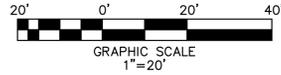


A SITE PLAN FOR  
**741 CHERRY TREE LANE**  
 A TRACT OF LAND BEING LOT 27 OF  
 HARVEST ACRES P.B. 46, PG. 49,  
 TOWNSHIP 45 NORTH, RANGE 6 EAST,  
 ST. LOUIS COUNTY, MISSOURI

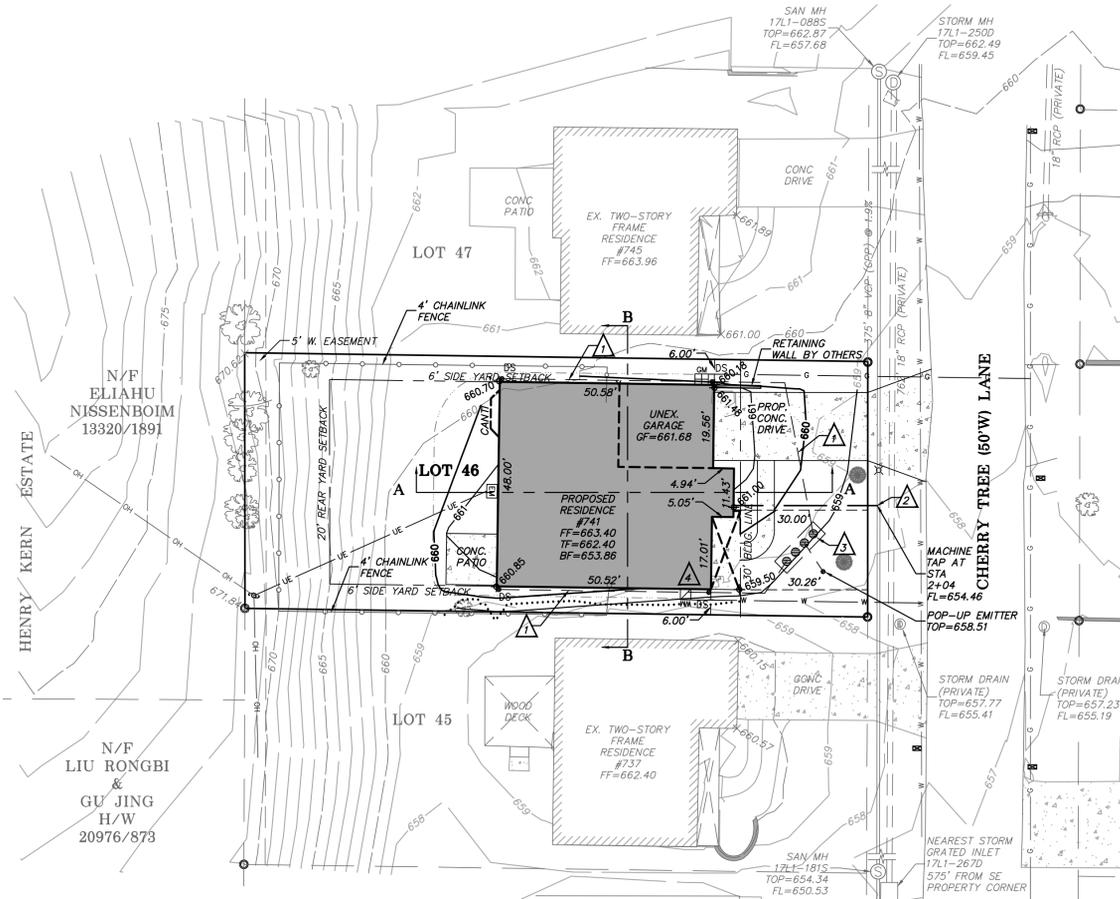


**DIFFERENTIAL RUN OFF MITIGATION CALCULATION**  
 15yr - 20min DIFFERENTIAL RUNOFF = 0.050 cfs  
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 ROCK VOID STORAGE = 13'L X 4'W X 2.5'D C.F. = 130.00 C.F.  
 (130.00 - 25.12) X 40% = 41.95 C.F.  
 SYSTEM STORAGE = 25.12 C.F. + 41.95 C.F. = 67.07 C.F.  
 STORM WATER MITIGATION EXCEEDED

LOT DATA AND ZONING REGULATIONS	
LOT AREA	8,791 SF.
PERMITTED SITE COVERAGE	2,500 SF.
PERMITTED FLOOR AREA	3,500 SF.
LOT WIDTH	60 FT.
LOT DEPTH	146.93 FT.
FRONT YARD SETBACK	30 FT.
SIDE YARD SETBACK	6 FT.
REAR YARD SETBACK	20 FT.

