LOT 3
TOWER PARK COMMERCIAL-PHASE 2
OWNER: GALE COMMUNITIES INC

SW. SENSATION DRIVE
EXISTING CURB (TO REMAIN)
60' R/W
80' R/W
78' R/W
EXISTING WATER LINE
EXISTING VAULT
EXISTING FIBER OPTIC
EX. SAN. SWR. MANHOLE
N58°46'33"E, 115.40'
S31°13'27"E, 131.06'
N31°13'27"W, 131.06'
FUTURE BUILDING
FUTURE IMPROVEMENTS (BY OTHERS)
SW. LONGVIEW BLVD.
EXISTING CURB (TO REMAIN)
SAWCUT EXISTING SIDEWALK, RECONSTRUCT SIDEWALK TO TOWER PARK DRIVE.
PROPOSED HANDICAPPED PARKING STALLS AND SIGNS
PROPOSED 5' CONC. WALK
REMOVE 32 L.F. CONC. CURB & GUTTER
PROPOSED STORM SEWER
S31°13'27"E, 121.75'
EX. STORM CURB INLET
EXISTING WATER
EXISTING STORM SEWER CURB INLET #29
SAWCUT EXISTING SIDEWALK RECONSTRUCT SIDEWALK
EXISTING SANITARY SEWER
EX. SAN. SWR. MANHOLE A6
EXISTING FIBER OPTIC
EXISTING STORM SEWER CURB INLET #30
BM-1004
EXISTING STORM SEWER
EX. STORM CURB INLET
PROPOSED 6' CONC. WALK
PROPOSED TYPE "A" WHEELCHAIR RAMP
REMOVE 27 L.F. CONC. CURB & GUTTER
SAWCUT 81 L.F. EX. ASPHALT PAVEMENT.
REMOVE 790 SF. EX. ASPHALT PAVEMENT.
EX. SAN. SWR. MANHOLE G1
EXISTING STORM SEWER
FUTURE TRASH ENCL. (BY OTHERS)
EXISTING GARAGE
TRASH ENCL. RE: (ARCH)
PROPOSED 5,390 SQ. FT. BUILDING
EXISTING LANDSCAPE EDGING
TYPE "CG-1" CURB & GUTTER (TYP.)
EXISTING STORM SEWER R=130.00' L=86.74' Δ=38°13'49"
S58°46'36"W, 34.95'
EXISTING ELECTRIC
EXISTING STORM SEWER TO REMAIN
EXISTING STORM SEWER JUNCTION BOX
RECONSTRUCT TYPE "A" WHEELCHAIR RAMP
REMOVE 41 L.F. CONC. CURB & GUTTER
EXISTING CONC. WALK (TO REMAIN)
SW. TOWER PARK DR.
N31°13'27"W, 149.63'
R20'
R25'
R5'
R4'
R3.5'
50.00'
26.00'
17.50' TYP.
9.00' TYP.
7.15'
51.15'
2.00'
6.00'
3.79'
1.00'
5.00'
17.50'
13.41'

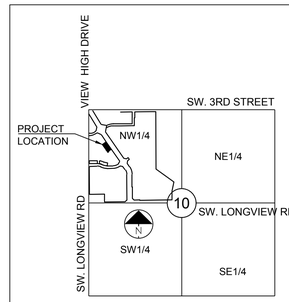
LOT 5
TOWER PARK COMMERCIAL-PHASE 2
LOTS 5,6,7, TRACTS A&B

510 SW TOWER PARK DRIVE
(OWNER: JVM NEW LONGVIEW LLC)

460 SW LONGVIEW BLVD
(OWNER: JVM NEW LONGVIEW LLC)

LOT 6
TOWER PARK COMMERCIAL-PHASE 2
LOTS 5,6,7, TRACTS A&B

SECTION 10-T47-R32
LOCATION MAP
SCALE 1" = 2000'



Parcel ID:
62-420-29-09-00-0-00-000

SITE DATA TABLE

LOT AREA:		29,886 SQ. FT. (0.69 AC)
	EXISTING	PROPOSED
BUILDING AREA	0 S.F. (0.00%)	5,390 S.F. (36.51%)
PAVEMENT/DRIVE AREA	172 S.F. (0.01%)	22,039 S.F. (73.74%)
OPEN/LANDSCAPE AREA	29,714 S.F. (99.42%)	2,457 S.F. (8.22%)

Site Information:

Legal Description:

Lot 7, TOWER PARK COMMERCIAL-PHASE 2, Lots 5, 6, 7, Tracts A and B, a subdivision in Lees's Summit, Jackson County, Missouri.

Lot Area: 29,886 Square Feet (0.69 Ac.)

Property Address:
No Address Assigned
Lee's Summit, Missouri

Proposed Floor Area Ratio (F.A.R.) = 0.18

Current Zoning: PMIX - Planned Mixed Use
Proposed Zoning: PMIX - Planned Mixed Use - No Change

Current Use: Commercial - Vacant
Proposed Use: Commercial - Office - Veterinary Clinic

Required Parking: Veterinary Clinic
2.5 Stalls / 1000 Sq. Ft.
Office Area = 5,390 / 1,000 x 2.5 = 13.48
Total Parking Required: = 14 Stalls

(#) Proposed Parking: 22 Stalls (2 handicap-accessible stalls)
14 On Site and 8 Adjacent Street Frontage

NOTE:
NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0414G DATED JANUARY 20, 2017.

PAVEMENT LEGEND:

- PROPOSED ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT
- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- EXISTING CONCRETE SIDEWALK
- TYPE CG-1 CURB & GUTTER
- TYPE CG-1 CURB & GUTTER - DRY
- EXISTING CURB & GUTTER
- REMOVE EXISTING ASPHALT PAVEMENT
- -X—X—X—X- REMOVE EXISTING CONC. CURB AND GUTTER

PROJECT BENCHMARK:

MONUMENT FOUND
CHISELED "SQUARE" ON STORM CURB INLET #30 AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148
EASTING: 2803318.5413

ELEV. 1004.09

MISSOURI ONE CALL SYSTEM
1-800-344-7483 or 811
mo1call.com

N
0 20' 40'
SCALE: 1" = 20'

SCHLAGEL & ASSOCIATES, P.A.
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Missouri State Certificates of Authority
#E2000203800-F #LA2001005237 #LS2002008859-F

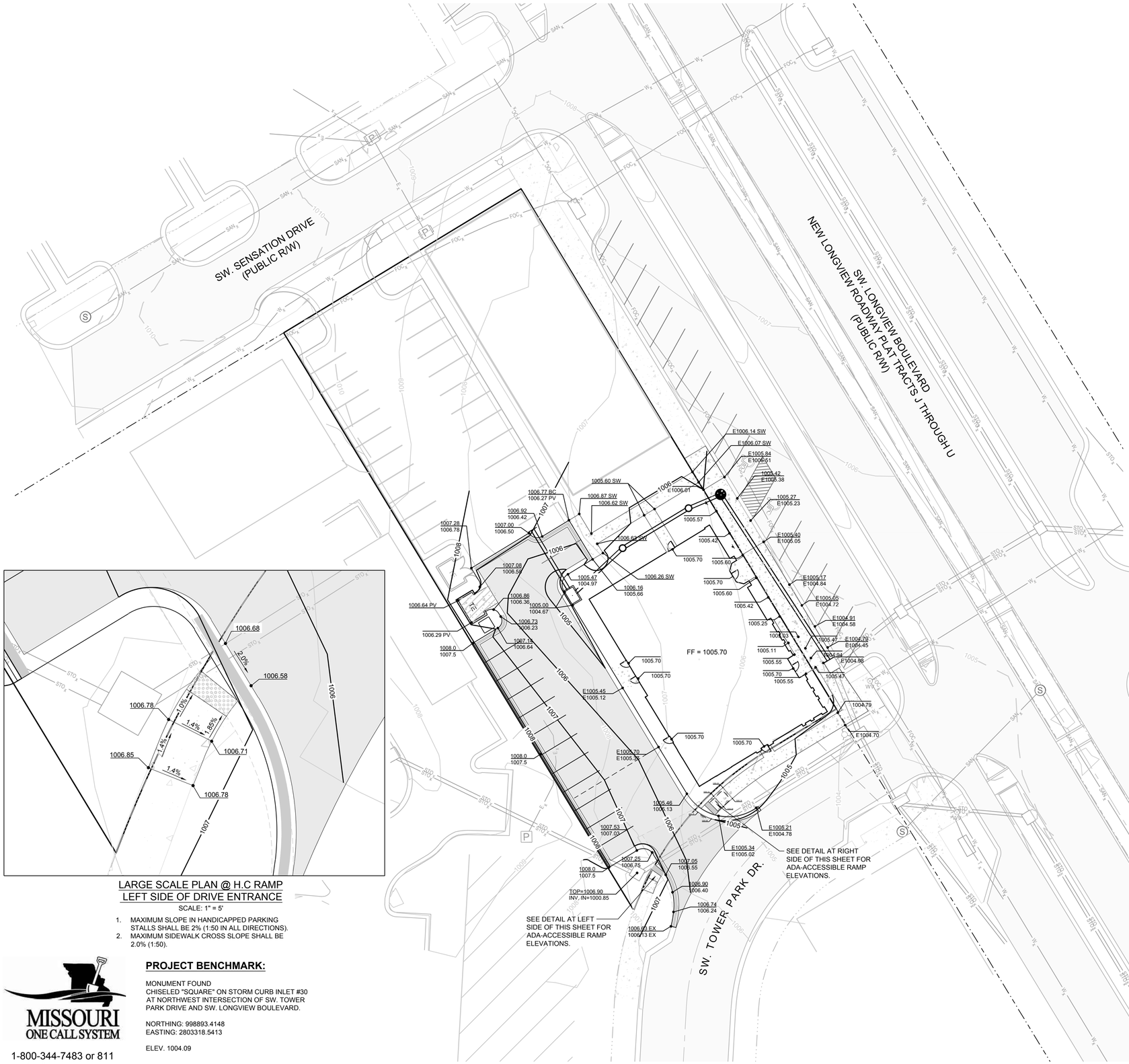
NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS
420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

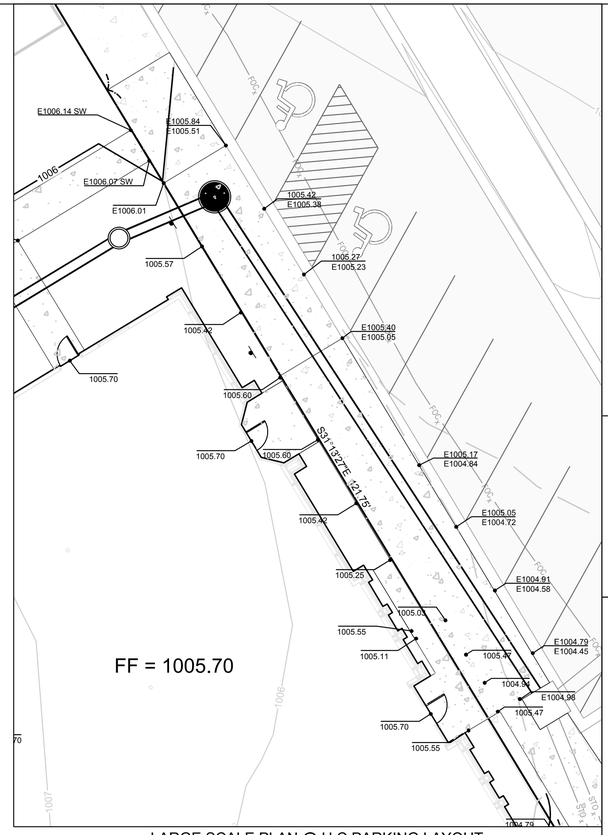
REVISION DATE	DESCRIPTION
1 8/6/2018	PER CITY COMMENTS
2 8/21/2018	PER CITY COMMENTS
3	
4	
5	
6	
7	
8	

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18-084

SITE PLAN

SHEET
C1
OF 10





LARGE SCALE PLAN @ H.C PARKING LAYOUT

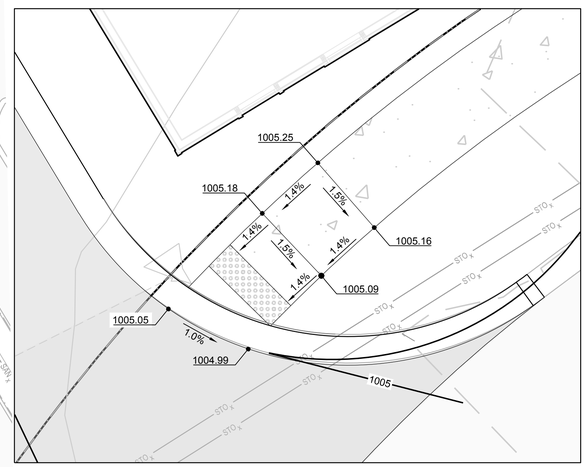
SCALE: 1" = 10'

1. MAXIMUM SLOPE IN HANDICAPPED PARKING STALLS SHALL BE 2% (1:50 IN ALL DIRECTIONS).
2. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE 2.0% (1:50).

