



BORING LOG

BORING NO.: B-1
 SHEET: 2 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/7/2006
 DATE FINISH: 4/10/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18			18-24
									GRAY SILTY CLAY ~ SOFT ~ GRAY SILTY CLAY WITH BLACK STAINING BELOW 50 FEET ~ SOFT ~	
	10D	24"	24"	52.0'	WOR/24"					
	11D	24"	24"	72.0'	WOR/24"					

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

X
X

DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

3

BORING NO.: B-1



BORING LOG

BORING NO.: B-1
 SHEET: 3 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/7/2006
 DATE FINISH: 4/10/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS
 WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
										<p>GRAY SILTY CLAY WITH BLACK STAINING</p> <p>- SOFT -</p>
	12D	24"	24"	92.0'	WOR/24"					
									100.0'	
										<p>GRAY SILTY SAND AND GRAVEL WITH COBBLES AND BOULDERS (GLACIAL TILL)</p> <p>(PROBABLE BOULDER @ 104 FEET TO 106 FEET)</p> <p>-MEDIUM DENSE BECOMING ...</p> <p>...DENSE TO VERY DENSE~</p>
	13D	24"	10"	112.0'	10	10	15	20		

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

4

BORING NO.: B-1



BORING LOG

BORING NO.: B-1
 SHEET: 4 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/7/2006
 DATE FINISH: 4/10/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING: TYPE NW SIZE I.D. 3.0" HAMMER WT. 140 lbs HAMMER FALL 30"
 SAMPLER: SS 1 3/8" 140 lbs 30"
 CORE BARREL: _____

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER 5'				DEPTH	STRATA & TEST DATA
	NO.	PEN	REC.	DEPTH @ BOT	0-6	6-12	12-18		
	14D	14"	6"	121.2'	25	23	50/2"	125.0'	-DENSE TO VERY DENSE- GRAY SILTY SAND AND GRAVEL (GLACIAL TILL) WITH COBBLES AND BOULDERS
									PROBABLE BEDROCK - GRAY SULFIDIC SCHIST RQD = VERY POOR
	IR	60"	46"	130.0'				130.0'	BOTTOM OF EXPLORATION @ 130.0 FEET

SAMPLES: D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

<input type="checkbox"/>	DRILLER - VISUALLY
<input checked="" type="checkbox"/>	SOIL TECH. - VISUALLY
<input checked="" type="checkbox"/>	LABORATORY TEST

REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

5

BORING NO.: B-1



BORING LOG

BORING NO.: B-2
 SHEET: 1 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/10/2006
 DATE FINISH: 4/11/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS
 WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
									6"	BITUMINOUS ASPHALT PAVEMENT	
	1D	24"	12'	2.5'	6	16	26	19	1.5'	BROWN GRAVELLY SAND SOME SILT (BASE FILL) ~ DENSE ~ pH = 7.0	
	2D	24"	8"	4.5'	9	29	19	29	5.0'	DARK GRAY SANDY SILT SOME GRAVEL SOME BRICKS (FILL) ~ DENSE ~	
	3D	24"	10"	7.0'	3	4	4	3		BLACK MISCELLANEOUS FILL WITH SILT, GRAVEL, COBBLES, BRICKS, GLASS AND POSSIBLE ASH ~ LOOSE TO MEDIUM DENSE ~ pH = 7.9	
	4D	14"	10"	8.2'	4	10	50/2"				
	5D	24"	12"	12.0'	9	10	14	16	12.0'		
										GRAY SILTY CLAY WITH SEASHELLS (PROBABLE NATIVE GROUND SURFACE) ~ MEDIUM ~ qp = 1.0 KSF	
	6D	24"	16'	17.0'	5	2	2	2	17.0'		
										BROWN SILTY CLAY ~ STIFF ~ qp = 6.0 KSF	
	7D	24"	22"	22.0'	4	9	15	15	25.0'		
										GRAY SILTY CLAY ~ SOFT ~ qp < 0.5 KSF	
	8D	24"	24"	32.0'	WOR/24"						

SAMPLES: D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

6

BORING NO.: B-2



BORING LOG

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO. : GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

BORING NO.: B-2
 SHEET: 2 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/10/2006
 DATE FINISH: 4/11/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS
 WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING: TYPE NW SIZE I.D. 3.0" HAMMER WT. 140 lbs HAMMER FALL 30"
 SAMPLER: SS SIZE 1 3/8" WEIGHT 140 lbs FALL 30"
 CORE BARREL: _____

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18		
	9D	24"	24"	52.0'	WOR/24"				
	10D	24"	24"	72.0'	WOR/24"				

SAMPLES: D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

<input type="checkbox"/>	DRILLER - VISUALLY
<input checked="" type="checkbox"/>	SOIL TECH. - VISUALLY
<input checked="" type="checkbox"/>	LABORATORY TEST

REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(7)

BORING NO.: B-2



BORING LOG

BORING NO.: B-2
 SHEET: 3 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/10/2006
 DATE FINISH: 4/11/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18		
									GRAY SILTY CLAY WITH BLACK STAINING ~ SOFT ~
								85.0'	
									GRAY SILTY SAND AND GRAVEL (GLACIAL TILL) WITH COBBLES AND BOULDERS ~ MEDIUM DENSE BECOMING . . .
	11D	24"	22"	92.0'	25	17	11	23	
	12D	24"	16"	102.0'	20	19	17	22	W = 21.4% ... DENSE TO VERY DENSE~
									(PROBABLE BOULDER @ 108 TO 111 FEET)

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

8

BORING NO.: B-2



BORING LOG

BORING NO.: B-2
 SHEET: 4 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/10/2006
 DATE FINISH: 4/11/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: DONNIE BOLSTRIDGE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18		
	13D	1"	0"	120.1'	25/1"				(ROLLER-CONE THROUGH PROBABLE BOULDER @ 120 TO 122 FEET)
								123.0'	PROBABLE BEDROCK @ 123 FEET MADE TWO ATTEMPTS TO OBTAIN A ROCK CORE SAMPLE BOTH ATTEMPTS WERE UNSUCCESSFUL ROLLER-CONE INTO PROBABLE BEDROCK SURFACE 7 FEET
									BOTTOM OF EXPLORATION @ 130.0 FEET

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

9
 BORING NO.: B-2



BORING LOG

BORING NO.: B-3
 SHEET: 1 OF 3
 PROJECT NO.: 06-0124
 DATE START: 4/7/2006
 DATE FINISH: 4/7/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS
 WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: PETE MICHAUD

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
	1D	24"	4"	2.5'	5	7	9	13	6"	BITUMINOUS ASPHALT PAVEMENT	
									1.5'	BROWN GRAVELLY SAND SOME SILT (BASE FILL) ~ MEDIUM DENSE ~	
	2D	24'	3"	4.5'	4	4	5	5		BLACK MISCELLANEOUS FILL WITH SILT, GRAVEL, COBBLES, BRICKS, GLASS AND POSSIBLE ASH ~ LOOSE TO MEDIUM DENSE ~	
	3D	24"	6"	7.0'	3	1	5	3			
	4D	24"	10"	9.0'	5	7	8	7			
	5D	24'	8"	12.0'	6	8	7	8	13.0'		
	6D	24"	10"	14.0'	6	7	3	3			
	7D	24"	24"	17.0'	WOH/24"				18.0'		DARK GRAY SANDY SILT WITH SEASHELLS AND ORGANICS (PROBABLE NATIVE GROUND SURFACE) ~ SOFT ~
	VANE 2X4			20.5'	35/6					25.0'	BROWN SILTY CLAY ~ STIFF ~ Sv = 1.95/0.33 KSF Sv = 1.95/0.56 KSF
	VANE 2X4			21.0'	35/10						
	8D	24"	24"	27.0'	WOH/24"					25.0'	GRAY SILTY CLAY ~ SOFT ~ qp < 0.5 KSF
	1S	24"	24"	32.0'	HYDRAULIC PUSH						qu = 1.1 KSF w = 43.1% W _L = 42 W _p = 23

SAMPLES: D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

<input type="checkbox"/>	DRILLER - VISUALLY
<input checked="" type="checkbox"/>	SOIL TECH. - VISUALLY
<input checked="" type="checkbox"/>	LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.



BORING LOG

BORING NO.: B-3
 SHEET: 2 OF 3
 PROJECT NO.: 06-0124
 DATE START: 4/7/2006
 DATE FINISH: 4/7/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: PETE MICHAUD

WATER LEVEL INFORMATION
 SOILS SATURATED AT 6± FEET

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18			18-24
	VANE: 3.5X7			40.8'	50/15				Sv = 0.52 / 0.16 KSF Sv = 0.57 / 0.16 KSF	
	VANE: 3.5X7			41.6'	55/15					
									GRAY SILTY CLAY ~ SOFT ~	
	2S	24"	24"	52.0'	HYDRAULIC SAMPLE				qu = 1.0 KSF	w = 41.3% W _L = 42 W _p = 19
									GRAY SILTY CLAY ~ MEDIUM ~	
	VANE: 3.5X7			70.8'	74/3					
	VANE: 3.5X7			71.6'	88/2				Sv = 0.77 / 0.03 KSF Sv = 0.91 / 0.02 KSF	

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

<input type="checkbox"/>	DRILLER - VISUALLY
<input checked="" type="checkbox"/>	SOIL TECH. - VISUALLY
<input checked="" type="checkbox"/>	LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(11)

BORING NO.: B-3



BORING LOG

BORING NO.: B-3
 SHEET: 3 OF 3
 PROJECT NO.: 06-0124
 DATE START: 4/7/2006
 DATE FINISH: 4/7/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: PETE MICHAUD

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION
 SOILS SATURATED AT 6± FEET

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18		
									GRAY SILTY CLAY - MEDIUM -
								87.0'	
									GRAY SILTY SAND AND GRAVEL (GLACIAL TILL) - MEDIUM DENSE BECOMING ... (PROBABLE BOULDER @ 101 TO 106 FEET) ... DENSE TO VERY DENSE-
	9D	24"	18'	92.0'	5	6	7	9	
									(PROBABLE BOULDER @ 113.5 TO 115 FEET)
	10D	24"	12"	112.0'	13	15	40	60	
									117.0'
									124.5'
									PROBABLE BEDROCK @ 117 FEET ROLLER-CONE INTO PROBABLE BEDROCK SURFACE 7.5 FEET BOTTOM OF EXPLORATION @ 124.5 FEET

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(12)

BORING NO.: B-3



BORING LOG

BORING NO.: B-4
 SHEET: 1 OF 3
 PROJECT NO.: 06-0124
 DATE START: 4/26/2006
 DATE FINISH: 4/27/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS
 WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
									4"	BITUMINOUS ASPHALT PAVEMENT	
	1D	24"	15"	2.5'	6	15	22	21	1.0'	BROWN GRAVELLY SAND SOME SILT (BASE FILL) ~ MEDIUM DENSE ~ ~ MEDIUM DENSE BECOMING... DARK GRAY SILTY GRAVELLY SAND WITH WOOD, BRICK, AND COBBLES ... LOOSE ~	
	2D	24"	8"	4.5'	32	17	7	8			
	3D	24"	12"	7.0'	5	3	2	3			
	4D	24"	10"	9.0'	4	4	6	4	9.0'	BLACK MISCELANEOUS FILL WITH SILT, GRAVEL, COBBLES, BRICKS, GLASS AND POSSIBLE ASH ~ LOOSE TO MEDIUM DENSE ~	
	5D	24"	3"	12.0'	12	10	11	9	13.0'	DARK GRAY SILT AND FINE SAND WITH SEASHELLS AND ORGANICS (PROBABLE NATIVE GROUND SURFACE) ~ SOFT ~	
	6D	24"	18"	14.0'	6	4	4	4			
	7D	24"	18"	17.0'	WOH/24"					17.0'	MOTTLED BROWN SILTY CLAY ~ MEDIUM ~
									22.0'		
	8D	24"	24"	27.0'	WOR/24"						GRAY SILTY CLAY qp < 0.5 KSF ~ SOFT ~

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(13)

BORING NO.: B-4



BORING LOG

BORING NO.: B-4
 SHEET: 2 OF 3
 PROJECT NO.: 06-0124
 DATE START: 4/26/2006
 DATE FINISH: 4/27/2006
 ELEVATION: 11' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: JEFF LEE

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING BLOWS PER FOOT	SAMPLE			DEPTH @ BOT	SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO	PEN.	REC.		0-6	6-12	12-18	18-24		
										GRAY SILTY CLAY - SOFT - GRAY SILTY CLAY - SOFT -
	9D	24"	24'	52.0'	WOR/24"					
	10D	24"	24"	72.0'	WOR/24"					

SAMPLES: D = SPLIT SPOON C = 2" SHELBY TUBE S = 3" SHELBY TUBE U = 3.5" SHELBY TUBE	SOIL CLASSIFIED BY: <table border="1" style="display: inline-table;"> <tr><td style="width: 30px; height: 15px;"></td><td>DRILLER - VISUALLY</td></tr> <tr><td style="text-align: center;">X</td><td>SOIL TECH. - VISUALLY</td></tr> <tr><td style="width: 30px; height: 15px;"></td><td>LABORATORY TEST</td></tr> </table>		DRILLER - VISUALLY	X	SOIL TECH. - VISUALLY		LABORATORY TEST	REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.	<div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">14</div>
	DRILLER - VISUALLY								
X	SOIL TECH. - VISUALLY								
	LABORATORY TEST								
BORING NO.: <u>B-4</u>									



BORING LOG

BORING NO.: **B-4**
 SHEET: **3 OF 3**
 PROJECT NO.: **06-0124**
 DATE START: **4/26/2006**
 DATE FINISH: **4/27/2006**
 ELEVATION: **11' +/-**
 SWC REP.: **A. SIMMONS**
 WATER LEVEL INFORMATION
 SOILS SATURATED @ **6± FEET**

PROJECT / CLIENT: **PROPOSED OFFICE BUILDING / CAPITAL, LLC**
 LOCATION: **84 MARGINAL WAY, PORTLAND, MAINE**
 DRILLING CO.: **GREAT WORKS TEST BORINGS, INC.** DRILLER: **JEFF LEE**

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
									85.0'	GRAY SILTY CLAY ~ MEDIUM ~
	11D	24"	15"	87.0'	12	9	6	13	90.0'	GRAY SILTY FINE SAND ~ MEDIUM DENSE ~
										GRAY SILTY SAND AND GRAVEL (GLACIAL TILL) ~ DENSE ~
	12D	24"	10"	97.0'	27	24	18	13		(PROBABLE BOULDER @ 100 TO 101.5 FEET)
										~DENSE TO VERY DENSE~
										(PROBABLE BOULDER @ 104 TO 105 FEET)
										(FREQUENT COBBLES @ 106 TO 111 FEET)
	13D	11"	11"	115.9'	35	50/5"			118'	
	1R	60"	24"	123.0'				RQD = 0%	123.0'	PROBABLE BEDROCK - GRAY SULFIDIC SCHIST RQD = VERY POOR BOTTOM OF EXPLORATION @ 123.0 FEET

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:

<input type="checkbox"/>	DRILLER - VISUALLY
<input checked="" type="checkbox"/>	SOIL TECH. - VISUALLY
<input type="checkbox"/>	LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.



BORING LOG

BORING NO.: **B-5**
 SHEET: **1 OF 3**
 PROJECT NO.: **06-0124**
 DATE START: **4/27/2006**
 DATE FINISH: **4/28/2006**
 ELEVATION: **10' +/-**
 SWC REP.: **A. SIMMONS**

PROJECT / CLIENT: **PROPOSED OFFICE BUILDING / CAPITAL, LLC**
 LOCATION: **84 MARGINAL WAY, PORTLAND, MAINE**
 DRILLING CO.: **GREAT WORKS TEST BORINGS, INC.** DRILLER: **JEFF LEE**

WATER LEVEL INFORMATION
 SOILS SATURATED @ **6± FEET**

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
									6"	BITUMINOUS ASPHALT PAVEMENT	
	1D	24"	15"	2.5'	5	7	9	13	1.5'	BROWN GRAVELLY SAND SOME SILT (BASE FILL) ~ MEDIUM DENSE ~	
	2D	24"	8"	4.5'	4	4	5	5		BROWN GRAVELLY SAND WITH BRICKS AND COBBLES ~ LOOSE TO MEDIUM DENSE ~	
	3D	24"	2"	7.0'	3	1	5	3			
	4D	24"	15"	9.0'	5	7	8	7	8.0'		
	5D	24"	18"	12.0'	6	8	7	8	15.5'	BLACK MISCELANEOUS FILL WITH SILT, GRAVEL, COBBLES, BRICKS, GLASS AND POSSIBLE ASH ~ LOOSE TO MEDIUM DENSE ~	
	6D	24"	10"	17.0'	WOH/24"					20.0'	BROWN SILTY CLAY ~ STIFF ~ qp = 3 KSF
	7D	24"	24"	22.0'	WOH/12"		1/12"				GRAY SILTY CLAY ~ SOFT ~ qp < 0.5 KSF
	8D	24"	10"	32.0'	WOH/24"						

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.



BORING LOG

BORING NO.: **B-5**
 SHEET: **3 OF 3**
 PROJECT NO.: **06-0124**
 DATE START: **4/27/2006**
 DATE FINISH: **4/28/2006**
 ELEVATION: **10' +/-**
 SWC REP.: **A. SIMMONS**
 WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

PROJECT / CLIENT: **PROPOSED OFFICE BUILDING / CAPITAL, LLC**
 LOCATION: **84 MARGINAL WAY, PORTLAND, MAINE**
 DRILLING CO.: **GREAT WORKS TEST BORINGS, INC.** DRILLER: **JEFF LEE**

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	NW	3.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE			SAMPLER BLOWS PER FOOT				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18		
									GRAY SILTY CLAY ~ MEDIUM ~
								92.5'	
	10D	24"	15"	97.0'	6	11	10	11	GRAY SILTY FINE SAND (GLACIAL OUTWASH) ~ MEDIUM DENSE ~ DENSE @ 100±
								100.0'	
									GRAY GRAVELLY SILT AND SAND (GLACIAL TILL) ~ VERY DENSE ~ (PROBABLE BOULDER @ 114 TO 115.5 FEET)
	11D	15"	12"	106.3'	31	40	50/3"		
	12D	16"	15"	117.0'	37	50	50/4"		ROLLER-CONE INTO PROBABLE BEDROCK SURFACE 4.0 FEET BOTTOM OF EXPLORATION @ 123 FEET
								119.0'	
								123.0'	

SAMPLES: D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(18)

BORING NO.: **B-5**



BORING LOG

BORING NO.: B-6
 SHEET: 1 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/28/2006
 DATE FINISH: 5/1/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: WAYNE McPHERSON

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA	
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24			
	1D	12"	6"	1.5'	15	55			5"	BITUMINOUS ASPHALT PAVEMENT	
									5.5'	BROWN GRAVELLY SAND SOME SILT WITH BRICKS AND COBBLES ~ MEDIUM DENSE ~	
	2D	24"	10"	7.0'	9	5	8	14	8.5'	DARK BROWN GRAVELLY SILT AND SAND WITH BRICKS AND COBBLES ~ MEDIUM DENSE ~ pH = 7.3	
	3D	24"	10"	9.0'	10	16	14	50/4"			
	4D	24"	12"	12.0'	12	25	19	13	13.0'	pH = 7.2 BLACK MISCELANEOUS FILL WITH SILT, GRAVEL, COBBLES AND BRICKS ~ MEDIUM DENSE ~	
	5D	24"	24"	14.0'	12	8	8	8	14.5'	GRAY SILT WITH SEASHELLS (PROBABLE NATIVE GROUND SURFACE)	
	6D	24"	24"	17.0'	5	5	6	6	19.0'	BROWN SILTY CLAY qp = 3 KSF ~ STIFF ~	
	7D	24"	24"	22.0'	WOR/24"						GRAY SILTY CLAY qp < 0.5 KSF ~ SOFT ~
	8D	24"	24"	32.0'	WOR/24"						GRAY SILTY CLAY ~ SOFT ~

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.



BORING LOG

BORING NO.: B-6
 SHEET: 2 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/28/2006
 DATE FINISH: 5/1/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS
 WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: WAYNE McPHERSON

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
										GRAY SILTY CLAY ~ SOFT ~
	9D	24"	24"	52.0'	WOR/24"					

SAMPLES: D = SPLIT SPOON C = 2" SHELBY TUBE S = 3" SHELBY TUBE U = 3.5" SHELBY TUBE	SOIL CLASSIFIED BY: <input type="checkbox"/> DRILLER - VISUALLY <input checked="" type="checkbox"/> SOIL TECH. - VISUALLY <input type="checkbox"/> LABORATORY TEST	REMARKS: STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.	20
			BORING NO.: <u>B-6</u>



BORING LOG

BORING NO.: B-6
 SHEET: 3 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/28/2006
 DATE FINISH: 5/1/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: WAYNE McPHERSON

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING BLOWS PER FOOT	SAMPLE			DEPTH @ BOT	SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.		0-6	6-12	12-18	18-24		
									88.0'	GRAY SILTY CLAY WITH BLACK STAINING ~ SOFT ~
	10D	24"	12"	92.0'	15	21	22	20	95.0'	GRAY SILTY FINE SAND, TRACE GRAVEL W = 20.2% ~ DENSE ~
	11D	24"	12"	102.0'	34	22	31	65		GRAY SILTY SAND AND GRAVEL WITH COBBLES AND BOULDERS (GLACIAL TILL) ~ VERY DENSE ~
	12D	6"	6"	110.5'	115					(PROBABLE BOULDER @ 108 FEET TO 110 FEET) W = 10.2% ~ VERY DENSE ~

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:
 STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.

(21)

BORING NO.: B-6



BORING LOG

BORING NO.: B-6
 SHEET: 4 OF 4
 PROJECT NO.: 06-0124
 DATE START: 4/28/2006
 DATE FINISH: 5/1/2006
 ELEVATION: 10' +/-
 SWC REP.: A. SIMMONS

PROJECT / CLIENT: PROPOSED OFFICE BUILDING / CAPITAL, LLC
 LOCATION: 84 MARGINAL WAY, PORTLAND, MAINE
 DRILLING CO.: GREAT WORKS TEST BORINGS, INC. DRILLER: WAYNE McPHERSON

	TYPE	SIZE I.D.	HAMMER WT.	HAMMER FALL
CASING:	HW	4.0"	140 lbs	30"
SAMPLER:	SS	1 3/8"	140 lbs	30"
CORE BARREL:				

WATER LEVEL INFORMATION
 SOILS SATURATED @ 6± FEET

CASING BLOWS PER FOOT	SAMPLE				SAMPLER BLOWS PER 6"				DEPTH	STRATA & TEST DATA
	NO.	PEN.	REC.	DEPTH @ BOT	0-6	6-12	12-18	18-24		
	13D	3"	3"	120.3'	50/3"					GRAY SILTY SAND AND GRAVEL WITH COBBLES AND BOULDERS (GLACIAL TILL) - VERY DENSE -
									139.0'	(WASH WATER CHANGED COLOR TO A LIGHTER GRAY)
									143.0'	PROBABLE WEATHERED BEDROCK
									147.0'	PROBABLE BEDROCK @ 143.0 FEET ROLLER-CONE INTO PROBABLE BEDROCK 4.0 FEET
										BOTTOM OF EXPLORATION @ 147.0 FEET

SAMPLES:
 D = SPLIT SPOON
 C = 2" SHELBY TUBE
 S = 3" SHELBY TUBE
 U = 3.5" SHELBY TUBE

SOIL CLASSIFIED BY:
 DRILLER - VISUALLY
 SOIL TECH. - VISUALLY
 LABORATORY TEST

REMARKS:

STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY BETWEEN SOIL TYPES AND THE TRANSITION MAY BE GRADUAL.



KEY TO THE NOTES & SYMBOLS **Test Boring and Test Pit Explorations**

All stratification lines represent the approximate boundary between soil types and the transition may be gradual.

