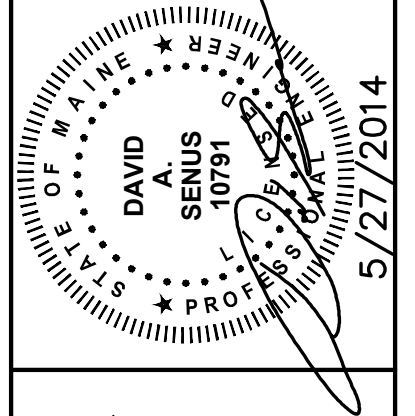


COMMITMENT & INTEGRITY DRIVE RESULTS

LDD PROJECT NAME: N/A
 DRAWING NAME: 203848-46 C10X.DWG
 FIELD BOOK USED: N/A

REFERENCES:

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CHECKED BY:	DAS
SCALE:	AS NOTED
DATE:	MAY 2014



DEERING OAKS POND
 POND BOTTOM REPLACEMENT
 EROSION & SEDIMENTATION
 CONTROL & EXCAVATION
 LIMITS PLAN

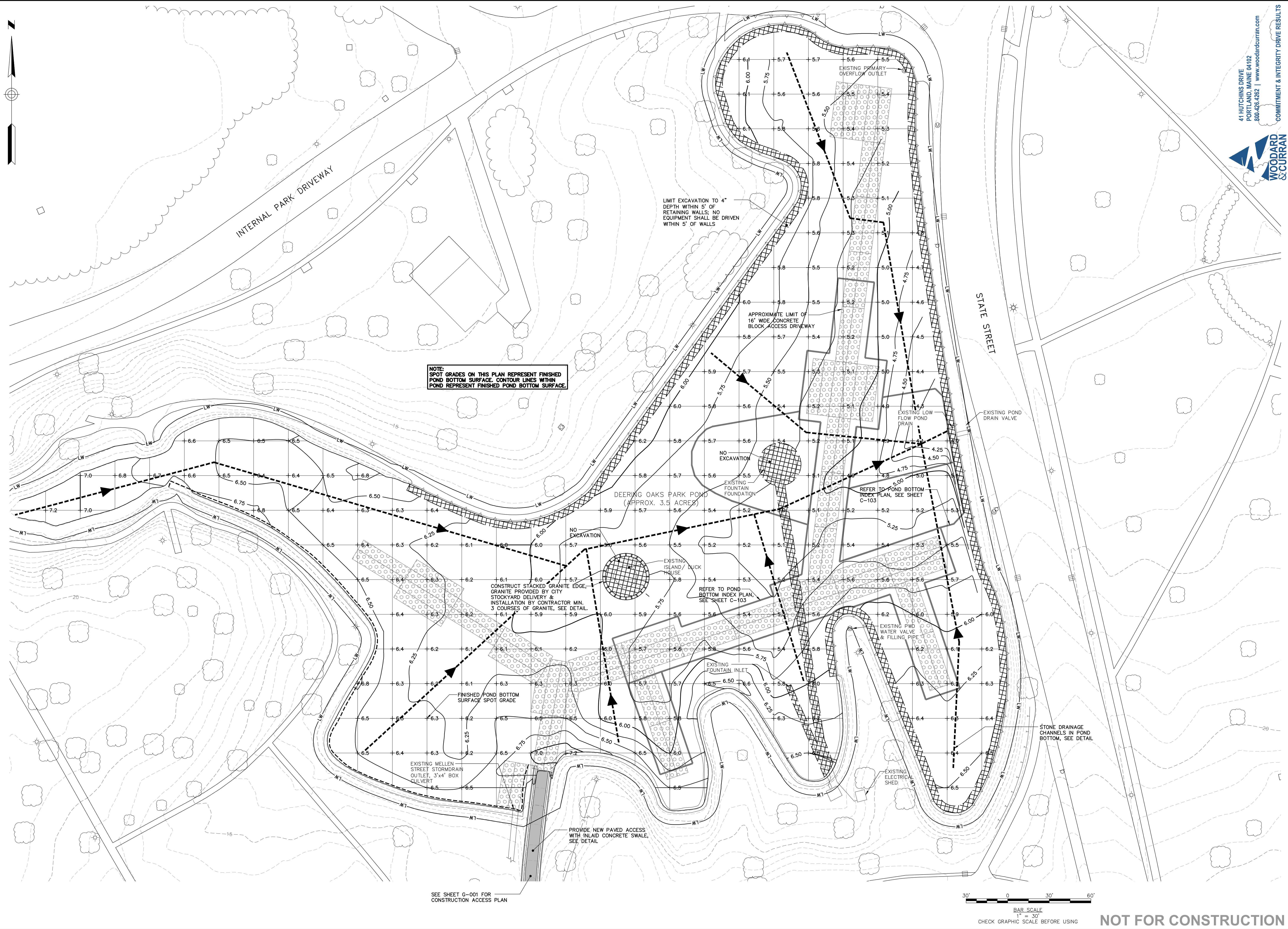
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 ENGINEERING SECTION



SHEET #
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 PLAN NUMBER
 C-101

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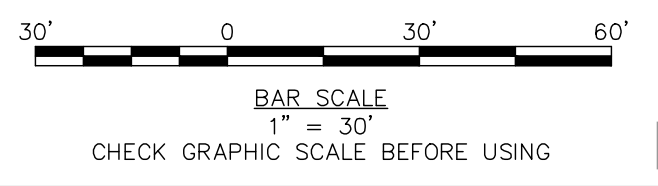
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CHECKED BY:	DAS
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DATE:	MAY 2014

DEERING OAKS POND
POND BOTTOM REPLACEMENT
PROPOSED POND
BOTTOM PLAN

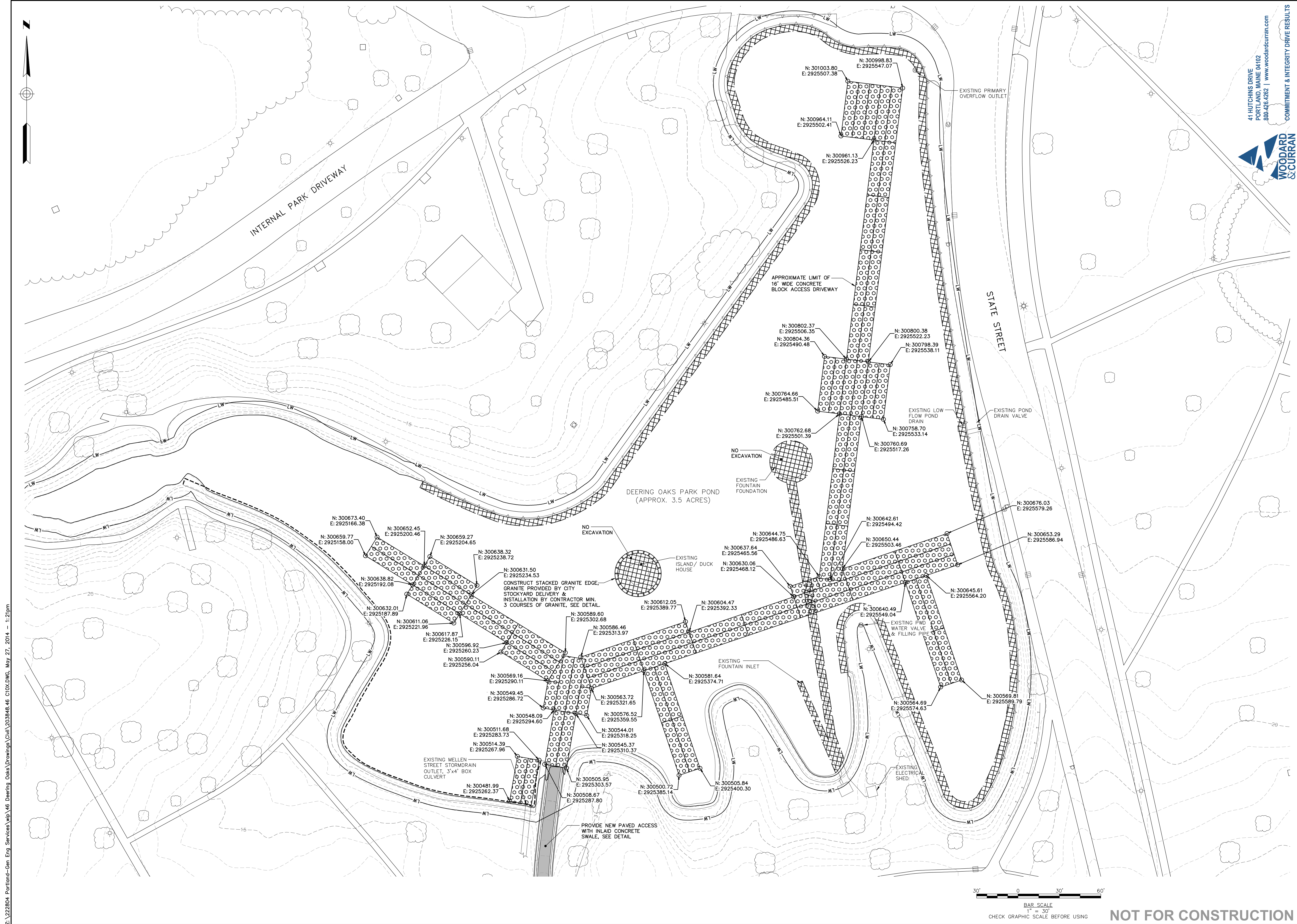
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PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET #
4 OF 9
PLAN NUMBER
C-102



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CHECKED BY:	DAS
SCALE:	AS NOTED
DATE:	MAY 2014

