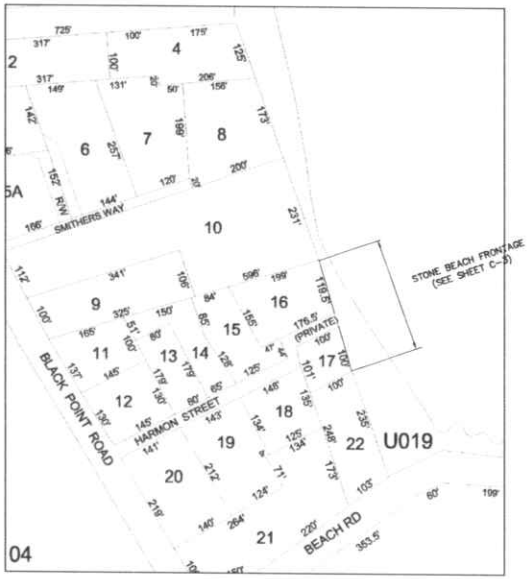
STONE PROPERTY
BEACHFRONT PROTECTION
PROJECT NO. 07018



PROPERTY LOCATION PLAN
(TAKEN FROM SCARBOROUGH TAX MAP)

PROPERTY INFORMATION

OWNER:	MARION R STONE
LOT NOs:	16, 17,
TAX MAP:	U-18
ZONING:	R2- RESIDENTIAL 2 SOD- SHORELAND OVERLAY DISTRICT- 250FT

PROJECT REFERENCES

CONTRACTOR TO COMPLY WITH AND MAINTAIN A COPY ON SITE OF THE FOLLOWING DOCUMENTS.

1. CONDITIONS OF SHORELAND APPROVAL FROM THE TOWN OF SCARBOROUGH.
2. MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION NRPA AND SAND DUNE PERMIT APPROVAL.
3. US ARMY CORPS OF ENGINEERS PERMIT APPROVAL.
4. GEOTECHNICAL REPORT BY SOIL METRICS LLC.

N

INDEX OF SHEETS

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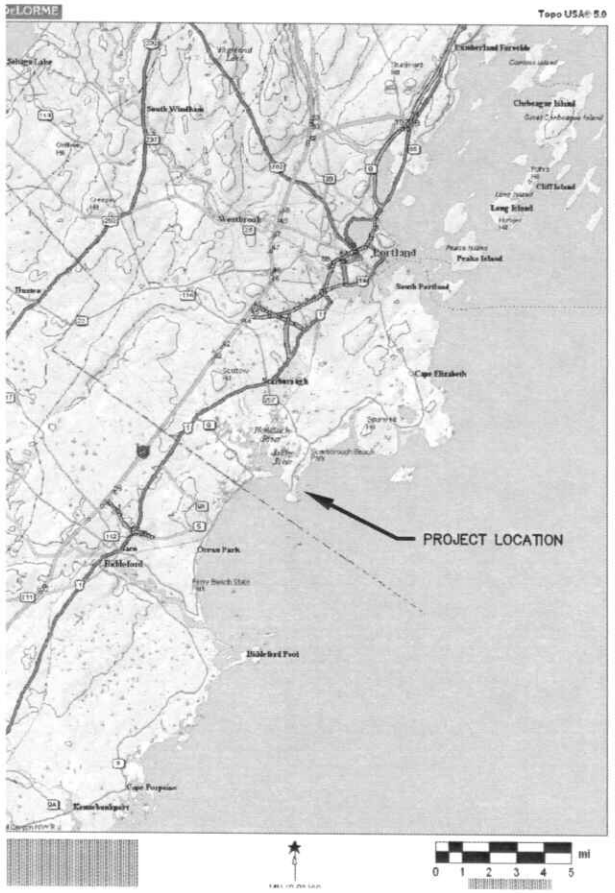
C-2	PROPOSED SITE LAYOUT
C-3	PROPOSED PLAN AND PROFILE
C-4	(NOT USED)
C-5	(NOT USED)
C-6	STONE REVETMENT
C-7	SEAWALL TRANSITION



LOCATION MAP

BAKER DESIGN CONSULTANTS
Civil, Marine, and Structural Engineering
11 Stony Brook Lane Yarmouth, Maine 04096 Tel: (207) 846-9724 Fax: (207) 846-3620

NO.	SUBMISSION	DATE	INT.
7	Revised and Updated	10.28.09	
6	Revised and Updated	4.20.09	BJB
5	PERMIT SUPPLEMENT	3.31.2009	BJB

STATE OF MAINE
BARNEY J. BAKER
#5737
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JWBS
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: TITLE SHEET
PROJECT: STONE PROPERTY BEACHFRONT PROTECTION
PROUTS NECK, SCARBOROUGH, MAINE

DATE: 5/31/07
CONTRACT NO. 07018
SHEET NO. T-1
REV.