Key to Symbols Used:

w	-	water content, percent (dry weight basis)
q _u	-	unconfined compressive strength, kips/sq. ft. - based on laboratory unconfined compressive test
S _v	-	field vane shear strength, kips/sq. ft.
L _v	-	lab vane shear strength, kips/sq. ft.
q _p	-	unconfined compressive strength, kips/sq. ft. based on pocket penetrometer test
O	-	organic content, percent (dry weight basis)
W _L	-	liquid limit - Atterberg test
W _P	-	plastic limit - Atterberg test
WOH	-	advance by weight of hammer
WOM	-	advance by weight of man
WOR	-	advance by weight of rods
HYD	-	advance by force of hydraulic piston on drill
RQD	-	Rock Quality Designator - an index of the quality of a rock mass. RQD is computed from recovered core samples.
γ _T	-	total soil weight
γ _B	-	buoyant soil weight

Description of Proportions:

0 to 5% TRACE
5 to 12% SOME
12 to 35% "Y"
35+% AND

REFUSAL: Test Boring Explorations - Refusal depth indicates that depth at which, in the drill foreman's opinion, sufficient resistance to the advance of the casing, auger, probe rod or sampler was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

REFUSAL: Test Pit Explorations - Refusal depth indicates that depth at which sufficient resistance to the advance of the backhoe bucket was encountered to render further advance impossible or impracticable by the procedures and equipment being used.

Although refusal may indicate the encountering of the bedrock surface, it may indicate the striking of large cobbles, boulders, very dense or cemented soil, or other buried natural or man-made objects or it may indicate the encountering of a harder zone after penetrating a considerable depth through a weathered or disintegrated zone of the bedrock.



Report of Gradation

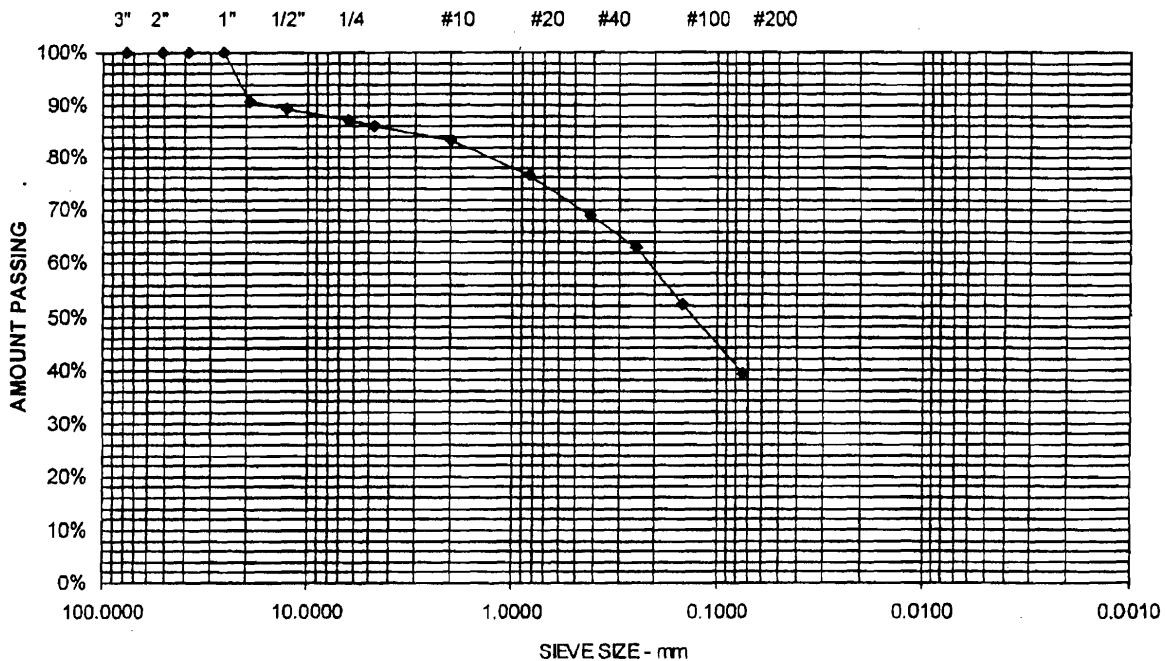
ASTM C-117 & C-136

Project Name PORTLAND - 84 MARGINAL WAY - 9 STORY BUILDING -
 GEOTECHNICAL ENGINEERING SERVICES
 Client CAPITAL LLC
 Exploration B-2 12D
 Material Source 100'-102'

Project Number 06-0124
 Lab ID 4966G
 Date Received 5/3/2006
 Date Complete 5/4/2006
 Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	91	
12.5 mm	1/2"	89	
6.3 mm	1/4"	87	
4.75 mm	No. 4	86	13.9% Gravel
2.00 mm	No. 10	83	
850 μm	No. 20	77	
425 μm	No. 40	69	47% Sand
250 μm	No. 60	63	
150 μm	No. 100	52	
75 μm	No. 200	39.0	39% Fines

SAND AND SILT, SOME GRAVEL (TILL)



Comments: w = 21.4%



Report of Gradation

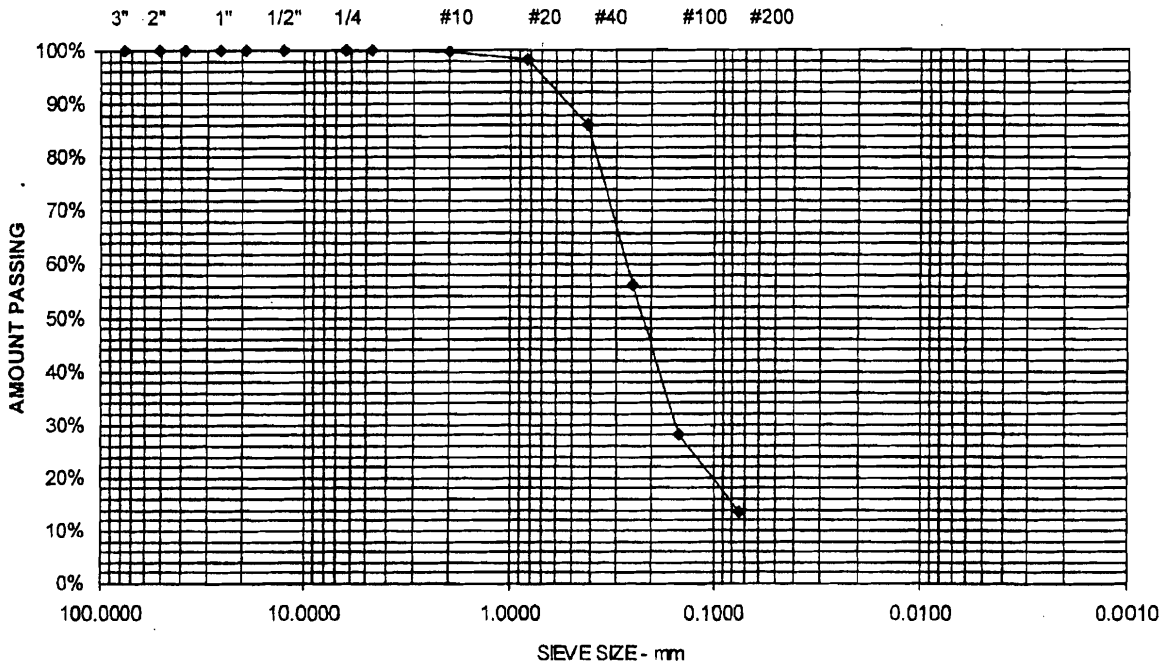
ASTM C-117 & C-136

Project Name PORTLAND - 84 MARGINAL WAY - 9 STORY BUILDING -
 GEOTECHNICAL ENGINEERING SERVICES
 Client CAPITAL LLC
 Exploration B-6 10D
 Material Source 90'-92'

Project Number 06-0124
 Lab ID 4967G
 Date Received 5/3/2006
 Date Complete 5/4/2006
 Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/μm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	100	
19.0 mm	3/4"	100	
12.5 mm	1/2"	100	
6.3 mm	1/4"	100	
4.75 mm	No. 4	100	0.1% Gravel
2.00 mm	No. 10	100	
850 μm	No. 20	98	
425 μm	No. 40	86	86.3% Sand
250 μm	No. 60	56	
150 μm	No. 100	28	
75 μm	No. 200	13.6	13.6% Fines

SILTY SAND, TRACE GRAVEL



Comments: w = 20.2%



Report of Gradation

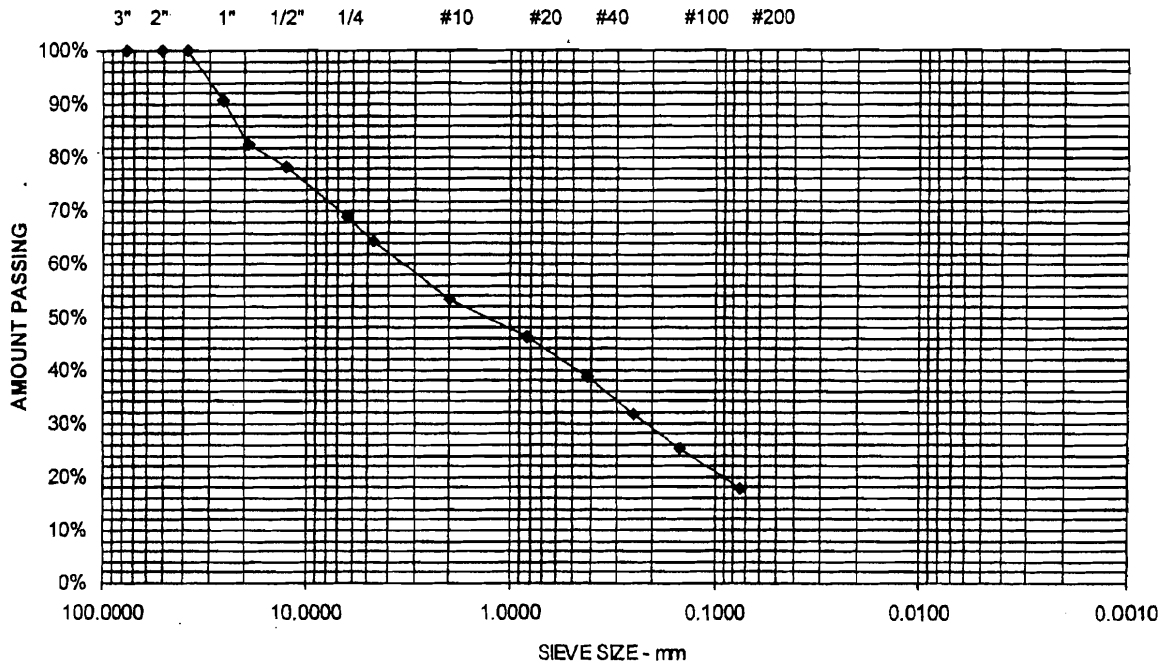
ASTM C-117 & C-136

Project Name PORTLAND - 84 MARGINAL WAY - 9 STORY BUILDING -
 GEOTECHNICAL ENGINEERING SERVICES
 Client CAPITAL LLC
 Exploration B-6 12D
 Material Source 110'-110.5'

Project Number 06-0124
 Lab ID 4968G
 Date Received 5/3/2006
 Date Complete 5/4/2006
 Tested By JUSTIN BISSON

<u>STANDARD DESIGNATION (mm/µm)</u>	<u>SIEVE SIZE</u>	<u>AMOUNT PASSING (%)</u>	
150 mm	6"	100	
125 mm	5"	100	
100 mm	4"	100	
75 mm	3"	100	
50 mm	2"	100	
38.1 mm	1-1/2"	100	
25.0 mm	1"	91	
19.0 mm	3/4"	82	
12.5 mm	1/2"	78	
6.3 mm	1/4"	69	
4.75 mm	No. 4	64	35.6% Gravel
2.00 mm	No. 10	54	
850 µm	No. 20	46	
425 µm	No. 40	39	46.5% Sand
250 µm	No. 60	32	
150 µm	No. 100	25	
75 µm	No. 200	17.9	17.9% Fines

SILTY SAND AND GRAVEL (TILL)



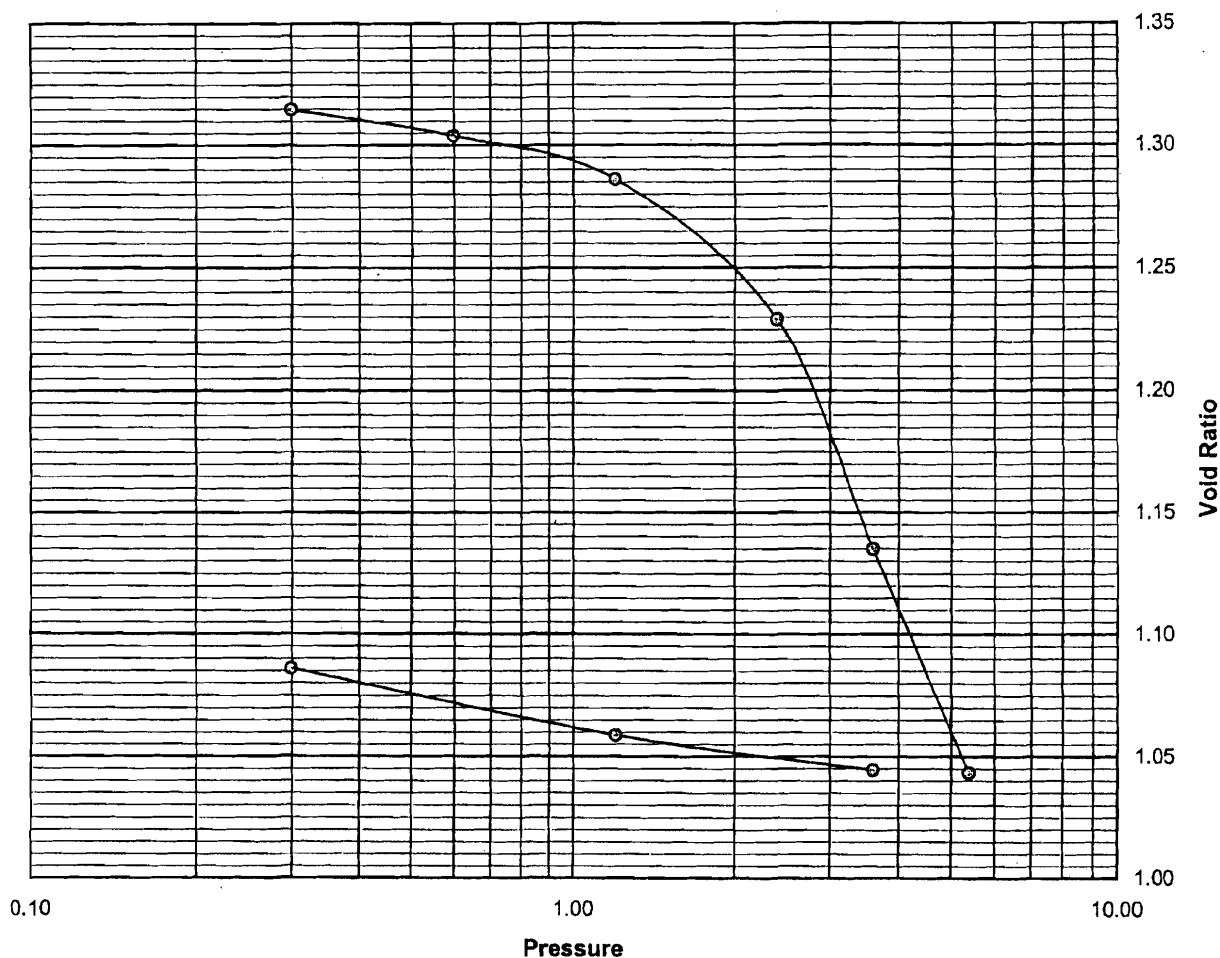
Comments: w = 10.2%

Project Name Proposed Office and Parking Garage Structure
Client Capital, LLC

Project Number 06-0124
Lab ID 5535B
Date 5/16/2006

Boring B-3
Sample 1U
Depth 30-32'

Pc =	1.9 ksf
Cc =	0.4
Cr =	0.03
W =	43.1%
WL =	42
WP =	23



Comments:

Reviewed By

Consolidation Test

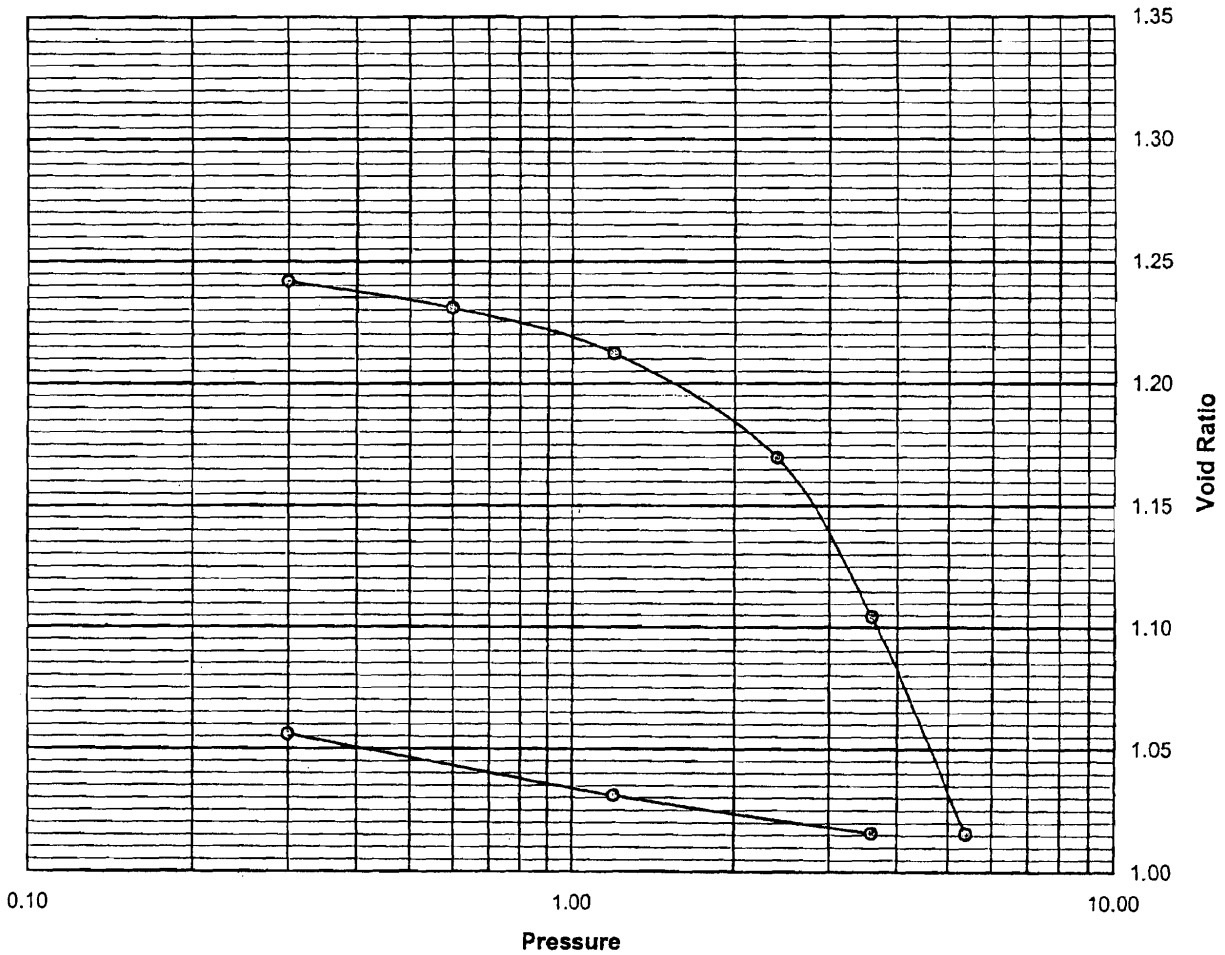
ASTM D-4767

Project Name Proposed Office and Parking Garage Structure
Client Capital, LLC

Project Number 06-0124
Lab ID 5536B
Date 5/16/2006

Boring B-3
Sample 2U
Depth 50-52'

Pc =	2.4 ksf
Cc =	0.6
Cr =	0.025
W =	43.6%
WL =	42
WP =	21



Comments:

Reviewed By _____

Project: 84 Marginal Way, Portland, Maine
Date Prepared: 3/5/2007

Structural Statement of Special Inspections

Project: 84 Marginal Way
Location: Marginal Way and Preble Streets, Portland, Maine
Owner: Capital, LLC

This Statement of Special Inspections encompass the following discipline: **Structural (Foundation)**

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Structural Special Inspection Coordinator (SSIC) and the identity of other approved agencies to be retained for conducting these inspections and tests.

The Structural Special Inspection Coordinator shall keep records of all Structural inspections and shall furnish inspection reports to the Building Code Official (BCO) and the Structural Registered Design Professional in Responsible Charge (SRDP). Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Structural Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Structural Registered Design Professional in Responsible Charge at an interval determined by the SSIC and the BCO.

A Final Report of Special Inspections documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted to the BCO prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim Report Frequency: Upon request of Building Official _____ or per attached schedule.

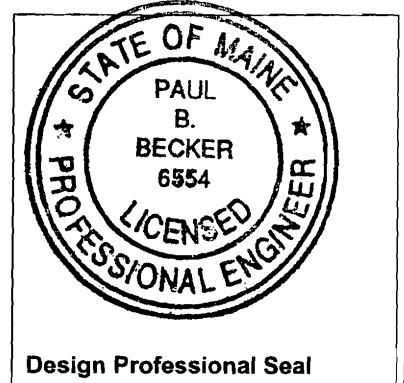
Prepared by:

Paul B Becker, P.E., Becker Structural Engineers
(type or print name of the Structural Registered Design Professional in Responsible Charge)

Signature

Date

3.9.07



Owner's Authorization:

Building Code Official's Acceptance:

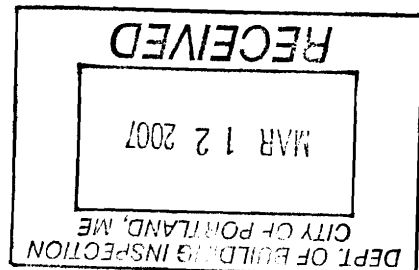
Signature

Date

Signature

Date

James G. Kelly
3/9/08



Project: 84 Marginal Way, Portland, Maine
Date Prepared: 3/5/2007

Structural Statement of Special Inspections (Continued)

List of Agents

Project: 84 Marginal Way

Location: Marginal Way and Preble Streets, Portland, Maine

Owner: Capital, LLC

This Statement of Special Inspections encompass the following discipline: **Structural (Foundation)**

(Note: Statement of Special Inspections for other disciplines may be included under a separate cover)

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

- Soils and Foundations
- Cast-in-Place Concrete
- Precast Concrete System
- Masonry Systems
- Structural Steel
- Wood Construction
- Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. STRUCTURAL Special Inspections Coordinator (SSIC)	<i>Becker Structural Engineers</i>	<i>75 York Street Portland, Maine 04101 (207) 879-1838 paul@beckerstructural.com</i>
2. Special Inspector (SI 1)	<i>Becker Structural Engineers</i>	<i>same</i>
3. Special Inspector (SI 2)	<i>S. W. Cole Engineering</i>	<i>286 Portland Road Gray, Maine 04039 (207) 657-2866 pkohler@swcole.com</i>
4. Testing Agency (TA 1)	<i>S. W. Cole Engineering</i>	<i>same</i>
5. Testing Agency (TA 2)		
6. Other (O1)		

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Project: 84 Marginal Way, Portland, Maine
Date Prepared: 3/5/2007

Structural Statement of Special Inspections (Continued)

Final Report of Special Inspections (SSIC/SI 1)

[To be completed by the Structural Special Inspections Coordinator (SSIC/SI 1). Note that all Agent's Final Reports must be received prior to issuance.]

