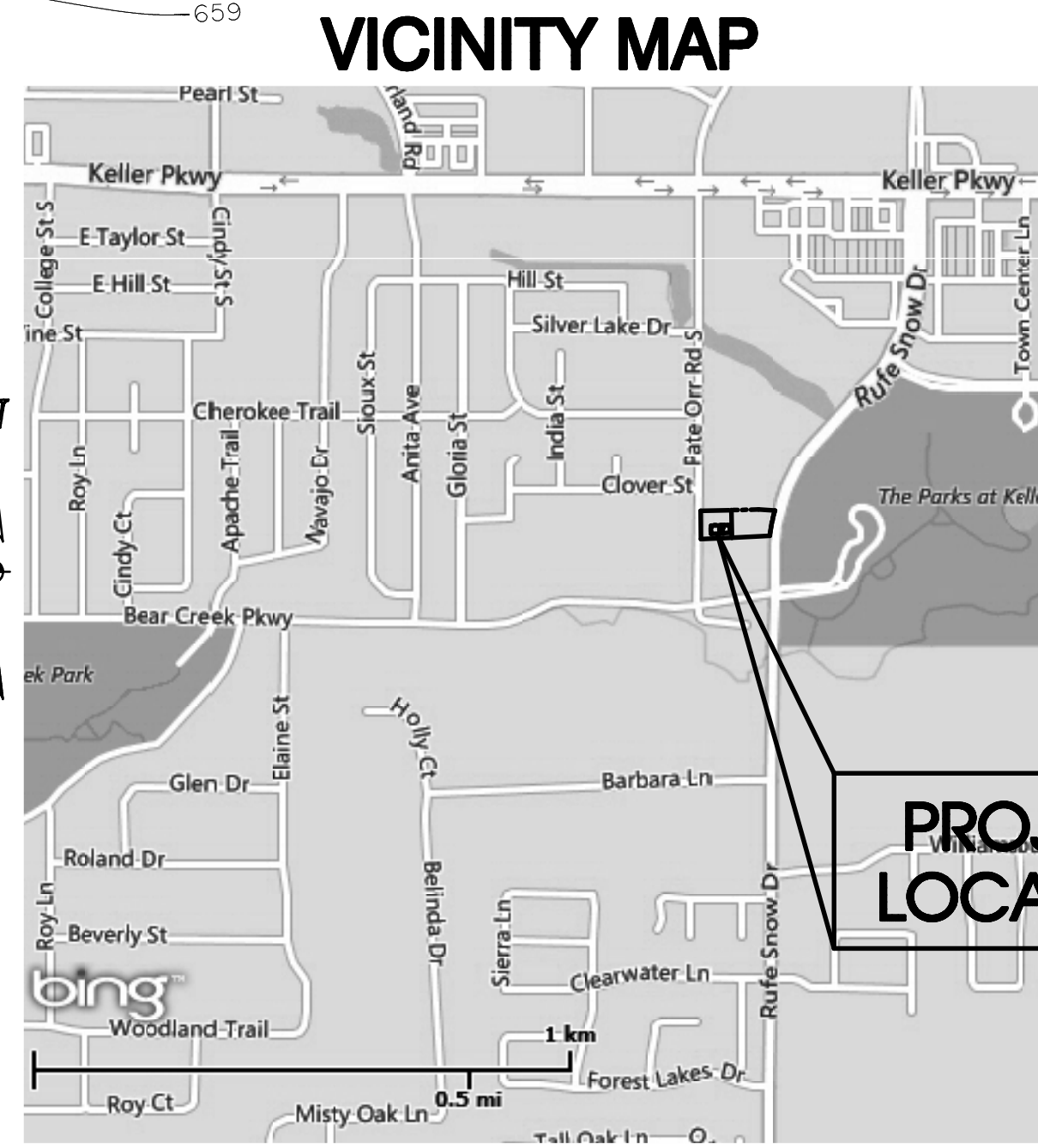


- NOTES:
1. A SUP WILL BE REQUIRED DUE TO THE FOLLOWING:
- THE ENCLOSED BUILDING AREA SQUARE FOOTAGE = 5,570 SF (MINIMUM BUILDING AREA FOR TOWN CENTER ZONING DISTRICT IS 6,000 SF.)
- THE BUILDING HEIGHT IN TOWN CENTER REQUIRES 2 STORIES, NOT TO EXCEED 35 FEET. A SUP IS REQUIRED FOR THIS SINGLE STORY BUILDING.
 2. SEVENTY-FIVE PERCENT (75%) OF THE OVERALL SURFACES OTHER THAN GLASS SHALL BE BRICK, STONE, OR CAST STONE. THE REMAINING TWENTY-FIVE PERCENT (25%) MAY BE STUCCO, FIBROUSCEMENT, SPLIT-FACE BLOCK, OR OTHER MASONRY MATERIAL. THE USE OF ANY OTHER WALL SURFACE MATERIAL MAY BE APPROVED BY THE CITY COUNCIL AT THE TIME OF SITE PLAN REVIEW. STUCCO MAY BE USED ON WALL SURFACES OF A MINIMUM OF TEN FEET (10') ABOVE GRADE LEVEL.
- SITE PLAN AMENDMENT
1. LOCATE SIGN FOR LOT 1R REMOTELY ON LOT 2.
 2. REQUEST WAIVER TO BRICK COLUMN MONUMENTS ADJACENT TO EXISTING SIDEWALK ALONG RUFÉ SNOW.
 3. INSTALLATION OF EMERGENCY ACCESS ONLY SLIDING GATE AT DRIVEWAY ADJACENT TO PATE ORR (NO THROUGH TRAFFIC).
 4. PRIVATE AGREEMENT BETWEEN LOT 1R AND 2 TO SHARE DUMPSTER ON LOT 2.



PROJECT LOCATION

Site Data Table		
Criteria	Lot 1R	Lot 2
Lot Size	31,916 SF	40,000 SF
Zoning	Office - TC overlay	Office - TC overlay
Proposed Use	Professional office	Professional office
Enclosed Building Area	5,570 SF	4,300 SF
Covered Porches	290 SF	
Total s.f. (F.D.)	5,860 SF	
F.A.R.	18.4%	10.8%
Parking Required	19	13
Parking Provided	25	30
HC Parking Provided	2	2

SITE PLAN
PECAN PARK - PHASE 2
Lot 1R and 2, Block A - Pecan Park Addition
350 and 360 Rufe Snow Drive
City of Keller
Tarrant County, Texas

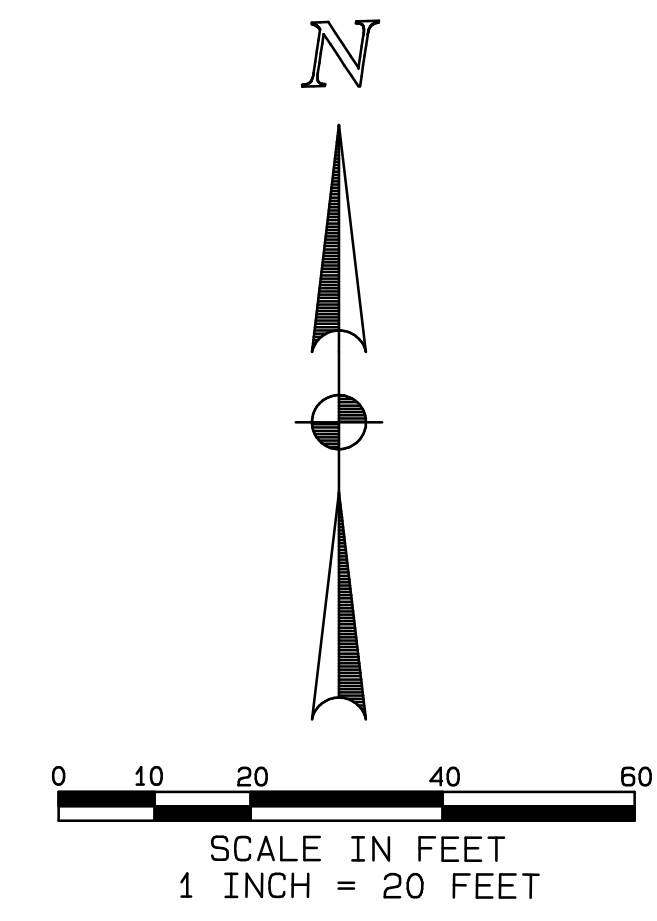
1.67 acres
Zoned: Office, TC - Town Center Overlay

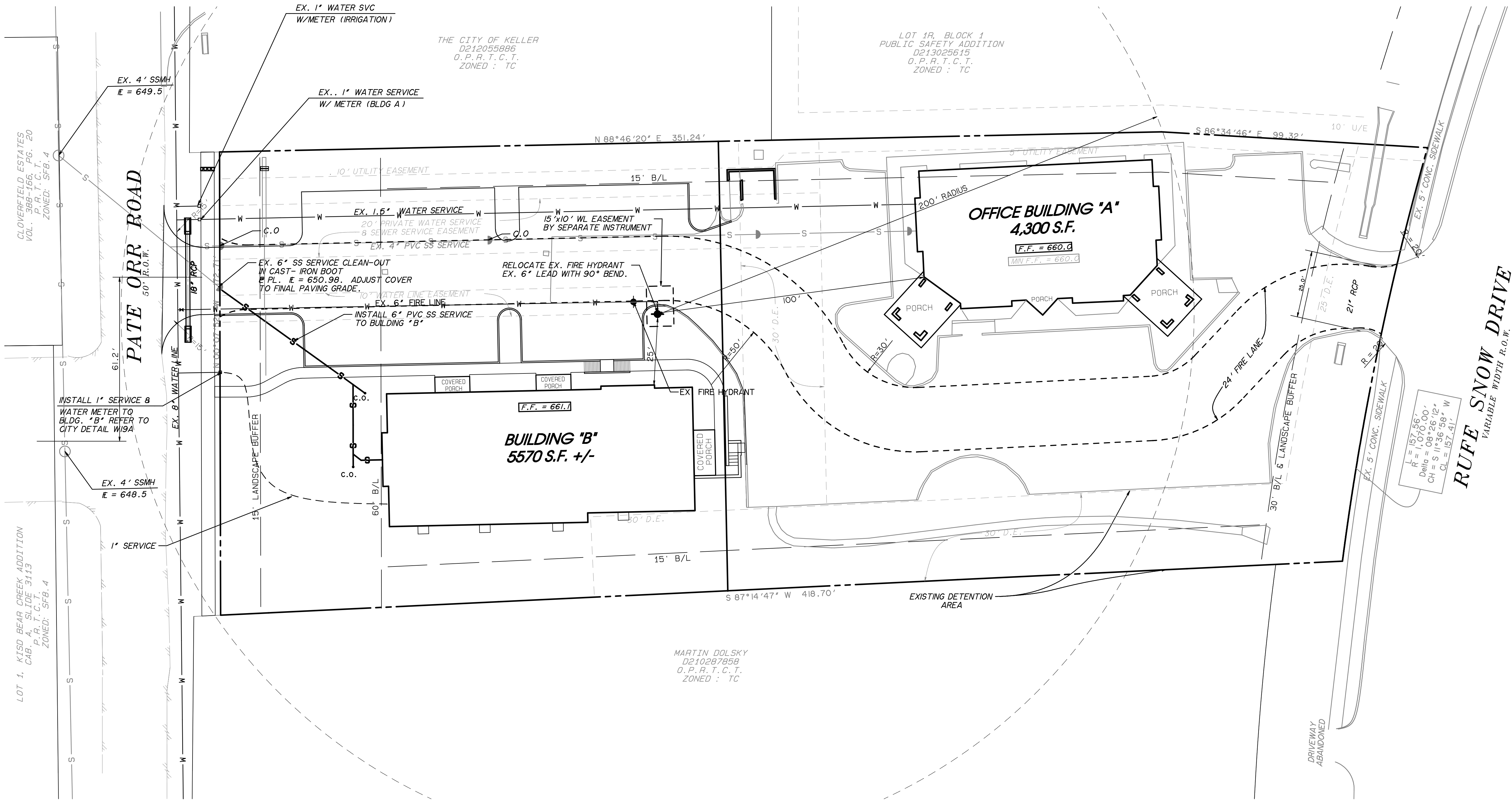
Owner and Applicant: Twin Pillars Properties, LLC. Attn: Wayne Terry
P.O. Box 1992, Colleyville, TX 76034
wcterry@gmail.com, Tel. 972-467-4307

