

PHASE 1 CONSTRUCTION PLANS

SOUTHVIEW HEIGHTS

ST. JOSEPH, MN

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
140 75TH STREET NE
RICE, MN 56367
CONTACT: KEVIN JOHNSON
PHONE: 320-248-5245
EMAIL: KEVIN@KJOHNSONCONST.COM

SHEET INDEX

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	SITE PLAN
4	PHASING PLAN
5	GRADING & DRAINAGE PLAN
6	PAVING PLAN
7	EROSION CONTROL PLAN
8	SANITARY SEWER AND WATERMAIN PLAN
9	STORM SEWER PLAN
10	DETAILS
11	DETAILS

BENCHMARKS

BM-1
APPROXIMATELY 40' EAST OF THE SOUTH END OF 20TH AVENUE SE
TOP-NUT-HYDRANT
ELEV.=1076.14

BM-2
NW QUADRANT OF E BAKER STREET AND 17TH AVENUE SE
TOP-NUT-HYDRANT
ELEV.=1093.81



Vicinity Map
(NOT TO SCALE)

FOR CITY APPROVAL

NA:0012336.01.DWG\CTV\0012336.01.TTL.DWG

SOUTHVIEW HEIGHTS

DESIGNED: WRH
CHECKED: WRH
DRAWN: JJN
FIELD CREW:
FIELD WORK DATE:

INITIAL ISSUE: 04/09/18
REVISIONS:

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
140 75TH STREET NE
RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
OR UNDER MY DIRECT SUPERVISION AND THAT I AM A
DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS
OF THE STATE OF MINNESOTA
WILLIAM R. HUSTON
DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
ST. JOSEPH, MN

Westwood

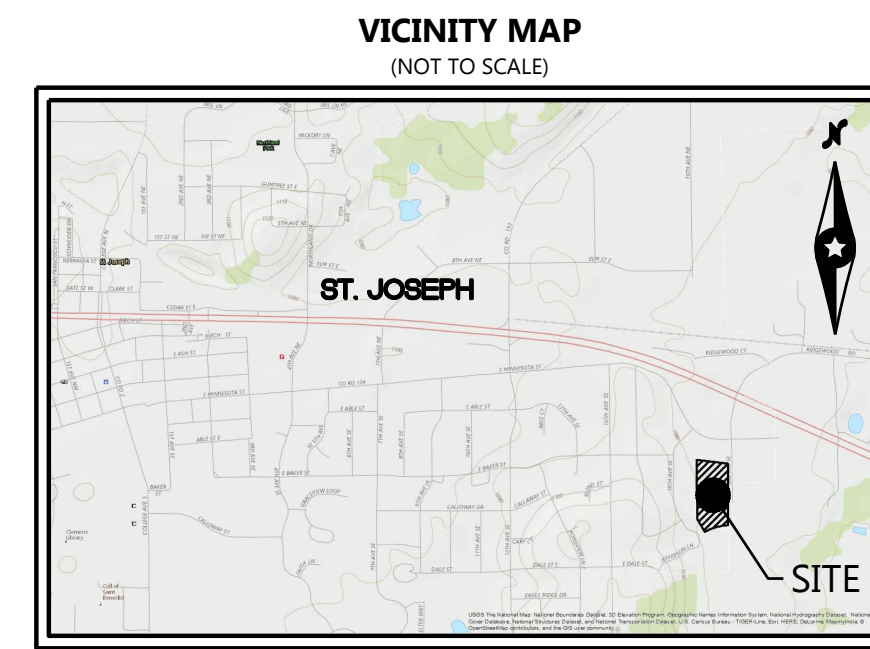
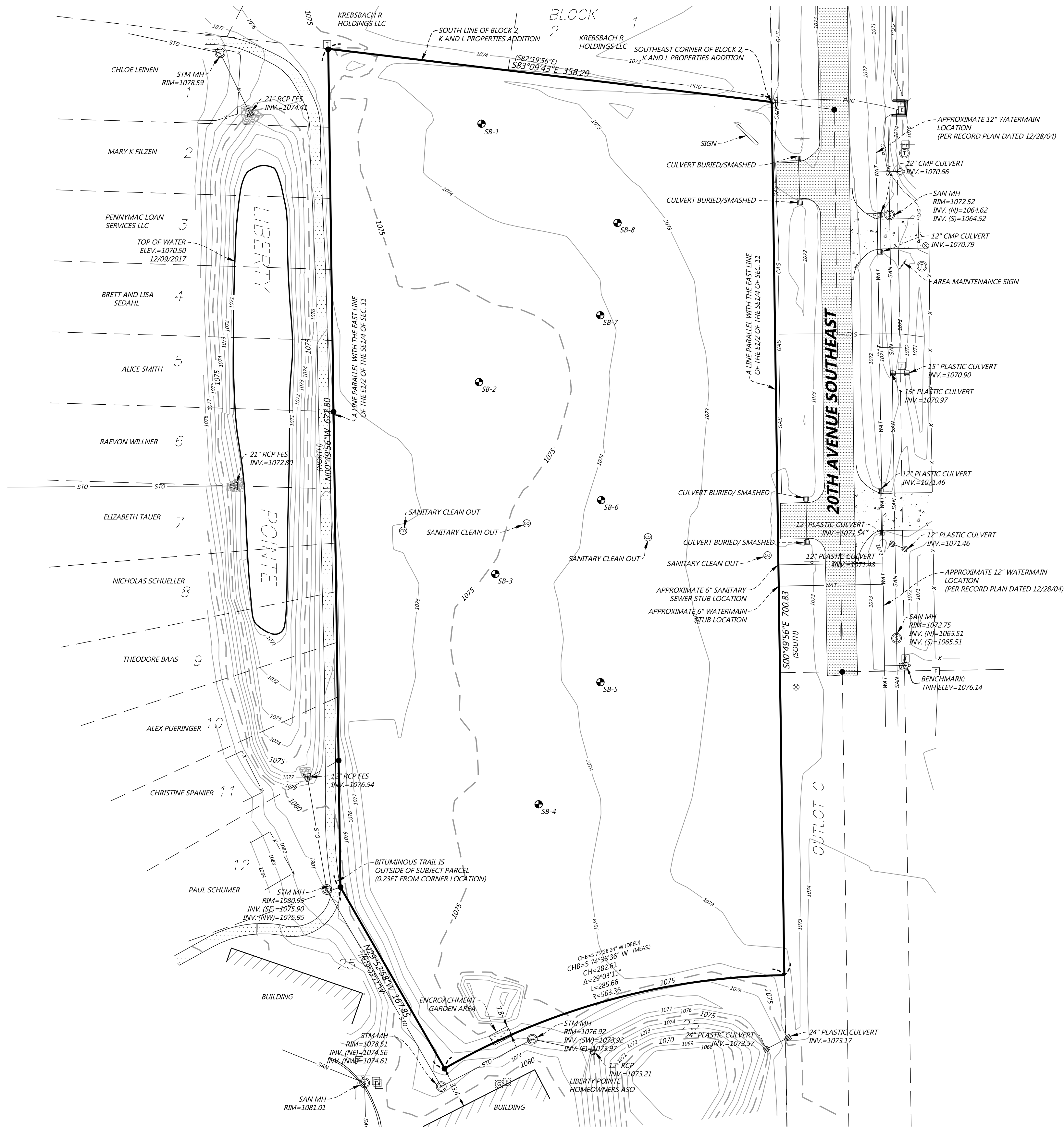
Phone (320) 253-9495 3701 12th Street North, Suite 206
Fax (320) 358-2001 St. Cloud, MN 56303
Toll Free (800) 270-9495 westwoodps.com
Westwood Professional Services, Inc.

