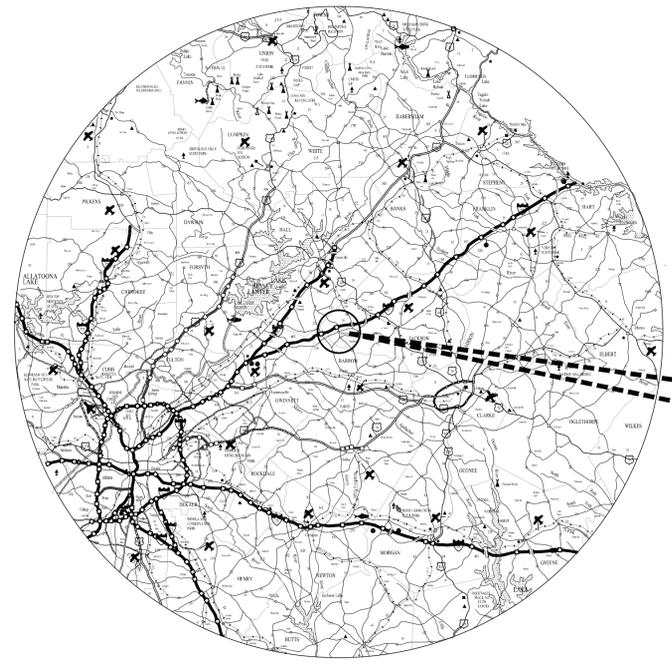
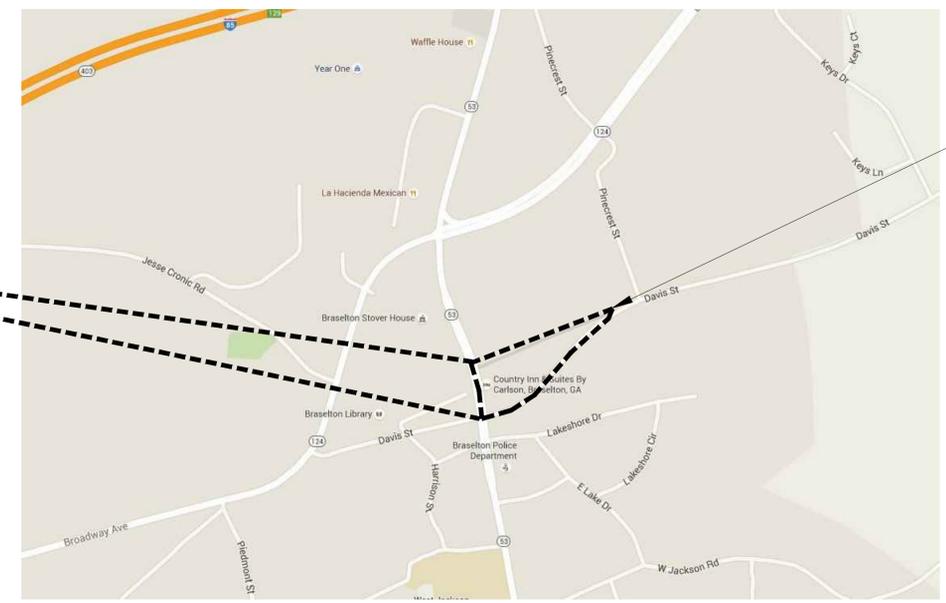


TOWN GREEN PARK

100% CONSTRUCTION DOCUMENTS BID SET



VICINITY MAP N.T.S.



LOCATION MAP N.T.S.

PROJECT LOCATION

PREPARED FOR:



4982 HIGHWAY 53
BRASELTON, GEORGIA 30517

Prepared By:



1255 CANTON STREET
SUITE G
ROSWELL, GA 30075
PHONE: 678.461.3511

SHEET INDEX

C-1.0	COVER SHEET	C-100	STORM DRAINAGE PLAN
C-1.1	TOPOGRAPHIC SURVEY	C-101	STORM DRAINAGE DETAILS
C-1.2	CIVIL PLAN	EC 1.0	EROSION CONTROL NOTES 1
C-1.3	CIVIL DETAILS	EC 1.1	EROSION CONTROL NOTES 2
C-1.4	CIVIL DETAILS	EC 1.2	EROSION CONTROL NOTES 3
C1	WATER & SEWER LAYOUT	EC 1.3	EROSION CONTROL NOTES 4
G2.0	OVERALL GRADING PLAN	EC 1.4	EROSION CONTROL PLANS 1 (INITIAL)
G2.1	EVENT PLAZA & PARKING GRADING PLAN	EC 1.5	EROSION CONTROL PLANS 2 (INTERMEDIATE)
G2.2	AMPHITHEATER / LAWN GRADING PLAN	EC 1.6	EROSION CONTROL PLANS 3 (FINAL)
G2.3	GATEWAY GRADING PLAN	EC 1.7	EROSION CONTROL DETAILS 1
E1.0	ELECTRICAL LEGEND, NOTES & DETAILS	EC 1.8	EROSION CONTROL DETAILS 2
E2.0	ELECTRICAL SITE PLAN	EC 1.9	EROSION CONTROL DETAILS 3
E3.0	ELECTRICAL DETAILS	EC 1.10	INLET SEDIMENT TRAP CALCULATIONS
E4.0	ELECTRICAL LEGEND, NOTES & DETAILS	EC 1.11	DRAINAGE AREA MAP
L2.0	OVERALL LAYOUT PLAN		
L2.1	EVENT PLAZA & PARKING LAYOUT PLAN		
L2.2	AMPHITHEATER / LAWN LAYOUT PLAN		
L2.3	GATEWAY LAYOUT PLAN		
L3.0 - L3.4	HARDSCAPE DETAILS		
L4.0	OVERALL LANDSCAPE PLAN		
L4.1	EVENT PLAZA & PARKING LANDSCAPE PLAN		
L4.2	AMPHITHEATER / LAWN LANDSCAPE PLAN		
L4.3	GATEWAY LANDSCAPE PLAN		
L4.4	LANDSCAPE DETAILS & NOTES		
IR1.0	OVERALL IRRIGATION MAINLINE & SLEEVING PLAN		
IR1.1	EVENT PLAZA & PARKING IRRIGATION PLAN		
IR1.2	AMPHITHEATER / LAWN IRRIGATION PLAN		
IR1.3	GATEWAY IRRIGATION PLAN		
IR1.4	IRRIGATION DETAILS & NOTES		

100% CONSTRUCTION DOCUMENTS BID SET
JULY 20, 2015

24-HOUR CONTACT
CONTACT: JENNIFER DEES
(706) 654-5720

In Association With:



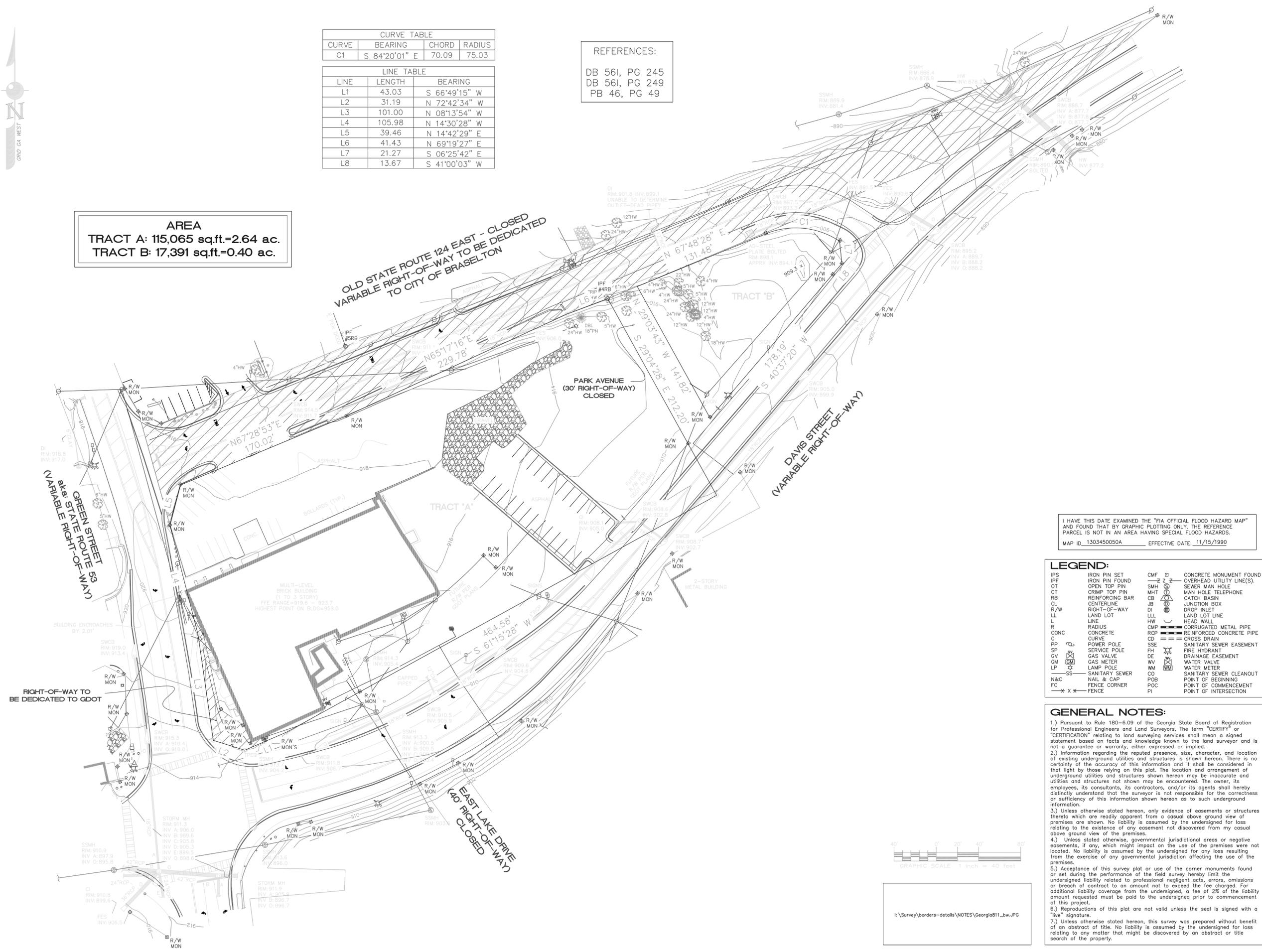


CURVE TABLE			
CURVE	BEARING	CHORD	RADIUS
C1	S 84°20'01" E	70.09	75.03

LINE TABLE		
LINE	LENGTH	BEARING
L1	43.03	S 66°49'15" W
L2	31.19	N 72°42'34" W
L3	101.00	N 08°13'54" W
L4	105.98	N 14°30'28" W
L5	39.46	N 14°42'29" E
L6	41.43	N 69°19'27" E
L7	21.27	S 06°25'42" E
L8	13.67	S 41°00'03" W

REFERENCES:
 DB 561, PG 245
 DB 561, PG 249
 PB 46, PG 49

AREA
 TRACT A: 115,065 sq.ft.=2.64 ac.
 TRACT B: 17,391 sq.ft.=0.40 ac.

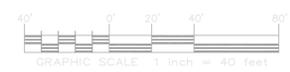


I HAVE THIS DATE EXAMINED THE "FIA OFFICIAL FLOOD HAZARD MAP" AND FOUND THAT BY GRAPHIC PLOTTING ONLY, THE REFERENCE PARCEL IS NOT IN AN AREA HAVING SPECIAL FLOOD HAZARDS.
 MAP ID: 1303450050A EFFECTIVE DATE: 11/15/1990

LEGEND:

IPS	IRON PIN SET	CMF	CONCRETE MONUMENT FOUND
IPF	IRON PIN FOUND	— z z —	OVERHEAD UTILITY LINE(S)
OT	OPEN TOP PIN	SMH	SEWER MAN HOLE
CT	CRIMP TOP PIN	MHT	MAN HOLE TELEPHONE
RB	REINFORCING BAR	CB	CATCH BASIN
CL	CENTERLINE	JB	JUNCTION BOX
R/W	RIGHT-OF-WAY	DI	DROP INLET
LL	LAND LOT	LLL	LAND LOT LINE
L	LINE	HW	HEAD WALL
R	RADIUS	OMP	CORRUGATED METAL PIPE
CONC	CONCRETE	RCP	REINFORCED CONCRETE PIPE
C	CURVE	CD	CROSS DRAIN
PP	POWER POLE	SSE	SANITARY SEWER EASEMENT
SP	SERVICE POLE	FH	FIRE HYDRANT
GM	GAS METER	DE	DRAINAGE EASEMENT
LP	LAMP POLE	WV	WATER VALVE
N&C	NAIL & CAP	WM	WATER METER
FC	FENCE CORNER	CO	SANITARY SEWER CLEANOUT
X	FENCE	POB	POINT OF BEGINNING
		POC	POINT OF COMMENCEMENT
		PI	POINT OF INTERSECTION

- GENERAL NOTES:**
- Pursuant to Rule 180-6.09 of the Georgia State Board of Registration for Professional Engineers and Land Surveyors, the term "CERTIFY" or "CERTIFICATION" relating to land surveying services shall mean a signed statement based on facts and knowledge known to the land surveyor and is not a guarantee or warranty, either expressed or implied.
 - Information regarding the reputed presence, size, character, and location of existing underground utilities and structures is shown hereon. There is no certainty of the accuracy of this information and it shall be considered in that light by those relying on this plot. The location and arrangement of underground utilities and structures shown hereon may be inaccurate and utilities and structures not shown may be encountered. The owner, its employees, its consultants, its contractors, and/or its agents shall hereby distinctly understand that the surveyor is not responsible for the correctness or sufficiency of this information shown hereon as to such underground information.
 - Unless otherwise stated hereon, only evidence of easements or structures thereto which are readily apparent from a casual above ground view of premises are shown. No liability is assumed by the undersigned for loss relating to the existence of any easement not discovered from my casual above ground view of the premises.
 - Unless stated otherwise, governmental jurisdictional areas or negative easements, if any, which might impact on the use of the premises were not located. No liability is assumed by the undersigned for any loss resulting from the exercise of any governmental jurisdiction affecting the use of the premises.
 - Acceptance of this survey plot or use of the corner monuments found or set during the performance of the field survey hereby limit the undersigned liability related to professional negligent acts, errors, omissions or breach of contract to an amount not to exceed the fee charged. For additional liability coverage from the undersigned, a fee of 2% of the liability amount requested must be paid to the undersigned prior to commencement of this project.
 - Reproductions of this plot are not valid unless the seal is signed with a "live" signature.
 - Unless otherwise stated hereon, this survey was prepared without benefit of an abstract of title. No liability is assumed by the undersigned for loss relating to any matter that might be discovered by an abstract or title search of the property.



I:\Survey\borders-details\NOTES\Georgia811_bw.JPG

No.	REVISION	BY:	DATE:

SEI
 SOUTHEASTERN
 ENGINEERING, INC.
 2470 Sandy Plains
 Road Marietta,
 Georgia 30066
 Tel: 770-321-3939
 www.seengineering.com

PLAT INFORMATION: SCALE: 1"=40' DATE: 7/30/12
 THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE OF 1 FOOT PER 1000 FEET AND AN ANGULAR ERROR OF 15 SECONDS PER FOOT. THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND FOUND TO BE ACCURATE TO 1 FOOT IN 1000 FEET. AN ELECTRONIC TOTAL STATION WAS USED TO OBTAIN THE INFORMATION USED IN THE PREPARATION OF THIS PLAT. THIS PLAT WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, OR ANY UNNAMED PERSON, PERSONS OR ENTITY, WITHOUT EXPRESS RECERTIFICATION BY THE SURVEYOR NAMED SAID PERSON, PERSONS OR ENTITY. THE MEMBER OF THE SURVEYING AND MAPPING SOCIETY OF GEORGIA (SAMSOG) ALL MATTERS OF TITLE ARE EXCEPTED. © 2012
 SURVEYED: JH DRAFTED: GAK CHECKED: CAA

BOUNDARY + TOPOGRAPHIC
 SURVEY FOR:
**MULKEY ENGINEERS
 AND CONSULTANTS**
 LOCATED IN THE
 1765TH GMD, TOWN OF
 BRASELTON,
 JACKSON COUNTY, GEORGIA



consultant

seal



Town of Braselton
4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
www.braselton.net

TOWN GREEN PARK
City of Braselton, Georgia

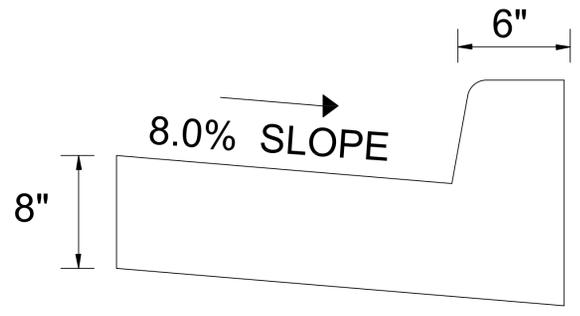
revisions
NO. DATE DESCRIPTION

date 10-13-15
project no. 2012039.00
drawn by
checked by
sheet title

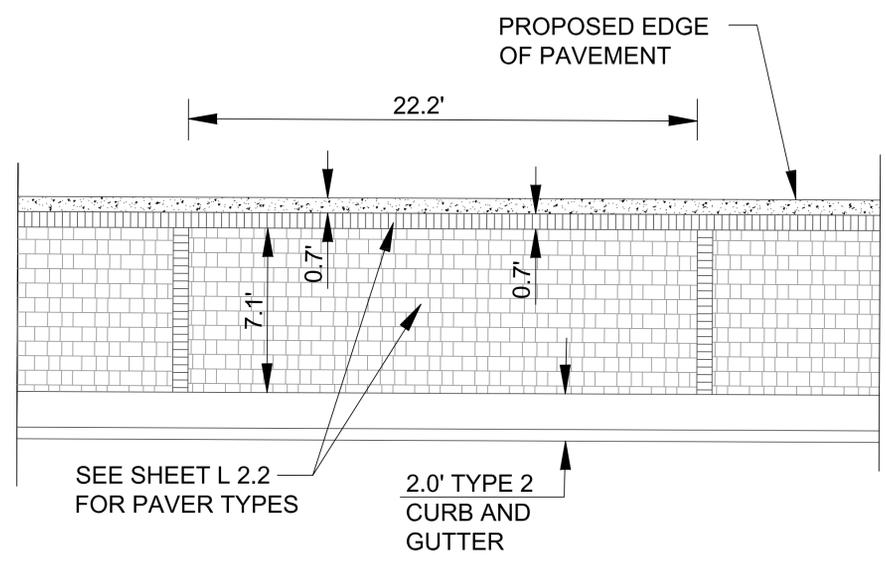
Civil Details

sheet

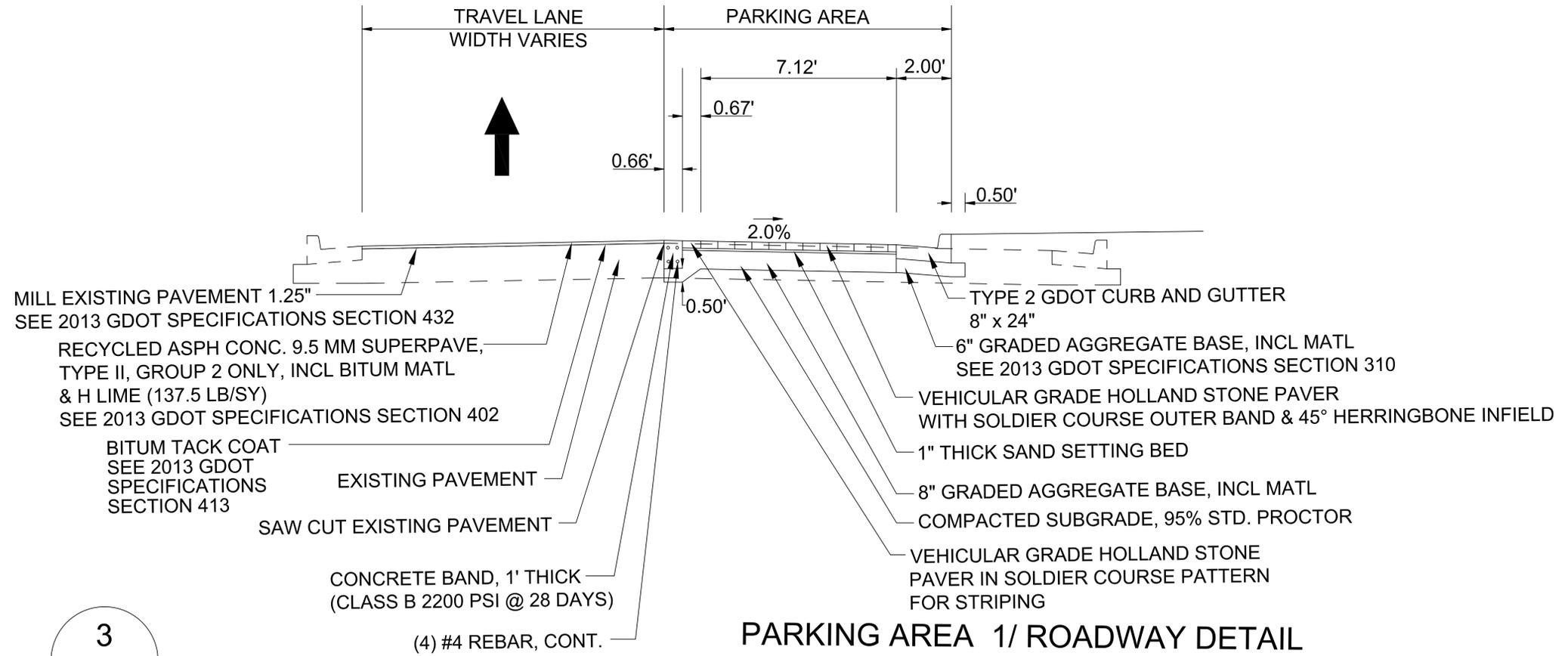
C 1.1



1
C 1.1
GDOT TYPE 2 CURB AND GUTTER - 8" x 24"
* 8" X 30" CURB AND GUTTER ALONG DAVIS STREET



2
C 1.1
PARKING AREA 1



3
C 1.1

PARKING AREA 1/ ROADWAY DETAIL

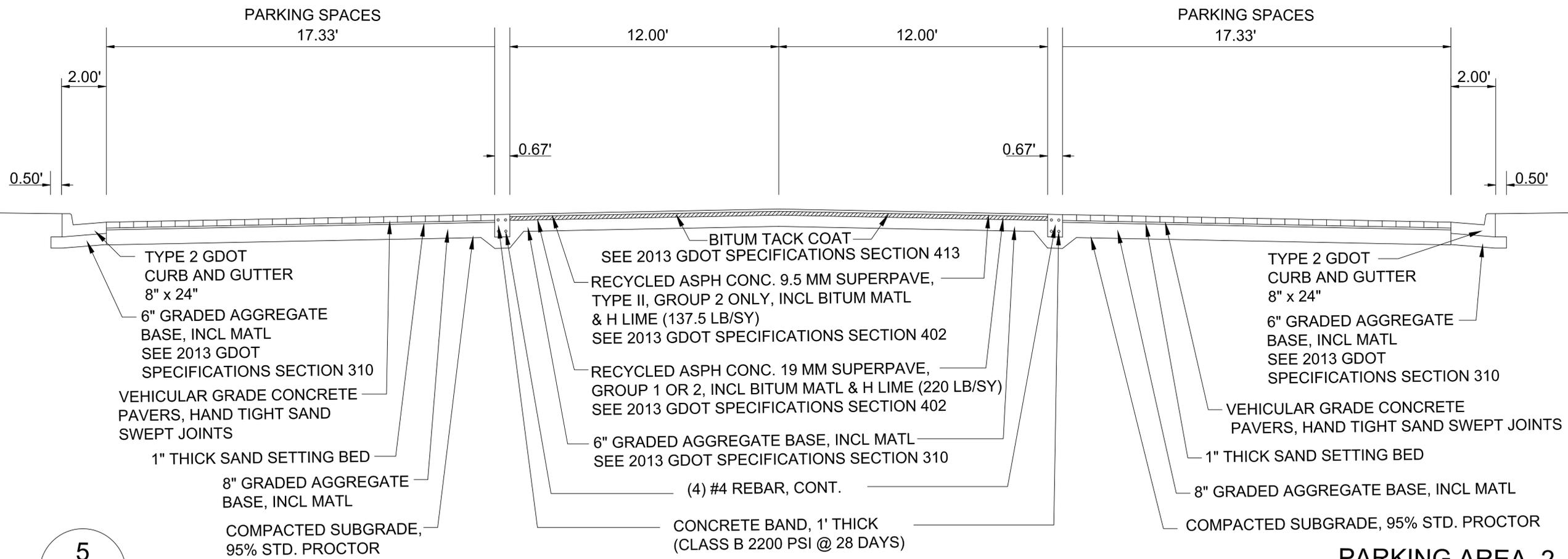
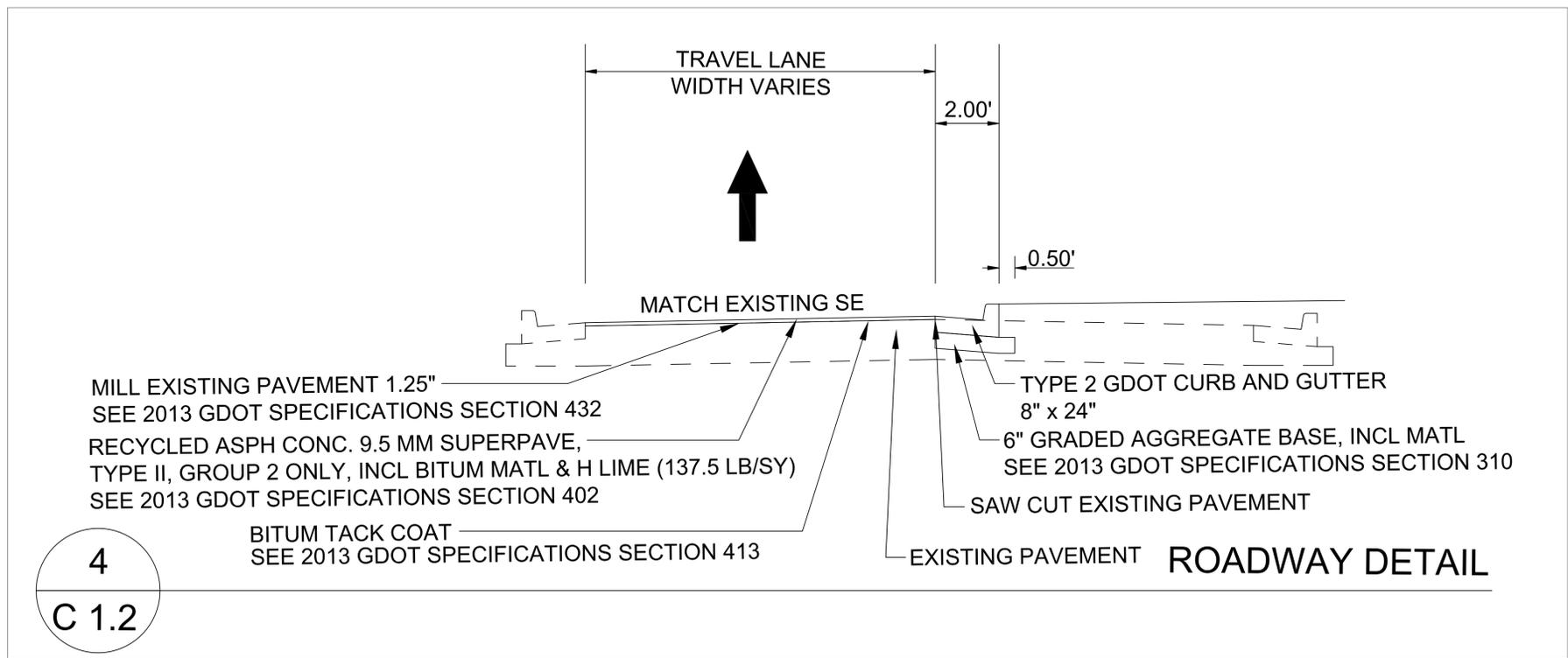
NOT TO SCALE

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TOWN GREEN PARK
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PARKING AREA 2

NOT TO SCALE

revisions		
NO.	DATE	DESCRIPTION

date 10-13-15
project no. 2012039.00
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checked by
sheet title

Civil Details

sheet

C 1.2

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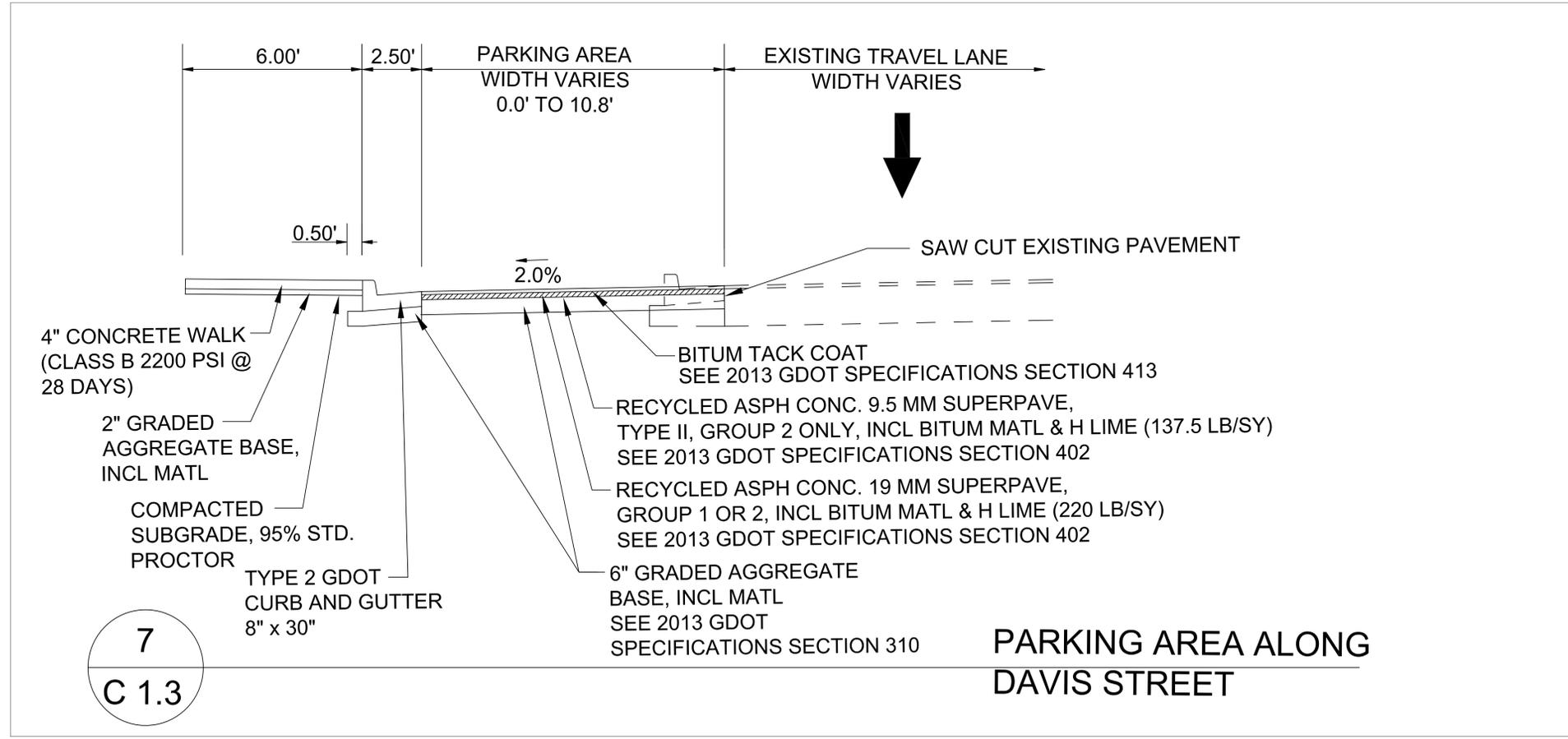
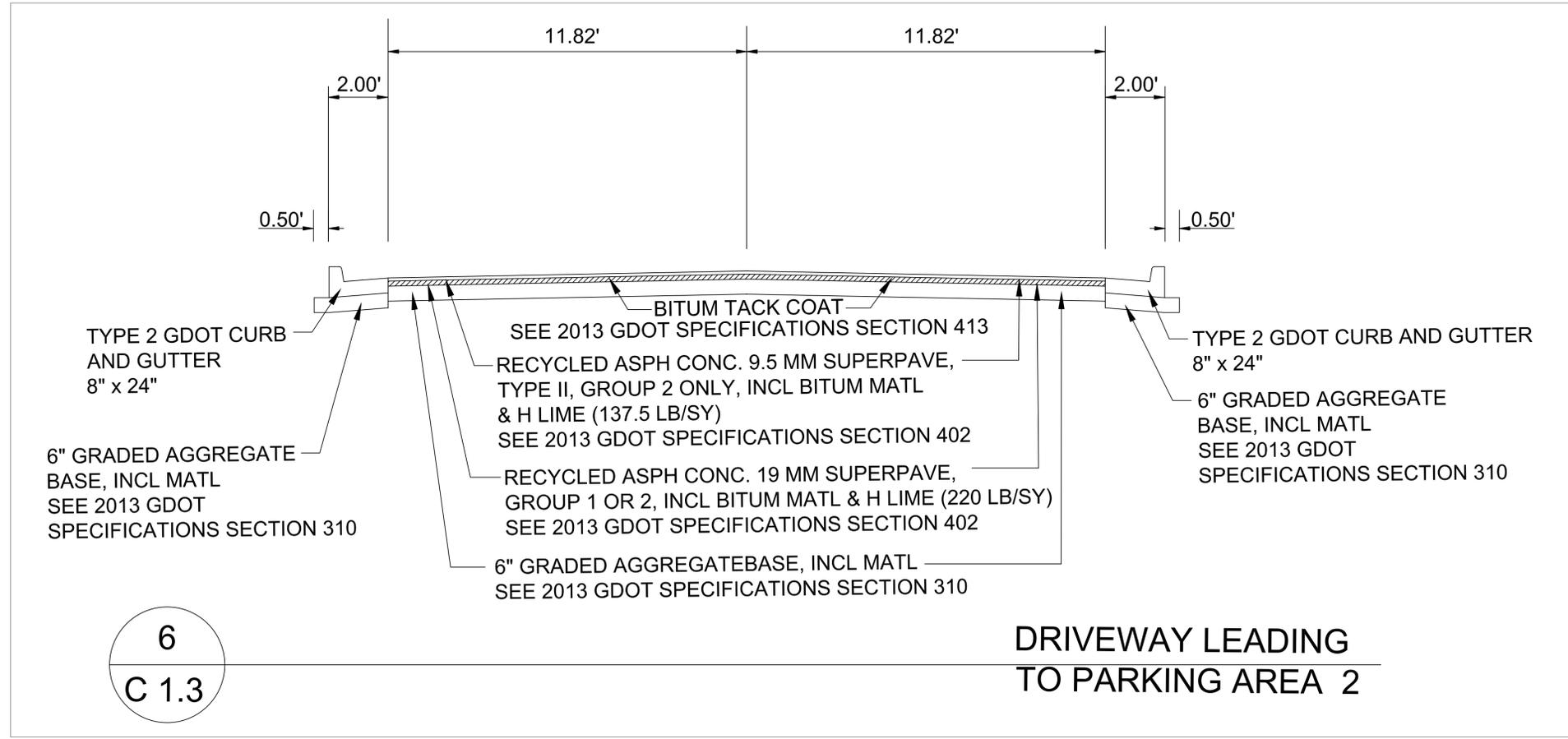
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NO.	DATE	DESCRIPTION

date 10-13-15
project no. 2012039.00
drawn by
checked by
sheet title

Civil Details

sheet

C 1.3



NOT TO SCALE

consultant

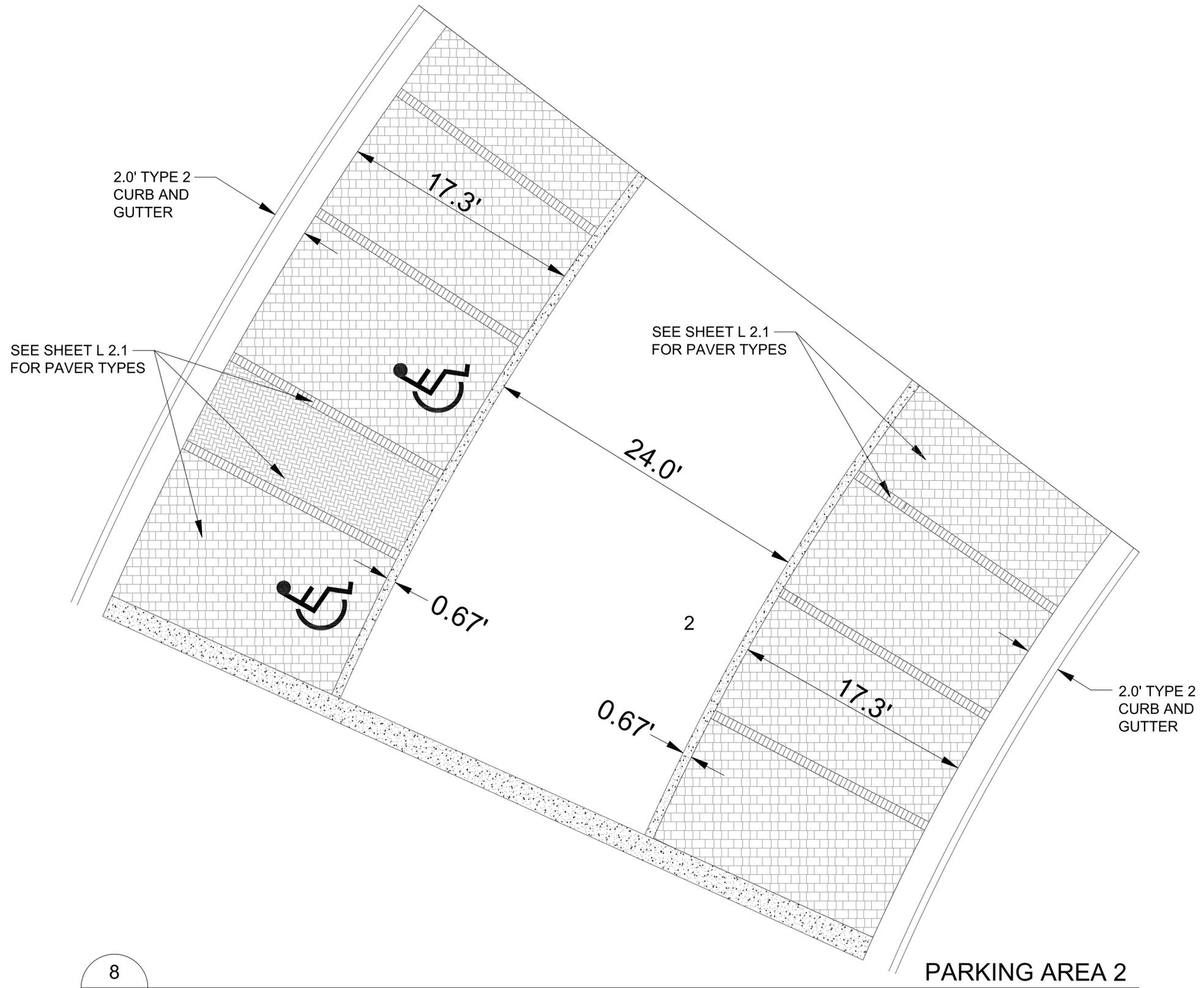
seal



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TOWN GREEN PARK
City of Braselton, Georgia