EXISTING CONDITIONS	
BUILDING FOOTPRINT	1,574 SF.
DRIVEWAY/TURNAROUND/SIDEWALK	598 SF.
OTHER HARD SURFACE AREAS	0 SF.
TOTAL EXISTING IMPERVIOUS AREAS	2,172 SF.

PROPOSED IMPROVEMENTS	
BUILDING FOOTPRINT	2,500 SF.
DRIVEWAY/TURNAROUND/SIDEWALK	683 SF.
OTHER HARD SURFACE AREAS	259 SF.
TOTAL PROPOSED IMPERVIOUS AREAS	3,442 SF.



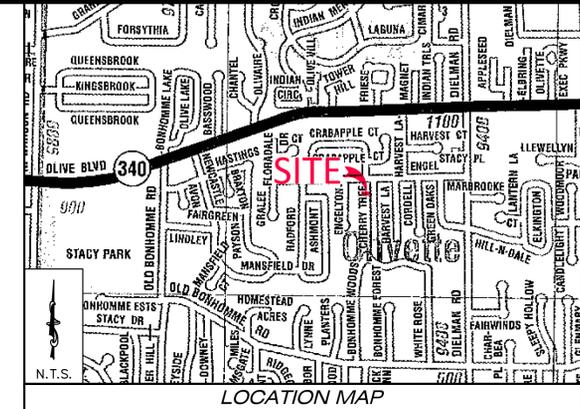
Differential Runoff Calculations				
Existing	Area (s.f.)	Area (Ac)	PI	Q
Building	1,574	0.036	3.54	0.13 cfs
Pavement	598	0.014	3.54	0.05 cfs
Green Space	6,619	0.152	1.7	0.26 cfs
Total	8,791	0.202		0.43 cfs
<b>Proposed</b>				
Building	2,500	0.057	3.54	0.20 cfs
Pavement	942	0.022	3.54	0.08 cfs
Green Space	5,349	0.123	1.7	0.21 cfs
Total	8,791	0.202		0.49 cfs
Differential Runoff =		0.05 cfs		

NOTE: THE PROPOSED ROOF DRAIN SYSTEM PIPING SHALL BE 6" PVC AT 1% MINIMUM SLOPE.

NOTE: CONTRACTOR TO VERIFY THE DEPTH OF THE SANITARY SEWER PRIOR TO CONSTRUCTION. CONTRACTOR SHALL INSTALL A NEW SANITARY SEWER LATERAL AT A MINIMUM SLOPE OF 2%

FLO-WELL DRY WELL SYSTEM  
 TOP=659.10, FL=656.97

SUMP PUMP TO DISCHARGE INTO ROOF DRAIN SYSTEM



- DEVELOPMENT NOTES:**
- Site Address: 741 Cherry Tree Lane, Olivette, MO 63132
  - Owner Information: Oscar R Lopez & Angela I Cuartas h/w, 741 Cherry Tree Lane, Olivette, MO 63132
  - Area of Tract: 8,791 Square Feet
  - Present Zoning: "SR" Single Family Residential. Zoning Setback Requirements are as follows:  
 Front - 30 feet  
 Side - 6 feet  
 Rear - 20 feet
  - Property served by the following:  
 Water: Missouri American Water Company  
 Sewer: Metropolitan St. Louis Sewer District  
 Telephone: AT&T  
 Gas: Loade Gas  
 Electric: Olivette Fire Protection District  
 Lodee School District
  - According to the FIRM Flood Insurance Rate Map 29189C0192 K Dated February 4, 2015, this development is located in Zone X unshaded, Areas determined to be outside the 0.2 annual chance floodplain.  
 The project benchmark is St. Louis County Benchmark #14514 NAVD88 (SLC2001A) Elevation = 656.55 collected at an elevation of 656.53. Described as an "L" on the southeast corner of a 4'x4' concrete pad for a low lighted "Walgreens" sign with masonry base in a lawn area at #9395 Olive Blvd, roughly 59' north of the centerline of Olive Blvd and 174' east of centerline of Dielman Rd.
  - Grinder pump will be required for sanitary sewer.

