

VICINITY MAP

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2. THE UTILITIES SHOWN ARE FOR THE CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THIS PLAN. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED EXCAVATION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
3. PROVIDE MINIMUM OF 48 HOUR NOTICE TO OWNER OR REPRESENTATIVE PRIOR TO INTERRUPTION OF ANY EXISTING UTILITY, IF BEING UTILIZED.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY UTILITIES DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATION & PROTECTION OF EXISTING ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES. ANY AND ALL MAINS OR INDIVIDUAL SERVICES PRESENTLY IN SERVICE WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY AT NO ADDITIONAL EXPENSE TO THE UTILITY OWNER. ANY AND ALL MAINS OR INDIVIDUAL SERVICES PRESENTLY NOT IN SERVICE AND WHICH ARE TO BE REPLACED DURING THE COURSE OF CONSTRUCTION MAY BE REMOVED AND LEGALLY DISPOSED OF IF DAMAGED DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING NEAR ALL UNDERGROUND AND OVERHEAD UTILITIES.
6. HANDICAP SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH A.D.A. STANDARDS AT H/C PARKING SPACES SHOWN.
7. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
8. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL NECESSARY PERMITS AND APPROVALS HAVE BEEN OBTAINED PRIOR TO CONSTRUCTION. THESE PERMITS AND APPROVALS MAY INCLUDE BUT ARE NOT LIMITED TO GRADING, DEMOLITION, ZONING, BUILDINGS, DRIVEWAY, DETENTION, SUBDIVISION, SPECIAL USE, SEWER AND WATER.

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UTILITY PLANS - SEE CHARLOTTE WATER PLANS FOR WATER & SEWER

COLINAYRE

PHASE 1

CHARLOTTE, NORTH CAROLINA



<http://development.charmeck.org>

ENGINEERING

PCO / DETENTION / DRAINAGE PLAN

EROSION CONTROL

NOTE: SCHEDULE PRE-CONSTRUCTION MEETING AT LEAST 48 HRS. PRIOR TO ANY LAND DISTURBING ACTIVITY USING THE ONLINE FORM AT <http://development.charmeck.org>

URBAN FORESTRY

TREE ORDINANCE

CDOT

APPROVED

By Brendan Smith (bmsmith@charlottenc.gov) at 11:54 am, Apr 07, 2015

APPROVED

By Brendan Smith (bmsmith@charlottenc.gov) at 11:54 am, Apr 07, 2015

APPROVED

APPROVED

DEVELOPMENT DATA	
PARCEL ID:	223-132-11 & 223-132-33
TOTAL SITE ACREAGE:	12.54 ACRES
ZONING:	0-1(CD) SITE PLAN AMENDMENT
COUNTY:	MECKLENBURG COUNTY
JURISDICTION:	CHARLOTTE
WATERSHED:	CENTRAL CATAWBA PC DISTRICT
PUBLIC UTILITIES:	CMUD PUBLIC SEWER AND PUBLIC WATER
ENGINEER/LAND SURVEYOR:	THE ISAACS GROUP, P.C. 8720 RED OAK BLVD., STE. 420 CHARLOTTE, NC 28217 Ph: (704) 527-3440 / Fax: (704) 527-8335

OWNER/DEVELOPER/APPLICANT: 521 PARTNERS, LLC
BRIAN ROLLAR
11510 NORTH COMMUNITY HOUSE RD. STE 24C
CHARLOTTE, NC 28277
EMAIL: brianrollar@yorkdevelopmentgroup.com
PH: (704) 542-7773

APPROVED FOR
CONSTRUCTION
CHARLOTTE-MECKLENBURG PLANNING DEPARTMENT
By: Joshua Weaver 4-7-2015

ZONING CODE SUMMARY

PROJECT NAME: COLINAYRE (PHASE1)
PLANS PREPARED BY: THE ISAACS GROUP, P.C. PHONE #: 704-527-3440
ZONING: 01-CD (COMMERCIAL) JURISDICTION: CITY OF CHARLOTTE
PARCEL ID: 223-132-11 & 223-132-33 PARCEL AREA: 12.542 ACRES
SITE ADDRESS: 11109 PROVIDENCE ROAD WEST
WATERSHED: CENTRAL CATAWBA PC DISTRICT
PROPOSED USE: OFFICE, BANK & HOTEL
BUILDING HEIGHT: 42 FEET BUA: 59.40%
GROSS FLOOR AREA: 210,000 SQ. FEET
BUILDINGS, PARKING LOTS, AND WALKWAYS COVERAGE: 324,648/7.45
YARD REQUIREMENTS:
SETBACK (FRONT): 30 FT. FROM PROVIDENCE ROAD WEST
SETBACK (FRONT): 35 FT. FROM HIGHWAY 521/JOHNSTON RD.
SIDE YARD (L): 5 FT.
SIDE YARD (R): 5 FT.
REAR YARD: 10 FT.

REZONING PET.# 2011-002 (ADMIN. APPROVAL 7/21/14)

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: COVER SHEET

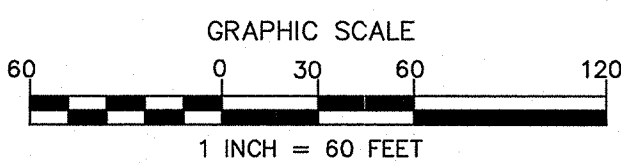
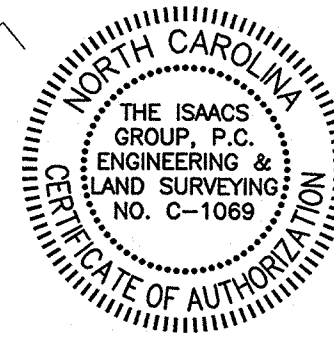
File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC
Design By: PDW
Drawn By: PDW
Scale: 1"=60'

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

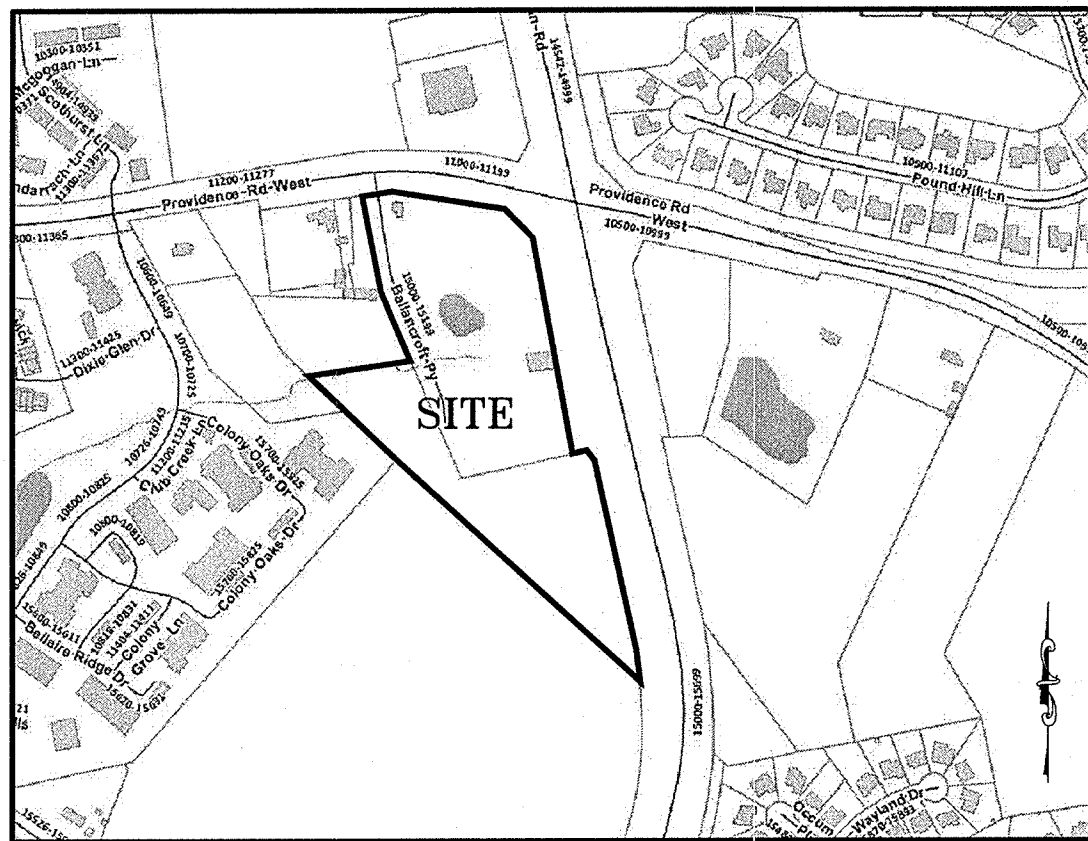
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PCCO SUMMARY

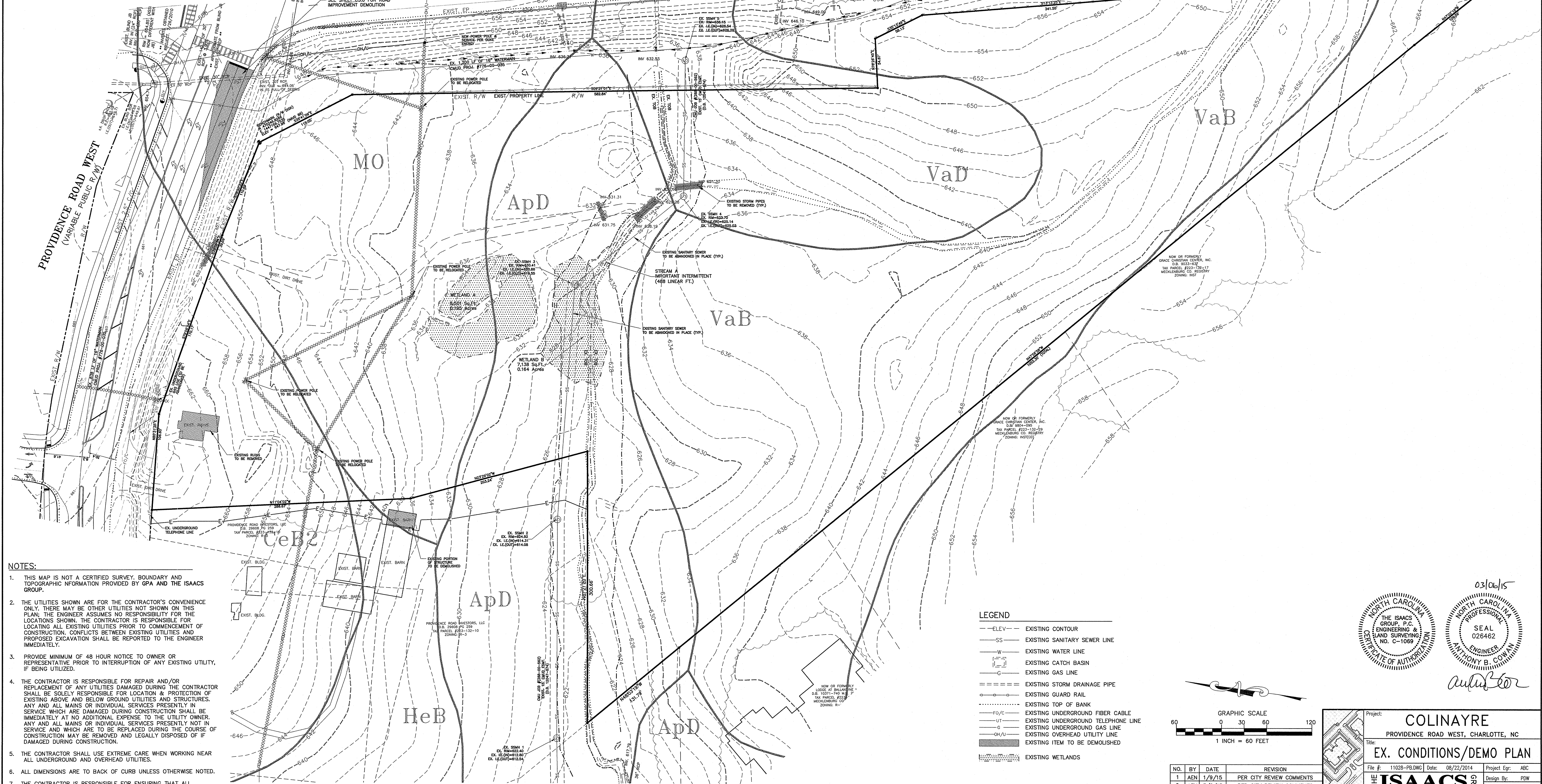
Original Parcel ID Number(s):	22313211 & 22313233		
Development Type:	Commercial		
Subject to PCCO? Y/N	Y		
If NO, why?	-- Click for Dropdown --		
Watershed:	Central Catawba		
Disturbed Area (ac):	12.3		
Site Area (ac):	12.54		
	DA 1	DA 2	DA 3
Total on-site Drainage Area (ac):	7.78	1.5	1.95
Existing Built-upon-area (SF):	11224	6838	0
Existing BUA to be removed (SF):	11224	6838	0
Existing BUA to remain (SF):	0	0	0
Proposed New BUA (SF):	230,868	47,916	54,014
Proposed % BUA:	68.12%	73.33%	63.59%
Density (High / Low)	High	High	High
Total Post-Project BUA for site:	332,798		
Development or Redevelopment?	Development		
Natural Area Required (ac):	1.254		
Natural Area provided, total (ac):	1.89		
Undisturbed Treed Natural Area Preserved (ac):	1.89		
Total stream buffer protected on-site (ac):	0.37		
Transit Station Area? Y/N	N		
Distressed Business District? Y/N	N		
Mitigation Type (if applicable)	N/A		
Natural Area mitigation? Y/N	N		
Buffer Mitigation? Y/N	Y		
Total Phosphorous Mitigation? Y/N	N		



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS
3	AEN	4/2/15	PER CITY REVIEW COMMENTS



VICINITY MAP

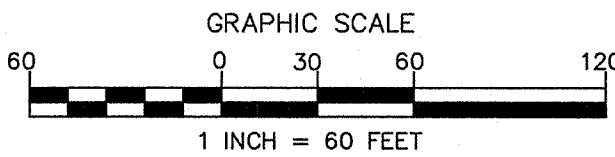


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LEGEND

- ELEV— EXISTING CONTOUR
- SS— EXISTING SANITARY SEWER LINE
- W— EXISTING WATER LINE
- G— EXISTING GAS LINE
- S— EXISTING STORM DRAINAGE PIPE
- GR— EXISTING GUARD RAIL
- TOP— EXISTING TOP OF BANK
- F/C— EXISTING UNDERGROUND FIBER CABLE
- UT— EXISTING UNDERGROUND TELEPHONE LINE
- G— EXISTING UNDERGROUND GAS LINE
- OH— EXISTING OVERHEAD UTILITY LINE
- DEM— EXISTING ITEM TO BE DEMOLISHED
- WET— EXISTING WETLANDS



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS

03/06/15

THE ISAACS GROUP, P.C.
ENGINEERING & SURVEYING
NO. C-1089
NORTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
SEAL
026462
ANTHONY B. COVAIN

Project: **COLINAYRE**
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: **EX. CONDITIONS/DEMO PLAN**

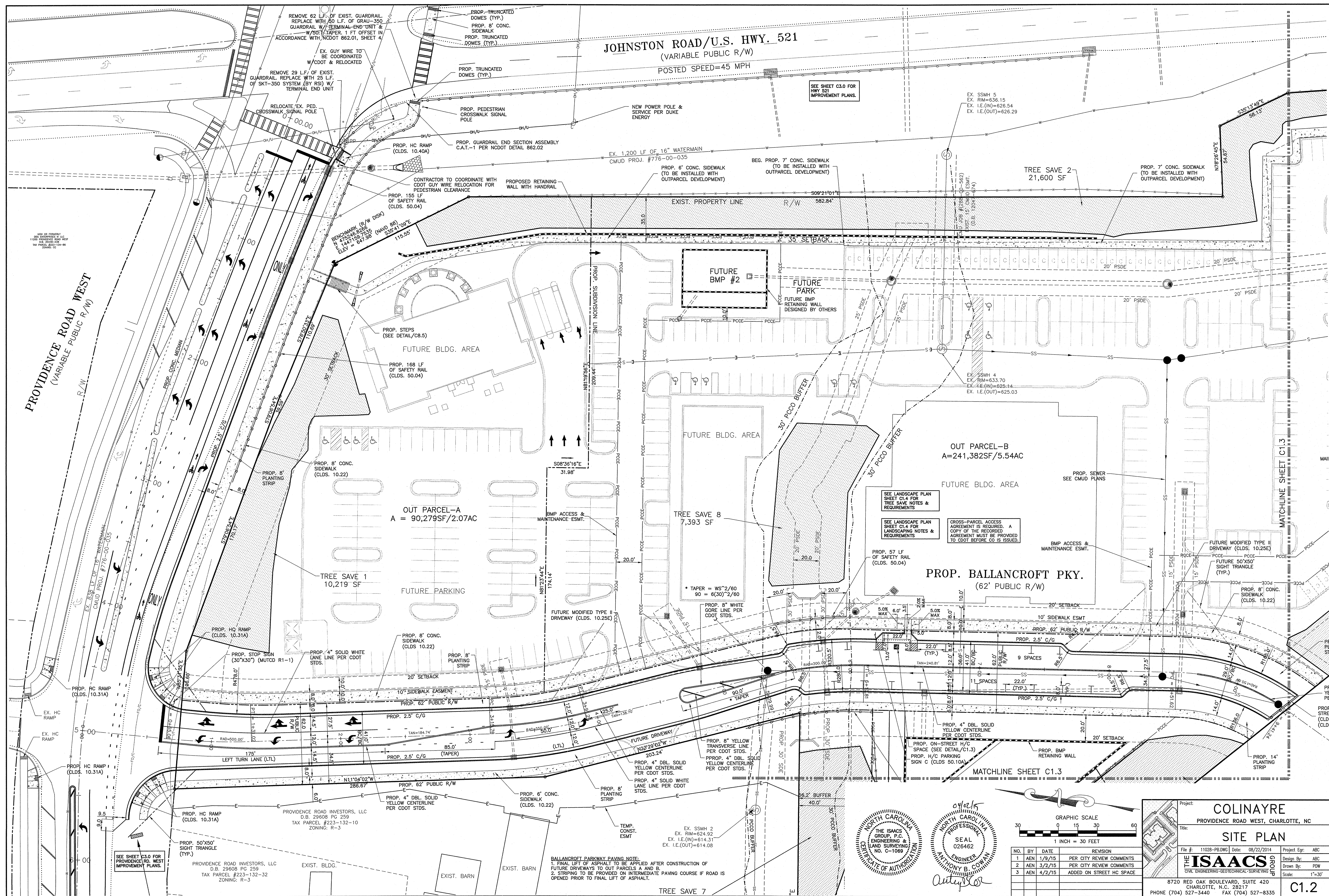
File #: 11028-P8.DWG Date: 08/22/2014 Project Egr: ABC

THE ISAACS GROUP, P.C.
CIVIL ENGINEERING/GEOTECHNICAL SURVEYING

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

Design By: PDW
Drawn By: PDW
Scale: 1"=50'

C0.1



JOHNSTON ROAD/U.S. HWY. 521
(VARIABLE PUBLIC R/W)
POSTED SPEED=45 MPH

SEE SHEET C3.0 FOR
HWY 521
IMPROVEMENT PLANS

EX. SSMH 5
EX. RIM=636.15
EX. I.E.(IN)=626.54
EX. I.E.(OUT)=626.29

TREE SAVE
21,600 SF

PROP. 7' CONC. SIDEWALK
(TO BE INSTALLED WITH
OUTPARCEL DEVELOPMENT)

FUTURE
BMP #2

FUTURE
PARK

OUT PARCEL-B
A=241,382SF/5.54AC

OUT PARCEL-A
A = 90,279SF/2.07AC

PROP. BALLANCROFT PKY.
(62' PUBLIC R/W)

FUTURE MODIFIED TYPE I
DRIVEWAY (CLDS. 10.25E
PCCE PCCE

PROP. 8' C
SIDEWALK
(CLDS. 10.2

COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

SITE PLAN

File #:	11028-PB.DWG	Date:	08/22/2014	Project Egr:	ABC
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THE ISAACS GROUP CIVIL ENGINEERING • GEOTECHNICAL • SURVEYING	Design By: ABC
	Drawn By: PDW
	Scale: 1"=30'

8720 RED OAK BOULEVARD, SUITE 420 CHARLOTTE, N.C. 28217 PHONE (704) 527-3440 FAX (704) 527-8335	C1.2
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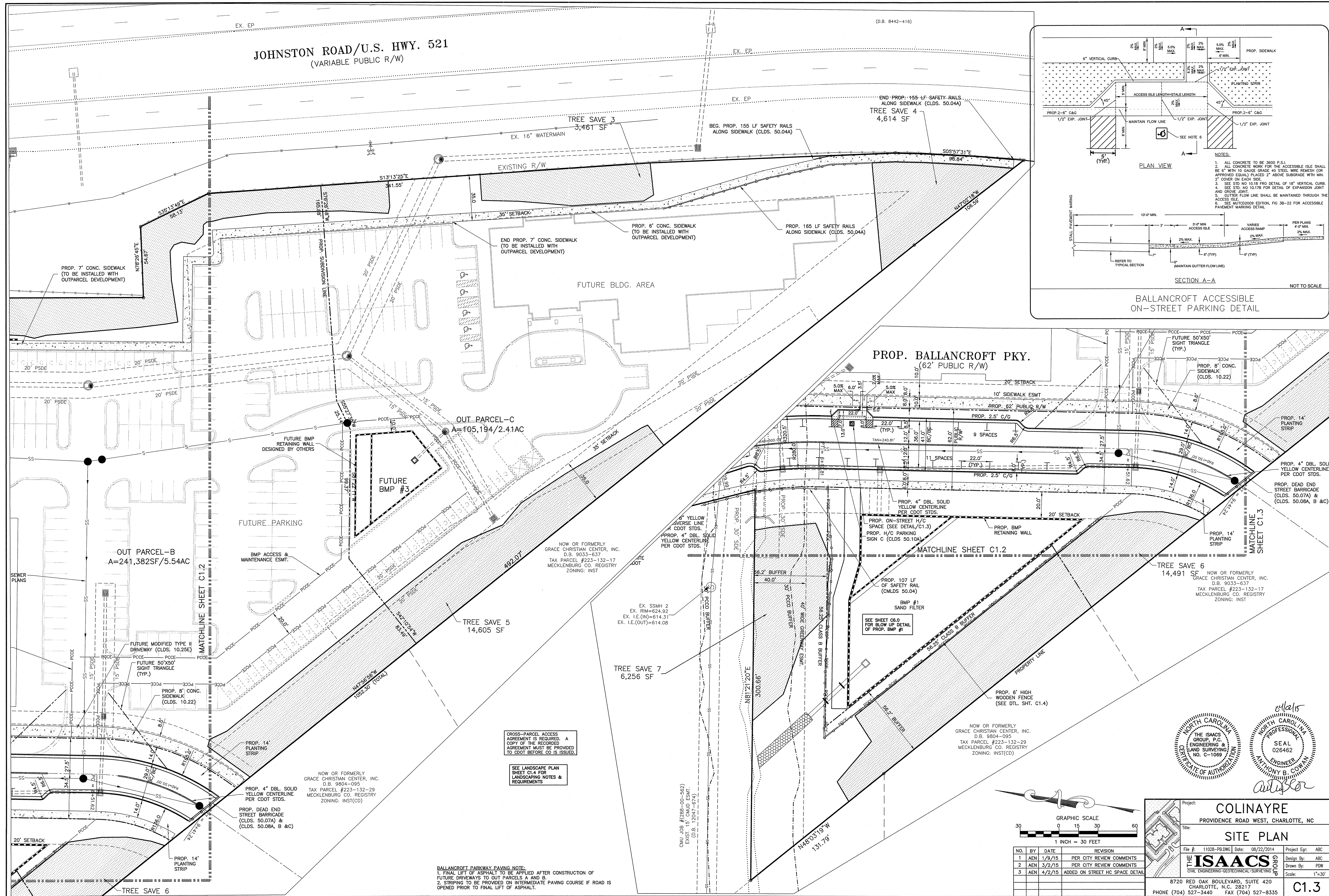
C1.2

PLAN VIEW

1. ALL CONCRETE TO BE 3000 P.S.I.
 2. ALL CONCRETE WORK FOR THE ACCESSIBLE ISLE SHALL BE 6" WITH 10 GAUGE GRADE 40 STEEL WIRE REMESH (OR APPROVED EQUAL) PLACED 2" ABOVE SUBGRADE WITH MIN. 1" COVER ON EACH SIDE.
 3. SEE STD. NO. 10-118 FOR DETAIL OF 18" VERTICAL CURB AND DROVE JOINT.
 4. SEE STD. NO. 10-178 FOR DETAIL OF EXPANSION JOINT.
 5. GUTTER FLOW LINE SHALL BE MAINTAINED THROUGH THE ACCESSIBLE ISLE.
 6. SEE MUTCD2009 EDITION, FIG. 3B-22 FOR ACCESSIBLE PAVEMENT TRANSITION DETAIL.

SECTION A-A

NOT TO SCALE



TREE SAVE AND NATURAL AREA CALCULATION:

TOTAL SITE AREA:	12.54 AC.
TREE SAVE AREA REQ'D:	1.88 AC. (15%)
PCCO NATURAL AREA REQ'D:	1.25 AC. (10%)

AREA ID	AREA (S.F.)	AREA (AC.)
1	10,219	0.235
2	21,600	0.496
3	3,416	0.078
4	4,614	0.106
5	14,605	0.335
6	14,491	0.333
7	6,256	0.144
8	7,393	0.170
9		0.000
10		0.000
TOTAL AREA PROVIDED:	1.896	

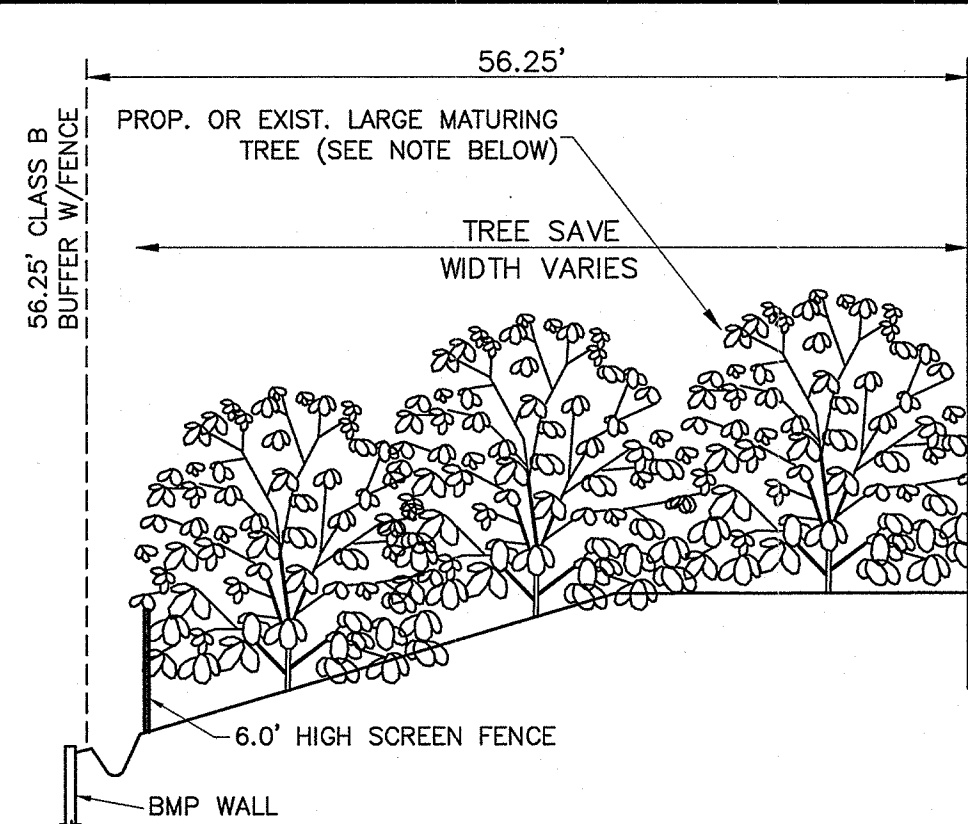
PCCO NATURAL AREAS WILL BE RECORDED IN THE REGISTER OF DEEDS OFFICE AS "TREE SAVE/UNDISTURBED NATURAL AREAS" AS REQUIRED BY THE CHARLOTTE POST CONSTRUCTION STORMWATER ORDINANCE.

LEGEND

TREE SAVE/PCCO NATURAL AREA

LANDSCAPING NOTES:

- MINIMUM TREE SIZE AT PLANTING IS 2-INCH CALIPER (FOR SINGLE STEM TREES) AND 3-INCH CALIPER IF PLANTED IN CITY RIGHT OF WAY. SMALL MATURING MULTI-STEM TREES MUST BE TREE FORM, MAXIMUM 3 TO 5 TRUNKS, AND MINIMUM 8 FEET TALL.
- UNLESS APPROVED BY URBAN FORESTRY STAFF, ALL REQUIRED TREES MUST HAVE SINGLE STEM TRUNKS WITH NO CO-DOMINANT TRUNKS OR BRANCHES. TREE TRUNKS SHALL BE STRAIGHT IN FORM AND FREE OF DAMAGE OR CRACKS. PRUNING CUTS SHALL BE CALLED OVER. BRANCH LENGTH SHALL BE TYPICAL FOR THE TREE AGE AND NOT BE EXCESSIVE. ADVENTITIOUS ROOT GROWTH.
- ALL STRIPPING AND TOP 2/3 OF WIRE BASKET MUST BE CUT AWAY AND REMOVED FROM ROOT BALL PRIOR TO BACKFILLING PLANTING PIT. REMOVE TOP 1/3 OF THE BURLAP FROM ROOT BALL.
- FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL, SUB-BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 24" NEW TOPSOIL, OR TILL AND AMEND THE TOP 24" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES WITHIN ENTIRE MINIMUM AREA OF 274 SQUARE FEET PER TREE.
- LARGE MATURING TREES MAY NOT BE PLANTED WHERE THERE ARE OVERHEAD DISTRIBUTION OR TRANSMISSION LINES. IF TREES CONFLICT WITH POWER LINES OR SIGNS, CALL URBAN FORESTRY SPECIALIST TO RESOLVE BEFORE PLANTING.
- A MINIMUM OF FIFTY (50) PERCENT OF NEW TREES MUST BE NATIVE SPECIES, AND SITES WITH MORE THAN TWENTY (20) TREES REQUIRED WILL HAVE TO INSTALL MULTIPLE SPECIES PURSUANT TO THE TREE ORDINANCE GUIDELINES.
- SITE LIGHTING MUST BE A MINIMUM THIRTY (30) FEET AWAY FROM A TREE. IF PEDESTRIAN SCALE LIGHTING IS BEING USED, THEN LIGHTING MUST BE A MINIMUM OF FIFTEEN (15) FEET AWAY FROM A TREE, UNLESS APPROVED OTHERWISE BY THE CITY. SHOW SITE LIGHTING PLAN.
- ADJUST TREE PLANTING LOCATIONS TO AVOID UNDERGROUND UTILITIES. PLANT 1' FROM ALL UNDERGROUND UTILITIES (GAS, WATER, PHONE, AND ELECTRICAL LINES).
- ATTENTION LANDSCAPER: NOTIFY URBAN FORESTER OF ANY SIGN, POWER LINE, OR OTHER CONFLICTS BEFORE PLANTING NEW TREES.
- COMMERCIAL TREE SAVE AREAS MUST BE RECORDED IN ACCORDANCE WITH THE APPROVED PLAN ON A FINAL PLAT AT THE REGISTER OF DEEDS OFFICE BEFORE URBAN FORESTRY HOLDS CAN BE RELEASED.
- PLEASE CALL (704) 336-6789 FOR AN INSPECTION OF TREE PROTECTION AND/OR TREE PLANTING AREAS, 1 TO 2 DAYS BEFORE THE CERTIFICATE OF OCCUPANCY IS NEEDED.



NOTE: EXISTING TREES MAY MEET BUFFER REQUIREMENTS. NEW TREES WILL BE ADDED (IF NEEDED) TO SUPPLEMENT EXISTING TREES TO MEET BUFFER REQUIREMENTS. ZONING INSPECTOR TO WALK SITE WITH LANDSCAPER B/F INSTALLATION

BUFFER #1 CROSS SECTION (N.T.S.)
56.25' CLASS B (REDUCED WITH FENCE)
BUFFER LENGTH: 409 L.F.
TREE SAVED = (409/100) x 12 = 50
REQ'D SHRUBS = (NONE W/FENCE)
40% LMT = 0.40 x 50 = 20
25% EVERGREEN LMT = 0.25 x 50 = 13

TREE PLANTING REQUIREMENTS:

TREE AND SOIL SPECIFICATIONS: ALL TREES PLANTED MUST BE PLANTED IN AMENDED SOILS AS SPECIFIED IN THE TREE ORDINANCE GUIDELINES. THE TREES ALSO MUST BE FROM AN APPROVED LIST SUPPLIED BY THE CITY. TREES NOT ON THE LIST MAY BE APPROVED BY THE CITY ON A CASE-BY-CASE BASIS. WHERE TREES ARE SPECIFIED TO BE TWO (2) INCH CALIPER, THE MINIMUM HEIGHT SHALL BE EIGHT (8) FEET. IF A MULTI-STEM TREE IS USED, IT MUST HAVE THREE (3) TO FIVE (5) STEMS AND BE EIGHT (8) TO TEN (10) FEET TALL AT THE TIME OF PLANTING. WHERE THREE (3) INCH CALIPER TREES ARE SPECIFIED, THE MINIMUM HEIGHT SHALL BE TEN (10) FEET TALL, AND MULTI-STEM TREES SHALL BE TEN (10) TO TWELVE (12) FEET TALL. ALL TREES MUST COMPLY WITH THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

A MINIMUM OF 50 PERCENT OF NEW TREES MUST BE NATIVE SPECIES, AND SITES WITH MORE THAN 20 TREES REQUIRED WILL HAVE TO INSTALL MULTIPLE SPECIES PURSUANT TO THE TREE ORDINANCE GUIDELINES.

SITE LIGHTING MUST BE A MINIMUM 30 FEET AWAY FROM A TREE. IF PEDESTRIAN SCALE LIGHTING IS BEING USED, THEN LIGHTING MUST BE A MINIMUM OF 15 FEET AWAY FROM A TREE, UNLESS APPROVED OTHERWISE BY THE CITY.

PERIMETER PLANTING REQUIREMENTS:
IF LARGE MATURING TREES ARE PLANTED, EACH TREE SHALL HAVE A MINIMUM TWO-INCH CALIPER. ONE SUCH TREE SHALL BE PLANTED FOR EVERY 40 FEET OF FRONTAGE OR FRACTION THEREOF. IF SMALL MATURING TREES ARE PLANTED, EACH TREE SHALL HAVE A MINIMUM TWO-INCH CALIPER. ONE SUCH TREE SHALL BE PLANTED FOR EVERY 30 FEET OF FRONTAGE OR FRACTION THEREOF.

LARGE SHADE TREES REQUIRED: IN LOCATIONS WITHOUT OVERHEAD POWER DISTRIBUTION LINES THAT OBSTRUCT NORMAL GROWTH, 75 PERCENT OF PERIMETER TREES REQUIRED SHALL BE LARGE MATURING SHADE TREES.

TREE SAVE REQUIREMENTS:
MINIMUM OF 15 PERCENT OF THE OVERALL COMMERCIAL SITE MUST BE PRESERVED AS TREE SAVE AREA (HEREINAFTER FOR PURPOSES OF THIS SECTION, "COMMERCIAL TREE SAVE AREA"), IF LESS THAN 15 PERCENT OF THE SITE HAS EXISTING TREES, ADDITIONAL TREES SHALL BE PLANTED AT A RATE OF 36 TREES PER ACRE TO MEET THE COMMERCIAL TREE SAVE AREA REQUIREMENT. IN THE EVENT ANY AREA OF THE COMMERCIAL TREE SAVE AREA CANNOT BE PROTECTED TREES MUST BE RE-PLANTED AT 150 PERCENT OF THE AREA REMOVED.

ALL TREE SAVE AREAS MUST HAVE KUDZU AND ANY OTHER INVASIVE PLANTS UNDER CONTROL PRIOR TO FINAL CO. REF. TO SECTION 21-83(d) AND 21-2 (FOR DEFINITION OF INVASIVE SPECIES) OF THE TREE ORDINANCE.

TREE SAVE 1 WILL NEED ADDITIONAL TREES DUE TO GAPS, AND TREE SAVE 10 MIGHT NEED ADDITIONAL TREES DUE TO GAPS. THE NUMBER OF TREES REQUIRED FILL THE GAPS WILL BE DETERMINED BY URBAN FORESTRY DURING SITE INSPECTIONS.

PERIMETER PLANTING CALCULATION:

PROVIDENCE ROAD WEST FRONTAGE: 427 L.F.
STREET TREES REQUIRED: 427 L.F./40 = 10.67 LMT
STREET TREES PROVIDED: 2 NEW LMT PLUS EXISTING TREE SAVE

BALLANTRIGHT PARKWAY FRONTAGE: 866.47 L.F.
STREET TREES REQUIRED: 866.47 L.F./40 = 22 LMT
STREET TREES PROVIDED: 40 LMT

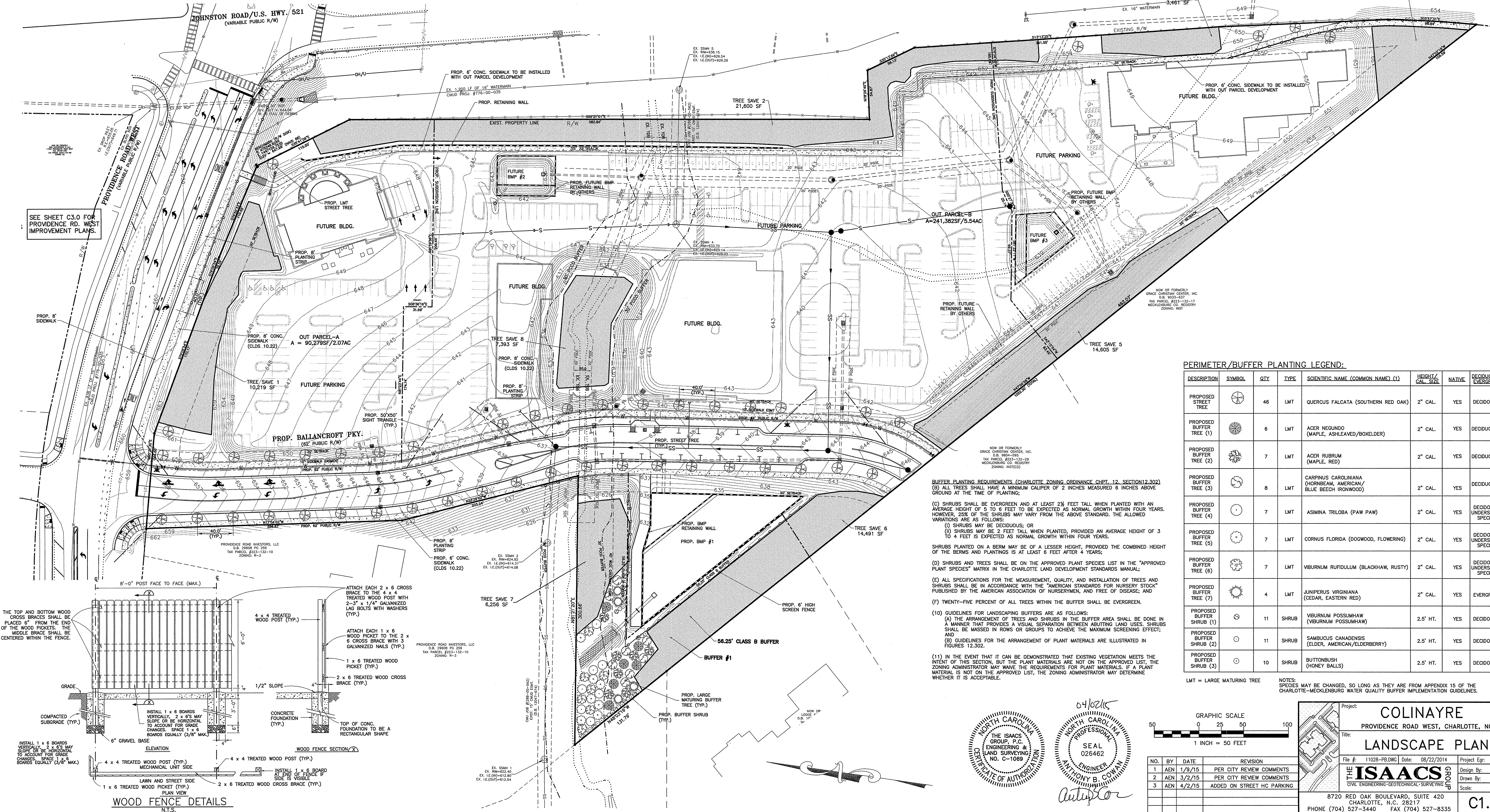
US HWY. 521/JOHNSTON ROAD FRONTAGE: 1,441.25 L.F.
STREET TREES REQUIRED: 1,441.25 L.F./40 = 36.03 LMT
STREET TREES PROVIDED: 4 NEW LMT PLUS EXISTING TREE SAVE

PLANTING COORDINATION NOTE:

LANDSCAPER SHALL SCHEDULE ON-SITE MEETING WITH GARY TURNER CITY OF CHARLOTTE URBAN FORESTER, AT 704-517-5664 OR GTURNER@CHARLOTTE.NC.US PRIOR TO COMMENCING ANY PLANTING ACTIVITY.

BUFFER TREE NOTE:

BUFFER TREES FOR TREE ORDINANCE REQUIREMENTS MUST HAVE AMENDED SOILS (274 SF X 18 INCH DEEP/TREE)

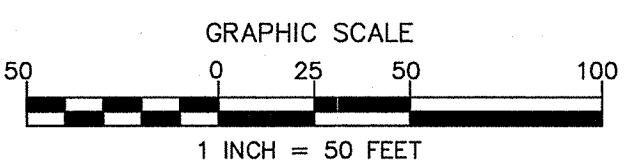


PERIMETER/BUFFER PLANTING LEGEND:

DESCRIPTION	SYMBOL	QTY	TYPE	SCIENTIFIC NAME (COMMON NAME) (1)	HEIGHT/ CAL. SIZE	NATIVE	DECIDUOUS/ EVERGREEN
PROPOSED STREET TREE		46	LMT	QUERCUS FALCATA (SOUTHERN RED OAK)	2" CAL.	YES	DECIDUOUS
PROPOSED BUFFER TREE (1)		6	LMT	ACER NEGUNDO (MAPLE, ASHLEAVED/BOXELDER)	2" CAL.	YES	DECIDUOUS
PROPOSED BUFFER TREE (2)		7	LMT	ACER RUBRUM (MAPLE, RED)	2" CAL.	YES	DECIDUOUS
PROPOSED BUFFER TREE (3)		8	LMT	CARPINUS CAROLINIANA (HORNBEAM, AMERICAN/BLUE BEECH IRONWOOD)	2" CAL.	YES	DECIDUOUS
PROPOSED BUFFER TREE (4)		7	LMT	ASIMINA TRILOBA (PAW PAW)	2" CAL.	YES	DECIDUOUS/UNDERSTORY SPECIES
PROPOSED BUFFER TREE (5)		7	LMT	CORNUS FLORIDA (DOGWOOD, FLOWERING)	2" CAL.	YES	DECIDUOUS/UNDERSTORY SPECIES
PROPOSED BUFFER TREE (6)		7	LMT	VIBURNUM RUFIDULUM (BLACKHAW, RUSTY)	2" CAL.	YES	DECIDUOUS/UNDERSTORY SPECIES
PROPOSED BUFFER TREE (7)		4	LMT	JUNIPERUS VIRGINIANA (CEDAR, EASTERN RED)	2" CAL.	YES	EVERGREEN
PROPOSED BUFFER SHRUB (1)		11	SHRUB	VIBURNUM POSSUMHAW (VIBURNUM POSSUMHAW)	2.5' HT.	YES	DECIDUOUS
PROPOSED BUFFER SHRUB (2)		11	SHRUB	SAMBUCUS CANADENSIS (ELDER, AMERICAN/ELDERBERRY)	2.5' HT.	YES	DECIDUOUS
PROPOSED BUFFER SHRUB (3)		10	SHRUB	BUXTONBUSH (MONEY BALLS)	2.5' HT.	YES	DECIDUOUS

LMT = LARGE MATURING TREE

NOTES: SPECIES MAY BE CHANGED, SO LONG AS THEY ARE FROM APPENDIX 15 OF THE CHARLOTTE-MECKLENBURG WATER QUALITY BUFFER IMPLEMENTATION GUIDELINES.



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS
3	AEN	4/2/15	ADDED ON STREET HC PARKING

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: LANDSCAPE PLAN

File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

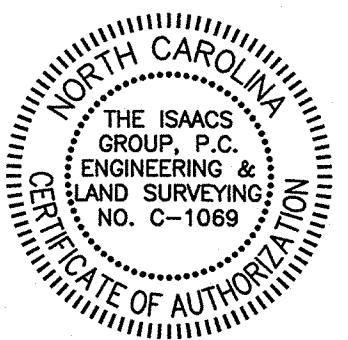
Design By: ABC

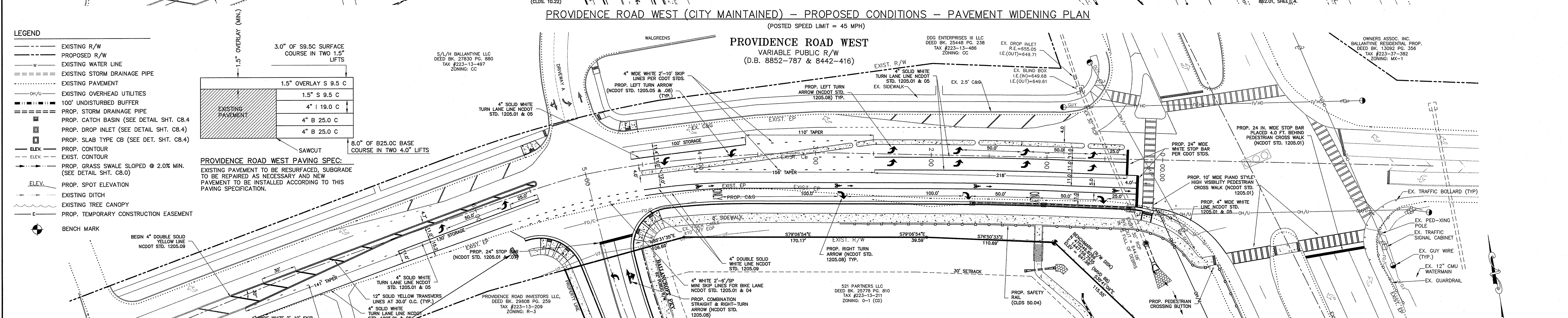
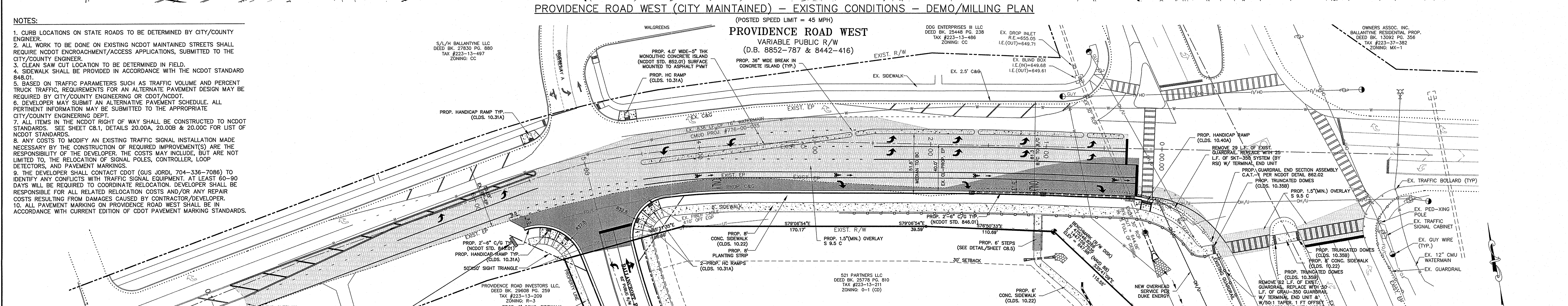
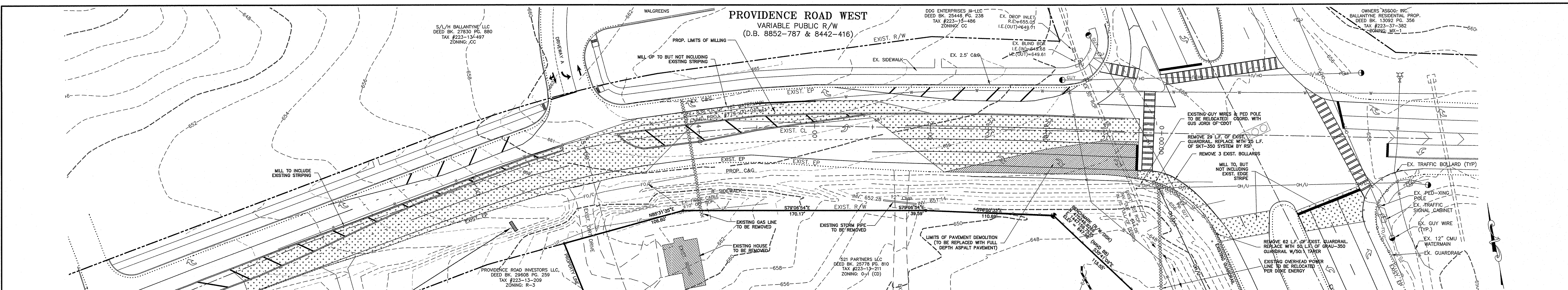
Drawn By: FOW

Scale: 1"=50'

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C1.4





- NOTES:**
1. CURB LOCATIONS ON STATE ROADS TO BE DETERMINED BY CITY/COUNTY ENGINEER.
 2. ALL WORK TO BE DONE ON EXISTING NCDOT MAINTAINED STREETS SHALL REQUIRE NCDOT ENCROACHMENT/ACCESS APPLICATIONS, SUBMITTED TO THE CITY/COUNTY ENGINEER.
 3. CLEAN SAW CUT LOCATION TO BE DETERMINED IN FIELD.
 4. SIDEWALK SHALL BE PROVIDED IN ACCORDANCE WITH THE NCDOT STANDARD 848.01.
 5. BASED ON TRAFFIC PARAMETERS SUCH AS TRAFFIC VOLUME AND PERCENT TRUCK TRAFFIC, REQUIREMENTS FOR AN ALTERNATE PAVEMENT DESIGN MAY BE REQUIRED BY CITY/COUNTY ENGINEERING OR CDOT/NCDOT.
 6. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT SCHEDULE. ALL PERTINENT INFORMATION MAY BE SUBMITTED TO THE APPROPRIATE CITY/COUNTY ENGINEERING DEPT.
 7. ALL ITEMS IN THE NCDOT RIGHT OF WAY SHALL BE CONSTRUCTED TO NCDOT STANDARDS. SEE SHEET C8.1, DETAILS 20.00A, 20.00B & 20.00C FOR LIST OF NCDOT STANDARDS.
 8. ANY COSTS TO MODIFY AN EXISTING TRAFFIC SIGNAL INSTALLATION MADE NECESSARY BY THE CONSTRUCTION OF REQUIRED IMPROVEMENTS(S) ARE THE RESPONSIBILITY OF THE DEVELOPER. THE COSTS MAY INCLUDE, BUT ARE NOT LIMITED TO, THE RELOCATION OF SIGNAL POLES, CONTROLLERS, LOOP DETECTORS, AND PAVEMENT MARKINGS.
 9. THE DEVELOPER SHALL CONTACT CDOT (GUS JORDI, 704-336-7086) TO IDENTIFY ANY CONFLICTS WITH TRAFFIC SIGNAL EQUIPMENT. AT LEAST 60-90 DAYS WILL BE REQUIRED TO COORDINATE RELOCATION. DEVELOPER SHALL BE RESPONSIBLE FOR ALL RELATED RELOCATION COSTS AND/OR ANY REPAIR COSTS RESULTING FROM DAMAGES CAUSED BY CONTRACTOR/DEVELOPER.
 10. ALL PAVEMENT MARKING ON PROVIDENCE ROAD WEST SHALL BE IN ACCORDANCE WITH CURRENT EDITION OF CDOT PAVEMENT MARKING STANDARDS.

- LEGEND**
- EXISTING R/W
 - PROPOSED R/W
 - - - EXISTING WATER LINE
 - - - EXISTING STORM DRAINAGE PIPE
 - - - EXISTING PAVEMENT
 - - - EXISTING OVERHEAD UTILITIES
 - - - 100' UNDISTURBED BUFFER
 - - - PROP. STORM DRAINAGE PIPE
 - - - PROP. CATCH BASIN (SEE DETAIL SHT. C8.4)
 - - - PROP. DROP INLET (SEE DETAIL SHT. C8.4)
 - - - PROP. SLAB TYPE CB (SEE DET. SHT. C8.4)
 - - - PROP. CONTOUR
 - - - EXIST. CONTOUR
 - - - PROP. GRASS SWALE SLOPED @ 2.0% MIN. (SEE DETAIL SHT. C8.0)
 - - - PROP. SPOT ELEVATION
 - - - EXISTING DITCH
 - - - EXISTING TREE CANOPY
 - - - PROP. TEMPORARY CONSTRUCTION EASEMENT
 - BENCH MARK

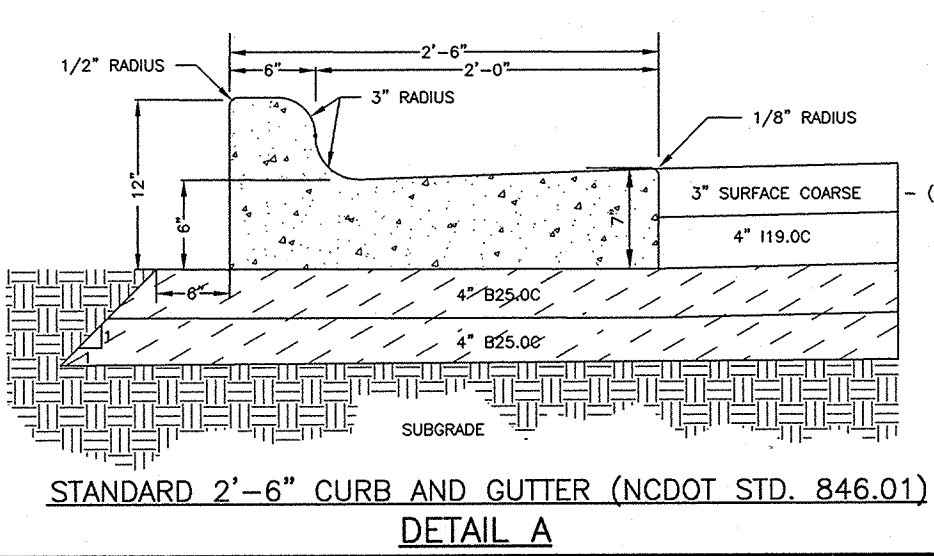
PROVIDENCE ROAD WEST PAVING SPEC:

EXISTING PAVEMENT TO BE RESURFACED, SUBGRADE TO BE REPAIRED AS NECESSARY AND NEW PAVEMENT TO BE INSTALLED ACCORDING TO THIS PAVING SPECIFICATION.

3.0" OF S9.5C SURFACE COURSE IN TWO 1.5" LIFTS
1.5" OVERLAY S 9.5 C
1.5" S 9.5 C
4" I 19.0 C
4" B 25.0 C
4" B 25.0 C

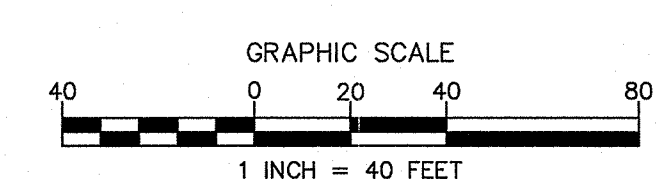
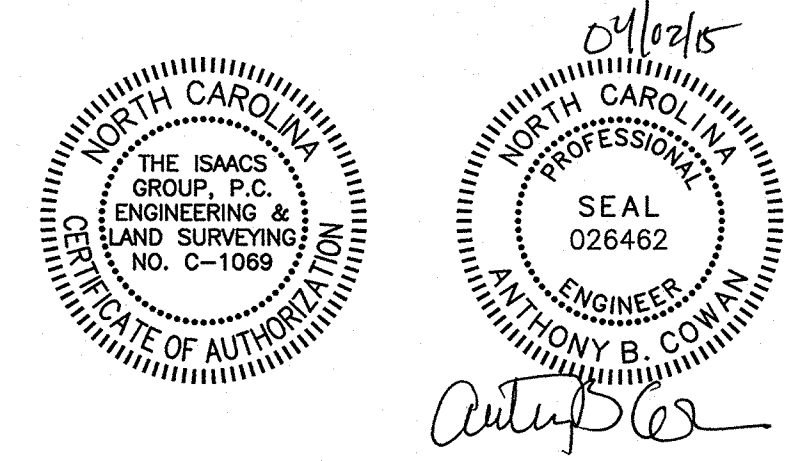
SAWCUT

8.0" OF B25.0C BASE COURSE IN TWO 4.0" LIFTS



- LEGEND**
- PROPOSED FULL DEPTH PAVEMENT
 - MILLING LIMITS
 - OVERLAY S 9.5 C (1.5" MIN.)
- LANE CLOSURE NOTE:**
NO LANE CLOSURE FROM 6-9 A.M. & 4-6 P.M. MONDAY - FRIDAY

NOTE:
ALL STORM DRAINAGE PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE SPECIFIED ON PLANS. USE OF ADS N-12 HDPE PIPE CAN BE USED OUTSIDE OF THE ROW AND WILL REQUIRE APPROVAL OF THE ENGINEER.