Prepared By: Kellie Engineering, P.O. Box 471898, Fort Worth, TX 76147, Tel: 817-455-1396

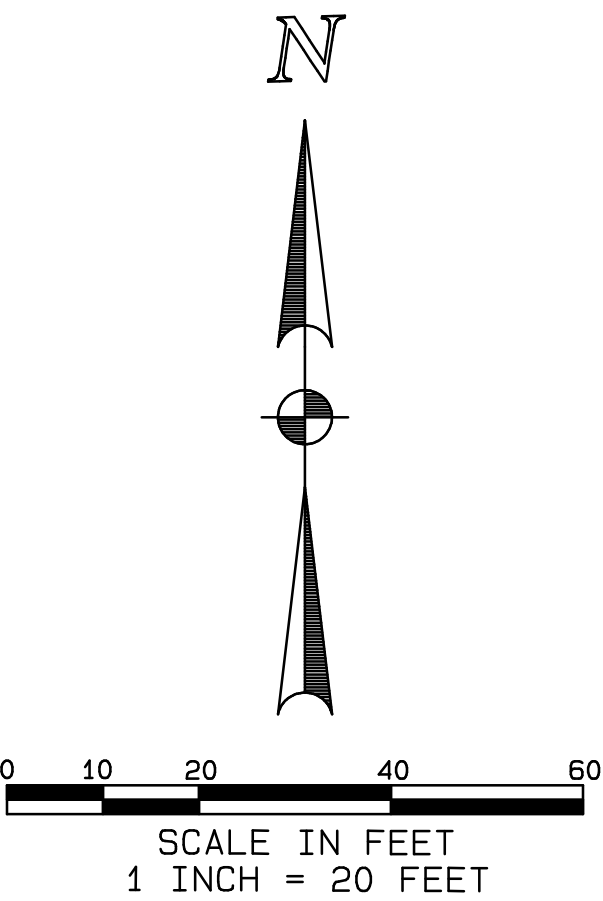
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Revised: 12/05/2018

Sheet 1

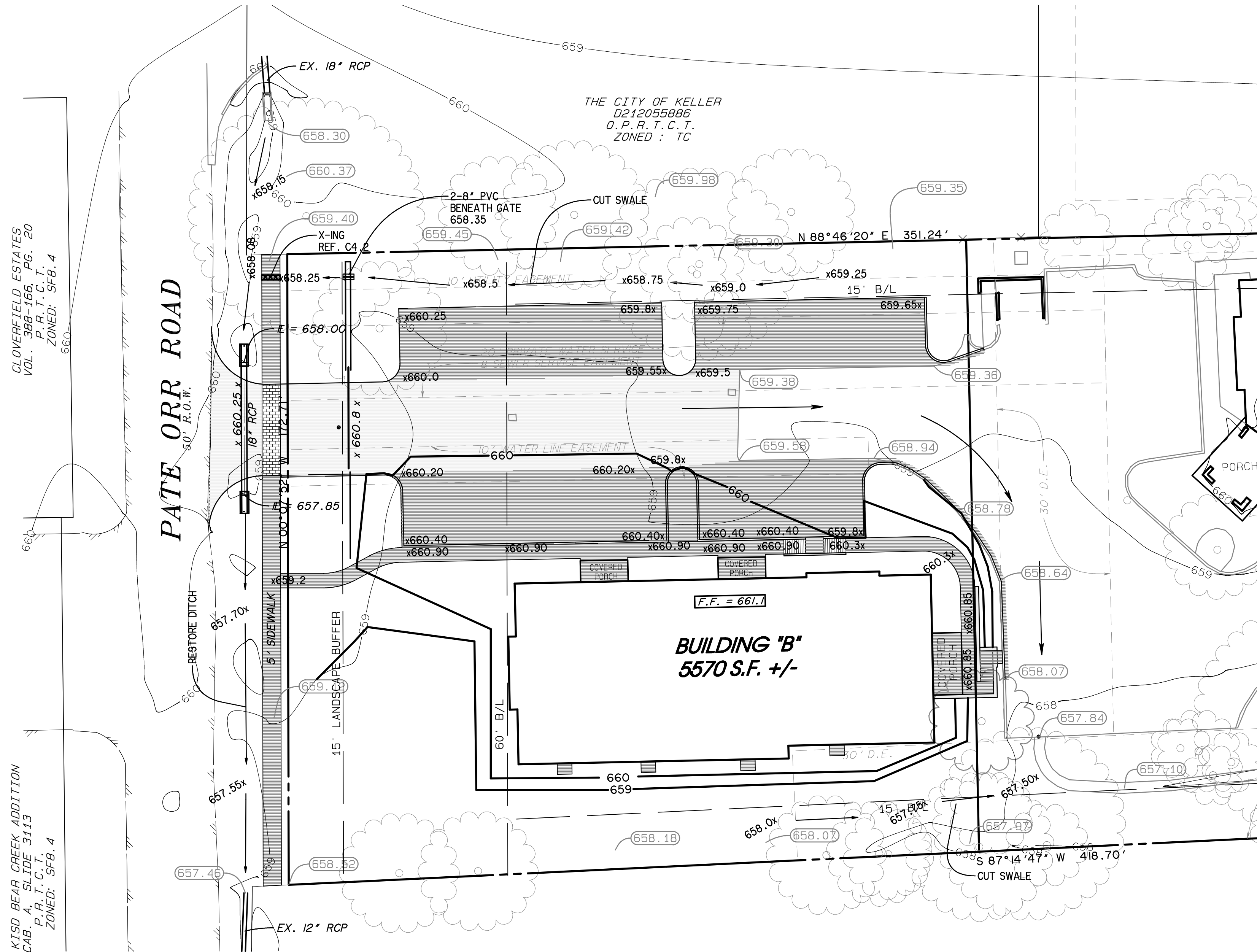




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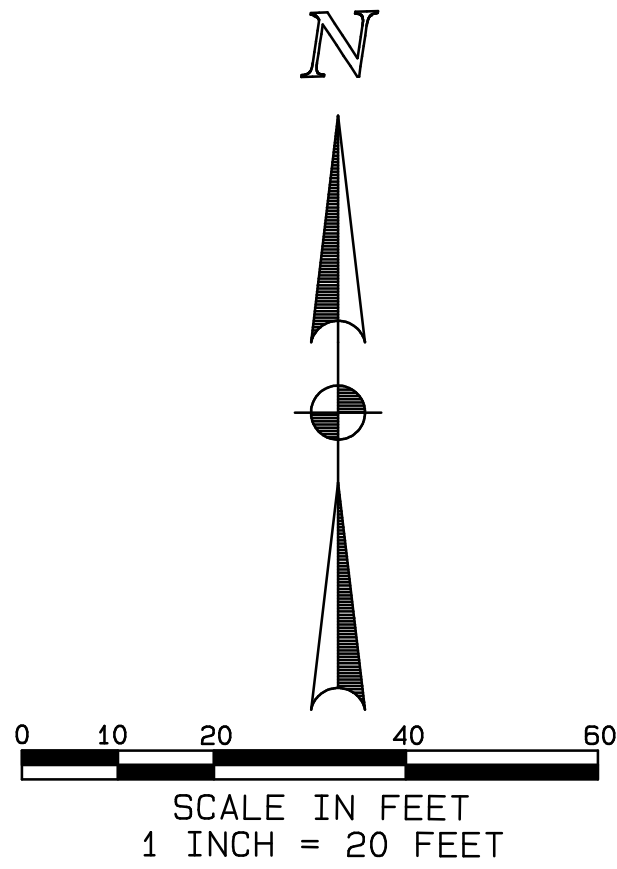
SITE PLAN - UTILITIES
PECAN PARK - PHASE 2
Lot 1R and 2, Block A - Pecan Park Addition
350 and 360 Rufe Snow Drive
City of Keller
Tarrant County, Texas
1.67 acres
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SITE GRADING PLAN

GRADING/EXCAVATION NOTES:

- Contractor shall refer to site geotechnical report "GEOTECHNICAL INVESTIGATION- PROPOSED PECAN PARK ADDITION, KELLER, TEXAS".
- Contractor shall refer to geotechnical report and structural engineering plans to determine required soil preparation/amendment beneath the office buildings and backfilling requirements adjacent to the office building and retaining walls.
- Proposed grades shown are to top of pavement for paved areas and to top of final grade for areas outside of pavement. Refer to the plan.
- A geotechnical engineer shall approve the suitability of site fill material. Fill approved for placement shall be compacted in lifts no greater than 8" and compacted to a minimum of 92% and a maximum of 98% maximum density as determined by ASTM D968.
- The locations, elevations and dimensions of existing utilities shown on the plans were obtained from available utility company records and are considered approximate. It shall be the Contractor's responsibility to verify locations, elevations, and dimensions of adjacent and/or conflicting utilities sufficiently in advance of construction in order that adjustments can be made to provide adequate clearances. The Contractor shall preserve and protect all utilities at all times during construction. Any damage to utilities resulting from the Contractor's operations shall be restored at his expense. The engineer shall be notified when proposed facility grades conflict with existing utility grades.
- All franchise utility companies shall be notified at least ten (10) days in advance of construction.



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SITE PLAN - GRADING PLAN
PECAN PARK - PHASE 2

Lot 1R and 2, Block A - Pecan Park Addition
350 and 360 Rufe Snow Drive
City of Keller
Tarrant County, Texas

