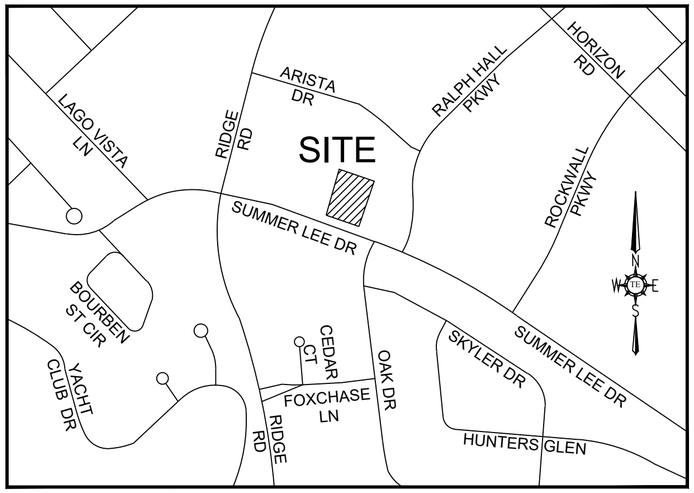
SITE DEVELOPMENT PLANS
FOR
MEDICAL OFFICE

1310 SUMMER LEE DRIVE
CITY OF ROCKWALL

PROJECT CONTACT LIST:	
OWNER/DEVELOPER 1306 SUMMER LEE LLC 1020 W RALPH PKWY,#101 ROCKWALL, TX 75032 CONTACT:MICHAEL FISHER TEL: (972) 771-4000	SURVEYOR A & W SURVEYORS, INC. P.O. BOX 870029 MESQUITE, TX 75187 CONTACT:JOHN TURNER, R.P.L.S. TEL: (972) 681-4975
ENGINEER TRIANGLE ENGINEERING LLC (TBPE FIRM # 11525) 1784 W. McDERMOTT DRIVE, SUITE 110 ALLEN, TEXAS 75013 CONTACT: KARTAVYA PATEL TEL: (214) 609-9271	ARCHITECT THE STENSLAND GROUP 5151 BENT TREE FOREST DR,SUITE 560 DALLAS, TEXAS 75248 CONTACT:ROBERT STENSLAND TEL: (214) 680-1287

REVISION BLOCK		
NO.	DATE	DESCRIPTION
1	12/13/2019	AS-BUILT RECORD DRAWINGS



VICINITY MAP
N.T.S

TX PE FIRM#11525
TRIANGLE ENGINEERING LLC
T: 214.609.9271 I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED
PROFESSIONAL ENGINEER
12/13/2019

RECORD DRAWINGS

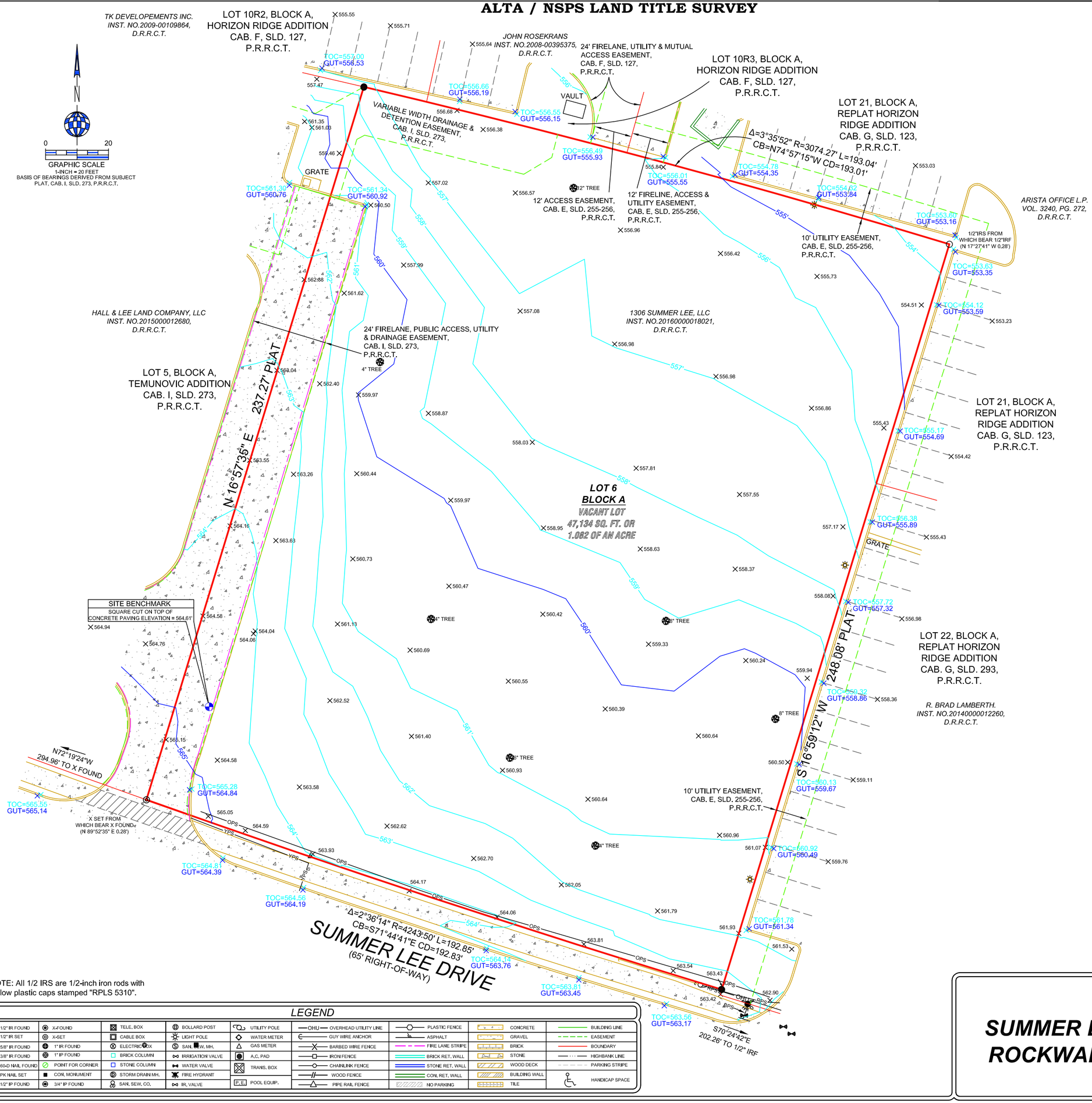
SHEET INDEX	
SHEET NO.	DESCRIPTION
CS	COVER SHEET
S	SURVEY
P	FINAL PLAT
DM	DEMOLITION PLAN
SP	SITE PLAN
4	DIMENSION CONTROL PLAN
5	GRADING PLAN
6	DRAINAGE PLAN
6.1	STORM SEWER PLAN & PROFILE
6.2	DRAINAGE CALCULATIONS
6.3	PROPOSED DETENTION
6.4	DETENTION DETAILS
7	PAVING PLAN
7.1	PAVING DETAILS
8	UTILITY PLAN
8.1	SANITARY SEWER PROFILE
9	EROSION CONTROL PLAN
9.1	EROSION CONTROL DETAILS
10	ADA COMPLIANCE PLAN
SP-1	RETAINING WALL DETAIL
RW-1	RETAINING WALL NOTES & STANDARDS
RW-2	RETAINING WALL DESIGN

AS-BUILT DRAWINGS:
TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

BEING LOT 6, BLOCK A, OF
TEMUNOVIC ADDITTION
CITY OF ROCKWAL
ROCKWALL COUNTY,TEXAS

ALTA / NSPS LAND TITLE SURVEY



NOTE: All 1/2 IRS are 1/2-inch iron rods with yellow plastic caps stamped "RPLS 5310".

LEGAL DESCRIPTION

Being Lot 6, Block A, of TEMUNOVIC ADDITION, an Addition to the City of Rockwall, Rockwall County, Texas, according to the Map or Plat thereof, recorded in Cabinet I, Page 273, Plat Records, Rockwall County, Texas.

SURVEYOR'S CERTIFICATION

To: (name of insured, if known), (name of lender, if known), (name of insurer, if known), (names of others as negotiated with the client):

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 7(a), 8, 9, 11, and 13 of Table A thereof. The fieldwork was completed on *03-23-2017*.

Date of Plat or Map: 04-19-2017

PRELIMINARY SURVEY
NOT FOR RECORDING PURPOSES

JOHN S. TURNER RPLS 5310

This survey was performed exclusively for the parties in connection with the G. F. number shown hereon and is licensed for a single use. This survey remains the property of the Surveyor. Unauthorized reuse is not permitted without the expressed written permission of the Surveyor. This survey is an original work protected by United States Copyright law and international treaties. All rights reserved. Do not make illegal copies.

Please note that the use of the word "CERTIFY" or "CERTIFICATE" used hereon constitutes an expression of professional opinion regarding those facts or findings which are the subject of the certification, and does not constitute a warranty or guarantee, either expressed or implied.

FLOOD

This is to certify that no portion of the subject property shown hereon lies within the 100 Year Flood Hazard Area as shown on the Flood Insurance Rate Map, Community Panel No. 48397C 0040L, dated 09-26-2008. The property is located in Zone "X".

SCHEDULE "B" NOTES

Items corresponding to the Commitment for Title Insurance Issued _____, by_____ Title Company bearing an effective date of _____, G. F. No. _____.

The surveyor has not abstracted the record title and/or easements of the subject property. The Surveyor prepared this survey with the benefit of a title commitment described above and assumes no liability for any easements, right-of-way dedications or other title matters affecting the subject property which may have been filed in the real property records but are not disclosed in said title commitment.

ALTA NOTES

1) As shown on survey
2) As shown on survey
3) As shown on survey
4) As shown on survey
5) Elevations based on collective static work that was sent to http://geodesy.noaa.gov/OPUS/. Elevation davum is NAVD88. The contour intervals are 1 foot
7a) As shown on survey
8) As shown on survey
9) There are no parking spaces located on subject property
11) As shown on survey
13) As shown on survey

LEGEND

1/2" IR FOUND	X-FOUND	TELE. BOX	BOLLARD POST	UTILITY POLE	OHU — OVERHEAD UTILITY LINE	PLASTIC FENCE	CONCRETE	BUILDING LINE
1/2" IR SET	X-SET	CABLE BOX	LIGHT POLE	WATER METER	GUY WIRE ANCHOR	ASPHALT	GRAVEL	EASEMENT
5/8" IR FOUND	1" IR FOUND	ELECTRIC BOX	SAN. SEW. MH.	GAS METER	BARBED WIRE FENCE	FIRE LANE STRIPE	BRICK	BOUNDARY
3/8" IR FOUND	1" IP FOUND	BRICK COLUMN	IRRIGATION VALVE	A.C. PAD	IRON FENCE	BRICK RET. WALL	STONE	HIGHBANK LINE
60-D NAIL FOUND	POINT FOR CORNER	STONE COLUMN	WATER VALVE	TRANS. BOX	CHAINLINK FENCE	STONE RET. WALL	WOOD DECK	PARKING STRIPE
PK NAIL SET	CON. MONUMENT	STORM DRAIN MH.	FIRE HYDRANT	P.E. POOL EQUIP.	WOOD FENCE	CON. RET. WALL	BUILDING WALL	HANDICAP SPACE
1/2" IP FOUND	3/4" IP FOUND	SAN. SEW. CO.	IR. VALVE		PIPE RAIL FENCE	NO PARKING	TILE	

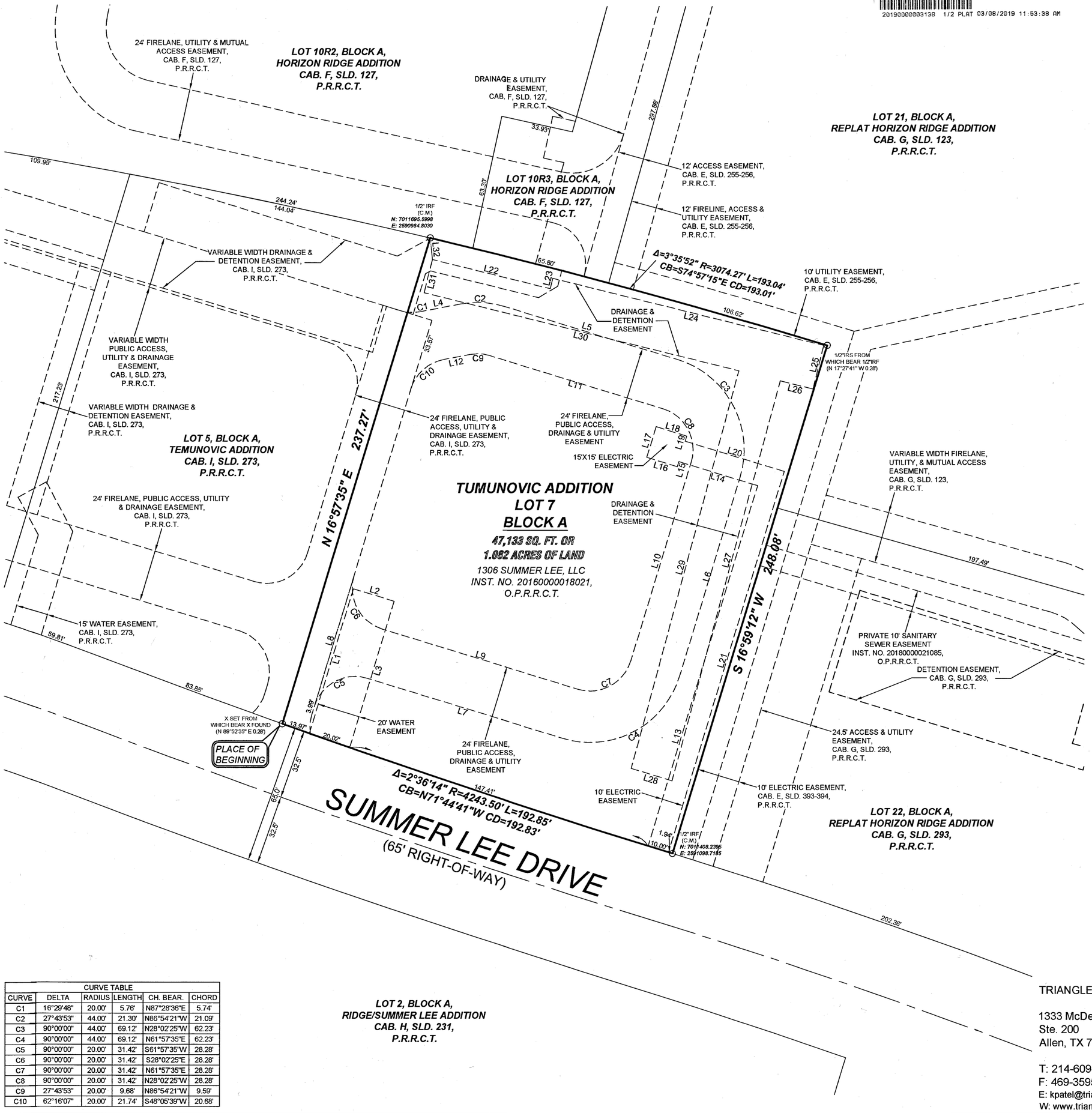
SUMMER LEE DRIVE
ROCKWALL, TEXAS

A&W SURVEYORS, INC.
Professional Land Surveyors
TEXAS REGISTRATION NO. 100174-00
P.O. BOX 870029, MESQUITE, TX. 75187
PHONE: (972) 681-4975 FAX: (972) 681-4954
WWW.AWSURVEY.COM

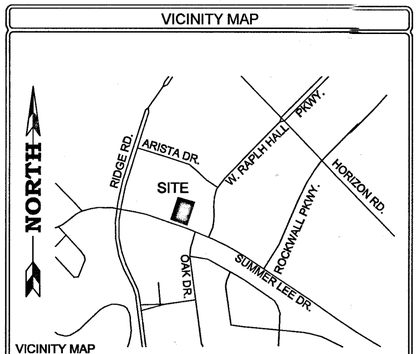
JOB# 17-0539
DATE: 03-23-2017
DRAWN BY: 517

"A professional company operating in your best interest"

20190000003138 1/2 PLAT 03/08/2019 11:53:38 AM



VICINITY MAP



VICINITY MAP
MAPSCO: 30C-K
NOT TO SCALE

GENERAL NOTES

1) Any structure new or existing may not extend across new property lines.

2) The purpose of this Replat is to define easements conditional to new development.

3) Basis of bearing determined by Texas State Plane Coordinate System, North Central Zone, North American Datum of 1983 (2011).

4) Coordinates shown are Texas State Plane Coordinate System, North Central Zone, North American Datum of 1983 on Grid Coordinate values, No Scale, No Projection

5) 16" Water lines shown are approximate location.

6) It shall be the policy of the City of Rockwall to withhold issuing building permits until all streets, water, sewer and storm drainage systems have been accepted by the City. The approval of a plat by the City does not constitute any representation, assurance or guarantee that any building within such plat shall be approved, authorized or permit therefore issued, nor shall such approval constitute any representation, assurance or guarantee by the City of the adequacy and availability for water for personal use and fire protection within such plat, as required under Ordinance 83-54.