8
C 1.3

PARKING AREA 2

NOT TO SCALE

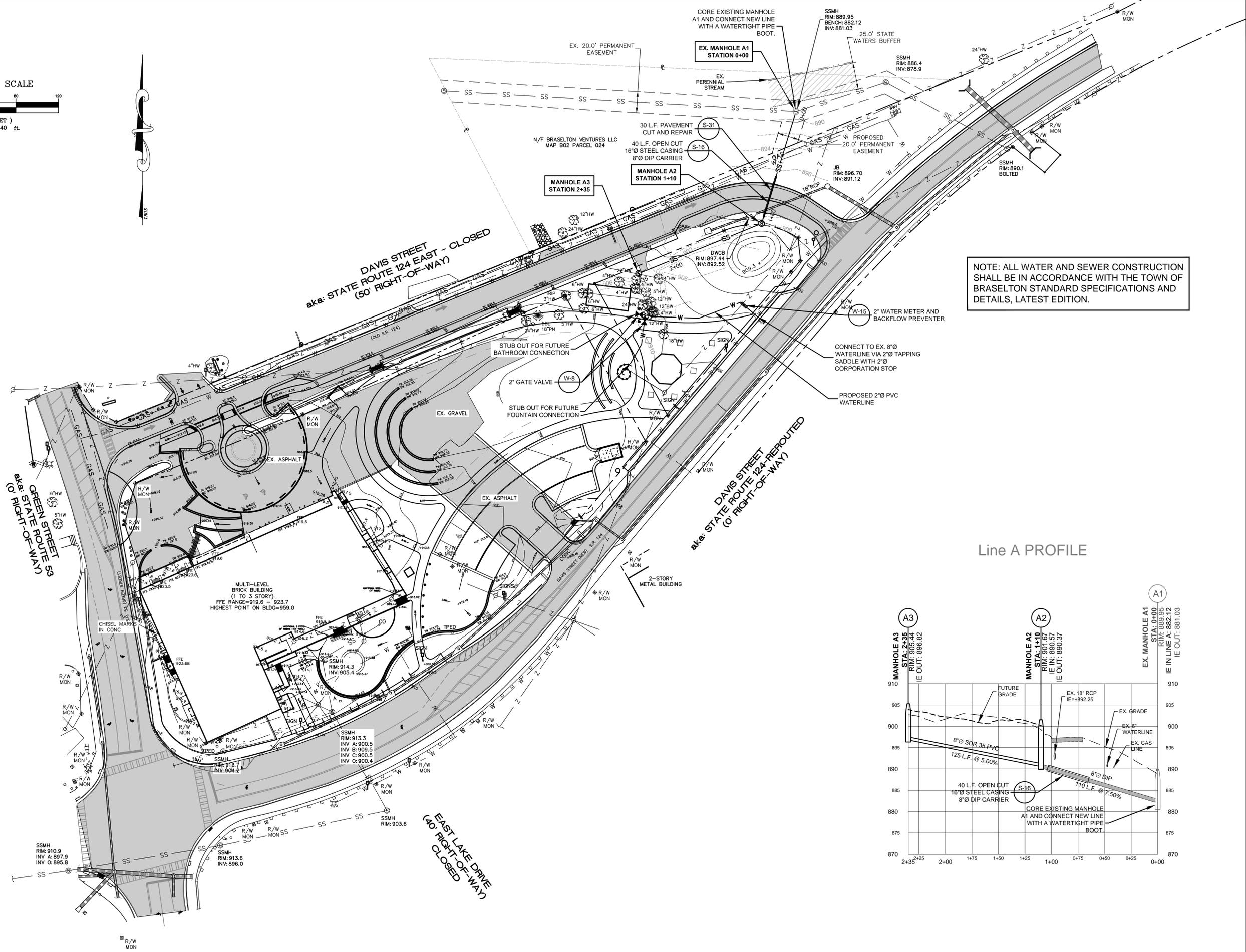
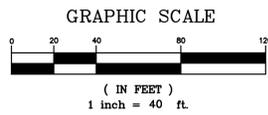
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project no. 2012039.00
drawn by
checked by
sheet title

Civil Details

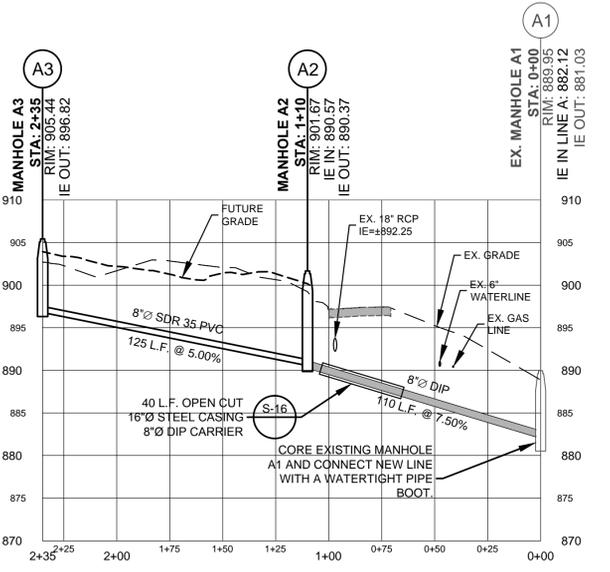
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C 1.4



NOTE: ALL WATER AND SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF BRASELTON STANDARD SPECIFICATIONS AND DETAILS, LATEST EDITION.

Line A PROFILE



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 303 SWANSON DRIVE, LAWRENCEVILLE, GA 30043
 PHONE 770-962-1387 FAX 770-962-8010
 WWW.EMINC.OZ

DATE	NO.	DESCRIPTION

EMI ENGINEERING MANAGEMENT
 Experience • Trust • Solutions
 303 Swanson Drive, Lawrenceville, GA 30043
 phone 770-962-1387 fax # 770-962-8010
 www.eminc.biz

BRASELTON TOWN GREEN WATER AND SEWER SERVICE CONNECTION, GEORGIA

DESIGN BY	GKB	CHECKED BY	HMM
DRAWN BY	GKB	WATER AND SEWER LAYOUT	
SHEET TITLE			

STAMP

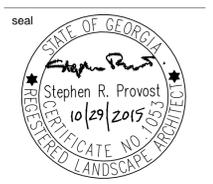
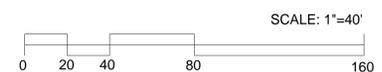
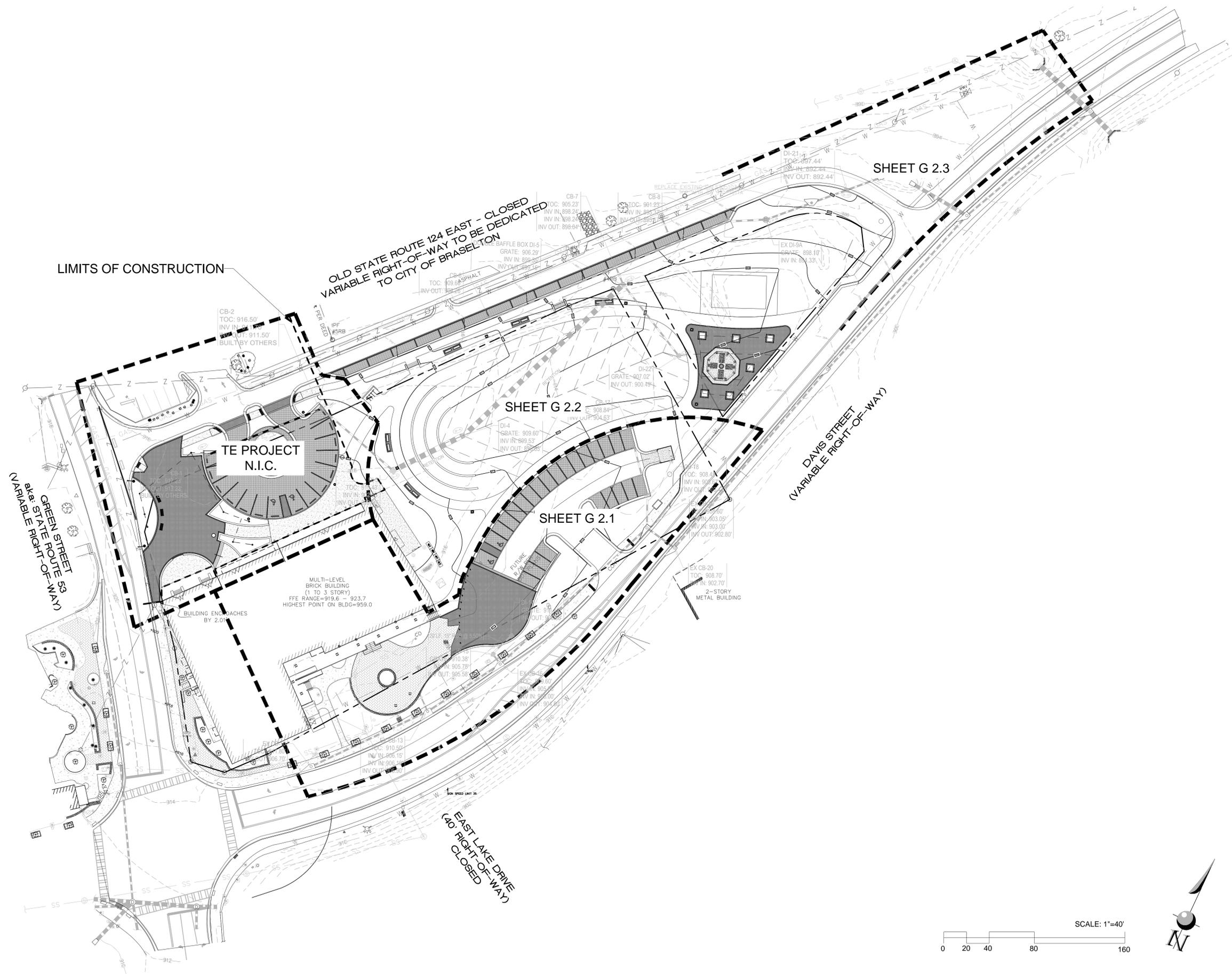
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 JOB NUMBER
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 FILE LOCATION

C1

REVISION

PROJECT

SHEET



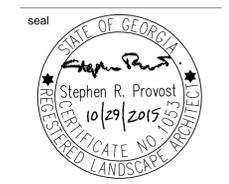
TOWN GREEN PARK
 Town of Braselton, Georgia

revisions	NO.	DATE	DESCRIPTION

date	07/20/2015
project no.	12020.0
drawn by	RKC
checked by	SRP

sheet title
Overall Grading Plan

sheet
G 2.0



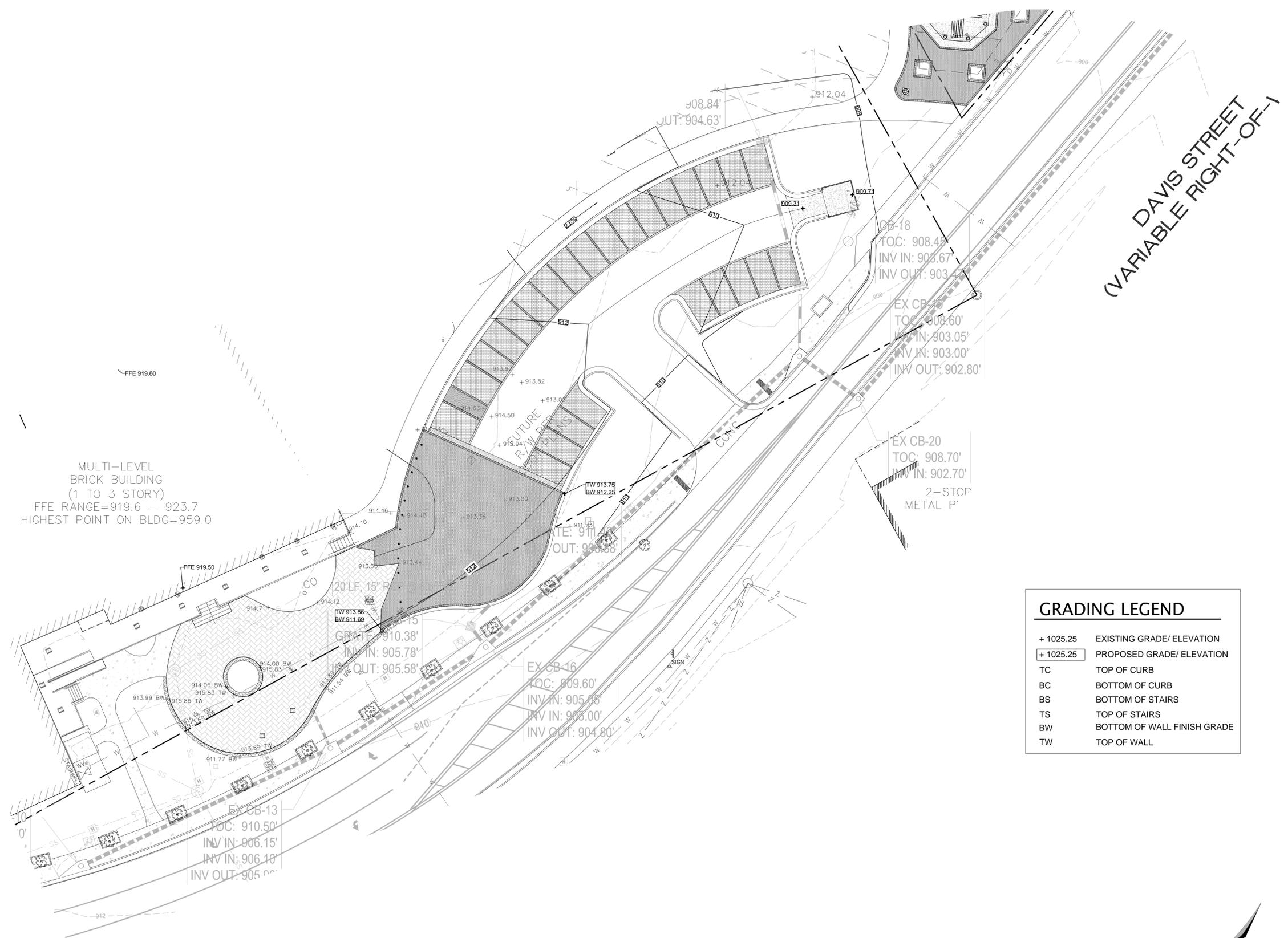
client



Town of Braselton

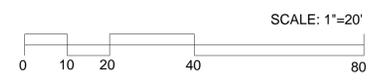
4982 Highway 53
 Braselton, Georgia 30517
 p 706.654.3915
 f 706.654.3109
 www.braselton.net

TOWN GREEN PARK
 Town of Braselton, Georgia



GRADING LEGEND

+ 1025.25	EXISTING GRADE/ ELEVATION
+ 1025.25	PROPOSED GRADE/ ELEVATION
TC	TOP OF CURB
BC	BOTTOM OF CURB
BS	BOTTOM OF STAIRS
TS	TOP OF STAIRS
BW	BOTTOM OF WALL FINISH GRADE
TW	TOP OF WALL



MULTI-LEVEL
 BRICK BUILDING
 (1 TO 3 STORY)
 FFE RANGE=919.6 - 923.7
 HIGHEST POINT ON BLDG=959.0

PROACHES
 1'

revisions

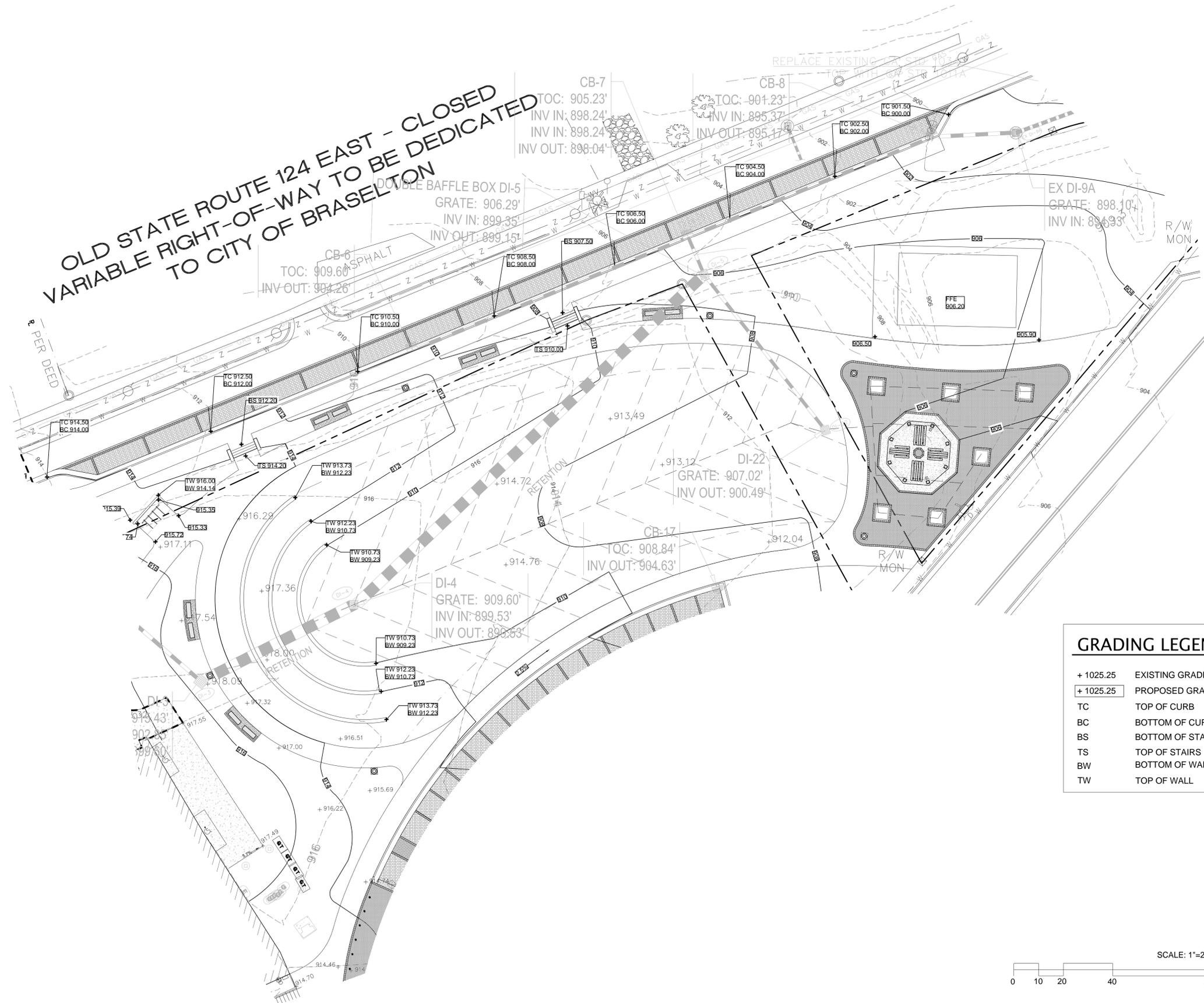
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date 07/20/2015
 project no. 12020.0
 drawn by RKC
 checked by SRP

sheet title
Event Plaza & Parking Grading Plan

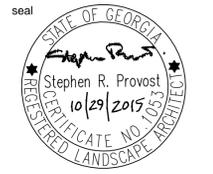
sheet
G 2.1

**OLD STATE ROUTE 124 EAST - CLOSED
VARIABLE RIGHT-OF-WAY TO BE DEDICATED
TO CITY OF BRASELTON**



GRADING LEGEND

+ 1025.25	EXISTING GRADE/ ELEVATION
+ 1025.25	PROPOSED GRADE/ ELEVATION
TC	TOP OF CURB
BC	BOTTOM OF CURB
BS	BOTTOM OF STAIRS
TS	TOP OF STAIRS
BW	BOTTOM OF WALL FINISH GRADE
TW	TOP OF WALL



client



Town of Braselton

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TOWN GREEN PARK
Town of Braselton, Georgia

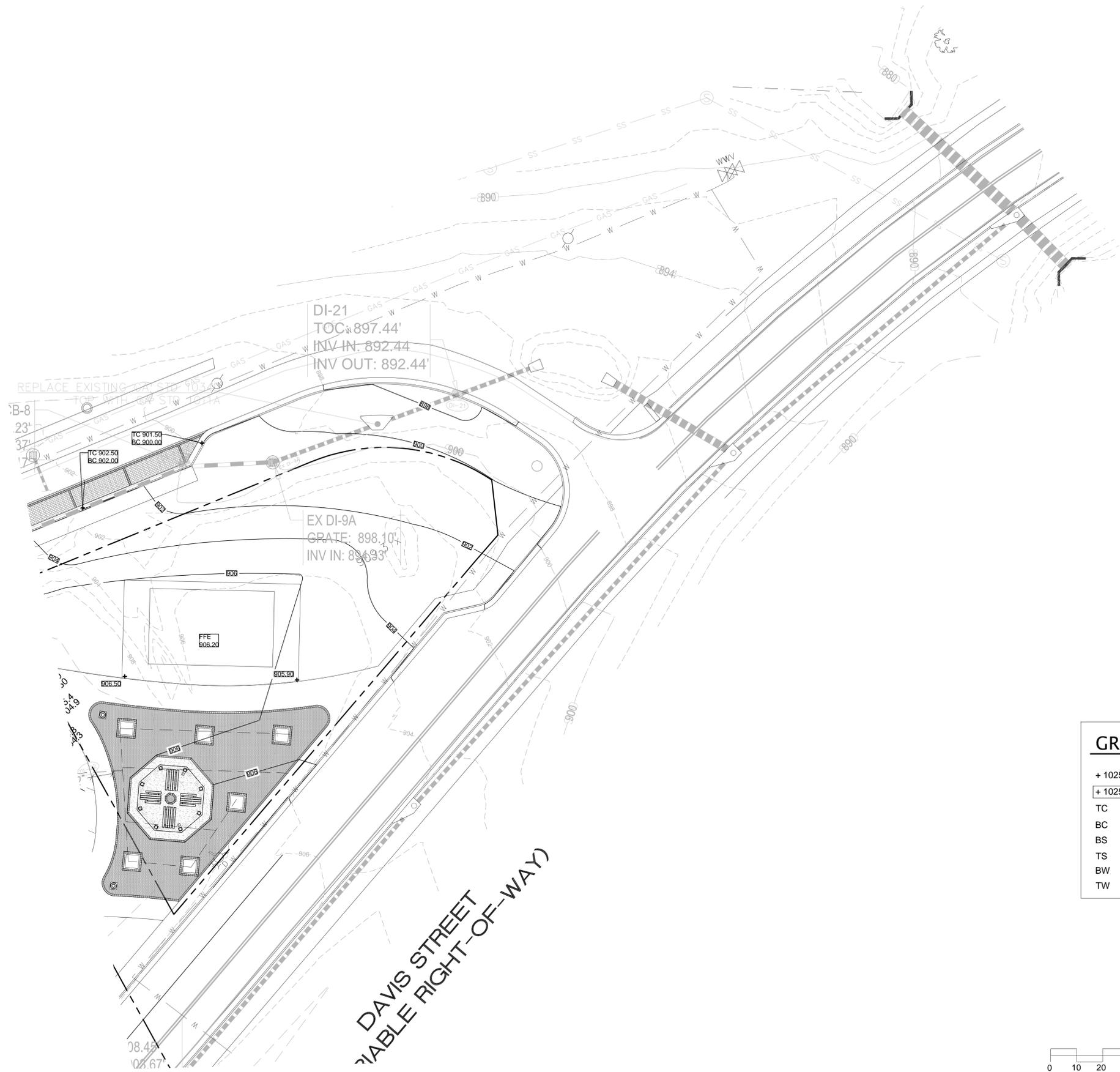
revisions

NO.	DATE	DESCRIPTION

date	07/20/2015
project no.	12020.0
drawn by	RKC
checked by	SRP

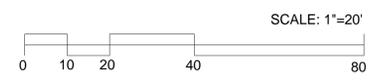
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Lawn
Grading Plan**

sheet
G 2.2

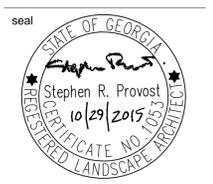


GRADING LEGEND

+ 1025.25	EXISTING GRADE/ ELEVATION
+ 1025.25	PROPOSED GRADE/ ELEVATION
TC	TOP OF CURB
BC	BOTTOM OF CURB
BS	BOTTOM OF STAIRS
TS	TOP OF STAIRS
BW	BOTTOM OF WALL FINISH GRADE
TW	TOP OF WALL



DAVIS STREET
(ABLE RIGHT-OF-WAY)



client



Town of Braselton

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TOWN GREEN PARK
Town of Braselton, Georgia

revisions

NO.	DATE	DESCRIPTION

date 07/20/2015
project no. 12020.0
drawn by RKC
checked by SRP

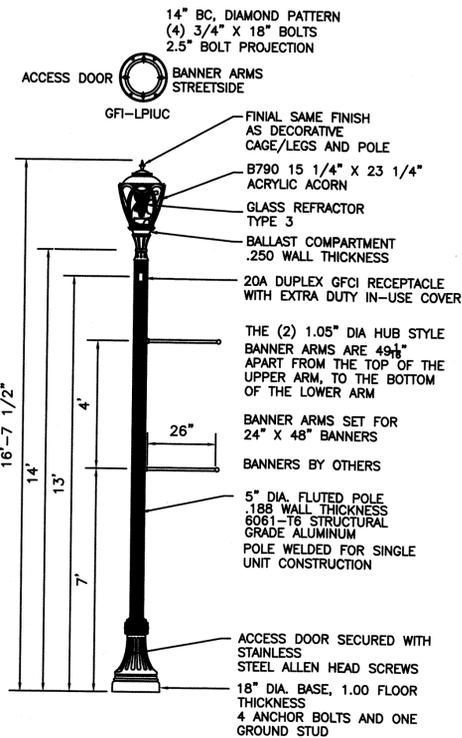
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**Gateway
Grading Plan**

sheet
G 2.3

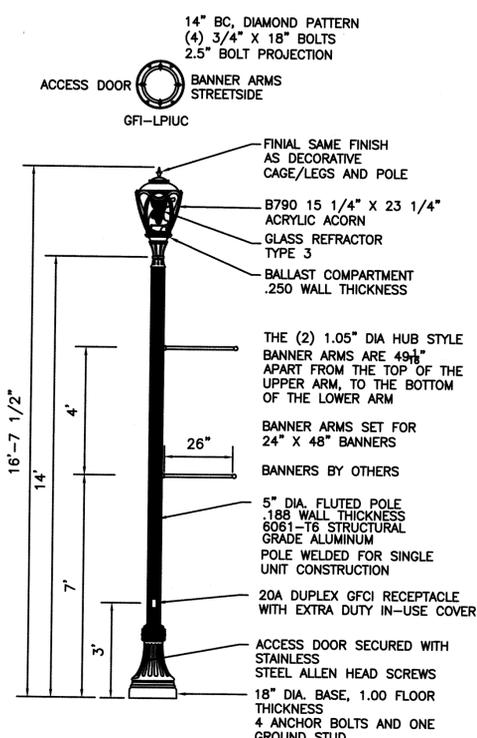


client
City of Braselton
 4982 Highway 53
 Braselton, Georgia 30517
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 f 706.654.3109
 www.braselton.net

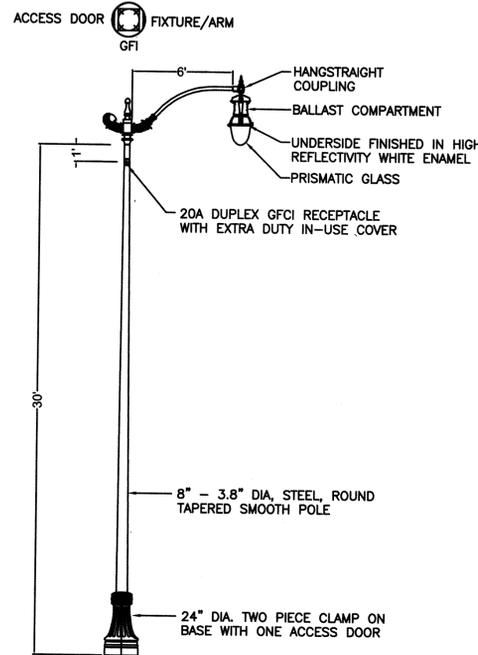
TOWN GREEN PARK
 City of Braselton, Georgia



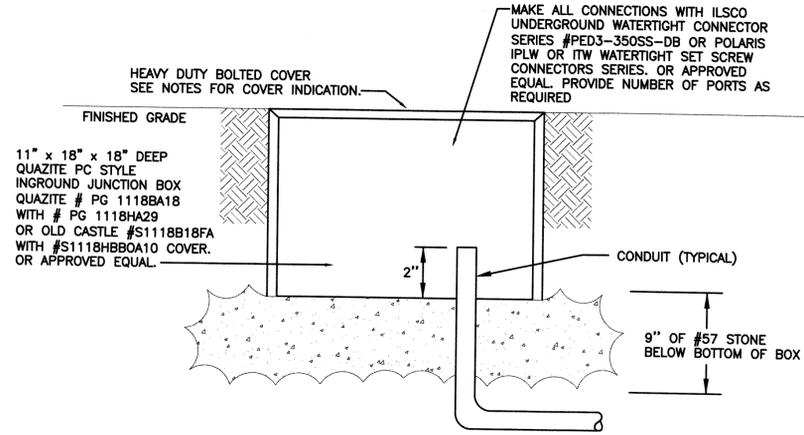
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 E3.0 SCALE: NONE



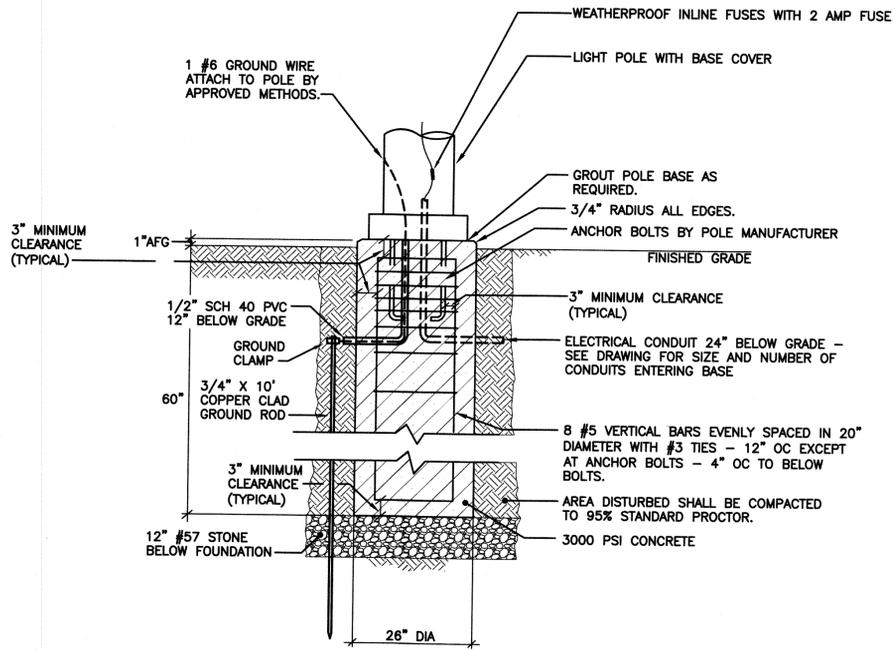
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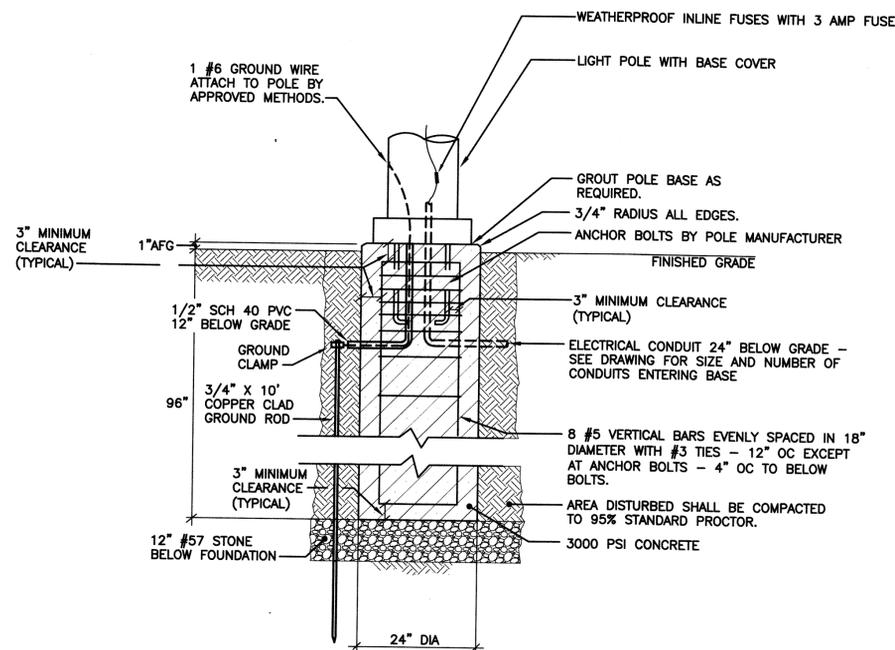
3 FIXTURE 'C' DETAIL
 E3.0 SCALE: NONE