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS
3	AEN	4/2/15	GUARDRAIL NOTATIONS

Project: COLINAYRE
11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC

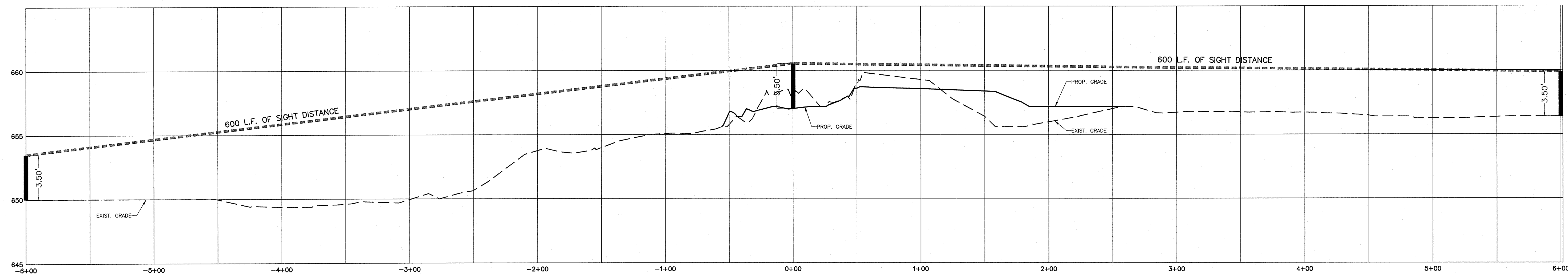
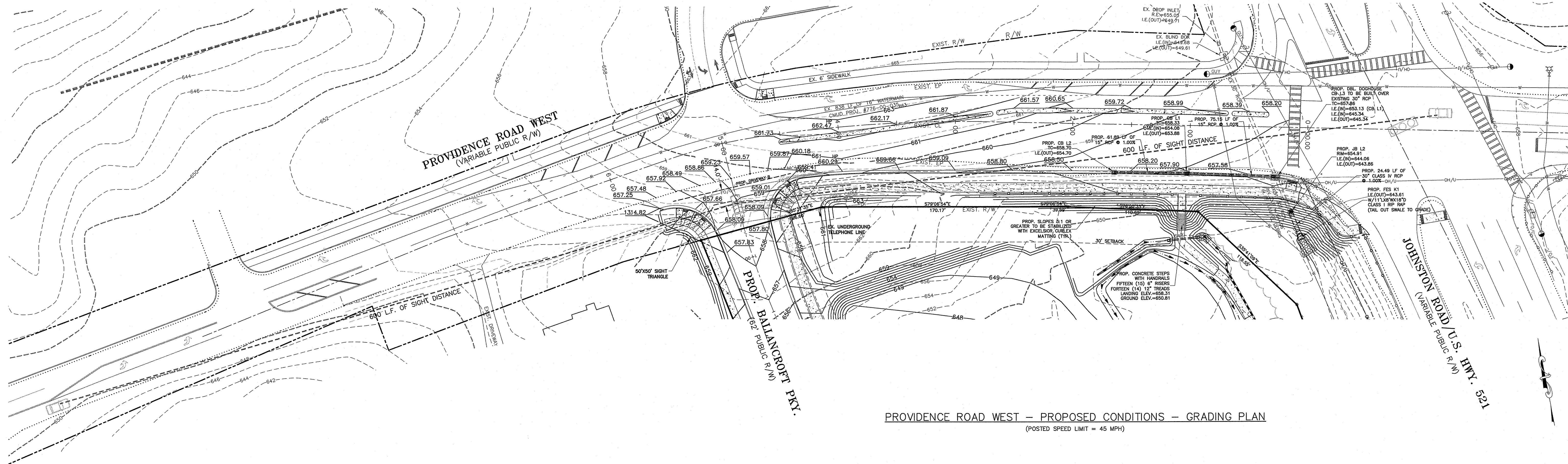
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File #: 110328-PB.DWG **Date:** 08/22/2014 **Project Egr:** ABC

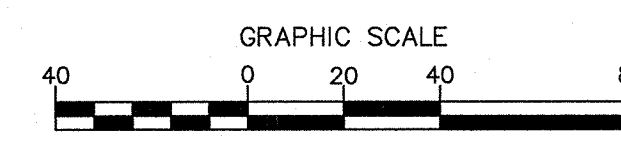
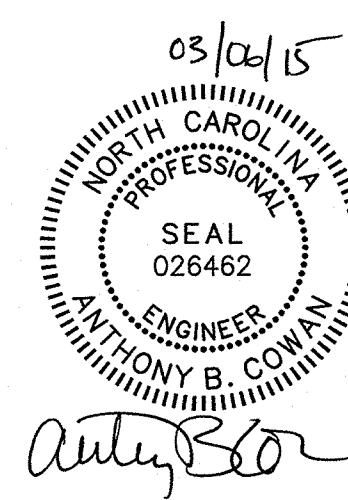
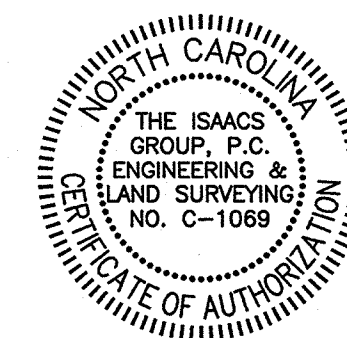
Design By: ABC
Drawn By: PDW
Scale: 1"=40'

ISAACS GROUP
CIVIL ENGINEERING/GEOTECHNICAL SURVEYING
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CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C3.0



- LEGEND**
- ELEV— EXISTING CONTOUR
 - ELEV— PROPOSED CONTOUR
 - ELEV/— PROPOSED SPOT ELEVATION
 - SS— EXISTING SANITARY SEWER LINE
 - W— EXISTING WATER LINE
 - C— EXISTING CATCH BASIN
 - G— EXISTING GAS LINE
 - ==== EXISTING STORM DRAINAGE PIPE
 - ==== PROPOSED STORM DRAINAGE PIPE
 - ☐ PROPOSED CATCH BASIN



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS

Project: **COLINAYRE**
11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: **PROVIDENCE ROAD WEST IMPROVEMENTS**

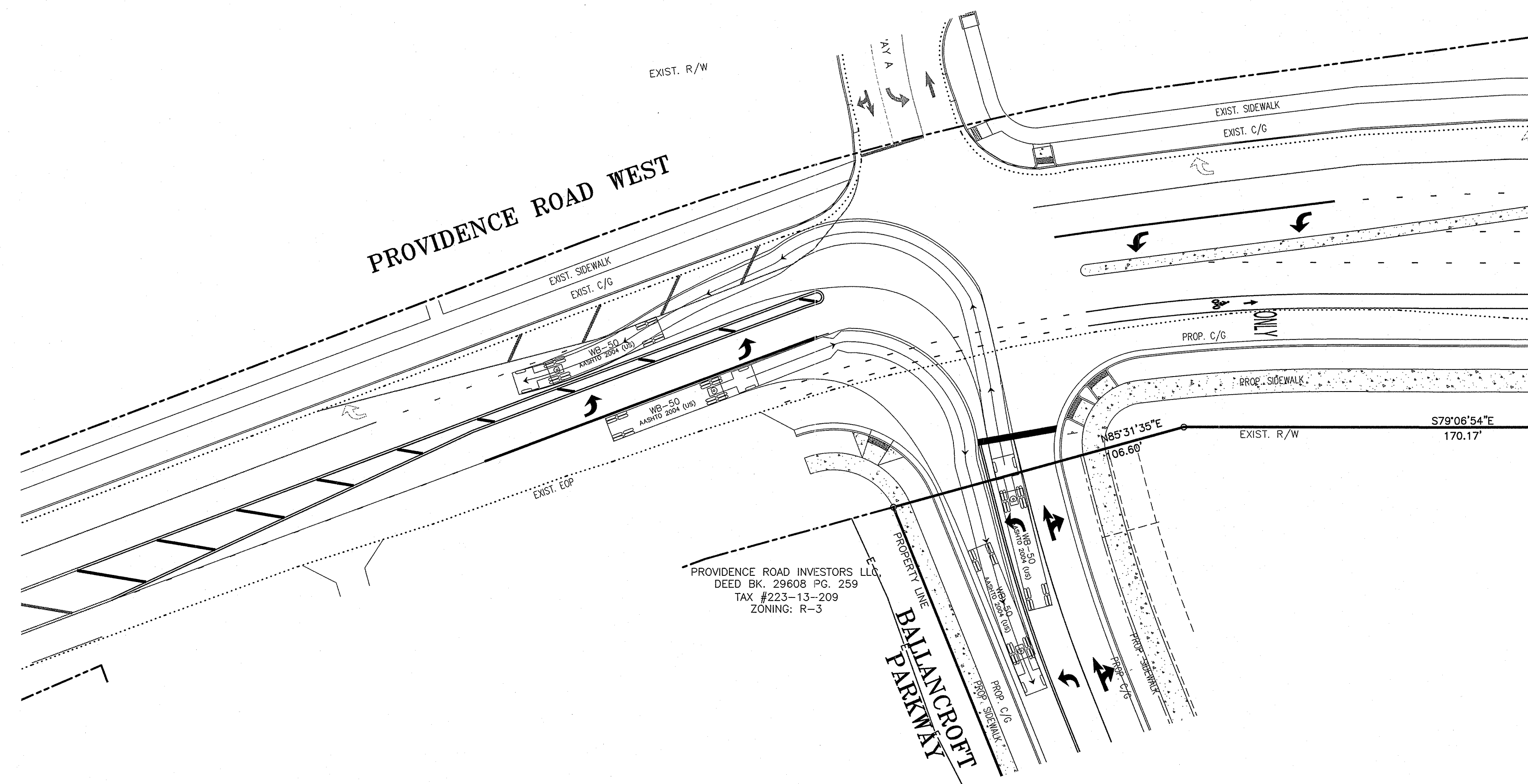
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ISAACS GROUP
Civil Engineering-Geotechnical-Surveying

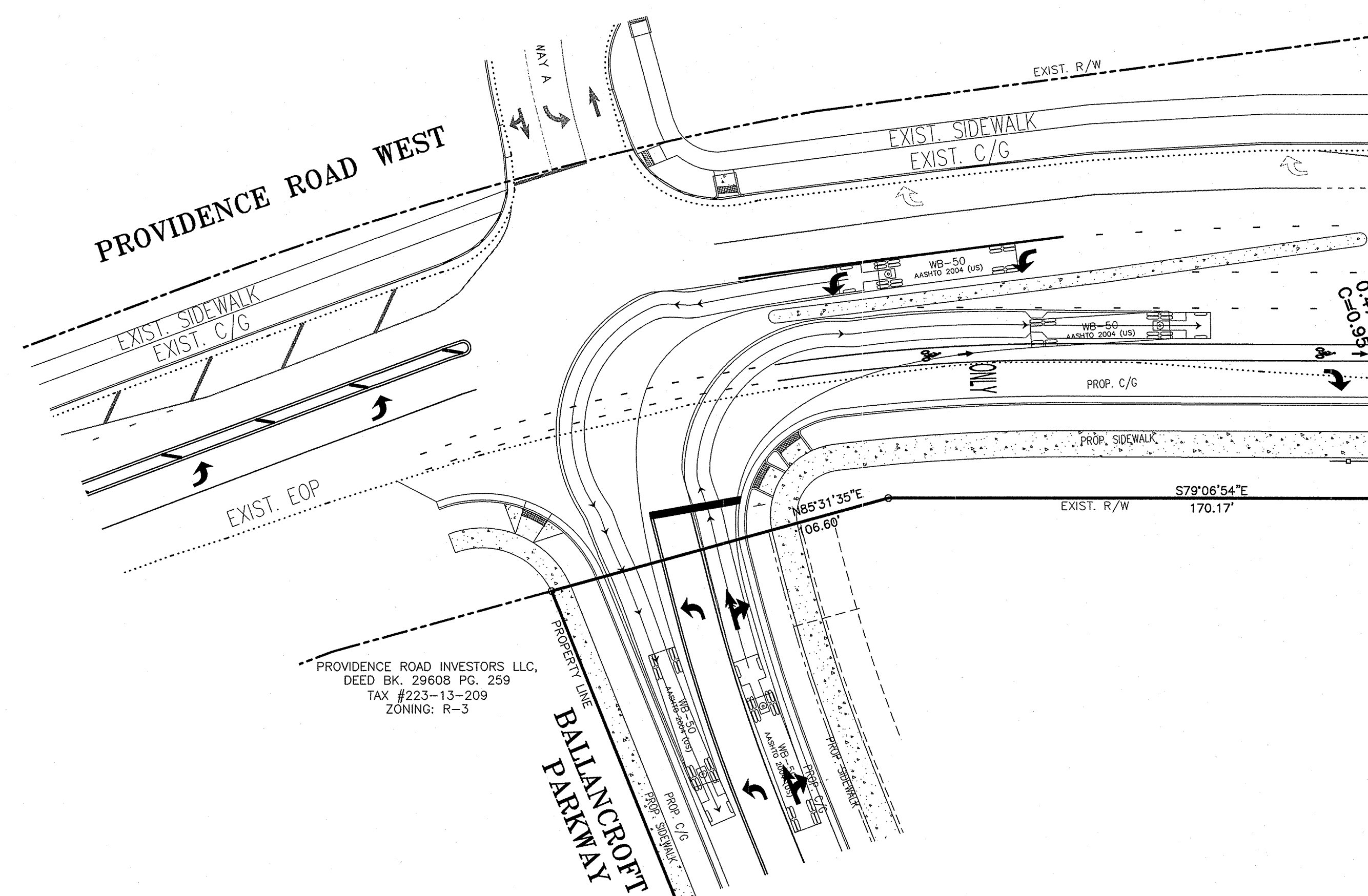
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PHONE (704) 527-3440 FAX (704) 527-8335

Design By: ABC
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Scale: 1"=40'

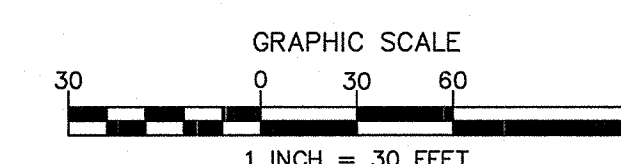
C3.1



VEHICLE TURNING MOVEMENT PROVIDENCE RD. WEST
AND BALLANCROFT PARKWAY (RIGHT IN/LEFT OUT)



VEHICLE TURNING MOVEMENT PROVIDENCE RD. WEST
AND BALLANCROFT PARKWAY (LEFT IN/RIGHT OUT)



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS

Project: COLINAYRE

11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: VEHICLE TURNING MOVEMENT

File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

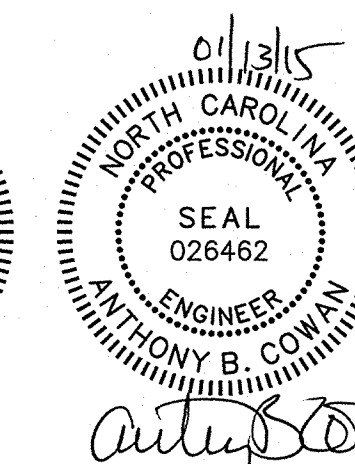
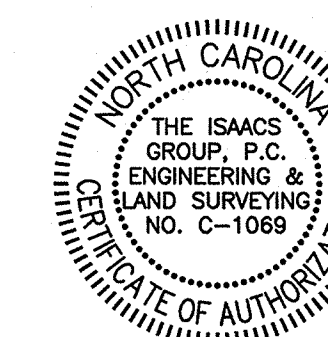
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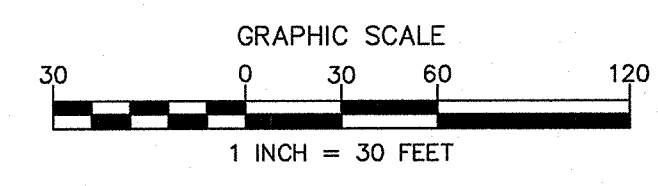
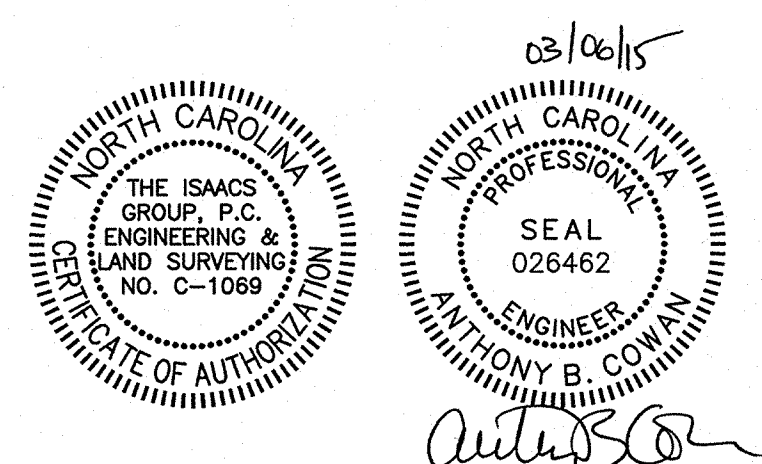
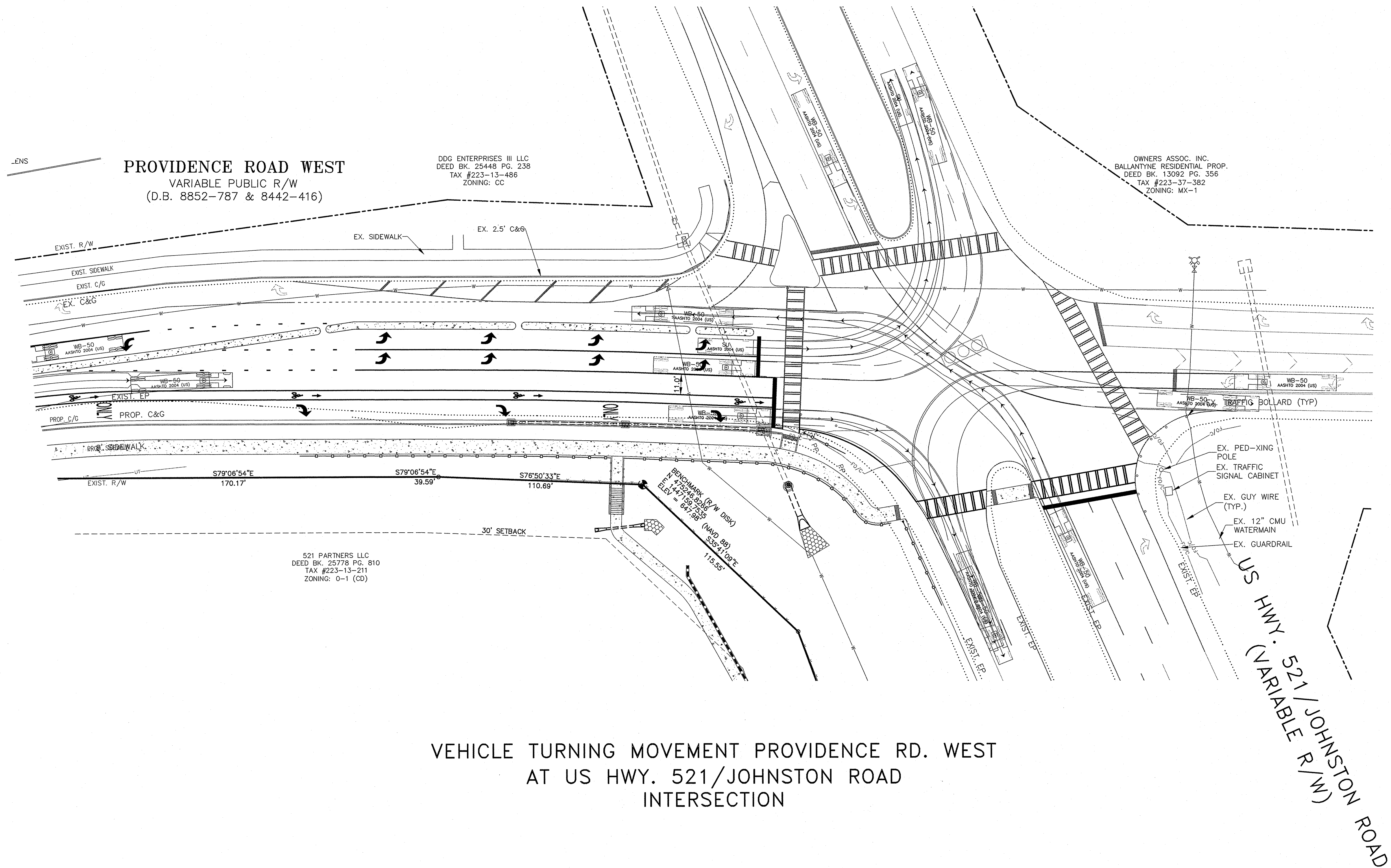
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Scale: 1"=30'

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C3.2





NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS

Project: **COLINAYRE**
11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: **VEHICLE TURNING MOVEMENT**

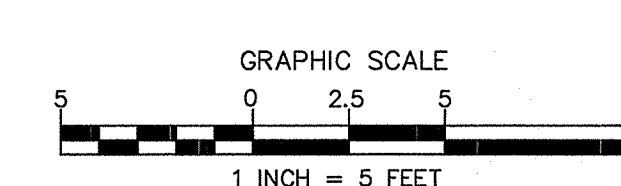
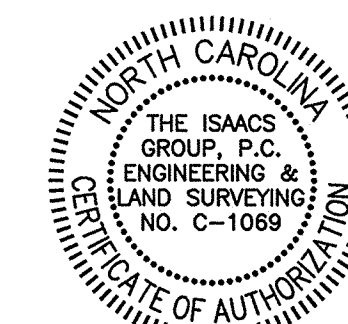
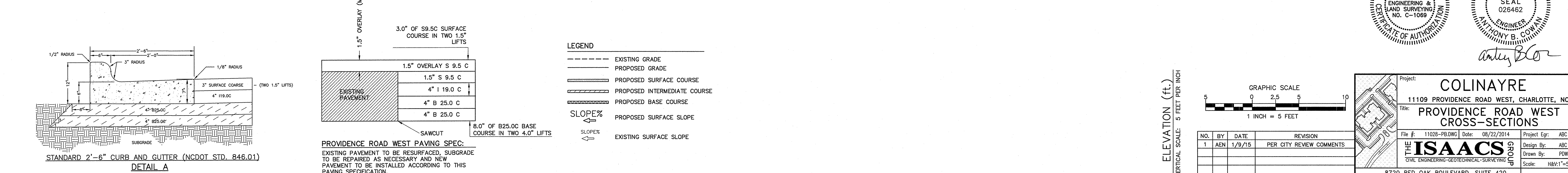
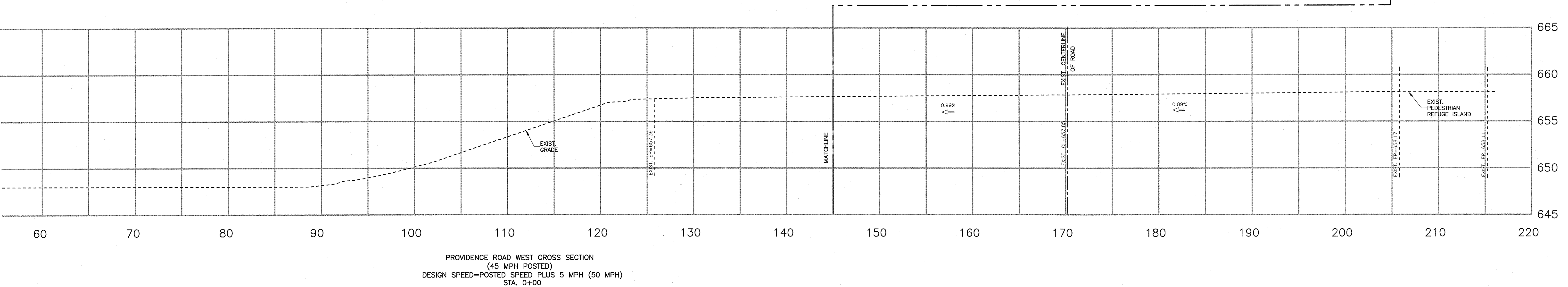
File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

ISAACS
CIVIL ENGINEERING-GEOTECHNICAL-SURVEYING

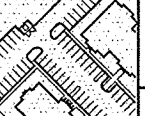
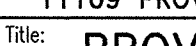
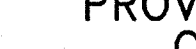
8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

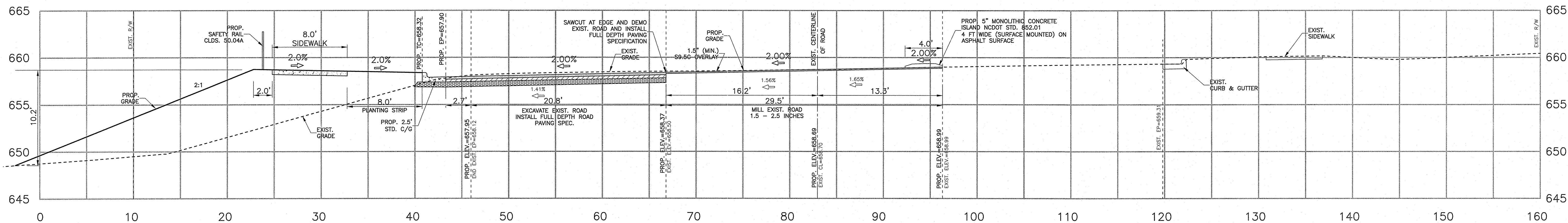
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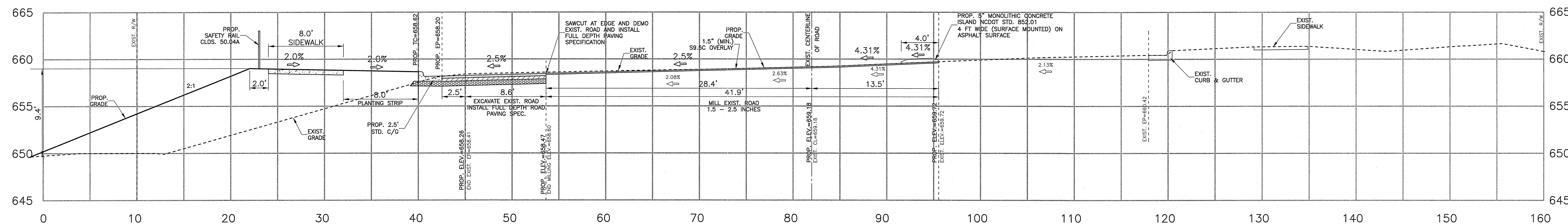


NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENT

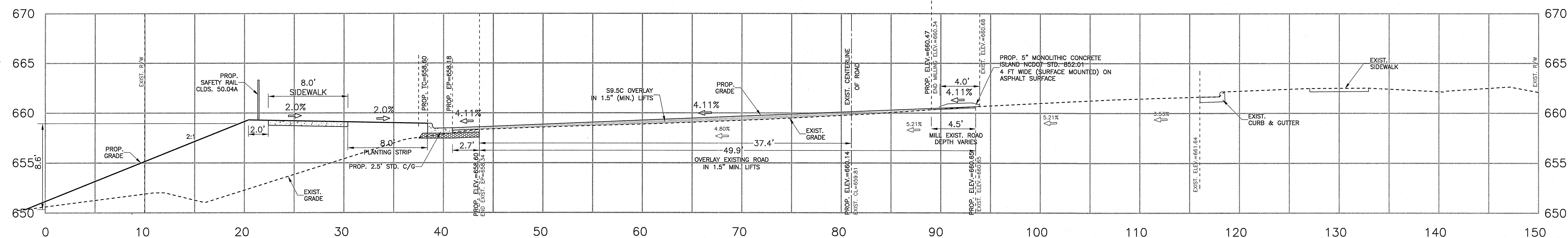
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	11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC		
	Title: PROVIDENCE ROAD WEST CROSS-SECTIONS		
	File #: 11028-PB.DWG	Date: 08/22/2014	Project Egr: ABC
		Design By: ABC	
		Drawn By: POW	
CIVIL ENGINEERING • GEOTECHNICAL • SURVEYING		Scale: H&V=1"=5'	



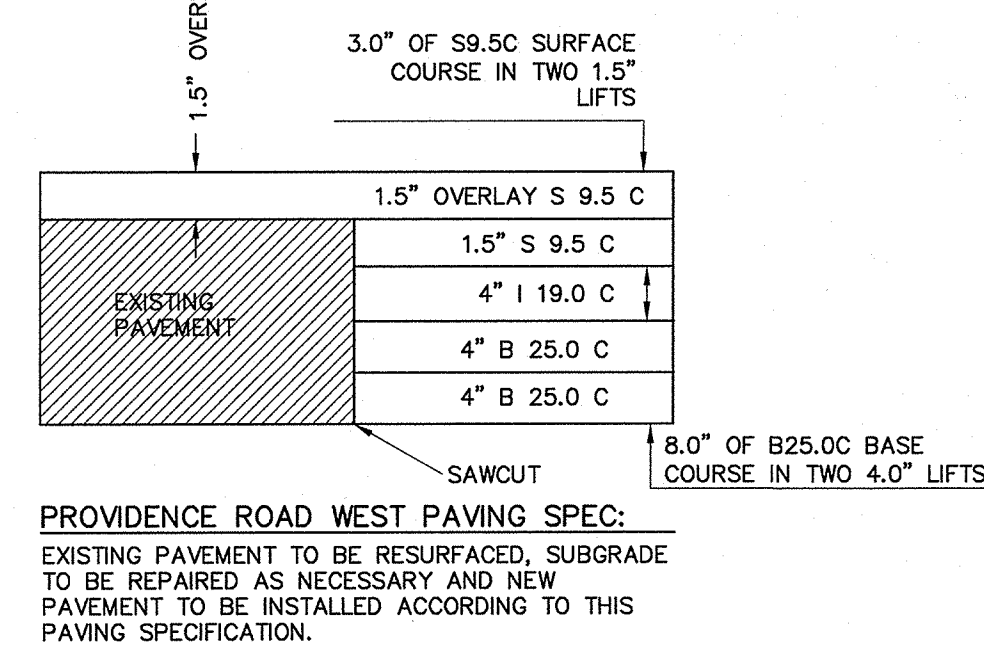
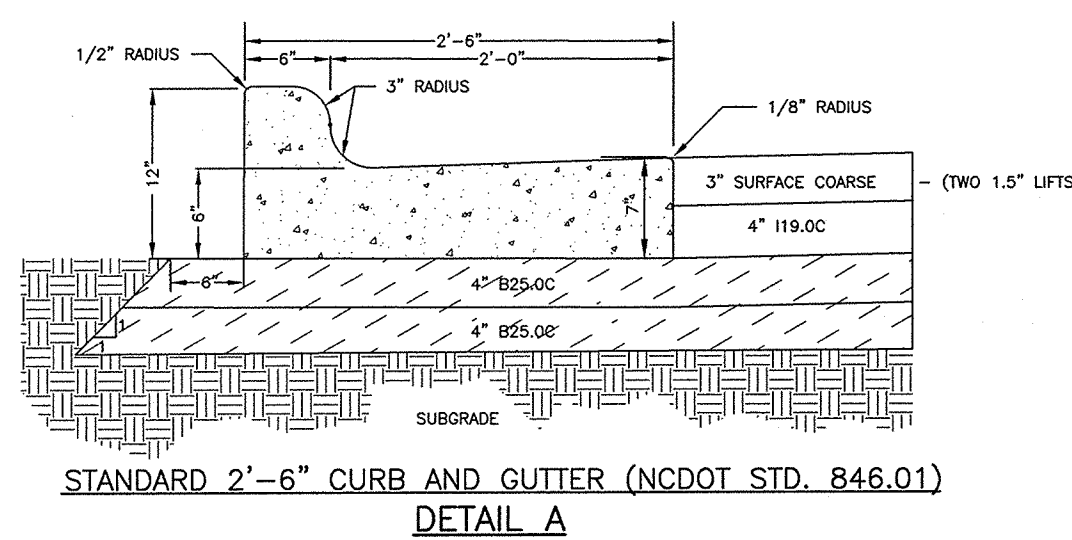
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STA. 1+00



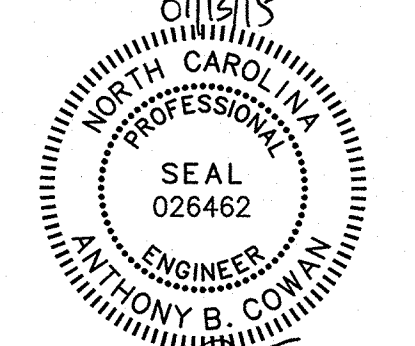
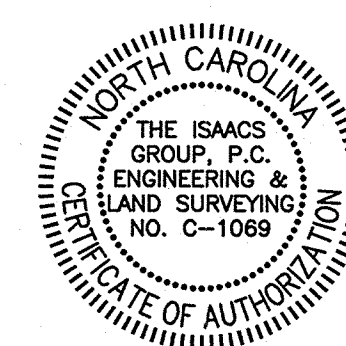
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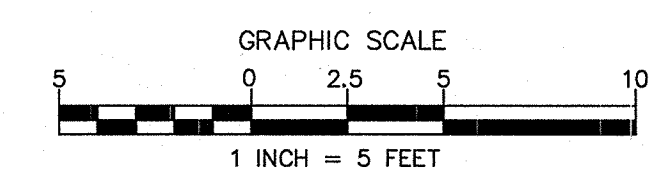
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- LEGEND
- EXISTING GRADE
 - PROPOSED GRADE
 - PROPOSED SURFACE COURSE
 - PROPOSED INTERMEDIATE COURSE
 - PROPOSED BASE COURSE
 - PROPOSED SURFACE SLOPE
 - EXISTING SURFACE SLOPE

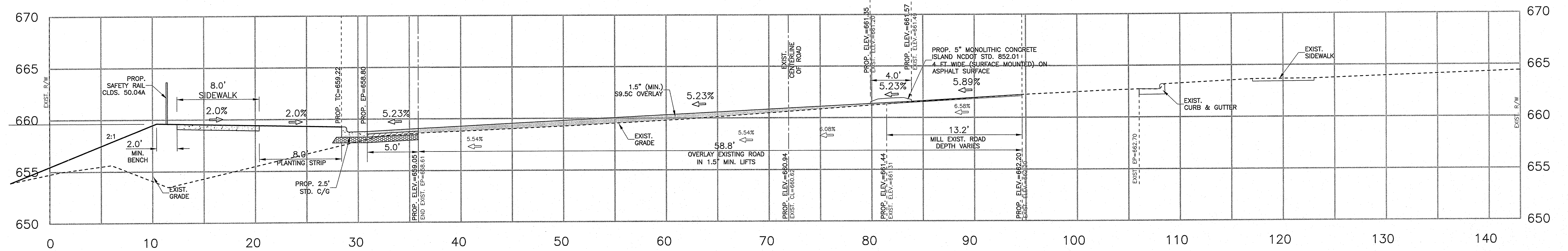


ELEVATION (ft.)
VERTICAL SCALE: 5 FEET PER INCH

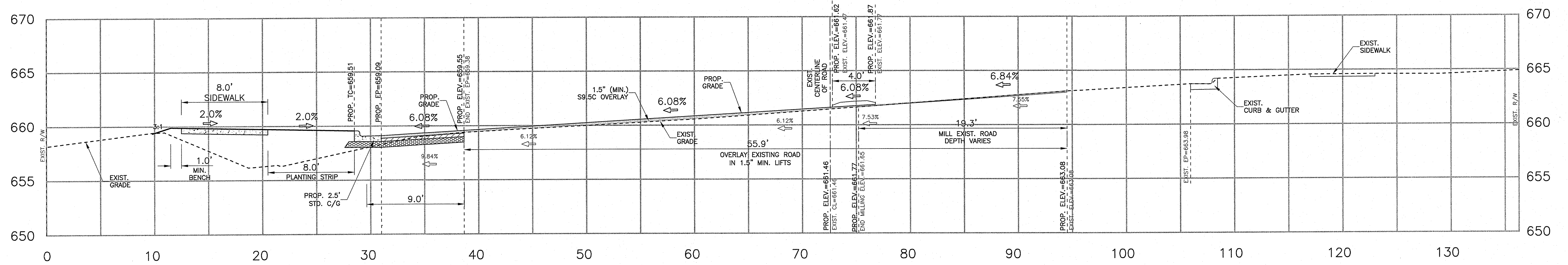


NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS

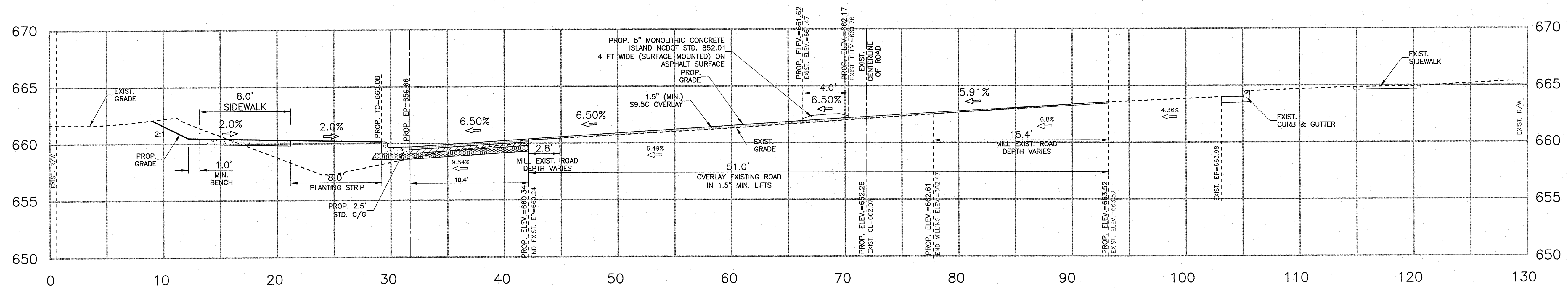
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11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC
Title: PROVIDENCE ROAD WEST CROSS-SECTIONS
File #: 11028-P8.DWG Date: 08/22/2014 Project Egr: ABC
Design By: ABC
Drawn By: PDW
Scale: H&V 1"=5'
8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
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C3.4



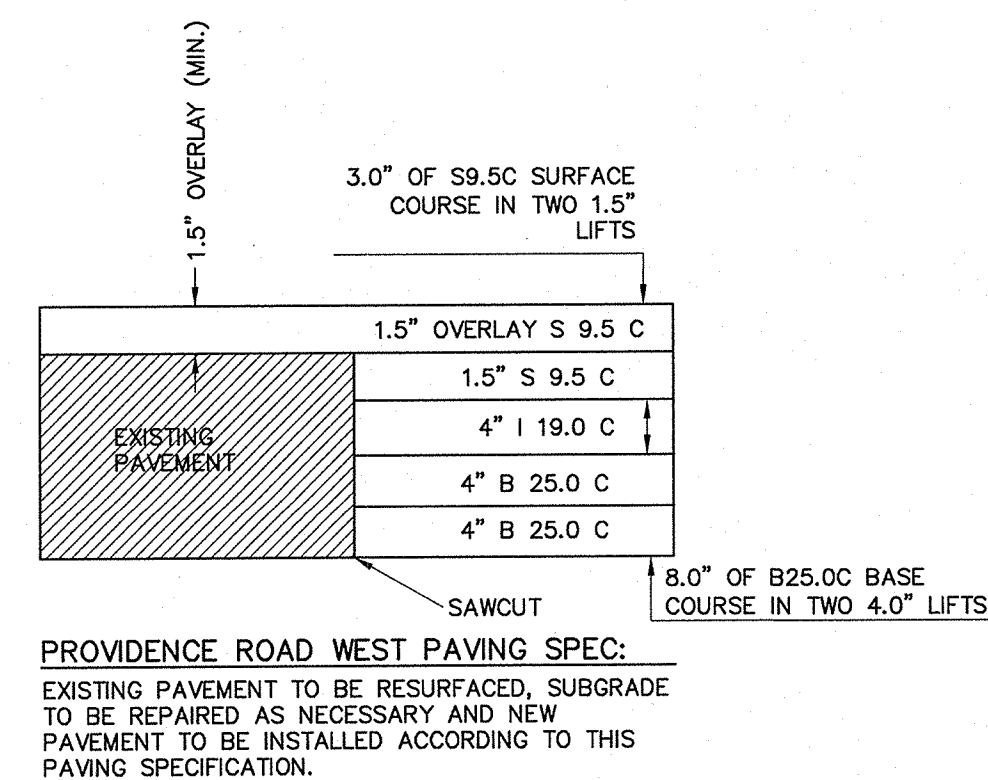
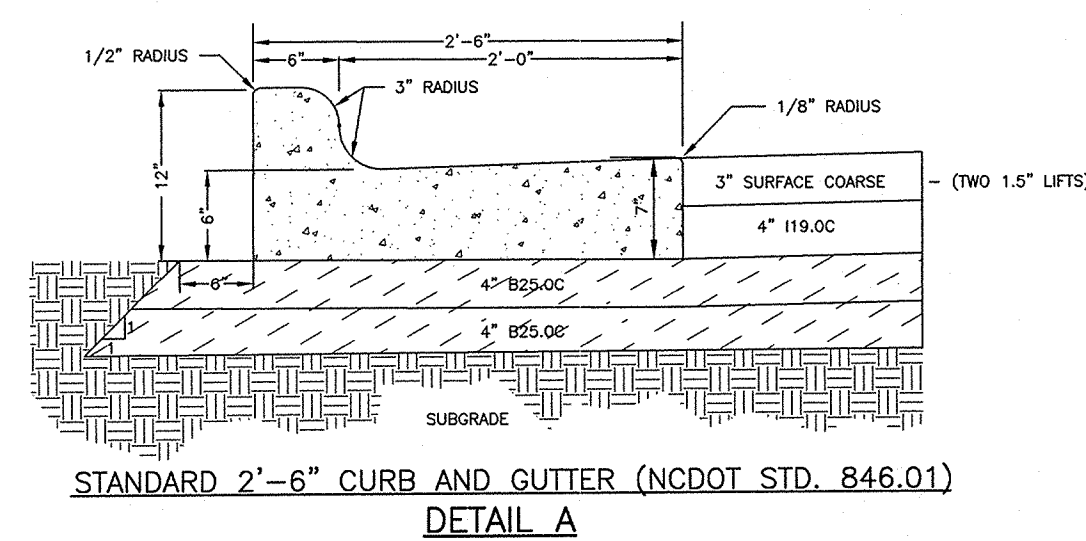
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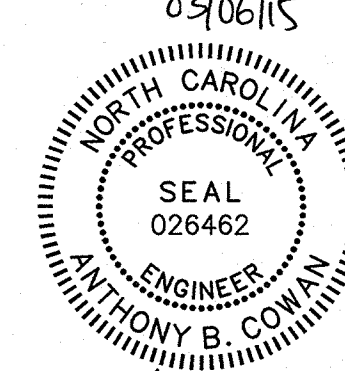
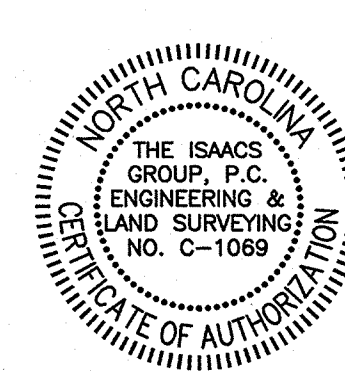


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LEGEND

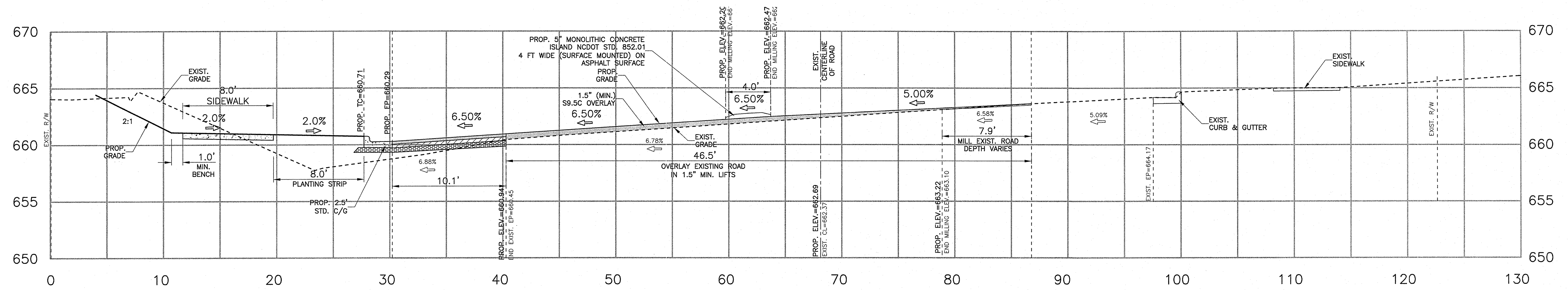
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--- PROPOSED GRADE
--- PROPOSED SURFACE COURSE
--- PROPOSED INTERMEDIATE COURSE
--- PROPOSED BASE COURSE
--- PROPOSED SURFACE SLOPE
--- EXISTING SURFACE SLOPE



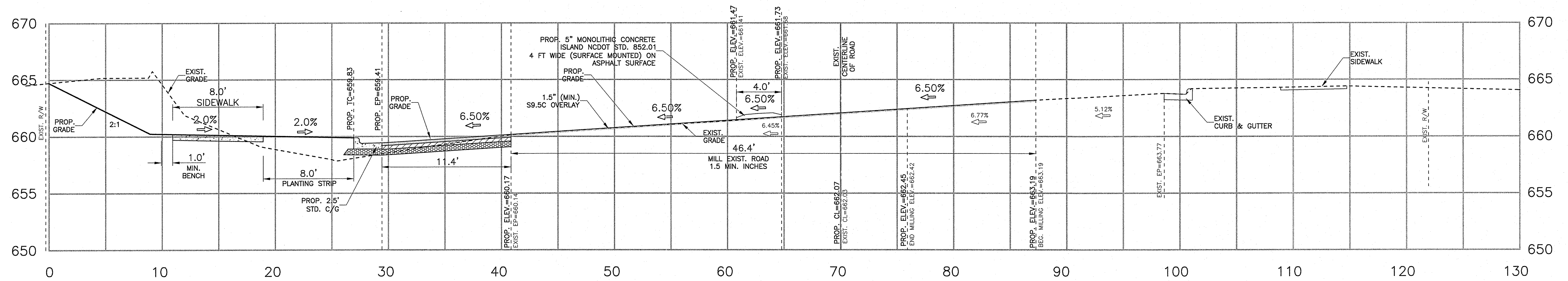
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NO.	BY	DATE	REVISION
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2	AEN	3/2/15	PER CITY REVIEW COMMENTS

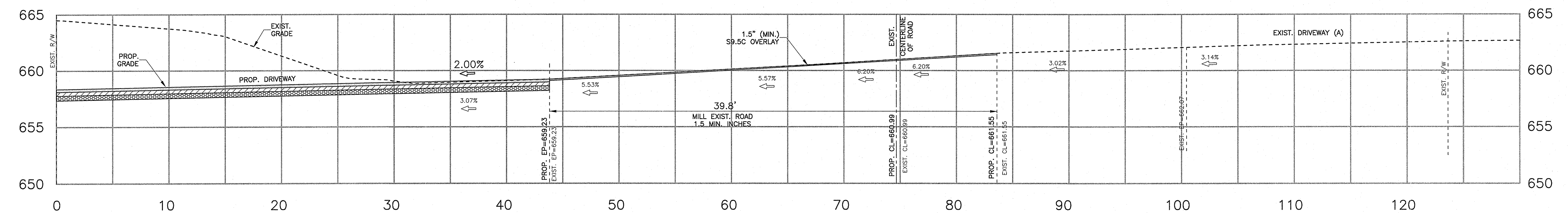
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11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC
Title: PROVIDENCE ROAD WEST CROSS-SECTIONS
File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC
Design By: ABC
Drawn By: PDW
Scale: H&V: 1"=5'
8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335
C3.5



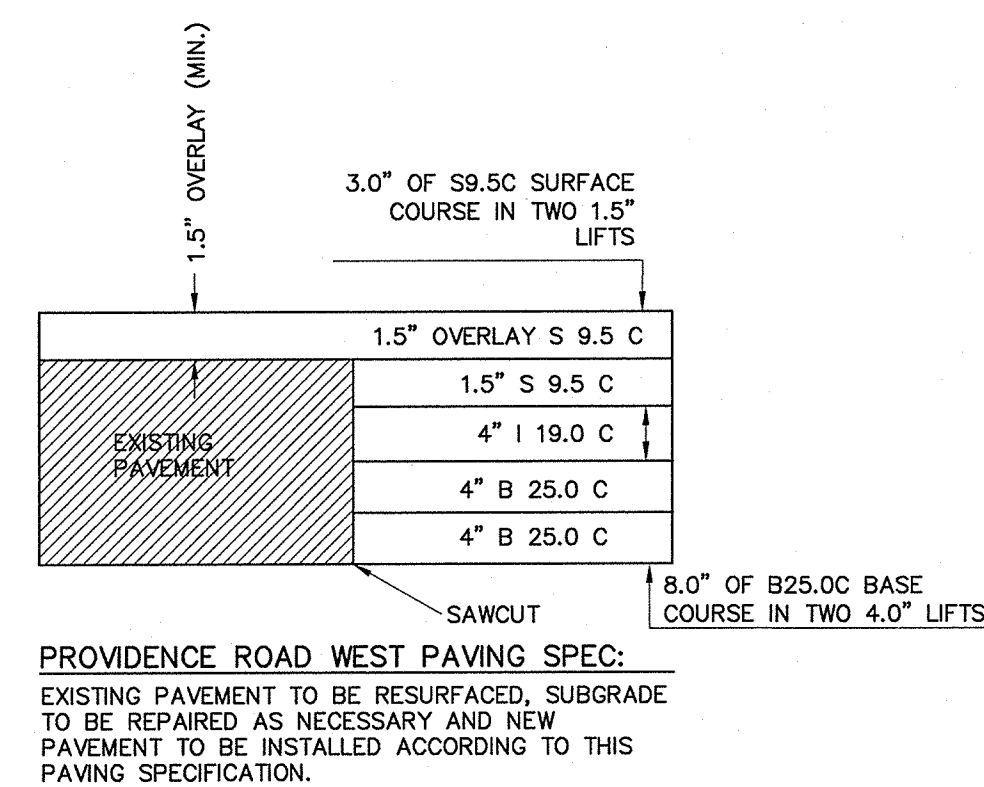
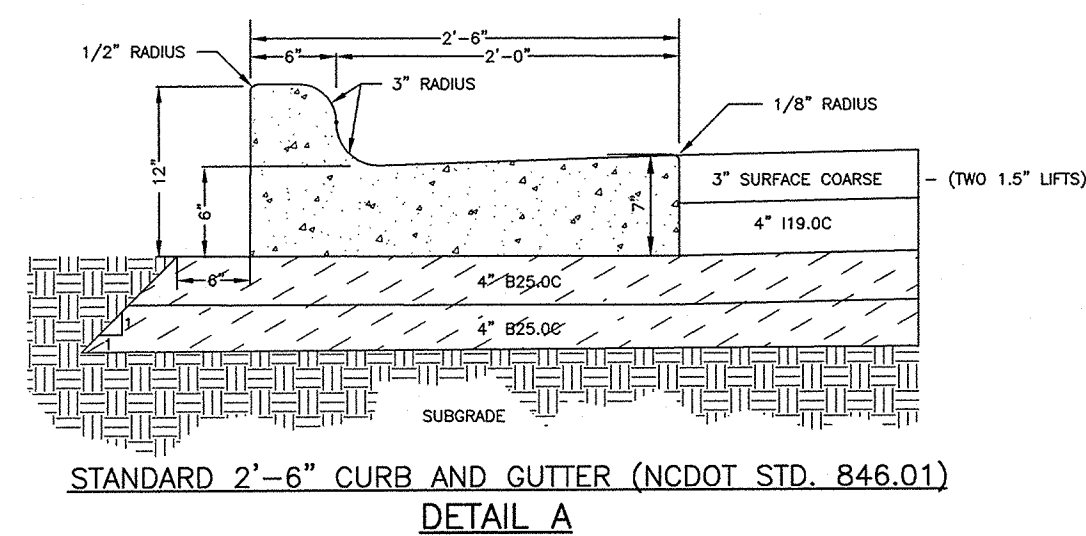
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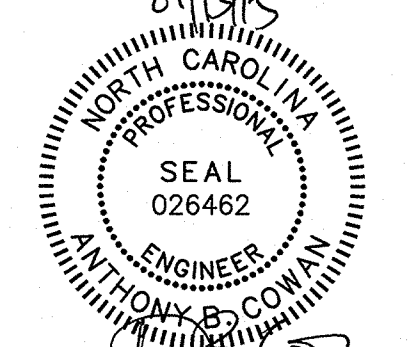
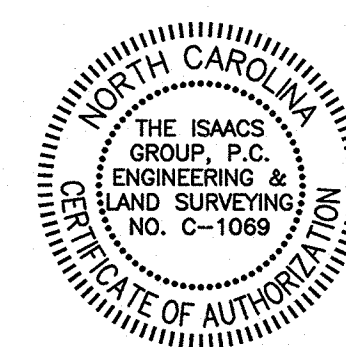
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DESIGN SPEED=POSTED SPEED PLUS 5 MPH (50 MPH)
STA. 4+50



PROVIDENCE ROAD WEST CROSS SECTION
(45 MPH POSTED)
DESIGN SPEED=POSTED SPEED PLUS 5 MPH (50 MPH)
STA. 5+00



- LEGEND**
- EXISTING GRADE
 - PROPOSED GRADE
 - PROPOSED SURFACE COURSE
 - PROPOSED INTERMEDIATE COURSE
 - PROPOSED BASE COURSE
 - PROPOSED SURFACE SLOPE
 - EXISTING SURFACE SLOPE

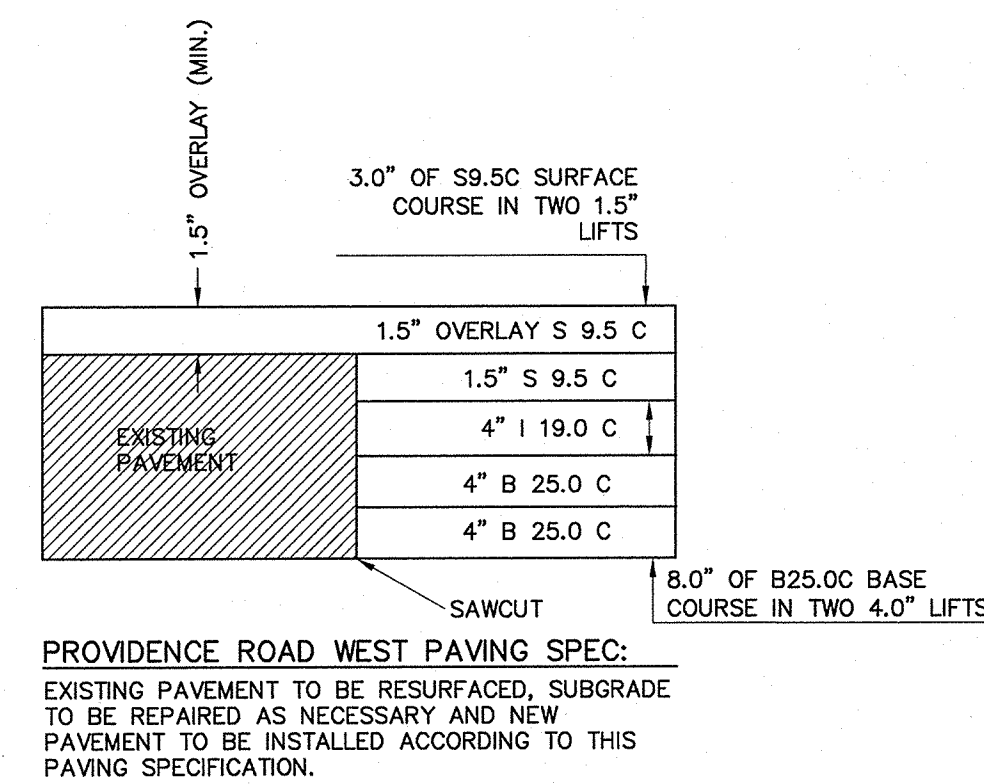
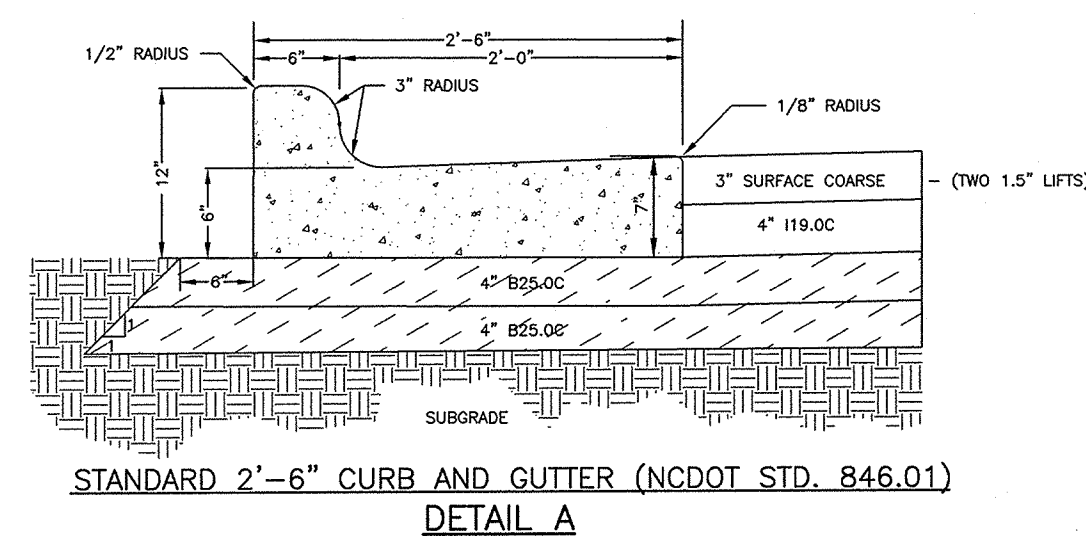
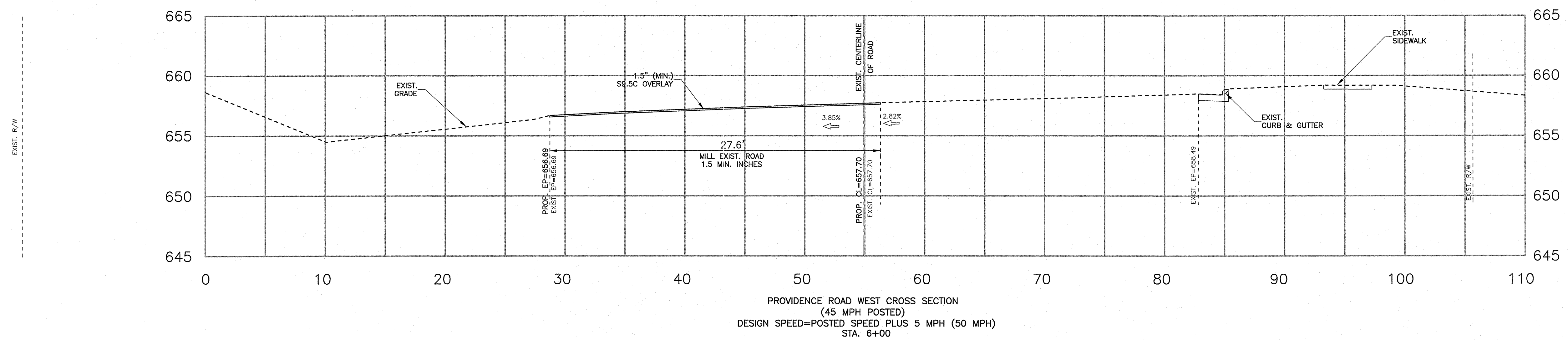
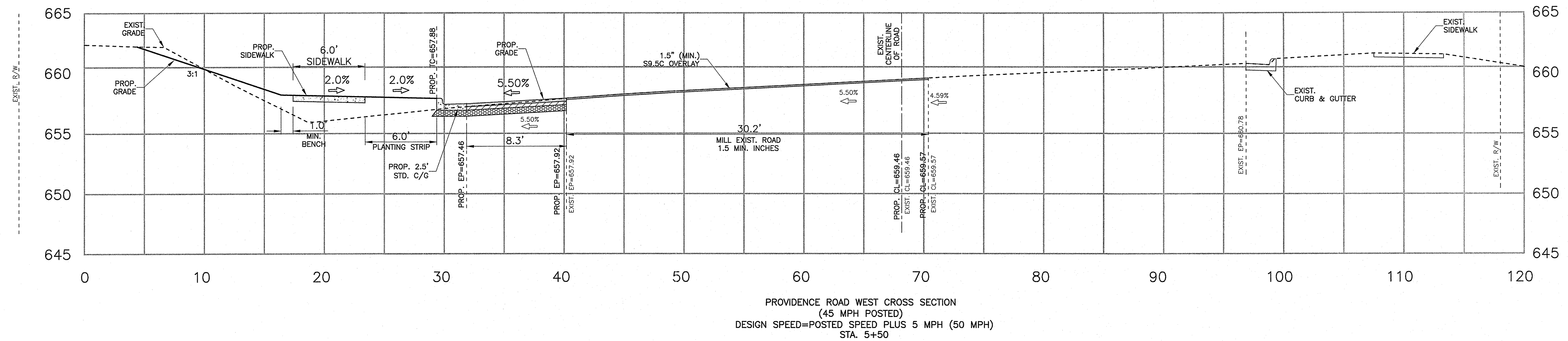


ELEVATION (ft.)
VERTICAL SCALE: 5 FEET PER INCH

GRAPHIC SCALE
1 INCH = 5 FEET

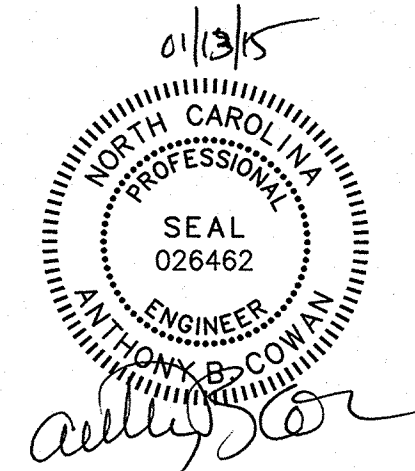
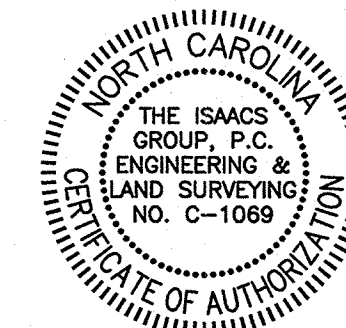
NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS

Project: COLINAYRE
11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC
Title: PROVIDENCE ROAD WEST CROSS-SECTIONS
File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC
Design By: ABC
Drawn By: POW
Scale: H&V: 1"=5'
8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335
C3.6

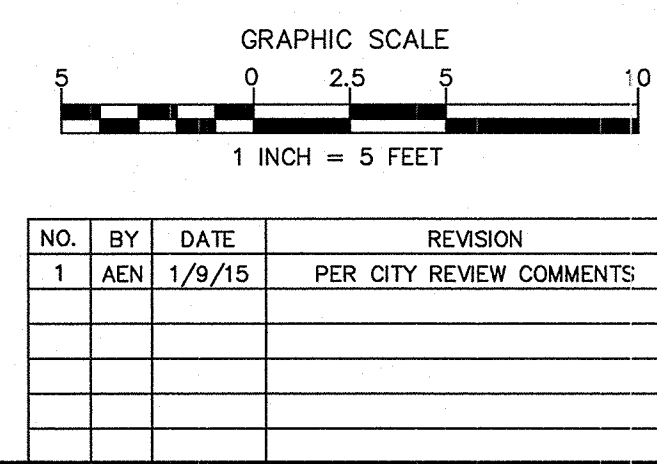


LEGEND

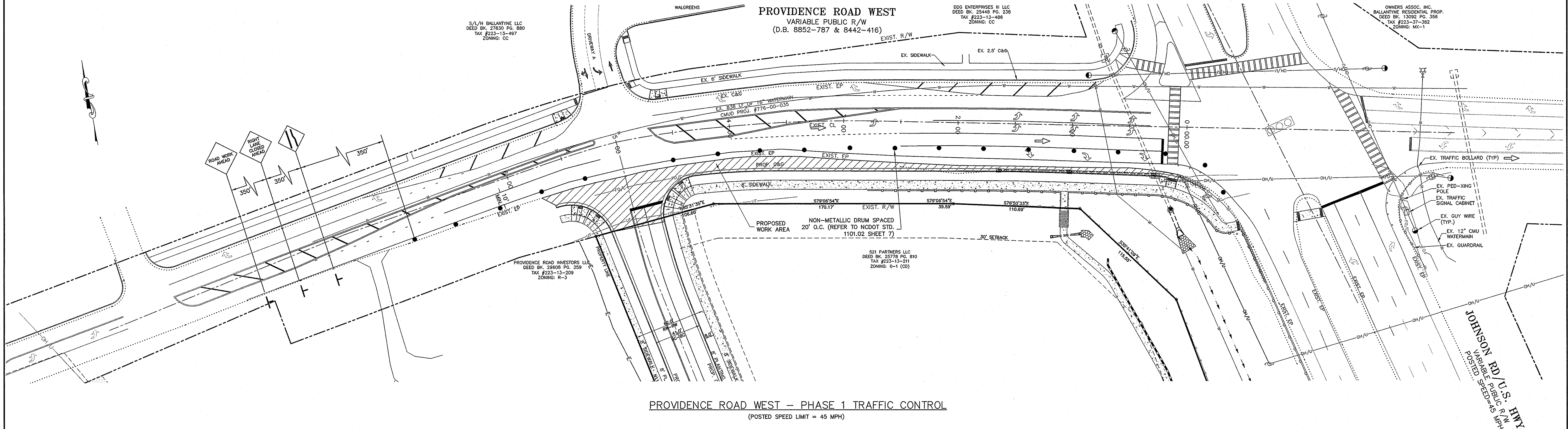
- EXISTING GRADE
- PROPOSED GRADE
- PROPOSED SURFACE COURSE
- PROPOSED INTERMEDIATE COURSE
- PROPOSED BASE COURSE
- MATCHLINE
- PROPOSED SURFACE SLOPE
- EXISTING SURFACE SLOPE



ELEVATION (ft.)
VERTICAL SCALE: 5 FEET PER INCH



Project: COLINAYRE	
11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC	
Title: PROVIDENCE ROAD WEST CROSS-SECTIONS	
File #: 11028-PB.DWG	Date: 08/22/2014
Project Egr: ABC	Design By: ABC
Drawn By: PDW	Scale: H&V 1"=5'
8720 RED OAK BOULEVARD, SUITE 420 CHARLOTTE, N.C. 28217 PHONE (704) 527-3440 FAX (704) 527-8335	
C3.7	



PROVIDENCE ROAD WEST - PHASE 1 TRAFFIC CONTROL
(POSTED SPEED LIMIT = 45 MPH)

NOTE:
PHASE 1 TRAFFIC CONTROL IS FOR WIDENING OF ROAD AND INSTALLATION OF PROPOSED CURB AND GUTTER. WORK SHALL BE BETWEEN 9:00 AM AND 4:00 PM, AND BARRELS SHALL BE REMOVED AT THE END OF EACH DAY TO OPEN EXISTING RIGHT TURN LANE AT HIGHWAY 521.