LINE TABLE		
LINE	LENGTH	BEARING
L1	70.66'	N16°57'35"E
L2	20.00'	S73°02'25"E
L3	71.45'	S16°57'35"W
L4	19.18'	N79°13'42"E
L5	84.96'	S73°02'25"E
L6	96.90'	S16°57'35"W
L7	95.82'	N73°02'25"W
L8	64.00'	S16°57'17"W
L9	95.82'	N73°02'25"W
L10	96.90'	S16°57'35"W
L11	84.96'	S73°02'25"E
L12	12.27'	N79°13'42"E
L13	175.80'	N16°57'35"E
L15	2.50'	S16°57'35"W
L17	15.00'	N16°57'35"E
L18	15.00'	S73°02'25"E
L19	2.50'	S16°57'35"W
L20	48.63'	S73°02'25"E
L21	185.82'	S16°57'35"W
L22	57.00'	S76°10'25"E
L23	5.00'	N13°49'35"E
L24	131.00'	S76°10'25"E
L25	21.00'	S13°49'35"W
L26	15.79'	N76°10'25"W
L27	193.50'	S15°10'47"W
L28	20.01'	N73°02'25"W
L29	192.41'	N15°10'47"E
L30	152.20'	N76°10'25"W
L31	16.00'	N13°49'35"E
L32	10.07'	S05°37'20"E

CURVE TABLE					
CURVE	DELTA	RADIUS	LENGTH	CH. BEAR.	CHORD
C1	16°29'48"	20.00'	5.76'	N87°28'36"E	5.74'
C2	27°43'53"	44.00'	21.30'	N86°54'21"W	21.09'
C3	90°00'00"	44.00'	69.12'	N28°02'25"W	62.23'
C4	90°00'00"	44.00'	69.12'	N61°57'35"E	62.23'
C5	90°00'00"	20.00'	31.42'	S61°57'35"W	28.28'
C6	90°00'00"	20.00'	31.42'	S28°02'25"E	28.28'
C7	90°00'00"	20.00'	31.42'	N61°57'35"E	28.28'
C8	90°00'00"	20.00'	31.42'	N28°02'25"W	28.28'
C9	27°43'53"	20.00'	9.68'	N86°54'21"W	9.59'
C10	62°16'07"	20.00'	21.74'	S48°05'39"W	20.68'

LEGEND

D.R.R.C.T.	Deed Records, Rockwall County, Texas
P.R.R.C.T.	Plat Records, Dallas County, Texas
O.P.R.R.C.T.	Official Public Records, Rockwall County, Texas
C.M.	Controlling Monument
VOL.	Volume
PG.	Page
CAB.	Cabinet
SLD.	Slide
INST. NO.	Instrument Number
IRF	iron rod found
IRS	1/2" iron rod with a yellow plastic cap stamped "RPLS 5310" set
SQ. FT.	square feet

A&W SURVEYORS, INC.
Professional Land Surveyors
TEXAS REGISTRATION NO. 100174-00
P.O. BOX 870029, MESQUITE, TX. 75187
PHONE: (972) 681-4975 FAX: (972) 681-4954
WWW.AWSURVEY.COM

Owner: 1306 Summer Lee, LLC
~ 2344 Harvest Ridge Drive, Rockwall, Texas75032 ~

Job No: 18-0032 | Drawn by: 517 | Date: 01-08-2018 | Revised:

"A professional company operating in your best interest"

TRIANGLE ENGINEERING

1333 McDermott Drive
Ste. 200
Allen, TX 75013

T: 214-609-9271
F: 469-3595-6709
E: kpatel@triangle-engr.com
W: www.triangle-engr.com

FINAL PLAT

TEMUNOVIC ADDITION LOT 7, BLOCK A

BEING A REPLAT OF LOT 6, BLOCK A
TEMUNOVIC ADDITION
AN ADDITION TO THE CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
EDWARD TEAL SURVEY ABSTRACT NO. 207
CASE FILE NO. P2019-004

OWNER'S CERTIFICATE

WHEREAS 1306 Summer Lee, LLC is the sole owner of a tract of land located in the EDWARD TEAL SURVEY, Abstract No. 207, City of Rockwall, Rockwall County, Texas, and being Lot 6, Block A, of Temunovic Addition, an Addition to the City of Rockwall, Rockwall County, Texas, according to the plat thereof recorded in Cabinet I, Slide 237, Plat Records, Rockwall County, Texas, and being the same tract of land described in deed to 1306 Summer Lee, LLC, recorded in Instrument No. 20160000018021, Official Public Records, Rockwall County, Texas, and being more particularly described as follows:

Beginning at an "X" set in the North line of Summer Lee Drive, a 65' right-of-way, at the common Southerly corner of Lot 5, and said Lot 6, Block A, of said Temunovic Addition;

Thence North 16°57'35" East, a distance of 237.27' to a 1/2" iron rod found in the South line of Lot 10R2, Block A, of Horizon Ridge Addition, an Addition to the City of Rockwall, Rockwall County, Texas, according to the plat thereof recorded in Cabinet F, Slide 127, Plat Records, Rockwall County, Texas, said point being at the beginning of a non-tangent curve to the right, having a central angle of 03°35'52", a radius of 3074.27', and a chord bearing and distance of South 74°57'15" East, 193.01';

Thence Southeasterly, along said curve to the right, an arc distance of 193.04' to a 1/2" iron rod with a yellow plastic cap stamped "RPLS 5310" set for corner at the interior 'el' corner of Lot 21, Block A, of Replat Horizon Ridge Addition, an Addition to the City of Rockwall, Rockwall County, Texas, according to the plat thereof recorded in Cabinet G, SLide 123, Plat Records, Rockwall County, Texas, same being the Northeast corner of said Lot 6, Block A;

Thence South 16°59'12" West, a distance of 248.08' to a 1/2" iron rod found in the said North line of Summer Lee Drive, at the Southwest corner of Lot 22, Block A, of Replat Horizon Ridge Addition, an Addition to the City of Rockwall, Rockwall County, Texas, according to the plat thereof recorded in Cabinet G, SLide 293, Plat Records, Rockwall County, Texas, same being the Southeast corner of said Lot 6, Block A, and being at the beginning of a non-tangent curve to the left, having a central angle of 02°36'14", a radius of 4243.50', and a chord bearing and distance of North 71°44'41" West, 192.83';

Thence Northwesterly, along said curve to the left and said North line, an arc distance of 192.85' to the PLACE OF BEGINNING and containing 47,133 square feet or 1.082 of an acre of land.

SURVEYOR'S CERTIFICATE

THAT I, John S. Turner, do hereby certify that I prepared this amending plat from an actual survey on the land and that the corner monuments shown thereon were found and/or properly placed under my personal supervision in accordance with the Platting Rules and Regulations of the Planning and Zoning Commission of the City of Rockwall, Texas.

Witness my hand at Mesquite, Texas,
This 12th day of FEBRUARY, 2019.

John S. Turner
Registered Professional Land Surveyor #5310

STATE OF TEXAS REGISTERED JOHN S. TURNER #5310 PROFESSIONAL LAND SURVEYOR

STATE OF TEXAS
COUNTY OF DALLAS

BEFORE ME, the undersigned, a Notary Public in and for the said County and State, on this day personally appeared, John Turner, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE,
this the 12th day of Febraly, 2019.

Notary Public in and for The State of Texas

GWENDA LYNN OVERKAMP
Notary Public, State of Texas
Comm. Expires 02-29-2020
Notary ID 128901009

TRIANGLE ENGINEERING

1333 McDermott Drive
Ste. 200
Allen, TX 75013

T: 214-609-9271
F: 469-3595-6709
E: kpatel@triangle-engr.com
W: www.triangle-engr.com

OWNER'S DEDICATION

STATE OF TEXAS
COUNTY OF ROCKWALL

That, 1306 Summer Lee, LLC, the undersigned owners of the land shown on this plat, designated herein as ***LOT 7, BLOCK A, TEMUNOVIC ADDITION*** to the City of Rockwall, Texas, and whose name is subscribed hereto, hereby dedicate to the use of the public forever all streets, alleys, parks, watercourses, drains, easements and public places thereon shown on the purpose and consideration therein expressed. I (we) further certify that all other parties who have a mortgage or lien interest in the TEMUNOVIC ADDITION have been notified and signed this plat.
I (we) understand and do hereby reserve the easement strips shown on this plat for the purposes stated and for the mutual use and accommodation of all utilities desiring to use or using same. I (we) also understand the following;

1. No buildings shall be constructed or placed upon, over, or across the utility easements as described herein.
2. Any public utility shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs, or other growths or improvements which in any way endanger or interfere with construction, maintenance or efficiency of their respective system on any of these easement strips; and any public utility shall at all times have the right of ingress or egress to, from and upon the said easement strips for purpose of construction, reconstruction, inspecting, patrolling, maintaining, and either adding to or removing all or part of their respective system without the necessity of, at any time, procuring the permission of anyone.
3. The City of Rockwall will not be responsible for any claims of any nature resulting from or occasioned by the establishment of grade of streets in the subdivision.
4. The developer and subdivision engineer shall bear total responsibility for storm drain improvements.
5. The developer shall be responsible for the necessary facilities to provide drainage patterns and drainage controls such that properties within the drainage area are not adversely affected by storm drainage from the development.
6. No house dwelling unit, or other structure shall be constructed on any lot in this addition by the owner or any other person until the developer and/or owner has complied with all requirements of the Subdivision Regulations of the City of Rockwall regarding improvements with respect to the entire block on the street or streets on which property abuts, including the actual installation of streets with the required base and paving, curb and gutter, water and sewer, drainage structures, storm structures, storm sewers, and alleys, all according to the specifications of the City of Rockwall; or Until an escrow deposit, sufficient to pay for the cost of such improvements, as determined by the city's engineer and/or city administrator, computed on a private commercial rate basis, has been made with the city secretary, accompanied by an agreement signed by the developer and/or owner, authorizing the city to make such improvements at prevailing private commercial rates, or have the same made by a contractor and pay for the same out of the escrow deposit, should the developer and/or owner fail or refuse to install the required improvements within the time stated in such written agreement, but in no case shall the City be obligated to make such improvements itself. Such deposit may be used by the owner and/or developer as progress payments as the work progresses in making such improvements by making certified requisitions to the city secretary, supported by evidence of work done; or Until the developer and/or owner files a corporate surety bond with the city secretary in a sum equal to the cost of such improvements for the designated area, guaranteeing the installation thereof within the time stated in the bond, which time shall be fixed by the city council of the City of Rockwall.
7. All drainage and detention on site will be maintained, repaired, and replaced by the property owner.

I further acknowledge that the dedications and/or exaction's made herein are proportional to the impact of the Subdivision upon the public services required in order that the development will comport with the present and future growth needs of the City; I (we), my (our) successors and assigns hereby waive any claim, damage, or cause of action that I (we) may have as a result of the dedication of exactions made herein.

Name:
Title:

STATE OF TEXAS
COUNTY OF ROCKWALL

BEFORE ME, the undersigned, a Notary Public in and for the said County and State, on this day personally appeared, Michael Fisher, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE,
this the 19 day of February, 2019.

Notary Public in and for The State of Texas

KRISTY S. ROBERTS
Notary Public, State of Texas
Comm. Expires 09-25-2020
Notary ID 126671733

RECOMMENDED FOR FINAL APPROVAL

Planning and Zoning Commission — Date: 3-19-19

APPROVED

I hereby certify that the above and foregoing plat of an addition to the City of Rockwall, Texas, was approved by the City Council of the City of Rockwall on the 4 day of Feb, 20 19.

This approval shall be invalid unless the approved plat for such addition is recorded in the office of the County Clerk of Rockwall, County, Texas, within one hundred eighty (180) days from said date of final approval.
WITNESS OUR HANDS, this 19th day of February, 2019.

Mayor, City of Rockwall — City Secretary — City Engineer

CITY OF ROCKWALL, TEXAS SEAL

Filed and Recorded
Official Public Records
Shelli Miller, County Clerk
Rockwall County, Texas
03/08/2019 11:53:38 AM
$100.00
20190000003138

ROCKWALL COUNTY, TEXAS COUNTY CLERK

A&W SURVEYORS, INC.
Professional Land Surveyors
TEXAS REGISTRATION NO. 100174-00
P.O. BOX 870029, MESQUITE, TX. 75187
PHONE: (972) 681-4975 FAX: (972) 681-4954
WWW.AWSURVEY.COM

Owner: 1306 Summer Lee, LLC
~ 2344 Harvest Ridge Drive, Rockwall, Texas75032 ~

Job No: 18-0032 | Drawn by: 517 | Date: 01-08-2018 | Revised:

"A professional company operating in your best interest"

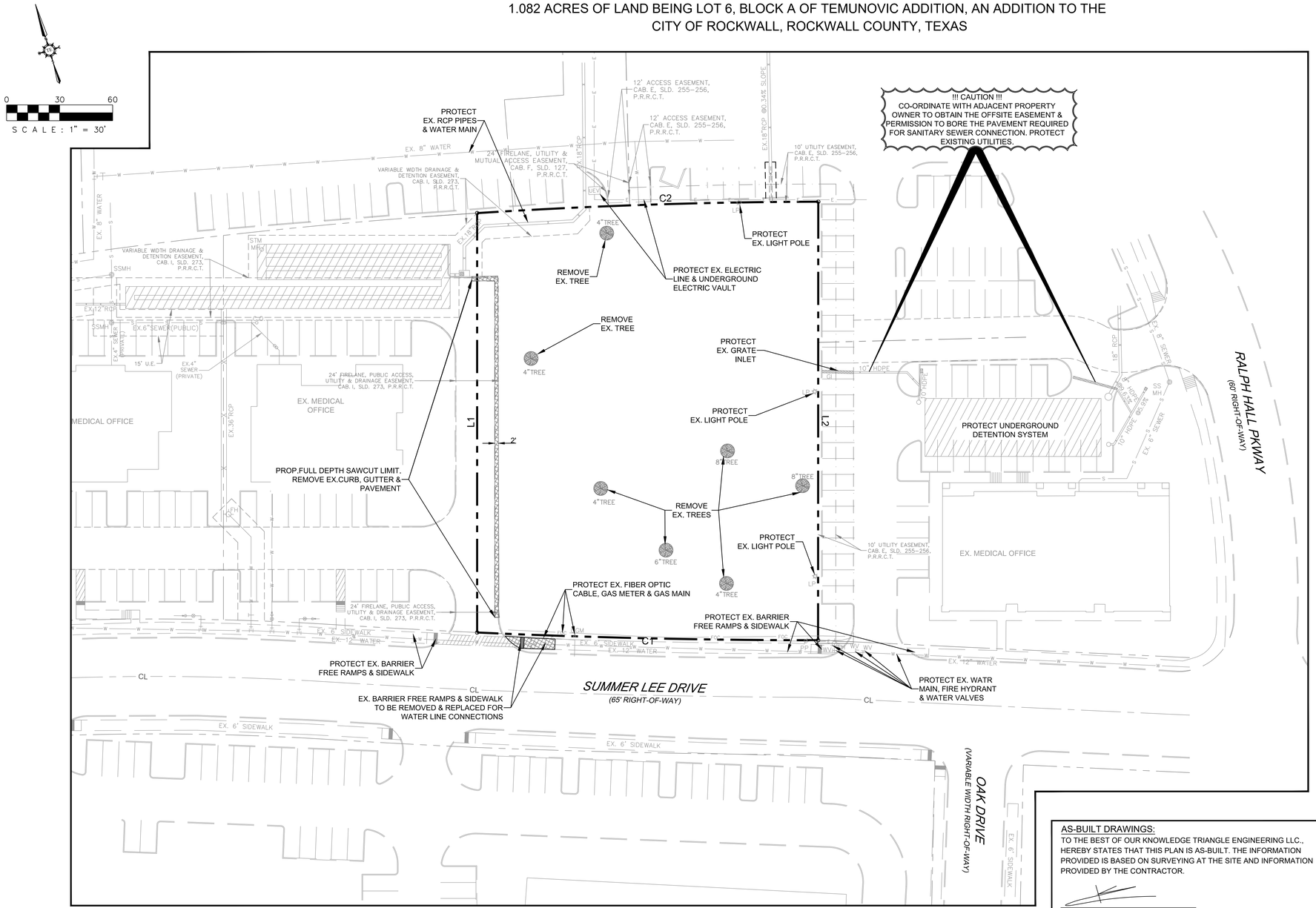
FINAL PLAT

TEMUNOVIC ADDITION LOT 7, BLOCK A

BEING A REPLAT OF LOT 6, BLOCK A
TEMUNOVIC ADDITION
AN ADDITION TO THE CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
EDWARD TEAL SURVEY ABSTRACT NO. 207
CASE FILE NO. P2019-004

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS



DEMOLITION GENERAL NOTES

CONSTRUCTION SHALL PROCEED IN THE FOLLOWING MANNER:

1. INITIAL SITE STRIPPING, DEMOLITION AND HAUL DEBRIS OFFSITE.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
3. PREPARE TEMPORARY PARKING AND STORAGE AREA.
4. CONSTRUCT THE SILT FENCES ON THE SITE.
5. BEGIN GRADING THE SITE.
6. INSTALL/CONSTRUCT MAJOR DRAINAGE SYSTEM.
7. INSTALL UTILITIES, UNDER DRAINS, CURBS, AND GUTTERS.
8. START CONSTRUCTION OF BUILDING PADS AND STRUCTURES.
9. TEMPORARILY SEED DENUDED AREAS.
10. PREPARE SITE FOR PAVING.
11. PAVE SITE.
12. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
13. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED). THIS SITE IS STABILIZED WHEN ALL SOIL-DISTURBING ACTIVITIES ARE COMPLETED AND UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAVE BEEN EMPLOYED.

NOTE: EROSION CONTROL BMP'S SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES INCLUDING DEMOLITION.

LEGENDS

- DEMOLITION AREA
- TREES TO REMAIN
- TREES TO BE REMOVED REFERENCE L1 FOR DETAILS FROM LANDSCAPE PLANS

AS-BUILT DRAWINGS:

TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS — KARTAVYA S. PATEL — 97534 — LICENSED PROFESSIONAL ENGINEER

12/13/2019

RECORD DRAWING

CASE # SP2017-023

DEMOLITION PLAN

OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC

T: 214.609.9271 I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W, McDermott Drive, Suite 110, Allen, TX 75013

Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	DM

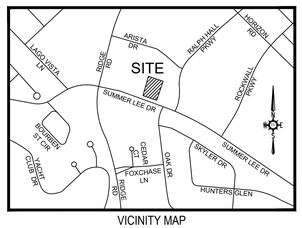
TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 30 60

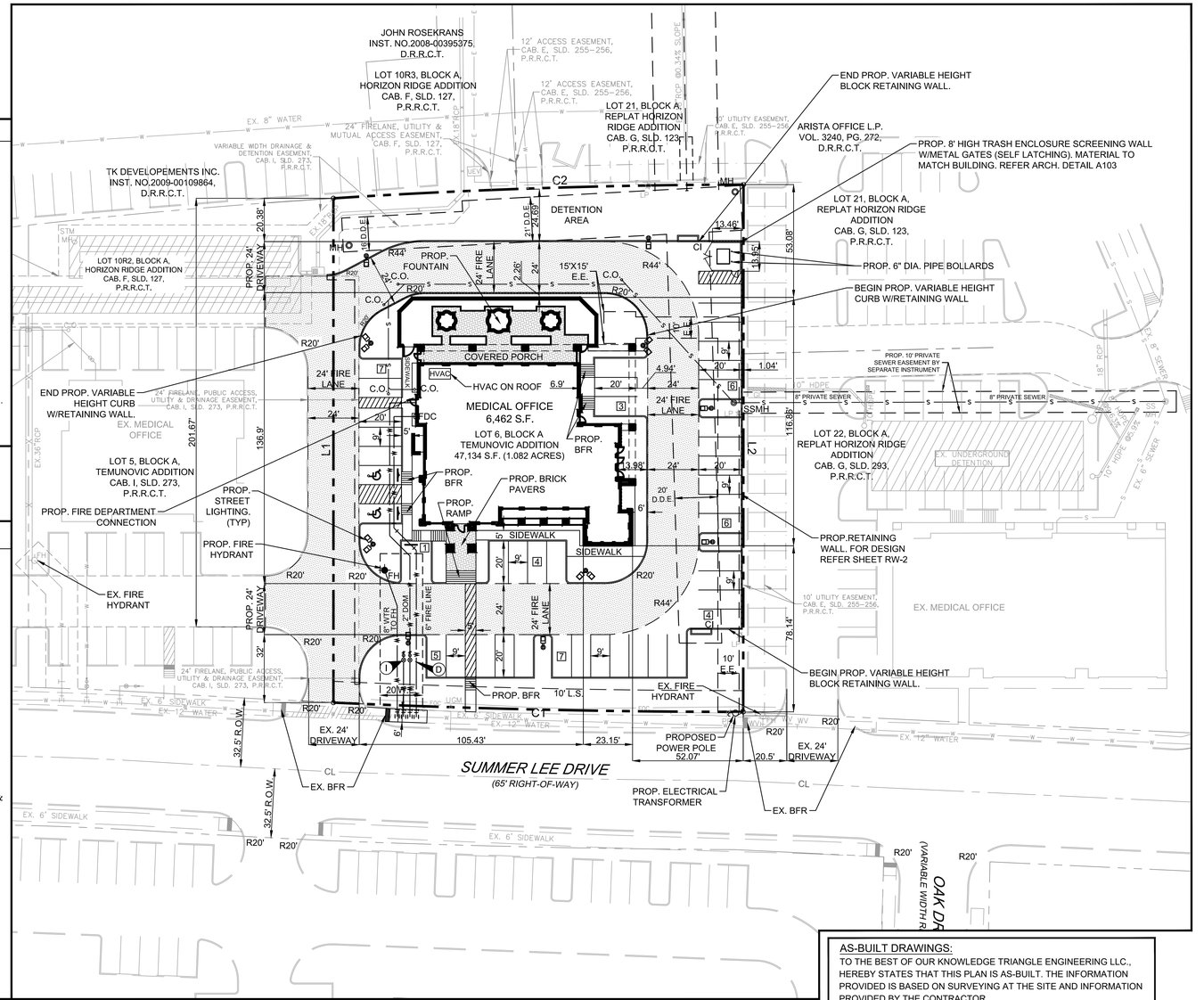
SCALE: 1" = 30'



