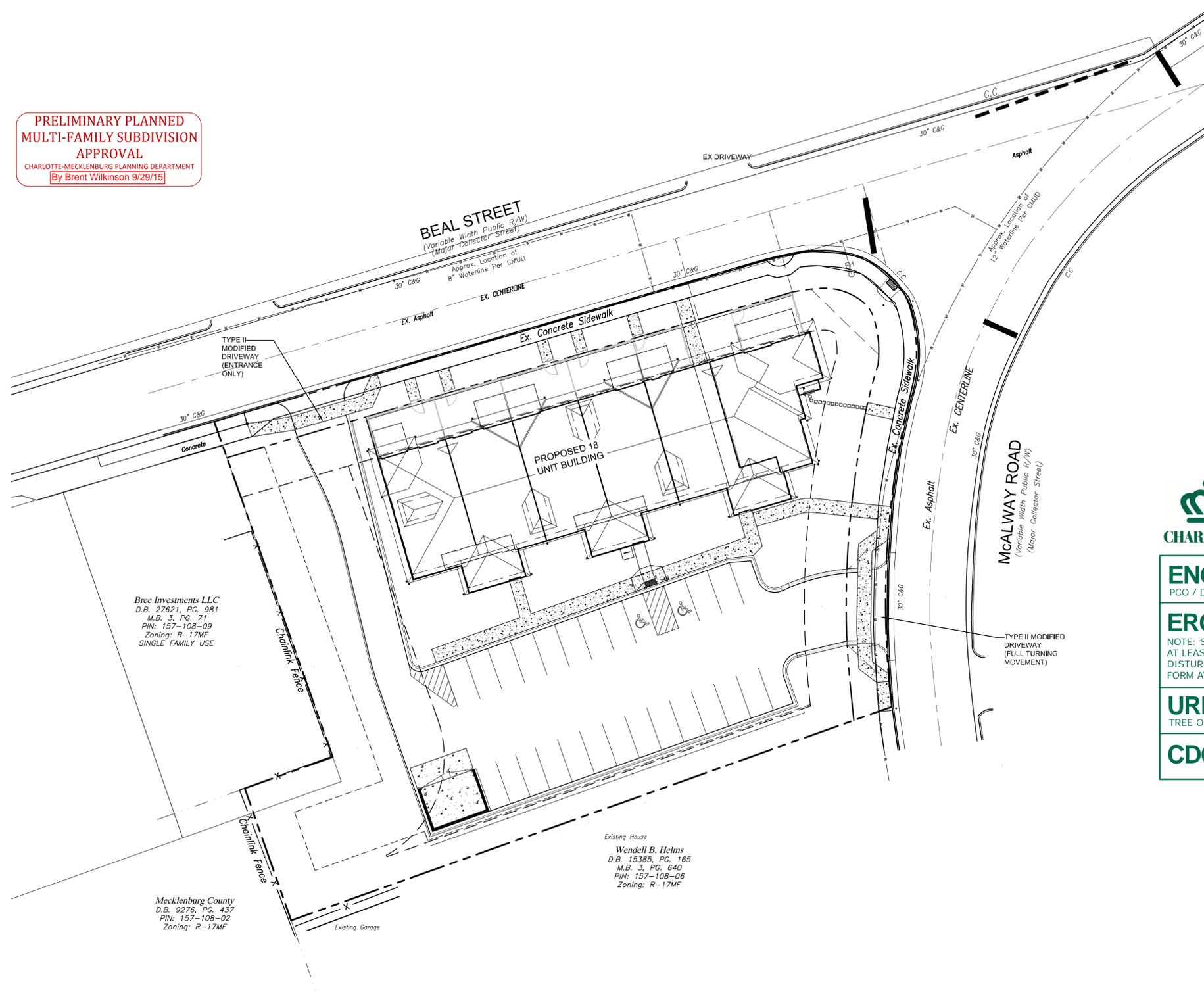


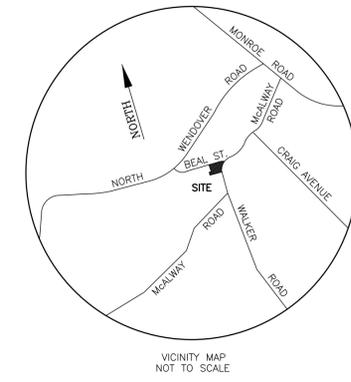
**PRELIMINARY PLANNED  
MULTI-FAMILY SUBDIVISION  
APPROVAL**  
CHARLOTTE-MECKLENBURG PLANNING DEPARTMENT  
By Brent Wilkinson 9/29/15



Bree Investments LLC  
D.B. 27621, PG. 981  
M.B. 3, PG. 71  
PIN: 157-108-09  
Zoning: R-17MF  
SINGLE FAMILY USE

Mecklenburg County  
D.B. 9276, PG. 437  
PIN: 157-108-02  
Zoning: R-17MF

Existing House  
Wendell B. Helms  
D.B. 15385, PG. 165  
M.B. 3, PG. 640  
PIN: 157-108-06  
Zoning: R-17MF



**SHEET INDEX**

L-100	COVER
L-101	EXISTING CONDITIONS & DEMO PLAN
L-102	SITE PLAN
L-103	UTILITY PLAN
L-200	GRADING AND STORM DRAINAGE PLAN
L-201	EROSION CONTROL PLAN
L-202	DRAINAGE AREA PLAN
L-300	PLANTING PLAN
L-400	DETAILS
L-401	DETAILS
L-402	UTILITY DETAILS
L-403	UTILITY DETAILS
L-500	TRAFFIC CONTROL PLAN
L-501	INTERSECTION SIGHT DISTANCE



**FINAL APPROVAL**

**ENGINEERING**  
PCO / DETENTION / DRAINAGE PLAN

**APPROVED**  
By Brendan Smith at 10:48 am, Sep 23, 2015

**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

**APPROVED**

**CDOT**

**APPROVED**

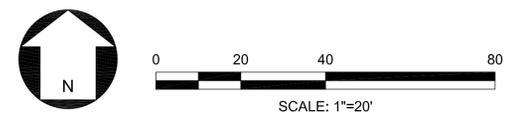
**COTSWOLD SPRINGS**  
Apartments  
Main Street Properties & Development  
Charlotte, NC

COVER SHEET



Project Manager: SSW  
Drawn By: MEA  
Checked By:  
Date: 4.30.15  
Project Number: 13053

**COTSWOLD SPRINGS APARTMENTS**  
MAIN STREET PROPERTIES AND DEVELOPMENT  
BOB MCGARTY, 704-363-0017  
4920 CHESTNUT LAKE DRIVE  
CHARLOTTE, NC 28227



**REVISIONS:**

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS

Sheet Number:  
**L-100**  
SHEET # 1 OF 7

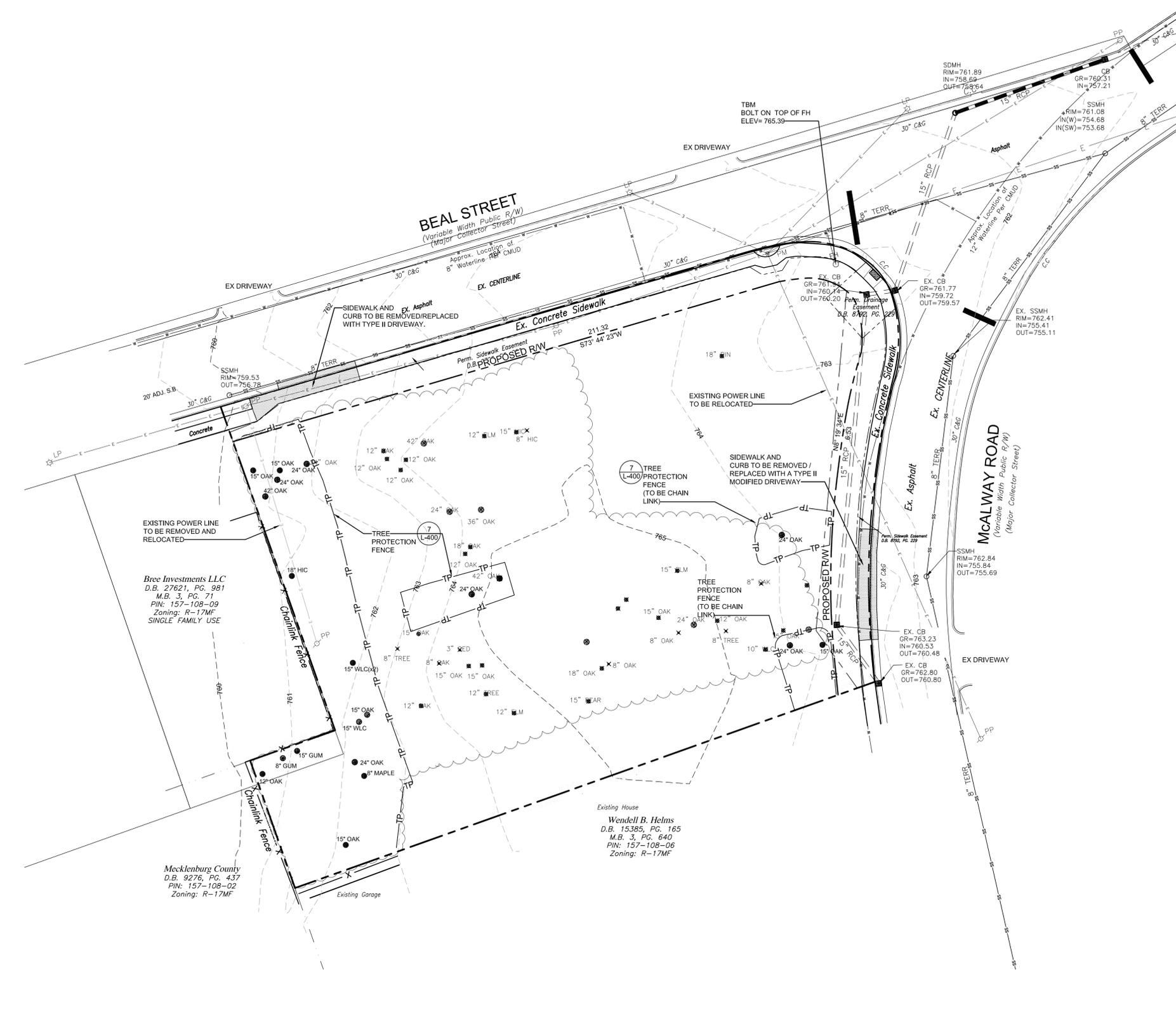
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**LEGEND**

	PROPERTY LINE		STRUCTURES AND PAVING TO BE REMOVED
	PROPERTY LINE (NOT SURVEYED)		OBJECTS TO BE DEMOLISHED
	RIGHT-OF-WAY		WOODED AREA TO BE REMOVED
	POWER LINE		TREE TO BE REMOVED
	SANITARY SEWER PIPE		EXISTING FIRE HYDRANT
	STORM DRAIN PIPE		
	UNDERGROUND POWER LINE		
	WATER LINE		
	GAS LINE		
	FENCE		
	TREE PROTECTION FENCE		



**DEMOLITION NOTES**

- NO DEMOLITION IS TO OCCUR ON SITE UNTIL THE PRECONSTRUCTION MEETING IS HELD.
- BASE INFO TAKEN FROM A SURVEY BY RB PHARR, DATED 6/17/2014
- ELEVATIONS BASED ON N.G.S. MONUMENT "MCDOWELL", ELEVATION = 681.79 FEET, NAVD 88.
- NO NCGS MONUMENT WITHIN 2000' OF THE SUBJECT PROPERTY.
- THE CONTRACTOR SHALL OBTAIN NECESSARY DEMOLITION PERMIT PRIOR TO ANY DEMOLITION.
- THE CONTRACTOR SHALL NOTIFY ALL PERTINENT UTILITY COMPANIES AT LEAST 72 HOURS PRIOR TO ANY GRADING OR DEMOLITION WORK.
- ITEMS INDICATED TO BE REMOVED SHALL BE DISPOSED OF OFF-SITE AS REQUIRED BY LOCAL, STATE, AND FEDERAL LAWS.
- PROTECT EXISTING STRUCTURES, PAVING, & OR UTILITIES WHICH ARE TO REMAIN.
- SAW CUT EXISTING PAVING WHERE INDICATED TO BE REMOVED.
- SEE EROSION CONTROL PLAN FOR LIMITS OF DISTURBANCE.
- COORDINATE WITH DUKE ENERGY FOR RELOCATION OF EXISTING POWER POLE.
- SEE SHEET L-200 FOR COMPLETE CONSTRUCTION SEQUENCE.

**SURVEY NOTES:**

- THIS PLAT IS NOT FOR RECORDATION AS PER G.S. 47-30 AS AMENDED.
- ALL CORNERS MONUMENTED AS SHOWN.
- NO RECOVERABLE NGS MONUMENT LOCATED WITHIN 2,000 FEET OF SUBJECT PROPERTY.
- UNDERGROUND UTILITIES MAY EXIST THAT ARE NOT SHOWN HEREON. THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THIS MAP IS APPROXIMATE, BASED ON INFORMATION PROVIDED BY OTHERS OR BY FIELD LOCATION. UTILITY LOCATIONS AS SHOWN HEREON ARE INTENDED FOR PLANNING ONLY. ACTUAL LOCATION, SIZE, OR DEPTH OF LINE SHOULD BE VERIFIED WITH THE INDIVIDUAL UTILITY COMPANY BEFORE CONSTRUCTION.
- THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A TITLE COMMITMENT REPORT. R.B. PHARR & ASSOCIATES, P.A. DOES NOT CLAIM THAT ALL MATTERS OF RECORD WHICH MAY OR MAY NOT AFFECT THE SUBJECT PROPERTY ARE SHOWN HEREON.
- ELEVATIONS BASED ON N.G.S. MONUMENT "MCDOWELL", ELEVATION = 681.79 FEET, NAVD 88.
- BROKEN LINES INDICATE PROPERTY LINES NOT SURVEYED.
- THE OFF-SITE RIGHT-OF-WAY SHOWN HEREON IS FOR ILLUSTRATIVE PURPOSES ONLY. THE UNDERSIGNED CERTIFIES ONLY TO THE RIGHT-OF-WAYS SURVEYED, AND DOES NOT CERTIFY TO THE RIGHT OF WAY WIDTH OF ANY ADJACENT PROPERTIES.
- NO BOUNDARY SURVEY WAS PERFORMED. ALL PROPERTY AND RIGHT-OF-WAY LINES SHOWN HEREON ARE PER RECORDED DEEDS.



**COTSWOLD SPRINGS**  
Apartments  
Main Street Properties & Development  
Charlotte, NC

**EXISTING CONDITIONS & DEMOLITION PLAN**

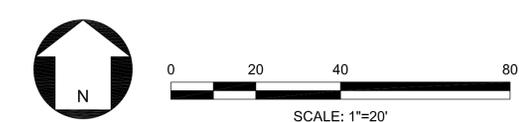


Project Manager: SSW  
Drawn By: MEA  
Checked By:  
Date: 4.30.15  
Project Number: 13053