LARGE SCALE PLAN @ H.C RAMP
LEFT SIDE OF DRIVE ENTRANCE

SCALE: 1" = 5'

1. MAXIMUM SLOPE IN HANDICAPPED PARKING STALLS SHALL BE 2% (1:50 IN ALL DIRECTIONS).
2. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE 2.0% (1:50).



LARGE SCALE PLAN @ H.C RAMP
RIGHT SIDE OF DRIVE ENTRANCE

SCALE: 1" = 5'

1. MAXIMUM SLOPE IN HANDICAPPED PARKING STALLS SHALL BE 2% (1:50 IN ALL DIRECTIONS).
2. MAXIMUM SIDEWALK CROSS SLOPE SHALL BE 2.0% (1:50).

MISSOURI ONE CALL SYSTEM

1-800-344-7483 or 811
mo1call.com

PROJECT BENCHMARK:

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ELEV. 1004.09

0 20' 40'

SCALE: 1" = 20'

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NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS
420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 8/8/2018	PER CITY COMMENTS
2 8/21/2018	PER CITY COMMENTS
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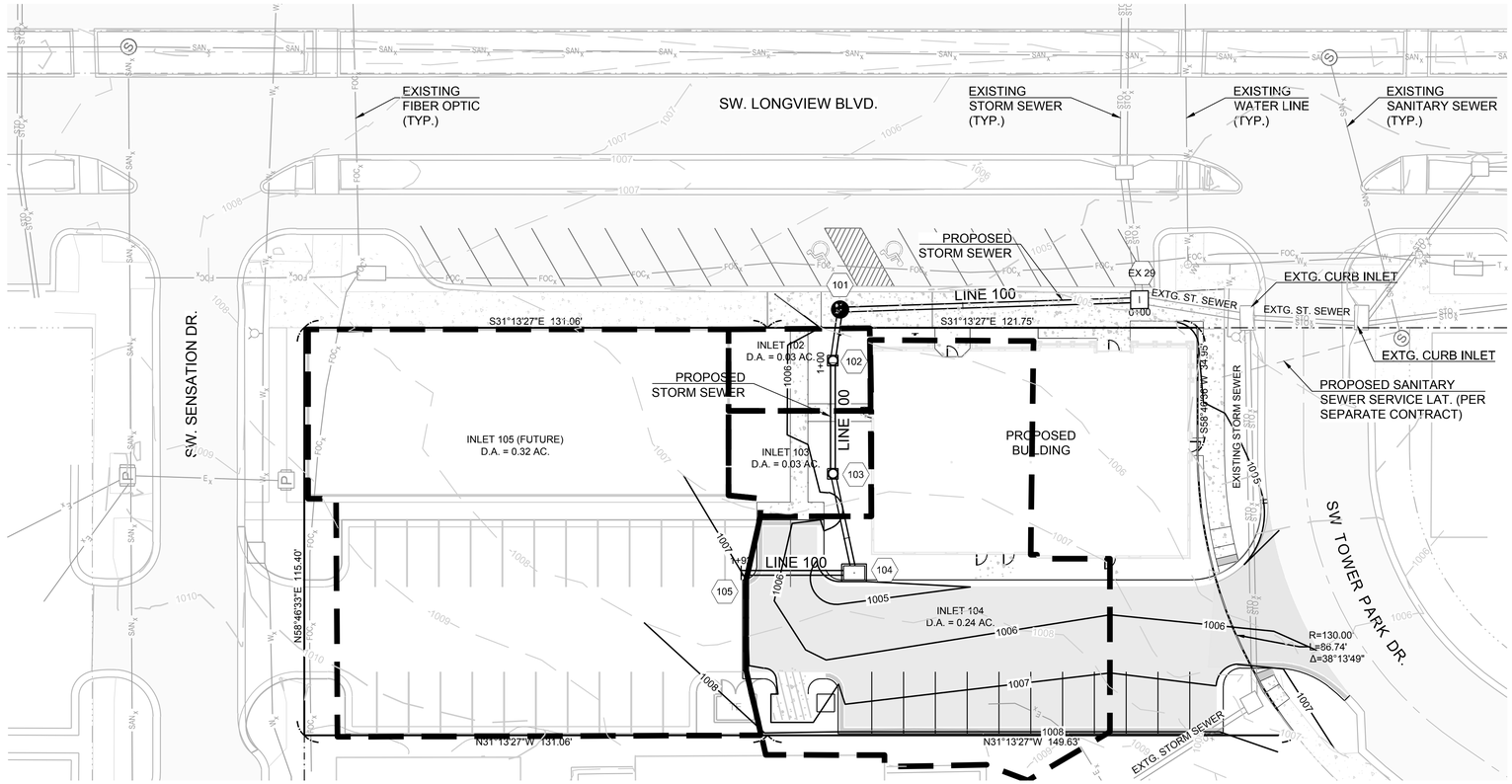
7	
8	

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18-084

GRADING PLAN

SHEET
C2
OF 10



Storm Sewer Construction Notes	
Structure	Notes
EX 29	STA 0+00.00, LINE 100 CONNECT TO EXIST. 4'X4' CURB INLET 121°28'06" N 998923.3402 E 2803305.9887
101	STA 0+84.80, LINE 100 INSTALL STANDARD 4' DIA. MANHOLE 203°17'34" N 998994.3463 E 2803259.6321
102	STA 0+99.36, LINE 100 INSTALL 30" NYLOPLAST DRAIN INLET 211°13'27" N 998988.5880 E 2803246.2568
103	STA 1+31.36, LINE 100 INSTALL 30" NYLOPLAST DRAIN INLET 211°13'27" N 998971.9996 E 2803218.8922
104	STA 1+60.05, LINE 100 INSTALL 6'X 4' NON-SETBACK CURB INLET 121°13'27" N 998952.3267 E 2803198.0135
105	STA 1+92.00, LINE 100 PLUG STORM SEWER FOR FUTURE CONSTRUCTION PER DETAIL ON SHEET C4. 0°00'00" N 998979.6509 E 2803181.4496

SCALE: 1" = 20'

PROJECT BENCHMARK:

MONUMENT FOUND
CHISELED "SQUARE" ON STORM CURB INLET #30
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ELEV. 1004.09

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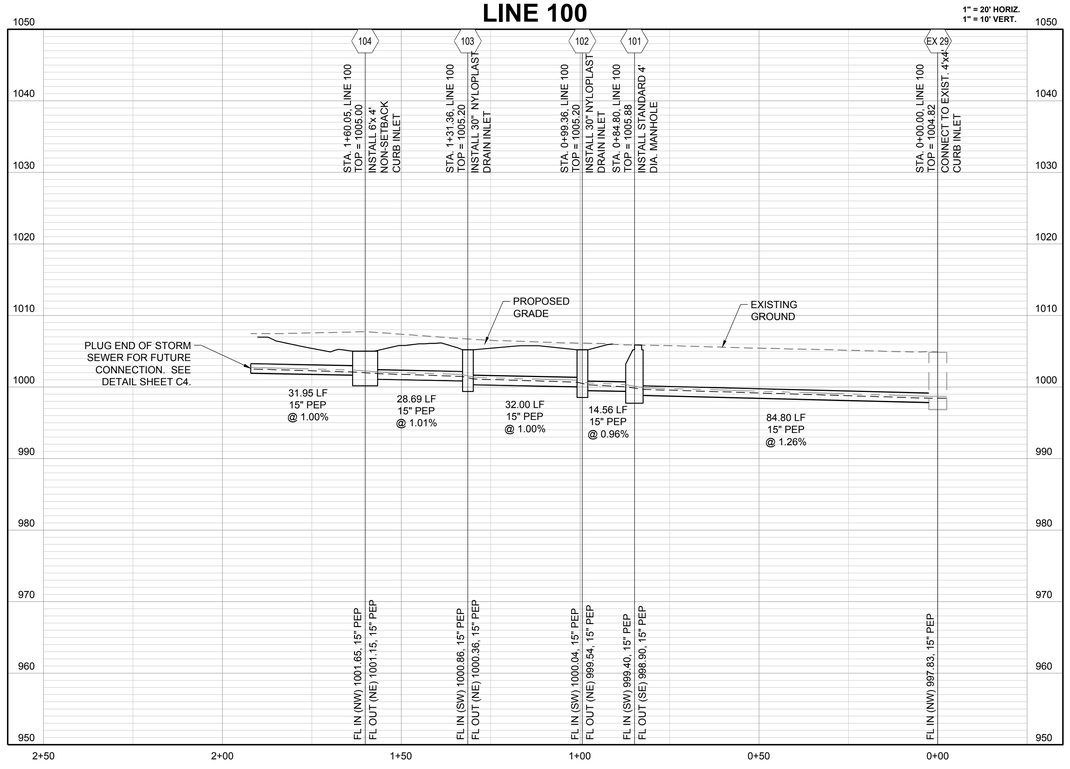
LINE 100

1" = 20' HORIZ.
1" = 10' VERT.



100-YEAR HYDRAULIC GRADE LINE (HGL)
10-YEAR HYDRAULIC GRADE LINE (HGL)

Schlagel & Associates, P.A.

Project Name:	Good Vets - Longview - Lot 7												Curb Type:	CG-1															
Project #:	18-084												City:	Lee's Summit															
Time:	7/10/2018 12:48																												
Design Storm:	100																												
"K" Value:	1.25																												
"F" Factor:	1.00																												
Runoff Calculations:																	Pipe Properties:												
			Cumul.				Runoff				Up	Up	Up									Drop							
Inlet	Area	"C"	Area	Cumul.			To	Cumul.	Pipe	Pipe	Piped	Piped	Area	Up	Up	Down	Pipe	"n"	Pipe		Slope	In				Inlet	HGL
#	(acres)	Value	(acres)	CxA	Tc	Intensity	Inlet	Runoff	Cap.	Vel.	Inlet 1	Inlet 2	(acres)	CxA	Inlet	Inlet	Type	Value	Size	Length	%	Inlet	FL Up	FL Down	Top	Elev.		
LINE 100																								DS TAILWATER @ STR #		FREE			
101	0.00	0.81	0.62	0.50	5.3	10.19	0.00	6.40	7.86	6.40			0.00	0.00	101		PEP	0.012	15	84.80	1.26	0.50	998.90	997.83	1005.88	1000.19		
102	0.03	0.81	0.62	0.50	5.3	10.21	0.31	6.41	7.00	5.70			0.00	0.00	102	101	PEP	0.012	15	14.56	1.00	0.50	999.54	999.40	1005.20	1000.84		
103	0.03	0.81	0.59	0.48	5.2	10.25	0.31	6.12	7.00	5.70			0.00	0.00	103	102	PEP	0.012	15	32.00	1.00	0.50	1000.36	1000.04	1005.20	1001.63		
104	0.24	0.81	0.56	0.45	5.1	10.28	2.50	5.83	7.00	5.70			0.00	0.00	104	103	PEP	0.012	15	28.69	1.00	0.50	1001.15	1000.86	1005.00	1002.38		
105	0.32	0.81	0.32	0.26	5.0	10.32	3.34	3.34	7.00	5.70			0.00	0.00	105	104	PEP	0.012	15	32.00	1.00	N/A	1001.97	1001.65	1007.00	1002.86		

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#E2000203800-F #LA2001005237 #LS2000208859-F