VICINITY MAP
N.T.S

WATER METER & SANITARY SEWER SCHEDULE				
ID	TYPE	SIZE	NO.	SAN. SEW.
(D)	DOM.	2"	1	6"
(I)	IRR.	1"	1	N/A

LEGEND	
UTILITY EASEMENT	U.E.
SANITARY SEWER EASEMNET	S.S.E.
DRAINAGE EASEMENT	D.E.
WATERLINE EASEMENT	W.E.
VISIBILITY EASEMENT	V.E.
SIDEWALK EASEMENT	S.E.
ELECTRICAL EASEMENT	E.E.
CLEAN OUT	C.O.
GAS METER	GM
ELECTRICAL VAULT	EV
LIGHT POLE	LP
TRAFFIC SIGN	TS
ELECTRICAL TRANSFORMER	ET
FIRE HYDRANT	FH
SANITARY SEWER MANHOLE	SSMH
STORM SEWER MANHOLE	STMMH
BUILDING SET BACK	B.S.
LANDSCAPE BUFFER	L.B.
PRESSURE REDUCING VALVE	PRV
FIRE DEPARTMENT CONNECTION	F.D.C.
PEDESTERIAN SIGHT & VISIBILITYESAEMENT	P.S.&V.E.
BARRIER FREE RAMP	BFR



LEGENDS

PROPERTY LINE	EXISTING PAVEMENT/CURB
EXISTING WATER LANE	EXISTING SEWER MANHOLE
PROPOSED WATER LINE	PROPOSED HANDICAP PARKING SPACE
EX.SANITARY SEWER LINE	EXISTING POWER POLE
PROP. SANITARY SEWER LINE	EXISTING STORM INLETS
PROPOSED STORM SEWER	EXISTING FIRE HYDRANT
PROPOSED FIRE HYDRANT	EXISTING WATER VALVE
PROPOSED FIRE CONNECTION	PROPOSED BOLLARDS
PROPOSED WATER METERS	PROPOSED CAR STACKING
PROPOSED BACK FLOW PREVENTER	PROP.6' HIGH WROUGHT IRON FENCE
P.S.&V.E. PEDESTERIAN SIGNT & VISIBILITY EASEMENT	EXISTING TREE
U.E. UTILITY EASEMENT	TRANSFORMER
W.E. WATER EASEMENT	F.A.U.E. FIRE LANE, PUBLIC ACCESS & UTILITY EASEMENT
S.S.E. SANITARY SEWER EASEMENT	GREASE TRAP
D.E. DRAINAGE EASEMENT	SAMPLING WELL
F.A.W.E. FIRE LANE, PUBLIC ACCESS & WATER EASEMENT	SINGLE CLEAN OUT
V.E. VISIBILITY EASEMENT	DOUBLE CLEAN OUT
PROPOSED FIRE LANE	MONUMENT/POLE SIGN
B.S. FRONT SET BACK	PROPOSED WHEEL STOP
L.S. LANDSCAPE SET BACK	PROPOSED HANDICAP SIGN
BARRIER FREE RAMP	BRICK PAVERS/ STAMPED CONCRETE
21"RCP EXISTING STORM SEWER	

NOTE

1. ALL EXTERIOR SIGNAGE REQUIRES SUBMITTAL AND APPROVAL OF SEPARATE BUILDING PERMIT THROUGH THE BUILDING INSPECTION DEPARTMENT.

2. THE PROPOSED BUILDING IS EQUIPED WITH AUTOMATIC FIRE SPRINKLER SYSTEM.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS OF THE CITY OF ROCKWALL & NCTCOG STANDARD SPECIFICATION 4TH EDITION.

2. A PERMIT IS REQUIRED TO CUT A CITY STREET OR WORK WITHIN THE RIGHT-OF-WAY. THE PERMIT IS ISSUED BY THE PUBLIC WORKS DEPARTMENT.

3. THE LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS IS TAKEN FROM PUBLIC RECORDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND UTILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND UTILITIES. IF EXISTING UNDERGROUND UTILITIES ARE DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRING THE UTILITY.

4. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES OR SERVICE LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS IN GRADES AND ALIGNMENT.

5. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U. S DEPARTMENT OF LABOR, OSHA, "CONST. SAFETY AND HEALTH REGULATIONS.", VOL. 29, SUBPART P. PG. 128 - 137, AND ANY AMENDMENTS THERETO.

6. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE ERODED AREA TO ORIGINAL CONDITION OR BETTER.

7. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE DITCHES, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS.

8. ANY CHANGES NEEDED AFTER CONSTRUCTION PLANS HAVE BEEN RELEASED, SHALL BE APPROVED BY THE CITY ENGINEER. THESE CHANGES MUST BE RECEIVED IN WRITING FROM THE FROM THE DESIGN ENGINEER. THE DIRECTOR OF PUBLIC WORKS SHALL APPROVE ANY DEVIATIONS FROM STATE REGULATIONS.

9. THE CONTRACTOR SHALL PROVIDE "RED LINED" MARKED PRINTS TO THE ENGINEER PRIOR TO FINAL INSPECTION INDICATING ALL CONSTRUCTION WHICH DEVIATED FROM THE PLANS OR WAS CONSTRUCTED IN ADDITION TO THAT INDICATED ON THE PLANS.

SITE DATA SUMMARY TABLE		
PHYSICAL ADDRESS	TO BE DETERMINED	
GROSS SITE AREA	1.082 ACRES (47,134 S.F.)	
NET AREA	1.082 ACRES (47,134 S.F.)	
ZONING	PD-9	
CURRENT USE	VACANT	
PROPOSED USE	MEDICAL OFFICE	
LOT COVERAGE DATA		
BUILDING COVERAGE	6,454 S.F. (13.69%)	
IMPERVIOUS COVERAGE	35,199 S.F. (74.68%)	
PERVIOUS COVERAGE	11,935 S.F. (25.32%)	
PARKING SUMMERY		
PARKING REQUIREMENT	REQUIRED	PROVIDED
1 SPACE PER 200 GFA	33	43
TOTAL PARKING	43	43
BUILDING DATA		
BUILDING	1	
PEAK HEIGHT	30'-0"	
TOTAL SQUARE FOOTAGE	6,454 S.F.	

RECORD DRAWING

AS-BUILT DRAWINGS:
TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

OWNER/DEVELOPER	ENGINEER	SURVEYOR	ARCHITECT
1306 SUMMER LEE LLC 1020 W RALPH PKWY,#101 ROCKWALL, TX 75032 CONTACT:MICHAEL FISHER TEL: (972) 771-4000	TRIANGLE ENGINEERING LLC 1784 W. McDERMOTT DRIVE, SUITE 110 ALLEN, TEXAS 75013 CONTACT:KARTAVYA PATEL TEL: (214) 609-9271	A&W SURVEYORS INC. P.O. BOX 870029 MESQUITE, TEXAS 75157 CONTACT:JOHN TURNER,R.P.L.S. TEL: (972) 881-4975	THE STENSLAND GROUP 5151 BENT TREE FOREST DR,SUITE 560 DALLAS, TEXAS 75248 CONTACT:ROBERT STENSLAND TEL: (214) 680-1287

BOUNDARY LINE DATA		
LINE	BEARING	DISTANCE
L1	N 16°57'35" E	237.27'
L2	S 16°59'12" W	248.08'

CURVE DATA TABLE					
NO.	LENGTH	RADIUS	DELTA	CH BEARING	CH LENGTH
C1	192.85'	4243.50'	02°36'14"	S 71°44'41" E	192.83'
C2	193.04'	3074.27'	03°35'52"	N 74°57'15" W	193.01'

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED
PROFESSIONAL ENGINEER
12/13/2019

CASE # SP2017-023

SITE PLAN

OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013

Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	SP

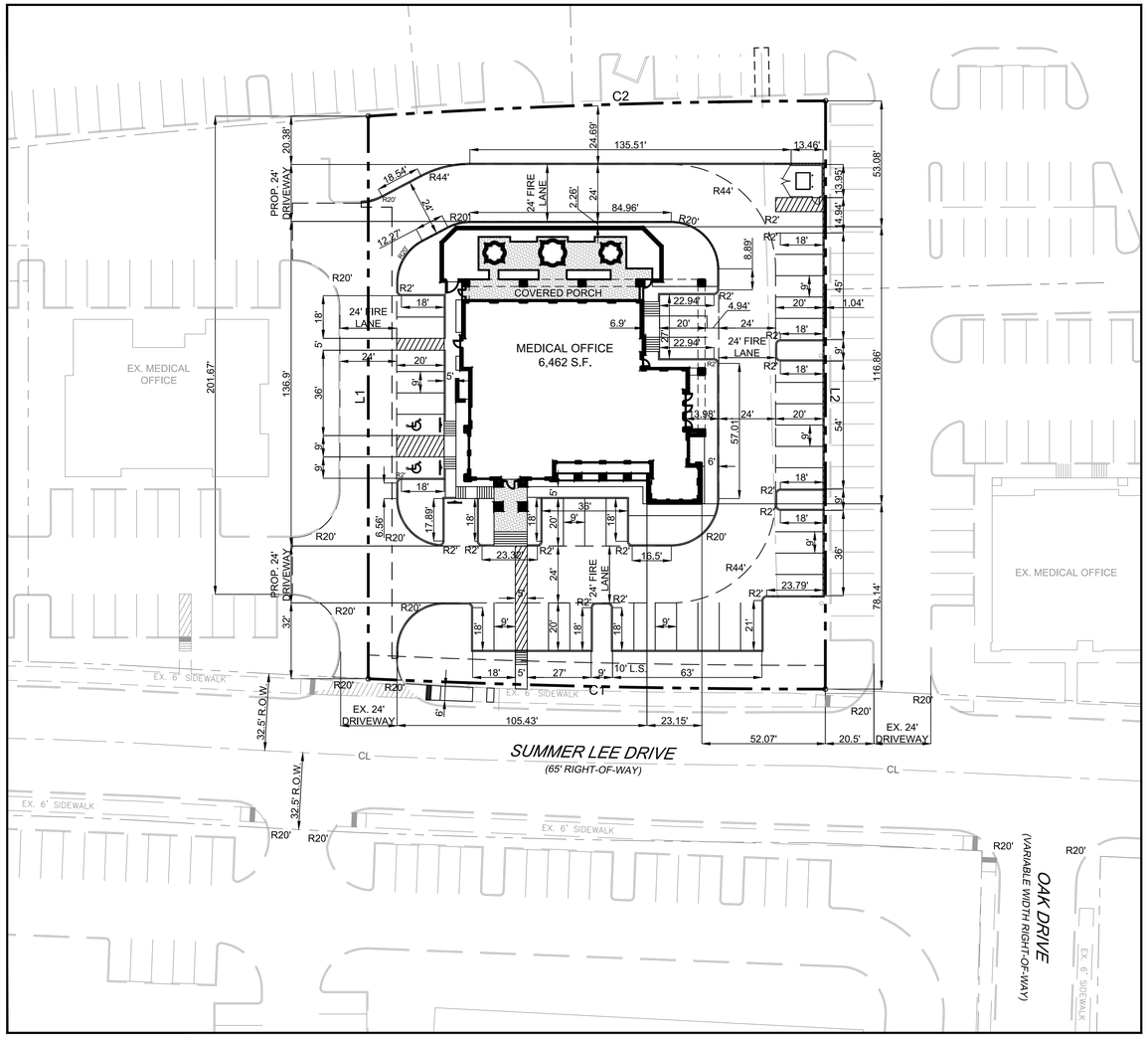
TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 30 60

SCALE: 1" = 30'



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BOUNDARY LINE DATA		
LINE	BEARING	DISTANCE
L1	N 16°57'35" E	237.27'
L2	S 16°59'12" W	248.08'

DIMENSION GENERAL NOTES:

1. ALL DIMENSIONS ARE MEASURED TO FACE OF CURB AS SHOWN. CONTACT ENGINEER/ARCHITECT IF THERE IS ANY DISCREPANCIES IN THE DIMENSION.
2. REFER TO ARCHITECTURAL FLOOR PLAN FOR EXACT BUILDING DIMENSIONS.
3. POLE/MONUMENT SIGN SHALL BE BY SEPARATE PERMIT.

LEGEND	
PUBLIC UTILITY EASEMENT	P.U.E.
SANITARY SEWER EASEMNET	S.E.
DETENTION & DRAINAGE EASEMENT	D.D.E.
WATERLINE EASEMENT	W.E.
CLEAN OUT	C.O.
GAS METER	GM
ELECTRICAL TRANSFORMER	ET
FIRE HYDRANT	FH
SANITARY SEWER MANHOLE	SSMH
STORM SEWER MANHOLE	STMMH
BUILDING SET BACK	B.S.
LANDSCAPE SETBACK	L.S.B.
PRESSURE REDUCING VALVE	PRV
24' FIRE LANE	
FIRE DEPARTMENT CONNECTION	F.D.C.
VISIBILITY CLIP	

AS-BUILT DRAWINGS:

TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED PROFESSIONAL ENGINEER
12/13/2019

RECORD DRAWING

CASE # SP2017-023

DIMENSION CONTROL PLAN

OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC

T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013

Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	4

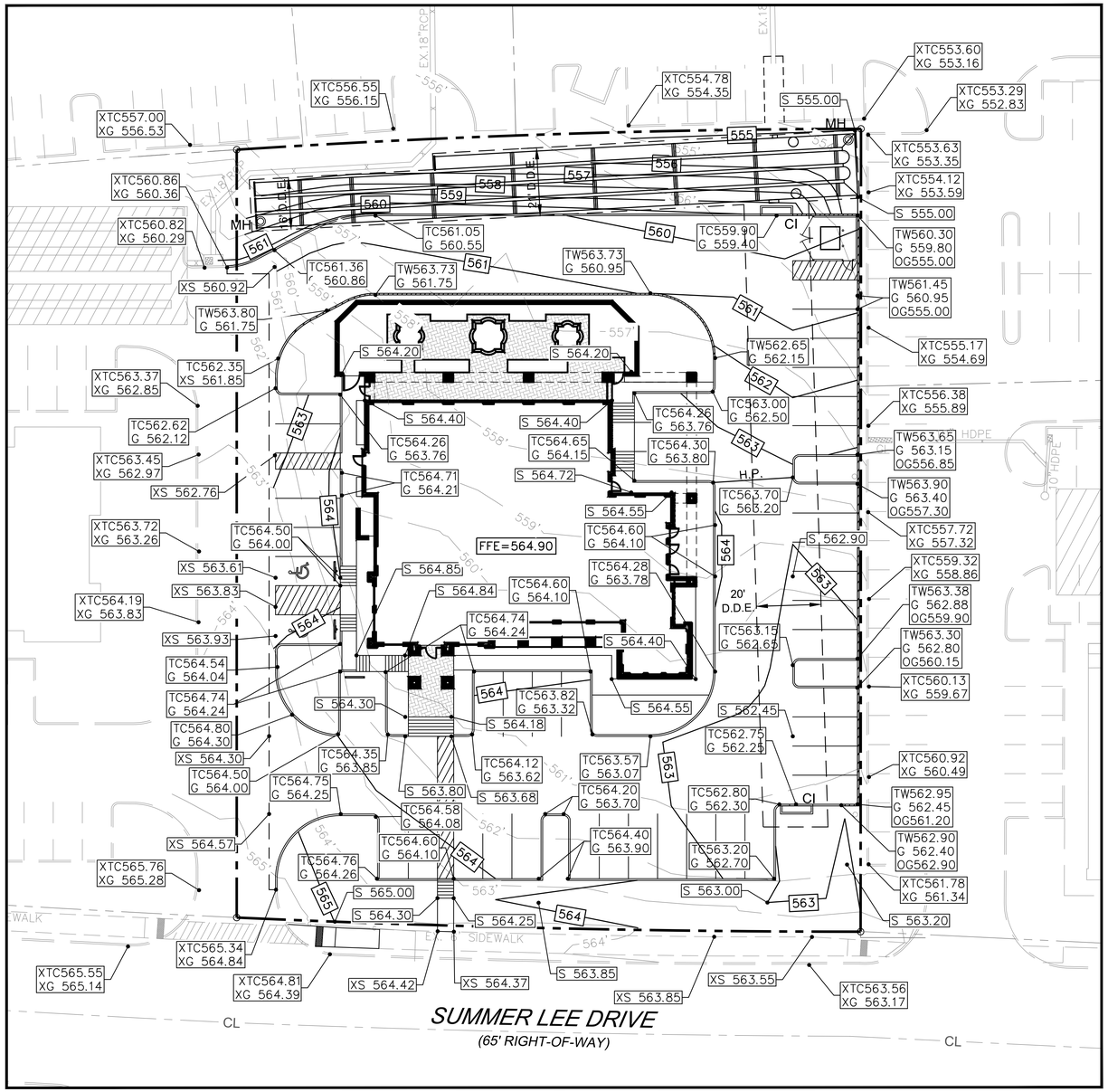
TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 20 40

SCALE: 1" = 20'



GRADING GENERAL NOTE

1. ALL SURPLUS EXCAVATION AND WASTE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND IT SHALL BE HIS SOLE RESPONSIBILITY TO REMOVE SUCH SURPLUS EXCAVATION AND WASTE MATERIAL FROM THE SITE TO A PUBLIC DUMP SITE APPROVED FOR THE DISPOSAL OF SUCH MATERIALS. IF SURPLUS EXCAVATION IS REMOVED FROM THIS SITE TO ANOTHER PROPERTY, IT SHALL BE PLACED ON SUCH PROPERTY WITH THE WRITTEN CONSENT OF THE OWNER(S) OF SUCH PROPERTY. A COPY OF SUCH WRITTEN CONSENT SHALL BE PROVIDED TO THE OWNER. IF THE CONTRACTOR WISHES TO DISPOSE OF SURPLUS EXCAVATION ON-SITE, IT SHALL BE ONLY WITH THE PRIOR APPROVAL OF THE OWNERS PROJECT REPRESENTATIVE AND CARE SHOULD BE TAKEN TO AVOID BLOCKING NATURAL DRAINAGE AND INCREASING STEEP SLOPES. IF ANY OF THE HAULED EXCAVATION MATERIAL IS TAKEN TO ANOTHER LOCATION WITHIN THE CITY OF ROCKWALL LIMITS, THE OWNER OF THE PROPERTY IS REQUIRED TO OBTAIN A LOT GRADING PERMIT BEFORE MATERIAL IS DELIVERED.
2. THE CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN STAKING AND TO VERIFY PROJECT ELEVATIONS. "MATCH EXISTING" SHALL BE UNDERSTOOD TO APPLY TO BOTH VERTICAL ELEVATION AND HORIZONTAL ALIGNMENT.
3. THE CONTRACTOR SHALL PREPARE ALL LANDSCAPE AREAS INCLUDING STREET RIGHT-OF-WAY AREAS TO AN ACCEPTABLE SUBGRADE CONDITION IN ACCORDANCE WITH THE LANDSCAPE PLANS. IF THE CONTRACTOR IS NOT EMPLOYED TO PROVIDE AND INSTALL LANDSCAPING, HE SHALL PREPARE A FINISHED AND COMPACTED SUBGRADE IN THE LANDSCAPING AREAS 4" BELOW NOMINAL FINISH GRADE AS SHOWN ON THE PLANS AND SHALL ADD 2" OF TOPSOIL TO BRING LANDSCAPING SUB- GRADE AS PROVIDED TO THE LANDSCAPING CONTRACTOR, TO 2" BELOW NOMINAL FINISH GRADE.
4. NO SLOPES TO EXCEED 4H:1V WITHOUT SLOPE STABILIZATION.
5. ALL FILL TO BE COMPACTED TO A MINIMUM 95% OF STANDARD DENSITY USING A SHEEP'S FOOT ROLLER.
6. CONTRACTOR TO ADJUST ALL PROPOSED AND EXISTING UTILITIES TO FINISHED GARDE.
7. THE DETENTION SYSTEM TO BE FULLY INSTALLED AND FUNCTIONAL PRIOR TO ANY PLACEMENT OF CONCRETE INCLUDING SLABS. THIS INCLUDES THE SIDES AND BOTTOM TO HAVE EITHER SODD OR SEEDED ANCHORED CURLEX ALONG WITH THE CONCRETE FULME.