GENERAL NOTES

1. THE CONTRACTOR SHALL BE GOVERNED BY MAINE CONSTRUCTION SAFETY RULES AND SHALL BE SUBJECT TO THE SAFETY AND HEALTH REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AS PROMULGATED BY THE US DEPARTMENT OF LABOR.
2. THE CONTRACTOR IS RESPONSIBLE FOR CALLING 'DIG SAFE' (888) 344-6233 TO EXECUTE UTILITY MARKING PRIOR TO STARTING WORK AND WILL BE RESPONSIBLE FOR ALL UTILITIES DISTURBED DURING THE CONTRACT.
3. THE CONTRACTOR IS REQUIRED TO ADHERE TO REGULATORY TIMETABLE RESTRICTIONS IDENTIFIED IN THE PROJECT PERMITS.
4. ACCESS TO THE SITE WILL BE BY HARMON STREET. A LAYDOWN AREA WILL BE DESIGNATED AT THE SHOREWARD END. THE CONTRACTOR SHALL REPAIR ANY ROADWAY DAMAGE AT THE COMPLETION OF THE WORK.
5. ALL SURFACES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR.

SURVEY DATUM NOTES

1. ALL ELEVATIONS ARE REFERENCED TO A TEMPORARY BENCH MARK ON THE CORNER OF THE PROUTS NECK BEACH CLUB SLAB (SEE SHEET C-2).
2. BASE PLAN SURVEY INFORMATION FOR STONE AND ROCKEFELLER PROPERTIES TAKEN FROM "SEAWALL STORM DAMAGE TOPOGRAPHY" BY ROYAL RIVER SURVEY CO., JOB NO. 27024; 5/11/07; CAD FILE: SEAWALL2.
3. BASE PLAN SURVEY INFORMATION FOR KOHLBERG PROPERTY TAKEN FROM "SEAWALL TOPOGRAPHY" BY ROYAL RIVER SURVEY CO., JOB NO. 27075; 11/12/07; CAD FILE: KOHLBERG.
4. BASE FLOOD/TIDAL INFORMATION WAS TAKEN FROM FEMA AND NOAA PUBLISHED DATA FOR SCARBOROUGH AND PORTLAND RESPECTIVELY (NGVD DATUM).

100 YEAR FLOOD	15.0	FEMA FIRM 24 OF 25 SCARBOROUGH
SPRING TIDE LINE	6.10	DEP FROM NOAA DATA
MHHW	5.34	NOAA PUBLISHED DATA FOR PORTLAND
MHW	4.88	" "
MLW	-4.23	" "
MLLW	-4.57	" "

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES.
2. ALL CONSTRUCTION EQUIPMENT AND MATERIAL DELIVERIES SHALL BE UNDERTAKEN FROM SHORE. NO BARGE EQUIPMENT WILL BE USED.
3. NO MATERIAL SHALL BE TEMPORARILY STOCKPILED OR STORED BELOW THE SPRING TIDE LINE.
4. EXCAVATION THAT EXTENDS BELOW HIGH WATER ELEVATION SHALL BE COMPLETED AT LOW TIDE TO MINIMIZE IN-WATER WORK.
5. THE CONTRACTOR SHALL MONITOR WIND AND WAVE CONDITIONS AND SHALL TAKE APPROPRIATE ACTION TO PROTECT THE WORK AND PROPERTY FROM STORM DAMAGE.

SUBMITTALS

SUBMIT SHOP DRAWINGS, PRODUCT DATA AND SOURCE FOR OR ALL STRUCTURAL ELEMENTS, BACKFILL MATERIALS AND ACCESSORIES TO INCLUDE THE FOLLOWING ITEMS.

1. REINFORCED CONCRETE MIX DESIGN AND TEST DATA.
2. REINFORCING STEEL.
3. BACKFILL MATERIAL GRADATION.
4. GRANITE STONE SAMPLE.
5. GEOTEXTILE MATERIALS.
6. SHEETPILE MATERIALS.
7. TIMBER MATERIALS.
8. MISCELANEOUS METALS AND FASTENERS.
9. DUNE GRASS COLONIZATION.

STONE REVETMENT

1. GRANITE SHALL BE UNIFORM IN COLOR AND APPEARANCE.
2. MATERIAL SHALL BE FROM A CRUSHED SOURCE TO ENSURE A TIGHT MATRIX INTERLOCK. ROUND SMOOTH STONE IS NOT ACCEPTABLE.
3. 'TRAP ROCK' PLACED BETWEEN LARGER STONES SHALL BE OF THE SAME MATERIAL TO ENSURE UNIFORM APPEARANCE OF EXPOSED SLOPE.
4. GRANITE SHALL BE PLACED TO PROVIDE A UNIFORM SLOPING SURFACE. REFER TO PICTURE BELOW.

SCOPE OF WORK SUMMARY

ITEMS BELOW SHALL BE UNDERTAKEN PROGRESSIVELY ACROSS THE PROPERTY FRONTAGE TO MAINTAIN PROTECTION TO THE COASTAL UPLAND PROPERTY. THE CONTRACTOR SHALL HAVE CONTINGENCY PLANS AND MATERIALS TO PROTECT THE WORK AND UPLAND PROPERTY DURING AN INTERIM CONSTRUCTION STORM EVENT.

