PLAN KEY NOTES

#		
A5 / C5201	1	STANDARD JUNCTION BOX & CASTING (TYP.)
A2 / C5201	2	DROP INLET (TYP.)
C2 / C5201	3	STANDARD CONCRETE CATCH BASIN (CURB INLET) (TYP.)
D1 / C5202	4	NDS INLET (TYP.)
B1 / C5202	5	STORMWATER CLEANOUT (TYP.)
B1 / C5202	6	ROOF DRAIN CONNECTION & STD. CLEANOUT ASSEMBLY (TYP.)
C4 / C4201	7	UNDERGROUND DETENTION
C4 / C4201	8	STORM FILTER
A3 / C4201	9	PERMEABLE PAVEMENT
B3 / C4202	10	PERMEABLE PAVEMENT OUTLET STRUCTURE & CASTING
1 B5 / C5202	11	NDS DRAIN INTO UNDERGROUND DETENTION

*RIM ELEV. REFER TO:

JUNCTION BOX/CO	TOP OF MANHOLE COVER
CATCH BASIN	BOT OF CURB/TOP OF GRATE
DROP INLET/NDS	TOP OF CASTING/GRATE
PIPE END	INVERT

PIPE TABLE

US STR	DS STR	DIAMETER (IN)	MATERIAL	US INV. ELEV. (FT)	DS INV. ELEV. (FT)	LENGTH (FT)	SLOPE (FT/FT)
1	2	15	RCP	258.40	258.00	113	0.0035
2	3	15	RCP	258.00	257.60	88	0.0045
3	4	15	RCP	257.60	257.40	43	0.0047
4	6	18	RCP	257.40	257.10	82	0.0037
5	6	18	RCP	258.00	257.10	88	0.0102
6	7	18	RCP	257.10	256.70	96	0.0042
7	8	18	RCP	256.70	256.10	128	0.0047
8	UD IN #1	24	RCP	256.10	256.00	22	0.0044
10	11	6	PVC	261.40	261.20	12	0.0165
11	12	6	PVC	261.20	260.50	70	0.0100
12	UD IN #2	6	PVC	260.50	259.00	16	0.0951
15	16	15	RCP	257.50	256.00	22	0.0693
17	18	15	PVC	260.40	258.60	116	0.0155
18	19	15	PVC	258.60	257.00	77	0.0209
EX	4	15	RCP	259.60	258.20	37	0.0375

STRUCTURE TABLE

STR. ID	RIM ELEV.* (FT)	STRUCTURE TYPE
1	261.40	CB
2	261.10	CB
3	261.10	CB
4	261.70	CB
5	261.00	DI
6	263.00	JB
7	264.80	JB
8	264.40	JB
10	264.40	NDS
11	256.00	NDS
12	264.60	NDS
15	264.00	DI
16	256.00	PIPE END
17	263.40	NDS INLET
18	261.60	NDS INLET
19	259.10	PIPE END
EX	256.60	PIPE END
UD IN #1	256.00	UD IN
UD IN #2	259.00	UD IN

DRAWING LEGEND

SYMBOL/ABBREVIATION EXISTING	PROPOSED	DESCRIPTION
		TREE
S		SEWER MANHOLE
D	D	STORM JUNCTION BOX
		DROP INLET
		CATCH BASIN
		PROPERTY LINE
RD	RD	ROOF DRAINAGE PIPE
SD		STORM DRAINAGE PIPE
G		GAS LINE
SS	SS	SANITARY SEWER
W	W	WATER LINE
X		FENCE LINE
CATV		TELECOMMUNICATIONS LINE
FO		FIBER OPTIC LINE
UE		UNDERGROUND ELECTRIC LINE
		EASEMENT LINE
282	282	MINOR CONTOUR
280	280	MAJOR CONTOUR
		RETAINING WALL
		PERMEABLE PAVEMENT SURFACE

GRADING AND STORM DRAINAGE NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CHAPEL HILL, NCDOT, ORANGE COUNTY, AND OWASA STANDARDS AND SPECIFICATIONS.
2. THE PERMEABLE PAVEMENT SYSTEM IS DESIGNED TO MEET NCDWQ BMP MANUAL REQUIREMENTS AND THE TOWN OF CHAPEL HILL'S STORMWATER MANAGEMENT REQUIREMENTS, INCLUDING THE JORDAN LAKE RULES.
3. SPECIAL CARE IS NEEDED FOR THE SUBGRADE OF THE PERMEABLE PAVEMENT SYSTEMS, REFER TO PROJECT SPECIFICATIONS AND PERMEABLE PAVEMENT SHEETS C4202 FOR ADDITIONAL REQUIREMENTS.
4. ALL STORM DRAINAGE PIPING WITH INSIDE DIAMETER OF 15 INCHES AND LARGER SHALL BE CLASS III RCP. SMALLER PIPING MATERIAL IS DUAL WALL HDPE OR AS SHOWN.
5. A FINAL STORMWATER MANAGEMENT INSPECTION MUST BE SCHEDULED WITH THE TOWN OF CHAPEL HILL STORMWATER DIVISION AT LEAST 10 DAYS IN ADVANCE OF REQUESTING THE CERTIFICATE OF OCCUPANCY.
6. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY THE ENGINEER OF RECORD SHALL SUBMIT AS-BUILT PLANS AND SHALL CERTIFY THAT ALL STORMWATER BMP'S HAVE BEEN CONSTRUCTED PER THE APPROVED CONSTRUCTION PLANS.
7. ALL PLANTED PERIMETER BUFFERS TO BE GRADED WITH MAXIMUM GRADE OF 3:1 AS SHOWN.
8. HVAC CONDENSATE AND FLOOR DRAINS UNDER A ROOF SHALL NOT BE DISCHARGED INTO STORM SEWER NETWORK.
9. NO POOL BACKWASH WATER ALLOWED TO DISCHARGE INTO STORM SEWER NETWORK.
10. DEWATERING OF THE POOL WATER INTO STORM SEWER NETWORK IS NOT ALLOWED UNLESS DE-CHLORINATED.
11. SALT WATER POOL DISCHARGE IS PROHIBITED TO THE STORM SEWER NETWORK.
12. DISCHARGE FROM THE HYDRAULIC ELEVATOR SUMP SHALL NOT BE CONNECTED TO THE STORM SEWER NETWORK.
13. ALL ROOF DRAIN PLUMBING INTENDED TO DISCHARGE TO STORM SEWER PIPE NOT SHOWN ON APPROVED PLAN SHEET ARE NOT APPROVED. ANY DISCHARGE TO STORM SEWER PIPE NOT APPROVED WILL NEED A REVIEW AND APPROVAL FROM THE STORMWATER MANAGEMENT DIVISION.

NC GRID NAD 83

1 **GRADING & DRAINAGE PLAN**

20 0 10 20 40

(GRAPHIC SCALE IN FEET)
1 inch = 20 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

BALLENTINE ASSOCIATES, P.A.
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Ballentine Associates, P.A. CORPORATE SEAL C328 NORTH CAROLINA Chapel Hill

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILLON W. SMITH 28 JUN 17

NUM	REVISIONS	DATE
A	PER E-F FDP REVIEW COMMENTS	28 JUN 17

OWNER INFORMATION
RAM REALTY ADVISORS
1930 CAMDEN RD.
CHARLOTTE, NC 28203

OWNERS REPRESENTATIVE:
DAVID KLEPSER
PH. (704) 377-8773
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EMAIL dklepser@ramrealtyadvisors.com

ISSUED	DATE
E-F FDP SUBMITTAL #1	21 APR 17
E-F FDP SUBMITTAL #2	28 JUN 17

FORDHAM BLVD. APARTMENTS

CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

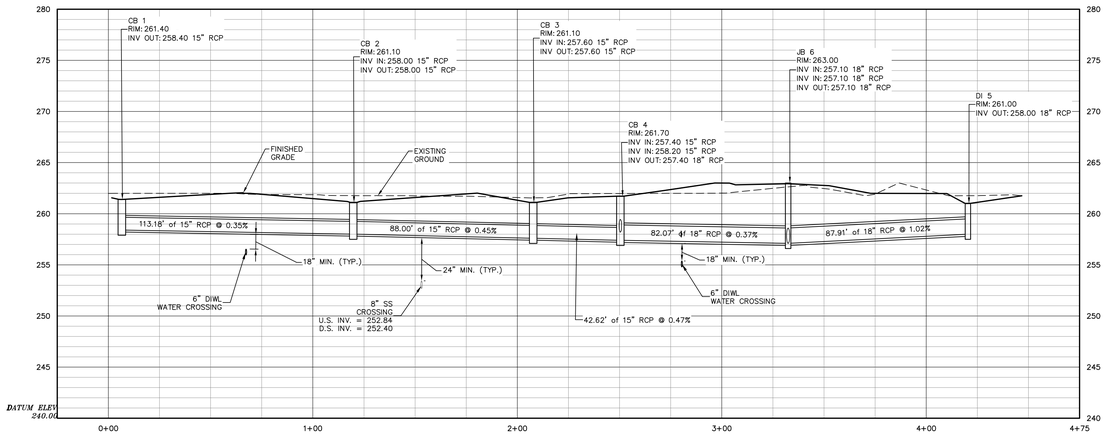
JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C1201

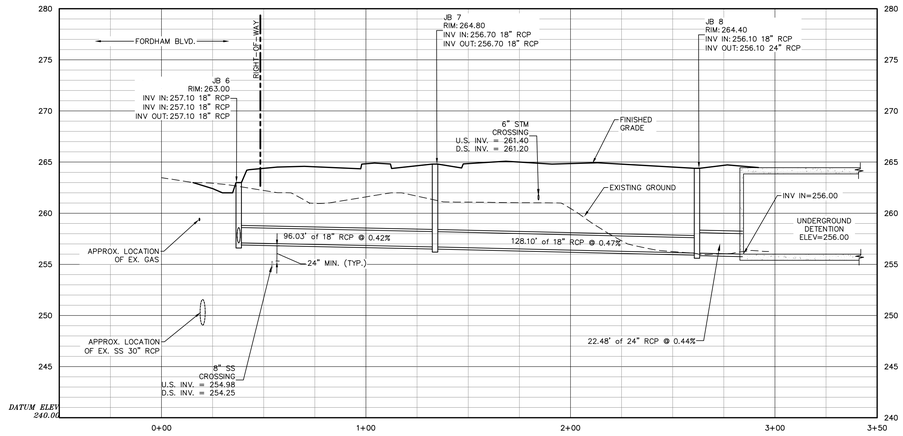
N:\Projects\116026.00 Fordham Blvd Apartments\1_Dwg\BA-Model Files\C1200-Grading-Fordham.dwg, 6/28/2017 12:20:25 PM, dflora

NOTES

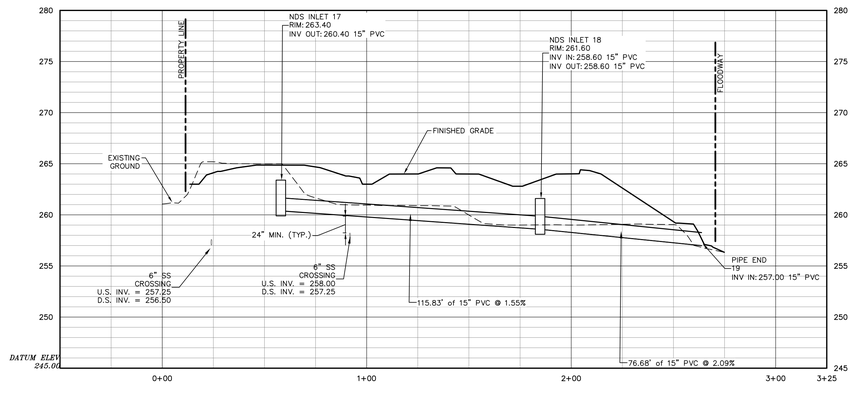
1. SEE SHEET C1201 FOR GRADING & DRAINAGE NOTES.



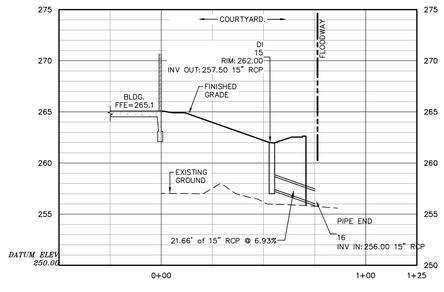
C4 / C1210 STORM PROFILE: CB 1 TO DI 5
SCALE: H: 1" = 30' V: 1" = 6'



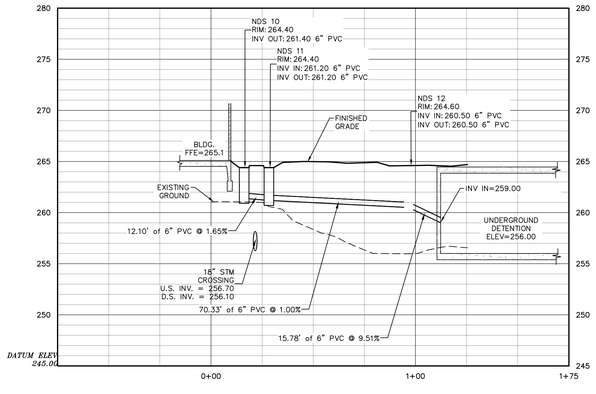
C2 / C1210 STORM PROFILE:
JB 6 TO UNDERGROUND DETENTION
SCALE: H: 1" = 30' V: 1" = 6'



A4 / C1210 STORM PROFILE:
NDS INLET 17 TO END OF PIPE
SCALE: H: 1" = 30' V: 1" = 6'



A3 / C1210 STORM PROFILE: DI 15 TO END OF PIPE
SCALE: H: 1" = 30' V: 1" = 6'



A1 / C1210 STORM PROFILE:
NDS 10 TO UNDERGROUND DETENTION
SCALE: H: 1" = 30' V: 1" = 6'

STORM DRAINAGE PROFILES

REVIEW DRAWING
NOT FOR CONSTRUCTION

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Ballentine Associates, P.A. CORPORATE SEAL C328 NORTH CAROLINA Chapel Hill

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILON W. SMITH

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1	PER E-F FDP REVIEW COMMENTS	28 JUN 17
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3		
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8		

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FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

JOB #: 116026.00
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SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C1210

N:\Projects\116026.00 Fordham Blvd Apartments\1___Dwg\BA-Model Files\C1210-Storm_Profiles-Fordham.dwg, 6/28/2017 11:15:36 AM, frankie

CONSTRUCTION SEQUENCE

1. OBTAIN ORANGE COUNTY EROSION CONTROL PERMIT, TOCH APPROVAL, AND ANY APPLICABLE ENCROACHMENT AGREEMENT PERMIT/APPROVAL TO PROCEED.
2. SCHEDULE AND HOLD A PRE-CONSTRUCTION MEETING WITH ORANGE COUNTY EROSION CONTROL (PHONE: 919-968-2586) AND SOLID WASTE MANAGEMENT DEPARTMENT AT LEAST ONE WEEK PRIOR TO BEGINNING CONSTRUCTION. THIS MAY BE THE SAME MEETING HELD WITH OTHER DEVELOPMENT REGULATORS, INCLUDING TOWN OF CHAPEL HILL STAFF.
3. LOCATE ALL EXISTING UTILITIES WITHIN PROJECT AREA (PUBLIC AND PRIVATE).
4. INSTALL CONSTRUCTION ENTRANCE. INSTALL TREE PROTECTION FENCE (SEE C0101), STANDARD SILT FENCE, SILT FENCE STONE OUTLETS, AND INLET PROTECTION AS SHOWN. CALL ORANGE COUNTY EROSION CONTROL AT 919-968-2586 AND TOWN OF CHAPEL HILL PLANNING AT 919-968-2728 FOR AN INSPECTION.
5. DEMO, CLEAR AND GRUB AS NECESSARY TO INSTALL RETAINING WALL, SKIMMER BASIN AND DIVERSION DITCH. COORDINATE WITH UTILITY PROVIDERS AS NEEDED, SEE SHEET C0101.
6. INSTALL RETAINING WALL ALONG WESTERN PROPERTY LINE WITH 24" RCP PIPE AND STORMWATER JUNCTION BOX AS SHOWN.
7. INSTALL SEDIMENT BASIN. TIE SEDIMENT BASIN SKIMMER PIPE INTO PROPOSED STORMWATER JUNCTION BOX AS SHOWN.
8. SEED ALL AREAS DISTURBED BY INSTALLATION OF ABOVE MEASURES.
9. CALL ORANGE COUNTY EROSION CONTROL FOR INSPECTION AT 919-968-2586.
10. UPON APPROVAL FROM ORANGE COUNTY & THE TOWN OF CHAPEL HILL, CLEAR AND GRUB SITE WITHIN DISTURBED LIMITS NOTED ON PLANS. EXISTING STORM DRAIN SYSTEM SHALL REMAIN THROUGHOUT THE CLEARING AND DEMO PROCESS. DEMO BUILDINGS, SIDEWALKS, PAVEMENT, ETC. AND ALL OTHER UTILITIES AS SHOWN ON SHEET C0101. STOCKPILE TOPSOIL IN AREAS DESIGNATED FOR TOPSOIL STOCKPILES.
11. SEE SHEET C1302 FOR PHASE 2 EROSION CONTROL AND CONSTRUCTION SEQUENCE.