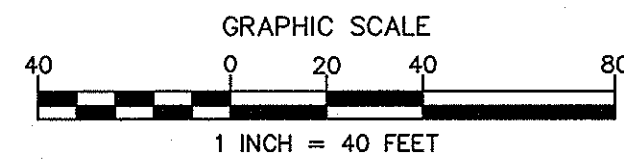
SEE C3.9 FOR PHASE 2A AND 2B TRAFFIC CONTROL
SEE C3.10 FOR HIGHWAY 521 TRAFFIC CONTROL

TRAFFIC CONTROL GENERAL NOTES

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MOST CURRENT EDITIONS OF THE CHARLOTTE DEPT. OF TRANSPORTATION (CDOT) WORK AREA TRAFFIC CONTROL HANDBOOK (W.A.T.C.H.), THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) SUPPLEMENT TO THE M.U.T.C.D., THE NCDOT ROADWAY STANDARD DRAWINGS AND THE CURRENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- THE CONTRACTOR IS TO NOTIFY NCDOT IN WRITING 10 WORKING DAYS IN ADVANCE OF ANY ROAD CLOSURE OR 5 WORKING DAYS PRIOR TO CLOSING ONE OR MORE TRAVEL LANES IN ACCORDANCE WITH SECTION 3 OF THE W.A.T.C.H. HANDBOOK.
- ALL SIGNAL REVISIONS OR SHIFTS OF SIGNAL HEADS WILL BE THE RESPONSIBILITY OF NCDOT. PRIOR TO REVISING TRAFFIC LANES WHICH REQUIRE SIGNAL REVISIONS, THE CONTRACTOR SHALL NOTIFY THE NCDOT A MINIMUM OF 30 CALENDAR DAYS IN ADVANCE. TRAFFIC LANES SHALL NOT BE SHIFTED UNTIL THE REQUIRED SIGNAL REVISION / SHIFT IS COMPLETE AND READY FOR ACTIVATION. FOR NOTICES RELATED TO SIGNAL WORK REQUIRING NEW UTILITIES, REFER TO PROJECT NOTES.
- THE CONTRACTOR SHALL BE REQUIRED TO FURNISH, INSTALL, RELOCATE, AND MAINTAIN ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES FOR WORK SITES AND DETOUR ROUTES AS SHOWN IN TRAFFIC CONTROL PLANS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
- CONSTRUCTION PHASING MAY DICTATE THAT TWO OR MORE TYPICALS OR STANDARDS BE USED IN ONE AREA OF CONSTRUCTION. CHANNELIZING DEVICES ASSOCIATED WITH THESE TYPICALS SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS NECESSARY TO COMPLY WITH THE CONSTRUCTION PHASING OF THE PLANS. THE LOCATION AND POSITIONING OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER TO ENSURE THAT THE MOTORIST DOES NOT RECEIVE FALSE INFORMATION WHEN TWO OR MORE TYPICALS AND/OR ROADWAY STANDARD DRAWINGS OVERLAP.
- CONTRACTOR SHOULD BE AWARE THAT WHEN THE CONSTRUCTION AREA IS IN OR NEAR A VERTICAL CURVE OR HORIZONTAL CURVE, THE WORK AREA SHALL BE EXTENDED SO THAT LANE CLOSURE BEGINS IN ADVANCE OF THE CURVE AND MINIMUM STOPPING SIGHT DISTANCE IS MET.
- OFF-DUTY POLICE OFFICERS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER TO BE PRESENT FOR CONTROLLING TRAFFIC DURING CONSTRUCTION HOURS.
- THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT WITH WELL-MAINTAINED SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES. ON CONNECTING ROADS, ALL BARRICADES, SIGNS, WARNING, AND/OR CHANNELIZING DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS REQUIRED DURING THE PROGRESS OF CONSTRUCTION AS APPROVED BY THE ENGINEER.
- WORK ON THE PROJECT OR ANY SEPARATE ACTIVITY THEREIN SHALL NOT START UNTIL ALL OF THE REQUIRED SIGNS, BARRICADES, WARNING, AND/OR CHANNELIZING DEVICES ARE INSTALLED AND APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL CONTACT THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) TWO WEEKS PRIOR TO BEGINNING ANY WORK THAT WILL REQUIRE THE RELOCATION OR PLACEMENT OF SIGNS OR OTHER TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR SHALL MAINTAIN DURING ALL PERIODS OF CONSTRUCTION ACTIVITY THE ABILITY TO FLAG TRAFFIC USING QUALIFIED FLAGGERS WHEN NECESSARY OR REQUIRED.
- THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS AND ADDRESS CONFLICTING PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 17 OF THE W.A.T.C.H. HANDBOOK OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN ANY EXISTING PAVEMENT MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN TWO WAY TRAFFIC ON ALL PORTIONS OF THIS PROJECT UNLESS OTHERWISE SPECIFIED IN THE PLANS, PROJECT NOTES, OR BY THE ENGINEER.
- CONTRACTOR WILL BE REQUIRED TO PROVIDE PROPERTY OWNERS AND TENANTS ACCESS TO THEIR PROPERTY THROUGHOUT THE PROJECT LIMITS, INCLUDING REASONABLE INGRESS AND EGRESS FOR BUSINESSES. SPECIAL ATTENTION SHALL BE PAID TO FIRE HYDRANTS.
- THE CONTRACTOR IS TO NOTIFY (BY MAIL) ALL PROPERTY OWNERS AND OCCUPANTS WHO HAVE DIRECT ACCESS TO THE ROADWAY WITHIN THE PROJECT LIMITS A MINIMUM OF 5 AND A MAXIMUM OF 10 WORKING DAYS PRIOR TO INSTALLING TRAFFIC CONTROL DEVICES IN FRONT OF THOSE PROPERTIES. NOTIFICATIONS SHOULD INCLUDE CONTACT PERSONS NAME, TELEPHONE NUMBER, EMAIL ADDRESS, AND MAILING ADDRESS.
- THE CONTRACTOR SHALL PATROL THE WORK SITE AT THE BEGINNING AND END OF EACH WORK DAY (AT A MINIMUM) TO ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING PROPERLY. CONTRACTOR SHALL ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING AT ALL TIMES DURING PERIODS OF CONSTRUCTION INACTIVITY.
- DURING PERIODS OF INACTIVITY OR AT NIGHT, EQUIPMENT SHALL NOT BE PARKED IN SUCH A MANNER AS TO BLOCK SIDEWALKS, TRAFFIC CONTROL DEVICES, OR THE MOTORISTS' VIEW OF TRAFFIC. EQUIPMENT SHALL BE AT LEAST 10 FEET AWAY FROM THE TRAVEL LANE.
- WHENEVER TRAFFIC MUST BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION ACTIVITY, THE TWO OPPOSING DIRECTIONS MUST BE PHYSICALLY SEPARATED. TRAFFIC CONES CAN BE USED FOR THIS PURPOSE DURING DAYLIGHT HOURS. REFLECTORIZED CONES OR DRUMS MUST BE USED AT NIGHT. TRAFFIC SHALL NOT BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION INACTIVITY UNLESS PAVEMENT MARKING CONFLICTS ARE APPROPRIATELY ADDRESSED AND AGREEMENT ON REMOVAL OR NOT IS WORKED OUT WITH THE ENGINEER IN ACCORDANCE WITH SECTION 16 OF THE W.A.T.C.H. HANDBOOK. IF THE ENGINEER APPROVES TRAFFIC TO CROSS THE CENTER LINE DURING CONSTRUCTION INACTIVITY, ONLY REFLECTORIZED DRUMS MUST BE USED.
- THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION OR THEIR APPOINTED REPRESENTATIVES ARE AUTHORIZED TO STOP ANY WORK WITHIN PUBLIC RIGHT OF WAY THAT DOES NOT FOLLOW THIS TRAFFIC CONTROL PLAN OR REQUIREMENTS OF THE W.A.T.C.H. AND THE M.U.T.C.D. UNTIL SUCH REQUIREMENTS ARE MET.
- ADJACENT LANES TO CONSTRUCTION ZONES MAY REMAIN OPEN IF LATERAL CLEARANCE BETWEEN EDGE OF TRAVEL LANE AND EQUIPMENT IS EQUAL TO OR GREATER THAN 2 FEET (INCLUDING WIDTH OF DRUM). IF A DROP-OFF EXISTS WITHIN THE WORK ZONE, CONTRACTOR SHOULD FOLLOW SECTION 10 OF THE W.A.T.C.H. HANDBOOK PERTAINING TO ADJACENT LANE CLOSURES DUE TO DROP-OFFS.
- THE CONTRACTOR SHALL FOLLOW THE PHASING AS DESCRIBED HEREIN. THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH CONSTRUCTION PHASE IN SEQUENCE. WHEN A CONSTRUCTION PHASE IS DIVIDED INTO STEPS, THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH STEP IN SEQUENCE. (EXAMPLE: THE REQUIREMENTS OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO PHASE II; THE REQUIREMENTS OF STEP 1 OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO STEP 2 OF PHASE I). ALL WORK DESCRIBED IN THE PROJECT PHASING SHALL BE PERFORMED BY THE CONTRACTOR, EXCEPT WHERE IT IS SPECIFIED FOR CERTAIN WORK TO BE PERFORMED BY OTHERS.
- THE CONTRACTOR SHALL NOT BE ALLOWED TO STOP TRAFFIC FOR MORE THAN 5 MINUTES AT A TIME IN ANY ONE DIRECTION.
- CONTRACTOR SHALL NOT BE ALLOWED TO WORK ON BOTH SIDES OF THE ROAD SIMULTANEOUSLY WITHIN THE SAME AREA EXCEPT WHERE THE ROADWAY IS DIVIDED BY A RAISED MEDIAN. IT WILL BE ACCEPTABLE TO CONSTRUCT BORE PITS ON EACH SIDE OF A ROADWAY FOR BORING UTILITIES UNDER THE ROADWAY UNLESS SUPERCEDED BY ENGINEER TO COMPLY WITH PEDESTRIAN REQUIREMENTS OR LATERAL CLEARANCE FROM TRAVEL LANES.
- THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO SECTION VI (PEDESTRIAN CONSIDERATIONS) OF THE W.A.T.C.H.
- ALL MILLED AREAS ARE TO BE TEMPORARY STRIPED BY THE END OF EACH WORK DAY.

LAND DEVELOPMENT NOTES:

- COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH INSPECTOR.
- ALL ROAD IMPROVEMENTS AT PROVIDENCE ROAD WEST ARE TO BE COORDINATED WITH THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
- DEVELOPER WILL PROVIDE STREET SIGNS PER CLDS.# 50.05 (9" SIGNS ONLY).
- SIGHT TRIANGLES SHOWN ARE THE MINIMUM REQUIRED.
- DIRECT VEHICULAR ACCESS TO FROM LOTS IS PROHIBITED.
- IN ROLLING AND HILLY TERRAINS, SWEEPING OF THE STONE BASE AND/OR APPLICATION OF A TACK COAT MAY BE REQUIRED NEAR INTERSECTIONS. THESE REQUIREMENTS WILL BE ESTABLISHED BY THE INSPECTOR AND BASED ON FIELD CONDITIONS.
- APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
- IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.5% SLOPE ON THE CURB.
- SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE INSPECTOR.
- CURB AND GUTTER SHOWN ON PLANS ALONG MAY BE ADJUSTED BASED UPON FIELD STAKING BY CITY ENGINEERING. ASSOCIATED STORM DRAINAGE MAY ALSO REQUIRE MODIFICATION BASED UPON FIELD CONDITIONS.
- THE PURPOSE OF THE STORM DRAINAGE EASEMENT (SDE) IS TO PROVIDE STORM WATER CONVEYANCE. BUILDINGS ARE NOT PERMITTED IN THE EASEMENT AREA. ANY OTHER OBJECTS WHICH IMPEDE STORM WATER FLOW OR SYSTEM MAINTENANCE ARE ALSO PROHIBITED.
- HIGH-DENSITY POLYETHYLENE (HDPE) STORM DRAINAGE PIPE INSTALLED WITHIN EXISTING OR PROPOSED PUBLIC STREET RIGHT-OF-WAY MUST BE APPROVED BY THE CITY'S INSPECTOR PRIOR TO ANY BACKFILL BEING PLACED.
- BACKFILL MATERIAL MUST BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF THE MATERIAL WITHIN THE PUBLIC STREET RIGHT-OF-WAY.
- THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
- ANY BUILDING WITHIN THE 100+1 STORMWATER ELEVATION LINE IS SUBJECT TO THE RESTRICTIONS OF THE (CITY OF CHARLOTTE/MECKLENBURG COUNTY) SUBDIVISION ORDINANCE, SECTION 7.200.8.
- ANY CONSTRUCTION OR USE WITHIN THE FUTURE CONDITIONS FLOOD FRINGE LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE CITY OF CHARLOTTE AND MECKLENBURG COUNTY.
- ALL OPENINGS (E.G., DOORS, WINDOWS, VENTS) IN STRUCTURES BUILT ON LOT #1'S SHOULD BE LOCATED A MINIMUM OF ONE FOOT ABOVE THE ADJACENT FINISHED GROUND SURFACE (APPLIES TO LOTS WHICH MAY EXPERIENCE SIGNIFICANT OVERLAND FLOW NOT CONSIDERED IN THE 100+1 FLOOD ANALYSIS).
- PE SEALED SHOP DRAWINGS FOR RETAINING WALL MUST BE SUBMITTED TO CITY ENGINEER PRIOR TO CONSTRUCTION.
- "AS-BUILT" DRAWINGS AND PLANS OF THE STORM DRAINAGE SYSTEM, INCLUDING DESIGNED DITCHES, MUST BE SUBMITTED PRIOR TO SUBDIVISION FINAL INSPECTION TO THE CITY/COUNTY ENGINEERING DEPARTMENT IN ACCORDANCE WITH THE CITY/COUNTY SUBDIVISION ORDINANCE.
- PRIOR TO INSTALLATION, PE SEALED SHOP DRAWINGS FOR UNDERGROUND DETENTION SYSTEMS MUST BE FURNISHED TO CITY OF CHARLOTTE ENGINEERING FOR APPROVAL.
- PRIOR TO CO, SURVEYOR SEALED AS-BUILT DRAWINGS OF ALL WATER QUALITY BMP'S AND DETENTION SYSTEMS MUST BE PROVIDED.
- PRIOR TO PLAT RECORDATION, OFFSITE R/W AND/OR CONSTRUCTION EASEMENTS ARE REQUIRED TO BE OBTAINED ACCORDING TO THE GUIDELINES OF THE "OFFSITE R/W ACQUISITION PROCESS". THESE EASEMENTS SHALL BE SUBMITTED TO THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL.
- SECTION 18-175(E) OF CITY CODE AND SECTION 10.0 OF THE CITY'S POST CONSTRUCTION CONTROLS ADMINISTRATIVE MANUAL, ALL REQUIRED NATURAL AREAS AND/OR POST CONSTRUCTION CONTROLS EASEMENTS (PCEES) MUST BE RECORDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
- THE DEVELOPER SHALL CONTACT THE CHARLOTTE DEPARTMENT OF TRANSPORTATION (CDS JORD, 704-336-7086) TO IDENTIFY ANY CONFLICTS WITH TRAFFIC SIGNALIZATION EQUIPMENT. 60- 90 DAYS WILL BE REQUIRED TO COORDINATE RELOCATION. DEVELOPER SHALL BE RESPONSIBLE FOR ALL RELATED RELOCATION COST AND/OR ANY REPAIR COST CAUSED BY THE CONTRACTOR/DEVELOPER.
- CERTIFICATION AND STREET CUT PERMITS ARE REQUIRED FOR UTILITY CUTS ON CITY STREETS. ALLOW 7 DAYS PROCESSING FOR PERMIT. FOR INFORMATION CONTACT CHARLOTTE DEPARTMENT OF TRANSPORTATION (704-336-4025) OR VISIT [HTTP://WWW.CHARMECK.ORG/DEPARTMENTS/TRANSPORTATION/STREET-MAINTENANCE/HOME.HTM](http://www.charmeck.org/departments/transportation/street-maintenance/home.htm)
- NON-STANDARD ITEMS (IE. PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE CHARLOTTE DEPARTMENT OF TRANSPORTATION/NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION. FOR CITY OF CHARLOTTE MAINTAINED STREETS, CONTACT CDOT AT (704) 336-3888.
- ANY WORK WITHIN THE CITY'S R/W THAT REQUIRES CLOSURE OF THE SIDEWALK OR TRAVEL LANE FOR LESS THAN 30 DAYS REQUIRES A R/W USE PERMIT. TRAFFIC CONTROL PLANS FOR ANY SIDEWALK OR TRAVEL LANE CLOSURES MUST BE SUBMITTED AS PART OF THE R/W USE PERMIT REQUEST. TRAFFIC CONTROL PLANS MUST BE IN ACCORDANCE WITH CDOT'S WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH) AND MUST BE REVIEWED AND APPROVED. CONTRACTOR SHALL CONTACT CDOT AT LEAST 5 BUSINESS DAYS IN ADVANCE OF BEGINNING OF WORK AT (704) 432-1562.
- CONSTRUCTION STAGING WITHIN CITY R/W LASTING MORE THAN 30 DAYS REQUIRES A R/W LEASE AGREEMENT. CONTRACTOR SHALL CONTACT CDOT AT (704) 336-2562.
- RIGHT-OF-WAY CLOSURES LONGER THAN 30 DAYS REQUIRE A R/W LEASE AGREEMENT WHICH WILL INCLUDE THE SUBMITTAL OF A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLANS REQUIRED THROUGH A LEASE AGREEMENT MAY BE DIFFERENT FROM THE ONE REQUIRED DURING THE LAND DEVELOPMENT PLAN REVIEW AND ARE SUBJECT TO REVISIONS. THE REVISED TRAFFIC CONTROL PLANS MUST BE SUBMITTED AS PART OF THE LEASE AGREEMENT PROCESS FOR APPROVAL PRIOR TO START OF R/W CLOSURES. CONTRACTOR SHALL CONTACT CDOT AT (704) 336-2562.
- CROSS-FAIRWAY ACCESS AGREEMENT IS REQUIRED. A COPY OF THE REQUIRED AGREEMENT MUST BE PROVIDED TO CDOT BEFORE CO IS ISSUED.



NO.	BY	DATE	REVISION
1	AEN	3/2/15	ADDED SHEET
2	AEN	3/2/15	PER CITY REVIEW COMMENTS

03/06/15

THE ISACCS GROUP, P.C.
ENGINEERING & LAND SURVEYING
NO. C-1068

SEAL
026462

ENGINEER
ANTHONY B. COMPTON

Auty

Project: COLINAYRE
11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC

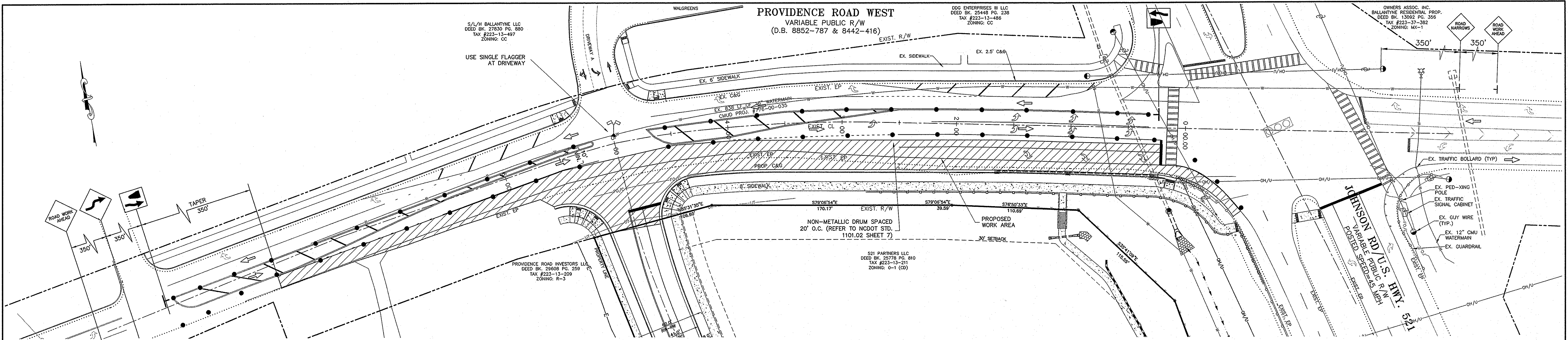
Title: PROVIDENCE ROAD WEST TRAFFIC CONTROL PLAN

File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

Design By: ABC
Drawn By: PDM
Scale: 1"=40'

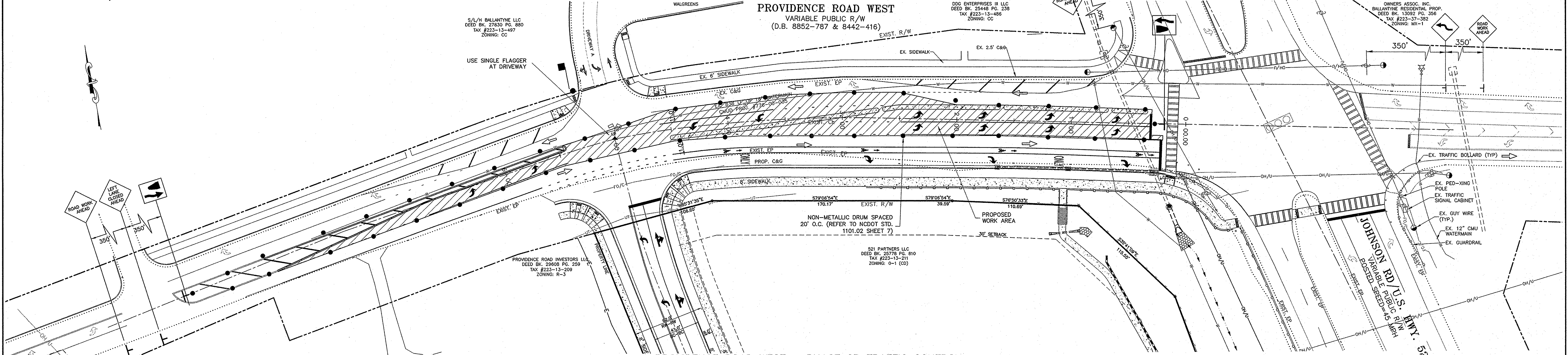
8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C3.8



PROVIDENCE ROAD WEST - PHASE 2A TRAFFIC CONTROL

(POSTED SPEED LIMIT = 45 MPH)



PROVIDENCE ROAD WEST - PHASE 2B TRAFFIC CONTROL

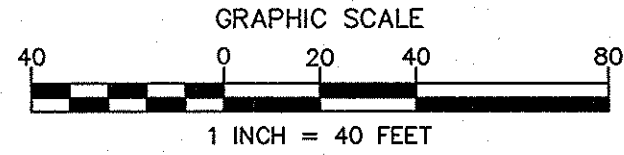
(POSTED SPEED LIMIT = 45 MPH)

TRAFFIC CONTROL GENERAL NOTES

- A. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MOST CURRENT EDITIONS OF THE CHARLOTTE DEPT. OF TRANSPORTATION(CDOT) WORK AREA TRAFFIC CONTROL HANDBOOK(W.A.T.C.H.), THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) SUPPLEMENT TO THE M.U.T.C.D., THE NCDOT ROADWAY STANDARD DRAWINGS AND THE CURRENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- B. THE CONTRACTOR IS TO NOTIFY NCDOT IN WRITING TO WORKING DAYS IN ADVANCE OF ANY ROAD CLOSURE OR 5 WORKING DAYS PRIOR TO CLOSING ONE OR MORE TRAVEL LANES IN ACCORDANCE WITH SECTION 3 OF THE W.A.T.C.H. HANDBOOK.
- C. ALL SIGNAL REVISIONS OR SHIFTS OF SIGNAL HEADS WILL BE THE RESPONSIBILITY OF NCDOT; PRIOR TO REVISING TRAFFIC LANES WHICH REQUIRE SIGNAL REVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 30 CALENDAR DAYS IN ADVANCE. TRAFFIC LANES SHALL NOT BE SHIFTED UNTIL THE REQUIRED SIGNAL REVISION / SHIFT IS COMPLETE AND READY FOR ACTIVATION. FOR NOTICES RELATED TO SIGNAL WORK REQUIRING NEW UTILITIES, REFER TO PROJECT NOTES.
- D. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH, INSTALL, RELOCATE, AND MAINTAIN ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES FOR WORK SITES AND DETOUR ROUTES AS SHOWN IN TRAFFIC CONTROL PLANS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
- E. CONSTRUCTION PHASING MAY DICTATE THAT TWO OR MORE TYPICAL W.A.T.C.H. DIAGRAMS OR STANDARDS BE USED IN ONE AREA OF CONSTRUCTION. CHANNELIZING DEVICES ASSOCIATED WITH THESE TYPICALS SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS NECESSARY TO COMPLY WITH THE CONSTRUCTION PHASING OF THE PLANS. THE LOCATION AND POSITIONING OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER TO ENSURE THAT THE MOTORIST DOES NOT RECEIVE FALSE INFORMATION WHEN TWO OR MORE TYPICALS AND/OR ROADWAY STANDARD DRAWINGS OVERLAP.
- F. CONTRACTOR SHOULD BE AWARE THAT WHEN THE CONSTRUCTION AREA IS IN OR NEAR A VERTICAL CURVE OR HORIZONTAL CURVE, THE WORK AREA SHALL BE EXTENDED SO THAT LANE CLOSURE BEGINS IN ADVANCE OF THE CURVE AND MINIMUM STOPPING SIGHT DISTANCE IS MET.
- G. OFF-DUTY POLICE OFFICERS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER TO BE PRESENT FOR CONTROLLING TRAFFIC DURING CONSTRUCTION HOURS.
- H. THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT WITH WELL-MAINTAINED SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES. ON CONNECTING ROADS, ALL BARRICADES, SIGNS, WARNING, AND/OR CHANNELIZING DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS REQUIRED DURING THE PROGRESS OF CONSTRUCTION AS APPROVED BY THE ENGINEER.
- I. WORK ON THE PROJECT OR ANY SEPARATE ACTIVITY THEREIN SHALL NOT START UNTIL ALL OF THE REQUIRED SIGNS, BARRICADES, WARNING, AND/OR CHANNELIZING DEVICES ARE INSTALLED AND APPROVED BY THE ENGINEER.
- J. THE CONTRACTOR SHALL CONTACT THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) TWO WEEKS PRIOR TO BEGINNING ANY WORK THAT WILL REQUIRE THE RELOCATION OR PLACEMENT OF SIGNS OR OTHER TRAFFIC CONTROL DEVICES.
- K. THE CONTRACTOR SHALL MAINTAIN DURING ALL PERIODS OF CONSTRUCTION ACTIVITY THE ABILITY TO FLAG TRAFFIC USING QUALIFIED FLAGGERS WHEN NECESSARY OR REQUIRED.
- L. THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS AND ADDRESS CONFLICTING PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 17 OF THE W.A.T.C.H. HANDBOOK OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN ANY EXISTING PAVEMENT MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- M. THE CONTRACTOR SHALL MAINTAIN TWO WAY TRAFFIC ON ALL PORTIONS OF THIS PROJECT UNLESS OTHERWISE SPECIFIED IN THE PLANS, PROJECT NOTES, OR BY THE ENGINEER.
- N. CONTRACTOR WILL BE REQUIRED TO PROVIDE PROPERTY OWNERS AND TENANTS ACCESS TO THEIR PROPERTY THROUGHOUT THE PROJECT LIMITS, INCLUDING REASONABLE INGRESS AND EGRESS FOR BUSINESSES. SPECIAL ATTENTION SHALL BE PAID TO FIRE HYDRANTS.
- O. THE CONTRACTOR IS TO NOTIFY (BY MAIL) ALL PROPERTY OWNERS AND OCCUPANTS WHO HAVE DIRECT ACCESS TO THE ROADWAY WITHIN A MINIMUM OF 5 AND A MAXIMUM OF 10 WORKING DAYS PRIOR TO INSTALLING TRAFFIC CONTROL DEVICES IN FRONT OF THOSE PROPERTIES. NOTIFICATIONS SHOULD INCLUDE CONTACT PERSON'S NAME, TELEPHONE NUMBER, EMAIL ADDRESS, AND MAILING ADDRESS.
- P. THE CONTRACTOR SHALL PATROL THE WORK SITE AT THE BEGINNING AND END OF EACH WORK DAY (AT A MINIMUM) TO ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING PROPERLY. CONTRACTOR SHALL ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING AT ALL TIMES DURING PERIODS OF CONSTRUCTION INACTIVITY.
- Q. DURING PERIODS OF INACTIVITY OR AT NIGHT, EQUIPMENT SHALL NOT BE PARKED IN SUCH A MANNER AS TO BLOCK SIDEWALKS, TRAFFIC CONTROL DEVICES, OR THE MOTORIST'S VIEW OF TRAFFIC. EQUIPMENT SHALL BE AT LEAST 10 FEET AWAY FROM THE TRAVEL LANE.
- R. WHENEVER TRAFFIC MUST BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION ACTIVITY, THE TWO OPPOSING DIRECTIONS MUST BE PHYSICALLY SEPARATED. TRAFFIC CONES CAN BE USED FOR THIS PURPOSE DURING DAYLIGHT HOURS; REFLECTORIZED CONES OR DRUMS MUST BE USED AT NIGHT. TRAFFIC SHALL NOT BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION INACTIVITY UNLESS PAVEMENT MARKING CONFLICTS ARE APPROPRIATELY ADDRESSED AND AGREEMENT ON REMOVAL OR NOT IS WORKED OUT WITH THE ENGINEER IN ACCORDANCE WITH SECTION 16 OF THE W.A.T.C.H. HANDBOOK. IF THE ENGINEER APPROVES TRAFFIC TO CROSS THE CENTER LINE DURING CONSTRUCTION INACTIVITY, ONLY REFLECTORIZED DRUMS MUST BE USED.
- S. THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION OR THEIR APPOINTED REPRESENTATIVES ARE AUTHORIZED TO STOP ANY WORK WITHIN PUBLIC RIGHT OF WAY THAT DOES NOT FOLLOW THIS TRAFFIC CONTROL PLAN OR REQUIREMENTS OF THE W.A.T.C.H. AND THE M.U.T.C.D. UNTIL SUCH REQUIREMENTS ARE MET.
- T. ADJACENT LANES TO CONSTRUCTION ZONES MAY REMAIN OPEN IF LATERAL CLEARANCE BETWEEN EDGE OF TRAVEL LANE AND EQUIPMENT IS EQUAL TO OR GREATER THAN 2 FEET (INCLUDING WIDTH OF DRUM). IF A DROPOFF EXISTS WITHIN THE WORK ZONE, CONTRACTOR SHOULD FOLLOW SECTION 10 OF THE W.A.T.C.H. HANDBOOK PERTAINING TO ADJACENT LANE CLOSURES DUE TO DROPOFFS.
- U. THE CONTRACTOR SHALL FOLLOW THE PHASING AS DESCRIBED HEREIN. THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH CONSTRUCTION PHASE IN SEQUENCE. WHEN A CONSTRUCTION PHASE IS DIVIDED INTO STEPS, THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH STEP IN SEQUENCE. (EXAMPLE: THE REQUIREMENTS OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO PHASE II; THE REQUIREMENTS OF STEP 1 OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO STEP 2 OF PHASE I). ALL WORK DESCRIBED IN THE PROJECT PHASING SHALL BE PERFORMED BY THE CONTRACTOR, EXCEPT WHERE IT IS SPECIFIED FOR CERTAIN WORK TO BE PERFORMED BY OTHERS.
- V. THE CONTRACTOR SHALL NOT BE ALLOWED TO STOP TRAFFIC FOR MORE THAN 5 MINUTES AT A TIME IN ANY ONE DIRECTION.
- W. CONTRACTOR SHALL NOT BE ALLOWED TO WORK ON BOTH SIDES OF THE ROAD SIMULTANEOUSLY WITHIN THE SAME AREA EXCEPT WHERE THE ROADWAY IS DIVIDED BY A RAISED MEDIAN. IT WILL BE ACCEPTABLE TO CONSTRUCT BORE PITS ON EACH SIDE OF A ROADWAY FOR BORING UTILITIES UNDER THE ROADWAY UNLESS SUPERSEDED BY ENGINEER TO COMPLY WITH PEDESTRIAN REQUIREMENTS OR LATERAL CLEARANCE FROM TRAVEL LANES.
- X. THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO SECTION VII (PEDESTRIAN CONSIDERATIONS) OF THE W.A.T.C.H.
- Y. ALL MILLED AREAS ARE TO BE TEMPORARY STRIPED BY THE END OF EACH WORK DAY.

LAND DEVELOPMENT NOTES

1. COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH INSPECTOR.
2. ALL ROAD IMPROVEMENTS AT PROVIDENCE ROAD WEST ARE TO BE COORDINATED WITH THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
3. DEVELOPER WILL PROVIDE STREET SIGNS PER CLOS. # 50.06 (9" SIGNS ONLY)
4. SIGN TRIANGLES SHOWN ARE THE MINIMUM REQUIRED.
5. DIRECT VEHICULAR ACCESS TO FROM LOTS IS PROHIBITED.
6. IN ROLLING AND HILLY TERRAINS, SWEEPING OF THE STONE BASE AND/OR APPLICATION OF A TACK COAT MAY BE REQUIRED NEAR INTERSECTIONS. THESE REQUIREMENTS WILL BE ESTABLISHED BY THE INSPECTOR AND BASED ON FIELD CONDITIONS.
7. APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
8. IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.5% SLOPE ON THE CURB.
9. SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT-OF-WAY IF DEEMED NECESSARY BY THE INSPECTOR.
10. CURB AND GUTTER SHOWN ON PLANS ALONG WITH FIELD STAKING BY CITY ENGINEERING. ASSOCIATED STORM DRAINAGE MAY ALSO REQUIRE MODIFICATION BASED UPON FIELD CONDITIONS.
11. THE PURPOSE OF THE STORM DRAINAGE EASEMENT (SDE) IS TO PROVIDE STORM WATER CONVEYANCE. BUILDINGS ARE NOT PERMITTED IN THE EASEMENT AREA. ANY OTHER OBJECTS WHICH IMPEDE STORM WATER FLOW OR SYSTEM MAINTENANCE ARE ALSO PROHIBITED.
12. HIGH-DENSITY POLYETHYLENE (HDPE) STORM DRAINAGE PIPE INSTALLED WITHIN EXISTING OR PROPOSED PUBLIC
13. STREET RIGHT-OF-WAY MUST BE APPROVED BY THE CITY'S INSPECTOR PRIOR TO ANY BACKFILL BEING PLACED.
14. BACKFILL MATERIAL MUST BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF THE MATERIAL WITHIN THE PUBLIC STREET RIGHT-OF-WAY.
15. THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TIMBER, JUNK AND OTHER ACCUMULATIONS.
16. ANY BUILDING WITHIN THE 100+1 STORMWATER ELEVATION LINE IS SUBJECT TO THE RESTRICTIONS OF THE (CITY OF CHARLOTTE/MECKLENBURG COUNTY) SUBDIVISION ORDINANCE, SECTION 7.200.8.
17. ANY CONSTRUCTION OR USE WITHIN THE FUTURE CONDUIT FLOOD FRINGE LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE CITY OF CHARLOTTE AND MECKLENBURG COUNTY.
18. ALL OPENINGS (E.G., DOORS, WINDOWS, VENTS) IN STRUCTURES BUILT ON LOT #'S SHOULD BE LOCATED A MINIMUM OF ONE FOOT ABOVE THE ADJACENT FINISHED GROUND SURFACE (APPLIES TO LOTS WHICH MAY EXPERIENCE SIGNIFICANT OVERLAND FLOW NOT CONSIDERED IN THE 100+1 FLOOD ANALYSIS).
19. PE SEALED SHOP DRAWINGS FOR RETAINING WALL MUST BE SUBMITTED TO CITY ENGINEER PRIOR TO CONSTRUCTION.
20. "AS-BUILT" DRAWINGS AND PLANS OF THE STORM DRAINAGE SYSTEM, INCLUDING DESIGNED DITCHES, MUST BE SUBMITTED PRIOR TO SUBDIVISION FINAL INSPECTION TO THE CITY/COUNTY ENGINEERING DEPARTMENT IN ACCORDANCE WITH THE CITY/COUNTY SUBDIVISION ORDINANCE.
21. PRIOR TO INSTALLATION, PE SEALED SHOP DRAWINGS FOR UNDERGROUND DETENTION SYSTEMS MUST BE FURNISHED TO CITY OF CHARLOTTE ENGINEERING FOR APPROVAL.
22. PRIOR TO CO, SURVEYOR SEALED AS-BUILT DRAWINGS OF ALL WATER QUALITY BMP'S AND DETENTION SYSTEMS MUST BE PROVIDED.
23. PRIOR TO FLAT REGRADATION, OFFSITE R/W AND/OR CONSTRUCTION EASEMENTS ARE REQUIRED TO BE OBTAINED ACCORDING TO THE GUIDELINES OF THE "OFFSITE R/W ACQUISITION PROCESS". THESE REQUIRED R/W AND CONSTRUCTION LIMITS ARE CLEARLY SHOWN ON THE ROADWAY IMPROVEMENT PLAN.
24. PER SECTION 18-175(B) OF CITY CODE AND SECTION 10.0 OF THE CITY'S POST CONSTRUCTION CONTROLS ADMINISTRATIVE MANUAL, ALL REQUIRED NATURAL AREAS AND/OR POST CONSTRUCTION CONTROLS EASEMENTS (PCEES) MUST BE RECORDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
25. THE DEVELOPER SHALL CONTACT THE CHARLOTTE DEPARTMENT OF TRANSPORTATION (GUS JORDI, 704-336-7086) TO IDENTIFY ANY CONFLICTS WITH TRAFFIC SIGNALIZATION EQUIPMENT. 60- 90 DAYS WILL BE REQUIRED TO COORDINATE RELOCATION. DEVELOPER SHALL BE RESPONSIBLE FOR ALL RELATED RELOCATION COST AND/OR ANY REPAIR COST CAUSED BY THE CONTRACTOR/DEVELOPER.
26. CERTIFICATION AND STREET CUT PERMITS ARE REQUIRED FOR UTILITY CUTS ON CITY STREETS. ALLOW 7 DAYS PROCESSING FOR PERMIT. FOR INFORMATION CONTACT CHARLOTTE DEPARTMENT OF TRANSPORTATION (704-336-4025) OR VISIT [HTTP://WWW.CHARMECK.ORG/DEPARTMENTS/TRANSPORTATION/STREET-MAINTENANCE/HOME.HTM](http://www.charmeck.org/departments/transportation/street-maintenance/home.htm)
27. NON-STANDARD ITEMS (E.G. PAVERS, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE CHARLOTTE DEPARTMENT OF TRANSPORTATION/NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION. FOR CITY OF CHARLOTTE MAINTAINED STREETS, CONTACT CDOT AT (704) 336-3888.
28. ANY WORK WITHIN THE CITY'S R/W THAT REQUIRES CLOSURE OF THE SIDEWALK OR TRAVEL LANE FOR LESS THAN 30 DAYS REQUIRES A R/W USE PERMIT. TRAFFIC CONTROL PLANS FOR ANY SIDEWALK OR TRAVEL LANE CLOSURES MUST BE SUBMITTED AS PART OF THE R/W USE PERMIT REQUEST. TRAFFIC CONTROL PLANS MUST BE IN ACCORDANCE WITH CDOT'S WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH) AND MUST BE REVIEWED AND APPROVED. CONTRACTOR SHALL CONTACT CDOT AT LEAST 5 BUSINESS DAYS IN ADVANCE OF BEGINNING OF WORK AT (704) 432-1562.
29. CONSTRUCTION STAGING WITHIN CITY R/W LASTING MORE THAN 30 DAYS REQUIRES A R/W LEASE AGREEMENT. CONTRACTOR SHALL CONTACT CDOT AT (704) 336-2562.
30. RIGHT-OF-WAY CLOSURES LONGER THAN 30 DAYS REQUIRE A R/W LEASE AGREEMENT WHICH WILL INCLUDE THE SUBMITTAL OF A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLANS REQUIRED THROUGH A LEASE AGREEMENT MAY BE DIFFERENT FROM THE ONE REQUIRED DURING THE LAND DEVELOPMENT PLAN REVIEW AND ARE SUBJECT TO REVISIONS. THE REVISED TRAFFIC CONTROL PLANS MUST BE SUBMITTED AS PART OF THE LEASE AGREEMENT PROCESS FOR APPROVAL PRIOR TO START OF R/W CLOSURES. CONTRACTOR SHALL CONTACT CDOT AT (704) 336-2562.
31. CROSS-PARCEL ACCESS AGREEMENT IS REQUIRED. A COPY OF THE RECORDED AGREEMENT MUST BE PROVIDED TO CDOT BEFORE A CDOT BORE IS ISSUED.



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS

11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC

COLINAYRE

PROVIDENCE ROAD WEST TRAFFIC CONTROL PLAN

File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

Design By: ABC

Drawn By: PDW

Scale: 1"=40'

8720 RED OAK BOULEVARD, SUITE 420 CHARLOTTE, N.C. 28217

PHONE (704) 527-3440 FAX (704) 527-8335

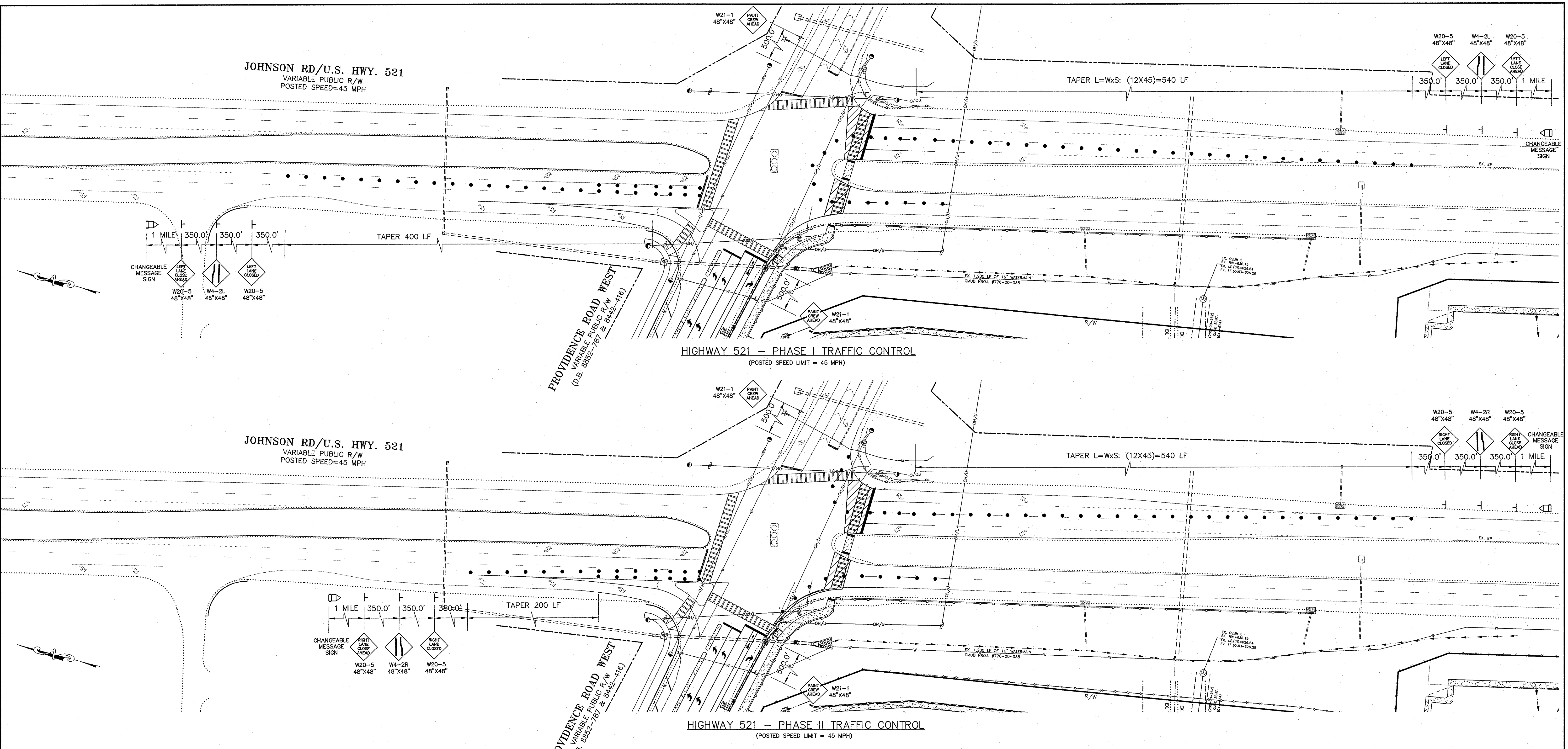
03/06/15

antony B. C...

THE ISACCS GROUP, INC. ENGINEERING & SURVEYING NO. C-1068

SEAL 026462

ANTHONY B. C...



TRAFFIC CONTROL GENERAL NOTES

A. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MOST CURRENT EDITIONS OF THE CHARLOTTE DEPT. OF TRANSPORTATION(CDOT) WORK AREA TRAFFIC CONTROL HANDBOOK(W.A.T.C.H.) THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) SUPPLEMENT TO THE M.U.T.C.D., THE NCDOT ROADWAY STANDARD DRAWINGS AND THE CURRENT EDITION OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

B. THE CONTRACTOR IS TO NOTIFY NCDOT IN WRITING 10 WORKING DAYS IN ADVANCE OF ANY ROAD CLOSURE OR 5 WORKING DAYS PRIOR TO CLOSING ONE OR MORE TRAVEL LANES IN ACCORDANCE WITH SECTION 3 OF THE W.A.T.C.H. HANDBOOK.

C. ALL SIGNAL REVISIONS OR SHIFTS OF SIGNAL HEADS WILL BE THE RESPONSIBILITY OF NCDOT; PRIOR TO REVISING TRAFFIC LANCES WHICH REQUIRE SIGNAL REVISIONS, THE CONTRACTOR SHALL NOTIFY THE NCDOT A MINIMUM OF 30 CALENDAR DAYS IN ADVANCE. TRAFFIC LANES SHALL NOT BE SHIFTED UNTIL THE REQUIRED SIGNAL REVISION / SHIFT IS COMPLETE AND READY FOR ACTIVATION. FOR NOTICES RELATED TO SIGNAL WORK REQUIRING NEW UTILITIES, REFER TO PROJECT NOTES.

D. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH, INSTALL, RELOCATE, AND MAINTAIN ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES FOR WORK SITES AND DETOUR ROUTES AS SHOWN IN TRAFFIC CONTROL PLANS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.

E. CONSTRUCTION PHASING MAY IMPOSE THAT TWO OR MORE TYPICAL W.A.T.C.H. DIAGRAMS OR STANDARDS BE USED IN ONE AREA OF CONSTRUCTION. CHANNELIZING DEVICES ASSOCIATED WITH THESE TYPICALS SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS NECESSARY TO COMPLY WITH THE CONSTRUCTION PHASING OF THE PLANS. THE LOCATION AND POSITIONING OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER TO ENSURE THAT THE MOTORIST DOES NOT RECEIVE FALSE INFORMATION WHEN TWO OR MORE TYPICALS AND/OR ROADWAY STANDARD DRAWINGS OVERLAP.

F. CONTRACTOR SHOULD BE AWARE THAT WHEN THE CONSTRUCTION AREA IS IN OR NEAR A VERTICAL CURVE OR HORIZONTAL CURVE, THE WORK AREA SHALL BE EXTENDED SO THAT LANE CLOSURE BEGINS IN ADVANCE OF THE CURVE AND MINIMUM STOPPING SIGHT DISTANCE IS MET.

G. OFF-DUTY POLICE OFFICERS MAY BE REQUIRED AS DIRECTED BY THE ENGINEER TO BE PRESENT FOR CONTROLLING TRAFFIC DURING CONSTRUCTION HOURS.

H. THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT WITH WELL-MAINTAINED SIGNS, BARRICADES, WARNING AND/OR CHANNELIZING DEVICES. ON CONNECTING ROADS, ALL BARRICADES, SIGNS, WARNING, AND/OR CHANNELIZING DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED AS REQUIRED DURING THE PROGRESS OF CONSTRUCTION AS APPROVED BY THE ENGINEER.

I. WORK ON THE PROJECT OR ANY SEPARATE ACTIVITY THEREIN SHALL NOT START UNTIL ALL OF THE REQUIRED SIGNS, BARRICADES, WARNING, AND/OR CHANNELIZING DEVICES ARE INSTALLED AND APPROVED BY THE ENGINEER.

J. THE CONTRACTOR SHALL CONTACT THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) TWO WEEKS PRIOR TO BEGINNING ANY WORK THAT WILL REQUIRE THE RELOCATION OR PLACEMENT OF SIGNS OR OTHER TRAFFIC CONTROL DEVICES.

K. THE CONTRACTOR MUST MAINTAIN DURING ALL PERIODS OF CONSTRUCTION ACTIVITY THE ABILITY TO FLAG TRAFFIC USING QUALIFIED FLAGGERS WHEN NECESSARY OR REQUIRED.

L. THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS AND ADDRESS CONFLICTING PAVEMENT MARKINGS IN ACCORDANCE WITH SECTION 17 OF THE W.A.T.C.H. HANDBOOK OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN ANY EXISTING PAVEMENT MARKINGS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

M. THE CONTRACTOR SHALL MAINTAIN TWO WAY TRAFFIC ON ALL PORTIONS OF THIS PROJECT UNLESS OTHERWISE SPECIFIED IN THE PLANS, PROJECT NOTES, OR BY THE ENGINEER.

N. CONTRACTOR WILL BE REQUIRED TO PROVIDE PROPERTY OWNERS AND TENANTS ACCESS TO THEIR PROPERTY THROUGHOUT THE PROJECT LIMITS, INCLUDING REASONABLE INGRESS AND EGRESS FOR BUSINESSES. SPECIAL ATTENTION SHALL BE PAID TO FIRE HYDRANTS.

O. THE CONTRACTOR IS TO NOTIFY (BY MAIL) ALL PROPERTY OWNERS AND OCCUPANTS WHO HAVE DIRECT ACCESS TO THE ROADWAY WITHIN THE PROJECT LIMITS A MINIMUM OF 5 AND A MAXIMUM OF 10 WORKING DAYS PRIOR TO INSTALLING TRAFFIC CONTROL DEVICES IN FRONT OF THOSE PROPERTIES. NOTIFICATIONS SHOULD INCLUDE CONTACT PERSONS NAME, TELEPHONE NUMBER, EMAIL ADDRESS, AND MAILING ADDRESS.

P. THE CONTRACTOR SHALL PATROL THE WORK SITE AT THE BEGINNING AND END OF EACH WORK DAY (AT A MINIMUM) TO ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING PROPERLY. CONTRACTOR SHALL ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND FUNCTIONING AT ALL TIMES DURING PERIODS OF CONSTRUCTION INACTIVITY.

Q. DURING PERIODS OF INACTIVITY OR AT NIGHT, EQUIPMENT SHALL NOT BE PARKED IN SUCH A MANNER AS TO BLOCK SIDEWALKS, TRAFFIC CONTROL DEVICES, OR THE MOTORISTS' VIEW OF TRAFFIC. EQUIPMENT SHALL BE AT LEAST 10 FEET AWAY FROM THE TRAVEL LANE.

R. WHENEVER TRAFFIC MUST BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION ACTIVITY, THE TWO OPPOSING DIRECTIONS MUST BE PHYSICALLY SEPARATED. TRAFFIC CONES CAN BE USED FOR THIS PURPOSE DURING DAYLIGHT HOURS; REFLECTORIZED CONES OR DRUMS MUST BE USED AT NIGHT. TRAFFIC SHALL NOT BE ROUTED ACROSS THE CENTERLINE DURING CONSTRUCTION INACTIVITY UNLESS PAVEMENT MARKING CONFLICTS ARE APPROPRIATELY ADDRESSED AND AGREEMENT ON REMOVAL OR NOT IS WORKED OUT WITH THE ENGINEER IN ACCORDANCE WITH SECTION 18 OF THE W.A.T.C.H. HANDBOOK. IF THE ENGINEER APPROVES TRAFFIC TO CROSS THE CENTER LINE DURING CONSTRUCTION INACTIVITY, ONLY REFLECTORIZED DRUMS MUST BE USED.

S. THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION OR THEIR APPOINTED REPRESENTATIVES ARE AUTHORIZED TO STOP ANY WORK WITHIN PUBLIC RIGHT OF WAY THAT DOES NOT FOLLOW THIS TRAFFIC CONTROL PLAN OR REQUIREMENTS OF THE W.A.T.C.H. AND THE M.U.T.C.D. UNTIL SUCH REQUIREMENTS ARE MET.

T. ADJACENT LANES TO CONSTRUCTION ZONES MAY REMAIN OPEN IF LATERAL CLEARANCE BETWEEN EDGE OF TRAVEL LANE AND EQUIPMENT IS EQUAL TO OR GREATER THAN 2 FEET (INCLUDING WIDTH OF DRUM). IF A DROPOFF EXISTS WITHIN THE WORK ZONE, CONTRACTOR SHOULD FOLLOW SECTION 10 OF THE W.A.T.C.H. HANDBOOK PERTAINING TO ADJACENT LANE CLOSURES DUE TO DROPOFFS.

U. THE CONTRACTOR SHALL FOLLOW THE PHASING AS DESCRIBED HEREIN. THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH CONSTRUCTION PHASE IN SEQUENCE, WHEN A CONSTRUCTION PHASE IS DIVIDED INTO STEPS, THE CONTRACTOR SHALL COMPLETE THE REQUIREMENTS OF EACH STEP IN SEQUENCE. (EXAMPLE: THE REQUIREMENTS OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO PHASE II; THE REQUIREMENTS OF STEP 1 OF PHASE I SHALL BE COMPLETED BEFORE PROCEEDING TO STEP 2 OF PHASE I). ALL WORK DESCRIBED IN THE PROJECT PHASING SHALL BE PERFORMED BY THE CONTRACTOR, EXCEPT WHERE IT IS SPECIFIED FOR CERTAIN WORK TO BE PERFORMED BY OTHERS.

V. THE CONTRACTOR SHALL NOT BE ALLOWED TO STOP TRAFFIC FOR MORE THAN 5 MINUTES AT A TIME IN ANY ONE DIRECTION.

W. CONTRACTOR SHALL NOT BE ALLOWED TO WORK ON BOTH SIDES OF THE ROAD SIMULTANEOUSLY WITHIN THE SAME AREA EXCEPT WHERE THE ROADWAY IS DIVIDED BY A RAISED MEDIAN. IT WILL BE ACCEPTABLE TO CONSTRUCT BORE PITS ON EACH SIDE OF A ROADWAY FOR BORING UTILITIES UNDER THE ROADWAY UNLESS SUPERCEDED BY ENGINEER TO COMPLY WITH PEDESTRIAN REQUIREMENTS OR LATERAL CLEARANCE FROM TRAVEL LANES.

X. THE CONTRACTOR SHALL PAY SPECIAL ATTENTION TO SECTION VII (PEDESTRIAN CONSIDERATIONS) OF THE W.A.T.C.H.

Y. ALL MILLED AREAS ARE TO BE TEMPORARILY STRIPED BY THE END OF EACH WORK DAY.

LAND DEVELOPMENT NOTES:

- COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH INSPECTOR.
- ALL ROAD IMPROVEMENTS AT HIGHWAY 521 ARE TO BE COORDINATED WITH NCDOT AND THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
- DEVELOPER WILL PROVIDE STREET SIGNS PER CLDS § 50.05 (9" SIGNS ONLY).
- SIGHT TRIANGLES SHOWN ARE THE MINIMUM REQUIRED.
- DIRECT VEHICULAR ACCESS TO FROM LOTS IS PROHIBITED.
- IN ROLLING AND HILLY TERRAINS, SWEEPING OF THE STONE BASE AND/OR APPLICATION OF A TACK COAT MAY BE REQUIRED NEAR INTERSECTIONS. THESE REQUIREMENTS WILL BE ESTABLISHED BY THE INSPECTOR AND BASED ON FIELD CONDITIONS.
- APPROVAL OF THIS PLAN IS NOT AN AUTHORIZATION TO GRADE ADJACENT PROPERTIES. WHEN FIELD CONDITIONS WARRANT OFF-SITE GRADING, PERMISSION MUST BE OBTAINED FROM THE AFFECTED PROPERTY OWNERS.
- IN ORDER TO ENSURE PROPER DRAINAGE, KEEP A MINIMUM OF 0.5% SLOPE ON THE CURB.
- STREET RIGHT-OF-WAY MUST BE FACILITIES FOR UNDERGROUND DETENTION SYSTEMS MUST BE FURNISHED TO CITY OF CHARLOTTE ENGINEERING FOR APPROVAL.
- CURB AND GUTTER SHOWN ON PLANS ALONG MAY BE ADJUSTED BASED UPON FIELD STAKING BY CITY ENGINEERING. ASSOCIATED STORM DRAINAGE MAY ALSO REQUIRE MODIFICATION BASED UPON FIELD CONDITIONS.
- THE PURPOSE OF THE STORM DRAINAGE EASEMENT (SDE) IS TO PROVIDE STORM WATER CONVEYANCE. BUILDINGS ARE NOT PERMITTED IN THE EASEMENT AREA. ANY OTHER OBJECTS WHICH IMPEDE STORM WATER FLOW OR SYSTEM MAINTENANCE ARE ALSO PROHIBITED.
- HIGH-DENSITY POLYETHYLENE (HDPE) STORM DRAINAGE PIPE INSTALLED WITHIN EXISTING OR PROPOSED PUBLIC STREET RIGHT-OF-WAY MUST BE FACILITIES FOR UNDERGROUND DETENTION SYSTEMS MUST BE FURNISHED TO CITY OF CHARLOTTE ENGINEERING FOR APPROVAL.
- BACKFILL MATERIAL MUST BE APPROVED BY THE CITY INSPECTOR PRIOR TO PLACEMENT OF THE MATERIAL WITHIN THE PUBLIC STREET RIGHT-OF-WAY.
- THE DEVELOPER SHALL MAINTAIN EACH STREAM, CREEK, OR BACKWASH CHANNEL IN AN UNOBSTRUCTED STATE AND SHALL REMOVE FROM THE CHANNEL AND BANKS OF THE STREAM ALL DEBRIS, LOGS, TWIG, JUNK AND OTHER ACCUMULATIONS.
- ANY BUILDING WITHIN THE 100+1 STORMWATER ELEVATION LINE IS SUBJECT TO THE RESTRICTIONS OF THE (CITY OF CHARLOTTE/MECKLENBURG COUNTY) SUBDIVISION ORDINANCE, SECTION 7.200.8.
- ANY CONSTRUCTION OR USE WITHIN THE FUTURE CONDITIONS FLOOD FRINGE LINE IS SUBJECT TO THE RESTRICTIONS IMPOSED BY THE FLOODWAY REGULATIONS OF THE CITY OF CHARLOTTE AND MECKLENBURG COUNTY.
- ALL OPENINGS (E.G., DOORS, WINDOWS, VENTS) IN STRUCTURES BUILT ON LOT #5 SHOULD BE LOCATED A MINIMUM OF ONE FOOT ABOVE THE ADJACENT FINISHED GROUND SURFACE (APPLIES TO LOTS WHICH MAY EXPERIENCE SIGNIFICANT OVERLAND FLOW NOT CONSIDERED IN THE 100+1 FLOOD ANALYSIS).
- PE SEALED SHOP DRAWINGS FOR RETAINING WALL MUST BE SUBMITTED TO CITY ENGINEER PRIOR TO CONSTRUCTION.
- "AS-BUILT" DRAWINGS AND PLANS OF THE STORM DRAINAGE SYSTEM, INCLUDING DESIGNED DITCHES, MUST BE SUBMITTED PRIOR TO SUBDIVISION FINAL INSPECTION TO THE CITY/COUNTY ENGINEERING DEPARTMENT IN ACCORDANCE WITH THE CITY/COUNTY SUBDIVISION ORDINANCE.
- PRIOR TO INSTALLATION, PE SEALED SHOP DRAWINGS FOR UNDERGROUND DETENTION SYSTEMS MUST BE FURNISHED TO CITY OF CHARLOTTE ENGINEERING FOR APPROVAL.
- PRIOR TO CO, SURVEYOR SEALED AS-BUILT DRAWINGS OF ALL WATER QUALITY BMP'S AND DETENTION SYSTEMS MUST BE PROVIDED.
- PRIOR TO PLAT RECORDATION, OFFSITE R/W AND/OR CONSTRUCTION EASEMENTS ARE REQUIRED TO BE OBTAINED ACCORDING TO THE GUIDELINES OF THE "OFFSITE R/W ACQUISITION PROCESS". THESE NEEDED R/W AND CONSTRUCTION LIMITS ARE CLEARLY SHOWN ON THE ROADWAY IMPROVEMENT PLAN.
- PER SECTION 18-175(E) OF CITY CODE AND SECTION 10.0 OF THE CITY'S POST CONSTRUCTION CONTROLS ADMINISTRATIVE MANUAL, ALL REQUIRED NATURAL AREAS AND/OR POST CONSTRUCTION CONTROLS EASEMENTS (PCEES) MUST BE RECORDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
- THE DEVELOPER SHALL CONTACT THE CHARLOTTE DEPARTMENT OF TRANSPORTATION (GUS JORDI, 704-336-7080) TO IDENTIFY ANY CONFLICTS WITH TRAFFIC SIGNALIZATION EQUIPMENT, 60- 90 DAYS WILL BE REQUIRED TO COORDINATE RELOCATION. DEVELOPER SHALL BE RESPONSIBLE FOR ALL RELATED RELOCATION COST AND/OR ANY REPAIR COST CAUSED BY THE CONTRACTOR/DEVELOPER.
- CERTIFICATION AND STREET CUT PERMITS ARE REQUIRED FOR UTILITY CUTS ON CITY STREETS. ALLOW 7 DAYS PROCESSING FOR PERMIT. FOR INFORMATION CONTACT CHARLOTTE DEPARTMENT OF TRANSPORTATION (704-336-4025) OR VISIT <http://www.charmeck.org/departments/transportation/street-maintenance/home.htm>
- NON-STANDARD ITEMS (E.G. PAVES, IRRIGATION SYSTEMS, ETC.) IN THE RIGHT-OF-WAY REQUIRE A RIGHT-OF-WAY ENCROACHMENT AGREEMENT WITH THE CHARLOTTE DEPARTMENT OF TRANSPORTATION/NORTH CAROLINA DEPARTMENT OF TRANSPORTATION BEFORE INSTALLATION. FOR CITY OF CHARLOTTE MAINTAINED STREETS, CONTACT CDOT AT (704) 336-3888.
- ANY WORK WITHIN THE CITY'S R/W THAT REQUIRES CLOSURE OF THE SIDEWALK OR TRAVEL LANE FOR LESS THAN 30 DAYS REQUIRES A R/W USE PERMIT. TRAFFIC CONTROL PLANS FOR ANY SIDEWALK OR TRAVEL LANE CLOSURES MUST BE SUBMITTED AS PART OF THE R/W USE PERMIT REQUEST. TRAFFIC CONTROL PLANS MUST BE IN ACCORDANCE WITH CDOT'S WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH) AND MUST BE REVIEWED AND APPROVED. CONTRACTOR SHALL CONTACT CDOT AT (704) 336-2562.
- CONSTRUCTION STAGING WITHIN CITY R/W LASTING MORE THAN 30 DAYS REQUIRES A R/W LEASE AGREEMENT. CONTRACTOR SHALL CONTACT CDOT AT (704) 336-2562.
- RIGHT-OF-WAY CLOSURES LONGER THAN 30 DAYS REQUIRE A R/W LEASE AGREEMENT WHICH WILL INCLUDE THE SUBMITTAL OF A TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLANS REQUIRED THROUGH A LEASE AGREEMENT MAY BE DIFFERENT FROM THE LAND DEVELOPMENT PLAN REVIEW AND ARE SUBJECT TO REVISIONS. THE REVISED TRAFFIC CONTROL PLANS MUST BE SUBMITTED AS PART OF THE LEASE AGREEMENT PROCESS FOR APPROVAL PRIOR TO START OF R/W CLOSURES. CONTRACTOR SHALL CONTACT CDOT AT (704) 336-2562.
- CROSS-PARCEL AGREEMENT IS REQUIRED. A COPY OF THE RECORDED AGREEMENT MUST BE PROVIDED TO CDOT BEFORE CO IS ISSUED.

