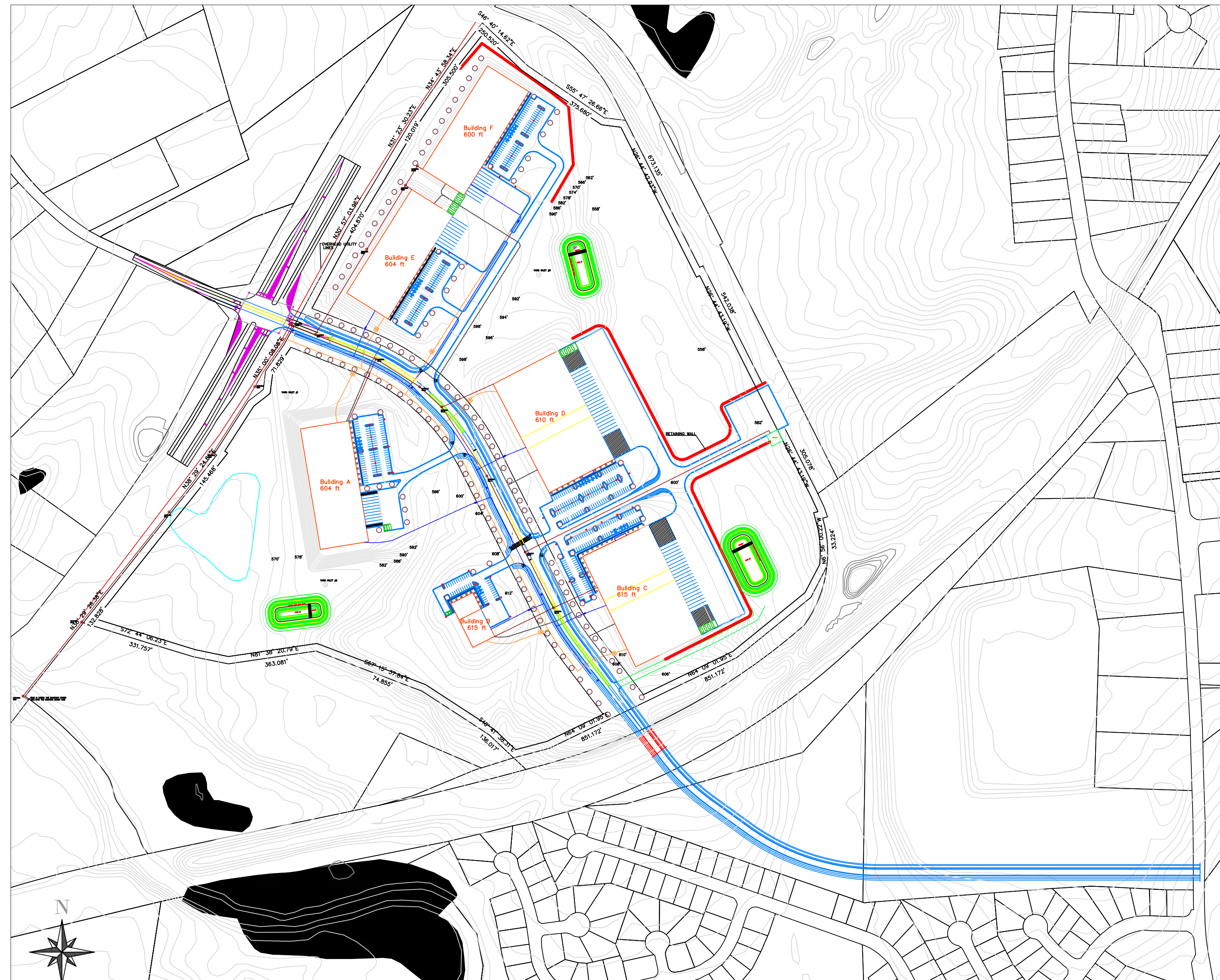


Morrison Ridge Industrial Park

Senior Design 2015



GROUPS: LAND DEVELOPMENT, TRANSPORTATION, ENVIRONMENTAL, AND GEOTECHNICAL

General Notes

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project SENIOR DESIGN	Sheet C-0.10
Date 04/30/2015	
Scale NOT TO SCALE	

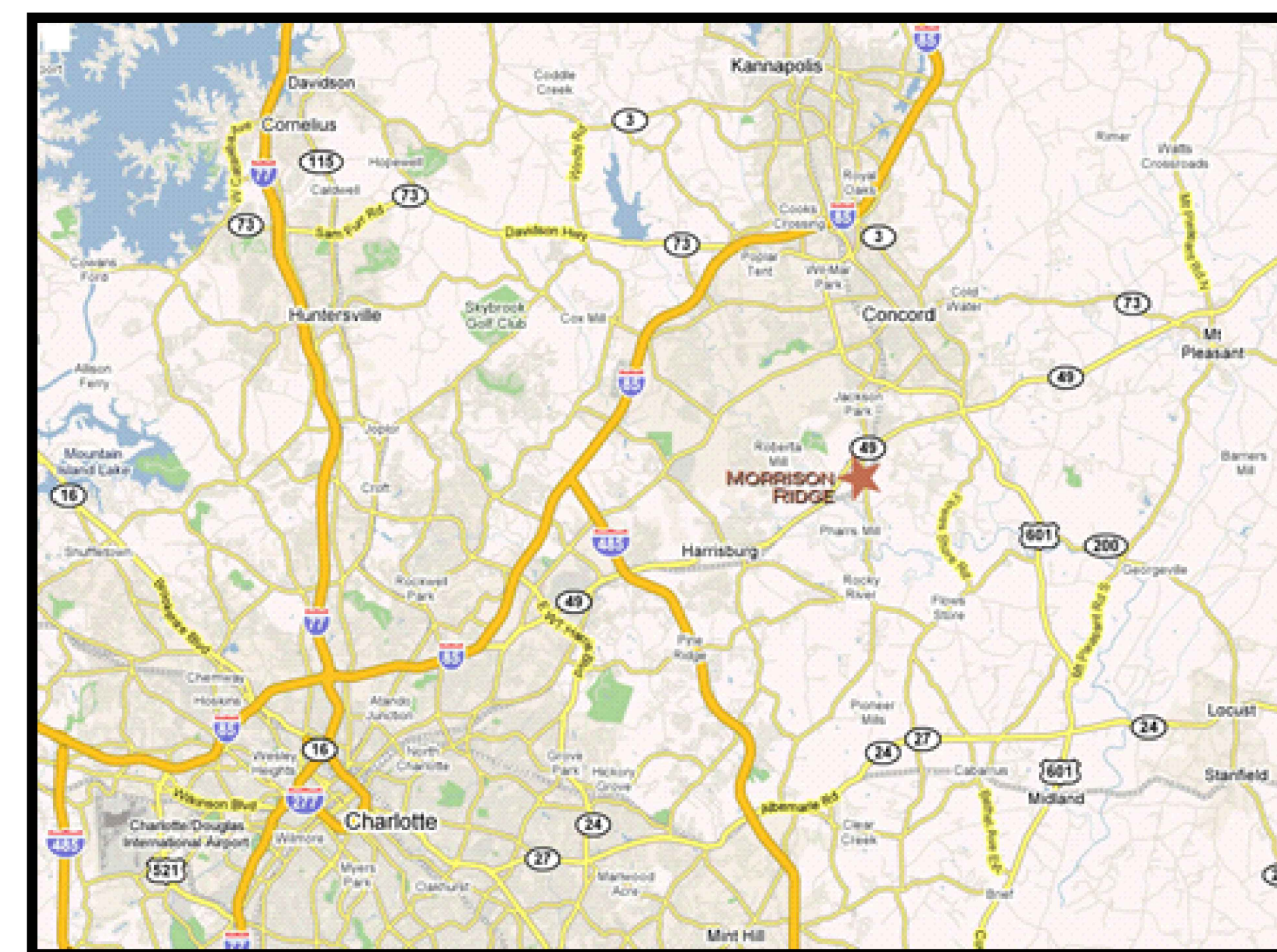
GENERAL NOTES

1. THE MORRISON RIDGE SITE IS 112 ACRES.
2. THIS DRINKING WATER AND THE SANITARY SEWER WILL BE PROVIDED BY THE CITY OF CONCORD.
3. THIS SITE WILL TIE IN TO EXISTING WATER AND SEWER LINES RUNNING ALONG HWY 49 WITH A 8 INCH SANITARY SEWER LINE AND A 6 INCH WATER LINE.
4. THIS SET OF PLANS COMPLIES WITH ALL STATE AND LOCAL ORDINANCES AND HAS BEEN REVIEWED AND CERTIFIED BY A PROFESSIONAL ENGINEER OF THIS STATE.
5. THE GENERAL CONTRACTOR MUST NOTIFY THE DESIGN ENGINEER AND THE PROJECT ENGINEER 7 DAYS PRIOR TO BEGINNING ANY SITE CONSTRUCTION.
6. ANY DISCREPANCIES FOUND ON THE PLANS OR ON THE SIT SHALL IMMEDIATELY BE BROUGHT THO THE ATTENTION OF THE GENERAL CONTRACTOR, THE PROJECT ENGINEER, THE DESIGN ENGINEER, AND THE OWNER.
7. PRIOR TO BEGINNING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND APPROVALS FROM ALL REGULATORY AUTHORITIES.
8. THE GENERAL CONTRACTOR SHALL GIVE NOTICE OF CONSTRUCTION AND REQUEST APPROVAL FOR OPERATING IN ANY EASEMENT AREAS, UTILITY ZONES, OR PUBLIC /PRIVATE OWNED LANDS.
9. THIS SITE IS BORDERED TO THE SOUTH BY A NCDOT RAIL LINE LEASED BY NORFOLK SOUTHERN AND AMTRAK. ALL WORK WITHIN 100 FEET OF THE ACTIVE RAIL SHALL BE DONE ONLY UNDER APPROVAL OF NORFOLK SOUTHERN AND NCDOT.
10. THE GENERAL CONTRACTOR SHALL MAINTAIN A SITE ENVIRONMENT AT ALL TIMES THAT IS SAFE FOR THE PUBLIC, WORKERS, AND THE ENVIRONMENT.
11. ANY PUBLIC OR PRIVATE LAND, UTILITIES, FACILITIES OR PROPERTY DAMAGED DURING CONSTRUCTION WITHOUT PRIOR APPROVAL SHALL BE RECONSTRUCTED OR REPLACED TO PREVIOUS OR BETTER CONDITION AND SHALL BE PAID FOR BY THE LIABLE PARTY.
12. ALL SURVEYING PERMANENT MARKERS OR MONUMENTS SHALL BE PROTECTED TO MAINTAIN THEIR INTEGRITY DURING CONSTRUCTION.
13. IF A SURVEYING PERMANENT MARKER OR MONUMENT IS DAMAGED DURING CONSTRUCTION IT MUST BE RESET IN THE PROPER PLACE BY A PROFESSIONALLY LICENSED SURVEYOR.
14. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO VERIFY THE LOCATION OF ANY AND ALL EXISTING UTILITIES ON SITE, ANY UTILITIES DAMAGED DURING CONSTRUCTION ARE REPLACED AT THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
15. ANY CHANGES OR REVISIONS TO THIS PLAN WILL BE REVIEWED AND CERTIFIED BY A PROFESSIONAL ENGINEER OF NORTH CAROLINA. ANY REVISIONS WILL BE MADE AVAILABLE TO THE PROJECT ENGINEER, THE GENERAL CONTRACTOR, AND THE OWNER AS SOON AS POSSIBLE.
16. DURING GRADING ANY CUT SLOPES GREATER THAN 30 FEET IN HEIGHT OR STEEPER THAN 2:1 SHALL BE REVIEWED BY A PROFESSIONALLY LICENSED ENGINEER AND PERIODICALLY INSPECTED BY A LICENSED INSPECTOR.
17. ALL TRENCHES OR HOLES SHALL CONFORM TO OSHA GUIDELINES FOR CAVE IN PROTECTION AND SLOPE STABILITY.
18. EROSION CONTROL PLANS SHALL BE COMPLIED WITH AT ALL TIMES.
19. AFTER GRADING IS COMPLETED ON EACH STAGE, THIS AREA MUST BE SEEDED AND MULCHED WITHIN 45 DAYS.
20. THE WETLAND LOCATED IN THE WESTERN CORNER OF THE SIT ALONG HWY 49 SHALL NOT BE DISTURBED UNDER ANY CIRCUMSTANCES. THIS AREA IS TO BE CLOSED OFF TO CONSTRUCTION AND RUNOFF WATER SHALL BE DIVERTED AS TO NOT POLLUTE THE WETLAND.
21. DURING CONSTRUCTION, A CONSTRUCTION ENTRANCE SHALL BE BUILT AT THE BEGINNING OF THE PROPOSED ROAD AT HWY 49 IN ORDER TO PREVENT EXCESS MUD TRACKING ONTO PUBLIC ROADS. IN ADDITION CONSTRUCTION VEHICLES SUCH AS DUMP TRUCKS SHALL BE RINSED OFF IN A GRAVEL PIT PRIOR TO EXITING THE SITE.
22. ALL CUT SOIL REMOVED FROM THIS SITE SHALL BE PROPERLY DISPOSED OF AND THE ORIGINAL TOPSOIL SHALL BE STORED AND THEN REPLACED DURING FINAL GRADING WHENEVER POSSIBLE.
23. PRIOR TO ANY COMBUSTIBLES (DIESEL FUEL) ENTERING THE SITE AN ALL WEATHER ENTRANCE MUST BE CONSTRUCTED INTO THE SITE CAPABLE OF REACHING THE MATERIAL AND SUPPORT A 75,000 POUND VEHICLE.
24. ANY EXISTING TREES OR SHRUBS THAT ARE NOT TO BE DEMOLISHED DURING CONSTRUCTION SHALL BE MARKED AND FENCED OFF BY THE GENERAL CONTRACTOR AND SHOULD BE PROTECTED DURING CONSTRUCTION.
25. OPEN BURNING OF CONSTRUCTION DEBRIS, VEGETATION, OR ANY OTHER WASTE IS STRICTLY PROHIBITED ON THIS SITE PER CITY OF CONCORD ORDINANCE.
26. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE POTABLE TOILETTES ON THE SITE TO ACCOMMODATE THE NUMBER OF CONSTRUCTION WORKERS.
27. ANY UNDERGROUND UTILITIES TO BE CONSTRUCTED IN FILL AREAS MUST BE INSTALLED FOLLOWING THE INSTALLATION OF THE FILL SOIL AND THE COMPLETE COMPACTION OF THE SOIL SO AS TO REDUCE SETTLEMENT AND BREAKAGE OF UTILITY LINES.

TABLE OF CONTENTS

<u>SHEET</u>	<u>NAME</u>	<u>SHEET</u>	<u>NAME</u>
C - 0.10	COVER PAGE	C - 3.15	STORMWATER PROFILES
C - 0.20	GENERAL NOTES	C - 3.20	EROSION CONTROL #1
C - 1.10	TOTAL SITE	C - 3.21	EROSION CONTROL #2
C - 1.11	NEW CONTOURS	C - 3.22	EROSION CONTROL #3
C - 1.12	EXISTING GRADE	C - 3.23	EROSION CONTROL DETAILS 1
C - 1.13	PARKING LOTS	C - 3.24	EROSION CONTROL DETAILS 2
C - 1.14	UTILITIES	C - 3.30	CISTERN
C - 1.15	LANDSCAPE PLAN	C - 3.40	DRAWING LIST FOR PUMP STATION
C - 1.16	BUILDING A	C - 3.41	PLAN VIEW FOR MORRISON RIDGE
C - 1.17	BUILDING B	C - 3.42	PLAN VIEW SUBMERSIBLE PUMP STATION
C - 1.18	BUILDING C	C - 3.43	PROFILE VIEW FOR WET WELL DESIGN
C - 1.19	BUILDING D	C - 3.44	PLAN VIEW FOR WET WELL DESIGN
C - 1.20	BUILDING E & F	C - 3.45	DETAILS FOR ALUMINUM COVER PLATE
C - 1.21	SITE DETAIL 1	C - 3.46	CHAIN LINK FENCE DETAIL
C - 1.22	SITE DETAIL 2	C - 3.47	MANHOLE DETAIL
C - 2.10	HORIZONTAL ALIGNMENT	C - 3.48	TRANSITION MANHOLE DETAIL
C - 2.11	VERTICAL ALIGNMENT	C - 3.49	OVERALL GRAVITY SEWER PROFILE
C - 2.12	SHEET - 1	C - 3.50	GRAVITY SEWER PROFILE AND PLAN VIEWS
C - 2.13	SHEET - 2	C - 3.51	GRAVITY SEWER PROFILE AND PLAN VIEWS
C - 2.14	SHEET - 3	C - 3.52	GRAVITY SEWER PROFILE AND PLAN VIEWS
C - 2.15	SHEET - 4	C - 3.53	GRAVITY SEWER PROFILE AND PLAN VIEWS
C - 2.16	SHEET - 5	C - 3.54	GRAVITY SEWER PROFILE AND PLAN VIEWS
C - 2.17	BRIDGE & GUARDRAIL	C - 3.55	GRAVITY SEWER PROFILE AND PLAN VIEWS
C - 2.18	MEDIANS	C - 4.10	STEEL WAREHOUSE FOUNDATION
C - 2.19	PROFILES	C - 4.11	CONCRETE WAREHOUSE FOUNDATION
C - 2.20	PROFILES	C - 4.12	MACHINE SHOP FOUNDATION LAYOUT
C - 2.21	PROFILES	C - 4.13	STEEL WAREHOUSE RETAINING WALL
C - 2.22	ASSEMBLY, SIGNAGE, AND PAVEMENT MARKING	C - 4.14	CONCRETE WAREHOUSE RETAINING WALL
C - 2.23	CONSTRUCTION DETAILS		
C - 2.24	CONSTRUCTION DETAILS		
C - 2.25	POLE LAYOUT AND DESIGN		
C - 2.26	LANE IMPROVEMENTS		
C - 3.10	STORMWATER DESIGN		
C - 3.11	POND 1		
C - 3.12	POND 2		
C - 3.13	POND 3		
C - 3.14	STORMWATER DETAILS		

VICINITY MAP



General Notes

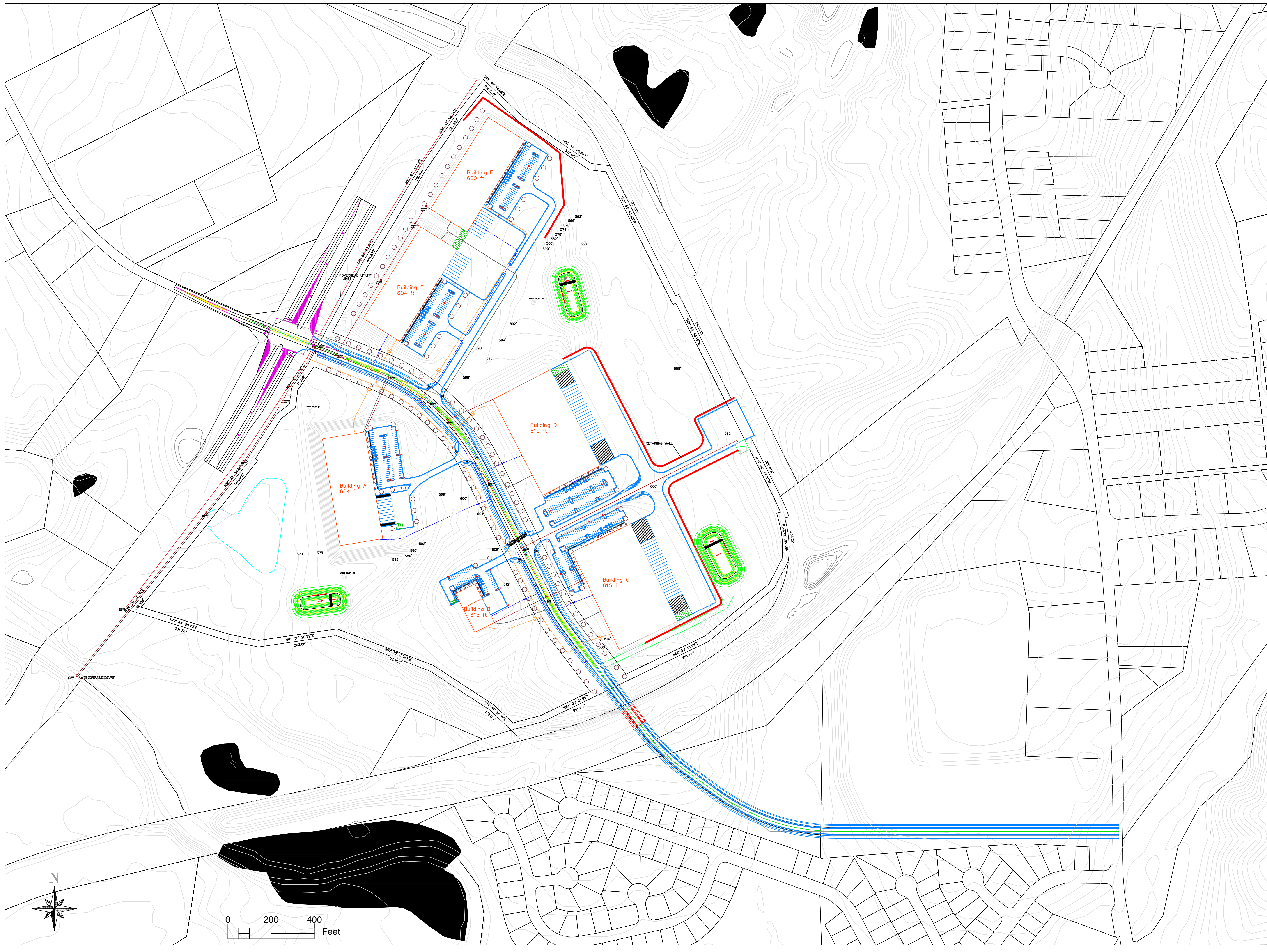
No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

MORRISON RIDGE INDUSTRIAL PARK
HIGHWAY 49 S & STOUGH RD,
CONCORD, NC 2827

Project Senior Design	Sheet
Date 04/30/2015	C-1.02
Scale NOT TO SCALE	



General Notes

TOTAL SITE

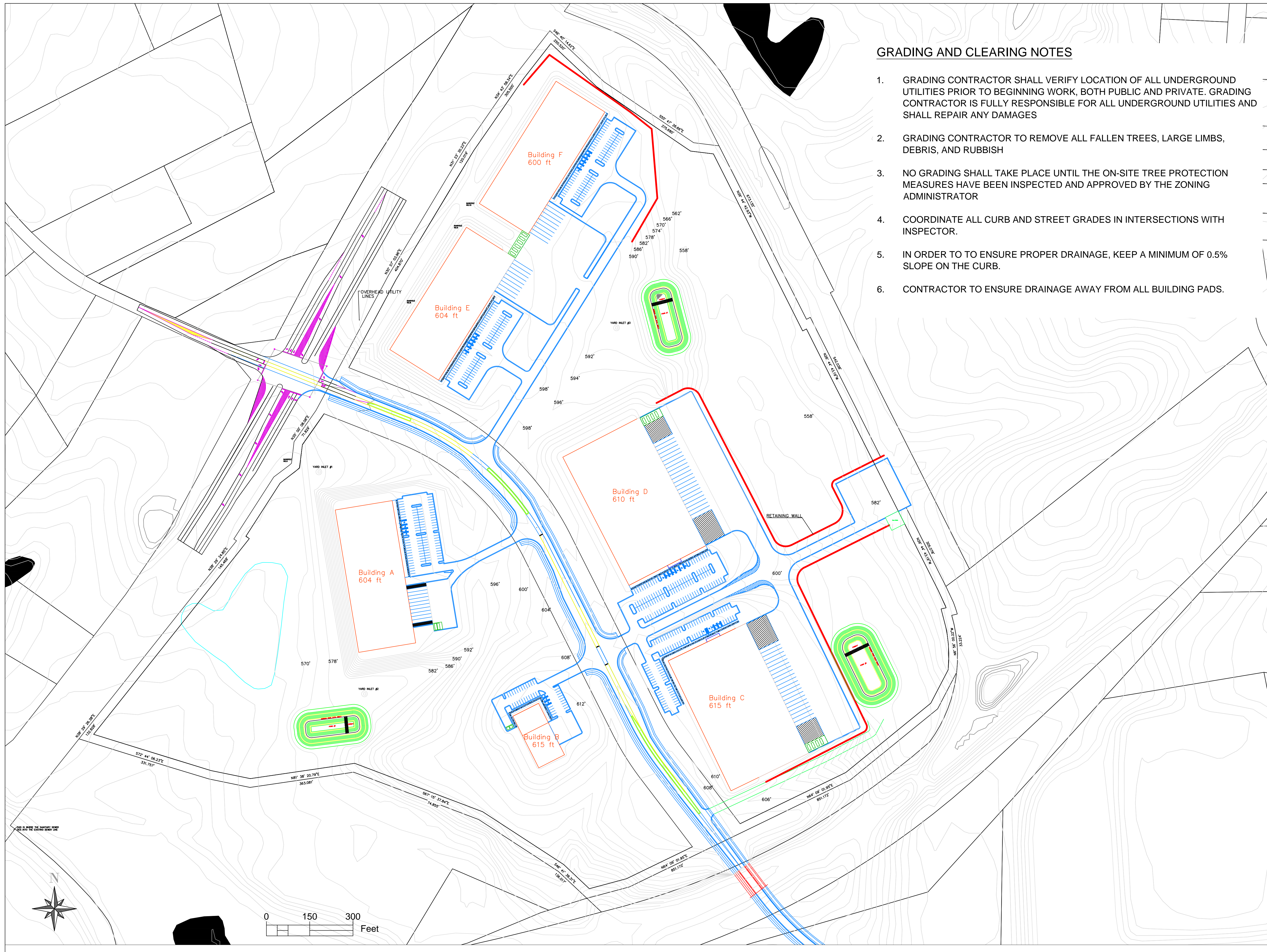
- THE TOTAL SITE PLAN SHOWS
- THE LOCATIONS OF THE BUILDINGS AND THEIR PARKING LOT LOCATIONS
 - THE ROADWAY INTERSECTION AT STOUGH RD. AND HWY. 49 AND WHERE THE NEW STOUGH RD. EXTENSION CONNECTS TO ROCKY RIVER RD.