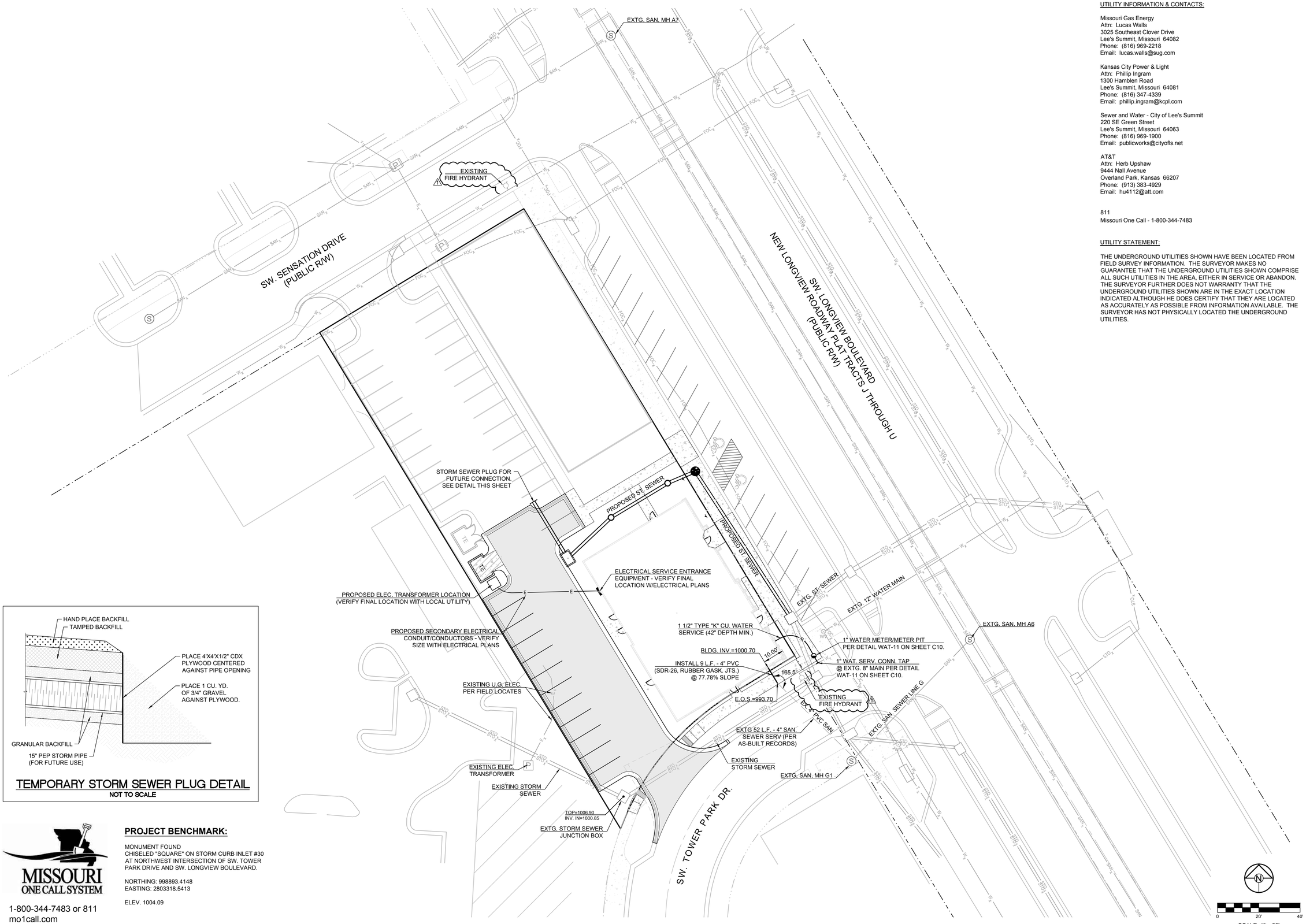
NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS
420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

REVISION DATE:	DESCRIPTION
1 8/8/2018	PER CITY COMMENTS
2 9/21/2018	PER CITY COMMENTS
3	
4	
5	
6	
7	

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18-084

STORM SEWER PLAN & PROFILE

SHEET
C3
OF 10



TEMPORARY STORM SEWER PLUG DETAIL

NOT TO SCALE

MISSOURI ONE CALL SYSTEM

1-800-344-7483 or 811
mo1call.com

PROJECT BENCHMARK:

MONUMENT FOUND
CHISELED "SQUARE" ON STORM CURB INLET #30
AT NORTHWEST INTERSECTION OF SW. TOWER
PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148
EASTING: 2803318.5413

ELEV. 1004.09

UTILITY INFORMATION & CONTACTS:

Missouri Gas Energy
Attn: Lucas Walls
3025 Southeast Clover Drive
Lee's Summit, Missouri 64082
Phone: (816) 969-2218
Email: lucas.walls@sug.com

Kansas City Power & Light
Attn: Phillip Ingram
1300 Hamblen Road
Lee's Summit, Missouri 64081
Phone: (816) 347-4339
Email: phillip.ingram@kcpl.com

Sewer and Water - City of Lee's Summit
220 SE Green Street
Lee's Summit, Missouri 64063
Phone: (816) 969-1900
Email: publicworks@cityofls.net

AT&T
Attn: Herb Upshaw
9444 Nall Avenue
Overland Park, Kansas 66207
Phone: (913) 383-4929
Email: hu4112@att.com

811
Missouri One Call - 1-800-344-7483

UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDON. THE SURVEYOR FURTHER DOES NOT WARRANTY THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

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NEW LONGVIEW LOT 7
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420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

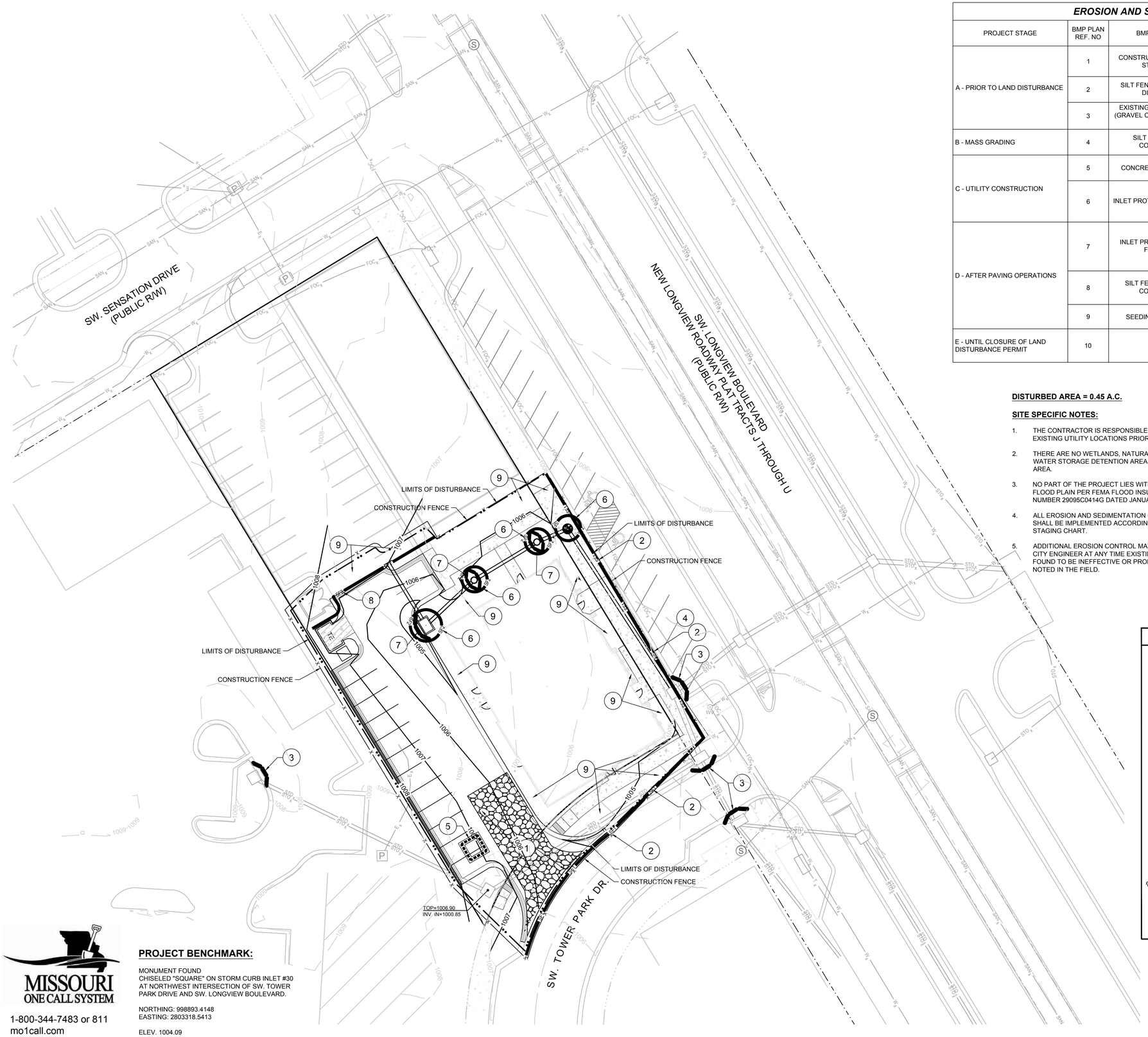
REVISION DATE	DESCRIPTION
07-19-2018	Added Extg. Fire Hydrant Locations
8/21/2018	PER CITY COMMENTS

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18.084

UTILITY PLAN

SHEET
C4
OF 10

I:\PROJECTS\2018\18-0843.0 Design\3.0 DWG Plans\3.0 FDP\18-084-FDP-UTIL.dwg, 8/21/2018 11:20:02 AM, 1:1



EROSION AND SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	BMP PLAN REF. NO	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A - PRIOR TO LAND DISTURBANCE	1	CONSTRUCTION ENTRANCE & STAGING AREA	D	MAINTAIN, REPAIR, OR REPLACE AS NECESSARY
	2	SILT FENCE (PRIOR TO LAND DISTURBANCE)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
	3	EXISTING INLET PROTECTION (GRAVEL CURB INLET SEDIMENT TRAP)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
B - MASS GRADING	4	SILT FENCE (DURING CONSTRUCTION)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
C - UTILITY CONSTRUCTION	5	CONCRETE WASHOUT AREA	E	MAINTAIN, REPAIR, OR REPLACE AS NECESSARY
	6	INLET PROTECTION (SILT FENCE)	D/E	PLACE SILT FENCE AROUND ALL STORM SEWER STRUCTURES / YARD AREA STORM STRUCTURES PRIOR TO TOPS BEING PLACED SILT FENCE REMOVED & REPLACE WITH #7 BELOW WITH PLACEMENT OF TOPS AND/OR STABLIZATION OF DRAINAGE AREAS.
D - AFTER PAVING OPERATIONS	7	INLET PROTECTION (GRAVEL FILTER BAGS)	E	BOARDS SHALL BE PLACED IN FRONT OF INLET OPENING FROM THE TIME SILT FENCE IS REMOVED UNTIL SUCH TIME THAT THE CURB / THROAT IS POURED. PLACE GRAVEL FILTER BAGS AT THE OPENING OF ALL CURB INLETS IMMEDIATELY AFTER THE INLET THROATS ARE POURED
	8	SILT FENCE (AFTER CURB CONSTRUCTION)	E	PLACE WHERE INDICATED, REPAIR OR REPLACE AS NECESSARY AND REMOVE ONLY WHEN GRADED AREAS HAVE SUFFICIENT GROUND COVER ESTABLISHED
	9	SEEDING AND MULCHING	E	ALL DISTURBED AREAS AFTER 14 DAYS OF CONSTRUCTION INACTIVITY
E - UNTIL CLOSURE OF LAND DISTURBANCE PERMIT	10			ADDITIONAL SEDIMENT AND EROSION CONTROL MEASURES MAY BE REQUIRED ANY TIME CURRENT MEASURES ARE FOUND TO BE INEFFECTIVE.

DISTURBED AREA = 0.45 A.C.

SITE SPECIFIC NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
2. THERE ARE NO WETLANDS, NATURAL OR ARTIFICIAL WATER STORAGE DETENTION AREAS IN THE PROJECT AREA.
3. NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0414G DATED JANUARY 20, 2017.
4. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED ACCORDING TO THE BMP STAGING CHART.
5. ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE CITY ENGINEER AT ANY TIME EXISTING MEASURES ARE FOUND TO BE INEFFECTIVE OR PROBLEMATIC AREAS ARE NOTED IN THE FIELD.
6. STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE SOIL STABILIZING BMPS. INITIAL STABILIZATION ACTIVITIES MUST BE COMPLETED WITHIN 14 DAYS AFTER SOIL DISTURBING ACTIVITIES CEASE.
7. ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN.
8. SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE GRADING BEGINS WILL BE MAINTAINED BY THE GRADING CONTRACTOR.
9. AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE.

LEGEND

- TEMPORARY STORAGE AREA FOR EXCESS MATERIAL
- TEMP. CONSTRUCTION ENTRANCE AND STAGING AREA
- CONCRETE WASHOUT AREA
- SILT FOAM DIKE - STAKED & INSTALL PER MFR'S RECOMMENDATIONS
- ROCK DITCH CHECK
- GRAVEL CURB INLET SEDIMENT TRAP
- SILT SOCK / ROCK SOCK / SOCK WATTLE
- 1 BMP PLAN REF. NO.
- SF1 SILT FENCE (PRIOR TO LAND DISTURBANCE)
- SF2 SILT FENCE (DURING CONSTRUCTION)
- X CONSTRUCTION FENCE
- LIMITS OF DISTURBANCE
- 965 EXISTING CONTOURS
- 965 PROPOSED CONTOURS
- STRAW BALE DITCH CHECK
- GRAVEL FILTER FOR STORM SEWER STRUCTURES ONLY

PROJECT BENCHMARK:

MONUMENT FOUND
CHISELED "SQUARE" ON STORM CURB INLET #30
AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

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0 20' 40'
SCALE: 1" = 20'

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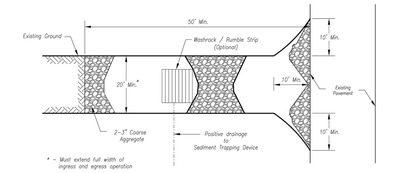
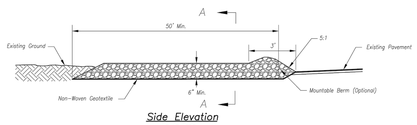
EROSION CONTROL PLAN

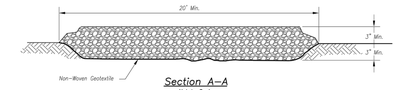
SHEET
C5
OF 10



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

1. Avoid loading on steep slopes, at curves on public roads, or downhill of disturbed area.
2. Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.
3. If slope towards the public road exceeds 2%, construct a 6- to 8-inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.
4. Install pipe under the entrance if needed to maintain drainage ditches along public roads.
5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
6. Divert all surface runoff and drainage from the entrance to a sediment control device.
7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

Maintenance for Construction Entrance:

1. Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.