1. INSTALL VERTICAL WALL TRANSISTIONS AT EDGE OF PROPOERTY.
2. REMOVE REMAINING TIMBER BULKHEADS IN FRONT PROPERTY.
3. STOCKPILE BACKFILL MATERIAL FOR REUSE. ALL DUNE MATERIAL SHALL RE REUSED IN CONSTRUCTION. EXCESS MATERIAL SHALL BE PLACED ON THE BEACH. REMOVE UNSUITABLE MATERIAL FROM SITE.
4. INSTALL STONE REVETMENT.
5. RECOLONIZE FRONTAL DUNE AREAS WITH DUNE GRASS.
6. BOARDWALK AND STAIR CONSTRUCTION TO ACCESS BEACH BY OTHERS.
7. EXISTING RIPRAP STONE MATERIAL MEETING SPECIFIED SIZE REUIREMENTS MAY BE USED IN BELOW GRADE APPLICATIONS.

MATERIAL SPECIFICATIONS

MISCELANEOUS METALS

1. ALL FASTENERS UNLESS OTHERWISE NOTED TO BE STAINLESS STEEL.
2. STEEL SHAPES: A36 STEEL SANBLASTED AND COATED WITH AN APROVED BITUMASTIC OR EPOXY PAINT.

VERTICAL TIMBER TRANSITION WALL

1. SHEETPILING: GEOGUARD 30. ALL COMPONENTS BY CRANE MATERIALS INTERNATIONAL OR EQUAL UNLESS OTHERWISE NOTED.
2. TIE BACK RODS: 7/8–INCH DIAMETER HOT DIP GALVANIZED A307 STEEL THREADED ROD. INSTALL WITH HEAVY HEX NUTS AND DOCK WASHERS.
3. TIE BACK ROD WASHER PLATES: 4-INCH X 4-INCH A36 STEEL HOT DIP GALVANIZED.
4. TIMBER FACIA: PRESSURE TREATED CCA (1.0 PCF) SOUTHERN YELLOW PINE.

DEADMAN

1. REFER TO DRAWING.
2. ALTERNATIVE DEADMAN CONSTRUCTION PROPOSED BY CONTRACTOR WILL BE CONSIDERED.

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7.	Revised and Updated	10.28.09	BJB
6.	Revised and Updated	4.20.09	BJB
5.	PERMIT SUPPLEMEN	3.31.2009	BJB