- INDEX**
- SITE DEVELOPMENT PLAN
  - EXISTING CONDITIONS & DEMO PLAN
  - DRAINAGE AREA MAPS
  - STREETSCAPE PLAN

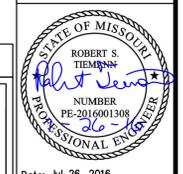


UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING AND/OR CONSTRUCTION OF IMPROVEMENTS.

SYMBOL LEGEND					
×	FOUND CROSS	□	ELECTRIC BOX	□	CABLE TV BOX
○	FOUND IRON PIPE	⊞	ELECTRIC METER	⊗	LIGHT STANDARD
●	SET IRON ROD	⊕	POWER POLE	⊙	CLEAN OUT
⊕	BENCHMARK	—	GUY WIRE	⊙	SANITARY MANHOLE (EXISTING)
⊞	TRAFFIC SIGNAL BOX	⊞	GAS METER	⊙	STORM SEWER MANHOLE (EXISTING)
⊞	PHONE BOX	⊞	GAS VALVE	⊙	STORM SEWER DRAIN (EXISTING)
⊞	UTILITY MANHOLE	⊞	WATER METER	⊞	GRATE INLET (EXISTING)
⊞	BOLLARD	⊞	WATER VALVE	⊞	AREA INLET (EXISTING)
⊞	MAILBOX	⊞	HYDRANT	—	GENERAL SURFACE DRAINAGE
⊞	SIGN	⊞	WATER SHUT OFF	—	EXISTING CONTOUR
⊞	POST	⊞	SPRINKLER HEAD	—	TREE LINE
⊞	EXISTING SHRUB	⊞	IRRIGATION VALVE BOX	—	8" PVC SAN. SEWER (EXISTING)
⊞	EXISTING DECIDUOUS TREE	⊞	WELL	—	12" CMP STORM DRAIN (EXISTING)
⊞	EXISTING EVERGREEN TREE	⊞	TEST HOLE		

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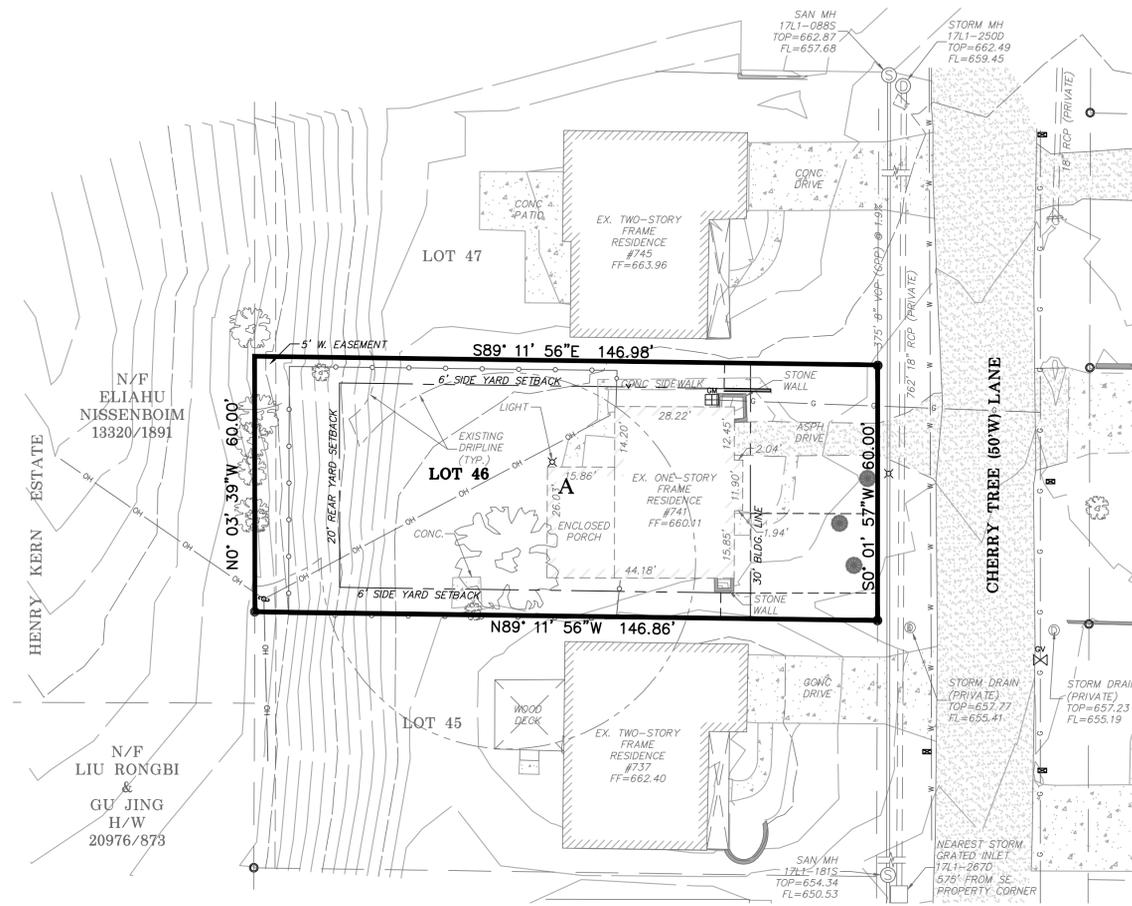
741 CHERRY TREE LANE  
 SITE PLAN  
 SITE DEVELOPMENT PLAN