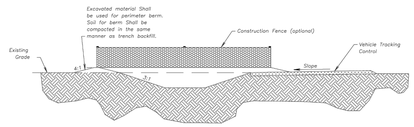
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading into the subsurface pit shall be 3:1H or flatter. Vehicle tracking pad shall be sloped towards the concrete washout area.
3. Vehicle tracking control is required at the access point to all concrete washout areas.
4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

Maintenance for Concrete Washout:

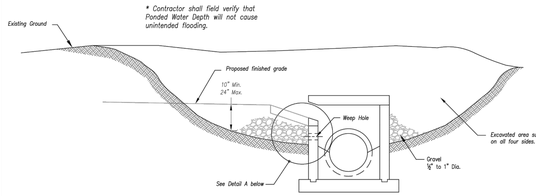
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water-tight container and disposed of properly.
4. Concrete washout areas shall remain in place until all concrete for the project is placed.
5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.

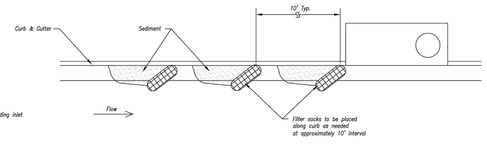


CONCRETE WASHOUT

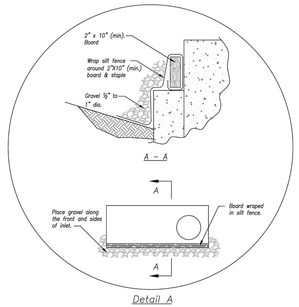
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION	
Kansas City Metro Chapter APWA American Public Works Association	KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT	STANDARD DRAWING NUMBER ESC-01 ADOPTED: 10/24/2016





On Grade Curb Inlet Protection



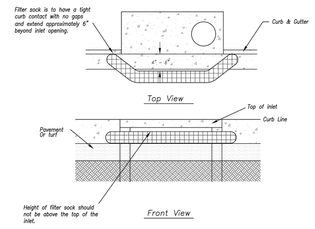
Detail A

Notes:

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Straw wattles are not approved for curb inlet use.
3. Contractor to field verify ponding water shall not create a traffic hazard.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



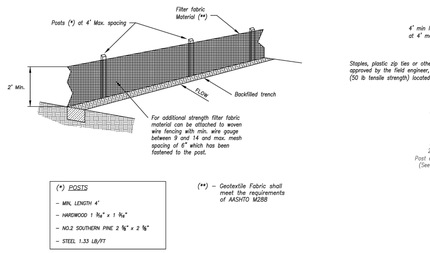
Sump Inlet Sediment Filter

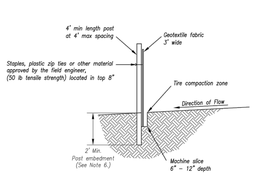
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	
Kansas City Metro Chapter APWA American Public Works Association	KANSAS CITY METRO CHAPTER
CURB INLET PROTECTION	STANDARD DRAWING NUMBER ESC-06 ADOPTED: 10/24/2016





(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD 1 ½" x 1 ½"
- NO.2 SOUTHERN PINE 2 ⅜" x 2 ⅜"
- STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288

SILT FENCE DETAILS
Not to Scale

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.
2. Repair as necessary to maintain function and structure.

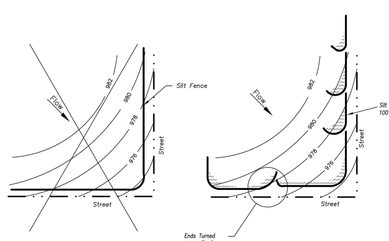
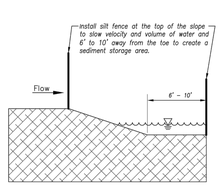
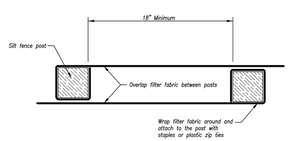


Figure A

SILT FENCE LAYOUT
Not to Scale

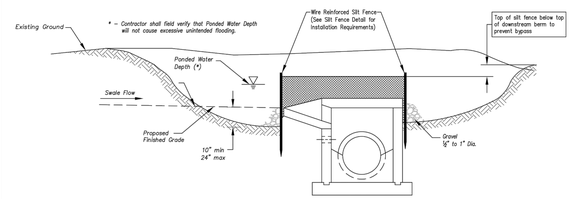




JOINING FENCE SECTIONS
Not to Scale

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	
Kansas City Metro Chapter APWA American Public Works Association	KANSAS CITY METRO CHAPTER
SILT FENCE	STANDARD DRAWING NUMBER ESC-03 ADOPTED: 10/24/2016



Section A–A
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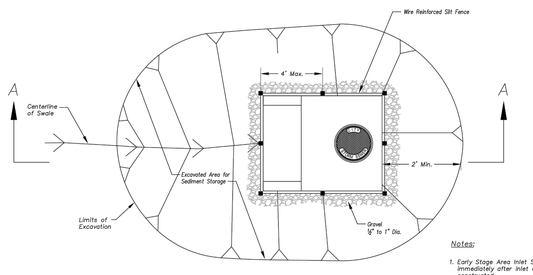
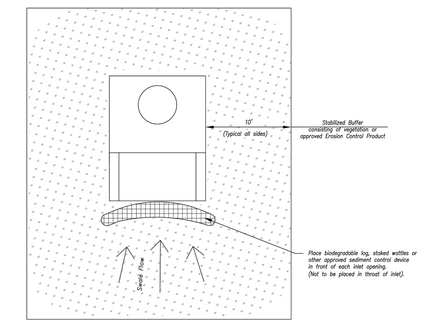


Plan
Not to Scale

EARLY STAGE AREA INLET
(All open boxes and inlets not at final grade)



Plan
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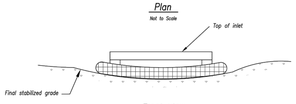


Front View

LATE STAGE AREA INLET
(Area inlets at final grade and existing inlets)

Notes:

1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.

Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION	
Kansas City Metro Chapter APWA American Public Works Association	KANSAS CITY METRO CHAPTER
AREA INLET AND JUNCTION BOX PROTECTION	STANDARD DRAWING NUMBER ESC-07 ADOPTED: 10/24/2016

SCHLAGEL & ASSOCIATES, P.A.
Engineers• Planners•Surveyors•Landscape Architects
14920 West 107th Street•Lenexa, Kansas 66215
(913) 492-5158 • Fax: (913) 492-8400
WWW.SCHLAGELASSOCIATES.COM
Missouri State Certificates of Authority
#E2002003800-F #LA2001005237 #LS2002008859-F

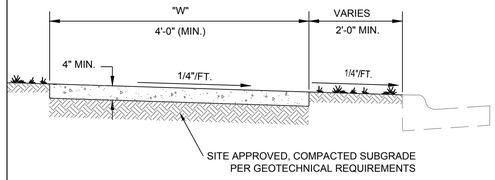
NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS
420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
8/8/2018	PER CITY COMMENTS
8/21/2018	PER CITY COMMENTS

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18-084

EROSION CONTOL DETAILS

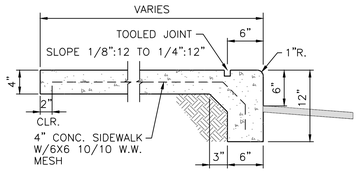
SHEET
C6
OF 10



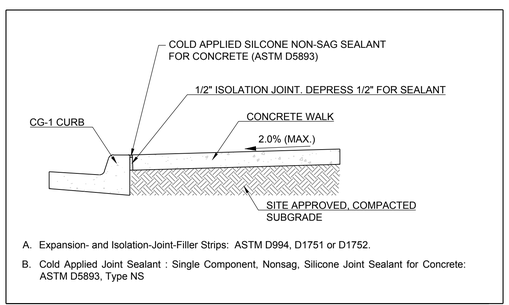
NOTES:

1. TYPE 1 JOINTS SHALL BE PLACED "W" CENTERS.
2. TYPE THREE JOINTS SHALL BE PLACED AT 250' CENTERS AND WHERE WALK ABUTS EXISTING CONCRETE.
3. ALL CONCRETE SHALL BE KCMMB-4K.
4. WHEN UTILITY SERVICE BOXES, METER BOXES, ETC. WHICH MEASURE LESS THAN 1 FT. SQUARE MUST BE PLACED IN THE SIDEWALK, THE UTILITY SERVICE BOXES, ETC. SHALL BE NO CLOSER TO ANY EDGE OF THE SIDEWALK PANEL THAN 1 FT.
5. WHEN UTILITY BOXES, METER BOXES, ETC. GREATER THAN 1 FT. IN ANY DIMENSION MUST BE PLACED IN THE SIDEWALK, THEY SHALL BE PLACED IN THE CORNER OF THE SIDEWALK PANEL.
6. AN ISOLATION JOINT SHALL BE PLACED BETWEEN THE CONCRETE AND ANY UTILITY BOX, ETC. WHICH IS PLACED IN THE SIDEWALK.
7. NO SECTION OF SIDEWALK LESS THEN 12" IN ANY DIMENSION. (HORIZONTAL)
8. AB-3 MAY BE USED AS A LEVELING COURSE. AB-3 MUST BE MOIST (MIN. 5% MOISTURE) AND COMPACTED. DEPTH OF LEVELING COURSE SHALL NOT EXCEED 6". CLEAN ROCK WILL NOT BE ALLOWED.

TYPICAL CONCRETE SIDEWALK DETAILS



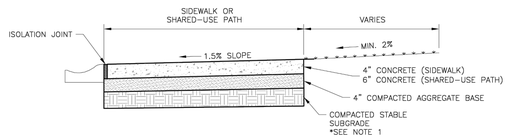
INTEGRAL CURB/SIDEWALK DETAIL



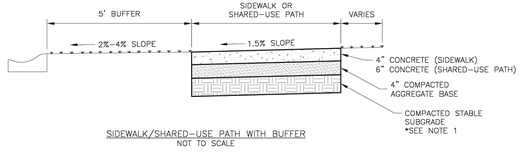
A. Expansion- and Isolation-Joint-Filler Strips: ASTM D994, D1751 or D1752.

B. Cold Applied Joint Sealant : Single Component, Nonsag, Silicone Joint Sealant for Concrete: ASTM D5893, Type NS

TYPICAL SIDEWALK @ BACK OF CURB DETAIL



SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE



SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

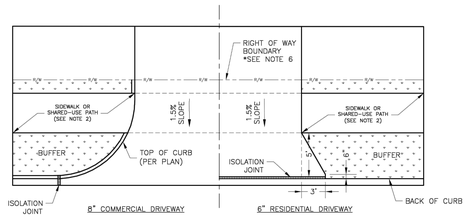
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS AND SHARED-USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
4. ALL SIDEWALKS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN EXPANSION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK, BUT NO GREATER THAN 10 FT.
6. SHARED-USE PATH WIDTH SHALL BE 10 FT. WIDE.
7. SIDEWALK FINISHING (NO PICTURE FRAMING) AS DIRECTED BY CITY INSPECTOR.
8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

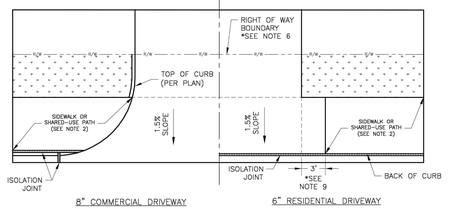
SIDEWALK/SHARED-USE PATH DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

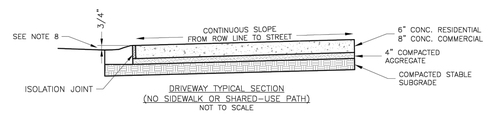
GEN-2



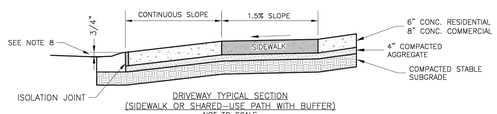
DRIVEWAY WITH BUFFER
NOT TO SCALE



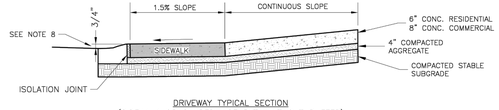
DRIVEWAY WITHOUT BUFFER
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(NO SIDEWALK OR SHARED-USE PATH)
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITH BUFFER)
NOT TO SCALE



DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITHOUT BUFFER)
NOT TO SCALE

GENERAL NOTES
1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG) FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL).
3. JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT FOR RESIDENTIAL DRIVEWAYS.
4. KCMMB 4K CONCRETE MIX IS REQUIRED FOR ALL CURBS.
5. COMMERCIAL DRIVEWAYS AND DRIVEWAY APPROACHES, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
6. A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
8. ¾" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG-1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
9. SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
10. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.