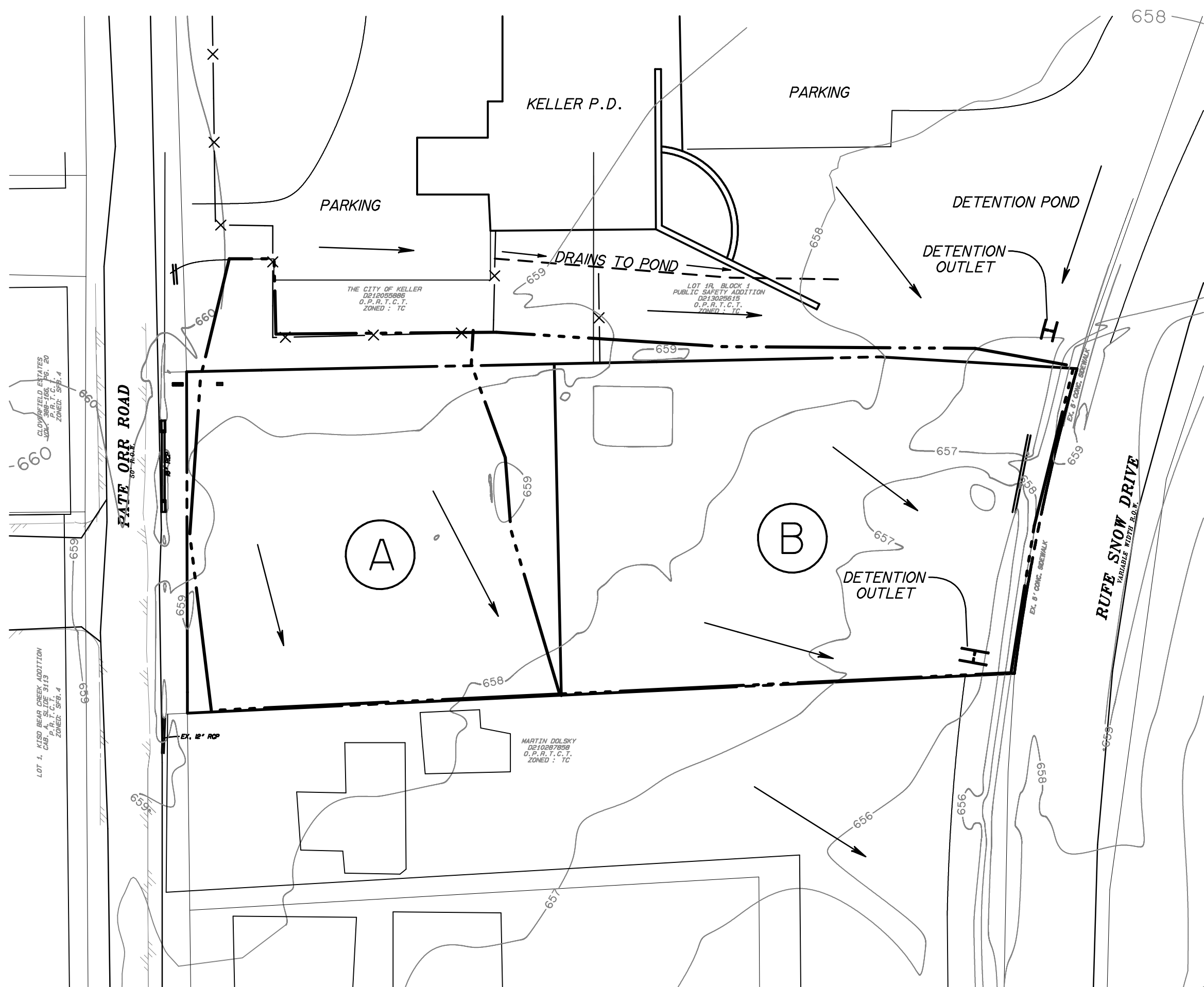
1.67 acres
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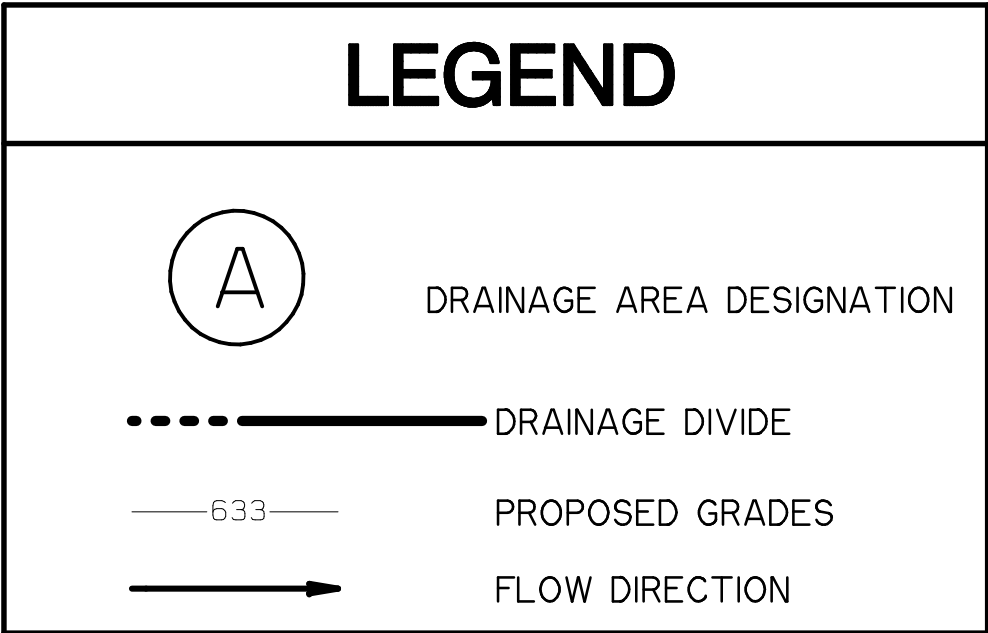
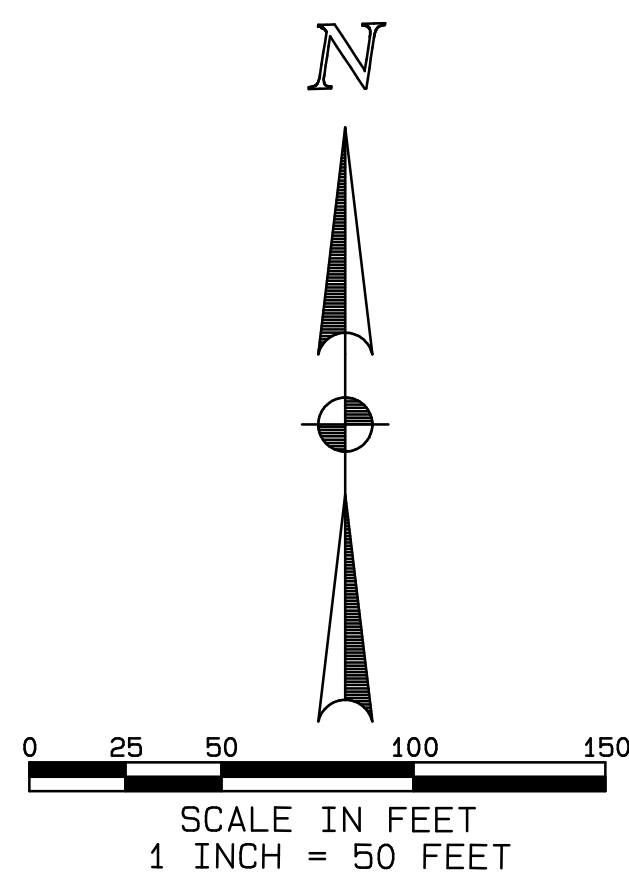
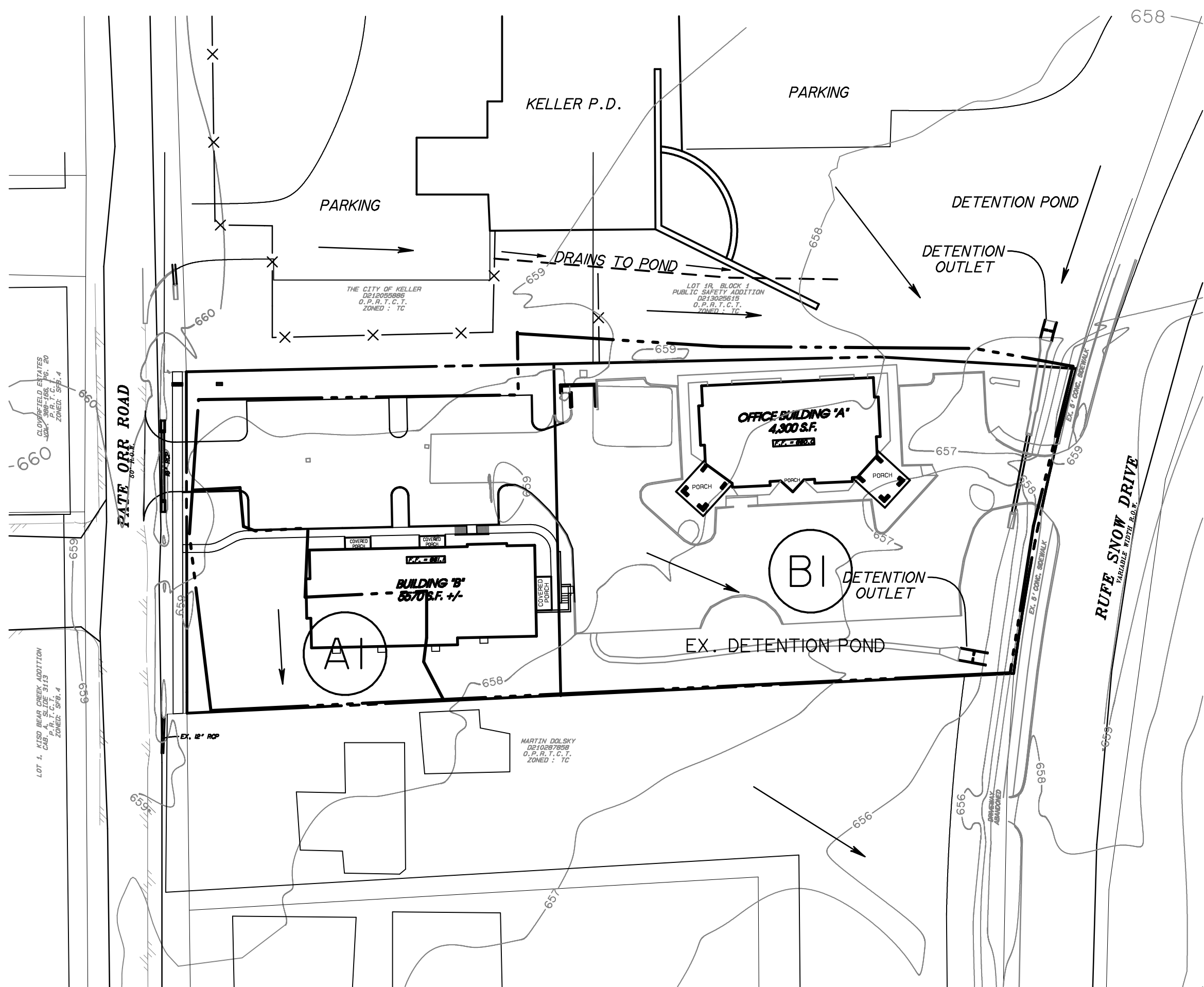
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PRE-DEVELOPED DRAINAGE
(SINGLE FAMILY RESIDENTIAL)



POST-DEVELOPED DRAINAGE
(2 COMMERCIAL LOTS)



PRE-DEVELOPED DRAINAGE CALCULATIONS

Area	Area (acres)	"C" Factor	T _c (min)	I ₁ (in/hr)	Q ₁ (cfs)	I ₁₀ (in/hr)	Q ₁₀ (cfs)	I ₂₅ (in/hr)	Q ₂₅ (cfs)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	Comments
A	0.70	0.50	15	3.32	1.2	5.53	1.9	6.46	2.3	7.98	2.8	Lot 1R drains south to neighboring lot.
B	1.05	0.50	15	3.32	1.7	5.53	2.9	6.46	3.4	7.98	4.2	Lot 2 drains to Rufe Snow ROW.
					2.9		4.8		5.7		7.0	

POST-DEVELOPED DRAINAGE CALCULATIONS

Area	Area (acres)	"C" Factor	T _c (min)	I ₁ (in/hr)	Q ₁ (cfs)	I ₁₀ (in/hr)	Q ₁₀ (cfs)	I ₂₅ (in/hr)	Q ₂₅ (cfs)	I ₁₀₀ (in/hr)	Q ₁₀₀ (cfs)	Comments
A1	0.20	0.90	10	4.06	0.7	6.51	1.2	7.55	1.4	9.24	1.7	Reduced portion of Lot 1R drains south to neighboring lot.
B1	1.40	0.90	10	4.06	5.1	6.51	8.2	7.55	9.5	9.24	11.6	Lot 2 portion of Lot 1R detained flows to Rufe Snow ROW.
					5.8		9.4		10.9		13.3	

5.24 DESIGN AND TECHNICAL STANDARDS, KELLER, TEXAS 07/07/15
PROPOSED LAND USE IS SINGLE FAMILY RESIDENTIAL.
Calculation determined by using the Rational Method Q=CIA.
C=0.30 for Open Areas, C=0.50 for Single Family Residential greater than 0.5 acres, C=0.9 for Business Districts.
Rainfall Intensities determined from NCTCOG iSWM Technical Manual, Table 5.15 Tarrant County, T_c = 15 minutes for residential development, = 10 min for commercial development.
NO INCREASE IN DRAINAGE TO THE SOUTH OF LOT 1R.
DETENTION POND RESTRICTS DISCHARGE RATE TO PRE-DEVELOPED RATES TO RUTE SNOW DRIVE.