BENCHMARK

SQUARE-CUT ON TOP OF CONCRETE PAVEMENT.
ELEVATION = 564.61'

LEGEND

SPOT ELEVATION AT FINISHED GRADE	S563.15
TOP OF CURB	TC564.60
GUTTER ELEVATION	G 564.10
TOP OF THE WALL	TW 563.65
OUTSIDE GRADE	OG 556.85
EX. SPOT ELEVATION AT GRADE	XS560.92
EXISTING CONTOURS	561
PROPOSED CONTOURS	563
PROPOSED SWALE	
PROPOSED DETENTION & DRAINAGE EASEMENT	D.D.E.

NOTE:
GC SHALL OBTAIN SEPARATE PERMIT FOR THE RETAINING WALL INSTALLATION. RETAINING WALL SHALL BE DESIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

RECORD DRAWING

AS-BUILT DRAWINGS:
TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED
PROFESSIONAL ENGINEER
12/13/2019

CASE # SP2017-023

GRADING PLAN
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271 I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	5

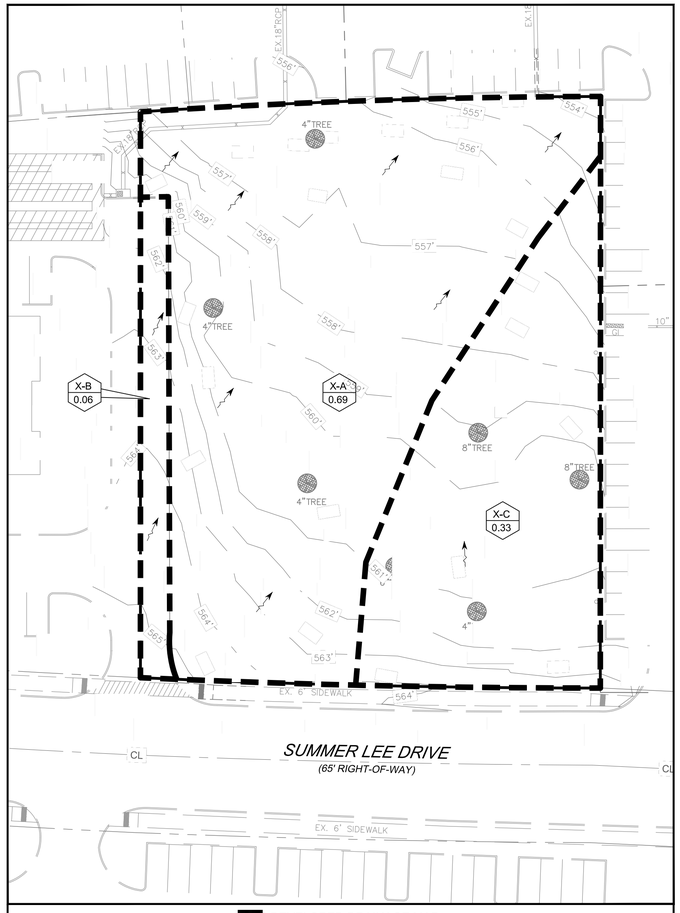
TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

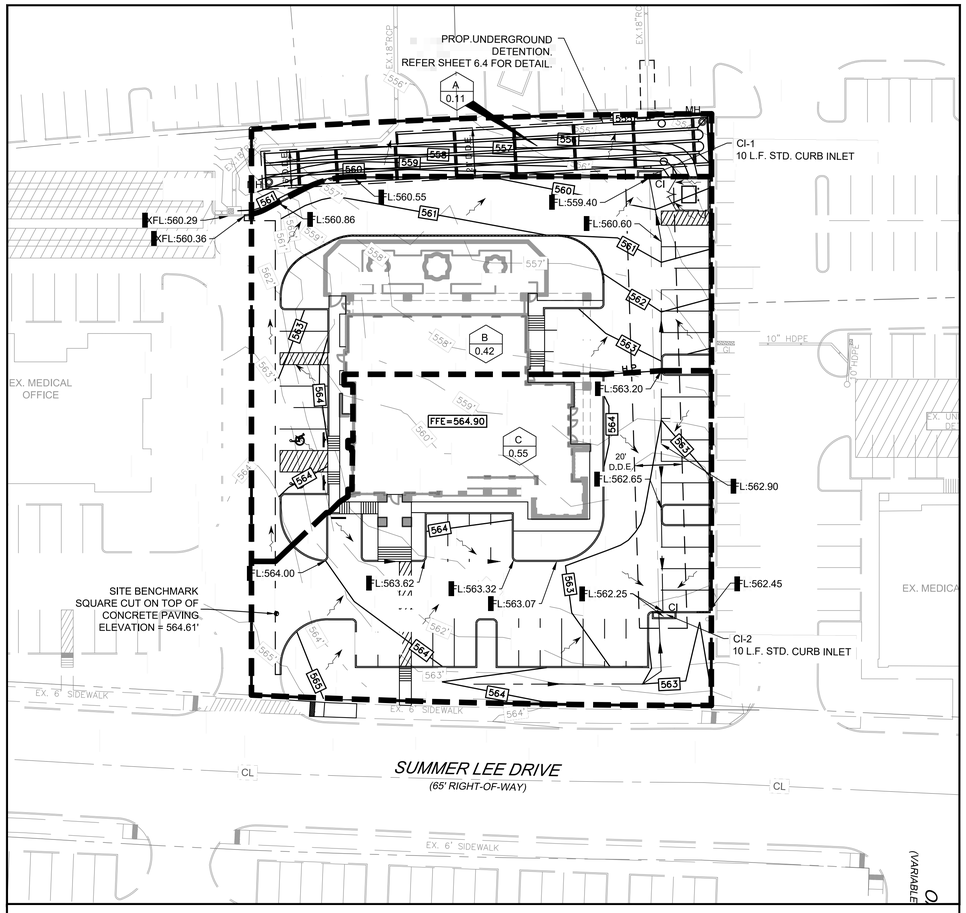
1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 30' 60'

SCALE: 1" = 30'



E-DEVELOPED DRAINAGE MAP



POST-DEVELOPED DRAINAGE MAP

DEVELOPED DRAINAGE CALCULATIONS (100yr FLOW)

Drainage Area	C	Tc (min)	A (acres)	I-100 (in/hr)	Q-100yr (cfs)	Remark
A	0.90	10	0.11	9.80	0.97	BY PASS RUNOFF/SHEET FLOW
B	0.90	10	0.42	9.80	3.70	FLOW TO UNDERGROUND STORAGE
C	0.90	10	0.55	9.80	4.85	FLOW TO UNDERGROUND STORAGE

DEVELOPED DRAINAGE CALCULATIONS (50yr FLOW)

Drainage Area	C	Tc (min)	A (acres)	I-50 (in/hr)	Q-50yr (cfs)	Remark
A	0.90	10	0.11	9.00	0.89	BY PASS RUNOFF/SHEET FLOW
B	0.90	10	0.42	9.00	3.40	FLOW TO UNDERGROUND STORAGE
C	0.90	10	0.55	9.00	4.45	FLOW TO UNDERGROUND STORAGE

DEVELOPED DRAINAGE CALCULATIONS (25yr FLOW)

Drainage Area	C	Tc (min)	A (acres)	I-25 (in/hr)	Q-25yr (cfs)	Remark
A	0.90	10	0.11	8.30	0.82	BY PASS RUNOFF/SHEET FLOW
B	0.90	10	0.42	8.30	3.14	FLOW TO UNDERGROUND STORAGE
C	0.90	10	0.55	8.30	4.11	FLOW TO UNDERGROUND STORAGE

DEVELOPED DRAINAGE CALCULATIONS (10yr FLOW)

Drainage Area	C	Tc (min)	A (acres)	I-10 (in/hr)	Q-5yr (cfs)	Remark
A	0.90	10	0.11	8.00	0.79	BY PASS RUNOFF/SHEET FLOW
B	0.90	10	0.42	8.00	3.02	FLOW TO UNDERGROUND STORAGE
C	0.90	10	0.55	8.00	3.96	FLOW TO UNDERGROUND STORAGE

DEVELOPED DRAINAGE CALCULATIONS (5yr FLOW)

Drainage Area	C	Tc (min)	A (acres)	I-5 (in/hr)	Q-5yr (cfs)	Remark
A	0.90	10	0.11	6.90	0.68	BY PASS RUNOFF/SHEET FLOW
B	0.90	10	0.42	6.90	2.61	FLOW TO UNDERGROUND STORAGE
C	0.90	10	0.55	6.90	3.42	FLOW TO UNDERGROUND STORAGE

RAINFALL EVENT	ALLOWABLE DISCHARGE	MAXIMUM ALLOWABLE DISCHARGE FROM UNDERGROUND STORAGE	BYPASS RUNOFF
100-YEAR	3.41 CFS	2.44 CFS	0.97 CFS
50-YEAR	3.08 CFS	2.19 CFS	0.89 CFS
25-YEAR	2.77 CFS	1.95 CFS	0.82 CFS
10-YEAR	2.35 CFS	1.56 CFS	0.79 CFS
5-YEAR	2.06 CFS	1.38 CFS	0.68 CFS

PRE-DEVELOPED DRAINAGE CALCULATIONS

Drainage Area	C	Tc (min)	A (acres)	I-5 (in/hr)	I-10 (in/hr)	I-25 (in/hr)	I-50 (in/hr)	I-100 (in/hr)	Q-5yr (cfs)	Q-10yr (cfs)	Q-25yr (cfs)	Q-50yr (cfs)	Q-100yr (cfs)
X-A	0.35	20	0.69	5.00	5.70	6.75	7.50	8.30	1.21	1.38	1.63	1.81	2.00
X-B	0.90	20	0.06	5.00	5.70	6.75	7.50	8.30	0.27	0.31	0.36	0.40	0.45
X-C	0.35	20	0.33	5.00	5.70	6.75	7.50	8.30	0.58	0.66	0.78	0.87	0.96

NOTE

1. VERIFY ROOF DRAIN LOCATION WITH ARCHITECTURAL PLANS.
2. ALL ROOF DRAINS TO CONNECT STORM SEWER SYSTEM.
3. POSITIVE DRAINAGE SHALL BE ALLOWED AROUND THE BUILDING FOUNDATION TO PREVENT WATER GOING TO BUILDING.

BENCHMARK

SQUARE-CUT ON TOP OF CONCRETE PAVEMENT. ELEVATION = 564.61'

DRAINAGE LEGEND

- A 0.11 — AREA NO. AREA ACREAGE
- DRAINAGE DIVIDE
- FLOW DIRECTION
- 563 — PROPOSED CONTOURS
- 561 — EXISTING CONTOURS
- D.D.E — PROPOSED DETENTION & DRAINAGE EASEMENT

CI-1 (10 L.F. CURB INLET) @ SAG CALCS

$Q = C \times L \times H^{3/2}$

Q100YR= 3.7 CFS

C= 3.1

H (DEPTH OF WATER AT INLET)= ?

$3.7 = 3.1 \times 10 \times H^{3/2}$

H= 0.24' = 2.88 INCHES

CI-2 (10 L.F. CURB INLET) @ SAG CALCS

$Q = C \times L \times H^{3/2}$

Q100YR= 4.85 CFS

C= 3.1

H (DEPTH OF WATER AT INLET)= ?

$4.85 = 3.1 \times 10 \times H^{3/2}$

H= 0.29' = 3.48 INCHES

AS-BUILT DRAWINGS:

TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS — KARTAVYA S. PATEL — 97534 — LICENSED PROFESSIONAL ENGINEER

12/13/2019

RECORD DRAWING

CASE # SP2017-023

DRAINAGE PLAN

OFFICE BUILDING

1306 SUMMER LEE DRIVE

CITY OF ROCKWALL

ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC

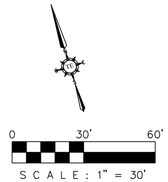
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com

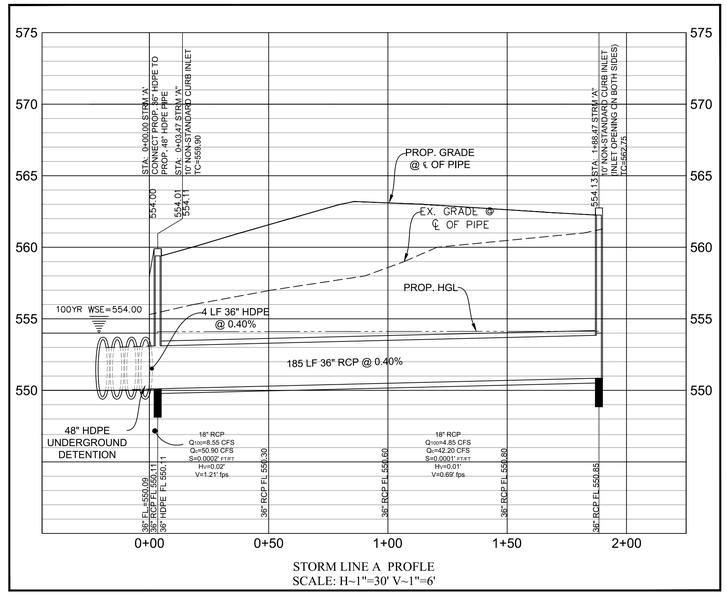
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013

Planning | Civil Engineering | Construction Management

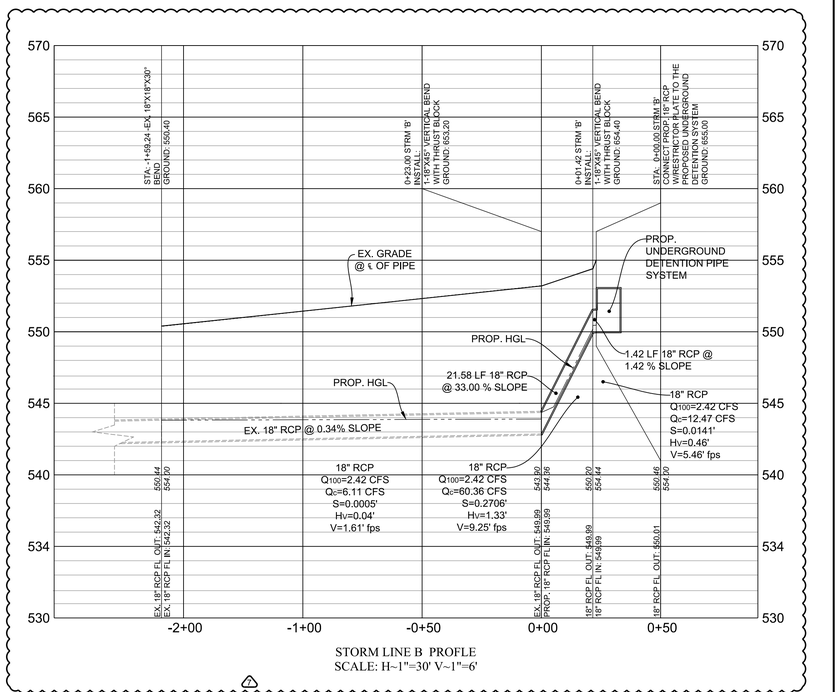
TX PE FIRM #11525

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	6.0





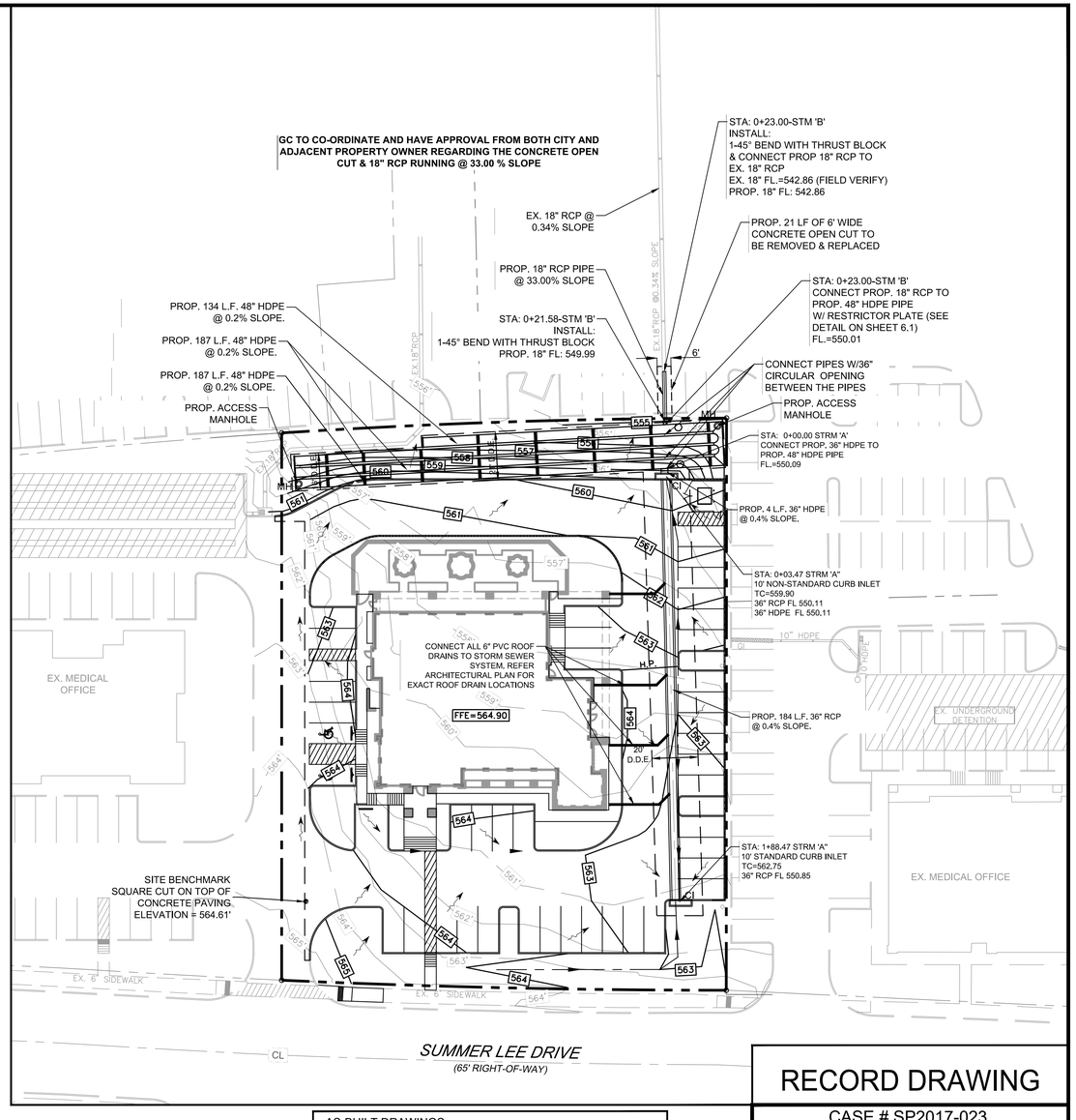
STORM LINE A PROFLE
SCALE: H~1"=30' V~1"=6'