COVER SHEET

SHEET NUMBER:

1 OF 11

DATE: 04/09/18

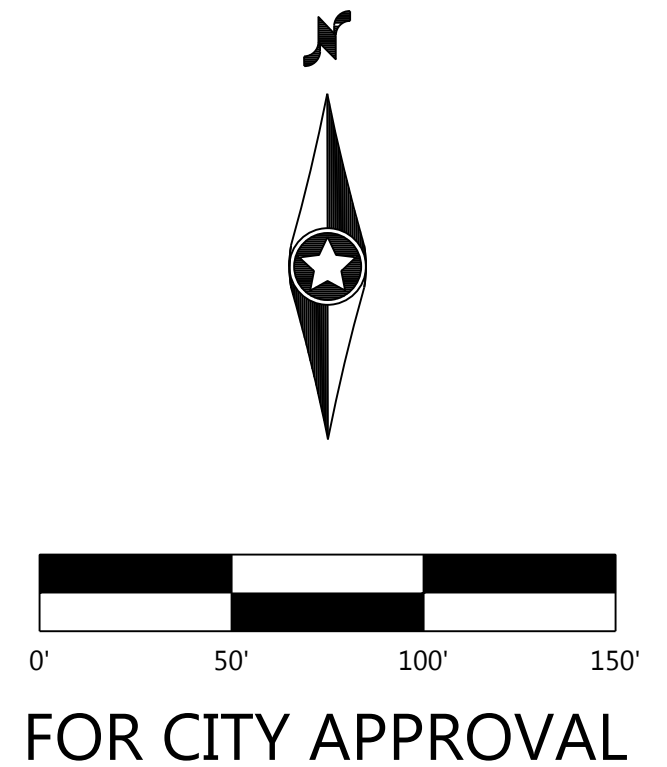


EXISTING CONDITIONS LEGEND

	BUSH/SHRUB		STORM MANHOLE
	CONIFEROUS TREE		TELEPHONE BOX
	DECIDUOUS TREE		TELEPHONE MANHOLE
	WETLAND		TRAFFIC CONTROL BOX
	STEEL/WOOD POST		HAND HOLE
	SIGN-TRAFFIC/OTHER		TRAFFIC LIGHT
	SIGN-TRAFFIC/OTHER		GATE VALVE
	MAIL BOX		HYDRANT
	HANDICAPPED STALL		WATER METER
	PERC TEST		CURB STOP BOX
	MONITORING WELL		WATER MANHOLE
	CABLE TV BOX		WELL
	GAS METER		CABLE TELEVISION LINE
	STREET LITE		GAS LINE
	GUY WIRE		POWER OVERHEAD
	POWER POLE		POWER UNDERGROUND
	ELECTRIC BOX		SANITARY SEWER
	ELECTRIC METER		STORM SEWER
	ELECTRIC MANHOLE		TELEPHONE OVERHEAD
	ELECTRIC TOWER		TELEPHONE UNDERGROUND
	SANITARY MANHOLE		WATERMAIN
	SEWER CLEANOUT		FENCE LINE
	BEEHIVE CATCH BASIN		TREE STUMP
	CATCH BASIN		POST INDICATOR VALVE
	FLARED END SECTION		SOIL BORING
	TELEPHONE MANHOLE		PIEZOMETER
			FLOOD/YARD LIGHT

LEGAL DESCRIPTION

THAT PART OF THE EAST HALF OF THE SOUTHWEST QUARTER (E1/2 SW1/4) OF SECTION 11, TOWNSHIP 124, RANGE 29, STEARNS COUNTY, MINNESOTA, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE SOUTH LINE OF BLOCK 2, K AND L PROPERTIES ADDITION, A DULY RECORDED PLAT IN SAID COUNTY AND STATE, DISTANT 358.29 FEET WESTERLY OF THE SOUTHEAST CORNER OF SAID BLOCK 2; THENCE SOUTH 82°19'56" EAST FOR 358.29 FEET TO THE SOUTHEAST CORNER OF SAID BLOCK 2; THENCE SOUTH AND PARALLEL WITH THE EAST LINE OF SAID E1/2 SW1/4 FOR 700.83 FEET; THENCE WESTERLY ALONG A CURVE, CONCAVE TO THE SOUTH, HAVING A RADIUS OF 563.36 FEET; A CENTRAL ANGLE OF 29°03'11", A LENGTH OF 285.66 FEET, A CHORD OF 286.61 FEET AND A CHORD BEARING OF SOUTH 75°28'24" WEST; THENCE NORTH 29°03'11" WEST FOR 167.85 FEET TO A LINE DRAWN SOUTH, PARALLEL WITH THE EAST LINE OF SAID E1/2 SW1/4 FROM THE POINT OF BEGINNING; THENCE NORTH FOR 672.80 FEET TO THE POINT OF BEGINNING.



FOR CITY APPROVAL

N:\0012336\01.DWG\CIVIL\0012336\01EX01.DWG

DESIGNED: WRH	INITIAL ISSUE: 04/09/18
CHECKED: WRH	REVISIONS:
DRAWN: JIN	
FIELD CREW:	
FIELD WORK DATE:	

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

Westwood
 Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodsps.com
 Westwood Professional Services, Inc.

EXISTING CONDITIONS
 PLAN

SHEET NUMBER:
2 OF **11**

DATE: 04/09/18

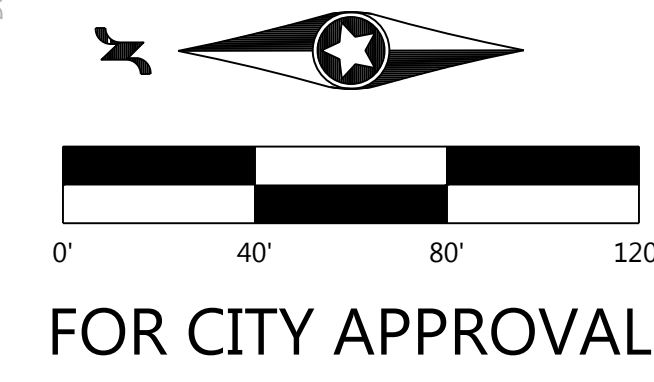
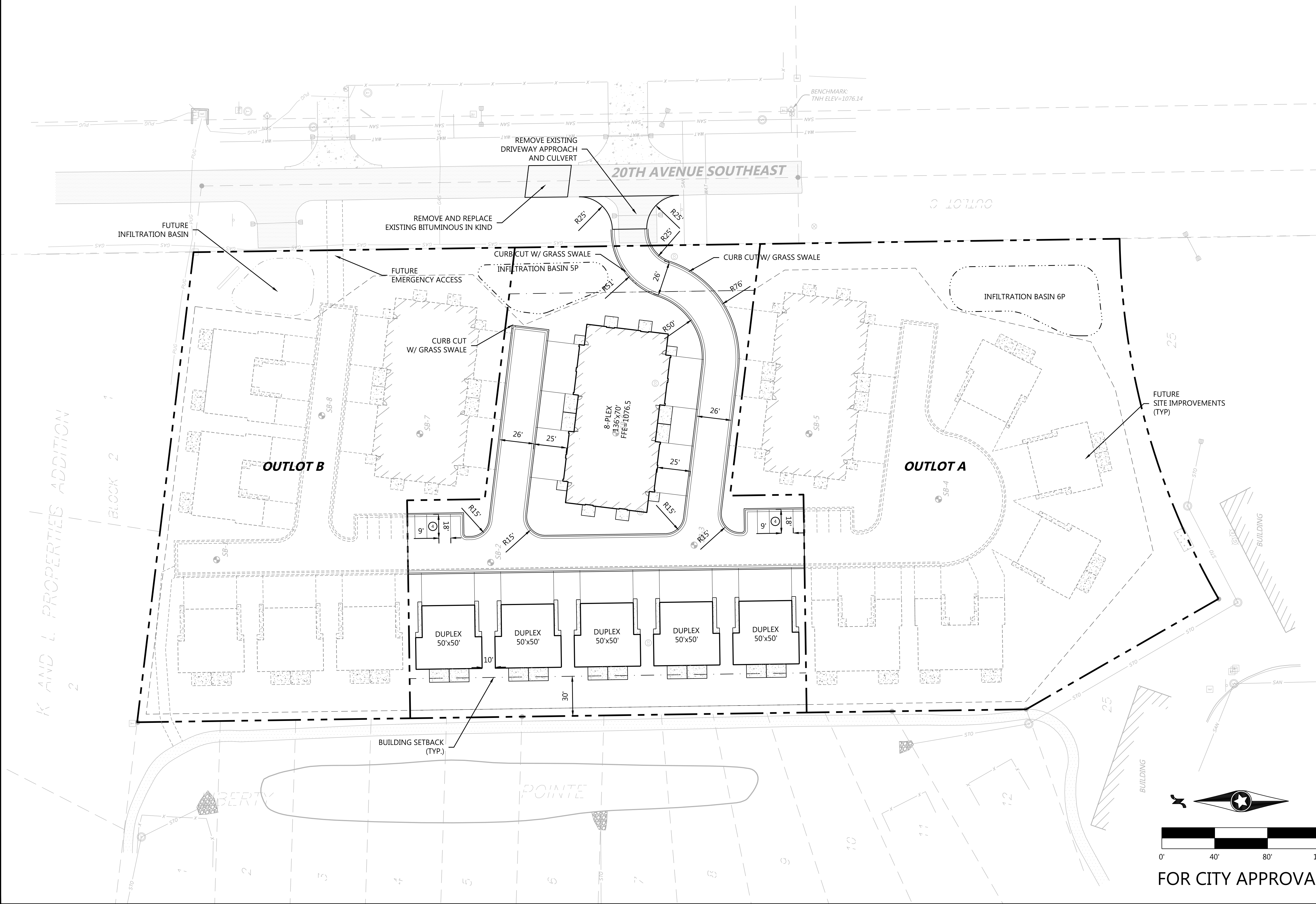
SOUTHVIEW HEIGHTS