Sheet Number:  
**L-101**  
SHEET # 2 OF 7

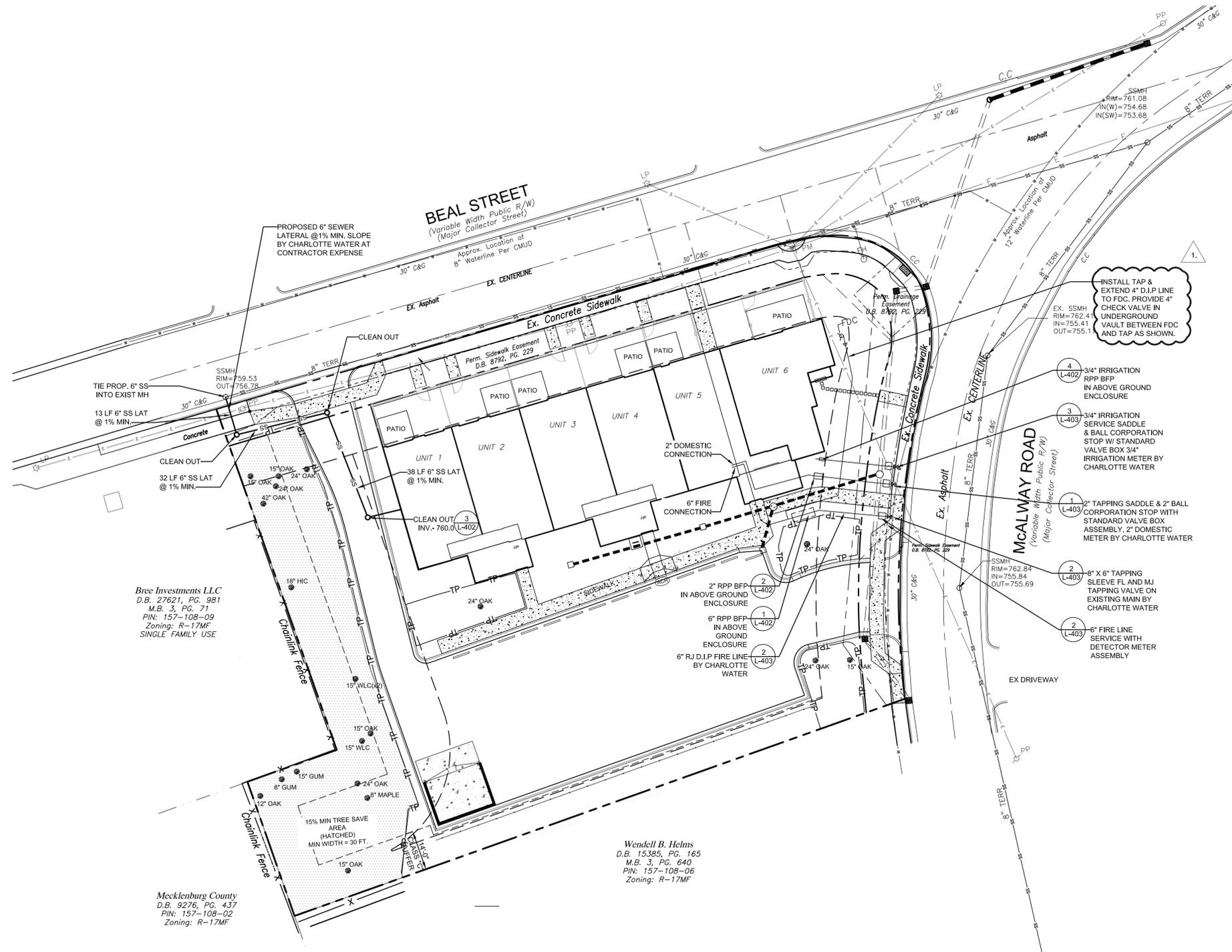
**REVISIONS:**

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS





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**WATER AND SEWER NOTES**

- CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH CHARLOTTE MECKLENBURG UTILITY DEPARTMENT STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE NOTED.
- 4" OR LARGER WATER LINES SHALL BE PVC 1120 AWWA C-900 PVC, SDR. 14 OR LESS (PRESSURE CLASS 200).
- DIP SHALL BE AWWA C-151, PC 350 WITH AWWA C-104 CEMENT LINING.
- 2" WATERMANS ARE TO BE GALVANIZED STEEL.
- 3" WATERMANS SHALL BE DUCTILE IRON PIPE PER CMU STANDARDS. ALL WATER MAIN FITTINGS SHALL BE INSTALLED WITH CONCRETE BLOCKING, PER CMU STANDARDS.
- CONTRACTOR IS FULLY RESPONSIBLE FOR CONTACTING APPROPRIATE PARTIES AND ASSURING THAT EXISTING UTILITIES ARE LOCATED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CALL 1-800-632-4949 48 HOURS PRIOR TO COMMENCEMENT OF WORK FOR UTILITY LOCATING SERVICES.
- ALL SHORING SHALL BE IN ACCORDANCE TO OSHA TRENCHING STANDARDS PART 1926, SUBPART P, AS AMENDED TO DATE.
- ANY NECESSARY LANE CLOSURES SHALL FOLLOW GUIDELINES OUTLINED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND/OR CDOT WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH).
- CONTRACTOR SHALL VERIFY LOCATION AND SIZE OF ANY EXISTING OR PROPOSED DRAINAGE STRUCTURES PRIOR TO THE COMMENCEMENT OF UTILITY CONSTRUCTION.
- THE SEWER LATERAL LOCATIONS ARE APPROXIMATE AND SUBJECT TO ADJUSTMENT DUE TO FIELD CONDITIONS, ETC. SANITARY SEWER LATERALS ARE TO TERMINATE AT THE BUILDING AT A MIN. DEPTH OF 5' BELOW FIN. FLOOR ELEVATION, AND AS APPROVED BY DESIGN ENGINEER.
- STORM DRAINAGE SHOWN IS FROM PRELIMINARY PLAN AND IS SUBJECT TO CHANGE.
- SEWER SLOPES SHOWN ON THIS PLAN ARE FOR CONTRACTOR REFERENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING THE SEWER TO THE INVERTS SHOWN ON THIS PLAN. THE MINIMUM SLOPE FOR 8" SANITARY SEWER IS 0.60%. THE MINIMUM SLOPE FOR SANITARY SEWER LATERALS IS 1.00%.
- MINIMUM COVER FOR WATER MAINS IS 3.0 FT. DIP SHALL BE REQUIRED FOR WATER MAINS IF FOLLOWING CLEARANCES ARE NOT MET:
  - 18" VERTICAL CLEARANCE WITH STORM DRAINAGE, GAS MAINS, TELEPHONE DUCT BANKS & UNDERGROUND CABLES.
  - 12" VERTICAL CLEARANCE FOR WATER LINE INSTALLED ABOVE SEWER LINE AND FOR WATER LINE CROSSING UNDER SEWER.
  - 10' HORIZONTAL SEPARATION FOR WATER LINE PARALLEL TO SEWER LINE.
- WATER AND SEWER CONNECTION LOCATIONS TO BUILDINGS ARE SHOWN IN APPROXIMATE LOCATIONS. CONTRACTOR TO COORDINATE ALL UTILITY SERVICE LOCATIONS WITH PLUMBING/MECHANICAL PLANS.
- ACCESS ROADS SHALL EXTEND TO WITHIN 200 FEET OF ALL POINTS OF THE SPRINKLERED BUILDING FOR FIRE APPARATUS ACCESS.
- 10 FEET CLEARANCE REQUIRED HORIZONTALLY AND VERTICALLY AROUND ALL FDC'S.
- ALL FIRE HYDRANTS ARE TO FACE THE STREET AND MUST BE INSTALLED WITHIN 6 FT OF CURB WITH 3 FT. MINIMUM CLEARANCE AROUND ALL SIDES. ALL PROPOSED HYDRANTS ARE TO HAVE 5" STORZ CONNECTION.
- ANY EXISTING WATER METERS NEED TO BE ABANDONED PER CMUD REQUIREMENTS. THE OWNER WILL SUBMIT A METER SERVICE DISMANTLEMENT APPLICATION TO CMUD IN ORDER TO GET THE METER REMOVED FROM SERVICE.
- TRAFFIC CONTROL FOR THE SEWER AND WATER TAPS IN INVERSION WAY SHALL BE IN ACCORDANCE WITH CDOT REQUIREMENTS AND THE WATCH MANUAL.
- THE CONTRACTOR WILL COORDINATE SEWER AND WATER TAPS WITH CMUD. CONTRACTOR WILL BE RESPONSIBLE FOR PAYING CONNECTION AND INSPECTION FEES TO CMUD.
- PROPOSED SINGLE-FAMILY DEVELOPMENT, ATTACHED (FOR SALE) WITH MINIMUM OF 400 SF PRIVATE OPEN SPACE TO BE PLATTED AS PART OF SUBLOT.
- PRESSURE REDUCING VALVES ARE REQUIRED IF STATIC PRESSURE AT THE BUILDING FACE IS IN EXCESS OF 80 PSI.
- FITTINGS FOR SEWER LOCATED IN PAVED AREAS SHALL BE CAPABLE OF SUPPORTING A H20 LOADING.
- ALL WATER AND SEWER CONNECTIONS ARE TO BE MADE BY CMU AT CONTRACTORS COST.

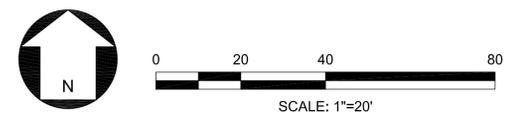
**FH TEST FLOW DATA:**

HYDRANT ID#:	068519
TEST DATE:	06/13/14
<b>PRESSURE:</b>	
STATIC:	52 psi
RESIDUAL:	48 psi
<b>FLOW:</b>	
RESIDUAL:	949 GPM
@20psi:	2917 GPM

48 HOUR RECORDED STATIC PRESSURE - HIGH- 53 PSI  
LOW - 39 PSI  
48 HOUR AVG - 49 PSI

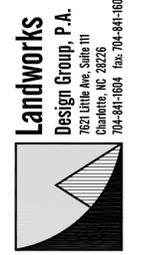
**LEGEND**

	PROPERTY LINE
	RIGHT-OF-WAY
	10' TYPE 'C' BUFFER
	SETBACK/SIDE YARD
	POWER LINE
	SANITARY SEWER PIPE
	EXISTING STORM DRAIN PIPE
	PROPOSED STORM DRAIN PIPE
	SIDEWALK EASEMENT
	EXISTING FENCE
	EXISTING WATERLINE
	RETAINING WALL
	ACCESSIBLE CURB RAMP
	CONCRETE PAVEMENT



**REVISIONS:**

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS ADDED FDC AT CORNER OF BLDG



**COTSWOLD SPRINGS**  
Apartments  
Main Street Properties & Development  
Charlotte, NC

**UTILITY PLAN**

seals



Project Manager: SSW

Drawn By: MEA

Checked By:

Date: 4.30.15

Project Number: 13053

Sheet Number:

**L-103**

SHEET #4 OF 7

**DRAINAGE NOTES**

- UNLESS SPECIFICALLY NOTED AS CLASS IV RCP, ALL PIPES 15" OR LARGER SHALL BE CLASS III RCP. OTHER PIPE MATERIALS WITHIN PUBLIC STREET R/W MUST BE APPROVED BY THE CITY OF CHARLOTTE ENGINEERING DEPT.
- AREA DRAIN INLETS (AD) SHALL BE 12" DIA. NYLOPLAST PVC DRAIN BASIN WITH FLAT DUCTILE IRON GRATE (BY ADS, INC.), OR APPROVED EQUAL.
- MANHOLE (MH) SHALL BE PER NCDOT STD. #840.52
- CATCH BASINS AND GRATES SHALL BE PER NCDOT STD. #840.01 AND #840.03

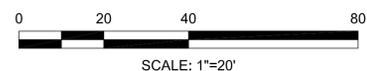
**GRADING NOTES**

- TOTAL AREA DISTURBED = 0.66 ACRES
- ALL PROPOSED CONTOURS AND SPOT ELEVATIONS REFLECT FINISHED GRADES. EXCEPT WHERE NOTED OTHERWISE.
- ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK, AND THIS MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUND BREAKING.
- THE CONTRACTOR SHALL IMMEDIATELY REPORT TO OWNER ANY DISCREPANCIES FOUND BETWEEN ACTUAL FIELD CONDITIONS AND CONSTRUCTION DOCUMENTS AND SHALL WAIT FOR INSTRUCTION PRIOR TO PROCEEDING.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES IN THE FIELD BEFORE BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY TO TRANSITION BACK TO EXISTING GRADE.
- ALL FILL TO BE COMPACTED TO 95% A.A.S.H.T.O. STANDARD COMPACTION.
- LIMITS OF CLEARING SHOWN ARE ON GRADING PLAN ARE BASED UPON THE APPROXIMATE CUT AND FILL SLOPE LIMITS, OR OTHER GRADING REQUIREMENTS.
- THE PROPOSED CONTOURS SHOWN IN DRIVES AND SIDEWALKS ARE TO FINISHED ELEVATIONS (TOP OF PAVEMENT). REFER TO PAVEMENT CROSS SECTION DATA TO ESTABLISH CORRECT SUB-BASE OR AGGREGATE BASE COURSE ELEVATIONS TO BE COMPLETED UNDER THIS CONTRACT.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE SO THAT RUNOFF WILL DRAIN BY GRAVITY FLOW AWAY FROM BUILDING(S) AND ACROSS NEW PAVEMENT AND/OR LANDSCAPE AREAS TO NEW OR EXISTING STORM DRAIN INLETS, DRAINAGE SWALES, OR DRAINAGE DITCHES.
- ALL "CLDSM STD." NUMBERS REFER TO THE LATEST EDITION OF THE CHARLOTTE LAND DEVELOPMENT STANDARDS MANUAL.
- IN ORDER TO ENSURE PROPER DRAINAGE KEEP A MINIMUM OF 0.5% SLOPE ON ALL GUTTERS.
- 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.
- 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.
- THERE WILL BE NO ON-SITE OR OFF-SITE BURIAL AREAS OR BORROW SITES FOR THIS PROJECT, UNLESS SHOWN ON THE GRADING PLAN.
- ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
- GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
- SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING PER CLDSM #30.16.
- SUBSURFACE DRAINAGE FACILITIES MAY BE REQUIRED IN THE STREET RIGHT OF WAY IF DEEMED NECESSARY BY THE INSPECTOR.
- SOIL CLASSIFICATION: CECIL URBAN
- ANY ADDITIONAL CLEARING OR GRADING REQUIRED FOR STOCKPILES OR BURIAL PITS WILL BE COORDINATED IN THE FIELD WITH THE EROSION CONTROL OFFICER WHO WILL DETERMINE APPROPRIATE EROSION CONTROL MEASURES FOR SAME.
- ANY ON-SITE DEMOLITION LANDFILLS OR STUMP HOLES SHALL BE A MINIMUM OF 100' FROM ANY EXTERIOR PROPERTY LINES.
- ALL EXISTING AND PROPOSED CONTOURS SHOWN ON PLAN ARE AT 1' INTERVALS.
- THE DENUDE AREA LIMIT SHOWN ON THIS PLAN IS THE MAXIMUM AREA TO BE CLEARED. THE SURVEYOR SHALL DETERMINE ACTUAL REQUIRED CLEARING LIMITS.
- REFER TO EROSION CONTROL NOTES (L-201) FOR STABILIZATION REQUIREMENTS.
- ANY LAND-DISTURBING ACTIVITY > 1 ACRE REQUIRES COMPLIANCE WITH ALL CONDITIONS OF THE GENERAL PERMIT TO DISCHARGE STORM WATER UNDER THE NATIONWIDE POLLUTANT DISCHARGE ELIMINATION SYSTEM (PERMIT NO. NC50 10000). ANY PERMIT NON-COMPLIANCE IS A VIOLATION OF THE CLEAN WATER ACT AND MAY REQUIRE ENFORCEMENT ACTION BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES. (FOR QUESTIONS CONTACT MOORESVILLE REGIONAL OFFICE WATER QUALITY STAFF AT (704-663-1899).
- THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND AFTER EVERY 0.5 INCHES OF RAINFALL TO ENSURE THEIR EFFECTIVENESS. ANY NEEDED REPAIRS SHALL BE PERFORMED IMMEDIATELY.
- ANY GRADING BEYOND THE DENUDE LIMITS, SHOWN ON THE PLAN, IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE, AND IS SUBJECT TO A FINE.
- CONTRACTOR SHALL SUBMIT AS-BUILT DATA SEALED BY A NC REGISTERED SURVEYOR FOR STORM DRAINAGE WITHIN PUBLIC STREET RIGHT-OF-WAY.
- COORDINATE ALL CURB AND STREET GRADES IN INTERSECTION WITH INSPECTOR.
- ALL ROAD IMPROVEMENT AT MCALWAY ROAD AND BEAL STREET AREA TO BE COORDINATED WITH THE CITY OF CHARLOTTE ENGINEERING DEPARTMENT PRIOR TO CONSTRUCTION.
- DEVELOPER WILL PROVIDE STREET SIGNS PER CLDSM# 60.05 (9" SIGNS ONLY)
- SIGHT TRIANGLES SHOWN AREA THE MINIMUM REQUIRED.
- 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.
- CURB AND GUTTER SHOWN ON PLANS ALONG MCALWAY AND BEAL STREET 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.
- 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 SYSTEM MUST BE FURNISHED TO CITY OF CHARLOTTE ENGINEERING FOR APPROVAL.
- 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.
- 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 AREA CLEARLY SHOWN ON THE ROADWAY IMPROVEMENT PLAN.
- 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.
- 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>.
- 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 (PCCES) MUST BE RECORDED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

PCCO SUMMARY	
Original Parcel ID Number(s):	15710807
Development Type:	Multifamily Residential
Subject to PCCO? Y/N	N
If NO, why?	Below BUA/Disturbance Thresholds
Watershed:	Central Catawba
Disturbed Area (ac):	0.66
Gross Site Area (ac):	0.919
Net site Area (ac):	0.79
Total on-site Drainage Area (ac):	0.47
Existing Built-upon-area (SF):	0
Existing BUA to be removed (SF):	0
Existing BUA to remain (SF):	0
Proposed New BUA (SF):	19864
Proposed % BUA:	50%
Density (High / Low)	HKH
Total Post-Project BUA for site:	19864
Development or Redevelopment?	Development
Natural Area Required (ac):	0.118
Natural Area Provided (ac):	0.157
Total stream buffer protected on-site (ac):	0
Transit Station Area? Y/N	N
Distressed Business District? Y/N	N
Mitigation Type (if applicable)	NA
Natural Area mitigation? Y/N	N
Buffer Mitigation? Y/N	N
Total Phosphorous Mitigation? Y/N	N

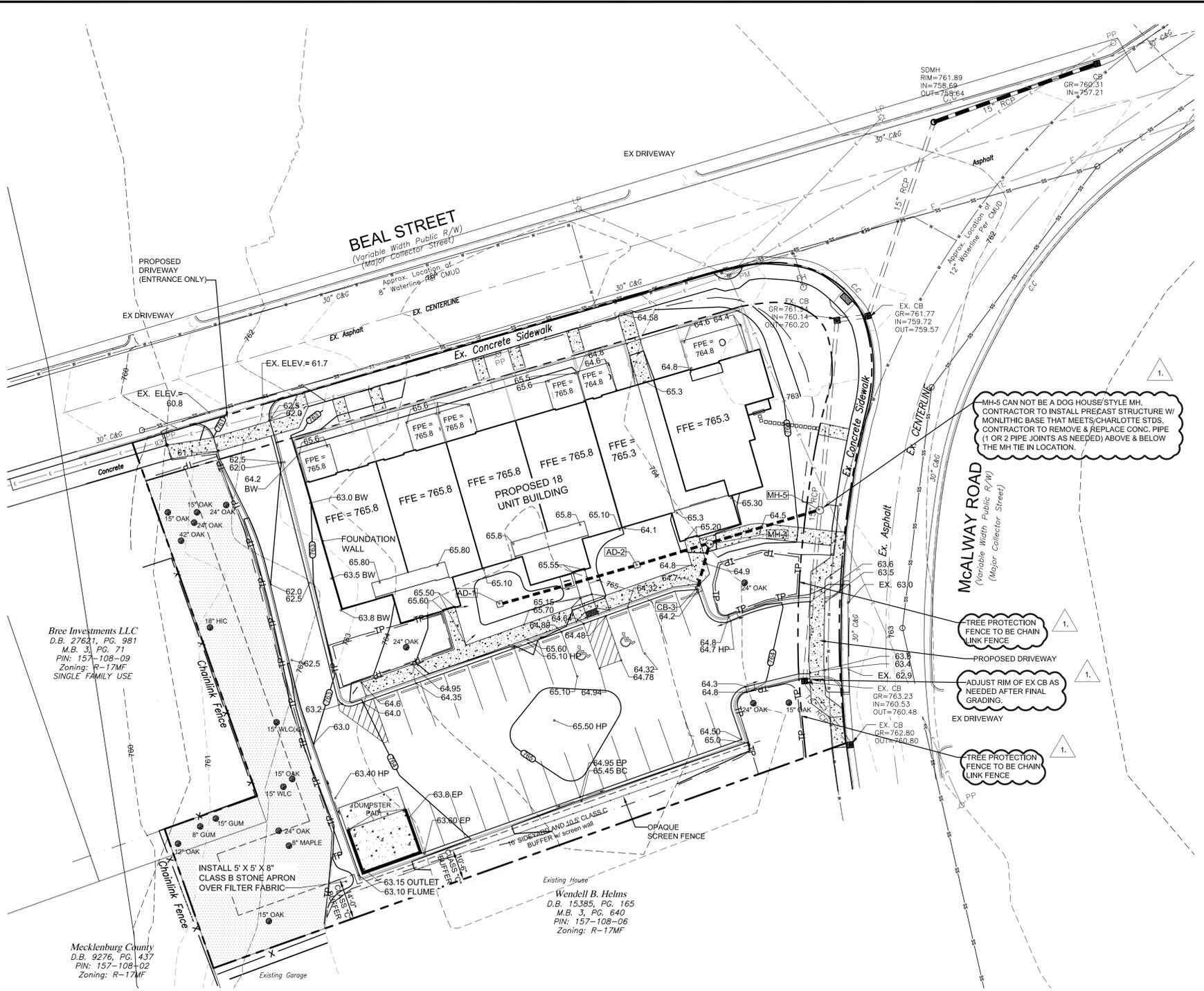
**NOTES:**

- TOTAL AREA DISTURBED = 0.66 ACRES
- SOIL CLASSIFICATION: CECIL URBAN
- ALL "CLDSM STD." NUMBERS REFER TO THE LATEST EDITION OF THE CHARLOTTE LAND DEVELOPMENT STANDARDS MANUAL.
- ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
- A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED.
- GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
- SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING PER CLDSM #30.16.
- THE DENUDE AREA LIMIT SHOWN ON THIS PLAN IS THE MAXIMUM AREA TO BE CLEARED. THE SURVEYOR SHALL DETERMINE ACTUAL REQUIRED CLEARING LIMITS.
- ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
- THE CONTRACTOR SHALL MAINTAIN AND MONITOR ALL EROSION CONTROL DEVICES. DEVICES SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND AFTER EVERY 0.5 INCHES OF RAINFALL TO ENSURE THEIR EFFECTIVENESS. ANY NEEDED REPAIRS SHALL BE PERFORMED IMMEDIATELY.
- ANY GRADING BEYOND THE DENUDE LIMITS, SHOWN ON THE PLAN, IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE, AND IS SUBJECT TO A FINE.
- ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY ENGINEERING DEPARTMENT.
- SEE SHEET L-100 FOR DEMOLITION NOTES.