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SITE PLAN - DRAINAGE PLAN
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Lot 1R and 2, Block A - Pecan Park Addition
350 and 360 Rufe Snow Drive
City of Keller
Tarrant County, Texas

1.67 acres
Zoned: Office, TC - Town Center Overlay

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Tree Legend

SYMBOL	DESCRIPTION
	EXISTING TREE TO REMAIN SIZE VARIES APPROXIMATE LOCATION OF CRITICAL ROOT ZONE
	EXISTING TREE TO BE REMOVED DURING CONSTRUCTION
	TREE PROTECTION FENCING

Tree Preservation Notes

- ALL TREES SHOWN ON THIS PLAN TO BE RESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING). REFERENCE SHEET LS.01 FOR TREE PROTECTION DETAILS.
- REFERENCE RELATED CIVIL ENGINEERING PLANS FOR EXACT LOCATION OF UNDERGROUND UTILITY LINES.
- REFERENCE RELATED IRRIGATION PLANS FOR LOCATION OF UNDERGROUND IRRIGATION HEAD AND LINE LOCATIONS.



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1130 N. Carroll Ave., Ste. 200
Southlake, Texas 76092
TEL 817-424-2626

Master Planning
Urban Design
Architecture
Landscape Architecture



Applicant / Developer
TX Office Suites
420 Johnson Road
Keller, Texas 76248
817-223-9907
Attn: Bill Dodge

PECAN PARK
TOWN OF KELLER, TEXAS

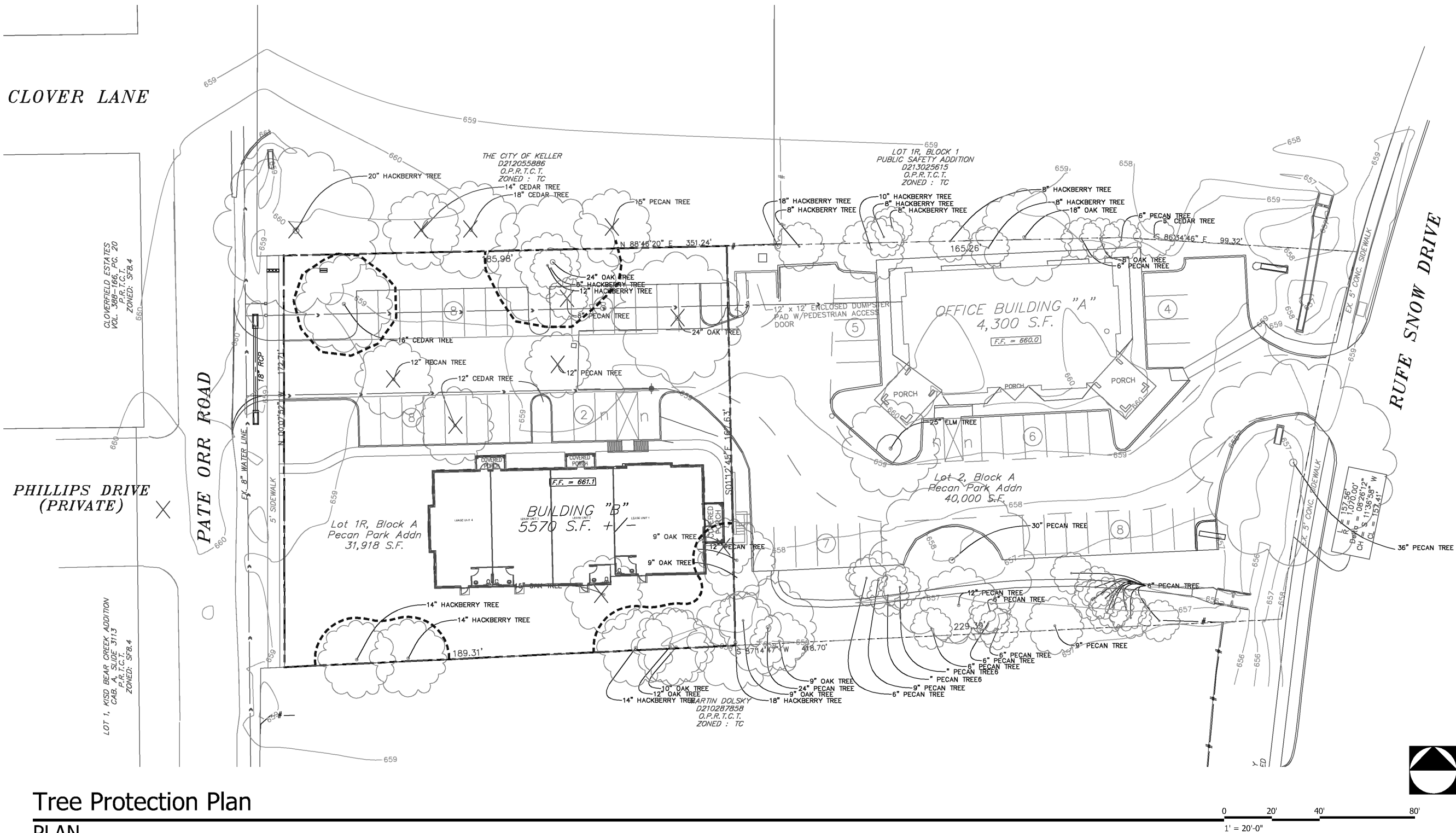
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JUNE 15, 2018

Revisions

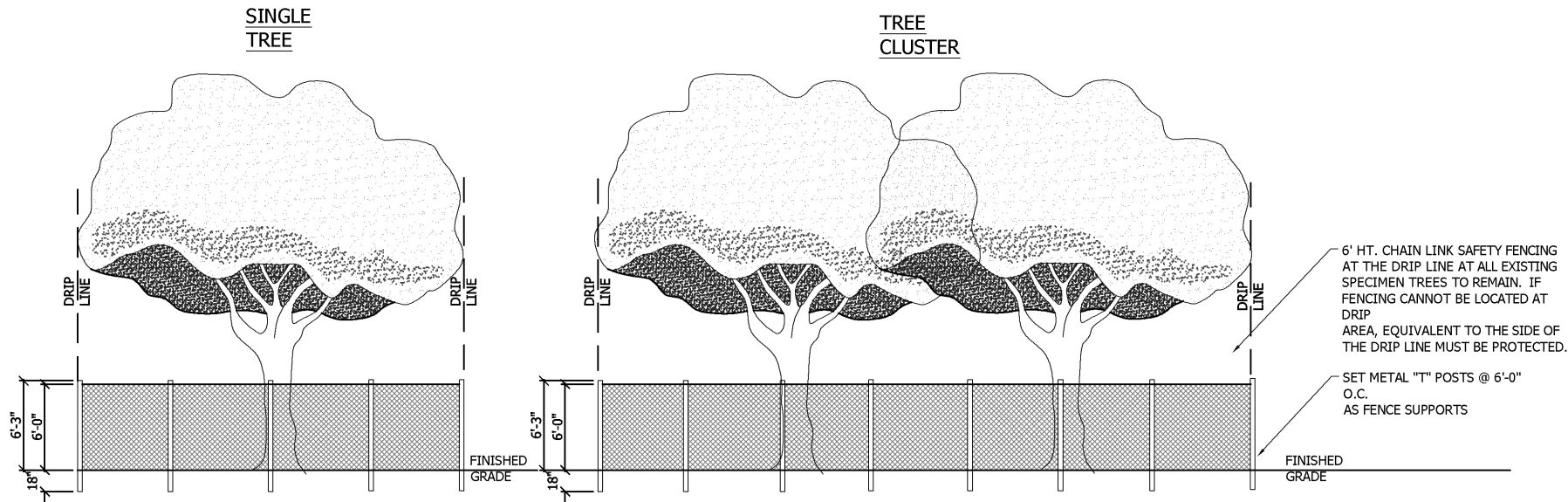
- Building relocation
- Building relocation 11/26/18
- City Comments 11/30/18
- City Comments 12/5/18

TREE
PROTECTION
PLAN

SHEET
LS.00



Tree Protection Plan
PLAN

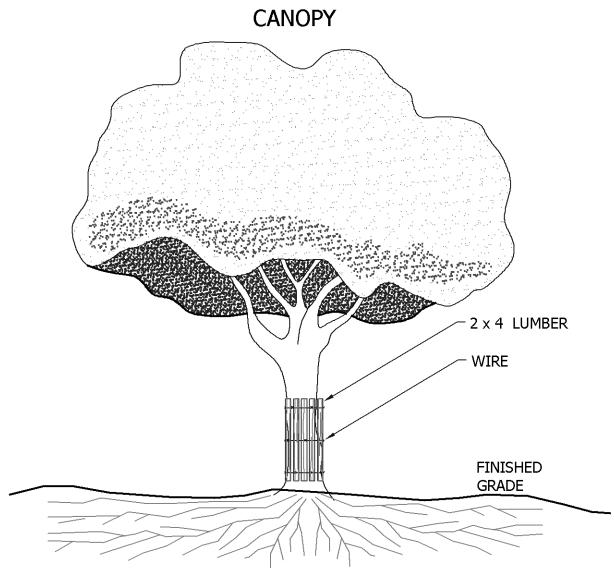


PROTECTIVE FENCING:

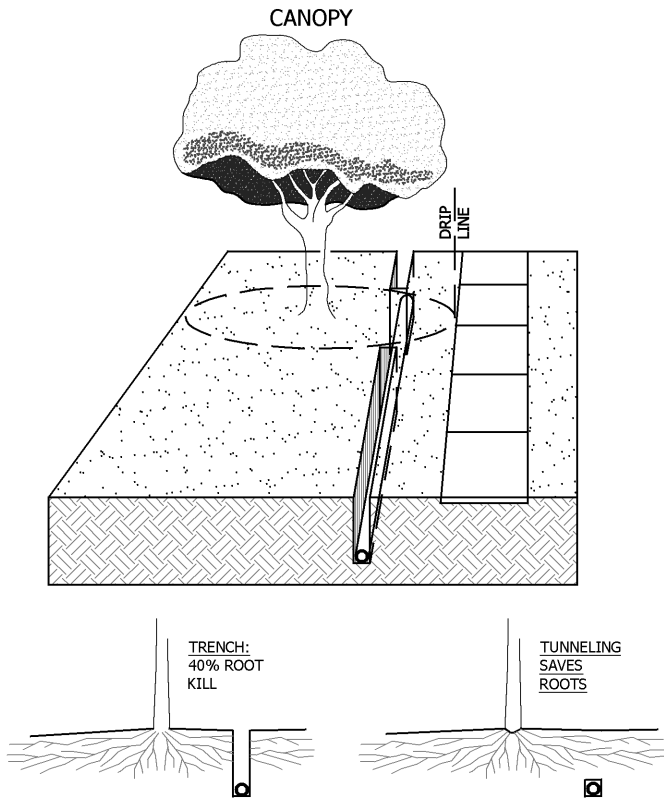
ORANGE VINYL CONSTRUCTION FENCING, CHAIN LINK FENCING, SNOW FENCING OR SIMILAR FENCING, AT LEAST 4'-0" (4') HIGH AND SUPPORTED AT A MAXIMUM OF TEN-FOOT (10') INTERVALS BY APPROVED METHODS SUFFICIENT ENOUGH TO KEEP THE FENCE UPRIGHT AND IN PLACE.

PRIOR TO CONSTRUCTION:

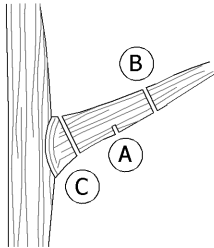
THE CONTRACTOR OR SUBCONTRACTOR SHALL CONSTRUCT AND MAINTAIN, FOR EACH PROTECTED TREE OR GROUP OF TREES ON A CONSTRUCTION SITE, A PROTECTIVE FENCING WHICH ENCIRCLES THE OUTER LIMITS OF THE CRITICAL ROOT ZONE OF THE TREES TO PROTECT THEM FROM CONSTRUCTION ACTIVITY. ALL PROTECTIVE FENCING SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY SITE WORK AND REMAIN IN PLACE UNTIL ALL EXTERIOR WORK HAS BEEN COMPLETED.