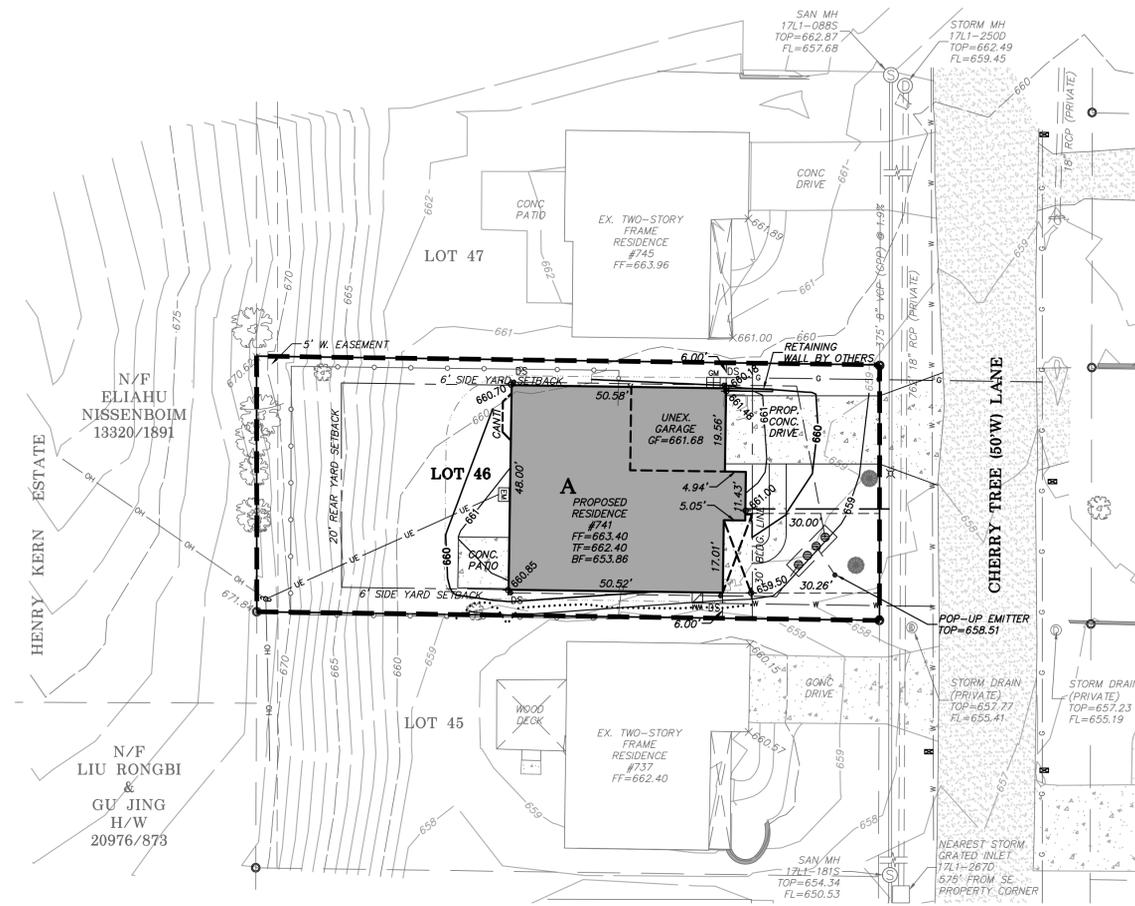
Date: Jul 26, 2016  
 Robert Tiemann  
 License No. PE-2016001308  
 Civil Engineer  
 PROJECT NUMBER: 16-1041  
 DATE: 07/26/2016  
 DRAWN BY: GAS

