

**GRADING & DRAINAGE NOTES:**

1. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF n = 0.013 OR LESS, UNLESS A SPECIFIC PIPE MATERIAL IS CALLED FOR ON THE CONTRACT DRAWINGS. CPP AND PVC PIPING SHALL NOT BE USED IN AREAS OF EXPOSED SUNLIGHT.
2. ALL SLOPES STEEPER THAN 3:1 ARE TO RECEIVE RIPRAP SLOPE PROTECTION OR TURF REINFORCEMENT.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING EARTHWORK OPERATIONS TO INSURE THAT THE STEEP SLOPE AREAS ARE NOT DISTURBED. THE LIMITS OF CLEARING SHALL BE 1' BEYOND THE GRADING LIMITS AS SHOWN ON THE SITE LAYOUT PLAN AND AS WELL AS ON THIS PLAN SHEET.
4. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT DIG SAFE (1-888-DIGSAFE) AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES.
5. ALL PAVEMENT JOINTS SHALL BE SAWCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
6. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
7. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
8. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, PHYSICAL FEATURES, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
10. EXTERIOR GRADES AROUND PROPOSED STRUCTURES SHALL BE COORDINATED WITH FINAL BUILDING PLANS AND PROVIDE FOR ALL ACCESS OPENINGS INCLUDING MANDOOKS, OVERHEAD DOORS AND LOADING DOCKS.

**EROSION CONTROL NOTES:**

1. LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
2. PRIOR TO BEGINNING ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL THE PERIMETER SILT FENCES AND THE STABILIZED CONSTRUCTION ENTRANCES.
3. ALL GROUND AREAS DISTURBED DURING CONSTRUCTION WILL BE GRADED, LOAMED AND SEEDED AS SOON AS POSSIBLE.
4. SILT BARRIERS SHALL BE INSPECTED, REPAIRED AND CLEANED AS NOTED IN THE EROSION CONTROL NOTES SHOWN ON THE EROSION CONTROL DETAIL SHEET.
5. THE CONTRACTOR SHALL REPAIR AND ADD STONE TO THE CONSTRUCTION ENTRANCES AS THEY BECOME SATURATED WITH MUD TO ENSURE THAT THEY WORK AS PLANNED DURING CONSTRUCTION AND SHALL KEEP RIVERSIDE STREET CLEAR OF DIRT AND MUD.
6. SILT REMOVED FROM AROUND INLETS AND BEHIND THE SILT FENCES SHALL BE PLACED ON A TOPSOIL STOCKPILE AND MIXED INTO IT FOR LATER USE IN LANDSCAPING OPERATIONS.
7. CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITIES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST THREE (3) BUT NOT MORE THAN (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 M.R.S.A. §350-A.
8. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL SERVICES IN CONDUIT TO SIGHT LIGHTING, COMPLYING WITH APPLICABLE CODES. COORDINATE WITH OWNER AND ARCHITECTURAL AND CMP PLANS. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL CONFIRM WITH CMP, CABLE AND TELEPHONE COMPANIES INDIVIDUAL UTILITY REQUIREMENTS FOR INSTALLATION AND LOCATIONS OF UTILITIES.
9. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
10. FILL AREAS UNDER PAVEMENT SHALL BE GRANULAR BORROW. ALL OTHER FILL AREAS SHALL BE A COMMON BORROW MATERIAL SUITABLE FOR EMBANKMENT CONSTRUCTION, FREE FROM FROZEN MATERIAL, PERISHABLE RUBBLE, PEAT, ORGANICS, ROCKS LARGER THAN 12" IN DIAMETER, VEGETATION AND OTHER MATERIAL UNSUITABLE FOR ROADWAY AND SUBGRADE CONSTRUCTION. EXCAVATED ON-SITE MATERIALS MAY BE USED FOR FILL PROVIDED THE MATERIAL IS FREE FROM UNSUITABLE MATERIAL DESCRIBED IN THIS NOTE AND UPON APPROVAL OF THE ENGINEER GRANULAR BORROW AND COMMON BORROW SHALL COMPLY WITH THE MDOT SPECIFICATIONS.
11. ALL FILLS SHALL BE PLACED LAYERS NOT MORE THAN 12" LOOSE DEPTH AND COMPACTED BY HEAVY COMPACTION EQUIPMENT. MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ASTM 1557, MODIFIED AND FIELD DENSITY ASTM D2922 (NUCLEAR METHODS).
12. IMMEDIATELY UPON COMPLETION OF CUTS/FILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AS SPECIFIED ON PLANS.
13. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH "MAINE EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES" PUBLISHED BY THE COMERLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 1991 OR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO POSSESS A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.