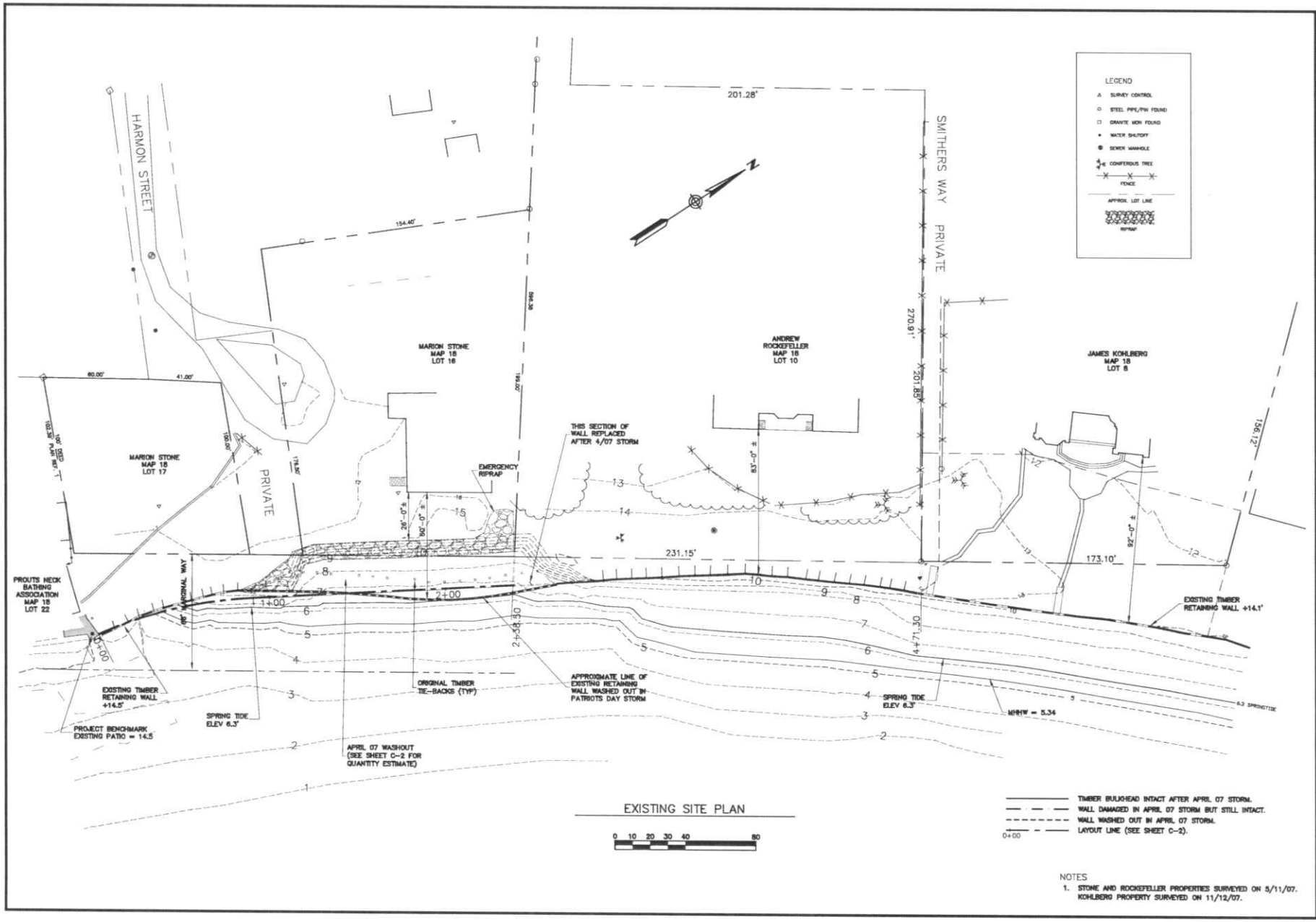
SUBMISSION

STATE OF MAINE
BARNEY J. BAKER
#5737
REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JWBS
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE: GENERAL NOTES
PROJECT: BEACHFRONT PROTECTION
STONE PROPERTY
PROUTS NECK, SCARBOROUGH, MAINE

DATE: 5/31/07
CONTRACT NO.: 07018
SHEET NO.: T-2
REV.



EXISTING SITE PLAN

0 10 20 30 40 80

NOTES

1. STONE AND ROCKEFELLER PROPERTIES SURVEYED ON 5/11/07. KOHLBERG PROPERTY SURVEYED ON 11/12/07.