DEERING OAKS POND
 POND BOTTOM REPLACEMENT
 CONCRETE BLOCK
 LAYOUT PLAN

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING SECTION

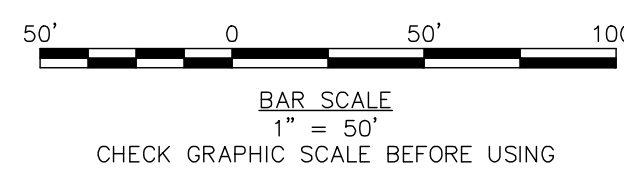
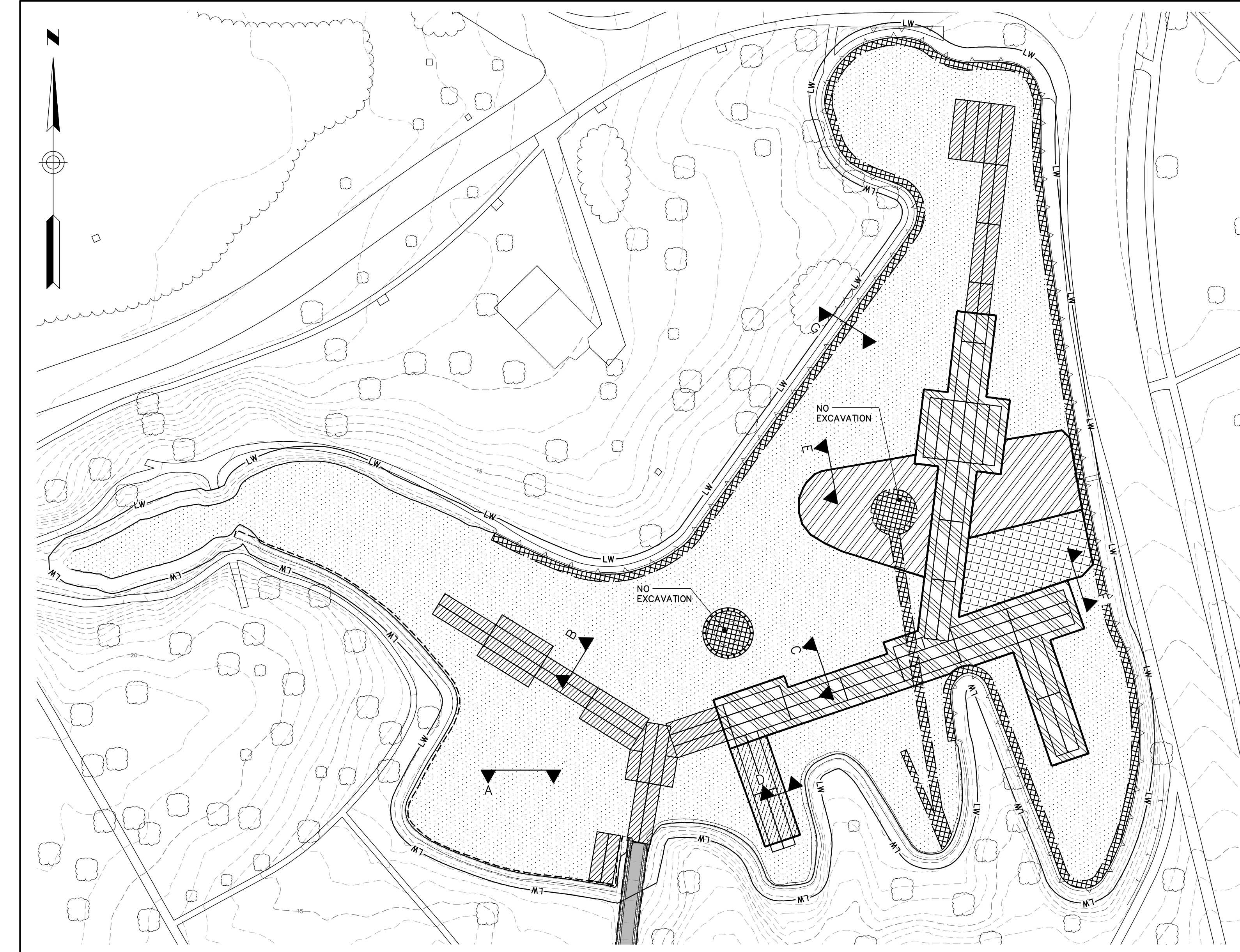