4 TYPICAL IN GROUND JUNCTION BOX INSTALLATION DETAIL
 E3.0 SCALE: N.T.S.



5 FIXTURE TYPE 'A' OR 'B' POLE FOUNDATION DETAIL
 E3.0 SCALE: N.T.S.



6 FIXTURE TYPE 'C' POLE FOUNDATION DETAIL
 E3.0 SCALE: N.T.S.

W&A PROJECT NUMBER - 14059

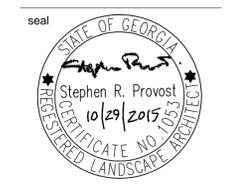
2300 Lake Park Dr, Suite 250
 Smyrna, Georgia 30080
 Voice 770-458-3005 Fax 770-458-8388
 PLOT SCALE: 1 = 1

revisions	NO.	DATE	DESCRIPTION

date 07.06.2015
 project no. 12020.0
 drawn by AAP
 checked by WBMW

sheet title
Electrical DETAILS

sheet
E 3.0



client



Town of Braselton

4982 Highway 53
 Braselton, Georgia 30517
 p 706.654.3915
 f 706.654.3109
 www.braselton.net

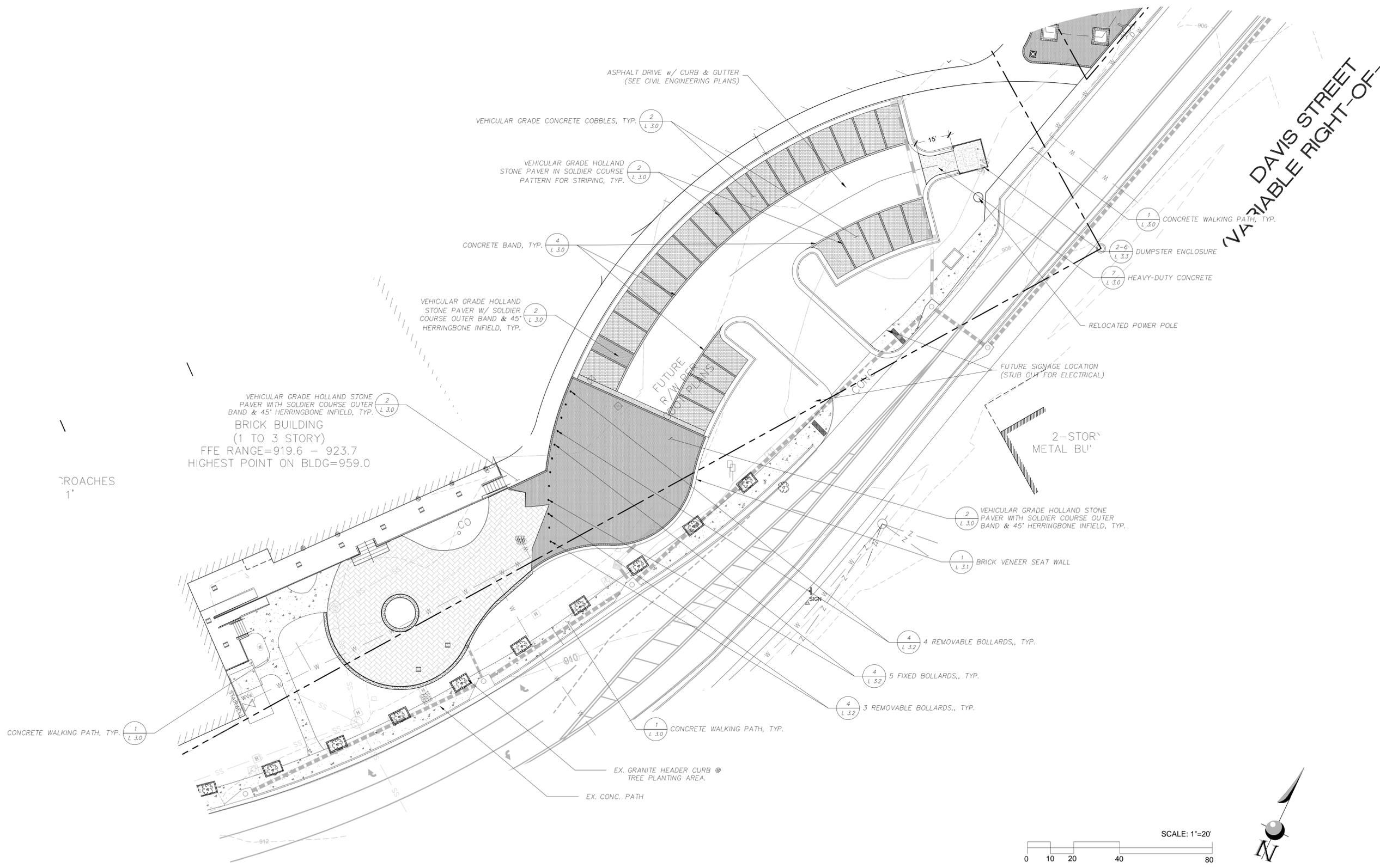
TOWN GREEN PARK
 Town of Braselton, Georgia

revisions	NO.	DATE	DESCRIPTION

date 07/20/2015
 project no. 12020.0
 drawn by RKC
 checked by SRP

sheet title
Event Plaza & Parking Layout Plan

sheet
L 2.1



DAVIS STREET
VARIABLE RIGHT-OF-WAY

PROACHES
 1'

VEHICULAR GRADE HOLLAND STONE PAVER WITH SOLDIER COURSE OUTER BAND & 45° HERRINGBONE INFIELD, TYP.
 BRICK BUILDING
 (1 TO 3 STORY)
 FFE RANGE=919.6 - 923.7
 HIGHEST POINT ON BLDG=959.0

ASPHALT DRIVE w/ CURB & GUTTER
 (SEE CIVIL ENGINEERING PLANS)

VEHICULAR GRADE CONCRETE COBBLES, TYP. (2) L 3.0

VEHICULAR GRADE HOLLAND STONE PAVER IN SOLDIER COURSE PATTERN FOR STRIPING, TYP. (2) L 3.0

CONCRETE BAND, TYP. (4) L 3.0

VEHICULAR GRADE HOLLAND STONE PAVER W/ SOLDIER COURSE OUTER BAND & 45° HERRINGBONE INFIELD, TYP. (2) L 3.0

CONCRETE WALKING PATH, TYP. (1) L 3.0

DUMPSTER ENCLOSURE (2-6) L 3.3

HEAVY-DUTY CONCRETE (7) L 3.0

RELOCATED POWER POLE

FUTURE SIGNAGE LOCATION (STUB OUT FOR ELECTRICAL)

2-STORY METAL BUILDING

VEHICULAR GRADE HOLLAND STONE PAVER WITH SOLDIER COURSE OUTER BAND & 45° HERRINGBONE INFIELD, TYP. (2) L 3.0

BRICK VENEER SEAT WALL (1) L 3.1

4 REMOVABLE BOLLARDS, TYP. (4) L 3.2

5 FIXED BOLLARDS, TYP. (4) L 3.2

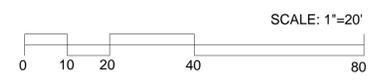
3 REMOVABLE BOLLARDS, TYP. (4) L 3.2

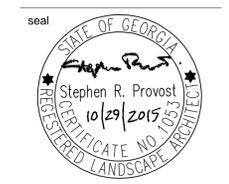
CONCRETE WALKING PATH, TYP. (1) L 3.0

CONCRETE WALKING PATH, TYP. (1) L 3.0

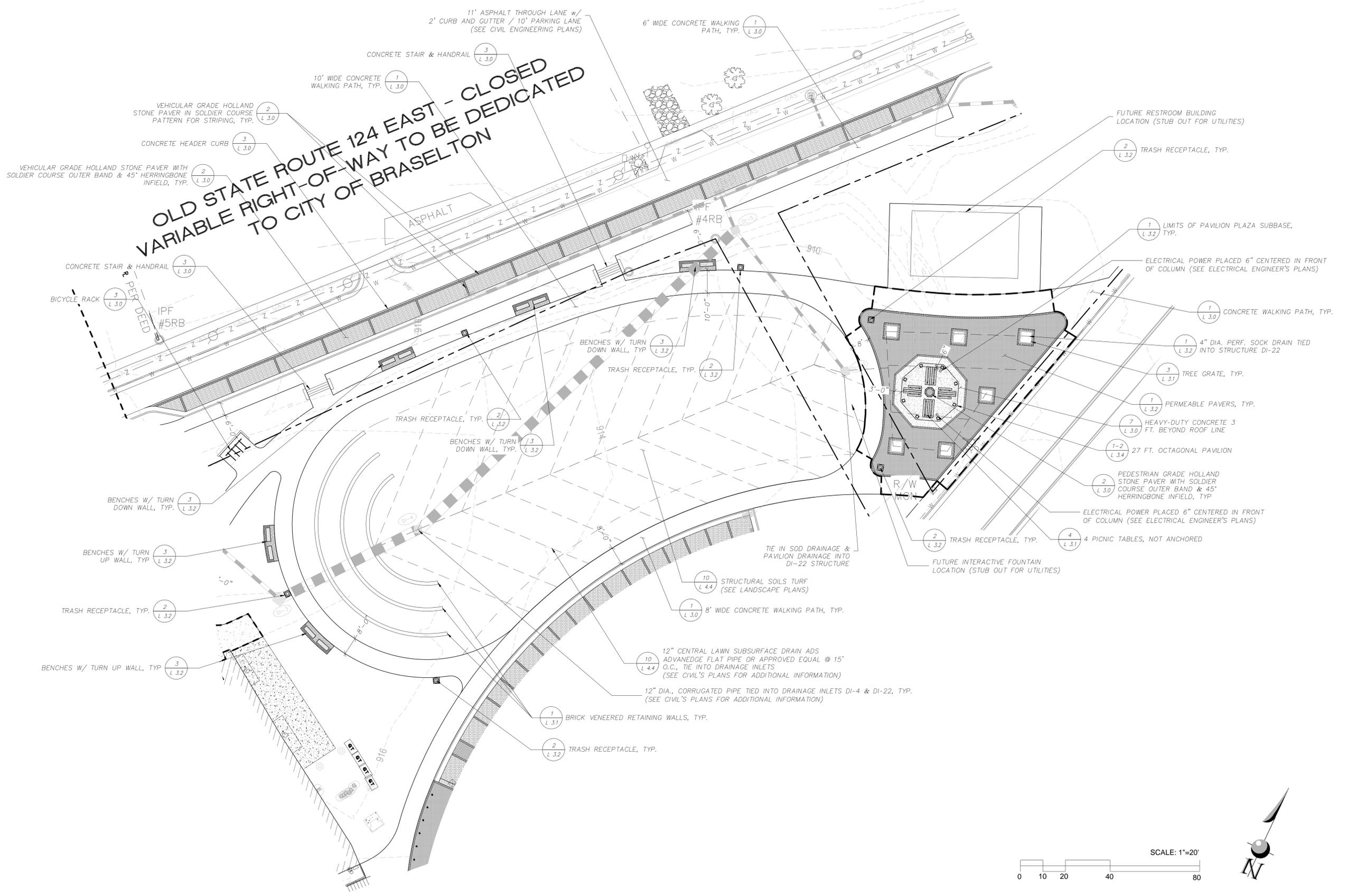
EX. GRANITE HEADER CURB @ TREE PLANTING AREA.

EX. CONC. PATH





TOWN GREEN PARK
 Town of Braselton, Georgia



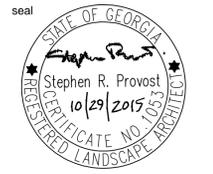
**OLD STATE ROUTE 124 EAST - CLOSED
 VARIABLE RIGHT-OF-WAY TO BE DEDICATED
 TO CITY OF BRASELTON**

revisions		
NO.	DATE	DESCRIPTION

date 07/20/2015
 project no. 12020.0
 drawn by RKC
 checked by SRP

sheet title
**Amphitheater /
 Lawn
 Layout Plan**

sheet
L 2.2



client



Town of Braselton

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 Braselton, Georgia 30517
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TOWN GREEN PARK
 Town of Braselton, Georgia

revisions

NO.	DATE	DESCRIPTION

date 07/20/2015
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 drawn by RKC
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sheet title
**Gateway
 Layout Plan**

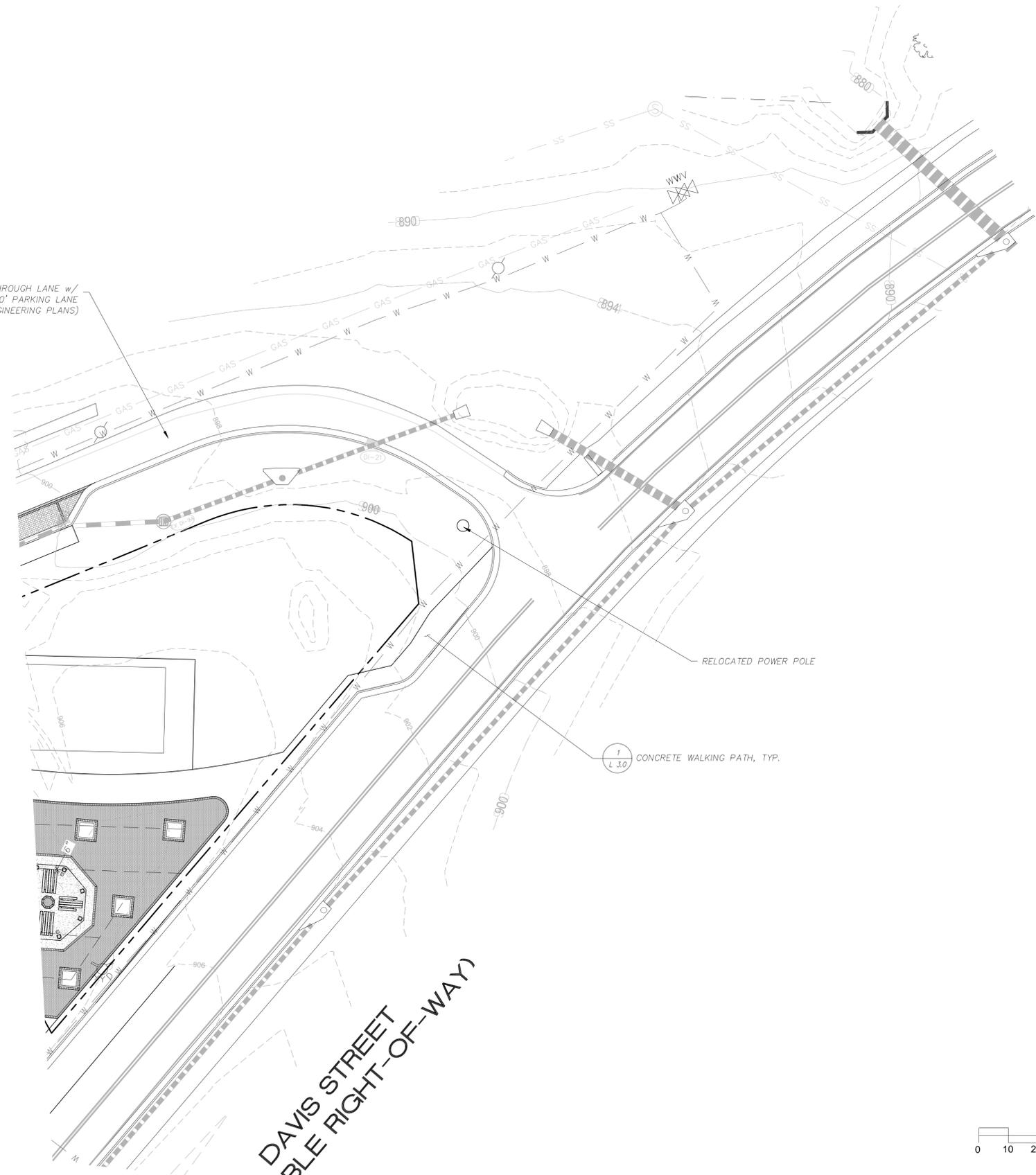
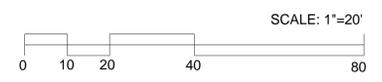
sheet
L 2.3

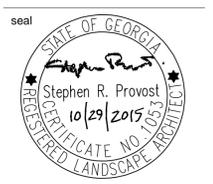
11' ASPHALT THROUGH LANE w/
 2' CURB AND GUTTER / 10' PARKING LANE
 (SEE CIVIL ENGINEERING PLANS)

RELOCATED POWER POLE

CONCRETE WALKING PATH, TYP.

**DAVIS STREET
 (BLE RIGHT-OF-WAY)**





revisions	NO.	DATE	DESCRIPTION

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sheet title	

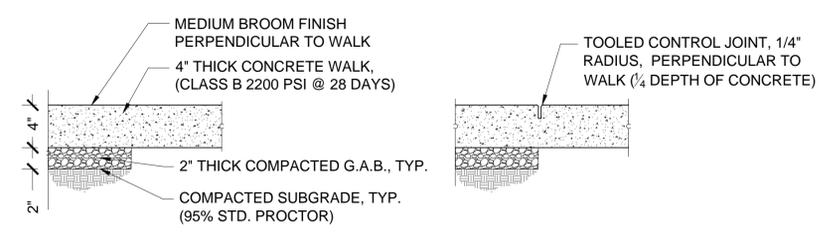
Hardscape Details

CONCRETE PAVERS:

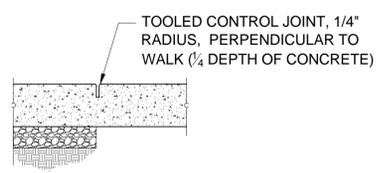
HAND COBBLE PAVERS 80MM FOR VEHICULAR GRADE:
 A. MEGA BERGERAC COLLECTION IN 3 PIECE PATTERN B1+B2,
 COLOR: CARRIAGE HOUSE
 MANUFACTURER: BELGARD - BRENT DAVIS - 770-695-3951

HOLLAND STYLE PAVERS 80MM FOR VEHICULAR GRADE:
 A. HOLLAND STONE COLLECTION IN HERRINGBONE & SOLDIER
 COURSE PATTERN
 COLOR: SPICE BLEND
 MANUFACTURER: BELGARD - BRENT DAVIS - 770-695-3951

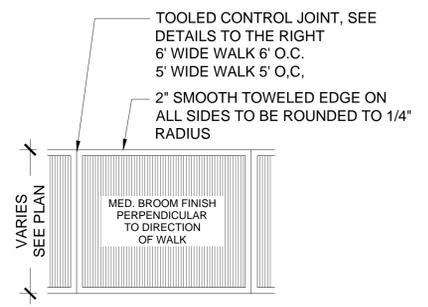
HOLLAND STYLE PAVERS 60MM FOR PEDESTRIAN GRADE:
 A. HOLLAND STONE COLLECTION IN HERRINGBONE & SOLDIER
 COURSE PATTERN
 COLOR: SPICE BLEND
 MANUFACTURER: BELGARD - BRENT DAVIS - 770-695-3951



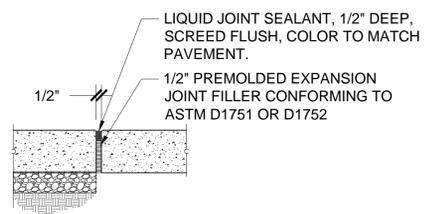
CONCRETE SIDEWALK



TOOLED CONTROL JOINT DETAIL



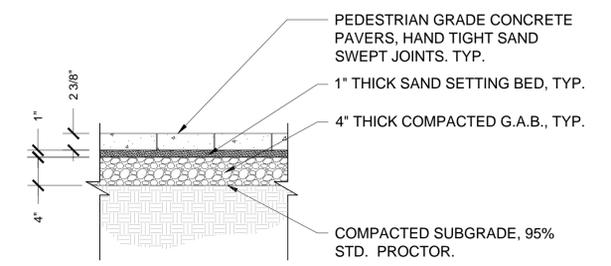
PLAN VIEW



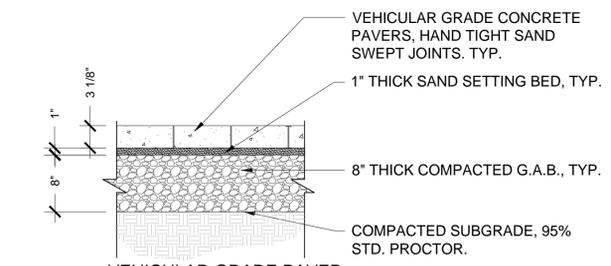
EXPANSION JOINT DETAIL

NOTES:

- CONTROL JOINT SPACING EQUAL TO WIDTH OF WALK OR AS SHOWN PLANS OR DETAILS.
- EXPANSION JOINTS 30' O.C., AND WHEN ABUTTING ADJACENT RIGID PAVEMENTS AND STRUCTURES, OR AS SHOWN ON PLANS.



PEDESTRIAN GRADE PAVER

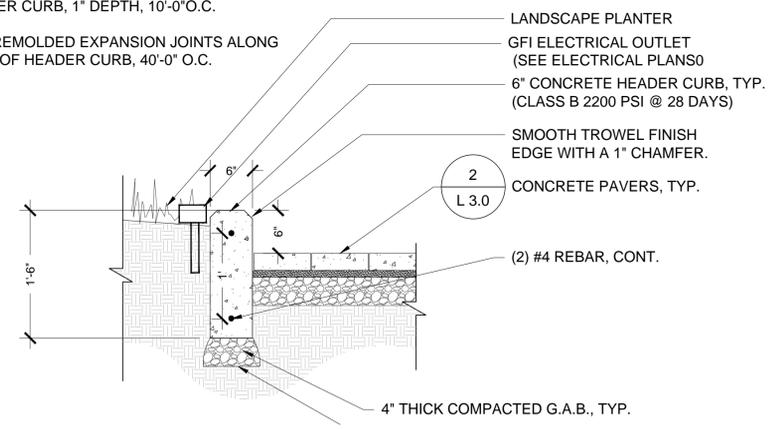


VEHICULAR GRADE PAVER

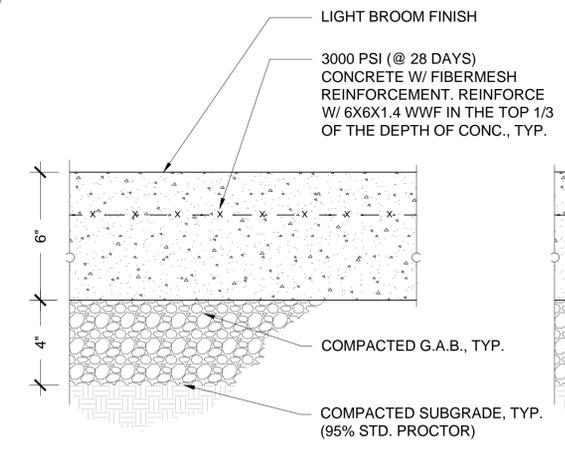
1 LIGHT-DUTY CONCRETE
 L 3.0 SCALE: NTS.

NOTES

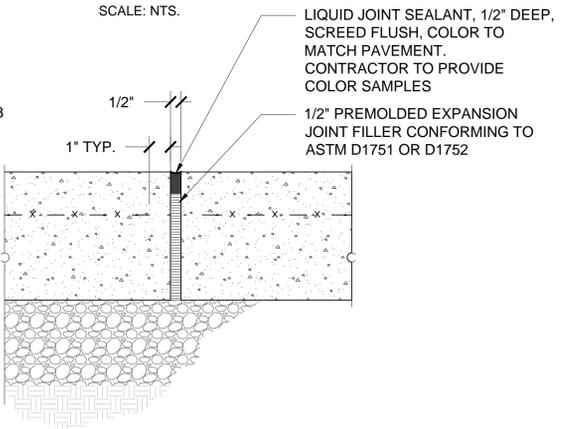
- SAWCUT CONTROL JOINTS ALONG FACE OF HEADER CURB, 1" DEPTH, 10'-0" O.C.
- 1/2" PREMOLDED EXPANSION JOINTS ALONG FACE OF HEADER CURB, 40'-0" O.C.



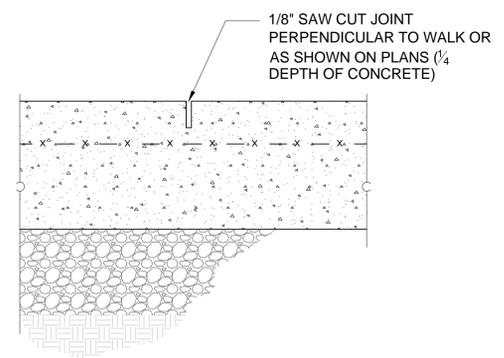
3 CONCRETE HEADER CURB FOR PLANTERS
 L 3.0 SCALE: NTS.



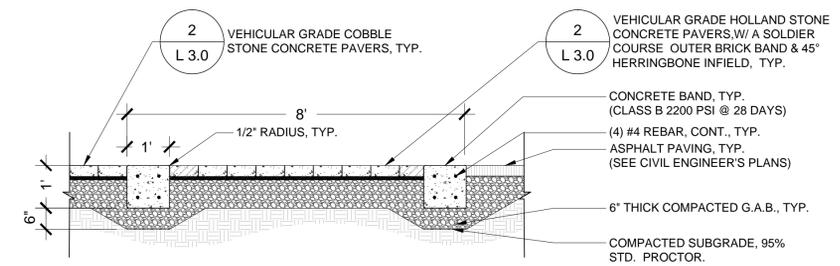
CONCRETE SECTION



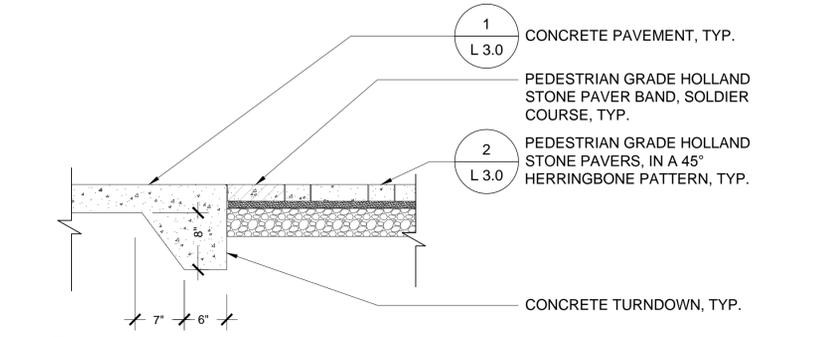
EXPANSION JOINT DETAIL



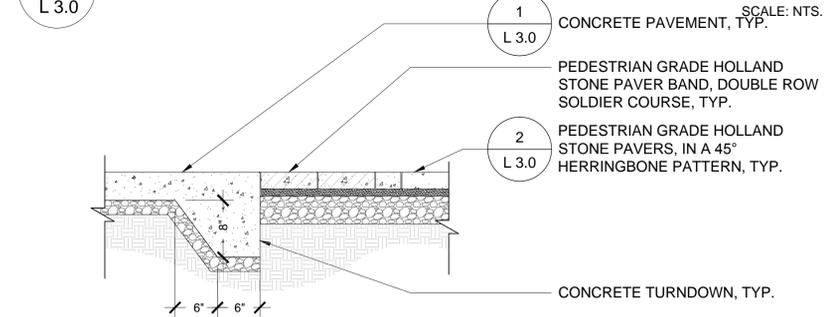
SAW CUT CONTROL JOINT DETAIL



4 CONCRETE PAVER CROSSWALK
 L 3.0 SCALE: NTS.



5 CONCRETE PAVERS ABUTTING CONCRETE PAVEMENT
 L 3.0 SCALE: NTS.



6 DOUBLE SOLDIER COURSE BAND @ CONCRETE PAVEMENT
 L 3.0 SCALE: NTS.

NOTES:

- CONTROL JOINT SPACING EQUAL TO WIDTH OF WALK OR AS SHOWN PLANS OR DETAILS.
- EXPANSION JOINTS 30' O.C., AND WHEN ABUTTING ADJACENT RIGID PAVEMENTS AND STRUCTURES, OR AS SHOWN ON PLANS.

7 HEAVY-DUTY CONCRETE
 L 3.0 SCALE: NTS.

BRICK
 MANUFACTURER: CHEROKEE BRICK
 PHONE: 478.781.6800
 MODEL: MODULAR SIZE HAMPTON

GRANITE CAP
 MANUFACTURER: QUARRYING MEMBER OF THE ELBERTON ASSOC., INC.
 PHONE: 706.283.2551
 WEB: egaonline.com
 COLOR: ELBERTON GRAY
 FINISH: THERMAL TOP W/ SPLIT FACE SIDES

4" THICK GRANITE CAP, SPLIT FACE SIDES & THERMAL FINISH TOP. MORTAR & PIN CAP IN PLACE.

GRANIT TO BE APPROVED BY LANDSCAPE ARCHITECT.

1
L 3.0 CONCRETE PAVING, TYP.

BRICK VENEER, ATTACH W/ GALV. WALL TIES EVERY OTHER COURSE @ 12" O.C.

#4 REBAR EVERY OTHER CELL, TYP.

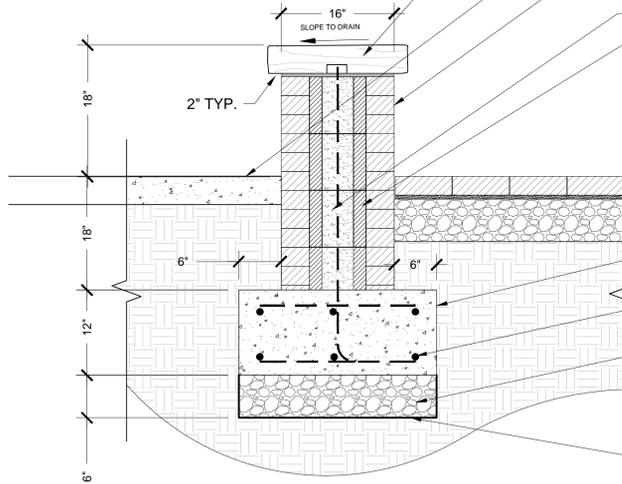
8"x8"x16" CMU. FILL VOIDS W/ CLASS B CONCRETE, TYP.

CLASS B CONCRETE FOOTING, TYP.

#4 REBAR @ 12" O.C. EACH WAY, TYP.

6" THICK OF COMPACTED G.A.B.

COMPACTED SUBGRADE, TYP. (95% STD. PROCTOR)



1
L 3.1

BRICK VENEER SEATING WALL

SCALE: NTS.

BRICK
 MANUFACTURER: CHEROKEE BRICK
 PHONE: 478.781.6800
 MODEL: MODULAR SIZE HAMPTON

GRANITE CAP
 MANUFACTURER: QUARRYING MEMBER OF THE ELBERTON ASSOC., INC.
 PHONE: 706.283.2551
 WEB: egaonline.com
 COLOR: ELBERTON GRAY
 FINISH: THERMAL TOP W/ SPLIT FACE SIDES

4" THICK GRANITE CAP, SPLIT FACE SIDES & THERMAL FINISH TOP. MORTAR & PIN CAP IN PLACE.

GRANIT TO BE APPROVED BY LANDSCAPE ARCHITECT.

2
L 3.0 PEDESTRIAN GRADE CONCRETE PAVERS, TYP.

BRICK VENEER, ATTACH W/ GALV. WALL TIES EVERY OTHER COURSE @ 12" O.C.

#4 REBAR EVERY OTHER CELL, TYP.

8"x8"x16" CMU. FILL VOIDS W/ CLASS B CONCRETE, TYP.

CLASS B CONCRETE FOOTING, TYP.

#4 REBAR @ 12" O.C. EACH WAY, TYP.

6" THICK OF COMPACTED G.A.B.

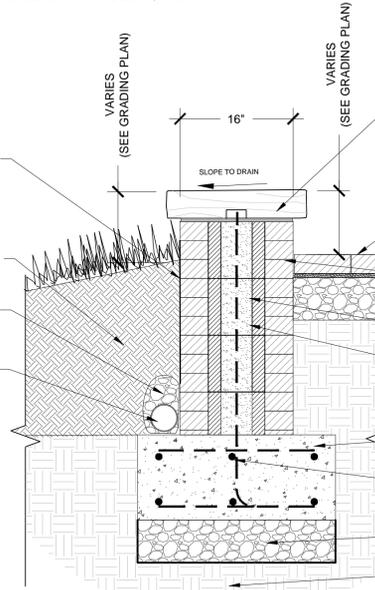
COMPACTED SUBGRADE, TYP. (95% STD. PROCTOR)

FLUID APPLIED WATERPROOFING FROM 2-3 BRICK COURSES BELOW FINISHED GRADE OF PAVERS TO ONE BRICK COURSE ABOVE TOP OF PLANTER BACKFILL.

PLANTER BACK FILL LEAVE 1-2 BRICK COURSES EXPOSED

4" DEEP LAYER OF #57 STONE OVER PERFORATED SOCK PIPE

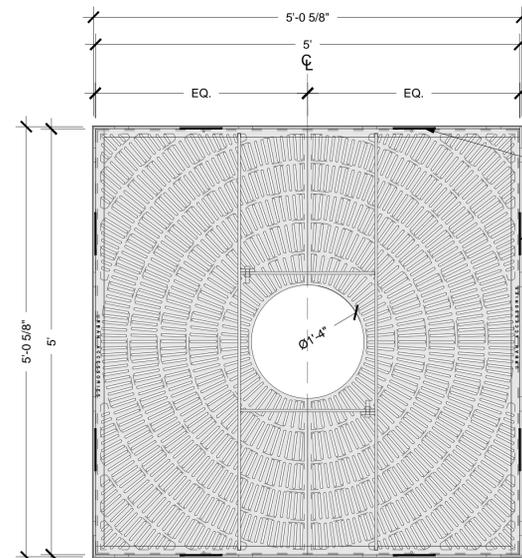
4" DIA. PERFORATED PLASTIC PIPE IN FILTER SOCK - TIE TO DAYLIGHT OR NEAREST STORM DRAIN.



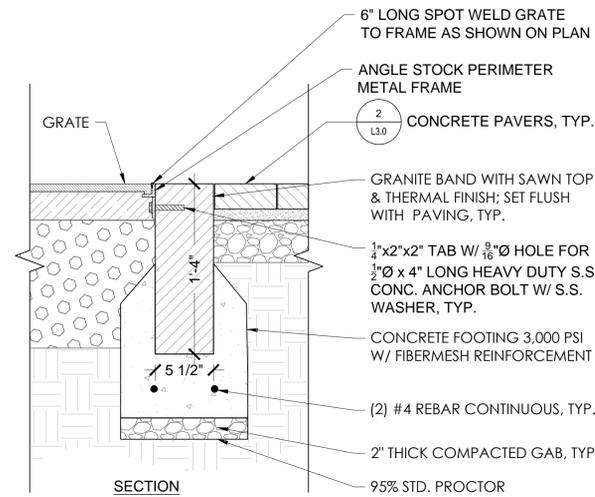
2
L 3.1

BRICK VENEER RETAINING WALL

SCALE: NTS.



PLAN



SECTION

TREE GRATE

MANUFACTURER: URBAN ACCESSORIES
 CONTACT: JEREMY MOSTELLER
 PHONE: 404.275.4444
 MODEL: KIVA W/ AP FRAME, 60" SQUARE, 1/4" SLOTS, 18" TREE OPENING
 FINISH: CAST IRON, WEATHERED, UNFINISHED
 QUANTITY: 6
 (TOWN WILL PURCHASE DIRECTLY)

TREE GRATE

SCALE: NTS.

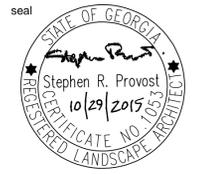
PICNIC TABLES

MANUFACTURER: R.J. THOMAS MFG. CO. INC. (PILOT ROCK)
 OFFICE PHONE: 800.762.5002
 MODEL: EXTRA HEAVY DUTY XT/G-8P-PW & XT/G-6P/E-PW
 COLOR: RECYCLED BROWN (PW) OR APPROVED BY OWNER
 QUANTITY: (2) STANDARD XT/G-8P-PW
 (2) W/ TABLE EXTENSION FOR ACCESSIBILITY XT/G-6P/E-PW
 (TOWN WILL PURCHASE DIRECTLY)

4
L 3.1

PICNIC TABLE

SCALE: NTS.



Town of Braselton

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TOWN GREEN PARK
 Town of Braselton, Georgia

NO.	DATE	DESCRIPTION

date 07/20/2015

project no. 12020.0

drawn by RKC

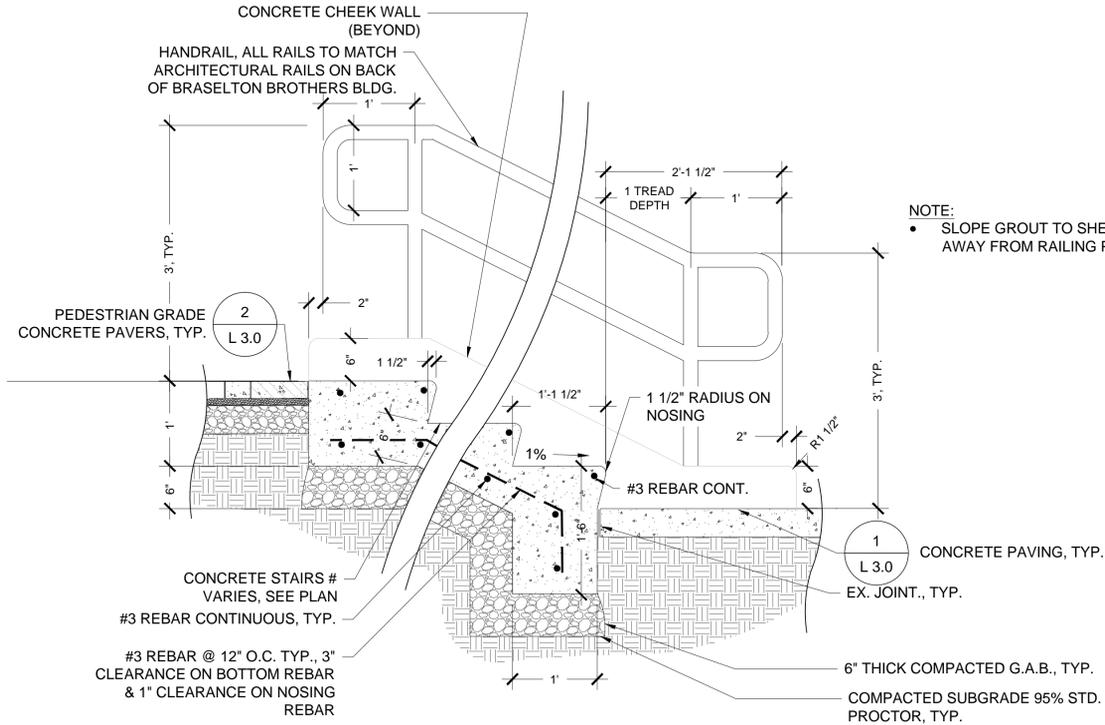
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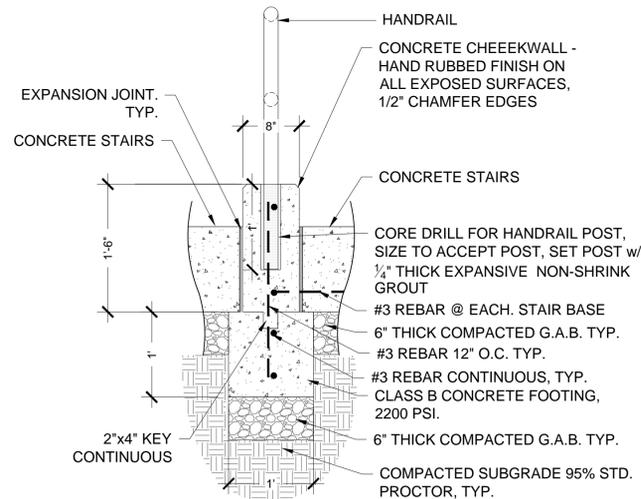
Hardscape Details

sheet

L 3.1



NOTE:
 • SLOPE GROUT TO SHED WATER AWAY FROM RAILING POSTS

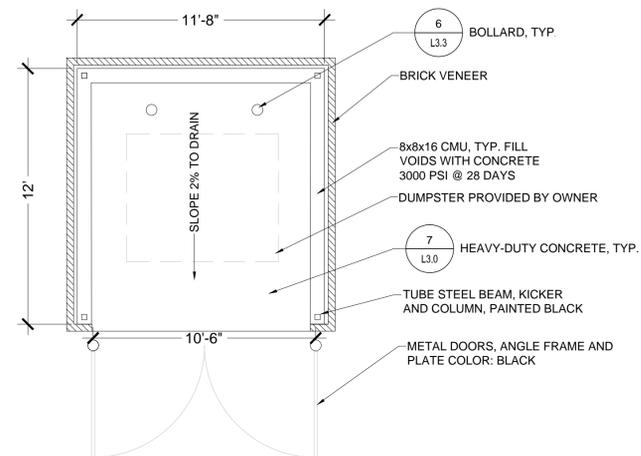


HANDRAIL NOTES:

- CONTRACTOR SHALL SUPPLY SHOP DRAWINGS FOR OWNER'S REPRESENTATIVE'S APPROVAL
- ALL HANDRAILS ARE 36" TO TOP OF RAIL.
- ALL RAILS SHALL COMPLY W/ CURRENT ADA REQUIREMENTS.
- ALL CORNERS TO HAVE MIN. 4" RADIUS
- RAILS SHALL BE 1 1/2" DIAMETER SCHEDULE 40
- GRIND ALL WELDS SMOOTH W/ NO BARBS
- RAILS SHALL BE SHOP PRIMED WITH 1 COAT OF SHERWIN WILLIAMS KEM KROMIK UNIVERSAL METAL PRIMER B50NZ6. PRIME PER THE MANUFACTURER'S MAXIMUM RECOMMENDED SPREAD RATE PER COAT.
- RAILS SHALL BE PAINTED BLACK WITH 2 COATS OF SHERWIN WILLIAMS INDUSTRIAL ENAMEL PAINT B54B11. PAINT PER THE MANUFACTURER'S MAXIMUM RECOMMENDED SPREAD RATE PER COAT.
- INTERMEDIATE SUPPORT POSTS SHALL BE 5' O.C. MAX. AND UNIFORMLY SPACED.
- TOP OF GROUT FOR POST SHALL BE ABOVE PAVEMENT LEVEL AND SLOPED TO SHED WATER AWAY FROM POST. GROUT SHALL MATCH THE FINISH GRADE COLOR.