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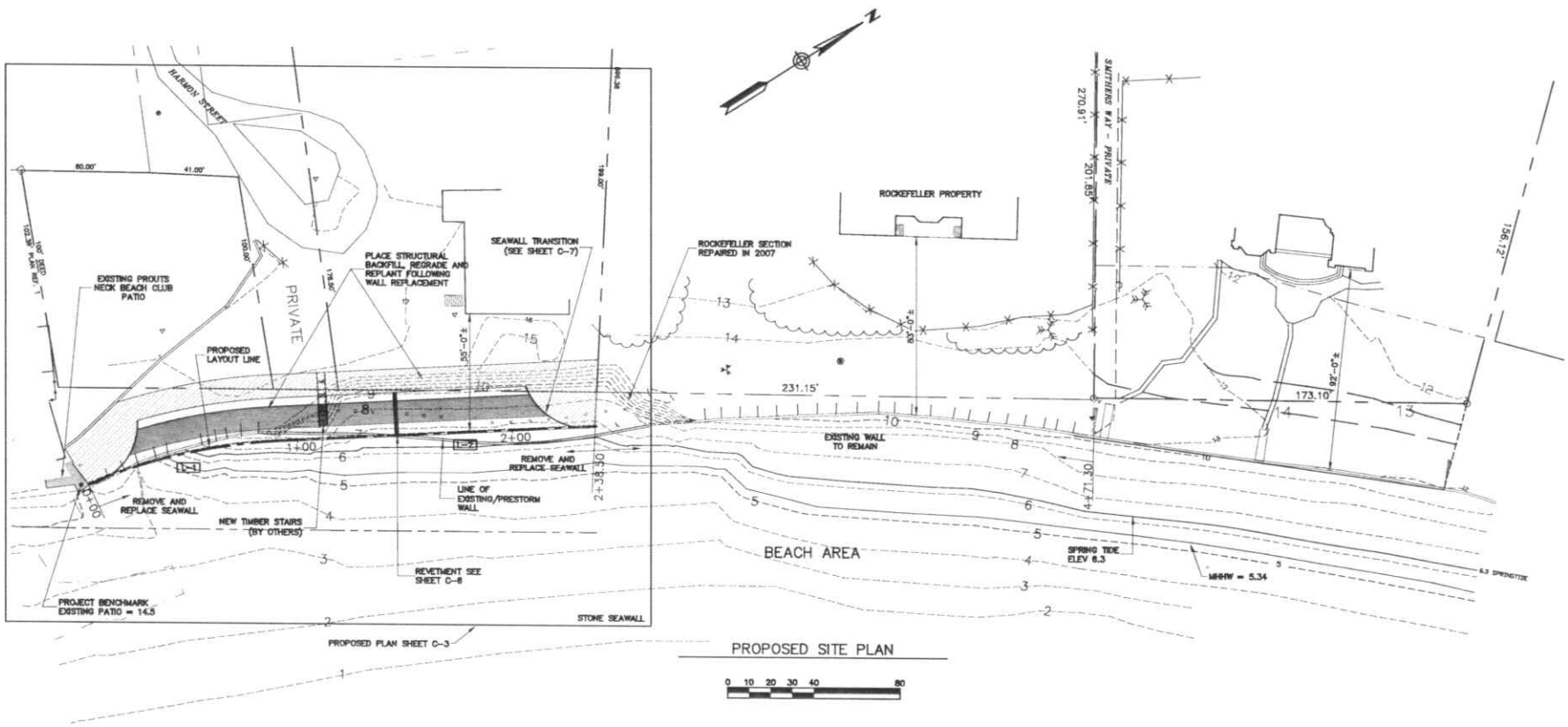
STATE OF MAINE BARNEY L. BAKER #5737 REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JWBS
CHECKED BY: BJB
SCALE: AS SHOWN

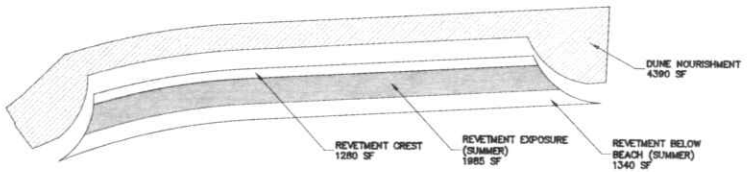
SHEET TITLE: EXISTING SITE PLAN
PROJECT: STONE PROPERTY BEACHFRONT PROTECTION PROUTS NECK, SCARBOROUGH, MAINE

DATE 5/31/07
CONTRACT NO. 07018
SHEET NO. C-1
REV.