STORM LINE B PROFLE
SCALE: H~1"=30' V~1"=6'

HYDRAULIC CALCULATION FOR PRIVATE STORM 'B'

STATION		LENGTH	ADDITIONAL FLOW	TOTAL FLOW	CAPACITY	VELOCITY	PIPE SIZE	PIPE SLOPE	PIPE MATERIAL	INVERT ELEVATION (DS)	INVERT ELEVATION (US)	HGL (DS)	HGL (US)	GROUND/ RIM (DS)	GROUND /RIM (UP)	FRICTION SLOPE (Sf)	VELOCITY HEAD
FROM	TO	(ft)	(cfs)	(cfs)	(cfs)	(ft/s)	(in)	(%)		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	ft
EXISTING	0+00.00	159.24	0.00	2.42	6.11	1.61	18.00	0.34	RCP	542.32	542.86	543.82	543.90	550.40	553.20	0.0005	0.04
0+00.00	0+21.58	21.58	0.00	2.42	60.36	9.25	18.00	33.00	RCP	542.86	549.99	544.36	550.20	553.20	554.40	0.2706	1.33
0+21.58	0+23.00	1.42	2.42	2.42	12.47	5.46	18.00	1.42	RCP	549.99	550.01	550.44	550.46	554.40	555.00	0.0141	0.46



NOTE

1. VERIFY ROOF DRAIN LOCATION WITH ARCHITECTURAL PLANS.
2. ALL ROOF DRAINS TO CONNECT STORM SEWER SYSTEM.
3. POSITIVE DRAINAGE SHALL BE ALLOWED AROUND THE BUILDING FOUNDATION TO PREVENT WATER GOING TO BUILDING.

BENCHMARK

SQUARE-CUT ON TOP OF
CONCRETE PAVEMENT.
ELEVATION = 564.61'

AS-BUILT DRAWINGS:

TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED
PROFESSIONAL ENGINEER
12/13/2019

RECORD DRAWING

CASE # SP2017-023

STORM SEWER PLAN & PROFILE
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management
TX PE FIRM #11525

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	6.1

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

STORAGE CALCULATIONS (100 YR RAINFALL EVENT)
STORM DATA REFERENCE: CITY STANDARD RAINFALL INTENSITY-FIGURE 1 FOR 100 YEAR STORM FREQUENCY

ALLOWABLE RELEASE RATE EQUAL TO THE 100-YEAR PEAK RUNOFF RATE PRIOR TO SITE DEVELOPMENT
BYPASS RUNOFF = 0.97 CFS
ALLOWABLE RUNOFF FROM UNDERGROUND STORAGE = 3.41CFS - 0.97 CFS = 2.44 CFS
TOTAL DETAINED AREA= 0.97 ACRES (DRAINAGE AREA "B" & "C")
DISCHARGE FROM UNDERGROUND STORAGE: 2.42 CFS (REFER ORIFICE CALCULATIONS THIS SHEET)

STORM DURATION DATA & DETENTION POND SYSTEM CALCULATIONS

TIME	C x Cf	I100	TOTAL AREA	Q	INFLOW	OUTFLOW	STORAGE
(Min)	Full Dev.	(100-Year)	(Acres)	(CFS)	(CF)	(CF)	(CF)
10	0.90	9.80	0.97	8.56	5,136	1,452	3,684
20	0.90	8.30	0.97	7.25	8,700	2,178	6,522
30	0.90	6.90	0.97	6.02	10,836	2,904	7,932
40	0.90	5.80	0.97	5.06	12,144	3,630	8,514
50	0.90	5.00	0.97	4.37	13,110	4,356	8,754
60	0.90	4.50	0.97	3.93	14,148	5,082	9,066
70	0.90	4.00	0.97	3.49	14,658	5,808	8,850
80	0.90	3.70	0.97	3.23	15,504	6,534	8,970
90	0.90	3.50	0.97	3.06	16,524	7,260	9,264
100	**0.90**	**3.40**	**0.97**	**2.97**	**17,820**	**7,986**	**9,834**
110	0.90	3.20	0.97	2.79	18,414	8,712	9,702

REQUIRED STORAGE VOLUME SUMMARY:

REQUIRED STORAGE VOLUME= INFLOW-OUTFLOW
INFLOW= STORM DURATION X RESPECTIVE PEAK DISHCARGE X 60 SEC./MIN
OUTFLOW= HALF OF THE RESPECTIVE INFLOW DURATION X CONTROL RELEASE DISCHARGE X 60 SEC./MIN

100 YEAR STORM EVENT @ 100MIN.
INFLOW= 100 X 2.97 X 60= 17,820 CF
OUTFLOW = 0.5 X 110 X 2.42 X 60= 7,986 CF

REQUIRED DETENTION SYSTEM STORAGE CAPACITY = INFLOW-OUTFLOW= 17,820-7,986= 9,834 CF
PROVIDED VOLUME (691 L.F. 48" HDPE & 184 L.F. 36" RCP): 9,978 CF

STORAGE CALCULATIONS (50 YR RAINFALL EVENT)
STORM DATA REFERENCE: CITY STANDARD RAINFALL INTENSITY-FIGURE 1 FOR 50 YEAR STORM FREQUENCY

DISCHARGE FROM UNDERGROUND STORAGE: 2.18 CFS (REFER ORIFICE CALCULATIONS THIS SHEET)
TOTAL DETAINED AREA= 0.97 ACRES (DRAINAGE AREAS "B")

STORM DURATION DATA & DETENTION POND SYSTEM CALCULATIONS

TIME	C x Cf	I50	TOTAL AREA	Q	INFLOW	OUTFLOW	STORAGE
(Min)	Full Dev.	(50-Year)	(Acres)	(CFS)	(CF)	(CF)	(CF)
10	0.90	9.00	0.97	7.86	4,714	1,308	3,406
20	0.90	7.50	0.97	6.55	7,857	1,962	5,895
30	0.90	6.10	0.97	5.33	9,586	2,616	6,970
40	0.90	5.20	0.97	4.54	10,895	3,270	7,625
50	0.90	4.50	0.97	3.93	11,786	3,924	7,862
60	0.90	3.90	0.97	3.40	12,257	4,578	7,679
70	0.90	3.70	0.97	3.23	13,566	5,232	8,334
80	0.90	3.50	0.97	3.06	14,666	5,886	8,780
90	**0.90**	**3.30**	**0.97**	**2.88**	**15,557**	**6,540**	**9,017**
100	0.90	3.00	0.97	2.62	15,714	7,194	8,520
110	0.90	2.90	0.97	2.53	16,709	7,848	8,861

REQUIRED STORAGE VOLUME SUMMARY:

REQUIRED STORAGE VOLUME= INFLOW-OUTFLOW
INFLOW= STORM DURATION X RESPECTIVE PEAK DISHCARGE X 60 SEC./MIN
OUTFLOW= HALF OF THE RESPECTIVE INFLOW DURATION X CONTROL RELEASE DISCHARGE X 60 SEC./MIN

50 YEAR STORM EVENT @ 90 MIN.
INFLOW= 0.9 X 0.97 X 3.3 X 90 X 60= 15,557 CF
OUTFLOW = 0.5 X 2.18 X 100 X 60= 6,540 CF

REQUIRED DETENTION SYSTEM STORAGE CAPACITY = INFLOW-OUTFLOW= 15,557-6,540= 9,017 CF
PROVIDED VOLUME (691 L.F. 48" HDPE & 184 L.F. 36" RCP): 9,978 CF

STORAGE CALCULATIONS (25 YR RAINFALL EVENT)
STORM DATA REFERENCE: CITY STANDARD RAINFALL INTENSITY-FIGURE 1 FOR 25 YEAR STORM FREQUENCY

DISCHARGE FROM UNDERGROUND STORAGE: 1.94 CFS (REFER ORIFICE CALCULATIONS THIS SHEET)
TOTAL DETAINED AREA= 0.97 ACRES (DRAINAGE AREAS "B")

STORM DURATION DATA & DETENTION POND SYSTEM CALCULATIONS

TIME	C x Cf	I25	TOTAL AREA	Q	INFLOW	OUTFLOW	STORAGE
(Min)	Full Dev.	(25-Year)	(Acres)	(CFS)	(CF)	(CF)	(CF)
10	0.90	8.30	0.97	7.25	4,348	1,164	3,184
20	0.90	6.60	0.97	5.76	6,914	1,746	5,168
30	0.90	5.50	0.97	4.80	8,643	2,328	6,315
40	0.90	4.60	0.97	4.02	9,638	2,910	6,728
50	0.90	4.00	0.97	3.49	10,478	3,492	6,984
60	0.90	3.50	0.97	3.06	11,000	4,074	6,926
70	0.90	3.30	0.97	2.88	12,100	4,656	7,444
80	0.90	3.10	0.97	2.71	12,990	5,238	7,752
90	**0.90**	**2.90**	**0.97**	**2.53**	**13,671**	**5,820**	**7,851**
100	0.90	2.70	0.97	2.36	14,143	6,402	7,741
110	0.90	2.50	0.97	2.18	14,405	6,984	7,421

REQUIRED STORAGE VOLUME SUMMARY:

REQUIRED STORAGE VOLUME= INFLOW-OUTFLOW
INFLOW= STORM DURATION X RESPECTIVE PEAK DISHCARGE X 60 SEC./MIN
OUTFLOW= HALF OF THE RESPECTIVE INFLOW DURATION X CONTROL RELEASE DISCHARGE X 60 SEC./MIN

25 YEAR STORM EVENT @ 90 MIN.
INFLOW= 0.9 X 2.90 X 0.97 X 90 X 60= 13,671 CF
OUTFLOW = 0.5 X 1.94 X 100 X 60= 5,820 CF

REQUIRED DETENTION SYSTEM STORAGE CAPACITY = INFLOW-OUTFLOW= 13,671-5,820= 7,851 CF
PROVIDED VOLUME (691 L.F. 48" HDPE & 184 L.F. 36" RCP): 9,978 CF

STORAGE CALCULATIONS (10 YR RAINFALL EVENT)
STORM DATA REFERENCE: CITY STANDARD RAINFALL INTENSITY-FIGURE 1 FOR 10 YEAR STORM FREQUENCY

DISCHARGE FROM UNDERGROUND STORAGE: 1.53 CFS (REFER ORIFICE CALCULATIONS THIS SHEET)
TOTAL DETAINED AREA= 0.97 ACRES (DRAINAGE AREAS "B")

STORM DURATION DATA & DETENTION POND SYSTEM CALCULATIONS

TIME	C x Cf	I10	TOTAL AREA	Q	INFLOW	OUTFLOW	STORAGE
(Min)	Full Dev.	(10-Year)	(Acres)	(CFS)	(CF)	(CF)	(CF)
10	0.90	8.00	0.97	6.98	4,190	918	3,272
20	0.90	5.70	0.97	4.98	5,971	1,377	4,594
30	0.90	4.50	0.97	3.93	7,071	1,836	5,235
40	0.90	3.80	0.97	3.32	7,962	2,295	5,667
50	0.90	3.30	0.97	2.88	8,643	2,754	5,889
60	0.90	2.90	0.97	2.53	9,114	3,213	5,901
70	0.90	2.60	0.97	2.27	9,533	3,672	5,861
80	**0.90**	**2.40**	**0.97**	**2.10**	**10,057**	**4,131**	**5,926**
90	0.90	2.20	0.97	1.92	10,371	4,590	5,781
100	0.90	2.00	0.97	1.75	10,476	5,049	5,427
110	0.90	1.80	0.97	1.57	10,371	5,508	4,863

REQUIRED STORAGE VOLUME SUMMARY:

REQUIRED STORAGE VOLUME= INFLOW-OUTFLOW
INFLOW= STORM DURATION X RESPECTIVE PEAK DISHCARGE X 60 SEC./MIN
OUTFLOW= HALF OF THE RESPECTIVE INFLOW DURATION X CONTROL RELEASE DISCHARGE X 60 SEC./MIN

10 YEAR STORM EVENT @ 80 MIN.
INFLOW= 0.9 X 2.40 X 0.97 X 80 X 60= 10,057 CF
OUTFLOW = 0.5 X 1.53 X 90 X 60= 4,131 CF

REQUIRED DETENTION SYSTEM STORAGE CAPACITY = INFLOW-OUTFLOW= 10,057-4,131= 5,926 CF
PROVIDED VOLUME (691 L.F. 48" HDPE & 184 L.F. 36" RCP): 9,978 CF

STORAGE CALCULATIONS (5 YR RAINFALL EVENT)
STORM DATA REFERENCE: CITY STANDARD RAINFALL INTENSITY-FIGURE 1 FOR 5 YEAR STORM FREQUENCY

DISCHARGE FROM UNDERGROUND STORAGE: 1.37 CFS (REFER ORIFICE CALCULATIONS THIS SHEET)
TOTAL DETAINED AREA= 0.97 ACRES (DRAINAGE AREAS "B")

STORM DURATION DATA & DETENTION POND SYSTEM CALCULATIONS

TIME	C x Cf	I5	TOTAL AREA	Q	INFLOW	OUTFLOW	STORAGE
(Min)	Full Dev.	(5-Year)	(Acres)	(CFS)	(CF)	(CF)	(CF)
10	0.90	6.90	0.97	6.02	3,614	822	2,792
20	0.90	5.00	0.97	4.37	5,236	1,233	4,005
30	0.90	3.90	0.97	3.40	6,128	1,644	4,484
40	0.90	3.30	0.97	2.88	6,914	2,055	4,859
50	0.90	2.80	0.97	2.44	7,333	2,466	4,867
60	**0.90**	**2.50**	**0.97**	**2.18**	**7,857**	**2,877**	**4,980**
70	0.90	2.20	0.97	1.92	8,067	3,288	4,779
80	0.90	2.00	0.97	1.75	8,381	3,699	4,682
90	0.90	1.90	0.97	1.66	8,957	4,110	4,847
100	0.90	1.70	0.97	1.48	8,905	4,521	4,384
110	0.90	1.50	0.97	1.31	8,643	4,932	3,711

REQUIRED STORAGE VOLUME SUMMARY:

REQUIRED STORAGE VOLUME= INFLOW-OUTFLOW
INFLOW= STORM DURATION X RESPECTIVE PEAK DISHCARGE X 60 SEC./MIN
OUTFLOW= HALF OF THE RESPECTIVE INFLOW DURATION X CONTROL RELEASE DISCHARGE X 60 SEC./MIN

5 YEAR STORM EVENT @ 60 MIN.
INFLOW= 0.9 X 2.5 X 0.97 X 60 X 60= 7,857 CF
OUTFLOW = 0.5 X 1.37 X 70 X 60=2,877 CF

REQUIRED DETENTION SYSTEM STORAGE CAPACITY = INFLOW-OUTFLOW= 7,857-2,877= 4,980 CF
PROVIDED VOLUME (691 L.F. 48" HDPE & 184 L.F. 36" RCP): 9,978 CF

ORIFICE EQUATION

$Q = CxAx(2xgxH)^{1/2}$

WHERE
Q= RATE OF DISCHARGE (FT^3/S)
A= ORIFICE AREA (FT^2)
C= ORIFICE COEFFICIENT (USUALLY ABOUT 0.6)
g= GRAVITATIONAL CONSTANT (32.2 FT/S)
H= DEPTH OF WATER ABOVE THE CENTROID OF THE ORIFICE (FT)

100 YRS ORIFICE CALCULATIONS FOR SURFACE DETENTION POND

USING ORIFICE EQUATION:
Q=2.42 CFS
H (AVG. DEPTH OF WATER)= 3.75 FT

$A = Q/(Cx(2xgxH)^{1/2})$
$= 2.42/(0.6x(2x32.2x3.75)^{1/2})$
$= 0.26\ FT^2$

AREA PROVIDED= 0.26 S.F.

50 YRS ORIFICE CALCULATIONS FOR SURFACE DETENTION POND

USING ORIFICE EQUATION:
H (AVG. DEPTH OF WATER)= 3.05 FT

$Q = CxAx(2xgxH)^{1/2}$
$Q = 0.6x0.26x(2x32.2x3.10)^{1/2}$
Q= 2.18 CFS

25 YRS ORIFICE CALCULATIONS FOR SURFACE DETENTION POND

USING ORIFICE EQUATION:
H (AVG. DEPTH OF WATER)= 2.40 FT

$Q = CxAx(2xgxH)^{1/2}$
$Q = 0.6x0.26x(2x32.2x2.25)^{1/2}$
Q= 1.94 CFS

10 YRS ORIFICE CALCULATIONS FOR SURFACE DETENTION POND

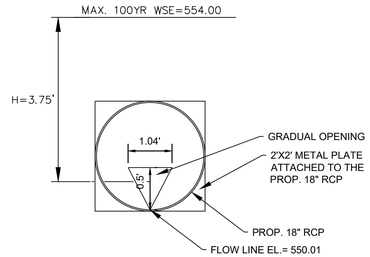
USING ORIFICE EQUATION:
H (AVG. DEPTH OF WATER)= 1.50 FT

$Q = CxAx(2xgxH)^{1/2}$
$Q = 0.6x0.26x(2x32.2x0.50)^{1/2}$
Q= 1.53 CFS

5 YRS ORIFICE CALCULATIONS FOR SURFACE DETENTION POND

USING ORIFICE EQUATION:
H (AVG. DEPTH OF WATER)= 1.2 FT

$Q = CxAx(2xgxH)^{1/2}$
$Q = 0.6x0.26x(2x32.2x0.47)^{1/2}$
Q= 1.37 CFS



GRADUAL OUTFALL DETAILS "A".
N.T.S

DETENTION STAGE VS STORAGE TABLE		
	ELEVATION (FT)	STORAGE (CF)
100YR	554.00	9,834
50YR	553.31	9,017
25YR	552.66	7,851
10YR	551.76	5,926
5YR	551.46	4,980

"ALL RESPONSIBILITY FOR ADEQUACY OF DESIGN REMAINS WITH THE DESIGN ENGINEER. THE CITY OF ROCKWALL, IN REVIEWING AND RELEASING PLANS FOR CONSTRUCTION, ASSUMES NO RESPONSIBILITY FOR ADEQUACY OR ACCURACY OF DESIGN."