EROSION CONTROL & GRADING NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ORANGE COUNTY AND THE TOWN OF CHAPEL HILL STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (1-800-632-4949). LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
3. THIS PLAN IS DIAGRAMMATIC AND REPRESENTS THE APPROXIMATE LOCATION OF UTILITIES UNLESS SPECIFICALLY DIMENSIONED. THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION OF UTILITIES TO AVOID CONFLICTS AND MEET MINIMUM SIZE, SLOPE, AND CODE REQUIREMENTS.
4. TOTAL DISTURBED AREA: 3.9 AC. THIS INCLUDES ALL DISTURBANCE REQUIRED FOR FULL SITE CONSTRUCTION.
5. NO BURNING IS PERMITTED.
6. ALL EROSION CONTROL DEVICES, INCLUDING INLET PROTECTION, SHALL BE MAINTAINED AS NEEDED, AT LEAST ONCE A WEEK AND AFTER EVERY RUNOFF PRODUCING RAINFALL EVENT TO ENSURE DEVICES ARE FUNCTIONING PROPERLY.
7. CONTRACTOR SHALL INSPECT THE EROSION AND SEDIMENT CONTROL DEVICES DAILY, MAKE ANY NECESSARY REPAIRS OR ADJUSTMENTS TO THE DEVICES, AND MAINTAIN INSPECTION LOGS DOCUMENTING THE DAILY INSPECTIONS AND ANY NECESSARY REPAIRS.
8. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT AND REMOVE THE DEPOSIT OF SILT ON ADJACENT PAVED ROADWAYS.
9. SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF DISTURBANCE. ALL DISTURBED AREAS SHALL BE NON EROSIVE AND STABLE AS DESCRIBED IN THE GROUND STABILIZATION REQUIREMENTS TABLE (THIS SHEET).
10. ROUGH GRADING IN AREAS OF PERMEABLE PAVEMENT IS INTENTIONALLY SHOWN HIGHER THAN SUBGRADE TO PROVIDE POSITIVE DRAINAGE AND PROTECTION OF SUBGRADE DURING CONSTRUCTION.
11. TOPSOIL STOCKPILE AREAS SHALL HAVE A MAXIMUM HEIGHT OF 15' WITH SIDE SLOPES NO STEEPER THAN 3:1.

CONSTRUCTION MANAGEMENT NOTES

1. CONSTRUCTION SHALL COMPLY WITH THE CHAPEL HILL NOISE ORDINANCE, ARTICLE 3, SECTION 11-40.
2. CONSTRUCTION HOURS SHALL BE FROM 8:00 AM – 7:00 PM ON WEEKDAYS AND 10:00 AM – 7:00 PM ON SATURDAYS. THERE SHALL BE NO CONSTRUCTION ACTIVITIES ON SUNDAYS OR ON FEDERAL HOLIDAYS.
3. ALL CONSTRUCTION EQUIPMENT SHALL BE OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, AND WITH ALL STANDARD EQUIPMENT, AND WITH MANUFACTURER'S MUFFLERS AND NOISE-REDUCING EQUIPMENT IN USE, AND IN PROPER OPERATING CONDITION.
4. NO BLASTING OR BURNING ARE PERMITTED ON SITE.
5. A WATER TRUCK SHALL BE USED TO MINIMIZE DUST.
6. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT AND REMOVE THE DEPOSIT OF SILT ON ADJACENT PAVED ROADWAYS.
7. CONSTRUCTION WORKERS SHALL PARK WITHIN THE SITE – NO PARKING ON PUBLIC STREETS.
8. CONSTRUCTION VEHICLES TO ACCESS THE SITE FROM FORDHAM BOULEVARD.
9. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED FROM FORDHAM BOULEVARD.
10. NO MATERIAL SHALL BE STOCKPILED OR STORED ON OWASA WATER OR SEWER EASEMENTS.
11. CONTRACTOR SHALL USE COMMERCIALLY REASONABLE EFFORTS TO ENSURE THAT LIGHT FROM CONSTRUCTION-RELATED ACTIVITIES DOES NOT SPILL OVER ONTO ADJACENT PARCELS WITHIN THE NORTHWOODS NEIGHBORHOOD.
12. CONTRACTOR SHALL REMOVE CONSTRUCTION WASTE LOCATED IN THE FLOODPLAIN A MINIMUM OF 72 HOURS BEFORE LANDFALL OF A HURRICANE OR IMMEDIATELY UPON FLOOD WARNING NOTIFICATION.

SEEDING SCHEDULE

SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF APPLICABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW*).
5. CONTINUE TILLAGE UNTIL WELL PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.

* APPLY: AGRICULTURAL LIMESTONE – 2 TONS/AC (3 TONS/AC IN CLAY SOILS) FERTILIZER – 1,000 LBS/ACRE – 10-10-10 SUPERPHOSPHATE – 500 LBS/ACRE – 20% ANALYSIS MULCH – 2 TONS/ACRE – SMALL GRAIN STRAW ANCHOR – ASPHALT EMULSION @ 300 GALS/ACRE

SHOULDERS, SIDE DITCHES, SLOPES (MAX. 3:1)

	TYPE	PLANTING RATE
AUG 1 – NOV 1	TALL FESCUE	120 LBS/ACRE
NOV 1 – MAR 1	TALL FESCUE	120 LBS/ACRE
	& ABRUZZI RYE	25 LBS/ACRE
MAR 1 – APR 15	TALL FESCUE	120 LBS/ACRE
APR 15 – JUN 30	HULLED COMMON BERMUDAGRASS	12 LBS/ACRE
JUL 1 – AUG 15	TALL FESCUE AND	60 LBS/ACRE
	***BROWNTOWN MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE

SLOPES (3 : 1 TO 2 : 1)

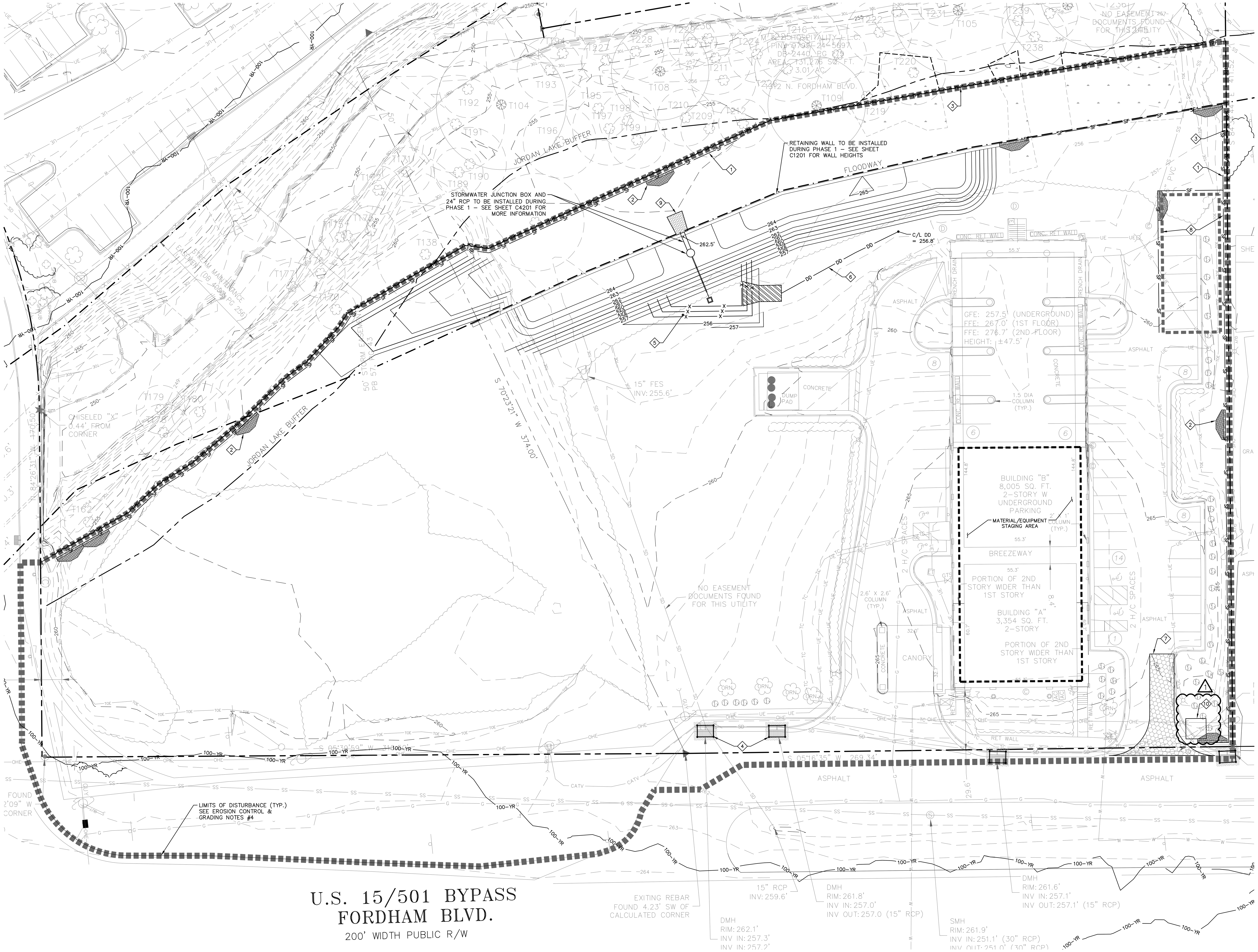
MAR 1 – JUN 1	SERICEA LESPEDEZA (SCARIFIED)	50 LBS/ACRE
	&	
(MAR 1 – APR 15)	ADD TALL FESCUE	60 LBS/ACRE
(MAR 1 – JUN 30)	OR ADD WEEPING LOVEGRASS	5 LBS/ACRE
(MAR 1 – JUN 30)	OR ADD HULLED COMMON BERMUDAGRASS	8 LBS/ACRE
APR 15 – JUN 30	HULLED COMMON BERMUDAGRASS	12 LBS/ACRE
JUN 1 – SEP 1	TALL FESCUE AND	60 LBS/ACRE
	***BROWNTOWN MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE
SEP 1 – MAR 1	SERICEA LESPEDEZA (UNHULLED – SCARIFIED)	70 LBS/ACRE
	AND TALL FESCUE	50 LBS/ACRE
(NOV 1 – MAR 1)	ADD ABRUZZI RYE	25 LBS/ACRE

GROUND STABILIZATION REQUIREMENTS

(PER NPDES CONSTRUCTION STORMWATER GENERAL PERMIT NCG010000)

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
• PERIMETER DIKES, SWALES, DITCHES, AND SLOPES	7	NONE
• HIGH QUALITY WATER (HQW) ZONES	7	NONE
• SLOPES STEEPER THAN 3:1	7	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
• SLOPES 3:1 OR FLATTER	14	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
• ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)

* "EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE" (SECTION II.B (2)(b))



PLAN KEY NOTES

DETAIL REFERENCE	#	NOTE
A1/C5301	1	TEMPORARY SILT FENCE (TYP.)
C4/C5301	2	TEMPORARY SILT FENCE STONE OUTLET (TYP.)
C1/C5301	3	TEMPORARY TREE PROTECTION FENCE (TYP.)
C2/C5301	4	TEMPORARY GRAVEL INLET PROTECTION (TYP.)
A3/C1303	5	TEMPORARY SEDIMENT BASIN #1
A4/C5301	6	TEMPORARY DIVERSION DITCH #1.1
A5/C5301	7	TEMPORARY CONSTRUCTION ENTRANCE
C5/C5301	8	TEMPORARY TOPSOIL STOCKPILE AREA
A2/C5301	9	RIP RAP APRON
C4/C5302	10	CONCRETE WASHOUT AREA

DRAWING LEGEND

SYMBOL/ABBREVIATION EXISTING	PROPOSED	DESCRIPTION
280	280	MAJOR CONTOUR
282	282	MINOR CONTOUR
		PROPERTY LINE
		RIGHT-OF-WAY LINE
X		FENCE LINE
OHE		OVERHEAD ELECTRIC LINE
W		WATER LINE
SS		SANITARY SEWER LINE
SD		STORM SEWER LINE/STRUCTURE
G		GAS LINE
TC		TELECOMMUNICATIONS LINE
TOB		TOP OF BANK
		LIMITS OF DISTURBANCE
		TEMPORARY SILT FENCE OUTLET
	SF	TEMPORARY SILT FENCE
	TPF	TEMPORARY TREE PROTECTION FENCE
	DD	TEMPORARY DIVERSION DITCH
		CONSTRUCTION ENTRANCE
		TEMPORARY SILT SACK INLET PROTECTION
		TEMPORARY GRAVEL INLET PROTECTION

NC GRID NAD 83

PHASE 1 EROSION CONTROL PLAN

(GRAPHIC SCALE IN FEET)
1 inch = 20 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

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28 JUN 17	E-F FDP SUBMITTAL #2

FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA
E-F FORM DISTRICT PERMIT DRAWINGS

JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C1301

CONSTRUCTION SEQUENCE

1. MAINTAIN ALL ACTIVE EROSION CONTROL DEVICES THROUGHOUT CONSTRUCTION PER DETAILS AND NOTES ON SHEETS C5301 AND C5302.
2. DEMO EXISTING STORM SYSTEM ON SITE AND PROVIDE POSITIVE DRAINAGE TOWARDS SEDIMENT BASIN.
3. ROUGH GRADE SITE AS SHOWN ON THIS PLAN. INSTALL ON-SITE STORM DRAINAGE NETWORK AT THE APPROPRIATE TIME. INSTALL INLET PROTECTION AROUND COMPLETED STORM STRUCTURES.
4. STONE BUILDING PADS WHEN SUBGRADE IS ESTABLISHED.
5. SEED ALL DISTURBED AREAS IN ACCORDANCE WITH THE GROUND STABILIZATION REQUIREMENTS TABLE LOCATED ON THIS SHEET.
6. ONCE THE BUILDING PADS ARE STABILIZED & GROUND COVER HAS BEEN ESTABLISHED, CALL FOR AN ON-SITE INSPECTION BY THE ORANGE COUNTY EROSION CONTROL OFFICER (919-968-2586).
7. IF APPROVED, INSTALL ONSITE STORM DRAINAGE SYSTEM WITH INLET PROTECTIONS. REMOVE SEDIMENT BASIN AND SKIMMER PIPE. CONSTRUCT REMAINING SITE IMPROVEMENTS.
8. WHEN CONSTRUCTION IS COMPLETE AND ALL AREAS ARE STABILIZED, CALL FOR AN ON-SITE INSPECTION BY THE ORANGE COUNTY EROSION CONTROL OFFICER.
9. IF THE SITE IS APPROVED, REMOVE ALL REMAINING EROSION CONTROL DEVICES, AND SEED ANY REMAINING DISTURBED AREAS.
10. WHEN VEGETATION IS ESTABLISHED, CALL FOR FINAL SITE INSPECTION.