03/04/15

THE ISAACS GROUP, P.C.
ENGINEERING &
LAND SURVEYING
NO. C-1089

SEAL
026462

ENGINEER
ANTHONY B. COWAN

Project: COLINAYRE
11109 PROVIDENCE ROAD WEST, CHARLOTTE, NC

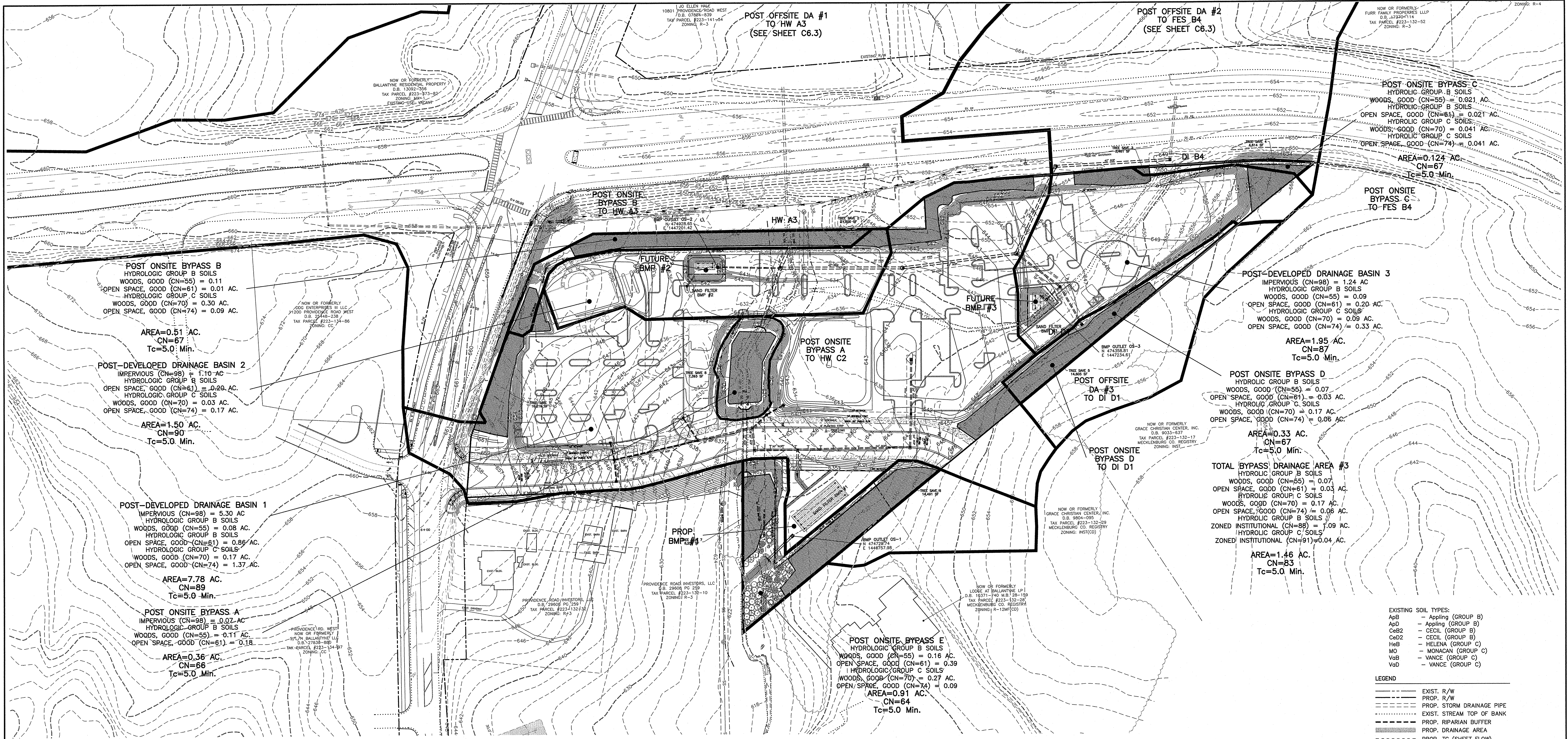
Title: HIGHWAY 521
TRAFFIC CONTROL PLAN

File #: 11028-PB.DWG Date: 1/5/2015 Project Egr: ABC

Design By: ABC
Drawn By: POW
Scale: 1"=50'

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C3.10



PCCO SUMMARY				
Original Parcel ID Number(s):	22313211 & 22313233			
Development Type:	Commercial			
Subject to PCCO? Y/N	Y			
If NO, why?	-- Click for Dropdown --			
Watershed:	Central Catawba			
Disturbed Area (ac):	12.3			
Site Area (ac):	12.54			
	DA 1	DA 2	DA 3	
Total on-site Drainage Area (ac):	7.78	1.5	1.95	
Existing Built-upon-area (SF):	11224	6838	0	
Existing BUA to be removed (SF):	11224	6838	0	
Existing BUA to remain (SF):	0	0	0	
Proposed New BUA (SF):	230,868	47,916	54,014	
Proposed % BUA:	68.12%	73.33%	63.59%	
Density (High / Low)	High	High	High	
Total Post-Project BUA for site:	332,798			
Development or Redevelopment?	Development			
Natural Area Required (ac):	1.254			
Natural Area provided, total (ac):	1.89			
Undisturbed Treed Natural Area Preserved (ac):	1.89			
Total stream buffer protected on-site (ac):	0.37			
Transit Station Area? Y/N	N			
Distressed Business District? Y/N	N			
Mitigation Type (if applicable)	N/A			
Natural Area mitigation? Y/N	N			
Buffer Mitigation? Y/N	Y			
Total Phosphorous Mitigation? Y/N	N			

TREE SAVE AREA CALCULATION				
TOTAL SITE AREA:		12.54 AC.		
TREE SAVE AREA REQ'D:		1.88 AC.		(15%)
PCCO NATURAL AREA REQ'D:		1.25 AC.		(10%)
TREE SAVE AREA				
AREA ID	AREA (S.F.)	AREA (AC.)		
1	10,219	0.235		
2	21,600	0.496		
3	3,416	0.078		
4	4,614	0.106		
5	14,605	0.335		
6	14,491	0.333		
7	6,256	0.144		
8	7,393	0.170		
9		0.000		
10		0.000		
TOTAL AREA PROVIDED:		1.896		
PCCO NATURAL AREAS WILL BE RECORDED IN THE REGISTER OF DEEDS OFFICE AS "TREE SAVE/UNDISTURBED NATURAL AREAS" AS REQUIRED BY THE CHARLOTTE POST CONSTRUCTION STORMWATER ORDINANCE.				

BMP Inset Table	
Sand Filter	
Project Name:	Colinayre
Sequence ID:	BMP #1
Drainage Area (acres):	7.78
Land Use/Development Type:	Commercial
Percent Built-Upon Area:	68.12
Sediment Chamber Length (ft.):	55
Sediment Chamber Width (ft.):	30
Sediment Chamber Height (ft.):	2
Sand Filter Type:	Surface
Media Depth (ft.):	2.5
Flow Diverter Present (Y/N):	N
Regulated By:	Post Construction Ordinance
Treatment Effectiveness:	TSS Only
NC State Plane X (easting):	1446757.98
NC State Plane Y (northing):	474729.74

BMP Inset Table	
Sand Filter	
Project Name:	Colinayre
Sequence ID:	BMP #2
Drainage Area (acres):	1.5
Land Use/Development Type:	Commercial
Percent Built-Upon Area:	73.33
Sediment Chamber Length (ft.):	63
Sediment Chamber Width (ft.):	10
Sediment Chamber Height (ft.):	2
Sand Filter Type:	Surface
Media Depth (ft.):	2.5
Flow Diverter Present (Y/N):	N
Regulated By:	Post Construction Ordinance
Treatment Effectiveness:	TSS Only
NC State Plane X (easting):	1447201.42
NC State Plane Y (northing):	474928.65

BMP Inset Table	
Sand Filter	
Project Name:	Colinayre
Sequence ID:	BMP #3
Drainage Area (acres):	1.95
Land Use/Development Type:	Commercial
Percent Built-Upon Area:	63.59
Sediment Chamber Length (ft.):	67
Sediment Chamber Width (ft.):	10
Sediment Chamber Height (ft.):	2
Sand Filter Type:	Surface
Media Depth (ft.):	2.5
Flow Diverter Present (Y/N):	N
Regulated By:	Post Construction Ordinance
Treatment Effectiveness:	TSS Only
NC State Plane X (easting):	1447234.61
NC State Plane Y (northing):	474358.81

6/30/15

NORTH CAROLINA

THE ISAACS GROUP, P.C.

ENGINEERING & LAND SURVEYING

NO. C-1069

STATE OF NORTH CAROLINA

SEAL

026462

ANTHONY B. COWAN

ENGINEER

Project:

COLINAYRE

PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title:

STORMWATER MANAGEMENT PLAN

File #:

11028-P8.DWG

Date:

08/22/2014

Project Egr:

ABC

Design By:

ABC

Drawn By:

FW

Scale:

1"=80'

8720 RED OAK BOULEVARD, SUITE 420

CHARLOTTE, N.C. 28217

PHONE (704) 527-3440 FAX (704) 527-8335

C5.0

GRAPHIC SCALE

80 0 40 80 160

1 INCH = 80 FEET

NO. BY DATE REVISION

1 AEN 1/9/15 PER CITY REVIEW COMMENTS

2 AEN 3/2/15 PER CITY REVIEW COMMENTS

- LEGEND
- ELEV - EXISTING CONTOUR
 - ELEV - PROPOSED CONTOUR
 - ELEV - PROPOSED SPOT ELEVATION
 - SS - EXISTING SANITARY SEWER LINE
 - W - EXISTING WATER LINE
 - G - EXISTING CATCH BASIN
 - G - EXISTING GAS LINE
 - ===== EXISTING STORM DRAINAGE PIPE
 - ===== PROPOSED STORM DRAINAGE PIPE
 - ===== PROPOSED CATCH BASIN
 - ===== PROPOSED SCREENING WALL
 - ===== PROPOSED SLOPE STABILIZATION
 - BENCH MARK
 - PROPOSED GRASS SWALE TYPE-A SLOPED AT 1.5% (MIN.) UNLESS NOTED AS OTHERWISE

SEE SHEET C3.0 & C3.1
FOR PROVIDENCE ROAD
WEST IMPROVEMENTS

BENCHMARK (R/W DISK)
N 475248.8286
E 1447159.7535
ELEV = 647.98' (NAVD 88)

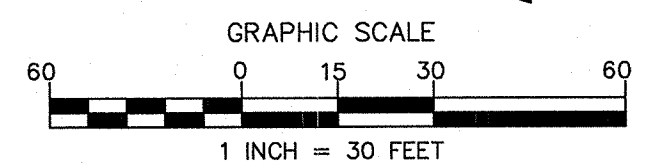
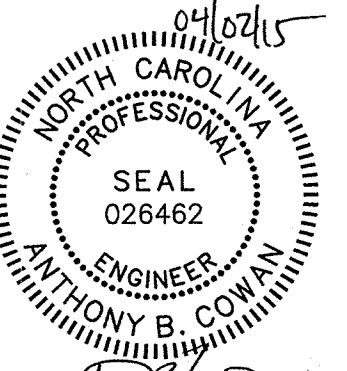
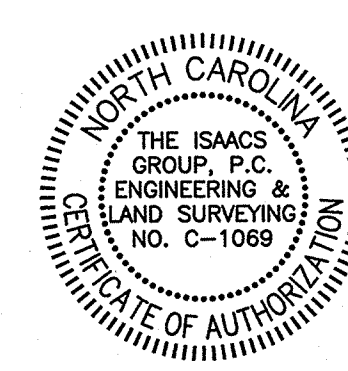
PROVIDENCE ROAD WEST
VARIABLE PUBLIC R/W

JOHNSTON ROAD/US HWY. 521
VARIABLE PUBLIC R/W

BALLANCROFT PKY.
62' PUBLIC R/W

NO GRADING OR CONSTRUCTION OFF-SITE IS PERMITTED ON THIS
ADJACENT PROPERTY WITHOUT PROPER EASEMENT, PERMISSION,
OR ACQUIRED ROW.

SEE SHEET C6.0 & C6.1
FOR BLOW UP DETAIL
OF PROP. BMPS #1, 2 & 3



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS
3	AEN	4/2/15	ADDED ON STREET HC PARKING

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: GRADING PLAN

File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

Design By: ABC
Drawn By: POW
Scale: 1"=30'

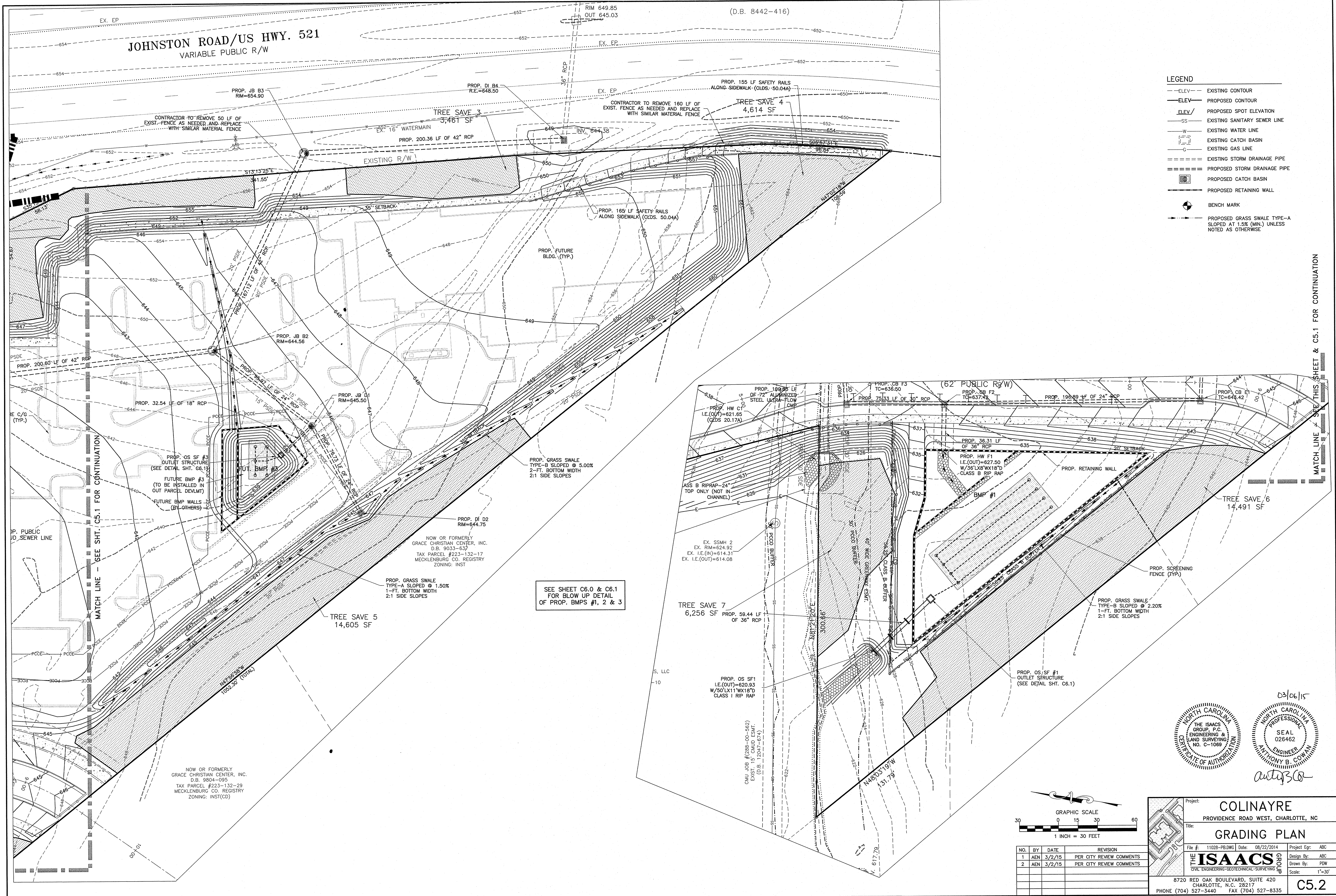
8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C5.1

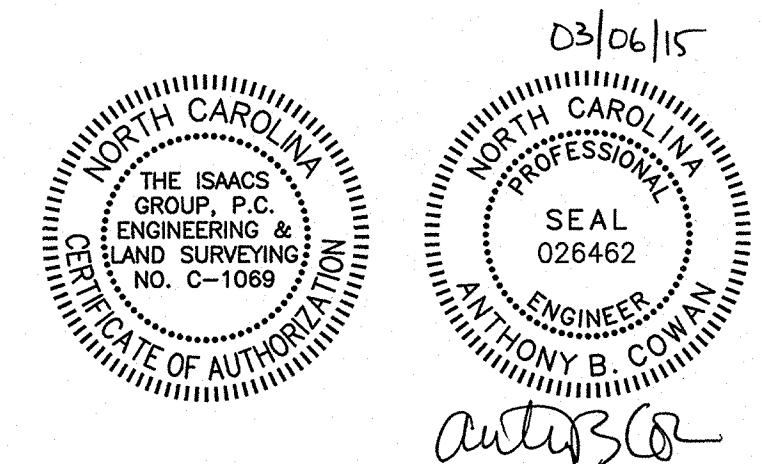
JOHNSTON ROAD/US HWY. 521 VARIABLE PUBLIC R/W

(D.B. 8442-416)

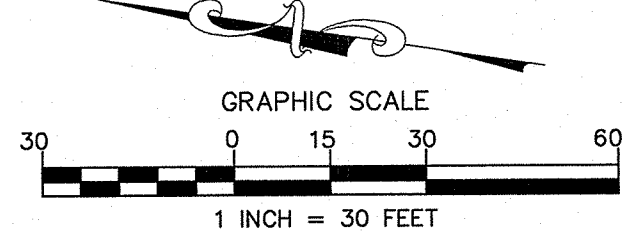
- LEGEND**
- ELEV. EXISTING CONTOUR
 - ELEV. PROPOSED CONTOUR
 - ELEV. PROPOSED SPOT ELEVATION
 - SS EXISTING SANITARY SEWER LINE
 - W EXISTING WATER LINE
 - G EXISTING GAS LINE
 - EXISTING STORM DRAINAGE PIPE
 - PROPOSED STORM DRAINAGE PIPE
 - PROPOSED CATCH BASIN
 - PROPOSED RETAINING WALL
 - BENCH MARK
 - PROPOSED GRASS SWALE TYPE-A SLOPED AT 1.5% (MIN.) UNLESS NOTED AS OTHERWISE



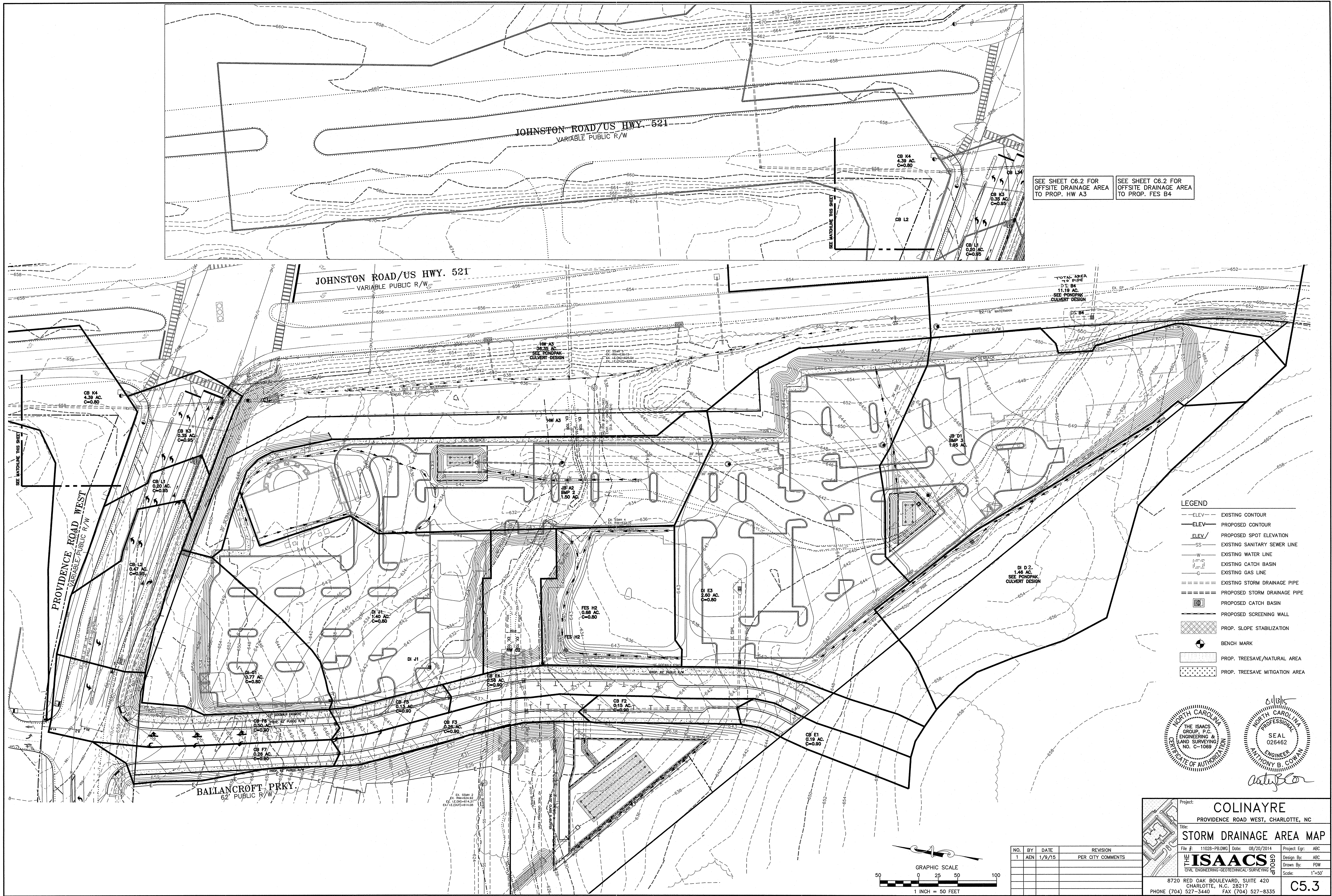
SEE SHEET C6.0 & C6.1
FOR BLOW UP DETAIL
OF PROP. BMPS #1, 2 & 3



Project: COLINAYRE PROVIDENCE ROAD WEST, CHARLOTTE, NC	
Title: GRADING PLAN	
File #: 11028-PB.DWG Date: 08/22/2014	Project Egr: ABC
Design By: ABC	Drawn By: PDW
Scale: 1"=30'	
8720 RED OAK BOULEVARD, SUITE 420 CHARLOTTE, N.C. 28217 PHONE (704) 527-3440 FAX (704) 527-8335	
C5.2	

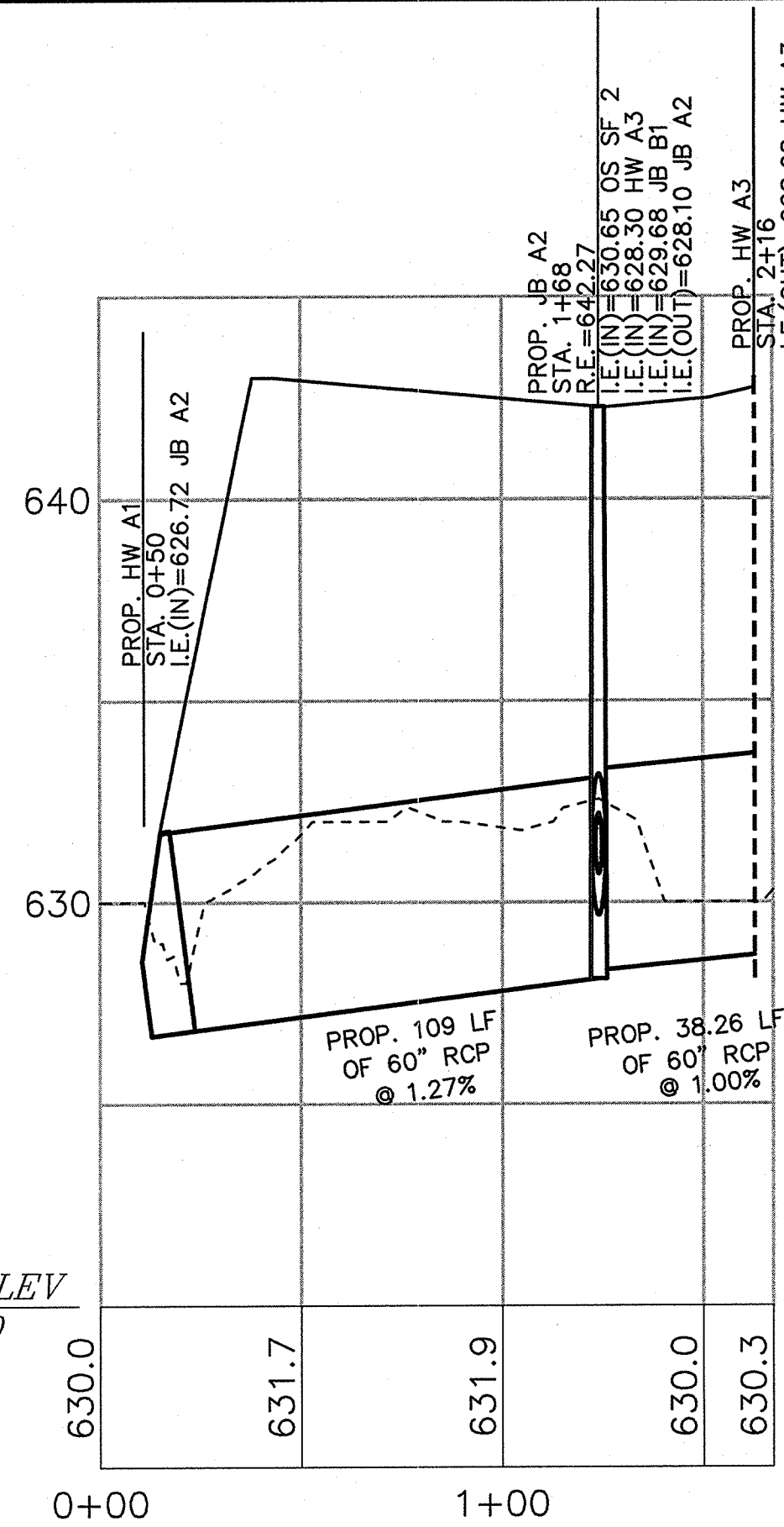


NO.	BY	DATE	REVISION
1	AEN	3/2/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS



ELEVATION (ft.)
VERTICAL SCALE: 4 FEET PER INCH

DATUM ELEV
620.00

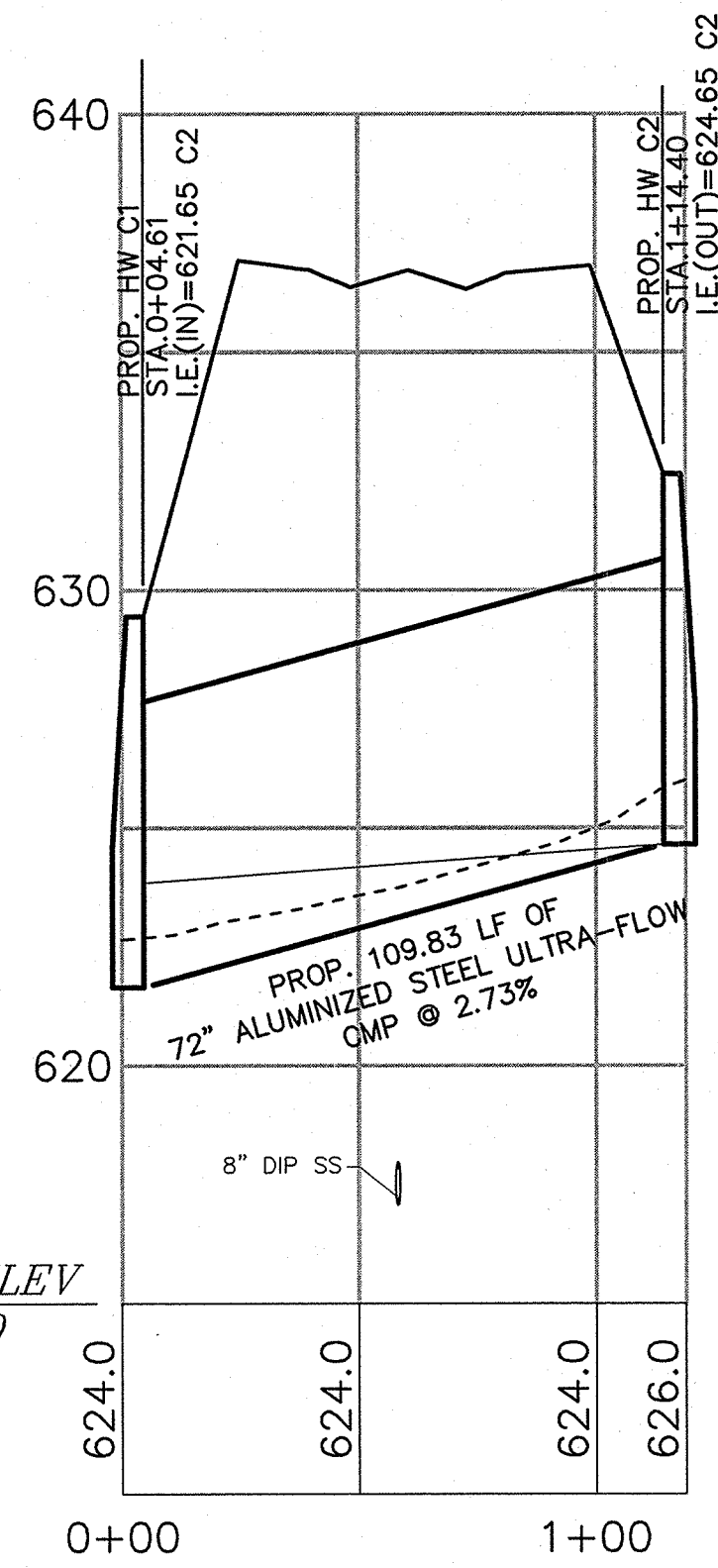


STORM PIPE RUN A (ft.)
HORIZONTAL SCALE: 40 FEET PER INCH

EXISTING GROUND AT CL
PROPOSED GROUND
HYDRAULIC GRADE LINE

ELEVATION (ft.)
VERTICAL SCALE: 4 FEET PER INCH

DATUM ELEV
615.00

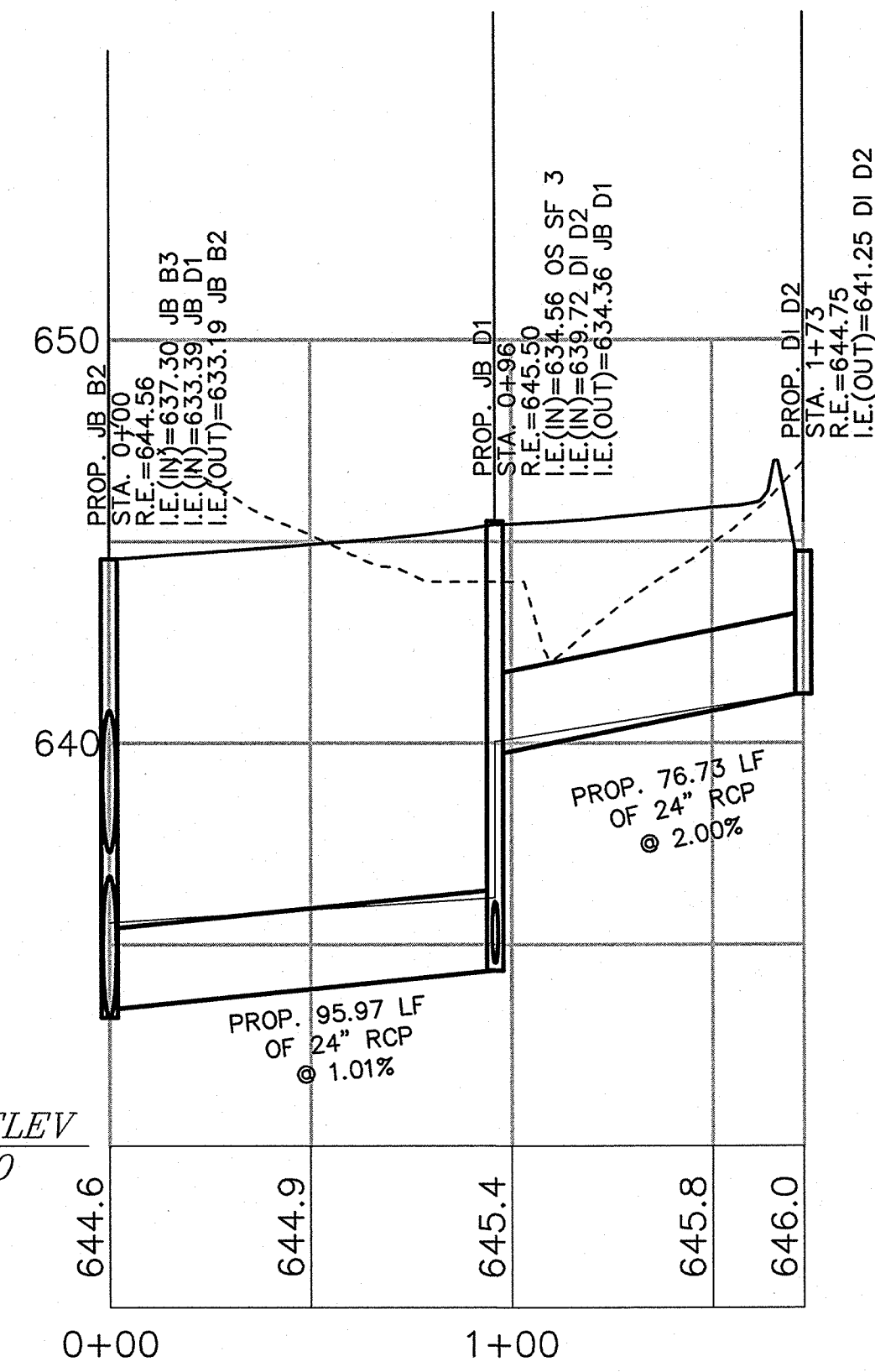


STORM PIPE RUN C (ft.)
HORIZONTAL SCALE: 40 FEET PER INCH

EXISTING GROUND AT CL
PROPOSED GROUND
HYDRAULIC GRADE LINE

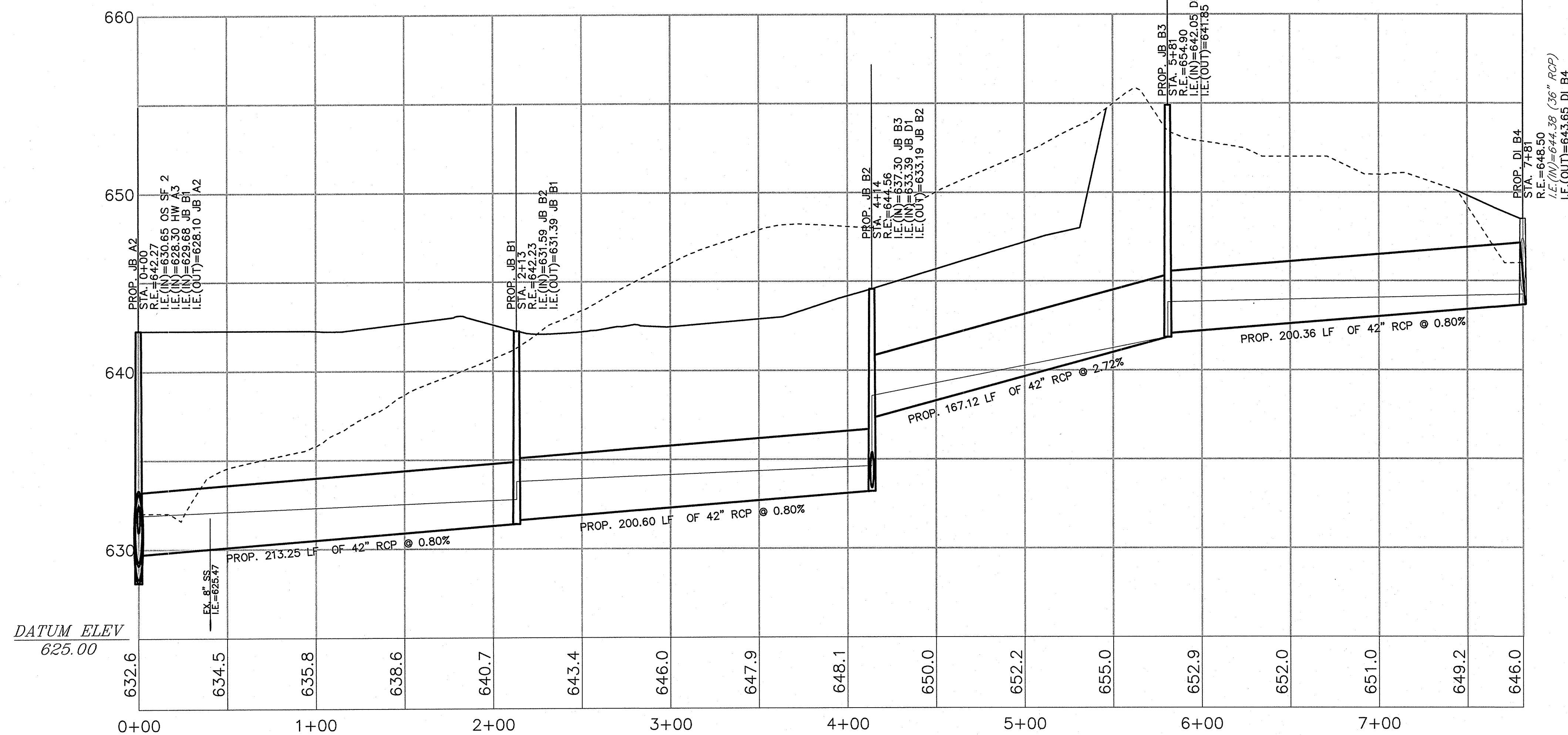
ELEVATION (ft.)
VERTICAL SCALE: 4 FEET PER INCH

DATUM ELEV
630.00



STORM PIPE RUN D (ft.)
HORIZONTAL SCALE: 40 FEET PER INCH

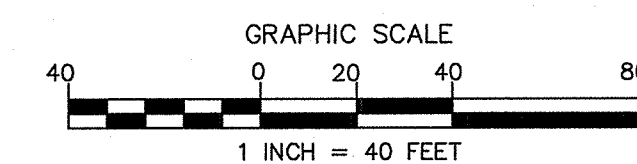
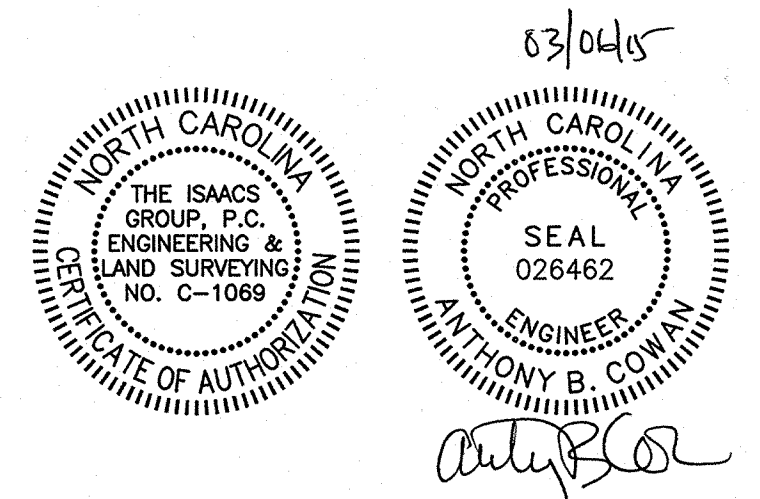
EXISTING GROUND AT CL
PROPOSED GROUND
HYDRAULIC GRADE LINE



STORM PIPE RUN B (ft.)
HORIZONTAL SCALE: 40 FEET PER INCH

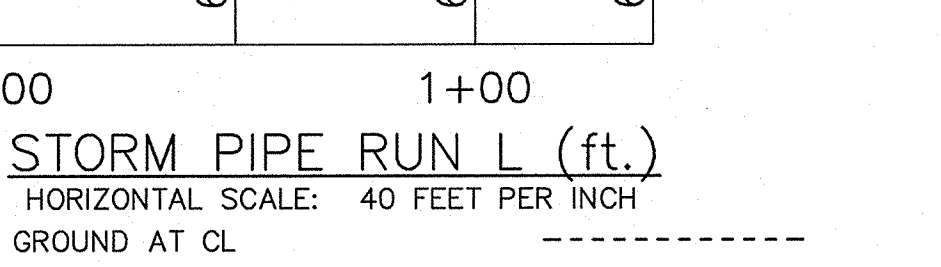
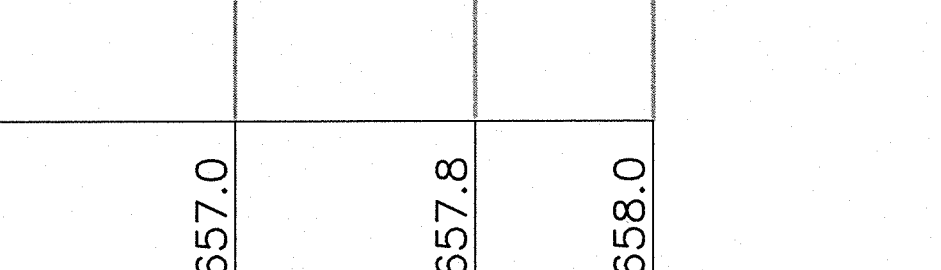
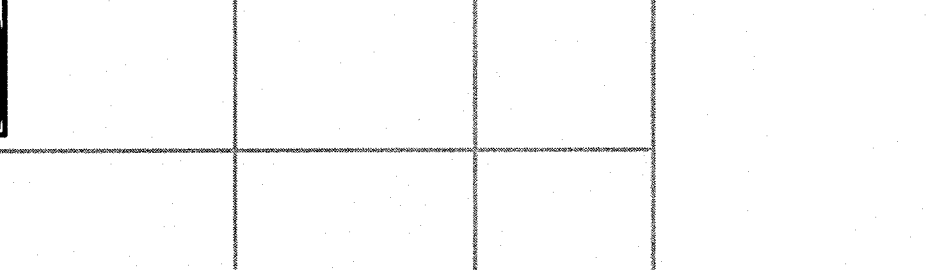
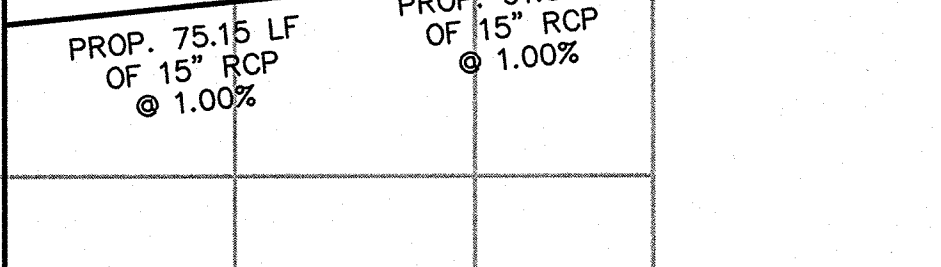
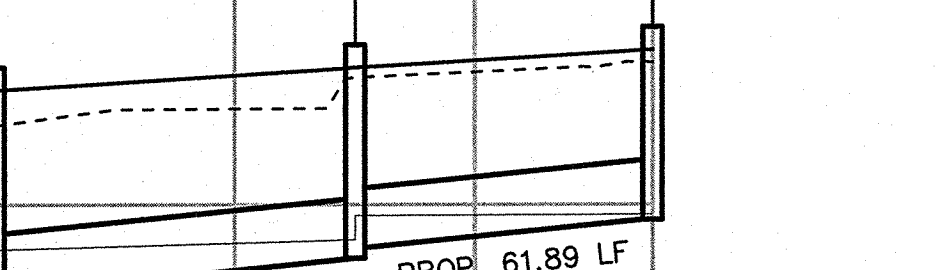
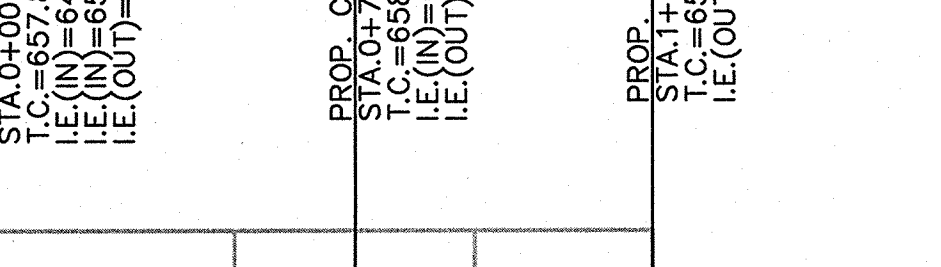
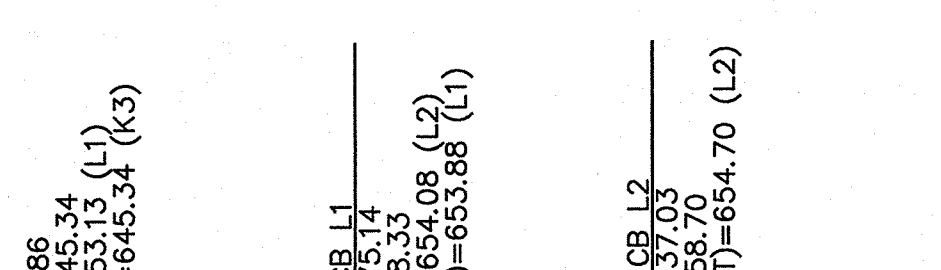
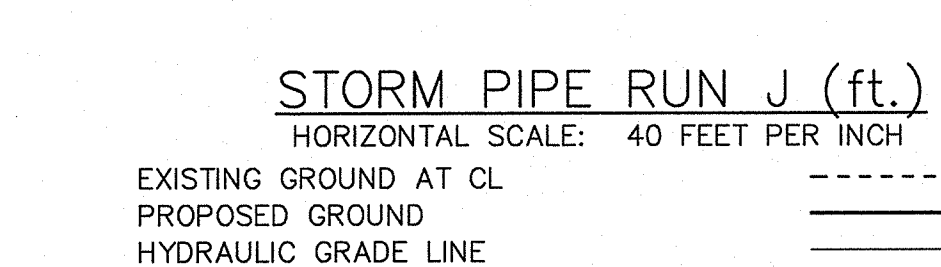
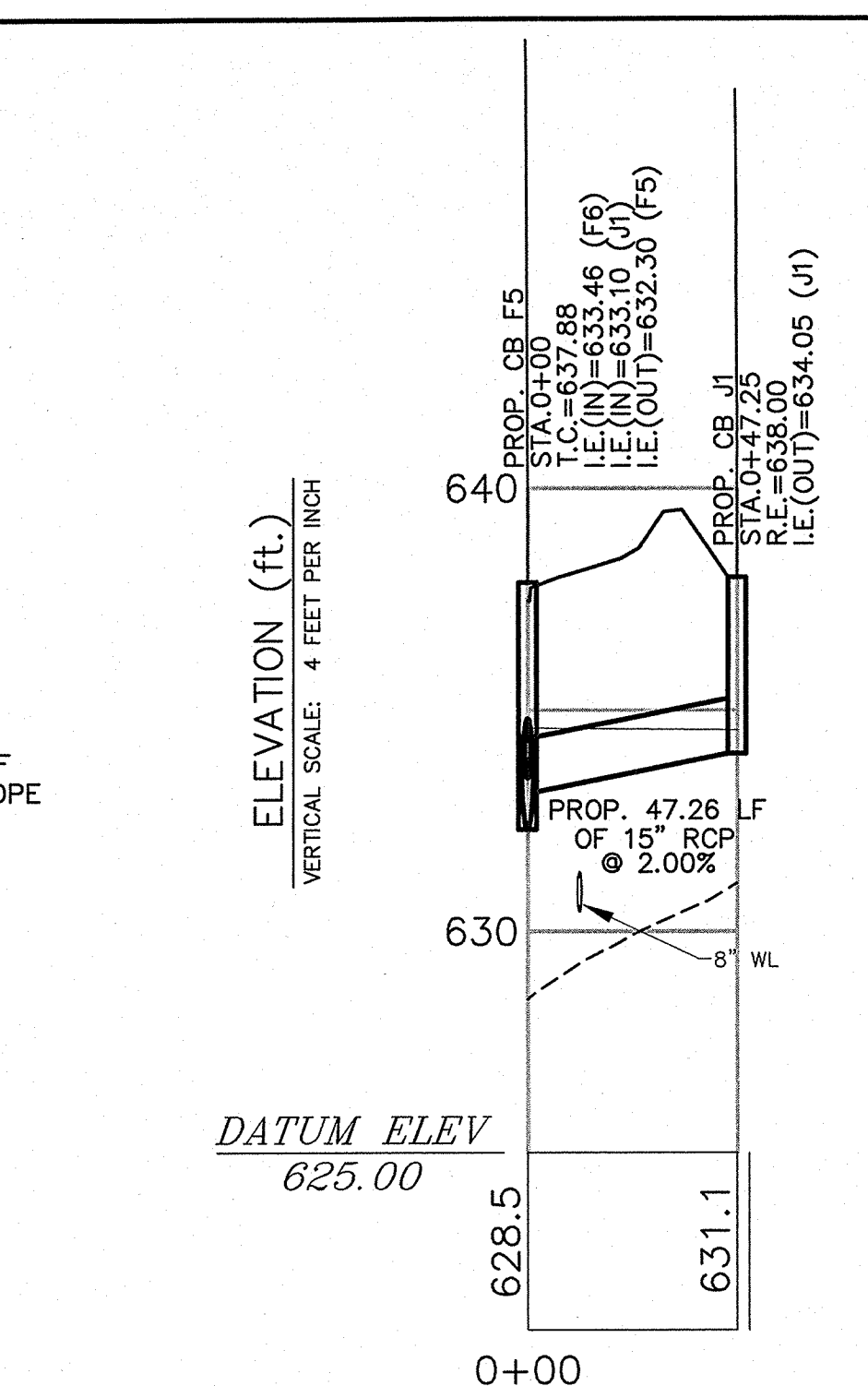
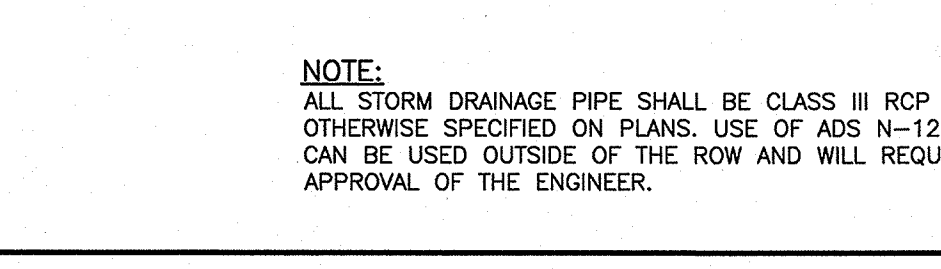
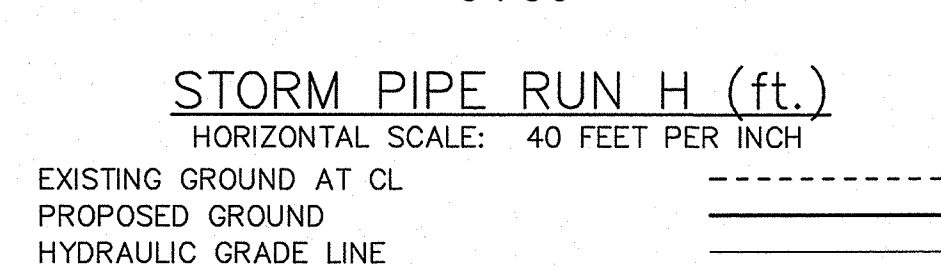
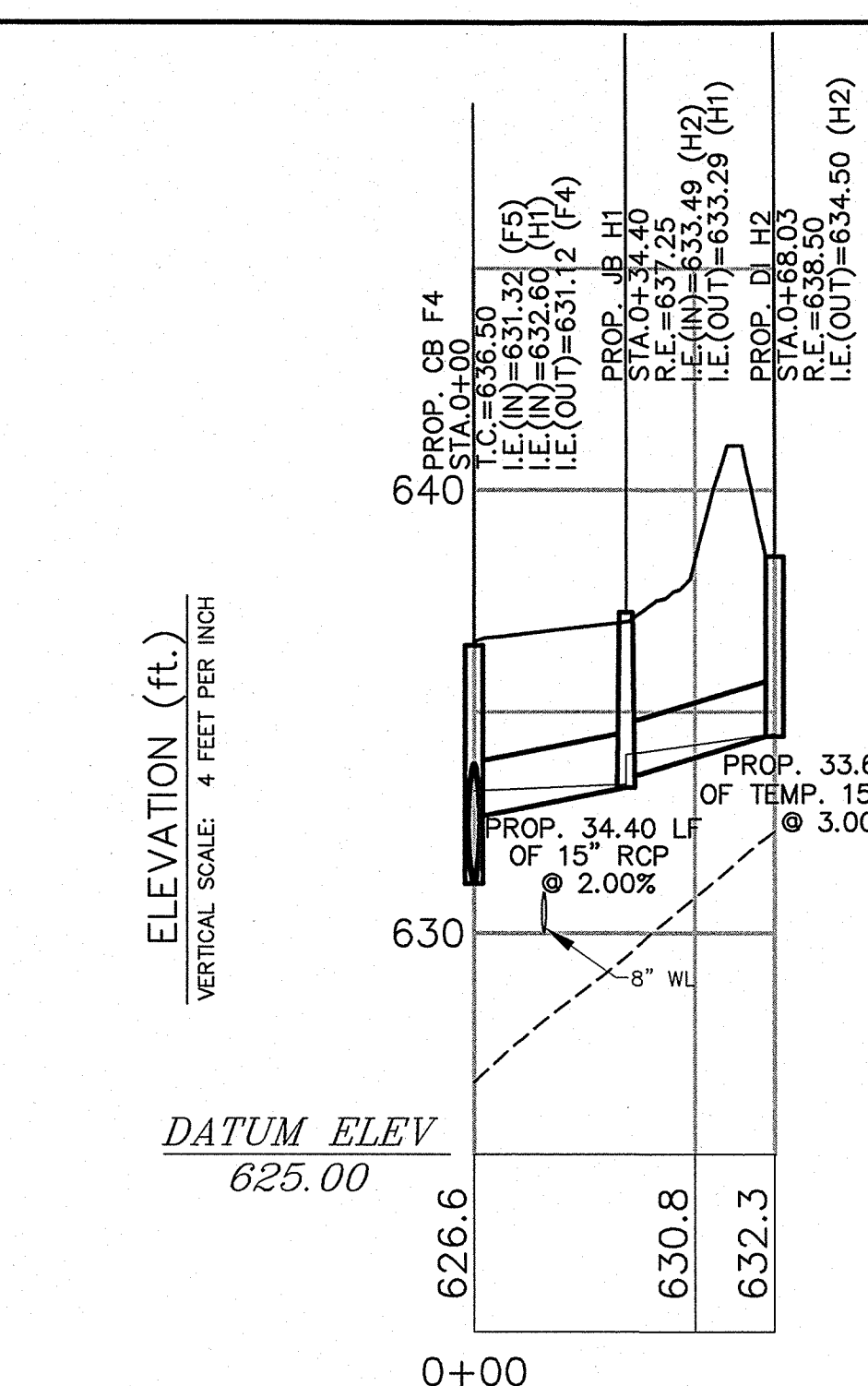
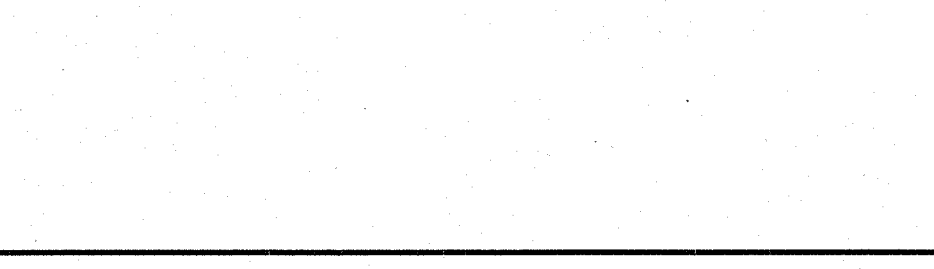
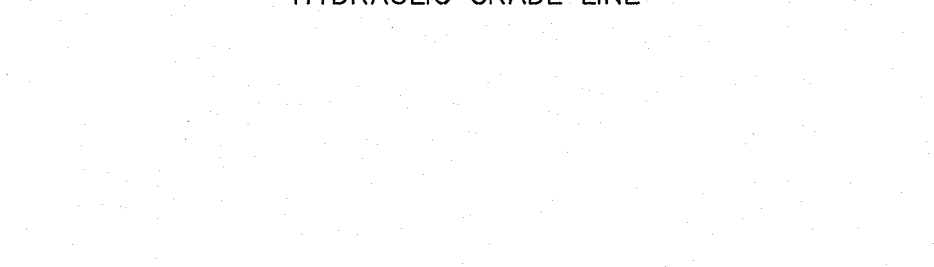
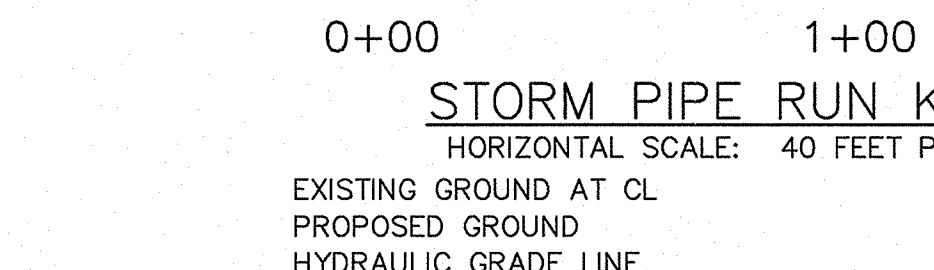
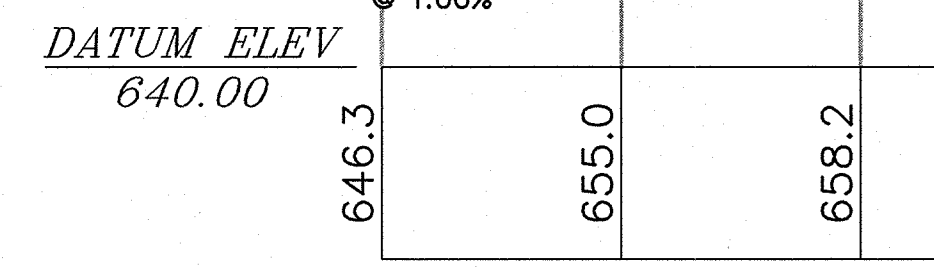
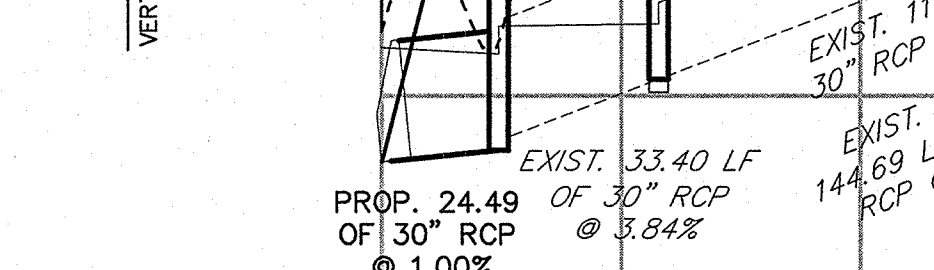
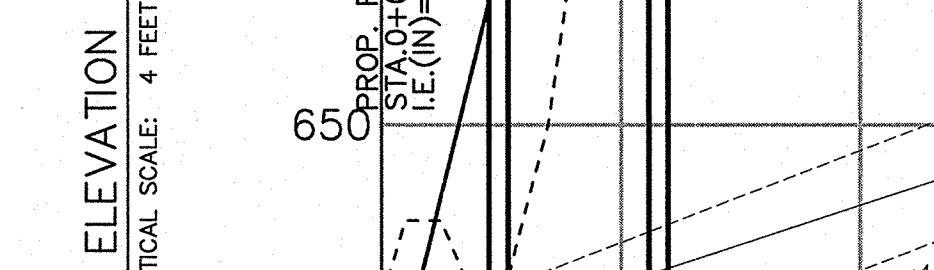
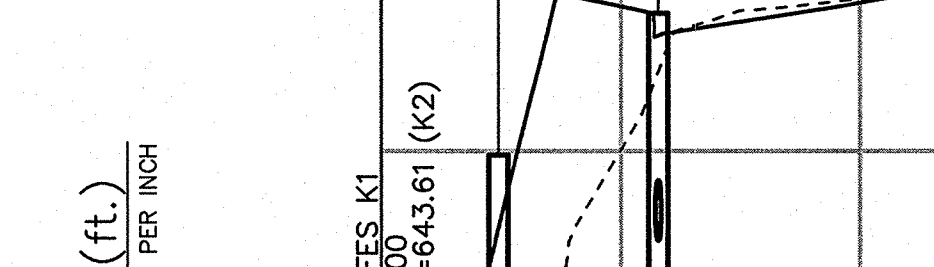
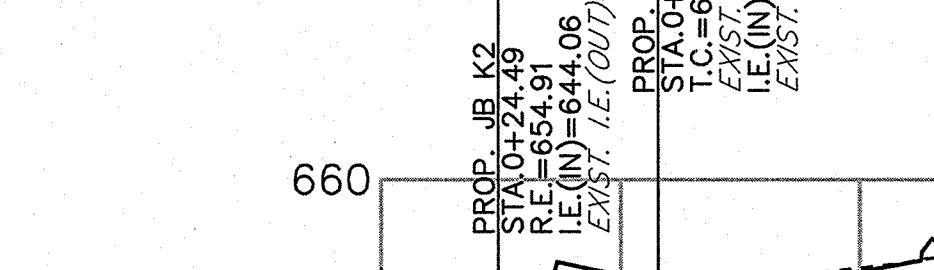
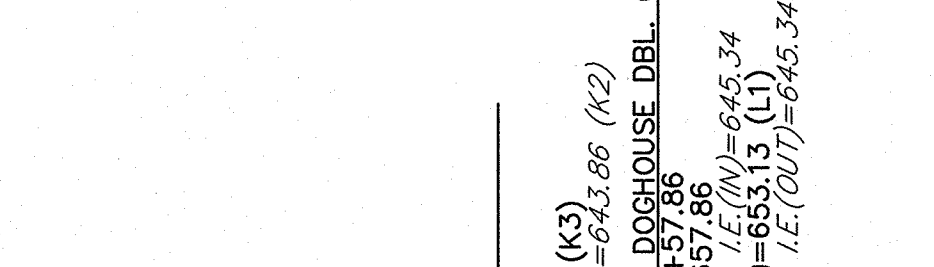
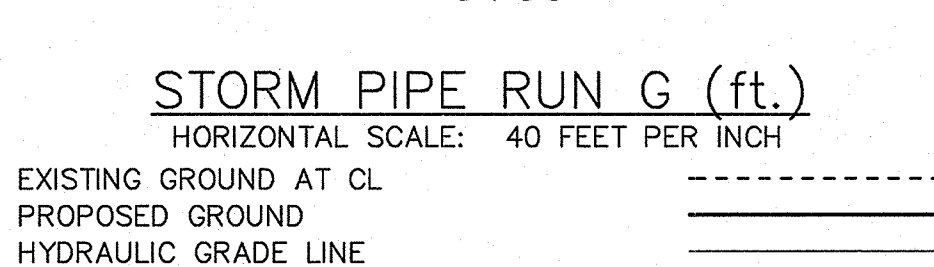
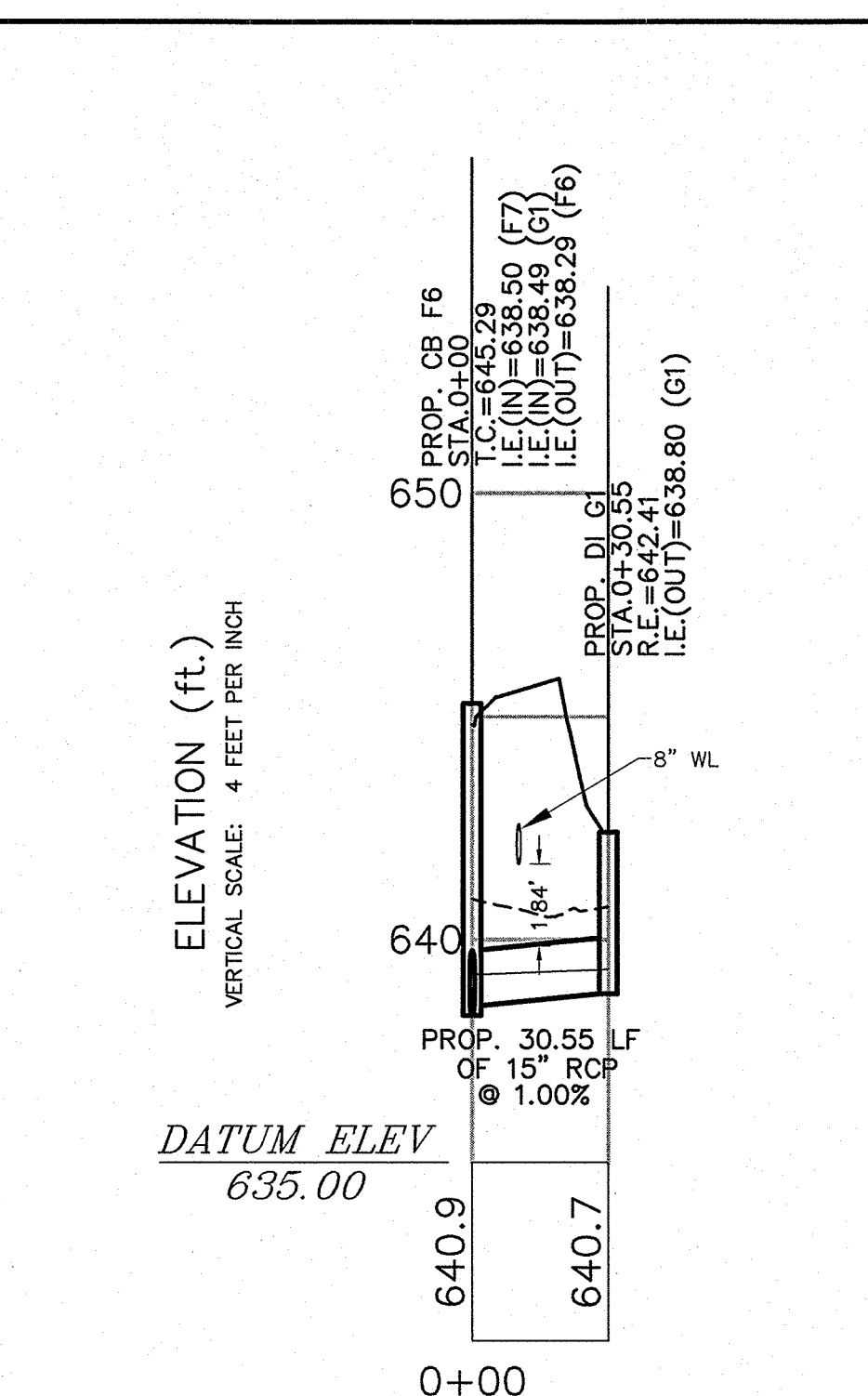
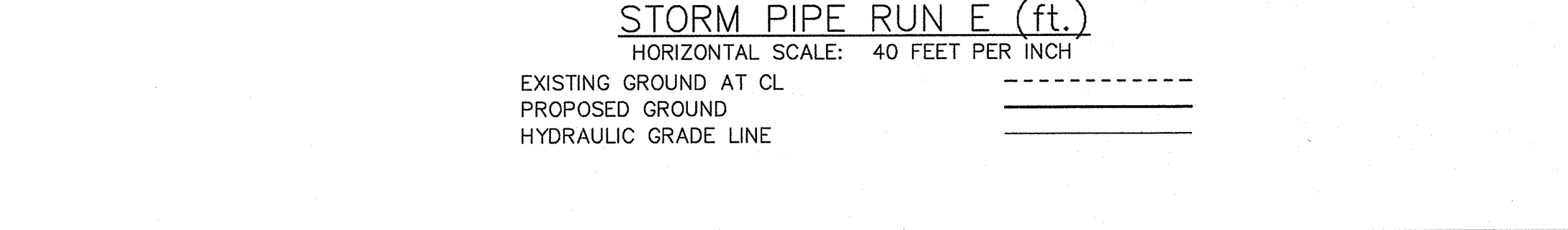
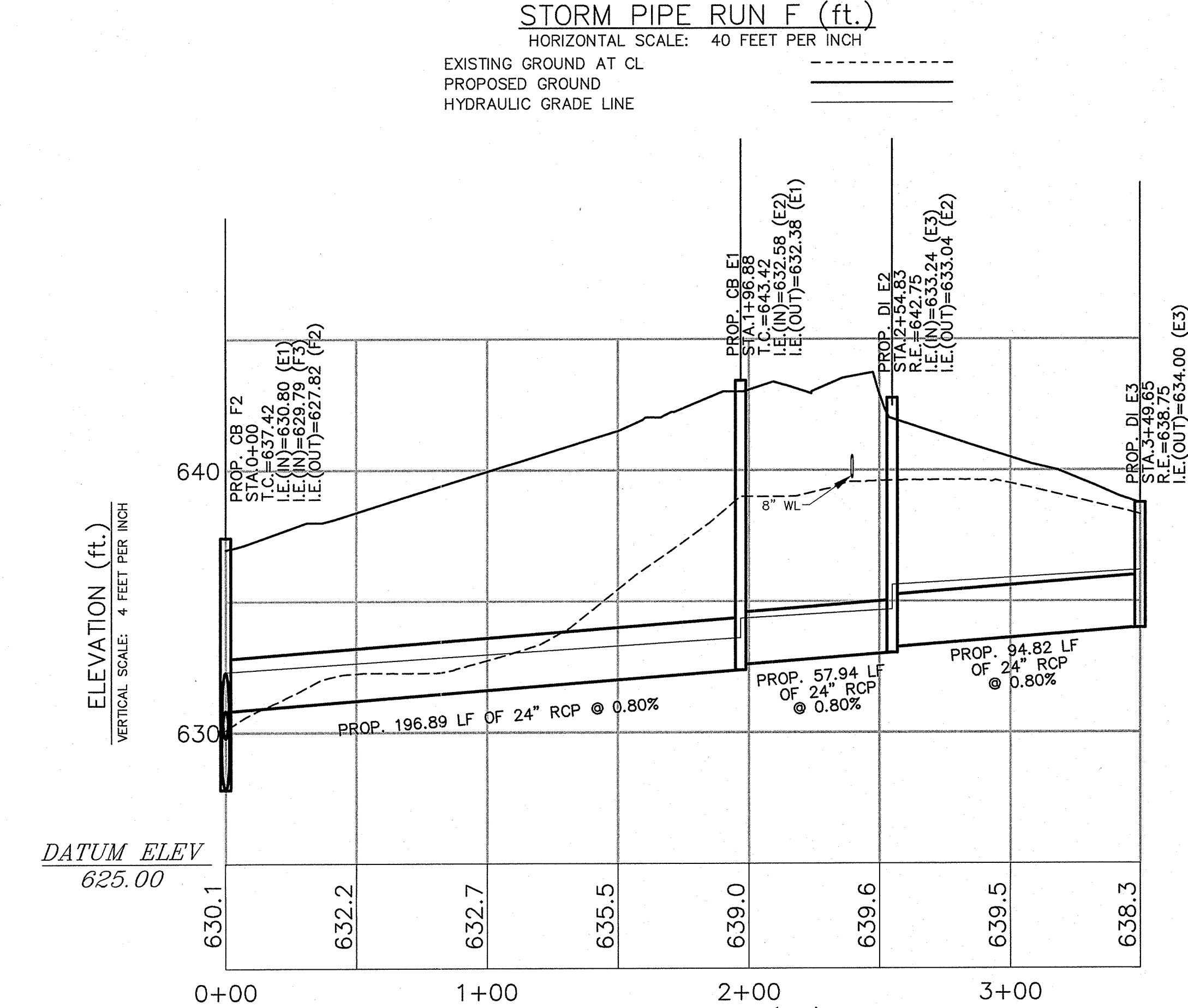
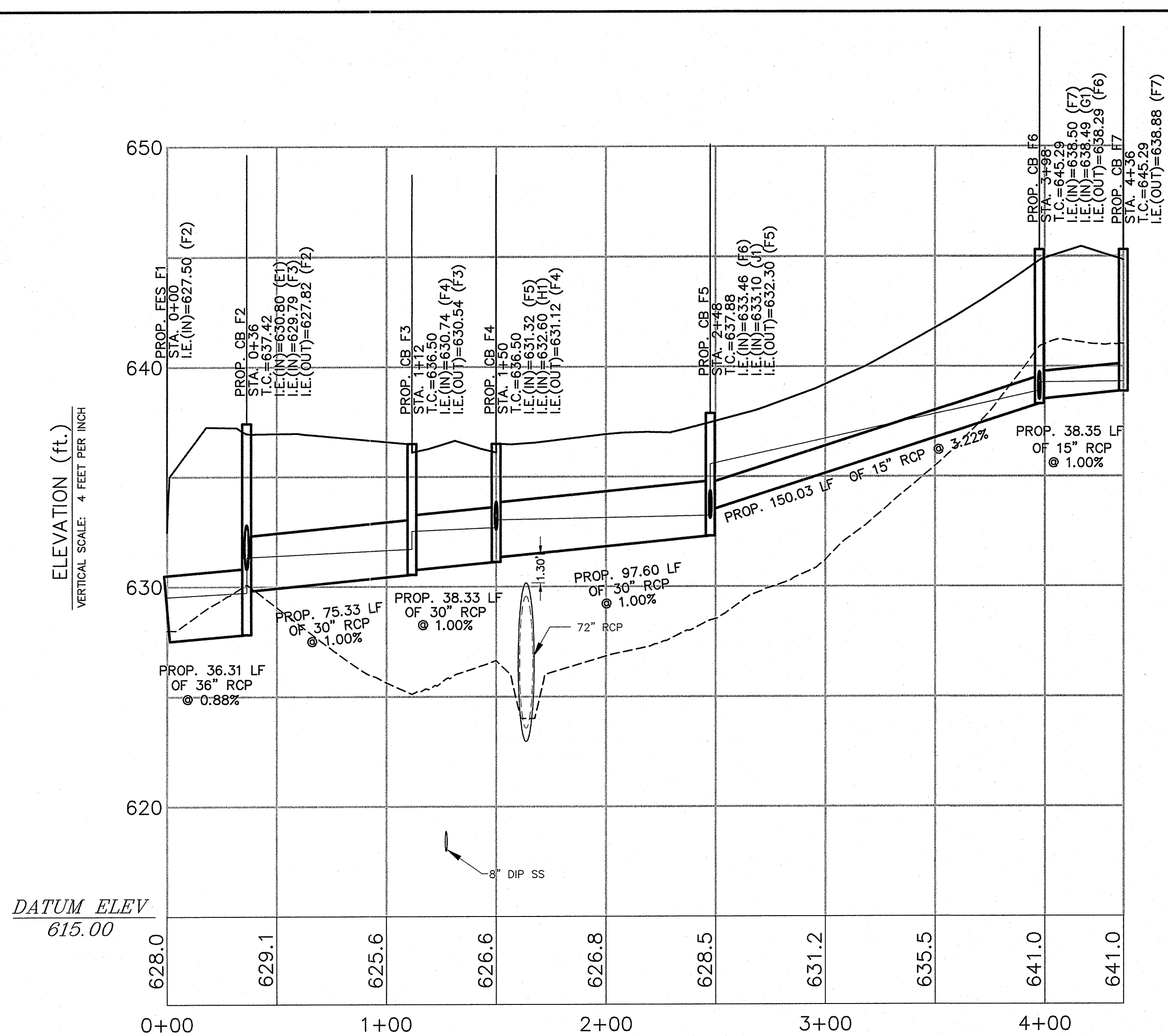
EXISTING GROUND AT CL
PROPOSED GROUND
HYDRAULIC GRADE LINE