**REVISIONS:**

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS
2.	8/31/15	MEA	REVISED GRADES AT DRIVEWAY ENTRANCES

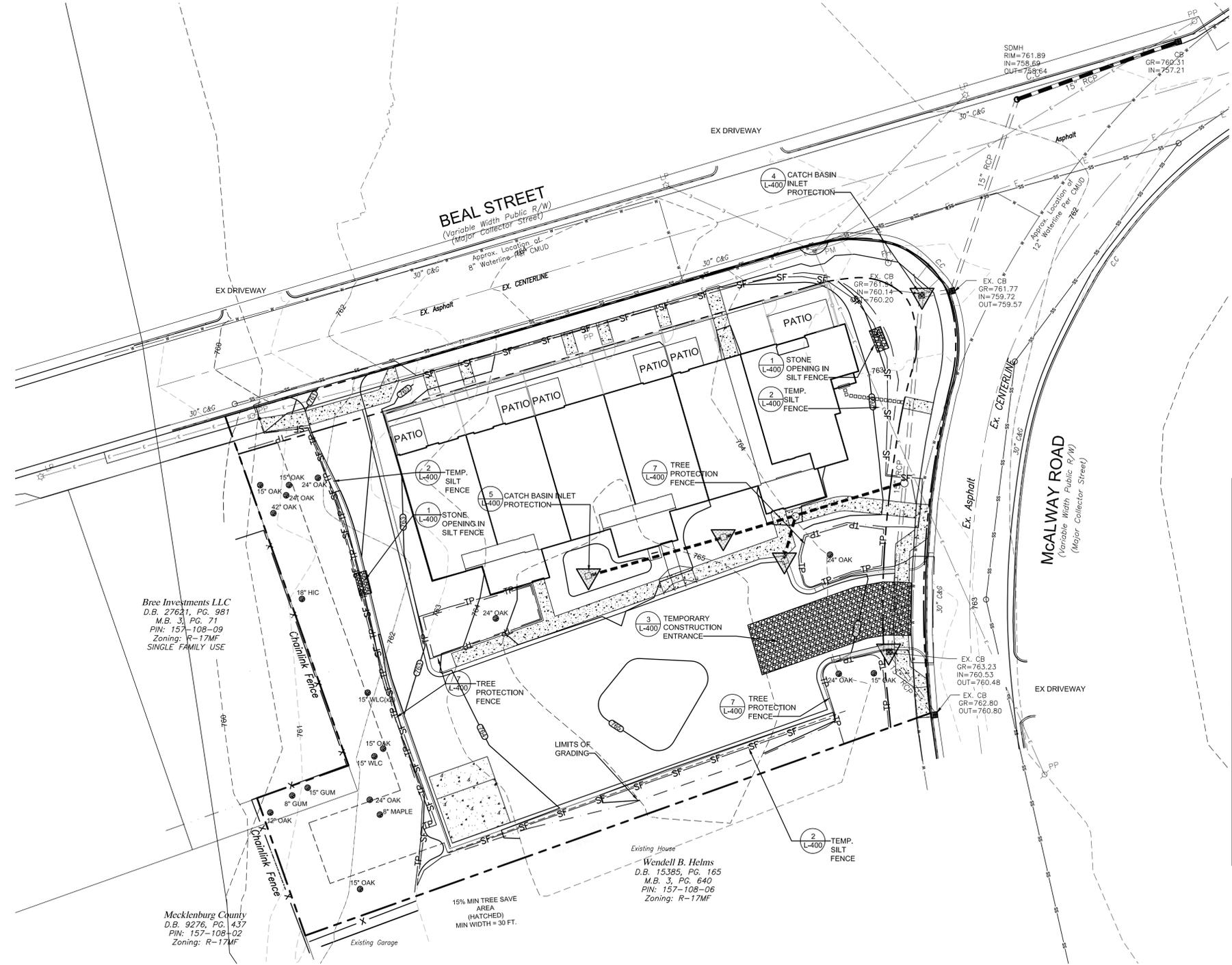


STORM DRAINAGE SCHEDULE								
Structure	Rim	Invert In	Invert Out	Length	Size	Material	Slope	To Structure
AD-1	764.50	---	761.50	48 ft	8"	HDPE	1.04%	AD-2
AD-2	764.00	761.00	760.80	26 ft	8"	HDPE	0.77%	MH-4
CB-3	764.20	---	761.50	15 ft	12"	HDPE	6.00%	MH-4
MH-4	---	760.60	760.60	38 ft	15"	HDPE	0.66%	MH-5
MH-5	764.00	760.35	760.35					

**ADDITIONAL NOTES**  
1. ALL PIPE SHALL BE EITHER HDPE OR RCP - CONTRACTOR'S CHOICE

LEGEND	
---	PROPERTY LINE
---	RIGHT OF WAY
---	EXISTING CATCH BASIN
---	PROPOSED SPOT ELEVATION
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING STORM DRAINAGE PIPE
---	PROPOSED STORM DRAINAGE PIPE
---	PROPOSED CURB INLET
---	PROPOSED AREA DRAINAGE INLET
---	EXISTING SANITARY SEWER
---	LIMITS OF GRADING/ DENUDE LIMIT
---	PROPOSED RETAINING WALL
---	TOP OF WALL / BOTTOM OF WALL
---	TOP OF CURB / BOTTOM OF CURB

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**NOTES:**

1. SINCE DISTURBANCE IS LESS THAN 1 ACRE, A FORMAL GRADING PERMIT IS NOT REQUIRED FROM THE CITY OF CHARLOTTE. THE CONTRACTOR IS STILL RESPONSIBLE FOR CONTROLLING EROSION AND RUNOFF FROM LEAVING THE SITE DURING CONSTRUCTION.
2. TOTAL AREA DISTURBED = 0.66 ACRES
3. SOIL CLASSIFICATION: CECIL URBAN
4. SEE SHEET L-200 FOR ADDITIONAL GRADING AND EROSION CONTROL NOTES.
5. ALL "CLDSM STD." NUMBERS REFER TO THE LATEST EDITION OF THE CHARLOTTE LAND DEVELOPMENT STANDARDS MANUAL.
6. ON-SITE BURIAL PITS REQUIRE AN ON-SITE DEMOLITION LANDFILL PERMIT FROM THE ZONING ADMINISTRATOR.
7. A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED.
8. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
9. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING PER CLDSM #30.16.
10. THE DENUDED AREA LIMIT SHOWN ON THIS PLAN IS THE MAXIMUM AREA TO BE CLEARED. THE SURVEYOR SHALL DETERMINE ACTUAL REQUIRED CLEARING LIMITS.
11. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM LAST LAND-DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
12. THE CONTRACTOR SHALL MAINTAIN AND MONITOR ALL EROSION CONTROL DEVICES. DEVICES SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND AFTER EVERY 0.5 INCHES OF RAINFALL TO ENSURE THEIR EFFECTIVENESS. ANY NEEDED REPAIRS SHALL BE PERFORMED IMMEDIATELY.
13. ANY GRADING BEYOND THE DENUDED LIMITS, SHOWN ON THE PLAN, IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE, AND IS SUBJECT TO A FINE.
14. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY ENGINEERING DEPARTMENT.
15. SEE SHEET L-100 FOR DEMOLITION NOTES.

**FOR LATE WINTER AND EARLY SPRING:**

**SEEDING MIXTURE:**  
RYE (GRAIN) - 120 LB/ACRE  
ANNUAL LESPEDEZA (KOBEE) - 50 LB/ACRE  
(OMIT ANNUAL LESPEDEZA WHEN DURATION OF TEMPORARY COVER IS NOT TO EXCEED BEYOND JUNE)

**SEEDING DATES:**  
JAN. 1 - MAY 1

**SOIL AMENDMENTS:**  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER

**MULCH:**  
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, FERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE

**FOR SUMMER:**

**SEEDING MIXTURE:**  
GERMAN MILLET - 40 LB/ACRE  
(A SMALL-STEMMED SUDANGRASS MAY BE SUBSTITUTED AT A RATE OF 50 LB/ACRE)

**SEEDING DATES:**  
MAY 1 - AUG. 15

**SOIL AMENDMENTS:**  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 750 LB/ACRE 10-10-10 FERTILIZER

**MULCH:**  
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REFERTILIZE IF GROWTH IS NOT FULLY ADEQUATE. RESEED, FERTILIZE AND MULCH IMMEDIATELY FOLLOWING EROSION OR OTHER DAMAGE

**FOR FALL:**

**SEEDING MIXTURE:**  
RYE (GRAIN) - 120 LB/ACRE

**SEEDING DATES:**  
AUG. 15 - DEC 30

**SOIL AMENDMENTS:**  
FOLLOW RECOMMENDATIONS OF SOIL TESTS OR APPLY 2,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 1,000 LB/ACRE 10-10-10 FERTILIZER

**MULCH:**  
APPLY 4,000 LB/ACRE STRAW. ANCHOR STRAW BY TACKING WITH ASPHALT, NETTING, OR A MULCH ANCHORING TOOL. A DISK WITH BLADES SET NEARLY STRAIGHT CAN BE USED AS A MULCH ANCHORING TOOL.

**MAINTENANCE:**  
REPAIR AND REFERTILIZE DAMAGED AREAS IMMEDIATELY. TOPDRESS WITH 50 LB/ACRE OF NITROGEN IN MARCH. IF IT IS NECESSARY TO EXTEND TEMPORARY COVER BEYOND JUNE 15, OVERSEED WITH 50 LB/ACRE KOBEE LESPEDEZA IN LATE FEBRUARY OR EARLY MARCH.

FOR ADDITIONAL INFORMATION, REFER TO NCDENR EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL (ESCPDM), SECTION 6.10. FOR PERMANENT SEEDING SPECIFICATIONS, INCLUDING SEED BED PREP, SEASONAL LIMITATIONS FOR SEEDING OPERATIONS, THE KINDS OF GRADES OF FERTILIZERS, THE KINDS OF SEED, AND THE RATES OF APPLICATION OF LIMESTONE, FERTILIZER, AND SEED, REFER TO NCDENR ESCPDM SECTION 6.11 AND THE CHARLOTTE LANDSCAPE CONSTRUCTION STANDARDS SECTION 04200 SEEDING AND SODDING OF TURFGRASS.

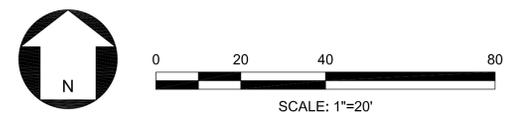
Soil stabilization shall be required on any area of a site where land-disturbing activities have temporarily or permanently ceased according to the following schedule:

a) All perimeter dikes, swales, ditches perimeter slopes and all slopes steeper than 3 horizontal to 1 vertical (3:1) shall be provided temporary or permanent stabilization with ground cover as soon as practicable but in any event within 7 calendar days from the last land-disturbing activity.

b) All other disturbed areas shall be provided temporary or permanent stabilization with ground cover as soon as practicable but in any event within 14 calendar days from the last land-disturbing activity.

**1 TEMPORARY SEEDING SCHEDULE**

SCALE: NTS CLDSM # 30.17

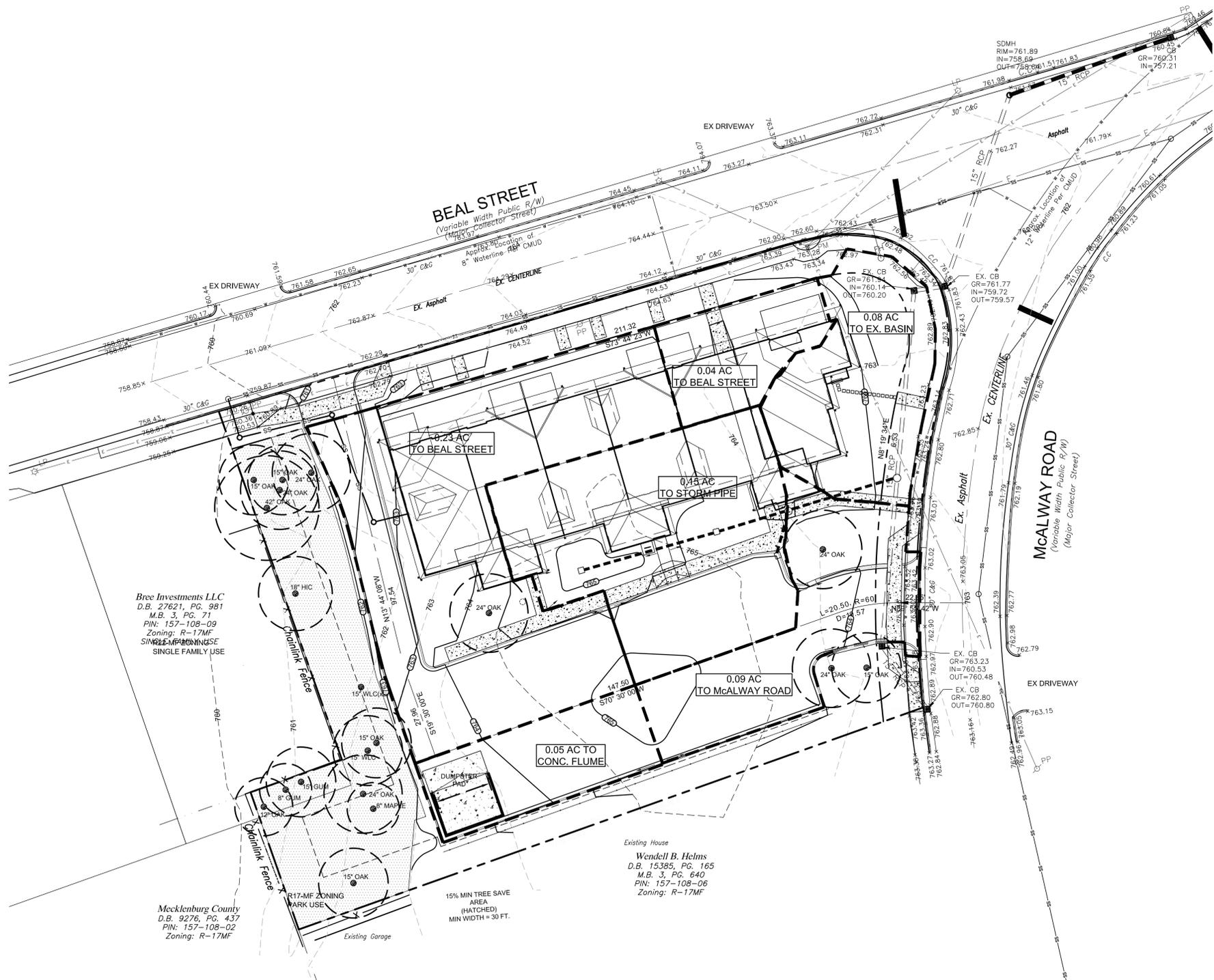


**REVISIONS:**

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS

**LEGEND**

	PROPERTY LINE		STABILIZED CONSTRUCTION ENTRANCE
	RIGHT OF WAY		STONE OPENING IN SILT FENCE
	EXISTING CATCH BASIN		CATCH BASIN INLET PROTECTION
	PROPOSED SPOT ELEVATION		TEMPORARY SILT FENCE
	EXISTING CONTOUR		TREE PROTECTION FENCE
	PROPOSED CONTOUR		
	EXISTING STORM DRAINAGE PIPE		
	PROPOSED STORM DRAINAGE PIPE		
	PROPOSED CURB INLET		
	PROPOSED AREA DRAINAGE INLET		
	EXISTING SANITARY SEWER		
	LIMITS OF GRADING/ DENUDED LIMIT		
	PROPOSED RETAINING WALL		
	TOP OF WALL / BOTTOM OF WALL		
	TOP OF CURB / BOTTOM OF CURB		



- DRAINAGE NOTES**
- UNLESS SPECIFICALLY NOTED AS CLASS IV RCP, ALL PIPES 15" OR LARGER SHALL BE CLASS III RCP. OTHER PIPE MATERIALS WITHIN PUBLIC STREET R/W MUST BE APPROVED BY THE CITY OF CHARLOTTE ENGINEERING DEPT. (INC.), OR APPROVED EQUAL.
  - AREA DRAIN INLETS (AD) SHALL BE 12" DIA. NYLOPLAST PVC DRAIN BASIN WITH FLAT DUCTILE IRON GRATE (BY ADS, INC.), OR APPROVED EQUAL.
  - MANHOLE (MH) SHALL BE PER NCDOT STD. #840.52
  - CATCH BASINS AND GRATES SHALL BE PER NCDOT STD. #840.01 AND #840.03



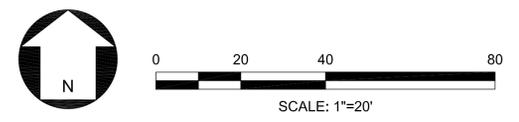
**COTSWOLD SPRINGS**  
 Apartments  
 Main Street Properties & Development  
 Charlotte, NC

**DRAINAGE AREA PLAN**



**LEGEND**

	PROPERTY LINE		STABILIZED CONSTRUCTION ENTRANCE
	RIGHT OF WAY		STONE OPENING IN SILT FENCE
	EXISTING CATCH BASIN		CATCH BASIN INLET PROTECTION
	PROPOSED SPOT ELEVATION		TEMPORARY SILT FENCE
	EXISTING CONTOUR		TREE PROTECTION FENCE
	PROPOSED CONTOUR		DOWNSPOUT LOCATION
	EXISTING STORM DRAINAGE PIPE		
	PROPOSED STORM DRAINAGE PIPE		
	PROPOSED CURB INLET		
	PROPOSED AREA DRAINAGE INLET		
	EXISTING SANITARY SEWER		
	LIMITS OF GRADING/ DENUDED LIMIT		
	PROPOSED RETAINING WALL		
	TOP OF WALL / BOTTOM OF WALL		
	TOP OF CURB / BOTTOM OF CURB		



**REVISIONS:**

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS

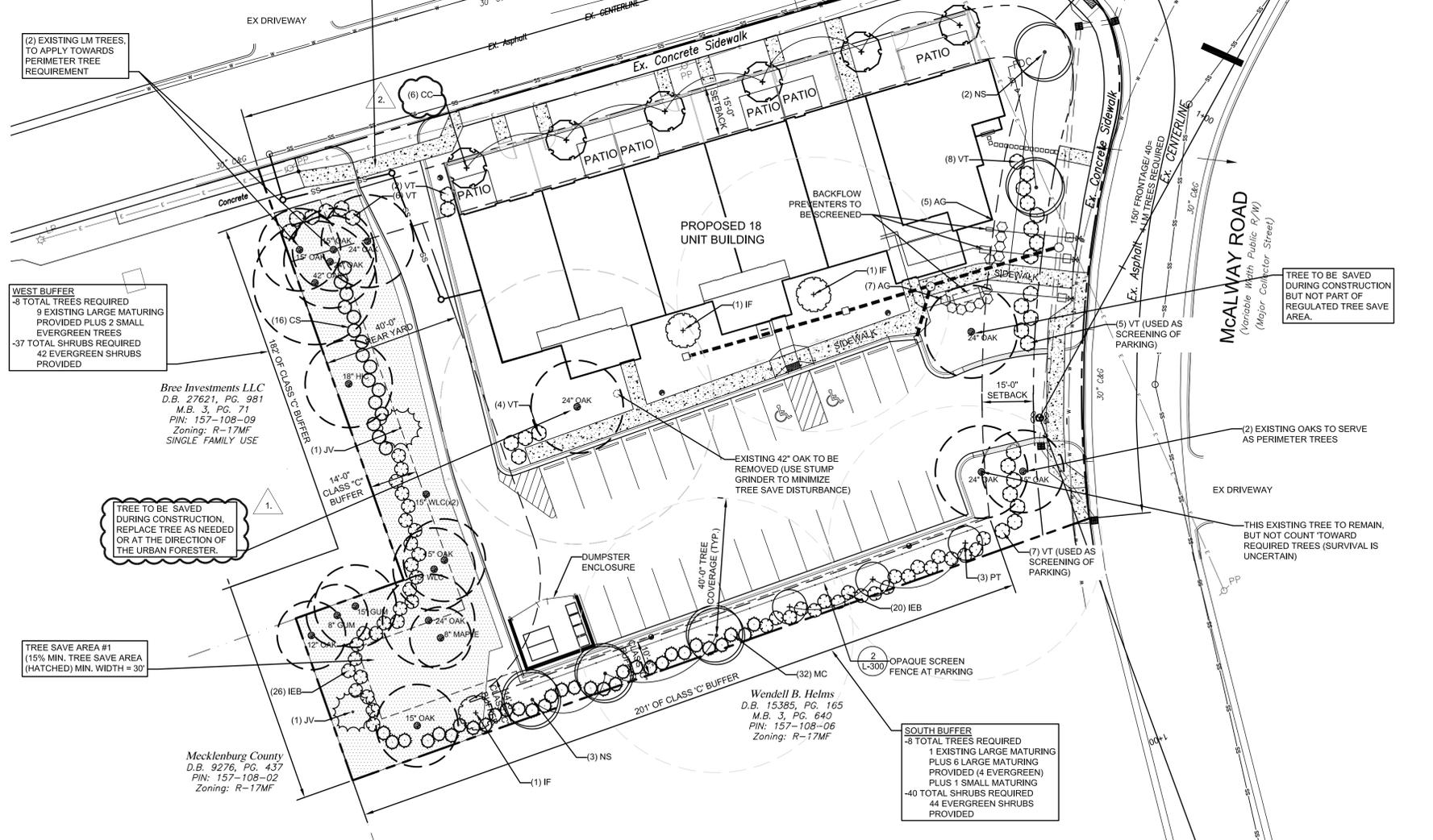
4/30/15  
 Project Manager: SSW  
 Drawn By: MEA  
 Checked By:  
 Date: 4.30.15  
 Project Number: 13053  
 Sheet Number:

**L-202**

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**LEGEND**

---	PROPERTY LINE
---	RIGHT OF WAY
▣	EXISTING CATCH BASIN
55.4	PROPOSED SPOT ELEVATION
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	EXISTING STORM DRAINAGE PIPE
---	PROPOSED STORM DRAINAGE PIPE
CH&I	PROPOSED CURB INLET
AD&I	PROPOSED AREA DRAINAGE INLET
SS	EXISTING SANITARY SEWER
TP	TREE PROTECTION FENCE
● WLC	WILD CHERRY (EXISTING)
● HIC	HICKORY (EXISTING)
●	PROPOSED LIGHT FIXTURE (15' MAX. HEIGHT)
---	EXISTING WATER LINE
---	EXISTING OVERHEAD ELECTRIC



**14' CLASS 'C' BUFFER CALCULATIONS:**

TREES: 4 PER 100' REQUIRED  
 - 201 LF OF BUFFER (AT SOUTH PL) = 8 TREES REQUIRED (6 LARGE MATURING MIN.; 2 EVERGREEN MIN.)  
 - 182 LF OF BUFFER (AT WEST PL) = 8 TREES REQUIRED (6 LARGE MATURING MIN.; 2 EVERGREEN MIN.)