EROSION CONTROL & GRADING NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ORANGE COUNTY AND THE TOWN OF CHAPEL HILL STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR SHALL HAVE NORTH CAROLINA ONE CALL (1-800-632-4949). LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.
3. THIS PLAN IS DIAGRAMMATIC AND REPRESENTS THE APPROXIMATE LOCATION OF UTILITIES UNLESS SPECIFICALLY DIMENSIONED. THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION OF UTILITIES TO AVOID CONFLICTS AND MEET MINIMUM SIZE, SLOPE, AND CODE REQUIREMENTS.
4. TOTAL DISTURBED AREA: 3.9 AC. THIS INCLUDES ALL DISTURBANCE REQUIRED FOR FULL SITE CONSTRUCTION.
5. NO BURNING IS PERMITTED.
6. ALL EROSION CONTROL DEVICES, INCLUDING INLET PROTECTION, SHALL BE MAINTAINED AS NEEDED, AT LEAST ONCE A WEEK AND AFTER EVERY RUNOFF PRODUCING RAINFALL EVENT TO ENSURE DEVICES ARE FUNCTIONING PROPERLY.
7. CONTRACTOR SHALL INSPECT THE EROSION AND SEDIMENT CONTROL DEVICES DAILY, MAKE ANY NECESSARY REPAIRS OR ADJUSTMENTS TO THE DEVICES, AND MAINTAIN INSPECTION LOGS DOCUMENTING THE DAILY INSPECTIONS AND ANY NECESSARY REPAIRS.
8. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT AND REMOVE THE DEPOSIT OF SILT ON ADJACENT PAVED ROADWAYS.
9. SUFFICIENT EROSION CONTROL PRACTICES MUST BE INSTALLED AND MAINTAINED TO RETAIN SEDIMENT WITHIN THE BOUNDARIES OF DISTURBANCE. ALL DISTURBED AREAS SHALL BE NON EROSIVE AND STABLE AS DESCRIBED IN THE GROUND STABILIZATION REQUIREMENTS TABLE (THIS SHEET).
10. ROUGH GRADING IN AREAS OF PERMEABLE PAVEMENT IS INTENTIONALLY SHOWN HIGHER THAN SUBGRADE TO PROVIDE POSITIVE DRAINAGE AND PROTECTION OF SUBGRADE DURING CONSTRUCTION.
11. TOPSOIL STOCKPILE AREAS SHALL HAVE A MAXIMUM HEIGHT OF 15' WITH SIDE SLOPES NO STEEPER THAN 3:1.

CONSTRUCTION MANAGEMENT NOTES

1. CONSTRUCTION SHALL COMPLY WITH THE CHAPEL HILL NOISE ORDINANCE, ARTICLE 3, SECTION 11-40.
2. CONSTRUCTION HOURS SHALL BE FROM 8:00 AM – 7:00 PM ON WEEKDAYS AND 10:00 AM – 7:00 PM ON SATURDAYS. THERE SHALL BE NO CONSTRUCTION ACTIVITIES ON SUNDAYS OR ON FEDERAL HOLIDAYS.
3. ALL CONSTRUCTION EQUIPMENT SHALL BE OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, AND WITH ALL STANDARD EQUIPMENT, AND WITH MANUFACTURER'S MUFFLERS AND NOISE-REDUCING EQUIPMENT IN USE, AND IN PROPER OPERATING CONDITION.
4. NO BLASTING OR BURNING ARE PERMITTED ON SITE.
5. A WATER TRUCK SHALL BE USED TO MINIMIZE DUST.
6. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT AND REMOVE THE DEPOSIT OF SILT ON ADJACENT PAVED ROADWAYS.
7. CONSTRUCTION WORKERS SHALL PARK WITHIN THE SITE – NO PARKING ON PUBLIC STREETS.
8. CONSTRUCTION VEHICLES TO ACCESS THE SITE FROM FORDHAM BOULEVARD.
9. EMERGENCY VEHICLE ACCESS SHALL BE MAINTAINED FROM FORDHAM BOULEVARD.
10. NO MATERIAL SHALL BE STOCKPILED OR STORED ON OWASA WATER OR SEWER EASEMENTS.
11. CONTRACTOR SHALL USE COMMERCIALLY REASONABLE EFFORTS TO ENSURE THAT LIGHT FROM CONSTRUCTION-RELATED ACTIVITIES DOES NOT SPILL OVER ONTO ADJACENT PARCELS WITHIN THE NORTHWOODS NEIGHBORHOOD.
12. CONTRACTOR SHALL REMOVE CONSTRUCTION WASTE LOCATED IN THE FLOODPLAIN A MINIMUM OF 72 HOURS BEFORE LANDFALL OF A HURRICANE OR IMMEDIATELY UPON FLOOD WARNING NOTIFICATION.

SEEDING SCHEDULE

SEEDBED PREPARATION

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF APPLICABLE.
2. RIP THE ENTIRE AREA TO 6 INCHES DEEP.
3. REMOVE ALL LOOSE ROCK, ROOTS, AND OTHER OBSTRUCTIONS LEAVING SURFACE REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER, AND SUPERPHOSPHATE UNIFORMLY AND MIX WITH SOIL (SEE BELOW*).
5. CONTINUE TILLAGE UNTIL WELL PULVERIZED, FIRM, REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED ON FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTIPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 60% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER AND SEEDING RATES.

* APPLY: AGRICULTURAL LIMESTONE – 2 TONS/AC (3 TONS/AC IN CLAY SOILS) FERTILIZER – 1,000 LBS/ACRE – 10-10-10 SUPERPHOSPHATE – 500 LBS/ACRE – 20% ANALYSIS MULCH – 2 TONS/ACRE – SMALL GRAIN STRAW ANCHOR – ASPHALT EMULSION @ 300 GALS/ACRE

SHOULDERS, SIDE DITCHES, SLOPES (MAX. 3:1)

	TYPE	PLANTING RATE
AUG 1 – NOV 1	TALL FESCUE	120 LBS/ACRE
NOV 1 – MAR 1	TALL FESCUE	120 LBS/ACRE
	& ABRUZZI RYE	25 LBS/ACRE
MAR 1 – APR 15	TALL FESCUE	120 LBS/ACRE
APR 15 – JUN 30	HULLED COMMON BERMUDAGRASS	12 LBS/ACRE
JUL 1 – AUG 15	TALL FESCUE AND	60 LBS/ACRE
	***BROWNTOWN MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE

SLOPES (3 : 1 TO 2 : 1)

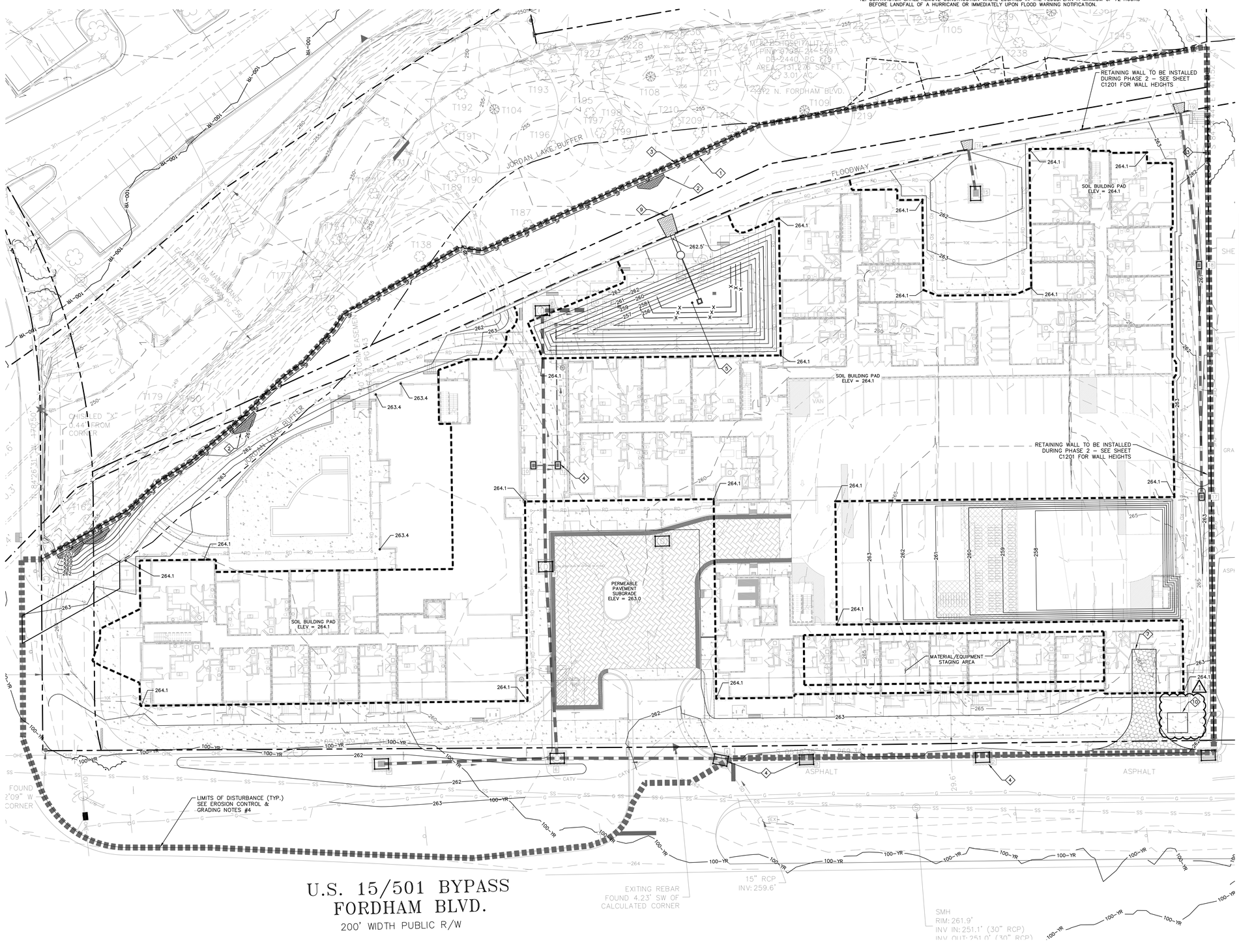
MAR 1 – JUN 1	SERICEA LESPEDEZA (SCARIFIED)	50 LBS/ACRE
	&	
(MAR 1 – APR 15)	ADD TALL FESCUE	60 LBS/ACRE
(MAR 1 – JUN 30)	OR ADD WEEPING LOVEGRASS	5 LBS/ACRE
(MAR 1 – JUN 30)	OR ADD HULLED COMMON BERMUDAGRASS	8 LBS/ACRE
APR 15 – JUN 30	HULLED COMMON BERMUDAGRASS	12 LBS/ACRE
JUN 1 – SEP 1	TALL FESCUE AND	60 LBS/ACRE
	***BROWNTOWN MILLET	35 LBS/ACRE
	***OR SORGHUM-SUDAN HYBRIDS	30 LBS/ACRE
SEP 1 – MAR 1	SERICEA LESPEDEZA (UNHULLED – SCARIFIED)	70 LBS/ACRE
	AND TALL FESCUE	50 LBS/ACRE
(NOV 1 – MAR 1)	ADD ABRUZZI RYE	25 LBS/ACRE

GROUND STABILIZATION REQUIREMENTS

(PER NPDES CONSTRUCTION STORMWATER GENERAL PERMIT NCG010000)

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
• PERIMETER DIKES, SWALES, DITCHES, AND SLOPES	7	NONE
• HIGH QUALITY WATER (HQW) ZONES	7	NONE
• SLOPES STEEPER THAN 3:1	7	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
• SLOPES 3:1 OR FLATTER	14	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
• ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)

* "EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE" (SECTION II.B (2)(b))



PLAN KEY NOTES

DETAIL REFERENCE	#	
A1 C5301	1	TEMPORARY SILT FENCE (TYP.)
C4 C5301	2	TEMPORARY SILT FENCE STONE OUTLET (TYP.)
C1 C5301	3	TEMPORARY TREE PROTECTION FENCE (TYP.)
C2 C5301	4	TEMPORARY GRAVEL INLET PROTECTION (TYP.)
A3 C1303	5	TEMPORARY SEDIMENT BASIN #1
A4 C5301	6	TEMPORARY DIVERSION DITCH #1.1
A5 C5301	7	TEMPORARY CONSTRUCTION ENTRANCE
C5 C5301	8	TEMPORARY TOPSOIL STOCKPILE AREA
A2 C5301	9	RIP RAP APRON
C4 C5302	10	CONCRETE WASHOUT AREA

DRAWING LEGEND

SYMBOL/ABBREVIATION EXISTING	PROPOSED	DESCRIPTION
280	280	MAJOR CONTOUR
282	282	MINOR CONTOUR
		PROPERTY LINE
		RIGHT-OF-WAY LINE
X		FENCE LINE
OHE		OVERHEAD ELECTRIC LINE
W		WATER LINE
SS		SANITARY SEWER LINE
SD		STORM SEWER LINE/STRUCTURE
G		GAS LINE
TC		TELECOMMUNICATIONS LINE
TOB		TOP OF BANK
		LIMITS OF DISTURBANCE
		TEMPORARY SILT FENCE OUTLET
	SF	TEMPORARY SILT FENCE
	TPF	TEMPORARY TREE PROTECTION FENCE
	DD	TEMPORARY DIVERSION DITCH
		CONSTRUCTION ENTRANCE
		TEMPORARY SILT SACK INLET PROTECTION
		TEMPORARY GRAVEL INLET PROTECTION

NC GRID NAD 83

PHASE 2 EROSION CONTROL PLAN

20 0 10 20 40

(GRAPHIC SCALE IN FEET)
1 inch = 20 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

BALLENTINE ASSOCIATES, P.A.
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Ballentine Associates, P.A. CORPORATE SEAL C328 NORTH CAROLINA Chapel Hill