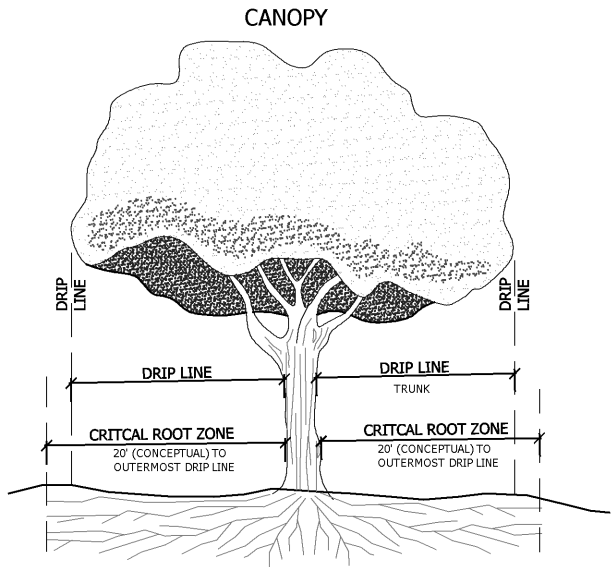
IN SITUATIONS WHERE A PROTECTED TREE REMAINS IN THE IMMEDIATE AREA OF INTENDED CONSTRUCTION AND THE TREE MAY BE IN DANGER OF BEING DAMAGED BY CONSTRUCTION EQUIPMENT OR OTHER ACTIVITY, THE CONTRACTOR OR SUB CONTRACTOR SHALL PROTECT THE TREE WITH 2" X 4" LUMBER ENCIRCLED WITH WIRE OR OTHER MEANS THAT DO NOT DAMAGE THE TREE. THE INTENT OS TO PROTECT THE TRUNK OF THE TREE AGAINST INCIDENTAL CONTACT BY LARGE CONSTRUCTION EQUIPMENT.



BORING:
BORING OF UTILITIES UNDER PROTECTED TREES SHALL BE REQUIRED IN THOSE AREAS WHERE IT IS NOT POSSIBLE TO TRENCH AROUND THE CRITICAL ROOT ZONE OR PROTECTED TREES. WHEN REQUIRED, THE LENGTH OF THE BORE SHALL BE THE WIDTH OF THE CRITICAL ROOT ZONE AT A MINIMUM AND SHALL BE A MINIMUM OF 48 INCHES.



- A MAKE PARTIAL CUT FROM BENEATH, AT A POINT SEVERAL INCHES AWAY FROM THE TRUNK.
- B MAKE A SECOND CUT FROM ABOVE SEVERAL INCHES OUT FROM THE FIRST CUT, TO ALLOW THE LIMB TO FALL SAFELY.
- C COMPLETE THE JOB WITH A FINAL CUT JUST OUTSIDE THE BRANCH COLLAR, THE RAISED AREA THE SURROUNDS THE BRANCH WHERE IT JOINS THE TRUNK.



CRITICAL ROOT ZONE:

THE AREA OF UNDISTURBED NATURAL SOIL AROUND A TREE DEFINED BY A CONCENTRIC CIRCLE WITH A RADIUS OF FEET EQUAL TO THE NUMBER OF INCHES OF TRUNK DIAMETER.

DRIP LINE:

A VERTICAL LINE RUN THROUGH THE OUTERMOST PORTION OF THE CANOPY OF A TREE AND EXTENDING TO THE GROUND.

CLOVER LANE

PHILLIPS DRIVE
(PRIVATE)

PATE ORR ROAD

RUFE SNOW DRIVE

Landscape Requirements

LANDSCAPE BUFFER

North side of property (10' wide x 186 L.F.)
(186 L.F. / 50 L.F. = 4 - 3" cal. trees)
Rear of property (30' wide x 173 L.F.)
(173 L.F. / 50 L.F. = 4 - 3" cal. trees)
South side of property (10' wide x 190 L.F.)
(190 L.F. / 50 L.F. = 4 - 3" cal. trees)

PARKING LOT TREES

△ Parking Island (1 - 3" cal per 9' island)
Parking Island (size of 2 parking spaces)

PARKING LOT SCREENING SHRUBS

Parking screening - 36" HT

FOUNDATION PLANTING

Min. 5' width at building front and sides - Provided required foundation planting with a combination of groundcover, shrubs and ornamental trees

Required
4 trees or 12"

Provided
42" existing

4 trees or 12"

19" (16" existing + 3" new)

4 trees or 12"

64" existing

Required
2 ea

Provided
3 ea

2 ea

2 ea

Required
13 ea

Provided
13 ea

Landscape Legend

LARGE TREES

Live Oak
Quercus virginiana

Cedar Elm
Ulmis crassifolia

Red Oak
Quercus shumardii

UNDERSTORY TREES

Chaste Tree

Vitex agnus-castus

Desert Willow

Chilopsis linearis

SHRUBS

Dwarf Yaupon Holly

Ilex vomitoria 'Nana'

Dwarf Spirea 'Little Bonnie'

Spiraea bumalda 'Little Bonnie'

GRASSES & GROUNDCOVERS

Dwarf Fountain Grass 'Hamel'

Pennisetum alopecuroides 'Hamel'

Big Blue Liriope

Liriope muscari 'Big Blue'

TURF

Bermudagrass

Cynodon dactylon



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- △ City Comments 12/5/18

LANDSCAPE
PLAN

SHEET

LS.02

Landscape Plan

PLAN

0 20' 40' 80'
1" = 20'-0"

Landscape Installation Notes

INSPECTION

- 1. THE LANDSCAPE INSTALLATION SHALL COMPLY WITH APPROVED LANDSCAPE PLANS/DRAWINGS PRIOR TO FINAL ACCEPTANCE BY THE CITY AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY. CONTACT APPROPRIATE CITY SERVICE DEPARTMENTS FOR LANDSCAPE INSPECTIONS AS REQUIRED.
- 2. WATER METERS, CLEANOUTS AND OTHER APPURTENANCES, SHALL BE ACCESSIBLE, ADJUSTED TO GRADE, CLEARLY MARKED WITH FLAGGING AND COMPLIANT WITH APPROPRIATE CITY DESIGN STANDARDS PRIOR TO CALLING FOR FINAL LANDSCAPE AND R.O.W. INSPECTIONS.

EXCAVATION

- 1. NO EXCAVATION SHALL OCCUR IN CITY R.O.W. WITHOUT NTACTING THE APPROPRIATE CITY SERVICE DEPARTMENT.
- 2. THE CONTRACTOR SHALL MARK ALL UNDERGROUND UTILITIES (I.E., WATER LINES, SEWER LINES, GAS LINES, ETC.) AND TREE LOCATIONS PRIOR TO EXCAVATION. REFERENCE CITY PLANS FOR PROPOSED UNDERGROUND UTILITY LOCATIONS.

SOIL

- 1. NATIVE SITE TOPSOIL IS TO BE PROTECTED FROM EROSION AND/OR STOCKPILED AS NEEDED.
- 2. NATIVE SITE TOPSOIL SHALL BE LABORATORY TESTED BY AN ACCREDITED LABORATORY & AMPENDED PER SAID LABORATORY'S RECOMMENDATIONS.
- 3. IMPORTED TOPSOIL (TYPICALLY KNOWN AS BOTTOM LANECL) SHALL BE NATURAL, FRIABLE SOIL NATIVE TO THE REGION FREE FROM LUMPS, CLAY, TOXIC SUBSTANCES, ROOTS, DEIS, VEGETATION, STONES, ETC. IT SHALL CONTAIN NO SALT, AND BE OF A BLACK TO BROWN COLOR.

IRRIGATION

- 1. ANY CHANGES TO THE APPROVED IRRIGATION PLANS/DRINGS SHALL REQUIRE AUTHORIZATION BY THE CITY.
- 2. CONTACT THE APPROPRIATE CITY SERVICE DEPARTMENT R AN IRRIGATION PERMIT PRIOR TO INSTALLING THE IRRIGATION SYSTEM.
- 3. IRRIGATION VALVES, BACKFLOW PREVENTION ASSEMBLIES, QUICK COUPLERS ETC. SHALL NOT BE LOCATED CLOSER THAN TEN (10) FEET FROM THE BACK OF CURB AT STREET OR DRIVE INTERSECTIONS.
- 4. IRRIGATION VALVES SHALL BE LOCATED A MINIMUM OF FE (5) FEET AWAY FROM STORM SEWERS, SANITARY SEWER LINES, CITY FIRE HYDRANTS, AND WATER VALVES.
- 5. IRRIGATION MAINLINES, VALVES, AND/OR ELECTRICAL WES SHALL NOT BE LOCATED IN THE CITY'S R.O.W.
- 6. A MINIMUM FIVE (5) FEET OF SEPARATION IS REQUIRED BETWEEN IRRIGATION MAIN LINES AND LATERALS THAT RUN PARALLEL TO PUBLIC WATER AND/OR SANITARY SEWER LINES.
- 7. IRRIGATION HEADS THAT RUN PARALLEL AND/OR NEAR P.U.C WATER AND/OR SANITARY SEWER LINES, SHALL BE FED FROM STUBBED LATERALS OR BULL HEADS.
- 8. THE BORE DEPTH FOR IRRIGATION SLEEVING UNDER STRTS, DRIVE AISLES, FIRE LANES SHALL PROVIDE (2') OF CLEARANCE (MINIMUM).
- 9. IRRIGATION OVERSPRAY ON STREETS AND WALKS IS PROHIBITED.
- 10. ELECTRONIC TIMED IRRIGATION CONTROLLERS SHALL BE PROGRAMMED AND ADJUSTED TO NOT EXCEED THE LANDSCAPE WATER ALLOWANCE (LWA) PRIOR TO APPROVAL OF LANDSAVE INSTALLATION.

PLANTING STANDARDS

- 1. ALL PLANTINGS (TREES, SHRUBS, TURF, ETC.) SHALL COME WITH THE CITY'S LANDSCAPE REGULATIONS AND REQUIREMENTS. (DESIGN STANDARDS, VISIBILITY REQUIREMENTS, ETC.)
- 2. THE AMERICAN STANDARD FOR NURSERY STOCK SPECIFICATIONS (ANSI Z60.1-2004 OR LATEST VERSION) SHALL GOVERN ALL PLANT (TREES, SHRUBS, TURF, ETC.) SELECTION QUANTICATIONS, GRADES, AND STANDARDS.
- 3. TYPICAL PLANTING SHALL COMPLY WITH PLANTING DETAIL AS SHOWN WITHIN THE LANDSCAPE PLANS. (ANSI A300) THE CITY HAS FINAL APPROVAL FOR ALL PLANTING SPECIFICATIONS.
- 4. UNLESS SPECIFIED/SHOWN OTHERWISE, TREES SHALL BEANTED A MINIMUM OF FIVE (5) FEET FROM CURBS, SIDEWALKS, UTILITY LINES, SCREENING WALLS AND OTHER STRUCTUR. THE CITY HAS FINAL APPROVAL ON ALL TREE PLACEMENTS.
- 5. TREES, WHERE REQUIRED, SHALL BE PLANTED A MINIMUM TEN (10) FEET FROM THE EDGE OF ANY STORM SEWER INLET.
- 6. TREES, WHERE REQUIRED, SHALL BE PLANTED A MINIMUM FIVE (5) FEET FROM WATER METERS.
- 7. A MINIMUM FIVE (5) FOOT RADIUS AROUND FIRE HYDRAS SHALL REMAIN CLEAR OF ALL VERTICAL PLANTINGS. (I.E.; TREES, SHRUBS)
- 8. TREE PITS SHALL BE TESTED FOR WATER PERCOLATION. IF WATER DOES NOT DRAIN OUT OF TREE PIT WITHIN 24 HOURS, THE TREE SHALL BE MOVED OR DRAINAGE SHALL BE PROVIDED.
- 9. TREE STAKING MATERIALS, IF USED, SHALL BE REMOVED TER ONE (1) GROWING SEASON, AND SHALL REMAIN NO LONGER THAN ONE (1) YEAR AFTER INSTALLATION (STEEBEE STAKES, WIRES, AND HOSES ARE PROHIBITED).
- 10. FINISH GRADE IS TO BE APPROVED BY THE OWNER/OWNS REPRESENTATIVE PRIOR TO TURF INSTALLATION.
- 11. CONTRACTOR SHALL PROVIDE TWO (2") INCHES OF IMPROD TOPSOIL ON ALL AREAS TO RECEIVE TURF. CONTRACTOR TO COORDINATE OPERATIONS WITH ON-SITE CONSTRUCTION MANAGER.
- 12. ALL AREAS TO RECEIVE TURF SHALL BE LEFT AT A MAXIM OF ONE (1") INCH BELOW FINAL FINISH GRADE, AND ARE TO BE AERATED AND FINE GRADED. ALL TRENCHES ARE TO BE COMPLETELY SETTLED AND COVERED APPROPRIATELY.
- 13. FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICAD BY THE GRADING PLAN. IF NEEDED, ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE (2% MINIMUM SLOPE) AWAYFROM BUILT STRUCTURES. PROVIDE UNIFORM CURVATURE AT THE TOP AND BOTTOM OF SLOPES AND OTHER GRADE BREAKS. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.