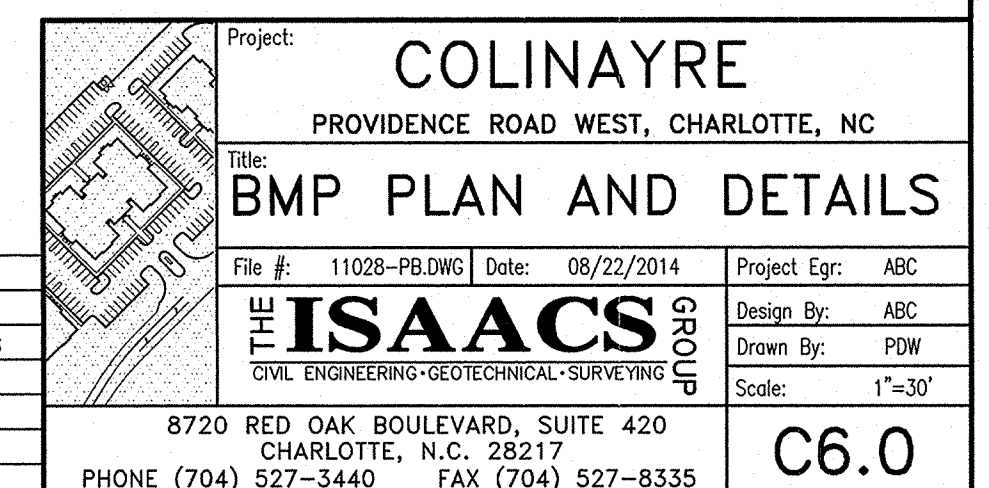
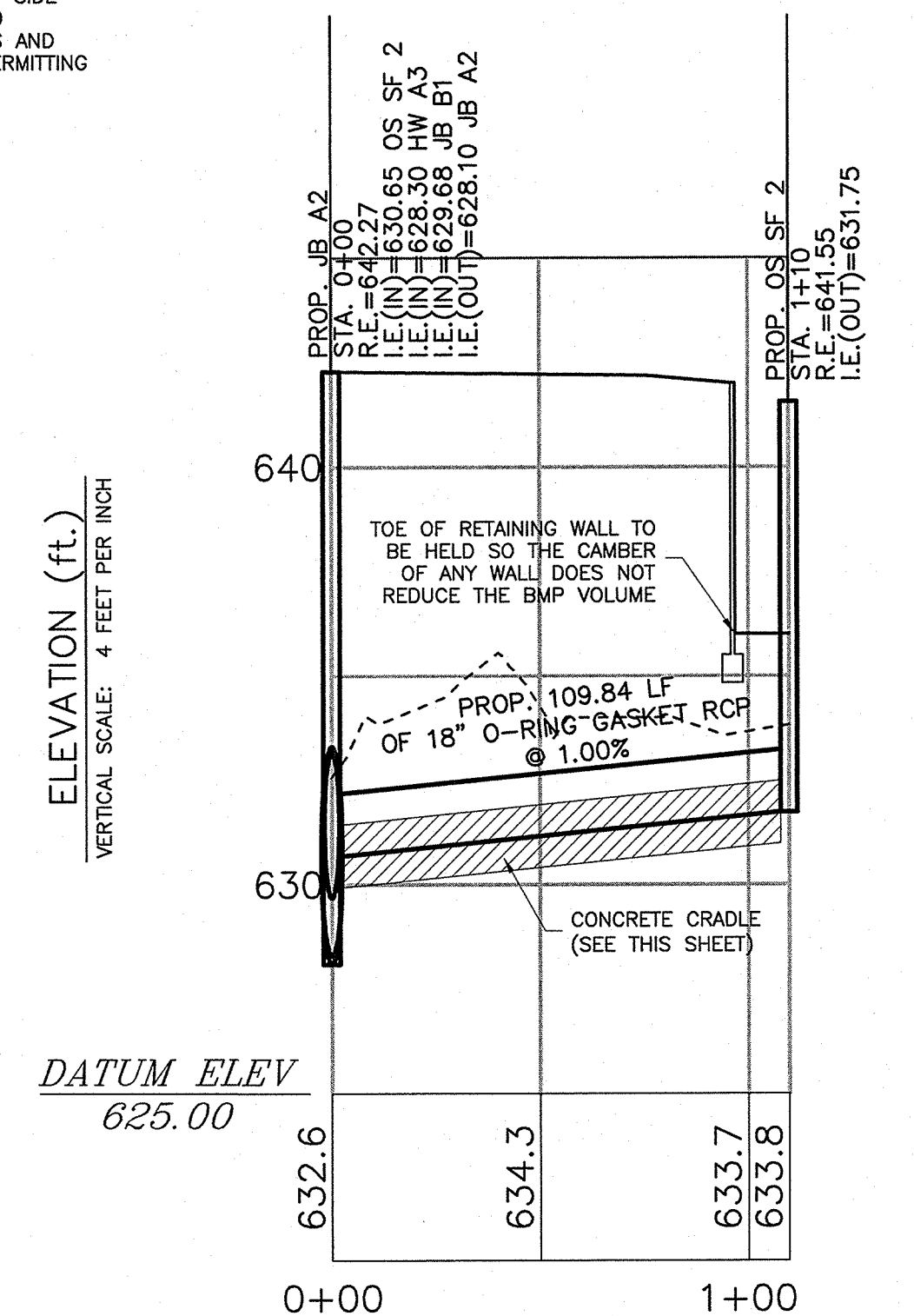
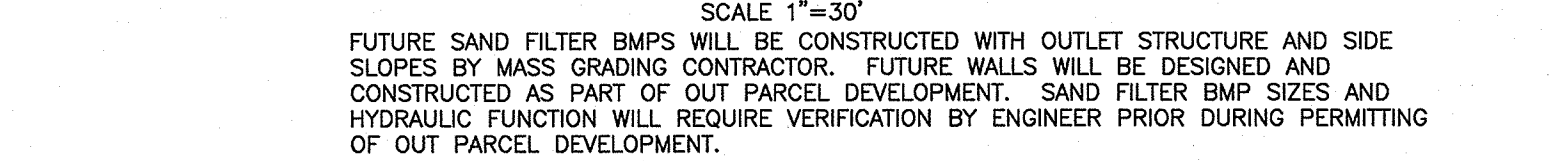
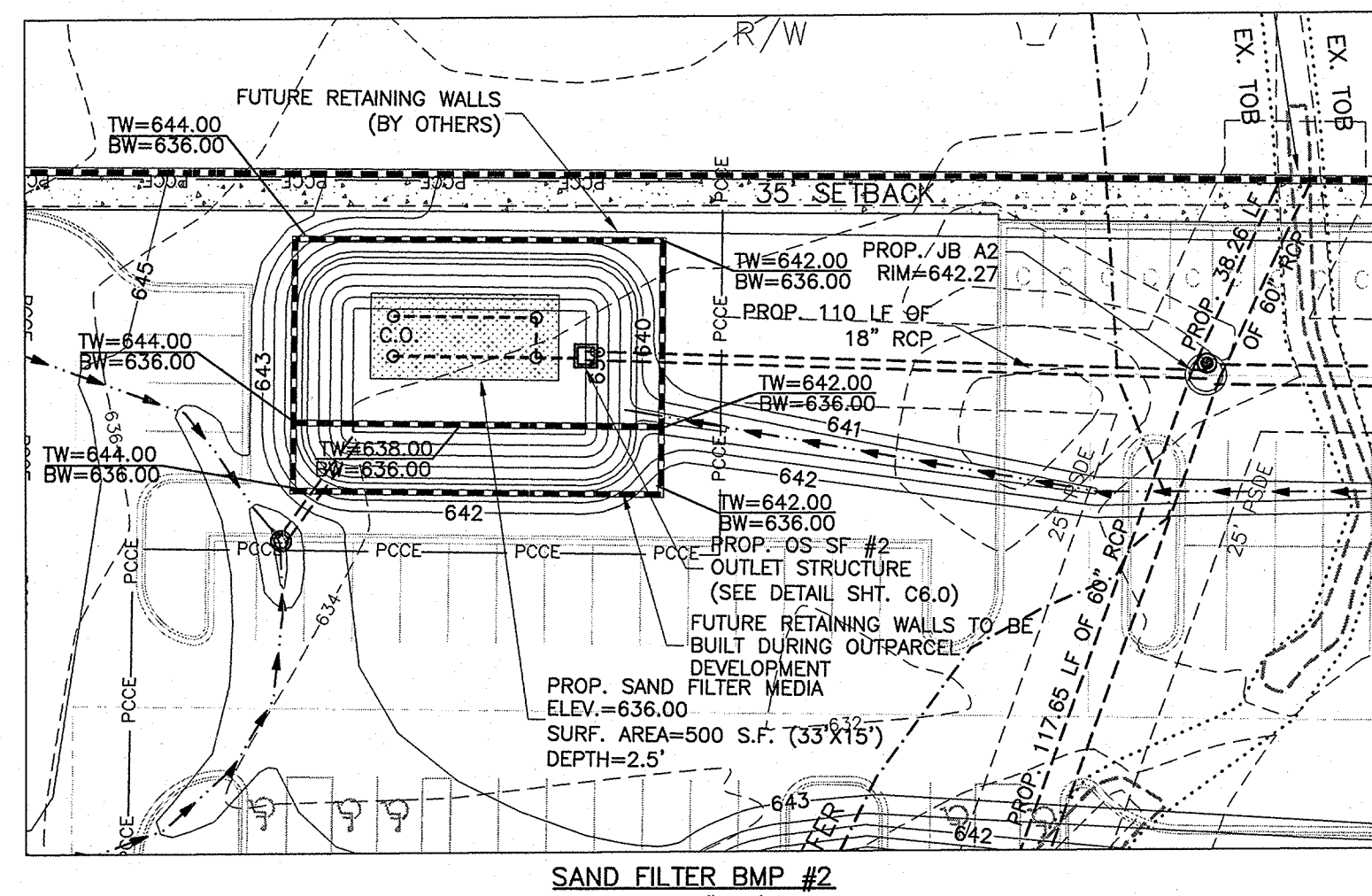
NOTE:
ALL STORM DRAINAGE PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE SPECIFIED ON PLANS. USE OF ADS N-12 HDPE PIPE CAN BE USED OUTSIDE OF THE ROW AND WILL REQUIRE APPROVAL OF THE ENGINEER.

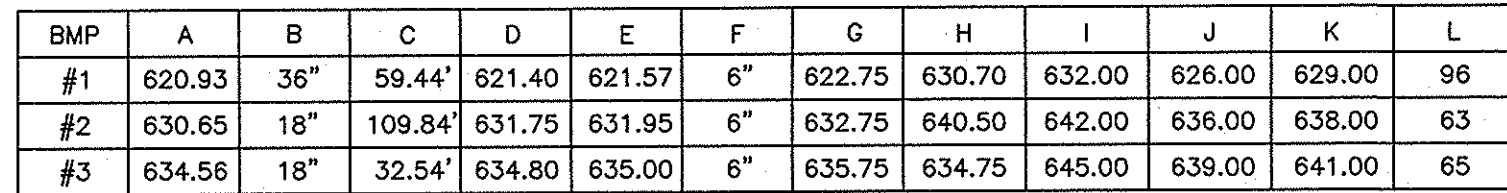


NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS

	Project:	COLINAYRE		
	Title:	PROVIDENCE ROAD WEST, CHARLOTTE, NC		
	STORM PROFILES			
	File #:	11028-PB.DWG	Date:	08/22/2014
	Project Egr:	ABC	Design By:	ABC
8720 RED OAK BOULEVARD, SUITE 420 CHARLOTTE, N.C. 28217 PHONE (704) 527-3440 FAX (704) 527-8335		Drawn By:	PDW	
		Scale:	1"=40'	
			C5.4	







GEOTECHNICAL SPECIFICATIONS:

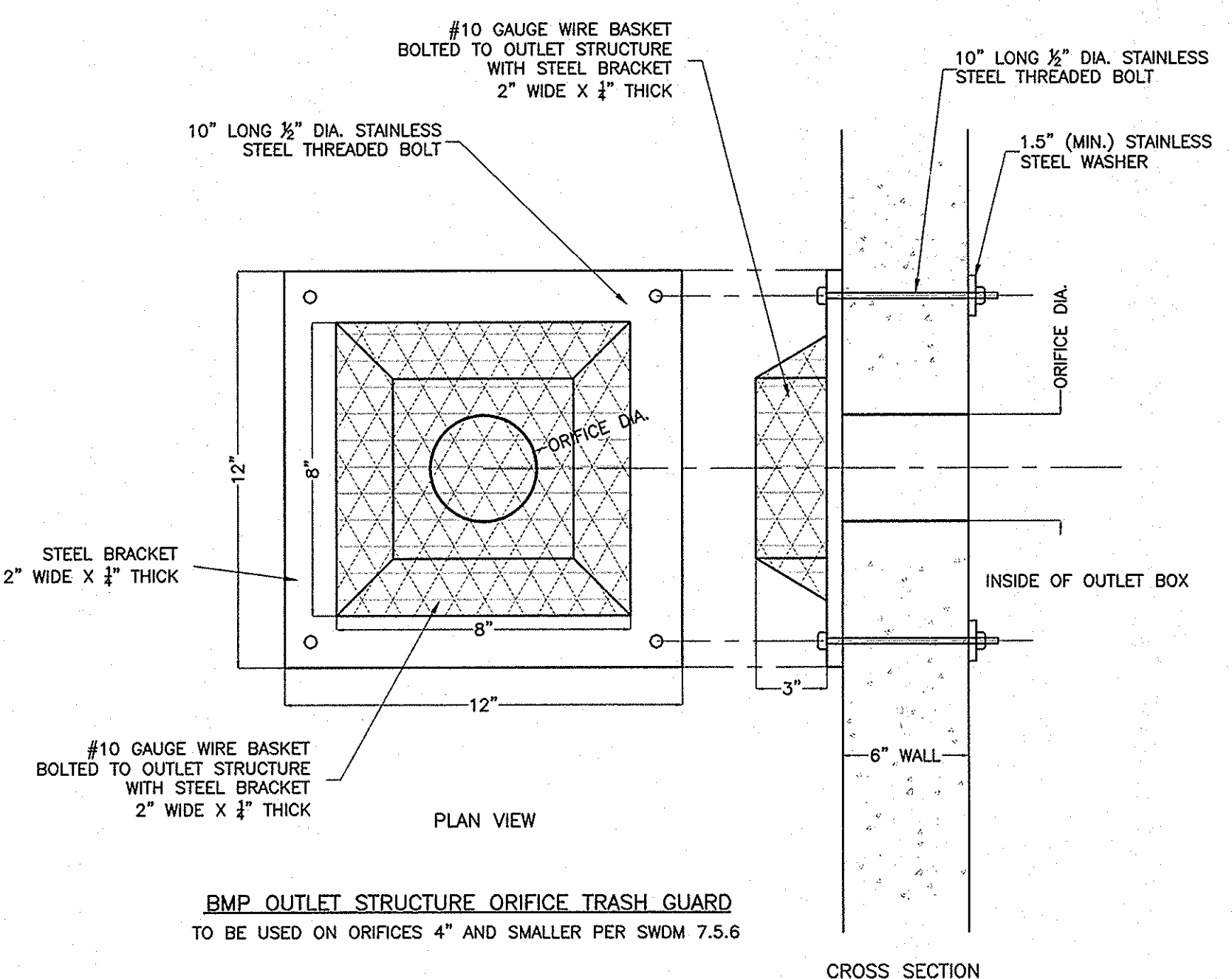
- A. A MINIMUM OF ONE (1) IN-PLACE DENSITY TEST SHOULD BE PERFORMED IN ACCORDANCE WITH ASTM D-1556 FOR EACH 2,500 S.F. OF LIFT AREA WITH A MINIMUM OF TWO TESTS PER LIFT. IMPROPER COMPACTION MAY RESULT IN PREMATURE DETERIORATION OF THE EMBANKMENT AND/OR DIFFICULT SETTLEMENT OF FOUNDATIONS. SEE GEOTECHNICAL REPORT FOR MORE DETAILED SPECIFICATIONS RELATING TO SELECTION AND PLACEMENT OF STRUCTURAL FILL.
- B. ALL PLACED DENSITY OF THE CONSTRUCTED DAM EMBANKMENTS SHOULD BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY THE STANDARD PROCTOR TEST. ALL FILL PLACED WITHIN THE UPPER ONE (1) FOOT OF THE RISE OF THE FOUNDATION AND THE SPILLWAY SUBGRADE SHOULD BE COMPACTED TO A MINIMUM OF 98 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR). ALL FILL MATERIAL SHOULD BE PLACED AND MECHANICALLY COMPACTED IN UNIFORM LIFTS, NOT EXCEEDING NINE (9) INCHES IN LOOSE THICKNESS. THE MOISTURE CONTENT OF THE FILL AT THE TIME OF PLACEMENT SHOULD BE WITHIN ONE PERCENT OF THE OPTIMUM MOISTURE CONTENT ESTABLISHED BY THE STANDARD PROCTOR TEST. SEE GEOTECHNICAL REPORT FOR MORE DETAILED SPECIFICATIONS RELATING TO THE SELECTION AND PLACEMENT OF STRUCTURAL FILL.
- C. ALL MATERIALS TO BE UTILIZED ON-SITE SHOULD BE SELECTED ON THE BASIS OF ITS PLASTICITY CHARACTERISTICS AND LABORATORY COMPACTION TESTS. ON-SITE SOILS WHICH ARE FOUND TO CONTAIN DELETERIOUS MATERIAL, INCLUDING ORGANICS AND TOPSOIL, SHOULD NOT BE USED AS STRUCTURAL FILL FOR THE SUPPORT OF STRUCTURES OR PAVEMENT. THE CORE MATERIAL SHOULD BE CLASSIFIED AS A TYPE OF NON-PLASTIC OR LOW PLASTICITY SOIL. ALL MATERIALS TO BE USED IN THE FRENCH MATERIAL TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER. THIS TESTING SHOULD INCLUDE DOUBLE HYDROMETER TESTING TO ENSURE THAT THE SOILS ARE NOT DISPERSIVE IN NATURE.
- D. CONTRACTOR TO COORDINATE CONSTRUCTION WITH THE GEOTECHNICAL FIRM EXPERIENCED IN FIELD TESTING SERVICES FOR CONSTRUCTION OF DAM CONSTRUCTION. SPECIFICATIONS GIVEN ON THESE PLANS ARE RECOMMENDATIONS ONLY. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL SPECIFICATIONS.
- E. ALL FILL MATERIAL USED FOR CONSTRUCTION OF DAM CORE AND EMBANKMENTS TO BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT.
- F. SEE ADDITIONAL CITY OF CHARLOTTE EMBANKMENT SPECS ON SHEET C1.1

DRAINTech POLYETHYLENE ATRIUM GRATE
 COVERED W/ SOCK-IT OR EQUIV.
 FABRIC TO PREVENT CLOGGING
 1.5" OF 10" SOLID WALL
 HDPE PIPE WITH 1.0" DIA. HOLES
 (6 HORIZ. WITH 4 HOLES PER ROW)
 COVER RISER WITH SOCK-IT OR OTHER
 EQUIV. FABRIC TO PREVENT CLOGGING
 (TOP ELEV.=629.00)

FOREBAY SIDE
 10"x10"x10" TEE
 FOREBAY INVERT
 ELEV.=627.10
 CLASS B RIP RAP
 CHANNEL SLOPING TO
 DRAIN PIPE FROM PES
 FILTER FABRIC
 BEGIN HOLES 3" BELOW
 INVERT ELEVATION
 3 L.F. OF 10" SOLID
 WALL HDPE PIPE FILLED WITH
 CONCRETE TO 4" FOREBAY TEE
 INVERT FOR ANCHOR
 SEAL END WITH CAP

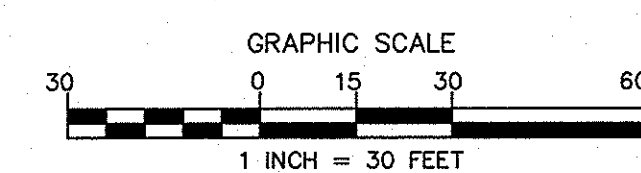
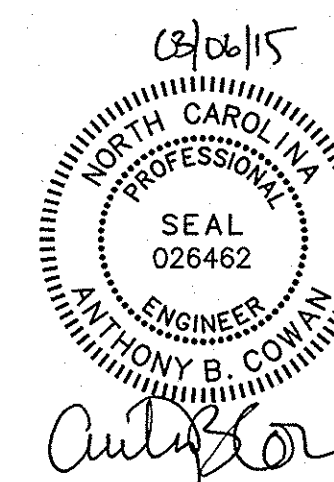
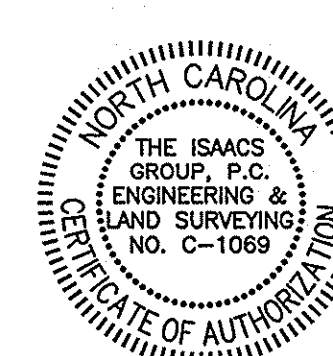
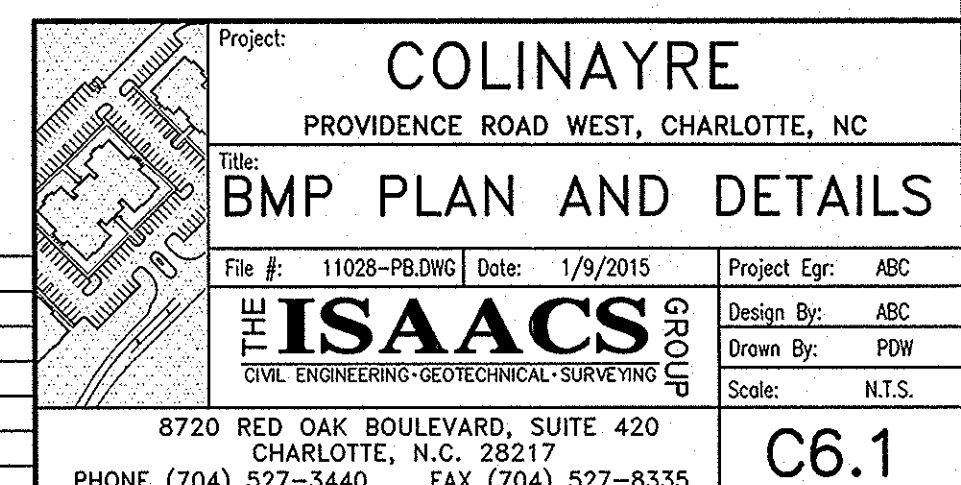
1.0'
 2.75'
 5 L.F. OF 10" SOLID
 WALL HDPE PIPE
 SLOPED @ 1.0% (MIN.)
 OUTLET I.E.=627.00
 SAND FILTER SIDE
 PROP. 3' WIDE x 18" DEPTH
 CLASS B RIP RAP APRON
 ALONG ENTIRE LENGTH OF
 WALL
 FILTER FABRIC
 BMP PERFORATED STANDPIPE
 TOP OF CONC. WALL
 ELEV.=630.00

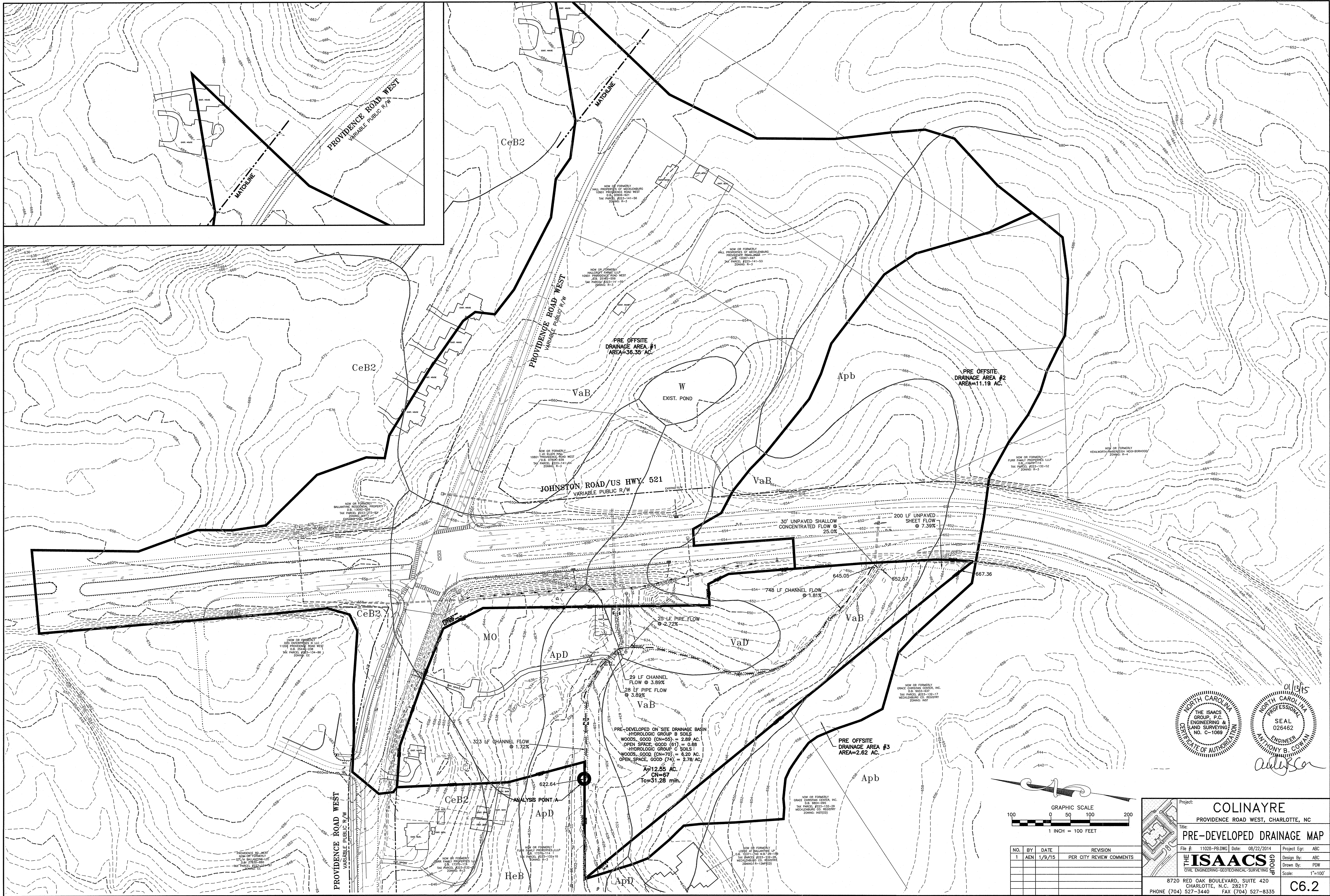
BMP PERFORATED STANDPIPE



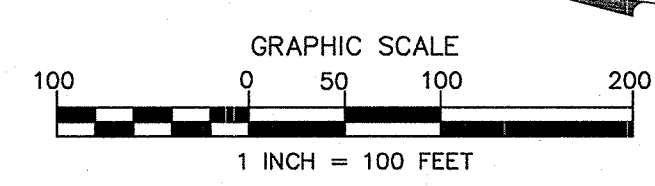
BMP OUTLET STRUCTURE ORIFICE TRASH GUARD
TO BE USED ON ORIFICES 4" AND SMALLER PER SWDM 7.5.6

CROSS SECTION

[illegible]



01/13/15
NORTH CAROLINA
THE ISAACS GROUP, P.C.
ENGINEERING & LAND SURVEYING
NO. C-1069
SEAL
026462
ENGINEER
ANTHONY B. COWAN
Anthony B. Cowan



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: PRE-DEVELOPED DRAINAGE MAP

File #: 11028-PB-DWG Date: 08/22/2014 Project Egr: ABC

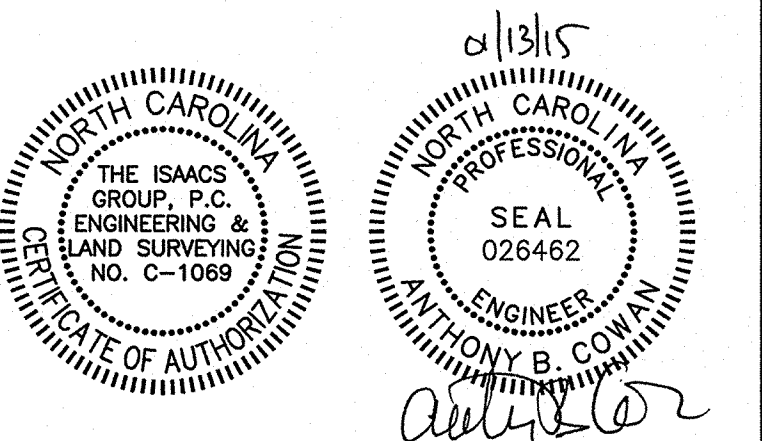
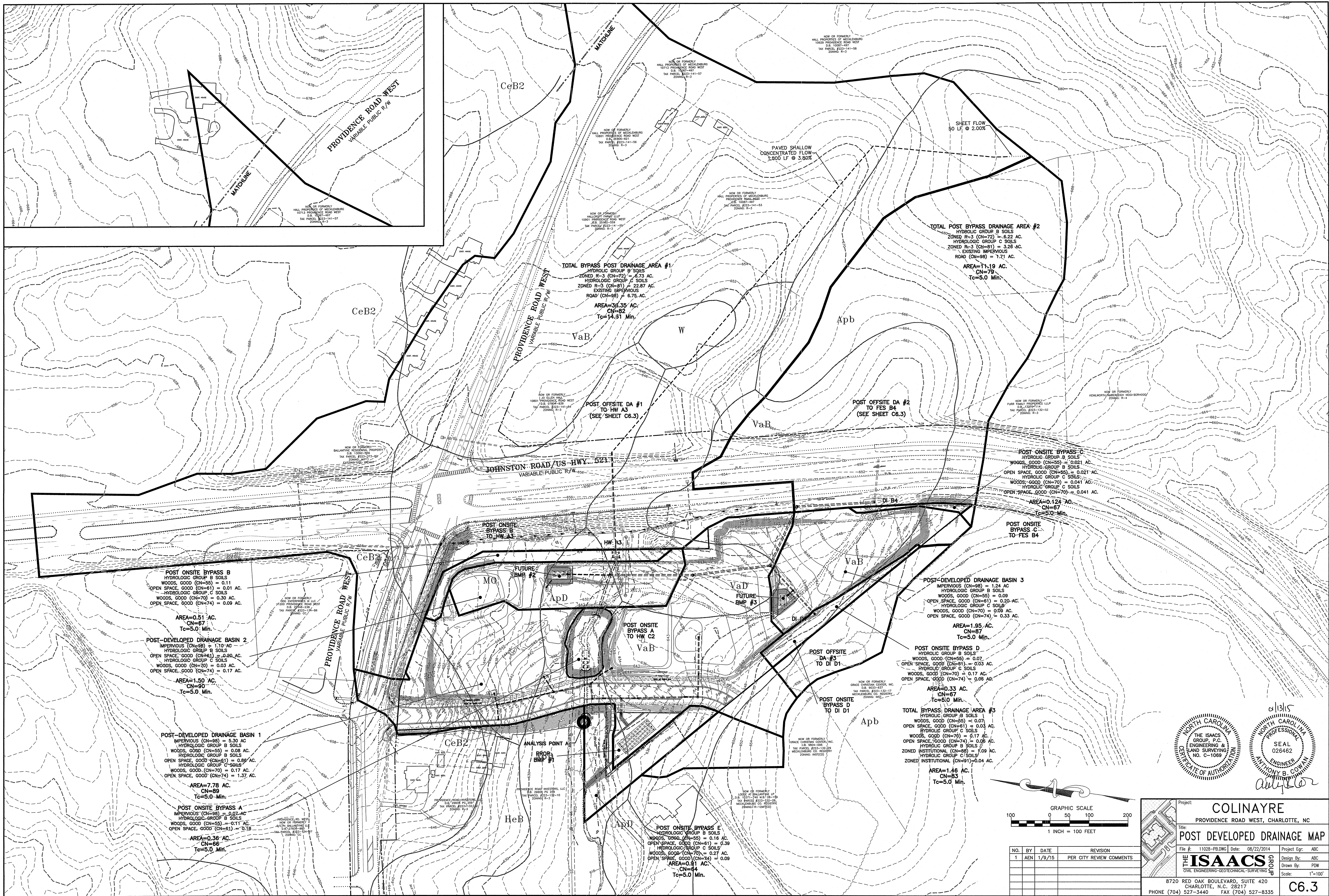
Design By: ABC

Drawn By: FDW

Scale: 1"=100'

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C6.2



Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: POST DEVELOPED DRAINAGE MAP

File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

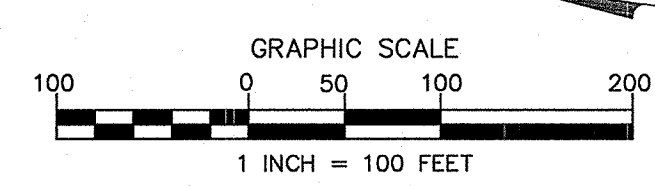
Design By: ABC

Drawn By: POW

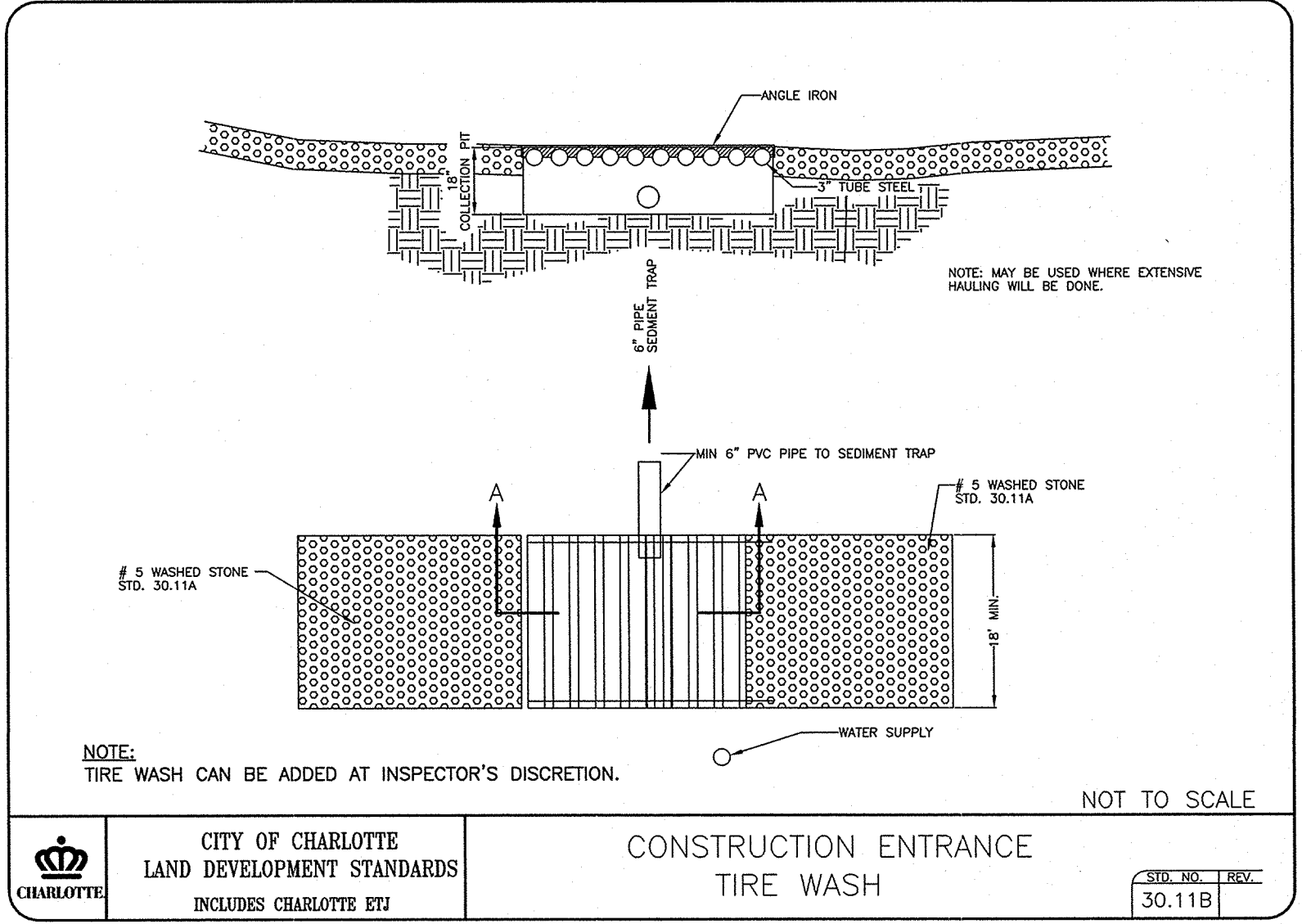
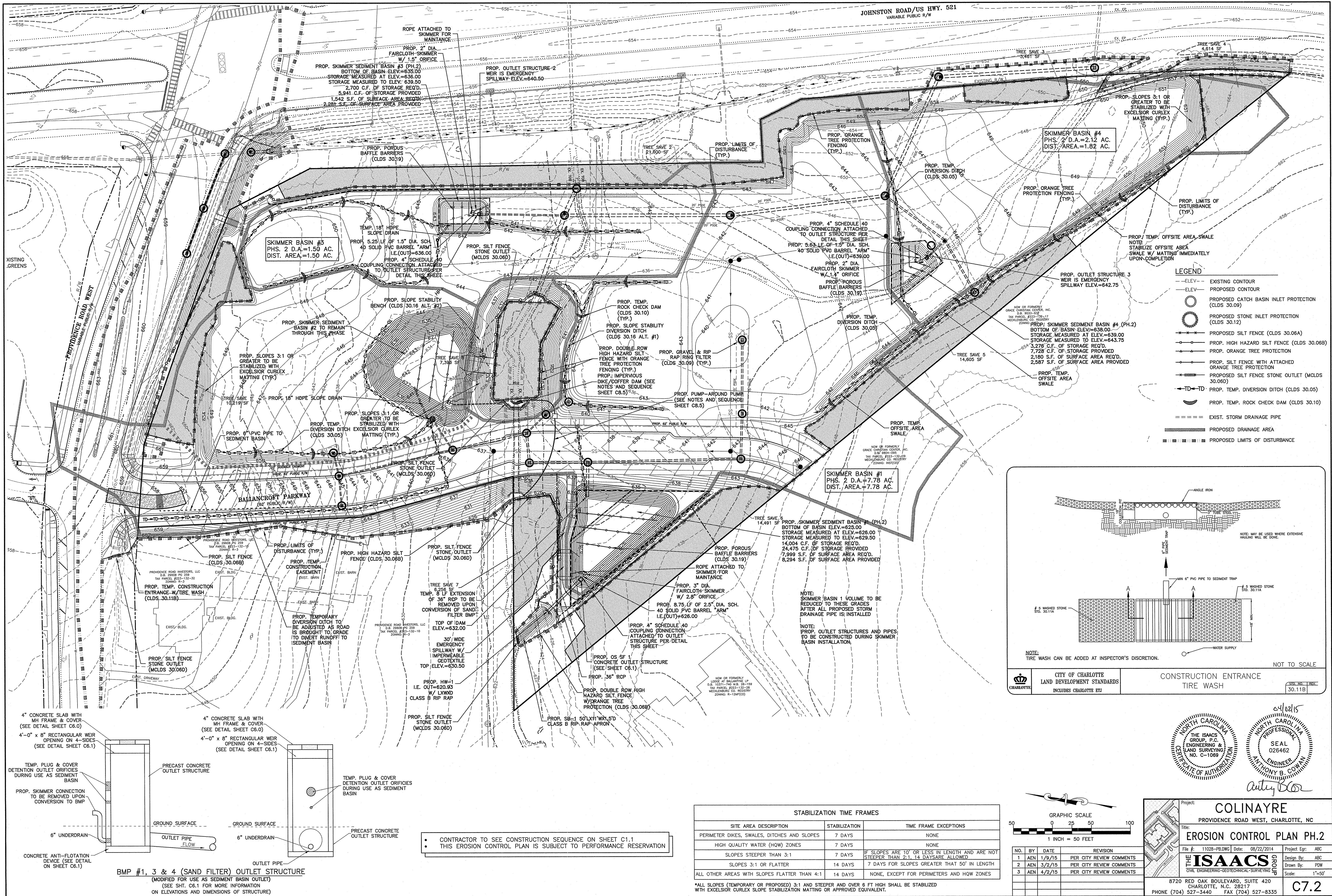
Scale: 1"=100'

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C6.3



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS



STABILIZATION TIME FRAMES		
SITE AREA DESCRIPTION	STABILIZATION	TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	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 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES

• ALL SLOPES (TEMPORARY OR PROPOSED) 3:1 AND STEEPER AND OVER 6 FT HIGH SHALL BE STABILIZED WITH EXCELSIOR CURLEX SLOPE STABILIZATION MATTING OR APPROVED EQUIVALENT.