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILON W. SMITH

NUM	REVISIONS	DATE
A	PER E-F FDP REVIEW COMMENTS	28 JUN 17

ISSUED	DATE
E-F FDP SUBMITTAL #1	21 APR 17
E-F FDP SUBMITTAL #2	28 JUN 17

OWNER INFORMATION
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FORDHAM BLVD. APARTMENTS

CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C1302

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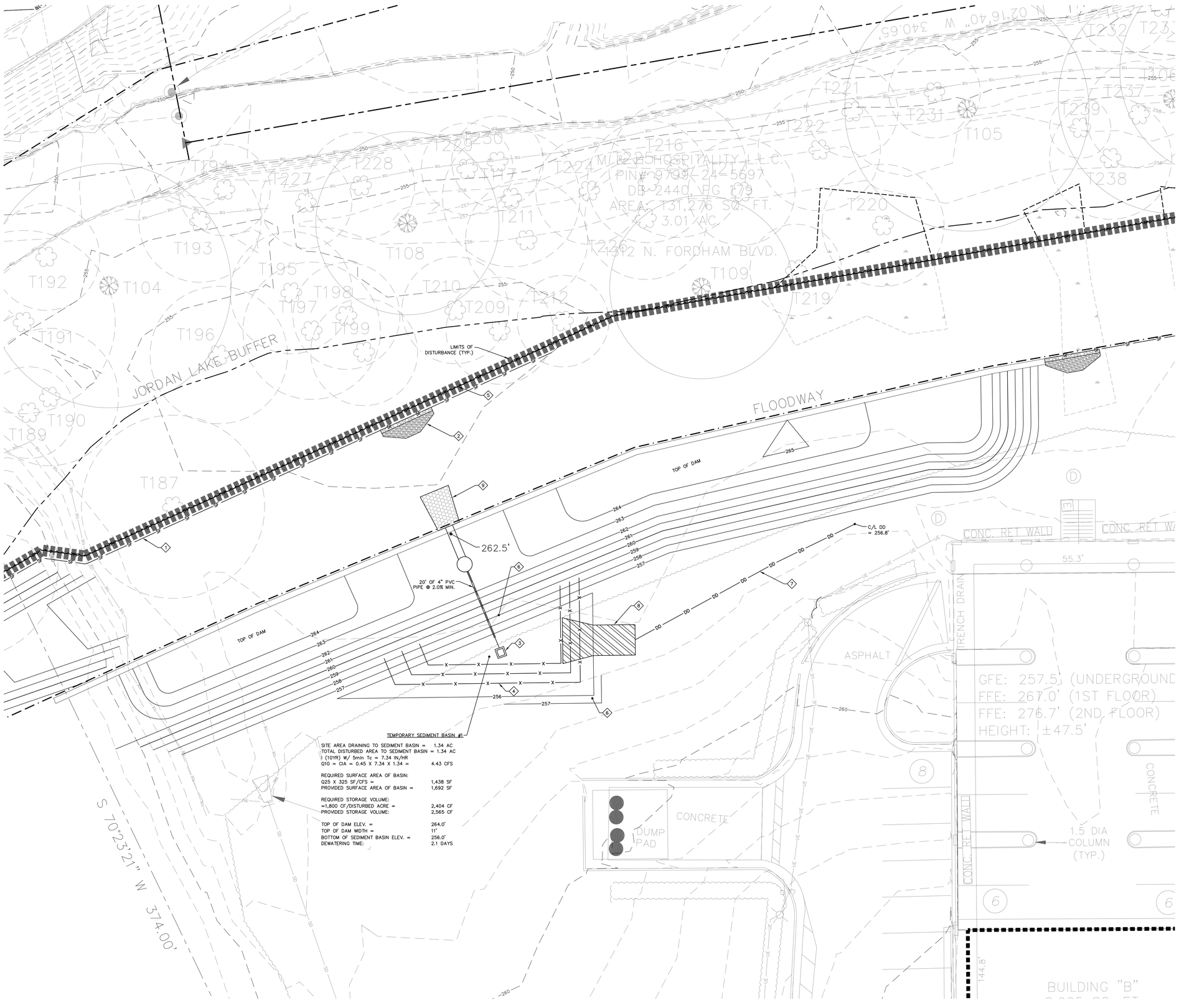

TEMPORARY SEDIMENT BASIN #1

SITE AREA DRAINING TO SEDIMENT BASIN =	1.34 AC
TOTAL DISTURBED AREA TO SEDIMENT BASIN =	1.34 AC
I (10YR) W/ 5min Tc = 7.34 IN/HR	
Q10 = CIA = 0.45 X 7.34 X 1.34 =	4.43 CFS
REQUIRED SURFACE AREA OF BASIN:	
Q25 X 325 SF/CFS =	1,438 SF
PROVIDED SURFACE AREA OF BASIN =	1,692 SF
REQUIRED STORAGE VOLUME:	
=1,800 CF/DISTURBED ACRE =	2,404 CF
PROVIDED STORAGE VOLUME:	2,565 CF
TOP OF DAM ELEV. =	264.0'
TOP OF DAM WIDTH =	11'
BOTTOM OF SEDIMENT BASIN ELEV. =	256.0'
DEWATERING TIME:	2.1 DAYS

A3 / C1303 TEMPORARY SEDIMENT BASIN #1
SCALE: 1"=10'

PLAN KEY NOTES

DETAIL REFERENCE	#	
A1 / C5301	1	TEMPORARY SILT FENCE (TYP.)
C4 / C5301	2	TEMPORARY SILT FENCE STONE OUTLET (TYP.)
A1 / C5302	3	TEMPORARY 1.5" SKIMMER W/ 1.25" ORIFICE
C3 / C5302	4	TEMPORARY COIR FIBER BAFFLES (TYP.)
C1 / C5301	5	TREE PROTECTION FENCE
A4 / C5302	6	LINE ALL SEDIMENT BASIN SLOPES WITH STRAW BLANKET MATTING (NORTH AMERICAN GREEN S150).
A4 / C5301	7	TEMPORARY DIVERSION DITCH #1.1
A3 / C5302	8	DIVERSION DITCH OUTLET
A2 / C5301	9	RIP RAP APRON

DRAWING LEGEND

SYMBOL/ABBREVIATION EXISTING	PROPOSED	DESCRIPTION
280	280	MAJOR CONTOUR
282	282	MINOR CONTOUR
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TOB		TOP OF BANK
		LIMITS OF DISTURBANCE
		TEMPORARY SILT FENCE OUTLET
SF		TEMPORARY SILT FENCE
TPF		TEMPORARY TREE PROTECTION FENCE
DD		TEMPORARY DIVERSION DITCH
		RIP RAP APRON

NC GRID NAD 83

SEDIMENT BASIN ENLARGEMENT

(GRAPHIC SCALE IN FEET)
1 inch = 10 ft.

REVIEW DRAWING
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NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILLON W. SMITH 28 JUN 17

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D		
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FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C1303

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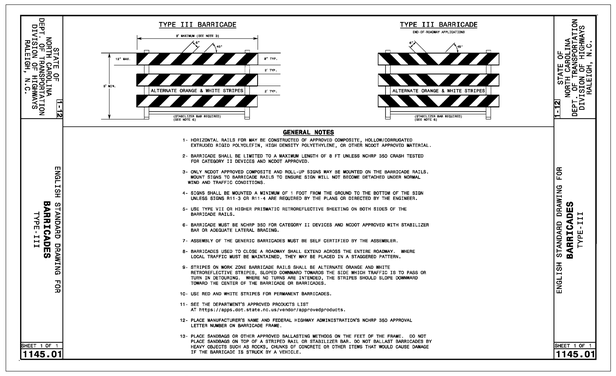


D5 C1401 TYPE III BARRICADE
N.T.S.

TRAFFIC CONTROL NOTES

ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH APPLICABLE NCDOT AND MUTCD STANDARDS.

ADAPT THE TRAFFIC CONTROL CONCEPTS, WHEN DIRECTED BY THE ENGINEER, TO MEET FIELD CONDITIONS TO PROVIDE SAFE AND EFFICIENT TRAFFIC MOVEMENT. CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS:

A) THERE SHALL BE NO TIME RESTRICTIONS CONCERNING THE PROPOSED TRAFFIC MANAGEMENT PLAN.

B) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR OTHERWISE DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS:

C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED, OR AS DIRECTED BY THE ENGINEER.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 40 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

G) DO NOT WORK SIMULTANEOUSLY, ON BOTH SIDES OF AN OPEN TRAVELWAY, WITHIN THE SAME LOCATION, ON A TWO-LANE, TWO-WAY ROAD.

H) DO NOT PERFORM WORK INVOLVING HEAVY EQUIPMENT WITHIN 15 FT OF THE EDGE OF TRAVELWAY WHEN WORK IS BEING PERFORMED BEHIND A LANE CLOSURE ON THE OPPOSITE SIDE OF THE TRAVELWAY.

PAVEMENT EDGE DROP OFF REQUIREMENTS:

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS A DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER.

J) DO NOT EXCEED A DIFFERENCE OF 1.5 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT IN ADVANCE OF THE UNEVEN AREA.

SIGNING:

K) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 100 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE WARNING SIGNS, AS DIRECTED BY THE ENGINEER.

L) PROVIDE PERMANENT SIGNING.

M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES:

N) SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH), EXCEPT 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY, WHEN LANE CLOSURES ARE NOT IN EFFECT.

O) PLACE SETS OF THREE DRUMS PERPENDICULAR TO THE EDGE OF THE TRAVELWAY ON 300 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC. THESE DRUMS SHALL BE IN ADDITION TO CHANNELIZING DEVICES.

PAVEMENT MARKINGS AND MARKERS:

P) INSTALL PAVEMENT MARKINGS AS SHOWN ON PLAN SHEETS.

Q) REFER TO SECTION 1205 OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES DATED JANUARY 2012 FOR APPLICATION TIMES AND TEMPERATURE CONDITIONS FOR PAVEMENT MARKINGS.

R) PLACE AT LEAST TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE ON NEW ASPHALT PAVEMENT. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.

S) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

T) REPLACE ANY PAVEMENT MARKINGS THAT HAVE BEEN DAMAGED BY THE END OF EACH DAY'S OPERATION.

U) PLACE AT LEAST TWO APPLICATIONS OF PAINT ON NEW ASPHALT WITH TEMPORARY TRAFFIC PATTERNS WHICH WILL REMAIN IN PLACE OVER THREE (3) MONTHS. PLACE ADDITIONAL APPLICATIONS OF PAINT UPON SUFFICIENT DRYING TIME, AS DETERMINED BY THE ENGINEER.

V) CONTRACTOR SHALL MAINTAIN ALL TEMPORARY PAINT PAVEMENT MARKINGS UNTIL COMPLETION OF THERMOPLASTIC PAVEMENT MARKING INSTALLATION.

W) BEFORE SHIFTING TRAFFIC TO NEW LOCATIONS, CONTRACTOR SHALL REMOVE ANY MARKINGS WHICH CONFLICT WITH THE NEW TRAFFIC PATTERN(S).

PEDESTRIAN AND BICYCLIST SAFETY:

X) PEDESTRIAN AND BICYCLIST SAFETY MUST BE MAINTAINED AT ALL TIMES BY ADEQUATE PROJECT LIMITS, FENCING, AND SIGNAGE.

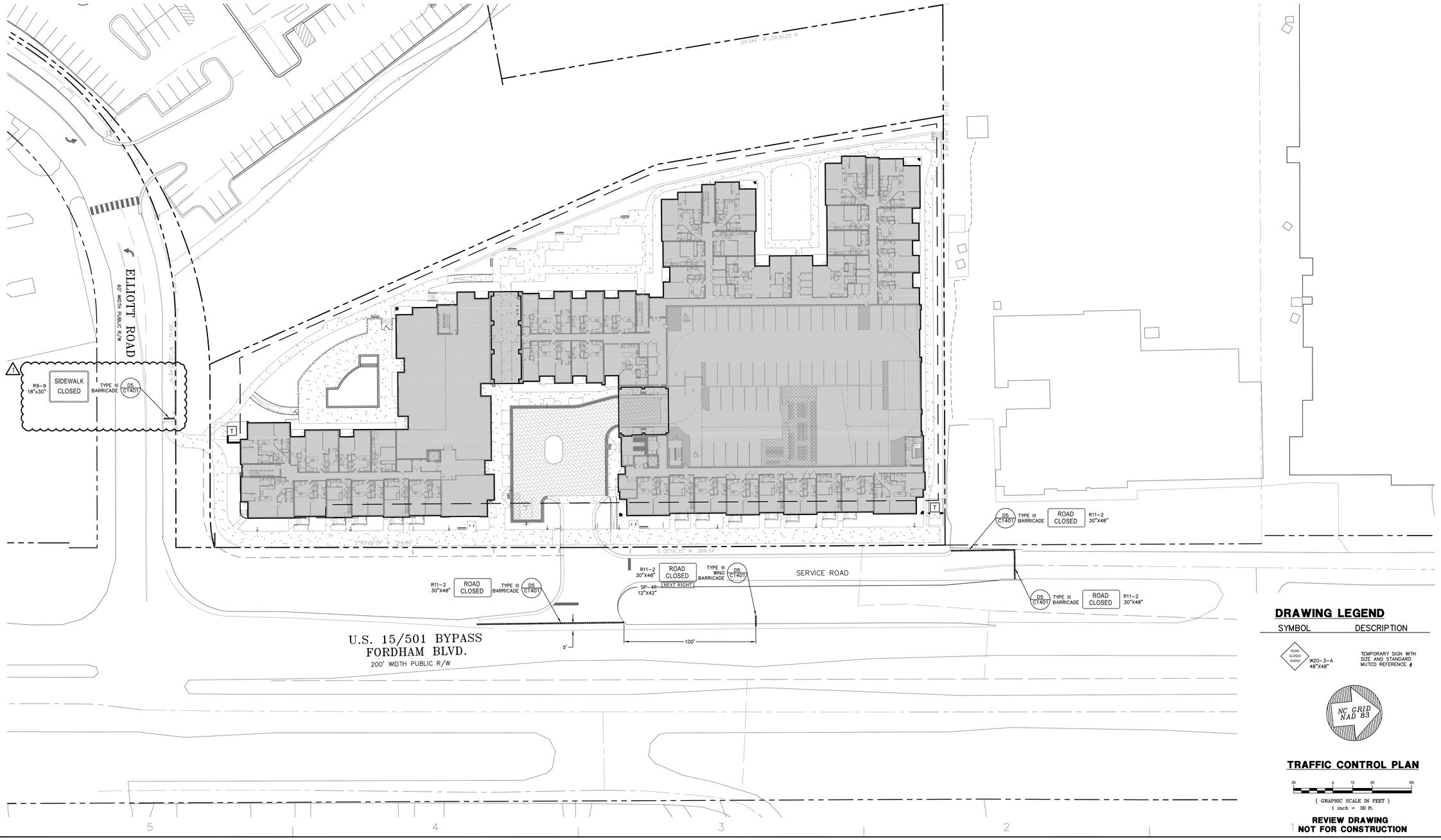
MISCELLANEOUS:

Y) POLICE MAY BE USED TO MAINTAIN TRAFFIC THROUGH INTERSECTIONS.

Z) STOCKPILE EXISTING SIGNS FOR USE WHEN NEEDED IN TEMPORARY LOCATIONS DURING CONSTRUCTION.

BB) ACCESS SHALL BE MAINTAINED TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES.

CC) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) AND RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.