SITE LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		SETBACK LINE
		EASEMENT LINE
		CURB AND GUTTER
		TIP-OUT CURB AND GUTTER
		POND NORMAL WATER LEVEL
		RETAINING WALL
		FENCE
		CONCRETE PAVEMENT
		CONCRETE SIDEWALK
		HEAVY DUTY BITUMINOUS PAVEMENT
		NORMAL DUTY BITUMINOUS PAVEMENT
		NUMBER OF PARKING STALLS
		TRANSFORMER
		SITE LIGHTING
		TRAFFIC SIGN
		POWER POLE
		BOLLARD / POST

GENERAL SITE NOTES

- LOCATIONS AND ELEVATIONS OF EXISTING TOPOGRAPHY AND UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND, THE ENGINEER SHOULD BE NOTIFIED IMMEDIATELY.
- REFER TO BOUNDARY SURVEY FOR LOT BEARINGS, DIMENSIONS AND AREAS.
- ALL DIMENSIONS ARE TO FACE OF CURB OR EXTERIOR FACE OF BUILDING UNLESS OTHERWISE NOTED.
- ALL CURB RADII ARE SHALL BE 3.0 FEET (TO FACE OF CURB) UNLESS OTHERWISE NOTED.
- ALL CURB AND GUTTER SHALL BE MODIFIED D418 UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGGERS AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE CITY AND ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MNDOT STANDARDS.
- BITUMINOUS PAVEMENT AND CONCRETE SECTIONS TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
- CONTRACTOR SHALL MAINTAIN FULL ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES.



DESIGNED:	WRH
CHECKED:	WRH
DRAWN:	JJN
FIELD CREW:	
FIELD WORK DATE:	

INITIAL ISSUE:	04/09/18
REVISIONS:	

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

Westwood
 Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodsps.com
 Westwood Professional Services, Inc.

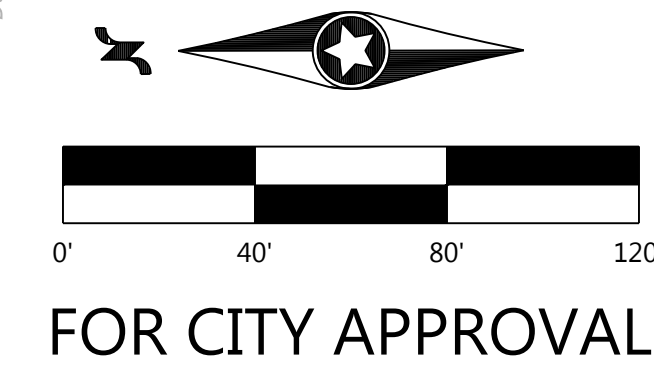
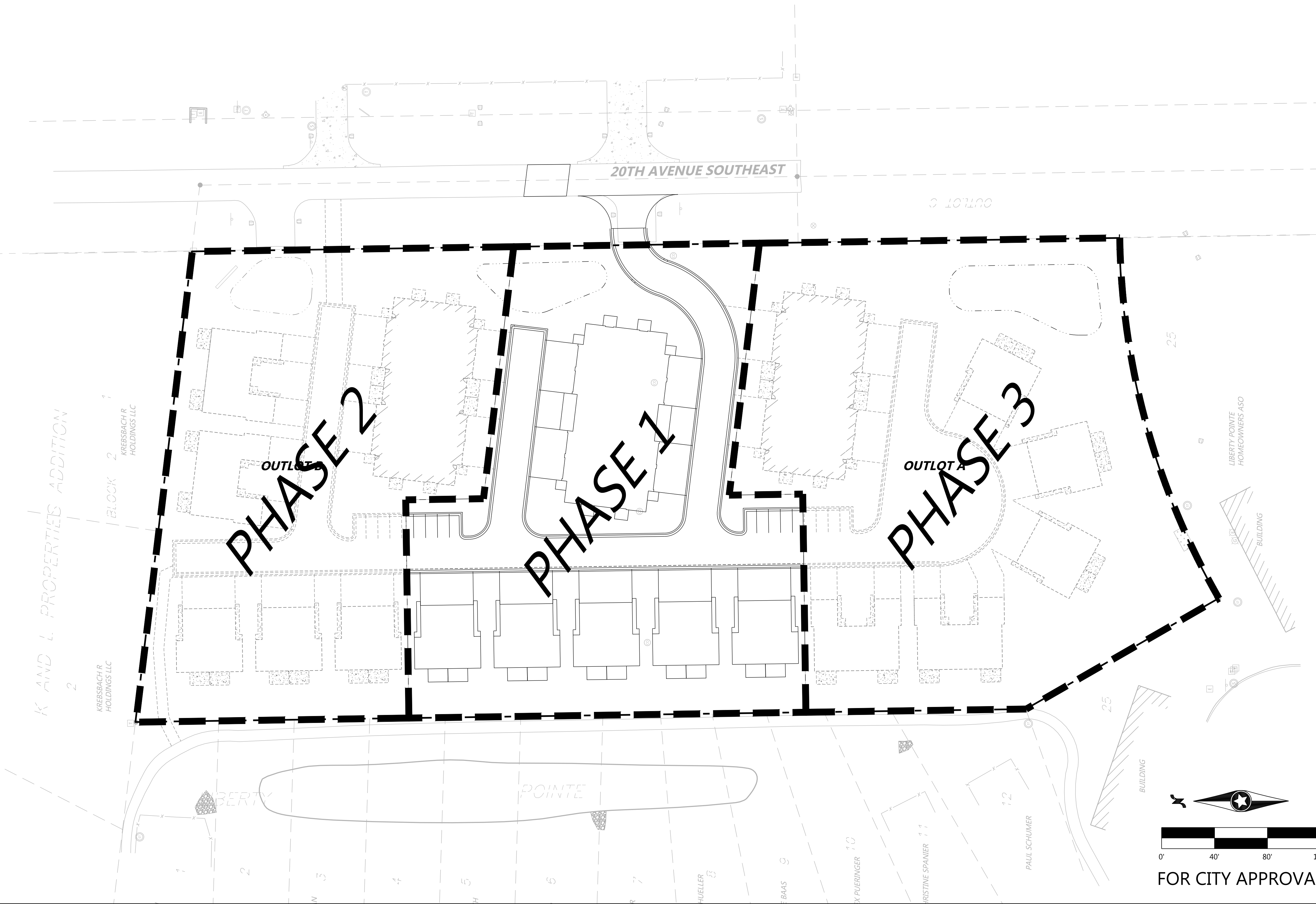
SITE PLAN

SHEET NUMBER:
3 OF **11**
 DATE: 04/09/18

N:\0012336\01.DWG\CIVIL\0012336\01SP01.DWG

SOUTHVIEW HEIGHTS

PHASING SUMMARY			
PHASE	PATIO HOMES	DUPLEX'S	8-PLEX'S
1	0	5	1
2	2	3	1
3	2	3	1
TOTAL	4	11	3



N:\012336\01.DWG\CIVIL\012336.01\0A01.DWG

SOUTHVIEW HEIGHTS

DESIGNED: WRH
 CHECKED: WRH
 DRAWN: JJN
 FIELD CREW:
 FIELD WORK DATE:

INITIAL ISSUE: 04/09/18
 REVISIONS:

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
 WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

Westwood

Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodps.com
 Westwood Professional Services, Inc.