TREES PROVIDED: 16 TOTAL IN BOTH BUFFERS

SHRUBS: 20 PER 100' REQUIRED (75% MIN. EVERGREEN)  
 - 201 LF OF BUFFER (AT SOUTH PL) = 40 SHRUBS REQUIRED  
 - 182 LF OF BUFFER (AT WEST PL) = 37 SHRUBS REQUIRED

SEE UNDERLINED NOTE BELOW.

NOTE: CONTRACTOR SHALL COORDINATE WITH INSPECTOR TO EVALUATE EXISTING TREES AND VEGETATION TO REMAIN WITHIN BUFFER ZONE WHICH CAN BE CREDITED TO MEET BUFFER PLANTING REQUIREMENTS. CONTRACTOR SHALL SUPPLEMENT TREES AND SHRUBS AS REQUIRED TO MEET BUFFERING REQUIREMENTS.

**PERIMETER TREE REQUIREMENTS:**

LINEAR FEET OF ROAD FRONTAGE ALONG MAINTAINED RIGHT OF WAY INCLUDING DRIVEWAY

BEAL STREET= 235 LINEAR FEET TOTAL (INCLUDING DRIVEWAY) = 8 SMALL MATURING TREES REQUIRED (8 SMALL MATURING PROVIDED DUE TO OVERHEAD ELECTRIC)

MCALWAY ROAD= 150 LINEAR FEET TOTAL = 4 LARGE MATURING TREES REQUIRED (4 PROVIDED)

WHERE OVERHEAD DISTRIBUTION POWER LINES EXIST, ONLY SMALL MATURING TREES ARE ALLOWED. OTHERWISE 75% OF NEW TREES MUST BE LARGE MATURING SPECIES.

**INTERNAL TREE REQUIREMENTS (Per Tree Ordinance, Section 21-96):**

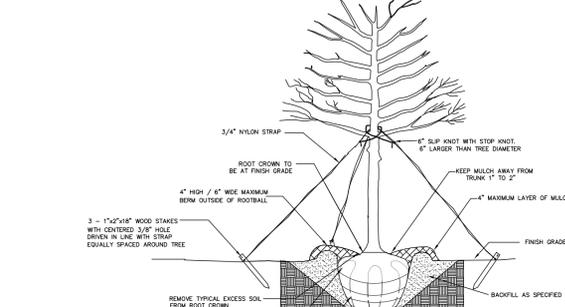
- ONE (1) LARGE MATURING TREE PER 10,000 SQ. FT. OF IMPERVIOUS AREA IS REQUIRED (PER SECTION 21-96(F)(1)).
- MINIMUM TOTAL PLANTING AREA IS 10% OF IMPERVIOUS AREA.
- ALL REQUIRED SURFACE PARKING SPACES MUST BE WITHIN 40 FT. OF THE TRUNK OF A TREE.
- INTERNAL LANDSCAPE AREA AND INTERNAL TREE PLANTING CALCULATIONS:  
 TOTAL SITE AREA = 40,631 SQ.FT.  
 PROPOSED IMPERVIOUS AREA = 19,861 SQ.FT.  
 INTERNAL LANDSCAPE PLANTING AREA REQUIRED = 1,986 SQ.FT. (10% OF IMPERVIOUS AREA)  
 INTERNAL TREES REQUIRED: 2 TOTAL REQUIRED (19,861 SF IMPERVIOUS/10,000 S.F.) (75% MIN. TO BE LARGE MATURING)

**TREE SAVE AREA NOTES:**

CURRENT SITE AREA = 0.919 AC  
 PROPOSED SITE AREA = 0.79 AC  
 AFTER DEDICATION OF .129 ACRES TO PUBLIC R.O.W.  
 TREE SAVE AREA REQUIRED = 15% OF 0.79 AC = 5,162 SF  
 TREE SAVE AREA PROVIDED = 5,173 SF

**PLANT LIST**

SYM	QTY	BOTANICAL NAME	COMMON NAME	ROOT	MIN. SIZE	REMARKS
<b>TREES</b>						
IF	3	Ilex x attenuata 'Foster'	Foster Holly	B&B	2' cal / 8' ht. min.	
NS	5	Nyssa sylvatica	Black Gum	B&B	2' cal / 12' ht. min.	
PT	3	Pinus taeda	Loblolly Pine	B&B	2' cal / 10' ht. min.	
JV	2	Juniperus virginiana	Red Cedar	B&B	2' cal / 10' ht. min.	
CC	6	Cercis canadensis	Eastern Redbud	B&B	2' cal / 10' ht. min.	
<b>SHRUBS</b>						
AG	12	Abelia x grandiflora 'Kaleidoscope'	Kaleidoscope Abelia	3 gal.	12" ht/15" w	3' O.C.
CS	16	Camellia sasanqua	Sasanqua Camellia	10 gal.	30" HT./24" SP.	4.5' O.C. Max.
IEB	46	Ilex x 'Emily Bruner'	Emily Bruner Holly	10 gal.	30" HT./24" SP.	4.5' O.C. Max.
MC	32	Myrica cerifera	Wax Myrtle	10 gal.	30" HT./24" SP.	4.5' O.C. Max.
VT	32	Viburnum tinus	Laurustinus Viburnum	10 gal.	30" HT./24" SP.	4.5' O.C. Max.

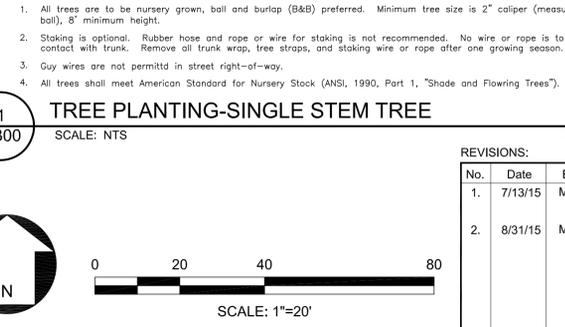


**TREE PLANTING-SINGLE STEM TREE**

SCALE: NTS

CLDSM # 40.01

NO.	DATE	BY	DESCRIPTION
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS, ADDED FENCE DETAIL
2.	8/31/15	MEA	REVISED STREET TREE PLANTING DISTANCE AND FENCE DETAIL



**PLANTING NOTES**  
 Charlotte Urban Forestry - Tree Planting and Preservation Requirements

Plant Material:

- Minimum tree size at planting is 2" caliper and 8' tall for single-stem trees. All multi-stem plants must be tree form, maximum 3 to 5 trunks, and minimum 8 feet tall. Minimum tree size at planting is 2 1/2 inch caliper (for single stem trees). All multi-stem plants must be tree form, maximum 3 to 5 trunks, and minimum 10' tall. Where 3" single-stem caliper trees are specified, the minimum height shall be 10' tall, if multi-stem trees are specified then they shall be a minimum of 12' tall.
- All new trees must have straight trunks with strong central leaders intact to the top of the crown unless multi-stem trees are specified. All required trees shall be typical of their species and variety, have normal growth habits, have well-developed branches, be vigorous and have fibrous root systems. Trees with co-dominant branching will NOT be accepted. Trees that have been sheared, topped or cut back to multiply the branching structure will NOT be accepted. Trees shall be free of abrasions, damage, disease, pests and cracks. All pruning cuts greater than 1/2 inch diameter shall have callus tissue formed prior to planting. No pruning cut on the trunk shall be more than one-half the diameter of the central leader at the height where the cut was made. Root flares shall be located at grade. Trees with more than 2" of soil covering the root ball/flare from will NOT be accepted (CLDS.40.09).
- Size of required plants, spread of roots and size of balls shall be in accordance with ANSI Z60.1 (latest edition) as published by the American Nursery & Landscape Association, except where specified/authorized by Urban Forestry.
- All required trees of a particular species and variety shall be uniform in size and configuration.

- Perimeter trees in urban zones shall be 3" in caliper and be free of branches up to 6' from the top of the ball.
- A minimum of 50% of new trees must be native species, and sites with more than 20 trees required will have to install multiple (3 or more) species pursuant to the Tree Ordinance Guidelines.
- 75% of required trees must be large mature species except in situations with overhead power line conflicts.

Planting Requirements:

- See CLDS 40.01 (on plan) for detailed tree planting requirements.
- Plastic hose parts will NOT be accepted for tree staking. See CLDS 40.01 for approved staking method/materials.
- All strapping, and top 1/3 of wire basket and burlap must be cut away and removed from root ball when planting.
- For new planting areas, remove all pavement, gravel sub-base and construction debris; remove compacted soil and add 24" new topsoil, or fill 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 large mature tree and 200 square feet per small mature tree).
- Review soil requirements in the Tree Ordinance Guidelines at: <http://landpermits.charmeck.org> then click Trees.

Utility Issues:

- Large maturing trees may not be planted within 25' of overhead power distribution or transmission lines. If trees conflict with power lines or signs, call Urban Forester to resolve BEFORE planting.
- Adjust tree planting locations to avoid underground utilities.
- Plant 15' from all underground utilities.
- No light poles, utility poles or transformers can be installed in tree islands.

**NOTES:**

- FENCE MATERIALS SHALL BE PREFABRICATED COMPOSITE OR PVC MATERIALS. COLOR AND STYLE TO BE SELECTED BY THE OWNER.
- CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR OWNER APPROVAL.
- FINISHED SIDE OF FENCE SHALL FACE EXTERIOR PROPERTY LINES AND PUBLIC STREETS.

Tree Save and Preservation:

- Tree protection must be installed and verified by Urban Forestry prior to starting ANY construction activity.
- Show tree protection and trees save areas on erosion control, grading and landscape plan sheets.
- Commercial tree save areas must be recorded on a final plat with the Mecklenburg County Register of Deeds before Urban Forestry holds can be released. A 10' no build zone around tree save areas must be referenced on the plat.
- The area of any easements (water, sewer, utility, etc.) can NOT be counted toward the tree save requirement.
- Any alterations to tree save areas must be accomplished without mechanized equipment.
- No structure will be allowed within 10' of tree save areas unless approved by Urban Forestry.
- All trees on public property are protected and removal must be permitted by the city arborist (704)336-4262.
- Call (704) 336-3622 for an inspection of tree protection/planting areas, a minimum of 5 days before a CO is needed.
- Visit City of Charlotte's Land Development website for additional information and urban forestry requirements: <http://landpermits.charmeck.org> then click Trees.

26. Tree save area to be free of invasive plant species. If an area proposed for the tree save contains invasive plant species at proposal, such invasive species shall be removed prior to final C.O.

**Landworks Design Group, P.A.**  
 7621 Little Ave. Suite 111  
 Charlotte, NC 28226  
 704-841-1604 fax: 704-841-1604

**COTSWOLD SPRINGS**  
 Apartments  
 Main Street Properties & Development  
 Charlotte, NC

**PLANTING PLAN**

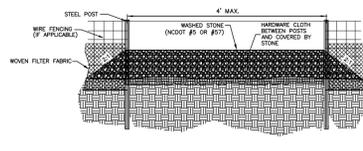
seals

**C-253**  
 NORTH CAROLINA PROFESSIONAL SEAL  
 LANDSCAPE ARCHITECTURE DESIGN GROUP

**SEAL**  
 NORTH CAROLINA PROFESSIONAL SEAL  
 LANDSCAPE ARCHITECTURE DESIGN GROUP  
 WILSON  
 4/30/15

Project Manager: SSW  
 Drawn By: MEA  
 Checked By:  
 Date: 4.30.15  
 Project Number: 13053  
 Sheet Number:  
**L-300**  
 SHEET # 8 OF 12

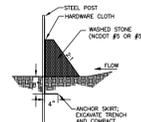
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- GENERAL NOTES:**
- SEDIMENT FILTER OUTLET AND HARDWARE CLOTH SHALL BE 16 INCHES HIGH BUT NO TALLER THAN 18 INCHES.
  - HARDWARE CLOTH SHALL BE ANCHORED TO THE STEEL POSTS SECURELY USING APPROPRIATE ANCHORS. HARDWARE CLOTH SHALL BE KEPT IN A MINIMUM OF 12 INCHES IN LENGTH AND BACKFILLED PROPERLY AS SHOWN IN ABOVE DETAIL. HARDWARE CLOTH TO BE SAME AS STD. #30.09 (19 GAUGE, 1/4\"/>
  - POSTS SHALL BE NO MORE THAN 4 FEET APART.
  - SITE OUTLETS AT ANY POINT SMALL CONCENTRATED FLOWS ARE ANTICIPATED AND AT THE DIRECTION OF THE INSPECTOR.
  - ONE ACRE MAXIMUM DRAINAGE AREA PER OUTLET.

- MAINTENANCE NOTES:**
- FILTER OUTLETS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
  - THE STONE SHALL BE REPLACED PROMPTLY AFTER ANY EVENT THAT HAS CLOGGED OR REMOVED IT.
  - SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH HALF THE HEIGHT OF THE BARRIERS. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OUTLET IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

**1**  
L-400  
**STONE OPENING IN SILT FENCE**  
NOT TO SCALE

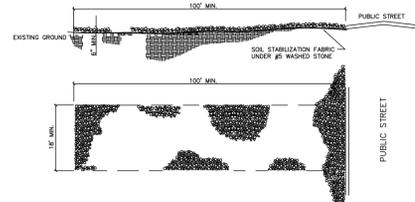


- GENERAL NOTES:**
- WOODEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
  - STEEL POSTS SHALL BE 5'-0\"/>
  - TURN SILT FENCE UP SLOPE AT ENDS.
  - ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SWM BUFFERS, STREAMS OR WETLANDS. REFER TO SWM BUFFER GUIDELINES. THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS.
  - DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT. OF FENCE.
  - SLOPE LENGTHS CAN NOT EXCEED ORDERS SHOWN IN TABLE A.6.6.6 NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
  - DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER HEADS OF CONCENTRATED FLOW.

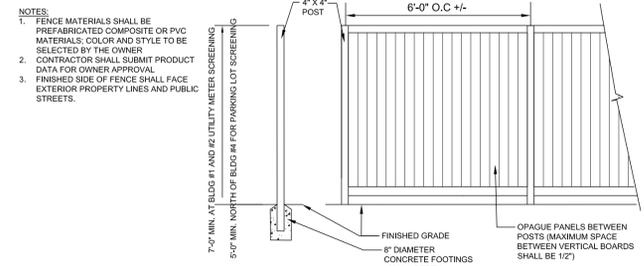
- MAINTENANCE NOTES:**
- FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
  - SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
  - SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIERS. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

**2**  
L-400  
**TEMPORARY SILT FENCE**  
NOT TO SCALE  
CLDSM #30.06A

- NOTES:**
- A STABILIZED ENTRANCE PAD OF #5 WASHED STONE SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
  - FILTER FABRIC OR COMPACTED CRUSHER RUN STONE SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
  - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  - ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
  - WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS TO AN APPROVED SILT FENCE.

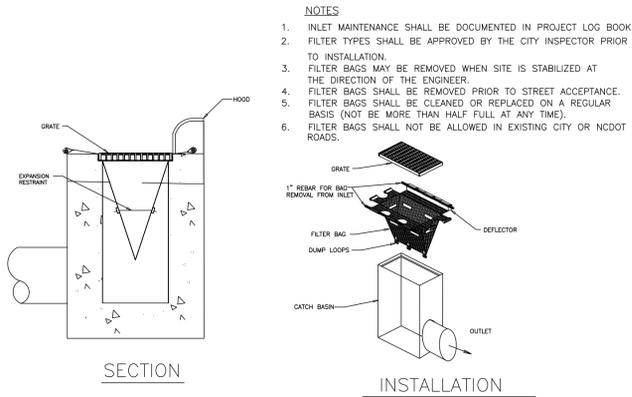


**3**  
L-400  
**TEMPORARY GRAVEL CONSTRUCTION ENTRANCE**  
NOT TO SCALE  
CLDSM #30.11A

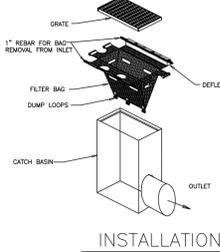


- NOTES:**
- FENCE MATERIALS SHALL BE PREFABRICATED COMPOSITE OR PVC MATERIALS. COLOR AND STYLE TO BE SELECTED BY THE OWNER.
  - CONTRACTOR SHALL SUBMIT PRODUCT DATA FOR OWNER APPROVAL.
  - FINISHED SIDE OF FENCE SHALL FACE EXTERIOR PROPERTY LINES AND PUBLIC STREETS.

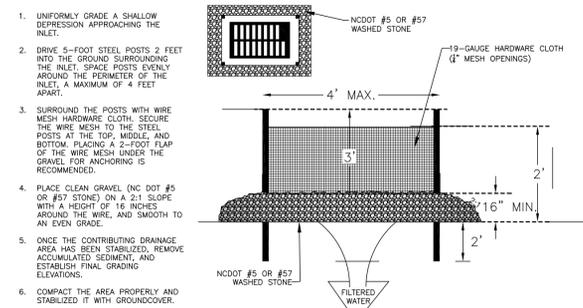
**4**  
L-400  
**OPAQUE SCREEN FENCE**  
SCALE: NTS



- NOTES:**
- INLET MAINTENANCE SHALL BE DOCUMENTED IN PROJECT LOG BOOK.
  - FILTER TYPES SHALL BE APPROVED BY THE CITY INSPECTOR PRIOR TO INSTALLATION.
  - FILTER BAGS MAY BE REMOVED WHEN SITE IS STABILIZED AT THE DIRECTION OF THE ENGINEER.
  - FILTER BAGS SHALL BE REMOVED PRIOR TO STREET ACCEPTANCE.
  - FILTER BAGS SHALL BE CLEANED OR REPLACED ON A REGULAR BASIS (NOT BE MORE THAN HALF FULL AT ANY TIME).
  - FILTER BAGS SHALL NOT BE ALLOWED IN EXISTING CITY OR NC DOT ROADS.

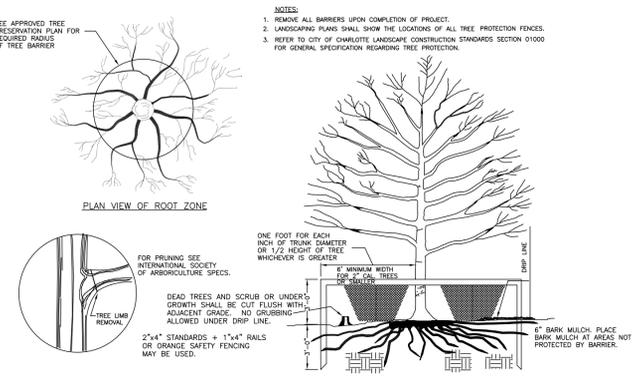


**5**  
L-400  
**CATCH BASIN INLET PROTECTION**  
NOT TO SCALE  
CHARLOTTE-MECKLENBURG UTILITIES  
CLDSM #30.15



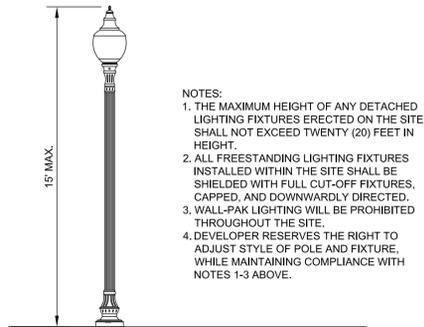
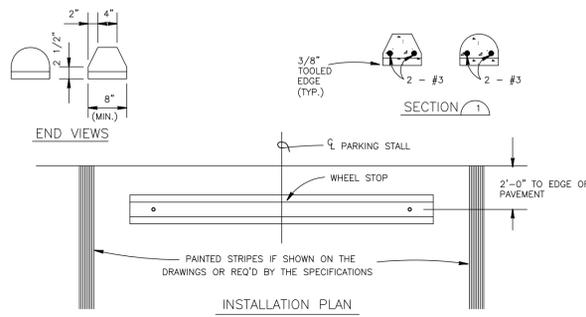
- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
- DRIVE 5'-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET. A MAXIMUM OF 4 FEET APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2'-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUNDCOVER.