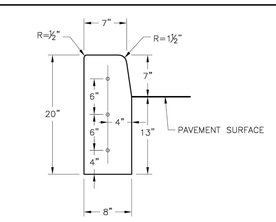
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: DRIVEWAY DETAIL

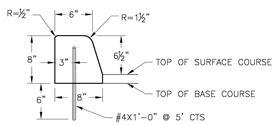
Drawn By: MJF
Checked By: DL
Date: 06/17
Proj. #:

GEN-1

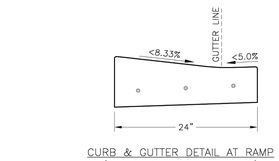
GENERAL NOTE:
ALL NEW CURB AND GUTTER SHALL BE INSTALLED ON AN AGGREGATE BASE, A STABILIZED SUBGRADE OR GEOGRID EXTENDING A MINIMUM OF 1 FOOT (1.0') BEHIND THE BACK OF CURB.



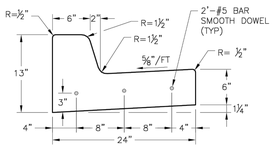
STRAIGHT CURB
(TYPE C-1)



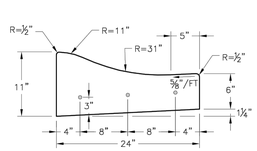
DOWELLED CURB
(TYPE DC)



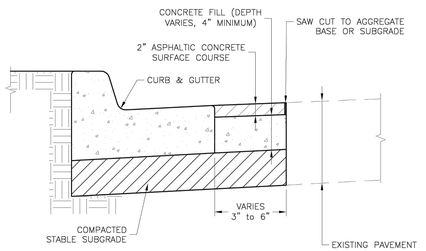
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



ROLL BACK CURB & GUTTER
(TYPE CG-2)



CURB REPLACEMENT DETAIL

GENERAL NOTES

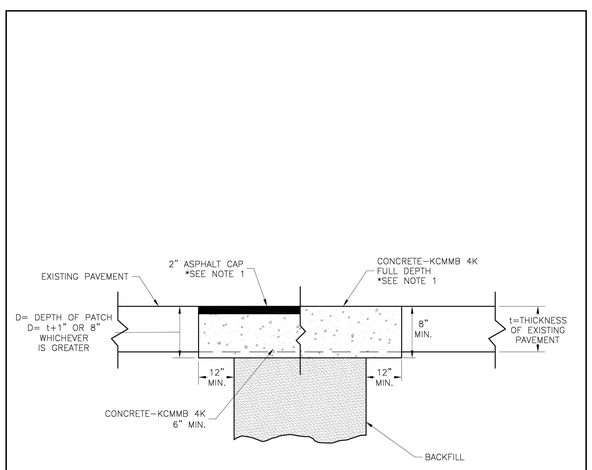
1. ¾" ISOLATION JOINTS WITH 3 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB & GUTTER DETAIL

Drawn By: MJF
Checked By: DL
Date: 06/17
Proj. #:

GEN-4



TRENCHING/PATCHING DETAIL
NOT TO SCALE

NOTE:

1. ASPHALT CAP OR FULL DEPTH CONCRETE SHALL BE DETERMINED BY CITY INSPECTOR.

LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

TRENCHING/PATCHING ROADWAYS DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

GEN-5

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NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS

420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

REVISION	DATE	DESCRIPTION
1	8/8/2018	PER CITY COMMENTS
2	8/21/2018	PER CITY COMMENTS
3		
4		
5		
6		
7		
8		

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18-084

STREET DETAILS

SHEET
C7
OF 10

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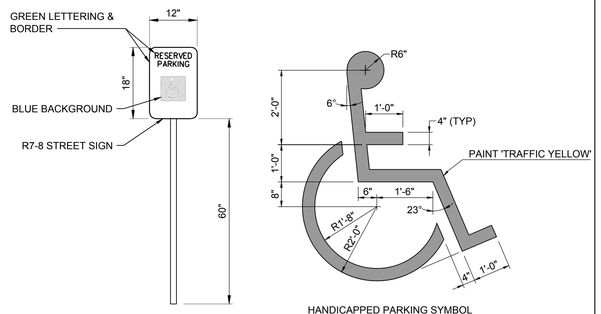


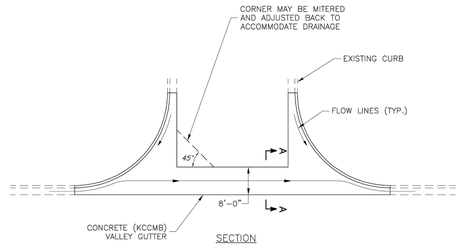
HANDICAPPED PARKING SYMBOL

HANDICAPPED ACCESSIBLE SIGN SHALL MEET THE REQUIREMENTS AS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES - SIGN R7-8.

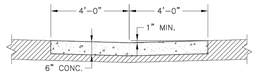
SEE AREA LAYOUT AND DETAILS FOR TYPICAL LOCATIONS

NOTE:SYMBOL TO BE CENTERED IN PARKING SPACE AND ORIENTED AS ILLUSTRATED ON PLANS.

TYPICAL HANDICAPPED PARKING DETAILS



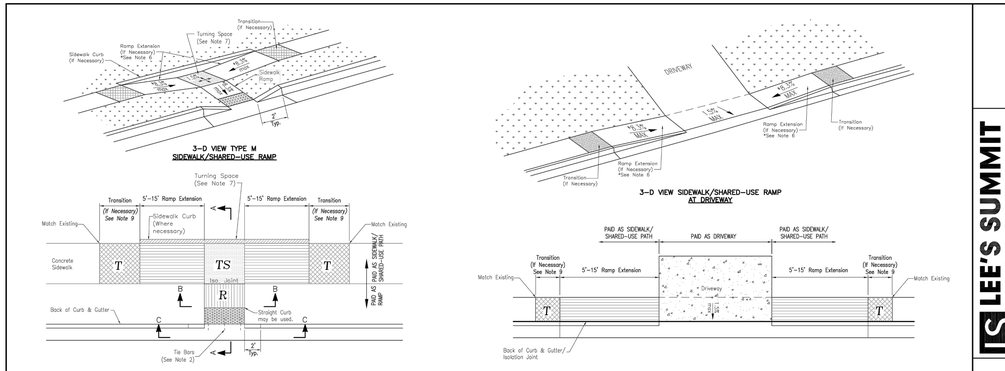
SECTION



SECTION
Scale: 1" = 1'-0"

VALLEY GUTTER DETAIL
Intersection of Two Public Streets

LS	**LEE'S SUMMIT** MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063	Date: 04/17 Drawn By: MJF Checked By: DL
	VALLEY GUTTER DETAIL	GEN-7



SIDEWALK/SHARED–USE PATH & SIDEWALK/SHARED–USE RAMP NOTES:

1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED–USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 150' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).

LS	**LEE'S SUMMIT** MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
Projects	STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name	ADA RAMP RETROFIT DETAIL
	Drawn By: MJF Checked By: DL Date: 04/17 Proj. #:
	GEN-3B

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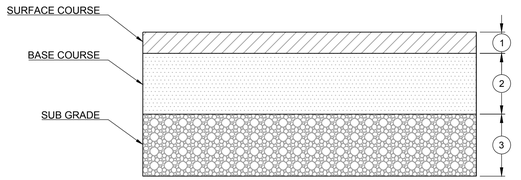
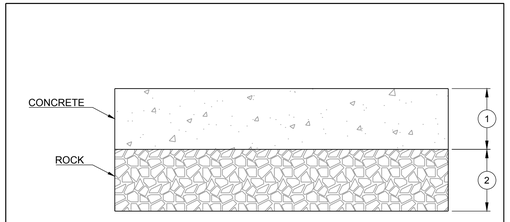
NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS
420 SW LONGVIEW LEE'S SUMMIT, MISSOURI



PARKING AREAS	DRIVE AREAS	HEAVY DUTY DRIVE AREAS
1 1.5" - KCAPWA TYPE 5	1 1.5" - KCAPWA TYPE 5	1 1.5" - KCAPWA TYPE 5
2 4" - KCAPWA TYPE 5	2 4" - KCAPWA TYPE 5	2 5" - KCAPWA TYPE 5
3 6" - GRANULAR BASE AND 6" FLYASH TREATED SUBGRADE	3 6" - GRANULAR BASE AND 6" FLYASH TREATED SUBGRADE	3 6" - GRANULAR BASE AND 6" - FLYASH TREATED SUBGRADE

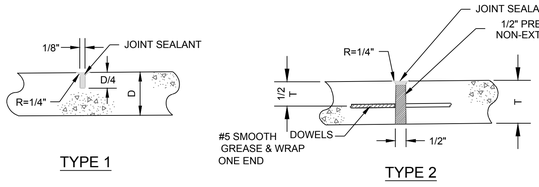
The pavement subgrades be proofrolled and the moisture content and density of the top 12 inches of subgrade be checked within two days prior to commencement of actual paving operations. If any significant event, such as precipitation, occurs after proofrolling, the subgrade should be reviewed by qualified personnel immediately prior to placing the pavement. The subgrade should be in its finished form at the time of the final review.

TYPICAL ASPHALT PAVEMENT SECTION



DRIVE AND PARKING AREAS	TRASH AREA
1 6" - 4000 PSI PCC PAVEMENT	1 8" - 4000 PSI PCC PAVEMENT
2 4" - 3/4" CLEAN ROCK	2 4" - 3/4" CLEAN ROCK

TYPICAL CONCRETE PAVEMENT SECTION



NOTES:

1. TYPE 1 JOINTS MAY BE CONSTRUCTED WITH A GROOVING TOOL OR WITH A CONCRETE SAW AFTER THE CONCRETE IS SET.
2. TYPE 1 JOINTS SHALL BE SPACE TO EQUAL THE WIDTH OF THE SIDEWALK.

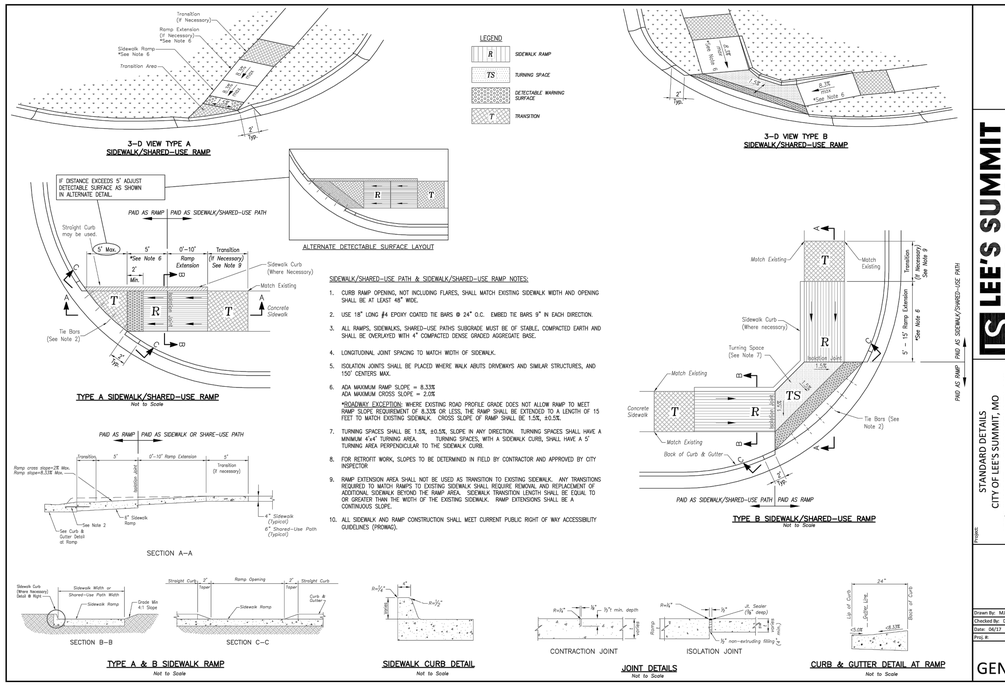
NOTES:

1. TYPE 2 JOINTS SHALL BE PLACED @ ALL P.C.'s, P.T.'s AND TRANSITIONS, AND WHERE NEW WALK TIES INTO EXISTING WALK.
2. SMOOTH BARS SHALL BE 24" LONG.

NOTE:

1. TYPE 3 JOINTS SHALL BE PLACED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE AND IN AREAS WHERE DOWEL BARS ARE NOT REQUIRED BY THE ENGINEER.