RECORD DRAWING

AS-BUILT DRAWINGS:
TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED PROFESSIONAL ENGINEER
12/13/2019

CASE # SP2017-023

DETENTION CALCULATIONS
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	6.2

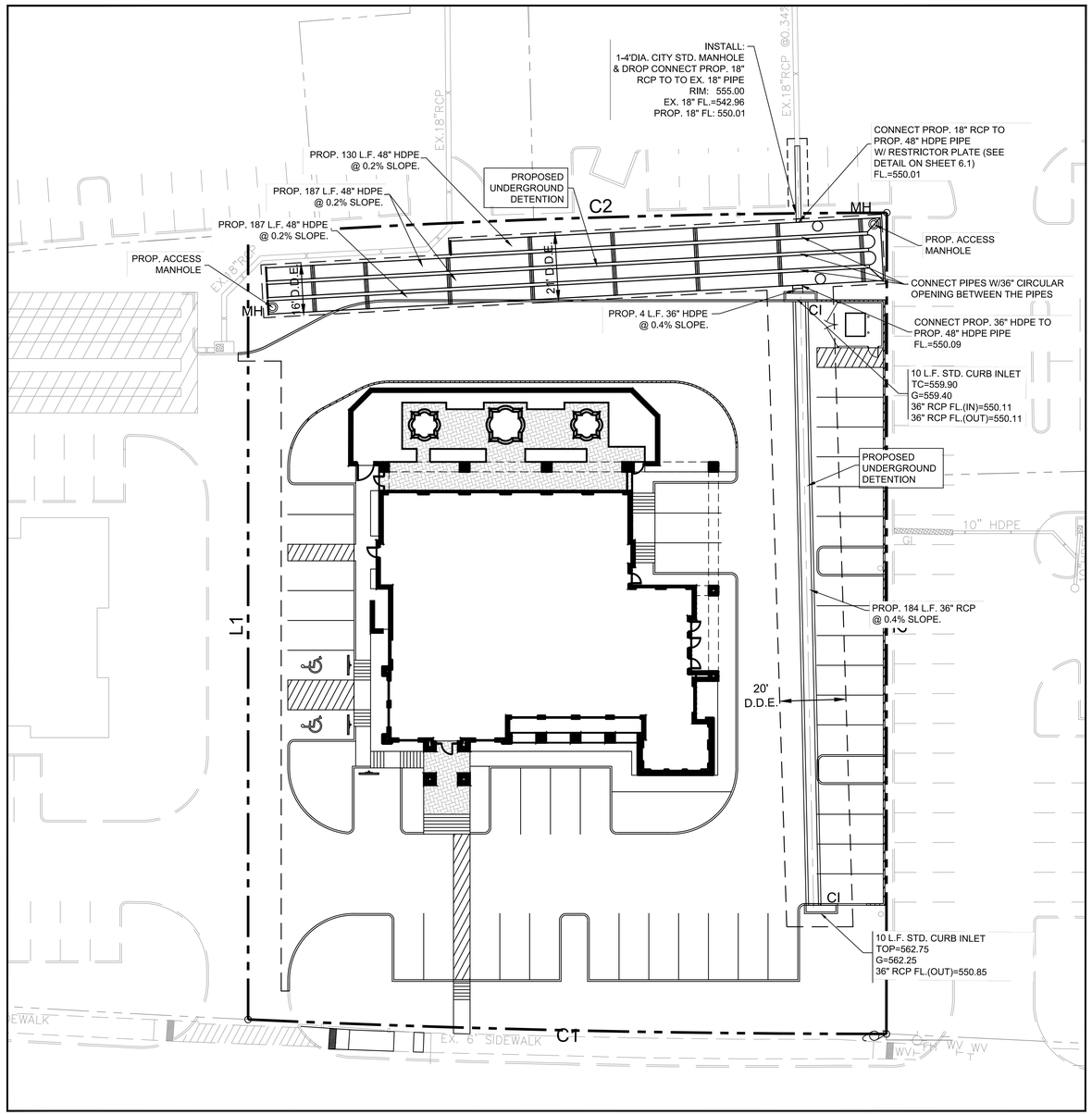
TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 20' 40'

SCALE: 1" = 20'



AS-BUILT DRAWINGS:

TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP
△			

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED PROFESSIONAL ENGINEER
12/13/2019

RECORD DRAWING

CASE # SP2017-023

PROPOSED DETENTION
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC

T: 214.609.9271 I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013

Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	6.3

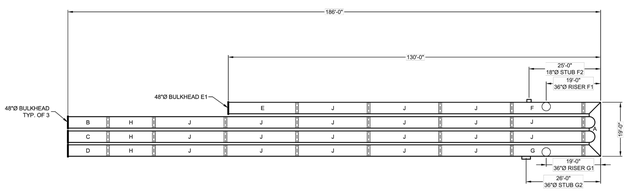
TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
18"Ø STUB F2	550.01	550.01
36"Ø STUB G2	550.09	550.01

RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
36"Ø RISER F1	558.00	550.01
36"Ø RISER G1	558.00	550.01

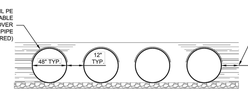


ASSEMBLY
SCALE: 1" = 20'
PIPE STORAGE: 8,684 CF
LOADING: H20
PIPE INV. = 550.01±

THE UNDERSIGNED HEREBY APPROVES THE ATTACHED (3) PAGES INCLUDING THE FOLLOWING:

- **PIPE STORAGE = 8,684 CF**
- **MAINLINE PIPE GAGE = 16**
- **WALL TYPE = SOLID**
- **DIAMETER = 48"**
- **FINISH = ALT2**
- **CORRUGATION = 2 2/3x1/2**

CUSTOMER _____ DATE _____



TYPICAL SECTION VIEW
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅔" x ½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ACCESS CASTINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SUPPLIED BY CONTECH

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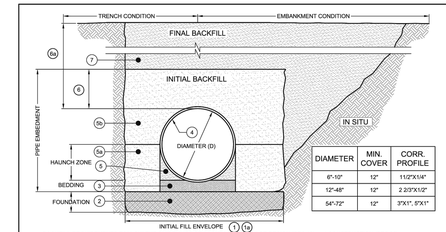
800-548-4667 503-240-3393 800-561-1271 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH PROPOSAL DRAWING

48"Ø UNDERGROUND DETENTION SYSTEM - 583953-010
1310 SUMMER LEE DRIVE - OFFICE BUILDING
ROCKWALL, TX
SITE DESIGNATION: UNDERGROUND DETENTION

PROJECT No.	DES. No.	DATE
583953	010	2/23/2018
DESIGNED	DRAWN	
LMO	PDW	
CHECKED	APPROVED	
SHEET NO.: P1 OF 3		



DIAMETER	MIN. COVER	CORR. PROFILE
6"-10"	12"	1⅓"X¼"
12"-48"	12"	2 2/3"X1/2"
54"-72"	12"	3"X1", 5"X1"

- **BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF AASHTO LRFD BRIDGE DESIGN (SEC 12) and CONSTRUCTION (SEC 26).**

1 MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE.
THE MINIMUM TRENCH WIDTH (12.6.6.1):
PIPE ≤ 12": D + 16"
PIPE > 12": 1.50 × 12"

1a MINIMUM EMBANKMENT WIDTH (in feet) FOR INITIAL FILL ENVELOPE (12.6.6.2):
PIPE < 24": 3.00
PIPE 24" - 144": D + 4'0"
PIPE > 144": D + 10'0"

2 THE FOUNDATION UNDER THE PIPE AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (26.5.2).

3 BEDDING MATERIAL SHALL BE A RELATIVELY LOOSE MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE, AND A MINIMUM OF TWICE THE CORRUGATION DEPTH IN THICKNESS, WITH THE MAXIMUM PARTICLE SIZE OF ONE-HALF OF THE CORRUGATION DEPTH (26.3.8.1, 26.5.3).

4 CORRUGATED STEEL PIPE (CSP) [HEL-COR], DIAMETERS 18" - 72"

5 HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (26.5.4).

5a INITIAL BACKFILL SHALL BE WELL GRADED CRUSHED ROCK UP TO SPRINGLINE OF PIPE.

5b BACKFILL PLACED ABOVE THE SPRINGLINE TO MEET AASHTO A-1, A-2 OR A-3 CLASSIFICATION OR APPROVED EQUAL, COMPACTED TO 90% STANDARD PROCTOR (T-99). MAXIMUM PARTICLE SIZE NOT TO EXCEED 3" (12.4.1.2). ALL LIFTS PLACED IN A CONTROLLED MANNER. IT IS RECOMMENDED THAT LIFTS NOT EXCEED AN 8" UNCOMPACTED LIFT HEIGHT TO PREVENT UNEVEN LOADING, AND THE LESSER OF 1/3 THE DIAMETER OR 24" AS THE MAXIMUM DIFFERENTIAL SIDE-TO-SIDE (26.5.4).

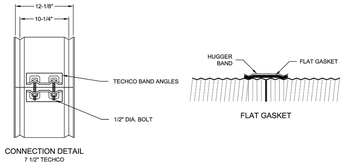
6 SAND BACKFILL (AASHTO A-3 OR APPROVED EQUAL) TO BE PLACED FROM SPRINGLINE TO 12" ABOVE PIPE. INITIAL BACKFILL ABOVE MAY INCLUDE ROAD BASE MATERIAL (AND RIGID PAVEMENT IF APPLICABLE).

6a TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (12.6.6.3).

7 FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD (26.5.4.1).

NOTES:
- GEOTEXTILE SHOULD BE CONSIDERED FOR USE TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT ENGINEER).
- FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE PIPE DIA./2 BUT NO LESS THAN 12", OR 36" FOR PIPE DIAMETERS 72" AND LARGER. CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING (TABLE C12.6.7-1).

TYPICAL BACKFILL DETAIL
NOT TO SCALE



CONNECTION DETAIL
7 1/2" TECHCO

2 2/3"x1/2" RE-ROLLED END HEL-COR PIPE

GENERAL NOTES:

1. BAND MATERIALS AND/OR COATING CAN VARY BY LOCATION. CONTACT YOUR CONTECH REPRESENTATIVE FOR AVAILABILITY.
2. BANDS ARE SHAPED TO MATCH THE PIPE-ARCH WHEN APPLICABLE.
3. BANDS ARE NORMALLY FURNISHED AS FOLLOWS:
   - 12" THRU 48" 1-PIECE
   - 54" THRU 96" 2-PIECES
   - 102" THRU 144" 3-PIECES
4. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS.
5. ALL CMP IS REROLLED TO HAVE ANNULAR END CORRUGATIONS OF 2-2/3"x1/2"
6. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
7. ORDER SHALL DESIGNATE GASKET OPTION, IF REQUIRED (SEE DETAILS ABOVE).

H-12 HUGGER BAND DETAIL
NOT TO SCALE

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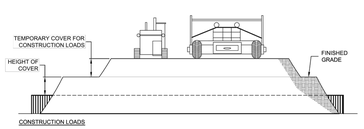


CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM
SCALE: N.T.S.

SPECIFICATION FOR CORRUGATED STEEL PIPE-ALUMINIZED TYPE 2 STEEL

SCOPE

THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE CORRUGATED STEEL PIPE (CSP) DETAILED IN THE PROJECT PLANS.

MATERIAL

THE ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M274 OR ASTM A929.

PIPE

THE CSP SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF AASHTO M36 OR ASTM A760. THE PIPE SIZES, GAGES AND CORRUGATIONS SHALL BE AS SHOWN ON THE PROJECT PLANS.

ALL FABRICATION OF THE PRODUCT SHALL OCCUR WITHIN THE UNITED STATES.

HANDLING AND ASSEMBLY

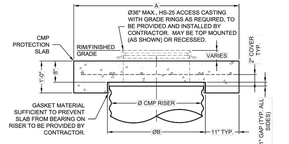
SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS OF THE NATIONAL CORRUGATED STEEL PIPE ASSOCIATION (NCSPA)

INSTALLATION

SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II OR ASTM A798 AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

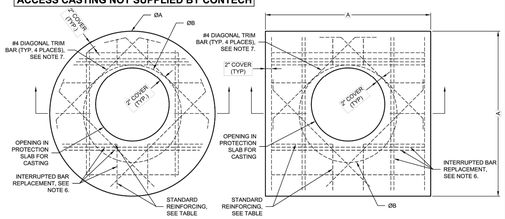
IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

MATERIAL SPECIFICATION
SCALE: N.T.S.



SECTION VIEW

ACCESS CASTING NOT SUPPLIED BY CONTECH



ROUND OPTION PLAN VIEW — SQUARE OPTION PLAN VIEW

REINFORCING TABLE				
Ø CMP RISER	A	Ø B	REINFORCING	**BEARING PRESSURE (PSF)
24"	Ø 4'-6" 4'x4'	26"	#5 @ 10" OCEW #5 @ 10" OCEW	2,540 1,900
30"	Ø 4'-6" 4'-6" x 4'-6"	32"	#5 @ 10" OCEW #5 @ 9" OCEW	2,260 1,670
36"	Ø 5' 5' x 5'	38"	#5 @ 9" OCEW #5 @ 8" OCEW	2,060 1,500
42"	Ø 5'-6" 5'-6" x 5'-6"	44"	#5 @ 8" OCEW #5 @ 6" OCEW	1,490 1,370
48"	Ø 6' 6' x 6'	50"	#5 @ 7" OCEW #5 @ 7" OCEW	1,210 1,270

** ASSUMED SOIL BEARING CAPACITY

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION AND AC 93.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 4,000 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERS, ARCHITECTS AND LAND SURVEYORS, ENDWELL, NY.

MANHOLE CAP DETAIL
SCALE: N.T.S.

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SHEET NO.: P3 OF 3		

RECORD DRAWING

AS-BUILT DRAWINGS:
TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS — KARTAVYA S. PATEL — 97534 — LICENSED PROFESSIONAL ENGINEER
12/13/2019

CASE # SP2017-023

DETENTION DETAILS
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	6.4

TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

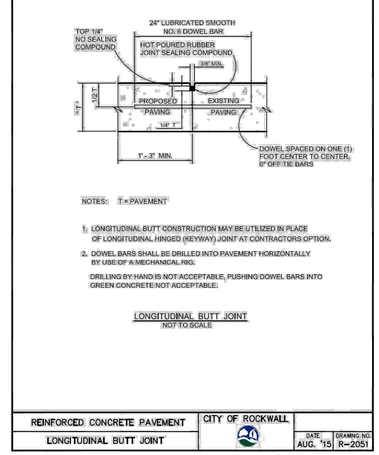
1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 30 60

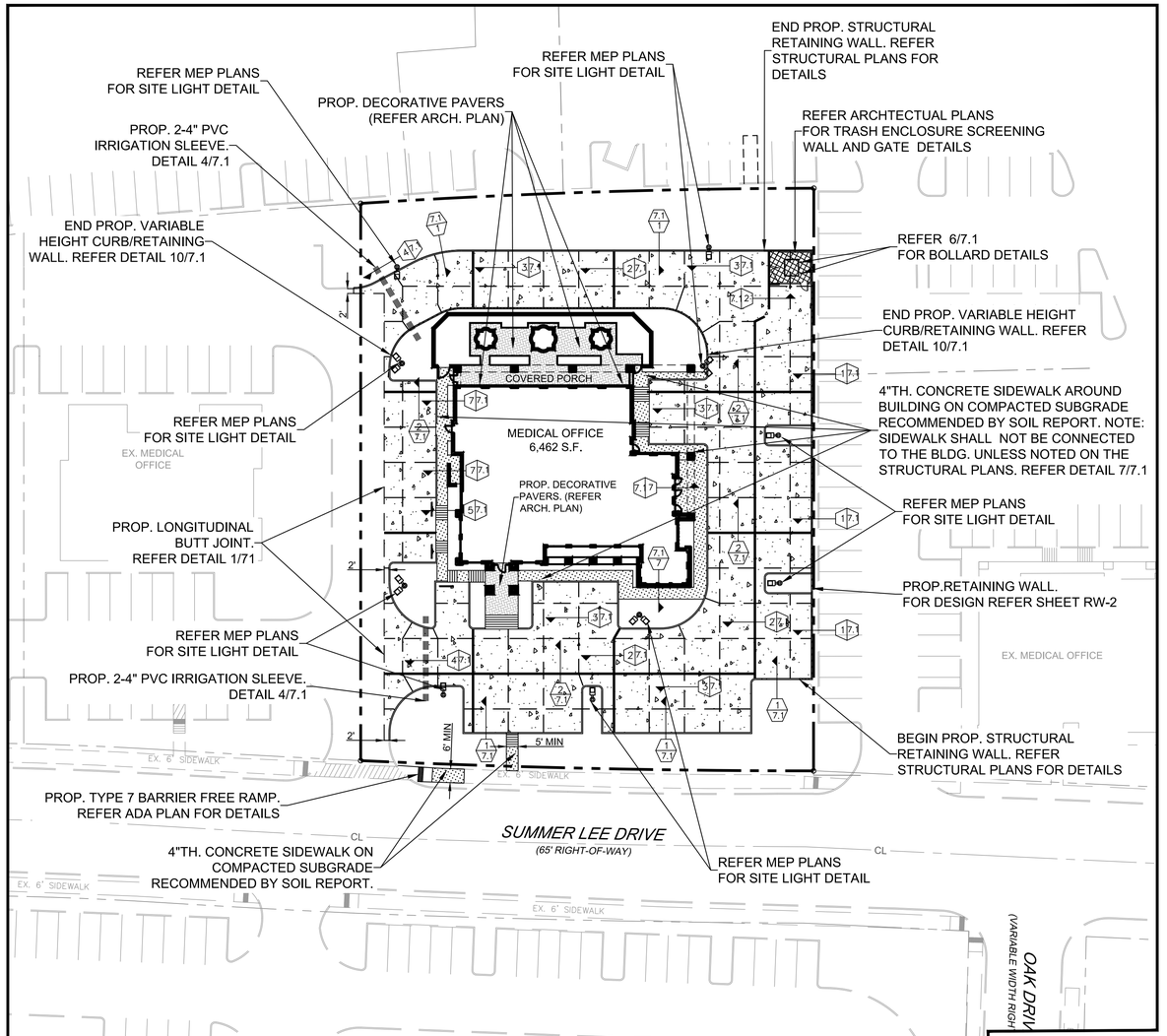
SCALE: 1" = 30'

NOTE:

1. SIDEWALK SHALL NOT BE STRUCTURALLY CONNECTED TO THE BUILDING FOUNDATION UNLESS ITS NOTED ON THE PLANS. PLEASE REFER STRUCTURAL PLANS FOR BUILDING FOUNDATION DETAILS.
2. THIRD PARTY INSPECTION WILL BE REQUIRED ON FIRE LANE CONSTRUCTION. A LETTER SHALL BE PROVIDED (BY A TESTING LAB OR DESIGN ENGINEER) THAT CERTIFIES THAT THE FIRE LANE HAS BEEN CONSTRUCTED IN ACCORDANCE WITH CITY STANDARDS AND CONSTRUCTION PLANS. THE LETTER SHALL BE SPECIFIC TO DEPTH, STRENGTH AND REBAR PLACEMENT.