PHASING PLAN

SHEET NUMBER:

4 OF **11**

DATE: 04/09/18

0012336.01

FILTRATION/INFILTRATION BASIN NOTES

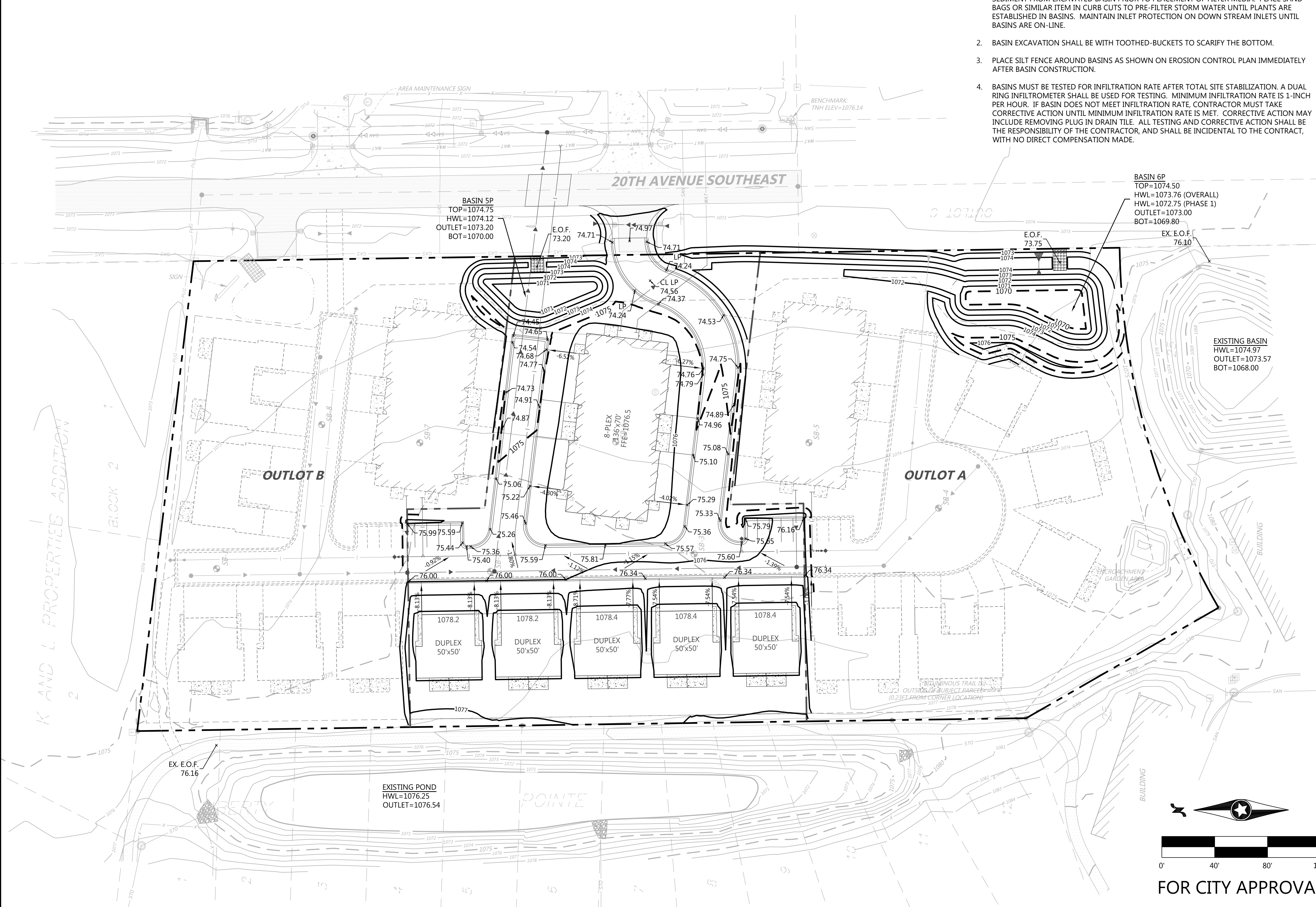
1. BASIN EXCAVATION AND PIPE INSTALLATION MAY TAKE PLACE BEFORE CURB INSTALLATION. ALL OTHER BASIN CONSTRUCTION MUST WAIT UNTIL FINAL SITE LANDSCAPING. REMOVE SEDIMENT FROM EXCAVATED BASIN PRIOR TO PLACEMENT OF FILTER MEDIA. PLACE SAND BAGS OR SIMILAR ITEM IN CURB CUTS TO PRE-FILTER STORM WATER UNTIL PLANTS ARE ESTABLISHED IN BASINS. MAINTAIN INLET PROTECTION ON DOWN STREAM INLETS UNTIL BASINS ARE ON-LINE.
2. BASIN EXCAVATION SHALL BE WITH TOOTHED-BUCKETS TO SCARIFY THE BOTTOM.
3. PLACE SILT FENCE AROUND BASINS AS SHOWN ON EROSION CONTROL PLAN IMMEDIATELY AFTER BASIN CONSTRUCTION.
4. BASINS MUST BE TESTED FOR INFILTRATION RATE AFTER TOTAL SITE STABILIZATION. A DUAL RING INFILTRMETER SHALL BE USED FOR TESTING. MINIMUM INFILTRATION RATE IS 1-INCH PER HOUR. IF BASIN DOES NOT MEET INFILTRATION RATE, CONTRACTOR MUST TAKE CORRECTIVE ACTION UNTIL MINIMUM INFILTRATION RATE IS MET. CORRECTIVE ACTION MAY INCLUDE REMOVING PLUG IN DRAIN TILE. ALL TESTING AND CORRECTIVE ACTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE INCIDENTAL TO THE CONTRACT, WITH NO DIRECT COMPENSATION MADE.

GRADING LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		INDEX CONTOUR
		INTERVAL CONTOUR
		CURB AND GUTTER
		POND NORMAL WATER LEVEL
		STORM SEWER
		FLARED END SECTION (WITH RIPRAP)
		WATER MAIN
		SANITARY SEWER
		RETAINING WALL
		DRAIN TILE
		RIDGE LINE
		GRADING LIMITS
		SPOT ELEVATION
		FLOW DIRECTION
		TOP AND BOTTOM OF RETAINING WALL
		EMERGENCY OVERFLOW
		SOIL BORING LOCATION

GRADING NOTES

1. LOCATIONS AND ELEVATIONS OF EXISTING TOPOGRAPHY AND UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY SITE CONDITIONS AND UTILITY LOCATIONS PRIOR TO EXCAVATION/CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
2. CONTRACTORS SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULE, SLOPED PAVEMENT, EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY ENTRANCE LOCATIONS, AND EXACT LOCATIONS AND NUMBER OF DOWNSPOUTS.
3. ALL EXCAVATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL/SURFACE RESTORATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
4. ALL DISTURBED UNPAVED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL AND SOD OR SEED. THESE AREAS SHALL BE WATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. SEE LANDSCAPE PLAN FOR PLANTING AND TURF ESTABLISHMENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. TRAFFIC CONTROL DEVICES SHALL CONFORM TO APPROPRIATE MNDOT STANDARDS.
6. ALL SLOPES SHALL BE GRADED TO 3:1 OR FLATTER, UNLESS OTHERWISE INDICATED ON THIS SHEET.
7. CONTRACTOR SHALL UNIFORMLY GRADE AREAS WITHIN LIMITS OF GRADING AND PROVIDE A SMOOTH FINISHED SURFACE WITH UNIFORM SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN OR BETWEEN SUCH POINTS AND EXISTING GRADES.
8. **SPOT ELEVATIONS SHOWN INDICATE FINISHED PAVEMENT ELEVATIONS & GUTTER FLOW LINE UNLESS OTHERWISE NOTED. PROPOSED CONTOURS ARE TO FINISHED SURFACE GRADE.**
9. SEE SOILS REPORT FOR PAVEMENT THICKNESSES AND HOLD DOWNS.
10. CONTRACTOR SHALL DISPOSE OF ANY EXCESS SOIL MATERIAL THAT EXISTS AFTER THE SITE GRADING AND UTILITY CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS SOIL MATERIAL IN A MANNER ACCEPTABLE TO THE OWNER AND THE REGULATING AGENCIES.
11. ALL CONSTRUCTION SHALL CONFORM TO LOCAL, STATE AND FEDERAL RULES INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
12. PRIOR TO PLACEMENT OF ANY STRUCTURE OR PAVEMENT, A PROOF ROLL, AT MINIMUM, WILL BE REQUIRED ON THE SUBGRADE. PROOF ROLLING SHALL BE ACCOMPLISHED BY MAKING MINIMUM OF 2 COMPLETE PASSES WITH FULLY-LOADED TANDEM-AXLE DUMP TRUCK, OR APPROVED EQUAL, IN EACH OF 2 PERPENDICULAR DIRECTIONS WHILE UNDER SUPERVISION AND DIRECTION OF THE INDEPENDENT TESTING LABORATORY. AREAS OF FAILURE SHALL BE EXCAVATED AND RE-COMPACTED AS SPECIFIED HEREIN.
13. EMBANKMENT MATERIAL PLACED BENEATH BUILDINGS AND STREET OR PARKING AREAS SHALL BE COMPACTED IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD AS OUTLINED IN MNDOT 2105.3F1 AND THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.
14. EMBANKMENT MATERIAL NOT PLACED IN THE BUILDING PAD, STREETS OR PARKING AREA, SHALL BE COMPACTED IN ACCORDANCE WITH REQUIREMENTS OF THE ORDINARY COMPACTION METHOD AS OUTLINED IN MNDOT 2105.3F2.
15. ALL SOILS AND MATERIALS TESTING SHALL BE COMPLETED BY AN INDEPENDENT GEOTECHNICAL ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOILS TESTS AND INSPECTIONS WITH THE GEOTECHNICAL ENGINEER.