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project SENIOR DESIGN	Sheet C-1.10
Date 04/30/2015	
Scale 1" = 200'	



GRADING AND CLEARING NOTES

1. GRADING CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK, BOTH PUBLIC AND PRIVATE. GRADING CONTRACTOR IS FULLY RESPONSIBLE FOR ALL UNDERGROUND UTILITIES AND SHALL REPAIR ANY DAMAGES
2. GRADING CONTRACTOR TO REMOVE ALL FALLEN TREES, LARGE LIMBS, DEBRIS, AND RUBBISH
3. NO GRADING SHALL TAKE PLACE UNTIL THE ON-SITE TREE PROTECTION MEASURES HAVE BEEN INSPECTED AND APPROVED BY THE ZONING ADMINISTRATOR
4. COORDINATE ALL CURB AND STREET GRADES IN INTERSECTIONS WITH INSPECTOR.
5. IN ORDER TO TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.5% SLOPE ON THE CURB.
6. CONTRACTOR TO ENSURE DRAINAGE AWAY FROM ALL BUILDING PADS.

General Notes

NEW CONTOURS

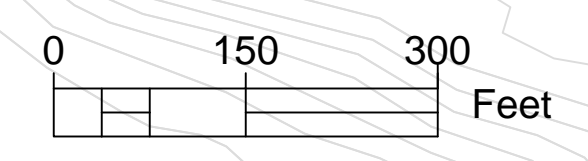
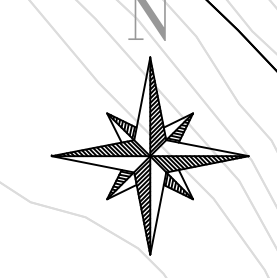
LEGEND	
SYMBOLS	DESCRIPTION
(Blue line)	GAS
(Red line)	WATER
(Orange line)	UNDERGROUND UTILITIES
(Purple line)	SANITARY SEWER
(Circle with dot)	MANHOLE
(Circle with cross)	LIGHT POLE
(Circle with vertical line)	TREES
(Circle with horizontal line)	BUSHES
(Circle with triangle)	SIGNS
(Circle with square)	YARD INLET
(Circle with diamond)	BACK FLOW
(Circle with circle)	WATER METER
(Circle with square)	TRANSFORMER
(Circle with triangle)	HANDICAP MARKING
(Circle with square)	DUMPSTER

No.	Revision/Issue	Date

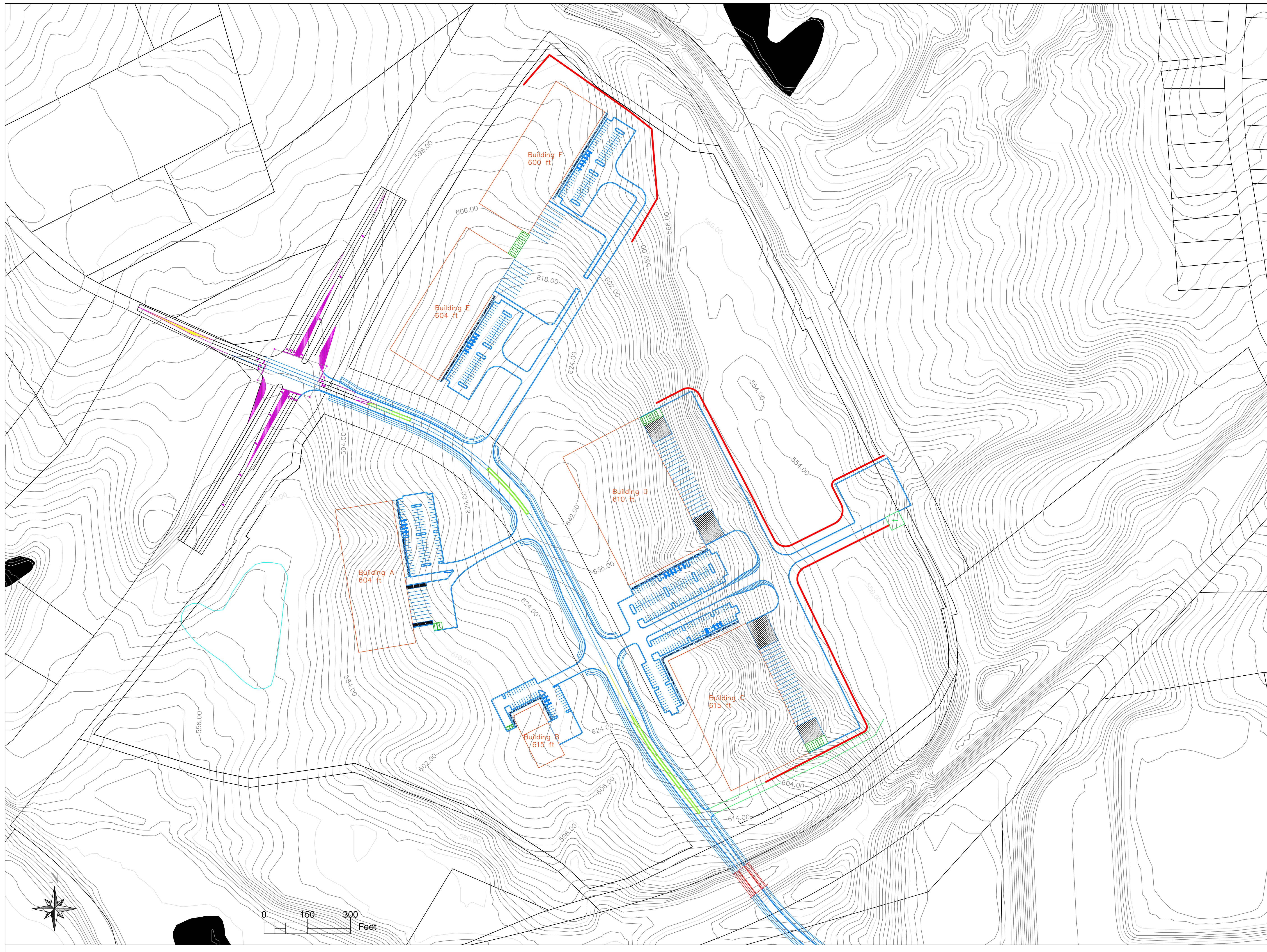
Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project SENIOR DESIGN	Sheet C-1.11
Date 04/30/2015	
Scale 1" = 150'	



THIS IS NOT THE SURVEY REPORT
 SEE THE SURVEY REPORT FOR
 THE COMPLETE SURVEY DATA



General Notes

EXISTING GRADE

- THE EXISTING GRADE OF THE SITE HAD A LARGE RIDGE UP THE MIDDLE OF THE SITE AND SLOPED DOWN FROM THERE ON BOTH SIDES TOWARD THE SOUTHWEST AND THE NORTHEAST

LEGEND

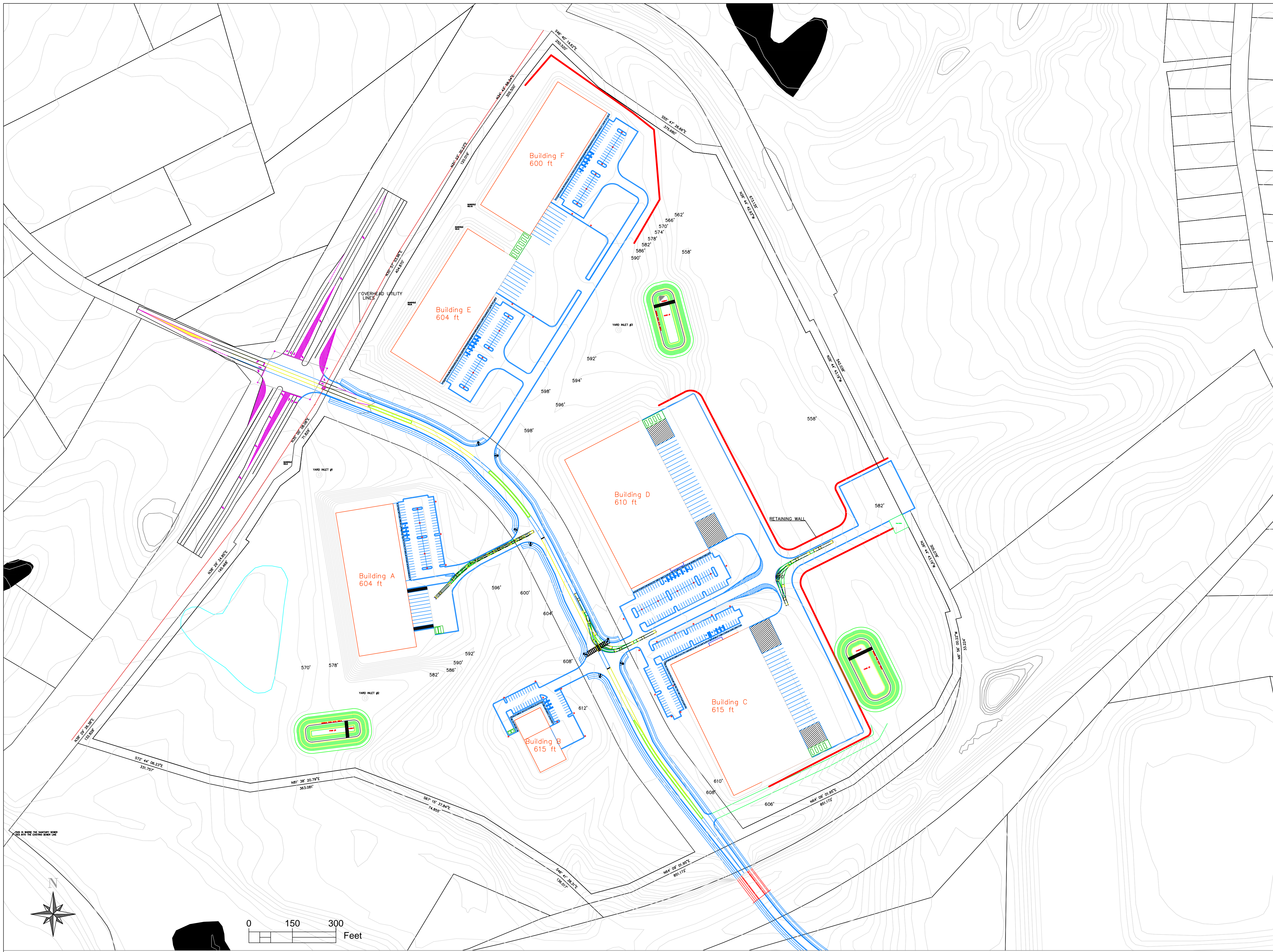
SYMBOLS	DESCRIPTION
	GAS
	WATER
	UNDERGROUND UTILITIES
	SANITARY SEWER
	MANHOLE
	LIGHT POLE
	TREES
	BUSHES
	SIGNS
	YARD INLET
	BACK FLOW
	WATER METER
	TRANSFORMER
	HANDICAP MARKING
	DUMPSTER

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project SENIOR DESIGN	Sheet C-1.12
Date 04/30/2015	
Scale 1" = 150'	



General Notes

PARKING LOTS

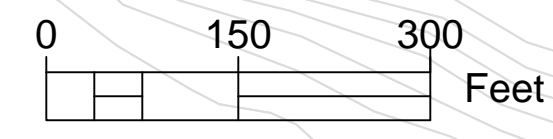
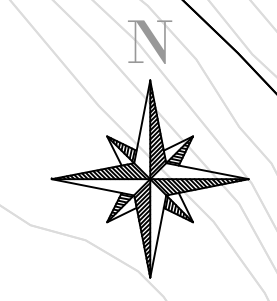
LEGEND	
SYMBOLS	DESCRIPTION
	GAS
	WATER
	UNDERGROUND UTILITIES
	SANITARY SEWER
	MANHOLE
	LIGHT POLE
	TREES
	BUSHES
	SIGNS
	YARD INLET
	BACK FLOW
	WATER METER
	TRANSFORMER
	HANDICAP MARKING
	DUMPSTER

No.	Revision/Issue	Date

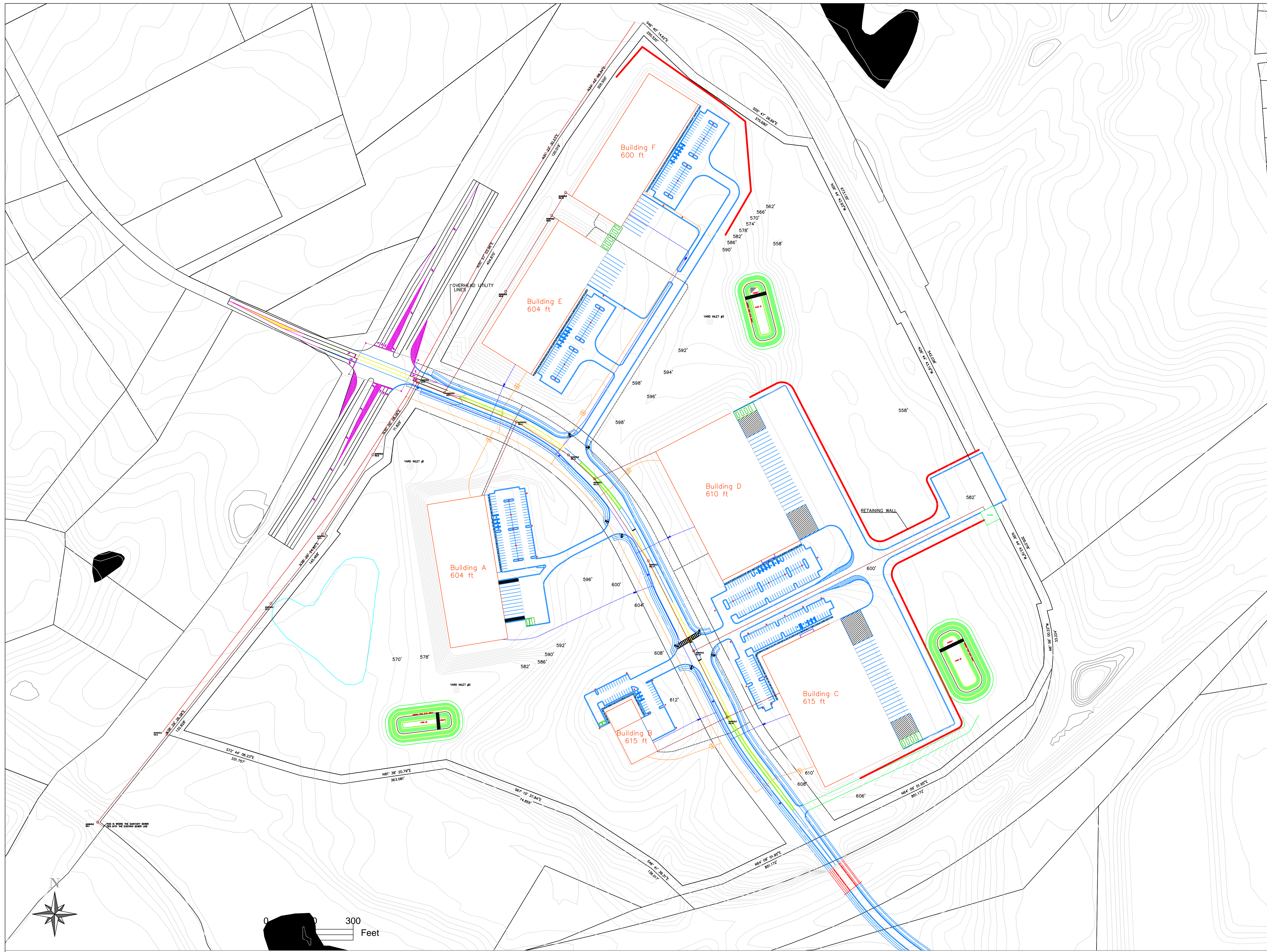
Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project SENIOR DESIGN	Sheet C-1.13
Date 04/30/2015	
Scale 1" = 150'	



THIS IS BEING THE SHOWN PLAN
 INTO THE CONTROL SURVEY LINE



General Notes

UTILITIES

- THE WATER LINE ARE 8" MAIN LINES WITH 6" LATERALS BASED ON THE MINIMUM REQUIREMENTS FOR AND INDUSTRIAL SITE
- THE WATER IS GOING TO BE TIED INTO AN EXISTING WATER LINE ALONG HWY 49
- THERE IS AN OVERHEAD ELECTRICAL UTILITY LINE ALONG 49 HWY, THAT THE UNDERGROUND UTILITIES GOING INTO THE SITE TIE INTO.
- THE SANITARY SEWER LINE WILL TIE INTO AN EXISTING MANHOLE LOCATED SOUTH OF THE SITE ON HWY 49.
- THE MAIN SANITARY SEWER LINE WILL BE AN 8" RCP WITH 6" PVC LATERALS RUNNING TO THE BUILDING
- THE GAS LINE RUNNING INTO THE SITE TIES INTO AN EXISTING UNDERLINE GAS LINE ALONG HWY 49

LEGEND

SYMBOLS	DESCRIPTION
	GAS
	WATER
	UNDERGROUND UTILITIES
	SANITARY SEWER
	MANHOLE
	LIGHT POLE
	TREES
	BUSHES
	SIGNS
	YARD INLET
	BACK FLOW
	WATER METER
	TRANSFORMER
	HANDICAP MARKING
	DUMPSTER

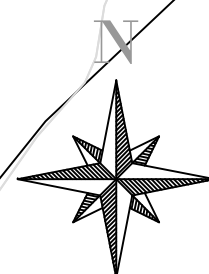
No.	Revision/Issue	Date

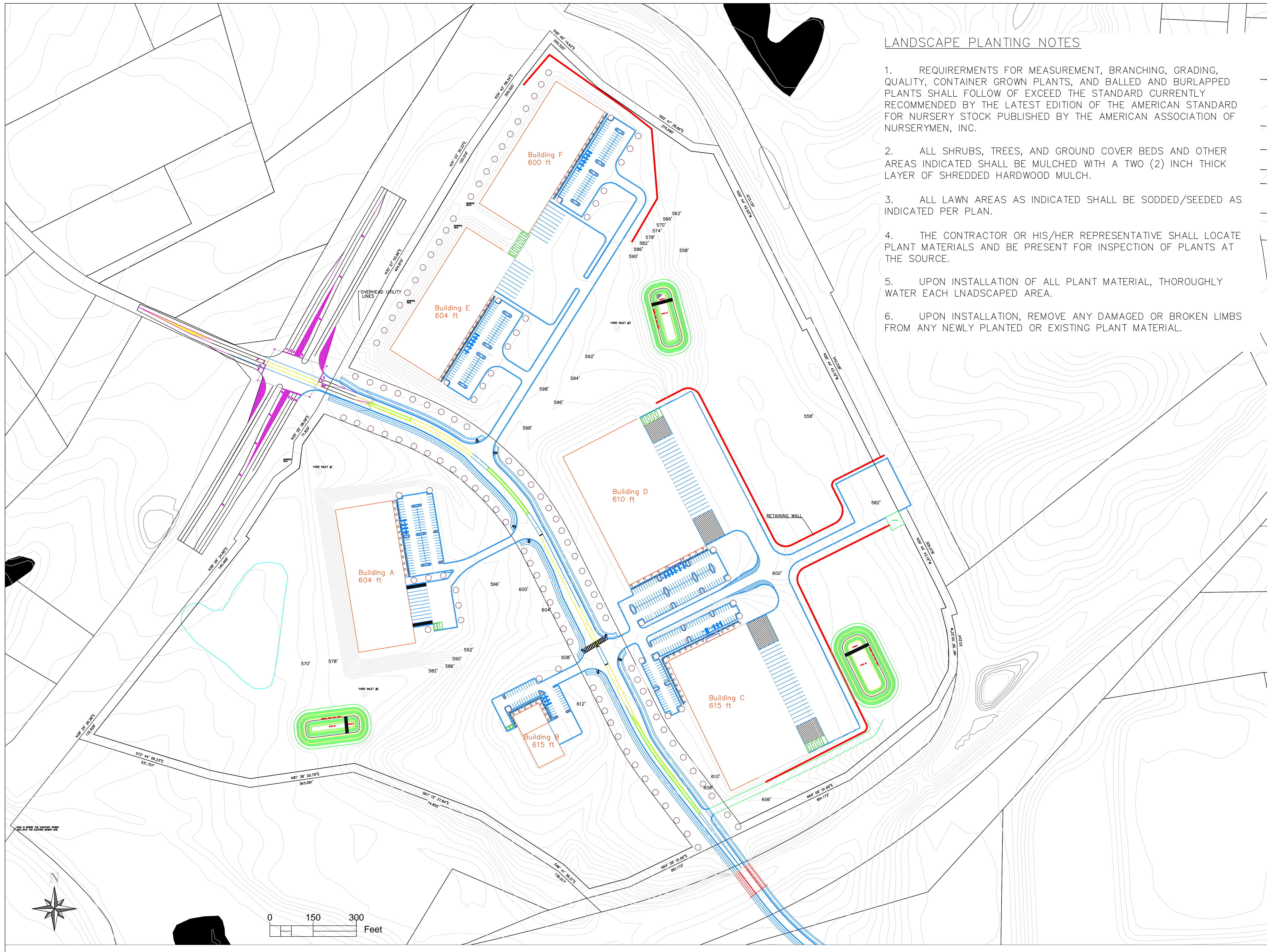
Firm Name and Address

Project Name and Address

MORRISON RIDGE INDUSTRIAL PARK
HIGHWAY 49 S & STOUGH RD,
CONCORD, NC 2827

Project SENIOR DESIGN	Sheet C-1.14
Date 04/30/2015	
Scale 1" = 150'	





LANDSCAPE PLANTING NOTES

1. REQUIREMENTS FOR MEASUREMENT, BRANCHING, GRADING, QUALITY, CONTAINER GROWN PLANTS, AND BALLED AND BURLAPPED PLANTS SHALL FOLLOW OF EXCEED THE STANDARD CURRENTLY RECOMMENDED BY THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSEYMEN, INC.
2. ALL SHRUBS, TREES, AND GROUND COVER BEDS AND OTHER AREAS INDICATED SHALL BE MULCHED WITH A TWO (2) INCH THICK LAYER OF SHREDDED HARDWOOD MULCH.
3. ALL LAWN AREAS AS INDICATED SHALL BE SODDED/SEEDED AS INDICATED PER PLAN.
4. THE CONTRACTOR OR HIS/HER REPRESENTATIVE SHALL LOCATE PLANT MATERIALS AND BE PRESENT FOR INSPECTION OF PLANTS AT THE SOURCE.
5. UPON INSTALLATION OF ALL PLANT MATERIAL, THOROUGHLY WATER EACH LANDSCAPED AREA.
6. UPON INSTALLATION, REMOVE ANY DAMAGED OR BROKEN LIMBS FROM ANY NEWLY PLANTED OR EXISTING PLANT MATERIAL.