SHEET #
 5 OF 9
 PLAN NUMBER
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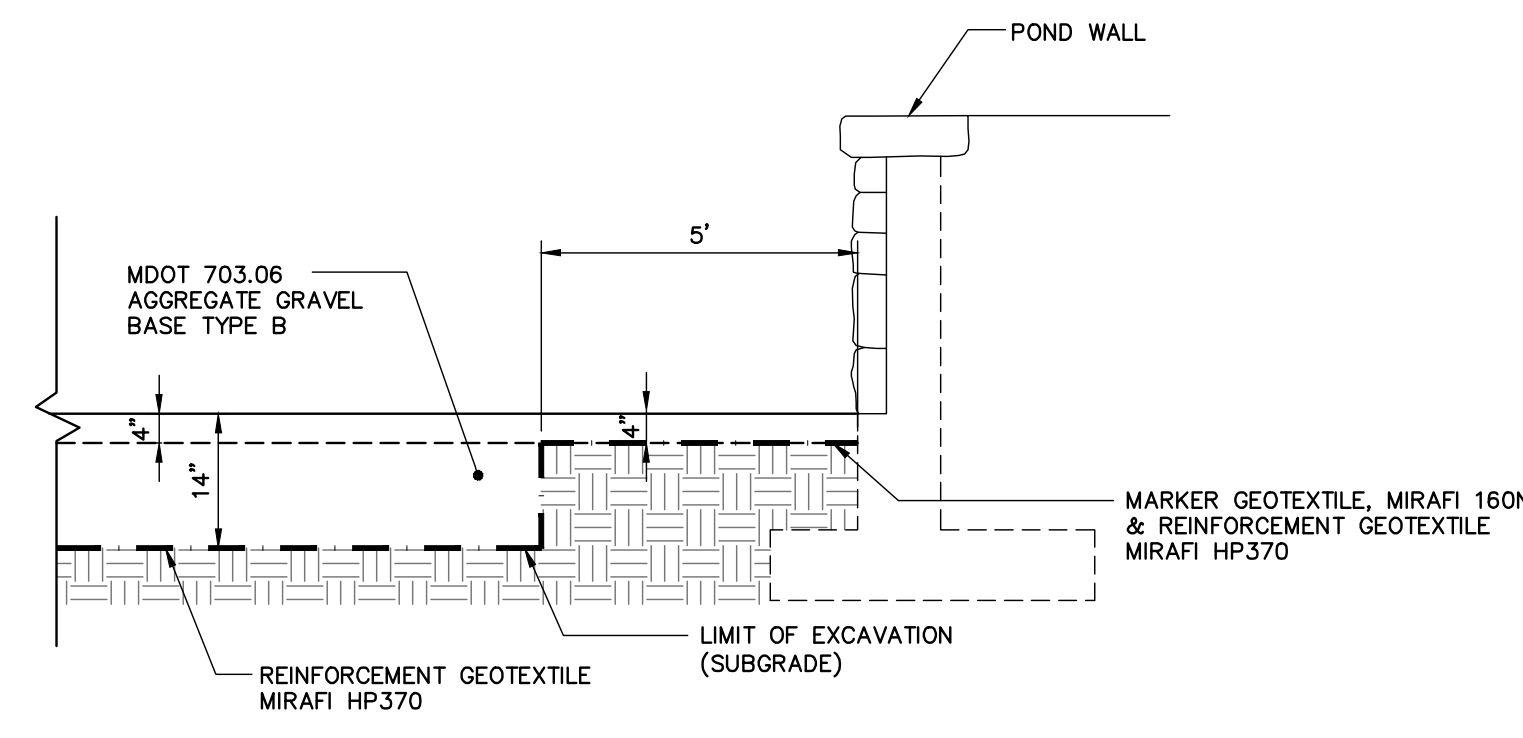
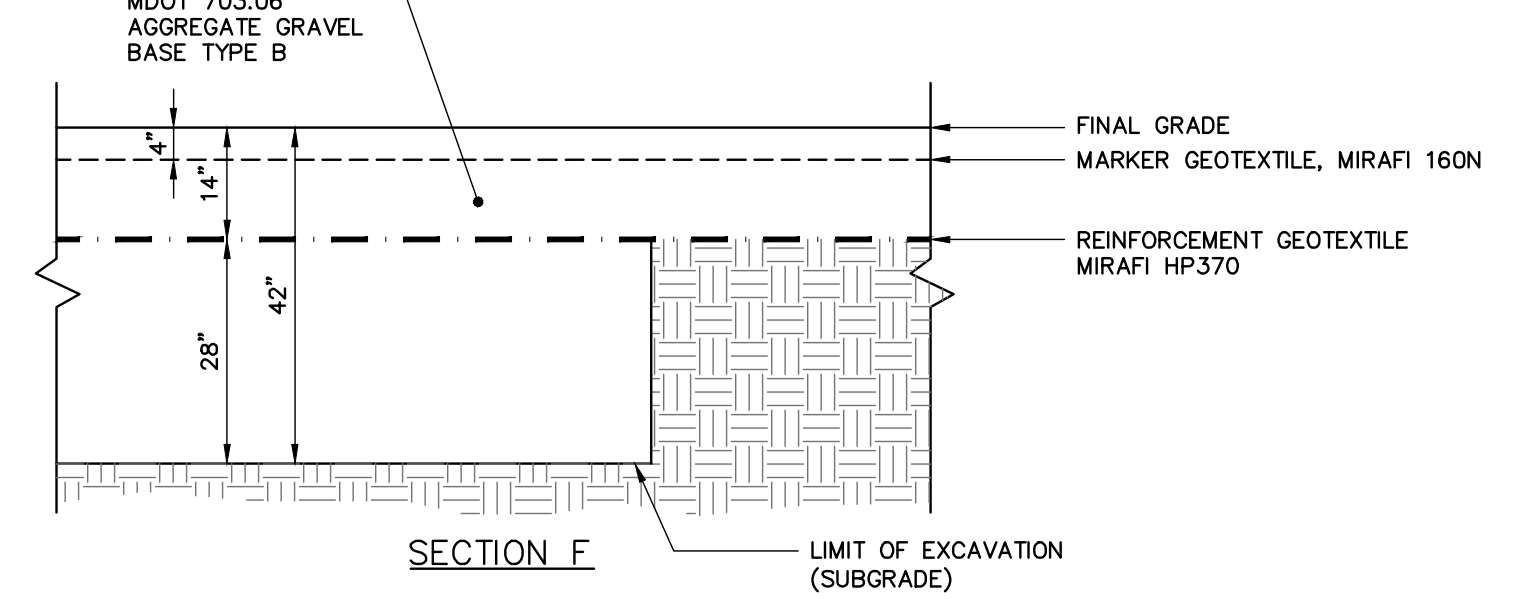
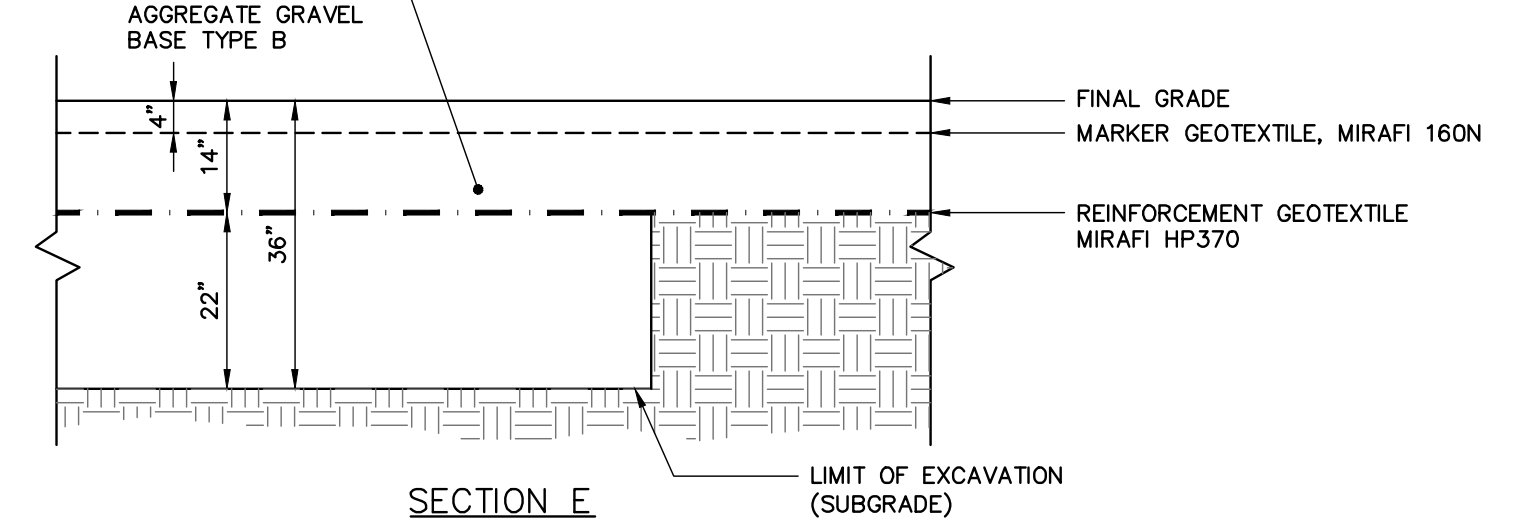
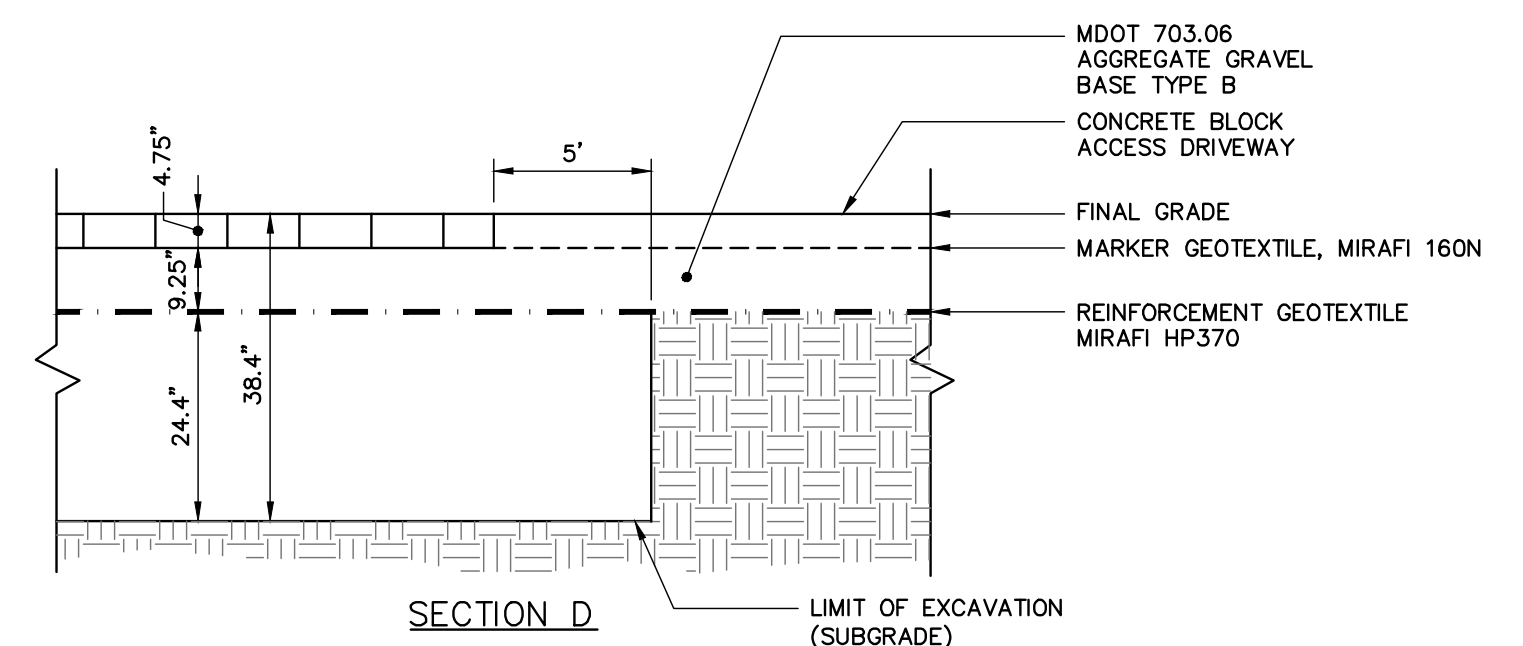
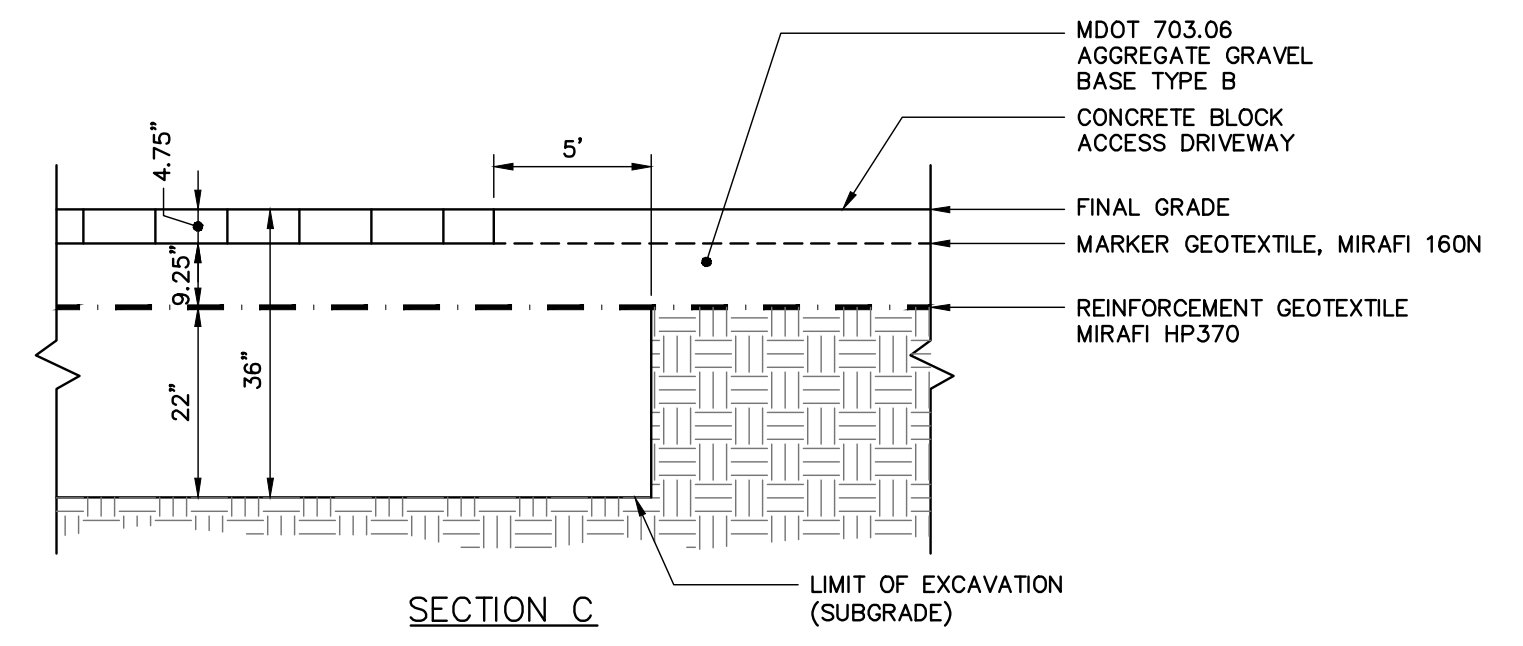
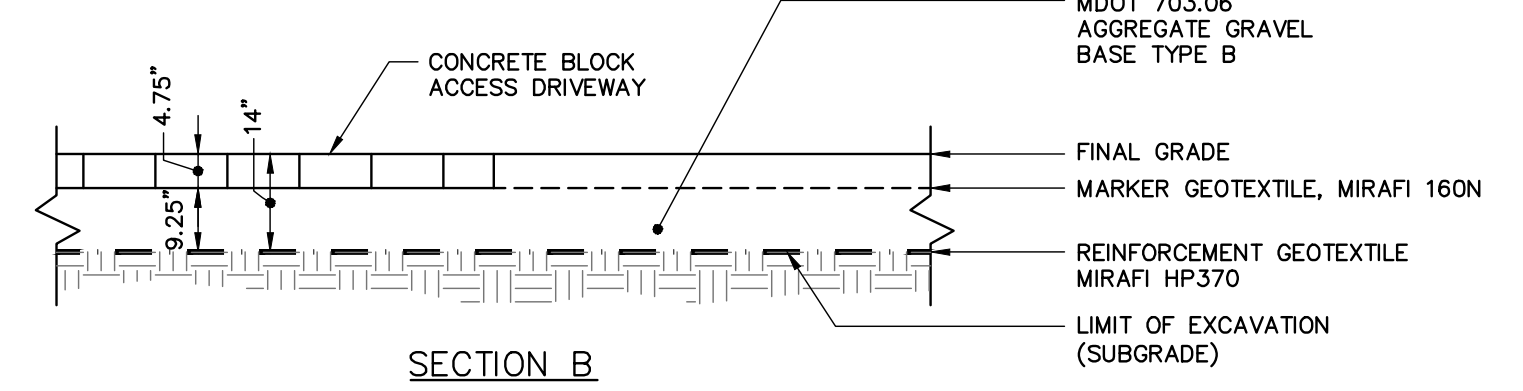
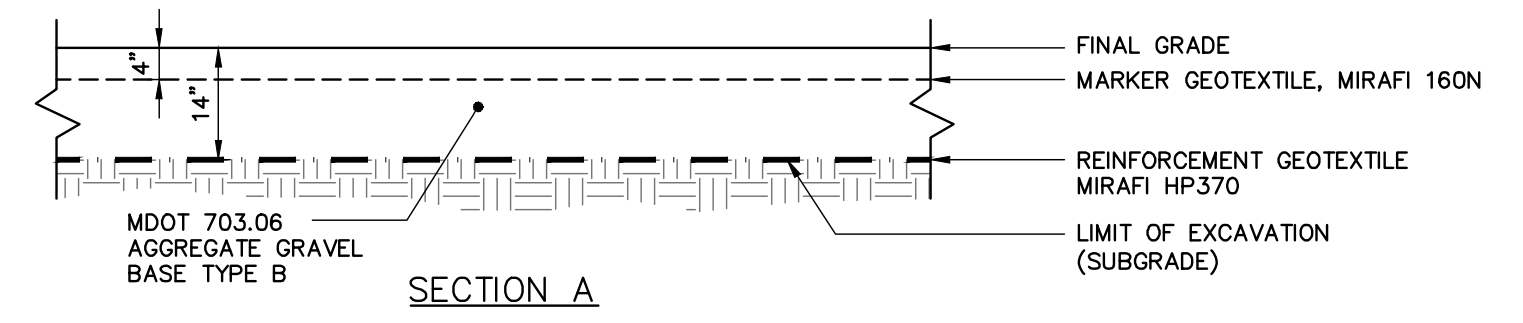
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 BAR SCALE
 1" = 30'
 CHECK GRAPHIC SCALE BEFORE USING