MAINTENANCE

- 1. THE OWNER/OWNER'S REPRESENTATIVE SHALL BE RESPOIBLE FOR THE ESTABLISHMENT, MAINTENANCE, AND VISOR OF PLANT MATERIAL IN ACCORDANCE WITH THE DESIGN INTIT AND AS APPROPRIATE FOR THE SEASON OF THE YEAR.
- 2. AT ALL TIMES, OPEN AND LANDSCAPED AREAS SHALL BE KPT FREE OF TRASH, LITTER, AND WEEDS.
- 3. NO PLANT MATERIAL SHALL BE ALLOWED TO ENCRDACH I R.O.W., SIDEWALKS, OR EASEMENTS TO THE EXTENT THAT VISION OR ROUTE OF TRAVEL FOR VEHICULAR, PEDESTRIAN, OR BICYCLE TRAFFIC IS IMPEDED.
- 4. TREE MAINTENANCE SHALL BE IN ACCORDANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE A300 STANDARDS (ANSI A300).

GENERAL LANDSCAPE PLAN NOTES

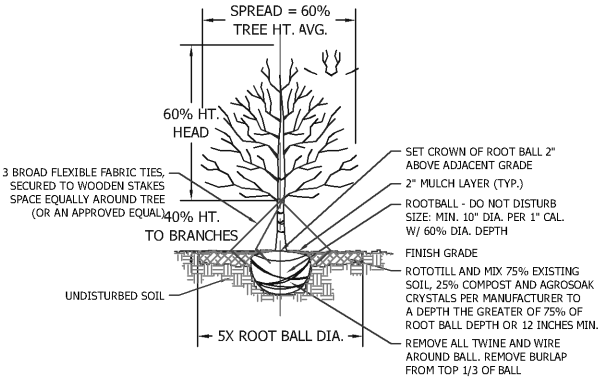
- 1. THIS PLAN MEETS OR EXCEEDS THE APPROVED LANDSCAPE REQUIREMENTS AS DETAILED IN THE LEASEHOLD DEVELOPMENT CRITERIA FOR PASSPORT BUSINESS PARK (EAST SIDE INDUSTRIAL AREA)
- 2. THIS PLAN IS DIAGRAMMATIC. THE CONTRACTOR IS TO VERIFY ALL PLANT QUANTITIES AND LOCATIONS PRIOR TO INSTALLATION.

GENERAL LANDSCAPE INSTALLATION NOTES

- 1. CONTRACTOR INSTALLING LANDSCAPE SHALL VERIFY ALL EXISTING AND PROPOSED SITE CONDITIONS AND NOTIFY THE OWNER/OWNER'S REPRESENTATIVE (REP.) OF ANY DISCHANCIES. (NOTE: SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.)
- 2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUED LANDSCAPE AND IRRIGATION PERMITS.
- 3. CONTRACTOR SHALL LOCATE ALL EXISTING/PROPOSED UERGROUND UTILITIES AND NOTIFY OWNER/OWNER'S REP., OF ANY CONFLICTS WITH LANDSCAPE INSTALLATION. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES. CALL 811 FOR A EE ASSESSMENT OF UNDERGROUND UTILITIES. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGED UTILITIES.
- 4. CONTRACTOR IS TO PROVIDE/MAINTAIN CONTOURS/GRAIS AT A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
- 5. ALL PLANTING BEDS AND TURF AREAS ARE TO BE SEPARAD BY STEEL EDGING (XND). NO STEEL TO BE INSTALLED ADJACENT TO SIDEWALKS OR CURB. REFERENCE PLANTING DETAILS FOR STEEL EDGING INSTALLATION.
- 6. CONTRACTOR SHALL ENSURE THAT ALL PROPOSED LANDSAVE AREAS ARE 100% IRRIGATED WITH AND UNDERGROUND AUTOMATIC IRRIGATION SYSTEM. REFERENCE IRRIGATION PLANS FOR DETAILS FOR IRRIGATION SYSTEM INSTALLATION.
- 7. ALL TURF AREAS TO BE BERMUDA GRASS, UNLESS OTHERWISE NOTED IN THESE PLANS. REFERENCE PLANTING LIST/SCHEDULE FOR TURF SELECTION.

GENERAL LANDSCAPE MAINTENANCE NOTES

- 1. CONTRACTOR SHALL PROVIDE A SEPARATE BID PROPOSAL FOR ONE (1) YEAR OF MAINTENANCE OF INSTALLED LANDSCAPE TO BEGIN AFTER FINAL ACCEPTANCE FROM CITY.
- 2. THE OWNER, TENANT(S), AND THEIR AGENT, IF ANY, SHV BE JOINTLY AND INDIVIDUALLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPED AREAS.
- 3. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTH AND GROWING CONDITION AS IS APPROPRIATE FOR THE SEASON OF THE YEAR.
- 4. ALL LANDSCAPED AREAS SHALL BE MAINTAINED IN A NEAT AND ORDERLY MANNER AT ALL TIMES. THIS SHALL INCLUDE MOWING, EDGING, PRUNING, FERTILIZING, WATERING, VEDING, AND OTHER SUCH ACTIVITIES AS IS COMMON TO LANDSCAPE MAINTENANCE.
- 5. ALL PLANT MATERIAL WHICH DIES SHALL BE REPLACED WITH PLANT MATERIAL OF EQUAL OR BETTER VALUE.
- 6. ALL LANDSCAPE AREAS SHALL BE KEPT FREE OF TRASH, UTER, WEEDS, AND OTHER SUCH MATERIAL OR NOT A PART OF THIS PLAN.



TREE PLANTING NOTES

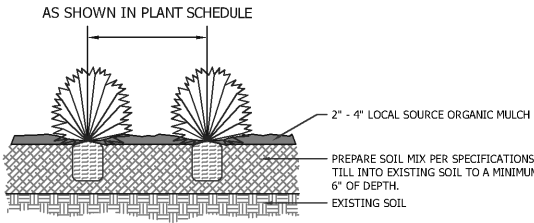
(2 1/2" CAL. OR LARGER)
USE 3 BROAD FLEXIBLE FABRIC "GLY WIRE", SECURED TO WOODEN STAKES SPACED EQUALLY AROUND TREE (OR AN APPROVED EQUAL)
CHECK PERCOLATION RATE. INSTALL TREE SUMP IF RATE IS UNACCEPTABLE FOR GUARANTEE.
WRAP RED OAK, LIVE OAK & CADD OAK TREE TRUNKS W/ BURLAP, STARTING AT BASE OF TRUNK EXTENDING UP TO BOTTOM BRANCHING.
TYPICAL "TREE PLANTING PIT" BED PREPARATION
MINIMUMS: USE THE GREATER OF CALIPER OR BALL DIAMETER & 80 BALLS
REQUIRE 10:1 BALL TO CALIPER RATIO MINIMUM CONTAINER BALLS MAY BE SMALLER, SO USE CALIPER SIZE

S Tree Size Caliper Inch	B-Sx10 Min. Root Ball Dia.	BD-Bx 60% Min. Root Ball Depth	PD-Bx 5 Tree Pit Diameter	CD-TDx25% Compost Min. Depth	TD-BDx75% Tree Pit Tilling Depth
S = 3"	B = 30"	BD = 18"	PD = 150"	CD = 3.75"	TD = 13.5"
S = 6"	B = 60"	BD = 36"	PD = 300"	CD = 6.75"	TD = 27"

1 Tree Planting and Staking

ELEVATION/SECTION

NOT TO SCALE



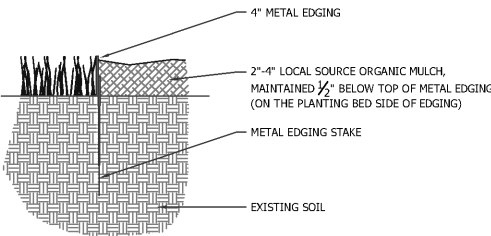
SHRUB PLANTING NOTES

- 1. REMOVE CONTAINER.
- 2. REMOVE ANY SOIL THAT HAS BEEN ADDED TO THE TOP OF ROOT BALLS. EXPOSE THE ACTUAL TOP OF THE ROOT BALL.
- 3. TOP OF ROOT BALL SHOULD BE 1" HIGHER THAN EXISTING GRADE.
- 4. ADD 2"-4" OF NATIVE ORGANIC MULCH OVER ROOT BALL.
- 5. DO NOT PILE MULCH AROUND TRUNKS.

2 Shrub Planting

ELEVATION/SECTION

NOT TO SCALE



3 Metal Edging

SECTION

NOT TO SCALE

Plant List and Schedule

LARGE TREES

SYMBOL	PLANT NAME	QUANTITY	SIZE	CONDITION / REMARKS
	Live Oak <i>Quercus virginiana</i>	6	3" CAL. / 14'-16' HT. / 10'-12' SPREAD	single trunk clear to 6'; b & b; matching growth
	Red Oak <i>Quercus shumardii</i>	6	3" CAL. / 14'-16' HT. / 10'-12' SPREAD	single trunk clear to 6'; b & b; matching growth
	Cedar Elm <i>Ulmus crassifolia</i>	3	3" CAL. / 14'-16' HT. / 10'-12' SPREAD	single trunk clear to 6'; b & b; matching growth

NOTE: ALL TREES TO HAVE STRAIGHT TRUNKS AND BE MATCHING WITHIN VARIETIES.

UNDERSTORY TREES

SYMBOL	PLANT NAME	QUANTITY	SIZE	CONDITION / REMARKS
	Chaste Tree <i>Viburnum cinnamomum</i>	4	15 Gal. / 6' FT. / 4' SPREAD	container grown; matching growth
	Desert Willow <i>Chorizanthe linearis</i>	5	15 Gal. / 6' FT. / 4' SPREAD	container grown; matching growth

NOTE: ALL TREES TO HAVE STRAIGHT TRUNKS AND BE MATCHING WITHIN VARIETIES.

SHRUBS

SYMBOL	PLANT NAME	QUANTITY	SIZE	CONDITION / REMARKS
	Dwarf Yaupon Holly <i>Ilex vacillans 'Nana'</i>	35	7 GAL. / 24" HT. / 24" SPREAD	container grown; full growth; 30" o.c.
	Dwarf Spirea 'Little Bonnie' <i>Spiraea douglasii 'Little Bonnie'</i>	34	7 GAL. / 24" HT. / 24" SPREAD	container grown; full growth; 30" o.c.

NOTE: ALL SHRUBS TO BE MATCHING WITHIN VARIETIES.

GRASSES, GROUNDCOVERS & VINES

SYMBOL	PLANT NAME	QUANTITY	SIZE	CONDITION / REMARKS
	Dwarf Fountain Grass 'Hemlock' <i>Pennisetum alpinum 'Hemlock'</i>	52	3 GAL. / 18" HT. / 18" SPREAD	container grown; full growth; 30" o.c.
	Big Blue Liriodendron <i>Liriodendron muscari 'Big Blue'</i>	1,204	1 GAL. / 10" HT. / 6" SPREAD	full growth; 12" o.c.