Project: *84 Marginal Way*
Location: *Marginal Way and Preble Streets, Portland, Maine*
Owner: *Capital, LLC*
Owner's Address:

Architect of Record: *Judy Johnson* *Harriman Associates*
(name) (firm)

Structural Registered Design Professional in Responsible Charge: *Paul B. Becker, P. E.* *Becker Structural Engineers*
(name) (firm)

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

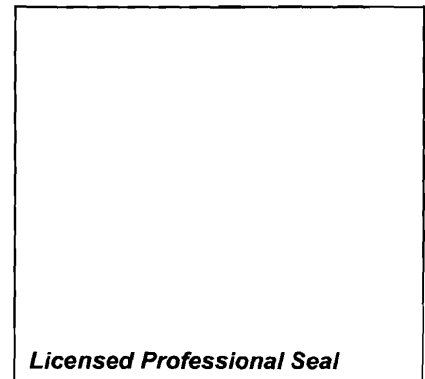
Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Structural Special Inspection Coordinator

(Type or print name)

(Firm Name)

Signature Date



Project: 84 Marginal Way, Portland, Maine
Date Prepared: 3/5/2007

Structural Statement of Special Inspections (Continued)

Special Inspector's/Agent's Final Report

Project:

Special Inspector or
Agent:

(name)

(firm)

Designation:

To the best of my information, knowledge and belief, the Special Inspections or testing required for this project, and designated for this Inspector/Agent in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Special Inspector or Agent:

(Type or print name)

Signature

Date

**Licensed Professional Seal or
Certification Number**

Structural Schedule of Special Inspections

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided to the Special Inspector for their records. *NOTE VERIFICATION THAT QUALIFIED INDIVIDUALS ARE AVAILABLE TO PERFORM STIPULATED TESTING AND/OR INSPECTION SHOULD BE PROVIDED PRIOR TO SUBMITTING STATEMENT. AGENT QUALIFICATIONS IN SCHEDULE ARE SUGGESTIONS ONLY; FINAL QUALIFICATIONS ARE SUBJECT TO THE DISCRETION OF THE REGISTERED DESIGN PROFESSIONAL PREPARING THE SCHEDULE.*

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge or Special Inspector of Record deems it appropriate that the individual performing a stipulated test or inspection have a specific certification, license or experience as indicated below, such requirement shall be listed below and shall be clearly identified within the schedule under the Agent Qualification Designation.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

Experienced Testing Technician

ETT	Experienced Testing Technician – An Experienced Testing Technician with a minimum 5 years experience with the stipulated test or inspection
-----	---

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
------	---

International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Other

Structural Schedule of Special Inspections
SOILS & FOUNDATION CONSTRUCTION

VERIFICATION AND INSPECTION	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
IBC Section 1704.7, 1704.8, 1704.9						
1. Verify existing soil conditions, fill placement and load bearing requirements						
a. Prior to placement of prepared fill, determine that the site has been prepared in accordance with the approved soils report.	Y	P	IBC 1704.7.1	TA1	PE/GE, EIT or ETT	
b. During placement and compaction of fill material, verify material being used and maximum lift thickness comply with the approved soils report.	Y	P	IBC 1704.7.2	TA1	PE/GE, EIT or ETT	
c. Test in-place dry density of compacted fill complies with the approved soils report.	Y	p	IBC 1704.7.2	TA1	PE/GE, EIT or ETT	
2. Pile foundations:						
a. Observe and record procedures for static load testing of piles.	Y	C	IBC 1704.8	TA1	PE/GE, EIT or ETT	
b. Observe and record procedures for dynamic load testing of piles.	Y	C		TA1	PE/GE, EIT or ETT	
c. Record installation of each pile and results of load test. Include cutoff and tip elevations of each pile relative to permanent reference.	Y	C		TA1	PE/GE, EIT or ETT	
d. Test welded splices of steel piles	Y	C	AWS D1.1	TA1	AWS-CWI	
3. Pier foundations: Verify installation of pier foundations for buildings assigned to Seismic Design Category C, D, E or F.	NA	N				
a. Verify pier diameter and length	NA	N				
b. Verify pier embedment (socket) into bedrock	NA	N				
c. Verify suitability of end bearing strata	NA	N				

Structural Schedule of Special Inspections

CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
IBC Section 1704.4						
1. Inspection of reinforcing steel, including prestressing tendons, and placement	Y	P	ACI 318: 3.5, 7.1-7.7	SII	PE/SE or EIT	
2. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5B	N	N	Welding of Reinf Not Allowed			
3. Inspect bolts to be installed in concrete prior to and during placement of concrete where allowable loads have been increased	Y	C	IBC 1912.5	SII	PE/SE or EIT	
4. Verifying use of required design mix	Y	P	ACI 318: Ch 4, 5.2-5.4	TAI	ACI-CFTT or ACI-STT	
5. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature	Y	C	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	TAI	ACI-CFTT or ACI-STT	
6. Inspection of concrete and shotcrete placement for proper application techniques	Y	C	ACI 318: 5.9, 5.10	SII	PE/SE or EIT	
7. Inspection for maintenance of specified curing temperature and techniques	Y	P	ACI 318: 5.11-5.13	SII	PE/SE or EIT	
8. Inspection of Prestressed Concrete						
a. Application of prestressing force.	N	N				
b. Grouting of bonded prestressing tendons in seismic force resisting system	N	N				
9. Erection of precast concrete members	Y	P	ACI 318: Ch 16	SII	PE/SE or EIT	
10. Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms beams and structural slabs	N	N				

Structural Schedule of Special Inspection Services

FABRICATION AND IMPLEMENTATION PROCEDURES – PRECAST CONCRETE PLANK

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Fabrications Procedures: Review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. -OR- 2. PCI Certification	Y	S	Fabricator shall submit one of the two qualifications	SII	PE/SE or EIT	
3. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents.	Y	S	IBC 1704.2.2	SII	PE/SE or EIT	

Quality Assurance Plan – Seismic and Wind

QUALITY ASSURANCE FOR SEISMIC RESISTANCE CHECK LIST [IBC 1705]

Seismic Design Category **C**

FOR SEISMIC DESIGN CATEGORY C OR HIGHER:

Structural:

- The seismic-force-resisting systems
 - Steel Braced Frames and associated connections/anchorage
 - Steel Moment Frames and associated connections
- Shear walls: CMU Wood Concrete
- Diaphragms: Floor Roof
- Other:

QUALITY ASSURANCE FOR WIND RESISTANCE CHECK LIST [IBC 1706]

Wind Exposure Category **C**

REQUIRED	NOT REQUIRED	NOT APPLICABLE	QUALITY ASSURANCE PLAN REQUIREMENTS (A Quality Assurance Plan is required where indicated below)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	In wind exposure Categories A and B, where the 3-second-gust basic wind speed is 120 miles per hour (mph) (52.8 m/sec) or greater.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	In wind exposure Categories C and D, where the 3-second-gust basic wind speed is 110 mph (49 m/sec) or greater.

Prepared by:

Building Code Official's Acceptance:

Signature

Date

Signature

Date

CLOSING STATEMENT

PROPERTY: 84 Marginal Way, Portland, Maine
SELLER: City of Portland
BUYER ONE: Capital LLC
BUYER TWO: Southern Maine Student Housing, LLC
CLOSING DATE: January 30, 2007

SELLER'S TRANSACTION:

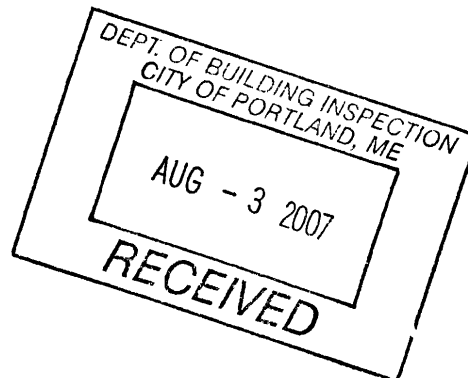
<u>Sale Price:</u>			\$1,067,730.00
<u>Less:</u>			
	Earnest Money Deposit	\$ 50,000.00	
	Total Deductions		\$ (50,000.00)
	TOTAL RECEIVED BY SELLER:		\$1,017,730.00

BUYER ONE's TRANSACTION:

<u>Purchase Price:</u>			\$ 433,865.00
<u>Less:</u>			
	Earnest Money Deposit	\$ 25,000.00	
	Total Deductions:		\$ (25,000.00)
<u>Plus:</u>			
	Recording Fee (Deed, Cross Easement)	\$ 66.00	
	Foundation Permit Fee	\$ 26,000.00	
	Title Insurance Premium	\$ 1,519.00	
	1/2 Transfer Tax	\$ 954.80	
	Total Additions:		\$ 28,539.80
	TOTAL DUE FROM BUYER ONE:		\$ 437,404.80

BUYER TWO's TRANSACTION:

<u>Purchase Price:</u>			\$ 633,865.00
<u>Less:</u>			
	Earnest Money Deposit	\$ 25,000.00	
	Total Deductions:		\$ (25,000.00)



Plus:

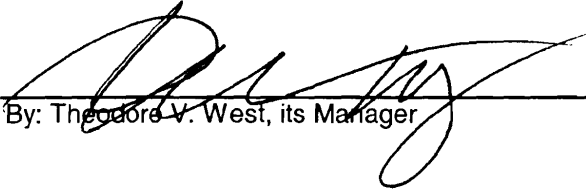
Recording Fee (Deed, Mortgage)	\$	76.00
Mitchell & Associates Payoff	\$	58,412.20
Legal Fees	\$	30,261.65
CWS	\$	64,999.13
Title Insurance Premium	\$	2,030.00
Reimb to Capital LLC for abstracting/loan prep costs	\$	2,170.25
1/2 Transfer Tax	\$	1,394.80
Total Additions:		<u>\$ 159,344.03</u>
TOTAL DUE FROM BUYER TWO:		\$ 768,209.03


CHECKS TO BE ISSUED:

Cumberland County Registry of Deeds	\$	2,491.60
Monument Title Company	\$	1,519.00
Classic Title Company	\$	2,030.00
Capital LLC	\$	2,170.25
Drummond Woodsum	\$	30,261.65
CWS	\$	64,999.13
Mitchell & Associates	\$	58,412.20
City of Portland (Capital foundation permit)	\$	26,000.00
City of Portland (purchase price)		<u>\$1,017,730.00</u>
Total		\$1,205,613.83

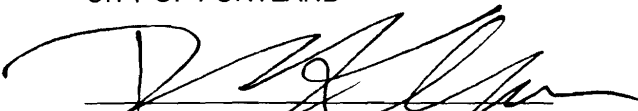
CAPITAL LLC

SOUTHERN MAINE STUDENT HOUSING, LLC


By: Theodore V. West, its Manager


Joseph M. Cloutier, its Manager
William P. Peorse Jr.

CITY OF PORTLAND


By: Duane G. Kline, its Director of Finance



84 Marginal Way MOB

Transmittal 00035

06/18/07

Transmittal To

Transmittal From

Jeanie Bourke
 City of Portland
 389 Congress St. Rm 315
 Portland, MAINE 04101

Seth Bickford
 Pizzagalli Construction Company
 84 Marginal Way
 Portland, MAINE 04101

T: 874-8715

F:

T:

F:

WE ARE SENDING:		SUBMITTED FOR:		ACTION TAKEN:	
<input type="checkbox"/> Shop Drawings	<input type="checkbox"/> Letter	<input type="checkbox"/> Approval		<input type="checkbox"/> Approved as Submitted	
<input type="checkbox"/> Prints	<input type="checkbox"/> Change Order	<input checked="" type="checkbox"/> Your Use		<input type="checkbox"/> Approved as Noted	
<input type="checkbox"/> Plans	<input type="checkbox"/> Specifications	<input type="checkbox"/> As Requested		<input type="checkbox"/> Returned After Loan	
<input type="checkbox"/> Samples		<input type="checkbox"/> Review and Comment		<input type="checkbox"/> Resubmit	
<input checked="" type="checkbox"/> Other:				<input type="checkbox"/> Submit	
Reference:		SENT VIA:		<input type="checkbox"/> Returned	
		<input checked="" type="checkbox"/> Attached		<input type="checkbox"/> Returned for Corrections	
		<input type="checkbox"/> Separate Cover Via:		<input type="checkbox"/> Due Date:	

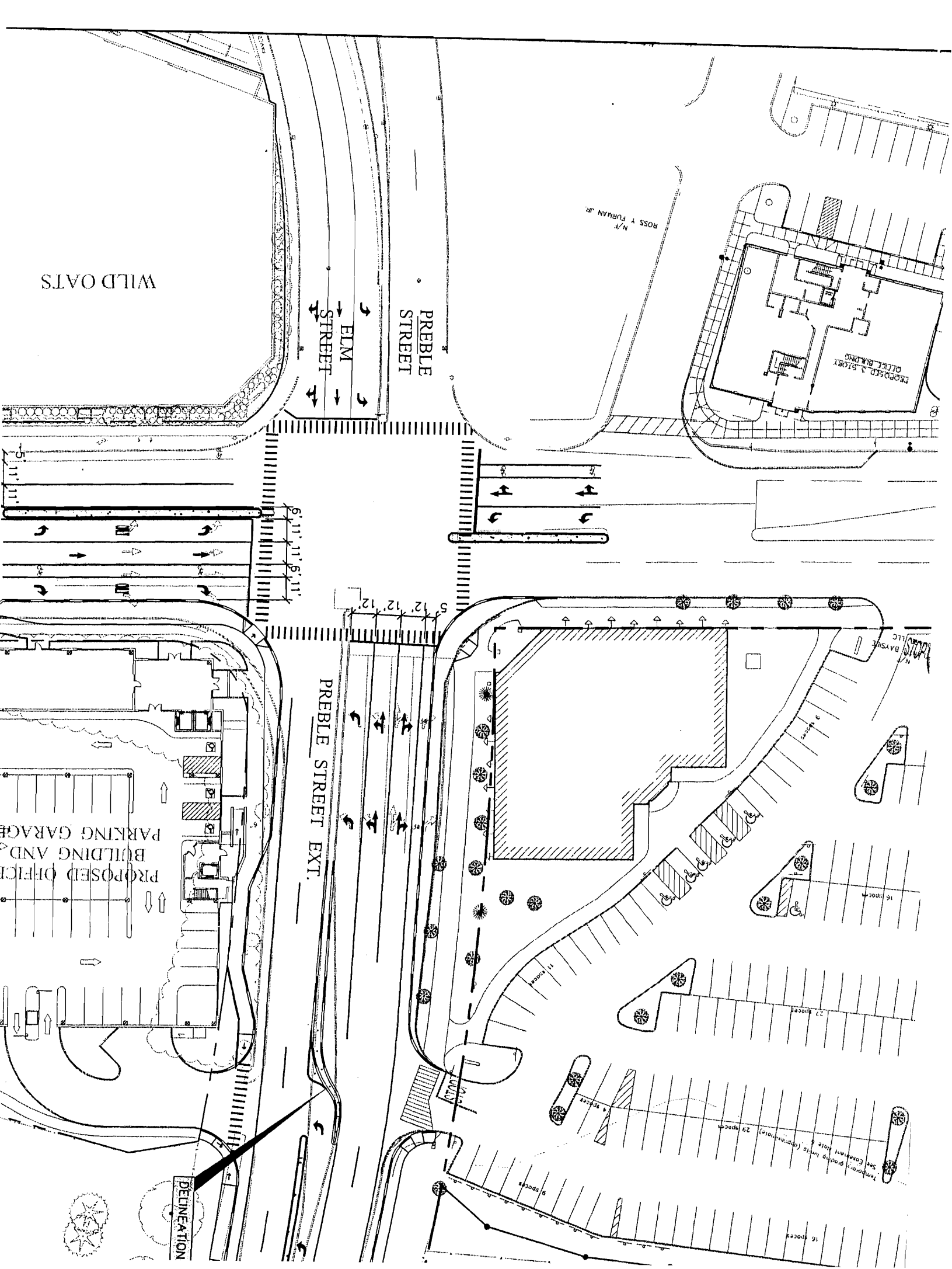
Remarks

Please find the attached PDA test report for test piles for the 84 Marginal Way Project.

34 AB001

CC: File

Signed: _____
 Seth Bickford



84 MARGINAL WAY

PORTLAND, MAINE

BUILDING DOCUMENTS

10% DESIGN DEVELOPMENT
February 23, 2007

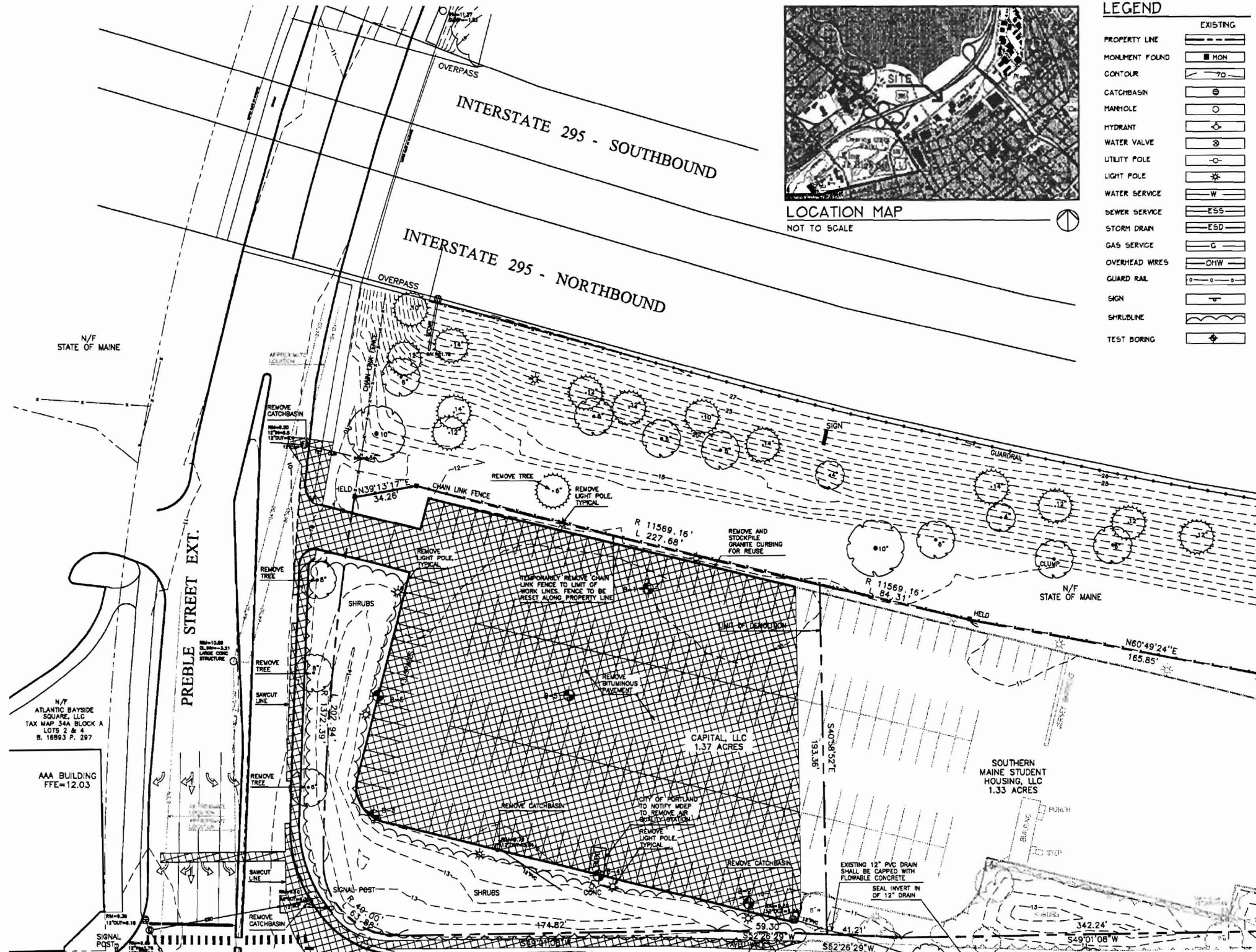


pizzagalli
construction company



LEGEND

	EXISTING
PROPERTY LINE	---
MONUMENT FOUND	■ MON
CONTOUR	--- 70 ---
CATCHBASIN	⊙
MANHOLE	○
HYDRANT	⊕
WATER VALVE	⊗
UTILITY POLE	○
LIGHT POLE	⊛
WATER SERVICE	—W—
SEWER SERVICE	—ESS—
STORM DRAIN	—ESD—
GAS SERVICE	—G—
OVERHEAD WIRES	—OHW—
GUARD RAIL	—o—o—o—
SIGN	⊠
SHRUBLINE	~
TEST BORING	⊕



N/F ATLANTIC BAYSIDE SQUARE, LLC
TAX MAP 34A BLOCK A
LOTS 2 & 4
B. 18893 P. 297

AAA BUILDING
FFE=12.03

CAPITAL, LLC
1.37 ACRES

SOUTHERN MAINE STUDENT HOUSING, LLC
1.33 ACRES

EXISTING 12" PVC DRAIN SHALL BE CAPPED WITH FLOWABLE CONCRETE
SEAL INVERT IN OF 12" DRAIN

PREBLE STREET EXT.

INTERSTATE 295 - SOUTHBOUND

INTERSTATE 295 - NORTHBOUND

N/F STATE OF MAINE

N/F STATE OF MAINE

SIGNAL POST

REMOVE CATCHBASIN

SIGNAL POST

SHRUBS

174.82

59.30

562'26" W

549'01" 08" W

342.24'

EXISTING 12" PVC DRAIN SHALL BE CAPPED WITH FLOWABLE CONCRETE
SEAL INVERT IN OF 12" DRAIN

BUILDING AVERAGE GRADE

11.85
10.87
11.94
10.58
9.95
13.05
11.00
+ 13.05
92.29

92.29/B-11.54

STORM DRAIN AND SANITARY STRUCTURES

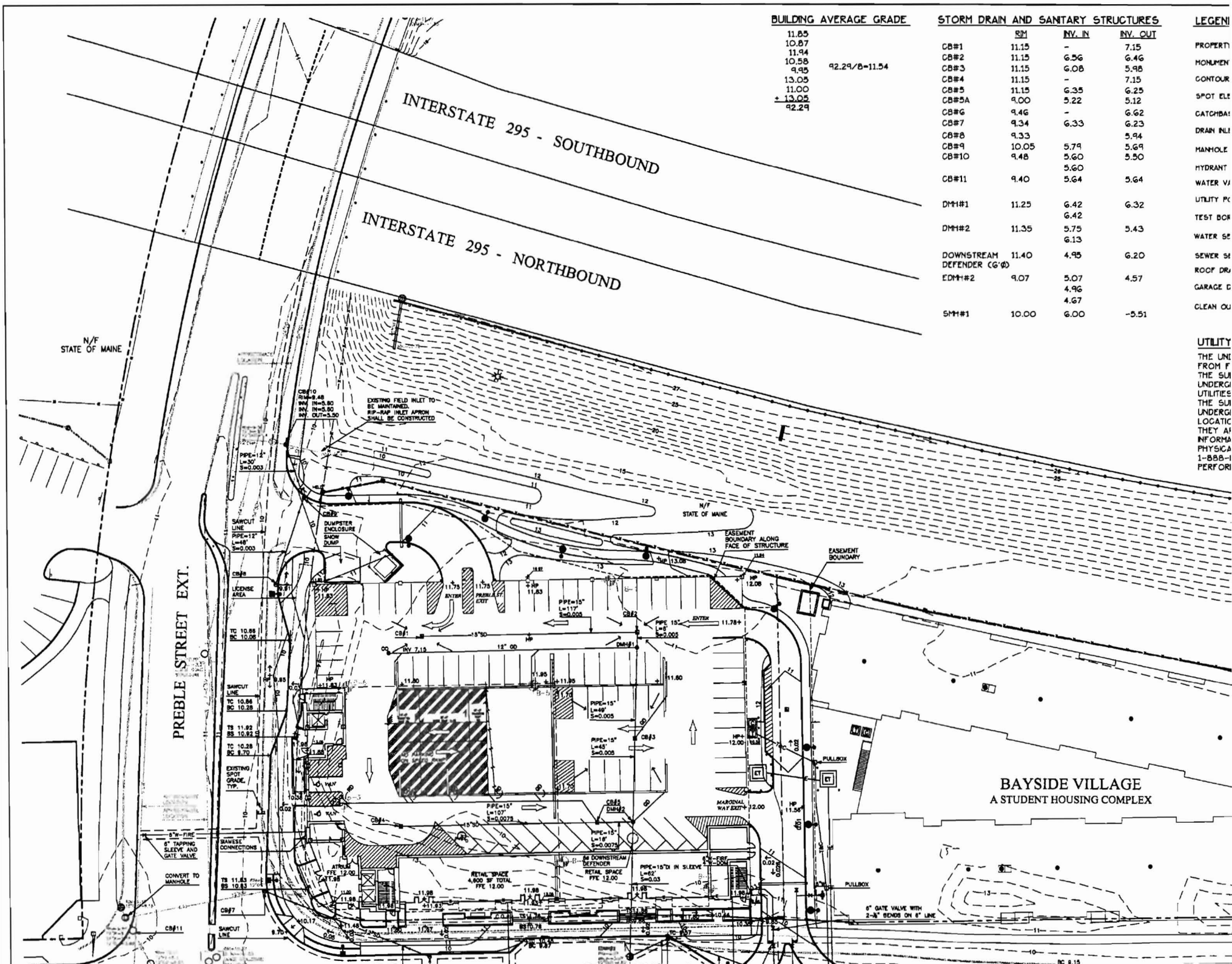
	RM	IN	OUT
CB#1	11.15	-	7.15
CB#2	11.15	6.56	6.46
CB#3	11.15	6.08	5.98
CB#4	11.15	-	7.15
CB#5	11.15	6.35	6.25
CB#5A	9.00	5.22	5.12
CB#6	9.46	-	6.62
CB#7	9.34	6.33	6.23
CB#8	9.33	-	5.94
CB#9	10.05	5.74	5.64
CB#10	9.48	5.60	5.50
CB#11	9.40	5.64	5.64
DHM#1	11.25	6.42	6.32
DHM#2	11.35	5.75	5.43
DOWNSTREAM DEFENDER (G'Ø)	11.40	4.95	6.20
EDM#2	9.07	5.07	4.57
		4.96	
		4.67	
SM#1	10.00	6.00	-5.51

LEGEN

- PROPERTY
- MONUMEN
- CONTOUR
- SPOT ELE
- CATCHBA
- DRAIN INL
- MANHOLE
- HYDRANT
- WATER VJ
- UTILITY PC
- TEST BOR
- WATER SE
- SEWER SR
- ROOF DR
- GARAGE C
- CLEAN OU

UTILITY

THE UNI
FROM F
THE SUI
UNDERG
UTILITIES
THE SUI
UNDERG
LOCATIC
THEY A
NFORMA
PHYSICA
1-BBB-I
PERFORI



PREBLE STREET EXT.