FOR CITY APPROVAL

DESIGNED: WRH
 CHECKED: WRH
 DRAWN: JIN
 FIELD CREW:
 FIELD WORK DATE:

INITIAL ISSUE: 04/09/18
 REVISIONS:

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

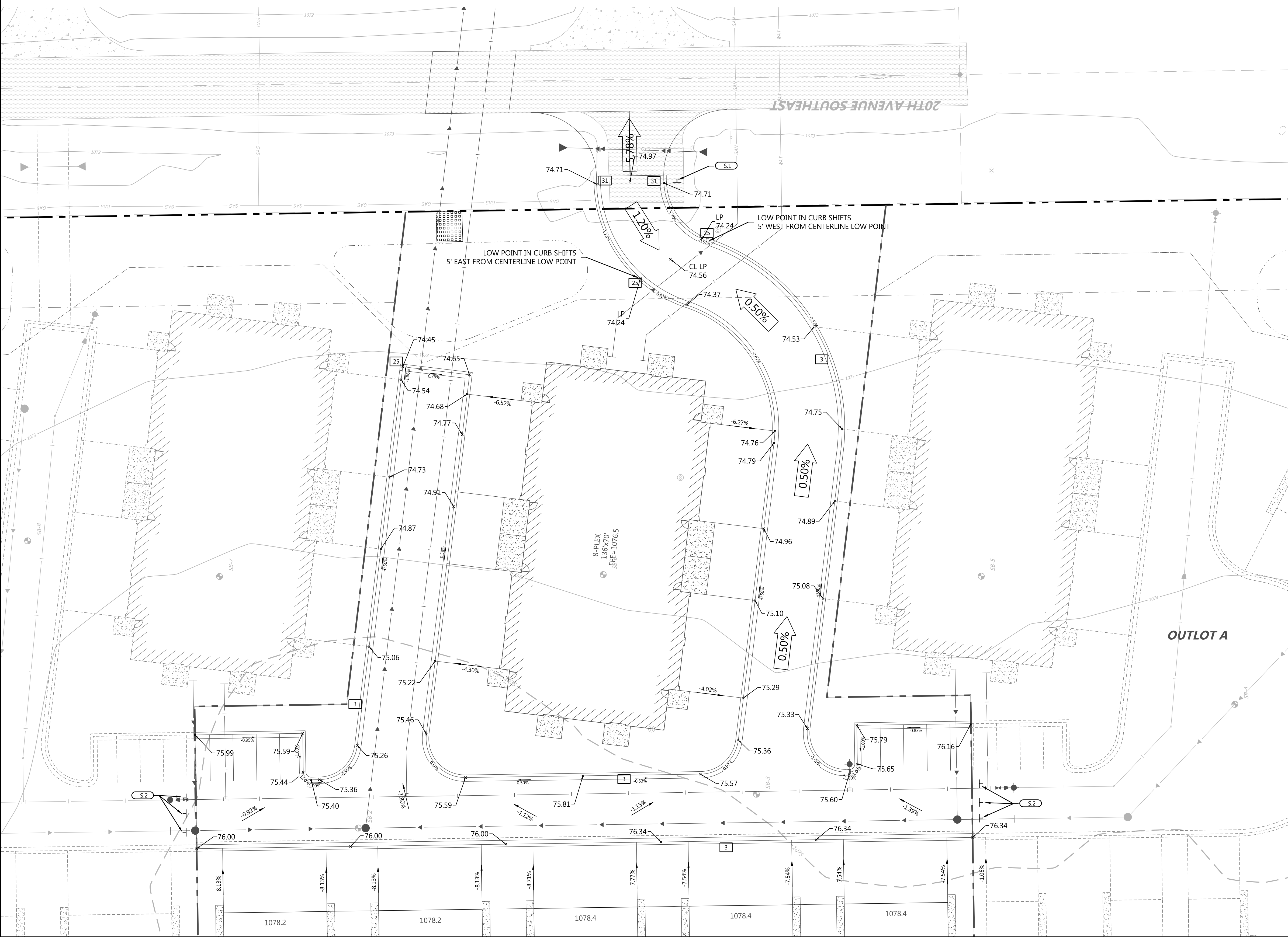
Westwood
 Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodps.com
 Westwood Professional Services, Inc.

GRADING & DRAINAGE PLAN

SHEET NUMBER:
5 OF **11**
 DATE: 04/09/18

N:\0012336\01.DWG\CIVIL\0012336.01.GD01.DWG

SOUTHVIEW HEIGHTS



PAVING LEGEND

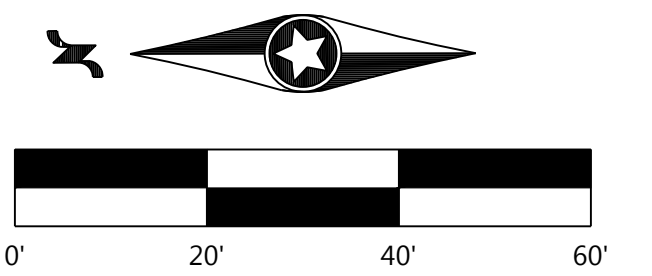
EXISTING	PROPOSED	
---	---	PROPERTY LINE
---	---	CURB AND GUTTER
---	---	TIP OUT CURB AND GUTTER
---	---	SAW CUT PAVEMENT
---	---	RIDGE LINE
---	---	CONCRETE PAVEMENT
91.00	91.00	SPOT ELEVATION
→	→	FLOW DIRECTION
☼	☼	LIGHT POLE
⊕	⊕	HYDRANT
⊙	⊙	STORM SEWER CATCH BASIN
⊙	⊙	SANITARY SEWER MANHOLE

1 SITE DETAILS (SI-0XX)

- 3 D418 CURB AND GUTTER
- 14 SIGN INSTALLATION
- 19 PAVEMENT SECTIONS
- 25 CURB CUT WITH EROSION CONTROL MAT
- 26 TYPICAL STREET SECTION
- 31 BEAVERTAIL CURB

S10 SIGN LEGEND

REFERENCE	SIZE	MnDOT DESIGNATION
S.1 STOP SIGN	30" X 30"	R1-1
S.2 END OF ROADWAY MARKER	18" X 18"	X4-11



FOR CITY APPROVAL

N:\012336\01.DWG\CIVIL\0012336\01S101.DWG

DESIGNED: WRH
 CHECKED: WRH
 DRAWN: JIN
 FIELD CREW:
 FIELD WORK DATE:

INITIAL ISSUE: 04/09/18
 REVISIONS:

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

Westwood
 Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodsps.com
 Westwood Professional Services, Inc.