TYPICAL CONCRETE PAVEMENT - JOINT DETAILS



LS	**LEE'S SUMMIT** MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
Projects	STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name	ADA RAMP RETROFIT DETAIL
	Drawn By: MJF Checked By: DL Date: 04/17 Proj. #:
	GEN-3A

REVISION DATE	DESCRIPTION
8/8/2018	PER CITY COMMENTS
8/21/2018	PER CITY COMMENTS

DRAWN BY:	JGH
CHECKED BY:	JTS
DATE PREPARED:	07/11/18
PROJ. NUMBER:	18.084

STREET DETAILS

SHEET
C8
OF 10

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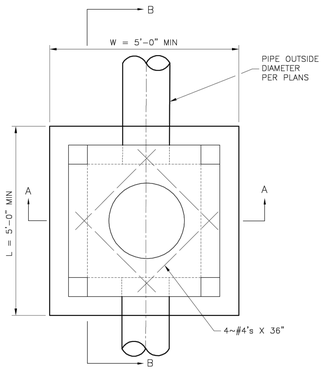
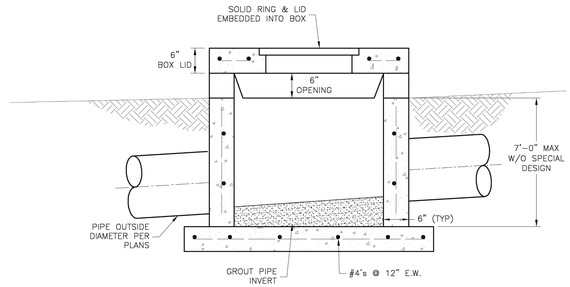
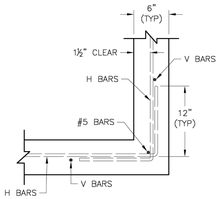


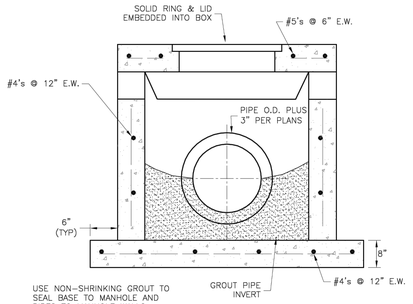
PLAN VIEW



SECTION B–B



WALL CORNER DETAIL



SECTION A–A

GENERAL NOTES:

1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
2. USE ¾" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
5. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE.
6. THE MINIMUM REINFORCING SHALL BE 1 H–BAR OVER A CAST–IN–PLACE PIPE AND 2 H–BARS OVER A PRECAST BOXOUT.
7. SHOW FIELD INLET ORIENTATION ON PLANS PLUS NUMBER AND SIDE OF OPENINGS.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

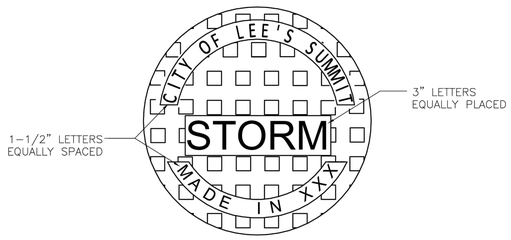
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO

Project:
Sheet Name: FIELD INLET DETAIL

Drawn By: MJF
Checked By: DL
Date: 04/17
Proj. #:

STM-2



STANDARD 24" MANHOLE COVER
MINIMUM WEIGHT = 160 LB
NOTE: PICK HOLES NOT SHOWN

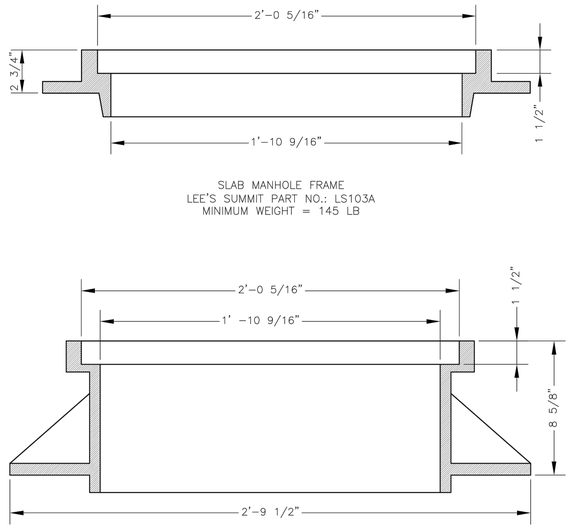
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STORM MANHOLE COVER DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

STM-6



SLAB MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS103A
MINIMUM WEIGHT = 145 LB

STANDARD 24" MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS101A
MINIMUM WEIGHT = 250 LB

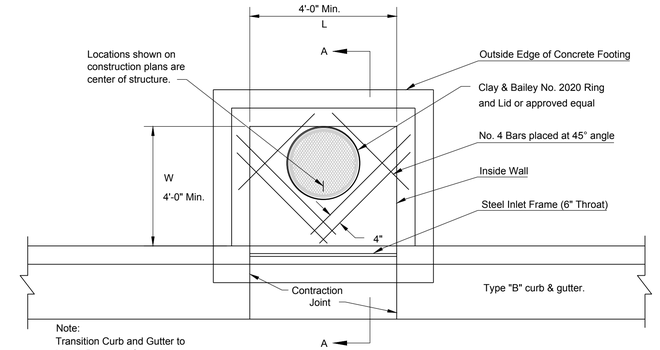
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

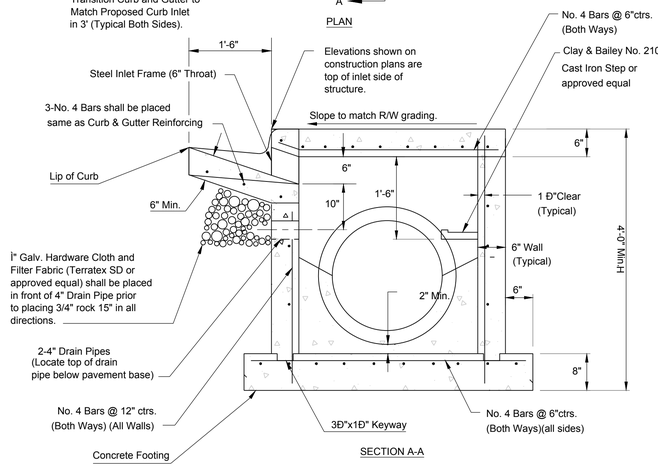
STORM MANHOLE FRAME DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

STM-7



PLAN



SECTION A-A

NON-SETBACK CURB INLET
(6" Throat)

NOTES:

General

1. All storm sewer structures shall be pre-cast or poured in place. If pre-cast structures are used for publicly financed, maintained or administered construction, the tops shall be poured in place and the wall steel shall be left exposed to a height 2" below the finish top elevation, or as directed by the city Engineer.
2. Pre-cast shop drawings are to be approved by the city Engineer Prior to casting.
3. Do not scale these drawings for dimensions or clearances. Any questions regarding dimensions shall be brought to the attention of the city Engineer prior to construction.
4. The first dimension listed in the construction notes is the "L" dimension. The second dimension is the "W" dimension. The concrete thickness and reinforcement shown is for boxes with ("L"+"H") and ("W"+"H") less then or equal to 20. For boxes with either of these calculations greater than 20, a special design is required.

Concrete

5. Concrete used in this work shall be KCMMB4K, as approved by the Kansas City Metropolitan Materials Board, unless noted otherwise.
6. Concrete construction shall meet the applicable requirements of Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation, latest edition, unless noted otherwise.
7. Inlet floors shall be shaped with non-reinforced concrete inverts to provide smooth flow.
8. Bevel all exposed edges with 3/4" triangular molding.

Reinforcing Steel

9. Reinforcing steel shall be new billet, minimum Grade 40 as per ASTM A615, and shall be bent cold.
10. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of +/- 1/8" shall be permitted.
11. All lap splices not shown shall be a minimum of 40 bar diameters in length.
12. All reinforcing steel shall be supported on fabricated steel bar supports @ 3'-0" maximum spacing.
13. All dowels shall be accurately placed and securely tied in place prior to placement of bottom slab concrete. Sticking of dowels into fresh or partially hardened concrete will not be acceptable.

Construction

14. The bottom slab shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.
15. Pipe connections to pre-cast structures shall have a minimum of 6" of concrete around the entire pipe within 2' of the structure.
16. Material selection and compaction requirements for backfill around structures shall be as specified in the project manual.

NON-SETBACK CURB INLET

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NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS

420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1 8/6/2018	PER CITY COMMENTS
2 8/21/2018	PER CITY COMMENTS
3	
4	
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DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18-084

UTILITY DETAILS

SHEET
C9
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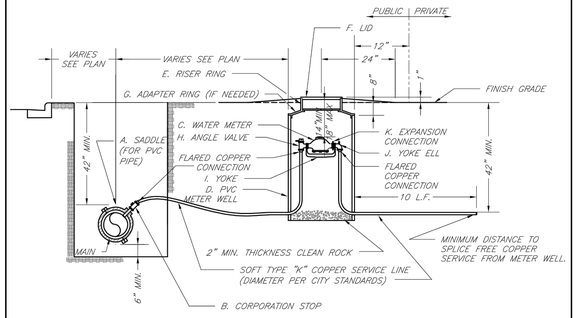


TYPICAL METER INSTALLATION – 2" AND SMALLER
NOT TO SCALE

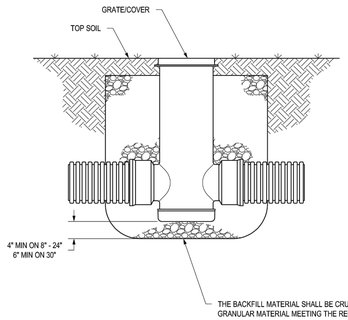
NOTES:

1. METER INSTALLATION SHALL NOT BE LOCATED IN AREAS SUBJECT TO VEHICULAR TRAFFIC OR IN CONCRETE PAVEMENT WITHOUT CITY APPROVAL.
2. IF METER IS TO BE LOCATED OTHER THAN IN FRONT OF PROPERTY LINE, CITY APPROVAL SHALL BE OBTAINED.
3. CITY TO FURNISH ITEMS A–K.
4. NO OTHER EQUIPMENT SHALL BE INSTALLED IN THIS PIT.
5. 42" MINIMUM BURY DEPTH FOR ALL SERVICE LINES.
6. EXCAVATION FOR TAP TO EXPOSE 4 LINEAR FEET OF MAIN.
7. NO SPLICES ALLOWED BETWEEN METER AND MAIN.
8. SERVICE CONNECTION TAP AT APPROXIMATELY 45 DEGREES.
9 LID AND RISER RING SHALL BE SET SO THAT GROUND WATER WILL DRAIN AWAY FROM THE WELL.
10. CONTACT WATER UTILITIES, 816–969–1900, FOR REQUIREMENTS OF A METER LARGER THAN 2"

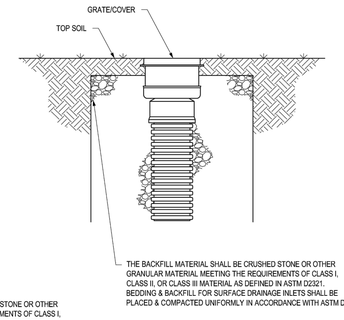
LS	**LEE'S SUMMIT** MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063	Date: 02/13 Drawn By: JN Checked By: DL FILE: WAT–11 Rev: 1/14 Rev:
	SERVICE CONNECTION/METER WELL	

NON TRAFFIC INSTALLATION

DRAIN BASIN



INLINE DRAIN



DRAWN BY CJA	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 9-30-99			
REVISED BY NWH	PROJECT NO./NAME	TITLE	DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION
DATE 03-11-16			
DWG SIZE A	SCALE 1:25 SHEET 1 OF 1	DWG NO.	7001-110-111 REV E

NYLOPLAST INLINE DRAIN WITH STANDARD GRATE

1 - 8" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05. 8" & 10" STANDARD GRATES FIT DIRECTLY ONTO INLINE DRAINS SEE DRAWING NO. 7003-110-000 & 7003-110-001.
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
4 - 12" - 30" STANDARD GRATES SHALL MEET H-20 LOAD RATING.
5 - 8" & 10" STANDARD GRATES ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

DRAWN BY EBC	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE 1-23-06			
REVISED BY NWH	PROJECT NO./NAME	TITLE	INLINE DRAIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DATE 03-15-16			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO.	7003-110-022 REV J

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NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS

420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

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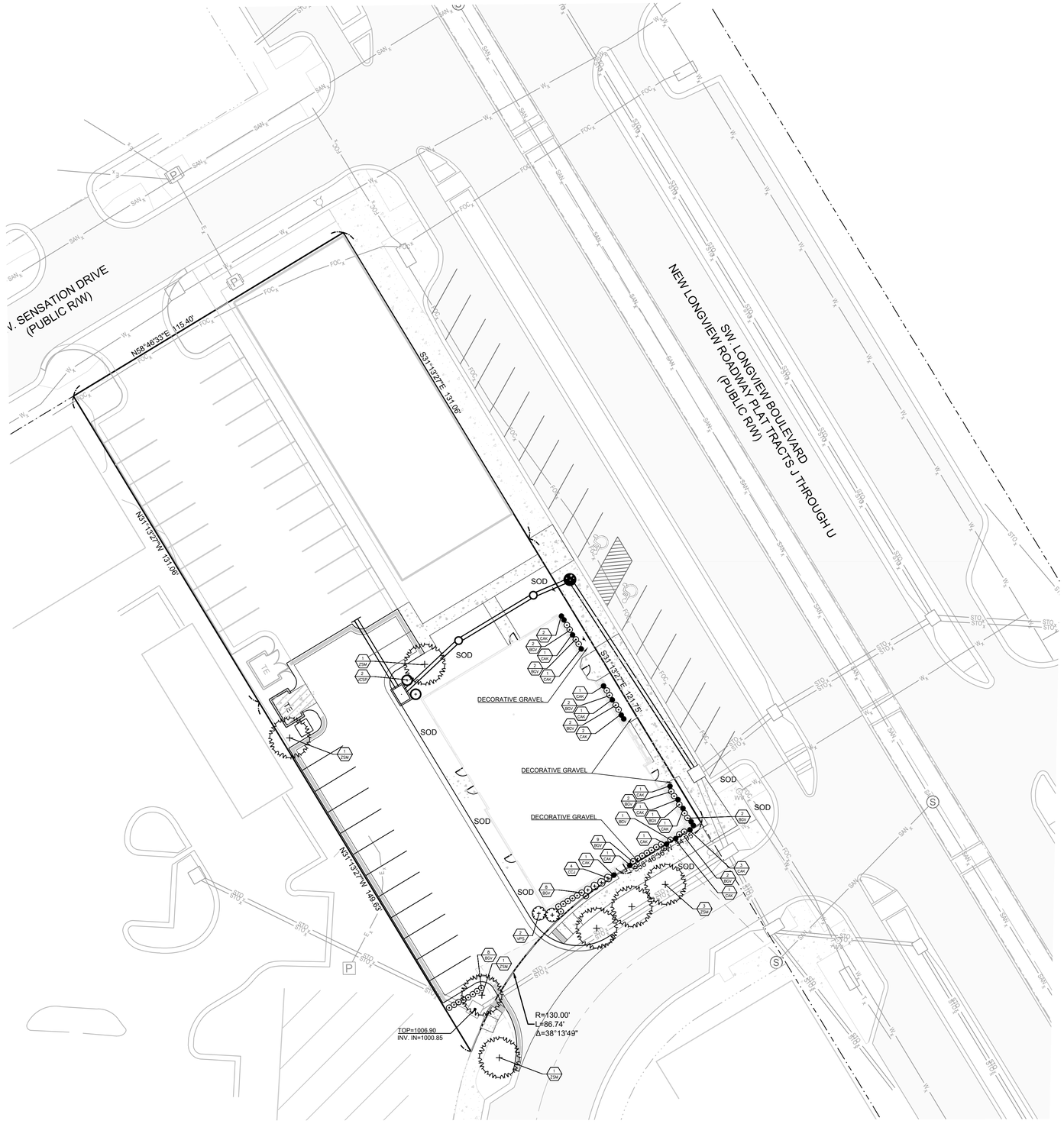
SHEET
C10
OF 10



SHADE TREES

ZSM	7 EA.	Zelkova serrata 'Musashino'	Musashino Columnar Zelkova	2.5" Cal.	B&B

EVERGREEN TREES

JCSP	2 EA.	Juniperus chinensis 'Spartan'	Spartan Juniper	6' ht.	B&B

SHRUBS

BGV	41 EA.	Buxus x 'Green Velvet'	Green Velvet Boxwood	5 gal.	Cont.
CCJ	4 EA.	Caryopteris x clandonensis 'Janice' PPAF	Lil Miss Sunshine™ Bluebeard	5 gal.	Cont.
VPS	2 EA.	Viburnum plicatum tomentosum 'Summer Snowflake'	Summer Snowflake Viburnum	5 gal.	Cont.

GRASSES

CAK	18 EA.	Calamagristis x acutifolia 'Karl Foerster'	Karl Foerster Grass	2 gal.	Cont.

NOTES:

1. UTILITY INFORMATION SHOWN IS DESIGNED LOCATION OR LOCATIONS BASED ON UTILITY LOCATES. AS BUILT LOCATIONS MAY VARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO COMMENCING LANDSCAPE INSTALLATION. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS OR OBSTRUCTIONS.
2. QUANTITIES INDICATED ON THE PLAN ARE FOR CONVENIENCE ONLY. CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES PRIOR TO PLANTING. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES. THE PLAN QUANTITIES AND NUMBER OF SYMBOLS SHALL SUPERSEDED QUANTITIES IN THE SCHEDULE
3. ALL PLANT MATERIAL SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT STANDARDS(EXCEPT SIZE MODIFICATIONS ALLOWED BY THE PLAN APPROVAL) AND ANSI A60.1 THE AMERICAN STANDARD FOR NURSERY STOCK.
4. ALL PLANTS SHALL MEET THE SIZE REQUIREMENTS OF THE LEE'S SUMMIT ORDINANCE EXCEPT AS ALLOWED BY MODIFICATION AS PART OF THIS PLAN APPROVAL. ALL TREES SHALL BE CALLIPERED AND UNDERSIZED TREES SHALL BE REJECTED.
5. ALL SHRUBS TO BE UTILIZED FOR SCREENING SHALL BE 24" HEIGHT AT TIME OF PLANTING.
6. ALL PLANTING BEDS CONTAINING SHRUBS, GROUND COVER, PERENNIALS, ANNUALS SHALL BE IN A PLANTING BED WITH 3" MIN. DEPTH OF MULCH AND A "V-CUT" EDGE.
7. ALL TREES SHALL HAVE A MIN. 3 FT. DIA. AREA THAT HAS 3" MIN. DEPTH OF WOOD MULCH.
8. ALL TURF AREAS SHALL BE SODDED UNLESS INDICATED ON THE PLANS.
9. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN SHALL REQUIRE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT AND THE CITY OF LEE'S SUMMIT, PRIOR TO INSTALLATION.
10. THE LANDSCAPE ARCHITECT AND OWNER SHALL APPROVE GRADES AND CONDITION OF SITE PRIOR TO SODDING OPERATIONS.
11. INSTALLATION AND MAINTENANCE OF LANDSCAPING SHALL COMPLY WITH THE CITY OF LEE'S SUMMIT STANDARDS
12. ALL PLANT MATERIAL SHALL BE INSTALLED TO ALLOW A MINIMUM CLEARANCE BETWEEN PLANT AND ADJACENT PAVEMENT OF 1 FT. FOR PERENNIALS AND GROUNDCOVER AND 1.5 FT. FOR SHRUBS. A 2 FT. CLEARANCE(4 FEET FROM BACK OF CURB TO THE CENTER OF SHRUB)FOR CAR OVERHANG IS REQUIRED AT ALL PARKING ISLANDS AND PERIMETERS.
13. AFTER COMPLETE INSTALLATION OF ALL PLANT MATERIAL AND SOD THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT THAT THE WORK IS COMPLETE AND READY FOR REVIEW. THE LANDSCAPE ARCHITECT SHALL REVIEW THE LANDSCAPE INSTALLATION TO DETERMINE COMPLIANCE WITH THE APPROVED PLANS. WHEN THE LANDSCAPE INSTALLATION MEETS THE REQUIREMENTS OF THE APPROVED PLAN, THE LANDSCAPE ARCHITECT SHALL PROVIDE A SIGNED AND SEALED LETTER TO THE CITY STATING THAT ALL LANDSCAPE PLANTINGS HAVE BEEN INSTALLED PER THE APPROVED PLAN.
14. ALL EXTERIOR GROUND OR BUILDING MOUNTED EQUIPMENT (MECHANICAL, ELECTRICAL AND/OR TELEPHONE CABINETS), TRANSFORMERS, AIR CONDITIONING UNITS, ETC. SHALL BE SCREENED FROM PUBLIC VIEW BY INSTALLING FIVE SEA GREEN JUNIPERS EVENLY SPACED AROUND THE PERIMETER. FINAL LOCATION OF ANY EQUIPMENT SHALL BE DETERMINED AND VERIFIED WITH THE FINAL DESIGN AND PERMITTING OF THE PROJECT.
15. ALL ROOFTOP EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW WITH AN ARCHITECTURAL TREATMENT COMPATIBLE WITH THE BUILDING AND INTEGRAL TO THE OVERALL APPEARANCE OF THE BUILDING.

0 20' 40'

SCALE: 1" = 20'

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STATE OF MISSOURI
DANIEL G. FOSTER
NUMBER LA-2001001877
REGISTERED LANDSCAPE ARCHITECT

Daniel G. Foster
Landscape Architect
MO# LA-2001001877

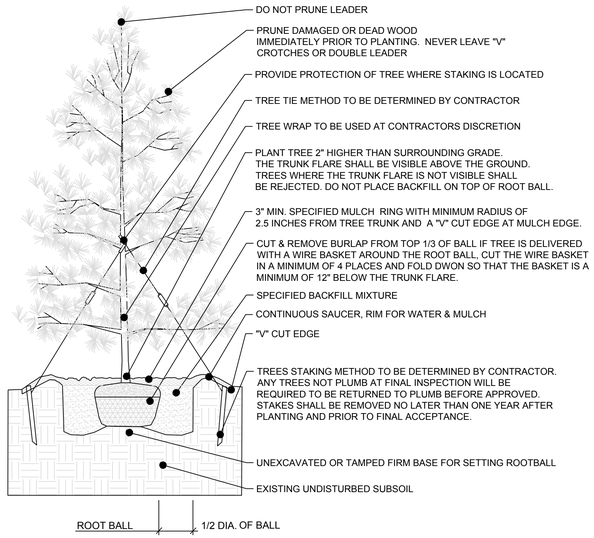
NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS
420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
1. 8/6/2018	PER CITY COMMENTS
2. 8/21/2018	PER CITY COMMENTS
3.	
4.	
5.	
6.	
7.	
8.	