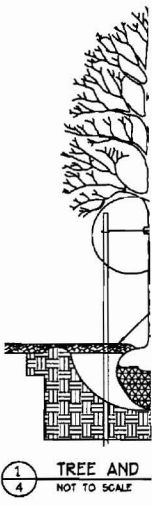
BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX

LEGEND

	EXISTING	PROPOSED		EXISTING	PROPOSED
PROPERTY LINE			ELECTRIC TRANSFORMER		
MONUMENT FOUND			TELEPHONE PAD		
CATCHBASIN			CABLE PAD		
MANHOLE			LIGHT FIXTURE - STREET		
HYDRANT			LIGHT FIXTURE - SITE		
WATER VALVE			LIGHT FIXTURE - BUILDING		
UTILITY POLE			CURB		

PLANT LIST - GROUND LEVEL

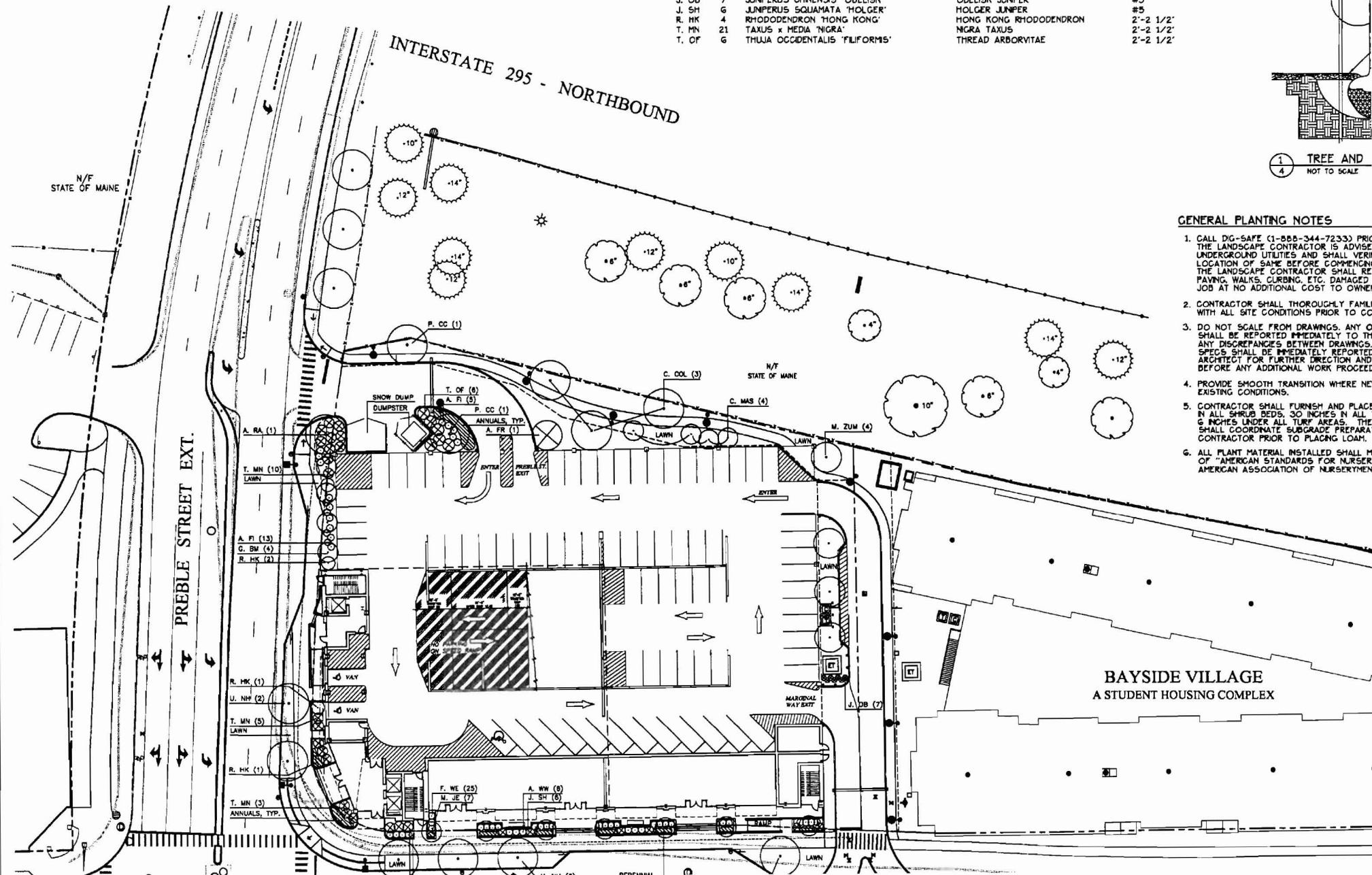
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
TREES				
A. FR	1	ABIES FRASERI	FRASIER FIR	5'-6" HT
A. RA	1	ACER RUDRUM 'ARMSTRONG'	ARMSTRONG RED MAPLE	2 1/2"-3" CAL
C. MAS	4	CORNUS MAS	CORNELIAN CHERRY	1 1/2"-2" CAL
C. COL	3	CORYLUS COLURNA	TURKISH FILBERT	2"-2 1/2" CAL
G. BM	4	GINKGO BILOBA 'MAYGAR'	MAYGAR GINKGO	2"-2 1/2" CAL
M. JE	7	MALUS x ZUMI 'JEWELCOLE'	PROFUSION FLOWERING CRAB	2"-2 1/2" CAL
M. ZUM	4	MALUS x ZUMI 'CALOCARPA'	ZUMI CALOCARPA FLOWERING CRAB	2 1/2"-3" CAL
P. CC	2	PYRUS 'CLEVELAND'	CLEVELAND ORNAMENTAL PEAR	2 1/2"-3" CAL
U. NH	6	ULMUS AMERICANA 'NEW HARMONY'	NEW HARMONY ELM	2 1/2"-3" CAL
SHRUBS				
A. FI	22	AZALEA 'FIRESTAR'	FIRESTAR AZALEA	#5
A. WW	6	AZALEA 'WHITNEY'S WHITE'	WHITNEY'S WHITE AZALEA	#5
F. WE	25	FORSYTHIA 'WEEKEND'	WEEKEND FORSYTHIA	#5
J. OB	7	JUNPERUS CHINENSIS 'OBELISK'	OBELISK JUNPER	#5
J. SH	6	JUNPERUS SQUAMATA 'HOLGER'	HOLGER JUNPER	#5
R. HK	4	RHODODENDRON 'HONG KONG'	HONG KONG RHODODENDRON	2'-2 1/2'
T. MN	21	TAXUS x MEDIA 'NGRA'	NGRA TAXUS	2'-2 1/2'
T. OF	6	THUJA OCCIDENTALIS 'FLIFORMIS'	THREAD ARBORVITAE	2'-2 1/2'



1 TREE AND
4 NOT TO SCALE

GENERAL PLANTING NOTES

1. CALL DIG-SAFE (1-888-344-7233) PRIOR TO THE LANDSCAPE CONTRACTOR TO ADVISE UNDERGROUND UTILITIES AND SHALL VERIFY LOCATION OF SAME BEFORE COMMENCING THE LANDSCAPE CONTRACTOR SHALL REPAIR PAVING, WALKS, CURBING, ETC. DAMAGED JOB AT NO ADDITIONAL COST TO OWNER!
2. CONTRACTOR SHALL THOROUGHLY FAMILIAR WITH ALL SITE CONDITIONS PRIOR TO GO
3. DO NOT SCALE FROM DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECS. SHALL BE IMMEDIATELY REPORTED TO ARCHITECT FOR FURTHER DIRECTION AND BEFORE ANY ADDITIONAL WORK PROCEEDS
4. PROVIDE SMOOTH TRANSITION WHERE NOT EXISTING CONDITIONS.
5. CONTRACTOR SHALL FURNISH AND PLACE IN ALL SHRUB BEDS, 30 INCHES IN ALL 6 INCHES UNDER ALL TURF AREAS. THE SHALL COORDINATE SUBGRADE PREPARATION CONTRACTOR PRIOR TO PLACING LOAM.
6. ALL PLANT MATERIAL INSTALLED SHALL MEET THE AMERICAN STANDARDS FOR NURSERYMEN OF AMERICAN ASSOCIATION OF NURSERYMEN



BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX

INTERSTATE 295 - SOUTHBOUND

INTERSTATE 295 - NORTHBOUND

N/F
STATE OF MAINE

INSTALL EROSION CONTROL MESH FROM HIGH POINT OF CONSTRUCTED
DITCH TO CATCH BASIN INLET GRATE. MESH SHALL BE INSTALLED WITH A
BOTTOM WIDTH OF FOUR (4) FEET AND SHALL EXTEND UP DITCH WALL
SLOPES AT LEAST TWO (2) FEET ON EACH SIDE

EXISTING FIELD INLET TO
BE MAINTAINED.
RP-RAP INLET APRON
SHALL BE CONSTRUCTED

STONE CHECK DAM (TYP)

PREBLE STREET EXT.

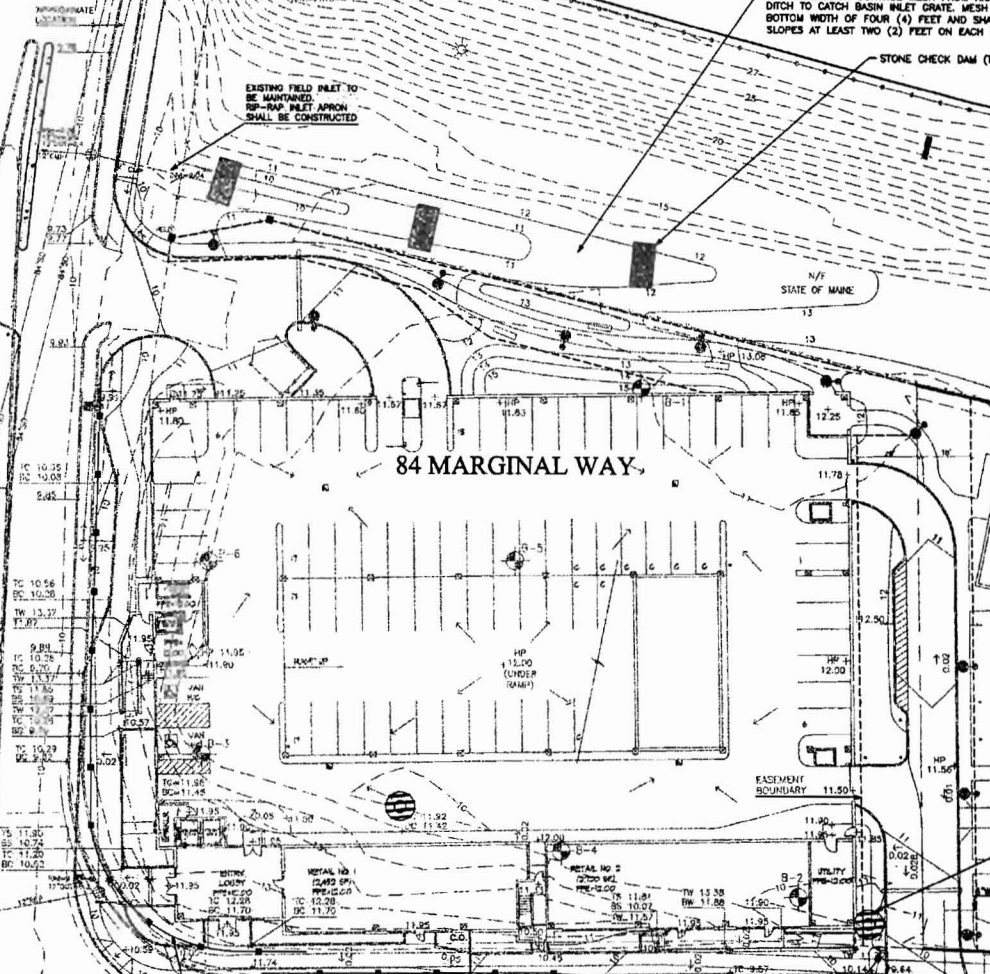
84 MARGINAL WAY

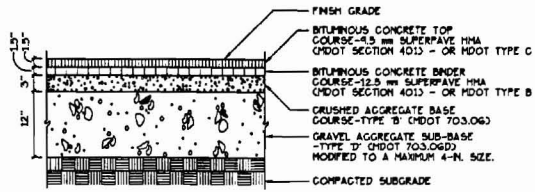
N/F
STATE OF MAINE

EASEMENT
BOUNDARY

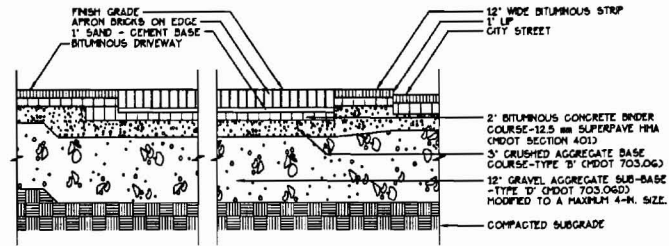
BAYSIDE VILLAGE
A STUDENT HOUSING COMPLEX

MAINTAIN INLET PROTECTION ON
EXISTING CATCH BASINS UNTIL
STRUCTURE IS DEMOLISHED

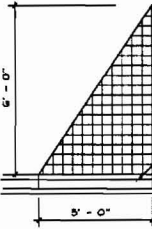




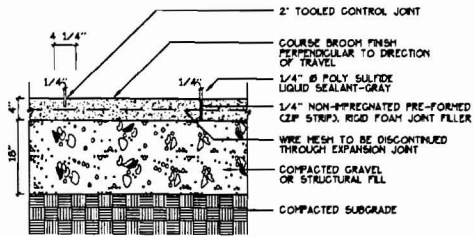
1
5 BITUMINOUS PAVEMENT- DRIVEWAY + PARKING GARAGE
NOT TO SCALE



6
5 BRICK DRIVEWAY APRON
NOT TO SCALE

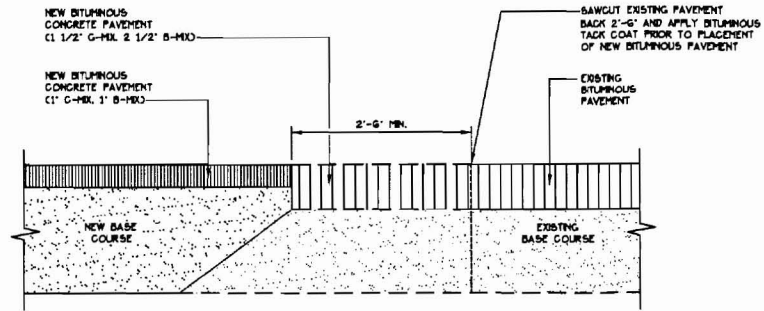


11
5 HANDICAP RAMP
NOT TO SCALE

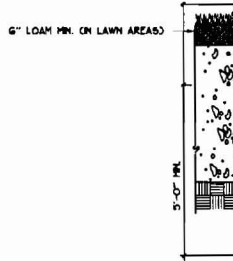


2
5 CONCRETE WALK
NOT TO SCALE

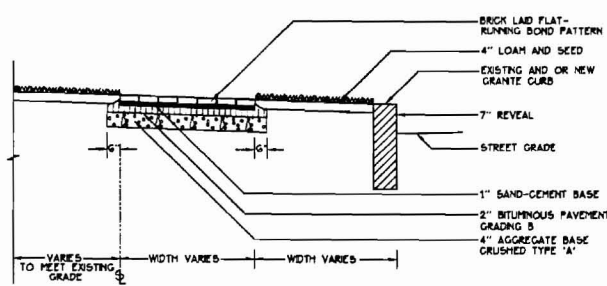
NOTE:
DO NOT PROVIDE TOOLED
EDGE ALONG GRANITE CURB



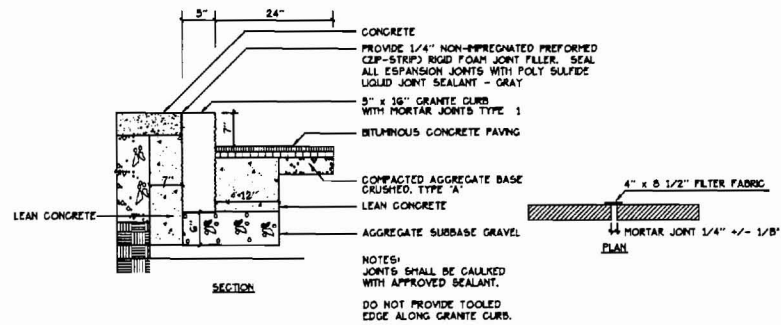
7
5 PAVEMENT SAWCUT DETAIL
NOT TO SCALE



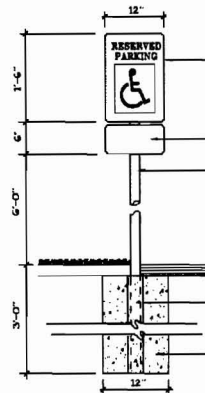
12
5 LIGHT POLE BASE
NOT TO SCALE



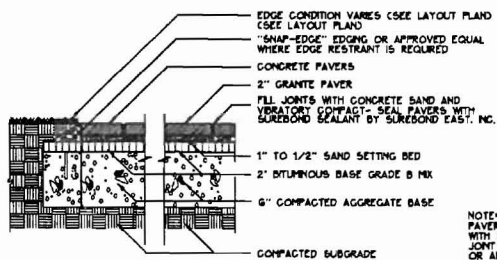
3
5 BRICK SIDEWALK WITH GRANITE CURB
NOT TO SCALE



8
5 VERTICAL GRANITE CURB
NOT TO SCALE

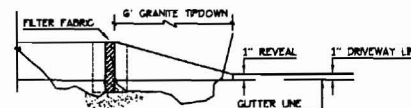


13
5 SIGNAGE
NOT TO SCALE



4
5 CONCRETE PAVERS
NOT TO SCALE

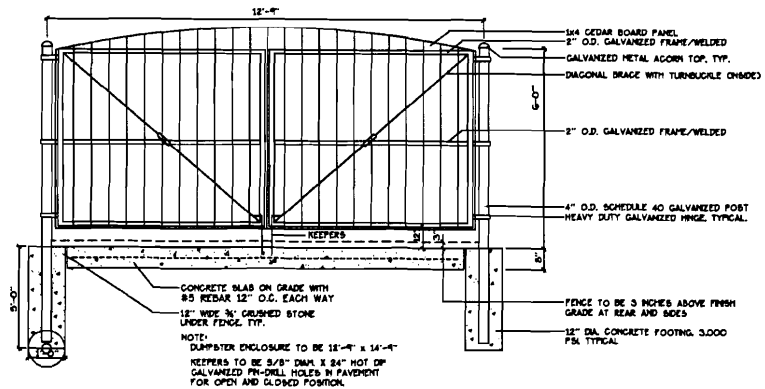
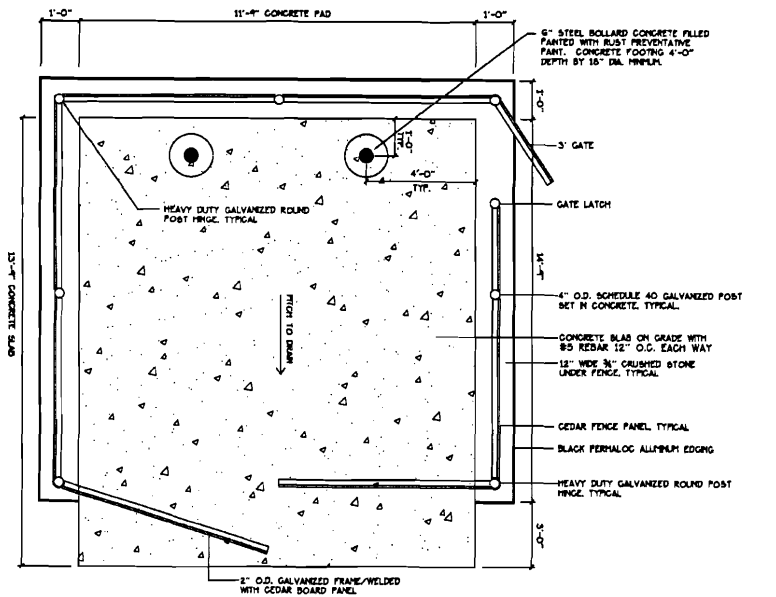
NOTE:
PAVERS SHALL BE SEALED
WITH SUREBOND 58-1570
JOINT STABILIZING SEALER
OR APPROVED EQUAL



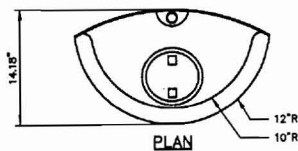
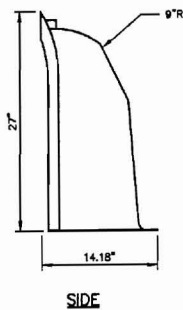
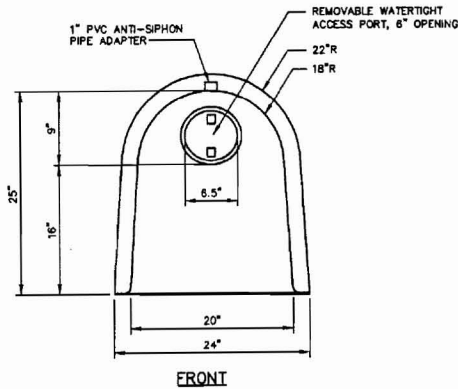
9
5 TIPDOWN CURB
NOT TO SCALE



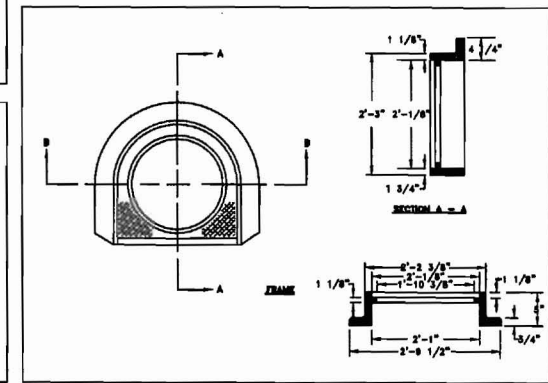
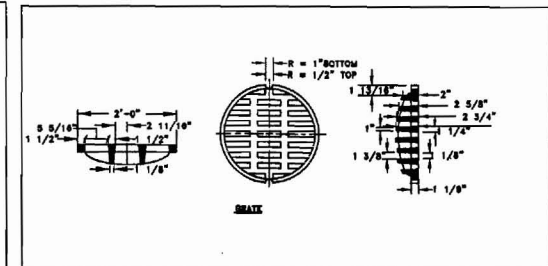
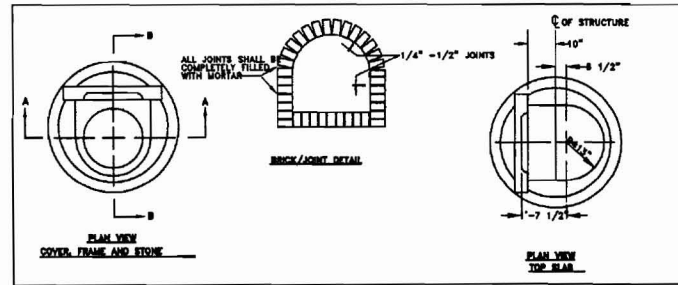
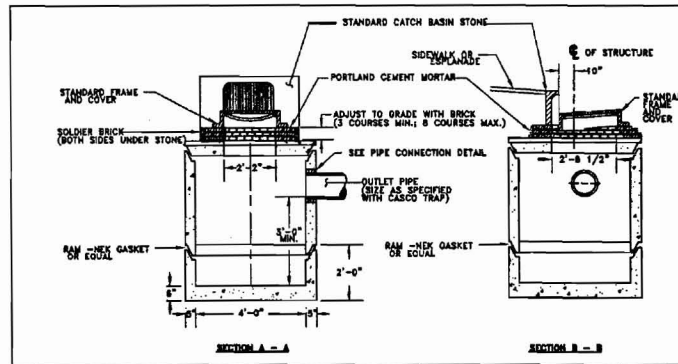
SIGNAGE LEGEND



① DUMPSTER ENCLOSURE AND SLAB
NOT TO SCALE



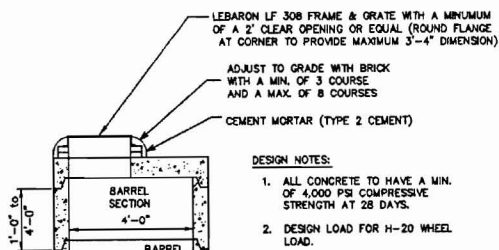
THE SNOOT
N.T.S.