PROPOSED SITE PLAN

0 10 20 30 40 80



CENTERLINE LAYOUT TABLE

LINE/CURVE	BEGIN STATION	LENGTH	BEARING	RADIUS	DELTA	TANGENT	PI STATION	PT STATION
L-1	0+00	90.60'	———	250.00'	20°45'48"	45.80'	———	0+90.60
L-2	0+90.60	147.90'	N 30°29'54" E	———	———	———	2+38.50	———

REVETMENT QUANTITIES

LOCATION	Measurement Source	Footprint Area	Section Area/LF	Seawall Length	Material Volume	
		SF	SF	LF	CF	CY
4/07 Washout Area (Add)	Plan area and section from Survey Plan	3030	190	125	23750	880
Quantity change from Vertical Bulkhead (Subtract)	Revetment Length this Sheet, Typical Section on Sheet C-6	3365	-80	200	-16000	-593
Stone Revetment (Subtract)		4605	-145	200	-29000	-1074
Dune Nourishment (Add)	Plan area and section from Survey Plan	4390	34	238	8092	300
Excess Dune Material (placed on beach or as increased dune nourishment)						-487

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STATE OF MAINE — BARNEY J. BAKER #5737 — PROFESSIONAL ENGINEER

DESIGNED BY: BJB
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SHEET TITLE: PROPOSED SITE LAYOUT
PROJECT: STONE PROPERTY BEACHFRONT PROTECTION PROUTS NECK, SCARBOROUGH, MAINE

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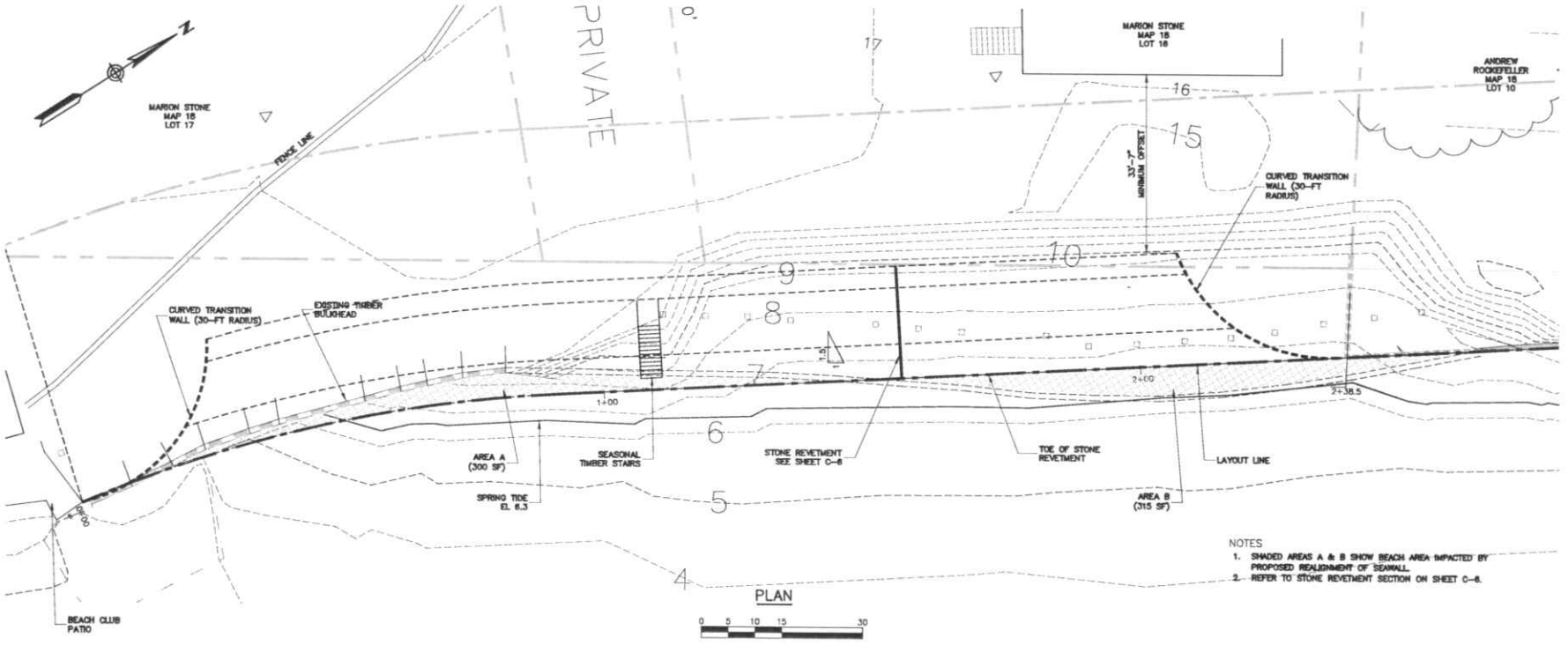
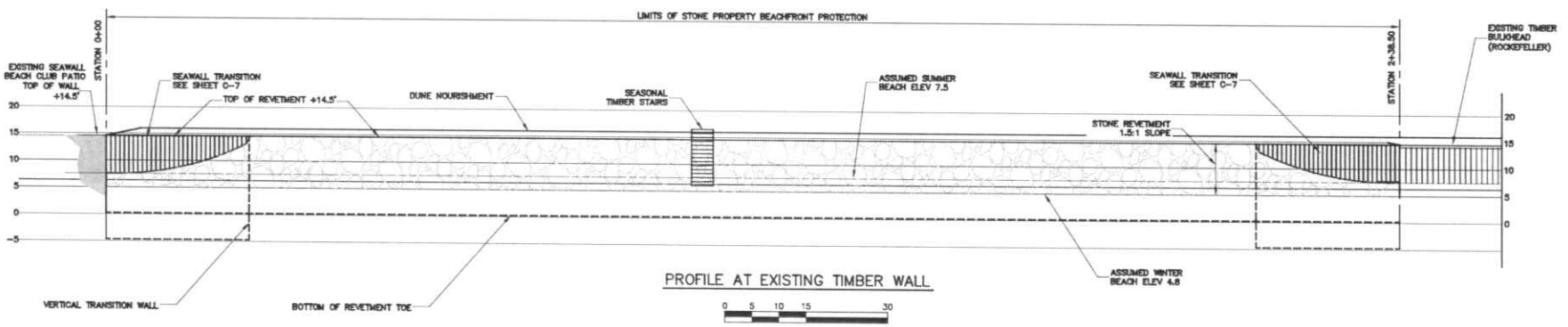
CONTRACT NO. 07018
SHEET NO. C-2
REV.