STRUCTURE SCHEDULE				
STRUCTURE ID	SIZE	RIM	INV IN	INV OUT
CB 3	4' Ø	67.10	60.62 (12")	60.52 (12")
CB 4	4' Ø	67.50	62.07 (12") 61.1± (4" FD)	60.98 (12")
CB 5	4' Ø	67.50	62.79 (6")	62.69 (12")
CB 6	2' SQ	65.0±		62.67 (8")
EX CB	4' Ø	68.0±	59.10	59.00

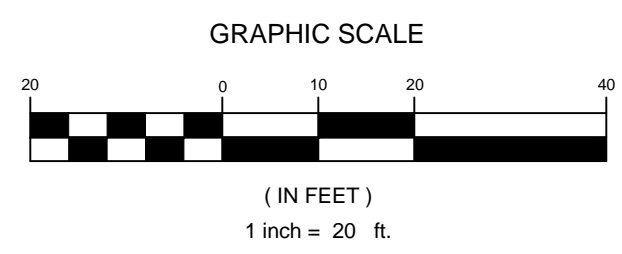
\* A TEST PIT TO VERIFY THE EXISTING INVERT OF THE 12" STUB SHALL BE PERFORMED PRIOR TO SUBMITTING SHOP DRAWINGS FOR ANY NEW STRUCTURES

STORM DRAIN SCHEDULE					
PIPE ID	SIZE	TO	FROM	LENGTH	SLOPE
SD 3	15" HDPE	CB 2	CB 3	88'	0.0150
SD 4	12" HDPE	CB 3	CB 4	90'	0.0040
SD 5	12" HDPE	CB 4	CB 5	62'	0.0100
SD 6	6" PVC	CB 5	DRIP STRIP	112'	0.0050
SD 7	8" PVC	TEE	CB 6	12'	0.0100

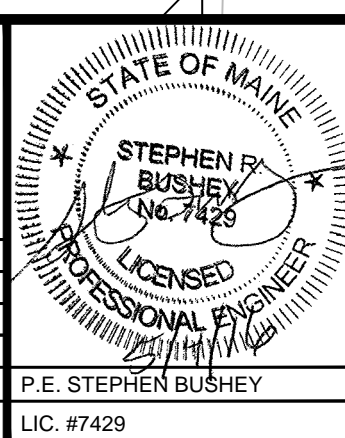
**NOTE:**

STORM WATER MANAGEMENT: THE DEVELOPER/CONTRACTOR/SUBCONTRACTOR SHALL COMPLY WITH CONDITIONS OF THE SUBMITTED CONSTRUCTION STORMWATER MANAGEMENT PLAN, SEDIMENT AND EROSION CONTROL PLAN AND INSPECTION AND MAINTENANCE PLAN DATED APRIL 2016 AND PREPARED BY STANTEC AND BASED ON CITY STANDARDS AND STATE GUIDELINES. THE OWNER/OPERATOR OF THE APPROVED STORMWATER MANAGEMENT SYSTEM AND ALL ASSIGNS SHALL COMPLY WITH THE CONDITIONS OF CHAPTER 32 STORMWATER INCLUDING ARTICLE III, POST CONSTRUCTION STORMWATER MANAGEMENT, WHICH SPECIFIES THE ANNUAL INSPECTIONS AND REPORTING REQUIREMENTS.

A MAINTENANCE AGREEMENT FOR THE STORMWATER DRAINAGE SYSTEM, BE SUBMITTED, SIGNED AND RECORDED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT WITH A COPY TO THE DEPARTMENT OF PUBLIC SERVICES.



REV	DATE	DESCRIPTION
4	05.04.16	SUBMITTED FOR FINAL APPROVAL
3	04.25.16	REVISED LOADING DOCK
2	04.14.16	REVISED SUBMISSION TO CITY OF PORTLAND
1	02.25.16	AMENDED SITE PLAN SUBMISSION



PROJECT  
SECOND TEE CONDOMINIUM ASSOCIATION  
BUSINESS PARK EXPANSION - UNIT 2

SHEET TITLE  
**GRADING, DRAINAGE AND  
EROSION CONTROL PLAN**

CLIENT  
**1039 RIVERSIDE LLC**

**STANTEC CONSULTING SERVICES INC.**  
482 PAYNE ROAD  
SCARBOROUGH, ME 04074  
WWW.STANTEC.COM

**Stantec**

DRAWN: DED DATE: FEB 2016  
DESIGNED: SRB SCALE: 1" = 20'  
CHECKED: SRB JOB NO. 195350348  
FILE NAME: 195350146\_GRADING  
SHEET **C-5**