**6**  
L-400  
**HARDWARE CLOTH AND GRAVEL INLET PROTECTION**  
NOT TO SCALE  
CLDSM #30.09



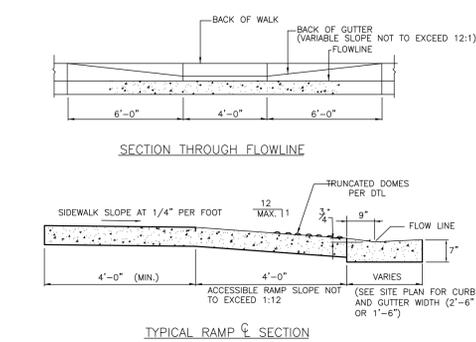
- NOTES:**
- REMOVE ALL BARRIERS UPON COMPLETION OF PROJECT.
  - LANDSCAPING PLANS SHALL SHOW THE LOCATION OF ALL TREE PROTECTION FENCES.
  - REFER TO CITY OF CHARLOTTE LANDSCAPE CONSTRUCTION STANDARDS SECTION 01000 FOR GENERAL SPECIFICATIONS REGARDING TREE PROTECTION.
- FOR PRUNING SEE INTERNATIONAL SOCIETY OF ARBORICULTURE SPECS.
- DEAD TREES AND SCRUB OR UNDERGROWTH SHALL BE CUT FLUSH WITH ADJACENT GRADE. NO GRUBBING ALLOWED UNDER DIRT LINE.
- 2 1/4\"/>

**7**  
L-400  
**TREE PROTECTION DETAIL**  
NOT TO SCALE  
CLDSM #40.02

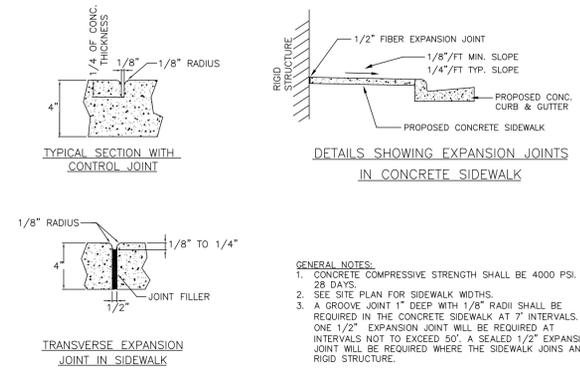


- NOTES:**
- THE MAXIMUM HEIGHT OF ANY DETACHED LIGHTING FIXTURES ERECTED ON THE SITE SHALL NOT EXCEED TWENTY (20) FEET IN HEIGHT.
  - ALL FREESTANDING LIGHTING FIXTURES INSTALLED WITHIN THE SITE SHALL BE SHIELDED WITH FULL CUT-OFF FIXTURES, CAPPED, AND DOWNWARDLY DIRECTED.
  - WALL-PAK LIGHTING WILL BE PROHIBITED THROUGHOUT THE SITE.
  - DEVELOPER RESERVES THE RIGHT TO ADJUST STYLE OF POLE AND FIXTURE WHILE MAINTAINING COMPLIANCE WITH NOTES 1-3 ABOVE.

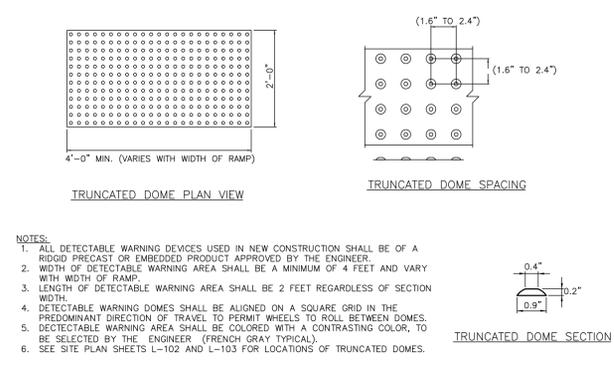
**8**  
L-400  
**TYPICAL PEDESTRIAN LIGHTING**  
NTS



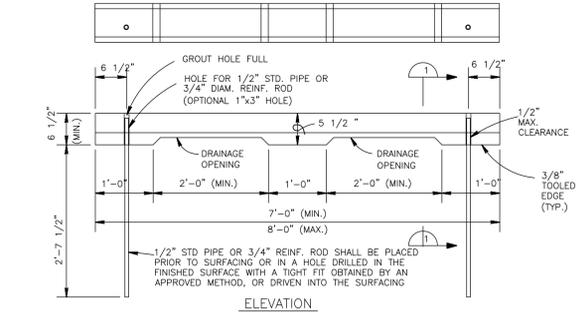
**9**  
L-400  
**ACCESSIBLE RAMP SECTIONS**  
NOT TO SCALE



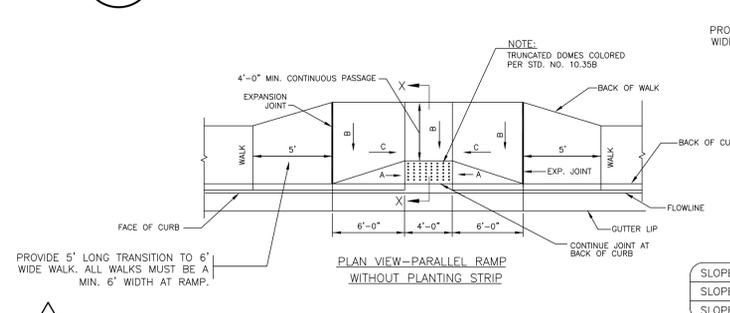
**10**  
L-400  
**CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE  
CLDSM #10.22



**11**  
L-400  
**TRUNCATED DOMES DETAIL**  
NOT TO SCALE  
CLDSM # 10.35 B



**12**  
L-400  
**PRECAST CONCRETE WHEELSTOP**  
SCALE: NTS



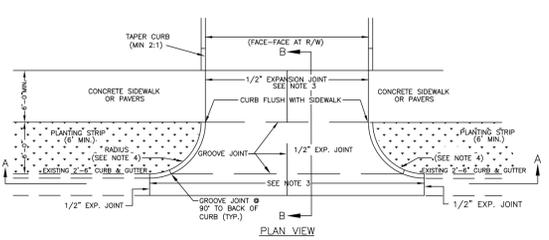
**13**  
L-400  
**ACCESSIBLE RAMP WITHOUT PLANTING STRIP**  
SCALE: NTS  
CLDSM #10.32A

- SLOPE "A" 12:1  
SLOPE "B" 1/4\"/>

REVISIONS:

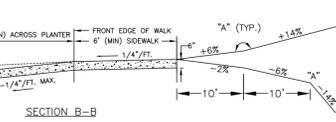
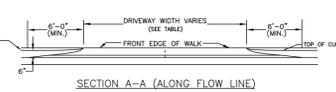
No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS



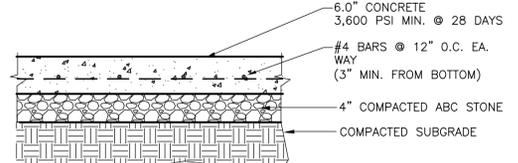


OPERATION/RADIUS	MINIMUM	MAXIMUM
ONE-WAY WITH 6'-12' FT. RADIUS	20'	30'
ONE-WAY WITH 13'-14' FT. RADIUS	15'	25'
TWO-WAY WITH 12'-13' FT. RADIUS	24'	40'
TWO-WAY WITH 13'-14' FT. RADIUS	22'	40'

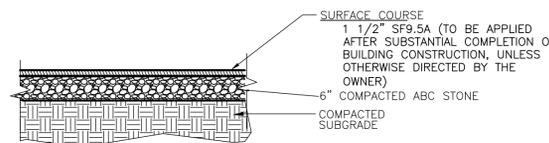
- NOTES:**
1. ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.
  2. AT ALL DRIVEWAYS, SIDEWALKS TO BE REMOVED TO THE NEAREST JOINT BEYOND NEW CONSTRUCTION OR CUT WITH A SAW AND REMOVED. SAW CUT OR JOINT TO BE PERPENDICULAR TO EDGE OF EXISTING PAVEMENT. SEE STD. NO. 10.17 FOR JOINT DETAIL. PAY LIMITS FOR WORK DONE UNDER CITY OF CHARLOTTE CONTRACTS ARE FROM EXPANSION JOINT TO EXPANSION JOINT, FROM LIP OF CURB TO BACK OF SIDEWALK.
  3. ALL DRIVEWAYS MUST MEET THE CURRENT CITY DRIVEWAY REGULATIONS AND NOTIC REQUIREMENTS FOR SPACING, SIGHT DISTANCE, AND OFFSETS FROM PROPERTY LINES AND INTERSECTIONS.
  4. RADIUS MUST BE MINIMUM 6 FEET OR THE WIDTH OF THE PLANTING STRIP, WHICHEVER IS GREATER. RADI GREATER THAN THESE MINIMUMS MAY BE REQUIRED BY COOT ON A CASE-BY-CASE BASIS. FOR RADI GREATER THAN 6 FEET, THE RADI ARE TO CONTINUE AS A BAND AT-GRADE THROUGH THE SIDEWALK.
  5. PAVERS USED IN DRIVEWAY MUST HAVE A THICKNESS OF 3 INCHES.
  6. ALGEBRAIC DIFFERENCE IN GRADE ("A") BETWEEN SLOPES SHALL BE 6% OR LESS.



**1 TYPE II-MODIFIED DRIVEWAY DETAIL WITH WIDE PLANTING STRIP AND STANDARD CURB**  
CLDSM#10.24E

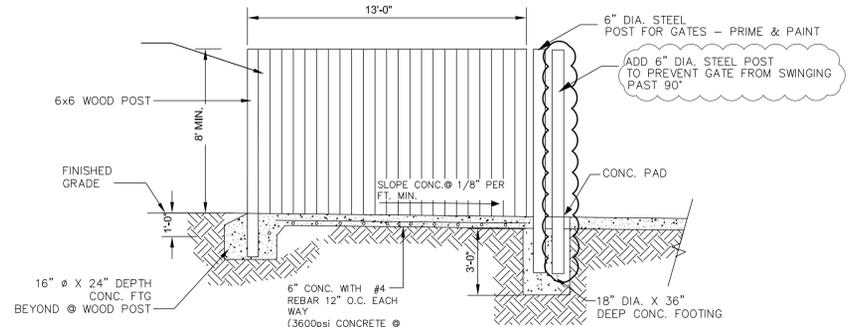


**2 CONCRETE PAVEMENT - DUMPSTER PAD**  
SCALE: NTS



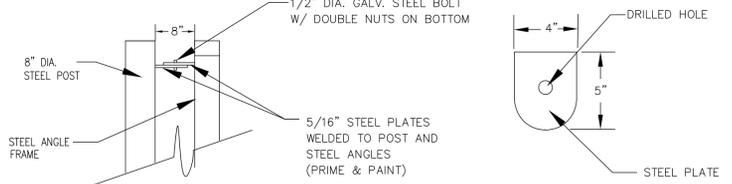
**3 ASPHALT PAVEMENT - LIGHT DUTY**  
SCALE: NTS

- NOTES:**
1. THIS DETAIL APPLIES TO PARKING AREAS AND PRIVATE DRIVEWAYS, EXCEPT FOR HEAVY DUTY PAVEMENT AREAS INDICATED ON THE SITE PLAN.
  2. THIS DOES NOT APPLY TO ANY PAVING WITHIN PUBLIC STREET RIGHT-OF-WAY.
  3. ADDITIONAL MEASURES MAY BE REQUIRED IN ORDER TO ADEQUATELY PREPARE SUBGRADE TO ACCOMMODATE VEHICLE LOADS. REFER TO GEOTECH REPORT FOR ADDITIONAL INFORMATION.



**SIDE VIEW OF ENCLOSURE**

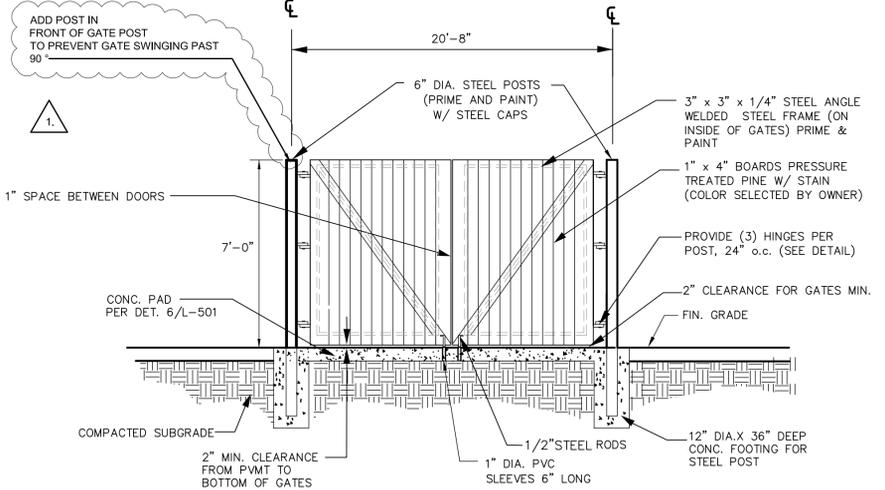
NOTE: DUMPSTER IS ENCLOSED ON TWO SIDES, PLUS GATES (SEE PLANS FOR MORE INFORMATION).



**FRONT VIEW**

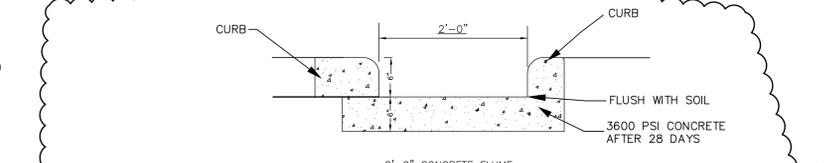
**HINGE DETAIL**

**PLAN**



**FRONT VIEW OF GATES**

**6 DUMPSTER ENCLOSURE WITH GATES**  
SCALE: NTS

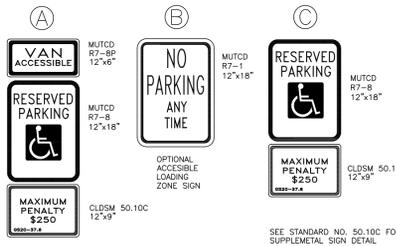
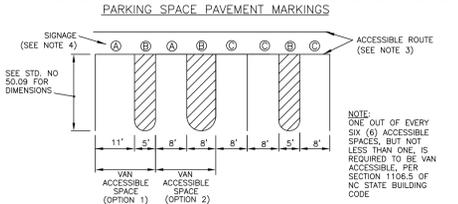


**9 2 FT CONC. FLUME AT CURB**  
SCALE: NTS

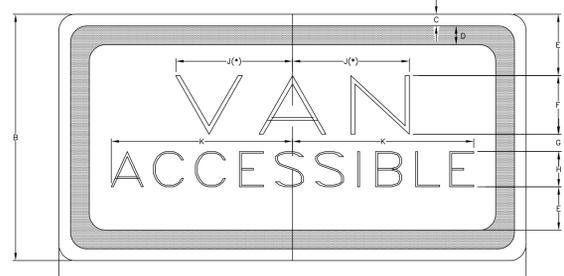
**ACCESSIBLE PARKING REQUIREMENTS**

TOTAL PARKING SPACES PROVIDED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED TO BE VAN ACCESSIBLE
1 TO 25	1	1
26 TO 50	2	1
51 TO 75	3	1
76 TO 100	4	1
101 TO 150	5	1
151 TO 200	6	1
201 TO 300	7	2
301 TO 400	8	2
401 TO 500	9	2
501 TO 1000	2% OF TOTAL	1 IN EVERY 6 ACCESSIBLE SPACES
1001 AND OVER	20 PLUS 1 FOR EACH 100 OVER 1000	1 IN EVERY 6 ACCESSIBLE SPACES

REFERENCE: SECTION 1106 OF NC STATE BUILDING CODE



**4 ACCESSIBLE PARKING AND SIGNAGE STANDARDS**  
SCALE: NTS  
CLDSM #50.10A



DIMENSIONS (INCHES)											
A	B	C	D	E	F	G	H	J	K	L	
12	6	3/8	3/8	1-1/2	1-1/2	1/2	10	2-1/2	4	1-1/2	

\* INCREASE SPACING 50% D-FHWA (FEDERAL HIGHWAY ADMINISTRATION/USDOT) SERIES D LETTERS

LEGEND AND BORDER - GREEN  
BACKGROUND - WHITE

**7 SUPPLEMENTAL ACCESSIBLE SIGN (R7-8e)**  
SCALE: NTS  
CLDSM #50.10B



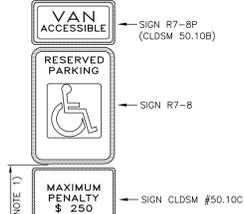
LEGEND AND BORDER - GREEN  
BACKGROUND - WHITE

SIGN APPROVED FOR USE UNDER GENERAL STATUTE 20-37.6

THIS PENALTY SIGN IS REQUIRED TO ACCOMPANY ALL R7-8 PARKING SIGNS ERECTED AFTER DECEMBER 31, 1990

**8 SUPPLEMENTAL ACCESSIBLE SIGN (R7-8d)**  
SCALE: NTS  
CLDSM #50.10C

- NOTE:**
1. SUPPLEMENTAL VAN ACCESSIBLE SIGN (R7-8P) USED IF THERE IS ONLY ONE REQUIRED ACCESSIBLE PARKING SPACE (MUST BE VAN ACCESSIBLE) AND AT EACH ADDITIONAL REQUIRED VAN ACCESSIBLE SPACE. (SEE STD. NO. 50.10B)

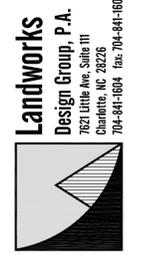


LEGEND AND BORDER - GREEN  
BACKGROUND - WHITE

SIGN APPROVED FOR USE UNDER GENERAL STATUTE 20-37.6

THIS PENALTY SIGN IS REQUIRED TO ACCOMPANY ALL R7-8 PARKING SIGNS ERECTED AFTER DECEMBER 31, 1990

**8 SUPPLEMENTAL ACCESSIBLE SIGN (R7-8d)**  
SCALE: NTS  
CLDSM #50.10C



**COTSWOLD SPRINGS**  
Apartments  
Main Street Properties & Development  
Charlotte, NC

**DETAILS**

seals



Project Manager: SSW

Drawn By: MEA

Checked By:

Date: 4.30.15

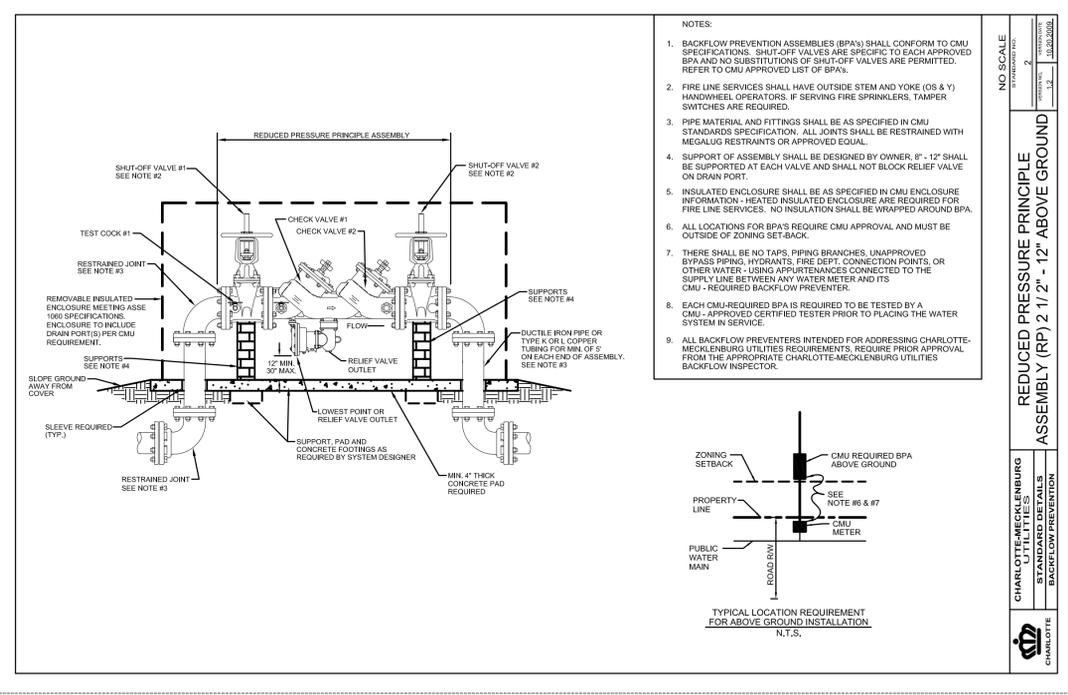
Project Number: 13053

Sheet Number:

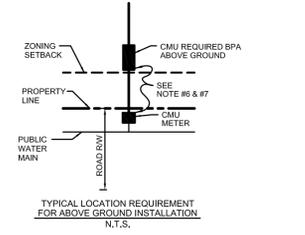
**L-401**

SHEET # 10 OF 12

P:\2015 Jobs\13055 - McAtwey Beat site\CADD\CD\Site\Mac CD DETAIL.S.dwg



- NOTES:
1. BACKFLOW PREVENTION ASSEMBLIES (BPAs) SHALL CONFORM TO CMU SPECIFICATIONS. SHUT-OFF VALVES ARE SPECIFIC TO EACH APPROVED BPA AND NO SUBSTITUTIONS OF SHUT-OFF VALVES ARE PERMITTED. REFER TO CMU APPROVED LIST OF BPAs.
  2. FIRE LINE SERVICES SHALL HAVE OUTSIDE STEM AND YOKE (OS & Y) HANDWHEEL OPERATORS. IF SERVING FIRE SPRINKLERS, TAMPER SWITCHES ARE REQUIRED.
  3. PIPE MATERIAL AND FITTINGS SHALL BE AS SPECIFIED IN CMU STANDARDS SPECIFICATION. ALL JOINTS SHALL BE RESTRAINED WITH MEGALUG RESTRAINTS OR APPROVED EQUAL.
  4. SUPPORT OF ASSEMBLY SHALL BE DESIGNED BY OWNER. IF 12" SHALL BE SUPPORTED AT EACH VALVE AND SHALL NOT BLOCK RELIEF VALVE ON DRAIN PORT.
  5. INSULATED ENCLOSURE SHALL BE AS SPECIFIED IN CMU ENCLOSURE INFORMATION - HEATED INSULATED ENCLOSURE IS REQUIRED FOR FIRE LINE SERVICES. NO INSULATION SHALL BE WRAPPED AROUND BPA.
  6. ALL LOCATIONS FOR BPAs REQUIRE CMU APPROVAL AND MUST BE OUTSIDE OF ZONING SET-BACK.
  7. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER- USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CMU - REQUIRED BACKFLOW PREVENTER.
  8. EACH CMU-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CMU - APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.
  9. ALL BACKFLOW PREVENTERS INTENDED FOR ADDRESSING CHARLOTTE-MECKLENBURG UTILITIES REQUIREMENTS, REQUIRE PRIOR APPROVAL FROM THE APPROPRIATE CHARLOTTE-MECKLENBURG UTILITIES BACKFLOW INSPECTOR.

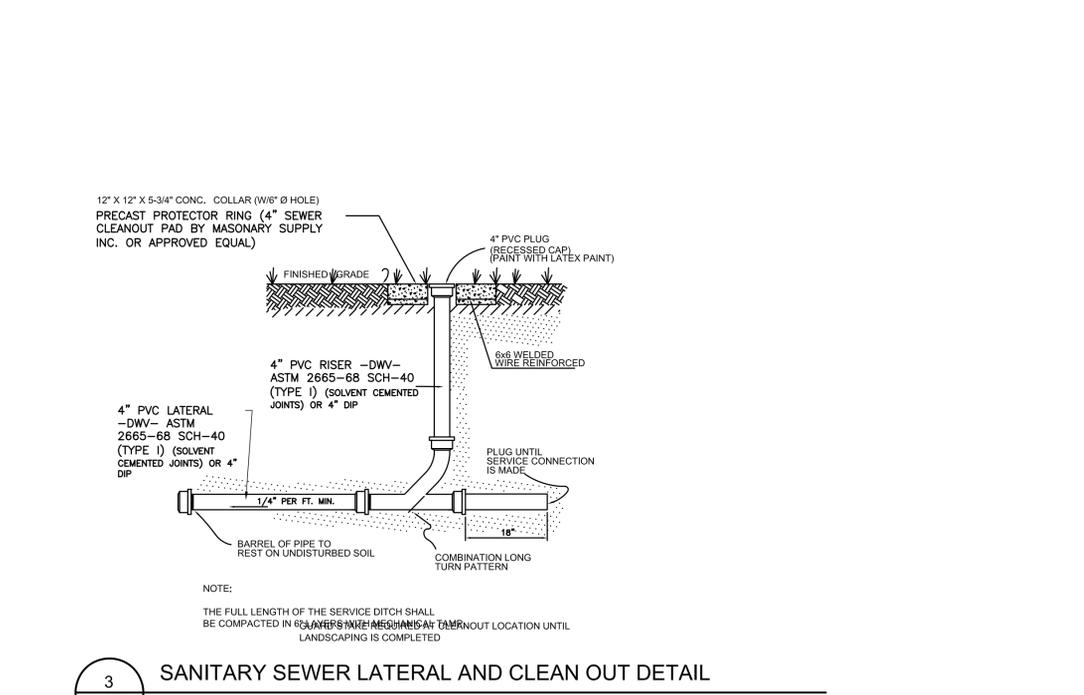


NO SCALE  
STANDARD TITLE 2  
DATE: 03.28.2008

CHARLOTTE-MECKLENBURG UTILITIES  
STANDARD DETAILS  
BACKFLOW PREVENTION

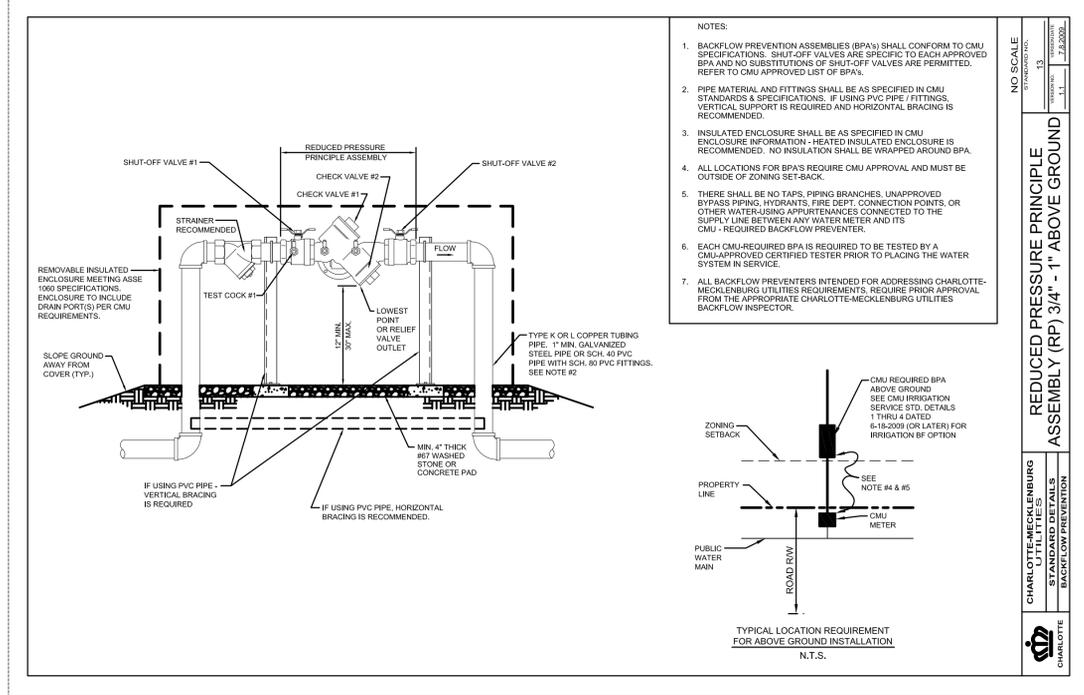
REDUCED PRESSURE PRINCIPLE ASSEMBLY (RP) 2 1/2" - 12" ABOVE GROUND

CHARLOTTE  
MECKLENBURG

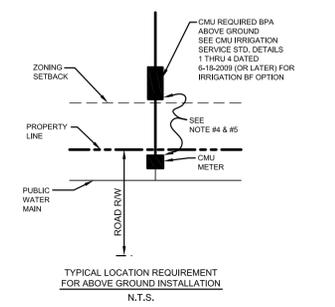


- NOTES:
1. BACKFLOW PREVENTION ASSEMBLIES (BPAs) SHALL CONFORM TO CMU SPECIFICATIONS. SHUT-OFF VALVES ARE SPECIFIC TO EACH APPROVED BPA AND NO SUBSTITUTIONS OF SHUT-OFF VALVES ARE PERMITTED. REFER TO CMU APPROVED LIST OF BPAs.
  2. PIPE MATERIAL AND FITTINGS SHALL BE AS SPECIFIED IN CMU STANDARDS & SPECIFICATIONS. IF USING PVC PIPE / FITTINGS, VERTICAL SUPPORT IS REQUIRED AND HORIZONTAL BRACING IS RECOMMENDED.
  3. INSULATED ENCLOSURE SHALL BE AS SPECIFIED IN CMU ENCLOSURE INFORMATION - HEATED INSULATED ENCLOSURE IS RECOMMENDED. NO INSULATION SHALL BE WRAPPED AROUND BPA.
  4. ALL LOCATIONS FOR BPAs REQUIRE CMU APPROVAL AND MUST BE OUTSIDE OF ZONING SET-BACK.
  5. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER- USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CMU - REQUIRED BACKFLOW PREVENTER.
  6. EACH CMU-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CMU-APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.
  7. ALL BACKFLOW PREVENTERS INTENDED FOR ADDRESSING CHARLOTTE-MECKLENBURG UTILITIES REQUIREMENTS, REQUIRE PRIOR APPROVAL FROM THE APPROPRIATE CHARLOTTE-MECKLENBURG UTILITIES BACKFLOW INSPECTOR.

**3**  
L-402  
SCALE: NTS



- NOTES:
1. BACKFLOW PREVENTION ASSEMBLIES (BPAs) SHALL CONFORM TO CMU SPECIFICATIONS. SHUT-OFF VALVES ARE SPECIFIC TO EACH APPROVED BPA AND NO SUBSTITUTIONS OF SHUT-OFF VALVES ARE PERMITTED. REFER TO CMU APPROVED LIST OF BPAs.
  2. PIPE MATERIAL AND FITTINGS SHALL BE AS SPECIFIED IN CMU STANDARDS & SPECIFICATIONS. IF USING PVC PIPE / FITTINGS, VERTICAL SUPPORT IS REQUIRED AND HORIZONTAL BRACING IS RECOMMENDED.
  3. INSULATED ENCLOSURE SHALL BE AS SPECIFIED IN CMU ENCLOSURE INFORMATION - HEATED INSULATED ENCLOSURE IS RECOMMENDED. NO INSULATION SHALL BE WRAPPED AROUND BPA.
  4. ALL LOCATIONS FOR BPAs REQUIRE CMU APPROVAL AND MUST BE OUTSIDE OF ZONING SET-BACK.
  5. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER- USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CMU - REQUIRED BACKFLOW PREVENTER.
  6. EACH CMU-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CMU-APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.
  7. ALL BACKFLOW PREVENTERS INTENDED FOR ADDRESSING CHARLOTTE-MECKLENBURG UTILITIES REQUIREMENTS, REQUIRE PRIOR APPROVAL FROM THE APPROPRIATE CHARLOTTE-MECKLENBURG UTILITIES BACKFLOW INSPECTOR.

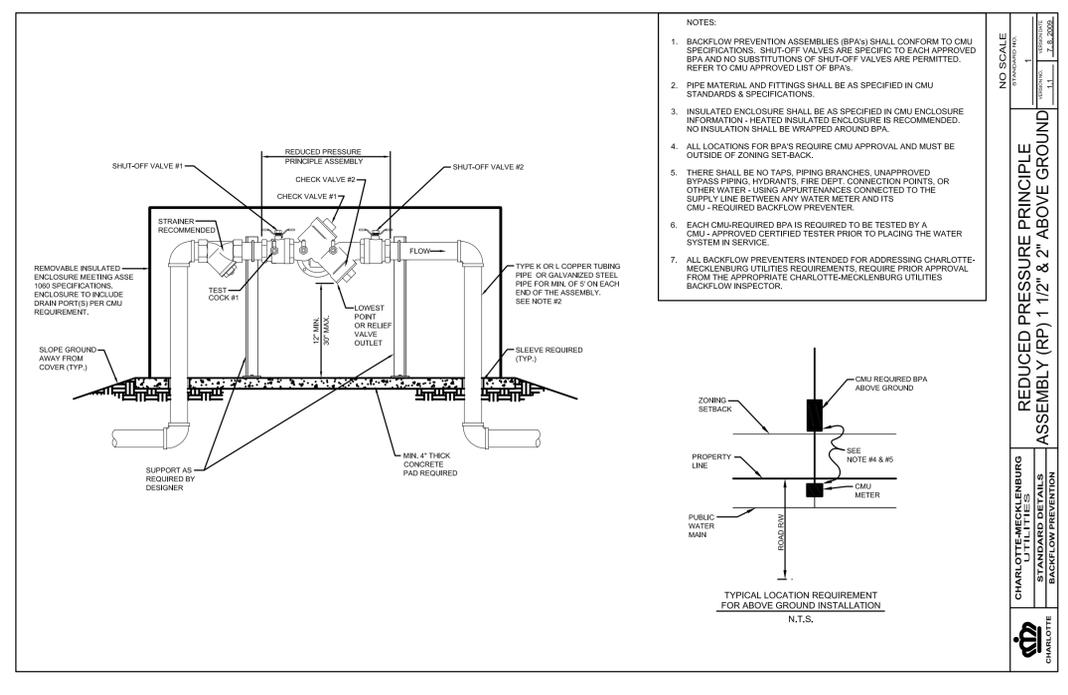


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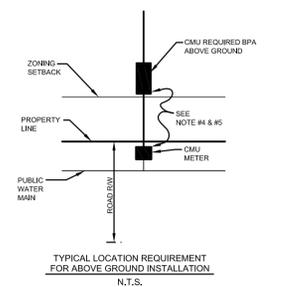
CHARLOTTE-MECKLENBURG UTILITIES  
STANDARD DETAILS  
BACKFLOW PREVENTION

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RP) 3/4" - 1" ABOVE GROUND

CHARLOTTE  
MECKLENBURG



- NOTES:
1. BACKFLOW PREVENTION ASSEMBLIES (BPAs) SHALL CONFORM TO CMU SPECIFICATIONS. SHUT-OFF VALVES ARE SPECIFIC TO EACH APPROVED BPA AND NO SUBSTITUTIONS OF SHUT-OFF VALVES ARE PERMITTED. REFER TO CMU APPROVED LIST OF BPAs.
  2. PIPE MATERIAL AND FITTINGS SHALL BE AS SPECIFIED IN CMU STANDARDS & SPECIFICATIONS.
  3. INSULATED ENCLOSURE SHALL BE AS SPECIFIED IN CMU ENCLOSURE INFORMATION - HEATED INSULATED ENCLOSURE IS RECOMMENDED. NO INSULATION SHALL BE WRAPPED AROUND BPA.
  4. ALL LOCATIONS FOR BPAs REQUIRE CMU APPROVAL AND MUST BE OUTSIDE OF ZONING SET-BACK.
  5. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER- USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CMU - REQUIRED BACKFLOW PREVENTER.
  6. EACH CMU-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CMU - APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE.
  7. ALL BACKFLOW PREVENTERS INTENDED FOR ADDRESSING CHARLOTTE-MECKLENBURG UTILITIES REQUIREMENTS, REQUIRE PRIOR APPROVAL FROM THE APPROPRIATE CHARLOTTE-MECKLENBURG UTILITIES BACKFLOW INSPECTOR.

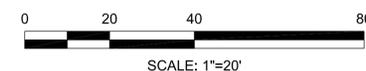


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CHARLOTTE-MECKLENBURG UTILITIES  
STANDARD DETAILS  
BACKFLOW PREVENTION

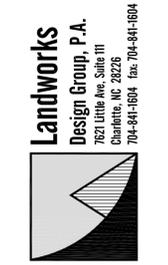
REDUCED PRESSURE PRINCIPLE ASSEMBLY (RP) 1 1/2" & 2" ABOVE GROUND

CHARLOTTE  
MECKLENBURG



REVISIONS:

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS



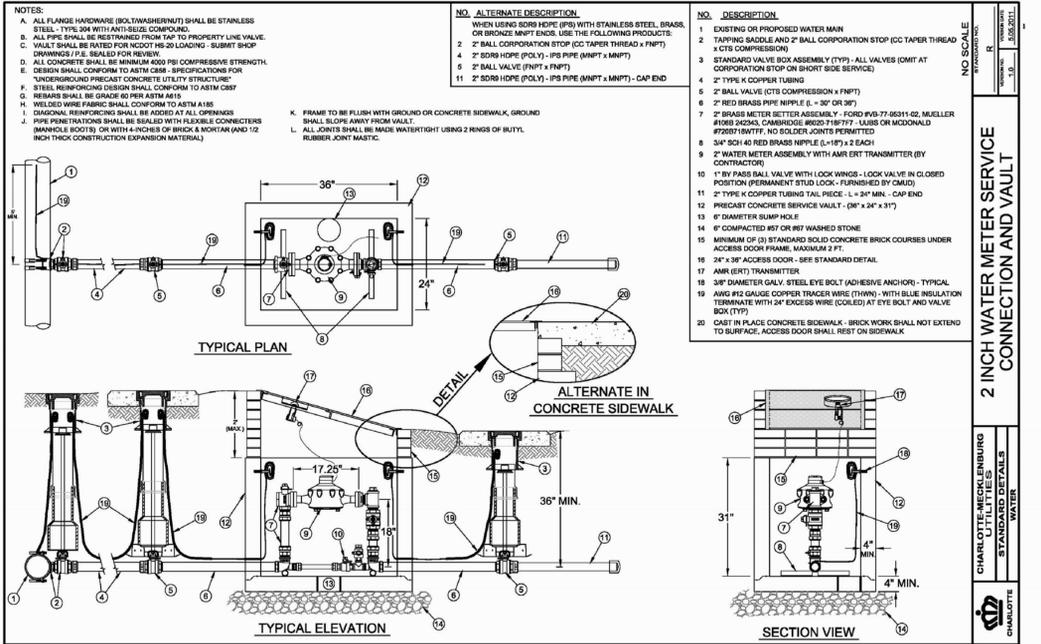
**COTSWOLD SPRINGS**  
Apartments  
Main Street Properties & Development  
Charlotte, NC