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

File #: 11028-PB.DWG Date: 08/22/2014 Project Egr: ABC

Design By: ABC

Drawn By: PDW

Scale: 1"=50'

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

9/10/15

THE ISAACS GROUP, P.C.
ENGINEERING & LAND SURVEYING
NO. C-1068

SEAL 026462

ANTHONY B. COWAN
ENGINEER

9/10/15

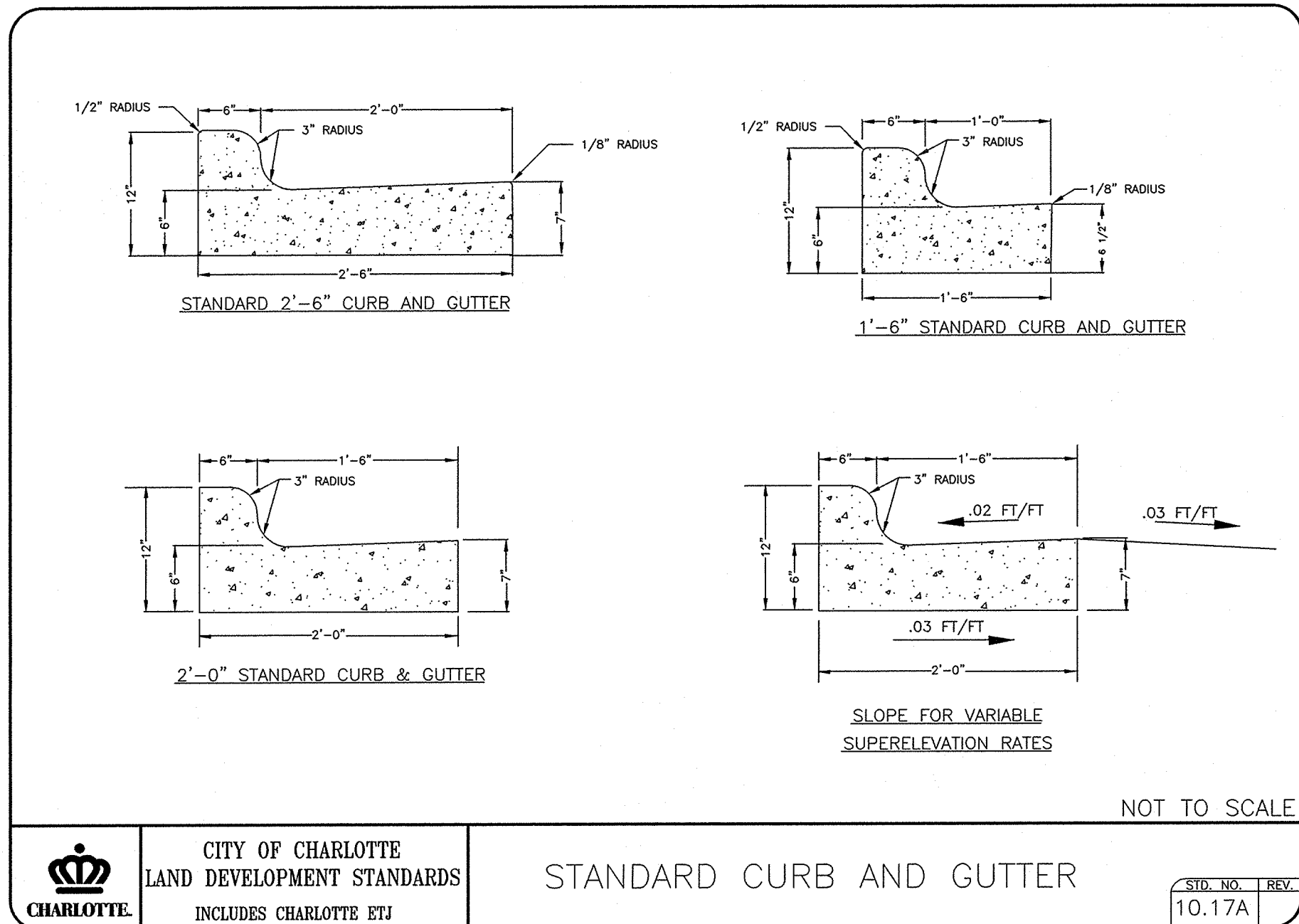
THE ISAACS GROUP, P.C.
ENGINEERING & LAND SURVEYING
NO. C-1068

SEAL 026462

ANTHONY B. COWAN
ENGINEER

• CONTRACTOR TO SEE CONSTRUCTION SEQUENCE ON SHEET C1.1
• THIS EROSION CONTROL PLAN IS SUBJECT TO PERFORMANCE RESERVATION

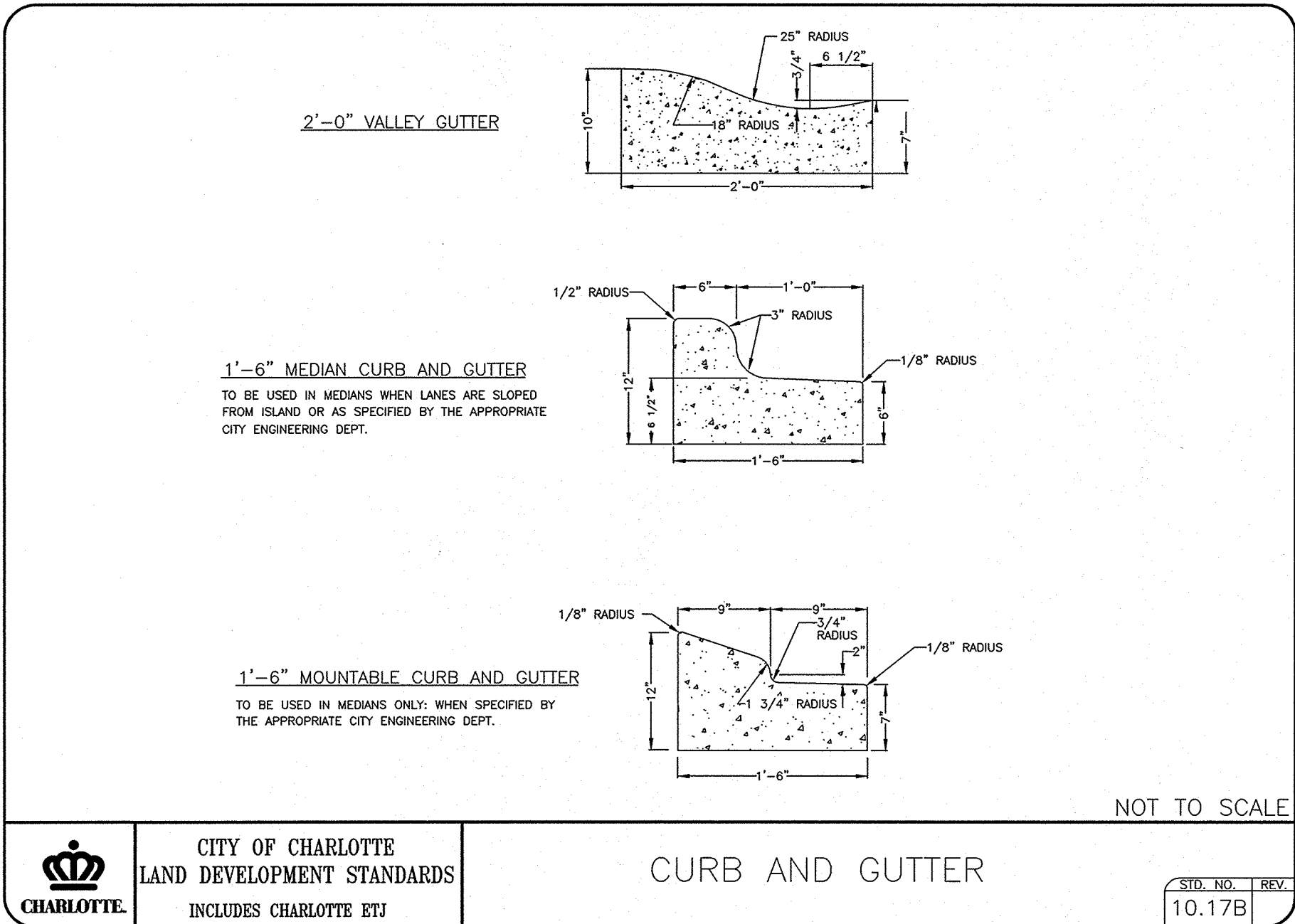
BMP #1, 3 & 4 (SAND FILTER) OUTLET STRUCTURE
(MODIFIED FOR USE AS SEDIMENT BASIN OUTLET)
(SEE SHEET C6.1 FOR MORE INFORMATION ON ELEVATIONS AND DIMENSIONS OF STRUCTURE)



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

STANDARD CURB AND GUTTER

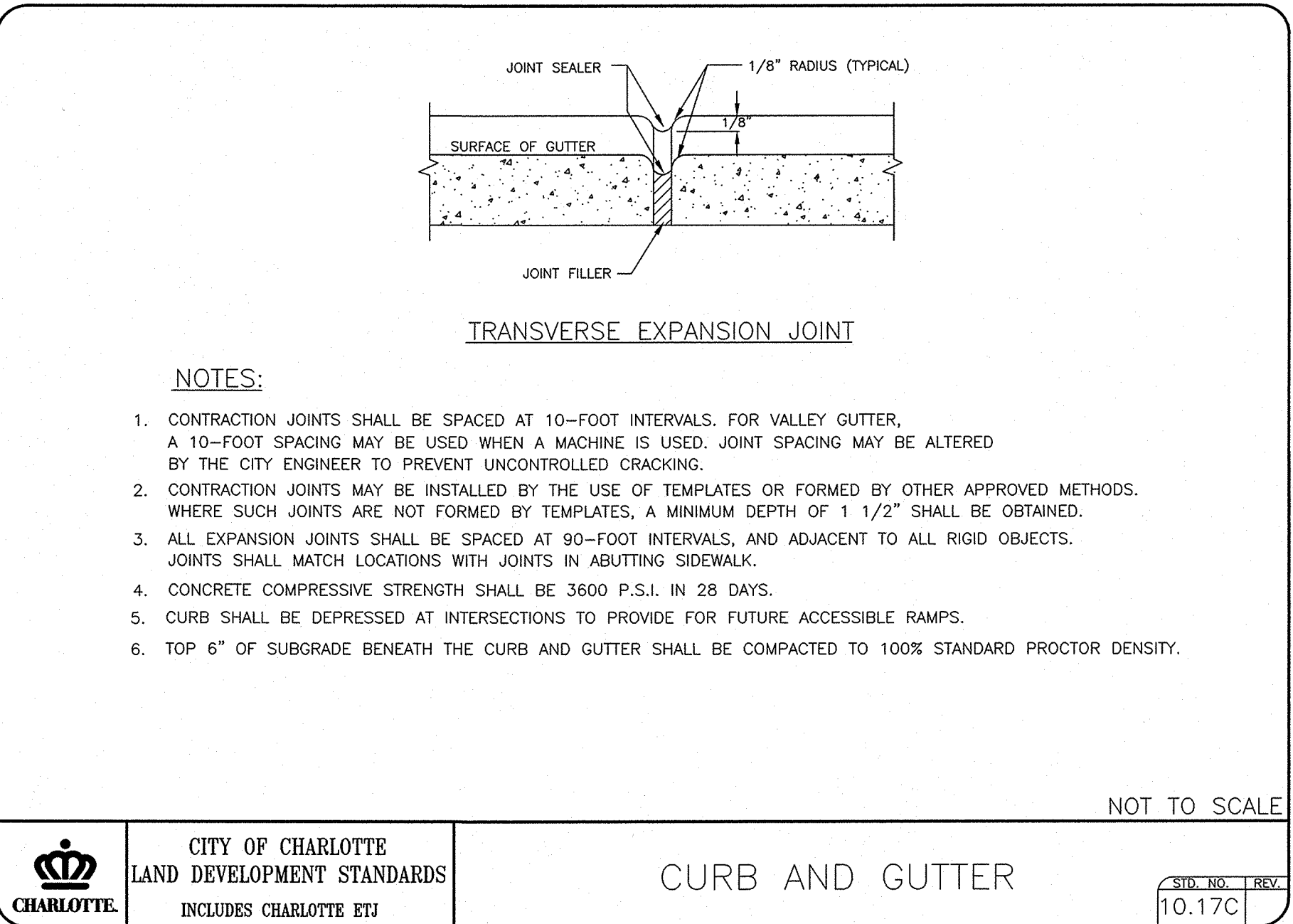
STD. NO. 10.17A REV. 1



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

CURB AND GUTTER

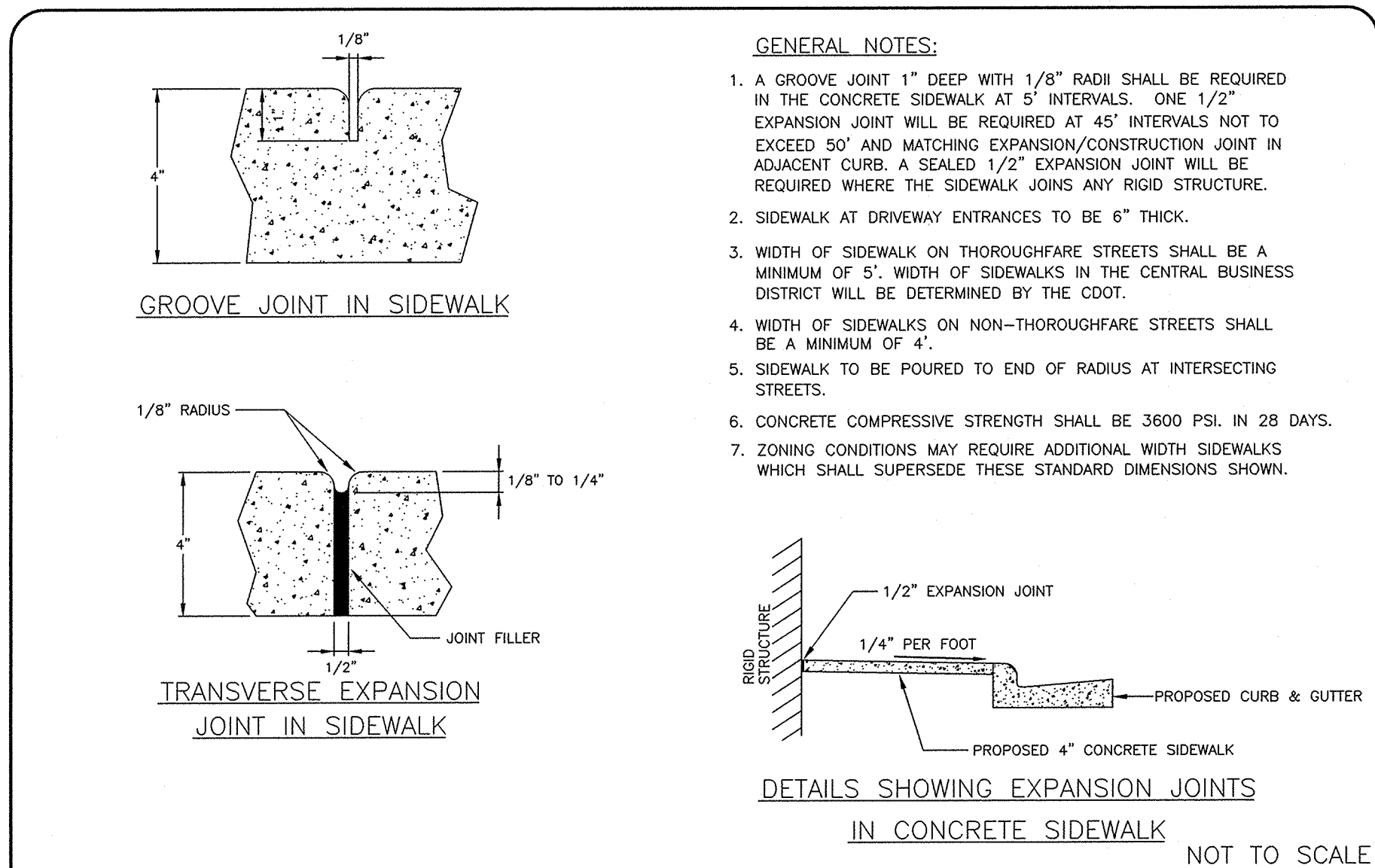
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

CURB AND GUTTER

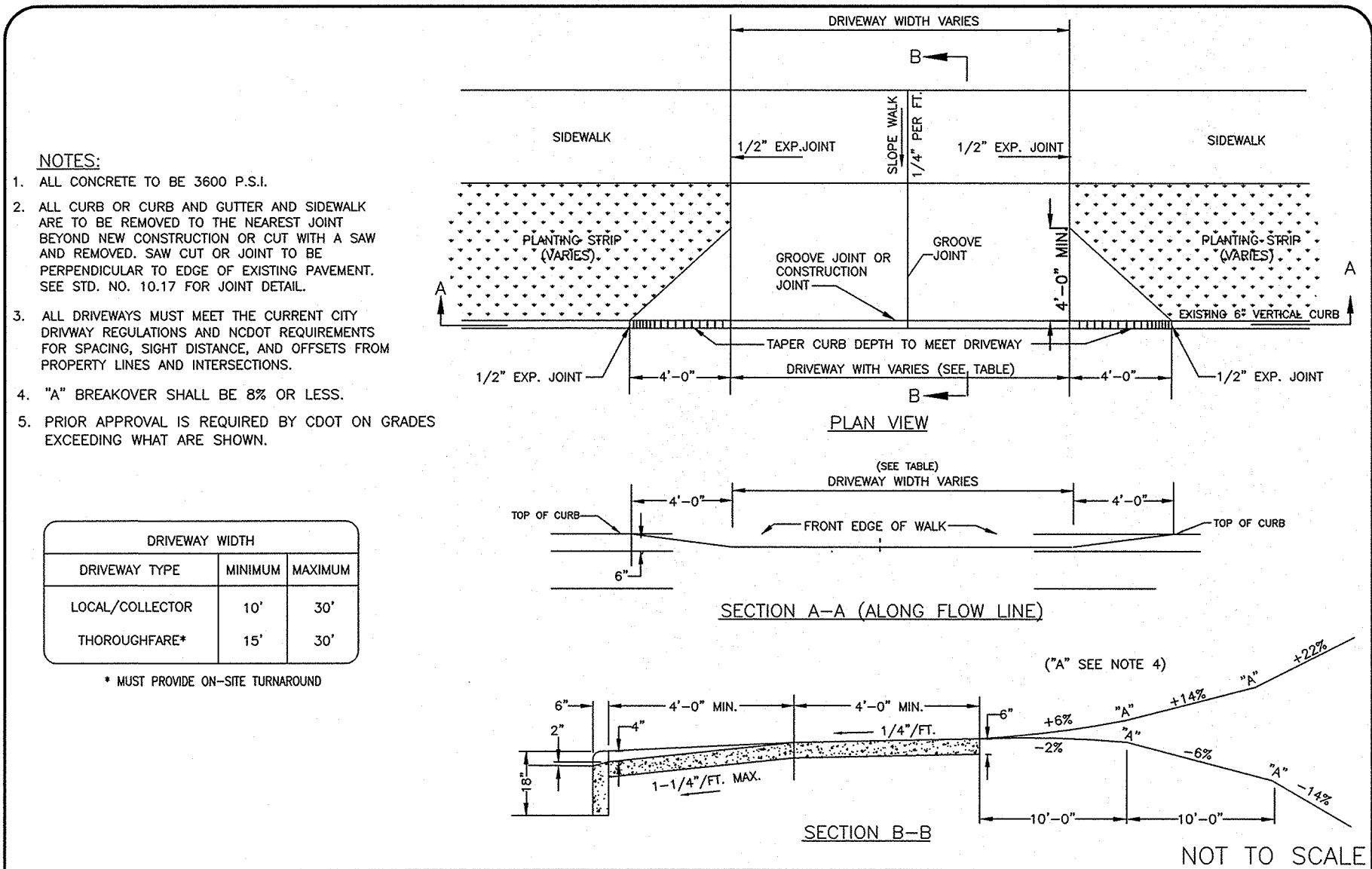
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

CONCRETE SIDEWALKS

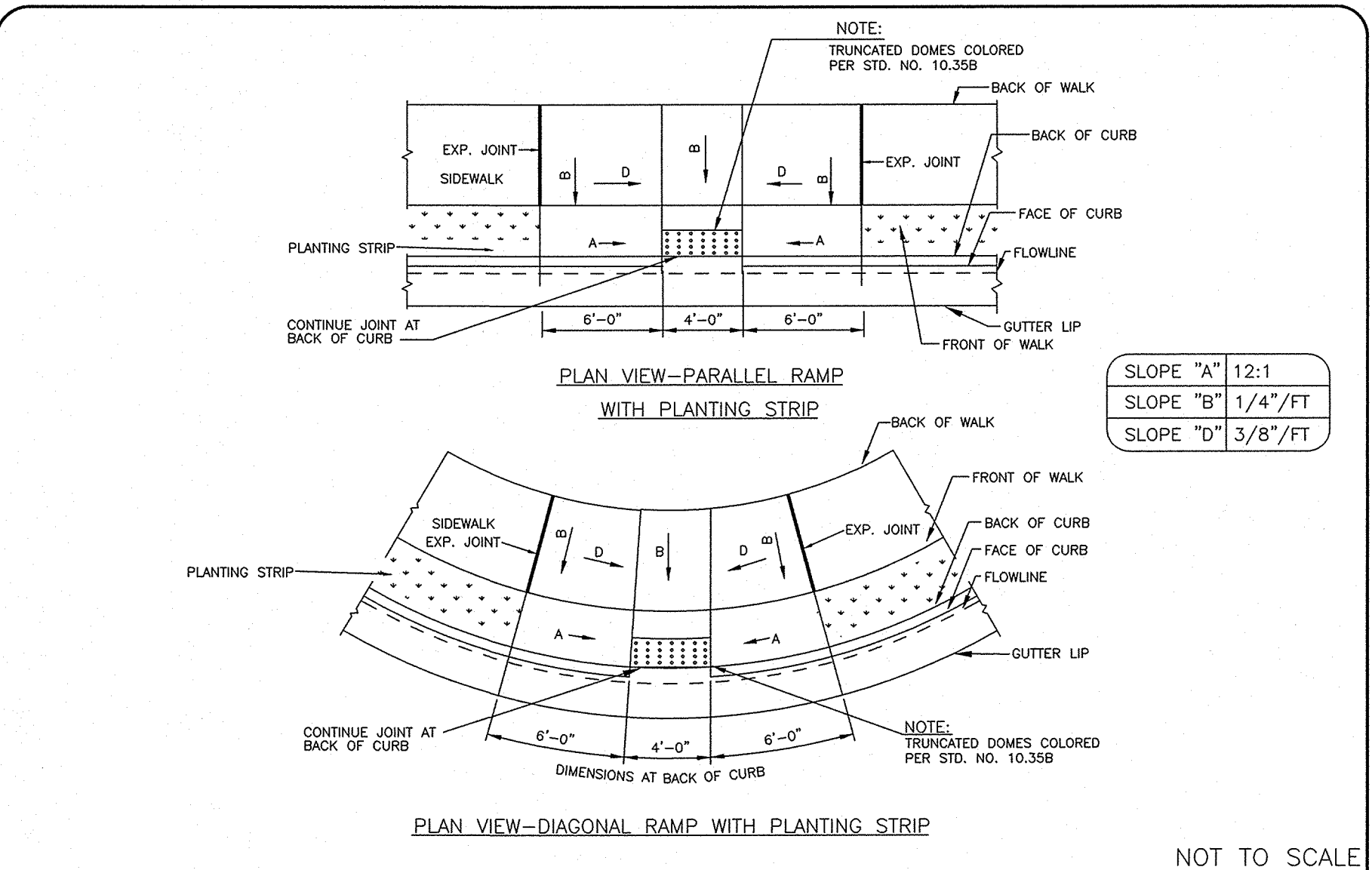
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

RESIDENTIAL DROP CURB TYPE I DRIVEWAY WITH PLANTING STRIP (6" X 18" VERTICAL CURB)

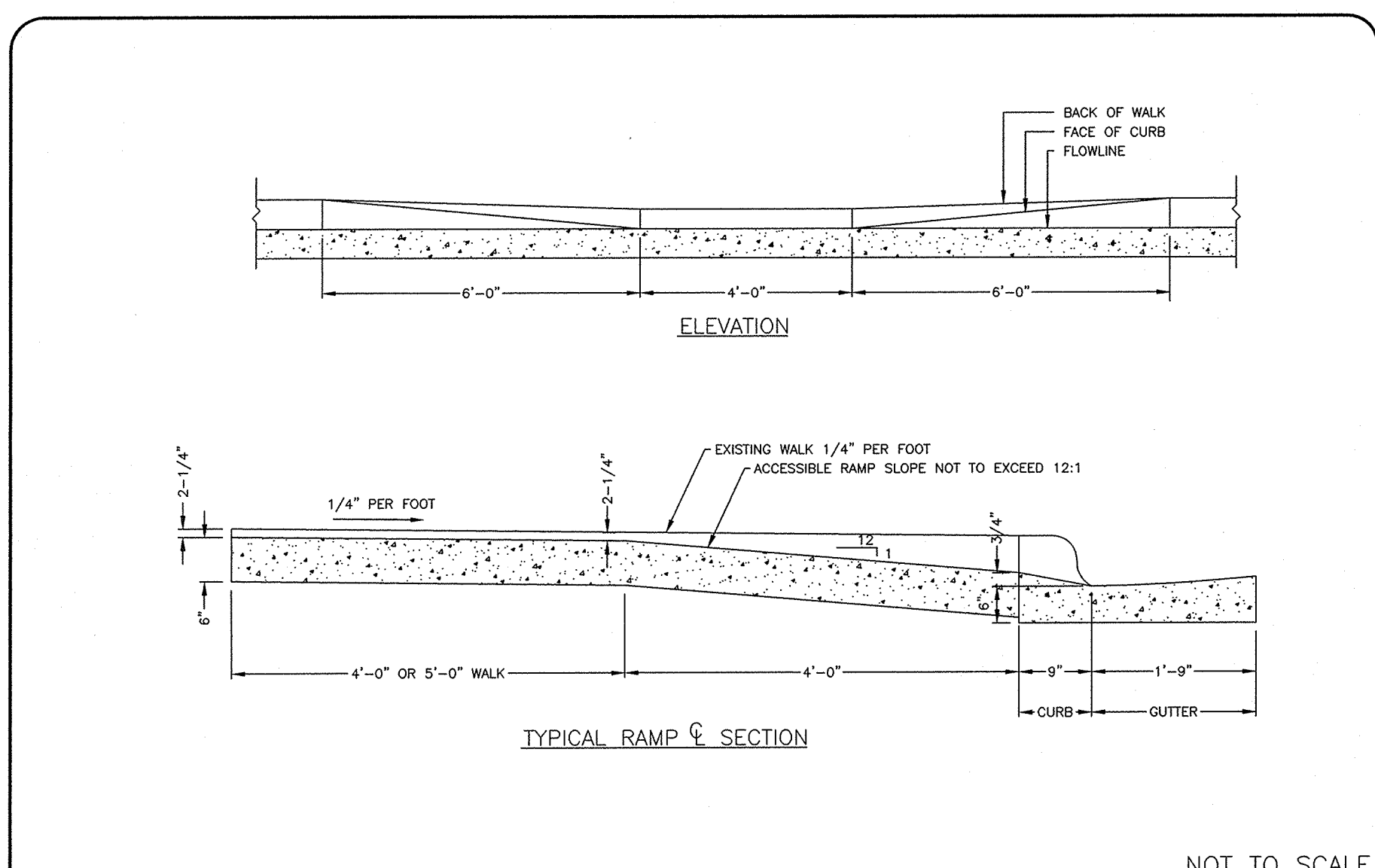
STD. NO. 10.25C REV. 1



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

ACCESSIBLE RAMP STANDARD WITH PLANTING STRIP 2'-6" CURB AND GUTTER

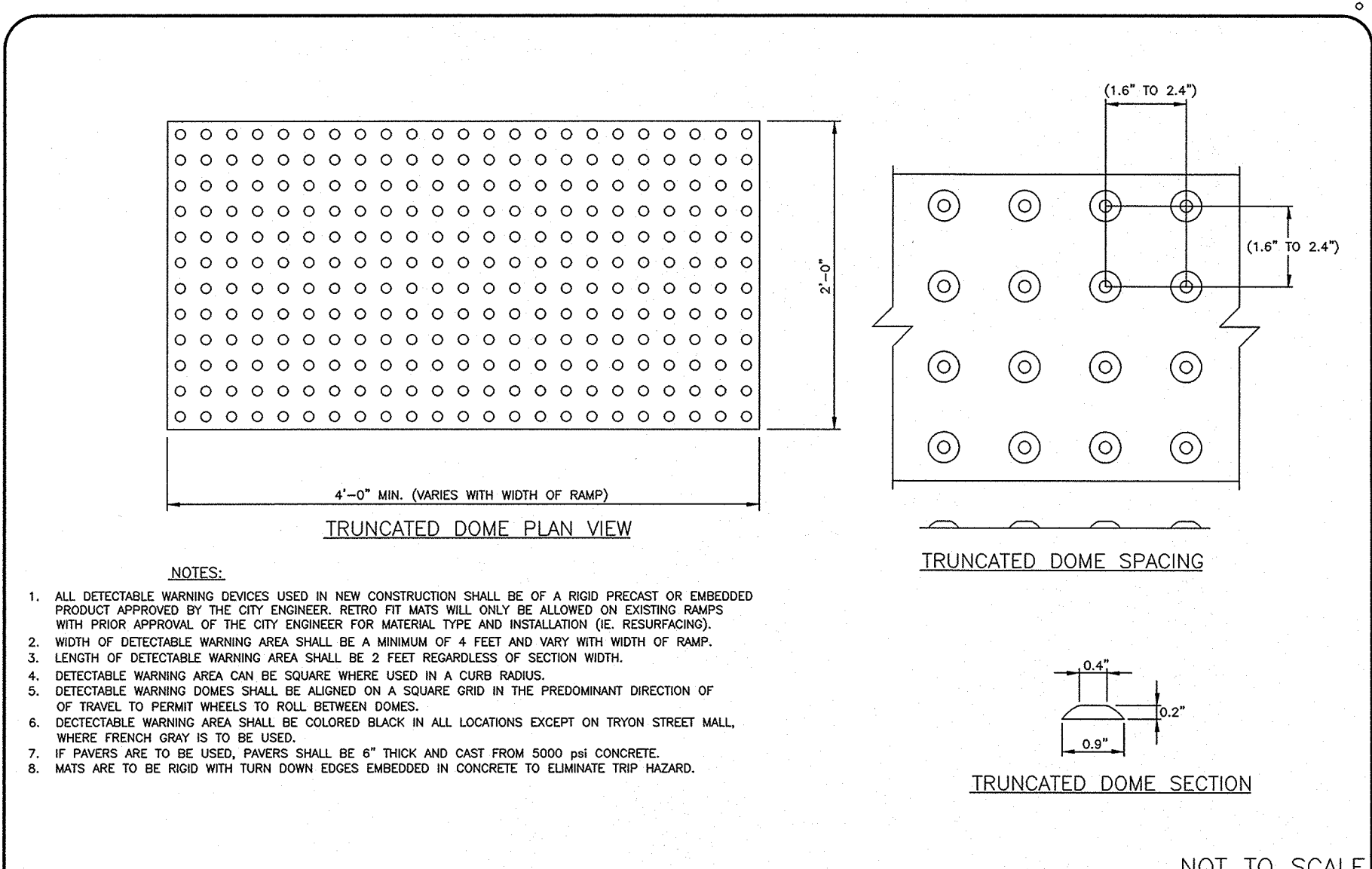
STD. NO. 10.31A REV. 1



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

ACCESSIBLE RAMP SECTIONS WITH PLANTING STRIP 2'-6" CURB AND GUTTER

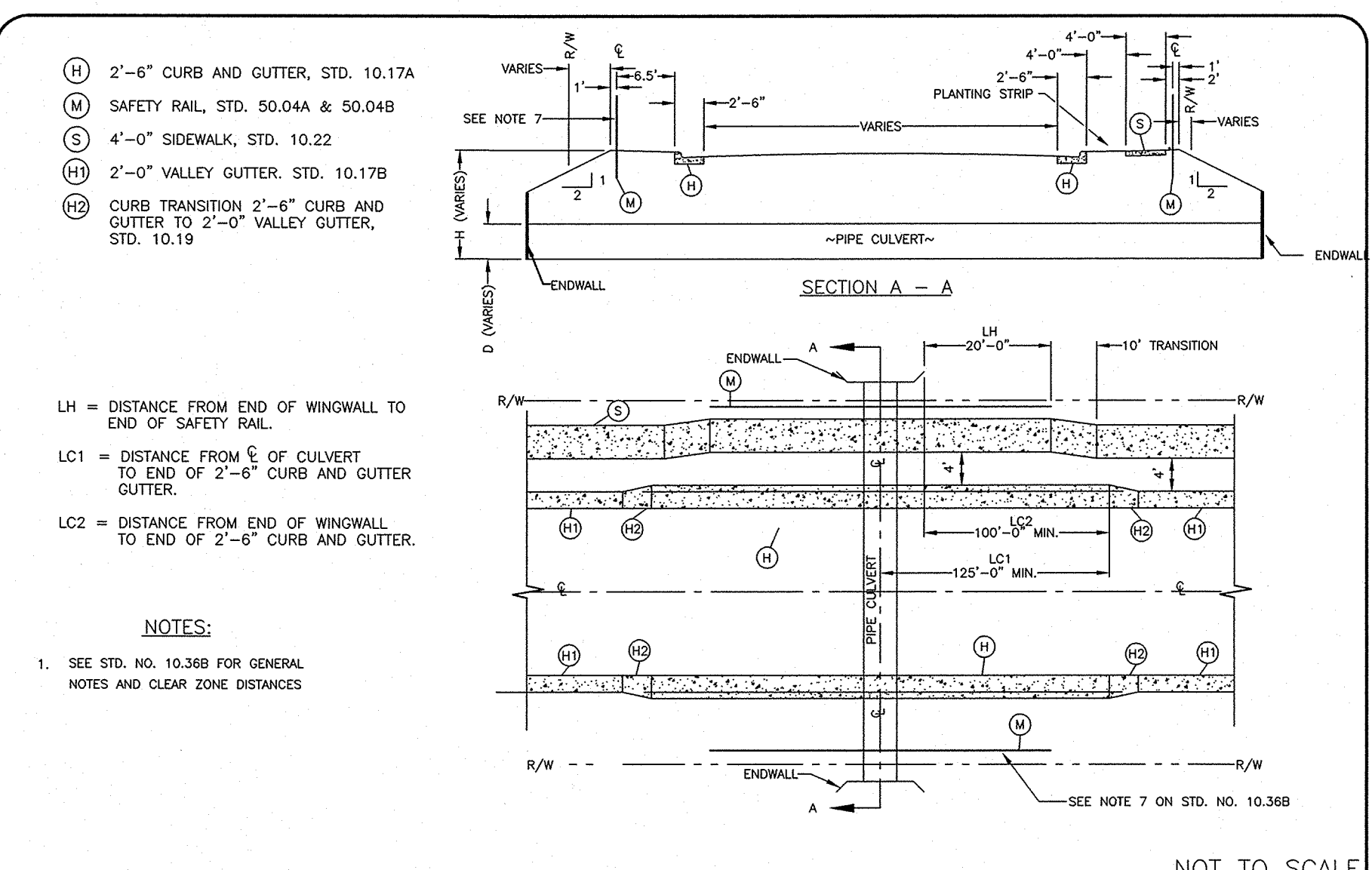
STD. NO. 10.31B REV. 1



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

TRUNCATED DOMES PLAN AND CROSS-SECTION

STD. NO. 10.35B REV. 1



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

CULVERT CROSSINGS ON RESIDENTIAL AND COMMERCIAL STREETS

STD. NO. 10.36A REV. 7

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: DETAILS & SPECIFICATIONS

File #: 11028-DET.DWG Date: 08/22/2014 Project Egr: ABC

Design By: PDW
Drawn By: PDW
Scale: N.T.S.

8720 RED OAK BOULEVARD, SUITE 420
CHARLOTTE, N.C. 28217
PHONE (704) 527-3440 FAX (704) 527-8335

C8.0

NO.	BY	DATE	REVISION

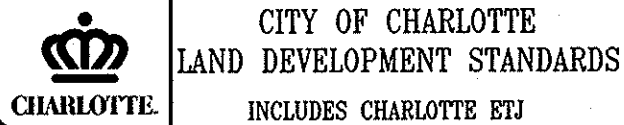
GENERAL NOTES:

- UNLESS OTHERWISE DETERMINED BY THE CITY ENGINEER, THE MEASURES ILLUSTRATED SHALL BE USED WHEN CULVERT DIAMETER, D, IS GREATER THAN OR EQUAL TO 24 INCHES AND WHEN THE DIFFERENCE IN ELEVATION BETWEEN THE CULVERT INVERT AND THE TOP OF SLOPE, H, IS GREATER THAN OR EQUAL TO 5 FEET.
- INSTALLATION OF 2'-0" CURB AND GUTTER MAY NOT BE REQUIRED WHEN AN ADEQUATE CLEAR ZONE IS PROVIDED FOR VEHICLES WITH A MAXIMUM OF 8:1 SLOPE (SEE TABLE 1).
- INSTALLATION OF SAFETY RAIL MAY NOT BE REQUIRED WHEN A 10-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE SIDEWALK WITH A MAXIMUM OF 6:1 SLOPE. WHERE NO SIDEWALK IS REQUIRED, INSTALLATION OF SAFETY RAIL MAY NOT BE REQUIRED WHEN A 15-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE CURB WITH A MAXIMUM OF 6:1 SLOPE.
- FOR CULVERT CROSSINGS WITHOUT ENDWALLS, LH AND LC2 SHALL BE MEASURED FROM THE OUTSIDE OF THE NEAREST WALL OF THE CULVERT BARREL.
- FOR MULTIPLE BARREL CULVERT CROSSINGS, LC1 SHALL BE MEASURED FROM THE CENTERLINES OF THE OUTBOARD CULVERT BARRELS.
- WHEN NECESSARY, AS DETERMINED BY THE CITY ENGINEER, ADDITIONAL MEASURES MAY BE REQUIRED.
- INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF STREET IF SIDEWALK IS REQUIRED ON BOTH SIDES.
- INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF STREET IF NO SIDEWALK IS REQUIRED EXCEPT WHEN A 15-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE CURB WITH A MAXIMUM OF 6:1 SLOPE.
- INSTALLATION OF SAFETY RAIL IS REQUIRED ON THE SIDEWALK SIDE OF STREET IF SIDEWALK IS ONLY REQUIRED ON ONE SIDE OF STREET. INSTALL EITHER SAFETY RAIL OR 15-FT CLEAR ZONE ON SIDE WITHOUT SIDEWALK.
- DESIGN ADT IS CALCULATED ASSUMING A TRIP GENERATION OF 10 DAILY TRIPS PER SINGLE FAMILY DWELLING UNIT.

DESIGN ADT	CLEAR ZONE FROM EDGE OF PAVEMENT TANGENT SECTION	CURVE (WITHIN 125' OF CULVERT)
UNDER 750	10'	15'
750 - 1500	12'	18'
1501 - 6000	14'	21'
OVER 6000	16'	24'

SEE STD. NO. 10.36A FOR PLAN AND CROSS SECTIONAL SCHEMATICS.

NOT TO SCALE



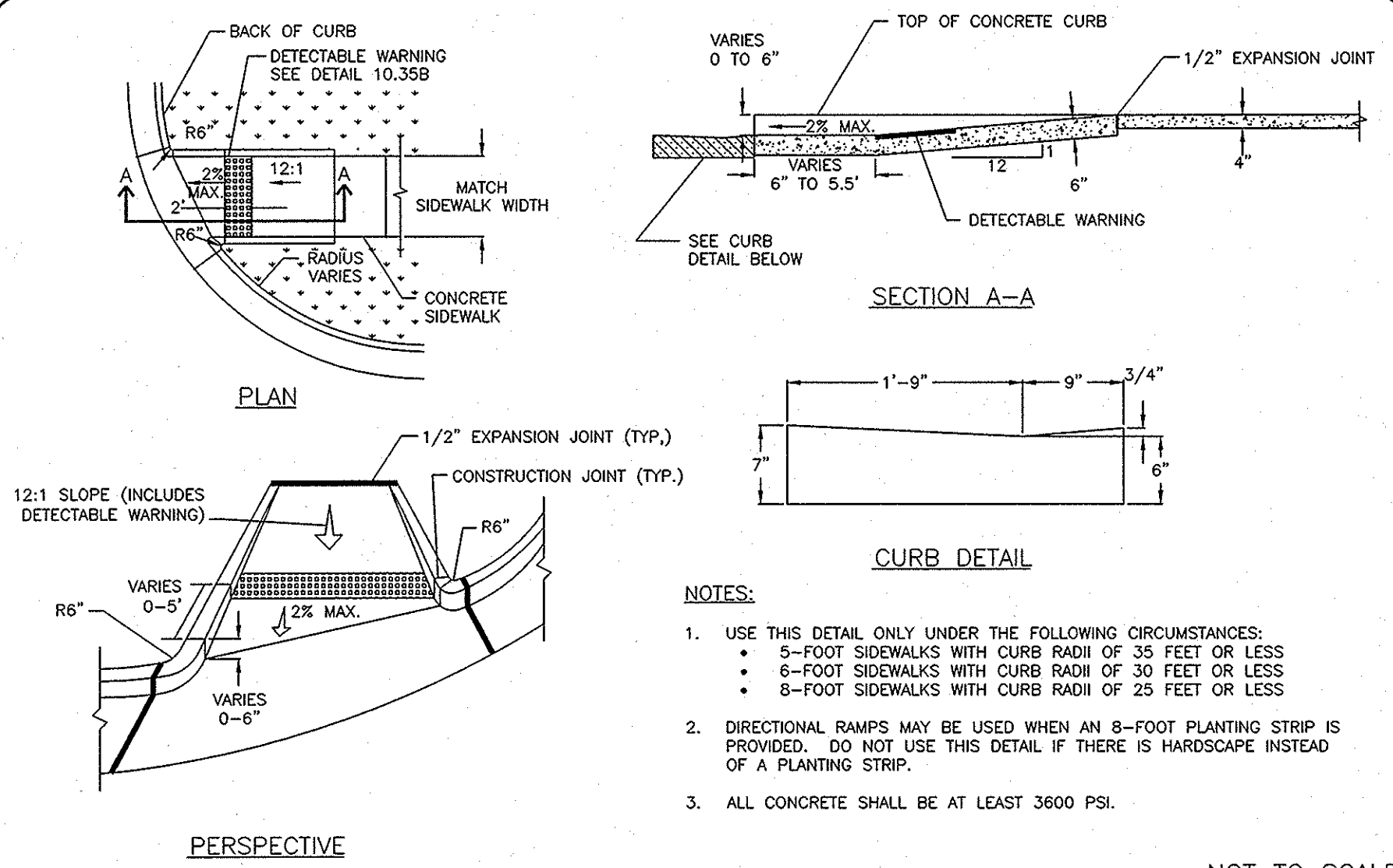
CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

STD. NO. 10.36B
REV. 7

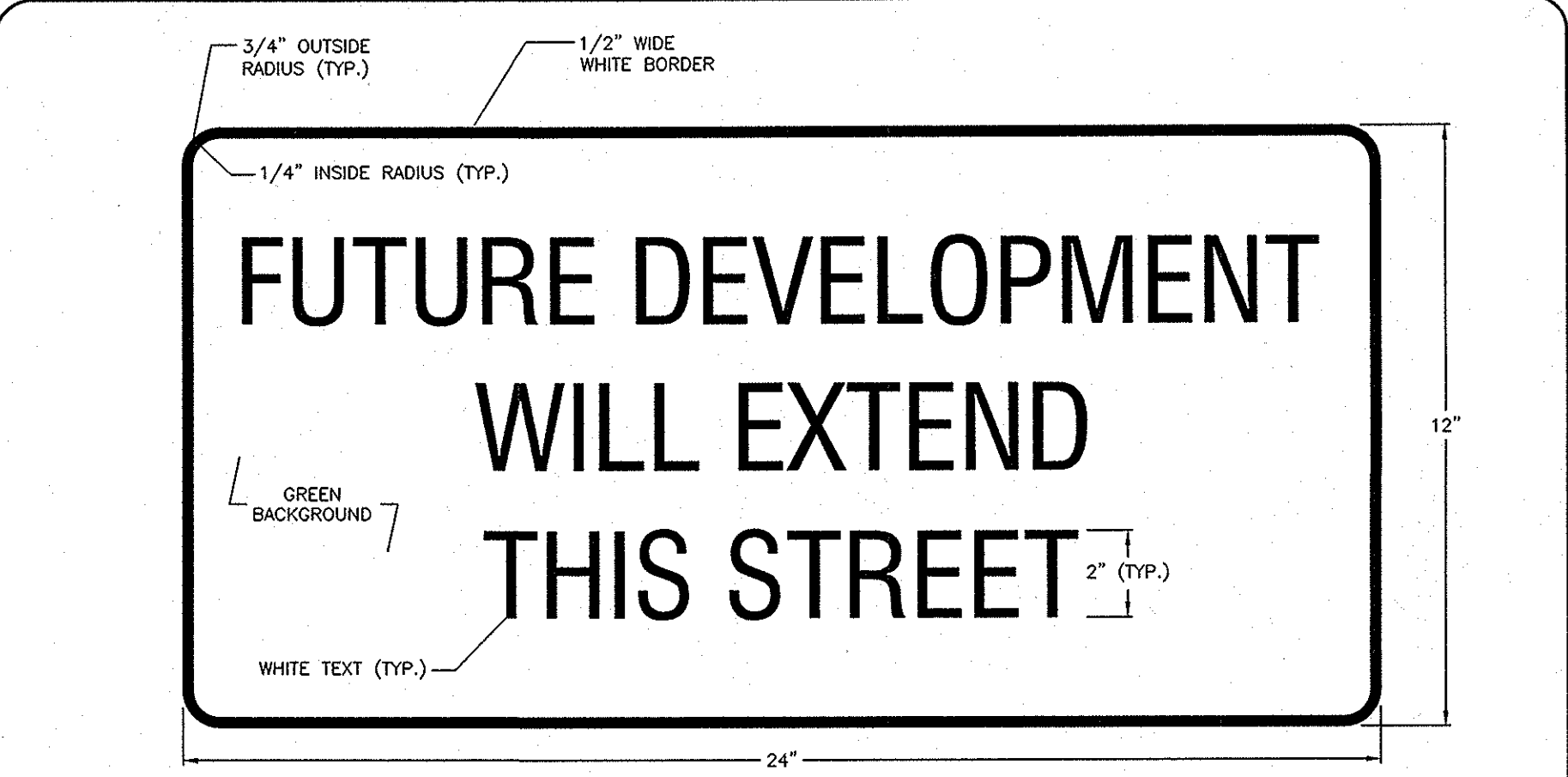


CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

STD. NO. 10.40A
REV. 4



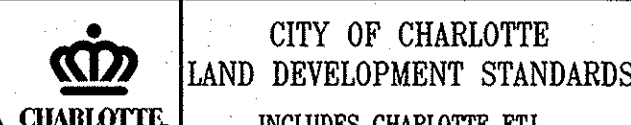
NOT TO SCALE



NOTES:

- SIGN SHALL MEET OR EXCEED MUTCD STANDARDS FOR RETROREFLECTIVITY
- SIGN MATERIAL SHALL BE 0.080" THICK ALUMINUM
- ALL LETTERS SHALL BE SERIES B-2000 FROM THE 2004 STANDARD HIGHWAY SIGNS MANUAL (AND ANY REVISION THERETO) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

NOT TO SCALE

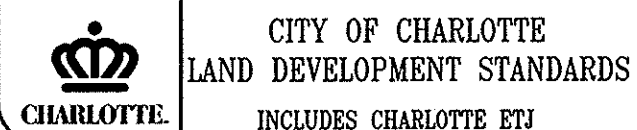


CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

STD. NO. 50.08C
REV. 4

DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
300.01	METHOD OF PIPE INSTALLATION	
310.02	PARALLEL PIPE END SECTION—PRECAST CONCRETE FOR 15" TO 24" PIPE	REQUIRED IN RIGHT OF WAY WITHIN THE ETJ
310.03	CROSS PIPE END SECTION—PRECAST CONCRETE FOR 18" TO 30" PIPE	REQUIRED IN RIGHT OF WAY WITHIN THE ETJ
310.10	DRIVEWAY PIPE CONSTRUCTION USING NO SPECIAL END SECTIONS	ONLY AT LOCATIONS APPROVED BY THE CITY ENGINEER
815.03	PIPE UNDERDRAIN AND BLIND DRAIN	
815.03	GEOCOMPOSITE SHOULDER DRAIN	
835.01	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
835.02	15" THRU 48" PIPE 90° SKEW	NOTE 1
835.02	CONCRETE ENDWALL AND SLUICE GATE 15" THRU 36" PIPE 90° SKEW	NOTE 1
835.04	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
835.04	17"x13" THRU 71"x47" PIPE ARCH 90° SKEW	NOTE 1
835.05	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 15" THRU 48" PIPE	NOTE 1
835.06	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 17"x13" THRU 71"x47"	NOTE 1
835.07	CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
835.08	40"x31" THRU 66"x51" PIPE ARCH 90° SKEW	NOTE 1
835.08	CONCRETE "L" ENDWALL FOR SINGLE PIPE CULVERTS 40"x32"	NOTE 1
835.10	THRU 66"x51" PIPE ARCH	NOTE 1
835.10	CONCRETE ENDWALL FOR OUTFALL 4'-6" OR 8" PIPE	NOTE 1
835.11	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS	NOTE 1
835.11	15" THRU 48" 90° SKEW	NOTE 1
835.14	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS 17"x31"	NOTE 1
835.15	THRU 71"x47" 90° SKEW	NOTE 1
835.15	BRICK "L" ENDWALL FOR SINGLE PIPE CULVERTS 15" THRU 48" PIPE	NOTE 1
835.16	BRICK "L" ENDWALL FOR SINGLE PIPE CULVERTS 17"x13" THRU	NOTE 1
835.17	71"x47" PIPE ARCH	NOTE 1
835.17	BRICK ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS 40"x31"	NOTE 1
835.18	THRU 66"x51" PIPE ARCH 90° SKEW	NOTE 1
835.18	BRICK ENDWALL FOR SINGLE PIPE CULVERTS 40"x31" THRU	NOTE 1
835.20	66"x51" PIPE ARCH 90° SKEW	NOTE 1
835.21	BRICK ENDWALL FOR OUTFALL 4", 6" AND 8" PIPE	NOTE 1
835.21	REINFORCED CONCRETE ENDWALL FOR SINGLE 54" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.22	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 54" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.27	REINFORCED CONCRETE ENDWALL FOR SINGLE 60" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.28	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 60" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.33	REINFORCED CONCRETE ENDWALL FOR SINGLE 66" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.34	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 66" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.39	REINFORCED CONCRETE ENDWALL FOR SINGLE 72" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.40	REINFORCED CONCRETE ENDWALL FOR DOUBLE & TRIPLE 72" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD

NOTE 1: FOR ALL STRUCTURES - NCDOT REQUIRES CLASS B CONCRETE (2500PSI). THE CITY REQUIRES 3600 PSI CONCRETE STRENGTH @ 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL CITY AND ETJ PROJECTS.

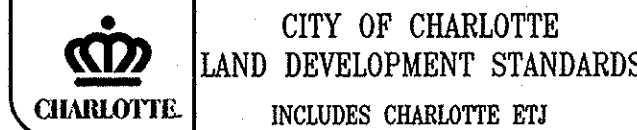


CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

STD. NO. 20.00A
REV. 11

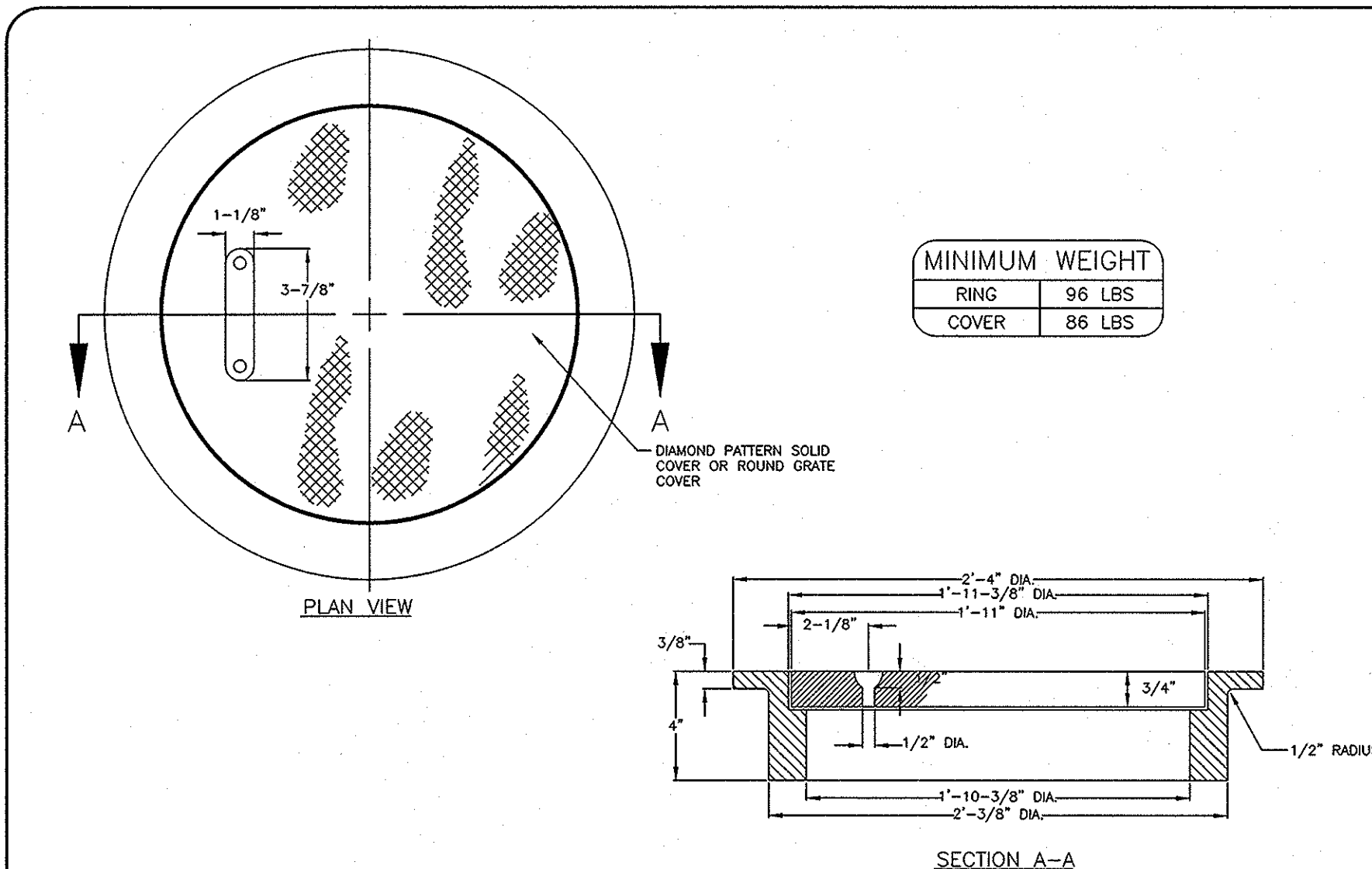
DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
835.45	NOTES FOR REINFORCED CONCRETE ENDWALL STANDARD DRAWINGS	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.45	835.21 THRU 835.40	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.51	REINFORCED BRICK ENDWALL FOR SINGLE 54" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.52	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 54" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.57	REINFORCED BRICK ENDWALL FOR SINGLE 60" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.58	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 60" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.63	REINFORCED BRICK ENDWALL FOR SINGLE 66" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.64	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 66" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.69	REINFORCED BRICK ENDWALL FOR SINGLE 72" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.70	REINFORCED BRICK ENDWALL FOR DOUBLE & TRIPLE 72" PIPE 90° SKEW	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.75	NOTES FOR REINFORCED BRICK ENDWALL STANDARD DRAWINGS 835.51 THRU 835.70	NOTE 1 SEE CLOS 20.17 FOR SPLASH PAD
835.80	PRECAST CONCRETE ENDWALL FOR SINGLE 12" THRU 72" PIPE 90° SKEW	
840.00	CONCRETE BASE PAD FOR DRAINAGE STRUCTURES	
840.01	BRICK CATCH BASIN 15" THRU 54" PIPE	
840.02	CONCRETE CATCH BASIN 12" THRU 54" PIPE	
840.03	FRAMING GRATE BASIN 12" THRU 54" PIPE	
840.04	CONCRETE OPEN THROAT CATCH BASIN 12" THRU 48" PIPE	
840.05	BRICK OPEN THROAT CATCH BASIN 15" THRU 48" PIPE	
840.14	CONCRETE DROP INLET 12" THRU 30" PIPE	NOTE 1
840.15	BRICK DROP INLET 12" THRU 30" PIPE	NOTE 1
840.16	DROP INLET FRAME AND GRATE FOR USE WITH DWGS. 840.14 & 840.15	NOTE 1
840.17	CONCRETE GRATED DROP INLET TYPE "A" 12" THRU 72" PIPE	NOTE 1
840.18	CONCRETE GRATED DROP INLET TYPE "B" 12" THRU 36" PIPE	NOTE 1
840.19	CONCRETE GRATED DROP INLET TYPE "D" 12" THRU 36" PIPE	NOTE 1
840.20	FRAMES AND WIDE SLOT SAG GRATES	NOTE 1
840.21	FRAMES AND WIDE SLOT SAG GRATES	NOTE 1
840.22	FRAMES AND NARROW SLOT SAG GRATES	NOTE 1
840.23	ANCHORAGE FOR FRAMES BRICK OR CONCRETE	NOTE 1
840.26	BRICK GRATED DROP INLET TYPE "A" 12" THRU 72" PIPE	NOTE 1
840.27	BRICK GRATED DROP INLET TYPE "B" 12" THRU 36" PIPE	NOTE 1
840.28	BRICK GRATED DROP INLET TYPE "D" 12" THRU 36" PIPE	NOTE 1
840.29	FRAMES AND NARROW SLOT SAG GRATES	NOTE 1
840.30	DRIVEWAY DROP INLET	NOTE 1

NOTE 1: FOR ALL STRUCTURES - NCDOT REQUIRES CLASS B CONCRETE (2500PSI). THE CITY REQUIRES 3600 PSI CONCRETE STRENGTH @ 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL CITY AND ETJ PROJECTS.

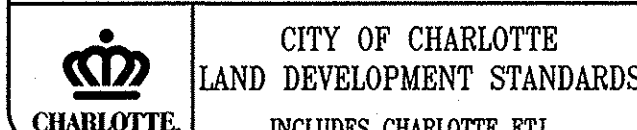


CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
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REV. 5



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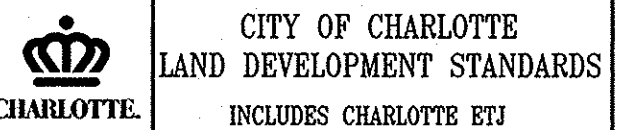


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INCLUDES CHARLOTTE ETJ

STD. NO. 20.05B
REV. 5

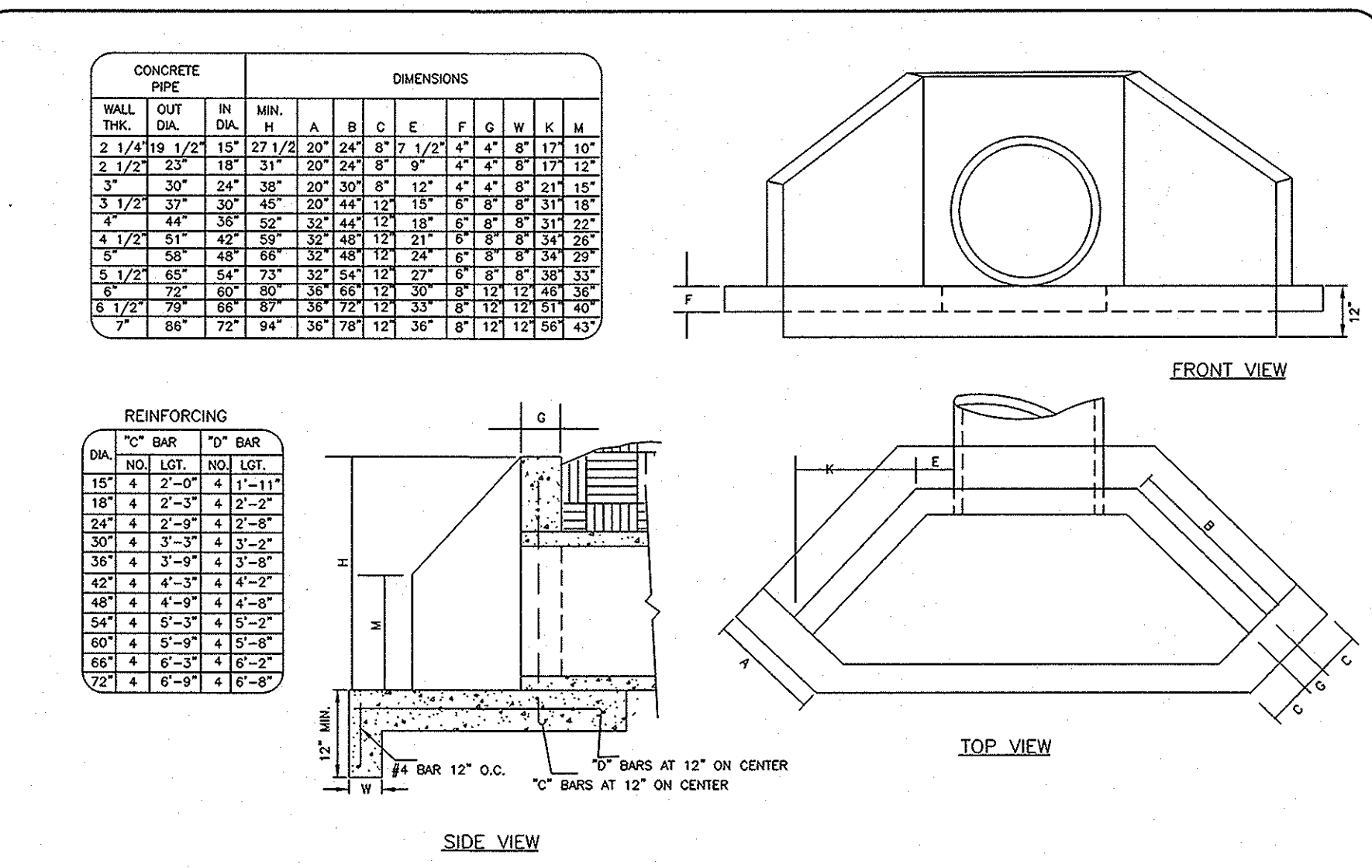
DWG	SHEET TITLE	SPECIAL REQUIREMENTS AND NOTES
840.31	CONCRETE JUNCTION BOX (WITH OPTIONAL MANHOLE) 12" THRU 66" PIPE	NOTE 1; OPTIONAL MANHOLE IS REQUIRED
840.32	BRICK JUNCTION BOX 12" THRU 66" PIPE	NOTE 1; OPTIONAL MANHOLE IS REQUIRED
840.34	TRAFFIC BEARING JUNCTION BOX FOR USE WITH PIPES 42" AND UNDER	NOTE 1; OPTIONAL MANHOLE IS REQUIRED, AS MEASURED FROM BOTTOM OF TOP SLAB -- FOR JUNCTION BOX HEIGHT 0'-4"8" USE 8" THICK WALL, FROM 4'8" HEIGHT TO 10' HEIGHT, USE 12" THICK WALL. IF PROPOSED STRUCTURE EXCEEDS 12'-0" HEIGHT A SPECIAL DESIGN WILL BE REQUIRED
840.35	TRAFFIC BEARING DROP INLET FOR CAST IRON DOUBLE FRAME AND GRATES	
840.36	TRAFFIC BEARING DROP INLET FOR STEEL (840.37) DOUBLE FRAME AND GRATES	NOT FOR USE IN PEDESTRIAN AREAS
840.37	STEEL GRATE AND FRAME	NOT FOR USE IN PEDESTRIAN AREAS
840.41	SPRING BOX CONCRETE OR BRICK	
840.45	PRECAST DRAINAGE STRUCTURE (SOLID AND WAFFLE WALL)	WAFFLE WALL IS NOT PERMITTED IN ROADWAY. PLANTING STRIPS, OR MEDIANS, ALL OPENINGS SHALL BE PRE-CAST
840.46	TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE	
840.51	BRICK MANHOLE 12" 36" PIPE	
840.52	PRECAST MANHOLE 4", 6" AND 8" DIAMETER 12" THRU 42" PIPE	
840.53	PRECAST MANHOLE WITH MASONRY BASE 12" THRU 42" PIPE	
840.54	MANHOLE FRAME AND COVER	
840.60	DRAINAGE STRUCTURE, STEPS	
840.71	CONCRETE PAVED DITCHES	
840.72	PIPE COLLAR	
850.01	CONCRETE PAVED DITCHES	
852.04	METHOD FOR PLACEMENT OF DROP INLETS IN GRASSED MEDIAN (USING 1'-6" CURB AND GUTTER)	
852.05	MEDIAN DROP INLET FOR CATCH BASIN (FOR USE WITH 1'-6" CURB AND GUTTER)	
852.06	METHOD OF PLACEMENT OF DROP INLETS IN CONCRETE ISLANDS	
876.01	RIP RAP IN CHANNELS	
876.03	DRAINAGE DITCHES WITH CLASS "A" RIP RAP	
876.04	DRAINAGE DITCHES WITH CLASS "B" RIP RAP	
310.01	1998 DRAWINGS CONCRETE FLARED END SECTION	

NOTE 1: FOR ALL STRUCTURES - NCDOT REQUIRES CLASS B CONCRETE (2500PSI). THE CITY REQUIRES 3600 PSI CONCRETE STRENGTH @ 28 DAYS. 3600 PSI CONCRETE SHALL BE USED IN ALL CITY AND ETJ PROJECTS.

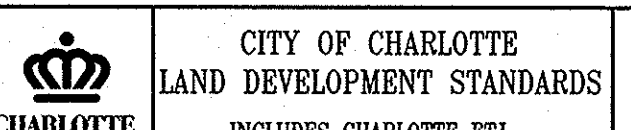


CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
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REV. 10



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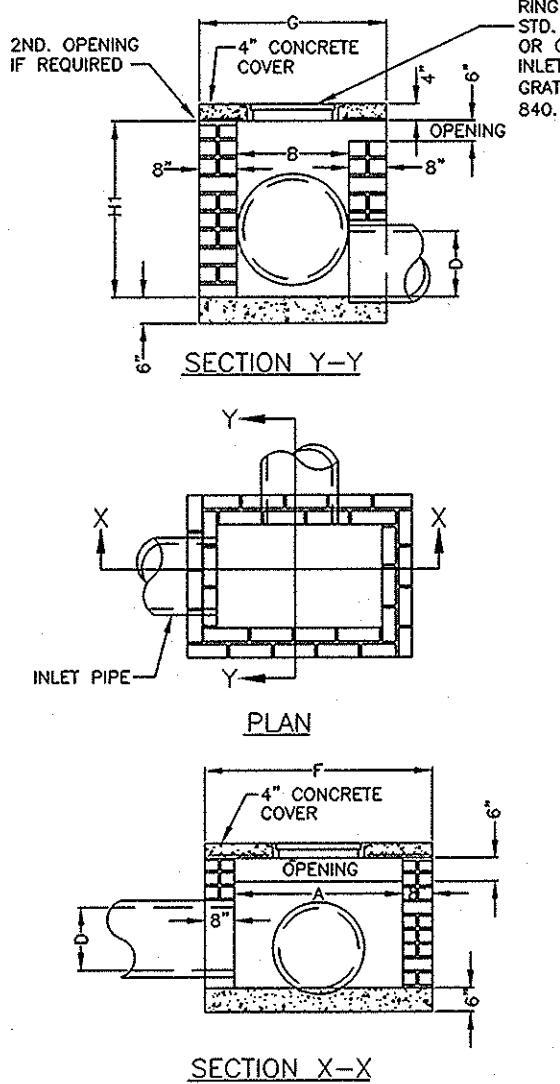
CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
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STD. NO. 20.17A
REV. 1

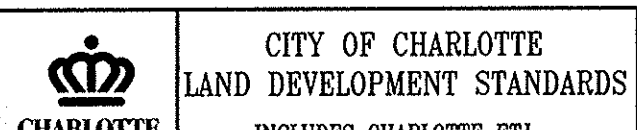
GENERAL NOTES:

- MORTAR JOINTS SHOULD BE BETWEEN 3/8" AND 5/8" THICK.
- ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.
- THE 6" OPENING SHOWN MAY BE INCREASED TO 8" MAX. IF DEEMED TO BE NECESSARY BY THE ENGINEER.
- ALL CATCH BASIN OVER 3'-6" IN DEPTH SHALL BE PROVIDED WITH STEPS 1'-2" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH STD. 20.12.
- CONCRETE BRICK MAY BE USED IN LIEU OF HARD COMMON CLAY BRICK.
- JUMBO BRICK WILL BE PERMITTED.
- FOR 8'-0" IN HEIGHT OR LESS USE 8" WALL OVER 8'-0" IN HEIGHT USE 12" WALL TO 6'-0" FROM TOP OF WALL, AND 8" WALL FOR THE REMAINING 6'-0".
- ALL EXPOSED JOINTS WILL BE CONCAVE TOOLED.
- ALL PIPE IN STORM DRAIN STRUCTURE SHALL BE STRUCK EVEN WITH THE INSIDE WALL, GROUTED AND BRUSHED SMOOTH.
- WEEP HOLES SHALL BE PLACED IN BACK WALL WITH FILTER FABRIC OR STONE ON BACK SIDE.
- THIS CATCH BASIN IS NOT TO BE USED WITHIN STREET RIGHT OF WAY UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

DIMENSIONS OF BOX AND PIPE				REINFORCING			COVER DIMENSION	
PIPE SPAN	WIDTH	HEIGHT	H (IN)	BARS - X NO. LENGTH	BARS - Y NO. LENGTH	TOTAL LBS.	F	G
15"	3'-6"	2'-3"	2'-7"	2	3'-4"	7	4'-10"	3'-7"
18"	4'-0"	2'-8"	2'-11"	2	3'-9"	8	5'-4"	4'-0"
24"	4'-0"	2'-8"	3'-5"	2	3'-9"	8	5'-4"	4'-0"
30"	4'-0"	3'-6"	3'-11"	2	4'-7"	9	5'-4"	4'-10"
36"	4'-0"	3'-6"	4'-6"	2	4'-7"	9	5'-4"	4'-10"
42"	4'-0"	3'-6"	4'-11"	2	4'-7"	9	5'-4"	4'-10"
48"	4'-6"	4'-0"	5'-5"	2	5'-1"	10	5'-10"	5'-4"



NOT TO SCALE



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

STD. NO. 20.05A
REV. 7

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: DETAILS & SPECIFICATIONS

File #: 11028-DET.DWG Date: 08/22/2014 Project Egr: ABC

Design By: POW
Drawn By: POW
Scale: N.T.S.