PAVING PLAN

SHEET NUMBER:
6 OF **11**
 DATE: 04/09/18

0012336.01

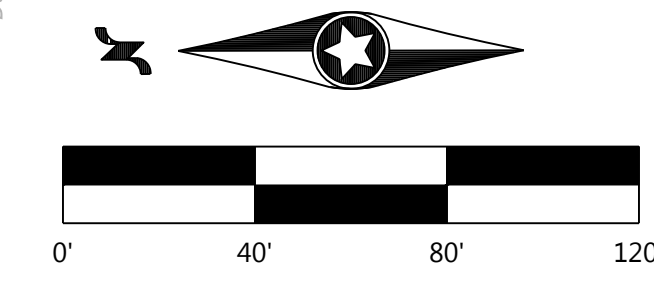
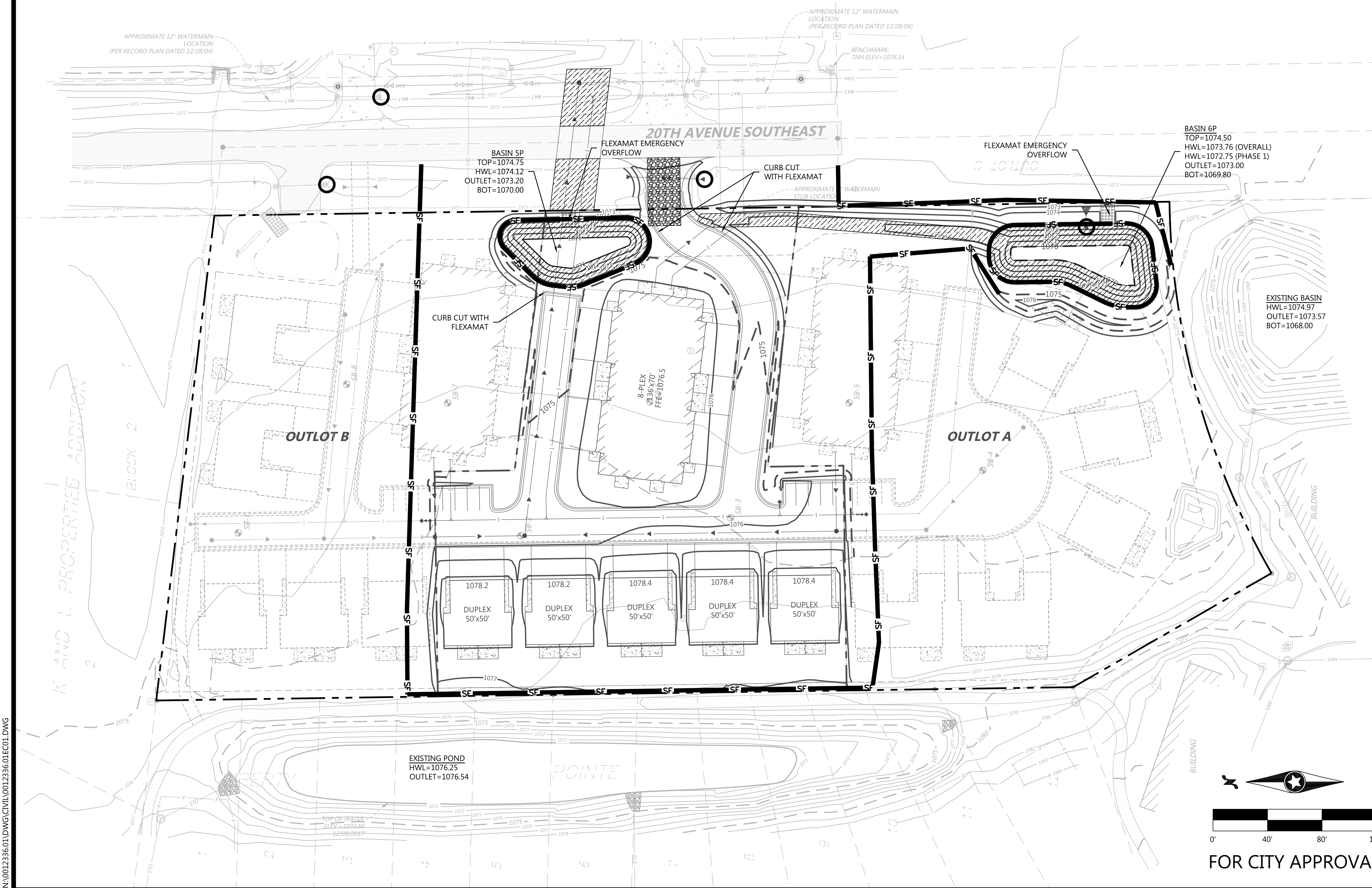
SOUTHVIEW HEIGHTS

EROSION CONTROL LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		INDEX CONTOUR
		INTERVAL CONTOUR
		CURB AND GUTTER
		POND NORMAL WATER LEVEL
		SILT FENCE
		STORM SEWER
		FLARED END SECTION (WITH RIPRAP)
		WATER MAIN
		SANITARY SEWER
		GRADING LIMITS
		ROCK CONSTRUCTION ENTRANCE
		EROSION CONTROL BLANKET
		TURF REINFORCEMENT MAT
		EMERGENCY OVERFLOW
		SOIL BORING LOCATION
		INLET PROTECTION

GENERAL EROSION CONTROL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL SILT FENCE AND OTHER EROSION CONTROL FEATURES SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL Viable TURF OR GROUND COVER HAS BEEN ESTABLISHED. EXISTING SILT FENCE ON-SITE SHALL BE MAINTAINED AND/OR REMOVED AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING CONTRACT. IT IS OF EXTREME IMPORTANCE TO BE AWARE OF CURRENT FIELD CONDITIONS WITH RESPECT TO EROSION CONTROL. TEMPORARY PONDING, DIKES, HAYBALES, ETC., REQUIRED BY THE CITY SHALL BE INCIDENTAL TO THE GRADING CONTRACT.
3. EROSION AND SILTATION CONTROL (ESC): THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR CONTROLLING ALL SILTATION AND EROSION OF THE PROJECT AREA. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO CONTROL THE EROSION AND SILTATION INCLUDING BUT NOT LIMITED TO: CATCH BASIN INSERTS, CONSTRUCTION ENTRANCES, EROSION CONTROL BLANKET, AND SILT FENCE. ESC SHALL COMMENCE WITH GRADING AND CONTINUE THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE OWNER. THE CONTRACTOR'S RESPONSIBILITY INCLUDES ALL IMPLEMENTATION AS REQUIRED TO PREVENT EROSION AND THE DEPOSITING OF SILT. THE OWNER MAY DIRECT THE CONTRACTOR'S METHODS AS DEEMED FIT TO PROTECT PROPERTY AND IMPROVEMENTS. ANY DEPOSITION OF SILT OR MUD ON NEW OR EXISTING PAVEMENT OR IN EXISTING STORM SEWERS OR SWALES SHALL BE REMOVED AFTER EACH RAIN EVENT. AFFECTED AREAS SHALL BE CLEANED TO THE SATISFACTION OF THE OWNER, ALL AT THE EXPENSE OF THE CONTRACTOR. ALL TEMPORARY EROSION CONTROL SHALL BE REMOVED BY THE CONTRACTOR AFTER THE TURF IS ESTABLISHED.
4. ALL STREETS DISTURBED DURING WORKING HOURS MUST BE CLEANED AT THE END OF EACH WORKING DAY. A CONSTRUCTION ENTRANCE TO THE SITE MUST BE PROVIDED ACCORDING TO DETAILS TO REDUCE TRACKING OF DIRT ONTO PUBLIC STREETS.
5. PROPOSED PONDS SHALL BE EXCAVATED FIRST AND USED AS TEMPORARY PONDING DURING CONSTRUCTION.
6. WHEN INSTALLING END-OF-LINE FLARED END SECTIONS, BRING THE SILT FENCE UP & OVER THE FLARED END SECTIONS & COVER DISTURBED AREAS WITH RIP RAP. THE UPSTREAM FLARED END SECTIONS SHALL HAVE WOOD FIBER BLANKET INSTALLED ON THE DISTURBED SOILS.
7. ALL UNPAVED AREAS ALTERED DUE TO CONSTRUCTION ACTIVITIES MUST BE RESTORED WITH SEED AND MULCH, SOD, EROSION CONTROL BLANKET OR BE HARD SURFACE WITHIN 2 WEEKS OF COMPLETION OF CONSTRUCTION.
8. THE SITE MUST BE STABILIZED WITH A 25-151 SEED MIX AT 70-POUNDS PER ACRE AND TYPE I MULCH AT 2-TONS PER ACRE IN ACCORDANCE WITH MNDOT 2575 UNLESS OTHERWISE NOTED.
9. TEMPORARY SEEDING SHALL BE MN/DOT SEED MIX 22-111 AT 40-POUNDS PER ACRE AND TYPE I MULCH AT 2-TONS PER ACRE IN ACCORDANCE WITH MNDOT 2575 UNLESS OTHERWISE NOTED.
10. FOR AREAS WITH SLOPE OF 3:1 OR GREATER, RESTORATION WITH SOD OR EROSION CONTROL BLANKET IS REQUIRED.
11. ALL TEMPORARY STOCKPILES MUST HAVE SILT FENCE INSTALLED AROUND THEM TO TRAP SEDIMENT.
12. ALL PERMANENT PONDS USED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION SHALL BE DREDGED AFTER THE SITE HAS BEEN STABILIZED TO RESTORE THE POND TO THE PROPOSED BOTTOM ELEVATION.
13. ALL CONSTRUCTION SHALL CONFORM TO LOCAL AND STATE RULES INCLUDING THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS.
14. THE SITE MUST BE KEPT IN A WELL-DRAINED CONDITION AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY DITCHES, PIPING OR OTHER MEANS REQUIRED TO INSURE PROPER DRAINAGE DURING CONSTRUCTION. LOW POINTS IN ROADWAYS OR BUILDING PADS MUST BE PROVIDED WITH A POSITIVE OUTFLOW.
15. PUBLIC STREETS USED FOR HAULING SHALL BE KEPT FREE OF SOIL AND DEBRIS. STREET SWEEPING SHALL BE CONCURRENT WITH SITE WORK.



N:\012336\01.DWG\CIVIL\012336\01ECC01.DWG

DESIGNED: WRH
 CHECKED: WRH
 DRAWN: JIN
 FIELD CREW:
 FIELD WORK DATE:

INITIAL ISSUE: 04/09/18
 REVISIONS:

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
 WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

Westwood
 Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodps.com
 Westwood Professional Services, Inc.