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	PERMIT SUPPLEMENT	DATE N.T.
	SUBMISSION	

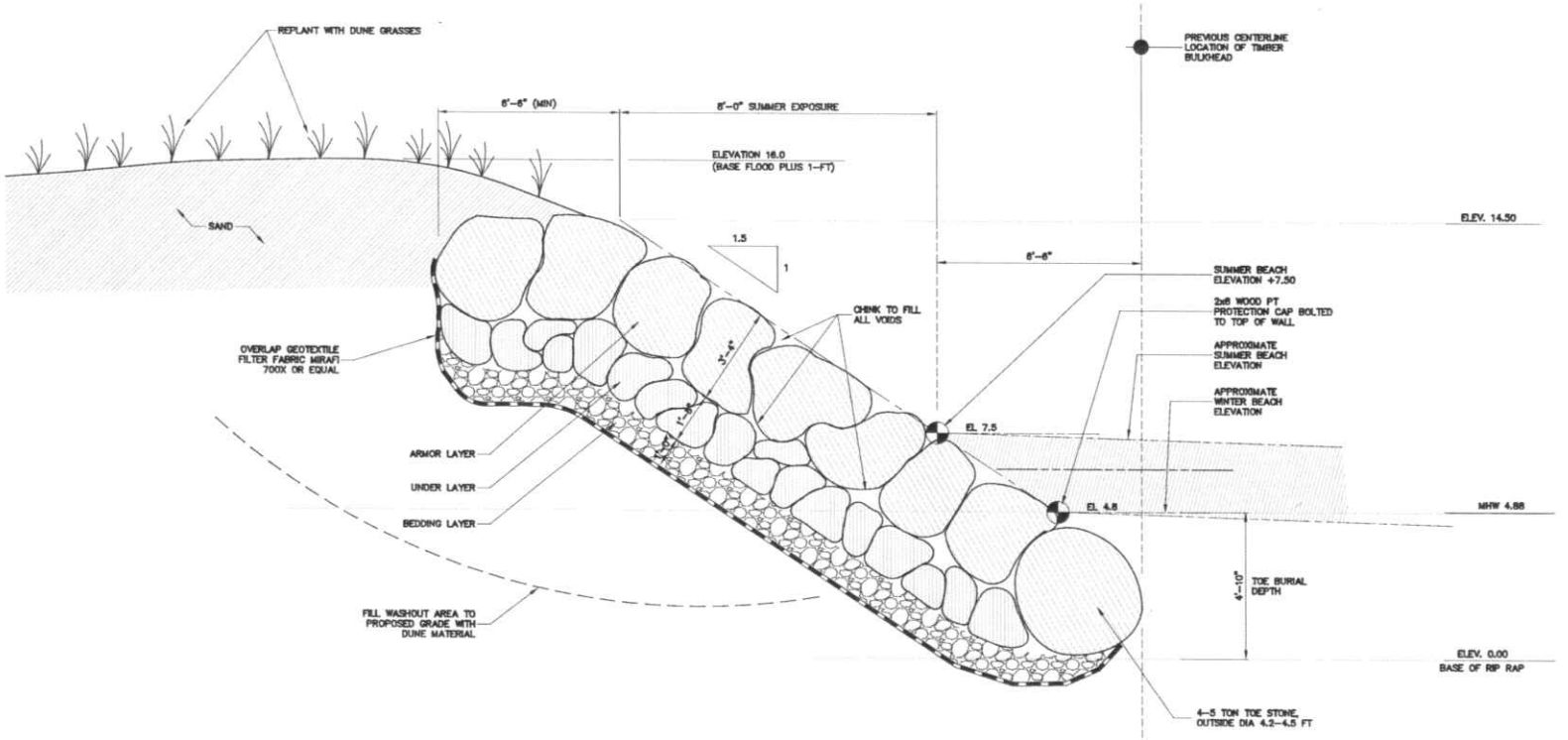
STATE OF MAINE
BARNEY J. BAKER
#5737
REGISTERED
PROFESSIONAL ENGINEER

DESIGNED BY: BJB
DRAWN BY: JHRS
CHECKED BY: BJB
SCALE: AS SHOWN

SHEET TITLE:
PROPOSED PLAN AND PROFILE

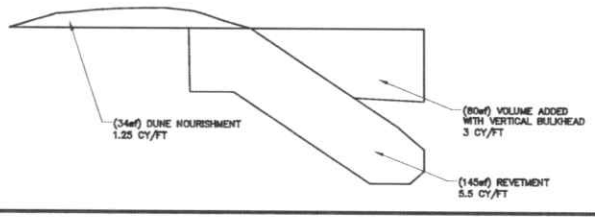
PROJECT:
STONE PROPERTY
BEACHFRONT PROTECTION
PROUTS NECK, SCARBOROUGH, MAINE

DATE 5/31/07
CONTRACT NO. 07018
SHEET NO. C-3
REV.



MATERIALS SPECIFICATION/UNIT QUANTITIES

LAYER	AVERAGE STONE WEIGHT	AVERAGE STONE DIA	VOLUME PER LF
ARMOR LAYER	2 – 3 TONS	3.3 – 3.8 FT	3 CY
UNDER LAYER	500 LBS	1.7 FT	1.5 CY
BEDDING LAYER	10 LBS	5 INCHES	1 CY



STONE REVETMENT
TYPICAL SECTION

0 1.5 3 6

NOTES:
1. REFER TO NOTES ON SHEET C-1.
2. EXISTING VERTICAL ALIGNMENT IS A "BEST FIT" FOR THE EXISTING WALL LOCATION.
3. PLACE LARGER STONE AT TOE OF REVETMENT.
4. ARMOR STONE SHALL BE PLACED TO PROVIDE UNIFORM INTERLOCKED SURFACE.