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CHARLOTTE, N.C. 28211
PHONE (704) 527-3440 FAX (704) 527-8335

GENERAL NOTES:

- ALL CORNERS TO BE CHAMFERED 1" IF CONCRETE.
- THE CONTRACTOR WILL BE REQUIRED TO PLACE 2-#6 BARS "Y" IN THE TOP OF ALL ENDWALL FOR PIPE CULVERTS 42" AND OVER WITH A MINIMUM 3" COVER AND A LENGTH OF 6" LESS THAN ENDWALL.
- FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
- WALL THICKNESS (T) SHOWN IS NOT TO BE INTERPRETED TO MEAN THE THICKNESS ACCEPTABLE, BUT IS USED ONLY IN COMPUTING ENDWALL QUANTITIES.
- IF CONTRACTOR ELECTS TO USE CONSTRUCTION JOINT AT BOTTOM OF PIPE, AND POURS BASE SEPARATELY, THE TOP OF BASE SHALL BE LEFT ROUGH.
- ALL CONCRETE TO BE 3600 P.S.I COMPRESSIVE STRENGTH.

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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

CONCRETE WINGWALL WITH SPLASH PAD

STD. NO. 20.17B
REV. 1

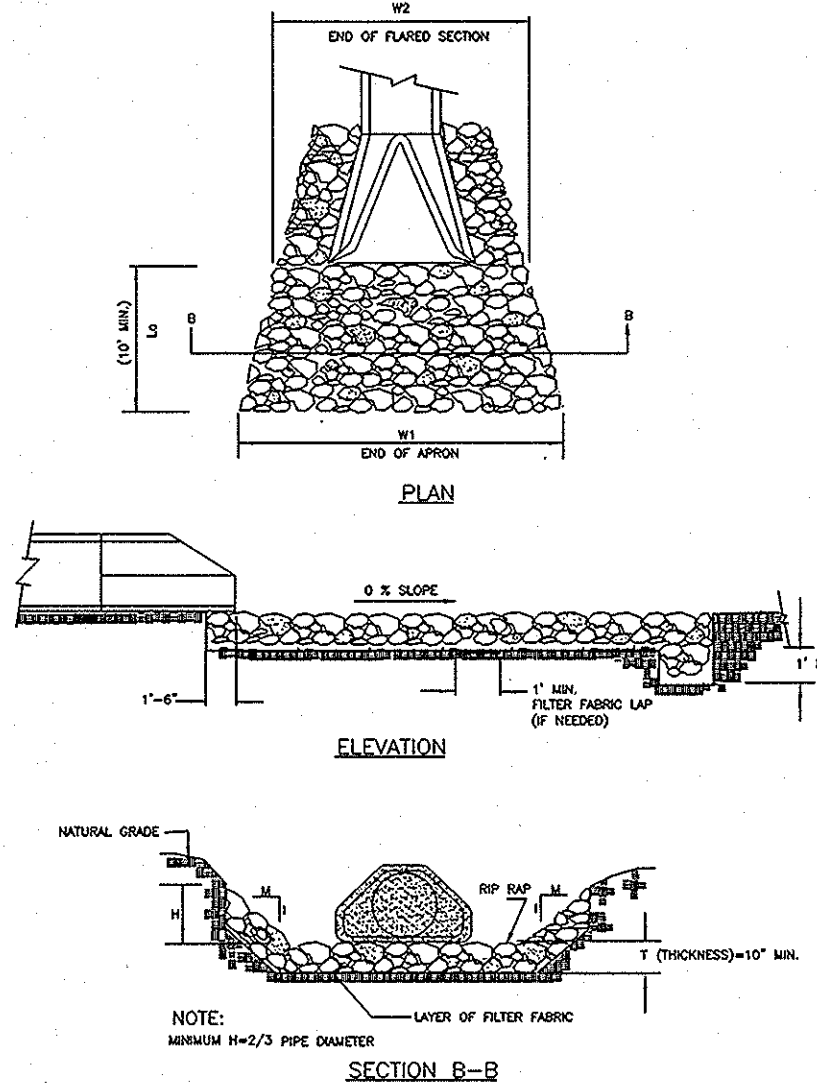
NOTES:

- CLASS OR MEDIAN SIZE OF RIPRAP AND LENGTH, WIDTH AND DEPTH OF APRON TO BE DESIGNED BY THE ENGINEER.
- REFER TO THE CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR RIPRAP APRON DESIGN STANDARDS.
- RIPRAP SHOULD EXTEND UP BOTH SIDES OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
- THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIPRAPPED SHALL BE UNDERSTOOD TO BE THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR ICE WALL AT THE DOWNSTREAM END.
- THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL. MAXIMUM TAPER TO RECEIVING CHANNEL 5:1.
- ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
- THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
- NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.
- FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIP RAP.
- ANY DISTURBED AREA FROM END OF APRON TO RECEIVING CHANNEL MUST BE STABILIZED.

USE USDA NOMOGRAPH FROM NC SEDIMENT AND EROSION CONTROL MANUAL OR CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR DESIGN DATA.

OUTLET	L ₁	W ₁	W ₂	T	H
FES K1	11'	7.5'	8'	18"	32"
OS SF1	50'	9'	11'	18"	32"

* d50 (see fig 8.08 add "NC SEDIMENT AND EROSION CONTROL MANUAL")
d_{max} = 1.5 x d50
T = 1.5 x d_{max}
T_(min) = 10"



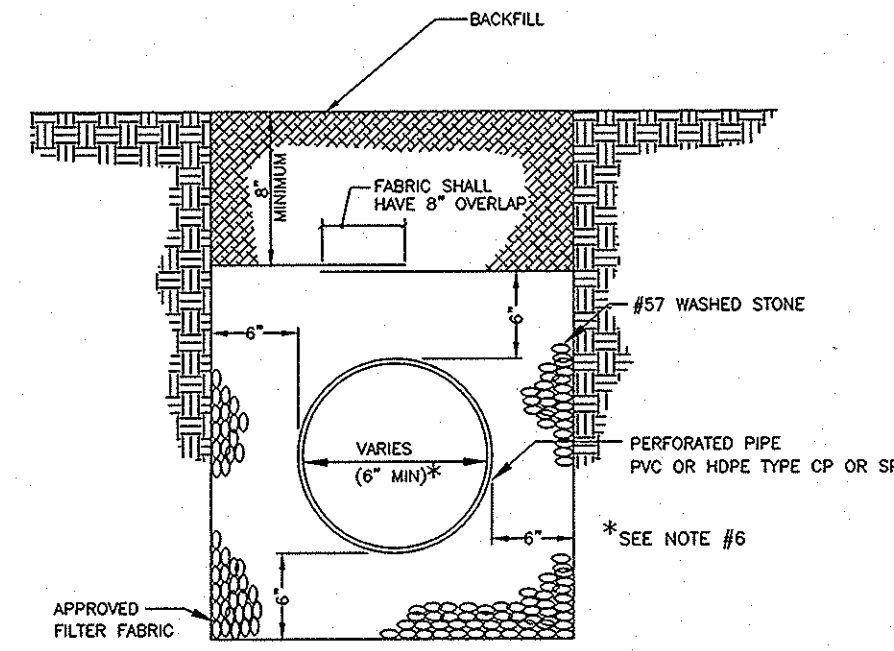
RIPRAP APRON AT PIPE OUTFALLS OTHER THAN AT SWIM

STD. NO. 20.23
REV. 7

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

NOTES:

- A MINIMUM OF 6" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR WASHED STONE. THE METHOD OF COMPACTING BACKFILL MATERIAL IS SUBJECT TO APPROVAL BY THE CITY ENGINEER. AN APPROVED FILTER FABRIC SHALL BE PLACED AROUND STONE AND OVERLAPPED 6" AT TOP WITHIN STREET RIGHT OF WAY.
- SUBDRAIN IS TO BE A MINIMUM 6" DIAMETER PERFORATED PIPE, USE SCHEDULE 40 PVC PER ASTM D1785 OR HDPE PER ASTM D2688 OR HDPE PER AASHTO M252, TYPE S (DOUBLE WALL, SMOOTH INTERIOR) UNDER ROADWAYS.
- OUTLET PIPE FROM SUBDRAIN SHALL BE NON-PERFORATED UNDER PAVEMENT (INCLUDING SIDEWALKS AND DRIVEWAYS). SEE SITE PLAN FOR SLOPE OF SUBDRAIN AND TIE IN TO STORM DRAINAGE.
- THE OUTLET PIPES SHALL BE SCHEDULE 40 (MIN.) PVC PER ASTM D2688 OR HDPE PER AASHTO M252, TYPE S (DOUBLE WALL, SMOOTH INTERIOR) UNDER ROADWAYS.
- FILTER FABRIC SHALL BE AN APPROVED, TYPE 2 WATER PERMEABLE, SYNTHETIC FABRIC.
- A MINIMUM 4" DIAMETER SUBDRAIN MAY BE USED IN PLANTING AREAS AS DESCRIBED IN THE CLDSM 4000 SERIES.
- CLEAN-OUTS ARE RECOMMENDED AT ALL PIPE INTERSECTIONS AND AT A 100' MAXIMUM SEPARATION.
- SUBDRAIN INVERTS AT CATCH BASINS SHOULD BE INSTALLED ABOVE THE BOTTOM TO AVOID SURCHARGE OF SUBDRAIN SYSTEM.
- ALL SUBDRAINS WILL TIE INTO A STANDARD DRAINAGE STRUCTURE OR DAYLIGHT TO THE SURFACE WHERE APPROPRIATE.



SPECIAL NOTE:
PREFABRICATED DRAINAGE MAY BE USED WITH APPROVAL OF CITY ENGINEER.

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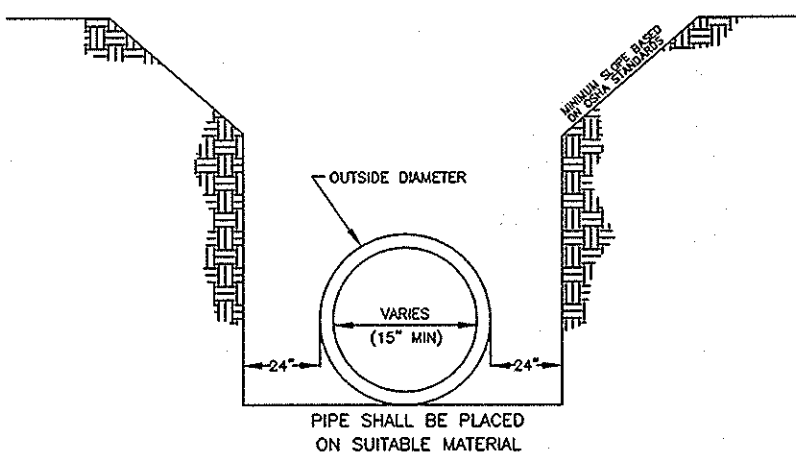
CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

SUBDRAIN DETAIL

STD. NO. 20.28
REV. 5

NOTES:

- A MINIMUM OF 24" FROM OUTSIDE DIAMETER OF PIPE TO SIDE OF TRENCH MUST BE ALLOWED FOR COMPACTION OF FILL MATERIAL. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER THE PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE PLACED IN LAYERS NOT TO EXCEED 6". UNDER NO CIRCUMSTANCES SHALL WATER BE PERMITTED TO RISE IN UNBACKFILLED TRENCHES AFTER THE PIPE HAS BEEN PLACED. COMPACTION REQUIREMENTS SHALL BE ATTAINED BY THE USE OF MECHANICAL TAMPERS ONLY. EACH AND EVERY LAYER OF BACKFILL SHALL BE PLACED LOOSE AND THOROUGHLY COMPACTED INTO PLACE.
- ALL BACKFILL MATERIAL SHALL HAVE AN IN PLACE COMPACTION DENSITY OF 95%.
- STANDARD PROCTOR. THE FINAL 2" BELOW FINISHED GRADE SHALL BE 100%.
- ALL TRENCHING OPERATIONS SHALL MEET OSHA STANDARDS.
- BACKFILL MATERIAL BENEATH ROADWAY SHALL BE SELECT BACKFILL MATERIAL.

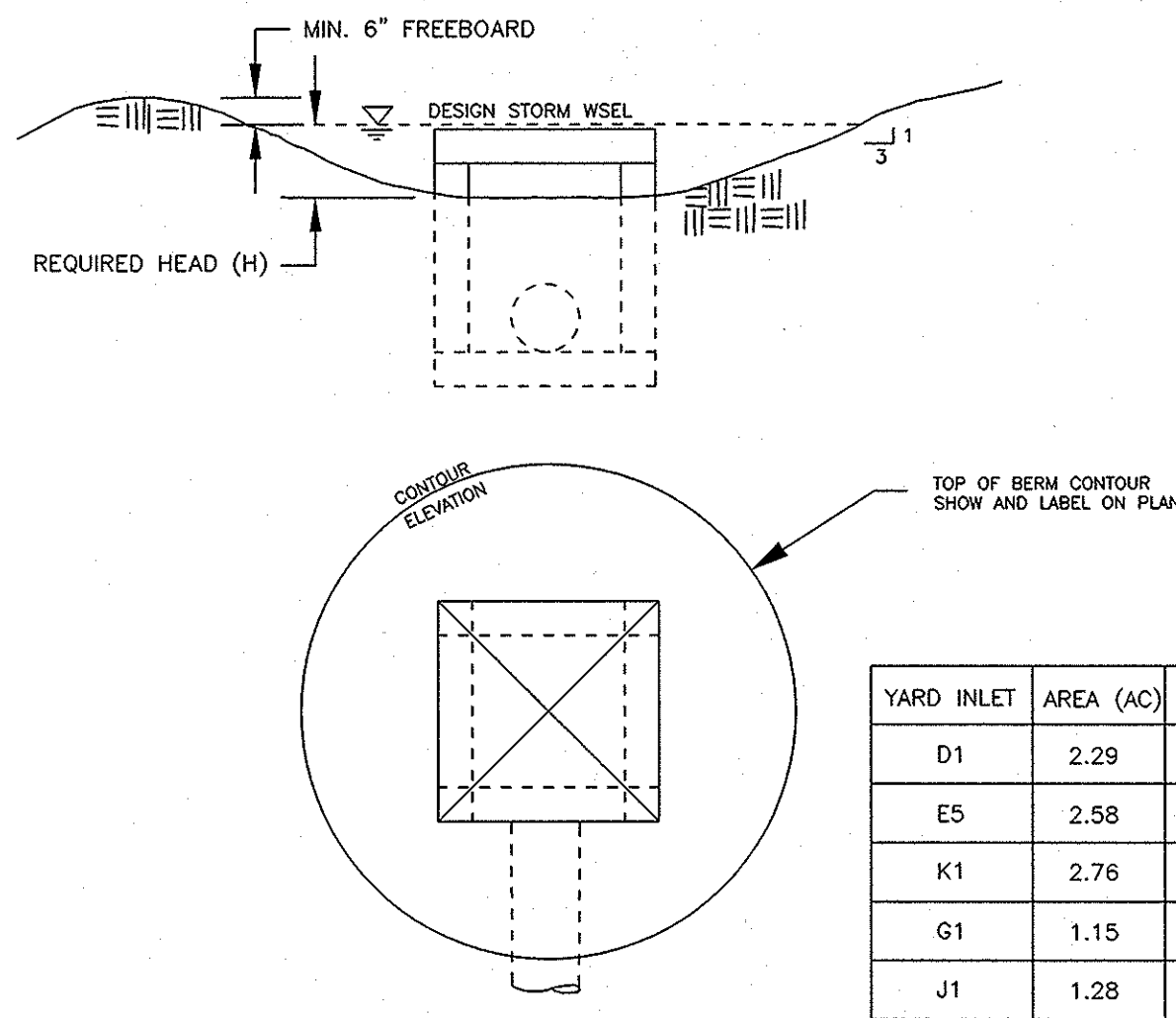


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LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

TRENCH DETAIL FOR STORM DRAIN

STD. NO. 20.25
REV. 1



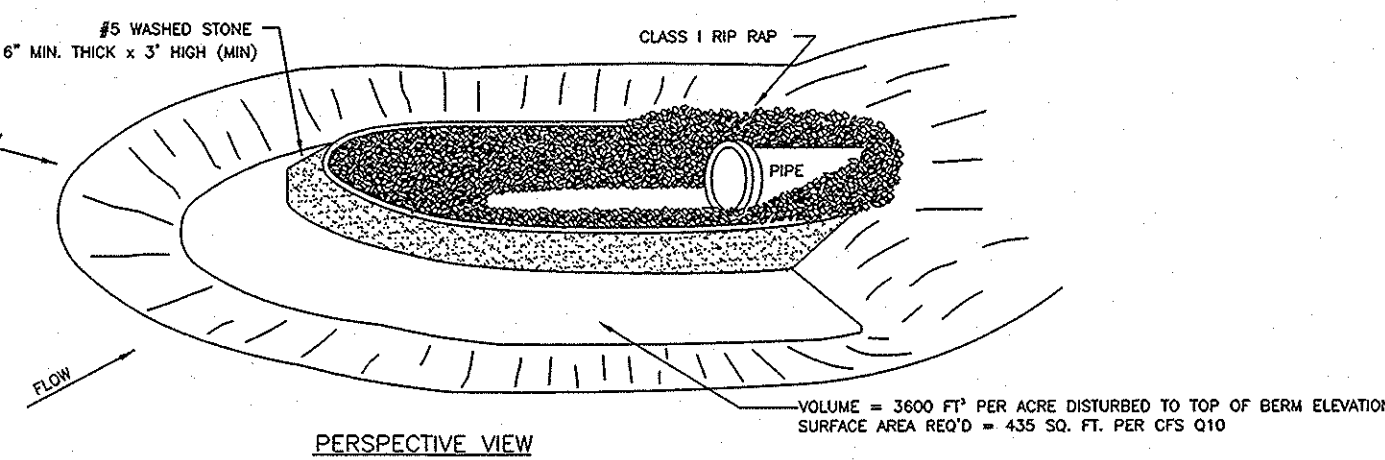
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LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

GRADING AT DROP INLET

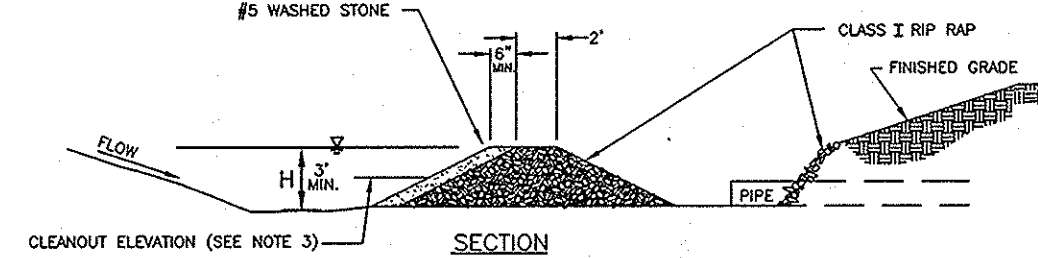
STD. NO. 20.35
REV. 1

DATA BLOCK									
BASIN NO.	DRAINAGE AREA (ACRES)	DENIED AREA (ACRES)	BASIN VOLUME REQUIRED (CUBIC FT.)	BASIN SURFACE AREA PROVIDED (SQ. FT.)	CLEANOUT DEPTH (FT.)	H (FEET)			



GENERAL NOTES:

- GRAVEL AND RIP RAP FILTER BERMS SHOULD BE USED TO PROTECT EXISTING PIPE INVERTS THAT DRAIN 5 ACRES OR LESS.
- DIMENSIONS SHOWN ARE THE MINIMUM ACCEPTED UNLESS OTHERWISE NOTED.
- CLEANOUT PRIOR TO SEDIMENT REACHING HALF OF BERM HEIGHT.

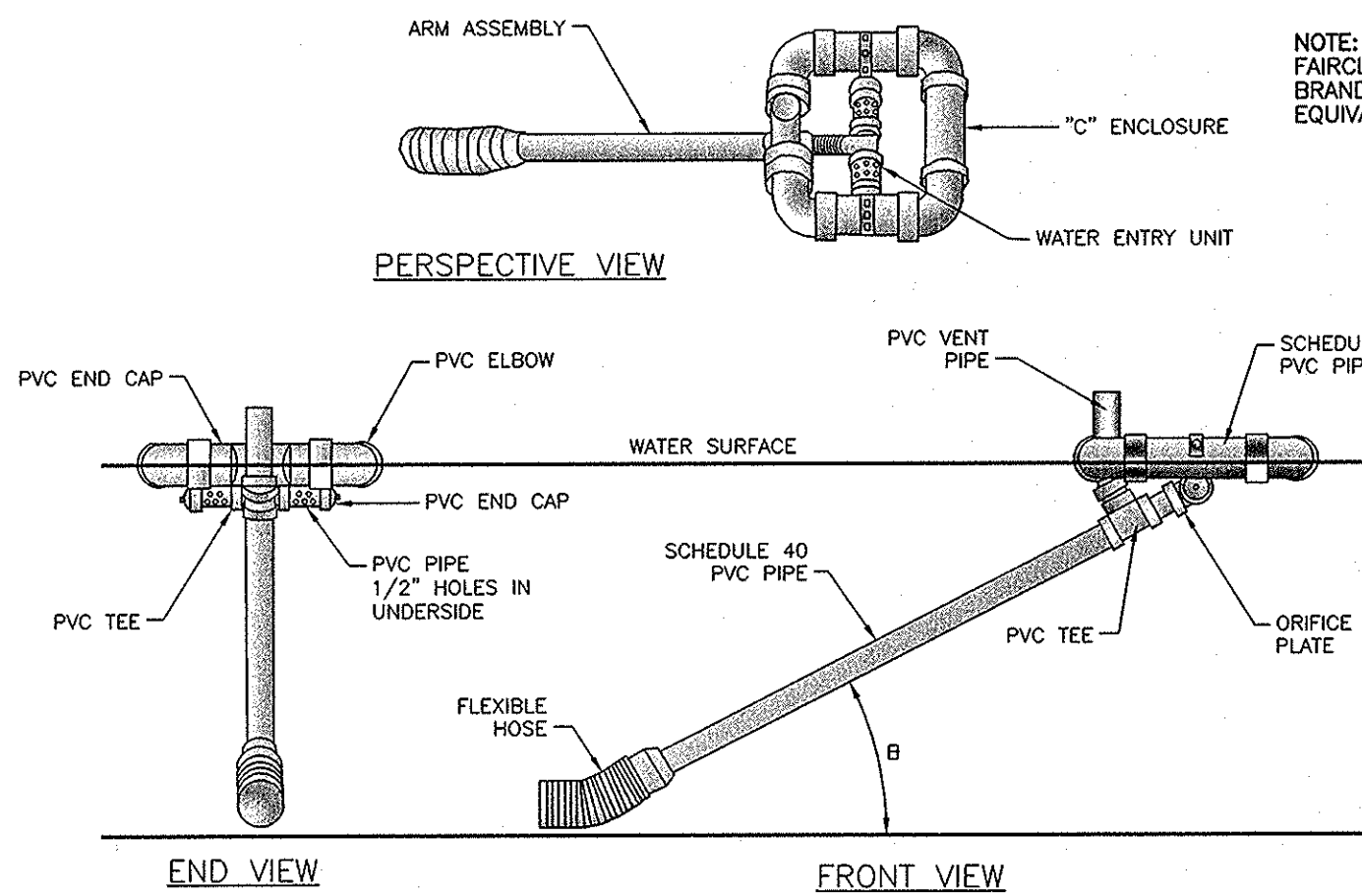


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LAND DEVELOPMENT STANDARDS
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GRAVEL AND RIP RAP FILTER BERM BASIN

STD. NO. 30.12
REV. 1

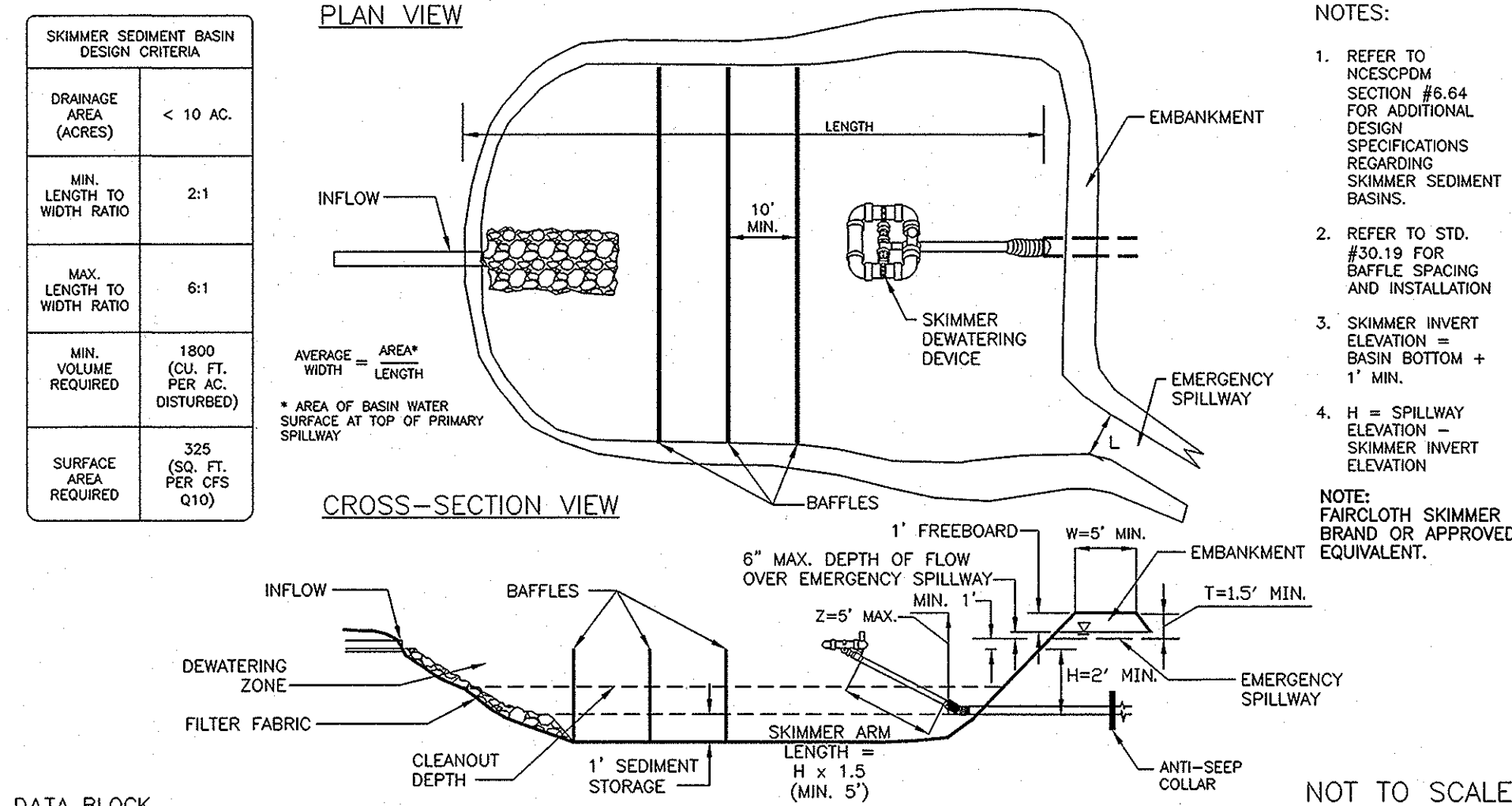


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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

SKIMMER

STD. NO. 30.02B
REV. 1



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DATA BASIN				STORAGE				(MIN. 5')							
BASIN	DRAINAGE AREA (ACRES)	DENIED AREA (ACRES)	Q ₁₀	BASIN VOLUME REQUIRED (CUBIC FT.)	BASIN SURFACE AREA PROVIDED (SQ. FT.)	CLEANOUT DEPTH (FT.)	H (FEET)	Z (FEET)	L (FEET)	T (FEET)	W (FEET)	SKIMMER PIPE DIAMETER (INCHES)	SKIMMER ORIFICE DIAMETER (INCHES)		
1 (PH. 1)	8.56	7.78	27.30 cfs	14,004	25,698	8,873	9.775	1.75	3.5	5.0	30	1.50	12	3.0"	2.8"
1 (PH. 2)	7.78	7.78	24.61 cfs	14,004	24,475	7,999	8,284	1.75	3.5	5.0	30	1.50	12	3.0"	2.8"
2	4.38	4.38	13.86 cfs	7,884	16,895	4,503	7,548	1.25	2.5	5.0	30	1.50	20	2.5"	2.4"
3	1.50	1.50	4.75 cfs	2,700	5,941	1,542	2,281	1.75	3.5	5.0	16	1.50	20	2.0"	1.5"
4	2.12	2.12	6.71 cfs	3,276	5,502	2,180	2,215	1.875	3.75	5.00	16	1.50	16	2.0"	1.4"

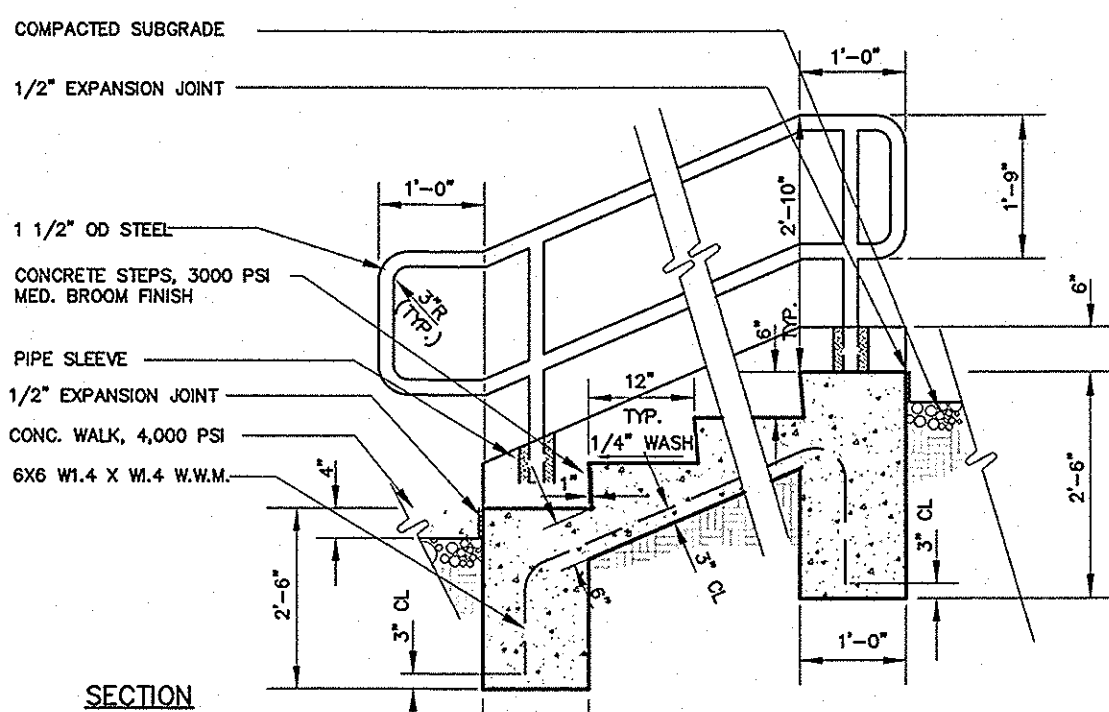
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LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

SKIMMER SEDIMENT BASIN

STD. NO. 30.02A
REV. 12

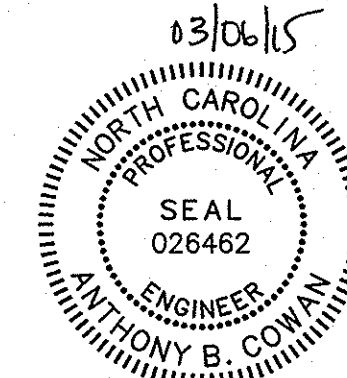
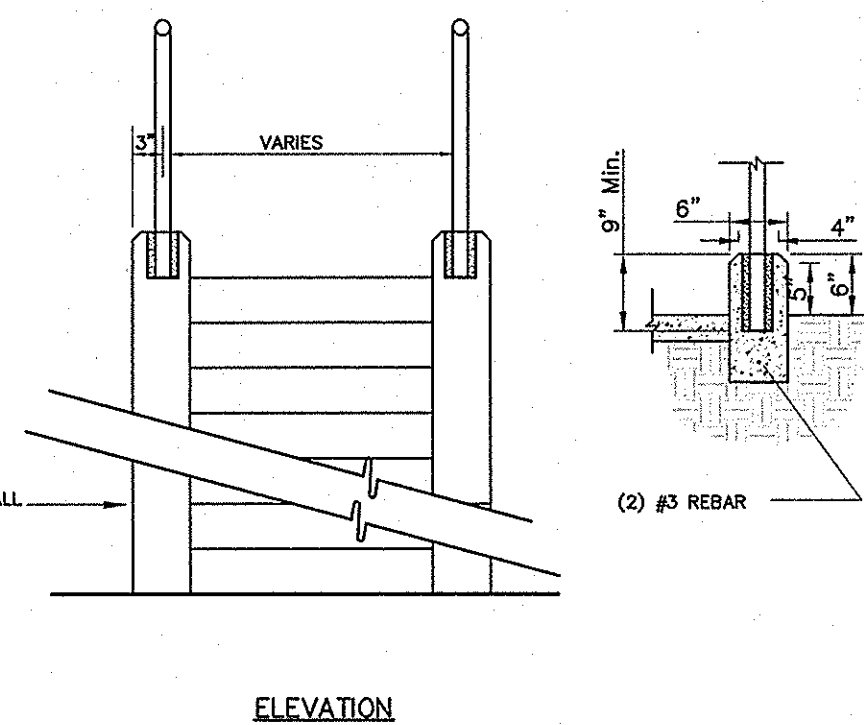
NOTES:

- HANDRAIL NOT REQUIRED FOR 2 OR LESS RISES.
- ALL WELDS CONTINUOUS AND SOLID. GRIND SMOOTH, PRIME & PAINT.
- ALL LANDINGS FOR STEPS & H/C RAMPS SHALL HAVE A 2.0% MAX. SLOPE.



CONCRETE STEPS

NOT TO SCALE



NO.	BY	DATE	REVISION
1	AEN	1/9/15	PER CITY REVIEW COMMENTS
2	AEN	3/2/15	PER CITY REVIEW COMMENTS

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

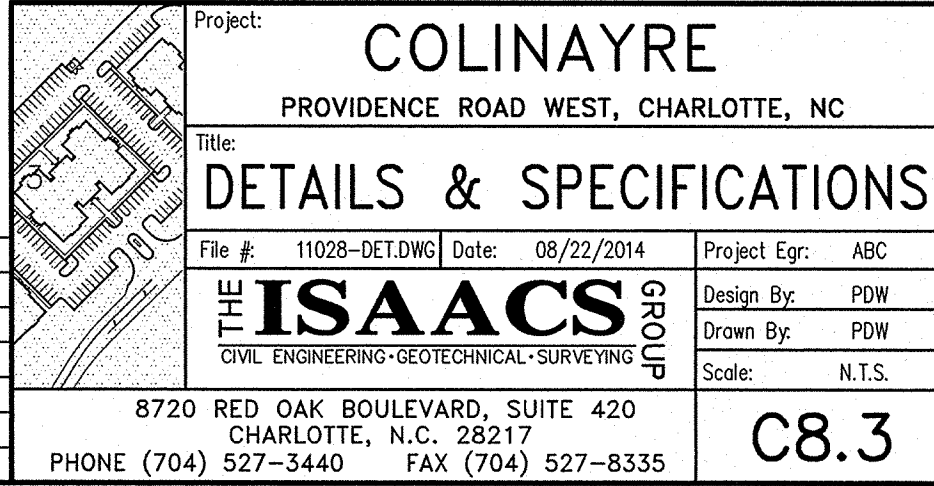
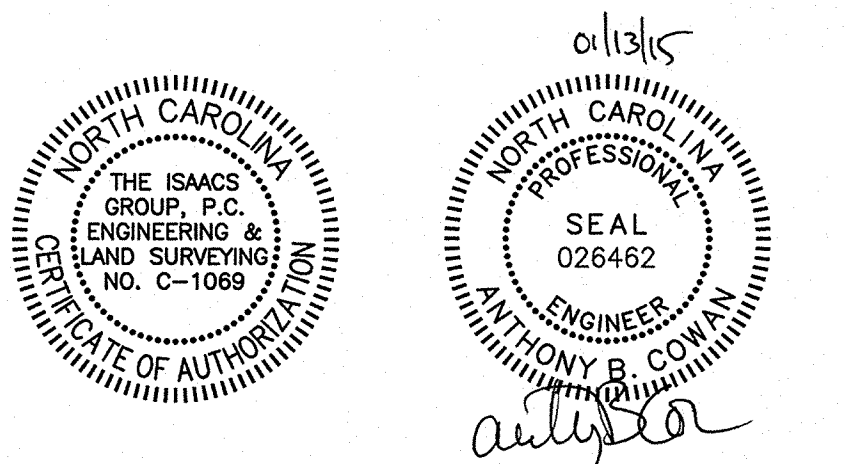
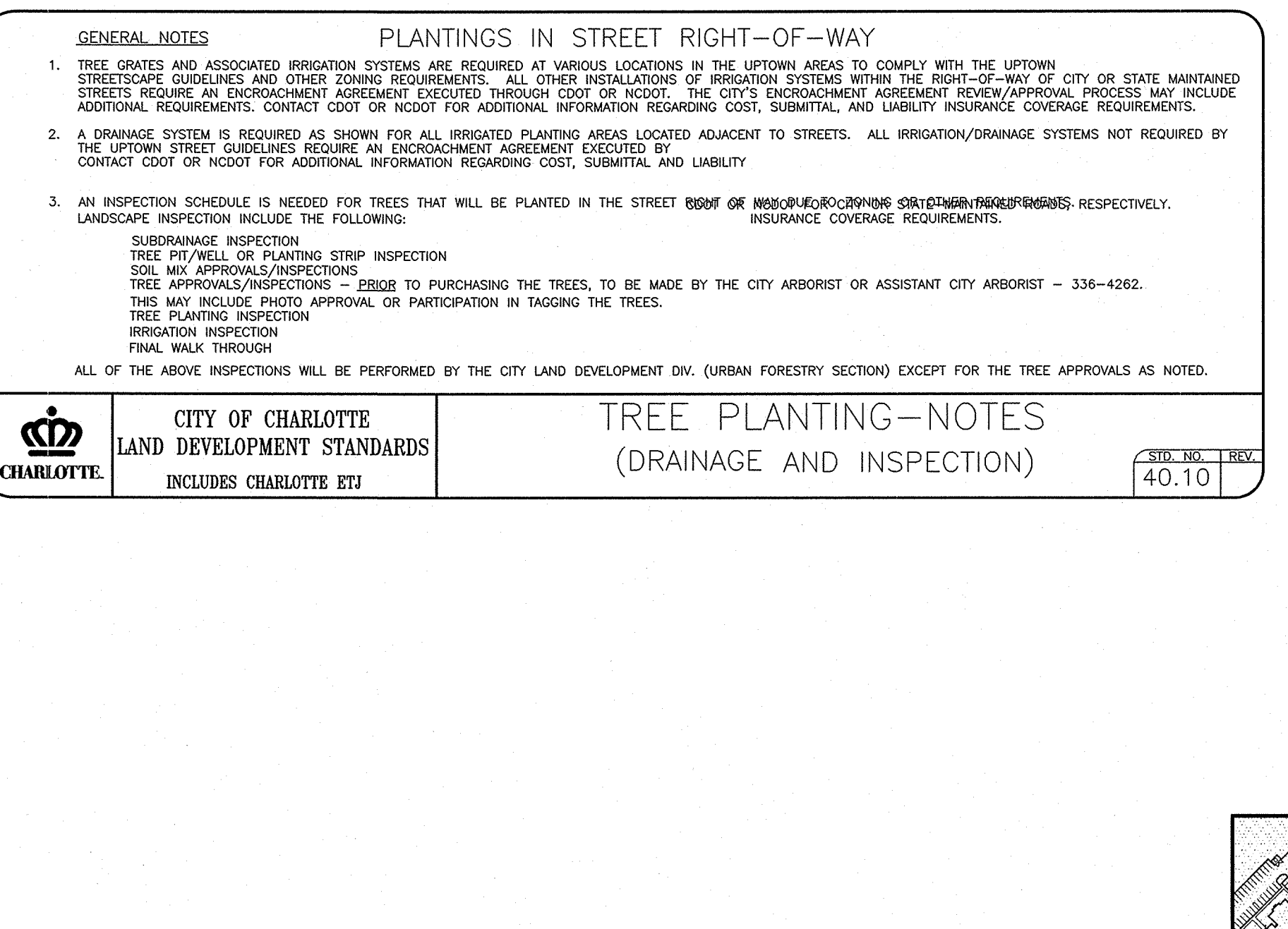
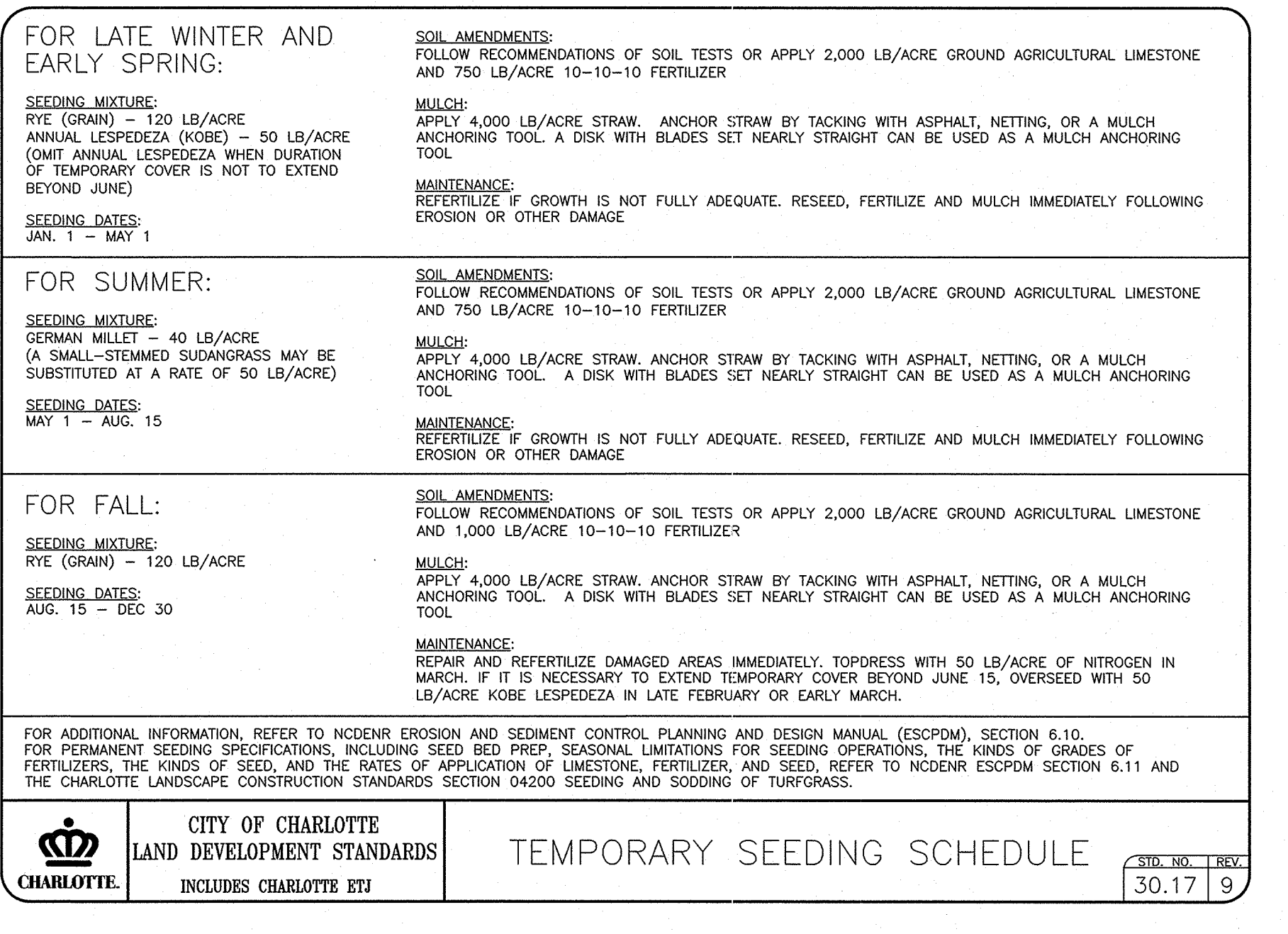
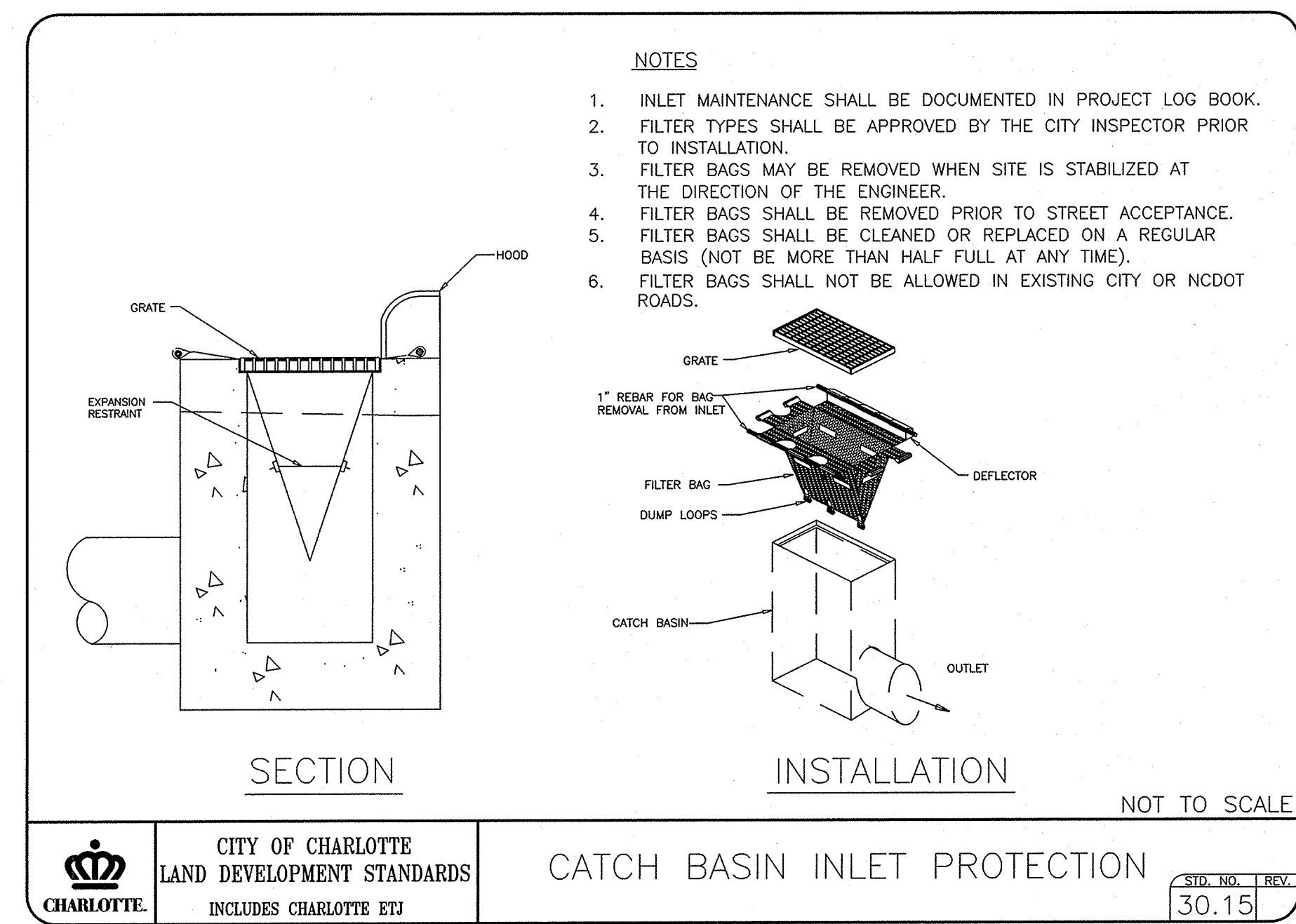
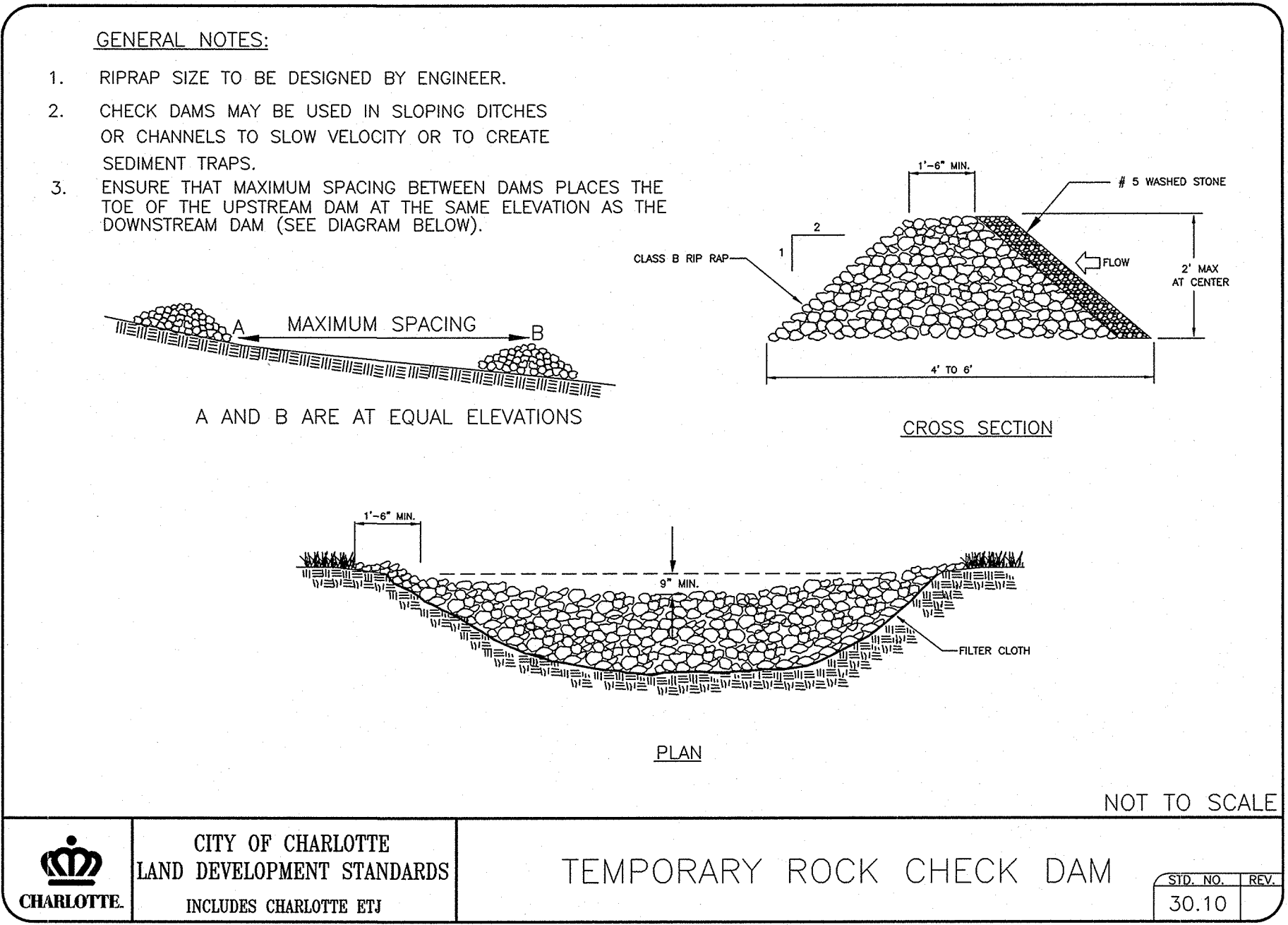
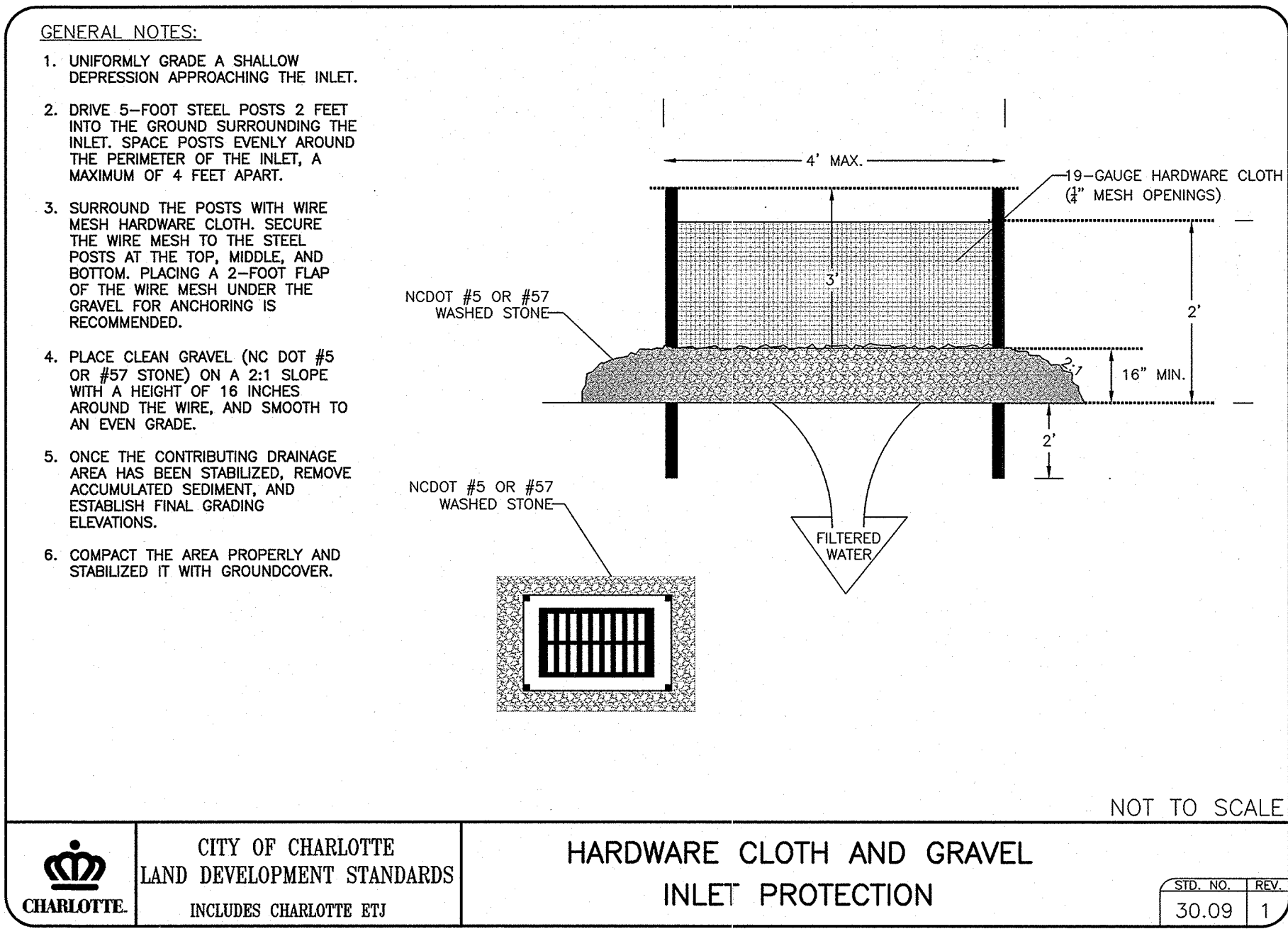
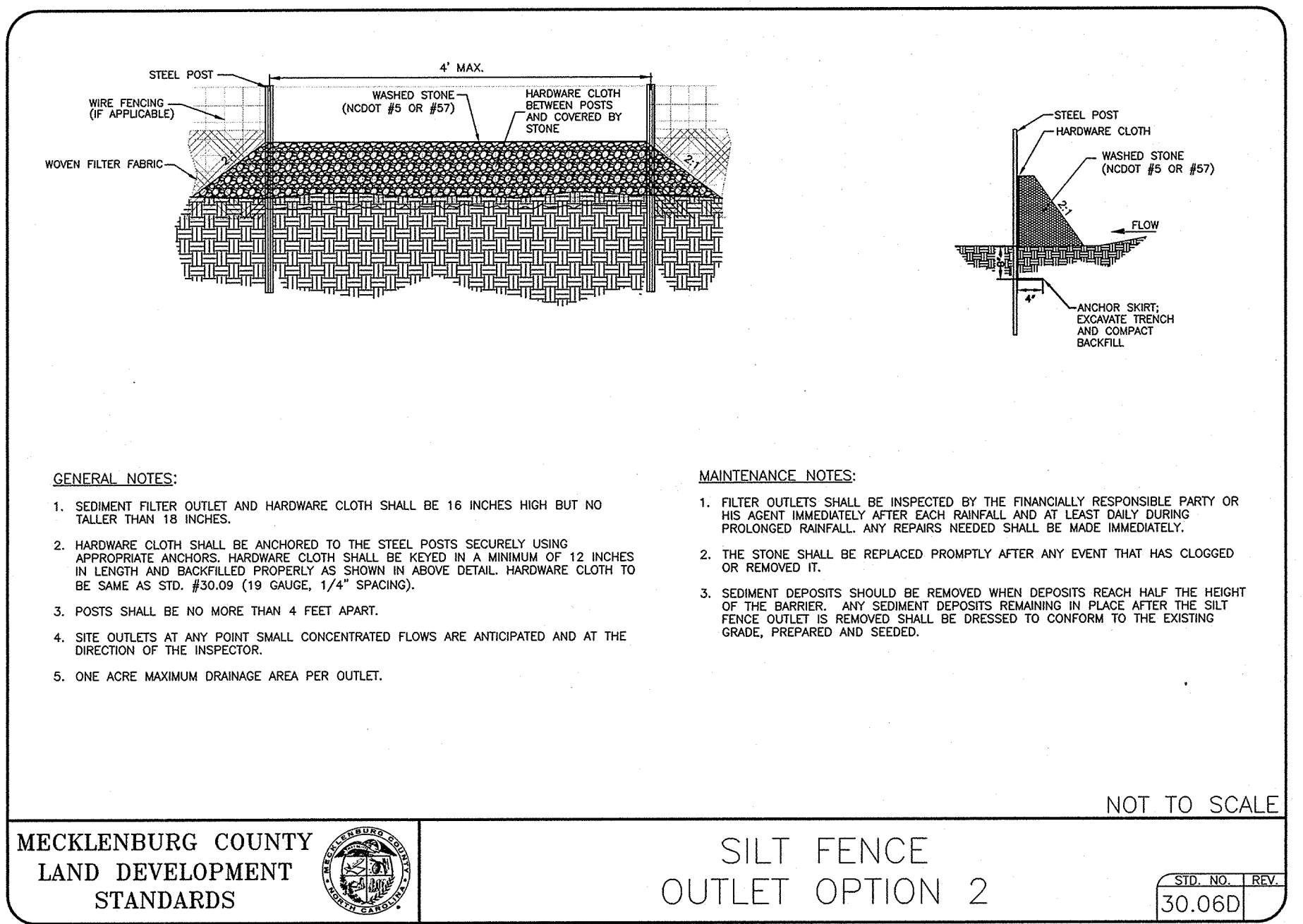
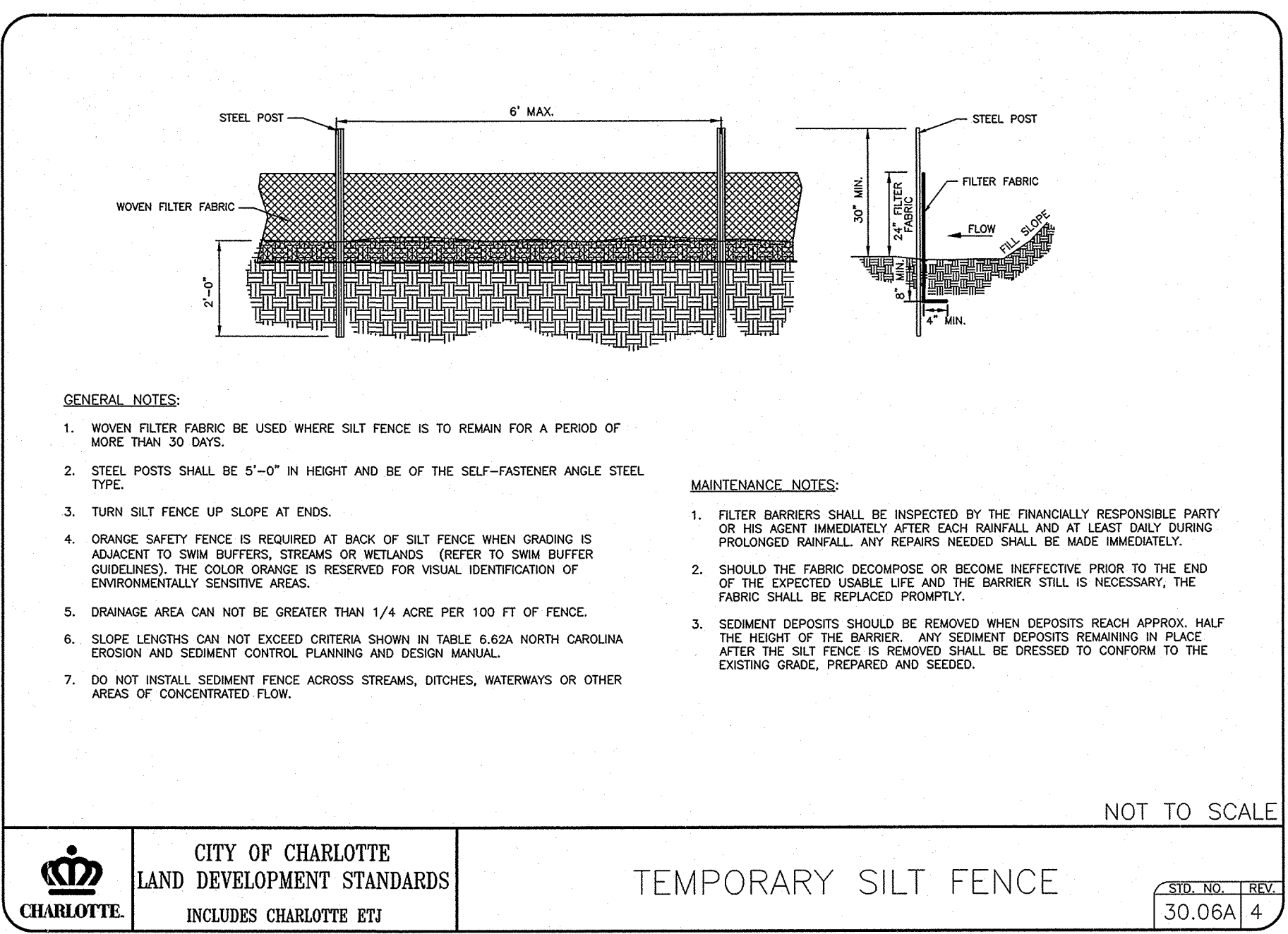
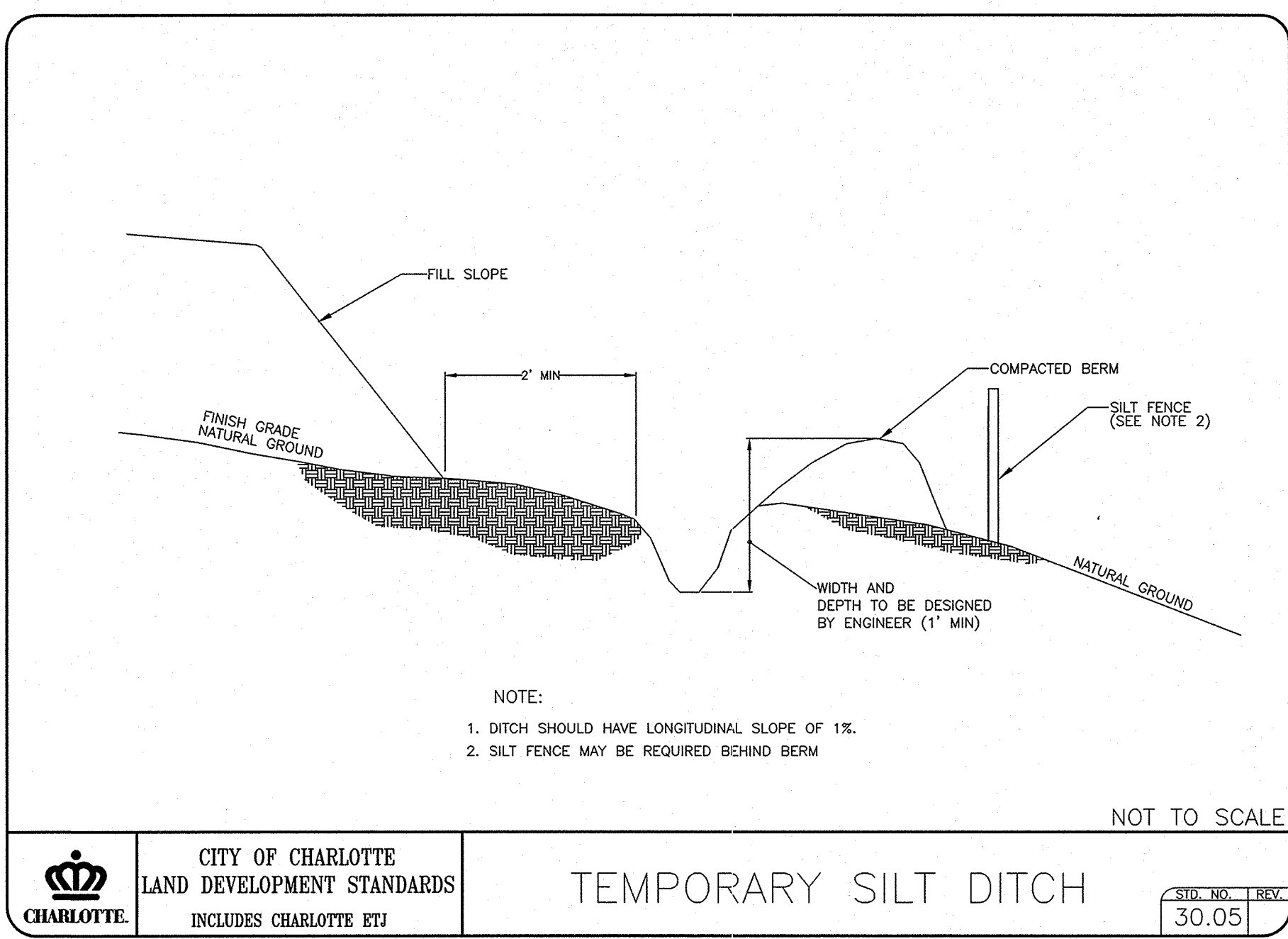
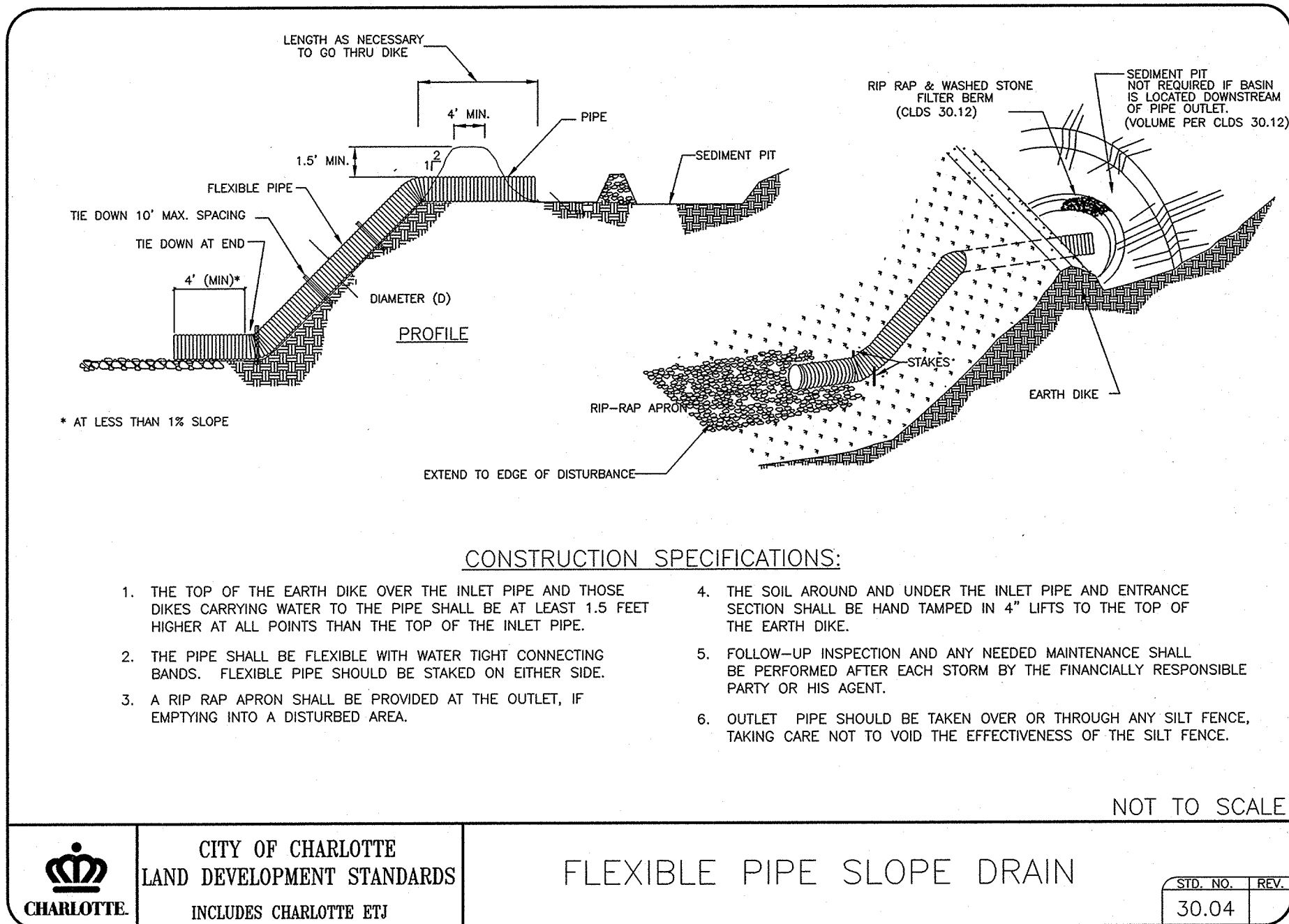
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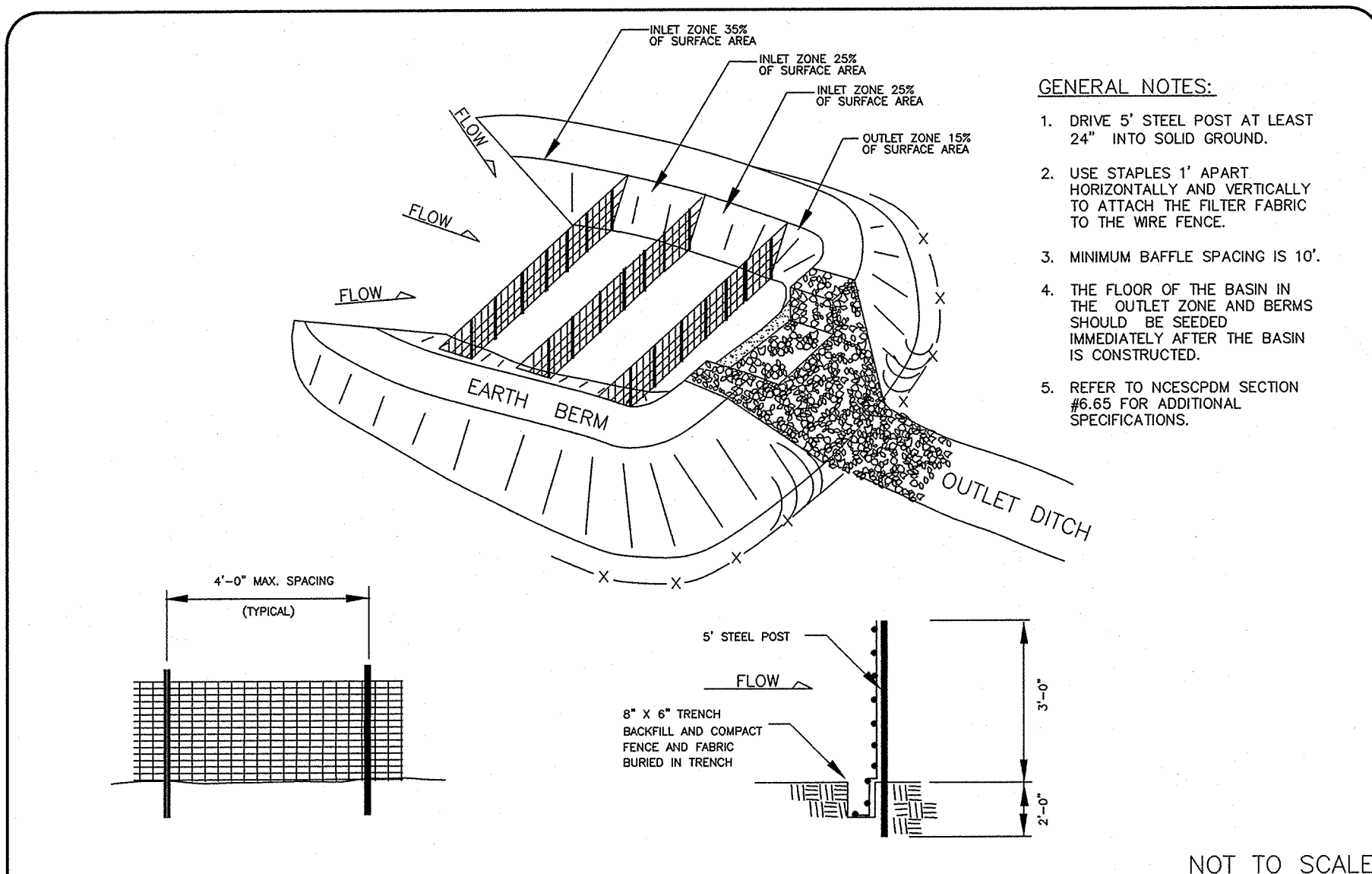
File #: 11028-DET.DWG Date: 08/22/2014 Project Egr: ABC