DRAWING LEGEND

SYMBOL	DESCRIPTION
ROAD CLOSED AHEAD W20-3-A 48"X48"	TEMPORARY SIGN WITH SIZE AND STANDARD MUTCD REFERENCE #

NC GRID NAD 83

TRAFFIC CONTROL PLAN

30 0 15 30 60
(GRAPHIC SCALE IN FEET)
1 inch = 30 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

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OWNER INFORMATION
RAM REALTY ADVISORS
1930 CAMDEN RD.
CHARLOTTE, NC 28203

OWNERS REPRESENTATIVE:
DAVID KLEPSER
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EMAIL dklepser@ramrealestate.com

ISSUED	DATE
E-F FDP SUBMITTAL #1	21 APR 17
E-F FDP SUBMITTAL #2	28 JUN 17

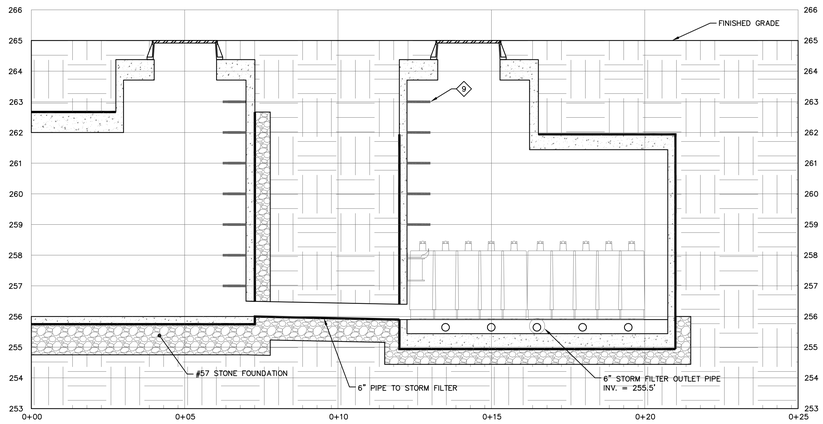
FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

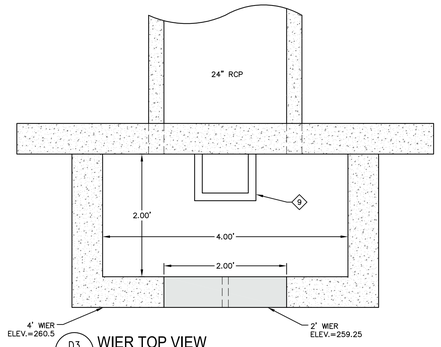
JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C1401

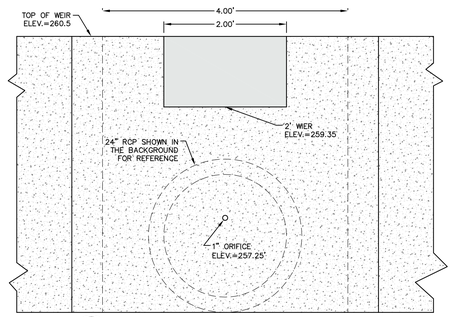
N:\Projects\116026.00 Fordham Blvd Apartments\1_Dwg\BA-Model Files\C1401-Traffic Control Plan-Fordham.dwg, 6/28/2017 10:10:25 AM, frankie



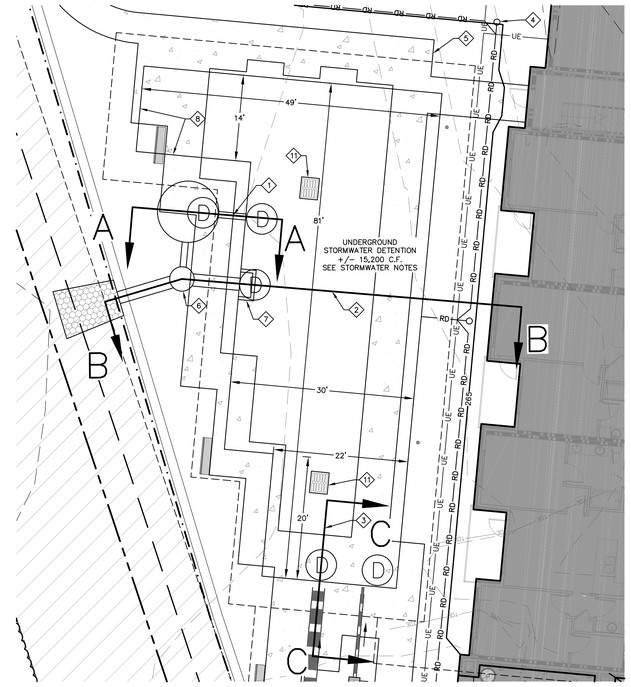
C5 / C4201 STORM FILTER/DETENTION SYSTEM SECTION A-A
VERT. SCALE: 1" = 2' HOR. SCALE: 1" = 2'



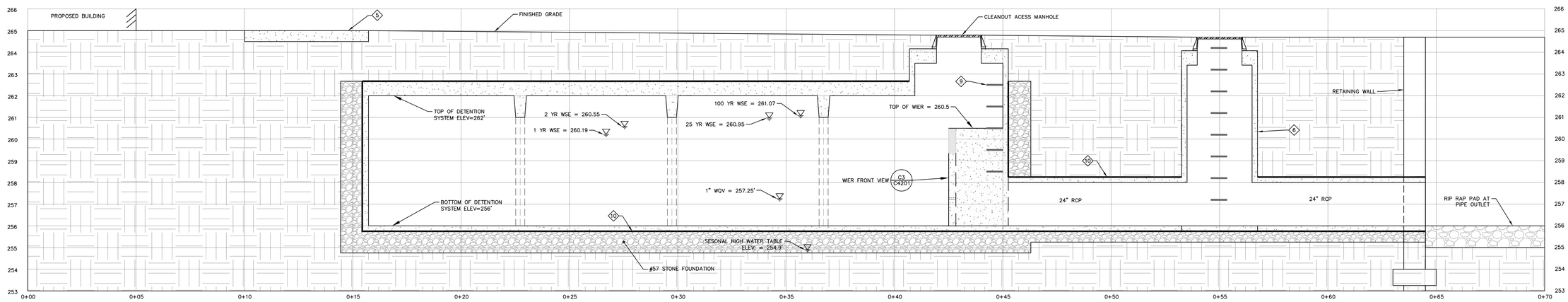
D3 / C4201 WIER TOP VIEW
SCALE: 1"=1'



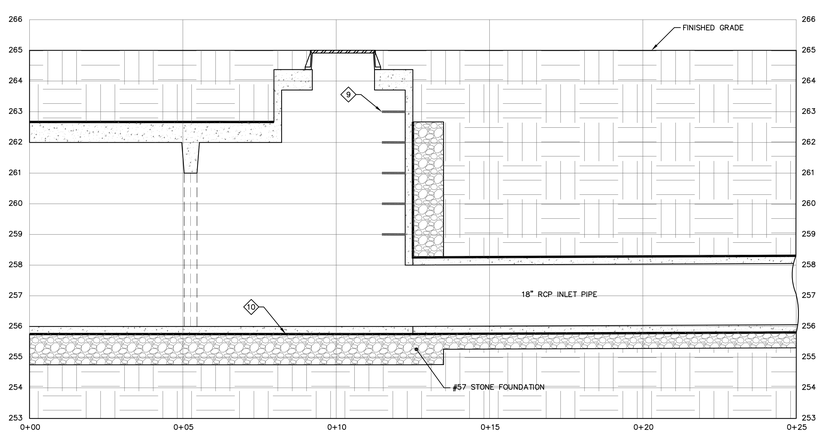
C3 / C4201 WIER FRONT VIEW
SCALE: 1"=1'



C1 / C4201 STORM FILTER/UNDERGROUND DETENTION SYSTEM ENLARGEMENT
SCALE: 1"=10'



B3 / C4201 STORM FILTER/DETENTION SYSTEM SECTION B-B
VERT. SCALE: 1" = 2' HOR. SCALE: 1" = 2'



A5 / C4201 STORM FILTER/DETENTION SYSTEM SECTION C-C
VERT. SCALE: 1" = 2' HOR. SCALE: 1" = 2'

DETAIL REFERENCE	#	PLAN KEY NOTES
C5 / C4201	1	STORM FILTER/DETENTION SYSTEM SECTION A-A
B3 / C4201	2	STORM FILTER/DETENTION SYSTEM SECTION B-B
A5 / C4201	3	STORM FILTER/DETENTION SYSTEM SECTION C-C
B1 / C5202	4	STORMWATER CLEANOUT (TYP.)
A1 / C5001	5	CONCRETE SIDEWALK
A5 / C5201	6	STORM JUNCTION BOX
C1 / C4201	7	UNDERGROUND DETENTION WEIR STRUCTURE
	8	LIMITS OF UNDERGROUND DETENTION SYSTEM (TYP.)
A5 / C5202	9	DRAINAGE STRUCTURE STEPS
	10	WOVEN GEO-TEXTILE FABRIC
B5 / C5202	11	NDS DRAIN INTO UNDERGROUND DETENTION

DRAWING LEGEND

SYMBOL/ABBREVIATION EXISTING	PROPOSED	DESCRIPTION
		CATCH BASIN / CURB INLET
		DROP INLET / NDS DRAIN
	RD	ROOF DRAINAGE PIPE
SD		STORM DRAIN PIPE
		UTILITY EASEMENTS
		PROPERTY SETBACK
	D	STORM DRAINAGE MANHOLE
	282	MINOR CONTOUR
280	280	MAJOR CONTOUR

UNDERGROUND DETENTION AND STORM FILTER NOTES:

1. THE UNDERGROUND DETENTION/STORM FILTER SYSTEM SHALL BE CONSTRUCTED ACCORDING TO NCDEQ STORMWATER MANUAL.
2. THE UNDERGROUND DETENTION/STORM FILTER SYSTEM SHALL BE CONSTRUCTED FOR A MINIMUM OF HS20 LOADING.
3. UNDERGROUND DETENTION SYSTEM SHALL BE DESIGN BUILD – SEALED STRUCTURAL DESIGNS SHALL BE PROVIDED FOR THE DETENTION SYSTEM AND THE OUTLET WEIR STRUCTURE. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. PICTURES OF THE OUTLET WEIR SYSTEM SHALL BE PROVIDED TO THE DESIGN ENGINEER AND INCLUDED IN THE AS-BUILT PACKAGE TO THE TOWN OF CHAPEL HILL.
5. UNDERGROUND DETENTION SHALL BE SOIL TIGHT.
6. THE STORM FILTER SYSTEM SHALL BE WATER TIGHT

NC GRID NAD 83

STORM FILTER ENLARGEMENT & SECTIONS

(GRAPHIC SCALE IN FEET)
1 inch = 10 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

BALLENTINE ASSOCIATES, P.A.
221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
(919) 929 - 0481 (919) 489 - 4789

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Ballentine Associates, P.A. CORPORATE SEAL C328 NORTH CAROLINA Chapel Hill

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILLON W. SMITH 28 JUN 17

NUM	REVISIONS	DATE
1	PER E-F FDP REVIEW COMMENTS	28 JUN 17

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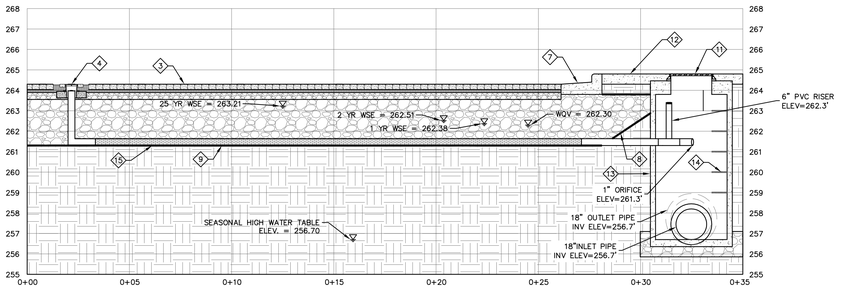
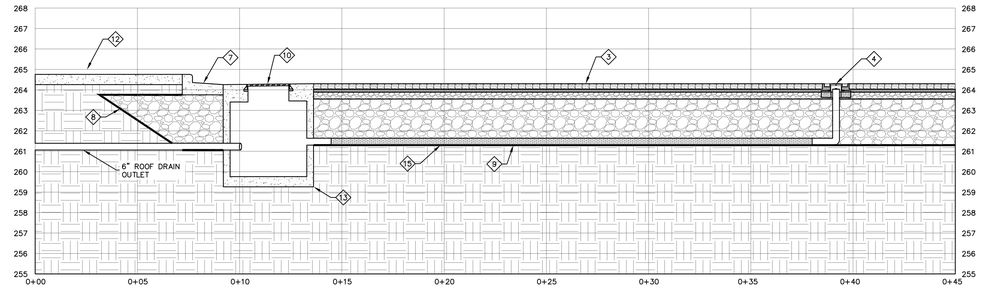
SHEET
C4201



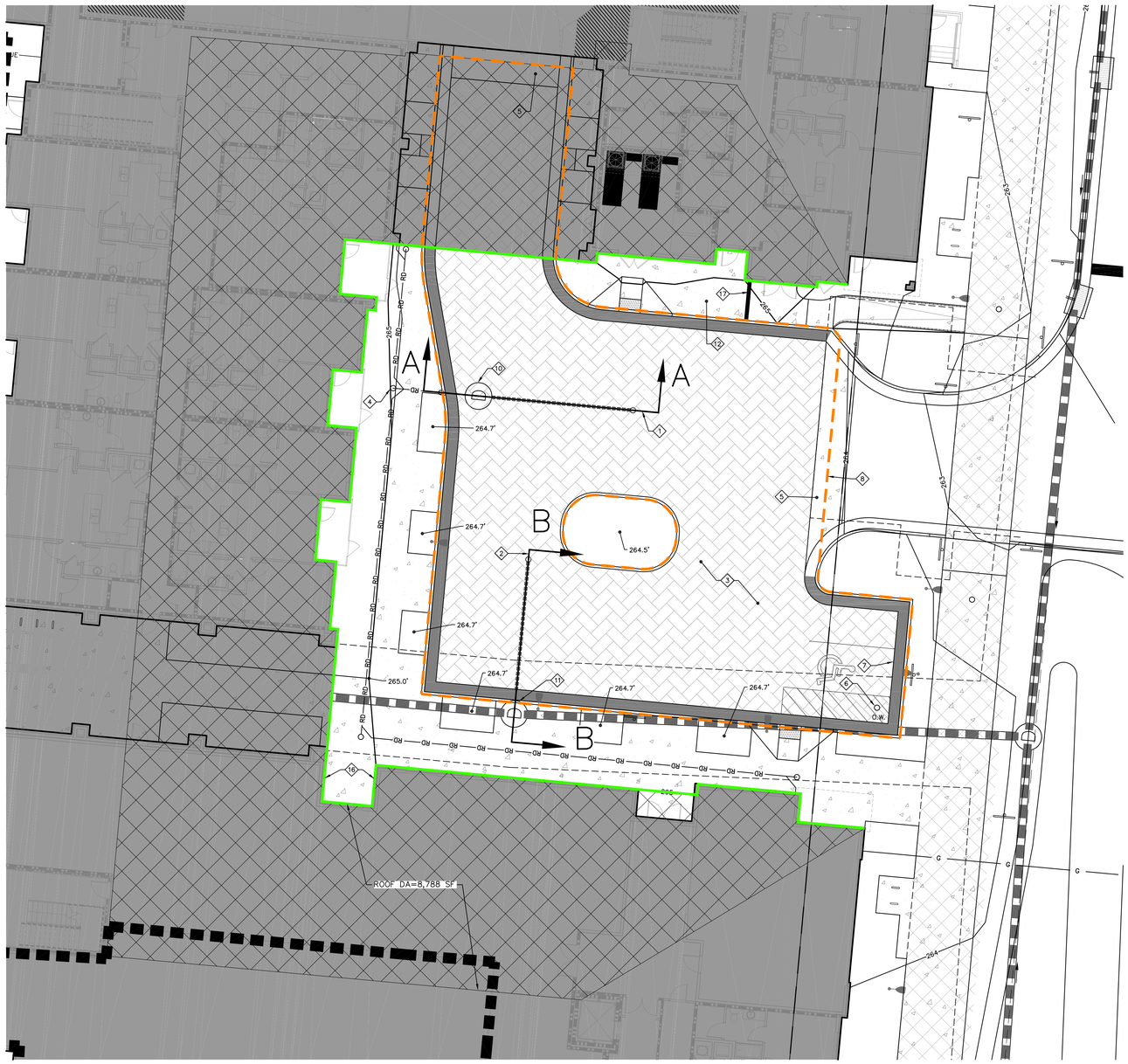
D5 C4202 PERMEABLE PAVEMENT SECTION B-B
VERT. SCALE: 1" = 3' HOR. SCALE: 1" = 3'