PREPARED FOR  
**MRM MANLIN**  
 DEVELOPMENT GROUP  
 7729 CLAYTON ROAD  
 ST. LOUIS, MO 63117





EXISTING DRAINAGE AREA



PROPOSED DRAINAGE AREA

EXISTING DRAINAGE AREA							
DRAINAGE SHED	AREA (S.F./ACRE)	% PERVIOUS	% IMPERVIOUS	15yr	100yr	15yr CFS	100yr CFS
A	7,970	0.183	75	2.09	2.82	0.382	0.516

\* THE TIME OF CONCENTRATION IS ASSUMED AT 20min FOR THE 15yr-20min RAINFALL

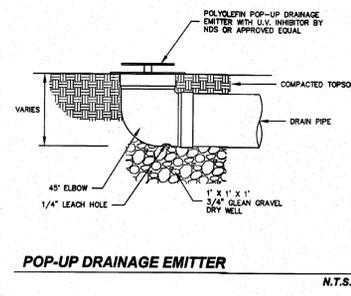
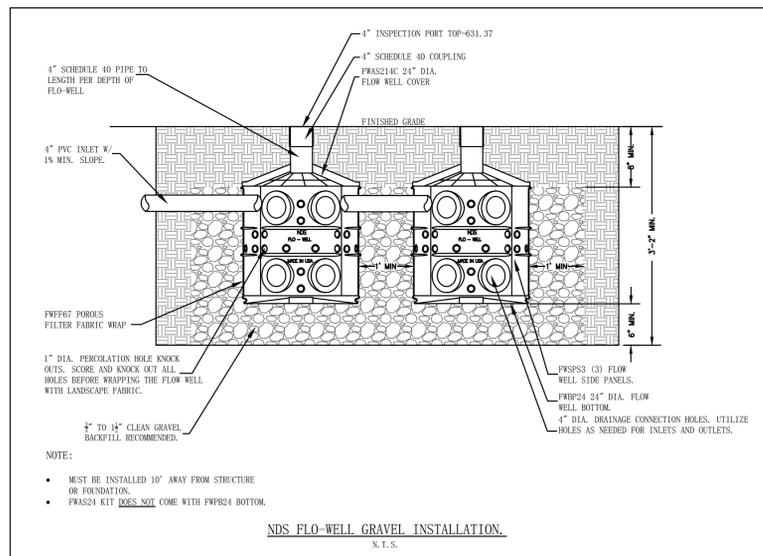
PROPOSED DRAINAGE AREA							
DRAINAGE SHED	AREA (S.F./ACRE)	% PERVIOUS	% IMPERVIOUS	15yr	100yr	15yr CFS	100yr CFS
A	7,621	0.175	55	2.48	3.35	0.434	0.586

\* THE TIME OF CONCENTRATION IS ASSUMED AT 20min FOR THE 15yr-20min RAINFALL

DRAINAGE SHED	PRE CONST. cfs	POST CONST. cfs	DELTA cfs	CAPTURED cfs	DELTA discharge cfs
A	0.382	0.434	0.051	0.056	-0.005
				NET	-0.005

\* THE TOTAL SITE RUNOFF HAS BEEN REDUCED BY 0.005 cfs

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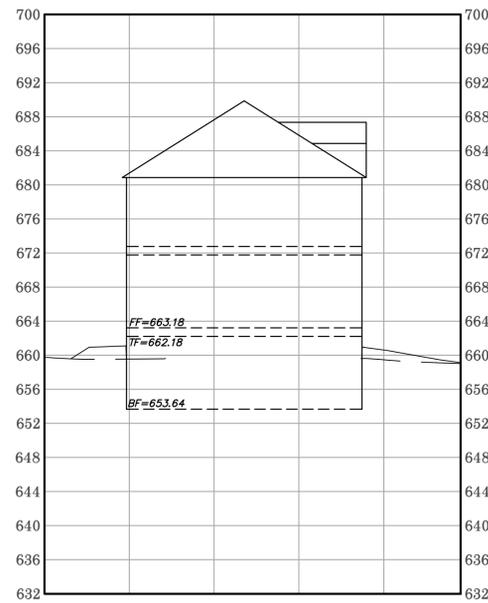
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741 CHERRY TREE LANE  
 SITE PLAN  
 DRAINAGE AREA MAPS