Design By: PDW
Drawn By: PDW
Scale: N.T.S.

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C8.2

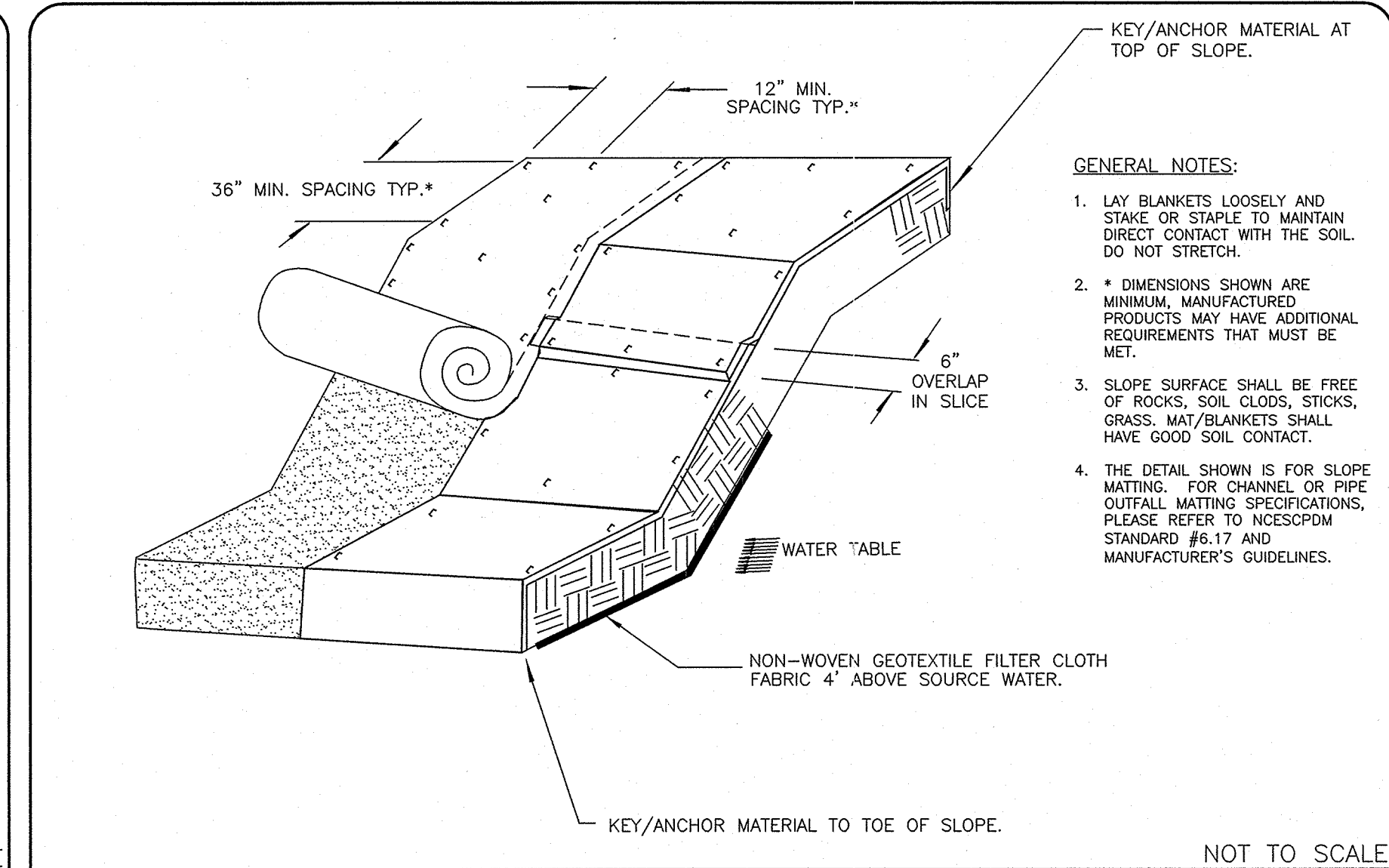




CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

BAFFLE INSTALLATION

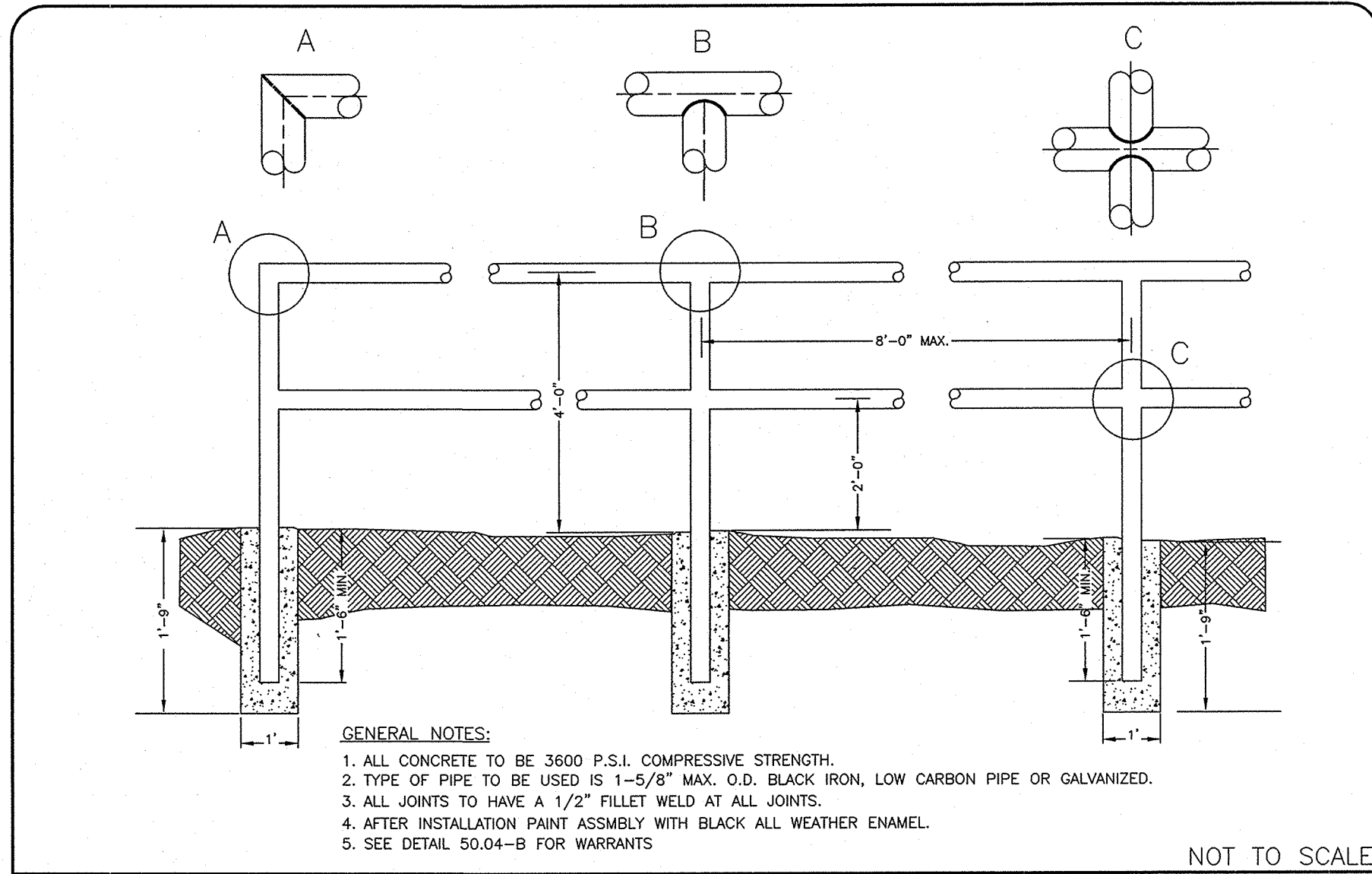
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

EMBANKMENT MATTING DETAIL

STD. NO. REV.
30.20 1



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

SAFETY RAIL

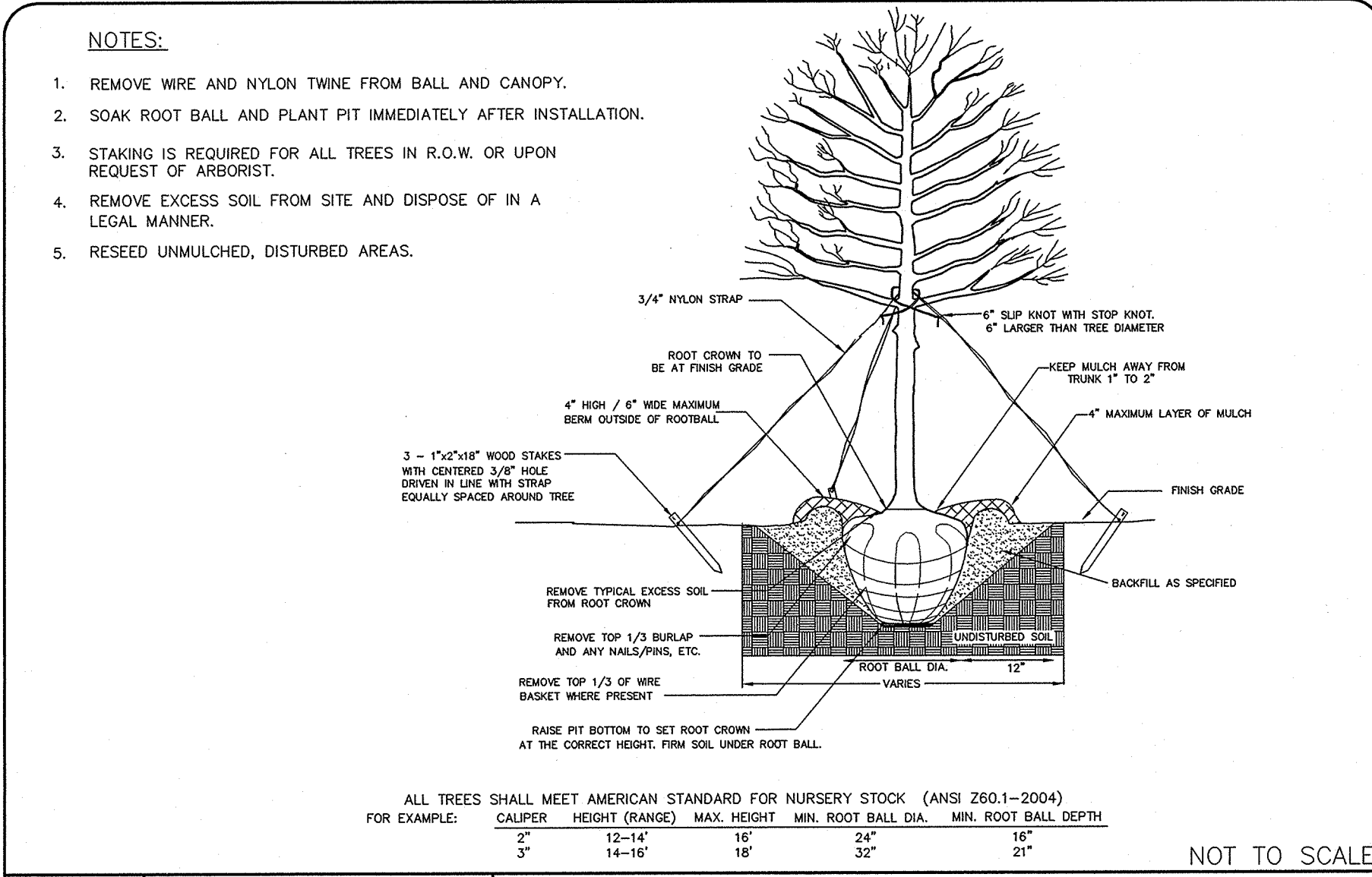
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50.04A 7

SWALE TYPE	A	B	C	D	W	X	Y	F
A	7'	7'	1.5'	1.5'	1.0'	2	2	S75
B	5.0'	5.0'	1.0'	1.0'	2.0'	2	2	S75

GRASS SWALE NOTES:

1. EXCAVATE CHANNEL TO THE CROSS-SECTION SHOWN.
2. APPLY LIME, FERTILIZER AND SEED TO THE CHANNEL AND ADJOINING AREAS IN ACCORDANCE WITH THE SEEDING SCHEDULE.
3. START LAYING THE NET FROM THE TOP OF THE UPSTREAM END OF THE CHANNEL AND UNROLL IT DOWN THE GRADE. DO NOT STRETCH MATTING.
4. BURY THE UPSLOPE END AND STAPLE THE NET EVERY 12" ACROSS THE TOP END, EVERY 3' AROUND THE EDGES AND ACROSS THE MAT SO THAT THE STRAW IS HELD CLOSELY AGAINST THE SOIL.
5. MATTING STRIPS SHOULD BE JOINED TOGETHER ALONG THE SIDES WITH A 3" OVERLAP AND STAPLED TOGETHER.
6. TO JOIN ENDS OF STRIPS, INSERT THE NEW ROLL OF NET IN A TRENCH AS WITH UPSLOPE END AND OVERLAP IT 18" WITH THE PREVIOUSLY LAID UPPER ROLL. TURN UNDER 6" OF THE 18" OVERLAP AND STAPLE EVERY 12" ACROSS THE END.

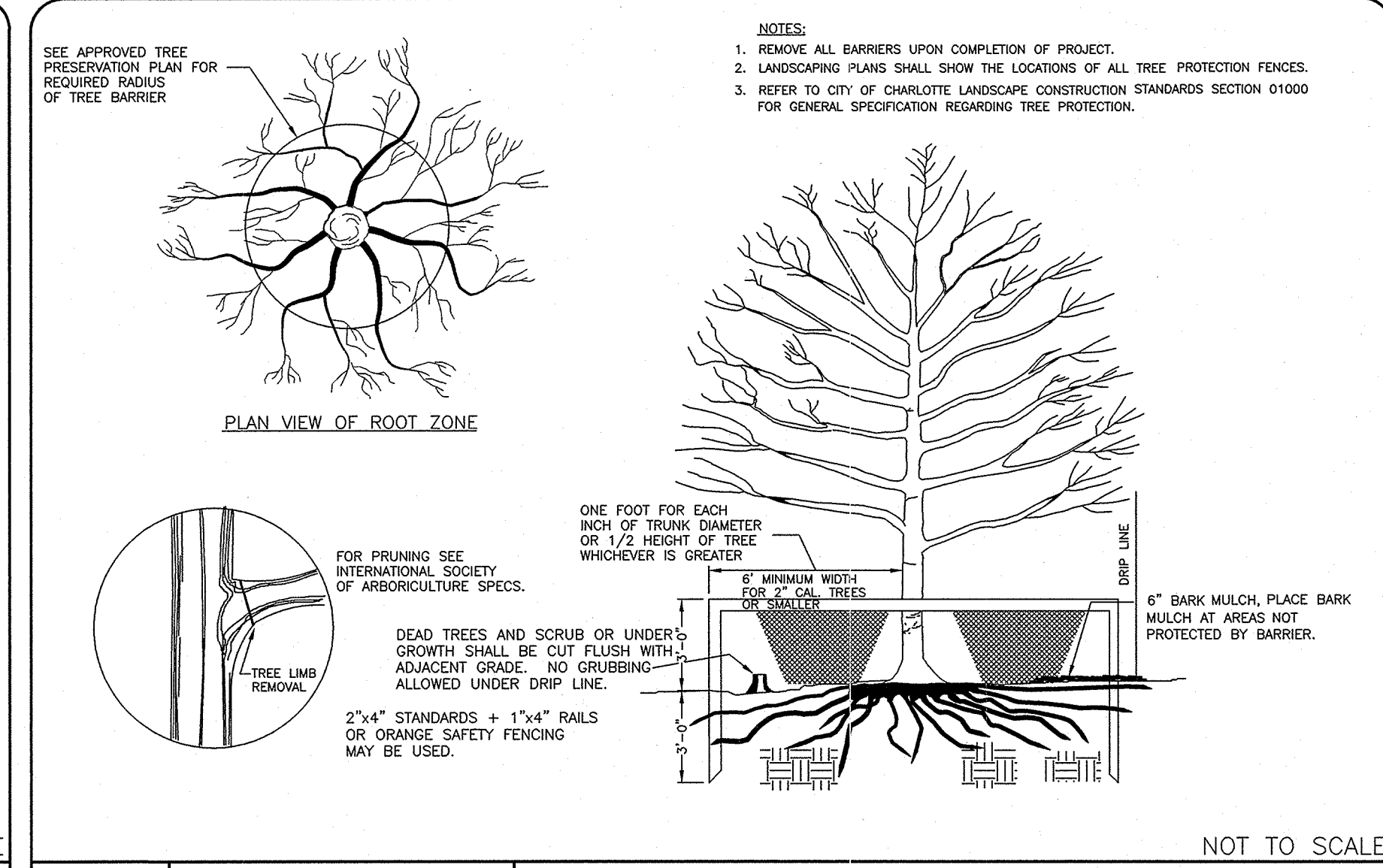
GRASS SWALE DETAIL



CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

TREE PLANTING
(FOR SINGLE AND MULTI-STEM TREES)

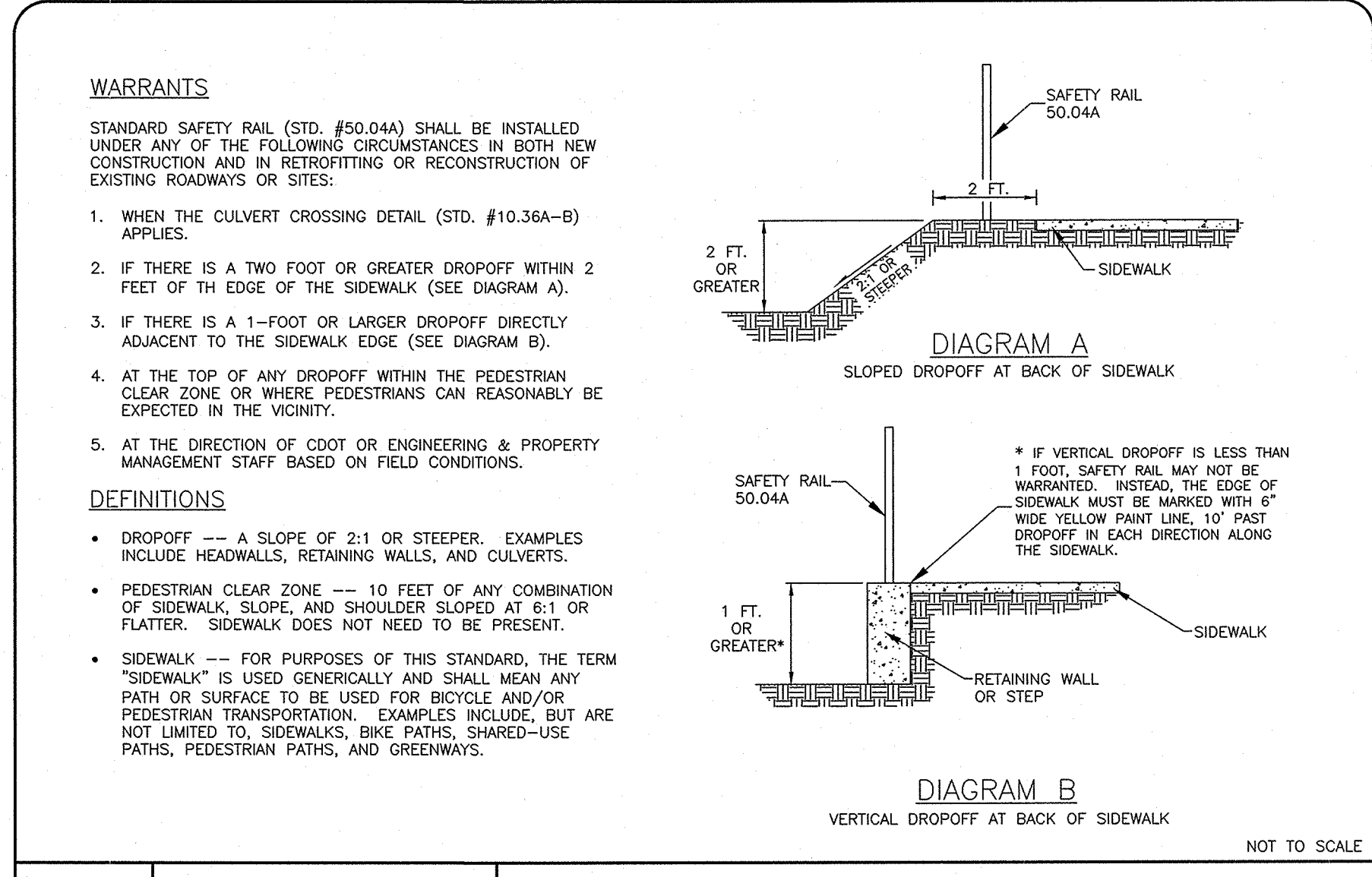
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

TREE PROTECTION DETAIL

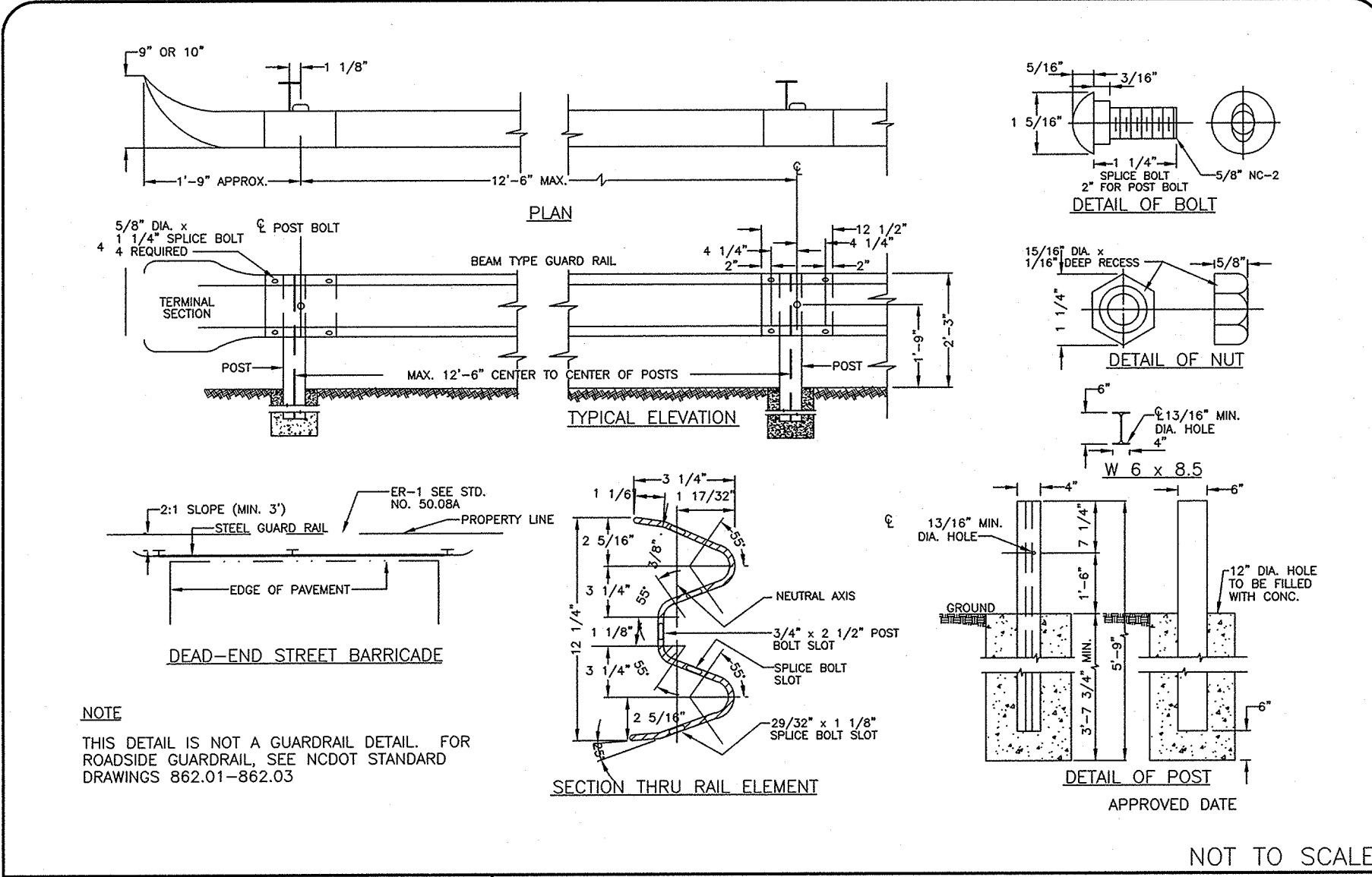
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

SAFETY RAIL WARRANTS

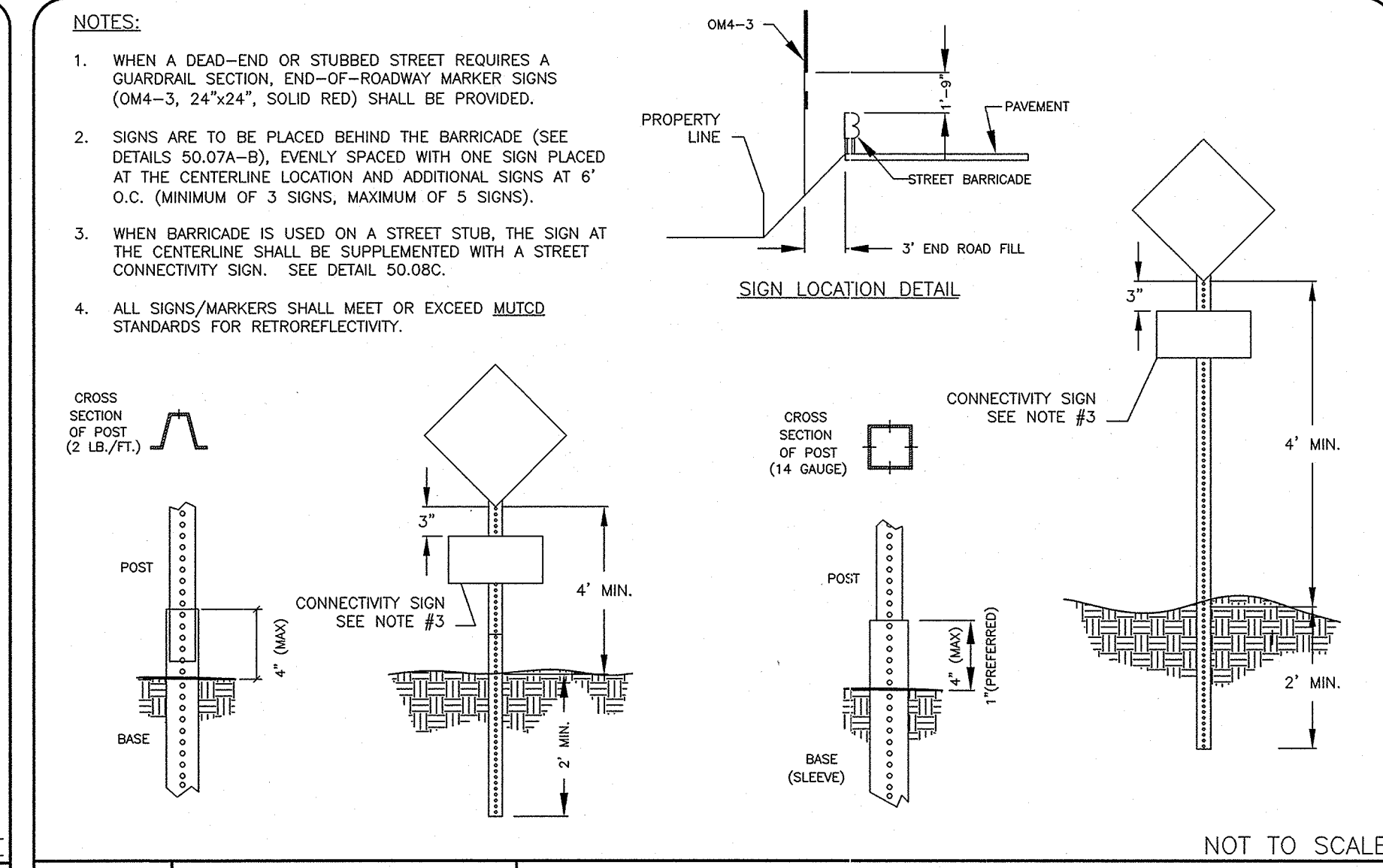
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

DEAD END STREET BARRICADE

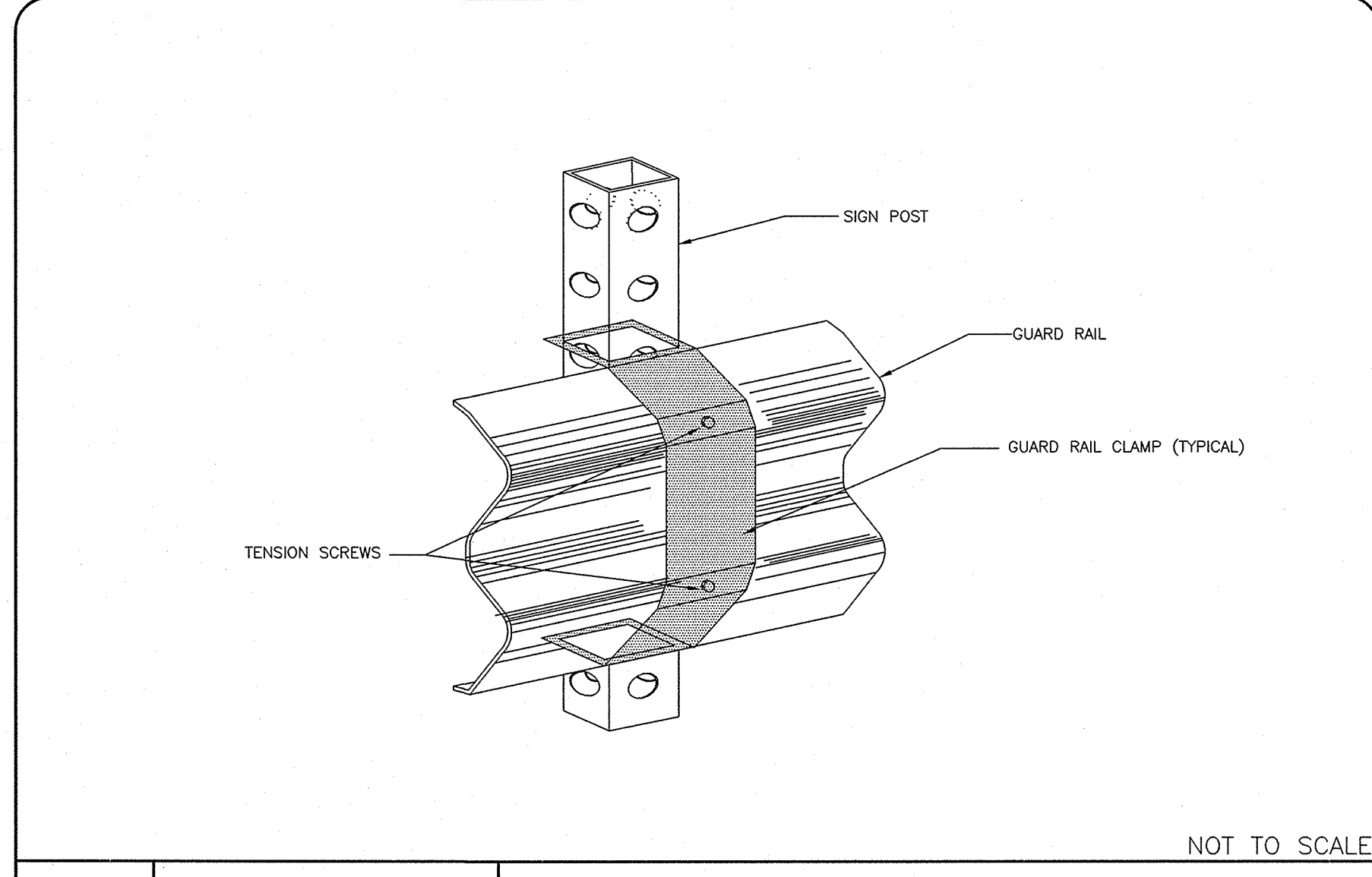
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

END OF ROADWAY MARKER

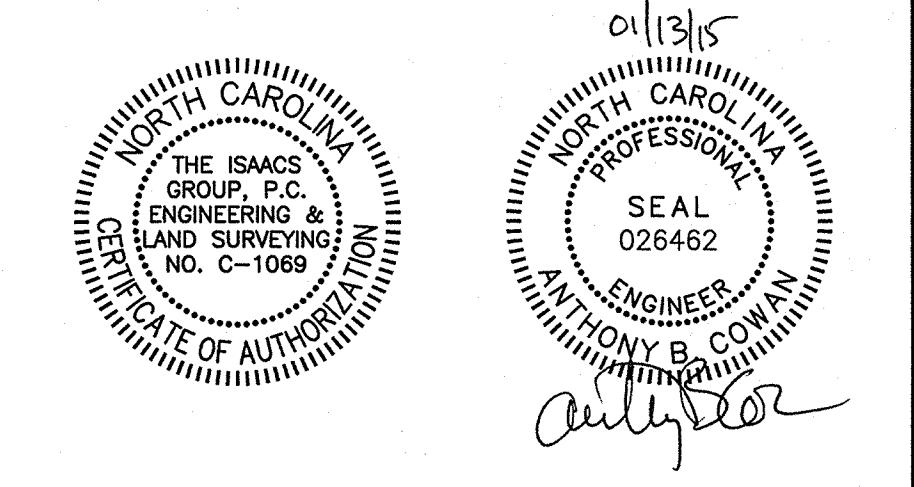
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CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

END OF ROADWAY MARKER
GUARD RAIL CLAMP INSTALLATION

STD. NO. REV.
50.08B 4



Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

Title: DETAILS & SPECIFICATIONS

File #: 11028-DET.DWG Date: 08/22/2014 Project Egr: ABC

Design By: PDW

Drawn By: PDW

Scale: N.T.S.

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C8.4

NOTES:

1. WORK IN CREEK SHALL BE PLANNED TO MINIMIZE THE NUMBER OF DAYS OF DISTURBANCE.
2. THE CONTRACTOR IS TO OBSERVE THE LOCAL WEATHER FORECASTS AND NOT BEGIN WORK IN THE CREEK UNLESS AT LEAST THREE DAYS WITHOUT RAIN IS ANTICIPATED.
3. ALL DISTURBED CREEK BED AND BANKS ARE TO BE STABILIZED PRIOR TO THE END OF EACH WORK DAY.
4. FOR LARGER CREEKS, CONSTRUCTION SHOULD OCCUR ON ONE SIDE OF THE CREEK AT A TIME. THE FIRST SIDE SHOULD BE STABILIZED BEFORE BEGINNING CONSTRUCTION ON THE OPPOSITE SIDE.
5. A TEMPORARY PIPE OR PUMP MAY BE INSTALLED TO CONTROL CREEK FLOW DURING CONSTRUCTION.

ROCK CHECK DAMS ARE NOT TO BE INSTALLED

CONSTRUCT THREE ROCK CHECK DAMS (STD. 30.10) AT 100-FOOT SPACING DOWN STREAM FROM THE CONSTRUCTION ZONE IF CONDITIONS AND PROPERTY RIGHTS ALLOW.

INSTALL DIKE OR COFFERDAM IMMEDIATELY UPSTREAM OF THE CONSTRUCTION ZONE IF CREEK HAS BASE FLOW

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

CONSTRUCTION WITHIN CREEK BANK
(FOR USE WITH ROAD CROSSINGS,
UTILITY CROSSINGS & CULVERT CONSTRUCTION)

30.18

NOTE:

1. PRIOR TO INSTALLATION, MANUFACTURER SPECIFICATIONS OF FILTER MEDIA SHALL BE PROVIDED TO THE EROSION CONTROL INSPECTOR FOR APPROVAL AND USE. DISCHARGE FROM FILTER MEDIA SHALL MEET OR EXCEED THE PROVISIONS OF THE CLEAN WATER ACT.
2. ENSURE THAT PUMP PRESSURE DOES NOT EXCEED FILTER MEDIA PRESSURE RATING.
3. FILTER MEDIA MAY BE, BUT NOT LIMITED TO, SAND MEDIA FILTRATION DEVICES, RATED FILTER FABRIC BAGS OR POLYMER BASED DEWATERING PRACTICES.
4. PUMP STRAINER SHALL NOT BE IN CONTACT WITH BOTTOM OF POND.

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

EROSION CONTROL DEWATERING

30.13

CONSTRUCTION SEQUENCE FOR STREAM CROSSING:

1. A PRE-CONSTRUCTION MEETING WITH CONTRACTOR, OWNER AND THE CITY OF CHARLOTTE MUST BE HELD PRIOR TO ANY CREEK CROSSING. THIS INCLUDES ALL UTILITY CROSSINGS AND PERMANENT CROSSING.
2. LIMIT TIME OF EXPOSURE - ALL MATERIALS AND EQUIPMENT NEEDED TO COMPLETE THE CROSSING MUST BE ON SITE PRIOR TO STARTING. THERE MUST ALSO BE SUITABLE WEATHER CONDITIONS PER CHARLOTTE LAND DEVELOPMENT STANDARD 30.18.
3. LIMIT EXPOSED AREAS - MINIMIZE THE SIZE OF THE AREA TO BE EXPOSED AT ANY ONE TIME. DISTURBED STREAM BANKS SHALL BE STABILIZED WITH MATING AT THE END OF EACH WORK DAY AND PRIOR TO ANY RAIN EVENT.
4. CONTROL SURFACE WATER - DETERMINE THE BEST TECHNIQUE AND GAIN APPROVAL FROM WATER QUALITY INSPECTOR. SOME EXAMPLES INCLUDE, BUT NOT LIMITED TO: PUMP AROUND, TEMPORARY PIPE AROUND, TEMPORARY CHANNEL DIVERSION, BRIDGE MAT, ETC.
5. CONTROL SEDIMENTATION - AS SHOWN ON APPROVED PLANS. INNOVATIVE AND ADDITIONAL MEASURES MAY BE REQUIRED BY THE WATER QUALITY INSPECTOR IF NEEDED.
6. SURVEY LIMITS OF DISTURBANCE AND MARK WITH CONTINUOUS FLAGGING - SURVEY THE LOCATION OF THE CULVERT, HEADWALLS, AND LIMITS OF DISTURBANCE BASED ON ANY 401/404 PERMIT(S) THAT HAVE BEEN ISSUED FOR THE SITE. CALL THE WATER QUALITY INSPECTOR PRIOR TO STARTING ANY WORK. THIS MEETING SHOULD TAKE PLACE AT LEAST 48 HOURS PRIOR TO WORKING IN THE STREAM. THE INSPECTOR WILL GIVE INSTRUCTIONS ABOUT CONTROLLING THE SURFACE WATER AND STARTING THE CULVERT INSTALLATION.
7. INSTALL ALL EROSION CONTROL MEASURES - MINIMIZE THE DISTURBED AREA.
8. INFORM THE WATER QUALITY INSPECTOR - NOTIFY INSPECTOR REGARDING COMPLETION OF DEVICE INSTALLATION AND REQUEST AN INSPECTION FOR COMPLIANCE.
9. MAINTENANCE - MAINTAIN ALL MEASURES AND DEVICES DAILY, MAKE IMMEDIATE REPAIRS WHEN NEEDED.

IMPERVIOUS DIKE NOTES:

1. THE IMPERVIOUS DIKE SHALL NOT PERMIT SEEPAGE OF WATER INTO THE CONSTRUCTION SITE OR CONTRIBUTE TO SILTATION OF THE STREAM. THE IMPERVIOUS DIKE SHALL BE CONSTRUCTED OF AN ACCEPTABLE MATERIAL IN THE LOCATION NOTED ON THESE PLANS OR AS DIRECTED BY ENGINEER.
2. ACCEPTABLE MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO SHEET PILES, SANDBAGS, AND/OR THE PLACEMENT OF AN ACCEPTABLE SIZED STONE LINED WITH POLYPROPYLENE OR OTHER IMPERVIOUS FABRIC.
3. EARTH MATERIAL SHALL NOT BE USED TO CONSTRUCT AN IMPERVIOUS DIKE.
4. PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA. THE STREAMS BASE FLOW IS APPROXIMATELY 0.08 CFS = 35 GPM *

*ASSUMPTION - 1 CFS PER SQUARE MILE OF DRAINAGE AREA

CONSTRUCTION SEQUENCE FOR IMPERVIOUS DIKE:

1. INSTALL IMPERVIOUS DIKE UPSTREAM OF WORK AREA AS SHOWN ON THESE PLANS OR AS DIRECTED BY ENGINEER.
2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE. HOSE OUTLET SHALL BE PLACED IN STREAM BED DOWNSTREAM OF WORK AREA AND SHALL BE LOCATED AT AREA WITH BEDROCK OR COBBLES SO AS TO MINIMIZE EROSION AND SCOUR FROM OUTFLOW. IF NO SUITABLE AREA WITH NATURAL STONES EXISTS, TEMPORARY RIP RAP MAY BE PLACED TO DISSIPATE HOSE OUTFLOW. ANY STONES PLACED IN CHANNEL MUST BE REMOVED UPON COMPLETION OF PUMP AROUND ACTIVITIES.
3. PERFORM CULVERT AND HEADWALL CONSTRUCTION IN ACCORDANCE WITH THE PLANS. CONTRACTOR TO SEQUENCE CONSTRUCTION OF CULVERT AND WALLS TO ALLOW REMOVAL OF IMPERVIOUS DIKE AND RESTORATION OF BASE FLOW AS SOON AS POSSIBLE.
4. HAND REMOVE OR VACUUM ANY ACCUMULATED SILT BEHIND IMPERVIOUS DIKE. DEWATER ANY IMPOUNDED WATER AND REMOVE IMPERVIOUS DIKE. REMOVE TEMPORARY FLEXIBLE HOSE AND ANY TEMPORARY STONE AT HOSE OUTLET IF REQUIRED.
5. STABILIZE DISTURBED AREA WITH SEED AND INSTALLATION OF COIR FIBER MATTING (700 GMS) PER MANUFACTURER SPECIFICATIONS. NO MATTING SHALL BE PLACED IN CHANNEL BOTTOM.

NOTES:

1. USE OF VALLEY GUTTER IS PROHIBITED.
2. WIDER SIDEWALKS MAY BE REQUIRED UNDER CIRCUMSTANCES AS IDENTIFIED IN THE USDO.
3. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN TO CITY ENGINEER.
4. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BY CDDT/NCDDT BASED ON SPECIFIC TRAFFIC PARAMETERS.
5. AMENITY ZONE (HARDSCAPE) ALLOWED IN LIEU OF PLANTING STRIP WITH PRIOR APPROVAL FROM ENGINEERING, CDDT, AND PLANNING.
6. FOR EXPLANATION OF RIGHT-OF-WAY WIDTHS REFER TO CITY OF CHARLOTTE SUBDIVISION ORDINANCE SECTION 20-22(d).

TYPICAL MINIMUM PAVEMENT SECTION

KEY

② 2'-6" STANDARD CURB AND GUTTER ONLY
③ 4" CONCRETE SIDEWALK

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

LOCAL OFFICE/COMMERCIAL WIDE STREET
TYPICAL SECTION

U-05A 6

NOTES:

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TYPICAL MINIMUM PAVEMENT SECTION

KEY

② 2'-6" STANDARD CURB AND GUTTER ONLY
③ 4" CONCRETE SIDEWALK

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

LOCAL OFFICE/COMMERCIAL WIDE STREET AT MIDBLOCK WITH
CURB EXTENSION TYPICAL SECTION

U-05B 6

NOTES:

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3. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN TO CITY ENGINEER.
4. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BY CDDT/NCDDT BASED ON SPECIFIC TRAFFIC PARAMETERS.
5. AMENITY ZONE (HARDSCAPE) ALLOWED IN LIEU OF PLANTING STRIP WITH PRIOR APPROVAL FROM ENGINEERING, CDDT, AND PLANNING.
6. FOR EXPLANATION OF RIGHT-OF-WAY WIDTHS REFER TO CITY OF CHARLOTTE SUBDIVISION ORDINANCE SECTION 20-22(d).

TYPICAL MINIMUM PAVEMENT SECTION

KEY

② 2'-6" STANDARD CURB AND GUTTER ONLY
③ 4" CONCRETE SIDEWALK

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

LOCAL OFFICE/COMMERCIAL WIDE STREET AT INTERSECTION
WITH CURB EXTENSION TYPICAL SECTION

U-05C 6

NOTES:

1. REVERSE CURVES/CHAMFERS NOT NECESSARY IF ADEQUATE DRAINAGE CAN BE PROVIDED THAT WILL ENSURE THAT SEDIMENT, WATER, DEBRIS, ETC., DOES NOT COLLECT IN 90-DEGREE CORNERS.
2. PARALLEL ACCESSIBLE SPACES AND LOADING ZONES TO BE REVIEWED BY CDDT ON A CASE-BY-CASE BASIS.
3. FOR PARKING BAYS THAT ARE 8 FEET IN WIDTH OR GREATER, THE PAVEMENT MARKINGS SHALL BE SET AT ONE (1) FOOT LESS THAN THE STALL WIDTH.
4. GREATER SEPARATION FROM INTERVENING STREETS THAN THE DISTANCES PROVIDED IN THE MATRIX MAY BE REQUIRED AT CDDT'S DISCRETION.
5. POSITIVE DRAINAGE SHALL BE PROVIDED EITHER BY INSTALLATION OF APPROPRIATE DRAINAGE STRUCTURES OR SLOPE PARKING AREA TO STREET FLOW LINE. SLOPING PARKING AREA TO STREET FLOW LINE ONLY PERMITTED IF ROAD GRADE IS GREATER THAN 2%.
6. IF A BIKE LANE IS REQUIRED ADJACENT TO PARALLEL PARKING, THE MINIMUM WIDTH OF BIKE LANE IS 6'.

2'-6" STANDARD CURB & GUTTER

PROVIDE CATCH BASIN OR SLOPE PARKING AREA TOWARD STREET FLOW LINE

1:1 CHAMFER MAY BE PROVIDED IN LIEU OF REVERSE CURVES AS SHOWN.

PARALLEL PARKING PAVEMENT MARKINGS PER MUTCD (TYP.)

EDGE OF TRAVEL LANE

STREET

MINIMUM DISTANCE TO NEXT INTERVENING STREET

	DRIVEWAY	LOCAL/ COLLECTOR	TH'FARE
LOCAL/COLLECTOR	20'	20'	20'
THOROUGHFARE	20'	20'	50'

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

PARALLEL PARKING STANDARDS

50.09C 8

NOTES:

1. PER MUTCD STANDARDS, WHEN CROSSWALK LINES ARE USED THEY SHALL CONSIST OF SOLID WHITE LINES THAT MARK THE CROSSWALK. THEY SHALL BE NOT LESS THAN 150 MM (6 IN) NOR GREATER THAN 600 MM (24 IN) IN WIDTH.
2. IF TRANSVERSE LINES ARE USED TO MARK A CROSSWALK, THE GAP BETWEEN THE LINES SHOULD NOT BE LESS THAN 1.8 M (6 FT). IF DIAGONAL OR LONGITUDINAL LINES ARE USED WITHOUT TRANSVERSE LINES TO MARK A CROSSWALK, THE CROSSWALK SHOULD NOT BE LESS THAN 1.8 M (6 FT) WIDE.
3. IF USED, THE DIAGONAL OR LONGITUDINAL LINES SHOULD BE 300 TO 600 MM (12 TO 24 IN) WIDE AND SPACED 300 TO 1500 MM (12 TO 60 IN) APART. THE MARKING DESIGN SHOULD AVOID THE WHEEL PATHS, AND THE SPACING SHOULD NOT EXCEED 2.5 TIMES THE LINE WIDTH.

LANE WIDTH (L)

L/2

24" (TYP)

8" SOLID WHITE

8" GAP (TYP)

10' MIN. OR WIDTH OF SIDEWALK, WHICHEVER IS GREATER, BUT NOT MORE THAN 1' BEYOND EDGE OF ACCESSIBLE RAMP

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

PIANO-STYLE CROSSWALK

50.14 9

NOTES:

1. REFER TO U-05A FOR TYPICAL SECTION, U-05B FOR MID-BLOCK SECTION, AND U-05C FOR INTERSECTION SECTION.
2. SHADOW PARKING WITH CURB EXTENSIONS, SHOWN AT U-03B. IF CURB EXTENSION IS ONLY ON ONE SIDE OF ROAD, A 30' PAVEMENT WIDTH WILL BE REQUIRED AS SHOWN ABOVE.

CITY OF CHARLOTTE
LAND DEVELOPMENT STANDARDS
INCLUDES CHARLOTTE ETJ

LOCAL OFFICE/COMMERCIAL WIDE STREET
PLAN VIEW

U-05 6

03/06/15

THE ISAACS GROUP, P.C.
ENGINEERING & LAND SURVEYING
NO. C-1089

SEAL
026462

ANTHONY B. COWAN
ENGINEER

Project: COLINAYRE
PROVIDENCE ROAD WEST, CHARLOTTE, NC

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