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18-084

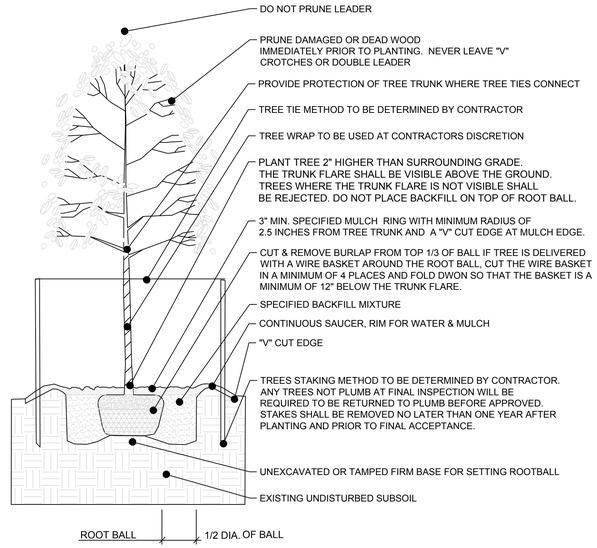
LANDSCAPE PLAN

SHEET
L1.0
OF 10



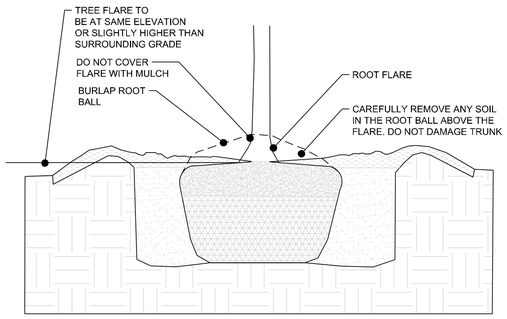
TYP. EVERGREEN PLANTING & GUYING

NO SCALE



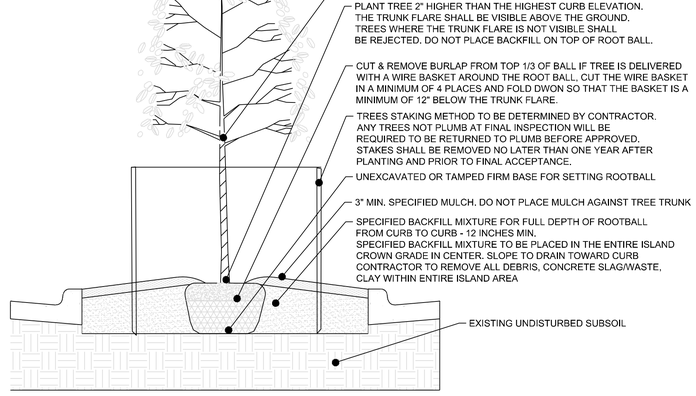
TYP. DECIDUOUS PLANTING & GUYING

NO SCALE



TYP. TREE PLANTING DEPTH

NO SCALE



TYP. PARKING LOT ISLAND PLANTING

NO SCALE

1. All trees shall comply with State and Federal regulations. Trees should be obtained from local sources but must meet the quaility quidelines herein. Trees transported from out of the region shall meet all State and Federal regulations and be certified to be disease and insect free.
2. Provide healthy stock, grown in a nursery and reasonably free of die-back, disease, insects, eggs, bores, and larvae. At the time of planting all plants shall have a root system, stem, and branch form that will not restrict normal growth, stability and health for the expected life of the plant.
3. All trees shall be nursery-grown.
4. Plants shall be healthy with the color, shape, size and distribution of trunk, stems, branches, buds and leaves normal to the plant type specified. Tree quality above the soil line shall comply with the following:
5. Crown: The form and density of the crown shall be typical for a young specimen of the species or cultivar pruned to a central and dominant leader.
6. Crown specifications do not apply to plants that have been specifically trained in the nursery as topiary, espalier, multi-stem, clump, or unique selections such as contorted or weeping cultivars.
7. Leaves: The size, color, and appearance of leaves shall be typical for the time of year and stage of growth of the species or cultivar. Trees shall not show signs of prolonged moisture stress or over watering as indicated by wilted, shriveled, or dead leaves.
8. Branches: Shoot growth (length and diameter) throughout the crown should be appropriate for the age and size of the species or cultivar. Trees shall not have dead, diseased, broken, distorted, or otherwise injured branches.
   a.) Main branches shall be distributed along the central leader not clustered together. Potential main branches shall be evenly spaced and have appropriate space between them. They shall form a balanced crown appropriate for the cultivar/species.
   b.) Branch diameter shall be no larger than two-thirds (one-half is preferred) the diameter of the central leader measured 1 inch above the branch union.
   c.) The attachment of the largest branches (scaffold branches) shall be free of included bark.
   d.) Branches shall be distributed radially around and vertically along the trunk, forming a generally symmetrical crown typical for the species.
   e.) The attachment of scaffold branches shall be free of included bark.
9. Branch structure: The better quality, large-maturing shade trees (lower extreme left) have all branches less than about two-thirds the trunk diameter. Poor quality shade trees (lower left center) have larger upright branches. Trees such as crape myrtle and other small-maturing trees can have several trunks. Trees with extensive defects in branches such as cracks and included bark (lower right) represent lesser quality than trees free of these potential problems. Included bark can be seen between the two arrows below. Branches with bark inclusions are weakly attached to the tree and can split easy.
10. Evergreen branch structure: The branch pattern should dense, symmetrical and the branch stems should be evenly spaced completely around the trunk. The branches shall extend to within 12 inches of the ground and be along the full length of the trunk. Trees which are not symmetrical or that have an "open area" will be rejected. For structural integrity on evergreen trees, all side branches should be less than half the diameter of the adjacent trunk (less than one-third is preferred).
11. Trunk: The tree trunk shall be relatively straight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury).
12. Evergreen tree trunk: Evergreen trees shall have a single trunck that isstraight, vertical, and free of wounds that penetrate to the wood (properly made pruning cuts, closed or not, are acceptable and are not considered wounds), sunburned areas, conks (fungal fruiting bodies), wood cracks, sap leakage, signs of boring insects, galls, cankers, girdling ties, or lesions (mechanical injury). Codominant trunks (trunks of similar size) will not be accepted.
13. Temporary branches, unless otherwise specified, can be present along the lower trunk below the lowest main (scaffold) branch, particularly for trees less than 1 inch in caliper. These branches should be no greater than 3/8-inch diameter. Clear trunk should be no more than 40% of the total height of the tree.
14. Central Leader: **Trees shall have a single(one), relatively straight central leader** and tapered trunk, free of co-dominant stems and vigorous, upright branches that compete with the central leader. Preferably, the central leader should not have been headed. However, in cases where the original leader has been removed, an upright branch at least ½ (one-half) the diameter of the original leader just below the pruning point shall be present. All trees are assumed to have one central leader trees unless a different form is specified in the plant list or drawings. If the central leader is broken or damaged during delivery or installation the tree shall be rejected and removed from the site. If the central leader dies wihin the warranty period the tree shall be replaced at the end of the warranty period.
15. All graft unions, where applicable, shall be completely closed without visible sign of graft rejection. All grafts shall be visible above the soil line.
16. Trunk caliper and taper shall be sufficient so that the lower five feet of the trunk remains vertical without a stake. Auxiliary stake may be used to maintain a straight leader in the upper half of the tree.
17. Plant roots shall be normal to the plant type specified. Root observations shall take place without impacting tree health. Root quality at or below the soil line shall comply with the project Root Acceptance details and the following:
18. The roots shall be reasonably free of scrapes, broken or split wood.
19. The root system shall be reasonably free of injury from biotic (e.g., insects and pathogens) and abiotic (e.g., herbicide toxicity and salt injury) agents. Wounds resulting from root pruning used to produce a high quality root system are not considered injuries.
20. A minimum of three structural roots reasonably distributed around the trunk (not clustered on one side) shall be found in each plant. Root distribution shall be uniform throughout the root ball, and growth shall be appropriate for the species.
21. Plants with structural roots on only one side of the trunk (J roots) shall be rejected.
22. The root collar shall be within the upper 1 inch of the substrate/soil. Two structural roots shall reach the side of the root ball near the top surface of the root ball. The grower may request a modification to this requirement for species with roots that rapidly descend, provided that the grower removes all stem girdling roots above the structural roots across the top of the root ball. Any excess soil shall be removed from the root ball so that the root flare is visible as indicated in the "Planting Depth Detail". The root collar shall be visible above the mulch layer.
23. The root system shall be free of stem girdling roots over the root collar or kinked roots from nursery production practices.
24. Plant Grower Certification: The final plant grower shall be responsible to have determined that the plants have been root pruned at each step in the plant production process to remove stem girdling roots and kinked roots, or that the previous production system used practices that produce a root system throughout the root ball that meets these specifications. Regardless of the work of previous growers, the plant's root system shall be modified at the final production stage, if needed, to produce the required plant root quality. The final grower shall certify in writing that all plants are reasonably free of stem girdling and kinked roots as defined in this specification, and that the tree has been grown and harvested to produce a plant that meets these specifications.
25. At time of observations and delivery, the root ball shall be moist throughout. Roots shall not show signs of excess soil moisture conditions as indicated by stunted, discolored, distorted, or dead roots.

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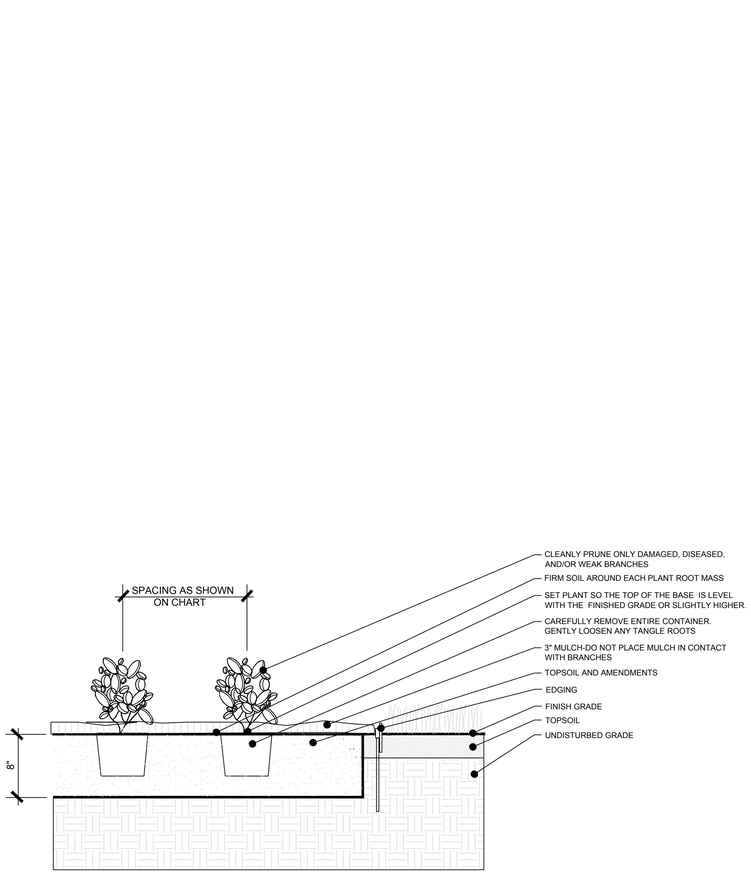
NEW LONGVIEW LOT 7
FINAL DEVELOPMENT PLANS
420 SW LONGVIEW LEE'S SUMMIT, MISSOURI

REVISION DATE	DESCRIPTION
8/8/2018	PER CITY COMMENTS
8/21/2018	PER CITY COMMENTS

DRAWN BY: JGH
CHECKED BY: JTS
DATE PREPARED: 07/11/18
PROJ. NUMBER: 18.084

LANDSCAPE DETAILS

SHEET
L2.0
PLAN REVIEW/BID PLANS

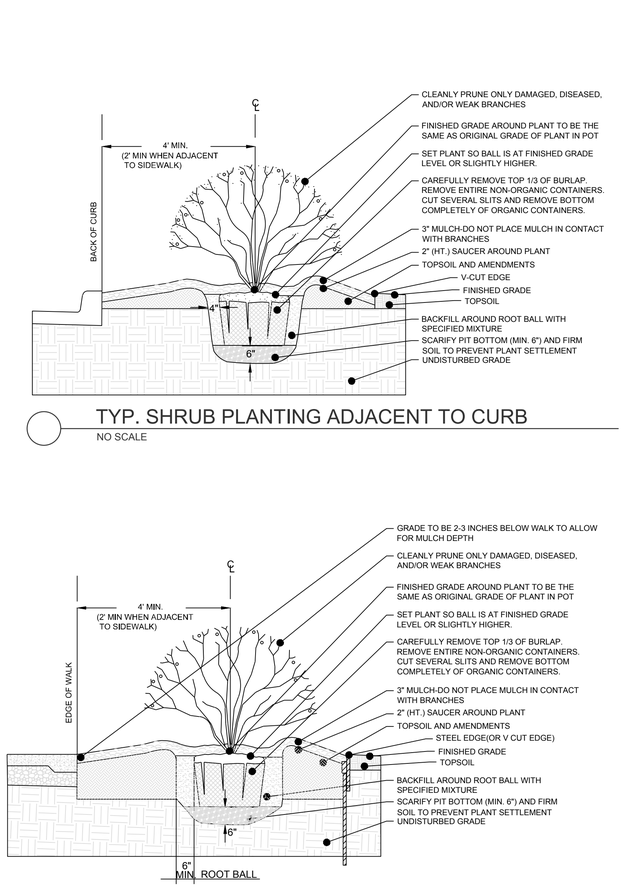


TYP. ANNUAL/PERENNIAL PLANTING

NO SCALE

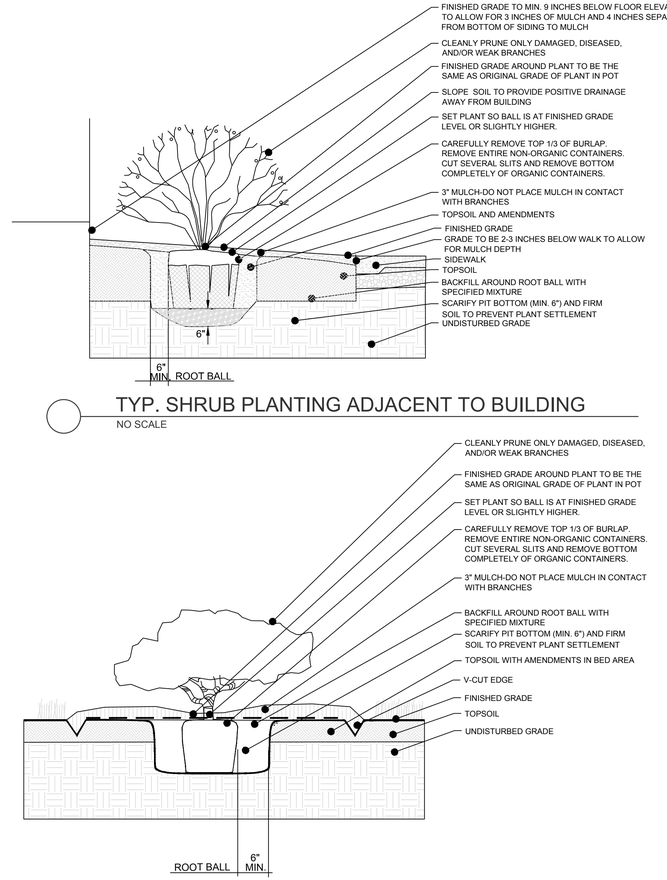
TYP. SHRUB PLANTING ADJACENT TO CURB

NO SCALE



TYP. SHRUB PLANTING ADJACENT TO WALK

NO SCALE



TYP. SHRUB PLANTING ADJACENT TO BUILDING

NO SCALE

TYP. SHRUB BED IN LAWN DETAIL

NO SCALE

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LANDSCAPE DETAILS

SHEET
L2.1
PLAN REVIEW/BID PLANS

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