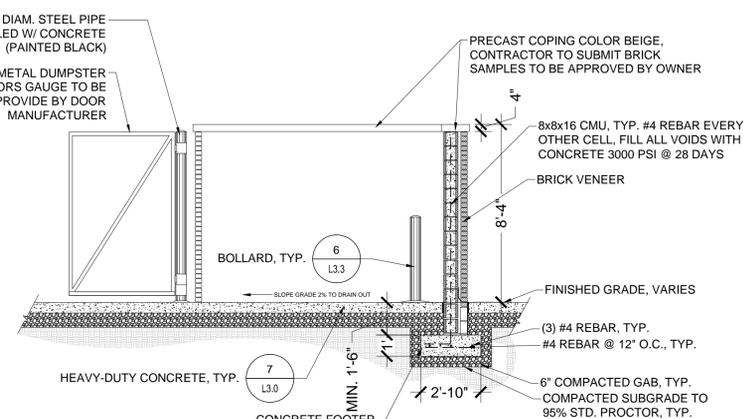
CONCRETE STAIR & HANDRAIL

SCALE: NTS.



DUMPSTER PLAN

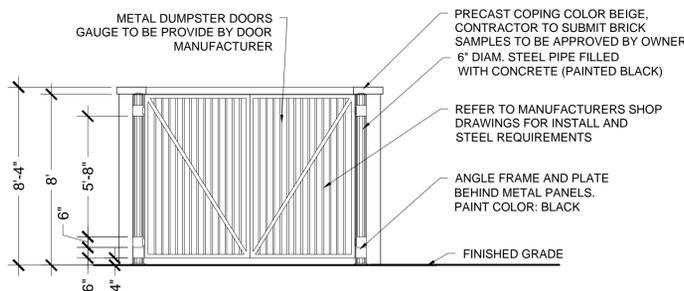
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DUMPSTER SECTION

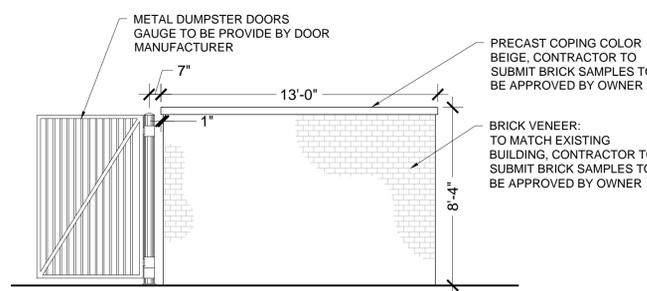
SCALE: NTS.

BRICK
 MANUFACTURER: CHEROKEE BRICK
 PHONE: 478.781.6800
 MODEL: MODULAR SIZE HAMPTON



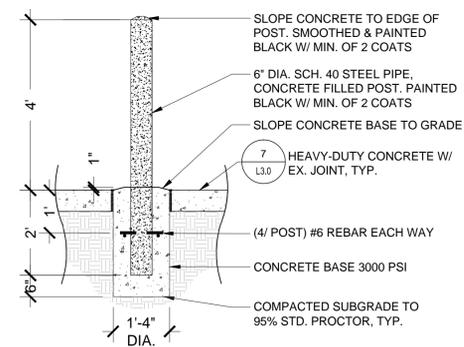
DUMPSTER FRONT ELEVATION

SCALE: NTS.



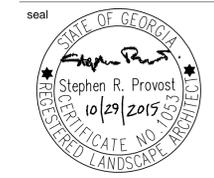
DUMPSTER SIDE ELEVATION

SCALE: NTS.



DUMPSTER BOLLARD

SCALE: NTS.



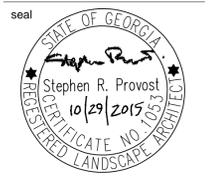
Town of Braselton

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TOWN GREEN PARK
 Town of Braselton, Georgia

NO.	DATE	DESCRIPTION

date	07/20/2015
project no.	12020.0
drawn by	RKC
checked by	SRP
sheet title	Hardscape Details



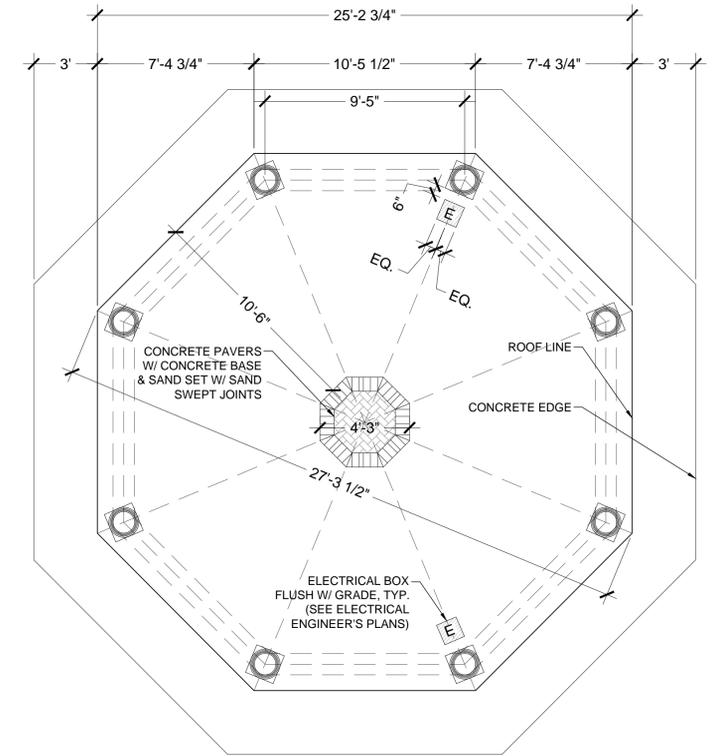
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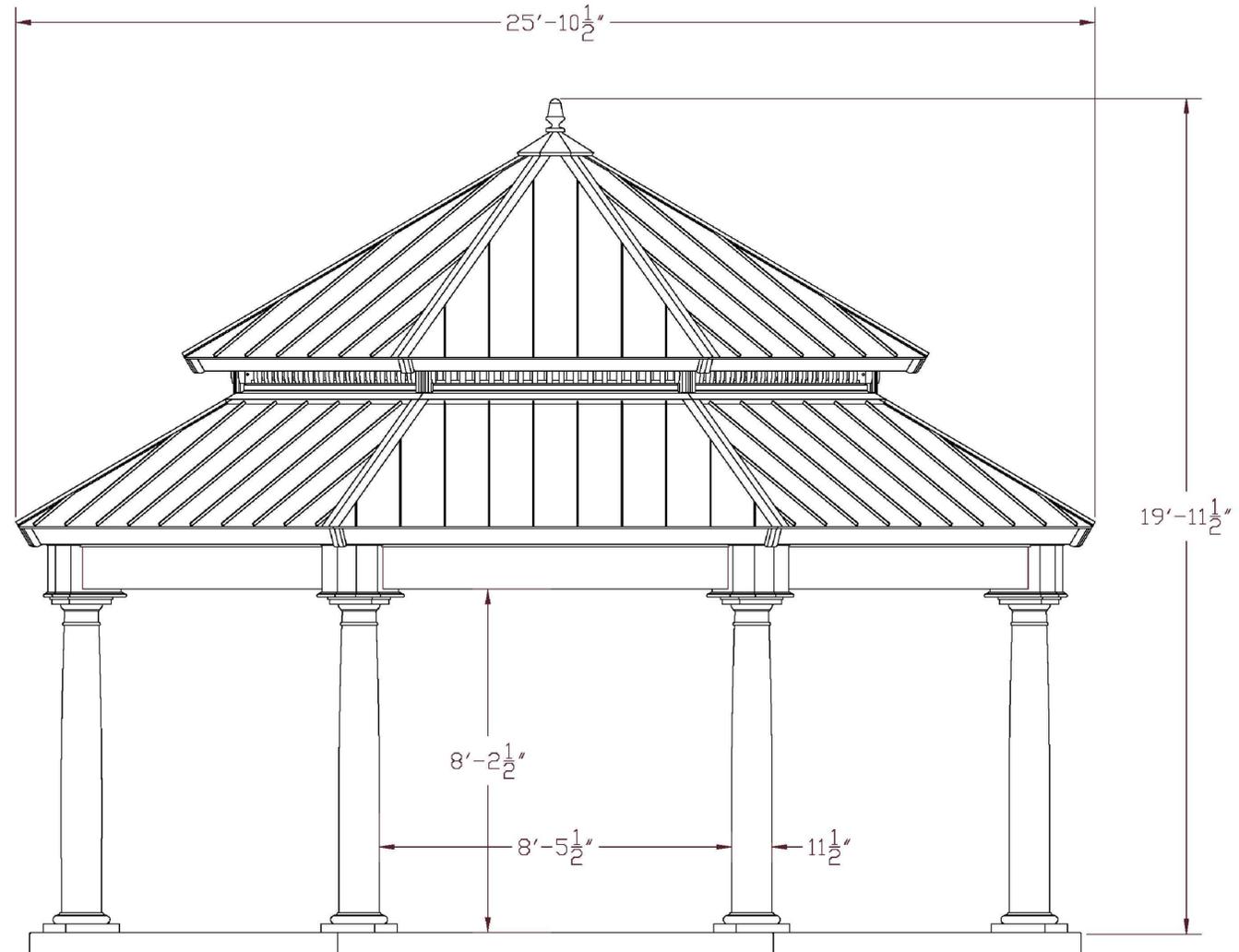
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TOWN GREEN PARK
 Town of Braselton, Georgia



1
 L 3.4 **27 FT. HERITAGE PAGODA PAVILION PLAN LAYOUT**
 SCALE: NTS.



2
 L 3.4 **27 FT. HERITAGE PAGODA PAVILION ELEVATION**
 SCALE: NTS.

- NOTE:**
- THE CONTRACTOR IS RESPONSIBLE TO VERIFY FOOTING SIZE IN WRITING FROM THE MANUFACTURER.
 - INSTALL PRE-ENGINEERED STRUCTURES TO COMPLY WITH MANUFACTURER'S INSTALLATION DETAILS TO MAINTAIN WARRANTY AS SPECIFIED.
 - THE PRE-ENGINEERED STRUCTURES SHALL COMPLY WITH 2006 INTERNATIONAL BUILDING CODE.
 - THE PRE-ENGINEERED STRUCTURES INDICATED ON THIS SHEET IS FOR DESIGN INTENT ONLY. THE CONTRACTOR SHALL SUBMIT A COMPLETE FABRICATION & ERECTION DRAWINGS WITH SPECIFIED MATERIAL, SIZES, CONNECTION DETAILS AND LOCATIONS FOR ALL STRUCTURAL ELEMENTS, INCLUDING ANCHORAGE TO THE FOUNDATION TO ADEQUATELY RESIST ALL APPLICABLE DESIGN LOADS. ALL DRAWINGS SHALL BEAR THE SEAL OF THE CORRESPONDING DESIGN PROFESSIONAL REGISTERED IN THE STATE OF GEORGIA.
 - COLOR OF THE STEEL SHALL BE SELECTED BY THE OWNER FROM THE STANDARD COLOR CHART.

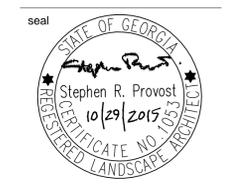
MANUFACTURER: DALTON PAVILIONS, INC.
 3120 COMMERCE DRIVE
 TELFORD, PA 18969
 MODEL: 27 FT. HERITAGE PAGODA 2-TIER METAL SEEM ROOF
 REP CONTACT: DOMENIC ALBERTO
 PHONE: 215.721.1492

revisions		
NO.	DATE	DESCRIPTION

date 07/20/2015
 project no. 12020.0
 drawn by RKC
 checked by SRP

sheet title
Hardscape Details

sheet
L 3.4



client



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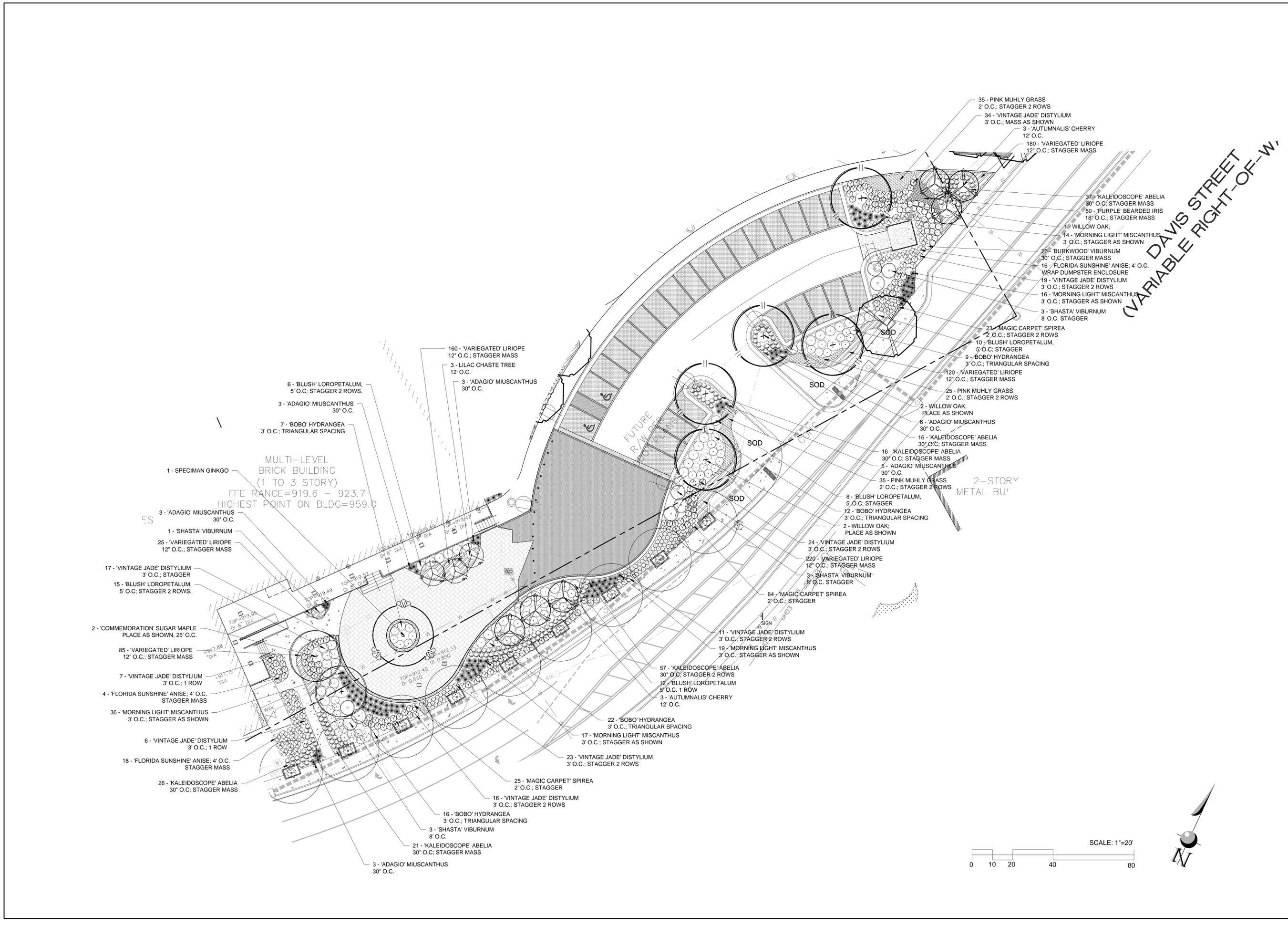
TOWN GREEN PARK
 Town of Braselton, Georgia

revisions	NO.	DATE	DESCRIPTION

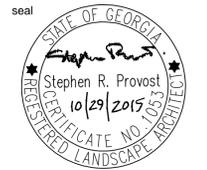
date 07/20/2015
 project no. 12020.0
 drawn by RKC
 checked by SRP

sheet title
Event Plaza & Parking Landscape Plan

sheet
L 4.1



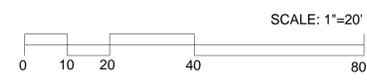
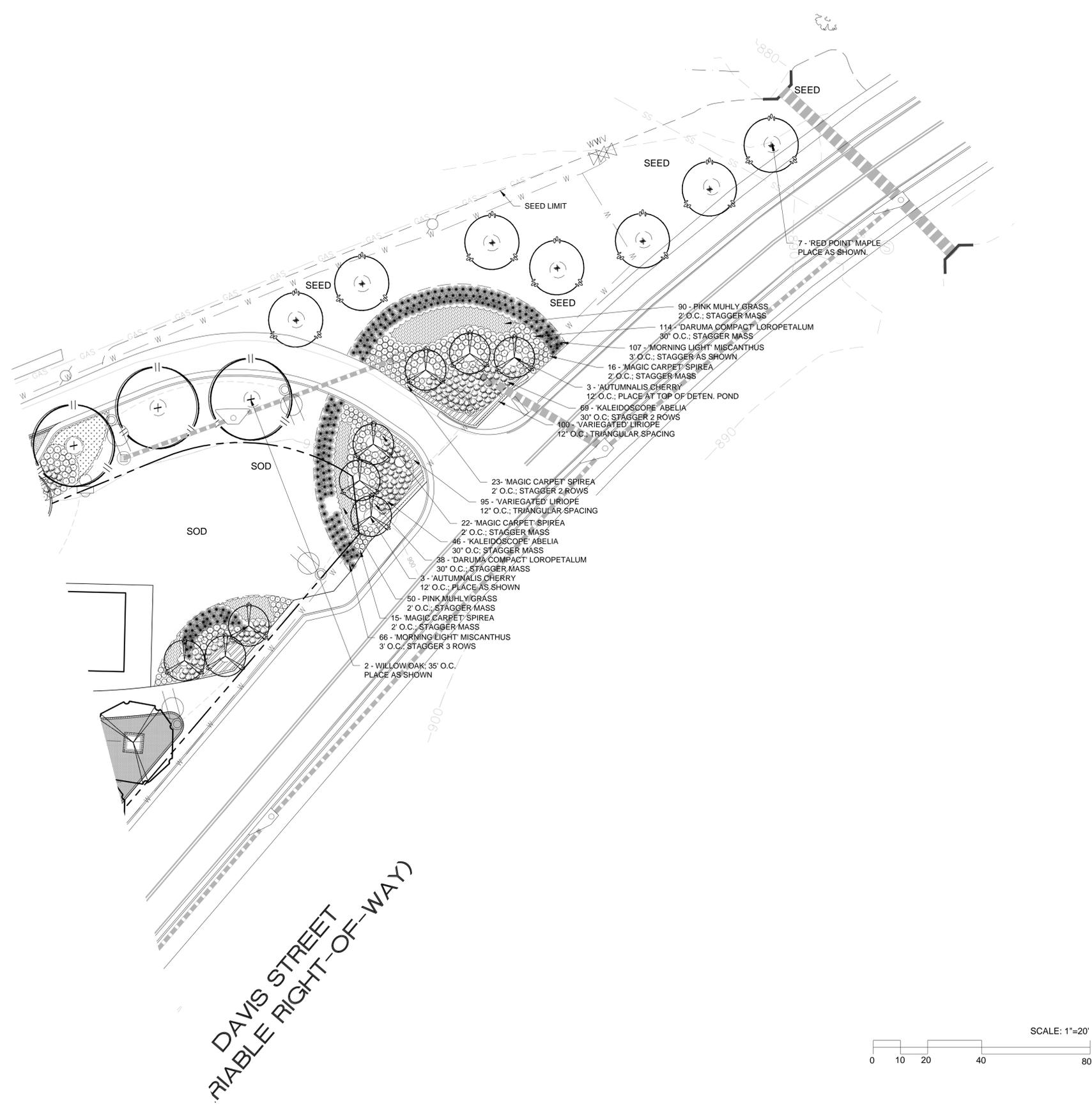
- 35 - PINK MUHLY GRASS
2' O.C.; STAGGER 2 ROWS
- 34 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; MASS AS SHOWN
- 3 - 'AUTUMNALIS' CHERRY
12' O.C.
- 180 - 'VARIEGATED' LIRIOPE
12' O.C.; STAGGER MASS
- 37 - 'KALEIDOSCOPE' ABELIA
30' O.C.; STAGGER MASS
- 50 - 'PURPLE' BEARDED IRIS
18' O.C.; STAGGER MASS
- 14 - 'MORNING LIGHT' MISCANTHUS
3' O.C.; STAGGER AS SHOWN
- 28 - 'BURKWOOD' VIBURNUM
30' O.C.; STAGGER MASS
- 16 - 'FLORIDA SUNSHINE' ANISE; 4' O.C.
WRAP DUMPSTER ENCLOSURE
- 19 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; STAGGER 2 ROWS
- 16 - 'MORNING LIGHT' MISCANTHUS
3' O.C.; STAGGER AS SHOWN
- 3 - 'SHASTA' VIBURNUM
8' O.C. STAGGER
- 23 - 'MAGIC CARPET' SPIREA
2' O.C.; STAGGER 2 ROWS
- 10 - 'BLUSH' LOROPETALUM,
5' O.C. STAGGER
- 9 - 'BOBO' HYDRANGEA
3' O.C.; TRIANGULAR SPACING
- 120 - 'VARIEGATED' LIRIOPE
12' O.C.; STAGGER MASS
- 25 - PINK MUHLY GRASS
2' O.C.; STAGGER 2 ROWS
- 2 - WILLOW OAK;
PLACE AS SHOWN
- 6 - 'ADAGIO' MIUSCANTHUS
30' O.C.
- 16 - 'KALEIDOSCOPE' ABELIA
30' O.C.; STAGGER MASS
- 5 - 'ADAGIO' MIUSCANTHUS
30' O.C.
- 35 - PINK MUHLY GRASS
2' O.C.; STAGGER 2 ROWS
- 8 - 'BLUSH' LOROPETALUM,
5' O.C. STAGGER
- 12 - 'BOBO' HYDRANGEA
3' O.C.; TRIANGULAR SPACING
- 2 - WILLOW OAK;
PLACE AS SHOWN
- 24 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; STAGGER 2 ROWS
- 220 - 'VARIEGATED' LIRIOPE
12' O.C.; STAGGER MASS
- 3 - 'SHASTA' VIBURNUM
8' O.C. STAGGER
- 64 - 'MAGIC CARPET' SPIREA
2' O.C.; STAGGER
- 11 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; STAGGER 2 ROWS
- 19 - 'MORNING LIGHT' MISCANTHUS
3' O.C.; STAGGER AS SHOWN
- 57 - 'KALEIDOSCOPE' ABELIA
30' O.C.; STAGGER 2 ROWS
- 12 - 'BLUSH' LOROPETALUM
5' O.C. 1 ROW
- 3 - 'AUTUMNALIS' CHERRY
12' O.C.
- 22 - 'BOBO' HYDRANGEA
3' O.C.; TRIANGULAR SPACING
- 17 - 'MORNING LIGHT' MISCANTHUS
3' O.C.; STAGGER AS SHOWN
- 23 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; STAGGER 2 ROWS
- 25 - 'MAGIC CARPET' SPIREA
2' O.C.; STAGGER
- 16 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; STAGGER 2 ROWS
- 16 - 'BOBO' HYDRANGEA
3' O.C.; TRIANGULAR SPACING
- 3 - 'SHASTA' VIBURNUM
8' O.C.
- 21 - 'KALEIDOSCOPE' ABELIA
30' O.C.; STAGGER MASS
- 3 - 'ADAGIO' MIUSCANTHUS
30' O.C.
- 160 - 'VARIEGATED' LIRIOPE
12' O.C.; STAGGER MASS
- 3 - LILAC CHASTE TREE
12' O.C.
- 3 - 'ADAGIO' MIUSCANTHUS
30' O.C.
- 6 - 'BLUSH' LOROPETALUM,
5' O.C. STAGGER 2 ROWS.
- 3 - 'ADAGIO' MIUSCANTHUS
30' O.C.
- 7 - 'BOBO' HYDRANGEA
3' O.C.; TRIANGULAR SPACING
- 1 - SPECIMAN GINKGO
- 3 - 'ADAGIO' MIUSCANTHUS
30' O.C.
- 1 - 'SHASTA' VIBURNUM
- 25 - 'VARIEGATED' LIRIOPE
12' O.C.; STAGGER MASS
- 17 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; STAGGER
- 15 - 'BLUSH' LOROPETALUM,
5' O.C. STAGGER 2 ROWS.
- 2 - 'COMMEMORATION' SUGAR MAPLE
PLACE AS SHOWN, 25' O.C.
- 85 - 'VARIEGATED' LIRIOPE
12' O.C.; STAGGER MASS
- 7 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; 1 ROW
- 4 - 'FLORIDA SUNSHINE' ANISE; 4' O.C.
STAGGER MASS
- 36 - 'MORNING LIGHT' MISCANTHUS
3' O.C.; STAGGER AS SHOWN
- 6 - 'VINTAGE JADE' DISTYLIUM
3' O.C.; 1 ROW
- 18 - 'FLORIDA SUNSHINE' ANISE; 4' O.C.
STAGGER MASS
- 26 - 'KALEIDOSCOPE' ABELIA
30' O.C.; STAGGER MASS
- 16 - 'BOBO' HYDRANGEA
3' O.C.; TRIANGULAR SPACING
- 3 - 'SHASTA' VIBURNUM
8' O.C.
- 21 - 'KALEIDOSCOPE' ABELIA
30' O.C.; STAGGER MASS
- 3 - 'ADAGIO' MIUSCANTHUS
30' O.C.



Town of Braselton

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TOWN GREEN PARK
 Town of Braselton, Georgia

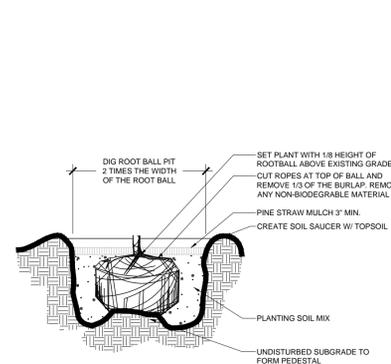


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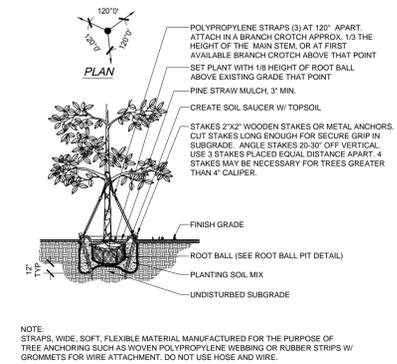
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 project no. 12020.0
 drawn by RKC
 checked by SRP

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 Landscape Plan**

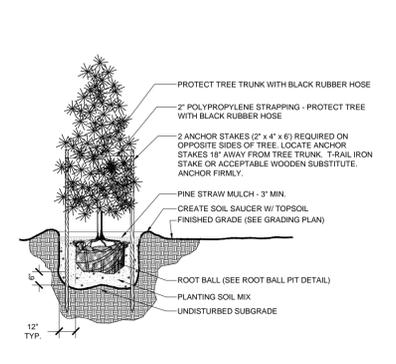
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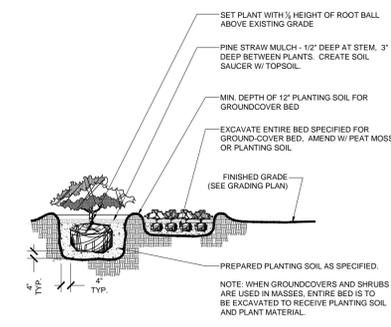
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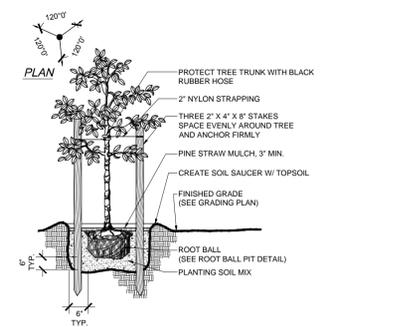
2 DECIDUOUS TREE STAKING DETAIL
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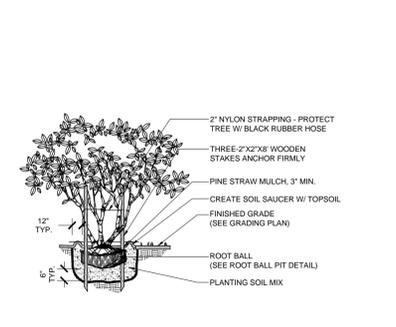
3 EVERGREEN STAKING DETAIL
N.T.S.



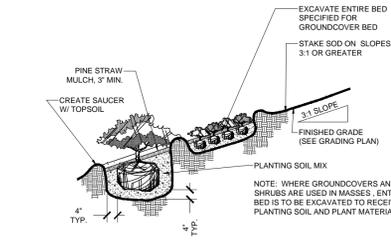
4 SHRUB & GROUND COVER PLANTING DETAIL
N.T.S.



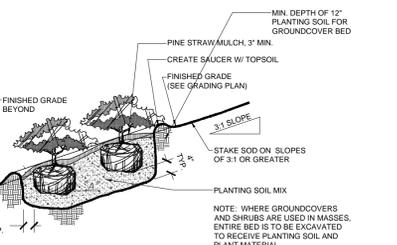
5 SMALL TREE STAKING DETAIL
N.T.S.



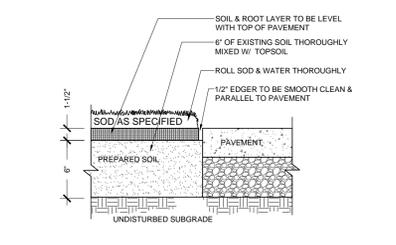
6 MULTI-TRUNK TREE STAKING DETAIL
N.T.S.



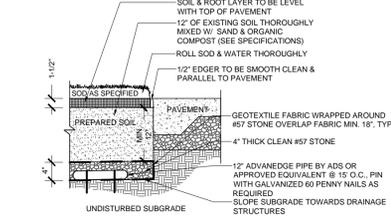
7 SHRUB & GROUND COVER ON SLOPE
N.T.S.



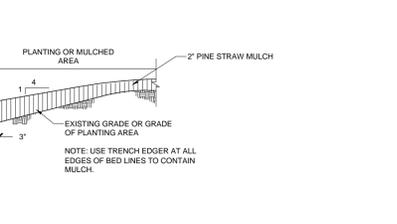
8 SHRUBS ON SLOPE
N.T.S.



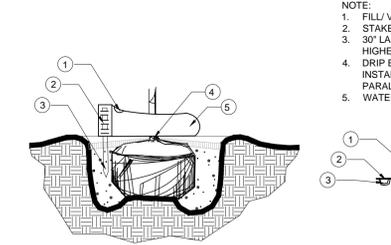
9 STANDARD SOD DETAIL
N.T.S.



10 GREEN LAWN SOD DETAIL
N.T.S.



11 TRENCH EDGER DETAIL
N.T.S.



12 WATER BAG DETAIL
N.T.S.

GENERAL PLANTING NOTES

- THE QUANTITIES INDICATED ON THE MATERIAL SCHEDULE ARE PROVIDED FOR THE BENEFIT OF THE CONTRACTOR, BUT SHOULD NOT BE ASSUMED TO ALWAYS BE CORRECT. IN THE EVENT OF A DISCREPANCY, THE PLANTING PLAN WILL TAKE PRECEDENCE OVER THE THE MATERIAL SCHEDULE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY CALCULATIONS AND THE LIABILITY PERTAINING TO THOSE QUANTITIES AND ANY OTHER RELATED CONTRACT DOCUMENTS AND/OR PRICE QUOTATIONS.
- THE CONTRACTOR SHALL NOT CHANGE OR SUBSTITUTE PLANT VARIETIES OR SPECIES WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT.
- ALL LANDSCAPE MATERIAL INSTALLATION SHALL CONFORM TO THE CURRENT STANDARDS OF THE AMERICAN NURSERYMAN'S ASSOCIATION (ANA) AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, AND THE REPAIR OF ANY DAMAGE INCURRED DURING THE EXECUTION OF THE WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL LOCAL, STATE, AND FEDERAL CONSTRUCTION CODES AND SECURING ALL NECESSARY PERMITS.
- THE CONTRACTOR SHALL MAKE PERIODIC INSPECTIONS OF THE PROJECT DURING THE WARRANTY PERIOD PER GDOT STANDARD SPECIFICATIONS SECTION 702.
- THE CONTRACTOR SHALL WARRANTY THE PLANT MATERIAL FOR TWO ESTABLISHMENT PERIODS AS OUTLINED IN THE GDOT STANDARD SPECIFICATIONS SECTION 702.
- REFER TO THE GRADING PLAN FOR ROUGH GRADES OF PLANTING BEDS. FINAL GRADES ARE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT.
- PLANT MATERIAL TO BE PLACED AS SHOWN ON THE PLANTING PLANS. ALL PLANT MATERIAL SHALL BE SUBJECT TO APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO BACKFILLING AND MULCHING.
- DO NOT SCALE FROM DRAWING.
- IF DIMENSIONS ON DRAWINGS VARY 1/2" OR MORE, CONTACT THE LANDSCAPE ARCHITECT FOR REVIEW AND CONFIRMATION PRIOR TO CONSTRUCTION.
- NEW SHRUB PLANTING IS TO BE A MINIMUM OF 24" AWAY FROM EXISTING TREES.
- PLANTING PLAN IS FOR THE LOCATION AND IDENTIFICATION OF VEGETATION ONLY. NO OTHER WORK IS TO BE PERFORMED BASED ON THIS PLAN.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE OF ALL PLANTING PITS PRIOR TO INSTALLATION.
- IF A PERMANENT IRRIGATION SYSTEM IS NOT INSTALLED FOR THIS PROJECT OOOZ TUBES, OR EQUIVALENT, SHALL BE PROVIDED FOR EACH TREE INSTALLED FOR THE ENTIRE PROJECT. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR MAINTAINING THE WATER LEVEL IN THE BAGS FOR THE DURATION OF PROJECT CONSTRUCTION UNTIL PROJECT CLOSE OUT.
- FINAL TREE STAKING DETAILS AND PLACEMENT TO BE DETERMINED BY OWNER.