EROSION CONTROL PLAN

SHEET NUMBER:
7 OF **11**
 DATE: 04/09/18

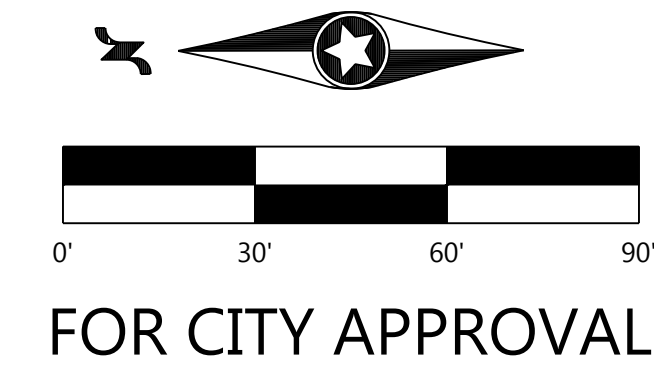
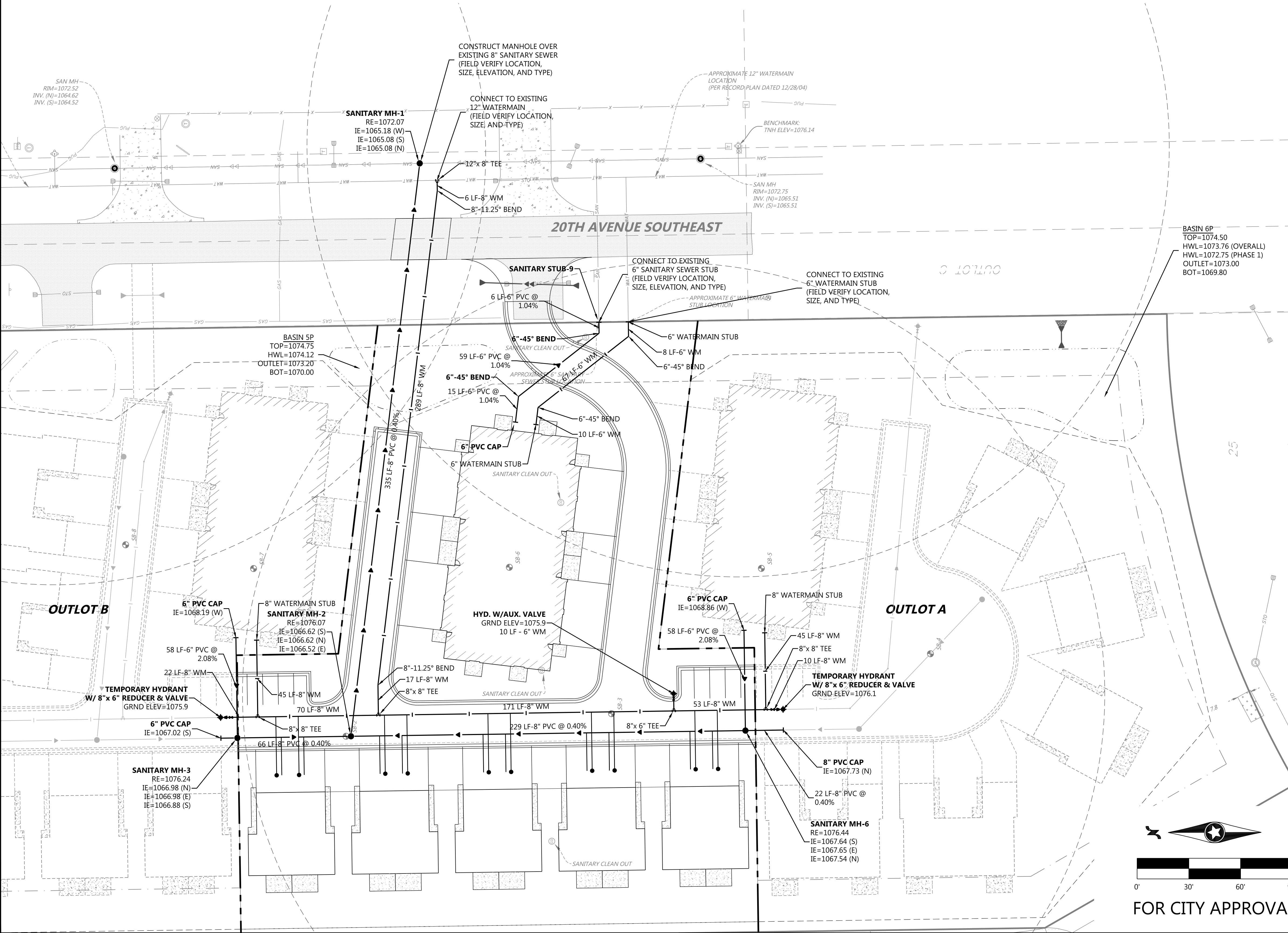
SOUTHVIEW HEIGHTS

SANITARY SEWER AND WATERMAIN LEGEND

EXISTING	PROPOSED	
---	---	PROPERTY LINE
---	---	EASEMENT LINE
---	---	CURB AND GUTTER
SAN	—●—	SANITARY SEWER
FM	—FM—	SANITARY SEWER FORCE MAIN
STO	—■—	STORM SEWER
WAT	— —	WATER MAIN
WAT	— —	HYDRANT
GAS	— —	GAS
PUG	—PUG—	UNDERGROUND ELECTRIC
POH	—POH—	OVERHEAD ELECTRIC
TUG	—TUG—	UNDERGROUND TELEPHONE
TOH	—TOH—	OVERHEAD TELEPHONE
FOP	—FOP—	TELEPHONE FIBER OPTIC
CTV	—CTV—	CABLE TELEVISION
GV	—GV—	GATE VALVE
FE	—FE—	FLARED END SECTION (WITH RIPRAP)
LP	—LP—	LIGHT POLE

WATERMAIN & SANITARY SEWER NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL SANITARY SEWER AND WATER MAIN MATERIAL AND INSTALLATIONS SHALL BE PER CITY REQUIREMENTS, MINNESOTA PLUMBING CODE, AND IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY FEDERAL, STATE AND LOCAL PERMITS FOR THE PROPOSED WORK OR VERIFY WITH THE OWNER OR ENGINEER THAT PERMITS HAVE BEEN OBTAINED. PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE ARRANGED WITH THE OWNER.
4. ALL PRIVATE UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE SERVICE LINE CONSTRUCTION WITH THE UTILITY COMPANIES.
5. CONTRACTOR SHALL OBTAIN ALL NECESSARY CITY PERMITS FOR UTILITY CONNECTIONS, AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. WATER MAIN LENGTHS AS SHOWN ARE APPROXIMATE HORIZONTAL LENGTHS. ALLOW FOR ADDITIONAL PIPE WHEN INSTALLING ON SLOPES OR WHEN DEFLECTIONS ARE REQUIRED. THE JOINT DEFLECTIONS SHALL NOT EXCEED THE MAXIMUM RECOMMENDED BY THE PIPE MANUFACTURER OR BY LOCAL GOVERNING SPECIFICATIONS. FITTINGS REQUIRED TO CONSTRUCT WATER MAIN SHALL BE INCLUDED IN WATER MAIN CONSTRUCTION.
7. PROVIDE WATER MAIN THRUST RESTRAINTS PER CITY STANDARD REQUIREMENTS.
8. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED AT ALL WATER LINE CROSSINGS WITH SANITARY SEWER OR STORM SEWER. THE WATER LINE SHALL NOT HAVE JOINTS OR CONNECTION WITHIN 10-FEET OF THE CROSSING. INSULATE CROSSINGS WITH STORM SEWER.
9. ALL WATER LINES SHALL HAVE 8' MINIMUM COVER. INSULATE WATER MAIN IF LESS THAN 8' OF COVER. INSULATION SHALL BE DOW STYROFOAM HI BRAND 35 OR EQUIVALENT, WITH 4 INCHES OF THICKNESS.
10. ALL NONCONDUCTIVE PIPE SHALL BE INSTALLED WITH A LOCATE (TRACER) WIRE.
11. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT RECORD OF UTILITY CONSTRUCTION. THE AS-BUILT SHALL INCLUDE LOCATION AND LENGTH DEVIATIONS OR CHANGES TO THE PLAN. CONTRACTOR TO VERIFY WITH OWNER OR ENGINEER WHETHER A PLAN WITH POST-CONSTRUCTION ELEVATIONS IS REQUIRED.
12. ALL MANHOLE CASTINGS IN PAVED AREAS SHALL BE SUMPED 0.05 FEET. RIM ELEVATIONS ON PLAN REFLECT THE SUMPED ELEVATIONS.
13. ALL 8" PVC SHALL BE SDR 35. ALL 4" AND 6" PVC SHALL BE SCH 40.