General Notes

LANDSCAPE PLAN

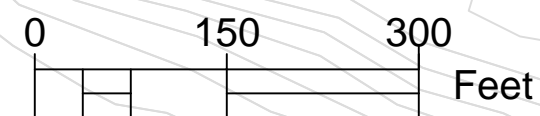
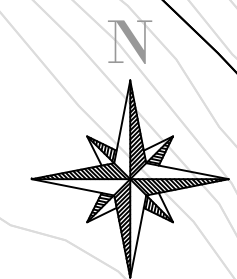
LEGEND	
SYMBOLS	DESCRIPTION
	GAS
	WATER
	UNDERGROUND UTILITIES
	SANITARY SEWER
	MANHOLE
	LIGHT POLE
	TREES
	BUSHES
	SIGNS
	YARD INLET
	BACK FLOW
	WATER METER
	TRANSFORMER
	HANDICAP MARKING
	DUMPSTER

No.	Revision/Issue	Date

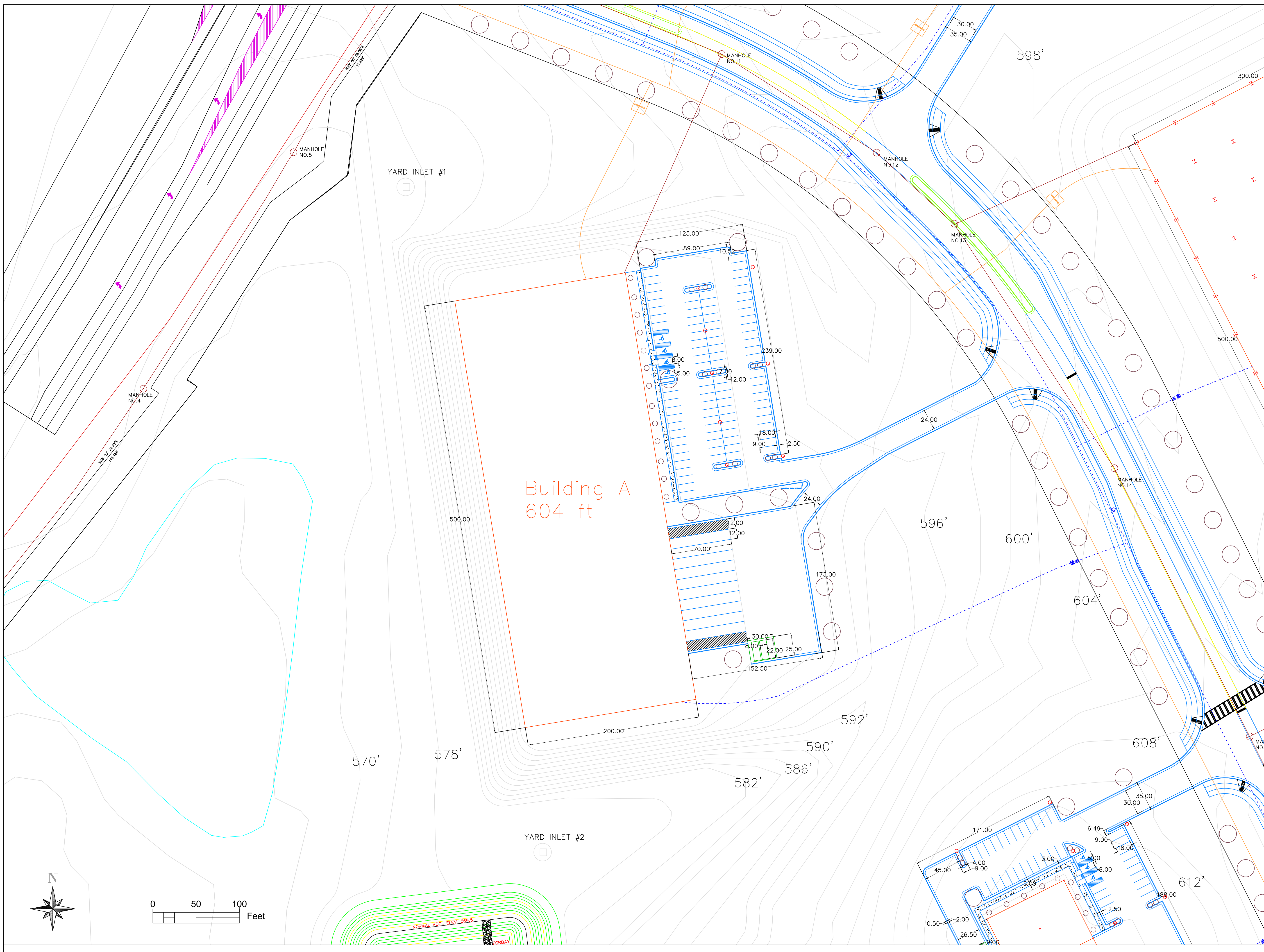
Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project SENIOR DESIGN	Sheet C-1.15
Date 04/30/2015	
Scale 1" = 150'	



THIS IS BEING THE SHORTEST DISTANCE INTO THE CONTROL ZONE LINE



General Notes

BUILDING A

- BUILDING A: IS A CONCRETE STRUCTURE THAT IS BEING DESIGNED BY A TEAM IN THE STRUCTURES GROUP
- BUILDING A'S FOUNDATION IS BEING DESIGNED BY THE GEOTECHNICAL GROUP

LEGEND

SYMBOLS	DESCRIPTION
	GAS
	WATER
	UNDERGROUND UTILITIES
	SANITARY SEWER
	MANHOLE
	LIGHT POLE
	TREES
	BUSHES
	SIGNS
	YARD INLET
	BACK FLOW
	WATER METER
	TRANSFORMER
	HANDICAP MARKING
	DUMPSTER

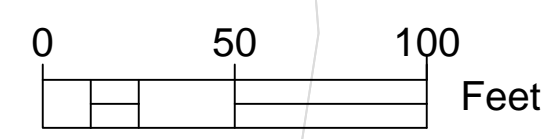
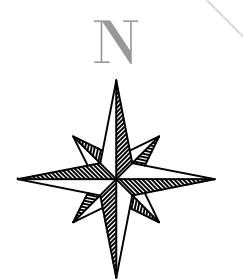
No.	Revision/Issue	Date

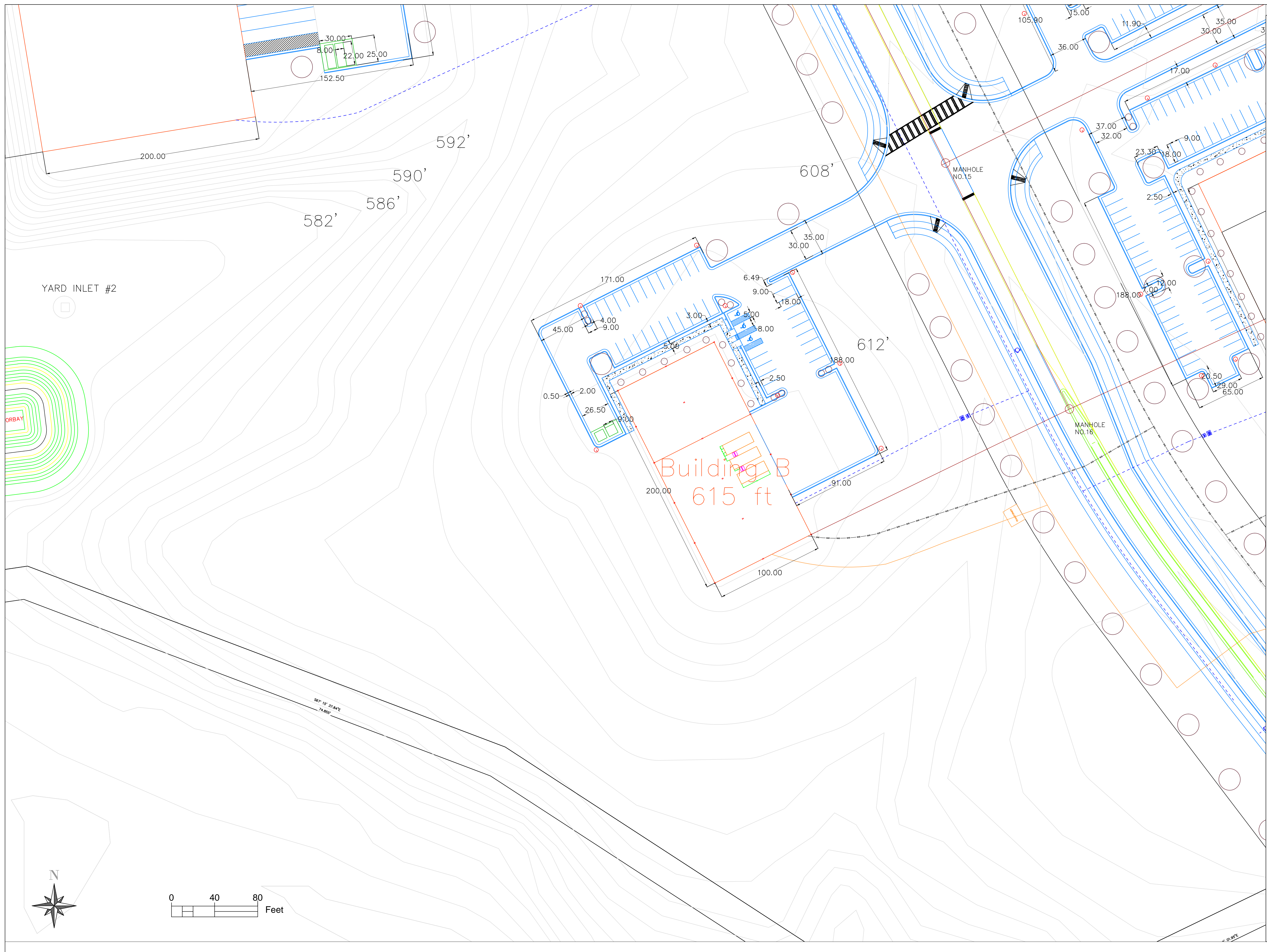
Firm Name and Address

Project Name and Address

MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project	SENIOR DESIGN	Sheet	C-1.16
Date	04/30/2015	Scale	1" = 50'





General Notes

BUILDING B

- BUILDING B IS A MAINTENANCE BUILDING THAT IS BEING DESIGNED BY A TEAM IN THE STRUCTURES GROUP
- THE FOUNDATION FOR BUILDING B IS ALSO BEING DESIGNED FOR BY A TEAM IN THE GEOTECHNICAL GROUP

LEGEND

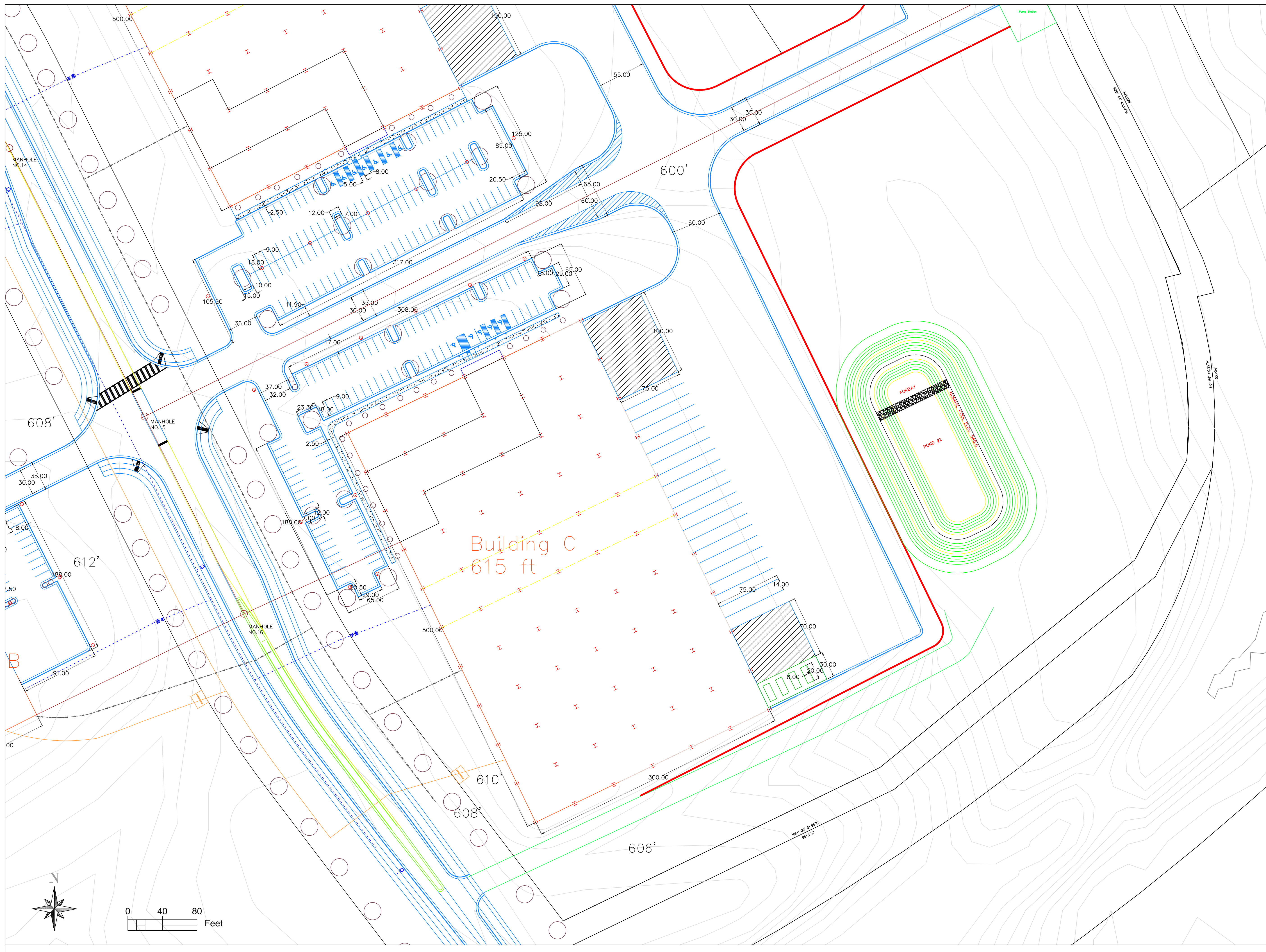
SYMBOLS	DESCRIPTION
	GAS
	WATER
	UNDERGROUND UTILITIES
	SANITARY SEWER
	MANHOLE
	LIGHT POLE
	TREES
	BUSHES
	SIGNS
	YARD INLET
	BACK FLOW
	WATER METER
	TRANSFORMER
	HANDICAP MARKING
	DUMPSTER

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project Senior Design	Sheet C-1.17
Date 04/30/2015	
Scale 1" = 40'	



General Notes

BUILDING C

- BUILDING C IS A STEEL BUILDING THAT IS BEING DESIGNED BY A TEAM IN THE STRUCTURES GROUP
- THE FOUNDATION FOR BUILDING C IS ALSO BEING DESIGNED FOR BY A TEAM IN THE GEOTECHNICAL GROUP
- THE RETAINING WALL LOCATED BEHIND BUILDINGS C AND D ARE ALSO BEING DESIGNED FOR BY THE GEOTECHNICAL GROUP

LEGEND

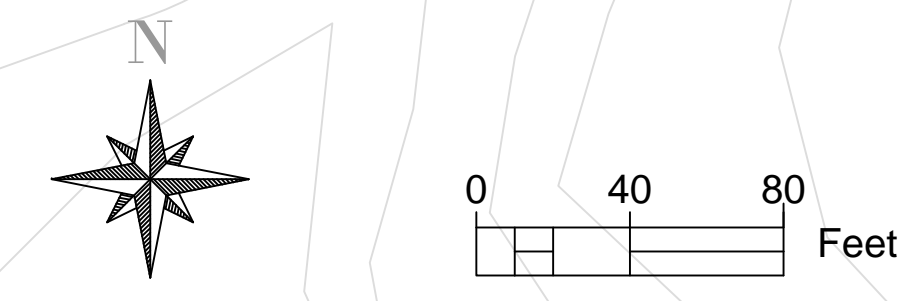
SYMBOLS	DESCRIPTION
—	GAS
—	WATER
—	UNDERGROUND UTILITIES
—	SANITARY SEWER
⊙	MANHOLE
○	LIGHT POLE
○	TREES
○	BUSHES
+	SIGNS
⊙	YARD INLET
⊙	BACK FLOW
⊙	WATER METER
⊙	TRANSFORMER
⊙	HANDICAP MARKING
⊙	DUMPSTER

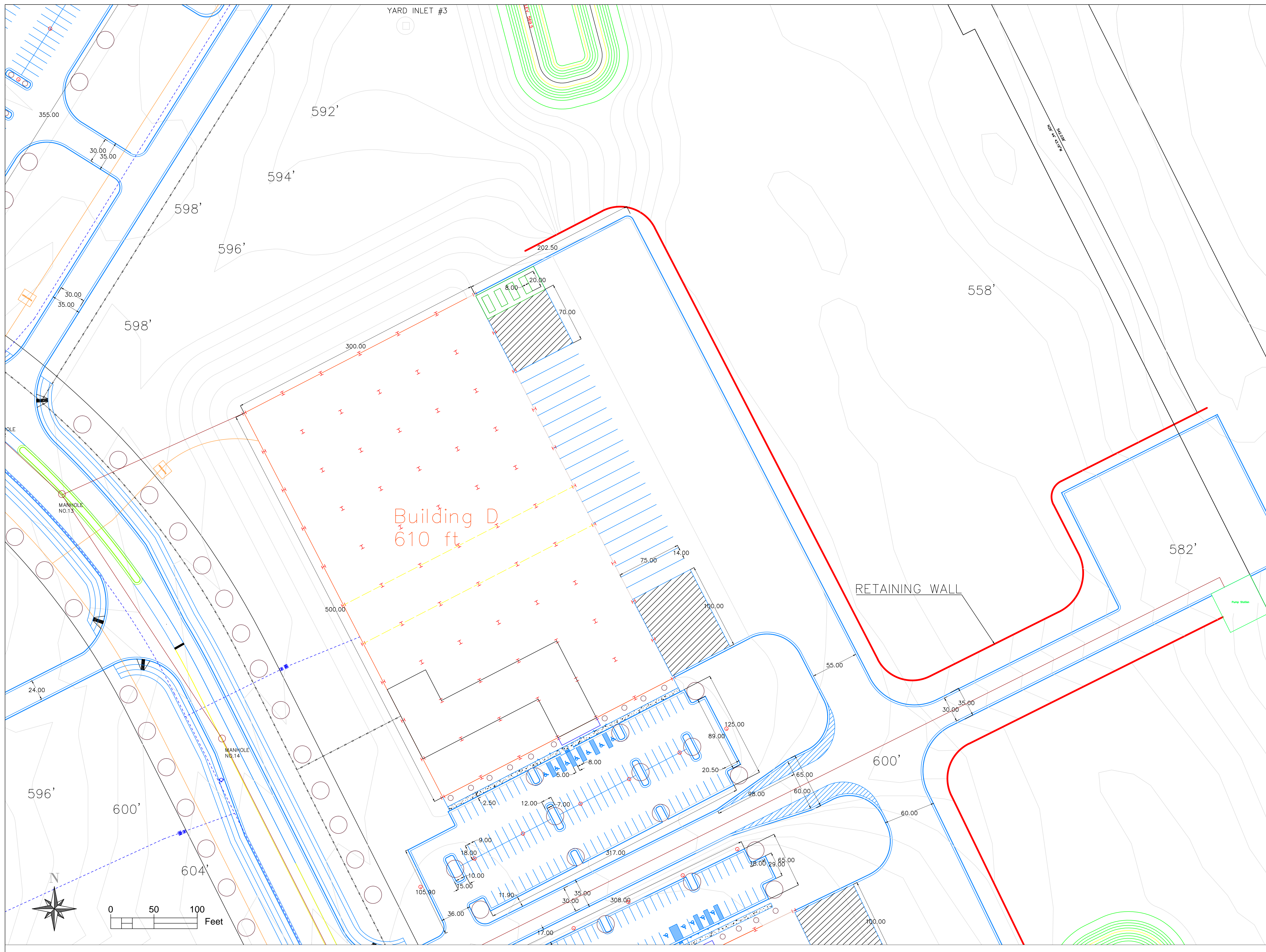
No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project Senior Design	Sheet C-1.18
Date 04/30/2015	
Scale 1" = 50'	