Braselton Town Green

Date: June 2, 2015

PLANT SCHEDULE

QTY.	ITEM DESCRIPTION	CALIPER	HEIGHT	SPREAD	CONTAINER	REMARKS
	Large Trees					
7	Acer rubrum 'Frank Jr' PP16763	3-3 1/2"	12-14'		B&B	Straight dominant leader, well shaped
14	Acer saccharum 'Commemoration'	3-3 1/2"	12-14'		B&B	Straight dominant leader, well shaped
1	Ginkgo biloba	4-4 1/2"	14-16'		B&B	SPECIMAN, straight dominant leader
4	Quercus lyrata	3-3 1/2"	12-14'		B&B	Straight dominant leader, well shaped
10	Quercus phellos	3-3 1/2"	12-14'		B&B	Straight dominant leader, well shaped
3	Taxodium distichum 'SoFine' PP13431	3-3 1/2"	12-14'		B&B	Full to ground, well shaped
6	Ulmus americana 'Princeton'	3-3 1/2"	12-14'		B&B	Straight dominant leader, well shaped
	Small Trees					
12	Prunus subhirtella 'Autumnalis'	2-2 1/2"	10-12'		B&B	Straight dominant leader, well shaped
9	Vitex agnus-castus	2-2 1/2"	10-12'	8-10'	B&B	Multi-trunk, well shaped
	Shrubs					
502	Abelia grandiflora ' Kaleidoscope'		15-18"	18-21"	CONT.	Full, dense, well rooted in pot
240	Distylium 'Vintage Jade'		15-18"	18-21"	CONT.	Full, dense, well rooted in pot
69	Hydrangea paniculata 'Bobo'		18-21"	15-18"	CONT.	Full, dense, well rooted in pot
71	Illicium parviflorum 'Florida Sunshine'		21-24"		CONT.	Full, dense, well rooted in pot
83	Loropetalum chinensis 'Blush'		21-24"		CONT.	Full, dense, well rooted in pot
319	Loropetalum chinensis 'Daruma Compact'		15-18"	18-21"	CONT.	Full, dense, well rooted in pot
66	Rhaphiolepis indica 'Eleanor Taber'		15-18"	15-18"	CONT.	Full, dense, well rooted in pot
339	Spiraea japonica 'Walburna'		12-15"	15-18"	CONT.	Full, dense, well rooted in pot
13	Viburnum plicatum tomentosum 'Shasta'		4-5'		B&B / CONT.	Full, dense, well rooted in pot
57	Viburnum x burkwoodii 'Conoy'		15-18"		CONT.	Full, dense, well rooted in pot
	Flowers					
297	Iris germanica 'Purple'				1 GAL.	Certified pure, disease and pest free
	Ornamental Grasses					
1,947	Liriope muscari 'Variegatum'				1 GAL.	Good YELLOW variegation, full, dense
50	Miscanthus sinensis 'Adagio'				3 GAL.	Full, dense, multiple runners
424	Miscanthus sinensis 'Morning Light'				3 GAL.	Full, dense, multiple runners
295	Mulenbergia capillaris				3 GAL.	Full, dense, multiple runners
90	Panicum virgatum 'Heavy Metal'				3 GAL.	Full, dense, multiple runners
	Sod					
41,525	Cynodon dactylon 'Tifway 419'				SF	Certified pure, disease and pest free
9,255	Cynodon dactylon 'Tifway 419'				SF	Certified pure, disease and pest free
	Miscellaneous					
315	Complete Landscape Mix (4" depth)				CY	
525	Landscape Mulch (1 bale per 50 SF)				BALE	

PLANTING SOIL MIX NOTES

- LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANTING SOIL. PLANTING SOIL SHALL BE MIXED AND STORED ON SITE.
- LANDSCAPE CONTRACTOR SHALL FURNISH (FROM HIS SOURCE) A GOOD CLEAN DARK LOAMY TOPSOIL. TOPSOIL MUST BE APPROVED BY THE LANDSCAPE ARCHITECT.
- THE PLANTING SOIL MIX MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO ANY BACKFILLING.
- THE PLANTING SOIL MIX SHALL CONFORM TO THE FOLLOWING GDOT STANDARD SPECIFICATIONS: SECTION 708 - PLANT TOPSOIL SECTION 893 - MISCELLANEOUS PLANTING MATERIALS



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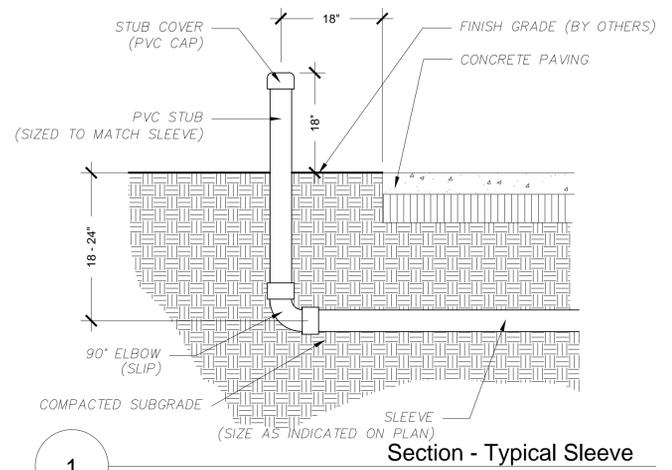
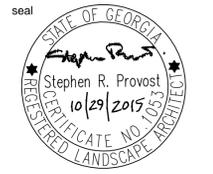
TOWN GREEN PARK
Town of Braselton, Georgia

revisions

NO.	DATE	DESCRIPTION

date 07/20/2015
project no. 12020.0
drawn by RKC
checked by SRP
sheet title

Landscape Details & Notes



Section - Typical Sleeve
 N.T.S.

CONTRACTOR SHALL CONNECT IRRIGATION SYSTEM OF THE PORTION TO THIS IRRIGATION SYSTEM. MAINLINE SHOULD BE STUBBED UP AND COMMON AND CONTROL WIRES SHOULD BE IN THIS LOCATION FROM OTHER CONTRACTOR.

OLD STATE ROUTE 124 EAST - CLOSED
 VARIABLE RIGHT-OF-WAY TO BE DEDICATED TO CITY OF BRASELTON

SHEET IR 1.3

FUTURE BUILDING

IRRIGATION CONTROLLER W/
 RAIN SENSOR (CONTRACTOR SHALL COORDINATE THE LOCATION W/ OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION) HARDWIRE 120 VAC POWER TO CONTROLLER. CONNECT CONTROLLER & RAIN SENSOR TO POWER PANEL, REFER TO ELECTRICAL ENGINEER'S PLANS

GENERAL SLEEVING NOTES:

1. THE LOCATION OF SLEEVES ON THIS PLAN ARE SCHEMATIC. THE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS NECESSARY TO ACCOMMODATE EXISTING VEGETATION, UTILITIES, OR OTHER MAJOR CONSTRUCTION.
2. ANY DAMAGE TO EXISTING UTILITIES, STRUCTURES, OR OTHER CONSTRUCTION RESULTING FROM INSTALLATION OF SLEEVES IS THE RESPONSIBILITY OF THE CONTRACTOR.
3. WHERE A JOINT BETWEEN PIPE SECTIONS IS NECESSARY, THE INSIDE DIAMETER OF THE PIPE SHALL NOT BE SIGNIFICANTLY REDUCED.
4. PVC SLEEVES SHALL BE INSTALLED AT A DEPTH OF AT LEAST 18" BELOW PAVEMENT SURFACE, AND NO DEEPER THAN 24". END OF SLEEVE SHALL EXTEND 18" BEYOND CURB OR PAVEMENT EDGE.
5. BACK FILL MATERIAL PLACED AROUND SLEEVES SHALL BE FREE OF ROCKS OR OTHER FOREIGN MATTER THAT MAY CAUSE DAMAGE TO THE PIPE.
6. THE SLEEVING CONTRACTOR SHALL INSTALL A PVC STUB THAT IS AT LEAST 18" ABOVE GRADE AT EACH END OF THE SLEEVE TO MARK ITS EXACT LOCATION (SEE SLEEVING DETAIL).
7. ONCE THE SLEEVING IS INSTALLED, THE CONTRACTOR SHALL INSTALL A TEMPORARY CAP ON EACH END OF THE PIPE ACCORDING TO THE DETAIL TO PREVENT SOIL OR OTHER DEBRIS FROM ENTERING THE PIPE.
8. ALL MODIFICATIONS OF THIS PLAN ARE SUBJECT TO THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT.
9. THE SLEEVING CONTRACTOR SHALL SUPPLY THE PROJECT LANDSCAPE ARCHITECT WITH AN "AS-BUILT" PLAN OF THE LOCATION OF ALL SLEEVES PRIOR TO ACCEPTANCE OF THE WORK.
10. SLEEVE SIZES ARE AS NOTED ON THE PLAN.
11. ALL SLEEVES ARE BY THE GENERAL CONTRACTOR UNLESS OTHERWISE NOTED.
12. ALL SLEEVES SHALL BE CLASS 200 SOLVENT WELD PVC PIPE.
13. THERE SHALL BE NO TURNS OR BENDS IN THE SLEEVES.
14. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND UNCOVERING THE ENDS OF ALL SLEEVES FOR IRRIGATION CONTRACTOR.

SHEET IR 1.2

THE PROJECT
 N.I.C.

SHEET IR 1.1

EXISTING 1-1/2" IRRIGATION METER.
 CONTRACTOR TO PROVIDE BACKFLOW PREVENTER WITH WEATHER / FREEZE PROOF SHELL. (CONTRACTOR SHALL COORDINATE W/ THE LOCAL MUNICIPALITY FOR CORRECT SIZE & TYPE OF BACKFLOW PREVENTER & LOCATION)

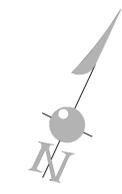
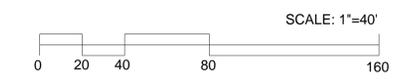
2-STORY METAL BUILDING

MULTI-LEVEL BRICK BUILDING (1 TO 3 STORY)
 FFE RANGE=919.6 - 923.7
 HIGHEST POINT ON BLDG=959.0

BUILDING ENCROACHES BY 2.01'

LEGEND

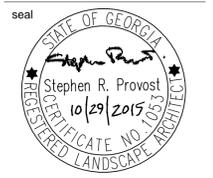
- 4" CLASS 200 PVC SLEEVE SEE DETAIL 1/ IR 3.0
- 2 1/2" MAINLINE
- # QUANTITY OF SLEEVES WHEN GREATER THAN ONE
- ⊘ BACK FLOW PREVENTER
- M 1-1/2" METER
- ☔ RAIN / FREEZE SENSOR (SEE SPECS)
- C CONTROLLER ESPLXM (MIN. 2 EXTRA STATIONS THAN REQUIRED)
- ⊘ ISOLATION VALVE



revisions	NO.	DATE	DESCRIPTION

date	07/20/2015
project no.	12020.0
drawn by	CWE
checked by	SRP

sheet title
Overall Irrigation Mainline & Sleeving Plan



client



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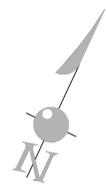
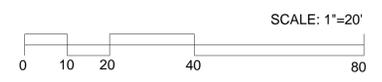
TOWN GREEN PARK
 Town of Braselton, Georgia

RAIN BIRD (1800 SERIES)		HUNTER I-20 ULTRA		RAIN BIRD R13-18 SERIES (BLACK)	
4" POP-UP	12" POP-UP	4" POP-UP I-20	NOZZLE	FLOW	
12	12F (3.0)				R13-18F (2.0) BLACK
12	123Q (2.5)		6.0	5.5	R13-18TQ (1.5) BLACK
12	12H (1.5)		4.0	5.5	R13-18H (1.0) BLACK
12	12Q (1.0)		3.0	5.5	R13-18Q (0.5) BLACK
12	12 VAN (1.25)		1.5	5.5	
8	8F (1.25)				
8	8H (.5)		1.5SR	1.5	
8	8Q (.25)		1.5SR	1.5	
8	8 VAN (1.25)		1.5SR	1.5	
	9SST (1.75)		1.0SR	1.0	
	15SST (1.5)		1.0SR	1.0	
	15CST (1.5)		1.0SR	1.0	
	15EST (.75)		1.0SR	1.0	
	5-B (bubbler) (1.5)		1.0SR	1.0	
2 1/2" MAINLINE			1.0SR	1.0	
4" CLASS 200 PVC SLEEVE			1.0SR	1.0	
CONTROLLER ESPLXM (+2 ADD. STATIONS)		QC	QUICK COUPLER		
RAIN / FREEZE SENSOR					
MANUAL DRAIN VALVE (SEE DETAIL)		VALVE	1.5" 12"	ZONE	
BACK FLOW PREVENTER			15"	GPM	
1-1/2" EXISTING METER		VALVE			
ISOLATION VALVE					

- NOTES:**
- THE DESIGN FOR THIS SYSTEM ASSUMES AN AVAILABLE RESOURCE OF MINIMUM 37 GPM @ 55 PSI AFTER THE BACK FLOW PREVENTER.
 - HEAD, VALVE & TAP LOCATIONS ARE SUBJECT TO CHANGE IN THE FIELD AT THE OWNER'S DISCRETION.
 - THERE SHALL BE NO TRENCHING WITHIN THE DRIP LINE OF THE EXISTING TREES.
 - ALL MAINLINES & VALVES SHALL BE LOCATED WITHIN PROPERTY LINE BOUNDARIES.
 - THE IRRIGATION CONTRACTOR IS TO CONFIRM THE DESIGN PRESSURE AND FLOW IS AVAILABLE PRIOR TO THE BEGINNING OF WORK.
 - PROVIDE TRACER WIRES ON ALL SUPPLY, PRESSURE, AND CIRCUIT PIPING.
 - DRIP LATERAL LINES & DISTRIBUTION TAPS SHOULD BE ADJUSTED IN THE FIELD TO MINIMIZE PRESSURE LOSS.
 - IRRIGATION DESIGN ASSUMES LANDSCAPE AREAS WILL BE SOD. CONTRACTOR SHALL SUBSTITUTE 12" POP UP SPRAYS FOR ROTORS IF SHRUBS ARE TO BE INSTALLED. SPACING OF POP UP SPRAYS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND NOT TO EXCEED 37 GPM PER ZONE.



NOTE:
 MAINLINE & SLEEVING ARE NOT SHOWN ON THIS PLAN FOR CLARITY. SEE SHEET IR 1.0

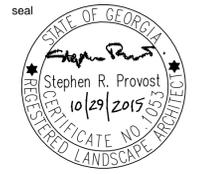


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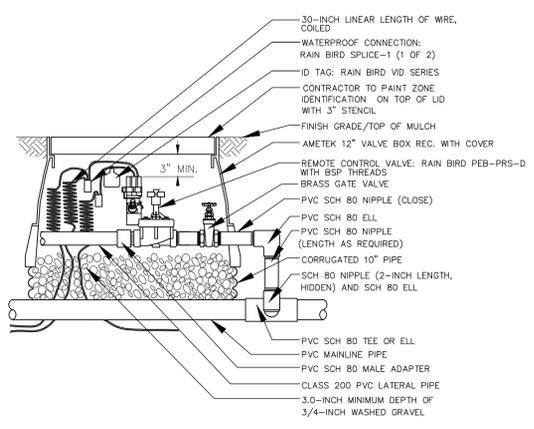
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 project no. 12020.0
 drawn by CWE
 checked by SRP

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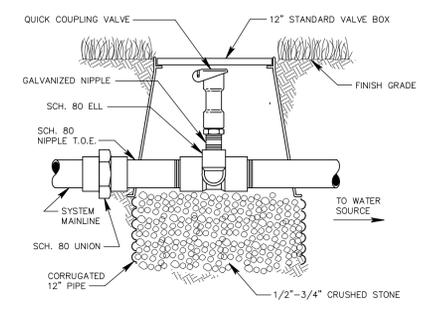
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IR 1.1



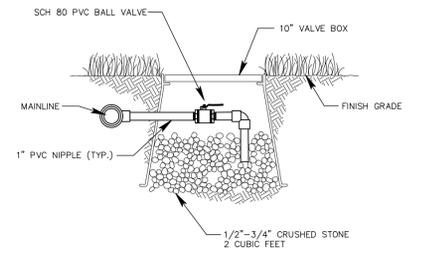
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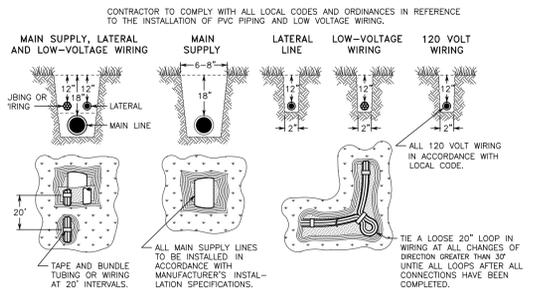
1 CONTROL VALVE (PEB)
 NTS



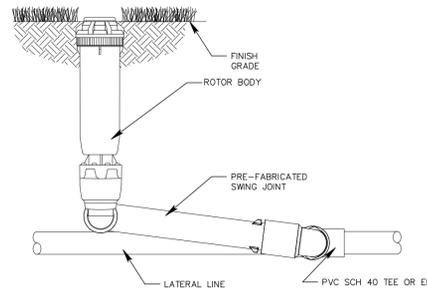
2 QUICK COUPLING VALVE
 NTS



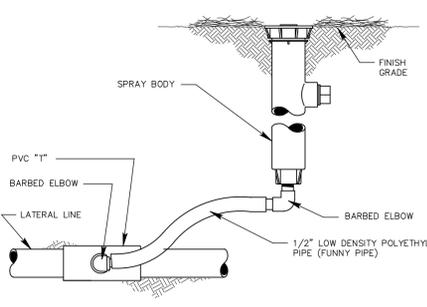
3 MANUAL DRAIN VALVE
 NTS



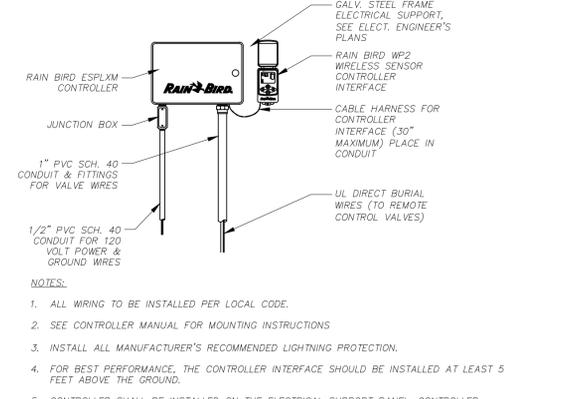
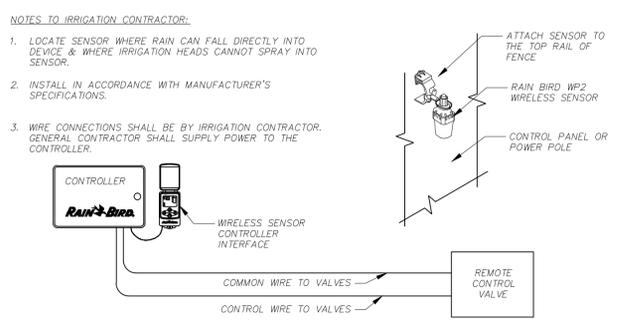
4 TRENCHING
 NTS



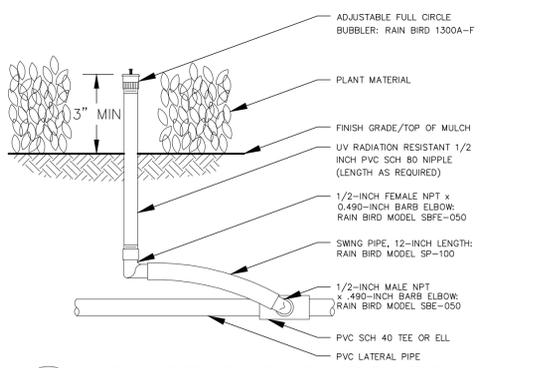
5 ROTOR ASSEMBLY
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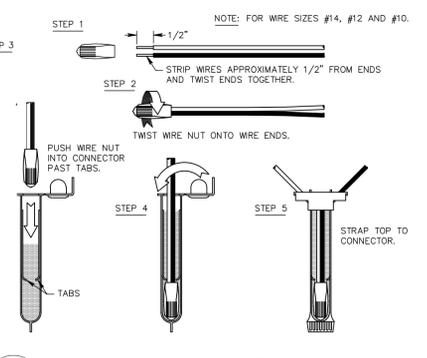
6 SPRAY ASSEMBLY
 NTS



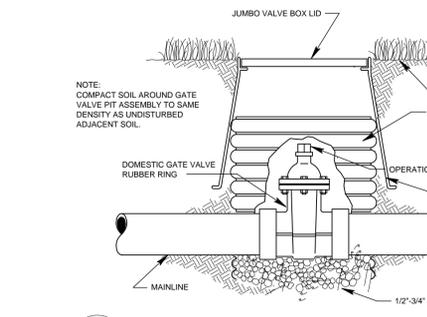
7 CONTROLLER / RAIN SENSOR
 NTS



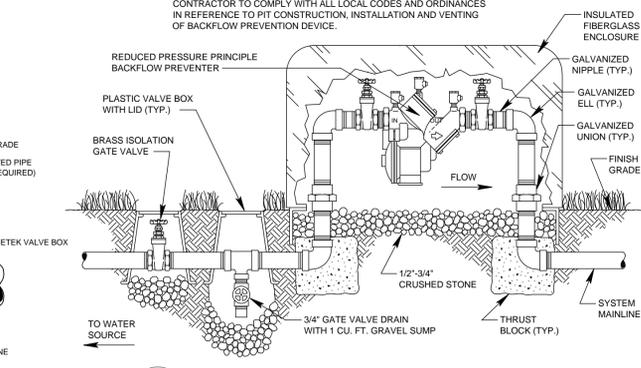
8 ADJUSTABLE BUBBLER
 NTS



9 WIRE CONNECTION 3M-DBY
 NTS



10 ISOLATION VALVE
 NTS



11 RPA BACKFLOW DEVICE
 NTS

* IRRIGATION CONTRACTOR SHALL SUBMIT BACKFLOW DETAIL TO LOCAL AUTHORITIES FOR APPROVAL BEFORE STARTING CONSTRUCTION.

GENERAL NOTES

- ALL MAINLINES TO HAVE A MINIMUM OF 18" OF COVER. (CLASS 200 PVC PIPE).
- ALL LATERAL AND SUB-MAIN PIPE TO HAVE A MINIMUM OF 12" OF COVER. (CLASS 200 PVC PIPE).
- NO ROCKS, BOULDER, OR OTHER EXTRANEIOUS MATERIALS TO BE USED IN BACKFILLING OF TRENCH
- ALL PIPE TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.
- ALL THREADED JOINTS TO BE COATED WITH TEFLON TAPE OR LIQUID TEFLON.
- ALL LINES TO BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF SPRINKLER HEADS.
- SPRINKLER AND RELATED EQUIPMENT TO BE INSTALLED AS PER DETAILS.
- ALL ELECTRICAL JOINTS TO BE MADE USING WATERPROOF CONNECTIONS AS SHOWN ON DETAILS.
- ALL EQUIPMENT NOT SPECIFIED IN THE LEGEND SHALL BE DETERMINED AND FURNISHED BY THE CONTRACTOR.
- NO ELECTRICAL CONNECTIONS SHALL BE MADE IN THE FIELD EXCEPT AT A CONTROL BOX OR ANOTHER VALVE BOX SPECIFICALLY FOR CONNECTIONS.
- ANY DISCREPANCY BETWEEN THIS SHEET AND OTHERS IN THIS SET MUST BE REFERRED TO THE OWNER'S REPRESENTATIVE BY THE CONTRACTOR FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- ALL 24 VOLT WIRE SHALL BE #12 UF/UL FOR COMMON WIRE, AND #14 UF/UL FOR CONTROL WIRES, DIRECT BURIAL, SOLID COPPER.
- CONTRACTOR TO BE RESPONSIBLE FOR PROPER COVERAGE OF AREAS TO BE WATERED, I.E. ADJUST HEADS WITH INSUFFICIENT COVERAGE DUE TO BLOCKAGE BY EXISTING OR PROPOSED SITE FEATURES.
- CONTRACTOR TO REFER TO LANDSCAPE PLAN TO KEEP SPRINKLER EQUIPMENT AND ACCESSORY MATERIAL FROM INTERFERING WITH PROPER PLANTING, I.E. VERIFY ROOT BALL SIZE FOR PLANTING.
- CONTRACTOR SHALL PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION IN VALVE BOX (WRAP AROUND 3/4" PIPE 12 TIMES).
- CONTRACTOR TO UTILIZE APPROPRIATE AUTOMATIC DRAIN DEVICE WHERE LOW HEAD DRAINAGE MAY OCCUR.
- ALL SPRINKLERS TO BE MOUNTED ON SWING JOINTS - REFER TO DETAILS.
- CONTRACTOR SHALL UTILIZE VALVE I.D. TAGS ON ALL REMOTE CONTROL VALVES.
- 24 VOLT WIRE SHALL BE COLOR CODED; COMMON-WHITE, CONTROL-RED.
- CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDED GROUNDING EQUIPMENT FOR POWER SUPPLY AND VALVE OUTPUT WITH (2) 5/8" COPPER CLAD GROUND RODS.
- CONTRACTOR SHALL INSTALL MANUFACTURERS' RECOMMENDATION ON FAULT GROUND AND LIGHTNING PROTECTION.
- ALL MATERIAL TO BE SUPPLIED BY CONTRACTOR TO OWNER:
 - TWO WRENCHES FOR DISASSEMBLING AND ADJUSTING EACH TYPE OF SPRINKLER HEADS AND VALVE SUPPLIED.
 - TWO KEYS FOR EACH OF THE AUTOMATIC CONTROLLERS.
 - TWO QUICK COUPLER KEYS WITH MATCHING HOSE SWIVELS.
- SYSTEM IS DIAGRAMMATIC TO IMPROVE CLARITY. ALL MAINLINE PIPING ELECTRIC VALVES AND WIRING ARE TO BE INSTALLED IN LANDSCAPE AREAS AND WITHIN PROPERTY BOUNDARIES. CONTRACTOR SHALL REFERENCE THE LANDSCAPE PLAN PRIOR TO THE INSTALLATION OF PIPING TO AVOID CONTACT WITH PLANT MATERIALS EXISTING OR NEW.
- CONTRACTOR TO ADD EXTENSION RISER TO POP-UP HEADS WHEN NEEDED FOR PROPER COVERAGE.
- CONTRACTOR SHALL INSTALL SPRINKLER EQUIPMENT 12" FROM FOUNDATIONS. ALSO INSTALL SPRINKLERS 4" FROM CURB OR WALKS.
- PRIOR TO BID IRRIGATION CONTRACTOR SHALL VERIFY RIGHT-OF-WAY AND BACKFLOW REQUIREMENTS. NO LATER THAN FIVE DAYS BEFORE BID
- SUBMITTALS CONTRACTOR SHALL NOTIFY CONSULTANT OF ANY CHANGES FROM PLANS AND SPECIFICATIONS.
- IRRIGATION CONTRACTOR SHALL PROVIDE THE OWNER WITH A REPRODUCIBLE CROSS MEASURED AS-BUILT DRAWING OF THE INSTALLED IRRIGATION SYSTEM IN AUTOCAD 2004 FORMAT BEFORE FINAL ACCEPTANCE.
- A 1-YEAR WARRANTY PERIOD SHALL BE PROVIDED FOR SYSTEM AFTER SUBSTANTIAL COMPLETION IS ACCEPTED. START UP AND ADJUSTING OF SYSTEM IN SPRING TIME SHALL BE INCLUDED IN WARRANTY.
- PRIOR TO BID, CONTRACTOR SHALL VERIFY THAT ALL MATERIALS, INSTALLATION PARAMETERS AND OPERATIONS CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. NO LATER THAN FIVE DAYS BEFORE BID SUBMITTALS
- CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY CHANGES REQUIRED DUE TO CURRENT CODE OR ORDINANCE DISCREPANCIES.
- IF CONTRACTOR DOES NOT COMPLY TO THIS NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY INSTALLATION CHANGE AND REDESIGN COSTS FOR NON-COMPLIANCE.

CODES AND ORDINANCES

ALL MATERIALS, INSTALLATION PARAMETERS, AND OPERATIONS SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND FOLLOW ALL REGULATIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY APPLICABLE CODES AND ORDINANCES PRIOR TO SUBMITTING BID. BEFORE BID SUBMITTAL, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE AT LEAST 5 DAYS BEFORE BID SUBMITTAL, OF ANY CHANGES DUE TO CODE OR ORDINANCE DISCREPANCIES. IF THE CONTRACTOR DOES NOT COMPLY WITH THIS PROCESS AND NOTIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NECESSARY INSTALLATION CHANGE AND REDESIGN COSTS FOR NON-COMPLIANCE AT NO COST TO THE OWNER.

revisions	NO.	DATE	DESCRIPTION

date	07/20/2015
project no.	12020.0
drawn by	CWE
checked by	SRP
sheet title	

Irrigation Details & Notes

consultant



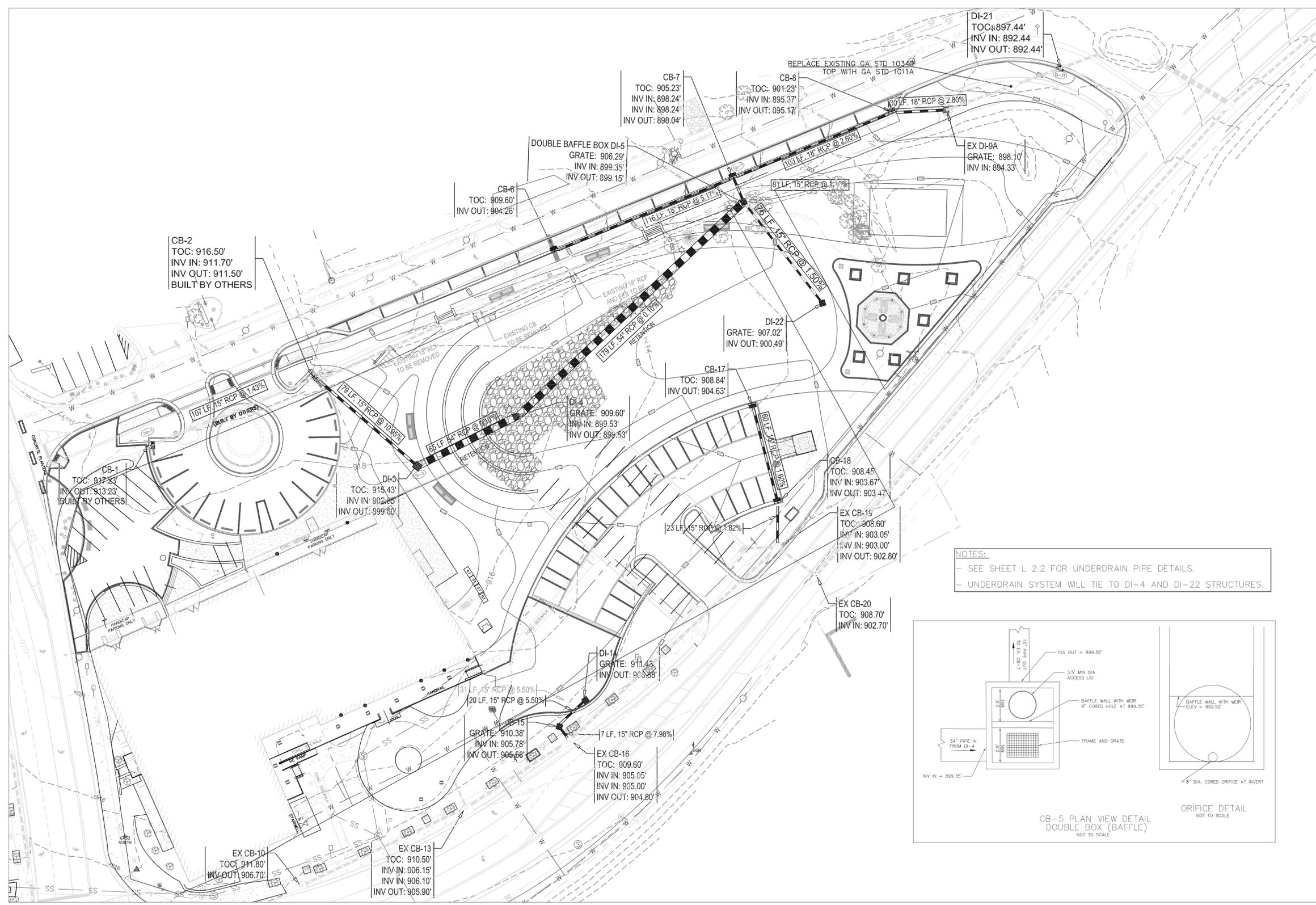
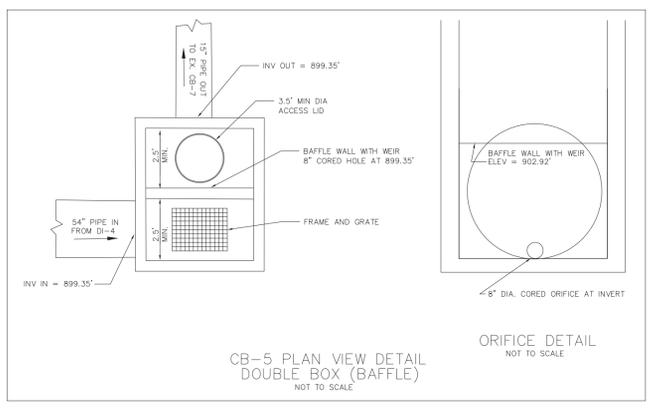
Town of Braselton
4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
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TOWN GREEN PARK
City of Braselton, Georgia

LEGEND

- EX CB CATCH BASIN
- CATCH BASIN
- STORM DRAINAGE YARD INLET
- STORM DRAINAGE MANHOLE
- STORM DRAIN LINE
- PROPOSED CONTOUR
- EXISTING CONTOUR
- EASEMENT
- UNDERGROUND TELECOM
- UNDERGROUND POWER
- DOMESTIC WATER
- SANITARY SEWER
- STORM DRAIN
- RECLAIMED WATER
- SANITARY SEWER MANHOLE
- LIGHT POLE
- WATER VALVE
- FIRE HYDRANT
- SANITARY SEWER CLEANOUT
- ELECTRICAL POLE
- TRANSFORMER
- WATER METER
- PHONE PEDISTAL
- FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE

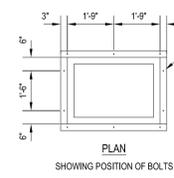
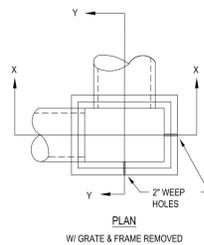
NOTES:
- SEE SHEET L 2.2 FOR UNDERDRAIN PIPE DETAILS.
- UNDERDRAIN SYSTEM WILL TIE TO DI-4 AND DI-22 STRUCTURES.



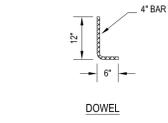
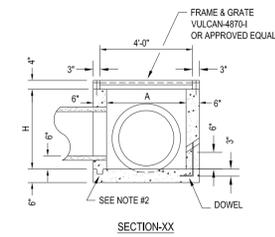
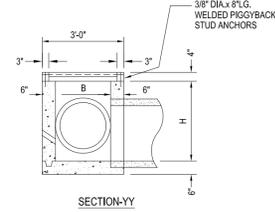
revisions		
NO.	DATE	DESCRIPTION

date 10-21-13
project no. 2012039.00
drawn by TSG
checked by PCP

sheet title
Storm Drainage Plan



DIMENSIONS FOR DROP INLET				
DIMENSIONS OF BOX & PIPE				
PIPE	SPAN	WIDTH	HEIGHT	
D	A	B	H	
12"	3'-0"	2'-0"	2'-8"	
15"			3'-0"	
18"			3'-5"	
24"			4'-0"	
30"	3'-0"	2'-0"	4'-3"	

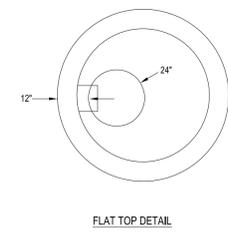
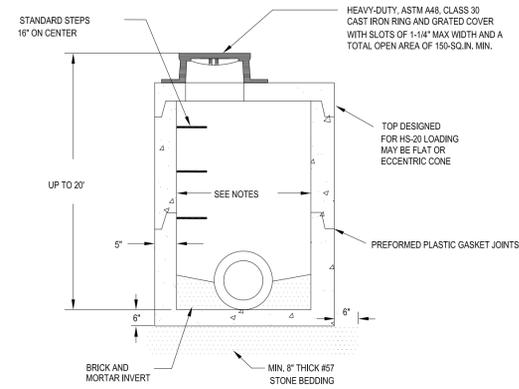


DIMENSIONS FOR CHANNELS				
NO.	SIZE	LENGTH	TOTAL LIN. FT.	
2	3'-4.1"	4'-0"	8'-0"	
2	3'-4.1"	2'-6"	5'-0"	

TYPICAL DROP INLET
NOT TO SCALE

GENERAL NOTES:

- CLASS "B" CONCRETE TO BE USED THROUGHOUT.
- OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTER AS DIRECTED BY THE DESIGNER.
- TWO 2" PIPE WEEP HOLES TO BE PLACED AS DIRECTED BY THE DESIGNER.
- FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
- IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON N.C.D.O.T. STANDARD 840.00.
- A STONE DRAIN CONSISTING OF 1 CUBIC FOOT OF NO. 78M STONE CONTAINED IN A BAG OF POROUS FABRIC SHALL BE PLACED AT EACH WEEP HOLE.
- ALL DROP INLETS OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 1'-2" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH N.C.D.O.T. STANDARD 840.66.