D3 C4202 PERMEABLE PAVEMENT SECTION A-A
VERT. SCALE: 1" = 3' HOR. SCALE: 1" = 3'

PLAN KEY NOTES

DETAIL REFERENCE	#	
D3 C4202	1	PERMEABLE PAVEMENT SECTION A–A
D5 C4202	2	PERMEABLE PAVEMENT SECTION B–B
D2 C5001	3	PERMEABLE INTERLOCKING CONCRETE PAVERS (PICP) TYPICAL SECTION
B1 C5202	4	STORMWATER CLEANOUT (TYP.)
D1 C5001	5	CONCRETE BAND
A4 C5202	6	OBSERVATION WELL
A2 C5001	7	30" CONC. SPILL CURB & GUTTER
C2 C5001	8	PERMEABLE PAVEMENT TYPICAL BOUNDARY
	9	6" PERFORATED PVC UNDERDRAIN
	10	PERMEABLE PAVEMENT INLET STRUCTURE
	11	PERMEABLE PAVEMENT OUTLET STRUCTURE
A1 C5001	12	CONCRETE SIDEWALK
A5 C5201	13	STORM JUNCTION BOX
A5 C5202	14	STORM STRUCTURE STEPS
	15	WOVEN GEO–TEXTILE FABRIC
	16	GUTTER GUARD OR EQUIVALENT (AS APPROVED BY THE ENGINEER)
B4 C5202	17	ROOF DRAIN THROUGH CURB & GUTTER



A3 C4202 PERMEABLE PAVEMENT ENLARGEMENT
SCALE: 1"=10'

DRAWING LEGEND

SYMBOL/ABBREVIATION EXISTING	PROPOSED	DESCRIPTION
		CATCH BASIN / CURB INLET
		DROP INLET / NDS DRAIN
	RD	ROOF DRAINAGE PIPE
SD		STORM DRAIN PIPE
		UTILITY EASEMENTS
		PROPERTY SETBACK
	D	STORM DRAINAGE MANHOLE
		LIMITS OF PERMEABLE PAVEMENT SYSTEM
		GUTTER GUARD
	282	MINOR CONTOUR
280	280	MAJOR CONTOUR

PERMEABLE PAVEMENT NOTES

1. THE PERMEABLE PAVEMENT SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THESE DRAWINGS AND THE PROJECT SPECIFICATIONS, AND UNDER NO CIRCUMSTANCES PRIOR TO THE AREAS (WHICH DRAIN TO THE SYSTEM) HAVE BEEN STABILIZED.
2. PERMEABLE PAVEMENT SYSTEM SHALL BE CONSTRUCTED ACCORDING TO TO NCDEQ STORMWATER DESIGN MANUAL STANDARDS.
3. THE PERMEABLE PAVEMENT SYSTEM SHALL BE CONSTRUCTED FOR A MINIMUM OF HS20 LOADING.
4. PERMEABLE SUBBASE STONE LAYERS, PICP & NON–POROUS CONCRETE NOT TO BE INSTALLED UNTIL AFTER BUILDING FOUNDATION IS IN, ROOF DRAINS ARE INSTALLED, UTILITIES AND STORM DRAINAGE STRUCTURES & PIPING ARE ALL IN PLACE.
5. PERMEABLE SUBBASE STONE LAYERS & PICP NOT TO BE INSTALLED UNTIL CURB AND GUTTER, WOVEN GEOTEXTILE LINER AND CONCRETE SIDEWALKS ARE IN PLACE, AND UNTIL AFTER GRADING AROUND PERMEABLE PAVEMENT SYSTEM HAS BEEN COMPLETED.
6. GRADE TO FINAL SUBGRADE ELEVATIONS.
7. PROVIDE ENGINEER WITH AS–BUILT SURVEY OF SUBGRADE FOR APPROVAL PRIOR TO PLACING WASHED STONE.
8. PROVIDE DESIGN ENGINEER WITH THE ROCK POROSITY REPORT FROM THE ROCK QUARRY TO BE USED FOR THE #57 WASHED STONE & THE #4 WASHED STONE. CONFIRM POROSITY OF #57 STONE AND #4 STONE IS AT LEAST 40.5%
9. THE ENTIRE BOTTOM SHALL BE LINED WITH MIRAFI HP–270 HIGH–STRENGTH WOVEN GEOTEXTILE (OR EQUIVALENT AS APPROVED BY THE ENGINEER). TURN LINER UP AND OVER TOP OF WASHED STONE AT PERMEABLE PAVEMENT TYPICAL BOUNDARY SECTION C2/C5001.
10. ONCE LINERS ARE IN PLACE, INSTALL WASHED STONE BASE. WASH STONE THOROUGHLY IMMEDIATELY PRIOR TO INSTALLATION (I.E. THERE SHALL BE NO DUST CLOUD WHEN STONE IS UNLOADED).
11. NO SURFACE DRAINAGE TO ENTER ANY PERMEABLE SUBBASE STONE DURING CONSTRUCTION, AND NO SURFACE DRAINAGE TO RUN ONTO PERMEABLE SURFACES FOLLOWING INSTALLATION.
12. PROVIDE ENGINEER WITH REDLINED PLANS SHOWING ANY DEVIATIONS FROM THESE DRAWINGS.
13. PROVIDE ENGINEER WITH PHOTO DOCUMENTATION OF EACH STEP OF PERMEABLE PAVEMENT SYSTEM INSTALLATION.
14. OWNER SHALL PERFORM AN AS–BUILT SURVEY OF STORMWATER FACILITIES AND SHALL PROVIDE AS–BUILT TO ENGINEER FOR REVIEW. IF ANY SIGNIFICANT DEVIATIONS NOTED BY ENGINEER, THESE SHALL BE CORRECTED BY CONTRACTOR AT CONTRACTOR'S EXPENSE.
15. ONCE CORRECTIONS (IF NECESSARY) HAVE BEEN MADE AND SYSTEM MAY BE DEEMED IN COMPLIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THE ENGINEER SHALL CERTIFY SYSTEM AND SEND AS–BUILT DRAWINGS & CERTIFICATION TO THE TOWN OF CHAPEL HILL.
16. UNDERDRAIN PIPE TO BE MADE OF PERFORATED PVC PIPE. PIPE IS TO BE PURCHASED FROM THE MANUFACTURER WITH PERFORATIONS AND SHOULD NOT BE DEFORMED BY CONTRACTOR IN ANY WAY.
17. ALL PIPES WITHIN 4' OF OUTLET STRUCTURE AND 1' OF INLET/OUTLET STRUCTURE SHALL BE SOLID AND NOT PERFORATED.
18. ALL ADJACENT PERVIOUS AREAS SHALL BE DIRECTED AWAY FROM THE PERMEABLE PAVEMENT SURFACES.

NC GRID NAD 83

PERMEABLE PAVEMENT ENLARGEMENT & SECTIONS

10 0 5 10 20
(GRAPHIC SCALE IN FEET)
1 inch = 10 ft.

REVIEW DRAWING
NOT FOR CONSTRUCTION

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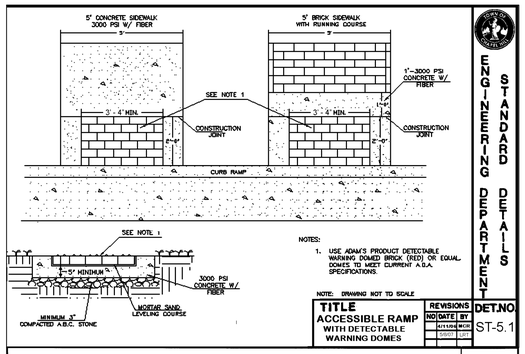
REVIEWED BY: G.J.R.

SHEET
C4202



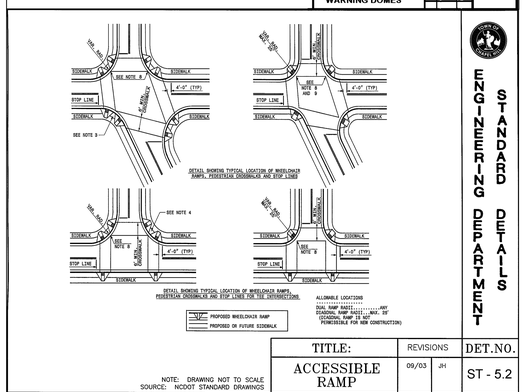
NOTES:

1. USE ADAM'S PRODUCT DETECTABLE WARNING DOME(D BRICK (RED) OR EQUAL. DOMES TO MEET CURRENT A.D.A. SPECIFICATIONS.

NOTE: DRAWING NOT TO SCALE

TITLE	REVISIONS	DET.NO.
ACCESSIBLE RAMP WITH DETECTABLE WARNING DOMES	NO DATE BY 1 11/10/04 MCG SHEET 1 OF 1	ST-5.1

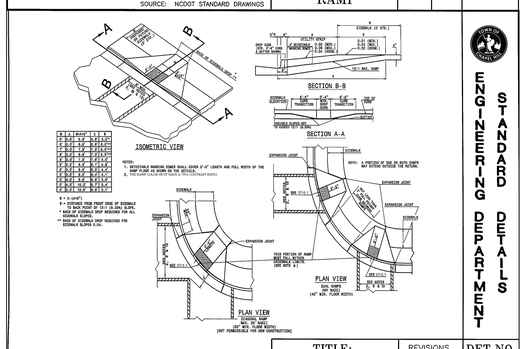
ENGINEERING DEPARTMENT STANDARD DETAILS



TITLE:	REVISIONS		DET.NO.
ACCESSIBLE RAMP	09/03	JH	ST - 5.2

NOTE: DRAWING NOT TO SCALE
SOURCE: NCDOT STANDARD DRAWINGS

ENGINEERING DEPARTMENT STANDARD DETAILS



TITLE:	REVISIONS		DET.NO.
ACCESSIBLE RAMP	09/03 02/08	JH ER	ST - 5.3

NOTE: DRAWING NOT TO SCALE
SOURCE: NCDOT STANDARD DRAWINGS

ENGINEERING DEPARTMENT STANDARD DETAILS

NOTES:

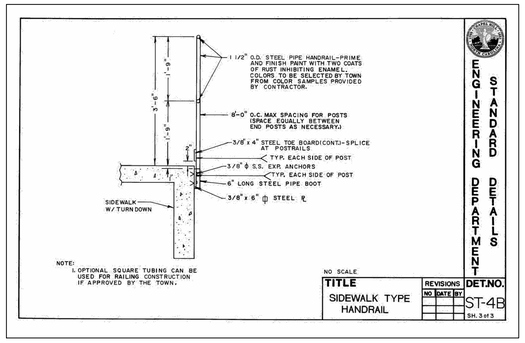
1. CONSTRUCT THE WALKING SURFACE WITH SLIP RESISTANCE AND A 70% CONTRASTING COLOR TO THE SIDEWALK.
2. CROSSWALK WIDTHS AND CONFIGURATION MAY VARY BUT MUST CONFORM TO TRAFFIC DESIGN STANDARDS.
3. PROVIDE WHEELCHAIR RAMPS AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. LOCATE WHEELCHAIR RAMPS AS DIRECTED BY THE ENGINEER WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT PLACEMENT. WHERE TWO RAMPS ARE INSTALLED, PLACE NOT LESS THAN TWO FEET OF FULL HEIGHT CURB BETWEEN THE RAMPS. PLACE DUAL RAMPS AS PERPENDICULAR TO THE TRAVEL LANE BEING CROSSED AS POSSIBLE .
4. DO NOT EXCEED 0.08 (12:1) SLOPE ON THE WHEELCHAIR RAMP IN RELATIONSHIP TO THE GRADE OF THE STREET.
5. CONSTRUCT WHEELCHAIR RAMPS 40" (3'-4") OR GREATER FOR DUAL RAMPS AND 60" (5'-0") OR GREATER FOR DIAGONAL RAMPS.
6. USE CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH NON-SKID TYPE SURFACE.
7. PLACE A 1/2" EXPANSION JOINT WHERE THE CONCRETE WHEELCHAIR RAMP JOINS THE CURB AS SHOWN ON DETAIL ST-5A.
8. PLACE THE INSIDE PEDESTRIAN CROSSWALK LINES NO CLOSER IN THE INTERSECTION BY BISECTING THE INTERSECTION RADII, WITH ALLOWANCE OF A 4' CLEAR ZONE IN THE VEHICULAR TRAVELWAY WHEN ONE RAMP IS INSTALLED. (SEE NOTE 13)
9. COORDINATE THE CURB CUT AND THE PEDESTRIAN CROSSWALK LINES SO THE FLOOR OF THE WHEELCHAIR RAMP WILL FALL WITHIN THE PEDESTRIAN CROSSWALK LINES. PLACE DIAGONAL RAMPS WITH FLARED SIDES SO 24" OF FULL HEIGHT CURB FALLS WITHIN THE CROSSWALK MARKINGS ON EACH SIDE OF THE FLARES.
10. CONSTRUCT THE PEDESTRIAN CROSSWALK A MINIMUM OF 6 FEET. A CROSSWALK WIDTH OF 8 FEET OR GREATER IS DESIRABLE.
11. USE STOP LINES, NORMALLY PERPENDICULAR TO THE LANE LINES, WHERE IT IS IMPORTANT TO INDICATE THE POINT BEHIND WHICH VEHICLES ARE REQUIRED TO STOP IN COMPLIANCE WITH A TRAFFIC SIGNAL, STOP SIGN OR OTHER LEGAL REQUIREMENT. AN UNUSUAL APPROACH SKEW MAY REQUIRE THE PLACEMENT OF THE STOP LINE TO BE PARALLEL TO THE INTERSECTION ROADWAY.
12. TERMINATE PARKING A MINIMUM OF 20 FEET BACK OF PEDESTRIAN CROSSWALK.
13. PLACE ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE NORTH CAROLINA SUPPLEMENT TO THE MUTCD.

TITLE:	REVISIONS		DET.NO.
ACCESSIBLE RAMP	09/03	JH	ST - 5.4

SOURCE: NCDOT STANDARD DRAWINGS

ENGINEERING DEPARTMENT STANDARD DETAILS

A5 C5001 WHEEL CHAIR RAMP
SCALE: N.T.S.