General Notes

BUILDING D

- BUILDING D IS A MIRROR IMAGE OF BUILDING C BUT IT IS NOT BEING DESIGN BY A STRUCTURES GROUP

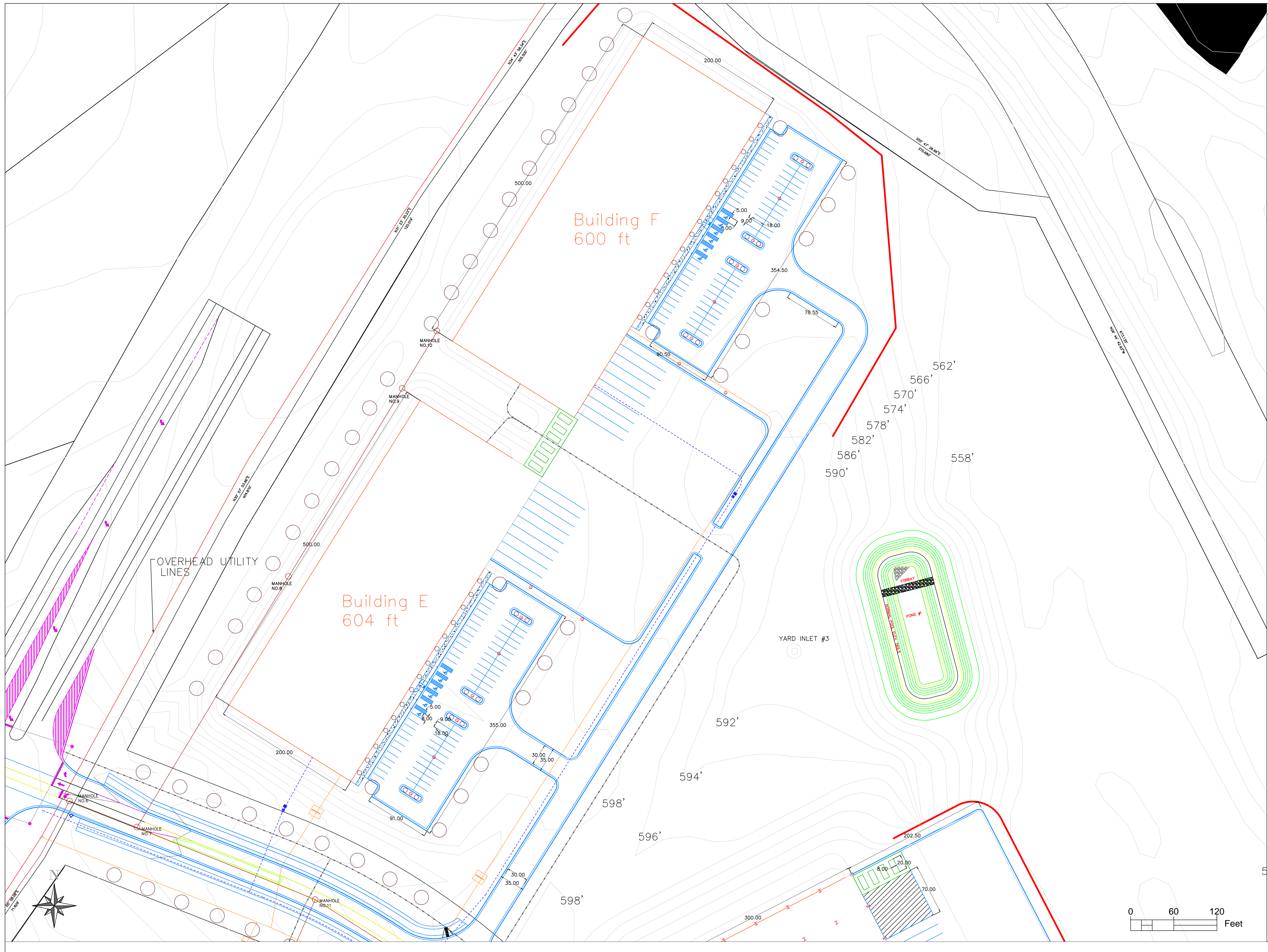
LEGEND	
SYMBOLS	DESCRIPTION
	GAS
	WATER
	UNDERGROUND UTILITIES
	SANITARY SEWER
	MANHOLE
	LIGHT POLE
	TREES
	BUSHES
	SIGNS
	YARD INLET
	BACK FLOW
	WATER METER
	TRANSFORMER
	HANDICAP MARKING
	DUMPSTER
	RETAINING WALL

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project Senior Design	Sheet C-1.19
Date 04/30/2015	
Scale 1" = 50'	



General Notes

BUILDING E & F

- THE EXISTING GRADE OF THE SITE HAD A LARGE RIDGE UP THE MIDDLE OF THE SITE AND SLOPED DOWN FROM THERE ON BOTH SIDES TOWARD THE SOUTHWEST AND THE NORTHEAST