UTILITY DETAILS

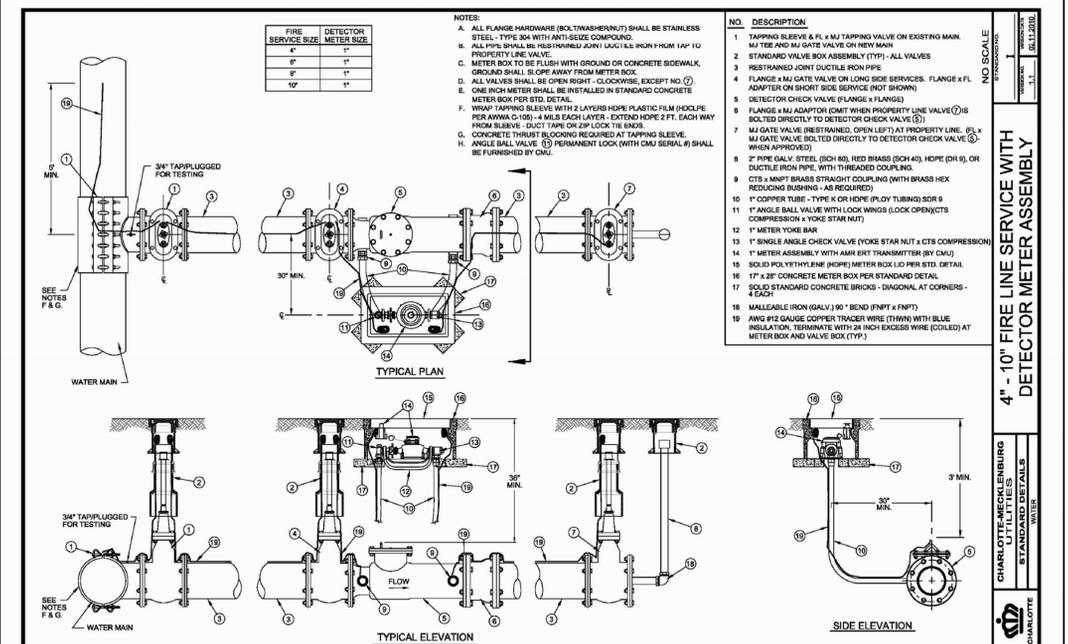


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Drawn By: MEA  
Checked By:  
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Project Number: 13053  
Sheet Number:

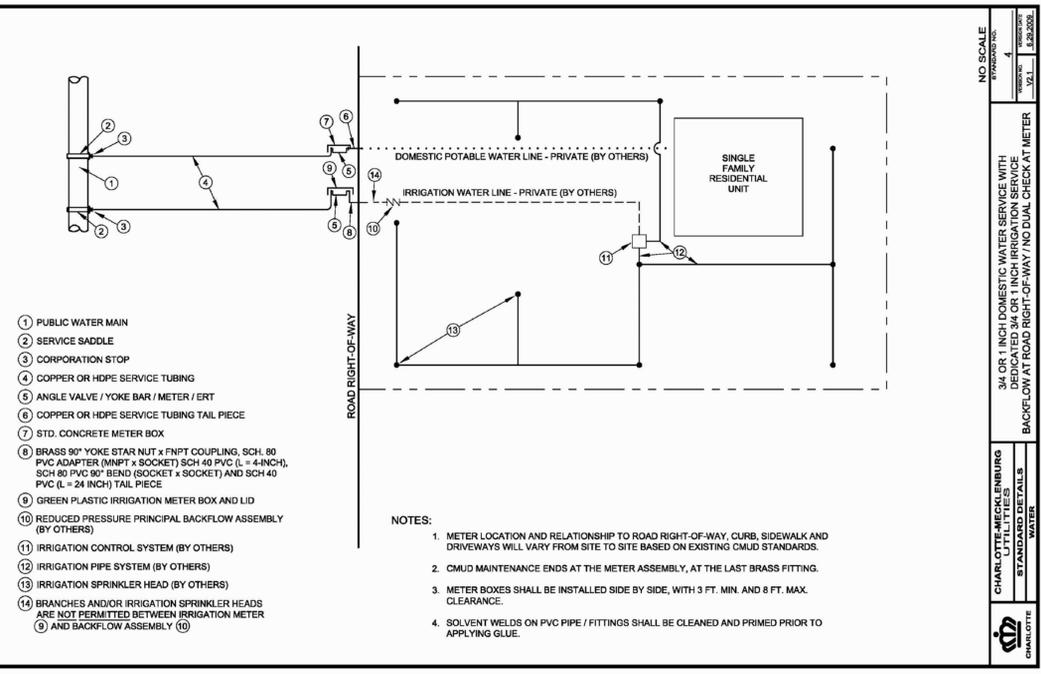
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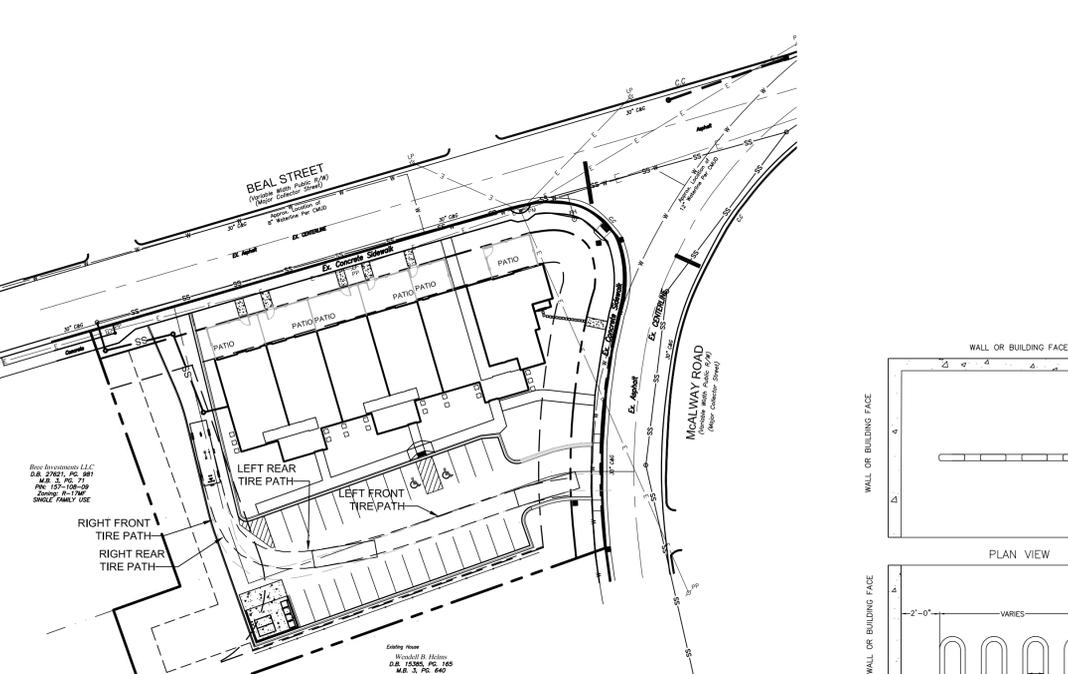
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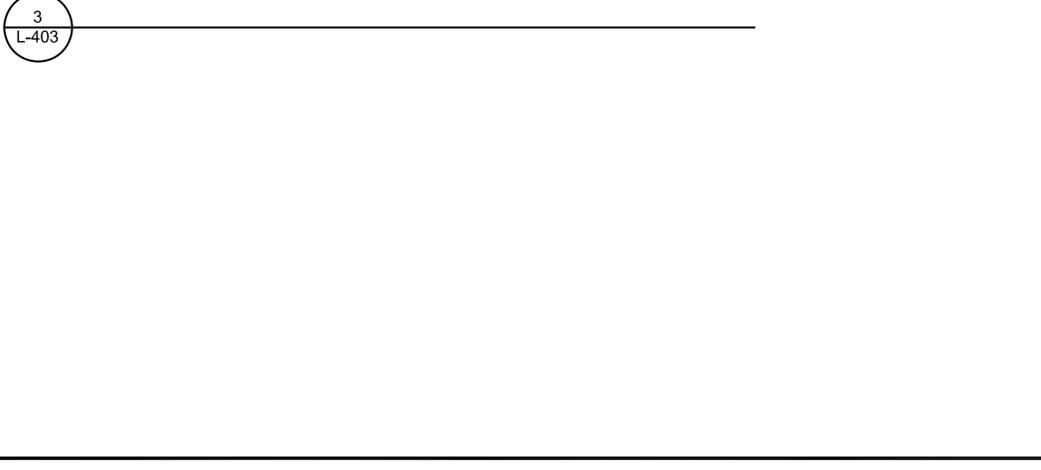
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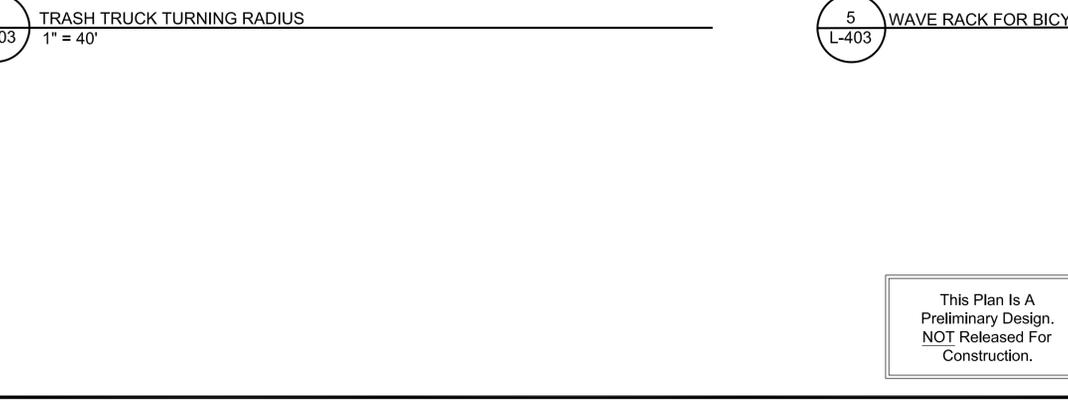
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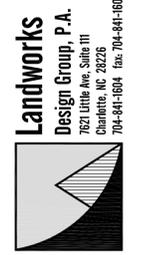
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No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS

This Plan Is A Preliminary Design. NOT Released For Construction.



COTSWOLD SPRINGS  
Apartments  
Main Street Properties & Development  
Charlotte, NC

UTILITY DETAILS



Project Manager: SSW  
Drawn By: SSW  
Checked By:  
Date: 4.30.15  
Project Number: 13053  
Sheet Number:

L-403  
SHEET # 12 OF 12



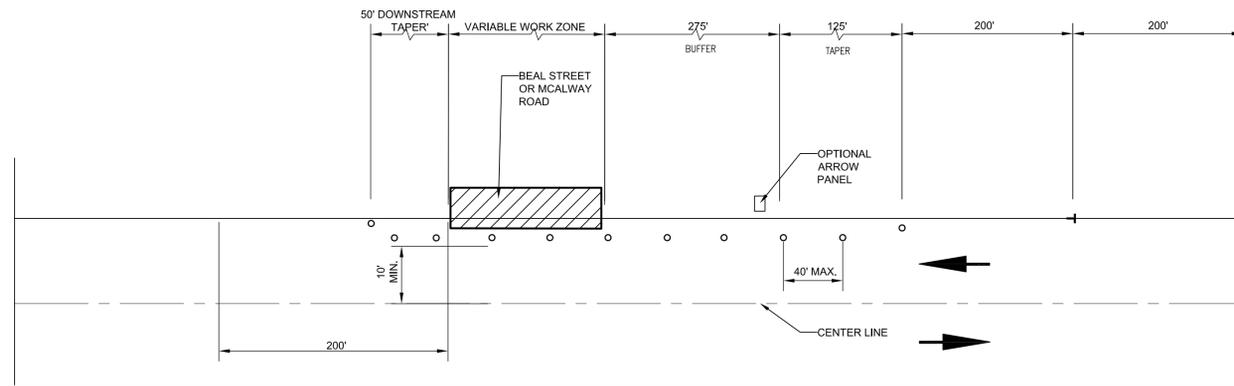
W9-3R  
48" X48"



W5-1  
48" X48"



W20-1  
48" X48"



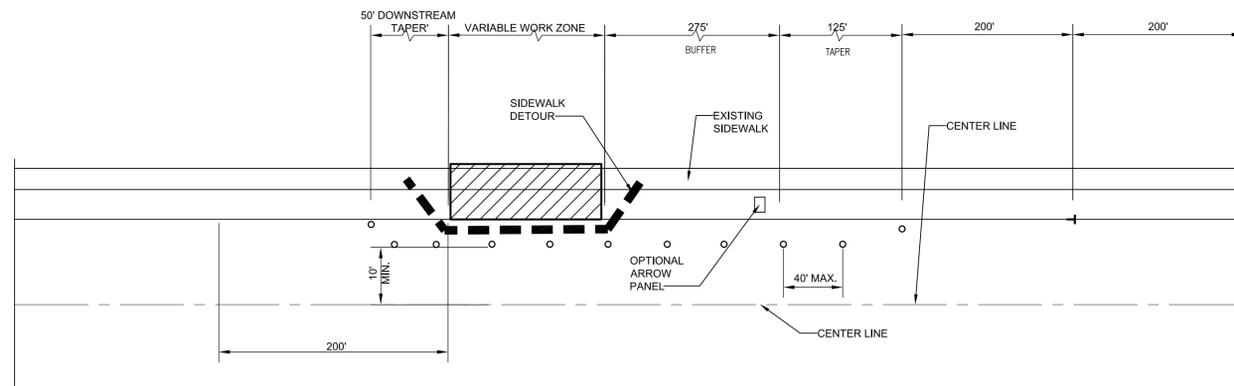
**COTSWOLD SPRINGS APARTMENTS**  
**W.A.T.C.H. DIAGRAM 4**  
**WORK AREA ON SHOULDER**  
**C.D.O.T. MAINTAINED - 35 MPH POSTED SPEED LIMIT**



W5-1  
48" X48"



W20-1  
48" X48"



**COTSWOLD SPRINGS APARTMENTS**  
**W.A.T.C.H. DIAGRAM 2**  
**SIDEWALK DETOUR**  
**C.D.O.T. MAINTAINED - 35 MPH POSTED SPEED LIMIT**

**ADDITIONAL NOTES:**

THE DEVELOPER SHALL CONTACT THE CITY OF CHARLOTTE DEPT. OF TRANSPORTATION (GUS JORDI 704-336-7096) 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 DEPT. OF TRANSPORTATION (704-336-4025) OR VISIT 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 WITH THE CITY'S RW THAT REQUIRES CLOSURE OF THE SIDEWALK OR TRAVEL LANE FOR LESS THAN 30 DAYS REQUIRES A RW USE PERMIT. TRAFFIC CONTROL PLANS FOR ANY SIDEWALK OR TRAVEL LANE CLOSURES MUST BE SUBMITTED AS PART OF THE RIGHT OF WAY 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 TO CONTACT CDOT AT LEAST 5 BUSINESS DAYS IN ADVANCE OF BEGINNING OF THE WORK.

CONSTRUCTION STAGING WITHIN THE CITY R/W LASTING MORE THAN 30 DAYS REQUIRES A RW LEASE AGREEMENT. CONTRACTOR SHALL CONTACT CDOT AT (704)336-2562.

RIGHT OF WAY CLOSURES LONGER THAN 30 DAYS REQUIRE A RW LEASE AGREEMENT WHICH WILL INCLUDE THE SUBMITTAL IF 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 RW CLOSURES. CONTRACTOR SHALL CONTACT CDOT AT (704)336-2562.

**TABLE A: BARRICADE WARNING LIGHTS**

LENS DIRECTIONAL FACES	TYPE A	TYPE B	TYPE C
	LOW INTENSITY	HIGH INTENSITY	STEADY BURN
FLASH RATE/MINUTE**	1 or 2	1	1 or 2
FLASH DURATION	55 TO 75	55 TO 75	CONSTANT
MINIMUM EFFECTIVE INTENSITY***	10%	6%	CONSTANT
MINIMUM CANDLE BEAM POWER***	4.0 CANDELAS	35 CANDELAS	-
HOURS OF OPERATION	-	-	2 CANDELAS
	DUSK TO DAWN	24 HRS/DAY	DUSK TO DAWN

\*\* LENGTH OF TIME THAT INSTANTANEOUS INTENSITY IS EQUAL TO OR GREATER THAN EFFECTIVE INTENSITY.

\*\*\* THESE VALUES MUST BE MAINTAINED WITHIN A FULL 9 DEGREES ON EACH SIDE OF THE VERTICAL AXIS AND 5 DEGREES ABOVE AND 5 DEGREES BELOW THE HORIZONTAL AXIS.

TYPE C STEADY BURN WARNING LIGHTS ARE MOST COMMONLY MOUNTED ON SEPARATE PORTABLE SUPPORTS OR ON TYPE I OR TYPE II BARRICADES AND ARE INTENDED TO CONTINUALLY WARN THE DRIVER THAT HE IS APPROACHING OR ADJACENT TO A HAZARD.

BARRICADE WARNING LIGHTS ARE PORTABLE, LENS DIRECTED, ENCLOSED LIGHTS. THE COLOR OF THE LIGHT EMITTED SHALL BE YELLOW.

BARRICADE WARNING LIGHTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) STANDARD FOR FLASHING AND STEADY BURN BARRICADE WARNING LIGHTS (1971) (SEE TABLE A).

**TRAFFIC CONTROL & CONSTRUCTION SEQUENCE**

- STAGE 1:  
1A: INSTALL WORK ZONE ADVANCE WARNING SIGNS IN ACCORDANCE WITH CDOT TRAFFIC CONTROL STANDARDS, "WORK AREA TRAFFIC CONTROL HANDBOOK", & M.U.T.C.D. CURRENT EDITION
- STAGE 2:  
2A: USING CDOT W.A.T.C.H., IMPLEMENT LANE CLOSURES USING TRAFFIC CONTROL DEVICES AS SPECIFIED.
- STAGE 3:  
INSTALL TYPE II MODIFIED DRIVEWAY ENTRANCES AS SHOWN ON SITE PLAN. REMOVE TRAFFIC CONTROL DEVICES AS NECESSARY

**ADDITIONAL NOTES:**

- SPACING -SEE W.A.T.C.H DIAGRAM #4 CHART FOR 25 MPH ALONG BEAL STREET AND 25 MPH ALONG MCALWAY ROAD
- TYPE III BARRICADE REQUIRED AT ALL TIMES.
- NO ADVANCED SIGNAGE REQUIRED IF 6' OR MORE OF CLEARANCE IS MAINTAINED FROM EDGE OF PAVEMENT.
- WHEN EXCAVATING WITHIN 4' OF THE EDGE OF PAVEMENT, THE ADJACENT LANE SHOULD BE CLOSED TO TRAFFIC USING OTHER APPLICABLE DIAGRAMS UNLESS BRACING OR SHORING IS USED.
- IF BIKE LANE IS PRESENT THE PROPER CLOSURE IS REQUIRED USING SIGNS AND CONES REFER TO DIAGRAM 31.