- GENERAL NOTES**
1. ALL CONCRETE SHALL BE A CLASS "A" AND HAVE A MINIMUM ULTIMATE STRENGTH OF 4000 LB. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
 2. PRECAST REINFORCED CONE BARREL MANUFACTURE PER ASTM SPEC. C-478-87
 3. SEWER BRICK TO CONFORM TO ASTM SPEC. DESIGNATE ON C-32-83, GRADE MA AND SA.
 4. ALL MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTION OF BRICK MASONRY, THE SMOOTH MORTAR SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
 5. CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35. ALL PARTS OF CASTINGS, EXCEPT FINISHED SURFACE, SHALL RECEIVE A COAT OF COAL TAR PITCH VARNISH OR ASPHALTUM PAINT WHICH SHALL BE SMOOTH AND TOUGH BUT NOT BRITTLE.

6. MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
7. ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
8. STORM AND SEWER MANHOLES SHALL HAVE SOLID COVERS WITH ONE DRILLED HOLE.
9. EXISTING MANHOLE AND CATCH BASIN FRAMES AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
10. CASCO TRAPS SHALL BE PROVIDED WITHIN ALL CATCH BASINS WITH 12" OUTLETS.

PRECAST CONCRETE CATCH BASIN TYPE "E"
N.T.S.

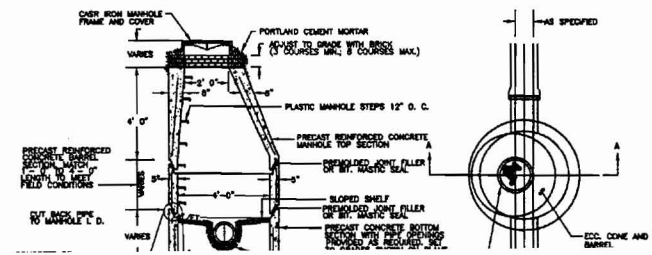


DESIGN NOTES:

1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.

GENERAL NOTES

1. ULTIMATE STRENGTH OF 4000 LB. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
2. ASTM SPEC. C-478-87



8" DEP
TYPE A
AGGREG
FILTER
INDUSTRI
EQUAL.

GENERAL NOTES

- THE NOTES ON THESE DRAWINGS ARE NOT INTENDED TO REPLACE SPECIFICATIONS. SEE SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES. INCONSISTENCIES BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTION OF THE WORK.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- ALL DIMENSIONS, EXISTING CONDITIONS, AND AS-BUILT CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE S-DRAWINGS IS COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO INTERPRET DETAILS TO ADDRESS OTHER PROJECT CONDITIONS.
- PROVIDE AND INSTALL NECESSARY MATERIAL TO CONNECT ELEVATOR SUPPORT BEAMS AND LOCATION AND SIZE OF MEMBERS AND ANY INSERTS REQUIRED SHALL BE DETERMINED BY THE ELEVATOR MANUFACTURER.
- THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF THE WORK, INCLUDING DESCRIPTION OF SHORING, AND CONSTRUCTION METHODS AND SEQUENCING WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, DEMOLITION OF EXISTING STRUCTURE, OR FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT REVIEW OF THE SHOP DRAWINGS BY THE ARCHITECT AND ENGINEER. FOR SHOP DRAWINGS AND SUBMITTALS REQUIRED, REFERENCE THE PROJECT SPECIFICATIONS.
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
- IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (2006 EDITION, SECTION 1704.1), A STATEMENT OF SPECIAL INSPECTIONS IS REQUIRED AS A CONDITION FOR PERMIT ISSUANCE BY THE LOCAL CODE OFFICIAL. THIS STATEMENT SHALL INCLUDE A COMPLETE LIST OF MATERIALS AND WORK REQUIRING SPECIAL INSPECTIONS, THE INSPECTIONS TO BE PERFORMED AND A LIST OF THE INDIVIDUALS, APPROVED AGENCIES AND FIRMS INTENDED TO BE RETAINED FOR CONDUCTING SUCH INSPECTIONS.
- REFERENCE THE PROJECT SPECIFICATIONS FOR ALL TESTING REQUIREMENTS.

DESIGN LOADS

- BUILDING CODE:**
INTERNATIONAL BUILDING CODE, 2006 EDITION
ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS
AND OTHER STRUCTURES.
- DESIGN FLOOR LIVE LOADS (REDUCTIONS ARE UTILIZED PER CODE CRITERIA)**
PASSENGER CAR PARKING: 40 PSF
OFFICES: 50 PSF + 20 PSF PARTITION ALLOWANCE
CORRIDORS ABOVE FIRST FLOOR: 80 PSF
STAIRS: 100 PSF
RETAIL: 100 PSF
- DESIGN ROOF SNOW LOAD:**
GROUND SNOW LOAD (Pg): 80 PSF
SNOW EXPOSURE FACTOR (Ce): 1.0
SNOW LOAD IMPORTANCE FACTOR (Iw): 1.0
SNOW LOAD THERMAL FACTOR (Ct): 1.1
FLAT ROOF SNOW LOAD (Pf): 48 PSF + DRIFT
- DESIGN WIND LOAD:**
BASIC WIND SPEED: 100 MPH
WIND LOAD IMPORTANCE FACTOR (Iw): 1.0
WIND EXPOSURE: C
INTERNAL PRESSURE COEFFICIENT: ±0.18
COMPONENTS & CLADDING LOADS PER ASCE 7-05
- DESIGN SEISMIC LOADS:**
EQUIVALENT LATERAL FORCE PROCEDURE
OCCUPANCY CATEGORY: II PER IBC TABLE 1604.5
SEISMIC IMPORTANCE FACTOR (Iw): 1.00
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
Sa: 0.3142
S1: 0.0789
SEISMIC SITE CLASS: E
SPECTRAL RESPONSE COEFFICIENTS:
Ss: 0.491
S1: 0.289
SEISMIC DESIGN CATEGORY: C
BASIC STRUCTURAL SYSTEM: BUILDING FRAME SYSTEM
BASIC SEISMIC FORCE RESISTING SYSTEM:
SPECIAL STEEL CONCENTRICALLY BRACED FRAMES
STEEL ECCENTRICALLY BRACED FRAMES, NON-MOMENT FRAMES
AT COLLUSIONS AWAY FROM LINKS
RESPONSE MODIFICATION FACTOR (R): X: 5.0
Y: 5.0
SEISMIC RESPONSE COEFFICIENT (Ca): X: 0.04
Y: 0.04

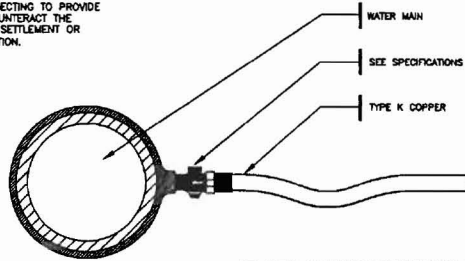
FOUNDATION NOTES

- FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH A REPORT ENTITLED "EXPLORATION AND GEOTECHNICAL SERVICES, PROPOSED OFFICE BUILDING AND PARKING GARAGE, PREBLE STREET AND MARGINAL WAY, PORTLAND, MAINE" PREPARED BY S.W. COLLE ENGINEERING, INC., DATED MAY 17, 2006, WITH A SUPPLEMENT DATED FEB 16, 2007. THE RECOMMENDATIONS OF THIS REPORT ARE PART OF THIS WORK. REFER TO THE REPORTS FOR SPECIFIC RECOMMENDATIONS.
- PILE SUPPORTED FOUNDATION NOTES:**
- DESIGN BUILD PERFORMANCE DESIGN: THE PILE DESIGN FOR THIS PROJECT IS TO BE DESIGNED BY THE PILE SUBCONTRACTOR. PILE SUBMITTALS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE. PILE NET ALLOWABLE AXIAL CAPACITY 250 KIPS (125 TON) AFTER CONSIDERING PILE DOWN DRAG FROM SITE SOIL SUBSIDENCE. A MINIMUM FACTOR OF SAFETY OF 2.0 SHALL BE USED WITH ULTIMATE CAPACITY.
 - CONTRACTOR SHALL SUBMIT PROPOSED PILE HANDED AND ENERGY REQUIREMENTS FOR REVIEW BY THE GEOTECHNICAL ENGINEER. DRIVING SHALL BE MONITORED BY A QUALIFIED GEOTECHNICAL ENGINEER TO ENSURE DRIVING CRITERIA IS REACHED.
 - ALL PILES SHALL BE DRIVEN USING POINTS TO LIMIT PILE DAMAGE AND PREVENT TIP KICK OUT DURING DRIVING WHEN REQUIRED BY DESIGN BUILD SYSTEM.
 - PILE LENGTHS SHALL BE ESTIMATED BASED ON BORING INFORMATION PROVIDED IN THE GEOTECHNICAL ENGINEERING REPORT.
 - CONTRACTOR SHALL VERIFY UTILITY LOCATIONS, AND COORDINATE WITH OWNER'S REPRESENTATIVE FOR PILE LOCATIONS, UTILITY LOCATIONS, BUILDING LOCATIONS, AND ANY INTERFERENCE ENCOUNTERED.
 - PILE SPLICES (IF APPLICABLE) SHALL BE DESIGNED AND CONSTRUCTED TO MAINTAIN ALIGNMENT AND POSITION OF PILE SECTIONS AND SHALL DEVELOP THE FULL CAPACITY OF THE PILE IN COMPRESSION, TENSION, BENDING AND SHEAR. WELDED PILE SPLICES SHALL BE FULL PENETRATION WELDS WITH E70XX ELECTRODES.
 - THE PROJECT SPECIFICATIONS REQUIRE THE CONTRACTOR TO SUBMIT INFORMATION ON HIS PROPOSED PILE DRIVING SYSTEM FOR REVIEW BY THE GEOTECHNICAL ENGINEER PRIOR TO EQUIPMENT MOBILIZATION. THE SYSTEM SHOULD BE CAPABLE OF INSTALLING THE PILES TO THE SPECIFIED MINIMUM ULTIMATE GEOTECHNICAL CAPACITY WITHOUT EXCEEDING THE ALLOWABLE DRIVING STRESSES. THE REVIEW WILL INCLUDE A WAVE EQUATION ANALYSIS OF THE PROPOSED DRIVING SYSTEM.
 - IBC REQUIRES PILE LOAD TESTING FOR THIS PROJECT. REFERENCE THE PROJECT SPECIFICATIONS FOR LOAD TESTING REQUIREMENTS.
 - BOTTOMS OF EXTERIOR PILE CAPS SHOULD BE FOUNDED AT LEAST 4.5 FT. BELOW ADJACENT FINISHED GROUND SURFACE FOR FROST PROTECTION AND UNDERLAIN WITH CRUSHED STONE. SEE THE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
 - PILE CAP SUBGRADE SOILS SHOULD NOT BE ALLOWED TO FREEZE. THE FILL SOILS AT THE SITE ARE CONSIDERED MODERATELY TO SLIGHTLY FROST-SUSCEPTIBLE. FREEZING OF SUBGRADE SOILS BENEATH PILE CAPS MAY RESULT IN FROST HEAVING OR LATERAL WEDGING. THE CONTRACTOR SHOULD MAKE EVERY EFFORT TO PREVENT FREEZING OF SUBGRADE SOILS.
 - PILES SHALL BE DRIVEN IN THE LOCATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING TOLERANCES: DEVIATION OF THE LOCATION OF THE TOP OF A PILE FROM THAT SHOWN ON PLANS SHALL NOT EXCEED 3 INCHES. PILES SHALL BE DRIVEN WITH A MAXIMUM DEVIATION FROM VERTICAL OF 2 INCHES IN 10 FEET OF PILE LENGTH.
 - NO FILL FOR BUILDING SUPPORT SHALL BE PLACED UNTIL SUBGRADES HAVE BEEN OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
 - REFERENCE THE GEOTECHNICAL REPORTS FOR ALL EXCAVATION, BACKFILL, COMPACTION, CONSTRUCTION Dewatering AND PERMANENT DRAINAGE REQUIREMENTS.
 - SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHOULD BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO FLOOD FOUNDATION EXCAVATIONS AND SHOULD BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. GROUNDWATER SHOULD BE ANTICIPATED FOR EXCAVATIONS AND APPROPRIATE Dewatering MEASURES SHALL BE EMPLOYED.
 - EXCAVATIONS FOR BUILDING CONSTRUCTION SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE. DO NOT UNDERMINE EXISTING FOUNDATIONS OF ANY ADJACENT STRUCTURES. REFER TO THE GEOTECHNICAL REPORTS FOR ADDITIONAL AND/OR MORE SPECIFIC REQUIREMENTS.

CONCRETE NOTES

- CONCRETE WORK SHALL CONFORM TO "ACI MANUAL OF CONCRETE PRACTICE", LATEST EDITION. THIS PUBLICATION IS AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848-3800.
- ALL CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. UNLESS EXTERIOR SLAB-ON-GRADE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. ADDITIONAL CONCRETE MIX PERFORMANCE DATA INCLUDING AIR CONTENT, WATER-CEMENT RATIO, AIR CONTENT, AGGREGATE SIZE, SLUMP, ETC. HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE OR SLABS.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND BE PROVIDED IN FLAT SHEETS.
- FIBER REINFORCEMENT SHALL BE TYPE III SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ASTM C1116.
- MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
A) SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3.0"
B) FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER #3 BARS, 3/8" DIAMETER WRC, AND SMALLER, 1.5"
#8 THROUGH #11 BARS, 2.0"
C) SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER WALLS, SLABS, JOISTS #11 BARS AND SMALLER, 1.0" BEAMS, GIRDERS, AND COLUMNS; ALL REINFORCEMENT, 1.5"
- REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. PROVIDE TENSION LAP SPLICES PER THE SCHEDULE ON DRAWING S2.1, FOR ALL REINFORCING UNLESS OTHERWISE INDICATED OR SHOWN ON PLAN.
- WELDING OF REINFORCEMENT IS NOT PERMITTED.
- FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN ON THE CONTRACT DOCUMENTS TYPICAL DETAILS.
- DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE BEAMS/GRADE BEAMS SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR, UNLESS NOTED OTHERWISE.
- SPACING OF CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
A) FOOTINGS AND WALLS MAX LENGTH 40'-0" NOR 15'-0" FROM ANY CORNER**
B) SLABS ON GRADE SEE FOUNDATION PLAN
- EXCEED ONLY WHERE INTERMEDIATE CONSTRUCTION JOINTS ARE PROVIDED. MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.
- ANCHOR RODS SHALL BE HEADED RODS CONFORMING TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR RODS THAT ARE TO BE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED.
- ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE "3-STAR" 5000-PSI NON-SHRINK GROUT BY U.S. GROUT CORP.
- SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION, SUBGRADE FLUCTUATIONS, AND TO OBTAIN THE SPECIFIED SLAB ELEVATION AT THE FLATNESS AND LEVELNESS INDICATED.

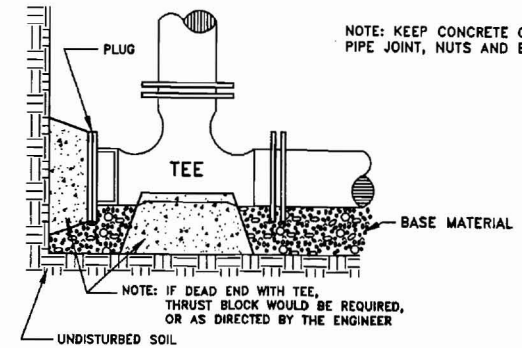
NOTE: SERVICE CONNECTIONS (DIRECT TAPS AND SERVICE CLAMPS) WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF NOT MORE THAN 45° ABOVE THE HORIZONTAL. ALWAYS PUT A BEND OR "GOOSENECK" IN THE SERVICE LINE PRIOR TO CONNECTING TO PROVIDE FLEXIBILITY AND "GIVE" TO COUNTERACT THE EFFECTS OF A LOAD DUE TO SETTLEMENT OR EXPANSION AND/OR CONTRACTION.



SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL ON SHEET 8

WATER SERVICE

(1 1/2" AND 2 1/2" C.C. OR IRON PIPE THREAD)
N.T.S.

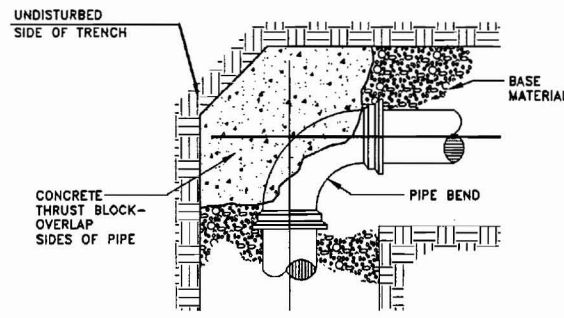


NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS

NOTE: IF DEAD END WITH TEE, THRUST BLOCK WOULD BE REQUIRED, OR AS DIRECTED BY THE ENGINEER

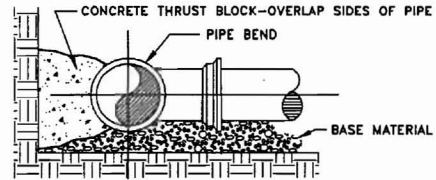
STANDARD TEE BLOCKING

N.T.S.



PLAN VIEW

NOTE: KEEP CONCRETE CLEAR OF PIPE JOINT, NUTS AND BOLTS



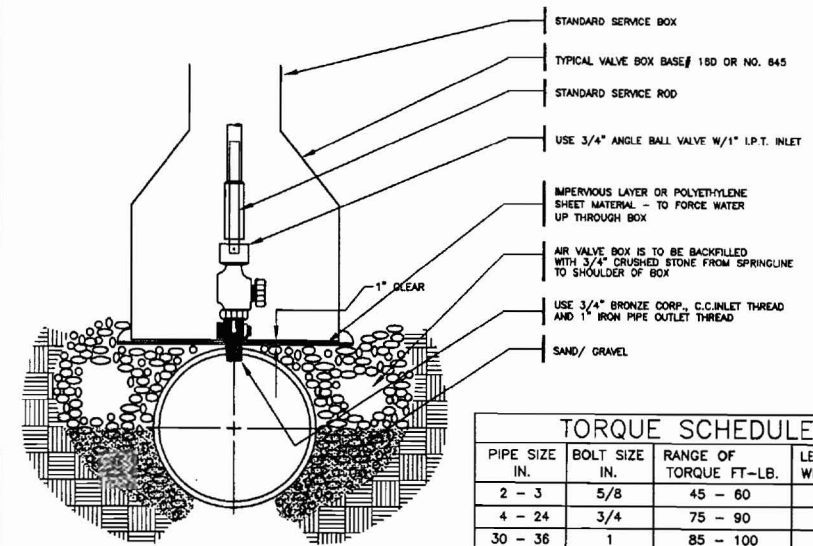
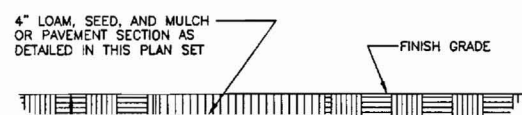
SECTION

THRUST/RETAINER GLAND SCHEDULE		
1/4 BEND	(90°)	USE POURED-IN-PLACE THRUST BLOCK w/RETAINERS
1/8 BEND	(45°)	THRUST BLOCK w/RETAINERS
1/16 BEND	(22 1/2°)	THRUST BLOCK
1/32 BEND	(11 1/4°)	THRUST BLOCK

THE ABOVE SCHEDULE IS SUBJECT TO THE APPROVAL OF THE ON-SITE INSPECTOR DUE TO SOILS AND WORKING PRESSURES IN THE AREA.

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL
TYPICAL THRUST BLOCK PLACEMENT ON BENDS

N.T.S.



TORQUE SCHEDULE			
PIPE SIZE IN.	BOLT SIZE IN.	RANGE OF TORQUE FT.-LB.	LENGTH OF WRENCH IN *
2 - 3	5/8	45 - 60	8
4 - 24	3/4	75 - 90	10
30 - 36	1	85 - 100	12
42 - 48	1 1/4	105 - 120	14

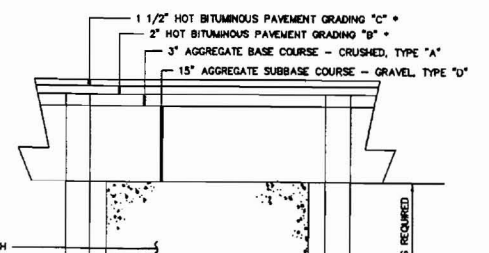
* THE TORQUE LOADS MAY BE APPLIED WITH TORQUE MEASURING OR TORQUE INDICATING WRENCHES, WHICH MAY ALSO BE USED TO CHECK THE APPLICATION OF APPROXIMATE TORQUE LOADS APPLIED BY A PERSON TRAINED TO GIVE AN AVERAGE PULL ON A DEFINITE LENGTH OF REGULAR SOCKET WRENCH.

SEE NOTE 3 IN THRUST BLOCK NOTES DETAIL
TYPICAL AIR VALVE SECTION (1")

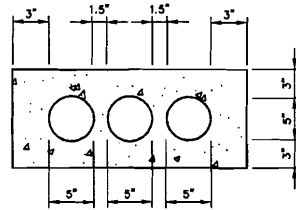
N.T.S.

PIPE DIAMETER	DIMENSION	
	D	B
12"	0'-10"	
15"	0'-8 1/4"	
18"	0'-6 1/2"	

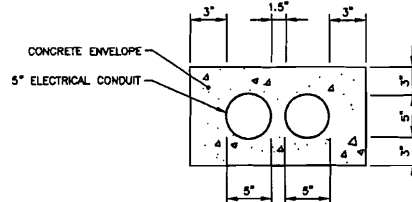
NOTES: TRENCH PAVEMENT REPLACEMENT SHALL EXTEND 8" BEYOND EDGE OF TRENCH



SL
ON PLL
WITH C.



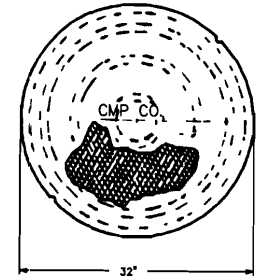
3 CONDUIT LAYOUT



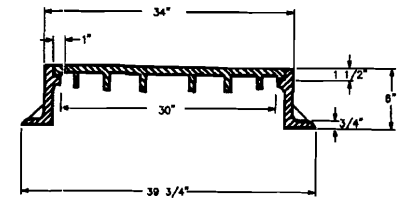
2 CONDUIT LAYOUT

ELECTRICAL CONDUIT PROFILES

N.T.S.