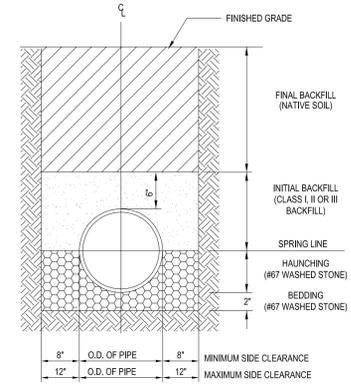


NOTES

- PRECAST CONCRETE MANHOLES SHALL MEET THE REQUIREMENTS OF ASTM C-478.
- MANHOLE JOINTS SHALL BE PREFORMED PLASTIC GASKET PER FED. SPECIFICATION S-S-00210.
- TRANSITION REDUCING SLABS MAY BE USED TO ENABLE USE OF A 4-FT DIA ECCENTRIC CONE SECTION.
- MANHOLES SHALL BE OF THE FOLLOWING MIN. INSIDE DIAMETERS:

PIPE STYLE	MH DIA
36" OR LESS	5 FT
42"-54"	6 FT
60" OR GREATER	AS INDICATED

STANDARD STORM DRAINAGE JUNCTION BOX
NOT TO SCALE



NOTES:

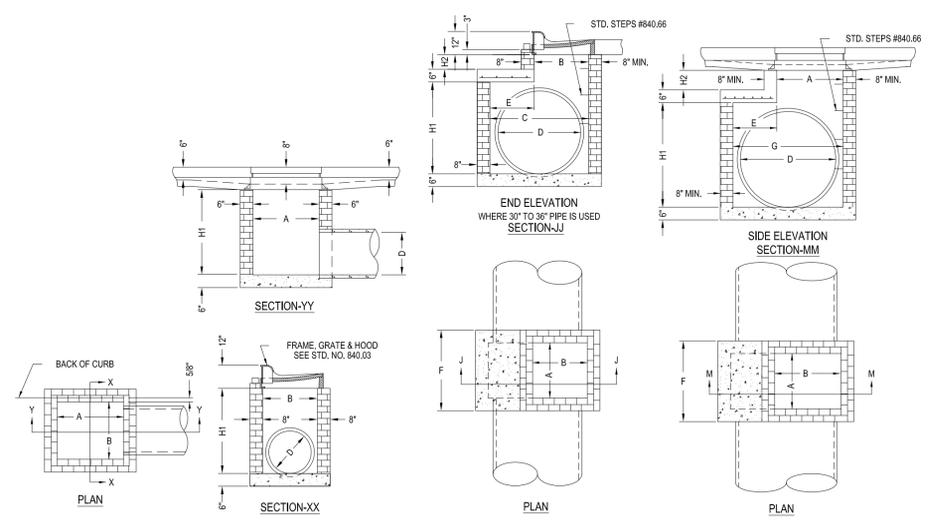
- FOR TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
- NO ROCKS OR BOLDERS 4" OR LARGER TO BE USED IN INTIAL BACKFILL.
- ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
- BACKFILL SHALL BE TAMPED IN 6" LAYERS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.
- IF ROCK IS ENCOUNTERED AT BOTTOM OF TRENCH, OVER EXCAVATE ROCK A MIN. OF 6-INCHES AND BACK FILL WITH NO. 67 STONE TO THE BOTTOM OF PIPE.

STANDARD RCP STORM PIPE TRENCHING
NOT TO SCALE

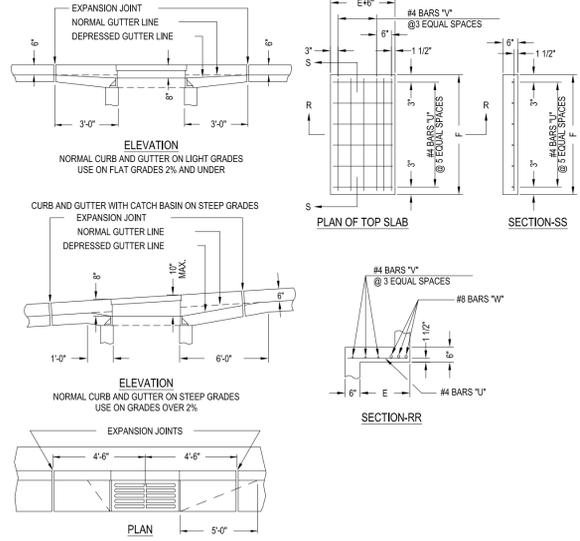
MINIMUM DIMENSIONS AND QUANTITIES FOR BRICK CATCH BASIN													
DIMENSIONS OF BOX AND PIPE					COVER			TOTAL					
PIPE	SPAN	WIDTH	WIDTH	SPAN	HEIGHT	HEIGHT	DIMENSION	BARS-U	BARS-V	BARS-W	LBS.		
D	A	B	C	G	MIN HI	HZ	E	F	NO.	LENGTH	NO.	LENGTH	
12"	3'-0"	2'-2"	-	-	2'-3"	-	-	-	-	-	-	-	
15"	3'-0"	2'-2"	-	-	2'-6"	-	-	-	-	-	-	-	
18"					2'-10"	-	-	-	-	-	-	-	
24"					3'-2"	-	-	-	-	-	-	-	
30"					3'-4"	-	11'-10"	4'-4"	4	1'-6"	3	4'-1"	45
36"					3'-8"	-	2'-4"	4'-4"	4	2'-0"	4	4'-1"	49
42"					4'-5"	-	2'-1"	3'-6"	4	1'-6"	3	3'-3"	38
48"					5'-0"	-	2'-8"	3'-6"	4	2'-6"	4	3'-3"	40
54"	3'-0"	2'-2"	-	-	5'-4"	-	3'-3"	3'-6"	4	3'-0"	6	3'-3"	48

GENERAL NOTES:

- MORTAR JOINTS 1/2" TO 1/8" THICK.
- CLASS "B" CONCRETE TO BE USED THROUGHOUT.
- THE POURING OF FLOOR SLAB TO BE ACCOMPLISHED BY FORMING.
- DEDUCT FOR PIPES) FROM TOTAL CU. YARDS OF BRICK MASONRY.
- ALL CATCH BASINS OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 1'-2" ON CENTER. STEPS SHALL BE IN ACCORDANCE WITH STD. NO. 840.66.
- USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.
- JUMBO BRICK WILL BE PERMITTED. CONCRETE BRICK OR 4" SOLID CONCRETE BLOCKS MAY BE USED IN LIEU OF CLAY BRICK.
- IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OR BOX, ADD TO BASE AS SHOWN ON NCDOT STD. NO. 840.00.
- FOR 8'-0" IN HEIGHT OR LESS, USE 6" WALLS. OVER 8'-0" IN HEIGHT, USE 12" WALL TO 6'-0" FROM TOP OF WALL AND 6" WALL FOR THE REMAINING 6'-0". QUALITIES TO BE ADJUSTED ACCORDINGLY.



STANDARD CONCRETE CATCH BASIN
NOT TO SCALE



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Town of Braselton
4982 Highway 53
Braselton, Georgia 30517
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f 706.654.3109
www.braselton.net

TOWN GREEN PARK
City of Braselton, Georgia

revisions		
NO.	DATE	DESCRIPTION

date 10-21-13
project no. 2012039.00
drawn by TSG
checked by PCP

sheet title
Storm Drainage Details

DESCRIPTION OF CONSTRUCTION

New construction of Braselton town green park, including installation of sidewalks, drainage, parking lots, and associated utilities.

RECEIVING WATERS

Receiving water = Indian Creek (Offsite)

SEQUENCE OF MAJOR ACTIVITIES

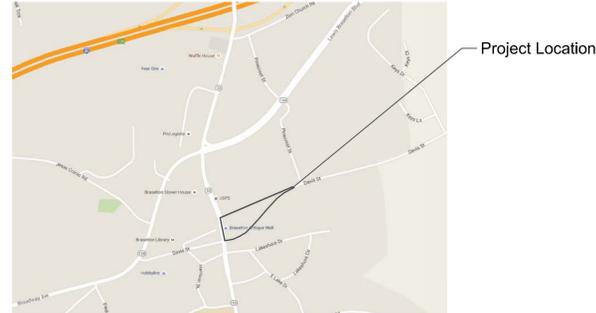
Initial perimeter BMP's are to be placed prior to land disturbance or any grading activities. Initial BMP's primarily includes silt fence, mulch, hay bales, and check dams.

Intermediate BMP's include retaining the initial BMP's and adding BMP's for the work Intermediate BMP's primarily includes maintaining silt fence, inlet sediment traps, and temporary grassing.

Final stabilization concludes construction work. Final BMP's primarily include sod.

2016						
	Jan.	Feb.	Mar.	Apr.	May	June
Clear and Grub	_____					
Prelim. Grading	_____					
Install and Maintain Erosion Control	_____					
Drainage	_____					
Utilities	_____					
Curb and Gutter Pavement	_____					
Landscaping	_____					

Vicinity Map



Sampling Information							
Location	Name of Receiving Water	Applicable Stage For Monitoring	Sampling Type	Drainage Area For Receiving Water (SQ MI)	Warm or Cold Water Stream	Allowable NTU Increase (For Receiving Water)	Location Description Representative
See Plans	Indian Creek	Initial, Intermediate, and Final	Receiving Water	0.005	Warm	75	Pipe Outfall

NOTES

- The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation.
- Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits.
- Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional.
- Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit.
- The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities.
- Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source.
- Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.

ENGINEER'S CERTIFICATION

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the State Soil and Water Conservation Commission as of January 1 of the year in which the land disturbing activity was permitted, provides for sampling of the receiving water(s) or the sampling of the storm water outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GAR100001."

"I certify under penalty of law that this plan was prepared after a site visit to the location described herein by myself or my authorized agent, under my supervision.

KENNETH R. MCDUFF
GSWCC LEVEL II CERTIFICATION NO. 00133
EXPIRES: 6/03/2017

DATE

Soil Series Information

The following is a summary of the soils that are expected to be found on the project site:

Map Unit Symbol	Map Unit Name	Rating	Component Name (Percent)	Rating Reasons (Numeric Value)	Acres in AOI	Percent of AOI
CeB	Cecil sandy loam, 2 to 6 percent slopes	Slight	Cecil (100%)		3.2	88.7%
CeC	Cecil sandy loam, 6 to 10 percent slopes	Slight	Cecil (100%)		0.4	11.3%
Totals for Area of Interest					3.6	100.0%

Rating	Acres in AOI	Percent of AOI
Slight	3.6	100.0%
Totals for Area of Interest	3.6	100.0%



Sediment Storage

The following table summarizes the required and available sediment storage for every outfall on this project. The contractor shall provide and maintain the storage volumes for the BMP's specified in this table.

Outfall	Stage	Silt Fence		Inlet Sediment Traps		Total Drainage Area to Outfall (Acre)	Sediment Storage Req'd Volume 67 Yd ³ Per Disturbed & Area Flowing Over Disturbed	Total Storage Volume Provided (Cu Yd)
		Length of Fence	Total Volume	Number of Devices	Total Volume			
Eastern End of Project	Initial	1326	398	6	9	2.89	194	805
	Intermediate	1267	380	12	18			
	Final (Retain From Intermediate)	0	0	0	0			
	Total Provided		778		27			

A sediment basin was not placed at the outfall as it would create a disturbance disproportional to the construction disturbed area. Adding a sediment basin would generate additional land disturbance and would require additional R/W / Easements. The potential storage provided would not be enough to justify the expense or additional impacts.

GPS Location of Construction Exit

Latitude 34° 06' 34", Longitude 83° 45' 41"

Plans Completed 10-06-2015				
Revisions				
Date	Revisions Requested By	Page Number	Signature	GSWCC Level II #
10/23/15	GSWCC	E.C. 1.0 - E.C. 1.7		0000000133
11/18/15	GSWCC	E.C. 1.0 - E.C. 1.11		0000000133
12/03/15	GSWCC	E.C. 1.0, E.C. 1.4 - E.C. 1.6		0000000133



MULKEY
ENGINEERS & CONSULTANTS
1255 CANTON STREET, SUITE G
ROSWELL, GA 30075
(770) 461-3511
(770) 561-5494 (FAX)
WWW.MULKEYINC.COM
FIRM LICENSE NO. C-1021
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Town of Braselton

4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
www.braselton.net

TOWN GREEN PARK
City of Braselton, Georgia

NO.	DATE	DESCRIPTION
1	10/23/15	
2	11/18/15	
3	12/03/15	

date
project no.
drawn by
checked by
sheet title

Erosion Control Notes 1

sheet

DISCHARGES INTO OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS, ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT

All Outfalls are either located further than 1 linear mile upstream or outside of the watershed of an impaired stream segment that has been listed for criteria violated, "Bio F" (impaired fish community) and/or "Bio M" (impaired macro invertebrate community), within Category 4a, 4b, or 5, and the potential cause is either "NP" (nonpoint source) or "UR" (urban runoff).

READY MIX CHUTE WASH DOWN

The washing of ready-mix concrete drums and dump truck bodies used in the delivery of Portland cement concrete is prohibited on this site.

In accordance with Standard Specification 107: Legal Regulations and Responsibility to the Public, only the discharge chute utilized in the delivery of Portland cement concrete may be rinsed free of fresh concrete remains. The Contractor shall excavate a pit outside of State water buffers, at least 25 feet from any storm drain and outside of the traveled way, including shoulders, for a wash-down pit. The pit shall be large enough to store all wash-down water without overtopping. Immediately after the wash-down operations are completed and after the wash-down water has soaked into the ground, the pit shall be filled in, and the ground above it shall be graded to match the elevation of the surrounding areas. Alternate wash-down plans must be approved by the Project Engineer.

Wash-down plans describe procedures that prevent wash-down water from entering streams and rivers. Never dispose of wash-down water down a storm drain. Establish a wash-down pit that includes the following: (1) a location away from any storm drain, stream, or river, (2) access to the vehicle being used for wash down, (3) sufficient volume for wash-down water, and (4) permission to use the area for wash down.

On sites where permission or access to excavate a wash-down pit is unavailable, the Contractor may have to wash-down into a sealable 55-gallon drum or other suitable container and then transport the container to a proper disposal site. For additional information, refer to the Georgia Small Business Environmental Assistance Program's "A Guide for Ready Mix Chute/Hopper Wash-down".

SPILL CLEANUP AND CONTROL PRACTICES

- Local, State and manufacturer's recommended methods for spill cleanup will be clearly posted and procedures will be made available to site personnel.
- Material and equipment necessary for spill cleanup will be kept in the material storage areas. Typical materials and equipment includes, but is not limited to, brooms, dustpans, mops, rags, gloves, goggles, cat litter, sand, sawdust and properly labeled plastic and metal waste containers.
- Spill prevention practices and procedures will be reviewed after a spill and adjusted as necessary to prevent future spills.
- All spills will be cleaned up immediately upon discovery. All spills will be reported as required by local, State, and Federal regulations.
- FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1 - 800 - 426 - 2675.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1 - 800 - 426 - 2675.
- FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA E.P.D. WILL BE CONTACTED WITHIN 24 HOURS.
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

The contractor shall notify the licensed professional who prepared this Plan if more than 1320 gallons of petroleum is stored onsite (this includes capacities of equipment) or if any one piece of equipment has a capacity greater than 660 gallons. The contractor will need a Spill Prevention Containment and Countermeasures Plan prepared by that licensed professional.

REDUCE THE POLLUTANTS IN STORM WATER DISCHARGES

Product Specific Practices

Petroleum Based Products - Containers for products such as fuels, lubricants, and tars will be inspected daily for leaks and spills. This includes onsite vehicles and machinery daily inspections and regular preventative maintenance of such equipment. Equipment maintenance areas will be located away from State Waters, natural drains, and storm water drainage inlets. In addition, temporary fueling tanks shall have a secondary containment liner to prevent/minimize site contamination. Discharge of oils, fuels, and lubricants is prohibited. Proper disposal methods will include collection in a suitable container and disposal as required by local and State regulations.

Paints/Finishes/Solvents - All products will be stored in tightly sealed original containers when not in use. Excess product will not be discharged to the storm water collection system. Excess product, materials used with these products, and product containers will be disposed of according to manufacturer's specifications and recommendations.

Concrete Truck Washing - NO concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water onsite.

Fertilizer/Herbicides - These products will be applied at rates that do not exceed the manufacturer's specifications or above the guidelines set forth in the crop establishment or in the GSWCC Manual for Erosion and Sediment Control in Georgia. Any storage of these materials will be under roof in sealed containers.

Building Materials - No building or construction materials will be buried or disposed of onsite. All such material will be disposed of in proper waste disposal procedures.

Inspections and Record Keeping

a. Permittee requirements.

(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking .. These inspections must be conducted until a Notice of Termination is submitted.

(2). Measure rainfall once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.

(3). Certified personnel (provided by the primary permittee) shall inspect the following at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non-working Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): (a) disturbed areas of the primary permittee's construction site ; (b) areas used by the primary permittee for storage of materials that are exposed to precipitation ; and (c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is received by EPD) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a certification that the best management practices are in compliance with the Erosion, Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2. of this permit.

Sampling Requirements. This permit requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with this permit. This paragraph shall not apply to any land disturbance associated with the construction of single-family homes which are not part of a subdivision or planned common development unless five (5) acres or more will be disturbed. The following procedures constitute EPD's guidelines for sampling turbidity.

a. *Sampling Requirements* shall include the following:

(1) A USGS topographic map, a topographic map or a drawing (referred to as a topographic map) that is a scale equal to or more detailed than a 1 :24000 map showing the location of the site or the stand alone construction; (a) the location of all perennial and intermittent streams and other water bodies as shown on a USGS topographic map, and all other perennial and intermittent streams and other water bodies located during mandatory field verification, into which the storm water is discharged and (b) the receiving water and/or outfall sampling locations. When the permittee has chosen to use a USGS topographic map and the receiving water(s) is not shown on the USGS topographic map, the location of the receiving water(s) must be hand-drawn on the USGS topographic map from where the storm water(s) enters the receiving water(s) to the point where the receiving water(s) combines with the first blue line stream shown on the USGS topographic map;

(2). A written narrative of site specific analytical methods used to collect, handle and analyze the samples including quality control/quality assurance procedures. This narrative must include precise sampling methodology for each sampling location;

(3). When the permittee has determined that some or all outfalls will be sampled, a rationale must be included on the Plan for the NTU limit(s) selected from Appendix B. This rationale must include the size of the construction site, the calculation of the size of the surface water drainage area, and the type of receiving water(s) (i.e., trout stream or supporting warm water fisheries) ; and

(4). Any additional information EPD determines necessary to be part of the Plan. EPD will provide written notice to the permittee of the information necessary and the time line for submittal.

b. *Sample Type.* All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-8-92-001" and guidance documents that may be prepared by the EPD.

(1). Sample containers should be labeled prior to collecting the samples.

(2). Samples should be well mixed before transferring to a secondary container.

(3). Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.

(4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. If automatic sampling is utilized and the automatic sampler is not activated during the qualifying event, the permittee must utilize manual sampling or rising stage sampling during the next qualifying event. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter. Samples are not required to be cooled.

(5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E.

c. *Sampling Points.*

(1). For construction activities the primary permittee must sample all receiving water(s), or all outfall(s), or a combination of receiving water(s) and outfall(s). Samples taken for the purpose of compliance with this permit shall be representative of the monitored activity and representative of the water quality of the receiving water(s) and/or the storm water outfalls using the following minimum guidelines:

(a). The upstream sample for each receiving water(s) must be taken immediately upstream of the confluence of the first storm water discharge from the permitted activity (i.e., the discharge farthest upstream at the site) but downstream of any other storm water discharges not associated with the permitted activity. Where appropriate, several upstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the upstream turbidity value.

(b). The downstream sample for each receiving water(s) must be taken downstream of the confluence of the last storm water discharge from the permitted activity (i.e., the discharge farthest downstream at the site) but upstream of any other storm water discharge not associated with the permitted activity. Where appropriate, several downstream samples from across the receiving water(s) may need to be taken and the arithmetic average of the turbidity of these samples used for the downstream turbidity value.

(c). Ideally the samples should be taken from the horizontal and vertical center of the receiving water(s) or the storm water outfall channel(s).

(d). Care should be taken to avoid stirring the bottom sediments in the receiving water(s) or in the outfall storm water channel.

(e). The sampling container should be held so that the opening faces upstream.

(f). The samples should be kept free from floating debris.

(g). Permittees do not have to sample sheetflow that flows onto undisturbed natural areas or areas stabilized by the project. For purposes of this section, stabilized shall mean, for unpaved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan (uniformly covered with landscaping materials in planned landscaped areas), or equivalent permanent stabilization measures as defined in the Manual (excluding a crop of annual vegetation and a seeding of target crop perennials appropriate for the region).

(h). All sampling pursuant to this permit must be done in such a way (including generally accepted sampling methods, locations, timing, and frequency) as to accurately reflect whether storm water runoff from the construction site is in compliance with the standard set forth in Parts 111.D.3. or 111.D.4..., whichever is applicable.

KENNETH R. MCDUFF
GSWCC LEVEL II CERTIFICATION NO. 00133
EXPIRES: 6/03/2017

DATE



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seal



Town of Braselton

4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
www.braselton.net

TOWN GREEN PARK
City of Braselton, Georgia

NO.	DATE	DESCRIPTION
1	10/23/15	
2	11/18/15	

date

project no.

drawn by

checked by

sheet title

Erosion Control Notes 2

sheet

d. Sampling Frequency.

(1) . The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any storm water discharge to a monitored receiving water and/or from a monitored outfall location within in forty-five (45) minutes or as soon as possible.

(2). However, where manual and automatic sampling are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the storm water discharge.

(3). Sampling by the permittee shall occur for the following qualifying events:

(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit after all clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the sampling location;

(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the sampling location, whichever comes first;

(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained;

(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with Part IV.D.4.a.(6), must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above; and

(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b) . Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

*Note that the permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that

Reporting.

1. The applicable permittees are required to submit the sampling results to the EPD at the address shown in Part 11.C. by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any storm water discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V.G.2. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.

2. All sampling reports shall include the following information:

- a. The rainfall amount, date, exact place and time of sampling or measurements;
- b. The name(s) of the certified personnel who performed the sampling and measurements;
- c. The date(s) analyses were performed;
- d. The time(s) analyses were initiated;
- e. The name(s) of the certified personnel who performed the analyses;
- f. References and written procedures, when available, for the analytical techniques or methods used;
- g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results;
- h. Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU;" and
- i. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI. If an electronic submittal is provided by EPD then the written correspondence may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service.

Retention of Records.

1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:

- a. A copy of all Notices of Intent submitted to EPD;
- b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
- c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
- d. A copy of all sampling information, results, and reports required by this permit;
- e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
- f. A copy of all violation summaries and violation summary reports generated in accordance with Part 111.D.2. of this permit; and
- g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2). of this permit.

2. Copies of all Notices of Intent, Notices of Termination , inspection reports , sampling reports (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) or other reports requested by the EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI. of this permit. These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the permittee.

STATE WATERS

This project falls within 200' of a state water "Tributary to Indian Creek" see drawing E.C. 1.6 for location

SOD

Type of Species	Year	Analysis or Equivalent N-P-K	Rate	N Top Dressing Rate
1. Cool season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 1/2/ — 30
	Second	6-12-12	1000 lbs./ac.	
	Maintenance	10-10-10	400 lbs./ac.	
2. Cool season grasses and legumes	First	6-12-12	1500 lbs./ac.	0-50 lbs./ac. 1/ — —
	Second	0-10-10	1000 lbs./ac.	
	Maintenance	0-10-10	400 lbs./ac.	
3. Ground covers	First	10-10-10	1300 lbs./ac. 3/	— — —
	Second	10-10-10	1300 lbs./ac. 3/	
	Maintenance	10-10-10	1100 lbs./ac.	
4. Pine seedlings	First	20-10-5	one 21-gram pellet per seeding placed in the closing hole	—
5. Shrub Lespedeza	First	0-10-10	700 lbs./ac.	—
	Maintenance	0-10-10	700 lbs./ac. 4/	
6. Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	30 lbs./ac. 5/
7. Warm season grasses	First	6-12-12	1500 lbs./ac.	50-100 lbs./ac. 2/6/ 50-100 lbs./ac. 2/ 30 lbs./ac.
	Second	6-12-12	800 lbs./ac.	
	Maintenance	10-10-10	400 lbs./ac.	
8. Warm season grasses and legumes	First	6-12-12	1500 lbs./ac.	50 lbs./ac./6/
	Second	0-10-10	1000 lbs./ac.	
	Maintenance	0-10-10	400 lbs./ac.	

- 1/ Apply in spring following seeding.
- 2/ Apply in split applications when high rates are used.
- 3/ Apply in 3 split applications.
- 4/ Apply when plants are pruned.
- 5/ Apply to grass species only.
- 6/ Apply when plants grow to a height of 2 to 4 inches.

Fertilizer Type	Fertilizer Rate (lbs/acre)	Fertilizer Rate (lbs/sq ft)	Season
10-10-10	1000	.025	Fall

Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (lbs./acre)
cool season grasses	first	6-12-12	1500	50-100 — 30
	second	6-12-12	1000	
	maintenance	10-10-10	400	
warm season grasses	first	6-12-12	1500	50-100 50-100 30
	second	6-12-12	800	
	maintenance	10-10-10	400	

Grass	Varieties	Resource Area	Growing Season
Bermudagrass	Common Tifway Tifgreen Tiflawn	M-L, P, C P,C P,C P,C	warm weather
Bahiagrass	Pensacola	P,C	warm weather
Centipede	—	P,C	warm weather
St. Augustine	Common Bitterblue Raleigh	C	warm weather
Zoysia	Emerald Myer	P,C	warm weather
Tall Fescue	Kentucky	M-L,P	cool weather

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seal



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TOWN GREEN PARK
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drawn by

checked by

sheet title

Erosion Control Notes 3

sheet

EC 1.2

KENNETH R. MCDUFF
GSWCC LEVEL II CERTIFICATION NO. 00133
EXPIRES: 6/03/2017

DATE



**EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE CONSTRUCTION PROJECTS**

SWCD: _____

Project Name: Braselton Town Green Park

City/County: Braselton / Jackson

Address: 4982 Highway 53
Braselton, GA. 30517

Date on Plans: _____

Plan Page #	Included Y/N		Plan Page #	Included Y/N	
EC 1.3	Y	1. The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted.	EC 1.0	Y	27. Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMP's, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
EC 1.0 to EC 1.11	Y	2. Level II certification number issued by the Commission, signature and seal of the certified design professional.	EC 1.1 to EC 1.2	Y	28. Provide complete requirements of inspections and record keeping by the primary permittee.*
NA	NA	3. Limits of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the EPD District Office. If EPD approves the request to disturb 50 acres or more at any one time, the plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist.*	EC 1.2	Y	29. Provide complete requirements of sampling frequency and reporting of sampling results.*
EC 1.0	Y	4. The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.	EC 1.1 to EC 1.2	Y	30. Provide complete details for retention of records as per Part IV.F. of the permit.*
EC 1.0	Y	5. Provide name, address, and phone number of primary permittee.	EC 1.0	Y	31. Description of analytical methods to be used to collect and analyze the samples from each location.*
EC 1.0	Y	6. Note total and disturbed acreage of the project or phase under construction.	EC 1.0	Y	32. Appendix B rationale for NTU values at all outfall sampling points where applicable.*
EC 1.0	Y	7. Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.	EC 1.11	Y	33. Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged.*
EC 1.0	Y	8. Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.	EC 1.0	Y	34. A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMP's (2) intermediate grading and drainage BMP's, and (3) final BMP's. For construction sites where there will be no mass grading and the initial perimeter control BMP's, intermediate grading and drainage BMP's, and final BMP's are the same, the plan may combine all of the BMP's into a single phase.*
EC 1.0	Y	9. Description of the nature of construction activity	EC 1.4 to EC 1.6	Y	35. Graphic scale and north arrow
EC 1.0	Y	10. Provide vicinity map showing site's relation to surrounding areas. Including designation of specific phase, if necessary.	EC 1.4 to EC 1.6	Y	36. Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following: Map Scale: 1 inch = 100 ft or larger scale Ground Slope: Flat 0 - 2%, Rolling 2 - 8%, Steep 8%+ Contour Intervals, ft.: Flat 0.5 or 1, Rolling 1 or 2, Steep 2.5, or 10
EC 1.0	Y	11. Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, etc. which may be affected.	NA	NA	37. Use of alternative BMP's whose performance has been documented to be equivalent to or superior to conventional BMP's as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission) Please refer to the Alternative BMP Guidance found at www.gaswcc.org
EC 1.0	Y	12. Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on page 15 of the permit.	EC 1.4 to EC 1.6	Y	38. Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
EC 1.0	Y	13. Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMP's and sampling to meet permit requirements as stated on page 15 of the permit.*	EC 1.11	Y	39. Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
EC 1.0	Y	14. Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMP's within 7 days after installation."*	EC 1.11	Y	40. Delineation and acreage of contributing drainage basins on the project site.
EC 1.0	Y	15. Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits."*	EC 1.11	Y	41. Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions.* (LD Storm Calcs)
EC 1.0	Y	16. Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMP's with a hydraulic component must be certified by the design professional."*	EC 1.11	Y	42. An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
EC 1.0	Y	17. Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit."*	EC 1.11	Y	43. Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
EC 1.0	Y	18. Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."*	EC 1.0	Y	44. Soil series for the project site and their delineation.
EC 1.0	Y	19. Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."*	EC 1.4 to EC 1.6	Y	45. The limits of disturbance for each phase of construction.
EC 1.0	Y	20. Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."*	EC 1.0	Y	46. Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMP's and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the plan.
EC 1.1	Y	21. Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Biotra Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMP's that will be used for those areas of the site which discharge to the Impaired Stream Segment.*	EC 1.4 to EC 1.6	Y	47. Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
NA	NA	22. If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (Identified in item 21 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan.*	EC 1.4 to EC 1.6	Y	48. Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
EC 1.1	Y	23. BMP's for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.*	EC 1.2 AND EC 1.4 to EC 1.6	Y	49. Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of the year that seeding will take place and for the appropriate geographic region of Georgia.
EC 1.1	Y	24. Provide BMPs for the remediation of all petroleum spills and leaks.			
EC 1.0	Y	25. Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.*			
EC 1.1	Y	26. Description of the practices that will be used to reduce the pollutants in storm water discharges.*			

Effective January 1, 2015

***If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream the * checklist items would be N/A.**

KENNETH R. MCDUFF
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EXPIRES: 6/03/2017

DATE



Town of Braselton

4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
www.braselton.net

TOWN GREEN PARK
City of Braselton, Georgia

revisions

NO.	DATE	DESCRIPTION
1	10/23/15	
2	11/18/15	

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project no.

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sheet title

Erosion Control Notes 4

sheet

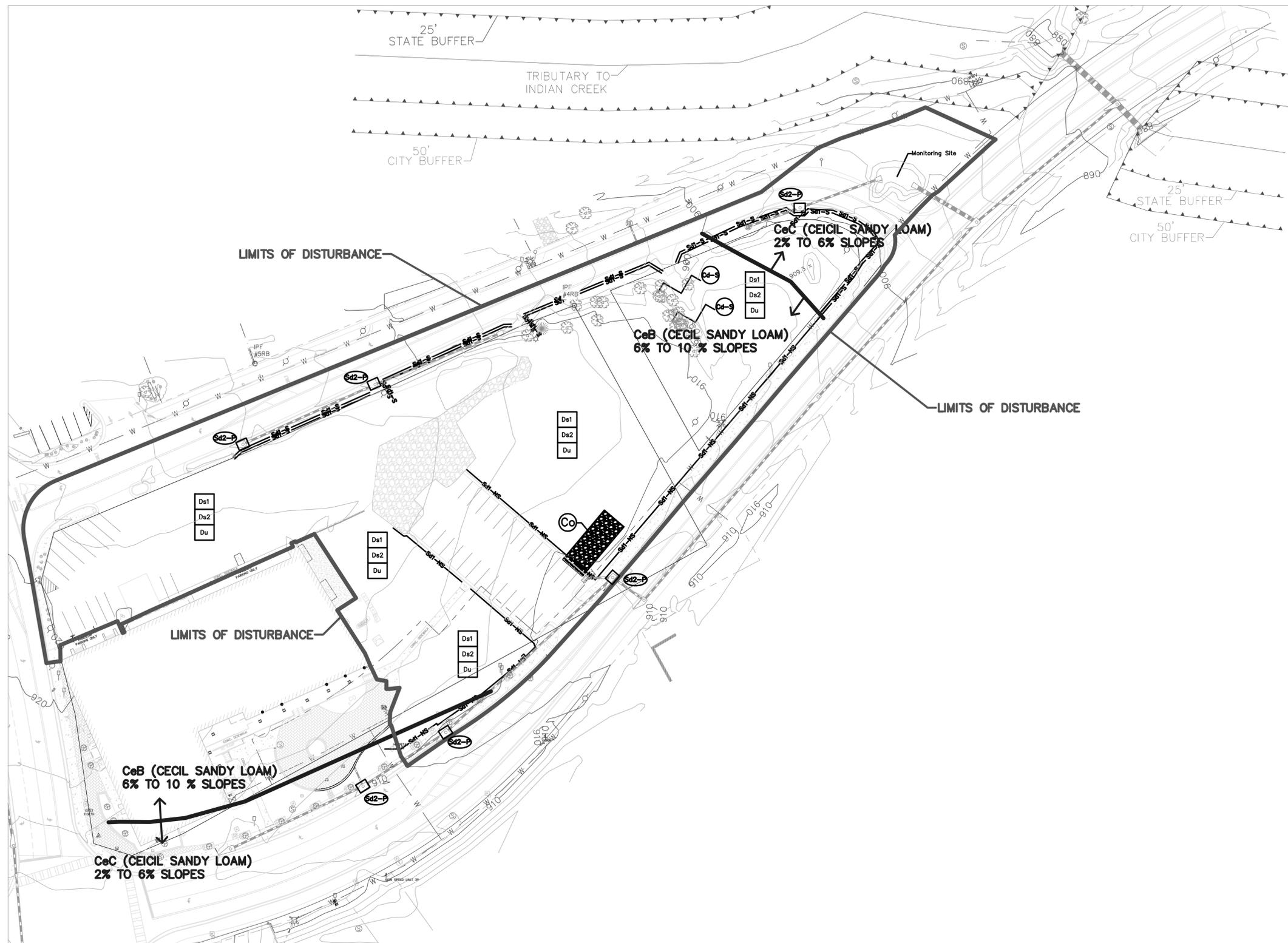
EC 1.3



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Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
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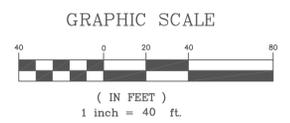


LEGEND

Co	CONSTRUCTION EXIT		A STONE STABILIZATION PAD LOCATED AT ANY POINT WHERE TRAFFIC WILL BE EXITING A CONSTRUCTION SITE TO A PUBLIC ROAD. BEST USED AT ACCESS POINTS
Ds1	MULCH		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
Ds2	TEMPORARY GRASSING		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.
Ds3	PERMANENT GRASSING		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.
Du	DUST CONTROL		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
Ds4	SOODING		THE INSTALLATION OF A SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SOODING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS TO IMPROVE AESTHETICS OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS.
Sd1-NS	SILT FENCE TYPE C		A NONWOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE TOE OF THE HILL, ALONG THE RIGHT OF WAY, LINE, OR PARALLEL TO STREAMS. IT IS USED TO CAPTURE SEDIMENT FROM FLOWS OVER WAYS AND UNDER BRIDGES.
Sd1-S	SILT FENCE TYPE C		A NONWOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE TOE OF THE HILL, ALONG THE RIGHT OF WAY, LINE, OR PARALLEL TO STREAMS. IT IS USED TO CAPTURE SEDIMENT FROM FLOWS OVER WAYS AND UNDER BRIDGES.
Sd2-F	INLET SEDIMENT TRAP WITH FILTER FABRIC WITH SUPPORTING FRAME		(A) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH A FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (B) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (C) THE SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES CE. THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOWS THAT RANGE FROM CE-1 TO CE-2.
Sd2-P	INLET SEDIMENT TRAP "TUBS IN A BLANKET" CURB INLET FILTER PROTECTION		"TUBS IN A BLANKET" A CURB INLET FILTER SHALL BE INSTALLED. THIS METHOD OF INLET PROTECTION SHALL BE REMOVED IF A SAFETY HAZARD IS CREATED.
Cd-S	STONE CHECK DAM		A GRADE CONTROL STRUCTURE, OR DAM, CONSTRUCTED ACROSS A DRILL, SWIRME BETA, OR AREA OF CONCENTRATED FLOW. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED SIZE 2-10 INCH STONE.

KENNETH R. MCDUFF
GSWCC LEVEL II CERTIFICATION NO. 00133
EXPIRES: 6/03/2017

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NO.	DATE	DESCRIPTION
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2	11/18/15	
3	12/03/15	

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project no.