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HATCH INDEX

SECTION A	
SECTION B	
SECTION C	
SECTION D	
SECTION E	
SECTION F	
SECTION G	NO EXCAVATION



POND BOTTOM EXCAVATION SECTIONS
N.T.S.

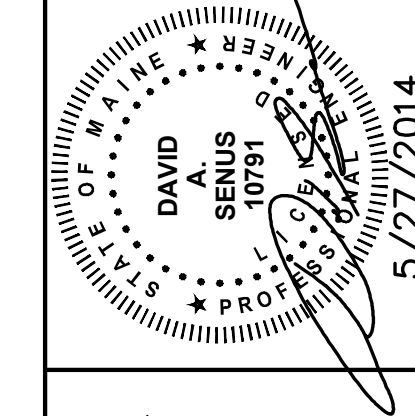
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LDD PROJECT NAME: N/A
DRAWING NAME: 203848.46 C10X.DWG
FIELD BOOK USED: N/A

REFERENCES:

DESIGNED BY:	BCM/LJS
DRAWN BY:	BCM
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DEERING OAKS POND
POND BOTTOM REPLACEMENT
PROPOSED POND BOTTOM
EXCAVATION INDEX &
SECTIONS

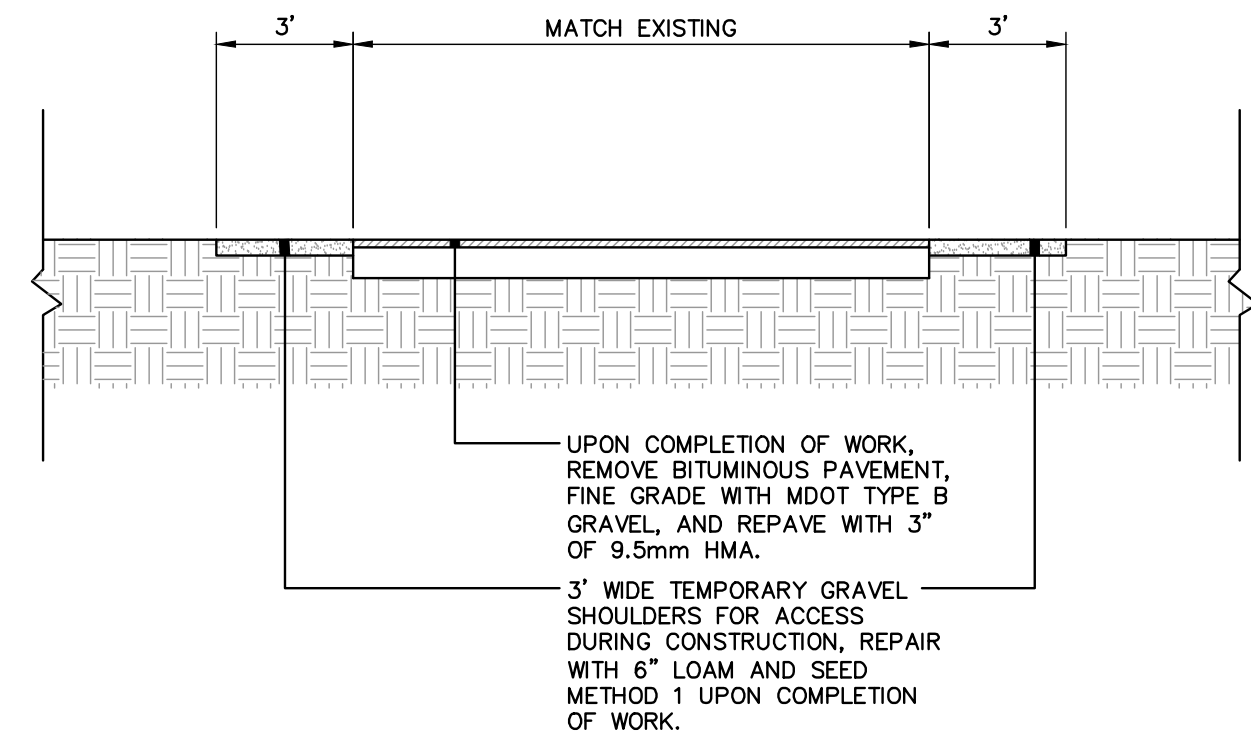
CITY OF PORTLAND, MAINE
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ENGINEERING SECTION



SHEET #
6 OF 9
PLAN NUMBER
C-104

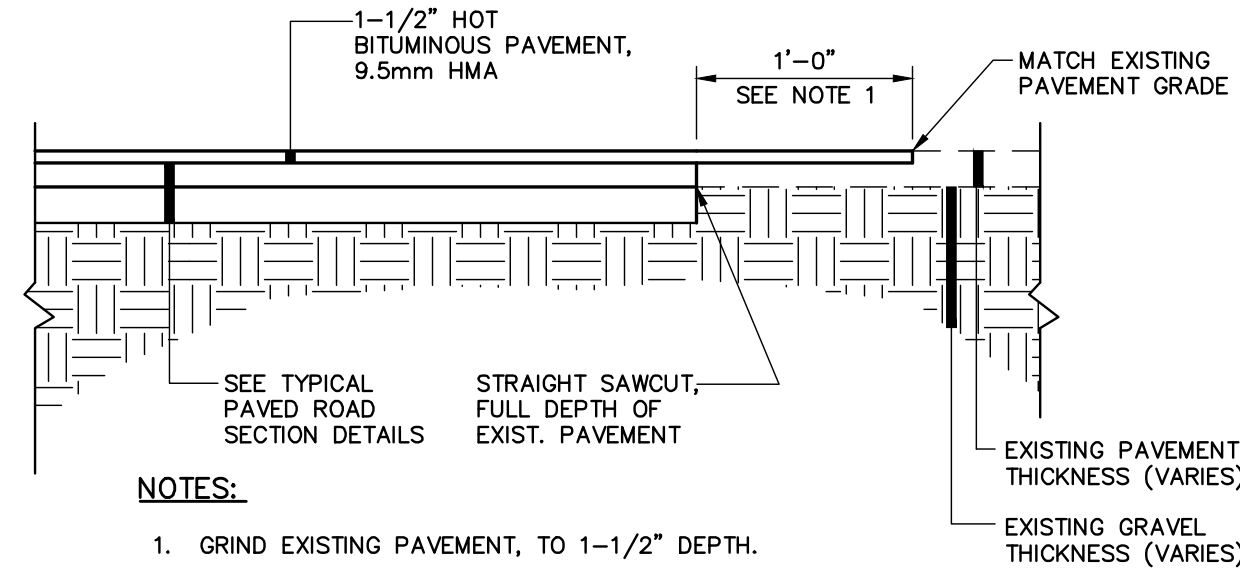
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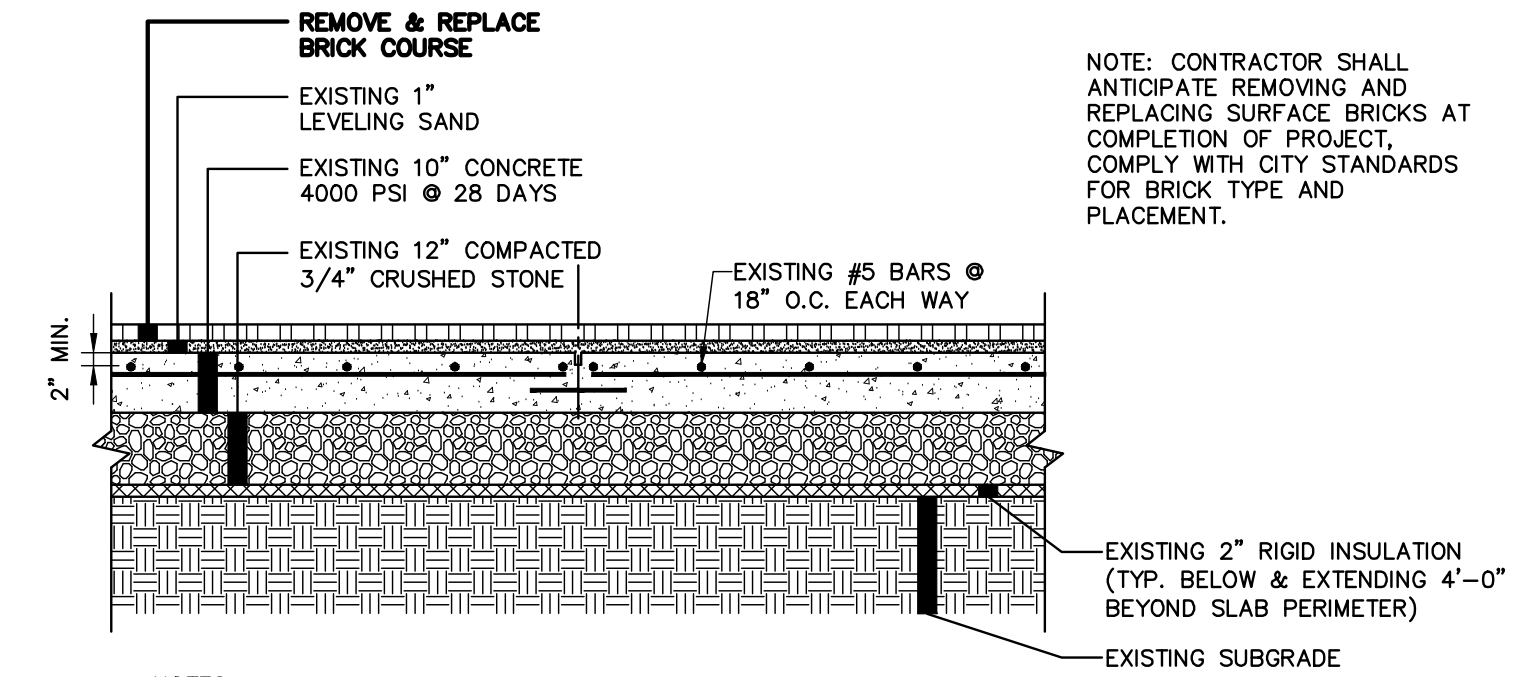
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N.T.S.
NOTE: AGGREGATE TYPES PER MDOT SECTION 304.02