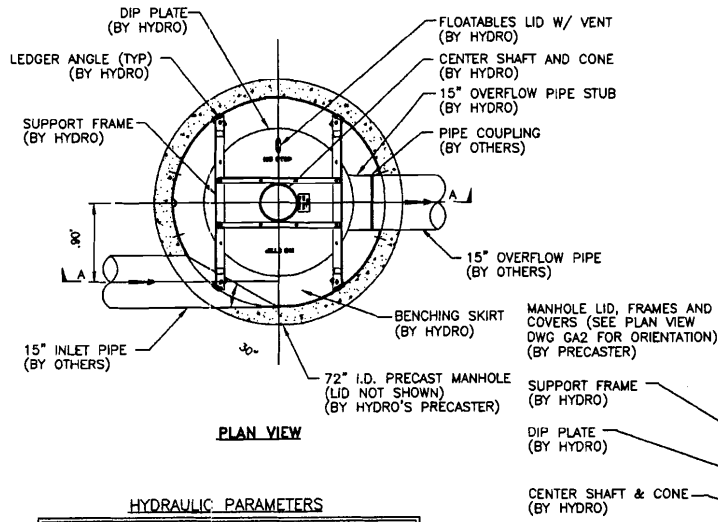


Diamond Cover Design
Seat Machined on frame and Cover
Wt. - 553lbs.



32" MANHOLE COVER & FRAME

N.T.S.



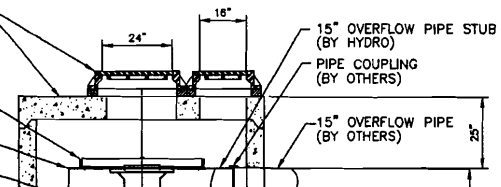
PLAN VIEW

HYDRAULIC PARAMETERS

EQUIPMENT PERFORMANCE

THE STORMWATER TREATMENT UNIT SHALL ADHERE TO THE HYDRAULIC PARAMETERS GIVEN IN THE CHART BELOW AND PROVIDE THE REMOVAL EFFICIENCIES AND STORAGE CAPACITIES AS FOLLOWS:

- PERFORMANCE OBJECTIVES:** THE STORMWATER TREATMENT DEVICE SHALL BE
1. APPROVED BY MAINE DEP FOR A TOTAL SUSPENDED SOLIDS (TSS) REMOVAL RATING OF 80% FOR A ONE YEAR PEAK FLOW OF 3.58 CFS. ADDITIONALLY, THE TREATMENT CHAMBER MUST BE CAPABLE OF REMOVING GREATER THAN 50% OF ALL PARTICLES IN THE RANGE OF 300-425 MICRONS AT THE PEAK TREATMENT FLOW RATE LISTED BELOW.
 2. 1-YR STORM FLOW: 3.58 CFS
 3. PEAK TREATMENT FLOW: 8.0 CFS
 4. SEDIMENT STORAGE CAPACITY: 2.1 CU. YD.
 5. OIL STORAGE CAPACITY: 230 GAL.
 6. SEDIMENT SHALL BE STORED IN A ZONE THAT IS ISOLATED FROM THE MAIN FLOW PATH AND PROTECTED FROM REINTRAINMENT BY A BENCHING SKIRT.

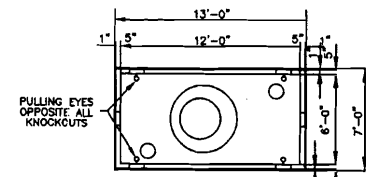


SEE DWG GA3

NOTES

NOTES:

1. VAULT AND ECCENTRIC CONE SHALL BE DESIGNED TO WITHSTAND H2O WHEEL LOADED WITH 8\"/>
2. JOINTS SEALED WITH BUTYL RUBBER.
3. MOUNTINGS FOR CABLE RACKS ETC. CAST IN WALL BY FURTHER PLANS OR FIELD LOCATED.
4. MANHOLE SHALL BE SET ON A SUITABLE GRAVEL BASE.



PLAN VIEW

I. Erosion Control Measures and Site Stabilization

The primary emphasis of the erosion/sedimentation control plan to be implemented for the infrastructure construction is as follows:

- Development of a careful construction sequence.
- Rapid revegetation of denuded areas to minimize the period of soil exposure.
- Rapid stabilization of drainage paths to avoid fill and gully erosion.
- The use of on-site measures to capture sediment (silt fence, check dams, etc.).

The following temporary and permanent erosion and sediment control devices will be implemented as part of the site development. These devices shall be installed as indicated on the plans or as described within this report. For further reference, see the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices.

A. Temporary Erosion Control Measures

The following measures are planned as temporary erosion/sedimentation control measures during construction:

1. Utilize the existing entrance onto Preble Street Extension. If access shall be required at the proposed entrance onto Marginal Way at the northerly property line with the abutting property, a stabilized construction entrance shall be installed and maintained during construction to prevent off-tracking of dirt and debris.

2. Siltation fence or wood waste compost berms shall be installed downstream of any disturbed area to trap runoff borne sediments until adequate catch (80% or greater) has occurred. The silt fence and/or the wood waste compost berms shall be installed per the details provided in this package and inspected immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion below the fence or berm line. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind fence or berm, the barrier shall be replaced with a stone check dam. Wood waste compost berms are not to be used adjacent to wetland areas that are to be left undisturbed.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and September 15th on slopes of less than 15 percent shall be anchored by applying water; mulch placed on slopes of equal to or steeper than 15 percent shall be covered by a fabric netting and anchored with staples in accordance with manufacturer's recommendation. Mulch placed between September 15th and April 15th on slopes equal to or steeper than 6 percent shall be covered with a fabric netting and anchored with staples in accordance with the manufacturer's recommendations. Slopes steeper than 3:1 and the drainage swale located in the I-235 Right-of-Way that are to be revegetated shall receive Curlex blankets by American Excelsior or Engineer approved equivalent. Mulch application rates are provided in Attachment A of this section. Mulch shall not be placed over snow.

4. Temporary stockpiles of stumps, grubblings, or common excavation will be protected as follows:

- a) Temporary stockpiles shall not be located within 100 feet of any wetlands that are to be left undisturbed and any slopes exceeding 15%.
- b) Stockpiles shall be stabilized within 7 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch.
- c) Stockpiles shall be surrounded by silt fence or wood-waste compost berms at the time of formation.

5. All denuded areas within 100 feet of an undisturbed wetland that have been rough graded and are not located within a roadway subbase area shall receive mulch or erosion control mesh fabric within 7 days of initial soil disturbance. All areas within 50 feet of undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. In other areas, the time period may be extended to 14 days. All disturbed areas located within 100 feet of a protected natural resource must be protected with a double row of sediment barriers.

6. For work conducted between September 15th and April 15th of any calendar year, all denuded areas will be covered with hay mulch applied at twice the normal application rate with fabric netting. The time period for applying mulch as noted in Paragraph I.A.5 shall be limited to 7 days for all areas.

7. Marginal Way and Preble Street Extension shall be swept to control off-tracking of mud, debris, and dust as necessary.

8. During grubbing operations stone check dams will be installed at any evident concentrated flow discharge points.

9. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be anchored.

10. Wood waste compost/bark berms may be used in lieu of siltation fencing. Berms shall be removed and spread into a layer not to exceed 3" thick once upstream area is completed and a 90% catch of vegetation is attained. Wood waste erosion tubes may also be used for perimeter sediment control or check dams, or to reduce slope lengths. These tubes may be created by filling Filtrax mesh tubes or approved equivalent with wood waste material and staking the tube to the ground where the control is necessary.

11. Inlet Protection measures shall be implemented for all catch basins located with the disturbed construction area. Measures shall be maintained regularly and shall not cause flooding in public right-of-ways.

12. Water shall be furnished and applied in accordance with MDOT specifications - Section 637 - Dust Control.

13. Loom and seed is intended to serve as the primary permanent vegetative measure for all denuded areas not provided with other erosion control measures such as riprap. Application rates are provided in Attachment A of this section. Seeding shall not occur over snow.

B. Permanent Erosion Control Measures

The following permanent erosion control measures have been designed as part of the Erosion and Sedimentation Control Plan:

1. All areas disturbed during construction but not subject to other restoration (building, paving, riprap, etc.) shall be loamed, limed, fertilized, mulched, and seeded. Fabric netting with staples shall be placed over the mulch in areas as noted in Paragraph I.A.3. All disturbed areas within 100 feet of an undisturbed wetland area shall be mulched prior to any predicted rain event regardless of the 7-day window. Native topsoil shall be stockpiled and reused for final restoration if deemed to be of sufficient quality.

ii. Implementation Schedule

The following construction sequence shall be required to insure that the effectiveness of the erosion and sedimentation control measures is optimized:

Note: For all grading activities, the contractor shall exercise extreme caution not to overexpose the site by limiting the disturbed area.

Note: All denuded areas not subject to final paving, riprap, or gravel shall be revegetated.

Prior to construction of the project, the contractor shall submit to the owner a schedule for the completion of the work, which will satisfy the following criteria:

1. The above construction sequence shall generally be completed in the specified order; however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the extent of the exposed areas as specified below. The intent of the above sequence is to provide for sufficient erosion and sedimentation control and to have structural measures such as silt fence and construction entrance in place before large areas of land are denuded.

2. The work shall be conducted in sections which will:

- a) Limit the amount of exposed area to those areas in which work is expected to be undertaken during the proceeding 30 days.
- b) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event, or temporarily stabilized within 7 days of initial disturbance of soil for areas within 100 feet of an undisturbed wetland area and within 14 days for all other areas. Areas within 100 feet of an undisturbed wetland shall be mulched prior to any predicted rain event regardless of the 7-day window.

III. Winter Stabilization Plan

If a summer/fall construction schedule is not possible and construction is necessary between September 15th and April 15th of any calendar year, the contractor shall submit a schedule, which will satisfy the following criteria:

- 1. The extent of exposed area shall be limited to those areas in which work is expected to be undertaken during the proceeding 15 days and can be mulched in the event of a predicted snow event.
- 2. All disturbed areas shall be covered with mulch within 7 days of final grading. Mulch shall not be placed over snow.
- 3. Once final grade has been established, the contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of staple-anchored fabric netting.
 - a. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs. per 1000 s.f. Seeding shall not occur over snow.

All areas seeded during the winter months shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 80% catch) shall be revegetated by replacing loam, seed, and mulch as necessary to achieve 80% catch.

b. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

4. The area of denuded non-stabilized construction area shall be limited to the minimum area practicable. An area shall be considered denuded until the subbase gravel is installed or the area of future loam and seed have been loamed, seeded, and mulched at a rate twice that specified in the seeding plan (e.g. 115 lbs. per 1,000 s.f. x 2 = 230 lbs. per 1,000 s.f.).

5. The above schedule shall be subject to the approval of the Owner.

The Contractor shall install any added measures that may be necessary to control erosion and sedimentation from the site dependent upon the actual site and weather conditions.

The Contractor shall note that no areas within 100 feet of an undisturbed wetland shall remain denuded for longer than 7 days before being temporarily stabilized. All other areas shall be stabilized within 14 days. For construction between September 15th and April 15th of any calendar year, all areas shall be temporarily stabilized within 7 days.

IV. Inspection and Maintenance

The following inspection and maintenance standards shall be required to insure the effectiveness of the erosion and sedimentation control measures are optimized during construction.

For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules and the Maine Construction General Permit (MCGP) requirements.

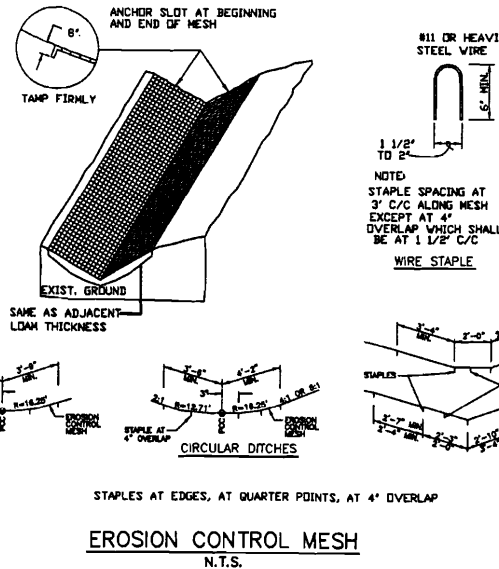
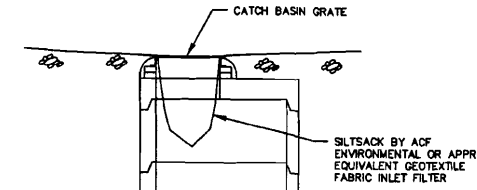
1. Inspect disturbed and impervious areas, erosion control measures, materials storage areas exposed to precipitation and locations where vehicles enter or exit the site. Inspection should occur at least once a week as well as before and after a storm event, and prior to completing permanent stabilization measures.

2. Maintain all erosion and stormwater control measures until areas are permanently stabilized. If maintenance, modification, and/or installation of additional best management practices (BMPs) are necessary, implementation must be completed within 7 calendar days and prior to any storm event.

V. Housekeeping

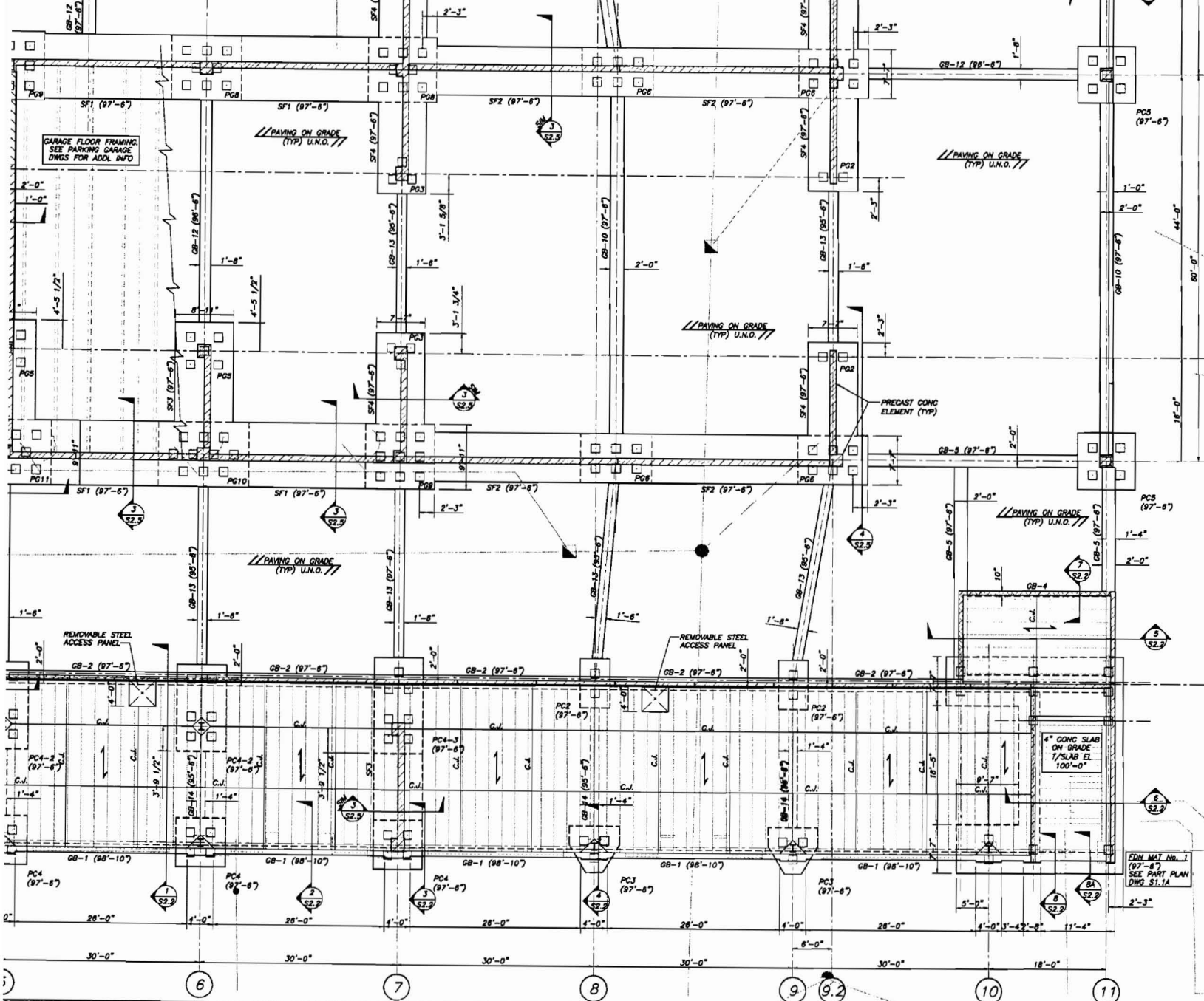
The following standards shall be required. For further reference, see the Maine Department of Environmental Protection Chapter 500 Stormwater Management Rules.

- 1. Spill prevention controls must be utilized to prevent pollutants from being discharged from materials onsite.
- 2. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area or adjacent to the stormwater catch basins and drain manholes.
- 3. Action must be taken to ensure activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction.
- 4. Litter, construction debris, and chemicals exposed to stormwater must be prevented from becoming a pollutant source.
- 5. Water collected as a result of trench dewatering must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a conforming sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site.
- 6. Identify and prevent contamination by non-stormwater discharges.
- 7. Additional requirements may be applied on a site-specific basis.



- NOTES:**
- THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
 - A. MOISTURE CONTENT - 30-80%
 - B. pH - 5.0 - 8.0.
 - C. SCREEN SIZE - 100% LESS THAN 3", MAX. 70% LESS THAN 1".
 - D. NO LESS THAN 40% ORGANIC MATERIAL (BY WEIGHT) BY LOSS OF IGNITION.
 - E. NO STONES LARGER THAN 2" IN DIAMETER.
 - F. SILTS, CLAYS OR SUGAR SANDS ARE NOT ACCEPTABLE IN THE MIX.
 - THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
 - THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE ON SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA, EDGE OF GRAVEL PARKING AREAS.
 - BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 70% CATCH OF 1' ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN.

07'-8" UNLESS INDICATED OTHERWISE.
 INDICATES 1/4" PILE CAP, 1/4" GRADE BEAM OR MAT.
 IN DIRECTION OF 8" PRECAST, PRESTRESS HOLLOW CORE
 TATION AND 3" FIBER REINFORCED CONCRETE TOPPING.
 TIONAL INFORMATION. TOP OF SLAB EL. 100'-0" UNLESS
 OTHERWISE SHOWN.
 REACTION/CONSTRUCTION JOINT. SEE DWG S2.1
 TION DETAILS.
 NOS FOR ITEMS TO BE EMBEDDED INTO FOUNDATION.
 ADS WHERE REQUIRED FOR MECHANICAL EQUIPMENT.
 DWGS.
 SLAB DEPRESSIONS:
 OR PIT DIMENSIONS, AND SLUMP PIT DIMENSIONS AND
 MANUFACTURER.



HA Project No.	08196
Key Plan	



Issue Date	
Work Date	03.09.07
Description	FOUNDATION PERMIT SET

Drawing Status

FOUNDATION PERMIT SET

Drawing Title	PILE CAP & GRADEBEAM PLAN
PA / PC EAR	Drawn By App
Drawing Number	S1.1

HA Project No.	0818B
Rev. Desc.	



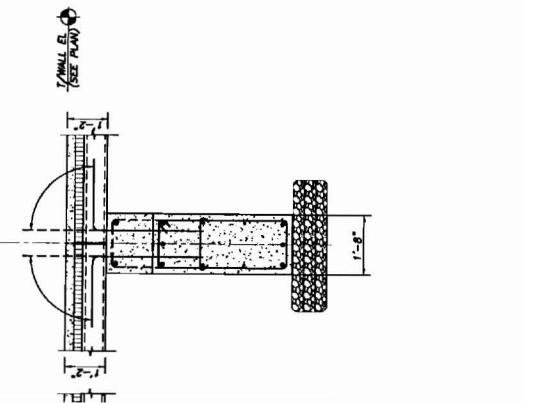
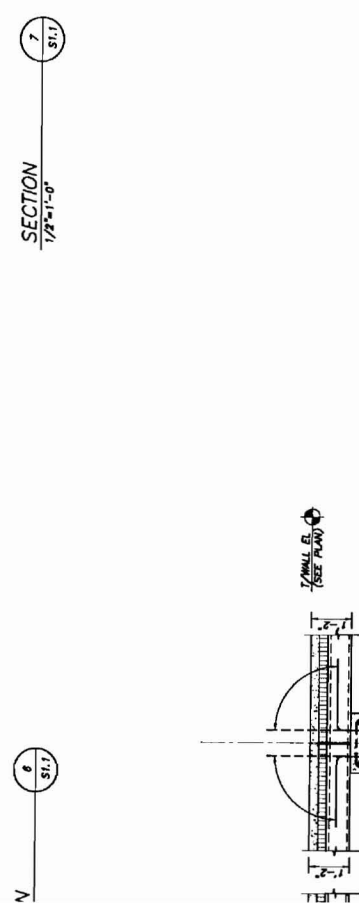
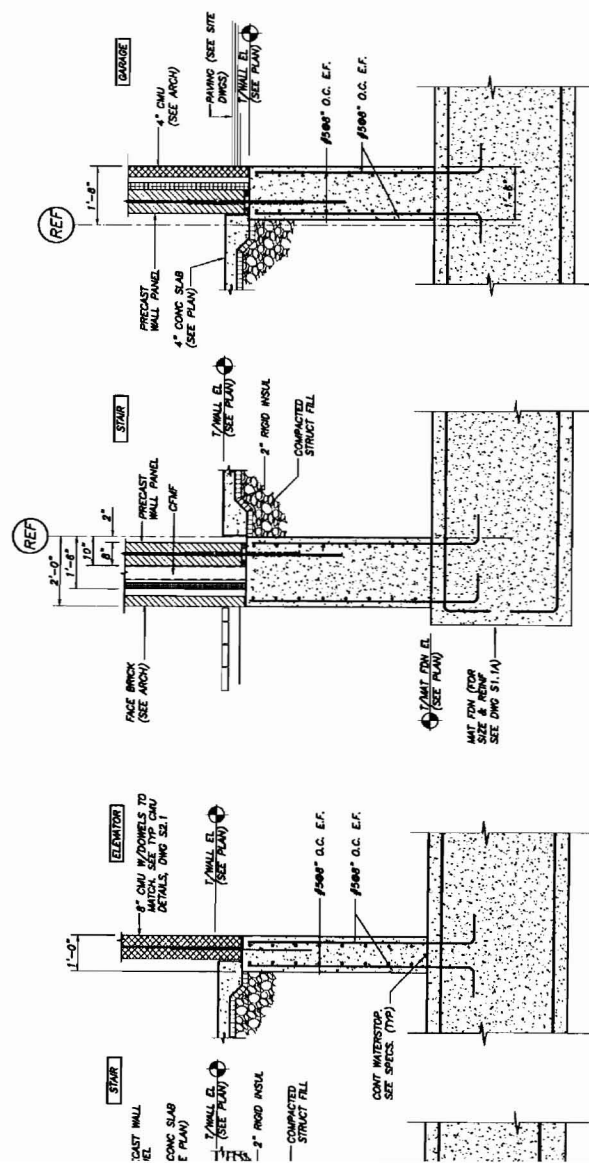
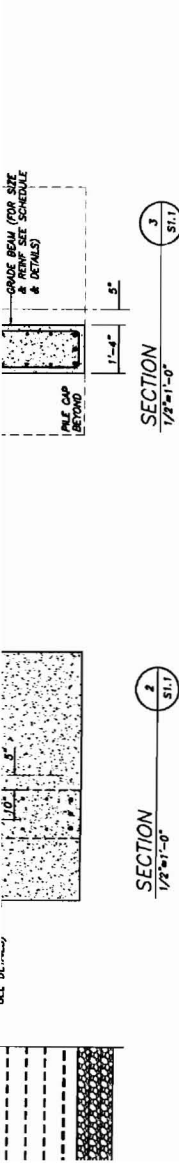
Mark	Date	Description
-	03.08.07	FOUNDATION PERMIT SET