DESIGNED: WRH
 CHECKED: WRH
 DRAWN: JIN
 FIELD CREW:
 FIELD WORK DATE:

INITIAL ISSUE: 04/09/18
 REVISIONS:

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
 WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

Westwood
 Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodps.com
 Westwood Professional Services, Inc.

SANITARY SEWER AND WATERMAIN PLAN

SHEET NUMBER:
8 OF **11**
 DATE: 04/09/18

N:\0012336\01.DWG\CIVIL\0012336.01\T01.DWG

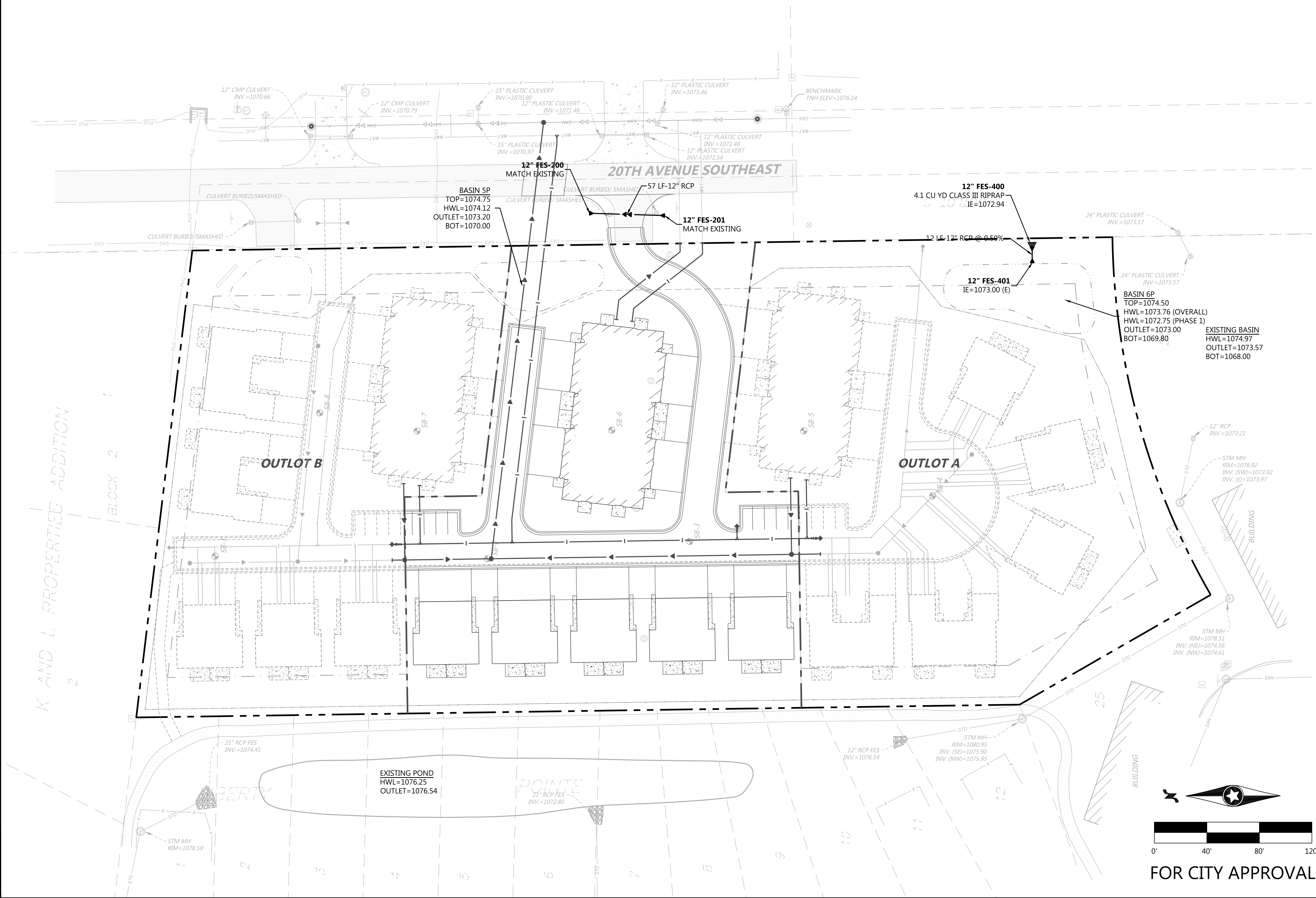
SOUTHVIEW HEIGHTS

STORM SEWER LEGEND

EXISTING	PROPOSED	
---	---	PROPERTY LINE
---	---	EASEMENT LINE
---	---	CURB AND GUTTER
---	---	SANITARY SEWER
---	---	SANITARY SEWER FORCE MAIN
---	---	STORM SEWER
---	---	WATER MAIN
---	---	HYDRANT
---	---	GAS
---	---	UNDERGROUND ELECTRIC
---	---	OVERHEAD ELECTRIC
---	---	UNDERGROUND TELEPHONE
---	---	OVERHEAD TELEPHONE
---	---	TELEPHONE FIBER OPTIC
---	---	CABLE TELEVISION
---	---	DRAIN TILE
---	---	GATE VALVE
---	---	FLARED END SECTION (WITH RIPRAP)
---	---	LIGHT POLE
---	---	VERTICAL UTILITY SEPARATION

STORM SEWER NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND LIMITED MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION SHALL NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE OWNER OR ENGINEER OF DISCREPANCIES.
2. ALL STORM SEWER MATERIAL AND INSTALLATIONS SHALL BE PER CITY REQUIREMENTS, MINNESOTA PLUMBING CODE, AND IN ACCORDANCE WITH THE CURRENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER MAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PREPARED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN THE NECESSARY FEDERAL, STATE AND LOCAL PERMITS FOR THE PROPOSED WORK OR VERIFY WITH THE OWNER OR ENGINEER THAT PERMITS HAVE BEEN OBTAINED. PERMIT FEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE ARRANGED WITH THE OWNER.
4. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF DOORWAYS, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY CONNECTION LOCATIONS.
5. ALL PRIVATE UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE SERVICE LINE CONSTRUCTION WITH THE UTILITY COMPANIES.
6. CONTRACTOR SHALL OBTAIN ALL NECESSARY CITY PERMITS FOR UTILITY CONNECTIONS, AND UTILITIES SHALL BE INSPECTED AND APPROVED BY THE CITY. THE CITY SHALL BE NOTIFIED 48-HOURS PRIOR TO COMMENCING WITH THE UTILITY CONSTRUCTION OR ANY REQUIRED TESTING. CONTRACTOR SHALL NOT OPERATE, INTERFERE WITH, CONNECT ANY PIPE OR HOSE TO, OR TAP ANY WATER MAIN BELONGING TO THE CITY UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. A MINIMUM VERTICAL SEPARATION OF 18 INCHES IS REQUIRED AT ALL WATER LINE CROSSINGS WITH STORM SEWER. THE WATER LINE SHALL NOT HAVE JOINTS OR CONNECTION WITHIN 10-FOET OF THE CROSSING. INSULATE CROSSINGS WITH STORM SEWER.
8. ALL NONCONDUCTIVE PIPE SHALL BE INSTALLED WITH A LOCATE (TRACER) WIRE.
9. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH AN AS-BUILT RECORD OF UTILITY CONSTRUCTION. THE AS-BUILT SHALL INCLUDE LOCATION AND LENGTH DEVIATIONS OR CHANGES TO THE PLAN. CONTRACTOR TO VERIFY WITH OWNER OR ENGINEER WHETHER A PLAN WITH POST-CONSTRUCTION ELEVATIONS IS REQUIRED.



FOR CITY APPROVAL

DESIGNED: WRH
 CHECKED: WRH
 DRAWN: JIN
 FIELD CREW:
 FIELD WORK DATE:

INITIAL ISSUE: 04/09/18
 REVISIONS:

PREPARED FOR:
KJ DEVELOPMENT OF ST. JOSEPH, LLC
 140 75TH STREET NE
 RICE, MN 56367

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
 WILLIAM R. HUSTON
 DATE: 04/09/18 LICENSE NO. 44984

SOUTHVIEW HEIGHTS
 ST. JOSEPH, MN

Westwood
 Phone (320) 253-9495 3701 12th Street North, Suite 206
 Fax (320) 358-2001 St. Cloud, MN 56303
 Toll Free (800) 270-9495 westwoodps.com
 Westwood Professional Services, Inc.

STORM SEWER PLAN

SHEET NUMBER:
9 OF **11**
 DATE: 04/09/18

N:\0012336\01.DWG\CIVIL\0012336.GI\T02.DWG

SOUTHVIEW HEIGHTS