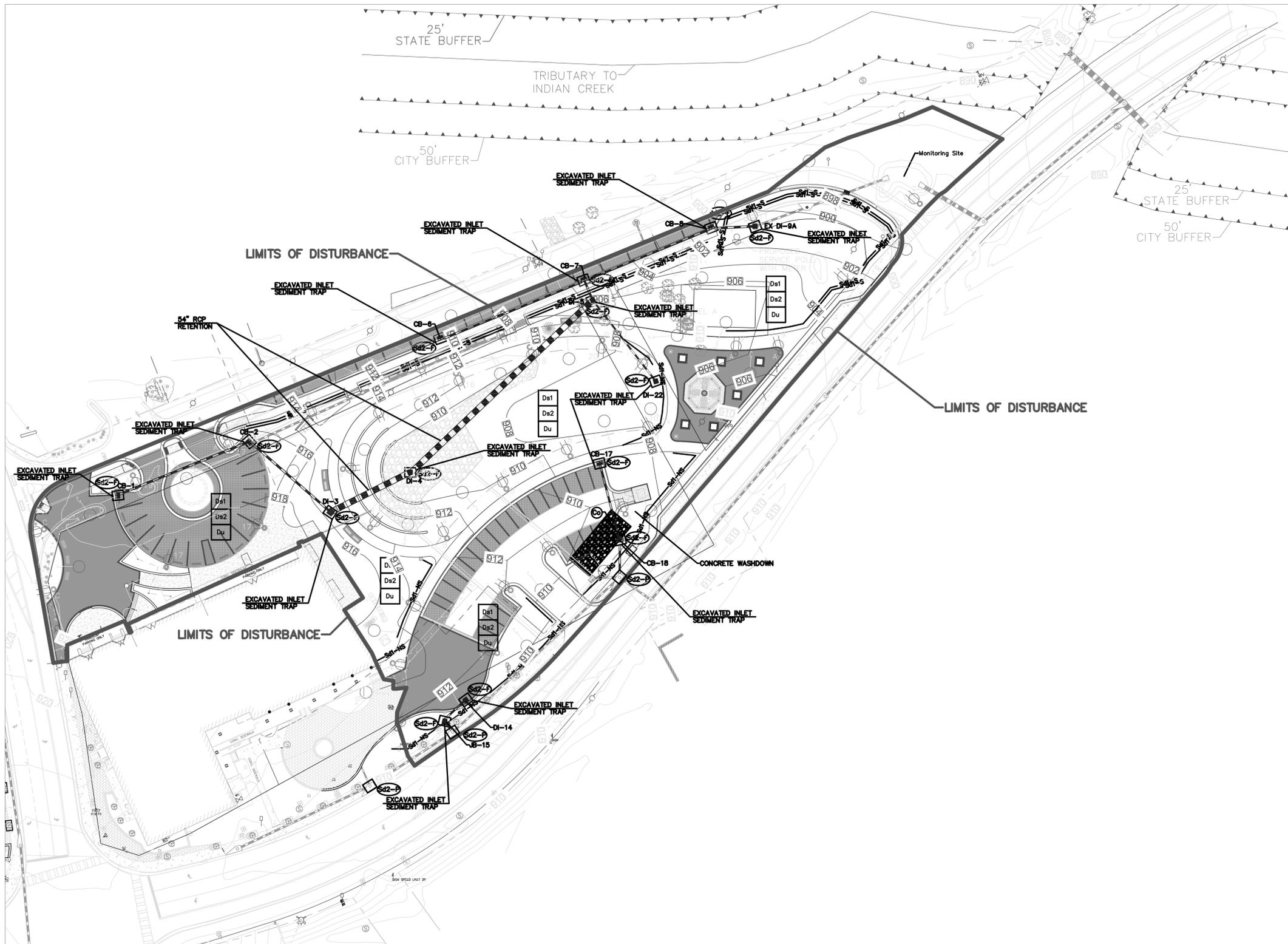
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Erosion Control
Plans 1
(Initial)

sheet

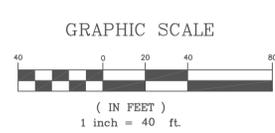


LEGEND

Co	CONSTRUCTION EXIT		A STONE STABILIZATION PAD LOCATED AT ANY POINT WHERE TRAFFIC WILL BE CROSSING A CONSTRUCTION SITE TO A PUBLIC ROAD. BEST USED AT ACCESS PORTS
Ds1	MULCH		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
Ds2	TEMPORARY GRASSING		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.
Ds3	PERMANENT GRASSING		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.
Ds4	SOODING		PERMANENT VEGETATION REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS. HOWEVER, THEY MAY BE SHOWN ON THE PLANS FOR NEARLY SENSITIVE AREAS WHERE THESE VEGETATION PRACTICES ARE CRITICAL.
Du	DUST CONTROL		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
Ds4	SOODING		THE INSTALLATION OF A SPECIES OF GRASS SOODING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SOODING MAY BE SHOWN FOR NEARLY SENSITIVE AREAS TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS.
Sd1-NS	SILT FENCE TYPE C		A WOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE TOE OF THE FILL, ALONG THE RIGHT OF WAY LINE, OR PARALLEL TO DITCHES. IT IS USED TO CAPTURE SEDIMENT FROM FILLS OVER 10' HIGH AND UNDER EROSION.
Sd1-S	SILT FENCE TYPE S		A WOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE TOE OF THE FILL, ALONG THE RIGHT OF WAY LINE, OR PARALLEL TO DITCHES. IT IS USED TO CAPTURE SEDIMENT FROM FILLS OVER 10' HIGH AND UNDER EROSION.
Sd2-F	INLET SEDIMENT TRAP "FILTER FABRIC WITH SUPPORTING FRAME"		(C) A SEDIMENT BARRIER CONSISTING OF A PREPARED FRAME WITH A FILTER FABRIC USED AROUND A DRIP INLET OR CATCH BASIN. (D) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DRIP INLET OR CATCH BASIN. (E) TYPE C SILT FENCE WITH SUPPORTING FRAME. THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS THAT RECOMMENDED FOR INLET RECEIVING FLOWS THAT RANGE FROM 0-0-4 CFS.
Sd2-P	INLET SEDIMENT TRAP "TUBE INLET PROTECTION"		"PROG-84-A-BLANKET" A CURB INLET FILTER SHALL BE INSTALLED. THIS METHOD OF INLET PROTECTION SHALL BE REMOVED IF A SAFETY HAZARD IS CREATED.
Cd-S	STONE CHECK DAM		A GRADE CONTROL STRUCTURE OR DAM CONSTRUCTED USING A SINGLE OR DOUBLE ROWS OF AREA OF CONCENTRATED FLOW. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED SIZE 2-10 INCH STONE.

KENNETH R. MCDUFF
GWSCC LEVEL II CERTIFICATION NO. 00133
EXPIRES: 6/03/2017

DATE



MULKEY
ENGINEERS & CONSULTANTS
1255 CANTON STREET, SUITE 6
ROSWELL, GA 30075
(770) 461-3511
WWW.MULKEYINC.COM
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Town of Braselton
4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
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TOWN GREEN PARK
City of Braselton, Georgia

revisions

NO.	DATE	DESCRIPTION
1	10/23/15	
2	11/18/15	
3	12/03/15	

date
project no.
drawn by
checked by
sheet title

Erosion Control
Plans 2
(Intermediate)

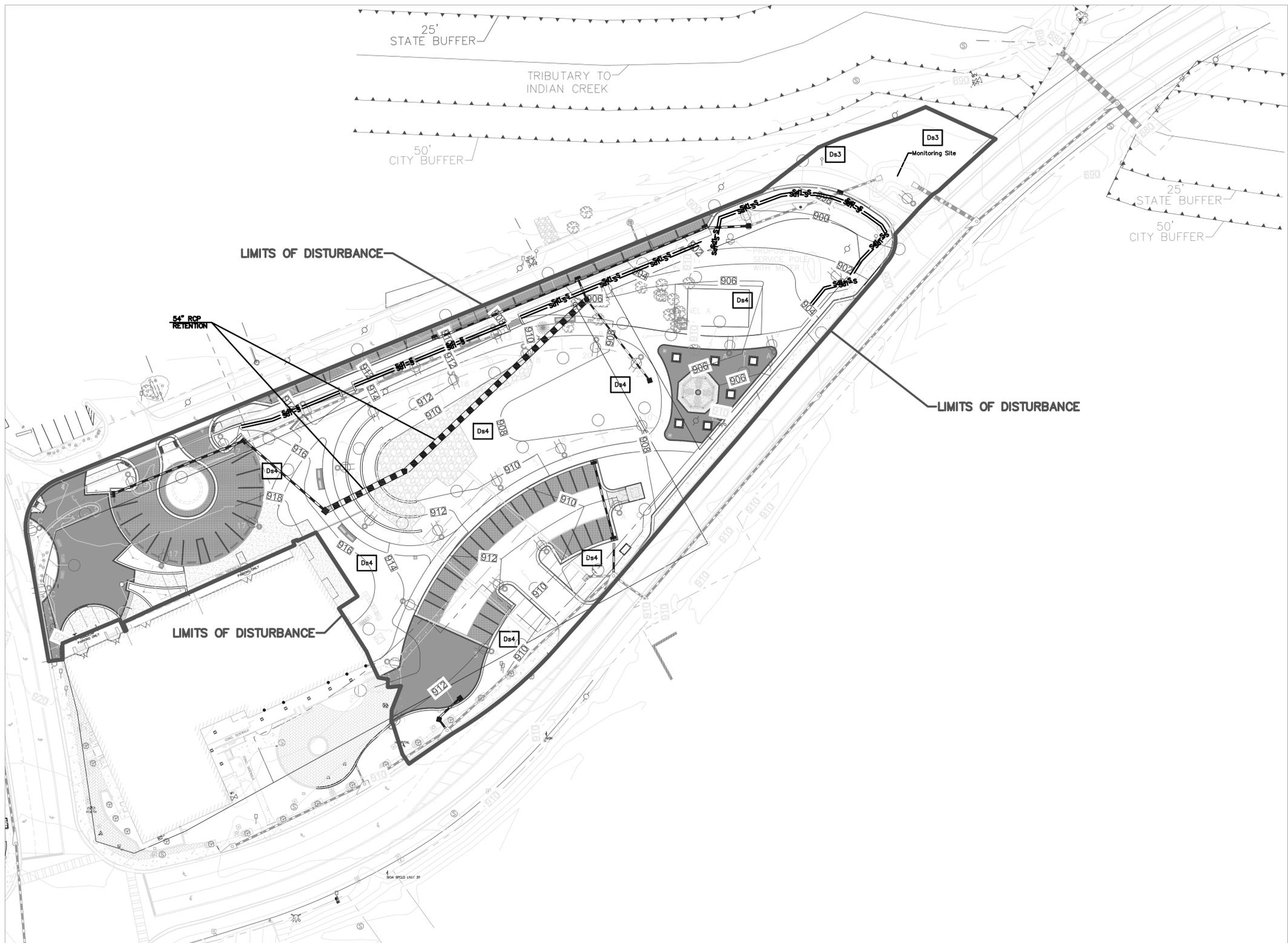
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Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
www.braselton.net

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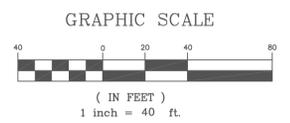


LEGEND

(Co)	CONSTRUCTION EXIT		A STONE STABILIZATION PAD LOCATED AT ANY POINT WHERE TRAFFIC WILL BE EXITING CONSTRUCTION SITE TO A PUBLIC ROAD. BEST USED AT ACCESS POINTS
Ds1	MULCH		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
Ds2	TEMPORARY GRASSING		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS.
Ds3	PERMANENT GRASSING		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS. PERMANENT VEGETATIVE REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS. HOWEVER, THEY MAY BE SHOWN ON THE PLANS FOR HIGHLY SENSITIVE AREAS WHERE THESE VEGETATIVE PRACTICES ARE CRITICAL.
Du	DUST CONTROL		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING.
Ds4	SODDING		THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS.
Sd1-NS	SILT FENCE TYPE C		A WOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE USE OF THE FILL ALONG THE RIGHT OF WAY LINE, OR PARALLEL TO STREAMS. IT IS USED TO CAPTURE SEDIMENT FROM FILL DIRT OF HIGH AND UNDER BROOKS.
Sd1-S			
Sd2-F	INLET SEDIMENT TRAP "FILTER FABRIC WITH SUPPORTING FRAME"		(G) A SEDIMENT BARRIER CONSISTING OF A REFRIGERATED FRAME WITH A FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (H) A SEDIMENT BARRIER CONSISTING OF A REFRIGERATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (I) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES 0:6
Sd2-P	INLET SEDIMENT TRAP "CURB INLET PROTECTION"		THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS THAT EXCEED 100 GPM. THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS THAT EXCEED 100 GPM.
Cd-S	STONE CHECK DAM		"PROG-IN-A-BLAZK" A CURB INLET FILTER SHALL BE INSTALLED. THE METHOD OF INLET PROTECTION SHALL BE REMOVED IF A SAFETY HAZARD IS CREATED. A GRADE CONTROL STRUCTURE, OR DAM CONSTRUCTED ACROSS A DRAINAGE DITCH OR AREA OF CONCENTRATED FLOW. STONE CHECK DAMS SHOULD BE CONSTRUCTED OF GRADED SIZE 2-10 INCH STONE.

KENNETH R. MCDUFF
GSWCC LEVEL II CERTIFICATION NO. 00133
EXPIRES: 6/03/2017

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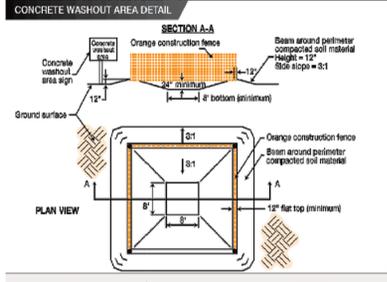
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NO.	DATE	DESCRIPTION
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2	11/18/15	
3	12/03/15	

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sheet title

Erosion Control
Plans 3
(Final)

sheet
EC 1.6



Disturbed Area Stabilization (With Temporary Seeding)



DEFINITION
The establishment of temporary vegetative cover with fast growing seedlings for essential protection on disturbed or denuded areas.

PURPOSE
To reduce runoff and sediment damage of down stream resources

- To protect the soil surface from erosion
- To improve wildlife habitat
- To improve aesthetics
- To improve infiltration and aeration as well as organic matter for permanent plantings

REQUIREMENT FOR REGULATORY COMPLIANCE
Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. If an area is expected to be undisturbed for longer than six months, permanent perennial vegetation shall be used. If optimum planting conditions for temporary grassing is lacking, mulch can be used as a singular erosion control device for up to six months but it shall be applied at the appropriate depth, anchored, and have a continuous 90% cover or greater of the soil surface. Refer to specification Da1-Disturbed Area Stabilization (With Temporary Seeding).

08100 (Amended - 2013) 841

Seeding
Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cut-packer-seeder, or hydraulic seeder (a dry mulch seed and fertilizer). Drill or cut-packer seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand. See Table 6-4.1

Mulching
Temporary vegetation can, in most cases, be established without the use of mulch, provided there is little to no erosion potential. However, the use of mulch can often accelerate and enhance erosion and vegetation establishment. Mulch without seeding should be considered for short term protection. Refer to Da1 - Disturbed Area Stabilization (With Mulching Only).

Irrigation
During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

CONDITIONS
Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established. Note: Some species of temporary vegetation are not appropriate for companion crop plantings because of their potential to out-compete the desired species (e.g. annual ryegrass). Contact NRCS or the local SWDC for more information.

SPECIFICATIONS
Grading and Shaping
Excessive water run-off shall be reduced by properly designed and installed erosion control practices such as check dams, ditches, dikes, diversions, sediment barriers and others.

No shaping or grading is required if slopes can be stabilized by hand-seeded vegetation or if hydraulic seeding equipment is to be used.

Seedbed Preparation
When a hydraulic seeder is used, seedbed preparation is not required. When using conventional or hand-seeding, seedbed preparation is not required if the soil material is loose and not sealed by rainfall.

When soil has been sealed by rainfall or consists of smooth cut slopes, the soil shall be plowed, trenched or otherwise scarified to provide a place for seed to lodge and germinate.

Lime and Fertilizer
Agricultural lime is required unless soil tests indicate otherwise. Apply agricultural lime at a rate determined by soil test for pH. Quick acting lime should be incorporated to modify pH during the germination period. Bio stimulants should be applied before and after lime application. Bio stimulants should be prepared and incorporated with a disk, ripper, or chisel. On slopes too steep for, or inaccessible to equipment, fertilizer shall be hydroseeded, preferably in the first pass with seed and some hydraulic mulch, then topped with the remaining required application rate.

Table 6-4.1 - Temporary Cover or Companion Cover Crops
PLANT, PLANTING RATE, AND PLANTING DATE FOR TEMPORARY COVER OR COMPANION CROPS

Species	Broadcast Rates	Resource Area?	Planting Dates by Resource Area												Remarks	
			J	F	M	A	M	J	J	A	B	O	N	D		
BARLEY <i>Hordeum vulgare</i>	Pure Live Seed (PLS) Per 1000 sqft Rate Per Acre															14,000 seed per pound. Winter hardy. Use on productive soils.
LESPEDEZA ANNUAL <i>Lespedeza striata</i>																200,000 seed per pound. May volunteer for several years. Use in pasture.
LOVEGRASS, WEEPING <i>Eragrostis curvula</i>																1,800,000 seed per pound. May last for several years. Mix with <i>Sericea lespedeza</i> .
MILLET BROWNTOP <i>Pennisetum polystachion</i>																157,000 seed per pound. Quick dense cover. Will provide excessive companion in mixtures if seeded at high rate.

Species	Broadcast Rates	Resource Area?	Planting Dates by Resource Area												Remarks	
			J	F	M	A	M	J	J	A	B	O	N	D		
MILLET PEARL <i>Pennisetum glaberrimum</i>	Pure Live Seed (PLS) Per 1000 sqft Rate Per Acre															88,000 seed per pound. Quick dense cover. May reach 8 feet in height. Not recommended for mixtures.
OATS <i>Avena sativa</i>																13,000 seed per pound. Use on productive soils. Not as winter hardy as rye or barley.
RYE <i>Sesbania coccinea</i>																18,000 seed per pound. Quick cover. Drought tolerant and winter hardy.
RYEGRASS, ANNUAL <i>Lolium temulentum</i>																227,000 seed per pound. Dense cover. Very competitive and is not to be used in mixtures.
SUDANGRASS <i>Sorghum sudanense</i>																55,000 seed per pound. Good on droughty sites. Not recommended for mixtures.

Species	Broadcast Rates	Resource Area?	Planting Dates by Resource Area												Remarks	
			J	F	M	A	M	J	J	A	B	O	N	D		
TRITICALE <i>Triticosecal</i>	Pure Live Seed (PLS) Per 1000 sqft Rate Per Acre															Use on lower part of Southern Coastal Plain and in Atlantic Coastal Plain only.
WHEAT <i>Triticum aestivum</i>																18,000 seed per pound. Winter hardy.

Temporary cover crops are very competitive and will crowd out perennials if seeded too heavily. Ryegrass seeding rate is 50% when mixed.

Full represents the Mountain, Blue Ridge, and Valley MURAs
P represents the Southern Piedmont MURA
C represents Southern Coastal Plain, Sand Hills, Back Lands, and Atlantic Coast Piedmonts MURAs
(See Pages 6-4.1, 6-4.2)



KENNETH R. MCDUFF
GSWCC LEVEL II CERTIFICATION NO. 00133
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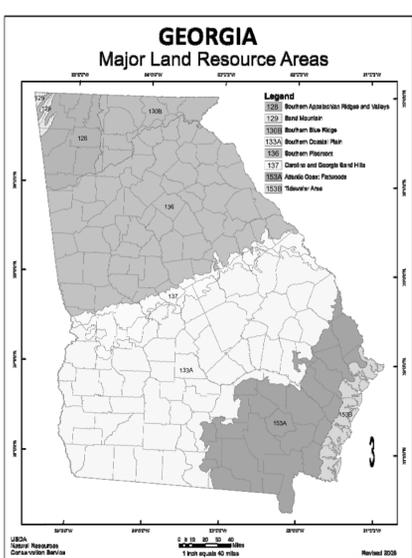


Figure 6-4.1

08100 (Amended - 2013) 848

Disturbed Area Stabilization (With Permanent Vegetation)



DEFINITION
The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization. Permanent perennial vegetation shall be used to achieve final stabilization.

PURPOSE
To protect the soil surface from erosion

- To reduce damage from sediment and runoff to down stream areas
- To improve wildlife habitat and visual resources
- To improve aesthetics

REQUIREMENT FOR REGULATORY COMPLIANCE
This practice shall be applied immediately to rough graded areas that will be undisturbed for longer than six months. This practice or seeding shall be applied immediately to all areas at final grade. Final Stabilization means that all soil disturbing activities at the site have been completed, and that for unimproved areas and areas not covered by permanent structures and areas located outside the waste disposal limits of a landfill cell that has been certified by the GA EPD for waste disposal, 100% of the soil surface is uniformly covered in permanent vegetation with a density of 70% or greater, or landscaped according to the Plan Uniformly covered with landscaping materials in planned landscaped areas) or equivalent permanent stabilization measures.

08100 (Amended - 2013) 847

Wildlife Plantings
Commercially available plants beneficial to wildlife species include the following:

Nest Seeding Trees
Beech, Black Cherry, Blackgum, Chestnut, Chinquapin, Hackberry, Hickory, Honey Locust, Native Oak, Parrotwood, Sawtooth Oak and Sweetgum.

All trees that produce nuts or fruits are favored by many game species. Hickory provides nuts used mainly by squirrels and bear.

Shrubs and Small Trees
Bayberry, Sycamore, Loblolly Shortleaf, Dogwood, Huckleberry or Native Blueberry, Mountain Laurel, Native Holly, Red Cedar, Red Mulberry, Sumac, Wax Myrtle, Wild Plum and Blackberry.

Plant in patches without tall trees to develop stable shrub communities. All produce fruits used by many kinds of wildlife, except for loblolly which produces seeds used by quail and songbirds.

Grasses, Legumes, Vines and Temporary Cover
Bahia grass, Bermudagrass, Grass-Legume mixtures, Partridge Pea, Annual Lespedeza, Orchardgrass (for mountains), Browntop Millet (for temporary cover), and Native grasses.

Provides herbaceous cover in clearings for a game bird brood-rearing habitat. Appropriate legumes such as vetches, clovers, and lespedeza may be mixed with grass, but they may die out after a few years.

CONSTRUCTION SPECIFICATIONS
Grading and Shaping
Grading and shaping may not be required when hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment.

When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation.

Concentrations of water that will cause excessive

soil erosion shall be diverted to a safe outlet. Divisions and other treatment practices shall conform with the appropriate standards and specifications.

Lime and Fertilizer Rates and Analysis
Agricultural lime is required at the rate of one to two tons per acre unless soil tests indicate otherwise. Graded areas require lime application. If lime is applied within six months of planting permanent perennial vegetation, additional lime is not required. Agricultural lime shall be within the specifications of the Georgia Department of Agriculture.

Lime spread by conventional equipment shall be "ground limestone" or "Browntop" limestone or dolomitic limestone ground so that 90 percent of the material will pass through a 10-mesh sieve, not less than 60 percent through a 20-mesh sieve and not less than 25 percent will pass through a 100-mesh sieve.

It is desirable to use dolomitic limestone in the Sand Hills, Southern Coastal Plain and Atlantic Coast Piedmonts MURAs. (See Figures 6-4.1)

Agricultural lime is generally not required where only trees are planted.

Initial fertilization, nitrogen, topdressing, and maintenance fertilizer requirements for each species or combination of species are listed in Table 6-5.1.

Lime and Fertilizer Application
When hydraulic seeding equipment is used, the initial fertilizer shall be mixed with seed, inoculant (if needed), and wood cellulose or wood pulp fiber mulch and applied in a slurry. The inoculant, if needed, shall be mixed with the seed prior to being placed into the hydraulic seeder. The slurry mixture will be agitated during application to keep the ingredients thoroughly mixed. The mixture will be spread uniformly over the area within one hour after being placed in the

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Hydroseeder:

Finely ground limestone can be applied in the mulch slurry or in combination with the top dressing. When conventional planting is to be done, lime and fertilizer shall be applied uniformly in one of the following ways:

- Apply before land preparation so that it will be mixed with the soil during seedbed preparation.
- Mix with the soil to fill the holes, distribute in furrows.
- Broadcast after steep surfaces are scarified, plowed or trenched.
- A fertilizer pellet shall be placed at root depth in the closing hole beside each pine tree seeding.

Plant Selection
Refer to Tables 6-4.1, 6-3.2, 6-3.3 and 6-3.4 for approved species. Species not listed shall be approved by the State Resource Conservationist of the Natural Resources Conservation Service before they are used.

Plants shall be selected on the basis of species characteristics, site and soil conditions, planned use and maintenance of the area; time of year of planting; method of planting; and the needs and desires of the land user.

Some perennial species are easily established and can be planted alone. Examples of these are Common Bermuda, Tall Fescue, and Weeping Lovegrass.

Other perennials, such as Bahia Grass and *Sericea lespedeza*, are slow to become established and should be planted with another perennial species. The additional species will provide quick cover and ample soil protection until the target perennial species become established. For example, Common seeding combinations are 1) Weeping Lovegrass with *Sericea lespedeza* (scarified) and 2) Tall Fescue with *Sericea lespedeza* (unscarified).

Plant selection may also include annual companion crops. Annual companion crops should be used only when the perennial species are not planted during their optimum planting period. A common

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loosen the soil to a depth of 4 to 8 inches; remove weeds, perennial vines or a crop of perennial vegetation appropriate for the region, such that within the growing season a 70% coverage by perennial vegetation shall be achieved. Final stabilization applies to each phase of construction. For linear construction projects on land used for agricultural or silvicultural purposes, final stabilization may be accomplished by stabilizing the disturbed land for its agricultural or silvicultural use. Until this standard is satisfied and permanent control measures and facilities are operational, interim stabilization measures and temporary erosion and sedimentation control measures shall not be removed.

CONDITIONS
Permanent perennial vegetation is used to provide a protective cover for exposed areas including dikes, fills, dams, and other derelict areas.

PLANNING CONSIDERATIONS

- Use conventional planting methods where possible.
- When mixed plantings are done during marginal planting periods, companion crops shall be used.
- No-till planting is effective when planting is done following a summer or winter annual cover crop. *Sericea lespedeza* planted no-till into stands of rye is an excellent procedure.
- Book seed provides immediate cover. It is especially effective in controlling erosion adjacent to concrete burns and other structures. Refer to Specification Da4-Disturbed Area Stabilization (With Seeding).
- Irrigation should be used when the soil is dry or when summer droughts are expected.
- Low maintenance plants, as well as natives, should be used to ensure long-lasting erosion control.
- Mowing should not be performed during the quick resting season (May to September).
- Wildlife plantings should be included in critical area plantings.

Individual Plants

- Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dikes planting.
- For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
- Where pine seedlings are to be planted, subside under the row 38 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

Inoculants
All sown seed shall be inoculated with appropriate nitrogen-fixing bacteria. The inoculant shall be a pure culture prepared specifically for the seed species and used within the date on the container.

A mixing medium recommended by the manufacturer should be used to bond the inoculant to the seed. For conventional seeding, use twice the amount of inoculant as recommended by the manufacturer. For hydraulic seeding, four times the amount of inoculant recommended by the manufacturer shall be used.

All inoculated seed shall be protected from the sun and high temperatures and shall be planted

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tion establishment enhancement, and erosion control effectiveness. Select the mulching material from the following and apply as indicated:

- Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
- Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Dry straw or dry hay shall be applied at the rate indicated above after hydraulic seeding.
- One thousand pounds of wood cellulose or wood pulp fiber, which includes a fertilizer, shall be used with hydraulic seeding on slopes 3:1 or steeper.
- Sericea lespedeza* hay containing mature seed shall be applied at a rate of three tons per acre.
- Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas.
- When using temporary erosion control blankets or block seed, mulch is not required.
- Bituminous treated roving may be applied on planted areas, slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.
- Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain dyes to allow visual metering and aid in uniform application during seeding.

Applying Mulch
Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting.

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mulch is Brown Top Millet with Common Bermuda in mid-summer. Care should be taken in selecting companion crop species and seeding rates because annual crops will compete with perennial species for water, nutrients, and growing space. A high seeding rate of the companion crop may prevent the establishment of perennial species.

Ryegrass shall not be used in any seeding mixtures containing perennial species due to its ability to out-compete desired species chosen for permanent perennial cover.

Seed Quality
The term "pure live seed" is used to express the quality of seed and is not shown on the label. Pure live seed, PLS, is expressed as a percentage of the seeds that are pure and will germinate. Information on percent germination and purity can be found on seed tags. PLS is determined by multiplying the percent of pure seed with the percent of germination, i.e.,

(PLS = % germination x % purity)

EXAMPLE:
Common Bermuda seed
70% germination, 80% purity
PLS = 70% germination x 80% purity
PLS = 56%

The percent of PLS helps you determine the amount of seed you need. If the seeding rate is 10 pounds PLS and the bulk seed is 56% PLS, the bulk seeding rate is:

10 lbs. PLS ÷ 56% = 17.9 lbs/acre
56% PLS

You would need to plant 17.9 lbs/acre to provide 10 lbs/acre of pure live seed.

Seedbed Preparation
Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used (but is strongly recommended for any seeding process, when possible). When conventional seeding is to be used, seedbed preparation will be done as follows:

- Broadcast plantings**
- Tillage, at a minimum, shall adequately

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the same day inoculated. No inoculated seed shall remain in the hydroseeder longer than one hour.

Planting
Hydraulic Seeding
Mix the seed (inoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

Conventional Seeding
Seeding will be done on a freshly prepared and firmed seedbed. For broadcast plantings, use a cut-packer-seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8" inch of soil for small seed and 1/2 to 1" inch for large seed when using a cut-packer or other suitable equipment.

No-Till Seeding
No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

Individual Plants
Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots.

Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. All vines and sprigs must be at or slightly above the ground surface.

Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

Mulching
Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% to 100% soil coverage. When selecting a mulch, design professionals should consider the mulch's functional longevity, vegetation establishment enhancement, and erosion control effectiveness. Select the mulching material from the following and apply as indicated:

- Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
- Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Dry straw or dry hay shall be applied at the rate indicated above after hydraulic seeding.
- One thousand pounds of wood cellulose or wood pulp fiber, which includes a fertilizer, shall be used with hydraulic seeding on slopes 3:1 or steeper.
- Sericea lespedeza* hay containing mature seed shall be applied at a rate of three tons per acre.
- Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas.
- When using temporary erosion control blankets or block seed, mulch is not required.
- Bituminous treated roving may be applied on planted areas, slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.
- Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain dyes to allow visual metering and aid in uniform application during seeding.

ing. The mulch may be spread by blow-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood pulp fiber mulch shall be applied uniformly with hydraulic seeding equipment.

Anchoring Mulch
Anchor straw or hay mulch immediately after application by one of the following methods:

- Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer chain" or disk harrow with the disks set tightly may be used. The disks may be smooth or serrated and should be 6" inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be cut enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
- Synthetic tackifiers, binders or hydraulic mulch specifically designed to tack straw, shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. All tackifiers, binders or hydraulic mulch specifically designed to tack straw should be verified nontoxic through EPA 2021-D testing. Refer to Tackifiers-Two.
- Rye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one-half bushel per acre.
- Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

Bedding Material
Mulch is used as a bedding material to conserve moisture and keep the ingredients thoroughly mixed. The bedding material should be ornamental beds, ground shrubs, and on bare areas or lawns.

Irrigation
Irrigation will be applied at a rate that will not cause runoff.

Topdressing
Topdressing will be applied on all temporary and permanent (perennial) species planted alone or in mixtures with other species. Recommended rates of application are listed in Table 6-5.1.

Second Year and Maintenance Fertilization
Second year fertilizer rates and maintenance fertilizer rates are listed in Table 6-5.1.

Lime Maintenance Application
Apply one ton of agricultural lime every 4 to 6 years or as indicated by soil tests. Soil tests can be conducted to determine more accurate requirements, if desired.

Use and Management
Mow *Sericea lespedeza* only after frost to ensure that the seeds are mature. Mow between November and March.

Bermudagrass, Bahiagrass and Tall Fescue may be mowed as desired. Maintain at least 6 inches of top growth under any area and management. Moderate use of top growth is beneficial after establishment.

Exclude traffic until the plants are well established. Because of the quick resting season, mowing should not take place between May and September.

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Material
Grass straw 4" to 6"
Grass Hay 4" to 8"
Pine needles 3" to 5"
Wood waste 4" to 6"

Irrigation
Irrigation will be applied at a rate that will not cause runoff.

Topdressing
Topdressing will be applied on all temporary and permanent (perennial) species planted alone or in mixtures with other species. Recommended rates of application are listed in Table 6-5.1.

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Table 6-5.1. Fertilizer Requirements

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1. Cool season grasses	First	8-12-12	1600 lbs./ac.	50-100 lbs./ac. 1/2
	Second Maintenance	8-12-12	1000 lbs./ac.	50
2. Cool season grasses and legumes	First	8-12-12	1600 lbs./ac.	50 lbs./ac. 1/
	Second Maintenance	8-12-12	1000 lbs./ac.	400 lbs./ac.
3. Ground covers	First	10-10-10	1300 lbs./ac. 3/	---
	Second Maintenance	10-10-10	700 lbs./ac. 4/	---
4. Pine seedlings	First	20-10-5	one 21 gram pellet per seedling placed in the closing hole	---
	Second Maintenance	20-10-5	---	---
5. Shrub <i>Lespedeza</i>	First	0-10-10	700 lbs./ac.	---
	Second Maintenance	0-10-10	500 lbs./ac.	30 lbs./ac. 5/
6. Temporary cover crops seeded alone	First	10-10-10	500 lbs./ac.	---
	Second Maintenance	10-10-10	---	---
7. Warm season grasses	First	8-12-12	1600 lbs./ac.	50-100 lbs./ac. 2/8/
	Second Maintenance	8-12-12	800 lbs./ac.	50-100 lbs./ac. 2/ 30 lbs./ac.
8. Warm season grasses and legumes	First	8-12-12	1600 lbs./ac.	60 lbs./ac. 9/
	Second Maintenance	8-12-12	1000 lbs./ac.	400 lbs./ac.

1/ Apply in spring following seeding.
2/ Apply in 3 split applications.
3/ Apply when plants are ground.
4/ Apply to grass species only.
5/ Apply when plants grow to a height of 2 to 4 inches.

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1255 CANTON STREET, SUITE C
ROSWELL, GA 30075
(770) 421-1351
(770) 561-2494 (FAX)
WWW.MULKEYENG.COM
FIRM LICENSE NO. C-1021

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Inlet Sediment Trap Sd2



DEFINITION
A temporary structure device formed at or around an inlet to a storm drain to trap sediment.

PURPOSE
To prevent sediment from entering a storm drainage system prior to permanent stabilization of the disturbed area draining to the inlet.

CONDITIONS
All storm drain drop inlets that receive runoff from disturbed areas.

PERFORMANCE EVALUATION
Inlet sediment traps approved based on efficiency of both soil retention and seepage as specified by the GSWCC. Complete test procedures may be found on the website www.gswcc.org/controls.

DESIGN CRITERIA
Through testing there are two different categories (high retention and high flow) supported. In areas where BMPs are being used on paved surfaces, or safety is a concern, the potentially negative effects of ponding should be taken into account. In such cases, a high flow BMP is preferred.

On unpaved areas where ponding will not cause a safety hazard, high retention shall be taken into account. If high retention is not used in this situation a rationale shall be given on the plan and an unapproved application should apply.

On unpaved areas inlet sediment traps shall meet 90% soil retention efficiency with a minimum seepage efficiency of 85%.

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imum seepage efficiency of 85%.
On paved areas or areas where a safety hazard is a sediment trap shall meet 75% soil retention efficiency with a minimum seepage of 85%.

Sediment traps must be self-draining unless they are otherwise protected in an approved fashion that will not present a safety hazard. The drainage area entering the inlet sediment trap shall be no greater than one acre.
If runoff may bypass the protected inlet, a temporary dike should be constructed on the down slope side of the structure. Also, a stone filter ring may be used on the up slope side of the inlet to slow runoff and filter larger soil particles. Refer to Pre-Storm Filter Ring.

CONSTRUCTION SPECIFICATIONS
Excavated Inlet Sediment Trap
An excavation may be created around the inlet sediment trap to provide additional sediment storage. The trap shall be sized to provide a minimum storage capacity calculated at the rate of 87 cubic yards per acre of drainage area. A minimum depth of 1.5 feet for sediment storage should be provided. Side slopes shall not be steeper than 2:1.

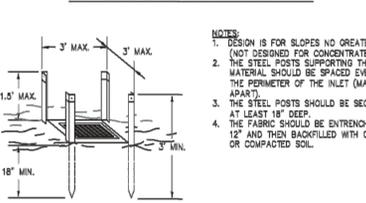
Sediment traps may be constructed on natural ground surface, on an excavated surface, or on machine compacted fill, provided they have a non-erodible outlet.

Filter Fabric with Supporting Frame Sd2-F

This method of inlet protection is applicable where the inlet drains a relatively flat area (slope no greater than 5%) and shall not apply to inlets receiving concentrated flows, such as in street or highway medians. As shown in Figure 6-28.1, all fence material with excess at corners and supported by steel posts should be used. The stakes shall be spaced evenly around the perimeter of the inlet a maximum of 3 feet apart, and securely driven into the ground, approximately 18 inches deep. The fabric shall be 36 inches tall and anchored 12 inches and backfilled with crushed stone or compacted soil. Fabric and wire shall be securely fastened to the posts, and

FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

STEEL FRAME AND SILT FENCE INSTALLATION



NOTES:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

*FABRIC ENTRENCHED AT LEAST 12" AND BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

Figure 6-28.1 Fabric and Supporting Frame For Inlet Protection

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Construction Exit Co



Figure 6-28.4 Gravel Drop Inlet Protection

DEFINITION
A stone stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk or parking area or any other area where there is a transition from bare soil to a paved area.

PURPOSE
To reduce or eliminate the transport of mud from the construction area onto public rights-of-way by motor vehicles or by runoff.

CONDITIONS
This practice is applied at appropriate points of construction activity where aggregate underdrains are required to stabilize and support the pad aggregate.

DESIGN CRITERIA
Formal design is not required. The following standards shall be used:

Aggregate Size
Stone will be in accordance with National Stone Association (NSA) 1.5 to 3.5 inch stone.
Pad Thickness
The gravel pad shall have a minimum thickness of 8 inches.
Pad Width
At a minimum, the width should equal full width of all points of vehicular egress, but not less than 20 feet wide.
Pad Length
The gravel pad shall have a minimum length of 80 feet. When the construction is less than 50' from the paved access, the length shall be from the edge of existing pavement to the permitted building being constructed.