LEGEND

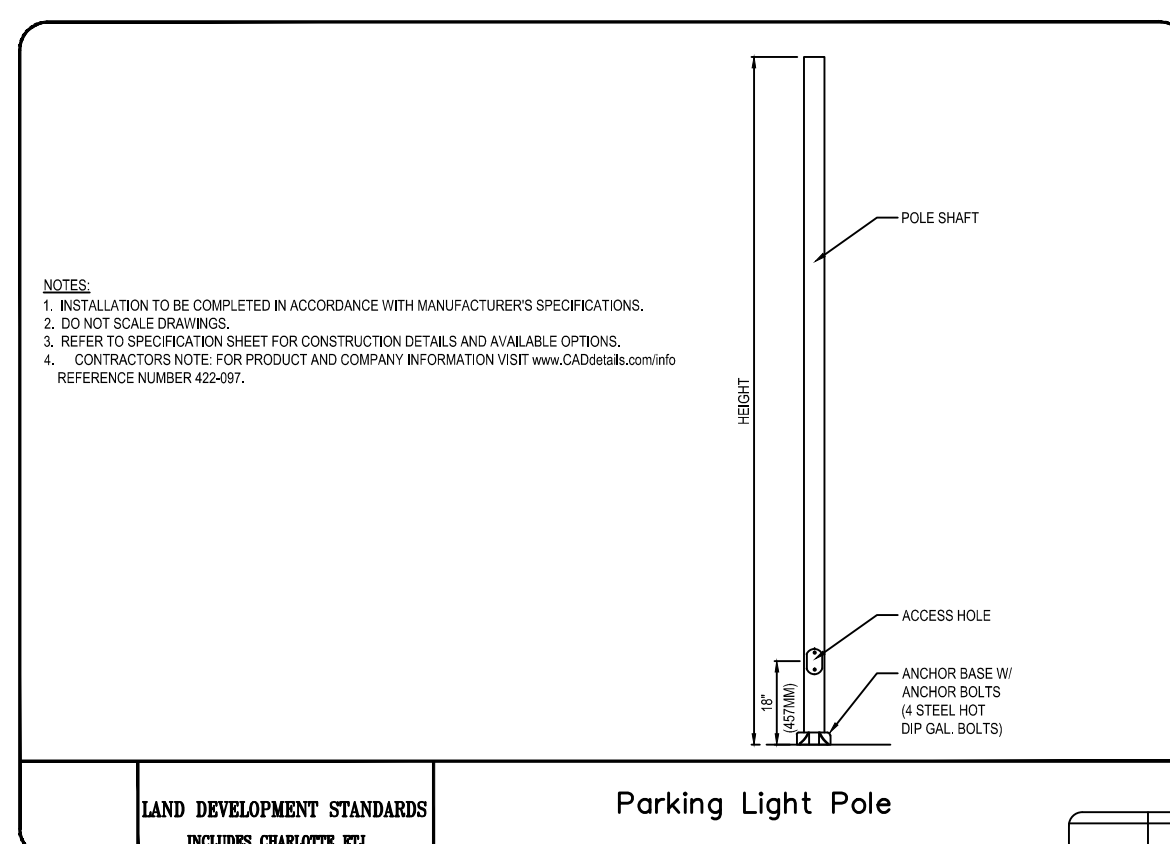
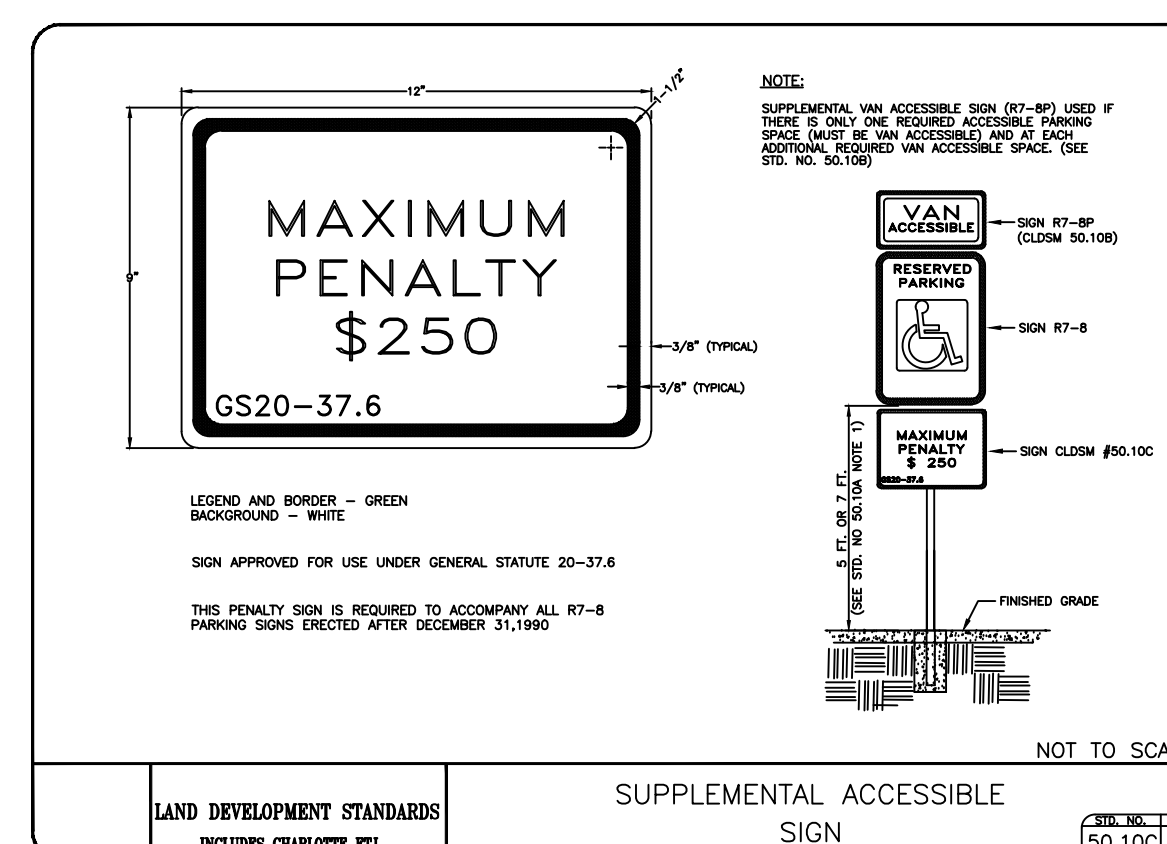
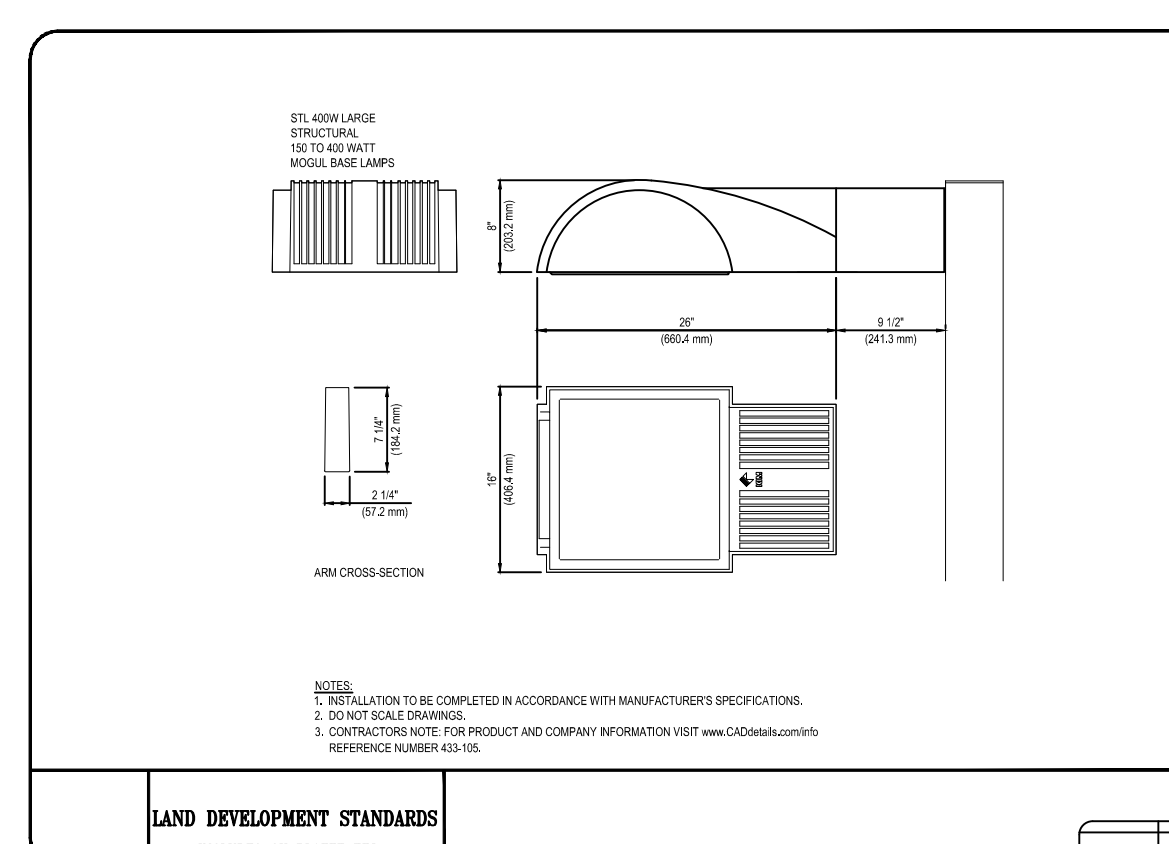
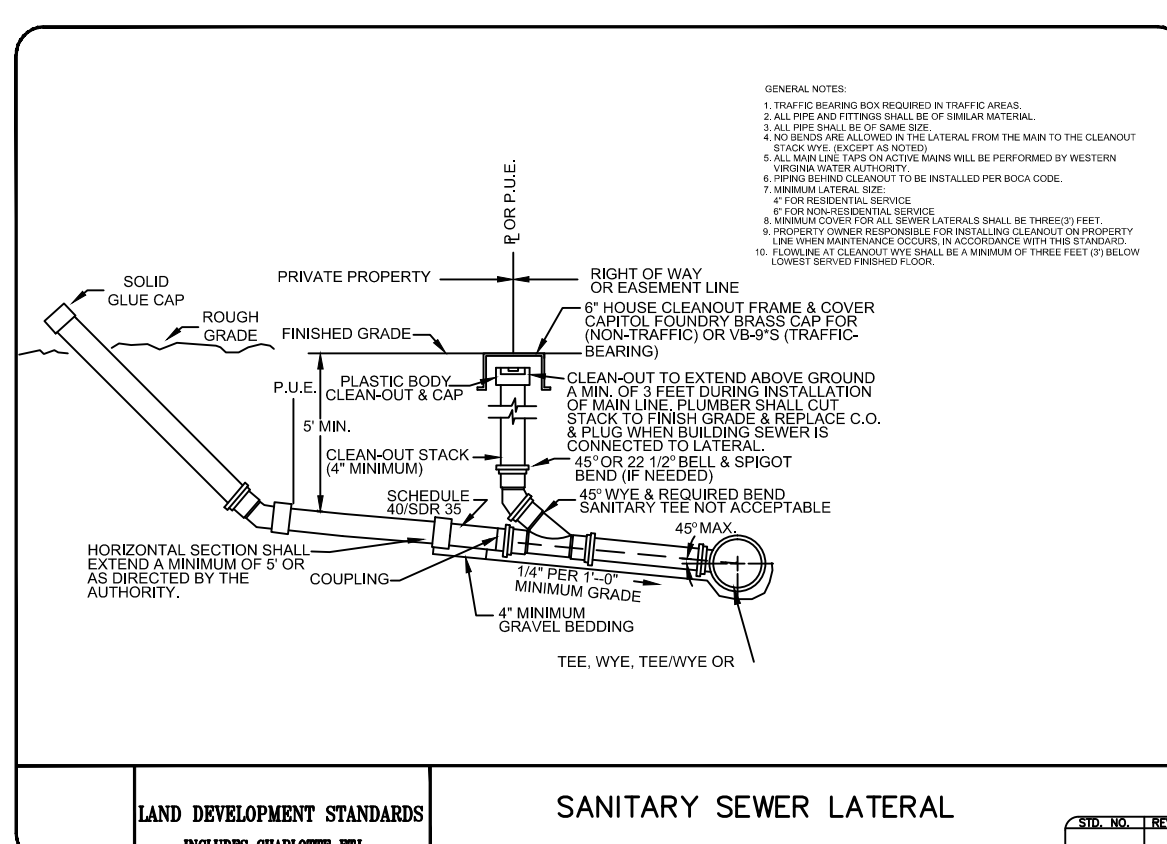
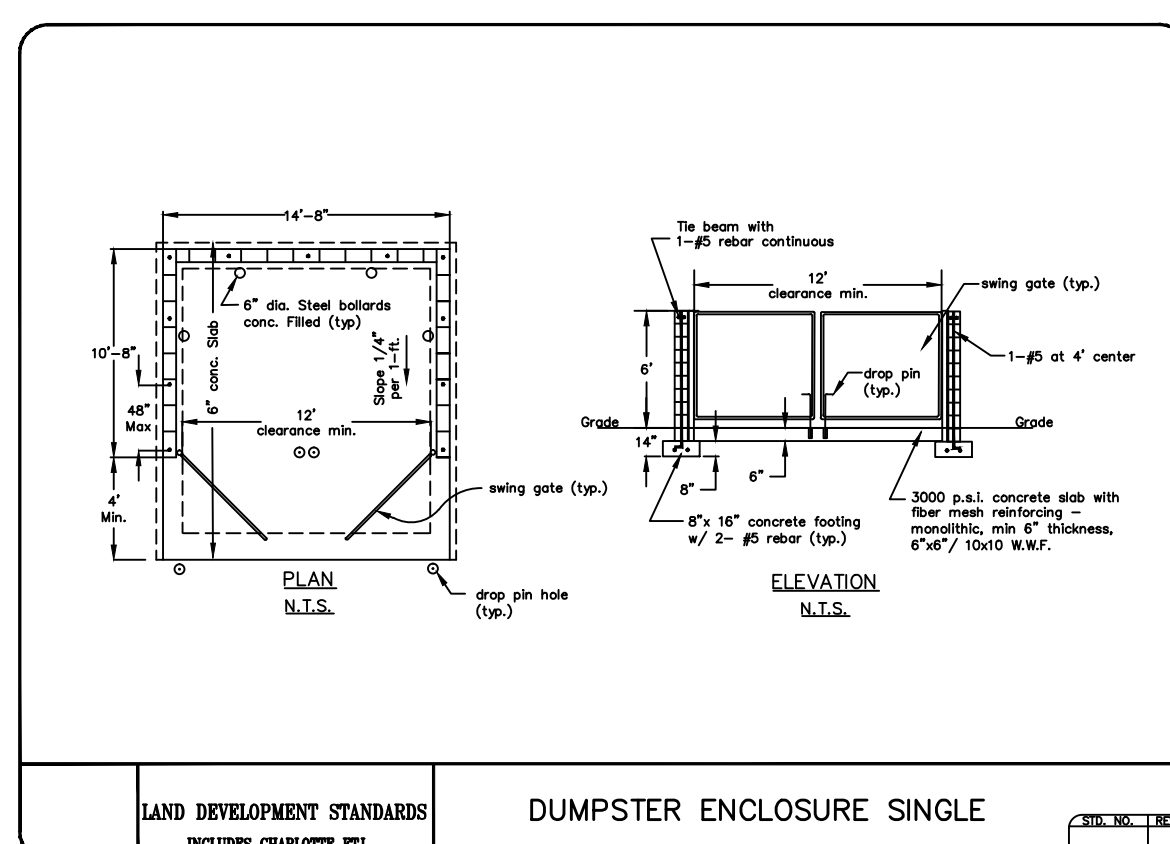
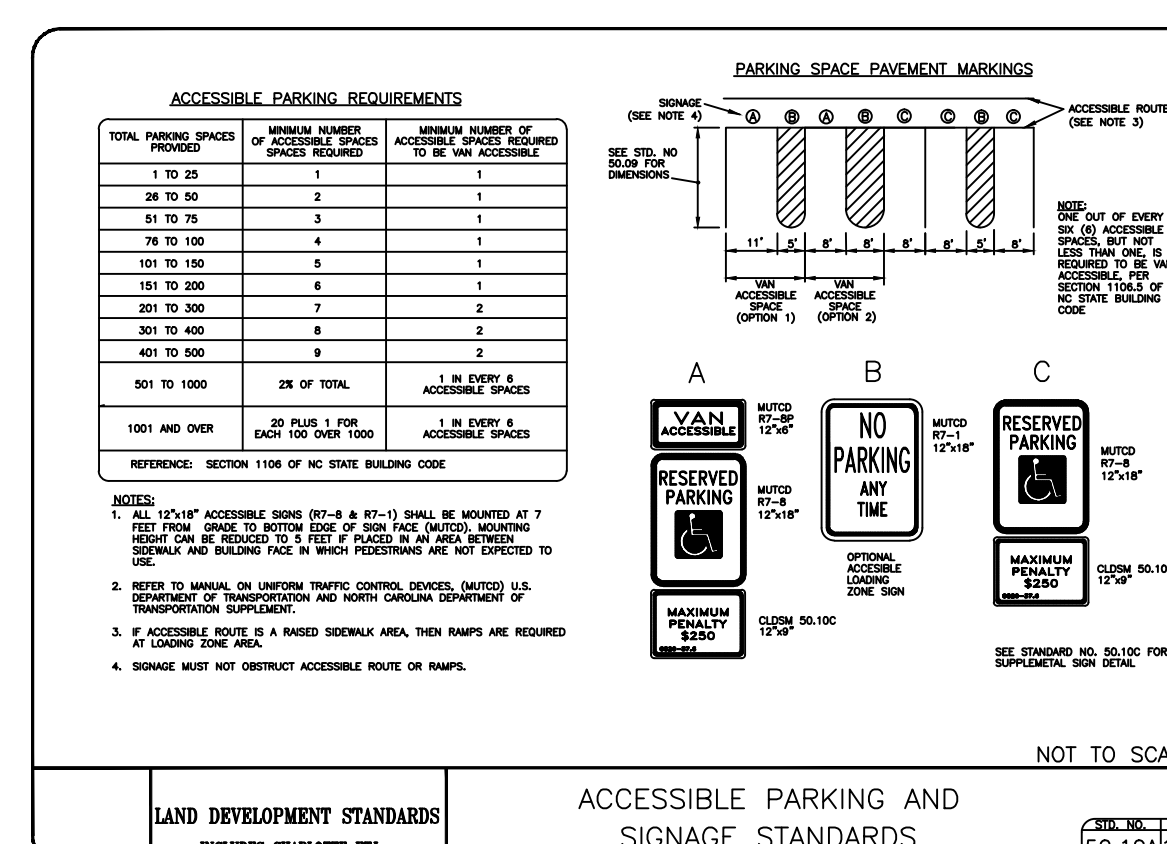
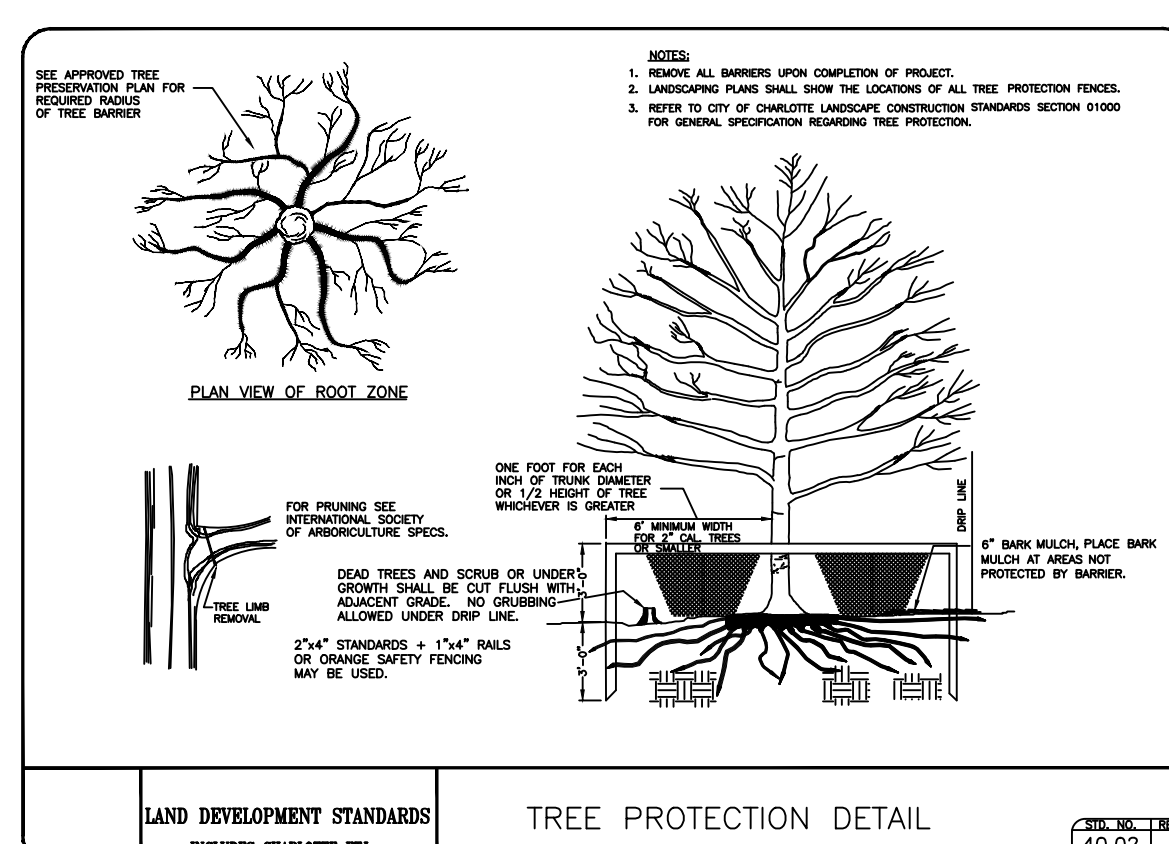
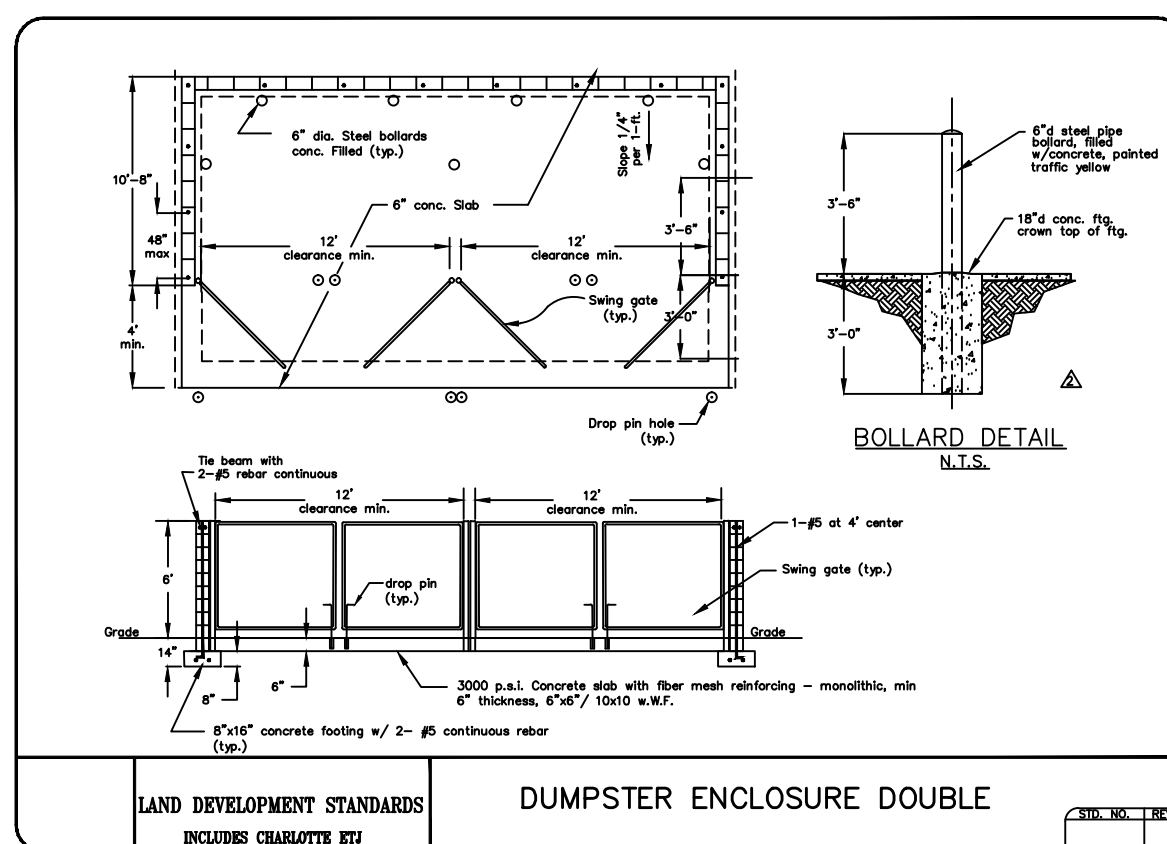
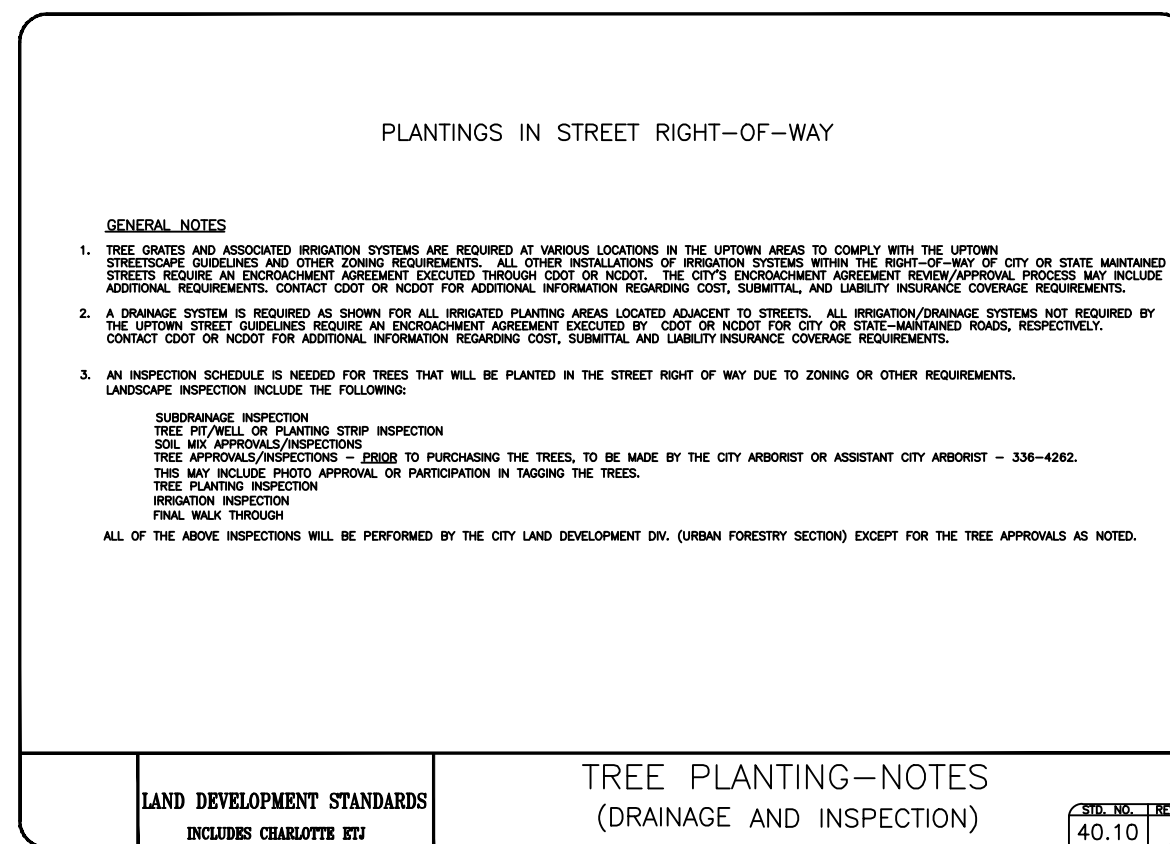
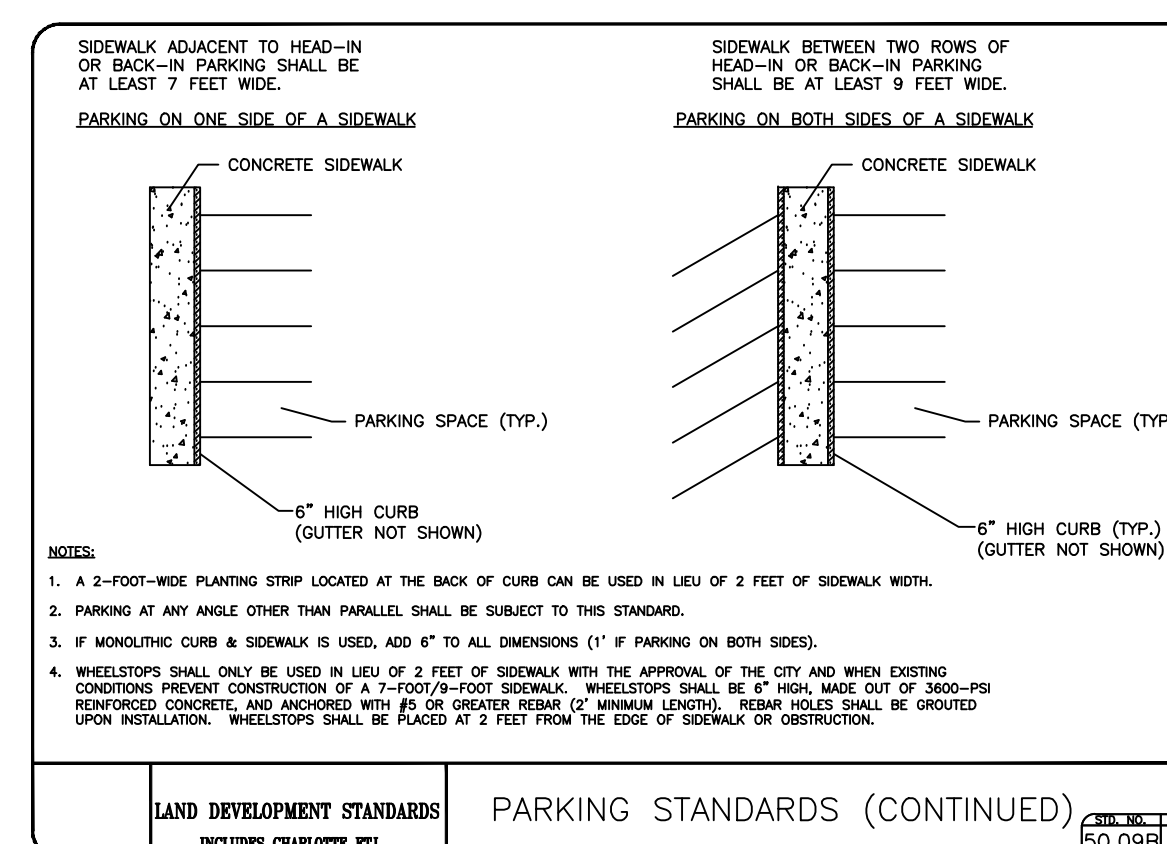
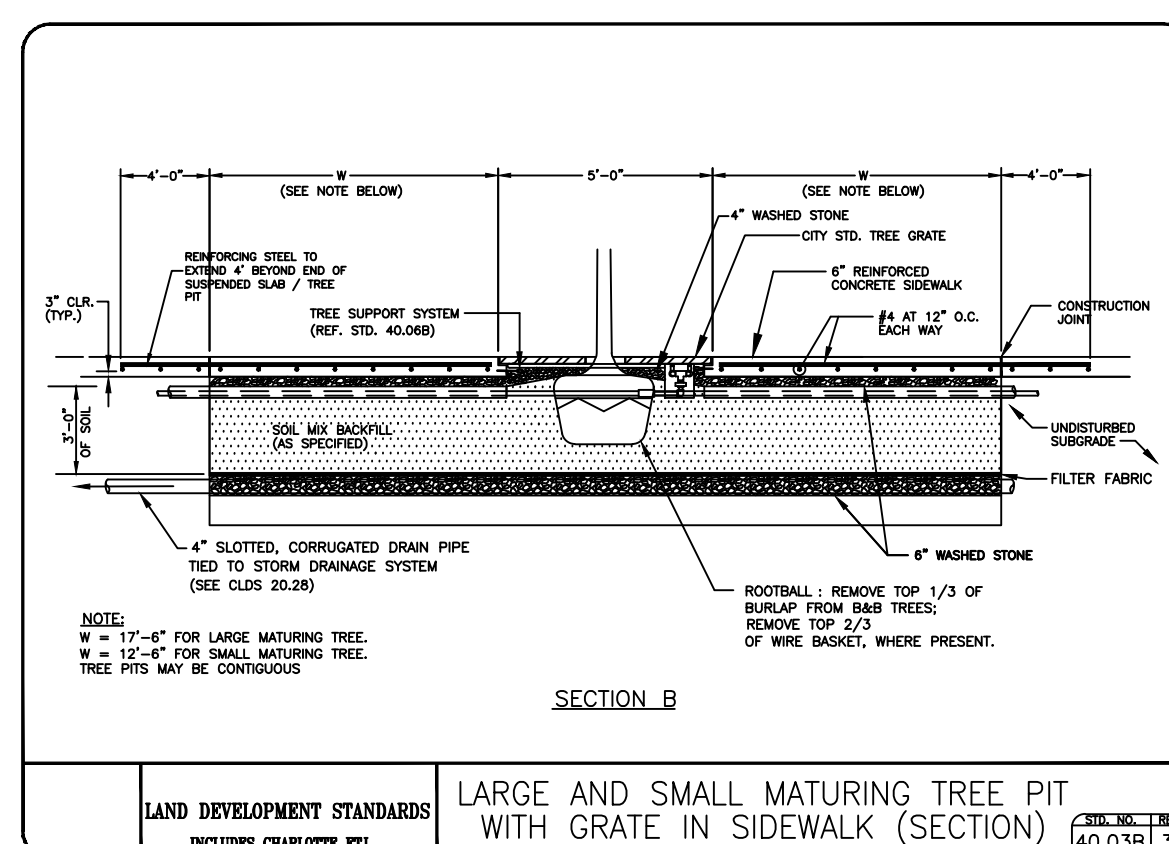
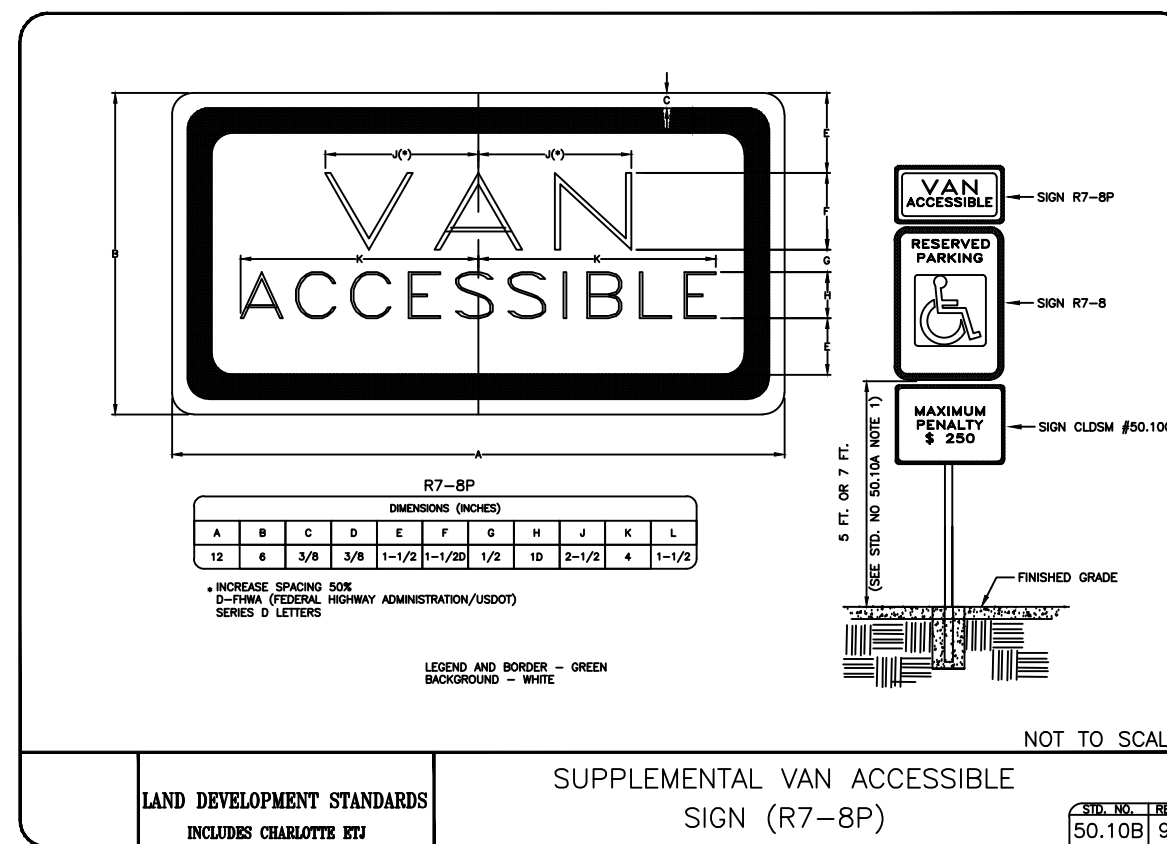
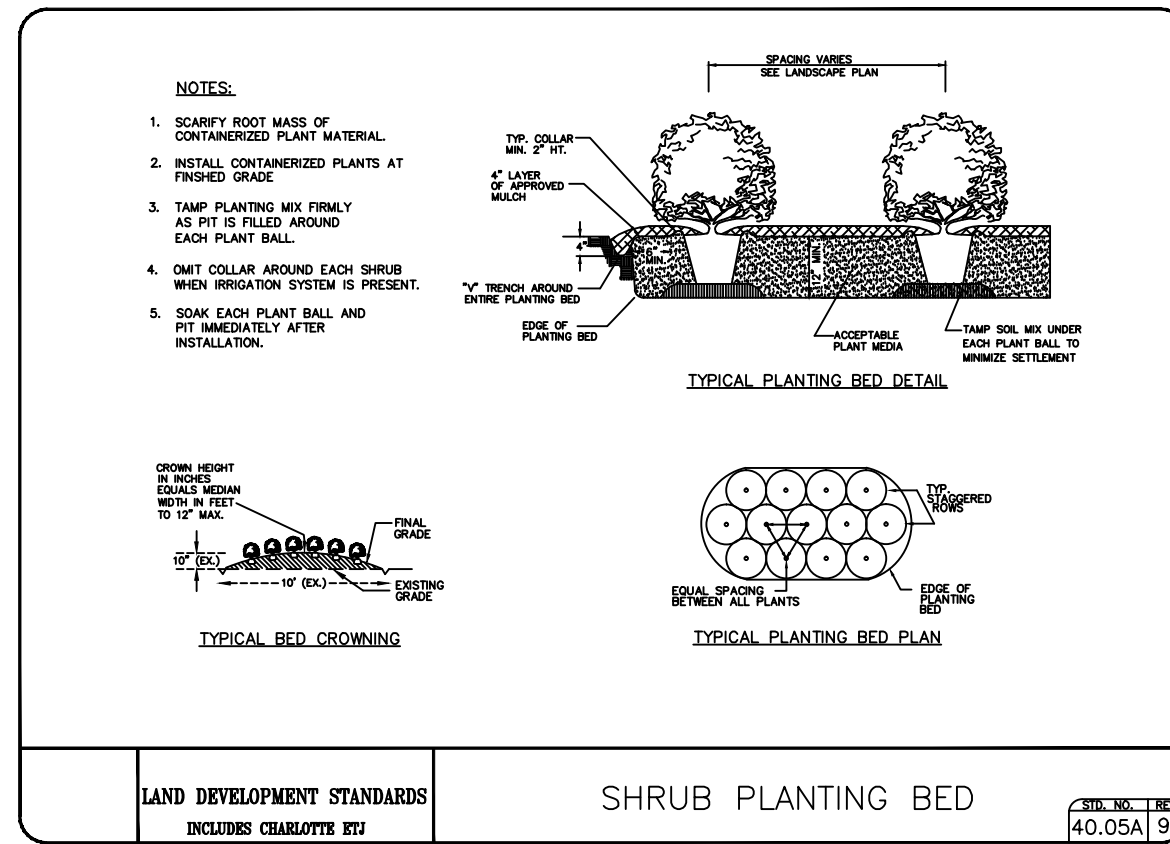
SYMBOLS	DESCRIPTION
—	GAS
—	WATER
—	UNDERGROUND UTILITIES
—	SANITARY SEWER
○	MANHOLE
○	LIGHT POLE
○	TREES
○	BUSHES
+	SIGNS
○	YARD INLET
□	BACK FLOW
□	WATER METER
□	TRANSFORMER
□	HANDICAP MARKING
□	DUMPSTER

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 MORRISON RIDGE INDUSTRIAL PARK
 HIGHWAY 49 S & STOUGH RD,
 CONCORD, NC 2827