1/7 LONGITUDINAL BUTT JOINT
N.T.S.



GENERAL NOTES - PAVING IMPROVEMENTS

1. STRIP & REMOVE FROM THE CONSTRUCTION AREA ALL TOPSOIL, ORGANICS & VEGETATION TO A MINIMUM DEPTH OF 6 INCHES.

2. SOFT SOILS SHOULD BE REMOVED UNTIL FIRM SOIL IS REACHED. THE SOFT SOILS CAN BE AERATED AND PLACED BACK IN EIGHT-INCH LOOSE LIFTS AND COMPACTED TO 95% AS SPECIFIED BY ASTM D-698. TREE STUMPS, TREE ROOTS, OLD SLABS, OLD FOUNDATIONS AND EXISTING PAVEMENTS SHOULD BE REMOVED FROM THE STRUCTURE AREA. IF THE TREE STUMPS AND ROOTS ARE LEFT IN PLACE, SETTLEMENT AND TERMITE INFESTATION MAY OCCUR. ONCE A ROOT SYSTEM IS REMOVED, A VOID IS CREATED IN THE SUBSOIL. IT IS RECOMMENDED TO FILL THESE VOIDS WITH STRUCTURAL FILL OR CEMENT-STABILIZED SAND AND COMPACT TO 95% AS SPECIFIED BY ASTM D-698. ANY LOW-LYING AREAS INCLUDING RAVINES, DITCHES, SWAMPS, ETC. SHOULD BE FILLED WITH STRUCTURAL FILL AND PLACED IN EIGHT-INCH LIFTS. EACH LIFT SHOULD BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS SPECIFIED BY ASTM D-698.

3. THE EXPOSED SUBGRADE SHOULD BE SCARIFIED TO A MINIMUM DEPTH OF SIX (6) INCHES. THE SUBGRADE SHOULD THEN BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY THE STANDARD MOISTURE DENSITY RELATIONSHIP (ASTM D-698). IN THE EVENT THAT THE UPPER SIX (6) INCHES CANNOT BE COMPACTED DUE TO EXCESSIVE MOISTURE, WE RECOMMEND THAT THESE SOILS BE EXCAVATED AND REMOVED OR CHEMICALLY STABILIZED TO PROVIDE A FIRM BASE FOR FILL PLACEMENT.

4. THE LOW SWELL POTENTIAL SELECT FILL SHOULD BE CLEANED AND FREE OF ORGANIC MATTER OR OTHER DELETERIOUS MATERIAL. THE FILL SHOULD BE PLACED IN MAXIMUM 9-INCH LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698 (STANDARD PROCTOR). THE MOISTURE CONTENT AT THE TIME OF COMPACTION SHOULD BE AT, OR ABOVE THE OPTIMUM VALUE AS DEFINED BY ASTM D 698. THE REFERRED MOISTURE CONTENT AND DENSITY SHOULD BE MAINTAINED UNTIL CONSTRUCTION IS COMPLETE.

5. PROOF-ROLL THE SUBGRADE IN ACCORDANCE WITH CITY OF ROCKWALL'S CURRENT "STANDARD SPECIFICATION" TO REVEAL SOFT SPOTS. SOFT AREAS SHOULD BE REWORKED & COMPACTED UNTIL THEY CAN BE SUCCESSFULLY PROOF-ROLLED.

6.THE SUBGRADE CAN ALSO BE STABILIZED WITH 2% LIME AND 8% FLY-ASH BY DRY WEIGHT INSTEAD OF CEMENT.THE STABILIZED CLAYS SHOULD BE COMPACTED TO A MINIMUM OF NINETY-FIVE (95) PERCENT OF THE MAXIMUM DENSITY IN A MOISTURE CONTENT RANGE OF -1% TO +4% OF THE SOIL/LIME MIXTURE'S OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.NO SAND ALLOWED UNDER PAVING

7.A MINIMUM STABILIZED SUBGRADE DEPTH OF 6 INCHES IS RECOMMENDED BELOW THE BOTTOM OF THE PROPOSED PAVEMENT. WE RECOMMEND THAT THE DEPTH OF STABILIZED SUBGRADE BE INCREASED TO 8-INCH FOR HEAVY TRAFFIC AREAS. IT IS TO BE NOTED THAT THE ACTUAL AMOUNT OF LIME REQUIRED BE DETERMINED AFTER STRIPPING OF THE SUBGRADE.

8. A FULL THICKNESS OF THE BASE COURSE SHOULD BE EXTENDED 5 FEET BEYOND THE BACK OF CURB LINE.

9. THE FILL SOILS SHOULD EXTEND AT LEAST FIVE FEET BEYOND THE PERIMETER OF THE STRUCTURE.

10.THE CONCRETE IN LIGHT DUTY PAVEMENT AREAS SHOULD HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,600 POUNDS PER SQUARE INCH AND IN HEAVY DUTY PAVEMENT AREAS, A 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI IS RECOMMENDED. ASSUMING A NOMINAL MAXIMUM AGGREGATE SIZE OF 1 TO 1 1/2 INCHES, IT IS RECOMMENDED THAT THE CONCRETE HAVE ENTRAINED AIR OF 5 PERCENT (±1%) WITH A MAXIMUM WATER CEMENT RATIO OF 0.50.

10. THE EXPANSION JOINT SPACING SHALL BE AT 60' MAX.

11. CONTROL JOINTS FORMED BY SAWING ARE RECOMMENDED AT MAX. 12' IN BOTH LONGITUDINAL AND TRANSVERSE DIRECTIONS. CONTROL JOINT SHALL BE SAWED WITHIN 3 HOURS AFTER PLACING CONCRETE. JOINTS SHALL BE PROPERLY CLEANED AND SEALED AS SOON AS POSSIBLE AFTER JOINTS ARE CUT.

12. DRAINAGE SHOULD BE MAINTAINED AWAY FROM THE FOUNDATION, BOTH DURING AND AFTER CONSTRUCTION. WATER SHOULD NOT BE ALLOWED TO POND NEAR THE FOUNDATION. THE FOLLOWING ITEMS SHOULD PROVIDE FOR POSITIVE DRAINAGE OF WATER AWAY FROM THE FOUNDATION: SIDEWALKS AND OTHER CONCRETE FLAT WORK, PARKING AREAS, DRIVEWAYS AND OTHER SURFACE DRAINAGE FEATURES, AND LANDSCAPING.

13. FRENCH DRAINS ARE RECOMMENDED AROUND ANY SLABS WHERE SEEPING GROUND WATER IS ENCOUNTERED DURING CONSTRUCTION.

14. SIDEWALK AROUND THE BUILDING SHALL NOT BE STRUCTURALLY CONNECTED TO THE BUILDING FOUNDATION UNLESS IT'S NOTED ON THE STRUCTURAL PLANS.

15. ANY STAGE IN THE CONSTRUCTION OF THE PAVEMENT A NON-STABLE OR WEAVING CONDITION OF THE SUBGRADE OR BASE COURSE BE NOTED UNDER THE WHEEL LOADS OF CONSTRUCTION EQUIPMENT, SUCH AREAS SHOULD BE DELINEATED AND GEOTECHNICAL ENGINEER CONSULTED FOR REMEDIATION BEFORE COMPLETING THE PAVEMENT SECTION.

16. ALL EXPANSION JOINTS AND CRACK CONTROL JOINTS SHOULD BE SEALED TO PREVENT THE INFILTRATION OF WATER INTO THE SUBSURFACE. THIS IS PARTICULARLY IMPORTANT AROUND IRRIGATED LANDSCAPING AND ALONG THE DRAINAGE PATH OF ROOF DOWNSPOUTS.

17.LANDSCAPE ISLANDS SHOULD BE BACKFILLED WITH LOW PLASTICITY CLAYS TO REDUCE WATER INTRUSION INTO THE SUBSURFACE PAVEMENT STRUCTURES. CURBS SHOULD BE PROVIDED WITH WEEP HOLES IN LANDSCAPE AREAS TO REDUCE THE BUILD UP OF HYDROSTATIC PRESSURE AND TO REDUCE THE INTRUSION OF WATER INTO THE SUBSURFACE MATERIAL.

18. CURB AND GUTTER SHALL CONSIST OF STEEL REINFORCED CONCRETE AND SHALL BE SIX (6") INCHES HIGH AND TWENTY FOUR (24") INCHES WIDE.

19. THE PARKWAYS AND STREETS SHALL BE ROUGH CUT TO A PLUS OR MINUS ONE-TENTH (0.1') FEET OF THEIR RESPECTIVE FINAL GRADES.

20. CONSTRUCTION OF WHEEL CHAIR RAMPS WILL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR AT THE TIME OF PUBLIC IMPROVEMENTS.

21. THE CONTRACTOR SHALL PROCEED WITH PAVING NO MORE THAN SEVENTY-TWO (72) HOURS AFTER DENSITY / MOISTURE TESTS HAVE BEEN TAKEN AND PASSED BY A REGULAR TESTING FIRM. COPIES OF THE TEST RESULTS SHALL BE FURNISHED TO THE CITY. IN THE EVENT PAVING OPERATIONS HAVE NOT COMMENCED WITHIN THE SEVENTY-TWO-(72) HOUR LIMIT, A RETEST SHALL BE REQUIRED AT THE CONTRACTOR'S EXPENSE.

23. MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC. SHALL BE ADJUSTED TO FINISHED GRADE BY THE PAVING CONTRACTOR AT THE TIME OF PAVING.

24. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR ALL "PERMANENT SURVEY REFER MONUMENTS" AS DESCRIBED IN THE SUBDIVISION ORDINANCE INCLUDING CONCRETE MONUMENTS AT ALL BOUNDARY CORNERS.

25.THE SURFACE OF THE SUBGRADE SHALL BE THOROUGHLY WETTED IMMEDIATELY PRIOR TO CONCRETE PLACEMENT.

LEGEND

- EXPANSION JOINT (@ 120' MAX.)
- SAWCUT (@ 15'MAX.)
- 6 / 7.1 — DETAIL NUMBER / SHEET NUMBER

PROPOSED RIGID PAVEMENT

PAVEMENT THICKNESS	LEGEND	SUBGRADE	PROP.REINFORCEMENT	PROP.USE
4" THICK CONC. PAVEMENT 3000 P.S.I. (5.5 SACK)		6" TH. STABILIZED SUBGRADE	NO.3 REBAR @ 18" O.C. EACH WAY	SIDEWALK
6" THICK CONC. PAVEMENT 3,600 P.S.I. (6.0 SACK MACHINE PLACE) (6.5 SACK HAND PLACED)		6" TH. STABILIZED SUBGRADE	NO.3 REBAR @ 18" O.C. EACH WAY	PARKING AREA & FIRE LANE
7" THICK CONC. PAVEMENT 3,600 P.S.I. (6.0 SACK MACHINE PLACE) (6.5 SACK HAND PLACED)		6" TH. STABILIZED SUBGRADE	NO.3 REBAR @ 18" O.C. EACH WAY	REPLACEMENT PAVEMENT
8" THICK CONC. PAVEMENT 3,600 P.S.I. (6.0 SACK MACHINE PLACE) (6.5 SACK HAND PLACED)		6" TH. STABILIZED SUBGRADE	NO.3 REBAR @ 18" O.C. EACH WAY	TRASH ENCLOSURE AREA

AS-BUILT DRAWINGS:

TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS — KARTAVYA S. PATEL — 97534 — LICENSED PROFESSIONAL ENGINEER — 12/13/2019

RECORD DRAWING

CASE # SP2017-023

PAVING PLAN

OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC

T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013

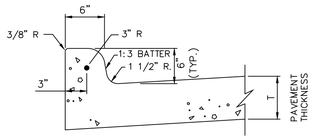
Planning | Civil Engineering | Construction Management

TX PE FIRM #11525

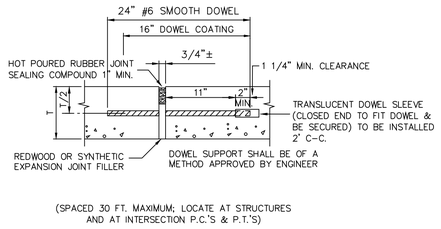
DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	7

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS



1 / 7.1 TYP. CURB DETAIL
N.T.S.



2 / 7.1 TYP. EXPANSION JOINT DETAIL
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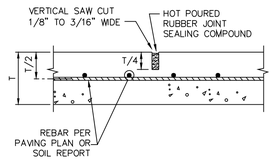
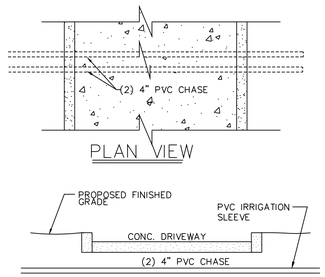
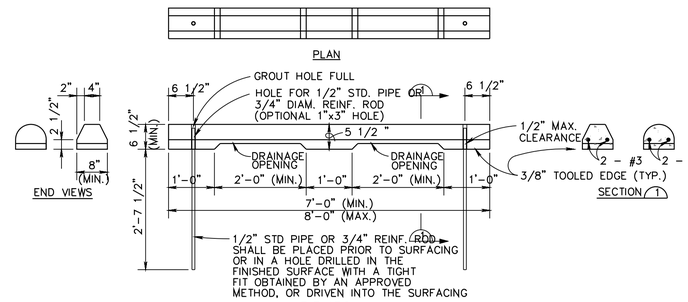


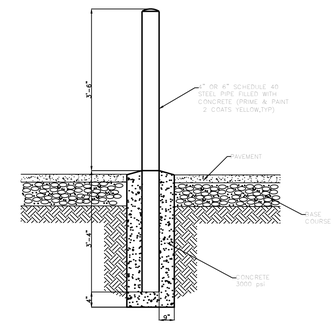
3 / 7.1 TYPICAL SAW CUT DETAIL
N.T.S.



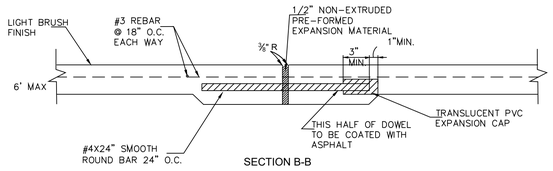
4 / 7.1 IRRIGATION SLEEVES
N.T.S.

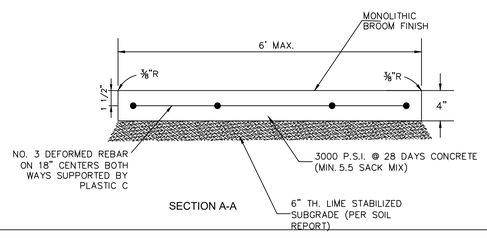


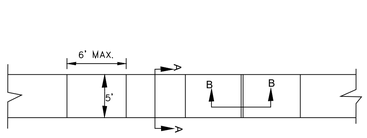
5 / 7.1 PRECAST CONCRETE WHEEL STOP DETAILS
N.T.S.



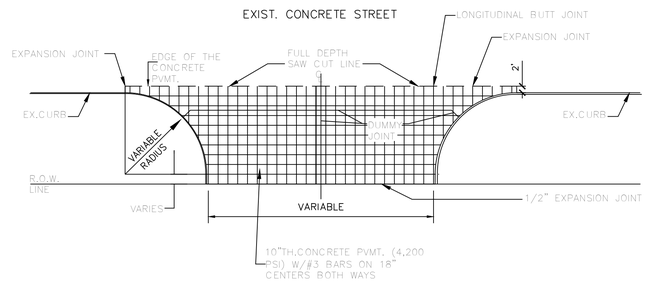
6 / 7.1 6" DIA. BOLLARD DETAILS
N.T.S.







7 / 7.1 SIDEWALK DETAILS
N.T.S.



8 / 7.1 CONCRETE DRIVEWAY DETAIL
N.T.S.

REFER MEP PLAN FOR DETAILS

9 / 7.1 TYPICAL SITE LIGHTING SECTIONS
N.T.S.

RECORD DRAWING

AS-BUILT DRAWINGS:
TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

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STATE OF TEXAS — KARTAVYA S. PATEL — 97534 — LICENSED PROFESSIONAL ENGINEER
12/13/2019

CASE # SP2017-023

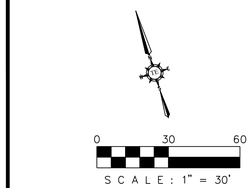
PAVING DETAILS

OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	7.1

TX PE FIRM #11525



LEGEND	
PUBLIC UTILITY EASEMENT	P.U.E.
SANITARY SEWER EASEMNET	S.E.
DRAINAGE & DETENTION EASEMENT	D.E.
WATERLINE EASEMENT	W.E.
CLEAN OUT	C.O.
GAS METER	GM
ELECTRICAL TRANSFORMER	ET
FH	FH
SANITARY SEWER MANHOLE	SSMH
STORM SEWER MANHOLE	STMMH
BUILDING SET BACK	B.S.
LANDSCAPE SETBACK	L.B.
PRESSURE REDUCING VALVE	PRV
FIRE DEPARTMENT CONNECTION	F.D.C.
GAS MARKER	GMA

STA: 2+77.96
INSTALL:
1-4"X45° BEND W/CLEAN-OUT
4" FL AT C.O. = 557.07

STA: 2+03.12 (6" PRIVATE SEWER LINE 'A')
BEGIN WET BORE & INSTALL:
1-4' DIA. CITY STD. SANITARY SEWER INTERNAL DROP MANHOLE
RIM: 563.65
6" FL OUT = 551.24
4" FL IN = 556.46

!!! CAUTION !!!
EXISTING UTILITIES. GC TO MAINTAIN MIN. REQUIRED CLEARANCE WITH EXISTING UTILITIES DURING BORE. FIELD VERIFY THE SIZE & LOCATION OF ALL UNDERGROUND UTILITIES BEFORE EXCAVATION AND CALL DIG-TESS BEFORE DIGGING.