PAVEMENT BUTT JOINT DETAIL

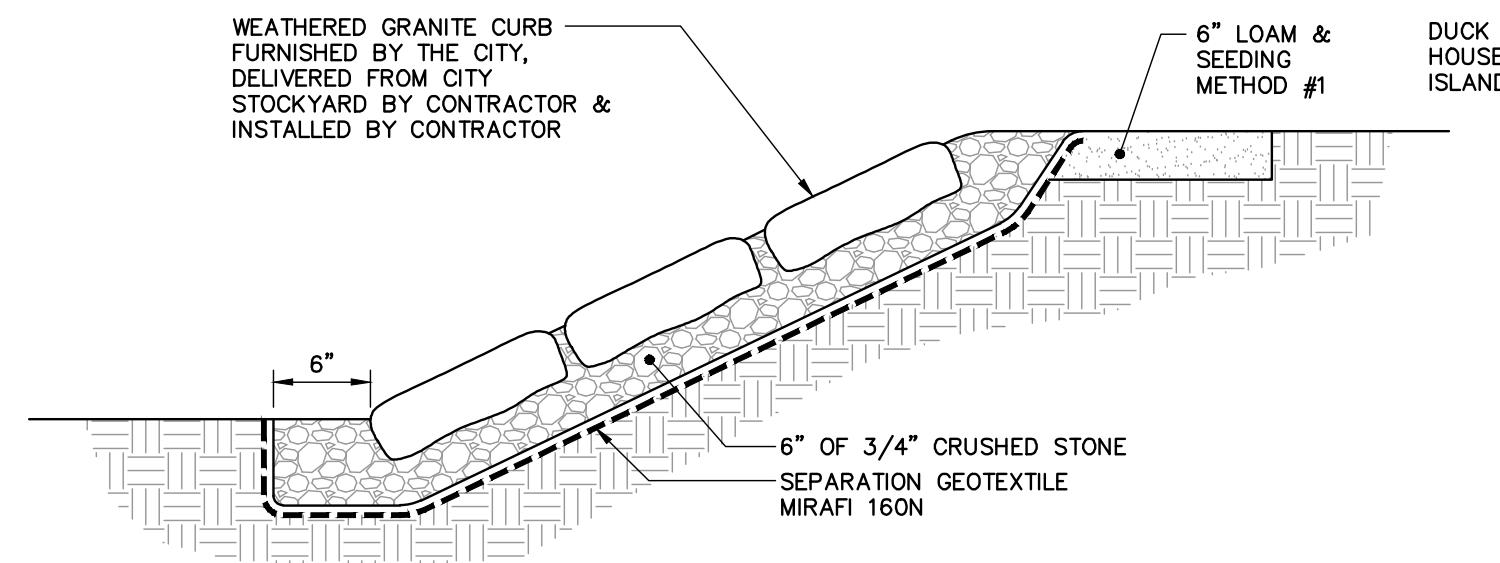
N.T.S.



- NOTES:
1. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS - 4000 P.S.I.
2. REINFORCEMENT: ASTM A615 GRADE 60 - ALL SPECIES CLASS B

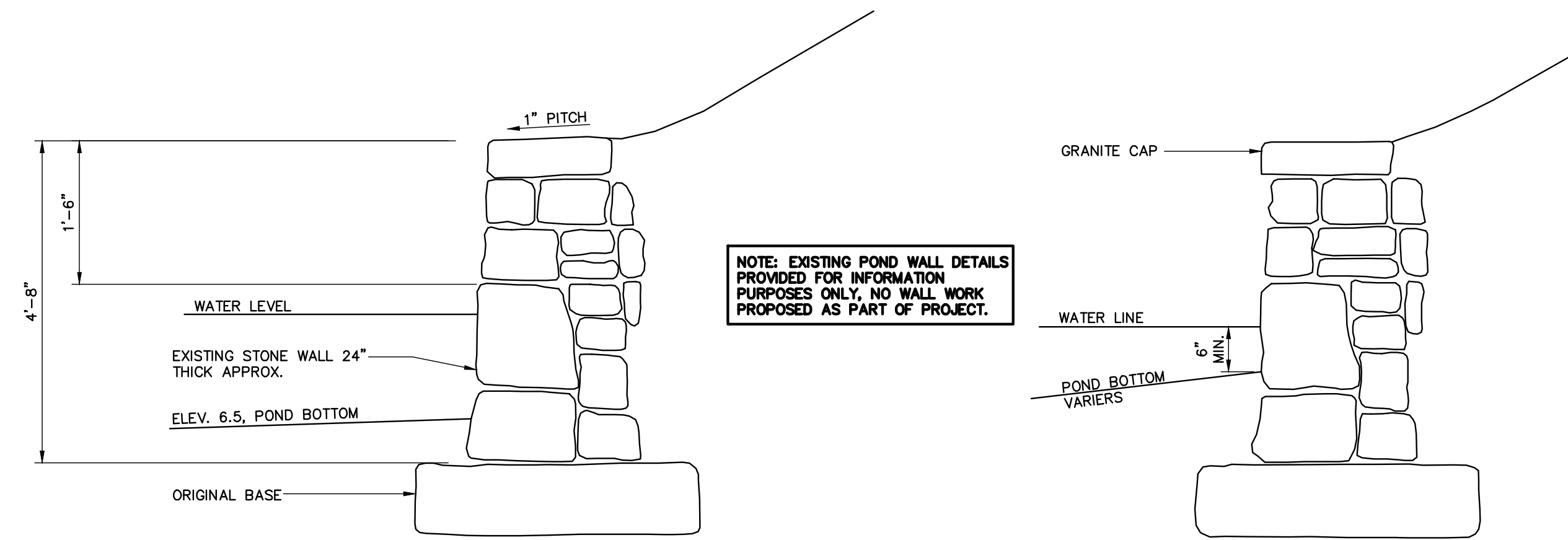
**EXISTING REINFORCED CONC. SLAB
@ PARK & MELLETT INTERSECTION**

N.T.S.



**PROPOSED STACKED GRANITE EDGE
DETAIL AT DUCK HOUSE ISLAND**

N.T.S.

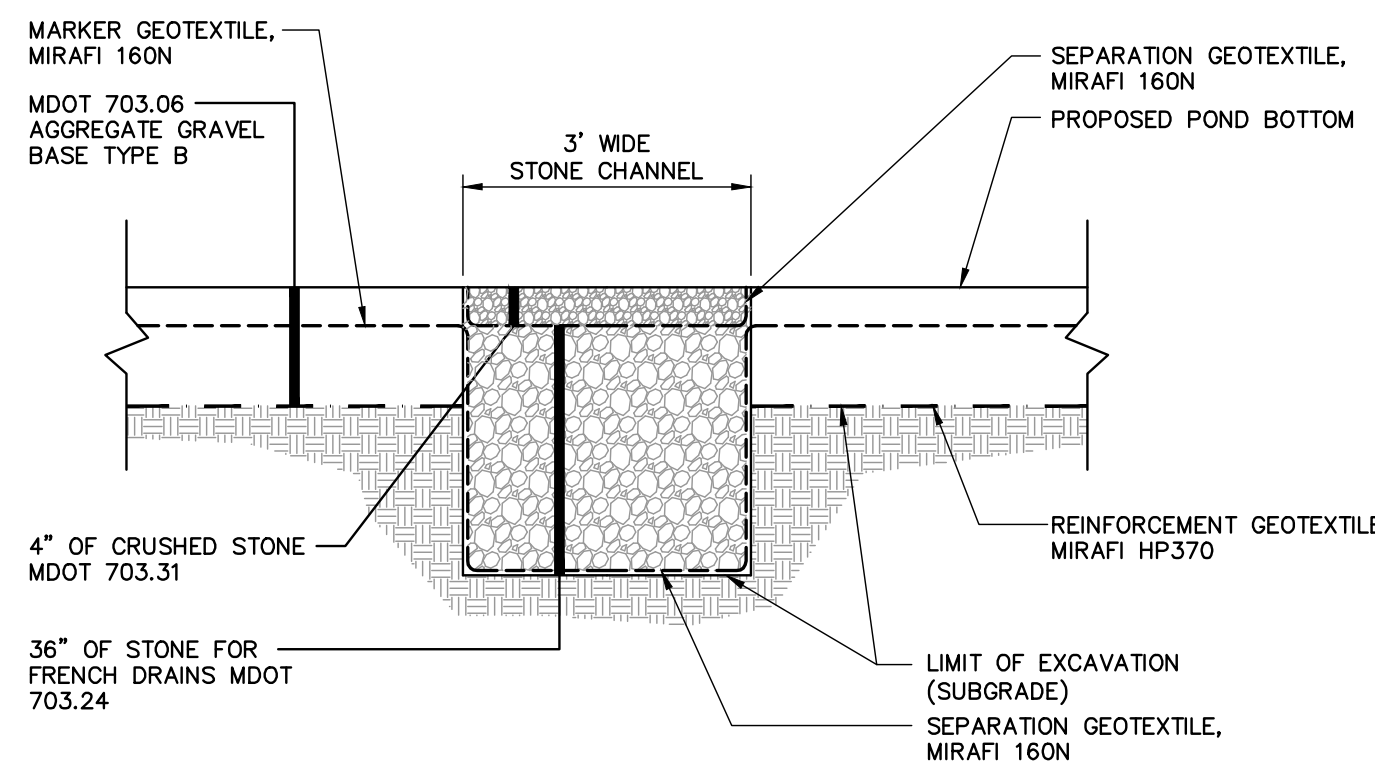


EXISTING SECTION 1 @ STONE WALL

N.T.S.