Project Senior Design	Sheet C-1.20
Date 04/30/2015	
Scale 1" = 60'	



General Notes

DETAILS

LEGEND

SYMBOLS	DESCRIPTION
—	GAS
—	WATER
—	UNDERGROUND UTILITIES
—	SANITARY SEWER
○	MANHOLE
○	LIGHT POLE
○	TREES
○	BUSHES
+	SIGNS
+	YARD INLET
+	BACK FLOW
+	WATER METER
+	TRANSFORMER
+	HANDICAP MARKING
+	DUMPSTER

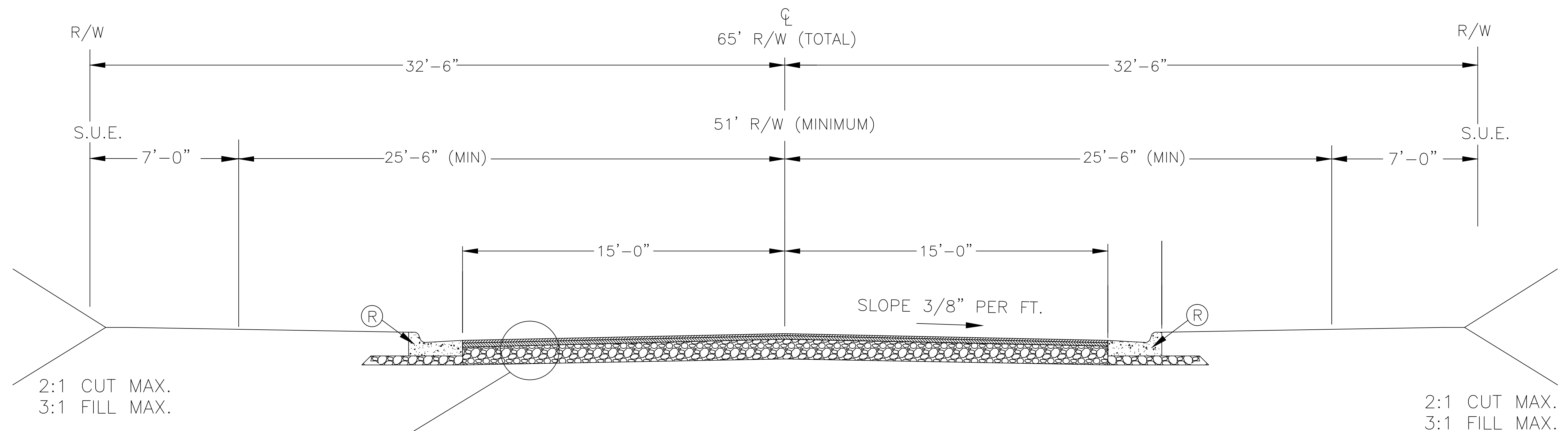
No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

MORRISON RIDGE INDUSTRIAL PARK
HIGHWAY 49 S & STOUGH RD,
CONCORD, NC 2827

Project	Sheet
Senior Design	C-1.22
Date	04/30/2015
Scale	NOT TO SCALE

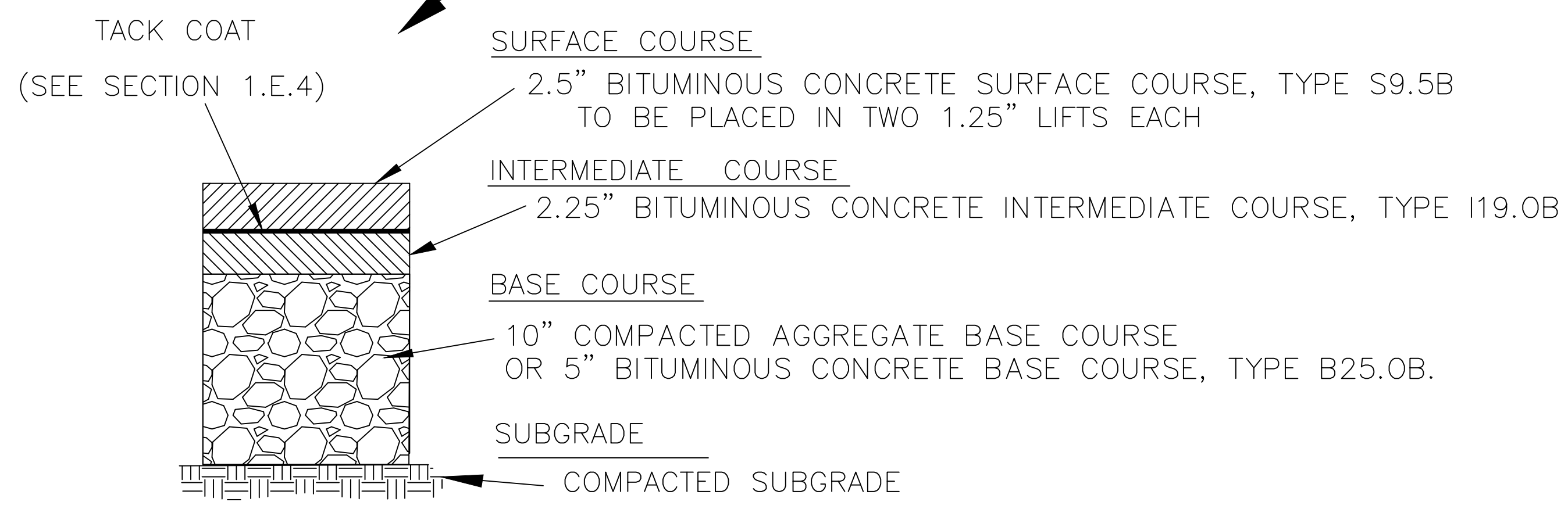


2:1 CUT MAX.
3:1 FILL MAX.

2:1 CUT MAX.
3:1 FILL MAX.

NOTES:

1. USE OF VALLEY GUTTER IS PROHIBITED.
2. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN TO CITY ENGINEER.
3. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BY CDOT/NCDOT BASED ON SPECIFIC TRAFFIC PARAMETERS.
4. FOR EXPLANATION OF RIGHT-OF-WAY WIDTHS REFER TO CITY OF CHARLOTTE SUBDIVISION ORDINANCE SECTION 20-22(d).



TYPICAL MINIMUM PAVEMENT SECTION

KEY

(R) 2'-6" STANDARD CURB AND GUTTER

LEGEND	
SYMBOLS	DESCRIPTION
—	GAS
—	WATER
—	UNDERGROUND UTILITIES
—	SANITARY SEWER
⊙	MANHOLE
⊙	LIGHT POLE
⊙	TREES
⊙	BUSHES
+	SIGNS
⊙	YARD INLET
⊙	BACK FLOW
⊙	WATER METER
⊙	TRANSFORMER
⊙	HANDICAP MARKING
⊙	DUMPSTER

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
MORRISON RIDGE INDUSTRIAL PARK
HIGHWAY 49 S & STOUGH RD,
CONCORD, NC 2827

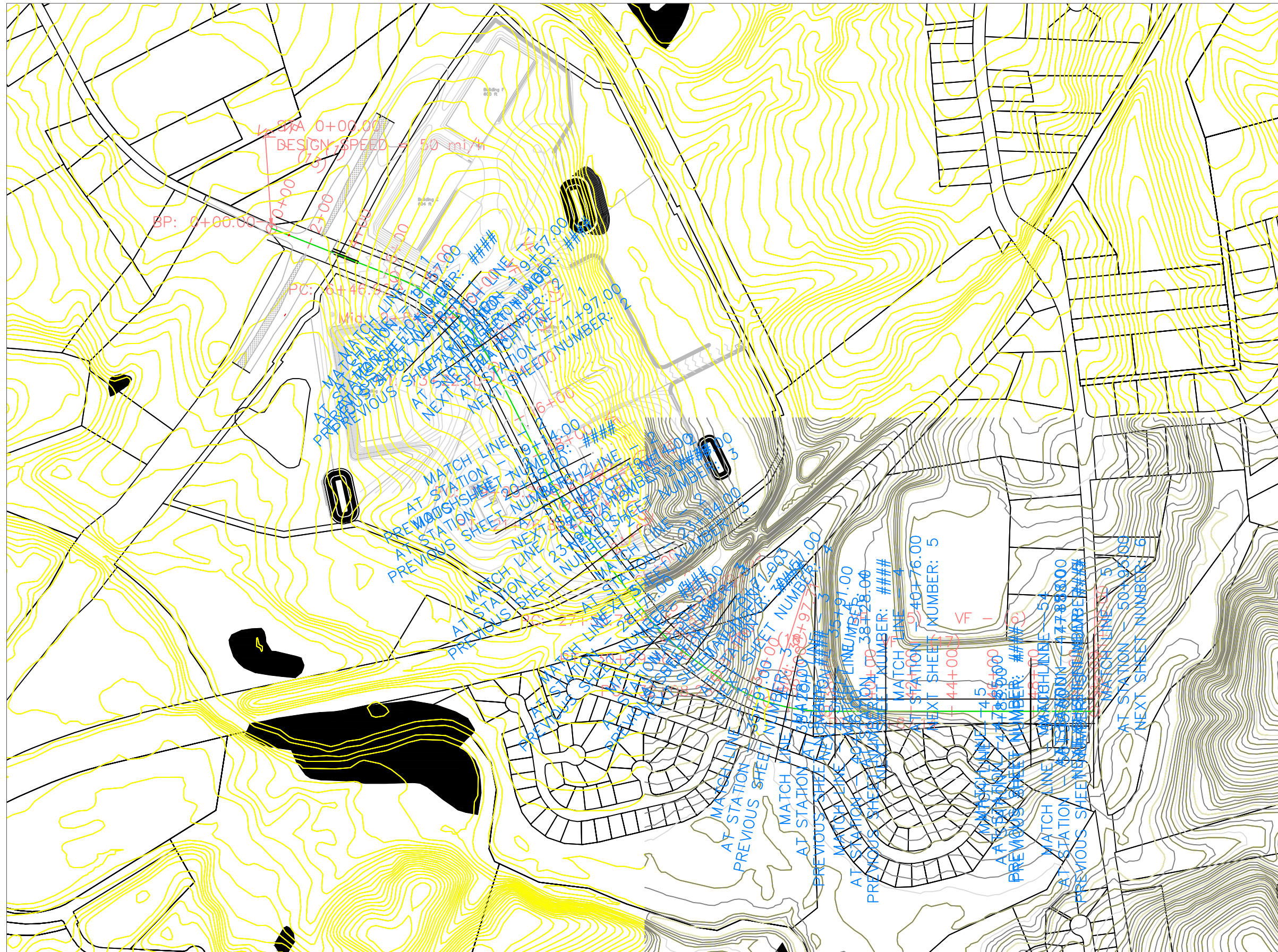
Project Senior Design	Sheet C-1.23
Date 04/30/2015	
Scale NOT TO SCALE	

NOT TO SCALE

LAND DEVELOPMENT STANDARDS

LOCAL INDUSTRIAL STREET
TYPICAL SECTION

STD. NO.	REV.
U-06	6



General Notes

- 1) ROADWAY RIGHT-OF-WAY FOR STOUGH ROAD EXTENSION IS 60FT
- 2) LENGTH OF HORIZONTAL ALIGNMENT IS 5100FT
- 3) ON THE MORRISON RIDGE PROPERTY THE STOUGH ROAD EXTENSION IS TWO LANES WITH A CENTER TURN LANE AND MEDIANS. OFF SITE THE ROAD IS TAPERED DOWN TO TWO LANES.

No.	Revision/Issue	Date

Firm Name and Address
 ANDREW KAMBERG
 DAGOBERTO POZOS
 BLAKE CRAVER
 JAMES HOWELL
 DANA ALSADER

Project Name and Address

Project
 MORRISON RIDGE

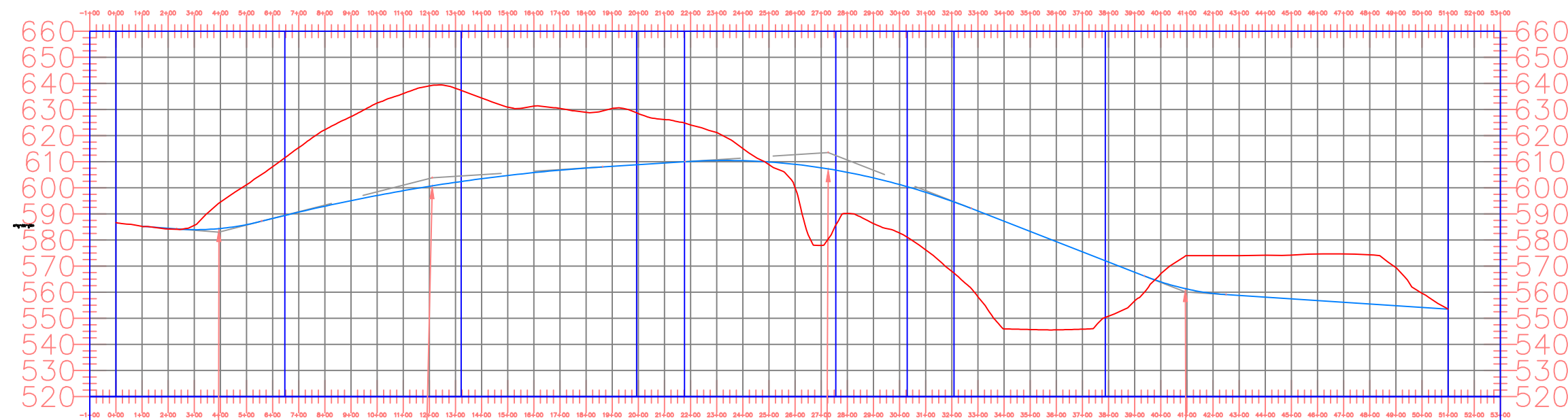
Date
 4/16/15

Scale
 1" = 500'

Sheet
 C-2.10

The Alignment PROFILE

Station



PVI STA: 3+94.32
 PVI ELEV: 583.03
 K: 98.12
 LVC: 323.44
 BVCS: 2+32.60
 BVCE: 584.24
 EVCS: 5+56.04
 EVCE: 587.16

PVI STA: 12+11.46
 PVI ELEV: 603.88
 K: 679.47
 LVC: 1303.35
 BVCS: 5+59.79
 BVCE: 587.26
 EVCS: 18+63.14
 EVCE: 608.01

PVI STA: 27+26.97
 PVI ELEV: 613.48
 K: 241.34
 LVC: 1095.30
 BVCS: 21+79.32
 BVCE: 610.01
 EVCS: 32+74.62
 EVCE: 592.09

PVI STA: 40+93.92
 PVI ELEV: 560.09
 K: 96.00
 LVC: 312.47
 BVCS: 39+37.68
 BVCE: 566.19
 EVCS: 42+50.15
 EVCE: 559.08

General Notes

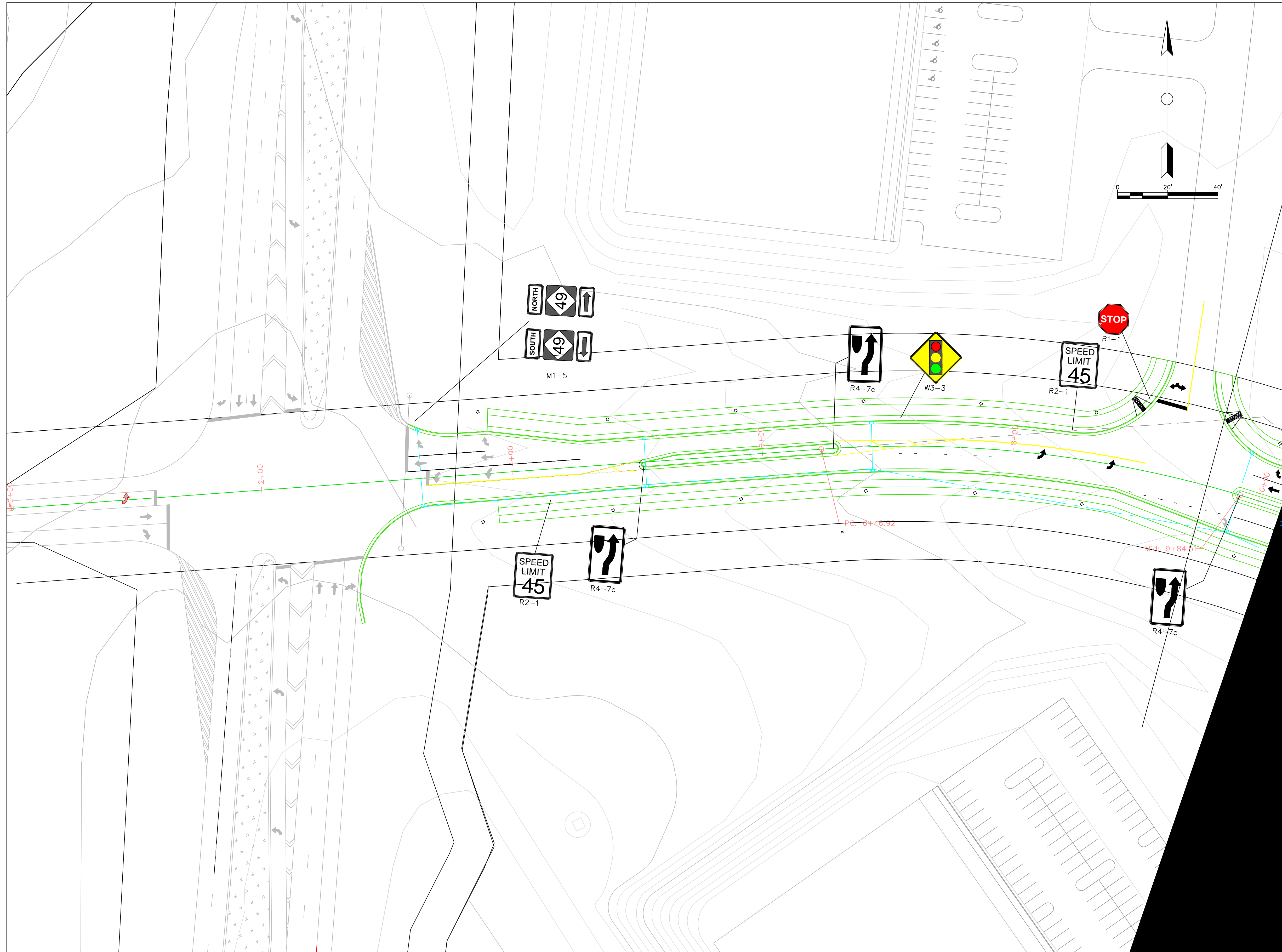
- 1) ROADWAY RIGHT-OF-WAY FOR STOUGH ROAD EXTENSION IS 60FT
- 2) LENGTH OF HORIZONTAL ALIGNMENT IS 5100FT
- 3) ON THE MORRISON RIDGE PROPERTY THE STOUGH ROAD EXTENSION IS TWO LANES WITH A CENTER TURN LANE AND MEDIANS. OFF SITE THE ROAD IS TAPERED DOWN TO TWO LANES.

No.	Revision/Issue	Date

Firm Name and Address
 ANDREW KAMBERG
 DAGOBERTO POZOS
 BLAKE CRAVER
 JAMES HOWELL
 DANA ALSADER

Project Name and Address

Project MORRISON RIDGE	Sheet C-2.11
Date 4/16/15	
Scale 1" = 500'	



General Notes

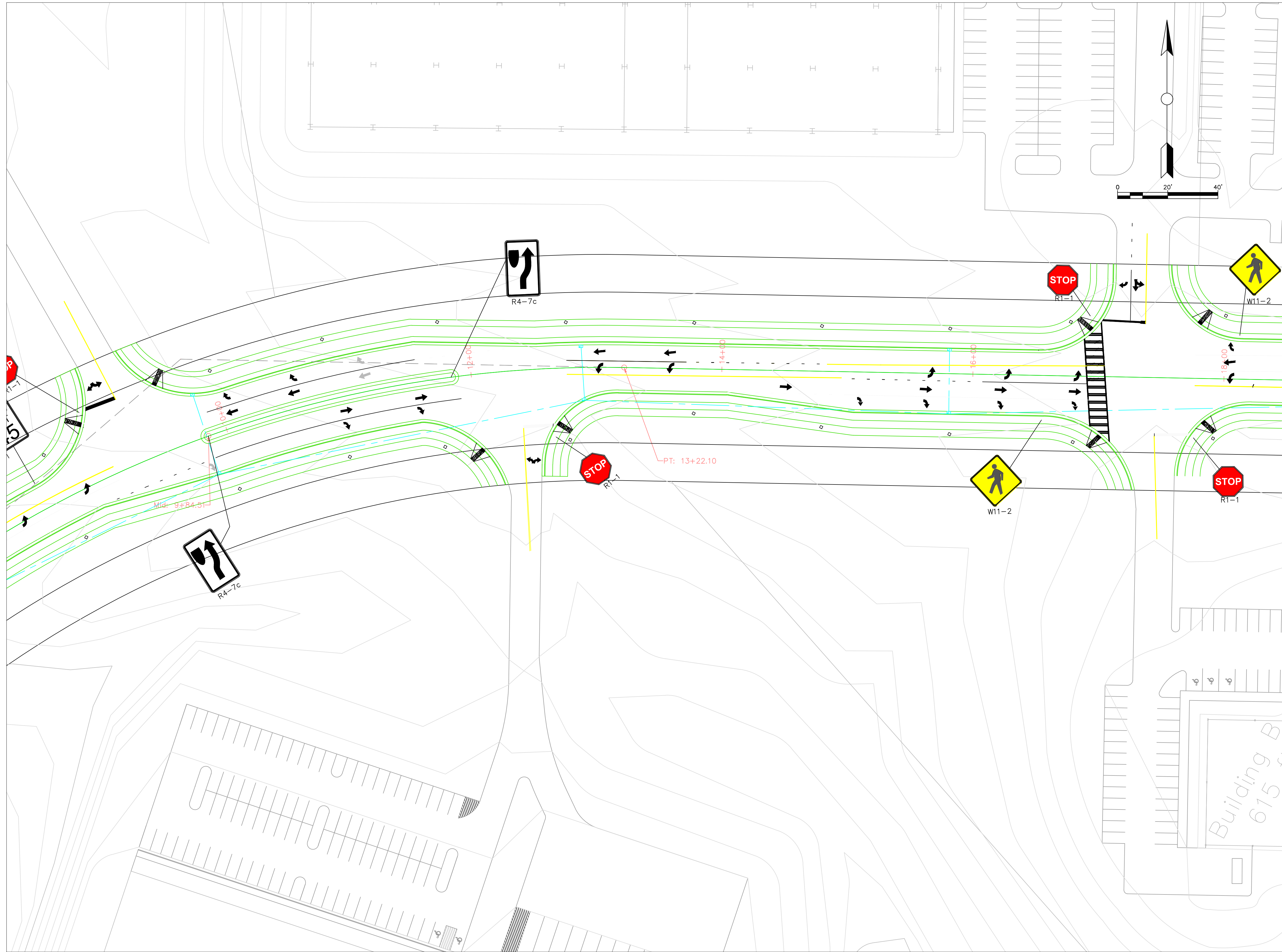
No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

#####

Project	#####	Sheet	1
Date	4/29/2015		
Scale	1" = 40'		