**CDOT WORK ZONE TRAFFIC CONTROL NOTES**

- STREET SPACE IS AT A MINIMUM SO NO MORE SPACE SHOULD BE USED FOR CONSTRUCTION OR MAINTENANCE WORK THAN IS ABSOLUTELY NECESSARY. THROUGH BARRICADING AND CHANNELIZATION, THE REMAINING STREET SPACE IS TO BE USED TO CARRY THE TRAFFIC AROUND THE WORK AREA IN THE BEST WAY POSSIBLE UNDER PREVAILING CONDITIONS.
- TRAFFIC CONTROL DEVICES SHALL BE SET UP PRIOR TO THE START OF CONSTRUCTION OR MAINTENANCE OPERATIONS, AND SHALL BE REMOVED OR RELOCATED AS THE WORKS IS FINISHED OR WORK CONDITIONS CHANGE. THE AGENCY DOING THE WORK SHALL PATROL THE SITE AS REQUIRED TO ENSURE THAT ALL TRAFFIC CONTROL DEVICES ARE IN PLACE AND OPERATING AT ALL TIMES.
- ALL TRAFFIC CONTROL SIGNS FOR THE WORK AREA SHALL BE REFLECTORIZED. THE REFLECTIVE MATERIALS USED SHALL BE EQUAL TO OR BETTER THAN THE TYPE 1, LEVEL A REFLECTIVE SHEETING REQUIREMENTS IN SECTION 630 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS (FP74).
- AT NIGHT ADEQUATE BARRICADES WITH REFLECTORIZED MATERIAL AND LIGHTS ARE REQUIRED TO CALL ATTENTION TO AND TO INDICATE THE ACTUAL LOCATION OF OBSTRUCTIONS AND HAZARDS.
- WHEN NOT IN USE DURING WORK HOURS OR CONSTRUCTION INACTIVITY, EQUIPMENT SHALL BE PARKED A MINIMUM OF 10' AWAY FROM THE TRAVEL LANE IN SUCH A MANNER AS TO NOT TO CREATE A SIGHT DISTANCE PROBLEM FOR MOTORISTS.
- THE MINIMUM WIDTH FOR TEMPORARY TRAVEL LANES IN 10'; HOWEVER, A 12' LANE IS ADVISABLE AND SHOULD BE PROVIDED WHENEVER POSSIBLE.
- WHENEVER TRAFFIC MUST BE ROUTED ACROSS THE CENTERLINE, THE TWO DIRECTIONS OF TRAFFIC MUST BE PHYSICALLY SEPARATED. TRAFFIC CONES CAN BE EFFECTIVELY USED FOR THIS PURPOSE DURING DAYLIGHT HOURS; REFLECTORIZED DRUMS MUST BE USED AT NIGHT. TRAFFIC CONTROL SHALL NOT BE ROUTED ACROSS CENTERLINE WITH CONES OR DRUMS DURING NON-WORKING HOURS. CONTRACTOR MUST BE ON SITE OR CHANGE PAVEMENT MARKINGS APPROPRIATELY.
- GENERALLY, THE PEAK FLOW OF TRAFFIC OCCURS BETWEEN THE HOURS OF 7.9 A.M. AND 4-6 P.M. MONDAY THROUGH FRIDAY. DURING THESE HOURS, CONSTRUCTION ACTIVITY WHICH INVOLVE A LANE CLOSURE WILL NOT BE ALLOWED ON THROUGHFARE STREETS EXCEPT IN EMERGENCY SITUATIONS OR WITH APPROVAL FROM THE CHARLOTTE DEPARTMENT OF TRANSPORTATION.
- THE AGENCY DOING THE WORK SHALL PROVIDE FLAGGERS AND/OR POLICE CONTROL WHEN REQUIRED. CONTRACTOR MAY ALSO BE REQUIRED TO PROVIDE A UNIFORMED OFFICER TO CONTROL TRAFFIC WHEN WORKING IN AND AROUND A SIGNALIZED INTERSECTION.
- EVERY ATTEMPT SHALL BE MADE TO SCHEDULE AND EXPEDITE THE WORK TO CAUSE THE LEAST INCONVENIENCE TO THE TRAVELING PUBLIC.
- IN SITUATIONS NOT COVERED IN THIS DESIGN THE PROTECTION OF THE TRAVELING PUBLIC AND THE PROTECTION OF THE WORKERS ON SITE WILL DICTATE THE MEASURES TO BE TAKEN CONSISTENT WITH THE CITY OF CHARLOTTE WORK AREA TRAFFIC CONTROL HANDBOOK (WATCH).
- THE CONTRACTOR, UTILITY COMPANY OR GOVERNMENTAL AGENCY INVOLVED IN THE WORK SHALL NOTIFY THE CHARLOTTE DEPARTMENT OF TRANSPORTATION OF THE CONSTRUCTION START DATE AND ANY MAJOR WORK WHERE THE NUMBER OF TRAVEL LANES ARE REDUCED FROM NORMAL CONDITIONS OR THE STREET IS REQUIRED TO BE CLOSED. EXCEPT IN EMERGENCIES, THE FOLLOWING NOTIFICATION IS REQUIRED.  
"CONSTRUCTION START DATE - 5 WORKING DAYS IN ADVANCE  
"CLOSING 1 OR MORE TRAVEL LANES DURING PEAK TRAVEL TIMES - 5 WORKING DAYS PRIOR TO THE SCHEDULED WORK  
"CLOSING A STREET - 10 WORKING DAYS PRIOR TO THE SCHEDULED WORK.  
THIS LEAD TIME IS NECESSARY FOR PLANNING AND NOTIFYING THE PUBLIC OF EXPECTED CHANGES IN THE NORMAL TRAFFIC CONDITIONS.
- WHERE COMPLETE STREET CLOSURE IS NECESSARY, CDOT WILL COORDINATE CLOSURE AND, IF NECESSARY, FULLY DESIGN AN ACCEPTABLE DETOUR ROUTE
- THE CITY ENGINEER OR DEPARTMENT OF TRANSPORTATION OR THEIR REPRESENTATIVES ARE AUTHORIZED TO STOP ANY CONSTRUCTION OR MAINTENANCE ACTIVITY WHICH IS NOT PROPERLY SIGNED AND BARRICADED AS REQUIRED BY THIS STANDARD. THE WATCH AND/OR MUTCD, UNTIL SUCH REQUIREMENTS ARE MET.
- THIS DESIGN STANDARD CANNOT BE USED FOR ALL ROADWAY CONSTRUCTION SITUATIONS. IT IS INTENDED ONLY TO BE USED AS A GUIDELINE. SPECIFIC SITUATIONS MAY REQUIRE ENGINEERING JUDGMENT IN THE PLACEMENT OF TRAFFIC CONTROL DEVICES BECAUSE OF LIMITED VERTICAL AND/OR HORIZONTAL SIGHT DISTANCE.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WITHIN 2' OF THE EDGE OF AN OPEN TRAVEL LANE, THE CONTRACTOR SHALL REFER TO THE WATCH FOR PROPER LANE CLOSURE.
- OPERATIONAL SIGNS ARE GENERALLY MOUNTED ON PORTABLE SUPPORT. THESE ARE USUALLY USED FOR SHORT TERM OPERATIONS TO WARN AND GUIDE TRAFFIC. ADVANCED WARNING SIGNS (CONSTRUCTION AHEAD) SHALL BE MOUNTED ON STATIONARY SUPPORTS SEVEN DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION OF THE ROADWAY.
- ALL DRUMS SHALL BE BALLASTED IN SUCH A MANNER THAT THEY WILL BE STABLE UNDER WIND AND VEHICLE ACTION. BALLASTING SHALL BE DONE WITH SANDBAGS OR OTHER YIELDING MATERIAL SITUATED IN THE BASE OF THE DRUMS.
- CONSTRUCTION WORK SHALL NOT BE ALLOWED ON BOTH SIDES OF THE ROAD SIMULTANEOUSLY WITHIN THE SAME AREA, UNLESS THE ROADWAY IS MEDIAN DIVIDED.
- AT THE END OF EACH WORK DAY THE CONTRACTOR SHALL BACKFILL UP TO THE EDGE AND ELEVATION OF THE EXISTING PAVEMENT AREAS WITHIN 2 FEET OF AN OPEN TRAVEL LANE THAT INCLUDE A DROP OFF OF MORE THAN 3 INCHES IN ACCORDANCE WITH THE 'W.A.T.C.H.'
- PAVEMENT MARKINGS ARE TO BE INSTALLED BY THE CONTRACTOR. PRE-LINES MUST BE APPROVED BY CDOT PRIOR TO PLACEMENT OF THE PAVEMENT MARKINGS. THE CONTRACTOR SHALL NOTIFY CDOT'S WORKING DAYS IN ADVANCE OF PLACING THE PRE-LINES.
- TRAFFIC SIGNAL WORK IS TO BE PERFORMED BY CDOT. THE CONTRACTOR SHALL NOTIFY CDOT AT LEAST 60 DAYS IN ADVANCE OF NEEDED SIGNAL WORK. IF A TRAFFIC SIGNAL USES STEEL POLES AND/OR MAST ARMS, AT LEAST 90 DAYS ADVANCE NOTICE IS REQUIRED.

**ADDITIONAL WORK ZONE TRAFFIC CONTROL NOTES**

- ALL TRAFFIC CONTROL DEVICES, SIGNS, PAVEMENT MARKINGS, AND OPERATIONS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE ABOVE STANDARD DRAWINGS, THE APPLICABLE CDOT SPECIFICATIONS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND THE WORK ZONE TRAFFIC CONTROL HANDBOOK (W.A.T.C.H.) UNLESS OTHERWISE NOTED HEREIN. TRAFFIC CONTROL SHALL CONFORM TO WATCH HANDBOOK. ADDITIONAL SIGNING AND/OR TRAFFIC CONTROLS SUCH AS TURN PROHIBITIONS AND ADDITIONAL FLAGGERS MAY BE NECESSARY.
- TYPE III BARRICADE REQUIRED ONLY IF WORK ZONE IS LEFT UNATTENDED OVERNIGHT.
- WHEN WORKING WITHIN 5' OF ACTIVE TRAVEL LANE, THAT LANE MUST BE CLOSED TO TRAFFIC.
- WHEN EXCAVATING WITHIN 4' OF THE EDGE OF PAVEMENT, THE ADJACENT LANE SHOULD BE CLOSED TO TRAFFIC USING OTHER APPLICABLE DIAGRAMS UNLESS BRACING OR SHORING IS USED.
- CONTRACTOR SHALL NOTIFY CDOT'S OFFICE AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- FOR OPERATIONS REQUIRING LANE CLOSURE, DRUMS SHALL BE USED.
- FLASHING ARROW PANELS MAY BE USED FOR DAY AND NIGHT LANE CLOSURES.
- A HORIZONTAL ROW OF BULBS SHALL NOT BE CONSIDERED AN ACCEPTABLE CAUTION MODE OF DISPLAY.
- ARROW PANELS SHALL BE LOCATED ON THE SHOULDER (PAVED OR UNPAVED) EXCEPT FOR TEMPORARY RIGHT LANE CLOSURE WHERE NO SHOULDER EXISTS. WHEN THE ARROW PANEL MUST BE PLACED IN THE CLOSED LANE, IT SHALL BE LOCATED JUST BEHIND THE TAPER CREATED BY THE CHANNELIZATION DEVICES.
- THE MAXIMUM SPACING BETWEEN CHANNELIZATION DEVICES IN TAPER OR TRANSITION AREAS SHOULD BE EQUAL IN FEET TO THE POSTED SPEED LIMIT.
- THE MAXIMUM SPACING BETWEEN CHANNELIZATION DEVICES THROUGH THE WORK AREA SHALL BE APPROXIMATELY EQUAL IN FEET TO TWO (2) TIMES THE POSTED SPEED LIMIT.
- SIGN NO. W20 -7A (FLAGGER AHEAD) SHALL BE DISPLAYED ONLY WHEN FLAGGER IS PRESENT.
- FLAGGERS SHALL USE STOP/SLOW PADDLE TO DIRECT TRAFFIC (SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, SECTION 6F -2 THRU 6F-5).
- FOR TAPER LENGTHS (L) AND STOPPING SIGHT DISTANCE, SEE WATCH MANUAL.
- CONTRACTOR SHALL REMOVE ALL CONFLICTING PAVEMENT MARKINGS BY THE END OF EACH WORKDAY.
- ANY SIGNS PLACED ON PAVEMENT SHALL BE PORTABLE MOUNTED, UNLESS OTHERWISE DIRECTED BY THE PLANS OR THE ENGINEER.
- SEE THE TRAFFIC CONTROL PLAN FOR ADDITIONAL DETAILS OF PAVEMENT MARKINGS.
- AT THE END OF EACH WORKDAY, CONTRACTOR SHALL RE-GRADE OR SHAPE ANY CONSTRUCTION AREA ADJACENT TO AN OPEN TRAVEL LANE SUCH THAT THE ELEVATION OF THE CONSTRUCTION AREA IS NO MORE THAN 2" ABOVE OR BELOW THE ELEVATION OF THE ADJACENT TRAVEL WAY.
- ALL DIMENSIONING SHOWN ARE APPROXIMATE.
- TEMPORARY LANE CLOSURES FOR CONSTRUCTION OF WIDENING AREAS AND RESURFACING SHALL BE IN ACCORDANCE WITH WATCH MANUAL.
- PAINT MAY BE USED FOR TEMPORARY MARKINGS IN ACCORDANCE WITH CDOT STANDARDS.
- THIS TRAFFIC CONTROL PLAN IS TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING CONSTRUCTION AS REQUIRED BY CDOT.
- ANY EXISTING CONFLICTING MARKINGS SHALL BE REMOVED PRIOR TO SHIFTING TRAFFIC.
- EXISTING REGULATORY AND WARNING SIGNS WHICH CONFLICT WITH THE CONSTRUCTION SIGNAGE SHALL BE REMOVED DURING CONSTRUCTION AND SHALL BE REINSTALLED AS DIRECTED BY CDOT.
- THE SPACING OF SIGNS AND CHANNELIZATION DEVICES MAY BE ADJUSTED TO FIT THE GEOMETRIC CONDITIONS ENCOUNTERED, SUCH AS DRIVEWAYS, INTERSECTING ROADWAYS, VERTICAL AND HORIZONTAL ALIGNMENT, ETC., SUBJECT TO CDOT APPROVAL.
- A LONG-TERM BUT SPORADIC-USE WARNING SIGN, SUCH AS THE FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED, PROVIDED THE SIGN FACE IS FULLY COVERED.
- TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELLED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY BARRIERS. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED, WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS THIRTY (30) FOOT SETBACK, THE ENGINEER SHALL APPROVE ALTERNATE LOCATIONS.
- THE CONTRACTOR WILL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC, UNLESS PROTECTED BY BARRIERS INSTALLED FOR OTHER PURPOSES. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO BE PARKED WITHIN THIRTY (30) FEET OF AN OPEN TRAVEL LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS THIRTY (30) FOOT SETBACK, THE ENGINEER SHALL APPROVE ALTERNATE LOCATIONS.
- CONTRACTOR SHALL WORK ON ONLY ONE SIDE OF THE ROADWAY AT A TIME UNLESS APPROVED IN WRITING BY CDOT. CONTRACTOR SHALL COORDINATE ALL SEQUENCE OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC OPERATIONS WITH THE CHARLOTTE DEPARTMENT OF TRANSPORTATION (CDOT). MAINTENANCE OF TRAFFIC OPERATIONS IN THIS AREA IS SUBJECT TO REVIEW AND APPROVAL BY CDOT.
- CONTRACTOR SHALL REMOVE, SUPPLEMENT AND/OR ADJUST TRAFFIC CONTROL SIGNS AND DEVICES AS NECESSARY AND AS DIRECTED BY THE ENGINEER AND/OR CDOT.
- CONTRACTOR SHALL COORDINATE ALL WORK AND MAINTENANCE OF TRAFFIC WITH ANY AND ALL ADJOINING CONTRACTORS, PROJECTS, AND/OR UTILITIES.
- CONTRACTOR SHALL TAKE ADEQUATE INGRESS AND EGRESS TO ALL PROPERTIES IN THE PROJECT AREA AT ALL TIMES.
- CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT CONSTRUCTION DEBRIS, DIRT, MUD, ETC., IS NOT TRACKED ONTO THE EXISTING TRAVEL WAY, OR ONTO ANY LANE OPEN TO TRAFFIC. SHOULD DEBRIS, MUD, ETC., ACCUMULATE ON AN OPEN TRAVEL WAY, CONTRACTOR SHALL IMMEDIATELY TAKE STEPS TO REMOVE SAID DEBRIS, MUD, ETC.
- CONTRACTOR SHALL ROUTINELY INSPECT ALL TRAFFIC CONTROL DEVICES, SIGNS, MARKINGS, ETC., AND REPAIR OR REPLACE AS NECESSARY.
- CONSTRUCTION SIGNS SHALL BE FURNISHED BY THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING AND MAINTAINING SIGNS IN ACCORDANCE WITH CDOT SPECIFICATIONS.

**REVISIONS:**

No.	Date	By	Description
1.	8/31/15	MEA	ADDED SHT L-500



**COTSWOLD SPRINGS**  
**Apartments**  
**Main Street Properties & Development**  
 Charlotte, NC

**TRAFFIC CONTROL PLAN**



Project Manager: SSW

Drawn By: MEA

Checked By:

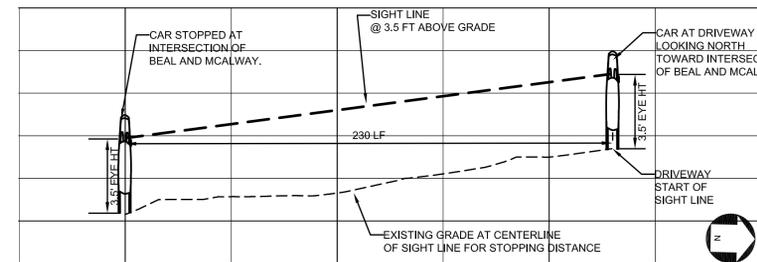
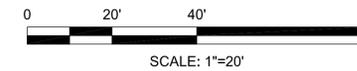
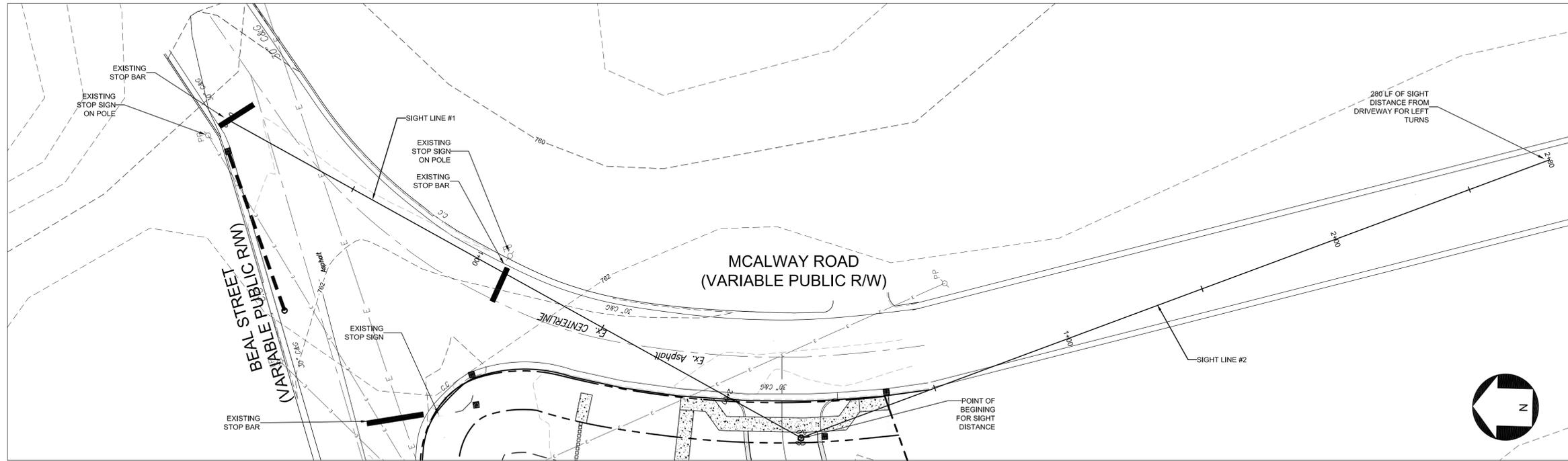
Date: 8.31.15

Project Number: 13053

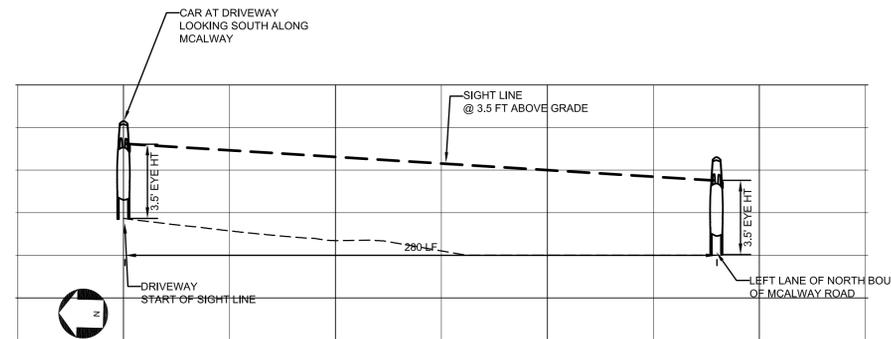
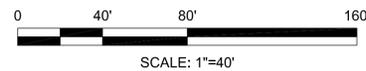
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**L-500**

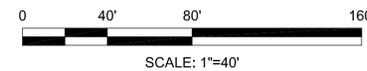
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INTERSECTION SIGHT LINE #1  
FROM DRIVEWAY ENTRANCE AT MCALWAY  
LOOKING NORTH



INTERSECTION SIGHT LINE #2  
FROM DRIVEWAY ENTRANCE AT MCALWAY  
LOOKING SOUTH ALONG MCALWAY



**COTSWOLD SPRINGS**  
Apartments  
Main Street Properties & Development  
Charlotte, NC

**INTERSECTION  
SIGHT  
DISTANCE**

seals



Project Manager: SSW  
Drawn By: MEA  
Checked By:  
Date: 8.31.15  
Project Number: 13053

Sheet Number:

**L-501**

SHEET # 14 OF 14

No.	Date	By	Description
1.	7/13/15	MEA	PER CITY REVIEW COMMENTS
1.	8/31/15	MEA	PER CITY REVIEW COMMENTS, ADDED SHEET L-501