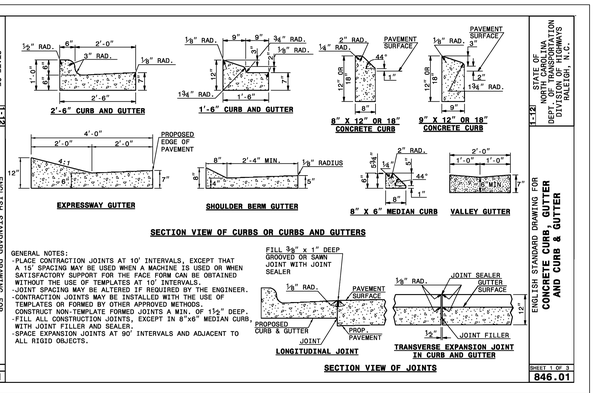


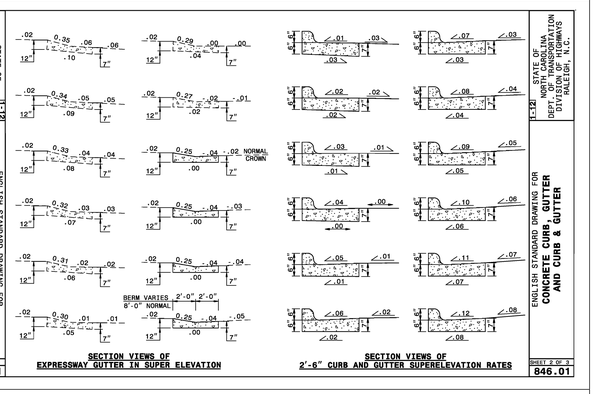
NO SCALE

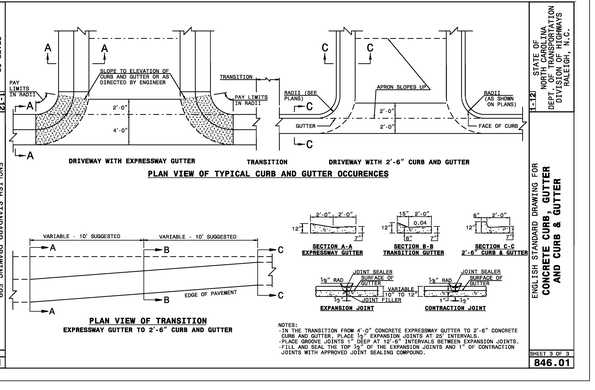
TITLE	REVISIONS	DET.NO.
SIDEWALK TYPE HANDRAIL	NO DATE BY	ST-4B SH. 3 of 3

ENGINEERING DEPARTMENT STANDARD DETAILS

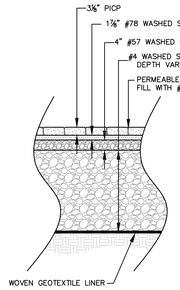
D4 C5001 ACCESSIBLE RAMP WITH HANDRAIL
SCALE: 1" = 4'



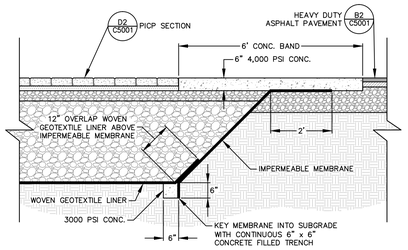




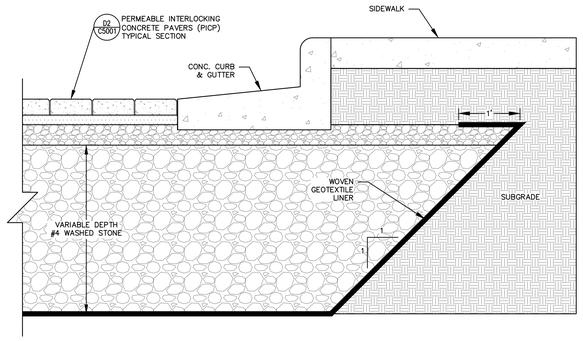
A4 C5001 NCDOT CONCRETE CURB & GUTTER
N.T.S.



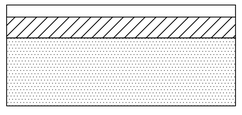
D2 C5001 PERMEABLE INTERLOCKING CONCRETE PAVERS (PICP) TYPICAL SECTION
1" = 2'



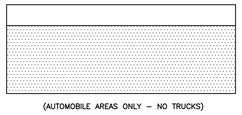
D1 C5001 6' WIDE CONCRETE BAND
SCALE: 1" = 2'



C2 C5001 PERMEABLE PAVEMENT TYPICAL BOUNDARY
1" = 1'



HEAVY DUTY ASPHALT PAVEMENT CROSS SECTION



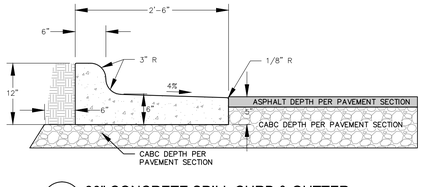
(AUTOMOBILE AREAS ONLY – NO TRUCKS)

STANDARD DUTY ASPHALT PAVEMENT CROSS SECTION

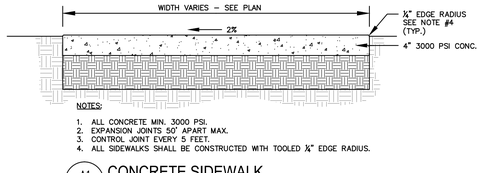
NOTES:

1. POROUS CONCRETE SHOWN UNDER SEPARATE DETAIL.
2. PAVEMENT SECTIONS SHOWN ARE PRELIMINARY. FINAL PAVEMENT SECTIONS TO BE BASED UPON RECOMMENDATIONS PROVIDED BY THE OWNER'S GEOTECHNICAL ENGINEER.

B2 C5001 TYPICAL ASPHALT PAVEMENT SECTIONS
N.T.S.



A2 C5001 30" CONCRETE SPILL CURB & GUTTER
N.T.S.



NOTES:

1. ALL CONCRETE MIN. 3000 PSI.
2. EXPANSION JOINTS 50' APART MAX.
3. CONTROL JOINT EVERY 5 FEET.
4. ALL SIDEWALKS SHALL BE CONSTRUCTED WITH TOOLED ¼" EDGE RADIUS.

A1 C5001 CONCRETE SIDEWALK
SCALE: N.T.S

COMPACTED SUBGRADE

SITE DETAILS

REVIEW DRAWING
NOT FOR CONSTRUCTION

BALLENTINE ASSOCIATES, P.A.
221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
(919) 929 – 0481 (919) 489 – 4789

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CORPORATE SEAL C328 NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILLON W. SMITH
29 JUN 17

NUM	REVISIONS	DATE
A	PER E-F FDP REVIEW COMMENTS	29 JUN 17

OWNER INFORMATION
RAM REALTY ADVISORS
1930 CAMDEN RD.
CHARLOTTE, NC 28203

OWNERS REPRESENTATIVE:
DAVID KLEPSER
PH. (704) 377–8773
FAX (704) 377–6920
EMAIL dklepser@ramrealty.com

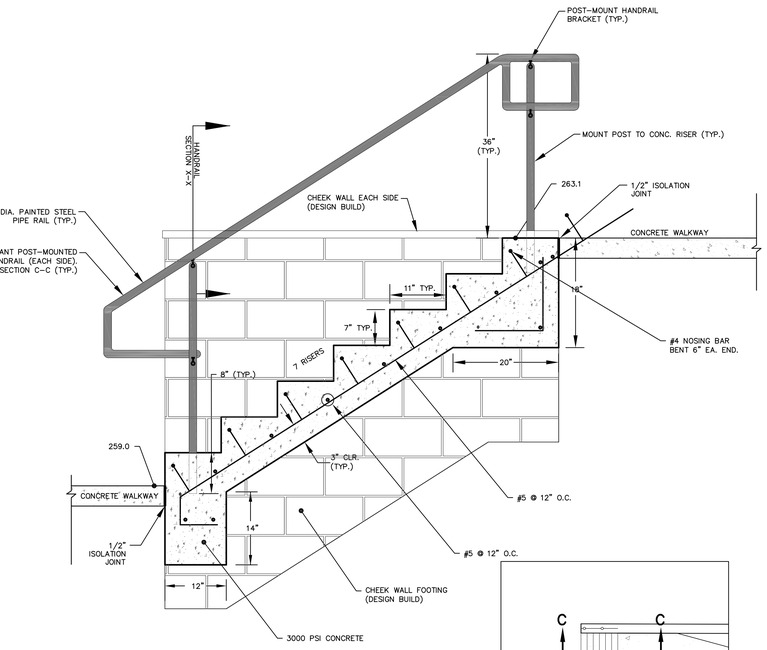
ISSUED	DATE
E-F FDP SUBMITTAL #1	21 APR 17
E-F FDP SUBMITTAL #2	28 JUN 17

FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA

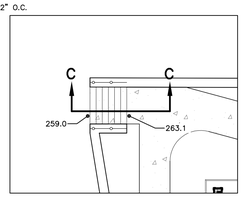
E-F FORM DISTRICT PERMIT DRAWINGS

JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C5001

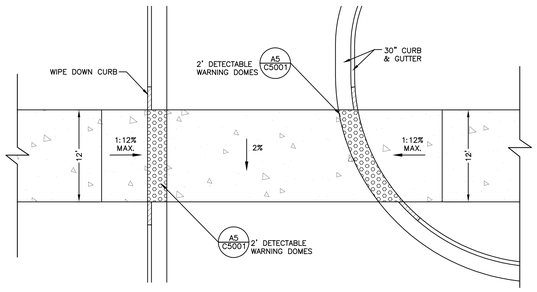


SECTION C–C
SCALE: 1" = 1'

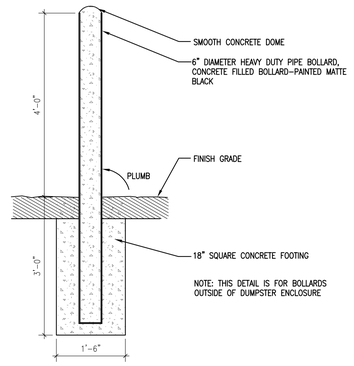


PLAN VIEW
SCALE: 1" = 10'

B4 C5002 CONCRETE STAIRS #3 WITH HANDRAIL
SCALE: AS NOTED
1

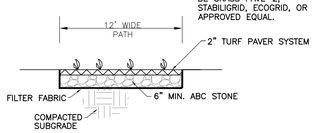


C3 C5002 MULTI - USE PATH WHEELCHAIR RAMP
SCALE: 1" = 8'
1

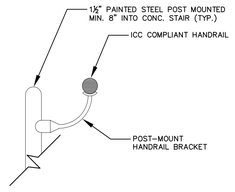


C1 C5002 FIXED BOLLARD
N.T.S.
1

NOTE:
TURF PAVER SYSTEM SHALL BE GRASS PAVE-2, STABILIGRID, ECOGRID, OR APPROVED EQUAL.

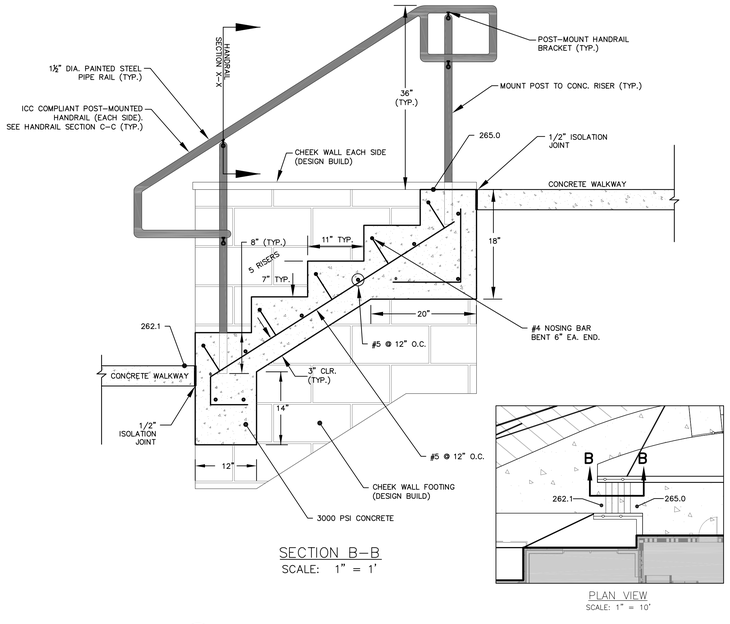


B1 C5002 PERMANENT GRASS PAVING
N.T.S.
1



NOTE: FIELD VERIFY AS BUILT CONFIGURATION AND DIMENSIONS OF STAIRS AND WALL PRIOR TO FABRICATING HANDRAIL.

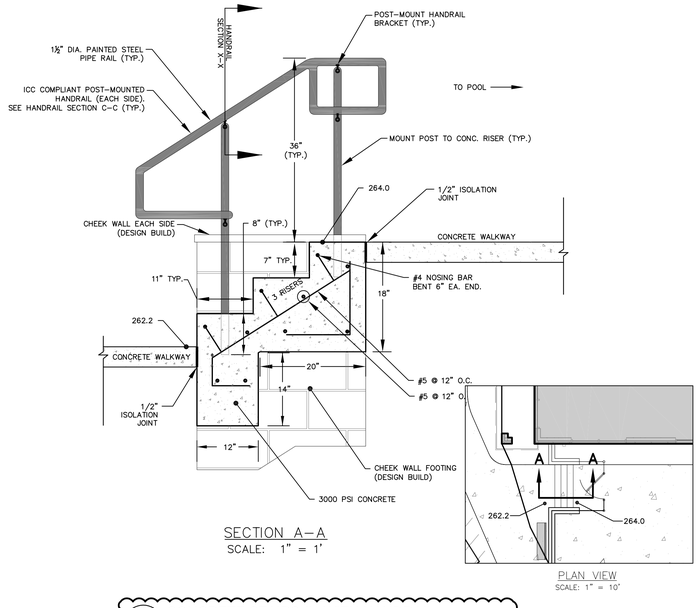
HANDRAIL SECTION X–X
SCALE: 1" = 1'



SECTION B–B
SCALE: 1" = 1'

PLAN VIEW
SCALE: 1" = 10'

A4 C5002 CONCRETE STAIRS #2 WITH HANDRAIL
SCALE: AS NOTED



SECTION A–A
SCALE: 1" = 1'

PLAN VIEW
SCALE: 1" = 10'

A2 C5002 CONCRETE STAIRS #1 WITH HANDRAIL
SCALE: AS NOTED
1

SITE DETAILS

REVIEW DRAWING
NOT FOR CONSTRUCTION

BALLENTINE ASSOCIATES, P.A.
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Ballentine Associates, P.A. CORPORATE SEAL C328 NORTH CAROLINA Chapel Hill

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILLON W. SMITH

NUM	REVISIONS	DATE
1	PER E–F FDP REVIEW COMMENTS	28 JUN 17

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RAM REALTY ADVISORS
1930 CAMDEN RD.
CHARLOTTE, NC 28203

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DAVID KLEPSER
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FAX (704) 377–6920
EMAIL dklepser@ramrealestate.com