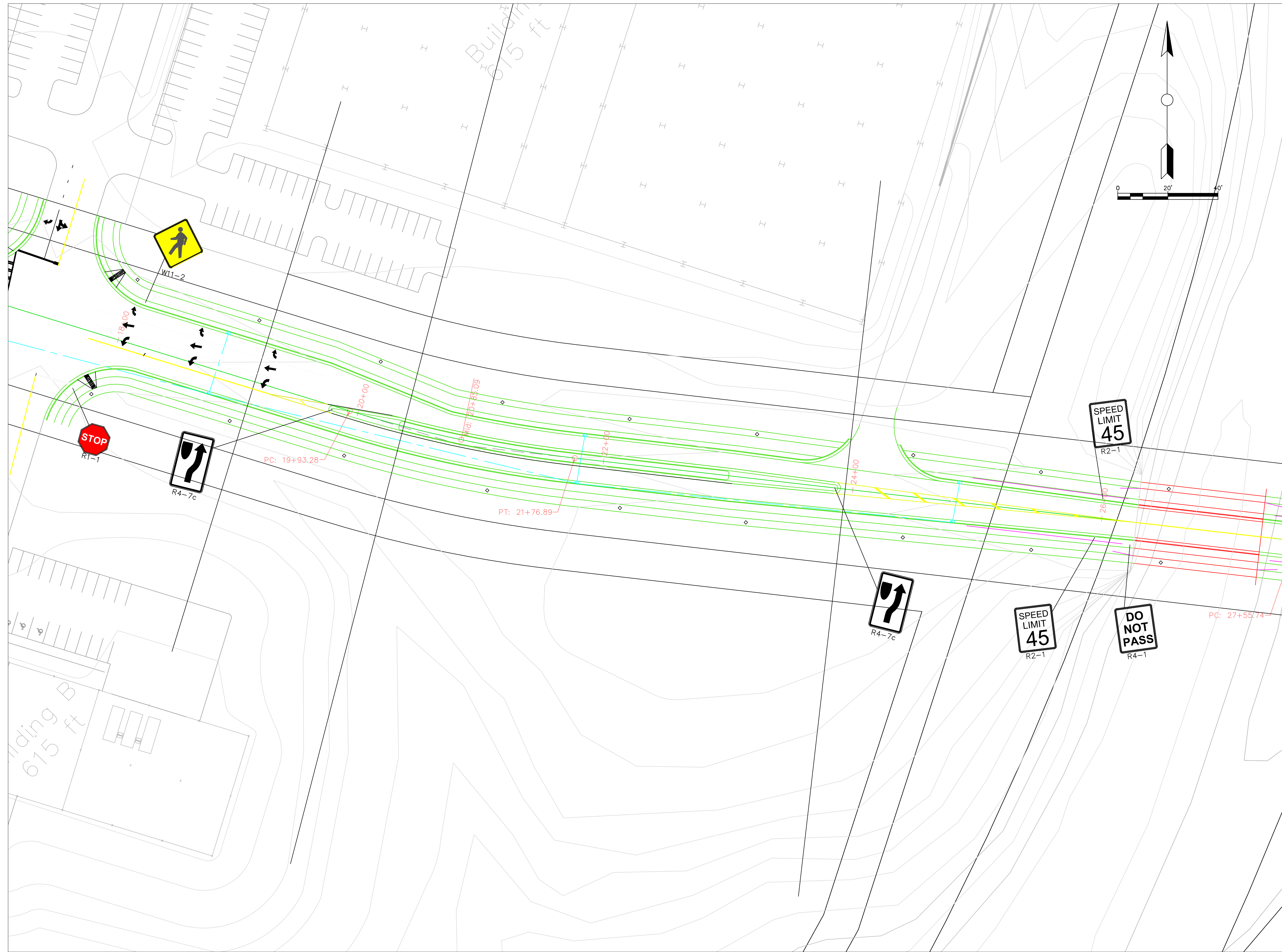
General Notes

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 #####
 #####
 #####

Project	#####	Sheet	1
Date	4/29/2015		
Scale	1" = 40'		



General Notes

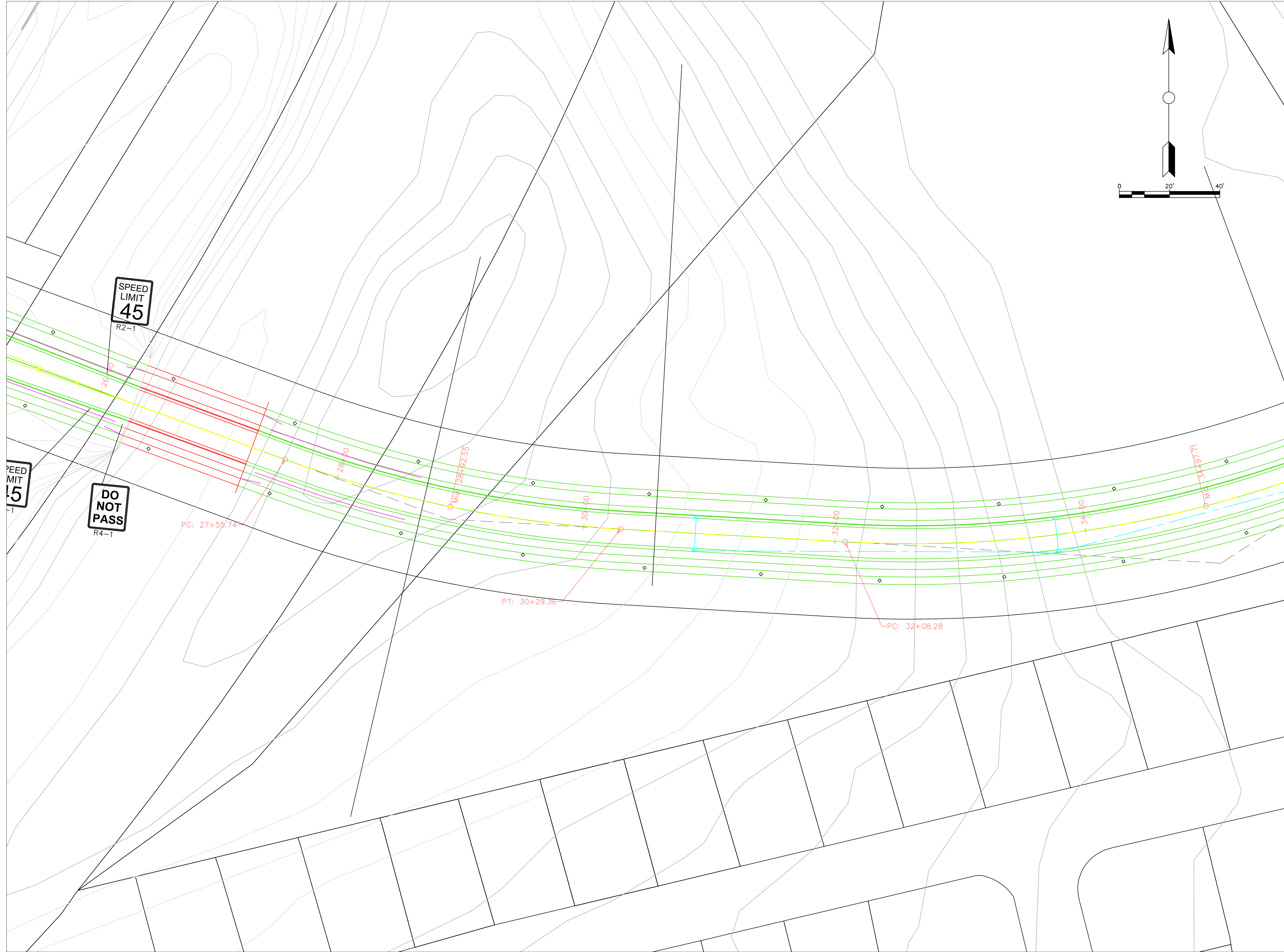
No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

#####

Project	#####	Sheet	1
Date	4/29/2015		
Scale	1" = 40'		



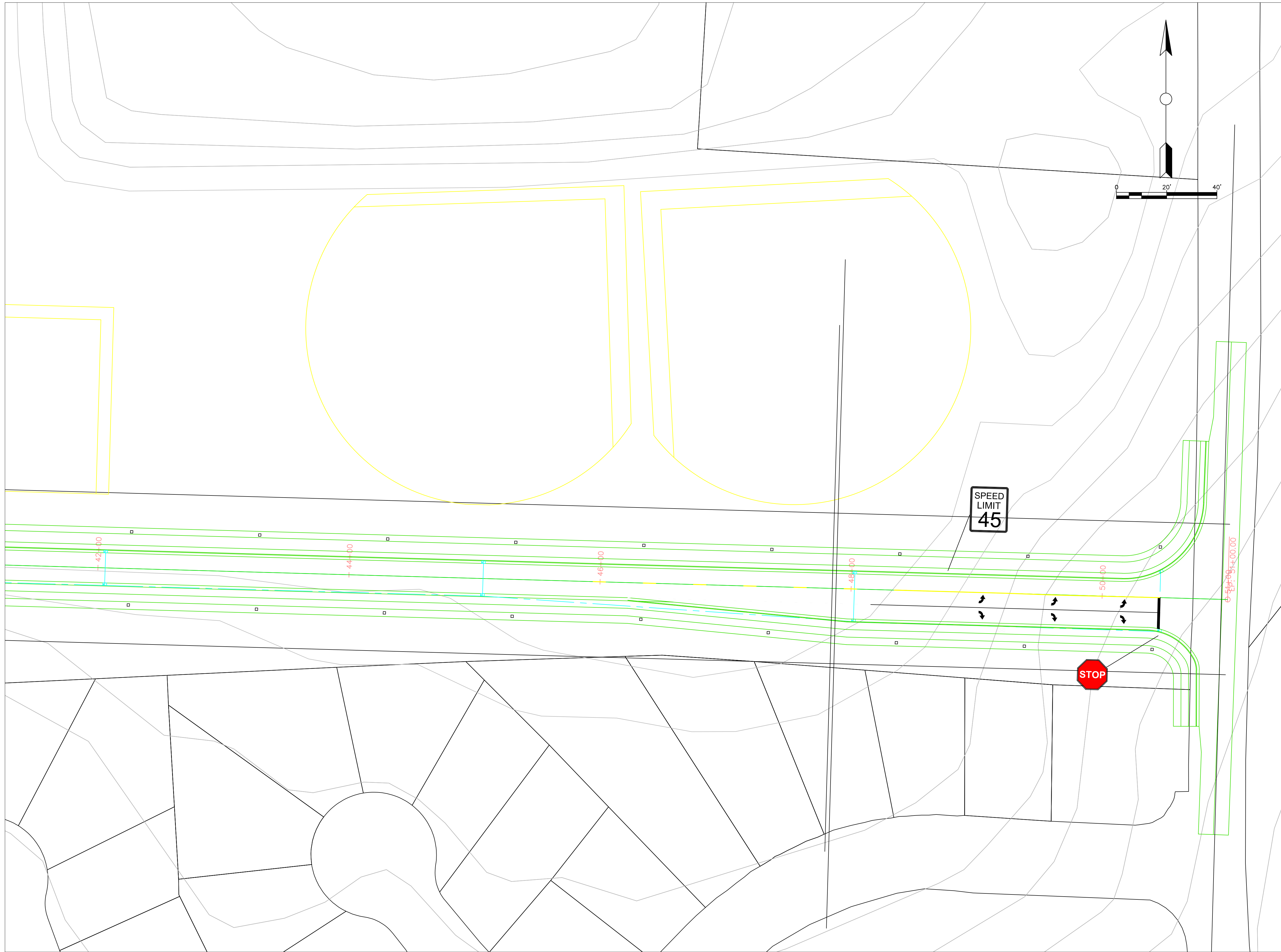
General Notes

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 #####
 #####
 #####

Project	#####	Sheet	1
Date	4/29/2015		
Scale	1" = 40'		



General Notes

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

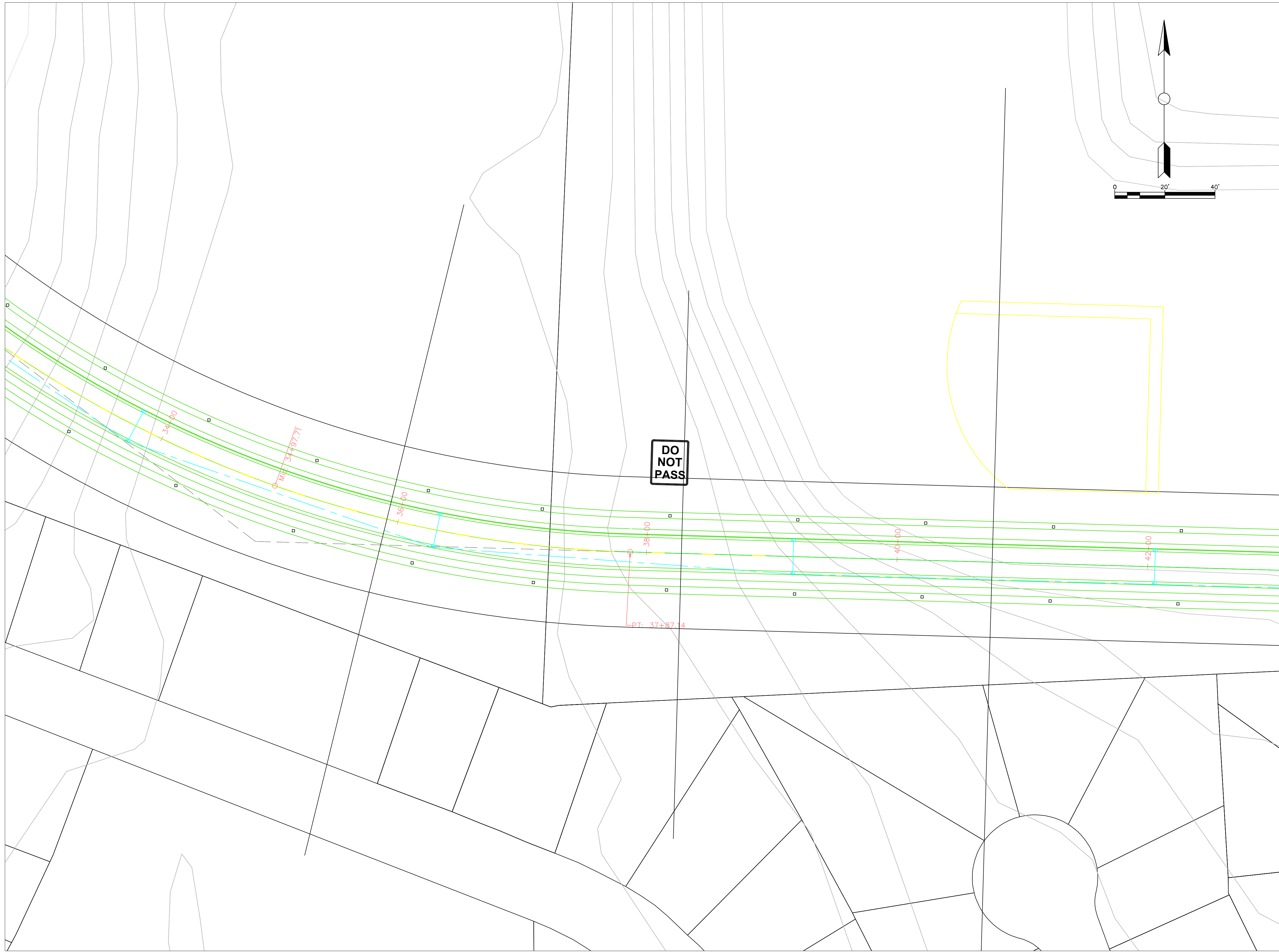
#####

Project ##### Sheet

Date 4/29/2015

Scale 1" = 40'

1



General Notes

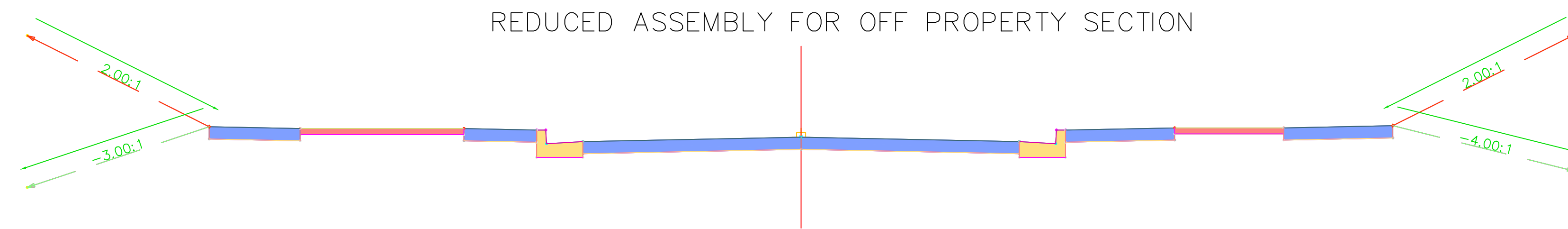
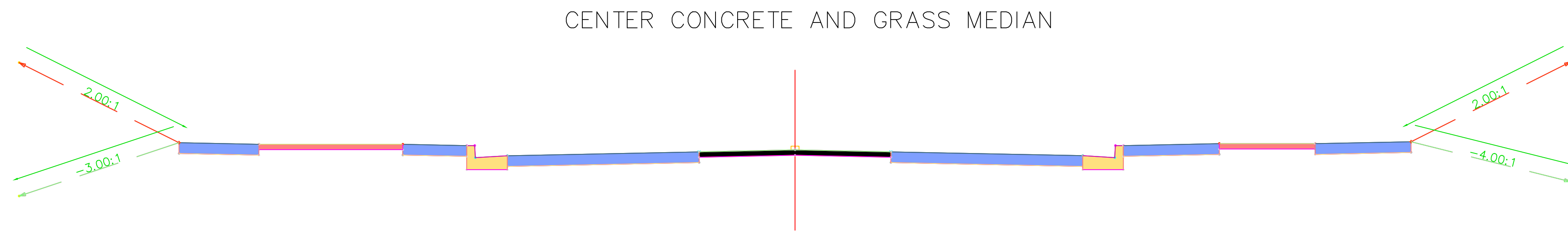
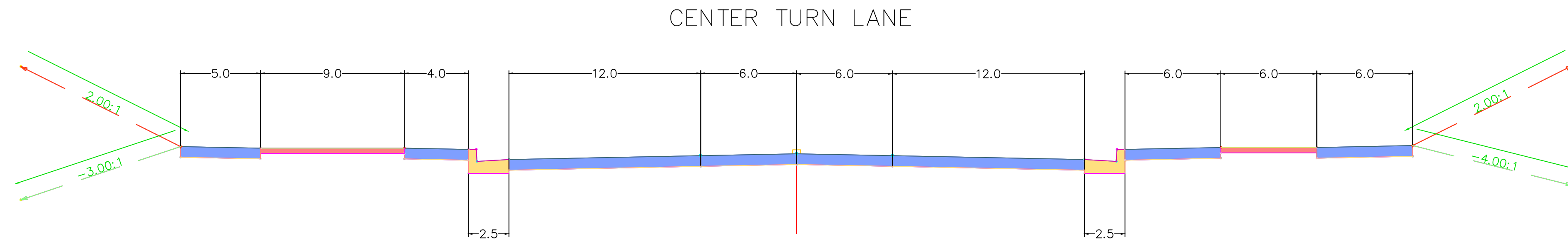
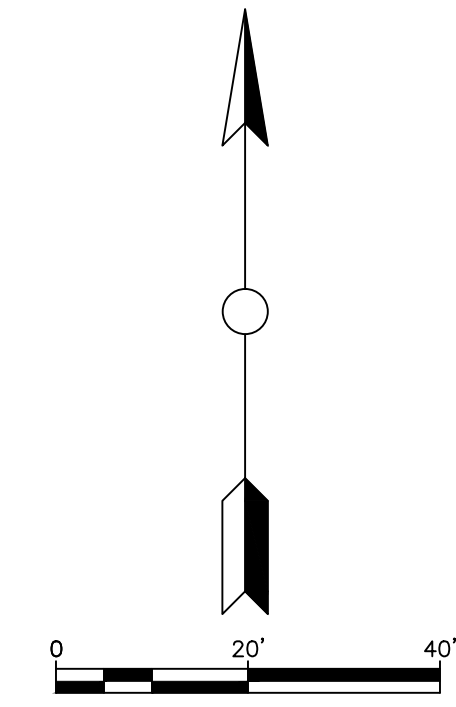
No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

#####

Project	#####	Sheet	1
Date	4/29/2015		
Scale	1" = 40'		