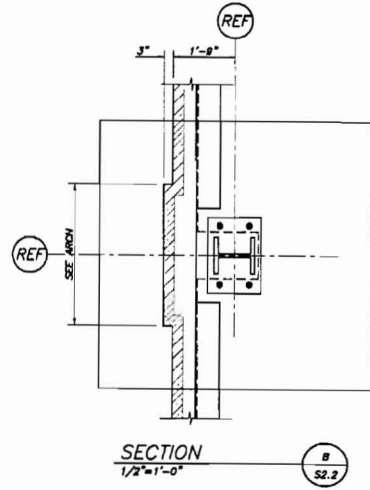
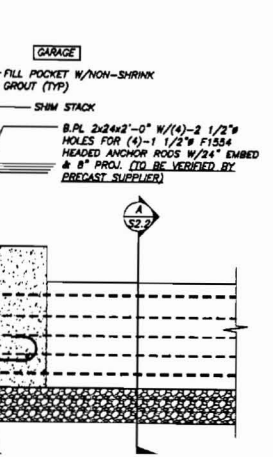
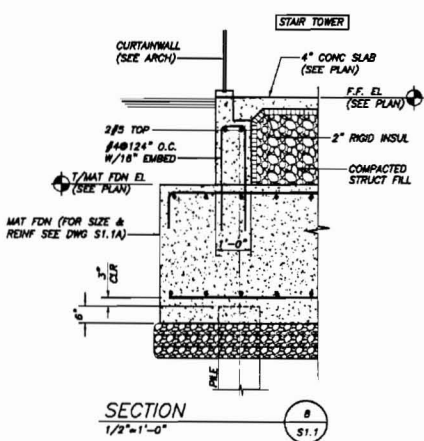
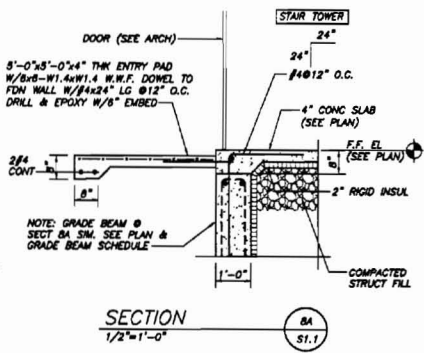
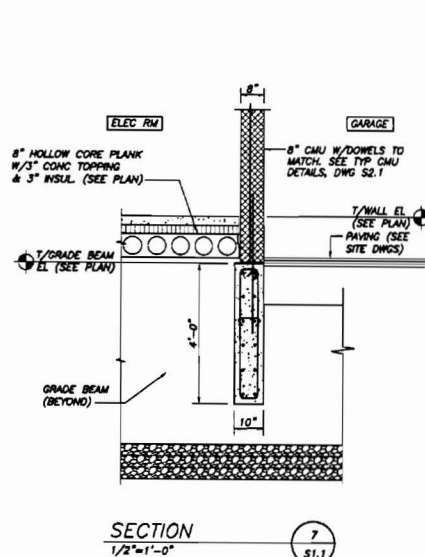
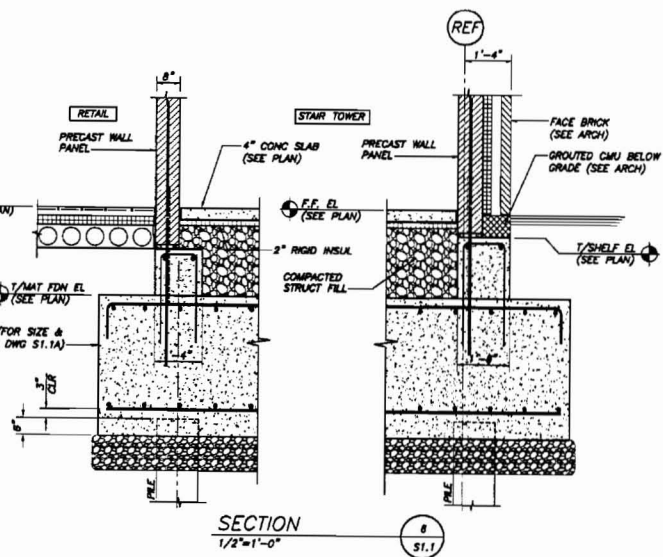
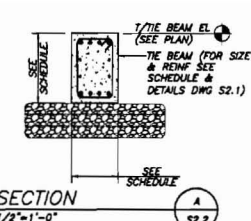
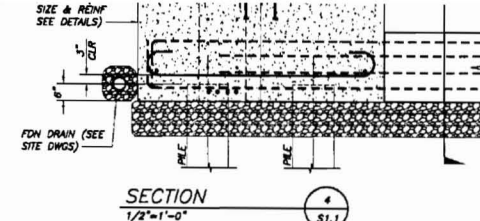
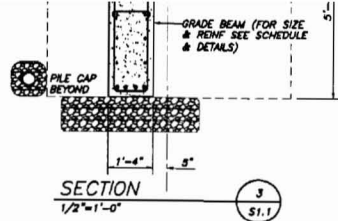
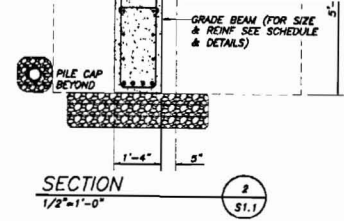
FOUNDATION PERMIT SET

Drawing Title
FOUNDATION SECTIONS & DETAILS

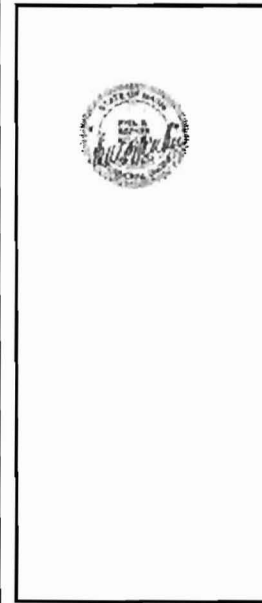
IN / REV	DATE	DRAWN BY	APP'D

Drawing Number
S2.3





HA Project No.	06196
Key Plan	



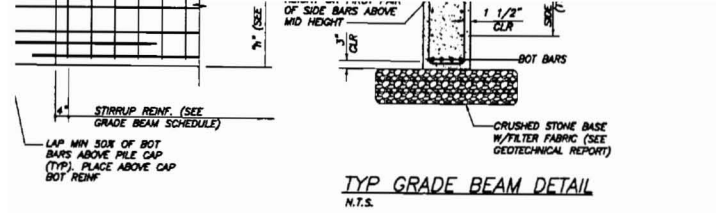
- 03.09.07		FOUNDATION PERMIT SET
Mark	Date	Description
Issue Dates		

Drawing Status
FOUNDATION PERMIT SET

Drawing Title
FOUNDATION SECTIONS & DETAILS

PA / PE: EAR Drawn By: APP
Drawing Number

S2.2



GB-12	1'-8"	3'-0"	4#0 (80)	4#0 (83)	#400" O.C.	3#4 (24')	
GB-13	1'-8"	2'-0"	3#7 (82)	3#7 (72)	#400" O.C.	2#4 (24')	
GB-14	1'-4"	2'-0"	4#5 (88)	4#5 (33)	#400" O.C.	2#4 (24')	
GB-15	1'-4"	4'-0"	3#8 (80)	3#8 (83)	#400" O.C.	4#4 (24')	SLOPE TOP FOR STRUCT SLAB SUPPORT. PROVIDE GRADE BEAM TO SLAB DOWELS. SEE SECT 3/52.5 FOR ADDL INFO

PILE GROUP TRANSVERSE REINF SCHEDULE

MARK	REINF W/STD HOOKS EA END	REMARKS
PG2	8#8	-
PG3	11#8	-
PG8	15#8	-
PG9		SEE SECT S2.5 FOR ADDL REINF
PG10		SEE SECT S2.5 FOR ADDL REINF
PG11		SEE SECT S2.5 FOR ADDL REINF

PILE SUPPORT STRIP FOOTING SCHEDULE (LAP LENGTH)

MARK	SIZE		TOP BARS	BOT BARS	STIRRUPS/VERT BARS	HORIZ SIDE BARS (E.F.)	REMARKS
	b	h					
SF1	8'-11"	4'-8"	17#10 (81)	17#10 (72)	#0024" (8 VERT LEGS)	4#5 (38)	-
SF2	7'-7"	4'-0"	18#10 (81)	18#10 (72)	#5, #818", #A#022" (8 VERT LEGS)	3#5 (38)	-
SF3	8'-11"	4'-0"	18#10 (81)	18#10 (72)	#5, #818", #A#022" (8 VERT LEGS)	4#5 (38)	-
SF4	7'-7"	4'-0"	8#10 (81)	8#10 (72)	#0024" (8 VERT LEGS)	3#5 (38)	-

NOTES:
 1. ADDITIONAL REINFORCEMENT REQUIRED DIRECTLY OVER PILE GROUP. SEE SECTIONS FOR ADDITIONAL INFORMATION.
 2. SPACE STIRRUPS THROUGH PILE GROUPS @18" O.C. MAX.

NOTES:
 1. ADDITIONAL REINFORCEMENT REQUIRED DIRECTLY OVER PILE GROUP. SEE SECTIONS FOR ADDITIONAL INFORMATION.
 2. SPACE STIRRUPS THROUGH PILE GROUPS @18" O.C. MAX.

REBAR LAP SPLICE TABLE U.N.O.

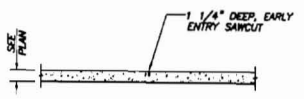
BAR SIZE	LAP LENGTH	
	3,000 PSI	
#3	30"	
#4	36"	
#5	48"	
#6	58"	
#7	81"	
#8	93"	
#9	105"	
#10	118"	

ABBREVIATIONS

A.S.	ANCHOR BOLT	K	KIPS
ACT	ADJUSTABLE CEILING TILE	L	ANGLE
A.F.F.	ABOVE FINISH FLOOR	LL	LINE LOAD
AGC	AGGREGATE	LLM	LONG LEG HORIZ
ALT	ALTERNATE	LLV	LONG LEG VERT
APPROX	APPROXIMATE	MAX	MAXIMUM
ARCH	ARCHITECTURAL	MDO	MEDIUM DENSITY OVERLAY
BCX	BOTTOM CHORD EXTENSION	MECH	MECHANICAL
BM	BOARD	MANUF	MANUFACTURER
BD	BOTTOM	MIN	MINIMUM
BT	BUTYLMANOUS	MISC	MISCELLANEOUS
BLDG	BUILDING	M.O.	MASONRY OPENING
B.O.	BOTTOM OF / BY OTHERS	N.I.C.	NOT IN CONTRACT
BOT	BOTTOM	N.S.	NEAR SIDE
BRDG	BRIDGING	N.T.S.	NOT TO SCALE
B.F.	BASE PLATE	O.C.	ON CENTER
BRG	BEARING	O.D.	OUTSIDE DIAMETER
B.S.	BOTH SIDES	O.F.	OUTSIDE FACE
C	CHANNEL	PAF	POWDER ACTUATED FASTENER
CEM BD	CEMENT BOARD	PL	PLATE
C.I.P.	CAST IN PLACE	PLF	POUNDS PER LINEAR FOOT
C.J.	CONTROL/CONST. JOINT	PSF	POUNDS PER SQUARE FOOT
CL	CENTER LINE	PSI	POUNDS PER SQUARE INCH
CLR	CLEAR	P.T.	PRESSURE TREATED
CMU	CONCRETE MASONRY UNIT	PVC	POLYVINYL CHLORIDE
COL	COLUMN	PWMT	PAVEMENT
CONC	CONCRETE	R	RADIUS
CONT	CONTINUOUS	RD	ROOF DRAIN
DA	DIAMETER	REINF	REINFORCEMENT
DBL	DOUBLE	REQD	REQUIRED
DL	DEAD LOAD	REQMNT	REQUIREMENTS
DET	DETAIL	R.O.	ROUGH OPENING
DWG	DRAWING	RTU	ROUGH TOP UNIT
EA	EACH	S.F.	SQUARE FOOT
E.F.	EACH FACE	SHT	SHEET
E.V.	EXPANSION JOINT	SH	SIMILAR
ELEV	ELEVATION	S.K.	SHEAR KEY
ELC	ELECTRICAL	S.S.	STAINLESS STEEL
EMBED	EMBEDMENT	STL	STEEL
E.S.	EACH SIDE	STRUCT	STRUCTURAL
EQ	EQUAL	STRFF	STIFFENER
E.W.	EACH WAY	T&B	TOP & BOTTOM
E.W.B.	EACH WAY BOTTOM	TDX	TOP CHORD EXTENSION
EXIST	EXISTING	T.J.	TIE JOIST
EXT	EXTERIOR	T.O.	TOP OF
FD	FLOOR DRAIN	T.O.S.	TOP OF STEEL ETC.
FIN FL	FINISH FLOOR	TY	TYPICAL
F.F.	FINISH FLOOR / FAR FACE	U.N.O.	UNLESS NOTED OTHERWISE
F.F.O.	FINISHED BY OTHERS	VB	VAPOR BARRIER
FB	FLAT BAR	VERT	VERTICAL
F.F.E.	FINISH FLOOR ELEVATION	V.F.F.	VENT IN FIELD
F.S.	FAR SIDE	VTR	VENT THROUGH ROOF
FTG	FOOTING	W/	WITH
GA	GAUGE	W	WIDE FLANGE
GALV	GALVANIZED	W.P.	WORK POINT
G.C.	GENERAL CONTRACTOR	W.W.F.	WELDED WIRE FABRIC
GWB	GYPSSUM WALLBOARD		
HORIZ	HORIZONTAL		
HVAC	HEATING VENTILATION & COOLING		
HSS	HOLLOW STRUCTURAL SHAPE		
I.D.	INSIDE DIAMETER		
I.F.	INSIDE FACE		
I.W.	ISOLATION JOINT		
INSUL	INSULATION		

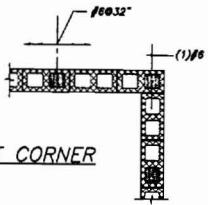
TERIAL
 A
 -GRADE MATERIAL
 SIFIED/PREPARED
 GRADE

SS, GRADING AND
 FOOTPRINT,
 BUILDING FOOTPRINT,
 SECTION



CMU LINTEL SCHEDULE

MARK	CLEAR SPAN	WIDTH	DEPTH	REINF
L1	< 8'-0"	8"	8"	2#5 CONT
L2	8'-0" - 8'-0"	8"	18"	2#5 CONT



S AT 8" CMU WALLS

* REINF @18" O.C. UNL.O.
 2#5 CONT @ TOP OF ALL WALLS
 MID-HEIGHT BETWEEN FLOORS.
 W/E TO BE GROUTED.
 N. 48 BAR DIAMETERS.



Mark	Date	Description
-	03.09.07	FOUNDATION PERMIT SET

Issue Dates

Drawing Status

FOUNDATION PERMIT SET

Drawing Title

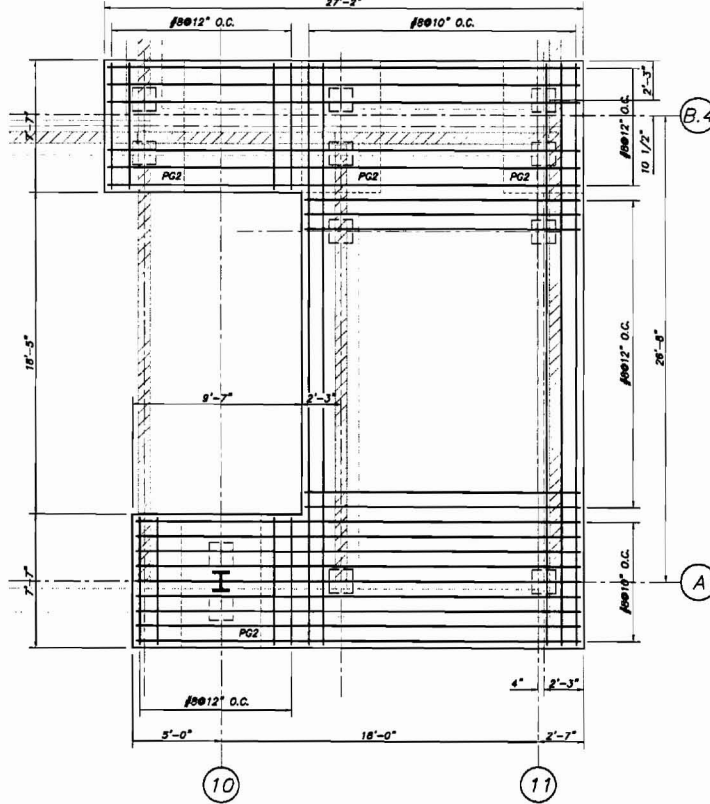
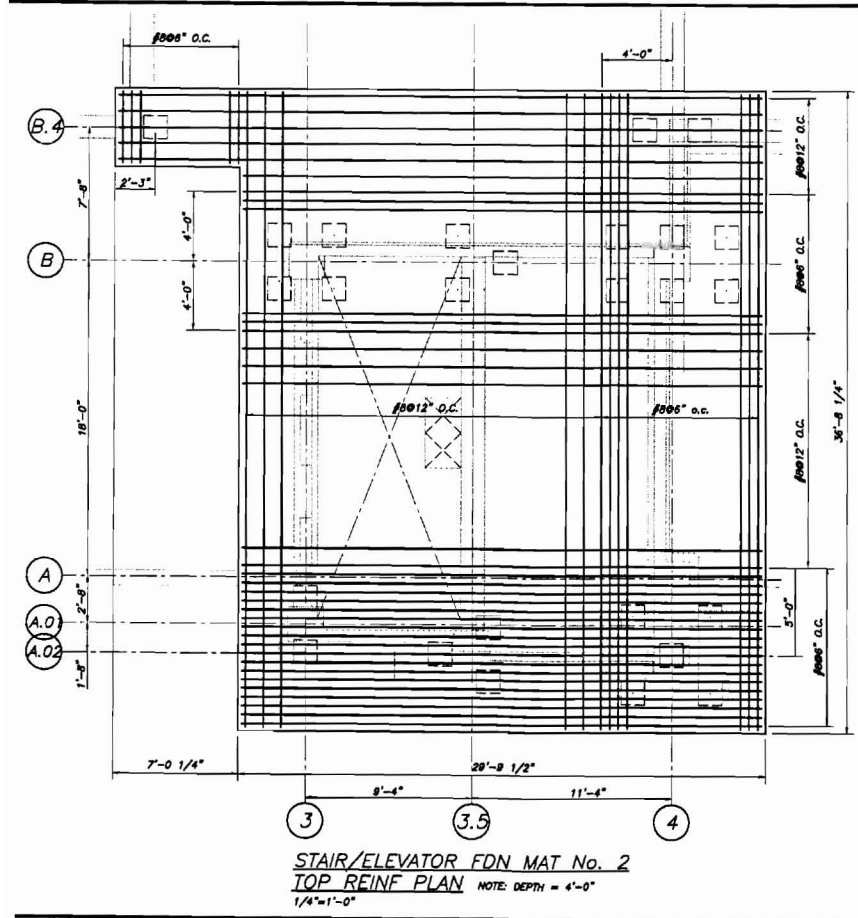
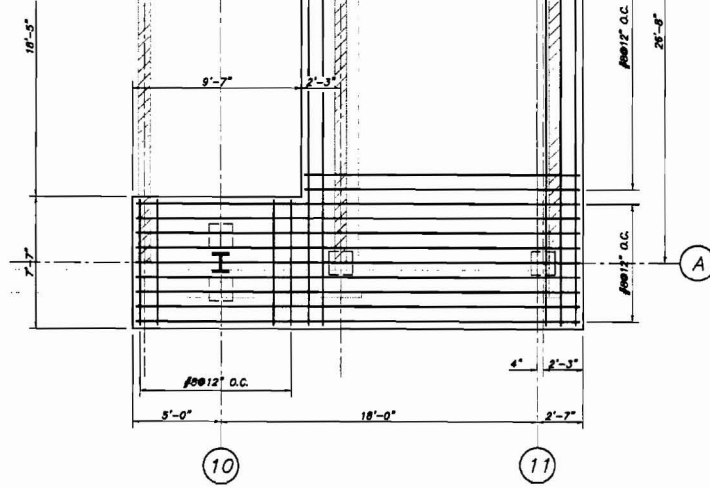
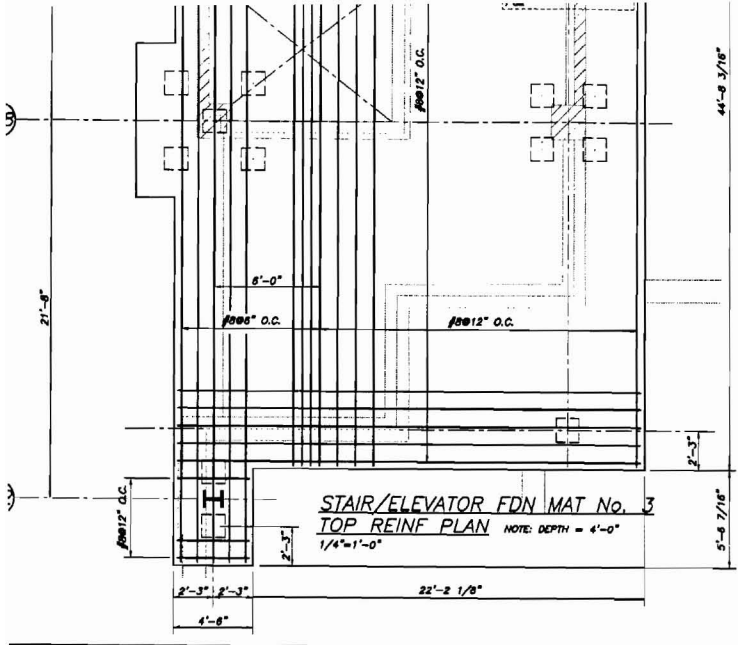
TYP CONCRETE SECTIONS & DETAILS

PA / PE EAR

Drawn By: App


Drawing Number

S2.1



HA Project No. 06198

Key Plan



Issue	03.09.07	FOUNDATION PERMIT SET
Mark	Date	Description
Issue	Dates	

Drawing Status

FOUNDATION PERMIT SET

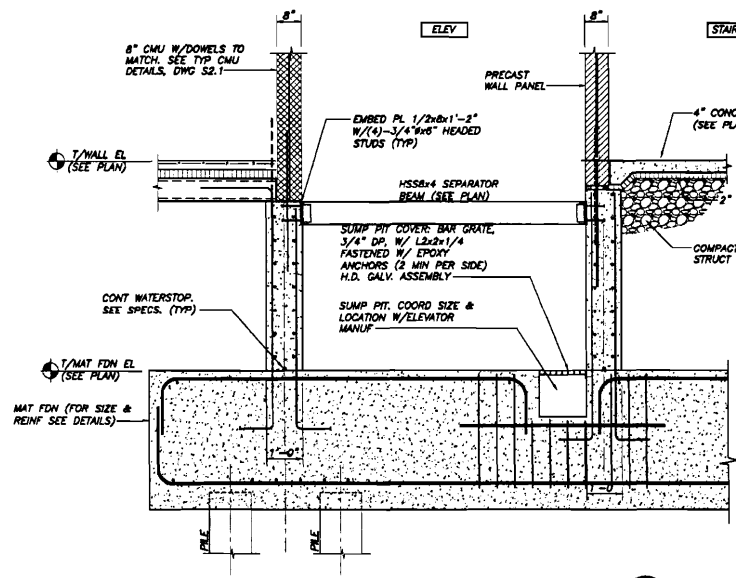
Drawing Title

PILE CAP & GRADEBEAM PLAN

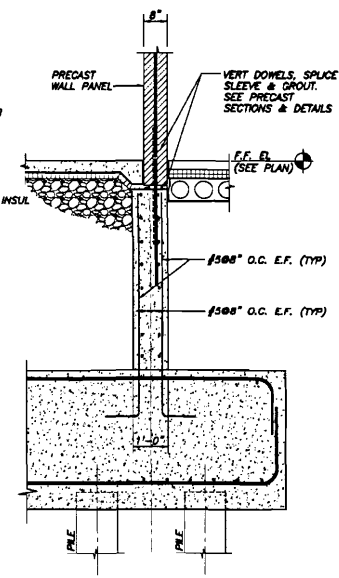
PA / PC: EAR Drawn By: APP

Drawing Number

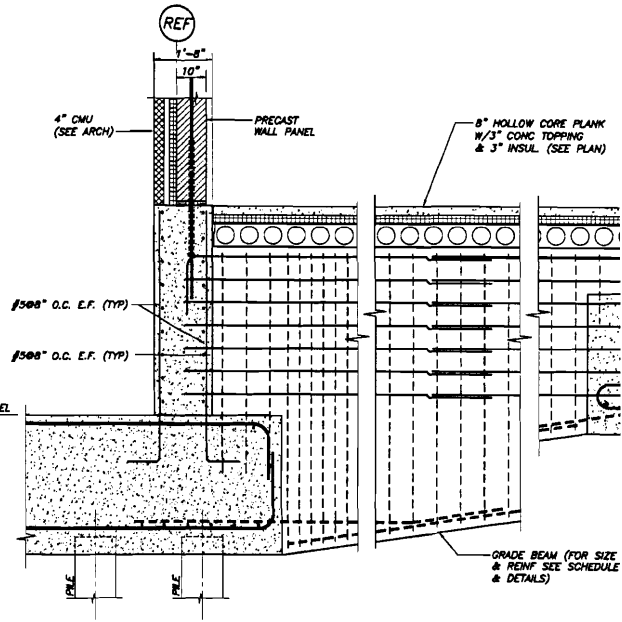
S1.1A



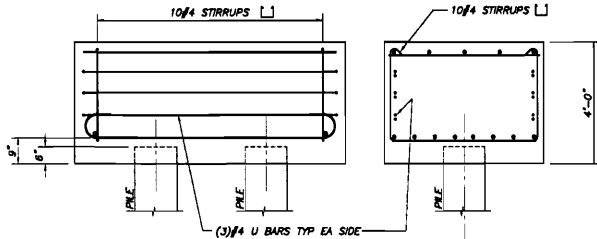
SECTION 1
1/2"=1'-0"