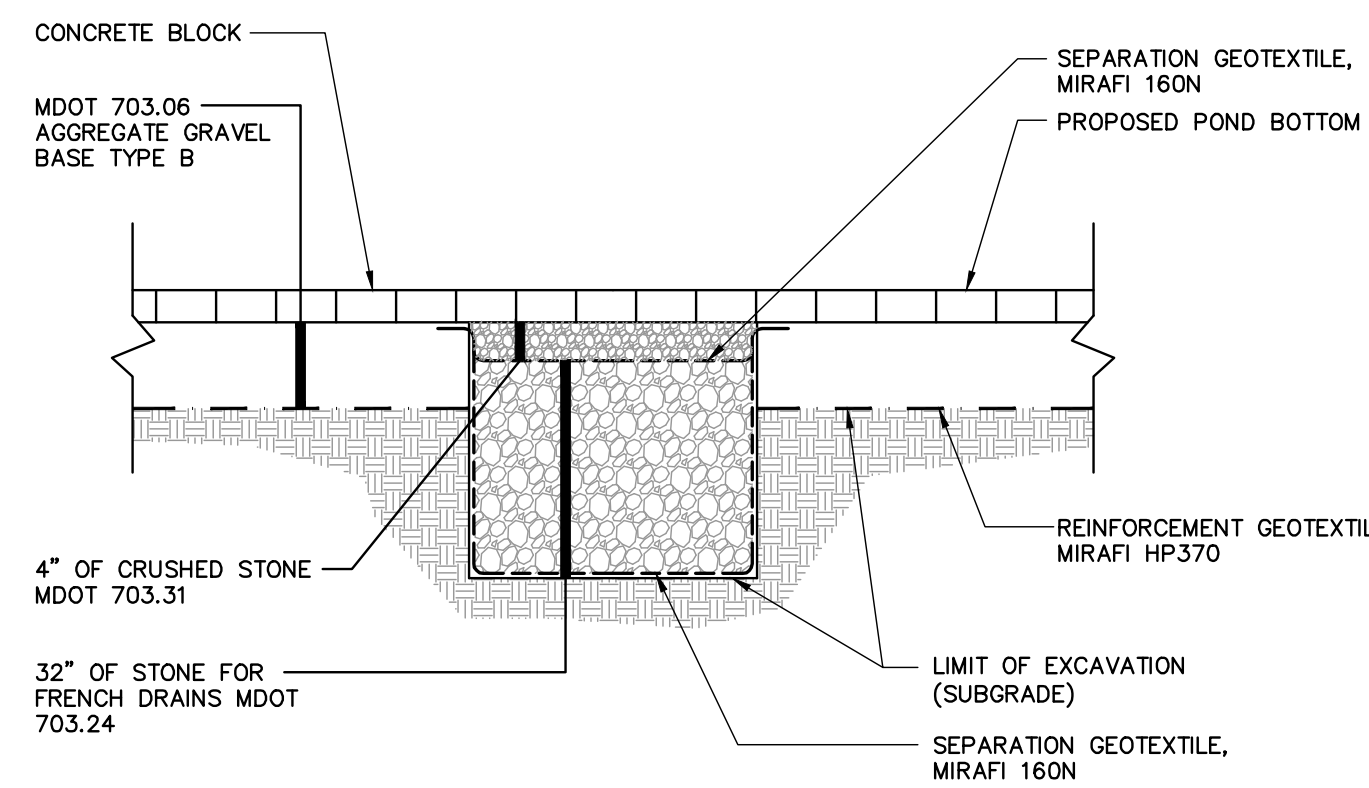
EXISTING SECTION 2 @ STONE WALL

N.T.S.



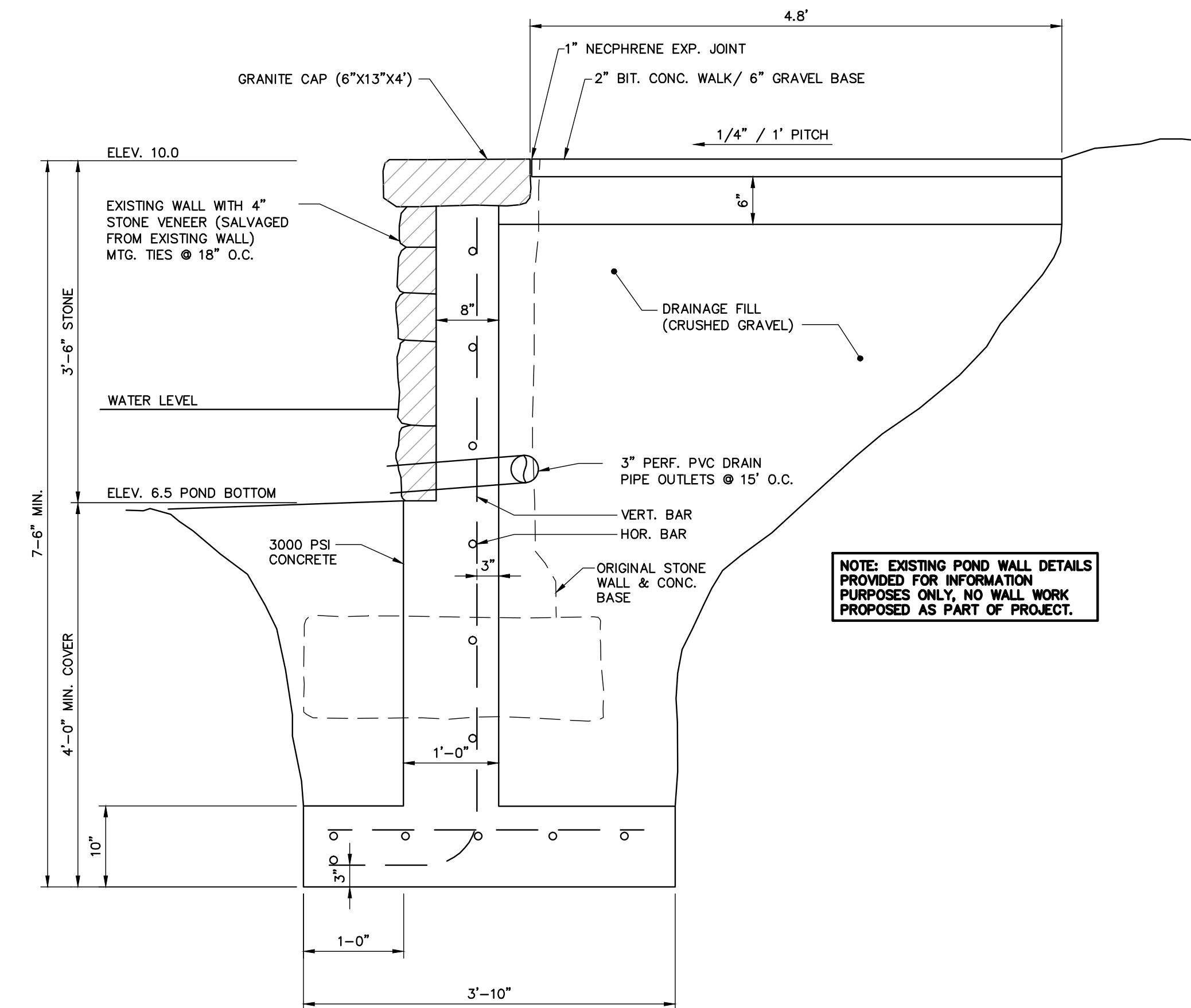
**STONE DRAINAGE CHANNEL
DETAIL - GRAVEL AREAS**

N.T.S.



**STONE DRAINAGE CHANNEL
DETAIL - BLOCK AREAS**

N.T.S.



EXISTING SECTION 3 @ CONC. RET. WALL

N.T.S.

NOT FOR CONSTRUCTION

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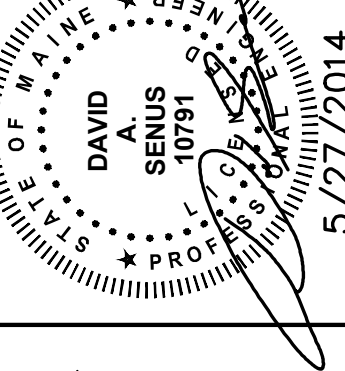


COMMITMENT & INTEGRITY DRIVE RESULTS

LDD PROJECT NAME:
N/A
DRAWING NAME:
203848.46 DOX.DWG
FIELD BOOK USED:
N/A

REFERENCES:

DESIGNED BY:	BCM/LJS
DRAWN BY:	BCM
CHECKED BY:	DAS
SCALE:	AS NOTED
DATE:	MAY 2014



DEERING OAKS POND
POND BOTTOM REPLACEMENT

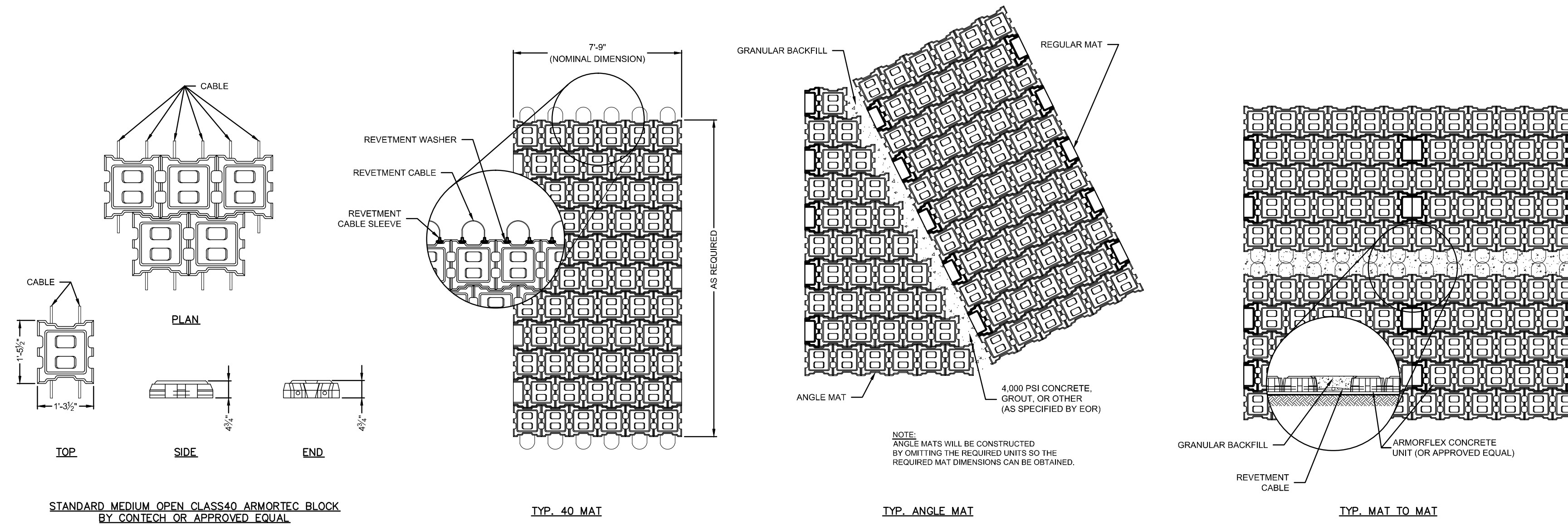
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET #
7 OF 9
PLAN NUMBER
D-200

Z:\222804_Portland-Gen Eng Services\vip_46 Deering Oaks Drawings\Civil\203848.46 DOX.dwg, May 27, 2014 - 1:22pm

Z:\222804_Portland-Gen Eng Services_Vip_46 Deering Oaks Drawings\Civil\203546.46 DOK.dwg, May 27, 2014 - 1:22pm



BLOCK MAT DETAIL
N.T.S.