ISSUED	DATE
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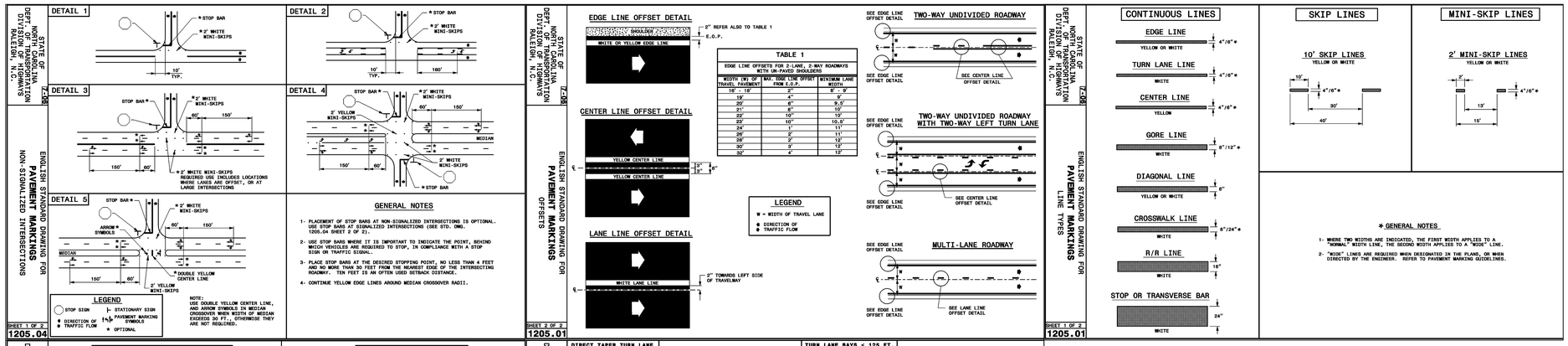
E–F FDP SUBMITTAL #2	28 JUN 17

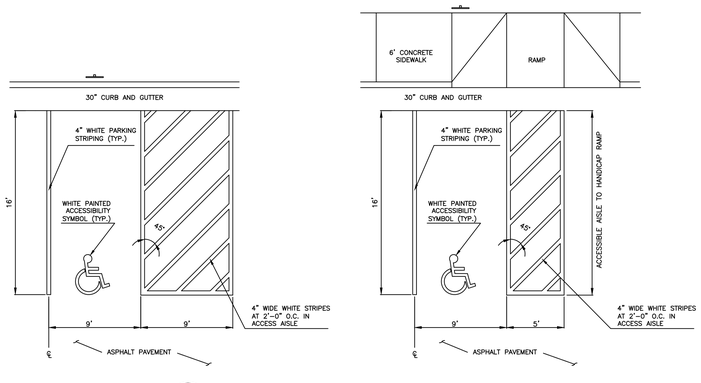
FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA
E-F FORM DISTRICT PERMIT DRAWINGS

JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

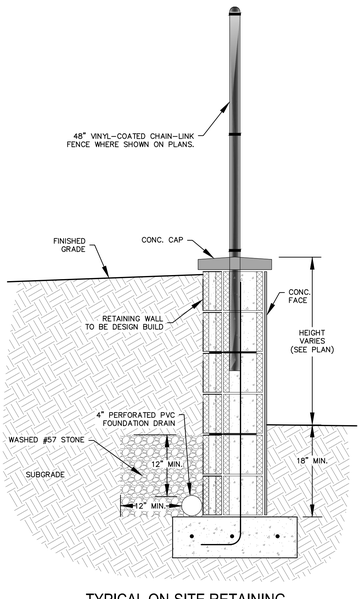
SHEET
C5002



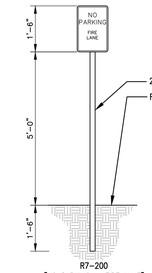
B4 C5003 PAVEMENT MARKINGS
N.T.S.



A4 C5003 PAINTED ACCESSIBILITY SPACE AND AISLE
NTS

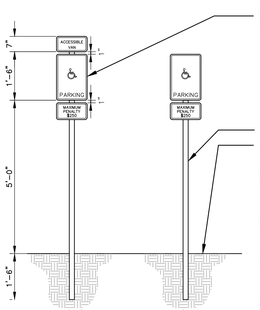


A2 C5003 TYPICAL ON-SITE RETAINING WALL SECTION (DESIGN-BUILD)
SCALE: 1" = 1'



NOTE:
1. ALL SIGNS SHOWN SHALL CONFORM TO THE N.C. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. ALL SIGNS SHOWN SHALL BE REFLECTORIZED TO SHOW THE SAME COLOR BY NIGHT AS BY DAY.
3. ALL SIGNS SHALL BE SECURELY MOUNTED ON GALVANIZED STEEL CHANNEL POSTS.
4. INSTALL QUANTITY AND AT LOCATIONS REQUIRED BY CODE AND/OR AS INDICATED ON DRAWINGS. CONFIRM ALL HANDICAPPED SIGNAGE CODES.
5. ALL FIRE LANE SIGNS TO BE LOCATED WHERE THEY WILL NOT IMPACT PEDESTRIAN WALKWAYS. REFER TO SITE PLAN SHEETS.

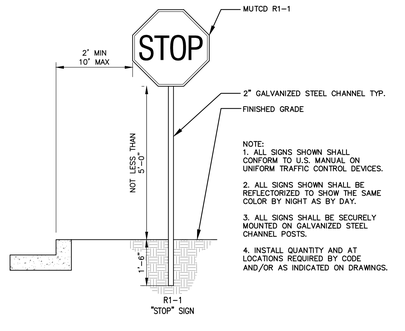
C1 C5003 "NO PARKING - FIRE LANE" SIGN
N.T.S.



PROVIDE "VAN ACCESSIBLE" SIGNAGE AT LOCATIONS REQUIRED BY CODE AND/OR AS INDICATED ON DRAWINGS.

NOTE:
1. ALL SIGNS SHOWN SHALL CONFORM TO U.S. MANUAL SPECIFICATIONS.
2. ALL SIGNS SHOWN SHALL BE REFLECTORIZED TO SHOW THE SAME COLOR BY NIGHT AS BY DAY.
3. ALL SIGNS SHALL BE SECURELY MOUNTED ON GALVANIZED STEEL CHANNEL POSTS.
4. INSTALL QUANTITY AND AT LOCATIONS REQUIRED BY CODE AND/OR AS INDICATED ON DRAWINGS. CONFIRM ALL HANDICAPPED SIGNAGE CODES.

B1 C5003 "HANDICAP" SIGN
N.T.S.



NOTE:
1. ALL SIGNS SHOWN SHALL CONFORM TO U.S. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. ALL SIGNS SHOWN SHALL BE REFLECTORIZED TO SHOW THE SAME COLOR BY NIGHT AS BY DAY.
3. ALL SIGNS SHALL BE SECURELY MOUNTED ON GALVANIZED STEEL CHANNEL POSTS.
4. INSTALL QUANTITY AND AT LOCATIONS REQUIRED BY CODE AND/OR AS INDICATED ON DRAWINGS.

A1 C5003 "STOP" SIGN
N.T.S.

SITE DETAILS

REVIEW DRAWING
NOT FOR CONSTRUCTION

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221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
(919) 929 – 0481 (919) 489 – 4789

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Ballentine Associates, P.A. CORPORATE SEAL C328 NORTH CAROLINA (Original 1971)

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILLON W. SMITH 28 JUN 17

NUM	REVISIONS	DATE
A	PER E-F FDP REVIEW COMMENTS	28 JUN 17

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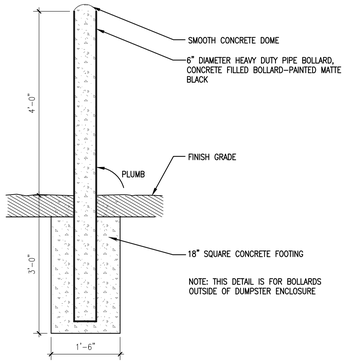
FORDHAM BLVD. APARTMENTS
CHAPEL HILL, NORTH CAROLINA

E-F FORM DISTRICT PERMIT DRAWINGS

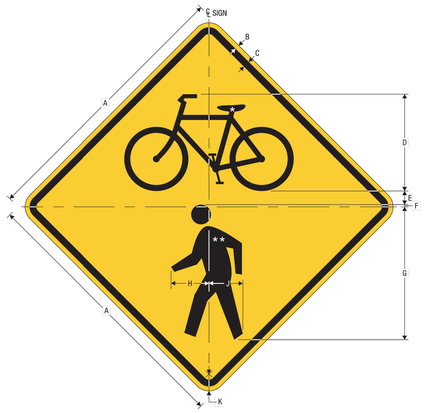
JOB #: 116026.00
DATE: 21 APR 17
SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C5003



C5 / C5004 FIXED BOLLARD
SCALE: N.T.S.

W11-15
Issued 3/1/2012



W11-15
COMBINATION BIKE AND PEDESTRIAN CROSSING

★ See page 6-7 for symbol design.
★★ See page 6-10 for symbol design.

A	B	C	D	E	F	G	H	J	K
18	0.375	0.625	6.25	1	0.125	8.875	2.524	2.25	1.5
24	0.375	0.625	8.5	1.375	0.125	11.875	3.366	3	1.5
30	0.5	0.75	10.75	1.75	0.25	14.75	4.207	3.75	1.875
36	0.625	0.875	12.75	2.125	0.375	17.625	5.049	4.5	2.25
48	0.75	1.25	17	2.75	0.375	23.625	6.732	6	3

COLORS: BORDER, LEGEND – BLACK
BACKGROUND – YELLOW (RETROREFLECTIVE)

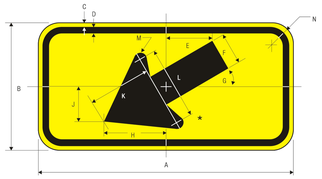
W11-15P
Issued 3/1/2012

W11-15P
TRAIL CROSSING (PLAQUE)

A	B	C	D	E	F	G	H	J	K	L
18	12	0.375	0.375	2.5	2.5 D	2	4.440	1.702	0.375	1.25
24	18	0.375	0.625	3.5	4 D	3	7.104	2.723	0.5	2
30	24	0.375	0.625	5	5 D	4	8.880	3.404	0.625	2.5
36	30	0.5	0.75	6.5	6 D	5	10.656	4.085	0.75	3

M	N	P	Q
0.625	0.501	4.453	1.5
1	0.852	7.074	1.5
1.25	1.063	8.845	1.5
1.5	1.277	10.612	1.875

COLORS: LEGEND, BORDER – BLACK
BACKGROUND – YELLOW (RETROREFLECTIVE)



W16-7pL
LEFT DIAGONAL ARROW PLAQUE

	A	B	C	D	E	F	G	H	J	K	L	M	N
C	24	12	.375	.625	4.323	3	30°	5.844	3.282	5.884	6.925	.600	1.5
	30	18	.5	.75	6.524	4.5	30°	8.766	4.923	8.846	10.407	.920	1.875

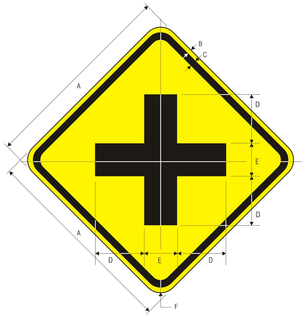
W16-7pR
RIGHT DIAGONAL ARROW PLAQUE

*See page 6-2 for arrow design.

COLORS: SYMBOL – BLACK
BACKGROUND – YELLOW (RETROREFLECTIVE)

2-126

C3 / C5004 "TRAIL CROSSING COMBINATION" SIGN
N.T.S.



W2-1
CROSS ROAD

	A	B	C	D	E	F
	18	.375	.625	6	3	1.5
	24	.375	.625	8	4	1.5
C	30	.5	.75	10	5	1.875
	36	.625	.875	12	6	2.25
	48	.75	1.25	16	8	3

COLORS: LEGEND – BLACK
BACKGROUND– YELLOW (RETROREFLECTIVE)

2-14

A4 / C5004 "INTERSECTION" SIGN
N.T.S.

R4-2
PASS WITH CARE

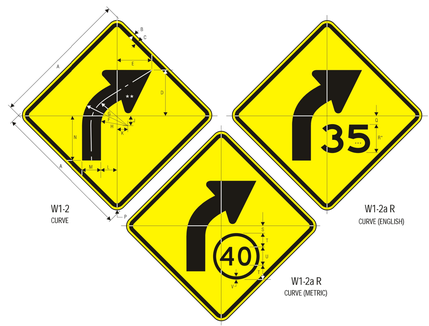
	A	B	C	D	E	F	G	H	J	K	L
	12	18	.375	.438	2.5	3 C	2	3.75	4	3.75	3.375
	18	24	.375	.625	3.5	4 C	2.5	5.438	5.625	5	4.75
C	24	30	.375	.625	3.5	6 C	2.5	8.188	8.438	7.5	7.188
	36	48	.625	.875	7	8 C	5	10.875	11.25	10	9.5
	48	60	.75	1.25	8	10 C	7	13.625	14.063	12.5	11.938

M	N	P
3.938	4.125	1.5
5.375	5.5	1.5
8	8.25	1.5
10.688	11	2.25
13.375	13.75	3

COLORS: LEGEND – BLACK
BACKGROUND – WHITE (RETROREFLECTIVE)

1-62

A3 / C5004 "PASS WITH CARE" SIGN
N.T.S.



	A	B	C	D	E	F	G	H	J	K	L	M
	18	.375	.625	5.405	5.144	6	4.687	3.375	1.75	1.312	2.06	2.625
	24	.375	.625	7.094	7.25	8	6.25	4.5	2.344	1.75	2.75	3.5
C	30	.5	.75	8.875	9.063	10	7.813	5.625	2.938	2.188	3.438	4.375
	36	.625	.875	10.625	10.875	12	9.375	6.75	3.5	2.625	4.125	5.25
	48	.75	1.25	14.188	14.5	16	12.5	9	4.688	3.5	5.5	7

N	P	Q	R	S	T	U	V
6.187	1.5	1.5	4 E	1	1.75	2 D	.375
8.25	1.5	2.5	5 E	1.5	2.5	3 D	.5
10.313	1.875	2	6 E	1.5	3	4 D	.625
12.375	2.25	3	7 E	1.813	3.5	5 D	.750
16.5	3	5	9 E	3	5	6 D	1.25

*See page 6-2 for symbol design.
**Optically position numerals.

WARNING SIGN COLORS:
LEGEND – BLACK
BACKGROUND– YELLOW (RETROREFLECTIVE)

TTC SIGN COLORS:
LEGEND – BLACK
BACKGROUND– ORANGE (RETROREFLECTIVE)

2-3

A1 / C5004 "RIGHT CURVE" SIGN
N.T.S.

SITE DETAILS

REVIEW DRAWING
NOT FOR CONSTRUCTION

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221 PROVIDENCE ROAD, CHAPEL HILL, N.C. 27514
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Ballentine Associates, P.A. CORPORATE SEAL C328 NORTH CAROLINA Chapel Hill

NORTH CAROLINA PROFESSIONAL SEAL 042542 ENGINEER DILLON W. SMITH
29 JUN 17

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JOB #: 116026.00
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SCALE: AS NOTED
DRAWN BY: D.W.S.
REVIEWED BY: G.J.R.

SHEET
C5004

N:\Projects\116026.00 Fordham Blvd Apartments\1__Dwg\B\Model Files\C5001-Site Details-Fordham.dwg, 6/28/2017 8:42:49 AM, dlines