TURF

SYMBOL	PLANT NAME	QUANTITY	SIZE	CONDITION / REMARKS
	Bermudagrass <i>Cynodon dactylon</i>	13,450 SF	SOLID SOD/HYDROMULCH	contractor to field verify quantity of sod / hydromulch required

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1130 N. Carroll Ave., Ste. 200
Southlake, Texas 76092
TEL 817-424-2626

Master Planning
Urban Design
Architecture
Landscape Architecture

9/17/18

Applicant / Developer

TX Office Suites
420 Johnson Road
Keller, Texas 76248
817-223-9907
Attn: Bill Dodge

PECAN PARK
TOWN OF KELLER, TEXAS

Issued
JUNE 15, 2018

Revisions
Building relocation 11/26/18
Building relocation 11/26/18
City Comments 11/30/18
City Comments 12/5/18

LANDSCAPE
DETAILS &
NOTES

SHEET
LS.03

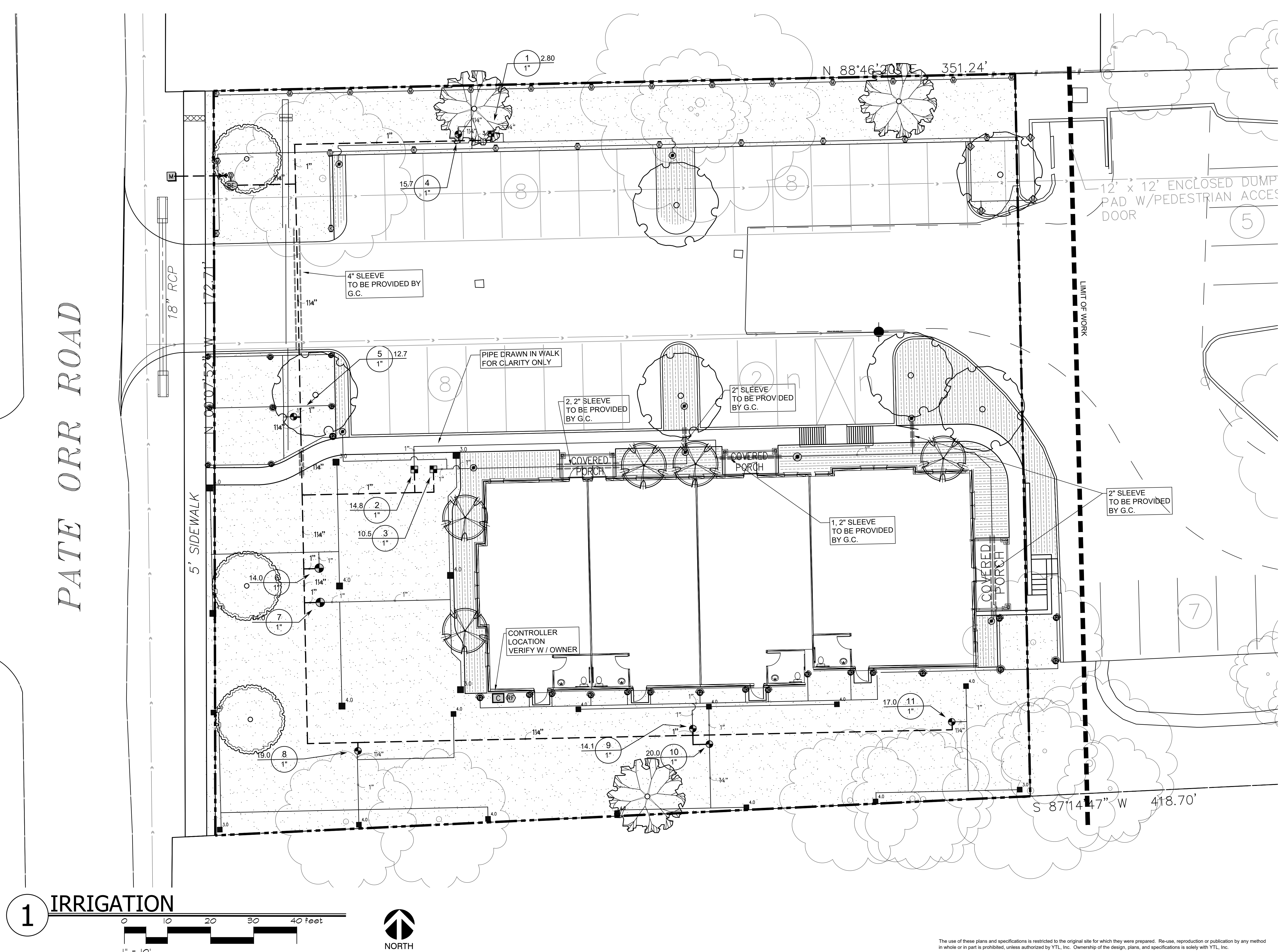
PECAN PARK
TOWN OF KELLER, TEXAS

Issued
JUNE 15, 2018

Revisions
REV. 11-26-18
REV. 12-05-18


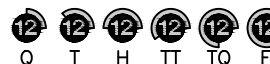
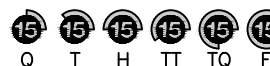








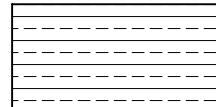








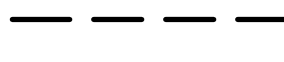

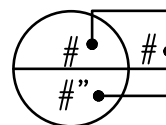
IRRIGATION

SHEET
IR-1



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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	
	HUNTER PROS-06-FRS30 10' RADIUS TURF SPRAY, 30 PSI REGULATED 6.0" POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	10	30	
	HUNTER PROS-06-FRS30 12' RADIUS TURF SPRAY, 30 PSI REGULATED 6.0" POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	9	30	
	HUNTER PROS-06-FRS30 15' RADIUS TURF SPRAY, 30 PSI REGULATED 6.0" POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	6	30	
	HUNTER PROS-06-FRS30 ADJ TURF SPRAY, 30 PSI REGULATED 6.0" POP-UP. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	1	30	
	HUNTER MP1000 PROS-06-FRS40-CV TURF ROTATOR, 6" (15.24 CM) POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR). MP ROTATOR NOZZLE ON FRS40 BODY. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.	14	40	
	HUNTER MP2000 PROS-06-FRS40-CV TURF ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR). MP ROTATOR NOZZLE ON FRS40 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	12	40	
	HUNTER MP815 PROS-06-FRS40-CV TURF ROTATOR, 6" (15.24 CM) POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR). MP ROTATOR NOZZLE ON FRS40 BODY. M=MAROON AND GRAY ADJ ARC 90 TO 210, L=LIGHT BLUE AND GRAY 210 TO 270 ARC, O=OLIVE AND GRAY 360 ARC.	4	40	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM
	HUNTER P6P-04 TURF ROTOR, 4.0" POP-UP. ADJUSTABLE TO FULL CIRCLE.	6	45	3.00
	HUNTER P6P-04 TURF ROTOR, 4.0" POP-UP. ADJUSTABLE TO FULL CIRCLE.	15	45	4.00
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY		
	HUNTER ICZ-101-25 DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 25PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN.	3		
	PIPE TRANSITION POINT	9		
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-09-12 XFS SUB-SURFACE PRESSURE COMPENSATING DRIPLINE W/COPPER SHIELD TECHNOLOGY. 0.9 GPH EMITTERS AT 12" O.C. LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV RESISTANT. SPECIFY XF INSERT FITTINGS.	1,871 L.F.		
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY		
	HUNTER ICV-6 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.	8		
	MATCO-NORCA 1105 PVC WHITE BALL VALVE FOR SCH 40 AND SCH 80 PIPE, SOLVENT SLIP ENDS WITH "T" HANDLE, SAME SIZE AS MAINLINE. 1/2" TO 4".	1		
	WYE STRAINER	1		
	FEBCO 850 1" DOUBLE CHECK BACKFLOW PREVENTION, 1/2" TO 2"	1		
	HUNTER PC-400 WITH (02) PCM-300 LIGHT COMMERCIAL & RESIDENTIAL CONTROLLER, 10-STATION EXPANDED MODULE CONTROLLER, 120 VAC, OUTDOOR MODEL	1		
	HUNTER RFC RAIN AND FREEZE SENSOR, WITH CONDUIT INSTALLATION, MOUNT AS NOTED. NORMALLY CLOSED SWITCH.	1		
	WATER METER 1"	1		
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	1,712 L.F.		
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	429.9 L.F.		
	PIPE SLEEVE: PVC CLASS 200 SDR 21 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	91.1 L.F.		
	Valve Callout # = Valve Number # = Valve Flow # = Valve Size			

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ FOC	PRECIP
1	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	2.80	30.14	35.46	1.44 in/h
2	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	14.77	46.15	56.23	1.44 in/h
3	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	10.50	36.48	45.13	1.44 in/h
4	HUNTER ICV-6	1"	TURF ROTARY	15.69	44.55		0.35 in/h
5	HUNTER ICV-6	1"	TURF SPRAY	12.73	33.27	41.80	1.55 in/h
6	HUNTER ICV-6	1"	TURF ROTOR	14.00	48.83	58.02	0.82 in/h
7	HUNTER ICV-6	1"	TURF ROTOR	14.00	48.78	58.04	1.08 in/h
8	HUNTER ICV-6	1"	TURF ROTOR	19.00	49.38	61.18	1.01 in/h
9	HUNTER ICV-6	1"	TURF SPRAY	14.12	35.29	45.54	0.82 in/h
10	HUNTER ICV-6	1"	TURF ROTOR	20.00	48.65	62.31	0.94 in/h
11	HUNTER ICV-6	1"	TURF ROTOR	17.00	48.64	61.16	1.20 in/h

CRITICAL ANALYSIS

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P.O.C. NUMBER: 01
Water Source Information:

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available: 34.20 gpm

PRESSURE AVAILABLE
Static Pressure at POC: 70.00 psi
Elevation Change: 5.00 ft
Service Line Size: 1 1/4"
Length of Service Line: 20.00 ft
Pressure Available: 67.00 psi

DESIGN ANALYSIS
Maximum Station Flow: 20.00 gpm
Flow Available at POC: 34.20 gpm
Residual Flow Available: 14.20 gpm

Critical Station:
Design Pressure: 10
Friction Loss: 45.00 psi
Fittings Loss: 0.34 psi
Elevation Loss: 0.06 psi
Loss through Valve: 0.00 psi
Pressure Req. at Critical Station: 48.65 psi
Loss for Fittings: 0.34 psi
Loss for Main Line: 3.87 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 7.20 psi
Loss for Water Meter: 2.20 psi
Critical Station Pressure at POC: 62.31 psi
Pressure Available: 67.00 psi
Residual Pressure Available: 4.69 psi

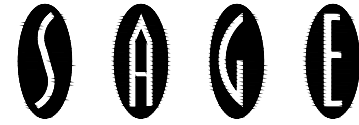
IRRIGATION GENERAL NOTES:

CONTRACTOR WILL VERIFY A MINIMUM STATIC PRESSURE OF ___TO___ AT A POINT AFTER WATER METER LOCATION. IF MINIMUM PRESSURE IS LESS THAN ___TO___, CONTRACTOR SHALL NOTIFY THE OWNER AND SHALL NOT PROCEED WITHOUT APPROVAL FROM OWNER.

CONTRACTOR SHALL AVOID TRENCHING UNDER DRIP LINE OF ALL EXISTING TREES.

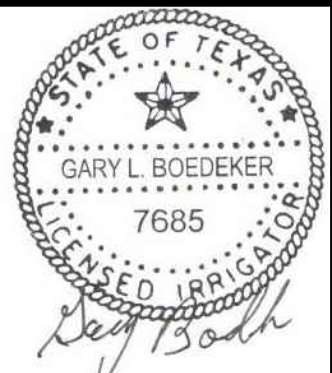
CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES BY CALLING TEXAS 811, PRIOR TO ANY WORK TO BE COMPLETED.