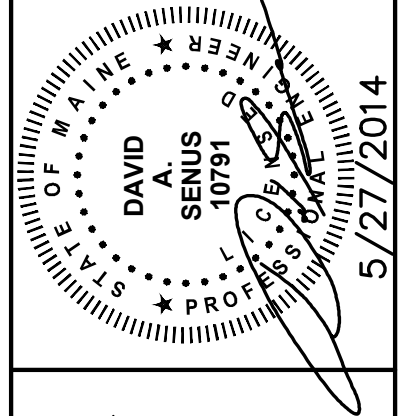


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COMMITMENT & INTEGRITY DRIVE RESULTS

REFERENCES:

DESIGNED BY:	BCM/ALIS
DRAWN BY:	BCM
CHECKED BY:	DAS
SCALE:	AS NOTED
DATE:	MAY 2014



DEERING OAKS POND
POND BOTTOM REPLACEMENT

CIVIL DETAILS - 2

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET #
8 OF 9

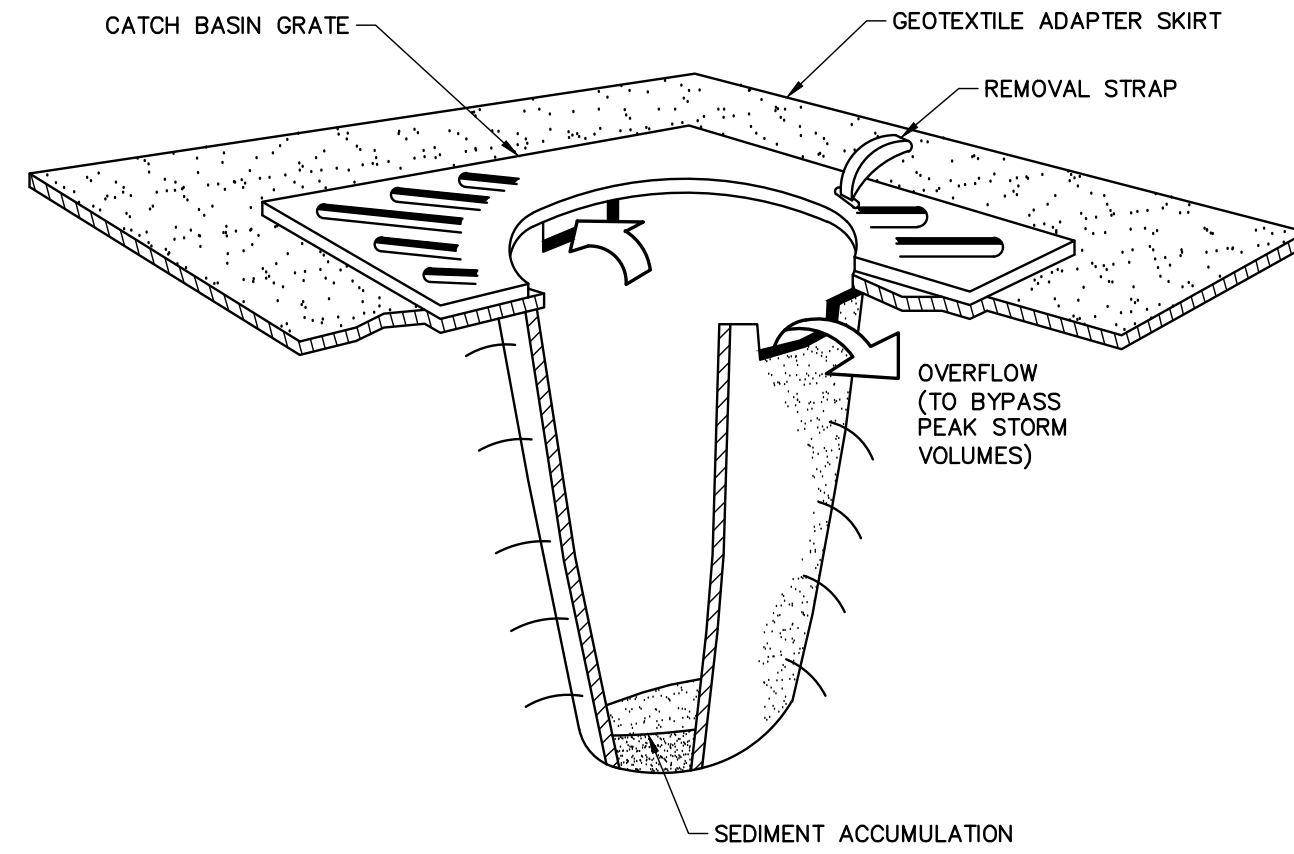
PLAN NUMBER
D-201

NOT FOR CONSTRUCTION

EROSION AND SEDIMENT CONTROL NOTES

Temporary Erosion Control

Contractor shall prepare and submit a soil erosion and water pollution control plan to engineer in accordance with section 656.



NOTES:

CATCH BASIN PROTECTION TO BE "SILTSACK" (BY ACF ENVIRONMENTAL) OR "STREAM GUARD" (BY FOSS ENVIRONMENTAL SERVICES).

INSERT TO BE EMPTIED IN AN APPROVED MANNER WHEN IT IS 1/2 FULL OF SEDIMENT.

INSPECT INSERT AFTER ALL RAINFALL EVENTS, REPAIR AND MAINTAIN AS REQUIRED.

TEMPORARY INLET PROTECTION

N.T.S.

Permanent Erosion Control:

Measure	Dates For Use	Timing, Activity, and Location
Pavement - Base Course - Final Course	When no frost is in ground	Install only in areas shown on the plan, shortly after pavement base is brought to final grade. Install near completion of project.
Permanent Seeding	April 15 to Sept. 15	On final grade areas, within 7 days of grade preparation, prepare topsoil, followed by seed and mulch application.
Dormant Seeding	Sept. 16 to April 15	On final grade areas, with prepared topsoil. Apply seed at double the specified rate on bare soil, and follow with an application of winter mulch.
Ground Cover, Trees, Shrubs	April 15 to Nov. 1	Install with final landscaping.
Permanent Mulch	ALL	Install with final landscaping.

Inspections:

Regular inspections of all erosion and sedimentation controls shall be made at least weekly and prior to and following storm events. Minimum inspections shall be made as listed in the table below.

Inspected Item	Look For
Mulched Surfaces	Thin mulch or inadequate application. Wind movement.
Seeded Surfaces	Poor seed germination. Loss of mulch. Development of rivelets.
Sediment Barrier	Sediment build-up to one half the height of the barrier. Undermining of the barrier. Supporting stakes loose, toppled, or unmarked. Breaks in barrier.
Perimeter Diversion	Discharge is to stabilized area. Erosion or breaks in barrier. Supporting stakes loose, toppled or unmarked.
Catch Basin Protection	Sediment build-up and structure blockages. Slow flow/Ponding water. Breaks in fabric or voids in barrier.
Dewatering Filter	Breaks in fabric or supporting structure. Slow flow, indicating high sediment build-up.
Construction Entrance	Sedimentation of roadways. Off-site dust complaints.

EROSION AND SEDIMENTATION CONTROL NOTES

TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE THE USE OF STABILIZED CONSTRUCTION ENTRANCES, HYDRAULIC MULCH, HAY AND STRAW MULCH, EROSION CONTROL BLANKET, TURF REINFORCED MATTING, RIPRAP AND TEMPORARY SEEDING. TEMPORARY SEDIMENT CONTROL MEASURES INCLUDE THE USE OF SILT FENCE, EROSION CONTROL MIX BERMS, FLANGE POOLS, CHECK DAMS, SEDIMENT TRAPS, CATCHBASIN SEDIMENT COLLECTION BAGS AND GEOTEXTILE FILTER BAGS. PERMANENT MEASURES INCLUDE THE USE OF RIPRAP AT EXPOSED STORMDRAIN AND CULVERT INLETS AND OUTLETS, ARMORED SWALES AND SLOPES AND PERMANENT VEGETATION.