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7	10.28.09	BJB
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STATE OF MAINE
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PROJECT: STONE PROPERTY
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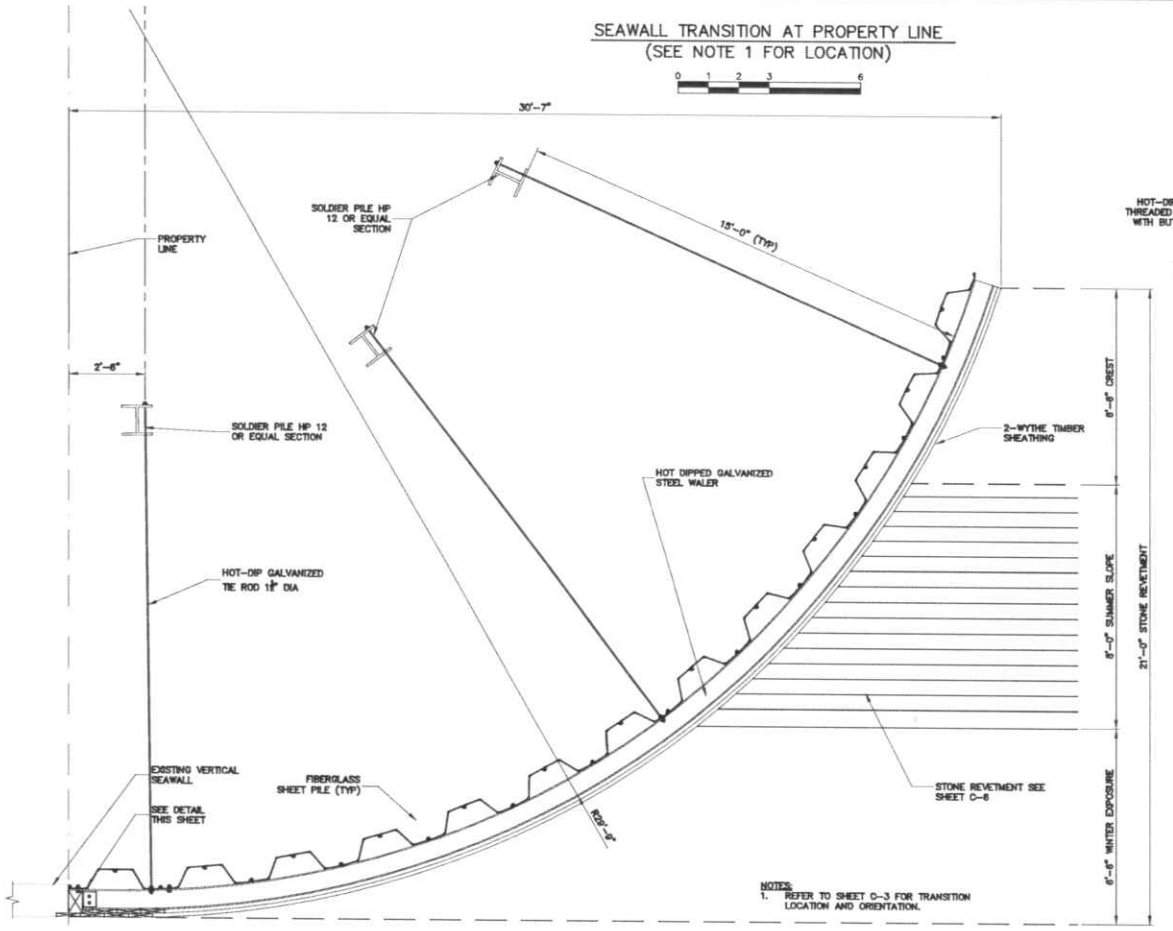
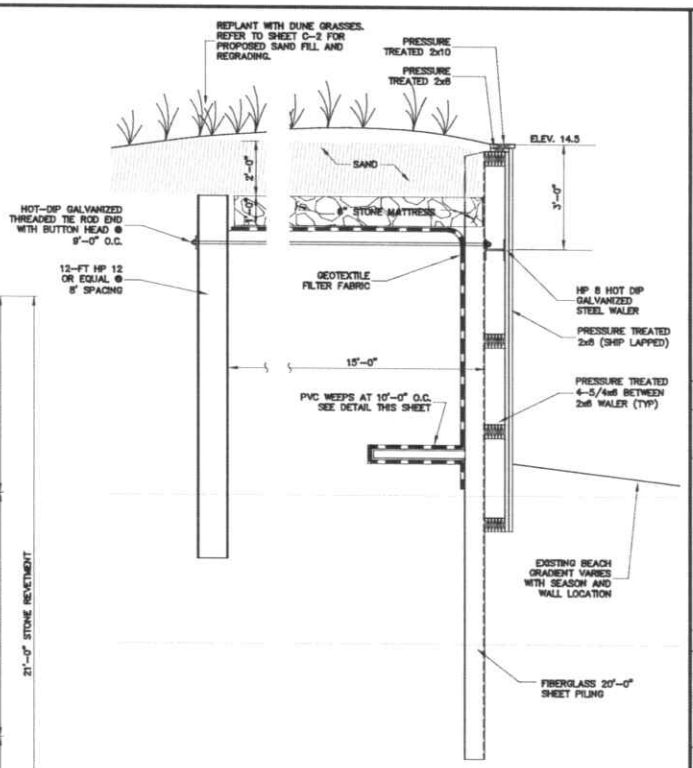
SEAWALL TRANSITION AT PROPERTY LINE
(SEE NOTE 1 FOR LOCATION)

0 1 2 3 6



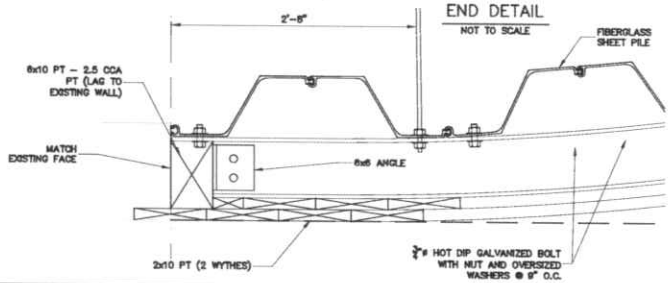
NOTES:
1. REFER TO SHEET C-3 FOR TRANSITION LOCATION AND ORIENTATION.

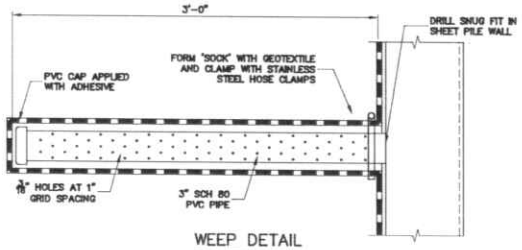


TRANSITION WALL TYPICAL SECTION

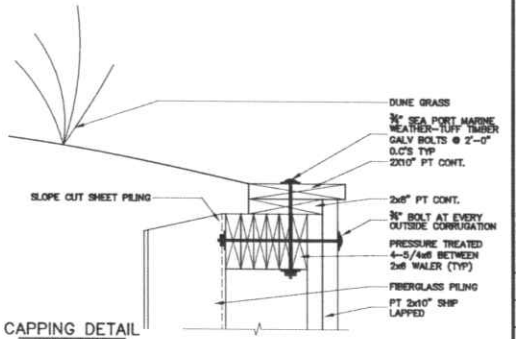
0 1.5 3 6

END DETAIL
NOT TO SCALE





WEEP DETAIL
NOT TO SCALE



CAPPING DETAIL
NOT TO SCALE

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BEACHFRONT PROTECTION
PROUTS NECK, SCARBOROUGH, MAINE

DATE: 5/31/07
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SHEET NO. C-7
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