General Notes

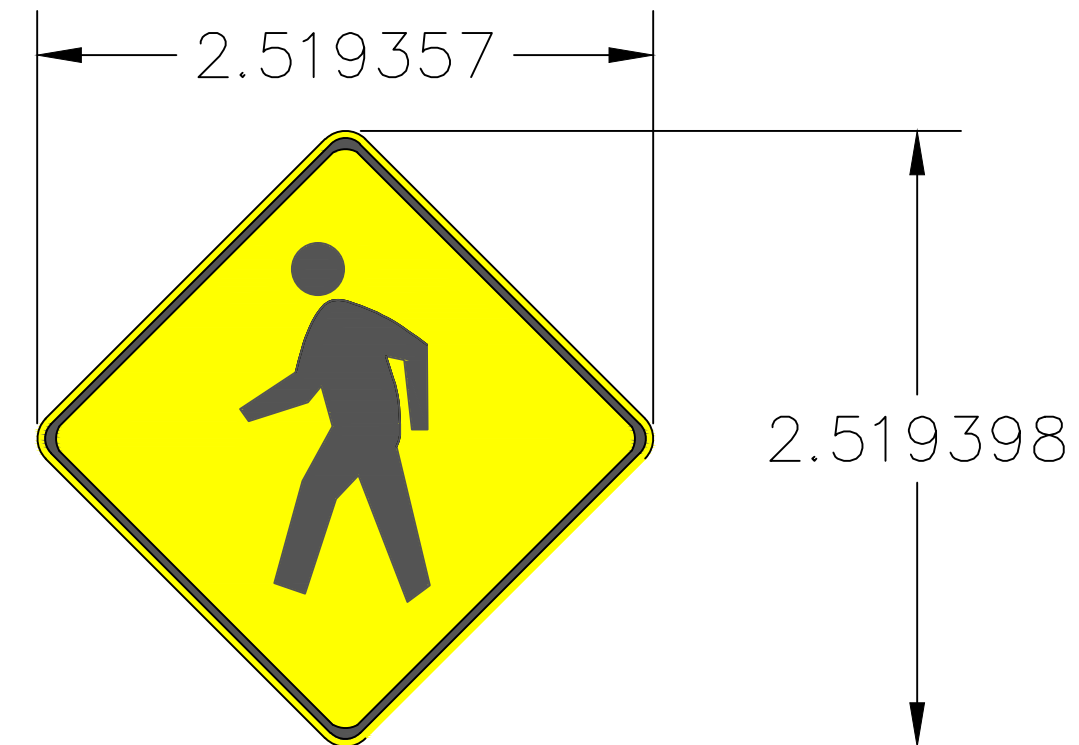
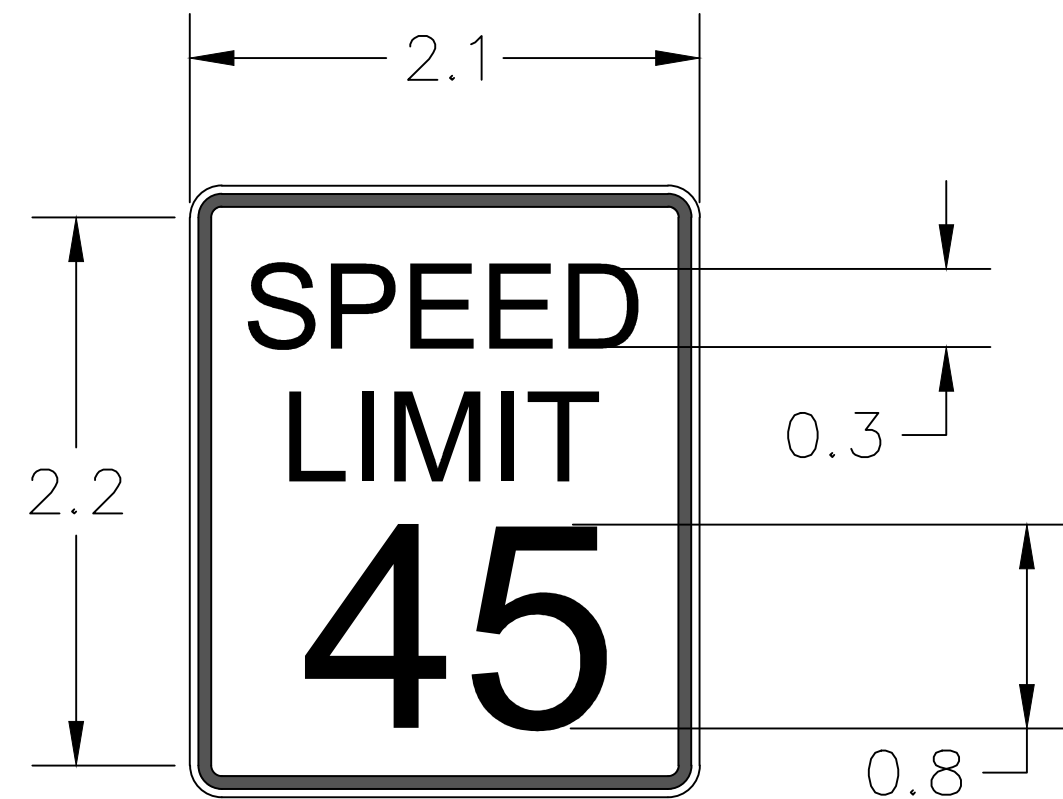
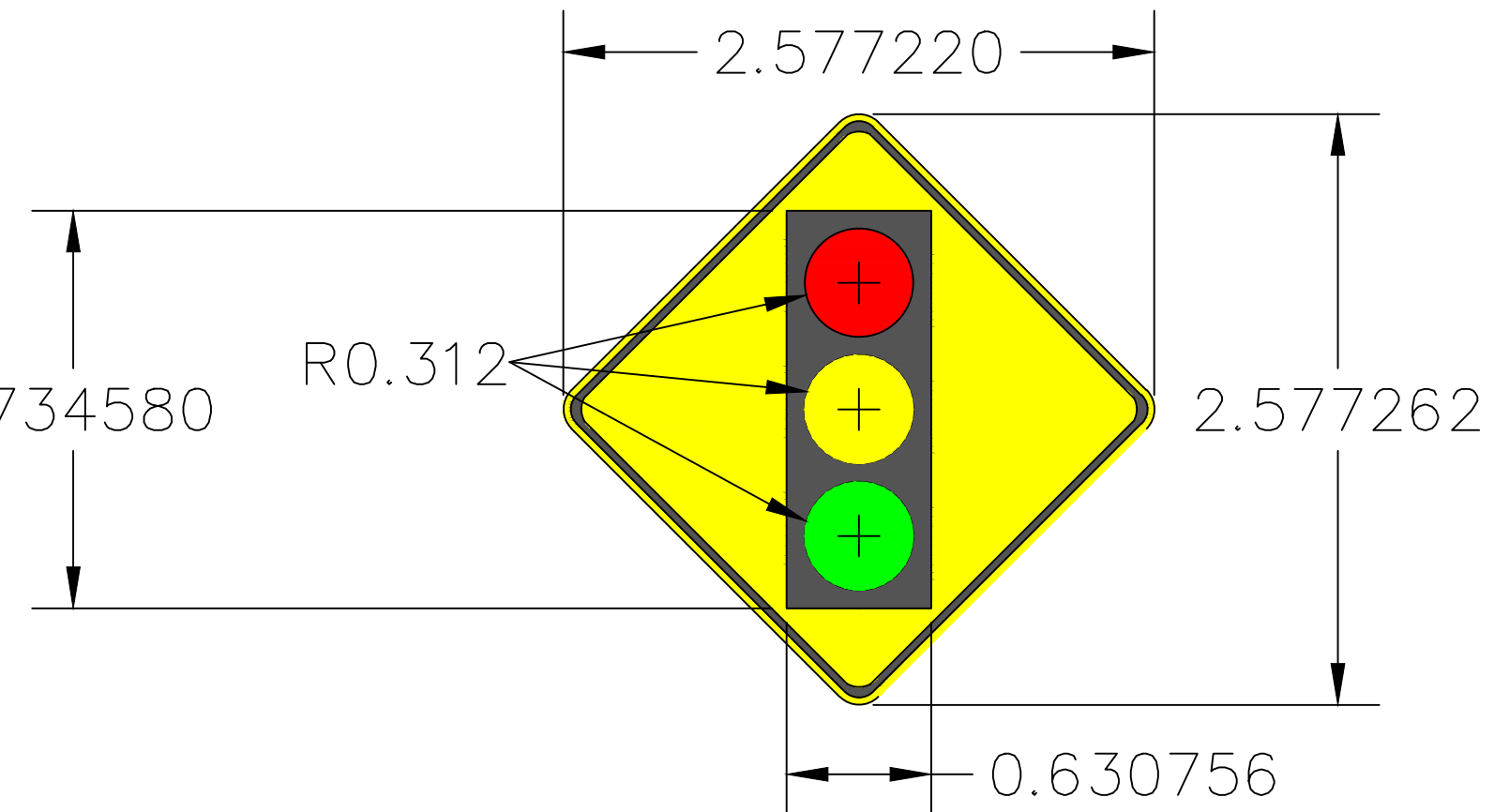
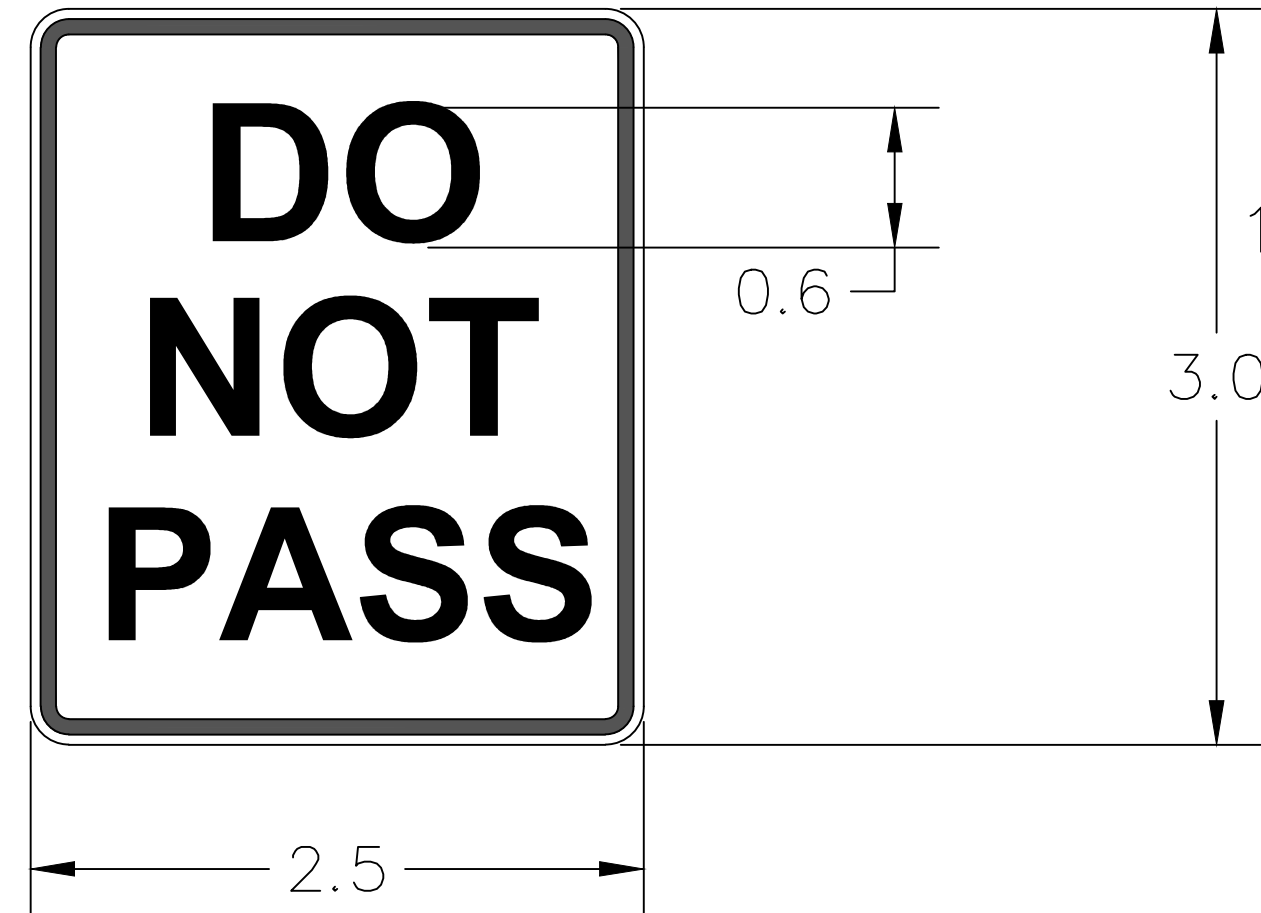
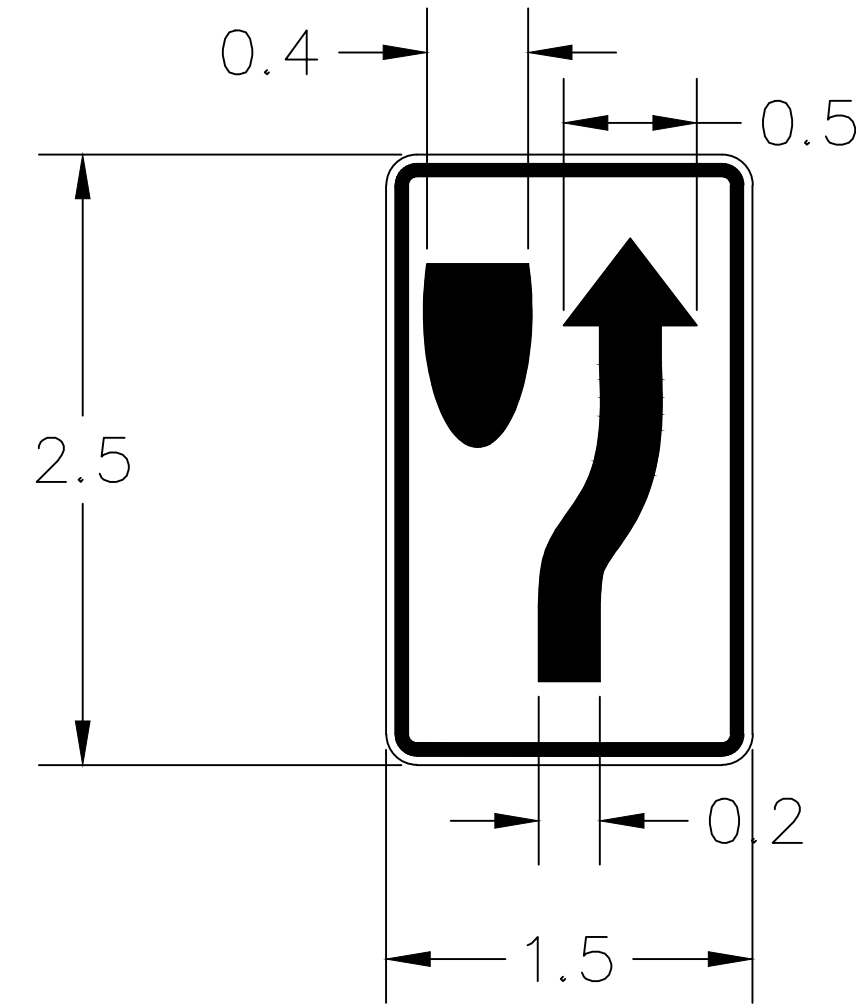
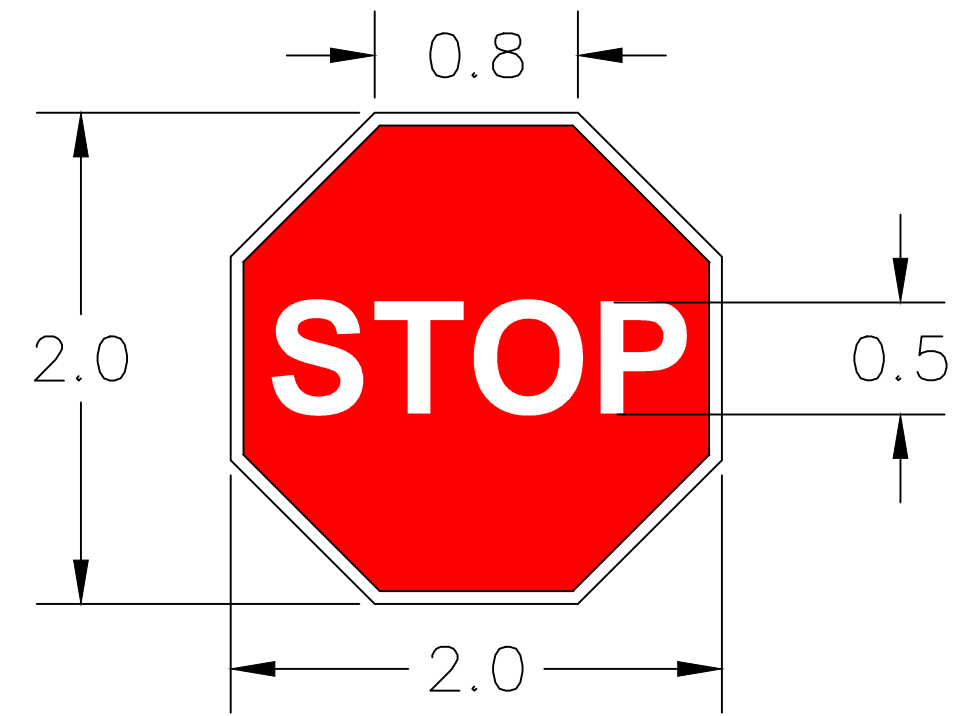
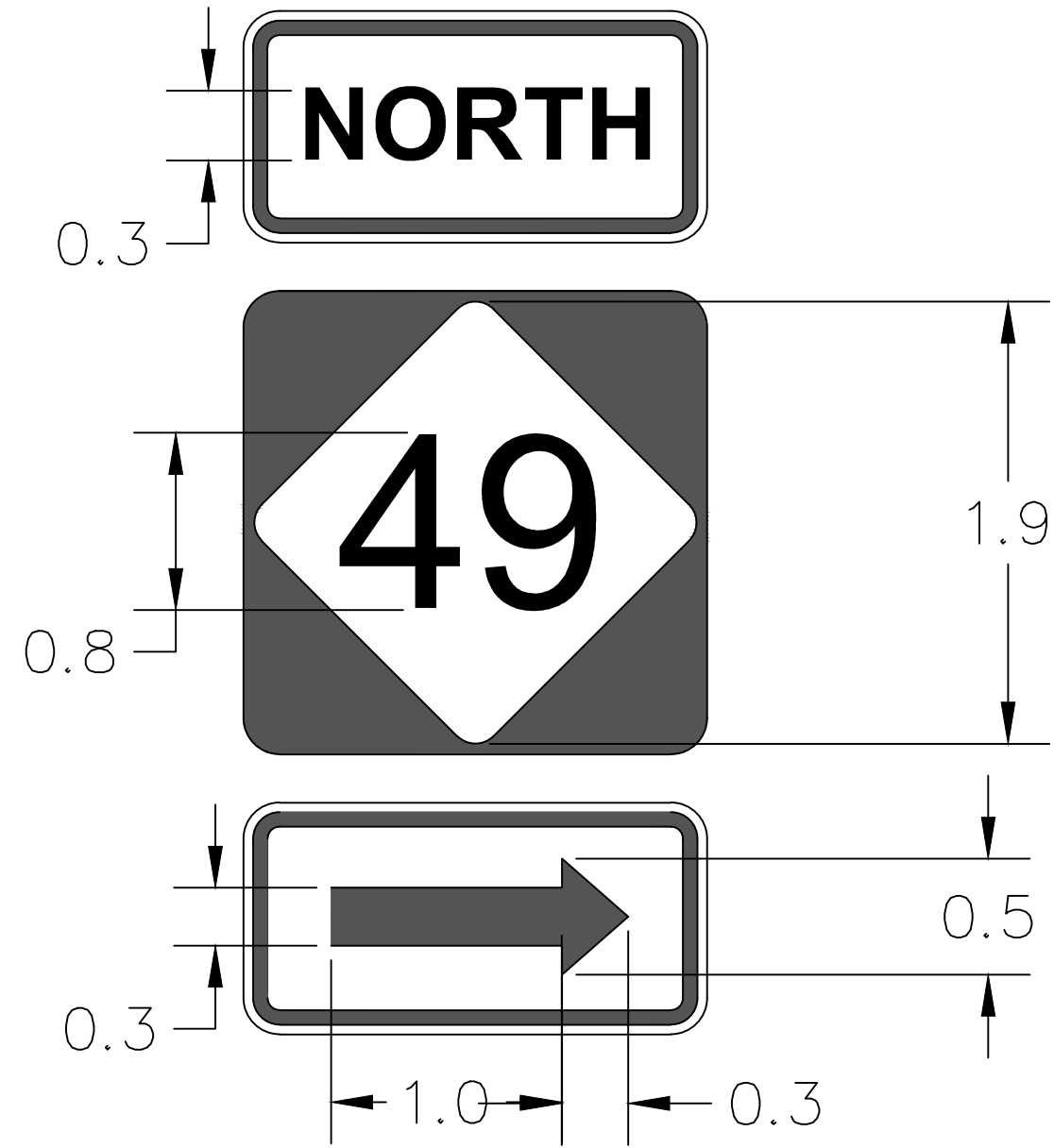
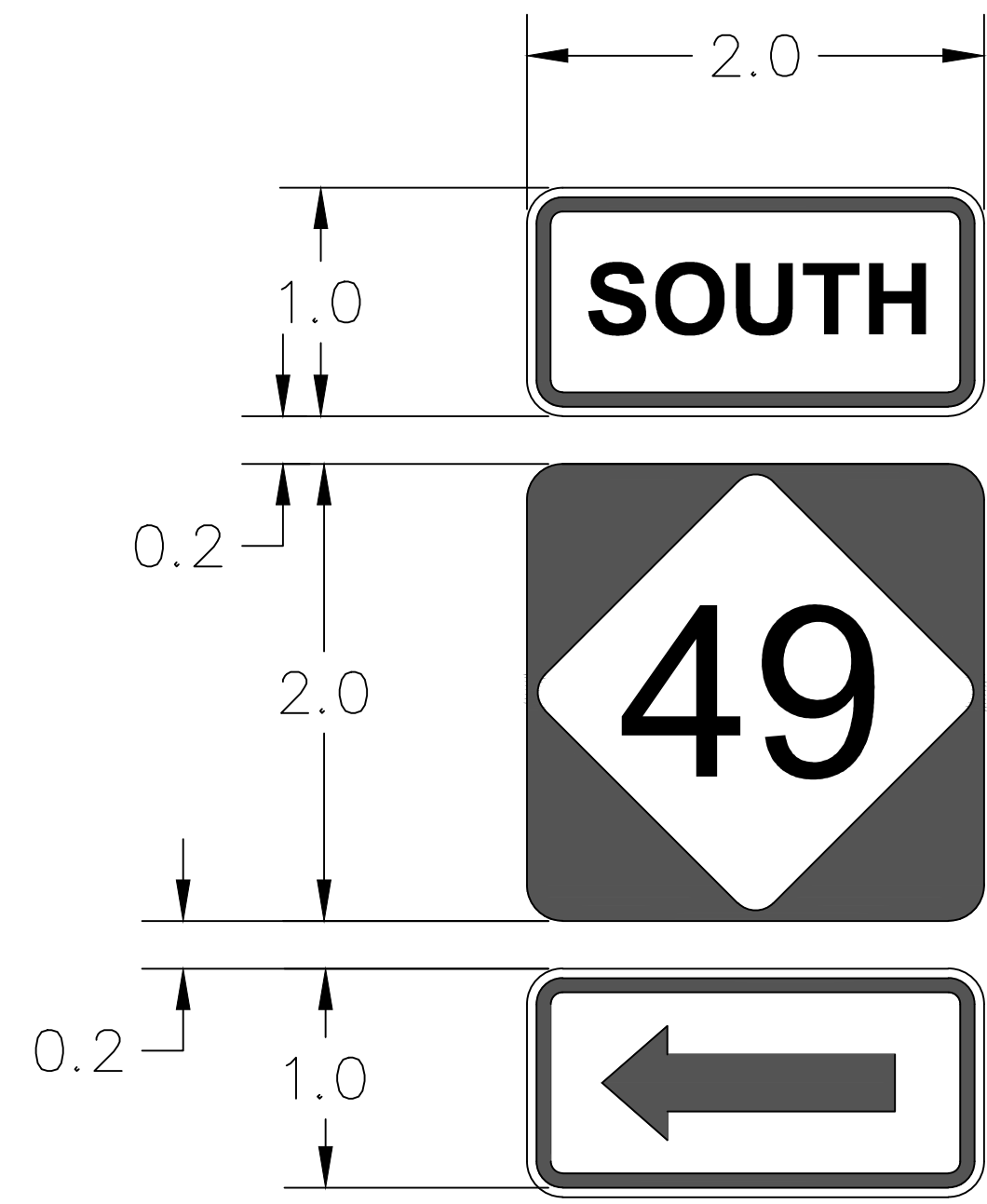
No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address

ANDREW KAMEBRG, DAGO POZO,
BLAKE CRAVER, JAMES HOWELL,
DANA ALSADER

Project MORRISON RIDGE	Sheet C-2.30
Date 4/30/2015	
Scale 1" = 5'	



General Notes

No.	Revision/Issue	Date

Firm Name and Address

Project Name and Address
 ANDREW KAMEBRG, DAGO POZO,
 BLAKE CRAVER, JAMES HOWELL,
 DANA ALSADER

Project MORRISON RIDGE	Sheet C-2.31
Date 4/30/2015	
Scale 1" = 1.25'	