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Construction Exit Co



Figure 6-28.5 Sod Strip Inlet Protection

DEFINITION
A stone stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk or parking area or any other area where there is a transition from bare soil to a paved area.

PURPOSE
To reduce or eliminate the transport of mud from the construction area onto public rights-of-way by motor vehicles or by runoff.

CONDITIONS
This practice is applied at appropriate points of construction activity where aggregate underdrains are required to stabilize and support the pad aggregate.

DESIGN CRITERIA
Formal design is not required. The following standards shall be used:

Aggregate Size
Stone will be in accordance with National Stone Association (NSA) 1.5 to 3.5 inch stone.
Pad Thickness
The gravel pad shall have a minimum thickness of 8 inches.
Pad Width
At a minimum, the width should equal full width of all points of vehicular egress, but not less than 20 feet wide.
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Construction Exit Co

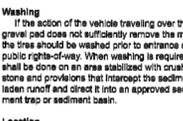


Figure 6-28.6 Sod Strip Inlet Protection

DEFINITION
A stone stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk or parking area or any other area where there is a transition from bare soil to a paved area.

PURPOSE
To reduce or eliminate the transport of mud from the construction area onto public rights-of-way by motor vehicles or by runoff.

CONDITIONS
This practice is applied at appropriate points of construction activity where aggregate underdrains are required to stabilize and support the pad aggregate.

DESIGN CRITERIA
Formal design is not required. The following standards shall be used:

Aggregate Size
Stone will be in accordance with National Stone Association (NSA) 1.5 to 3.5 inch stone.
Pad Thickness
The gravel pad shall have a minimum thickness of 8 inches.
Pad Width
At a minimum, the width should equal full width of all points of vehicular egress, but not less than 20 feet wide.
Pad Length
The gravel pad shall have a minimum length of 80 feet. When the construction is less than 50' from the paved access, the length shall be from the edge of existing pavement to the permitted building being constructed.

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Construction Exit Co

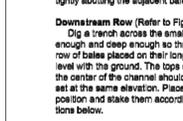


Figure 6-28.7 Alternative Inlet Sediment Trap

DEFINITION
A stone stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk or parking area or any other area where there is a transition from bare soil to a paved area.

PURPOSE
To reduce or eliminate the transport of mud from the construction area onto public rights-of-way by motor vehicles or by runoff.

CONDITIONS
This practice is applied at appropriate points of construction activity where aggregate underdrains are required to stabilize and support the pad aggregate.

DESIGN CRITERIA
Formal design is not required. The following standards shall be used:

Aggregate Size
Stone will be in accordance with National Stone Association (NSA) 1.5 to 3.5 inch stone.
Pad Thickness
The gravel pad shall have a minimum thickness of 8 inches.
Pad Width
At a minimum, the width should equal full width of all points of vehicular egress, but not less than 20 feet wide.
Pad Length
The gravel pad shall have a minimum length of 80 feet. When the construction is less than 50' from the paved access, the length shall be from the edge of existing pavement to the permitted building being constructed.

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Construction Exit Co

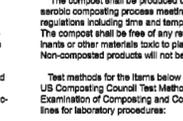


Figure 6-28.8 Sod Strip Inlet Protection

DEFINITION
A stone stabilized pad located at any point where traffic will be leaving a construction site to a public right-of-way, street, alley, sidewalk or parking area or any other area where there is a transition from bare soil to a paved area.

PURPOSE
To reduce or eliminate the transport of mud from the construction area onto public rights-of-way by motor vehicles or by runoff.

CONDITIONS
This practice is applied at appropriate points of construction activity where aggregate underdrains are required to stabilize and support the pad aggregate.

DESIGN CRITERIA
Formal design is not required. The following standards shall be used:

Aggregate Size
Stone will be in accordance with National Stone Association (NSA) 1.5 to 3.5 inch stone.
Pad Thickness
The gravel pad shall have a minimum thickness of 8 inches.
Pad Width
At a minimum, the width should equal full width of all points of vehicular egress, but not less than 20 feet wide.
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The gravel pad shall have a minimum length of 80 feet. When the construction is less than 50' from the paved access, the length shall be from the edge of existing pavement to the permitted building being constructed.

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Baffle Box Sd2-B

For inlets receiving runoff with a high volume or velocity, a baffle box inlet sediment trap should be used. As shown in Figure 6-28.2, the baffle box shall be constructed of 2" x 4" boards spaced a maximum of 1 inch apart or plywood with weep holes 2 inches in diameter. The weep holes shall be placed approximately 8 inches on center vertically and horizontally. Gravel shall be placed outside the box, all around the inlet, to a depth of 2 to 4 inches. The entire box is wrapped in filter fabric that shall be entrenched 12 inches and backfilled.

Block and Gravel Drop Inlet Protection Sd2-Bg

This method of inlet protection is applicable where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the structure. As shown in Figure 6-28.3, one block is placed on each side of the structure on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. The bottom row of blocks is placed against the edge of the storm drain for lateral support and to avoid washouts. Hardware cloth or comparable wire mesh with 1/2 inch openings shall be fitted over all block openings to hold gravel in place. Clean gravel should be placed 2 inches below the top of the block on a 2:1 slope or flatter and smoothed to an even grade. DOT #57 washed stone is recommended.

Gravel drop Inlet Protection Sd2-C

This method of inlet protection is applicable where heavy concentrated flows are expected. As shown in Figure 6-28.4, stone and gravel are used to trap sediment. The slope toward the inlet shall be no steeper than 3:1. A minimum 1 foot

Block and Gravel Drop Inlet Protection Sd2-C

This method of inlet protection is applicable where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the structure. As shown in Figure 6-28.3, one block is placed on each side of the structure on its side in the bottom row to allow pool drainage. The foundation should be excavated at least 2 inches below the crest of the storm drain. The bottom row of blocks is placed against the edge of the storm drain for lateral support and to avoid washouts. Hardware cloth or comparable wire mesh with 1/2 inch openings shall be fitted over all block openings to hold gravel in place. Clean gravel should be placed 2 inches below the top of the block on a 2:1 slope or flatter and smoothed to an even grade. DOT #57 washed stone is recommended.

Gravel drop Inlet Protection Sd2-C

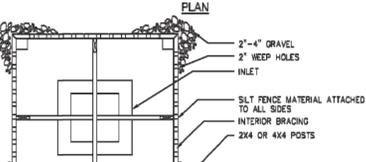
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Gravel drop Inlet Protection Sd2-C

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Block and Gravel Drop Inlet Protection Sd2-C



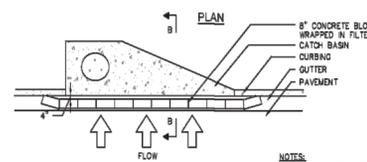
Block and Gravel Drop Inlet Protection Sd2-C



Figure 6-28.3 Block and Gravel Drop Inlet Protection

6-200 (Revised - 2013) 6-203

Block and Gravel Drop Inlet Protection Sd2-C



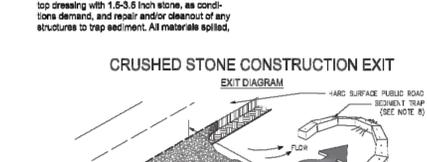
Block and Gravel Drop Inlet Protection Sd2-C



Figure 6-28.4 Gravel Drop Inlet Protection

6-200 (Revised - 2013) 6-202

Block and Gravel Drop Inlet Protection Sd2-C



Block and Gravel Drop Inlet Protection Sd2-C

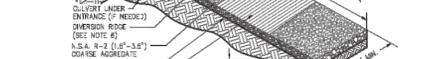
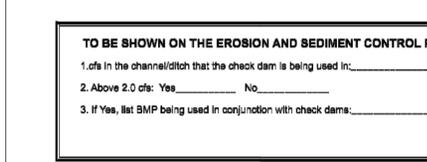


Figure 6-28.5 Sod Strip Inlet Protection

6-200 (Revised - 2013) 6-202

Block and Gravel Drop Inlet Protection Sd2-C



Block and Gravel Drop Inlet Protection Sd2-C



Figure 6-28.6 Sod Strip Inlet Protection

6-200 (Revised - 2013) 6-202

Block and Gravel Drop Inlet Protection Sd2-C

This method of inlet protection is applicable where heavy concentrated flows are expected. As shown in Figure 6-28.4, stone and gravel are used to trap sediment. The slope toward the inlet shall be no steeper than 3:1. A minimum 1 foot

Block and Gravel Drop Inlet Protection Sd2-C

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DISTURBED AREA STABILIZATION (WITH SODDING) Ds4



DEFINITION
Permanent vegetative cover using sods on highly erodible or critically eroded lands.

PURPOSE
Establish immediate ground cover.

- Reduce runoff and erosion.
- Improve aesthetics and land value.
- Reduce dust and sediments.
- Stabilize waterways, critical areas.
- Filter sediments, nutrients and bugs.
- Reduce downstream complaints.
- Reduce likelihood of legal action.
- Reduce likelihood of work stoppage due to legal action.
- Increase "good neighbor" benefits.

CONDITIONS
This specification is appropriate for areas which include immediate vegetative covers, drop inlets, grass swales, and waterways with intermittent flow.

PLANNING CONSIDERATIONS
Sodding can initially be more costly than seeding, but the advantages justify the increased initial cost.

- Immediate erosion control, green surface, and quick use.
- Reduced failure as compared to seed as well as the lack of weeds.
- Can be established nearly year-round.

Sodding is preferable to seed in waterways and swales because of the immediate protection of the channel after application. Sodding must be staked in concentrated flow areas (See Figure 6-4-1).

Consider using sod framed around drop inlets to reduce sediments and maintaining the grass.

CONSTRUCTION SPECIFICATIONS

Soil Preparation
Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil surface only and not frozen surfaces, or gravel type soils.

Topsoil properly applied will help guarantee a stand. Don't use topsoil recently treated with herbicides or soil sterilants.

Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-4-1.

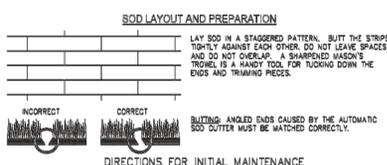
Fertilizer Type	Fertilizer Rate (lb/acre)	Fertilizer Rate (lb/100 sq ft)	Season
10-10-10	1000	.025	Fall

Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

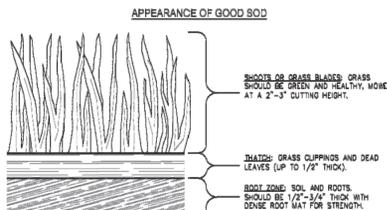
Installation
Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod (See Figure 6-4-2).

On slopes steeper than 3:1, sod should be anchored with pins or other approved methods. Installed sod should be rolled or tamped to provide good contact between sod and soil.

SOD MAINTENANCE AND INSTALLATION



- DIRECTIONS FOR INITIAL MAINTENANCE**
- ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.
 - WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAD.
 - MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").



Source: Va. DSWC Figure 6-4-2

ers on a site in a single run the barriers must be overlapped 18 inches or as specified by design professional. See Figure 6-2-5.

CONSTRUCTION SPECIFICATIONS

Type NS Sediment Barrier (Sd1-NS)

Non-sensitive areas
Sediment barriers using used as Type NS shall have a support spacing of no greater than 8 feet on center, with each driven into the ground a minimum of 18 inches. Type NS sediment barriers shall have a P-factor no greater than 0.045.

Type S Sediment Barrier (Sd1-S)

Sensitive areas
Sediment barriers using used as Type S shall have a support spacing of no greater than 4 feet on center, with each driven into the ground 18 inches. Type S sediment barriers shall have a P-factor no greater than 0.030.

Filter Media Back Specifications
Compost filter media used for sediment barrier filter material shall be used and derived from a well-decomposed source of organic matter. The compost shall be produced using an aerobic composting process making CFR 503 regulations including time and temperature data. The compost shall be free of any refuse, contaminants or other materials toxic to plant growth. Non-composted products will not be accepted. Test methods for the items below should follow L8 Composting Council Test Methods for the Examination of Composting and Compost guidelines for laboratory procedures.

A. PH -- 5.0-5.0 in accordance with TMECC 04.11-4, "Electrometric pH Determination for Compost"

B. Particle size -- 90% passing a 2" (50mm) sieve and a maximum of 40% passing a 3/8" (9.5mm) sieve, in accordance with TMECC 02.03-2, "Sample Sieving for Aggregate Size Classification". (Note: In the field, product compaction is between 1/4 in. (12.5mm) and 2 inches (50mm) particle size.)

C. Moisture content of less than 80% in accordance with standardized test methods for moisture determination.

D. Material shall be relatively free (<1% by dry weight) of inert or foreign man-made materials.

E. Stock containment system for compost filter media shall be a photodegradable or biodegradable knitted mesh material with 1/8 in. to 3/8 in. openings.

Brush Barrier (Sd1-BB)

(Only during timber clearing operations)
Brush obtained from clearing and grubbing operations may be piled in a row along the perimeter of disturbance at the time of clearing and grubbing. Brush barriers should not be used in developed areas or locations where aesthetics are a concern.

Brush should be wind-rowed on the contour as nearly as possible and may require compaction. Construction equipment may be utilized to satisfy this requirement.

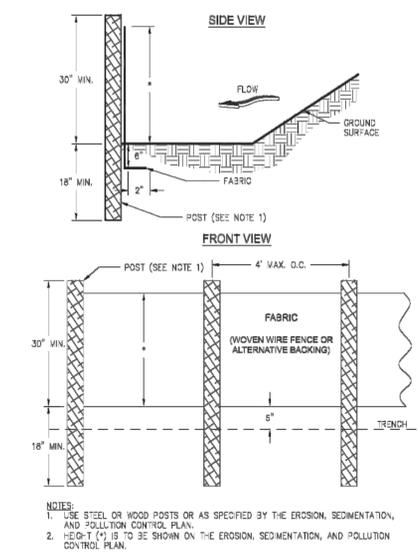
The minimum base width of the brush barrier shall be 6 feet and should be no wider than 10 feet. The height of the brush barrier should be between 3 and 5 feet tall.

A brush barrier is a good tool to use in developing pasture in an agricultural situation to prevent sediment from leaving the site until the pasture is stabilized.

If greater filtering capacity is required, a commercially available sediment barrier may be placed on the side of the brush barrier receiving the sediment-laden runoff. The lower edge of the fabric must be buried in a 6-inch deep trench immediately uphill from the barrier. The upper edge must be staked, tied or otherwise fastened to the brush barrier. Edges of adjacent fabric pieces must overlap each other. See Figure 6-2-3.

Installation
Sediment barriers should be installed along the contour.

SILT FENCE - TYPE SENSITIVE



NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (H) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

Figure 6-2-3

Type	Min Length	Type of Post	Size of Post
NS	4'	Soft wood Oak Steel	3" dia or 2x4 1.5" x 1.5" 1.3lb./ft. min
S	4'	Steel Oak	1.3lb./ft. min 2"x2"

Wire Staples / Post	Guage	Crown	Legs	Staples / Post
	17 min	3/4" wide	1/2" long	5 min.
Nails	Guage	Length	Buton Heads	Nail/ Post
	14 min	1" 3/4"	4 min	

Note: Filter Fabric may also be attached to the post by wire, chole, and pockets or any other method provided minimum P-factor, as required by GSWCC, is met.

FASTENERS FOR SILT FENCES

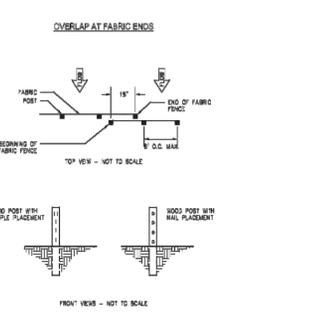


Figure 6-2-5

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Irrigate sod and soil to a depth of 4" immediately after installation.

Sod should not be cut or spread in extremely wet or dry weather. Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

MATERIALS

Sod selected should be certified. Sod grown in the general area of the project is desirable.

- Sod should be machine cut and contain 3/4" (+ or -1/4") of soil, not including shoots or thatch.
- Sod should be cut to the desired size within + or -5%. Torn or uneven pieces should be rejected.
- Sod should be out and installed within 36 hours of digging.
- Avoid planting when subject to frost heave or hot weather, if irrigation is not available.
- The sod type should be shown on the plans or installed according to Table 6-4-2. See Figure 6-4-1 for your Resource Area.

MAINTENANCE

Re-sod areas where an adequate stand of sod is not obtained. New sod should be mowed sparingly. Grass height should not be less than 2"-3" or as specified (See Figure 6-4-2).

Apply one ton of agricultural lime as indicated by soil test or every 4-5 years. Fertilize grasses in accordance with soil tests or Table 6-4-3.

Grass	Varietas	Resource Area	Growing Season
Bermudagrass	Common Tifton Tifton	M-L-P C P.C P.C	warm weather
Bahiagrass	Panama	P.C	warm weather
Centipede	-	P.C	warm weather
St. Augustine	Common St. Augustine Raleigh	C	warm weather
Zoysia	Emerald Meyer	P.C	warm weather
Tall Fescue	Kentucky	M-L-P	cool weather

Types Species	Planting Year	Fertilizer (lb/acre)	Rate (lb/100 sq ft)	Nitrogen Top Dressing Rate (lb/acre)
cool season grasses	first second maintenance	8-12-12 10-10-10	1500 1000 400	80-100 30
warm season grasses	first second maintenance	8-12-12 10-10-10	1500 800 400	80-100 30

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Dust Control on Disturbed Areas Du



DEFINITION

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

PURPOSE

To prevent surface and air movement of dust from exposed soil surfaces.

CONDITIONS

This practice is applicable to areas subject to surface and air movement of dust where on and off-site damage may occur without treatment.

METHOD AND MATERIALS

A. Temporary Methods

Mulches. See standard Da1 - Disturbed Area Stabilization (With Mulching Only). Synthetic rains may be used instead of applying bird mulch material. Refer to specification Da1 - Topsoils. Reins such as Curasol or Terrastack should be used according to manufacturer's recommendations.

Vegetative Cover. See specification Da2 - Disturbed Area Stabilization (With Temporary Seeding).

Spray-on Adhesives. These are used on mineral soils (not effective on muck soils). Keep traffic off these areas. Refer to specification Ta1 - Topsoils.

Tillage. This practice is designed to roughen

and bring clods to the surface. It is an emergency measure which should be used before wind erosion starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.

Irrigation. This is generally done as an emergency treatment. Sites sprinkled with water until the surface is wet. Repeat as needed.

Barriers. Solid board fences, snowfences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 15 times their height are effective in controlling wind erosion.

Calcium Chloride. Apply at rate that will keep surface moist. May need reapplication.

B. Permanent Methods

Permanent Vegetation. See specification Da3 - Disturbed Area Stabilization (With Permanent Vegetation). Existing trees and large shrubs may afford erosion control if left in place.

Topsoiling. This entails covering the surface with a thin layer of soil material. See specification Tp - Topsoiling.

Stone. Cover surface with crushed stone or coarse gravel. See specification Co-Construction Road Stabilization.

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Temporary sediment barriers shall be installed according to the following specifications as shown on the plans or as directed by the design professional.

For installation of the barriers. See Figures 6-2-1, 6-2-2, 6-2-3 and 6-2-4, respectively. The height of the barrier should be between 3 and 5 feet tall.

It is important to remember that not all sediment barriers need to be trenched into the ground but most taller sediment barriers do.

Post installation shall start at the center of a low point (if applicable) with the remaining posts spaced no greater than 8 feet apart for Type NS sediment barriers and no greater than 4 feet apart for Type S sediment barriers. For post size requirements, see Table 6-2-2. Fasteners for wood posts are listed in Table 6-2-3.

Static Siting Method

The static siting machine pulls a narrow blade through the ground to create a slit 12" deep, and simultaneously inserts the silt fence fabric into this slit behind the blade. The blade is designed to slightly disrupt soil upward next to the slit and to minimize horizontal compaction, thereby creating an optimum condition for compaction of the soil vertically on both sides of the fabric. Compaction is achieved by rolling a tractor wheel along both sides of the slit in the ground 2 to 4 times to achieve nearly the same or greater compaction as the original undisturbed soil. This vertical compaction reduces the air spaces between soil particles, which minimizes infiltration. Without this compaction infiltration can saturate the soil, and water may find a pathway under the fence. When a silt fence is held back several tons of accumulated water and sediment, it needs to be supported by posts that are driven 18 inches into the soil. Driving in the posts and attaching the fabric to them completes the installation.

Along all ditches waters and other sensitive areas, two rows of Type S sediment barriers shall be used. The two rows Type S should be placed a minimum of 36 inches apart.

MAINTENANCE

Sediment barriers shall be removed once it has accumulated to one-half the original height of the barrier. This is extremely important when seeding BMPs with a lower profile.

Sediment barriers shall be replaced whenever they have deteriorated to such an extent that the effectiveness of the product is reduced (approximately six months) or the height of the product is not maintaining 80% of the properly installed height.

Temporary sediment barriers shall remain in place until disturbed areas have been permanently stabilized. All sediment accumulated at the barrier shall be removed and properly disposed of before the barrier is removed.

TO BE SHOWN ON THE EROSION SEDIMENT AND POLLUTION CONTROL PLAN

When a SEDIMENT BARRIER is used, show the product height in inches for each barrier being used on site.

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EROSION AND SEDIMENT CONTROL

COMPOST FILTER SOCK

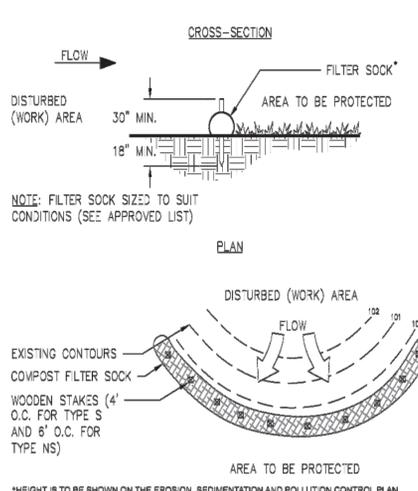


Figure 6-2-3

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Disturbed Area Stabilization (With Mulching Only) Da1



DEFINITION

Applying plant residues or other suitable materials, required such as dices, dividers, bents, tarrows and sediment barriers.

PURPOSE

- To reduce runoff and erosion.
- To conserve moisture.
- To prevent surface compaction or crushing.
- To control undesirable vegetation.
- To modify soil temperature.
- To increase biological activity in the soil.

REQUIREMENT FOR REGULATORY COMPLIANCE

Mulch or temporary grazing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but it shall be applied at the appropriate depth, depending on the material used, anchored and have a continuous 90% cover or greater of the soil surface.

Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months.

Applying Mulch

When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

Applying Straw

Straw or hay mulch can be prepared into the soil with a disk harrow with the disk set straight or with a special "backer disk". Disks may be smooth or serrated and should be 20 inches or more in diameter and 6 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it in an erect position. Straw or hay mulch shall be anchored immediately after application.

Straw or hay mulch spread with special blow-type equipment may be anchored. Tackifiers, binders and hydraulic mulch with tackifier specifically designed for tackling straw can be substituted for animal-dung asphalt. Please refer to specification Ta1 - Topsoils. Plastic mesh or netting with mean no larger than one inch by one inch shall be installed according to manufacturer's specifications.

2. Netting of the appropriate size shall be used to anchor wood waste. Opening of the netting shall not be larger than the average size of the wood waste chips.

3. Polyethylene film shall be anchored over banks or stockpiled soil material for temporary protection. This material can be salvaged and re-used.

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SODDED WATERWAYS

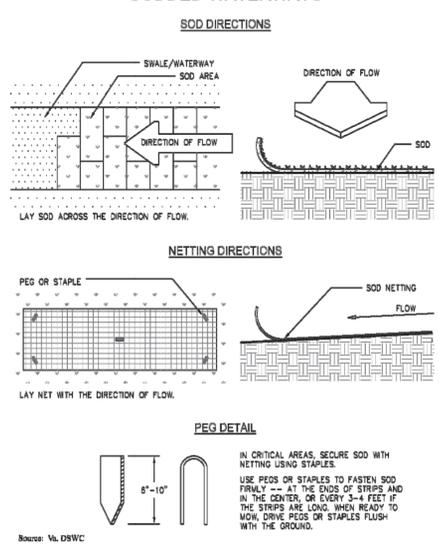


Figure 6-4-1

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Sediment Barrier (Sd1)



DEFINITION

Sediment Barriers are temporary structures made up of a porous material typically supported by steel or wood posts. Types of sediment barriers may include silt fence, brush piles, mulch bents, compost filter socks, or other filtering material.

PURPOSE

To minimize and prevent sediment carried by sheet flow from leaving the site and entering natural drainage ways or storm drainage systems by slowing storm water runoff and causing the deposition and/or filtration of sediment at the structure. The barriers retain the soil on the disturbed land until the activities disturbing the land are completed and vegetation is established.

CONDITIONS

Barriers should be installed where runoff can be stored behind the barrier without damaging the subgrade area behind the barrier or the structure itself. Sediment barriers shall not be installed across streams, ditches, waterways, or other concentrated flow areas.

PERFORMANCE EVALUATION

For a product or practice to be approved as a sediment barrier, that product or practice must have a documented P-factor no greater than 0.045 for non-sensitive areas or a P-factor no greater than 0.030 for sensitive areas, as specified by GSWCC. For complete test procedures and approved products list please visit www.gswcc.org/georgia.

When using multiple types of sediment barrier,

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SILT FENCE - TYPE NON-SENSITIVE

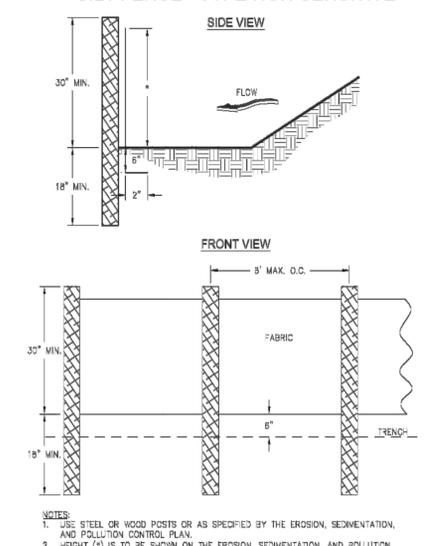


Figure 6-2-1

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SEDIMENT BARRIERS

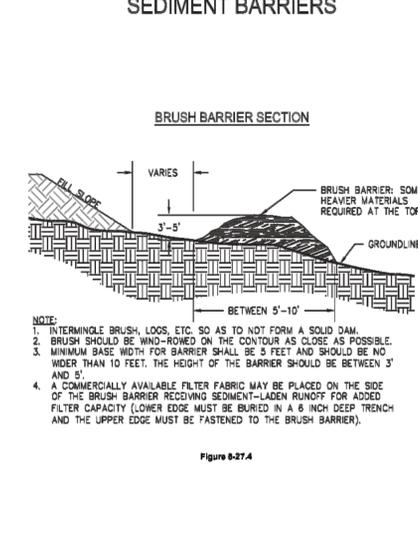


Figure 6-2-4

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Disturbed Area Stabilization (With Temporary Seeding), Da3 - Disturbed Area Stabilization (With Permanent Seeding), and Da4 - Disturbed Area Stabilization (With Sodding).

SPECIFICATIONS

Mulching Without Seeding

This standard applies to graded or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover, but can be stabilized with a mulch cover.

Site Preparation

- Grade to permit the use of equipment for applying and anchoring mulch.
- Install needed erosion control measures as required such as dices, dividers, bents, tarrows and sediment barriers.
- Loosen compact soil to a minimum depth of 3 inches.

Mulching Materials

Select one of the following materials and apply at the depth indicated:

- Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application

consultant

seal



Town of Braselton

4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
www.braselton.net

TOWN GREEN PARK
City of Braselton, Georgia

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
CB-1

- Drainage area = 0.51 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.51 ac
Required sediment storage = 34.17 cy = 922.59 cf
- Assume excavation depth (minimum of 1.5 ft.) = 3 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 34.17 cy / 3 ft
SA min = 307.53 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 13 ft w = 26 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
CB-8

- Drainage area = 0.04 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.04 ac
Required sediment storage = 2.68 cy = 72.36 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 2.68 cy / 2 ft
SA min = 36.18 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 4 ft w = 9 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
DI-5

- Drainage area = 0.18 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.18 ac
Required sediment storage = 12.06 cy = 325.62 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 12.06 cy / 2 ft
SA min = 162.81 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 9 ft w = 18 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
DI-14

- Drainage area = 0.29 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.29 ac
Required sediment storage = 19.43 cy = 524.61 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 19.43 cy / 2 ft
SA min = 262.31 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 12 ft w = 24 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
CB-2

- Drainage area = 0.2 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.2 ac
Required sediment storage = 13.4 cy = 361.8 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 13.4 cy / 2 ft
SA min = 180.90 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 10 ft w = 20 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
CB-18

- Drainage area = 0.08 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.08 ac
Required sediment storage = 5.36 cy = 144.72 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 5.36 cy / 2 ft
SA min = 72.36 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 6 ft w = 12 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
CB-17

- Drainage area = 0.15 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.14 ac
Required sediment storage = 9.38 cy = 253.26 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 9.38 cy / 2 ft
SA min = 126.63 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 8 ft w = 16 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
DI-22

- Drainage area = 0.58 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.58 ac
Required sediment storage = 38.86 cy = 1049.22 cf
- Assume excavation depth (minimum of 1.5 ft.) = 3 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 38.86 cy / 3 ft
SA min = 349.74 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 13 ft w = 27 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
CB-6

- Drainage area = 0.18 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.18 ac
Required sediment storage = 12.06 cy = 325.62 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 12.06 cy / 2 ft
SA min = 162.81 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 9 ft w = 18 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
DI-3

- Drainage area = 0.09 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.09 ac
Required sediment storage = 6.03 cy = 162.81 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 6.03 cy / 2 ft
SA min = 81.41 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 7 ft w = 14 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
EX-DI-9A

- Drainage area = 0.24 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.24 ac
Required sediment storage = 16.08 cy = 434.16 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 16.08 cy / 2 ft
SA min = 217.08 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 11 ft w = 22 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
CB-7

- Drainage area = 0.05 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.05 ac
Required sediment storage = 3.35 cy = 90.45 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 3.35 cy / 2 ft
SA min = 45.23 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 5 ft w = 10 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
DI-4

- Drainage area = 0.22 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.22 ac
Required sediment storage = 14.74 cy = 397.98 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 14.74 cy / 2 ft
SA min = 198.99 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 10 ft w = 20 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

EXCAVATED INLET SEDIMENT TRAP CALCULATIONS
JB-15

- Drainage area = 0.15 ac
- Required sediment storage = 67 cy/ac * drainage area
Required sediment storage = 67 cy/ac * 0.15 ac
Required sediment storage = 10.05 cy = 271.35 cf
- Assume excavation depth (minimum of 1.5 ft.) = 2 ft
- Assume slope of sides (shall not be steeper than 2:1) = 2 :1
- Determine required surface area
SA min = Required sediment storage / excavation depth
SA min = 10.05 cy / 2 ft
SA min = 135.68 sf
- Assume shape of excavation and determine dimensions.
(A rectangular shape with 2:1 length to width ratio is recommended)
Shape:
Dimensions: l = 8 ft w = 17 ft diameter (if applicable) NA ft

Provide a detail showing the depth, length, and width, or diameter (if applicable), and side slopes of the excavation

KENNETH R. MCDUFF
GSWCC LEVEL II CERTIFICATION NO. 00133
EXPIRES: 6/03/2017

DATE



NO.	DATE	DESCRIPTION
1	10/23/15	
2	11/18/15	

date
project no.
drawn by
checked by
sheet title

INLET SEDIMENT TRAP CALCULATIONS

sheet

consultant

seal

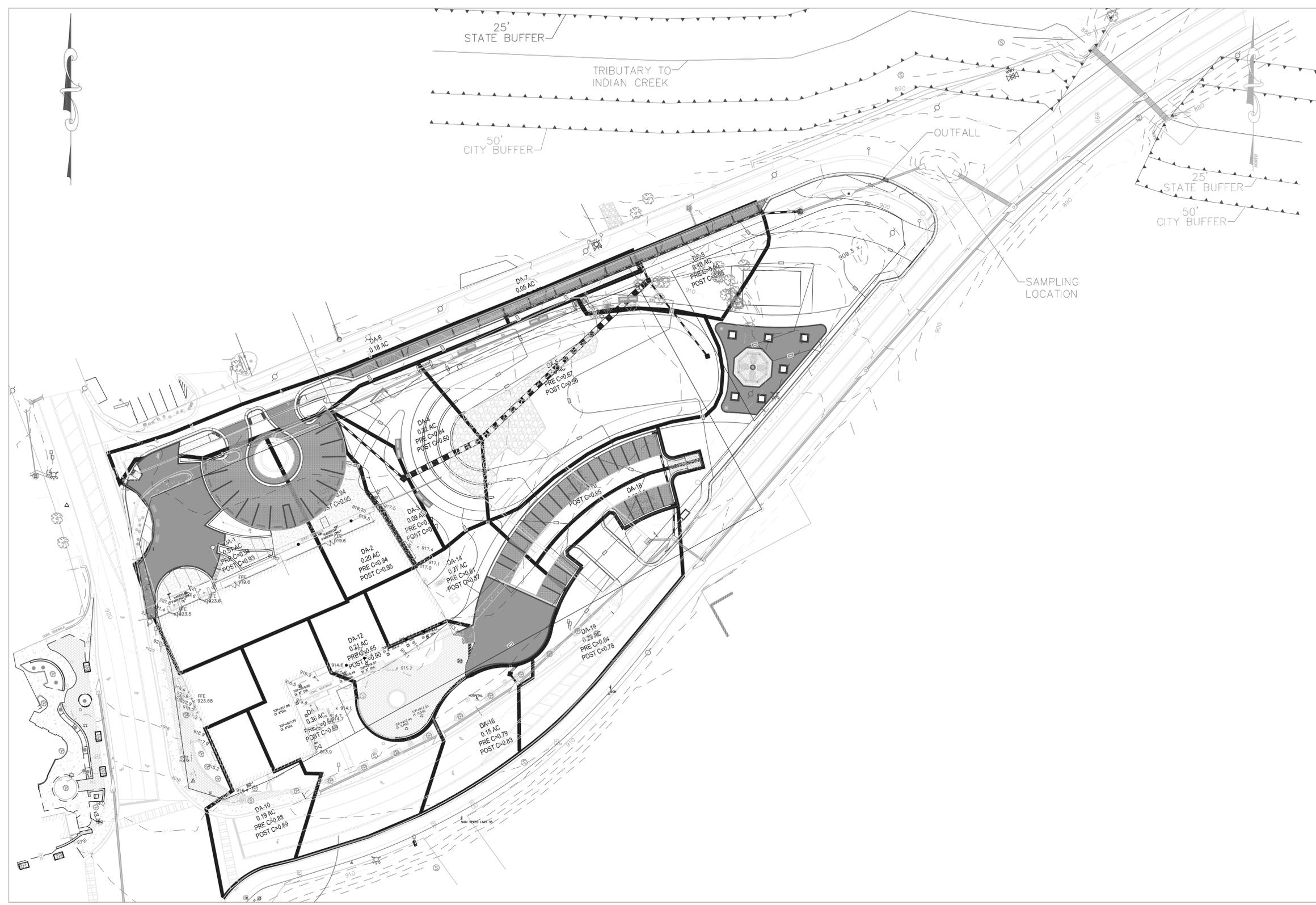


Town of Braselton
4982 Highway 53
Braselton, Georgia 30517
p 706.654.3915
f 706.654.3109
www.braselton.net

TOWN GREEN PARK
City of Braselton, Georgia

LEGEND

- EX CB [Symbol] EXISTING CATCH BASIN
- [Symbol] CATCH BASIN
- [Symbol] STORM DRAINAGE YARD INLET
- [Symbol] STORM DRAINAGE MANHOLE
- [Symbol] STORM DRAIN LINE
- [Symbol] PROPOSED CONTOUR
- [Symbol] EXISTING CONTOUR
- [Symbol] EASEMENT
- [Symbol] UNDERGROUND TELECOM
- [Symbol] UNDERGROUND POWER
- [Symbol] DOMESTIC WATER
- [Symbol] SANITARY SEWER
- [Symbol] STORM DRAIN
- [Symbol] RECLAIMED WATER
- [Symbol] Stream Buffer
- [Symbol] SANITARY SEWER MANHOLE
- [Symbol] LIGHT POLE
- [Symbol] WATER VALVE
- [Symbol] FIRE HYDRANT
- [Symbol] SANITARY SEWER CLEANOUT
- [Symbol] ELECTRICAL POLE
- [Symbol] TRANSFORMER
- [Symbol] WATER METER
- [Symbol] PHONE PEDISTAL
- [Symbol] FIRE DEPARTMENT CONNECTION
- [Symbol] POST INDICATOR VALVE

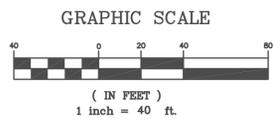


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OUTFALL	PRE/POST	RUNOFF COEFFICIENT	Q 50 (CFS)	VELOCITY - Q 50 (FPS)
TOTAL SITE	PRE	0.79	44.0	NA
	POST	0.81	35.1*	7.4

*POST FLOW INCLUDES ATTENUATION



revisions

NO.	DATE	DESCRIPTION
1	10/23/15	
2	11/18/15	

date

project no.

drawn by

checked by

sheet title

DRAINAGE AREA MAP

sheet

EC 1.11