CONTRACTOR IS RESPONSIBLE FOR UNDERSTANDING AND FOLLOWING THESE IRRIGATION SPECIFICATIONS, AND FOLLOWING THE RECOMMENDATIONS OF THE IRRIGATION MANUFACTURE TO INSURE PROPER INSTALLATION.



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TEL 817-424-2626

Master Planning
Urban Design
Architecture
Landscape Architecture



Applicant / Developer

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Attn: Bill Dodge

PECAN PARK
TOWN OF KELLER, TEXAS

Issued
JUNE 15, 2018

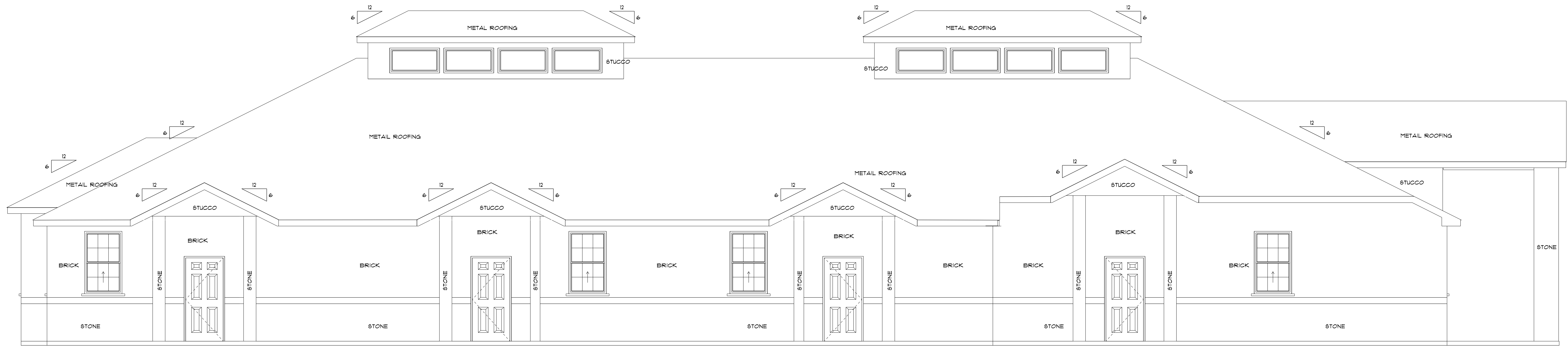
Revisions

IRRIGATION

SHEET

IR-2

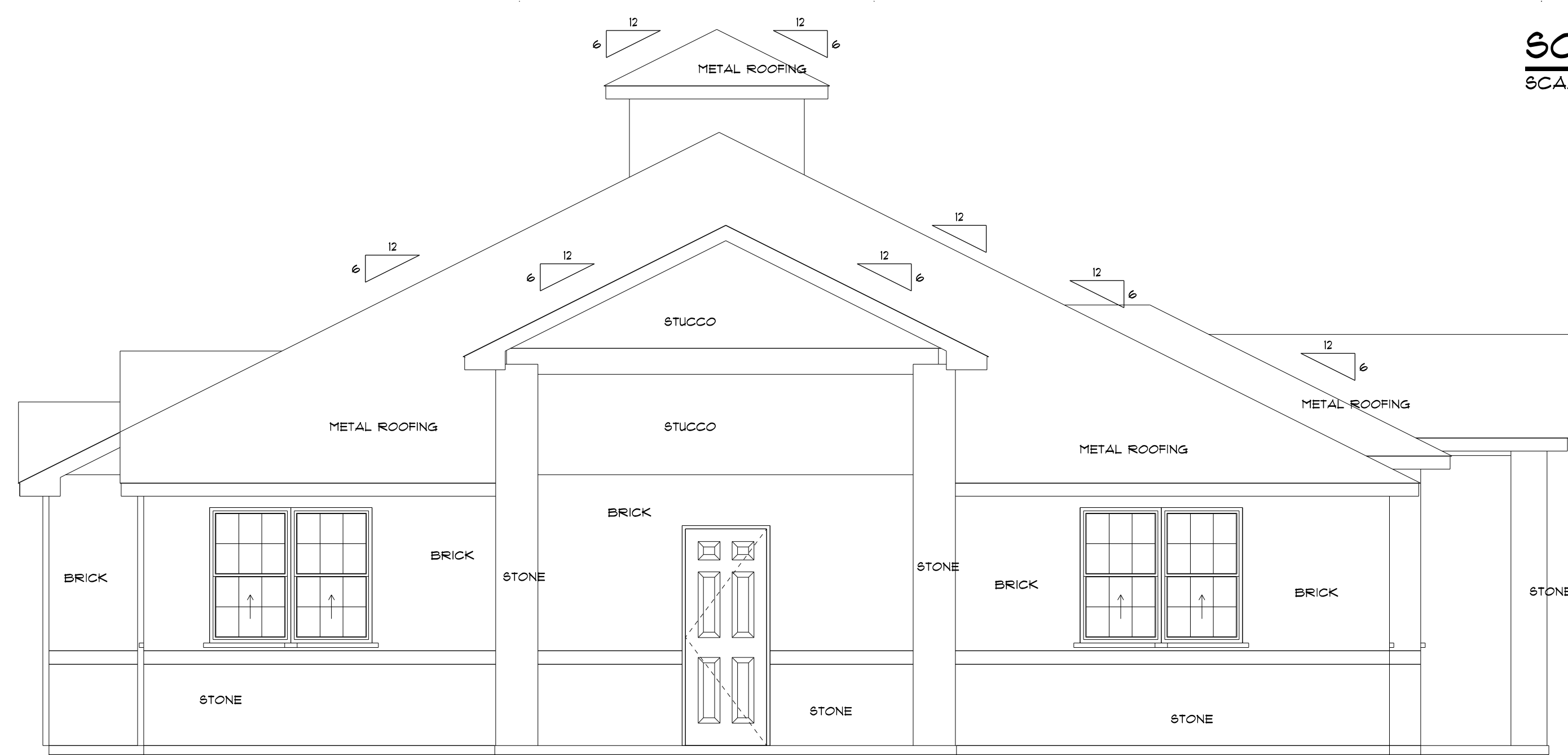




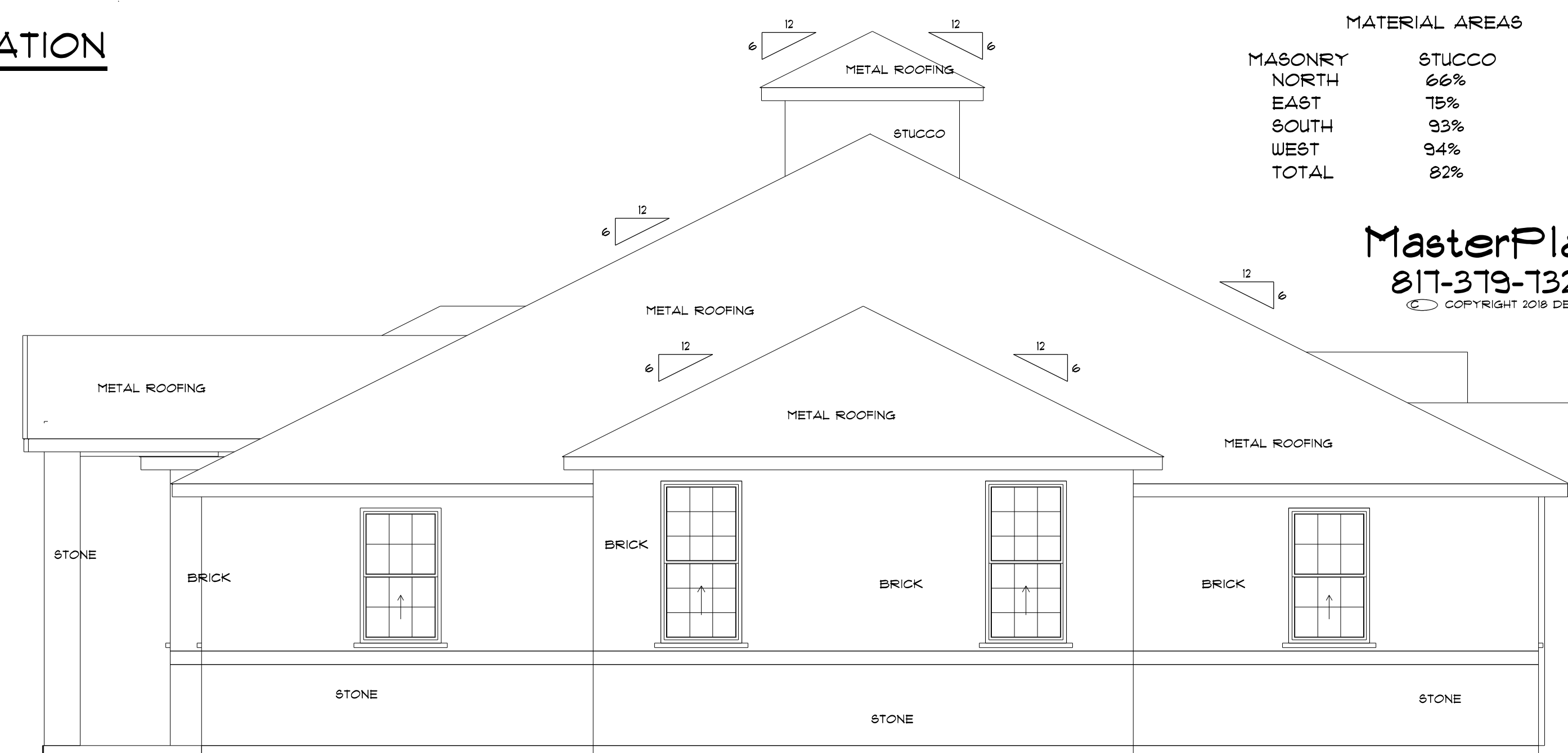
SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

MATERIAL AREAS		
MASONRY	STUCCO	
NORTH	66%	34%
EAST	75%	25%
SOUTH	93%	7%
WEST	94%	6%
TOTAL	82%	18%

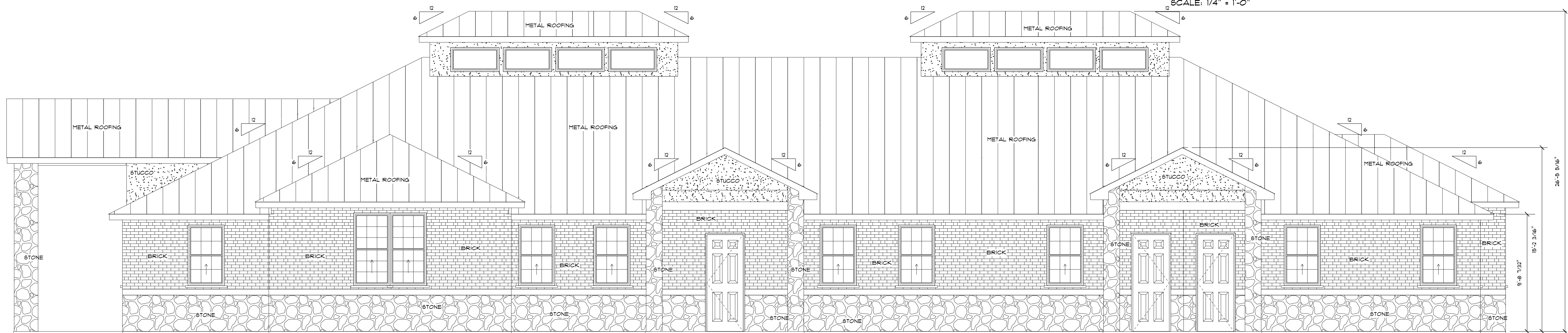
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EAST ELEVATION
SCALE: 1/4" = 1'-0"



WEST ELEVATION
SCALE: 1/4" = 1'-0"



NORTH ELEVATION
SCALE: 1/4" = 1'-0"