GENERAL

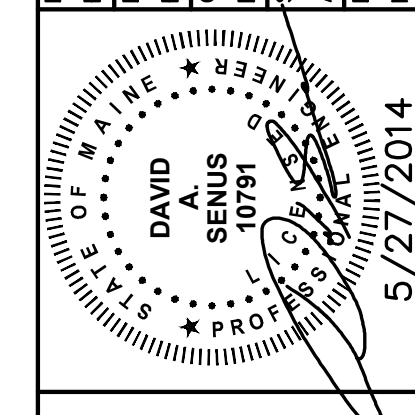
- THE PROJECT SHALL CONFORM WITH THE STANDARDS OF THE MAINE CONSTRUCTION GENERAL PERMIT, IF APPLICABLE.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK PUBLISHED BY THE MAINE DEP UNLESS OTHERWISE NOTED IN THESE PLANS. [HTTP://MAINE.GOV/DEP/BLWQ/DOCSTAND/ESCBMPS/](http://MAINE.GOV/DEP/BLWQ/DOCSTAND/ESCBMPS/)
 - ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE, DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND/OR MUNICIPAL OFFICIALS SHALL BE INSTALLED BY THE CONTRACTOR.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL FINES RESULTING FROM EROSION OR SEDIMENTATION FROM THE SITE TO SURROUNDING PROPERTIES, WATER BODIES, OR WETLANDS AS A RESULT OF THIS PROJECT.
 - THE CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE SITE WHENEVER POSSIBLE WHILE ALLOWING PROPER SITE DEVELOPMENT.
 - CONSTRUCTION STAGING SHALL BE CONDUCTED IN A WAY TO MINIMIZE THE POTENTIAL FOR STORMWATER RUN-ON TO DISTURBED AREAS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR/REPLACEMENT/MAINTENANCE OF ALL EROSION CONTROL MEASURES UNTIL ALL DISTURBED AREAS ARE STABILIZED TO THE SATISFACTION OF THE ABOVE PERSONNEL. DESCRIPTIONS OF PERMANENT STABILIZATION FOR VARIOUS COVER TYPES FOLLOWS:
 - FOR SEEDDED AREAS, PERMANENT STABILIZATION MEANS THAT 90% OF THE DISTURBED AREA IS COVERED WITH REASONABLY THICK UNIFORM STAND OF PERMANENT GRASS SPECIES, FREE FROM SIZABLE THIN OR BARE SPOTS.
 - FOR SODDED AREAS, PERMANENT STABILIZATION MEANS THAT COMPLETE BINDING OF THE SOO ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOO OR DIE OFF.
 - FOR MULCHED AREAS, PERMANENT STABILIZATION MEANS TOTAL COVERAGE OF THE EXPOSED AREA WITH AN APPROVED MULCH MATERIAL.
 - 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. STONE MUST BE SIZED APPROPRIATELY AND IN ACCORDANCE WITH SECTION E-6 OF THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL.
 - FOR PAVED AREAS, PERMANENT STABILIZATION MEANS THE PLACEMENT OF THE ASPHALT BINDER COURSE.
 - FOR OPEN CHANNELS, LEVEL SPREADERS, ENGINEERED BUFFERS OR OTHER DESIGNED STORMWATER CONVEYANCE STRUCTURE, PERMANENT STABILIZATION MEANS THE CHANNELLED AREA(S) IS STABILIZED WITH MATURE VEGETATION AT LEAST THREE INCHES IN HEIGHT, WITH APPROVED RIPRAP, OR WITH OTHER NON-EROSIVE LINING CAPABLE OF WITHSTANDING THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHOUT RELIANCE ON CHECK DAMS TO SLOW FLOW. THERE SHALL BE NO EVIDENCE OF SLUMPING, UNDERCUTTING OR DOWNCUTTING OF THE DESIGNED CHANNEL.
 - IF THE AREA WILL REMAIN UNWORKED FOR MORE THAN ONE YEAR OR HAS BEEN BROUGHT TO FINAL GRADE, AND WILL NOT BE BUILT ON, THEN IMMEDIATELY PROVIDE PERMANENT STABILIZATION USING VEGETATION THROUGH PLANTING, SEEDING, SOD OR THROUGH THE USE OF PERMANENT MULCH OR RIPRAP. IF USING VEGETATION FOR STABILIZATION, SELECT THE PROPER VEGETATION FOR THE LIGHT, MOISTURE, AND SOIL CONDITIONS. AMEND AREAS OF DISTURBED, OVERLY-COMPACTED SUBSOIL WITH TOPSOIL OR COMPOST AND LIGHTLY TILL 2-3' OF SOIL AMENDMENTS INTO THE TOP 8" OF SOIL.
 - PERMANENT SEEDING SPECIFICATION: IT IS RECOMMENDED THAT PERMANENT SEEDING BE COMPLETED BETWEEN APRIL 1 AND AUGUST 15 OF EACH YEAR. LATE SEASON SEEDING MAY BE DONE BETWEEN AUGUST 15 AND SEPTEMBER 15. AREAS NOT SEEDDED OR WHICH DO NOT OBTAIN A SATISFACTORY GROWTH BY OCTOBER 1 SHALL BE SEEDDED WITH AROGOSTOL WINTER RYE OR MULCHED AT SPECIFIED RATES. SEE WINTER SEEDING AND MULCHING SPECIFICATIONS FOR STABILIZATION AFTER NOVEMBER 1.
 - APPLY TOPSOIL TO A DEPTH OF 6 INCHES. IN COMPACTED AREAS TILL 2-3' OF COMPOST INTO UPPER 8" OF DISTURBED SOIL AND THEN APPLY 6 INCHES OF TOPSOIL.
 - APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS. IN LIEU OF SOIL TESTS, APPLY GROUND LIMESTONE AT A RATE OF 33 LBS PER 1000 SQUARE FEET AND GRANULAR COMMERCIAL-GRADE FERTILIZER 10-10-10 AT A RATE OF 18 LBS PER 1000 SQUARE FEET.
 - UNIFORMLY APPLY SEED MIXTURE AT THE RECOMMENDED SEEDING RATES AND DATES, APPLY HAY OR STRAW MULCH AT A RATE OF 2.5 BALES PER 1000 SQUARE FEET AND ANCHOR AS NECESSARY.
 - PROTECT ALL SEEDDED AREAS WITH MULCH OR EROSION CONTROL BLANKET IN AREAS OF SHEET OR CONCENTRATED FLOWS. MULCH ALL AREAS SO THAT SOIL IS NOT VISIBLE THROUGH THE MULCH REGARDLESS OF THE APPLICATION RATE. SCHEDULE SEEDING OR SODDING TO AVOID FAILURE DUE TO SUMMER DROUGHT AND FALL FROST. NEWLY SEEDDED AREAS SHOULD BE PROTECTED FROM VEHICLE TRAFFIC, PEDESTRIAN TRAFFIC AND CONCENTRATED RUNOFF UNTIL THE VEGETATION IS WELL ESTABLISHED. AREAS MUST BE REWORKED AND RESTABILIZED IF GERMINATION IS SPARSE OR SURFACE EROSION IS EVIDENT.
 - DITCH LININGS AND RIPRAP INLET AND OUTLET PROTECTION SHALL BE INSTALLED WITHIN 48 HOURS OF COMPLETING THE GRADING OF THAT SECTION OF DITCH OR INSTALLATION OF THE CULVERT.
 - EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL PERMANENT SLOPES STEEPER THAN 3:1 OR AS OTHERWISE NOTED, IN THE BASE OF DITCHES AND ANY DISTURBED AREAS WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE (WETLANDS AND WATER RESOURCES). EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN SIS5EN OR APPROVED EQUAL. EROSION CONTROL BLANKET SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 - THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURE UPON STABILIZATION OF PROJECT AREA & COST SHALL BE INCIDENTAL TO CONTRACT.
- WINTER CONDITIONS**
- WINTER CONSTRUCTION IS CONSTRUCTION ACTIVITY PERFORMED DURING THE PERIOD FROM NOVEMBER 1 THROUGH APRIL 1. IF AREAS WITHIN THE CONSTRUCTION AREA ARE NOT STABILIZED WITH TEMPORARY OR PERMANENT MEASURES OUTLINED ABOVE BY NOVEMBER 15 THEN THE SITE MUST BE PROTECTED WITH ADDITIONAL STABILIZATION MEASURES THAT ARE SPECIFIC TO WINTER CONDITIONS.
- GOOD HOUSEKEEPING AND POLLUTION PREVENTION**
- SPILL PREVENTION CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER RUNOFF AND APPROPRIATE SPILL PREVENTION, CONTAINMENT AND RESPONSE PLANNING AND IMPLEMENTATION.
 - DURING CONSTRUCTION, PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUND OR SURFACE WATERS MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO INFILTRATION AREAS. AN "INFILTRATION AREA" IS ANY ARE OF THE SITE THAT BY DESIGN, OR AS A RESULTS OF SOIL AND TOPOGRAPHY, ACCUMULATES RUNOFF THAT INFILTRATES IN THE SOIL, DIKES, BERMS, SUMPS AND OTHER FORMS OF TEMPORARY 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.
 - LOCATE ALL MATERIAL STOCKPILES WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
 - TAKE ALL REASONABLE MEASURES TO MINIMIZE DUST RESULTING FROM THE PROJECT. OIL MAY NOT BE USED FOR DUST CONTROL.
 - LOCATE ALL LITTER, CONSTRUCTION DEBRIS AND CONSTRUCTION CHEMICALS WITH CONSIDERATION FOR STORMWATER DRAINAGE PATTERNS AND INFRASTRUCTURE.
 - TRENCH OR FOUNDATION DE-WATERING MUST BE SPREAD THROUGH SUFFICIENT NATURAL BUFFERS THAT HAVE CAPACITY TO INFILTRATE THE PUMPED WATER OR SHOULD BE PUMPED TO DESIGNATED CONSTRUCTION DEWATERING DEVICES AS DESCRIBED IN THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK.
 - SEDIMENTS AND SOIL MATERIALS SHOULD BE SWEEPED FROM PAVED SURFACES AT THE END OF EACH WORKDAY OR PRIOR TO RAIN EVENTS, WHENEVER POSSIBLE.
- INSPECTION AND MAINTENANCE**
- A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROLS, INCLUDING THE STANDARDS IN THE MAINE CONSTRUCTION GENERAL PERMIT, THE MAINE EROSION AND SEDIMENT CONTROL BMPS HANDBOOK OR ANY MUNICIPAL REQUIREMENTS MUST CONDUCT THE INSPECTION. THIS PERSON MUST BE IDENTIFIED IN THE INSPECTION LOG. IF ADDITIONAL BMPS OR MODIFICATIONS TO BMPS ARE NECESSARY, THE MODIFICATIONS MUST BE IMPLEMENTED WITH 7 CALENDAR DAYS OR PRIOR TO ANY PRECIPITATION EVENT. ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
 - AN INSPECTION AND MAINTENANCE LOG MUST BE KEPT BY THE CONTRACTOR, SUMMARIZING THE SCOPE OF THE INSPECTION, DATE, AND MAJOR OBSERVATIONS RELATING TO THE OPERATION OF EROSION AND SEDIMENT CONTROL BMPS, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS TO THE CONSTRUCTION AREA. THE INSPECTION LOG SHOULD BE DELIVERED TO THE PROPERTY OWNER OR RESPONSIBLE CONTRACTING ENTITY UPON COMPLETION OF THE PROJECT.

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WOODARD & CURRAN
COMMITMENT & INTEGRITY DRIVE RESULTS

LDD PROJECT NAME: N/A
DRAWING NAME: 203648.46 DOX.DWG
FIELD BOOK USED: N/A

DESIGNED BY: BCM/ALJ
DRAWN BY: BCM
CHECKED BY: BCM
DATE: 5/27/2014



DEERING OAKS POND
POND BOTTOM REPLACEMENT

CIVIL DETAILS - 3

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET # 9 OF 9
PLAN NUMBER D-202

NOT FOR CONSTRUCTION