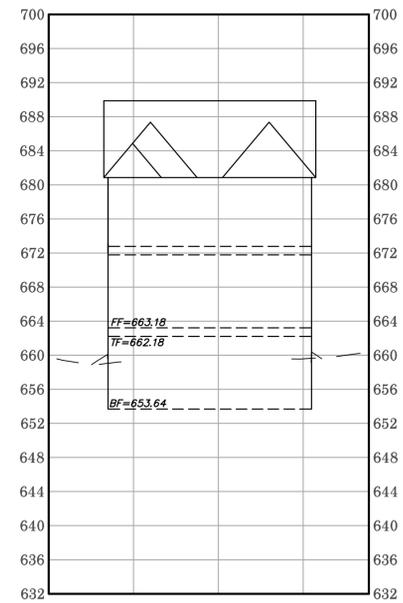
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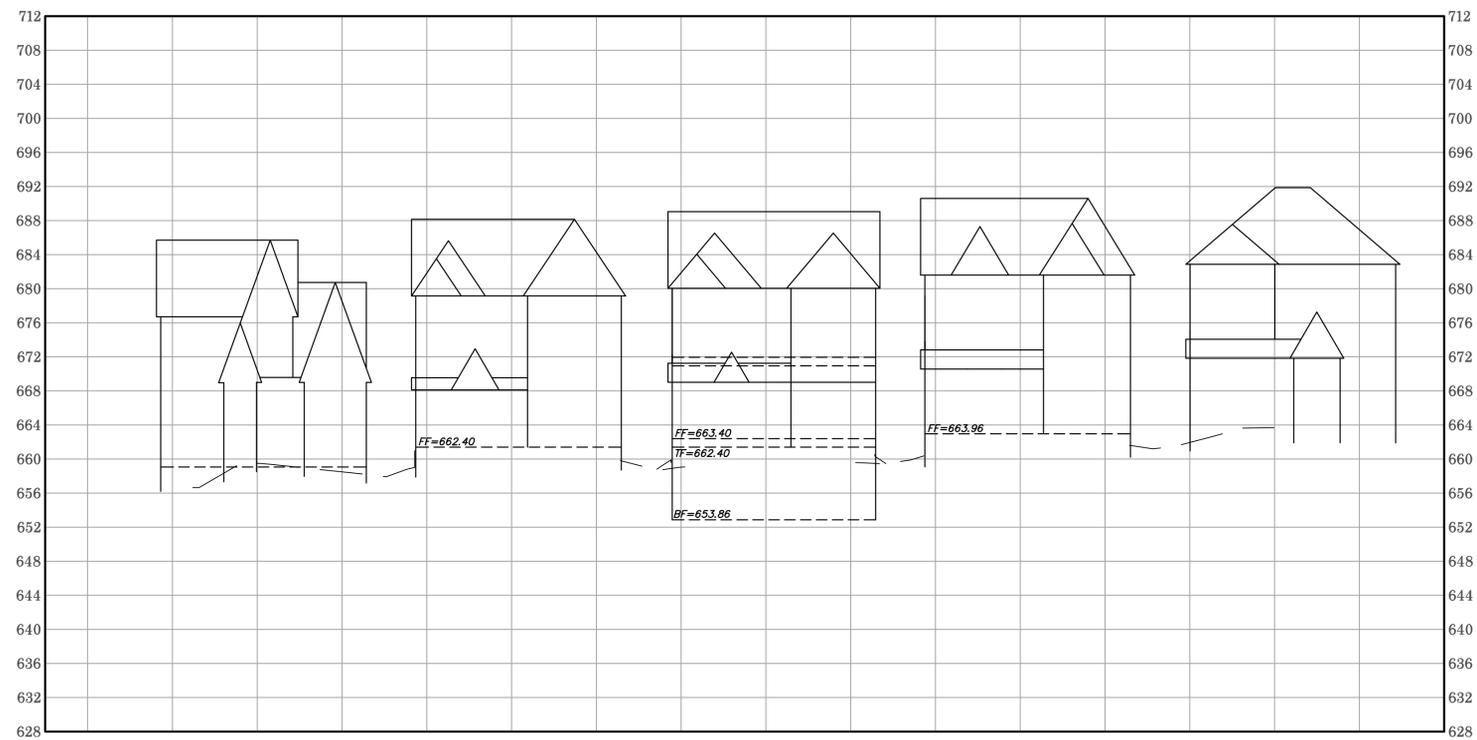


CROSS SECTION A-A



CROSS SECTION B-B

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



STREET SCAPE



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741 CHERRY TREE LANE  
 SITE PLAN  
 STREETSCAPE & CROSS-SECTIONS

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DRAWN BY: GAS