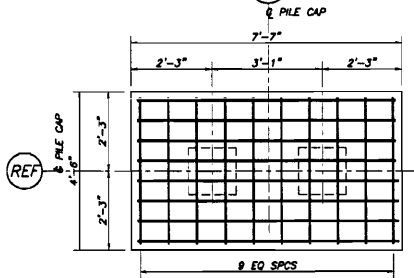
SECTION 2
1/2"=1'-0"



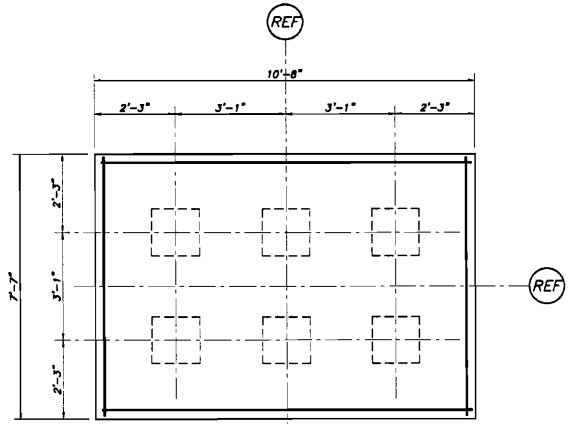
SECTION 3
1/2"=1'-0"



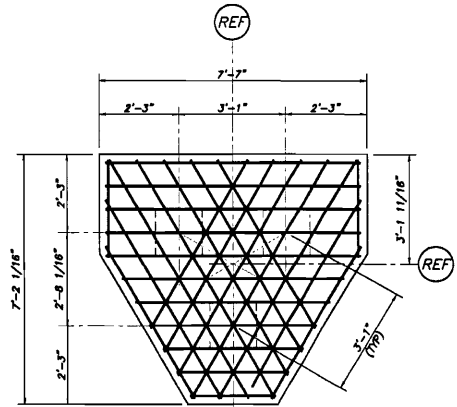
REF ADDL REINF AT PC2



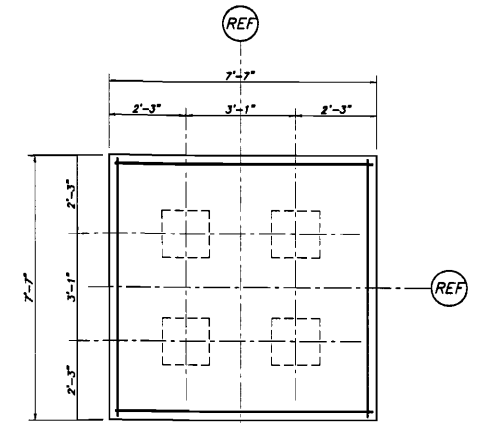
PC2
DEPTH = 4'-0"
BOTTOM REINF: 8#8 L.W. W/STD 180' HOOKS (SHOWN)
TOP REINF: 5#8 L.W.



PC6
DEPTH = 4'-8"
BOTTOM REINF: 13#9 E.W. W/STD 180' HOOKS



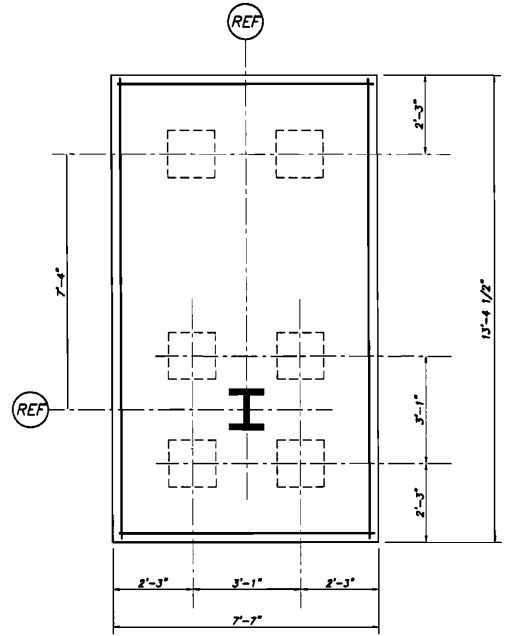
PC3
DEPTH = 4'-0"
BOTTOM REINF: 7#8 (3) WAYS W/STD 180' HOOKS



PC4
DEPTH = 4'-0"
BOTTOM REINF: 11#8 E.W. W/STD 180' HOOKS

TYP PILE CAP DETAILS

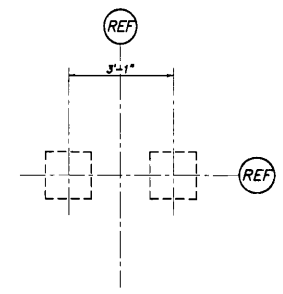
- NOTES:
1. PILES SHALL BE 250 KIP (125 TON) NET CAPACITY PILES.
2. ALL PILE REINF SHALL BE BOT U.N.O.



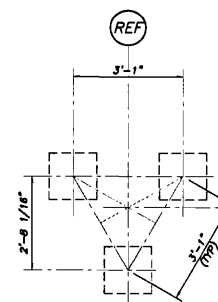
PC4-2
DEPTH = 4'-0"
BOTTOM REINF: 11#8 L.W. W/STD 180' HOOKS
18#8 S.W. W/STD 180' HOOKS

PC4-3 (SIM)

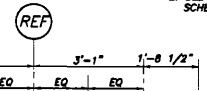
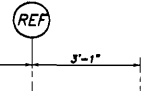
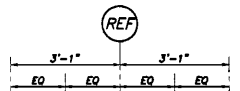
DEPTH = 4'-0"
BOTTOM REINF: 11#8 L.W. W/STD 180' HOOKS
18#8 S.W. W/STD 180' HOOKS



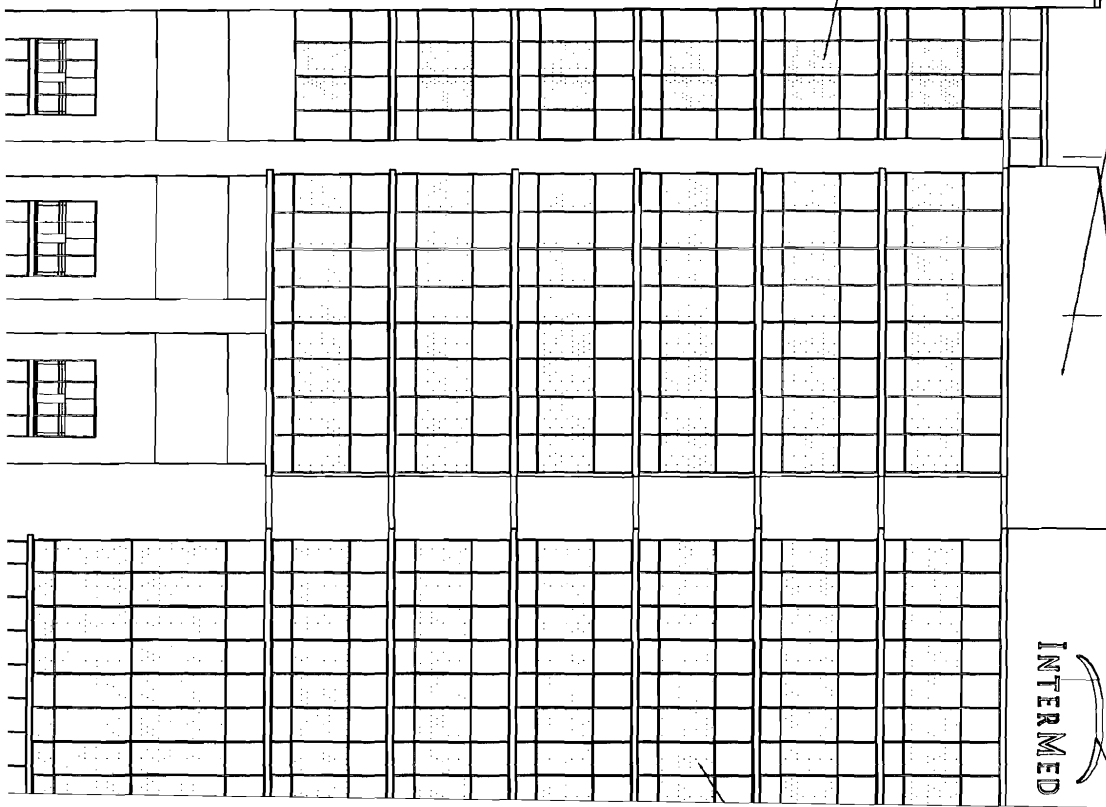
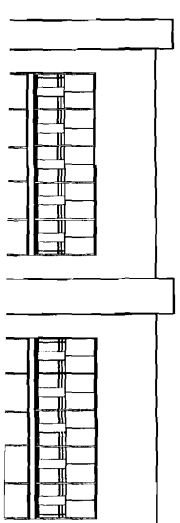
PG2
CONCRETE DEPTH AT PILE GROUP = 4'-0"



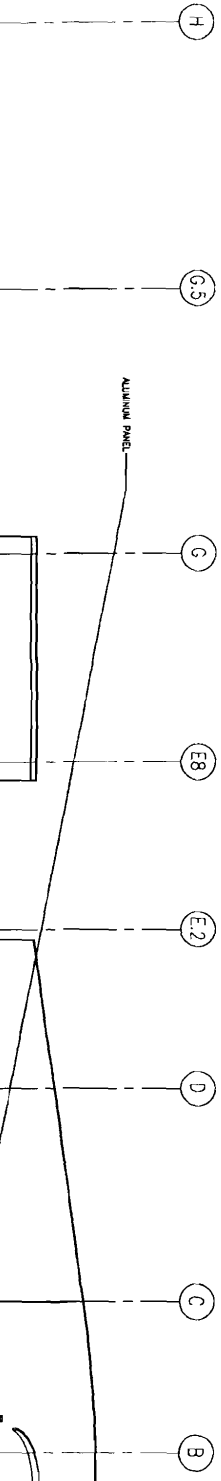
PG3
CONCRETE DEPTH AT PILE GROUP = 4



TYP PILE C
NOTES:
1. PILES SHALL BE H
2. SEE SECTIONS, DET
SCHEDULE FOR AD



INTERMED

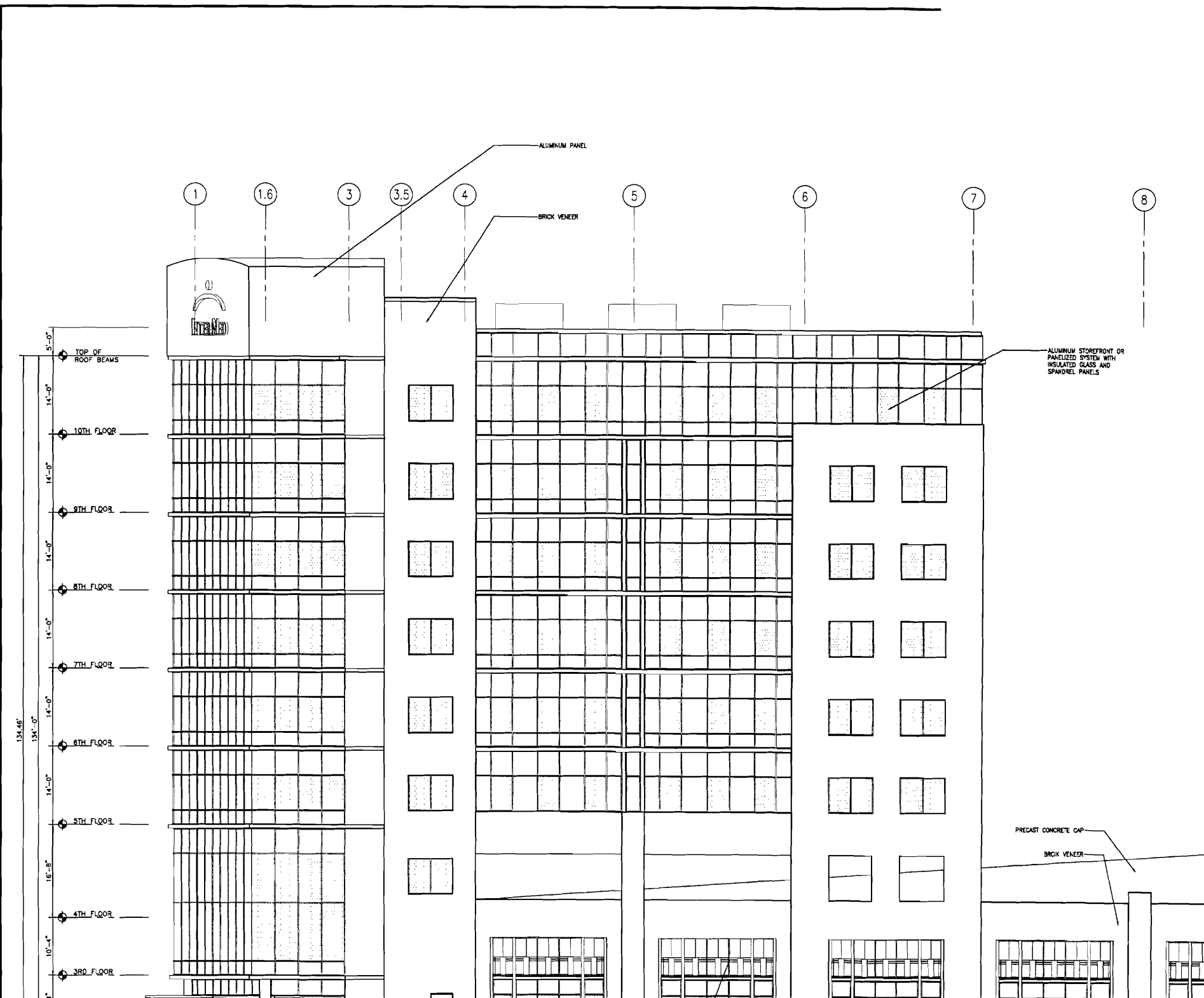


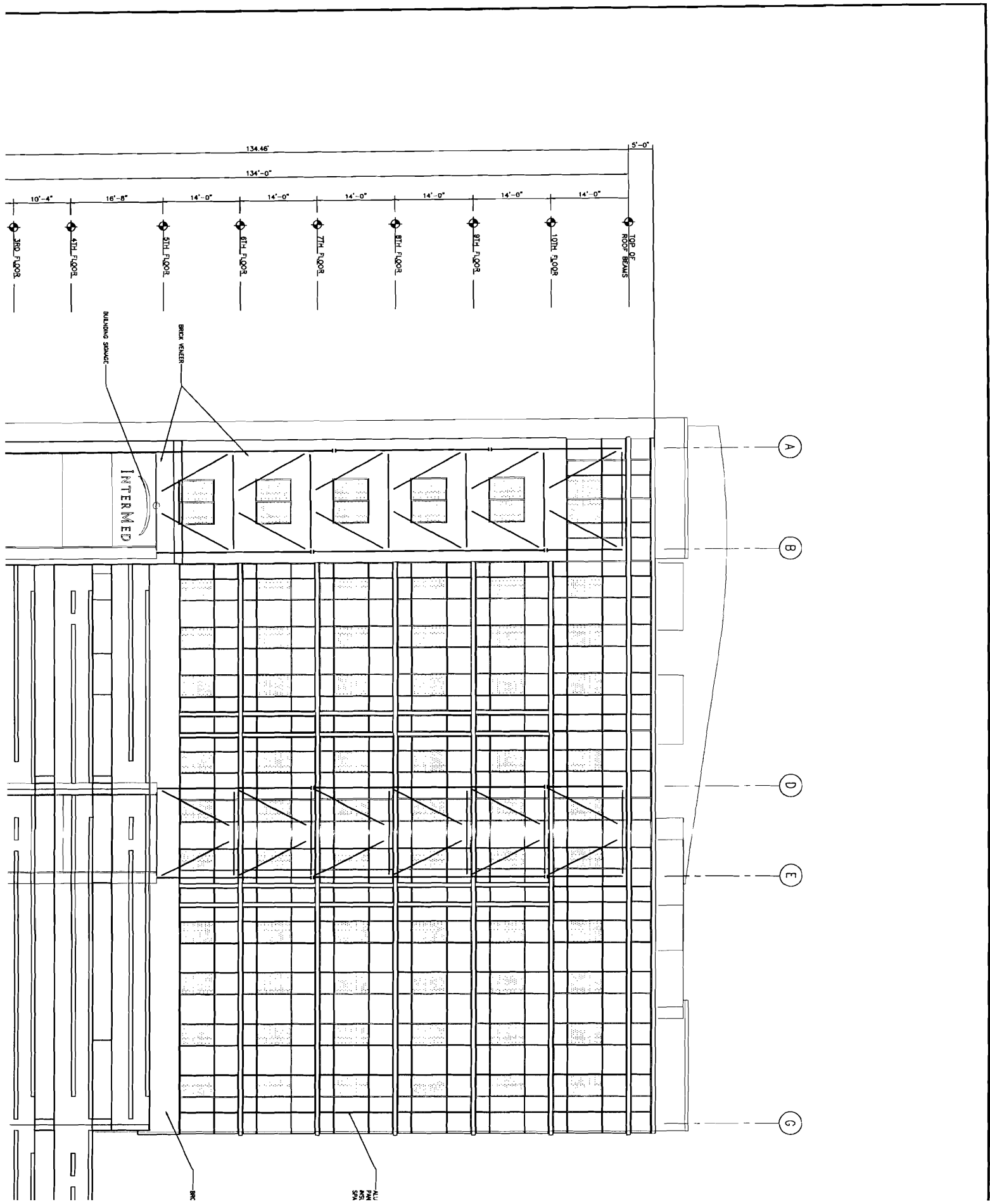
ALUMINUM FRAMED
PARTIALLY INSULATED GLASS

BRICK VENEER

ALUMINUM
STRONGFLEX OR
ALUMINUM
WITH INSULATED
GLASS AND SPANDREL
PANELS

ALUMINUM PANEL





A

B

D

E

G

TOP OF ROOF BEAMS

10TH FLOOR

9TH FLOOR

8TH FLOOR

7TH FLOOR

6TH FLOOR

5TH FLOOR

4TH FLOOR

3RD FLOOR

134'-0"

134'-46"

14'-0"

14'-0"

14'-0"

14'-0"

14'-0"

16'-8"

10'-4"

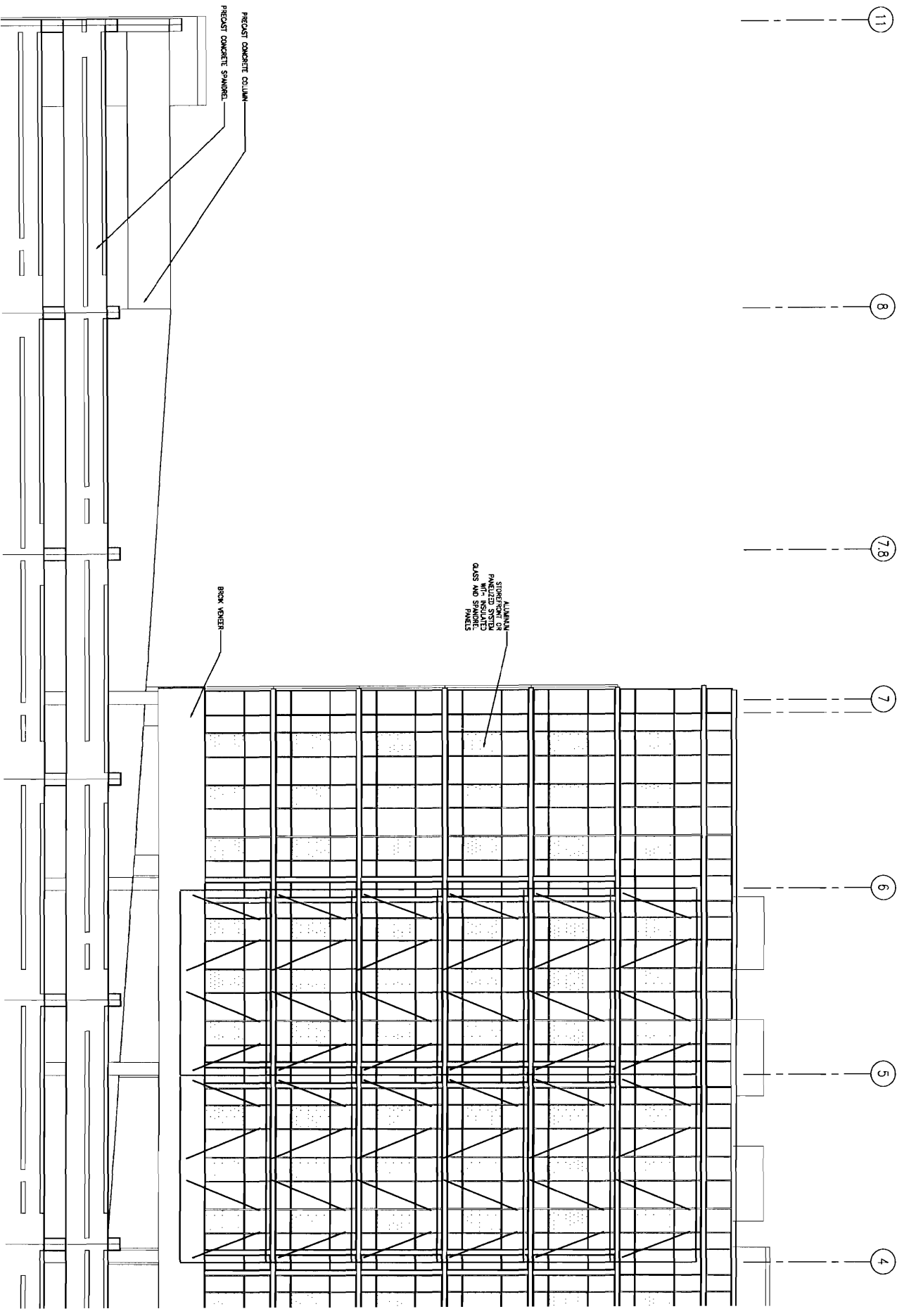
BUILDING SERVICE

BRICK VENER

INTERMED

ALL DIM IN MM

MM



PRECAST CONCRETE COLUMN
PRECAST CONCRETE SPANREL

BRICK VENEER

ALUMINUM
STOREFRONT ON
FRAMED SYSTEM
WITH SPANDREL
GLASS AND SPANREL
PANELS

11

8

7.8

7

6

5

4