STA: 0+00.00 (6" PRIVATE SEWER LINE 'A')
END WET BORE & CONNECT PROP. 6" PRIVATE SEWER TO EX. 4' DIA. SANITARY SEWER MANHOLE.
THE EXISTING MANHOLE IS TO BE RAVEN LINED
INSTALL:
1-6" INTERNAL DROP CONNECTION TO EX. MANHOLE
EX. 8" FL OUT = 544.25
PROP. 6" FL IN = 547.18

STA: 3+82.16
INSTALL:
1-4"X45° BEND W/CLEAN-OUT
4" FL AT C.O. = 568.11

STA: 3+92.78
INSTALL:
1-4"X45° BEND W/CLEAN-OUT
4" FL AT C.O. = 568.22

STA: 4+33.87
INSTALL:
1-4"X45° BEND W/CLEAN-OUT
4" FL AT C.O. = 568.63

STA: 4+47.94
INSTALL:
1-4"X45° BEND W/CLEAN-OUT
4" FL AT C.O. = 558.77

STA: 1+40.90
10" HDPE CROSSING
6" SS FL = 550.00
10" HDPE FL:552.97

STA: 1+43.33
10" HDPE CROSSING
6" SS FL = 550.05
10" HDPE FL = 552.71

STA: 0+29.92
18" RCP CROSSING
6" SS FL = 547.78
18" RCP FL = 550.55

STA: 0+44.26
10" TRENCH DRAIN CROSSING
6" SS FL = 548.07
10" DRAIN FL = 554.33

PROPOSED POLE MOUNTED TRANSFORMER & PRIMARY ELECTRIC SERVICE TO THE BUILDING BY SERVICE PROVIDER. GC TO INSTALL 3 - 4" CONDUITS & SECONDARY WIRE FROM BUILDING TO PROPERTY LINE. CO-ORDINATE W/LOCAL SERVICE PROVIDER

PROPOSED FOC DATA SERVICE TO THE BUILDING. GC TO INSTALL 2 - 4" CONDUITS FROM BUILDING TO PROPERTY LINE. CO-ORDINATE W/LOCAL SERVICE PROVIDER

PROP. TELEPHONE SERVICE TO THE BUILDING. GC TO INSTALL 2-2" CONDUITS FROM BUILDING TO PROPERTY LINE. CO-ORDINATE W/LOCAL SERVICE PROVIDER

WET BORE NOTE:
" WET BORE, VOID TO BE PRESSURE GROUTED"

CONNECT PROP. 8" WATER LINE TO EX. 12" WATER MAIN. GC TO FIELD VERIFY THE SIZE & LOCATION OF WATER MAIN AND CALL DIG-TESS & SERVICE CENTER 48 HOURS PRIOR TO EXCAVATION.
INSTALL:
1-12"X8' TAPPING SLEEVE
1-8" VALVE
1-8"X6" REDUCER
1- CITY STANDARD FIRE HYDRANT ASSEMBLY
1-69 LF OF 8" WATER TO FIRE HYDRANT

CONNECT PROP. 1" WATER LINE TO EX. 12" WATER MAIN. GC TO FIELD VERIFY THE SIZE & LOCATION OF WATER MAIN AND CALL DIG-TESS & SERVICE CENTER 48 HOURS PRIOR TO EXCAVATION.
INSTALL:
1-1" TAP FOR IRRIGATION SERVICES
1-26 LF OF 1" WATER TO THE METER
1-1' CITY STANDARD IRRIGATION WATER METER W/BACK FLOW PREVENTER

CONNECT PROP. 2" DOMESTIC WATER LINE TO EX. 12" WATER MAIN. GC TO FIELD VERIFY THE SIZE & LOCATION OF WATER MAIN AND CALL DIG-TESS & SERVICE CENTER 48 HOURS PRIOR TO EXCAVATION.
INSTALL:
1-2" TAP FOR DOMESTIC SERVICES
1-156 LF OF 2" WATER TO THE BUILDING
1-2" CITY STANDARD DOMESTIC WATER METER W/BACK FLOW PREVENTER

CONNECT PROP. 6" FIRE LINE TO EX. 12" WATER MAIN. GC TO FIELD VERIFY THE SIZE & LOCATION OF WATER MAIN AND CALL DIG-TESS & SERVICE CENTER 48 HOURS PRIOR TO ANY EXCAVATION.
INSTALL:
1-12"X6" TAPPING SLEEVE
2-6"X45° BENDS
1-6" VALVE
1- WALL MOUNTED FIRE DEPARTMENT CONNECTION
1-152 LF OF 6" FIRE LINE TO THE BUILDING RISER ROOM

NOTE:

1. FIELD VERIFY LOCATION OF EXISTING GAS, TELEPHONE AND ELECTRICAL LINE. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH SERVICE PROVIDER.
2. CONTRACTOR SHALL REPLACE ANY DAMAGE STREET PAVEMENT, CURB,SIDEWALK AND ANY ABOVE GROUND OR UNDER UTILITIES FOR UTILITY INSTALLATION.

AS-BUILT DRAWINGS:
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KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED PROFESSIONAL ENGINEER
12/13/2019

RECORD DRAWING

CASE # SP2017-023

UTILITY PLAN

OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

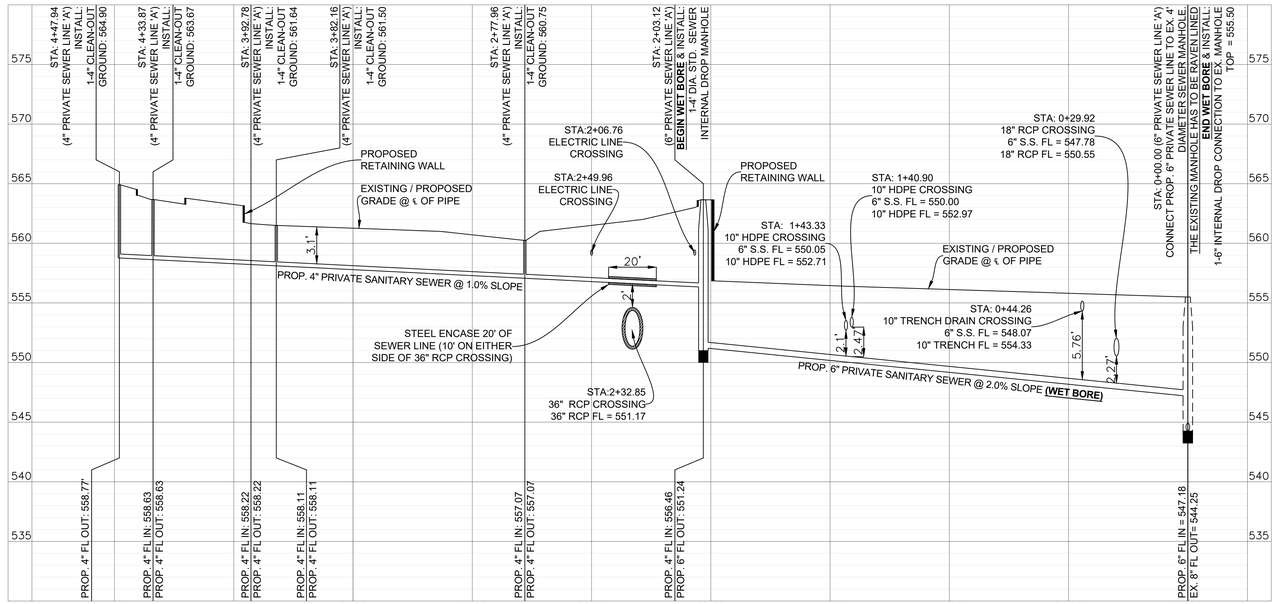
TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	8

TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS



6" & 4" PRIVATE SANITARY SEWER LINE 'A' PROFILE

SCALE H: 1"=30' V: 1"=6'

WET BORE NOTE:

" WET BORE, VOID TO BE PRESSURE GROUTED"

NOTE:

GC TO FIELD VERIFY THE SIZE AND LOCATION OF EXISTING UNDERGROUND UTILITIES BEFORE CARRYING OUT ANY OPERATION AND CALL DIG-TESS 48 HOURS PRIOR TO EXCAVATION

RECORD DRAWING

AS-BUILT DRAWINGS:
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KARTAVYA S. PATEL, P.E. NO. 97534

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STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED
PROFESSIONAL ENGINEER
12/13/2019

CASE # SP2017-023

SANITARY SEWER PROFILE
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
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KP	DS	07/04/17	SEE SCALE BAR	018-17	8.1

TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 30 60

SCALE: 1" = 30'

SITE EROSION CONTROL SUMMARY

PROJECT NAME & LOCATION :	MEDICAL OFFICE 1306 SUMMER LEE DRIVE ROCKWALL, TEXAS
OWNER NAME & ADDRESS:	1306 SUMMER LEE LLC 1020 W RALPH PARKWAY, # 101 ROCKWALL, TEXAS 75032
PROJECT DESCRIPTION:	SITE GRADING OF 1.082 +/- ACRES OUT OF CONSTRUCTION OF PARKING LOT, UNDERGROUND AND ABOVE GROUND UTILITIES, & PROPOSED 6,454 SF+/- BUILDING.
SEQUENCE OF MAJOR ACTIVITIES:	THE CONTRACTOR WILL SCHEDULE THE PROJECT IN A SERIES OF PHASES. IN GENERAL, THE SEQUENCE OF THESE PHASES WILL CONSIST OF 1. INSTALL EROSION CONTROL BMP 2. EARTHWORK 3. UTILITIES 4. SITE GRADING 5. TEMPORARY/PERMENENT DRIVEWAY, PARKING LOT 6. BUILDING FOUNDATION PAD 7. VERTICAL BUILDING CONSTRUCTION 8. FINALIZE UTILITIES 9. REMOVAL OF EXISTING EROSION CONTROL BMP & INSTALLATION OF PERMANENT EROSION CONTROL BMP.
SOIL DISTURBING ACTIVITIES:	SOIL DISTURBING ACTIVITIES WILL INCLUDE CLEARING & GRUBBING, GRADING, TRENCHING IN PREPARATION FOR INSTALLING UTILITIES, BUILDING PAD, PARKING LOT, EROSION & SEDIMENTATION CONTROLS AND TOPSOIL WORK FOR FINAL PLANTING AND SEEDING.

PRE-DEVELOPMENT RUNOFF COEFFICIENT: 0.30

POST-DEVELOPMENT RUNOFF COEFFICIENT: 0.90

TOTAL PROJECT AREA: 1.10 ACRES

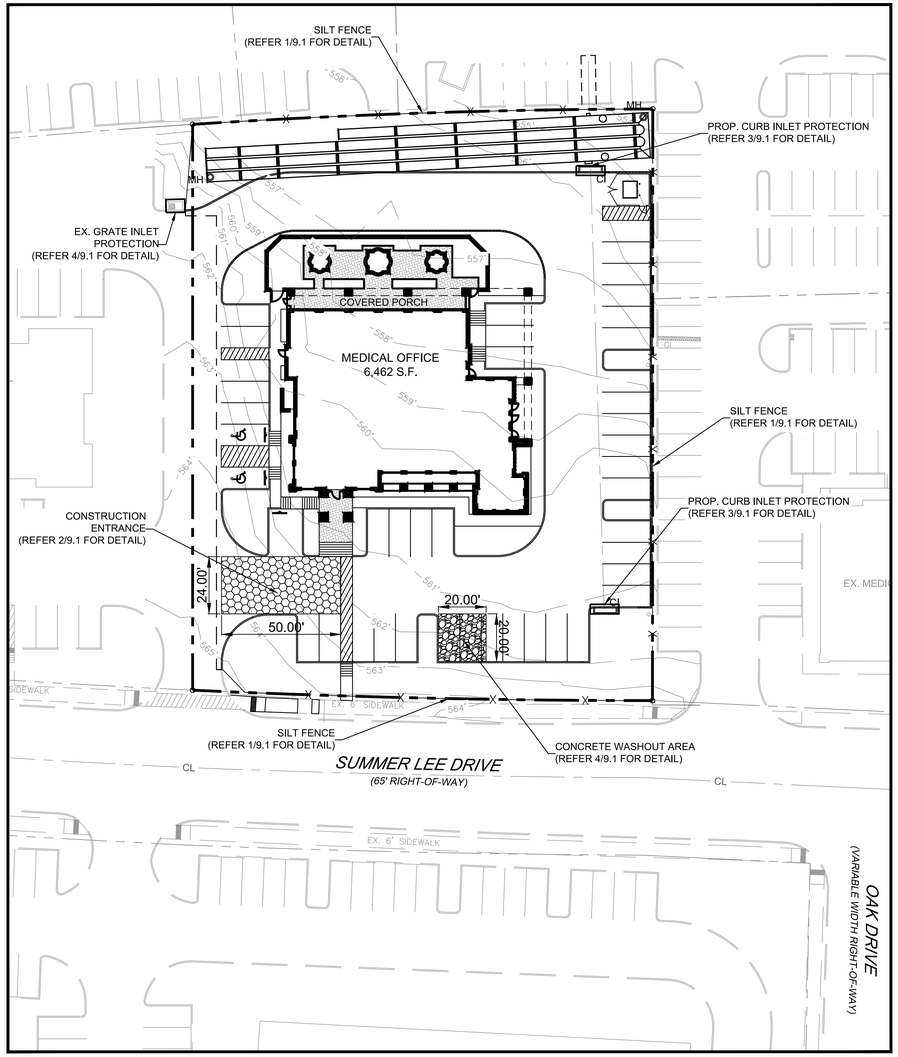
TOTAL AREA TO BE DISTURBED: 2.4 ACRES

ESTIMATED PROJECT START DATE: 01/15/2019

ESTIMATED PROJECT END DATE: 12/15/2019

LEGEND

- SILT FENCE
- CONSTRUCTION ENTRANCE (50'X24'X1")
- CONCRETE WASHOUT AREA (30'X20'X1")
- INLET PROTECTION.



EROSION CONTROL NOTES:

1. EVERY SOIL DISTURBING ACTIVITY SHALL HAVE AN ACCOMPANYING EROSION CONTROL PLAN (ECP), AND EITHER CONSTRUCTION SITE NOTICE (CSN) FOR THOSE ACTIVITIES DISTURBING MORE THAN 1 BUT LESS THAN 5 ACRES, OR NOTICE OF INTENT (NOI) FOR THOSE ACTIVITIES DISTURBING 5 OR MORE ACRES INCLUDING THOSE ACTIVITIES LESS THAN 5 ACRES, BUT A PART OF A COMMON PLAN OF DEVELOPMENT TOTALING 5 OR MORE ACRES. A COPY OF THE APPROPRIATE CSN OR NOI SHALL BE PROVIDED TO THE CITY OF ROCKWALL PRIOR TO ISSUANCE OF A GRADING PERMIT. THE ECP SHALL BE PROVIDED TO CITY OF ROCKWALL'S EROSION CONTROL OFFICER (ECO) PRIOR TO GRADING.
2. THE CSN OR NOI SHALL BE POSTED IN A LOCATION VIEWABLE TO THE PUBLIC UNTIL CONSTRUCTION IS COMPLETE AND NOTICE OF TERMINATION (NOT) SUBMITTED. THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) SHALL BE READILY AVAILABLE FOR REVIEW BY FEDERAL, STATE, OR LOCAL OFFICIALS.
3. NO SOIL DISTURBING ACTIVITIES WILL OCCUR PRIOR TO THE SWP3, ECP, AND ASSOCIATED BEST MANAGEMENT PRACTICES (BMP) BEING FULLY IMPLEMENTED, AND THEN INSPECTED BY CITY OF ROCKWALL'S ECO.
4. THE CONTRACTOR SHALL COMPLY WITH THE CITY OF ROCKWALL'S STORM WATER ORDINANCE, THE TPDES GENERAL CONSTRUCTION PERMIT TXR150000 AND ANY OTHER STATE AND/OR LOCAL REGULATIONS.
5. THE SITE SHALL BE REVIEWED BY THE OPERATOR OR HIS REPRESENTATIVE WEEKLY, AND AFTER ANY MAJOR STORM. ADJUSTMENTS/REPAIRS TO THE EROSION CONTROL MEASURES WILL BE MADE AS NEEDED. THE CONTRACTOR SHALL NOTIFY CITY OF ROCKWALL ECO OF ADJUSTMENTS/REPAIRS SUCH THAT THE ADJUSTMENTS/REPAIRS MAY BE INSPECTED AND APPROVED BY THE ECO.
6. CONTRACTOR SHALL VEGETATE ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF GRADING ACTIVITIES. FINAL ACCEPTANCE OF A SITE SHALL BE CONTINGENT UPON VEGETATION BEING ESTABLISHED IN ALL DISTURBED AREAS, AND PROPER NOT SUBMITTED TO THE STATE. A COPY OF THE NOT SHALL BE PROVIDED TO THE CITY OF ROCKWALL.
7. ALL NON-IMPERVIOUS AREAS AFTER CONSTRUCTION SHALL BE COVERED WITH SOD OR LANDSCAPED IN ACCORDANCE WITH THE LANDSCAPE DRAWINGS. ALL OTHER REMAINING AREAS SHALL BE HYDROMULCHED OR COVERED WITH CURLEX BLANKET (WHERE SHOWN OR PROVIDE MAP SHOWING) AND MAINTAINED UNTIL ESTABLISHED.
8. TEMPORARY STONE STABILIZED CONSTRUCTION ENTRANCE SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 24' WIDE X 50' LONG X 12" DEEP. (4"-8" OPEN GRADED ROCK). PLACE FILTER FABRIC UNDER STONE . NO CRUSHED OR RECYCLED CONCRETE ALLOWED.
9. THE STABILIZED CONSTRUCTION ENTRANCE IS TO BE USED AS A VEHICLE WASH DOWN AREA FOR DEBRIS AND SOIL REMOVAL PRIOR TO EXITING THE SITE. THIS STABILIZED ENTRANCE SHALL BE TOP DRESSED WITH ADDITIONAL STONE AS NECESSARY. LOCATION OF STABILIZED ENTRANCE MAY BE MODIFIED IF APPROVED BY THE CITY OF ROCKWALL AND THE DESIGN ENGINEER.
10. THE CONTRACTOR SHALL BE RESPONSIBLE, AS THE ENTITY EXERCISING OPERATIONAL CONTROL, FOR ALL PERMITTING AS REQUIRED BY THE EPA/TCEQ. THIS INCLUDES, BUT IS NOT LIMITED TO, PREPARATION OF NOI AND NOT PAYMENT OF ALL ASSOCIATED FEES.
11. 75% TO 80% OF ALL DISTURBED AREA TO HAVE 1" STAND OF GRASS (NOT WEEDS) PRIOR TO CITY'S ACCEPTANCE.
12. ALL CITY RIGHT-OF-WAY TO BE SODDED PRIOR TO CITY'S ACCEPTANCE.

EROSION & SEDIMENT CONTROLS

1. SOIL STABILIZATION PRACTICES:

(Select T = Temporary or P = Permanent, as applicable)

T	TEMPORARY SEEDING	____	PRESERVATION OF NATURAL RESOURCES
____	MULCHING (Hay or Straw)	____	FLEXIBLE CHANNEL LINER
____	BUFFER ZONES	____	RIGID CHANNEL LINER
P	PLANTING	____	SOIL RETENTION BLANKET
____	SEEDING	____	COMPOST MANUFACTURED TOPSOIL
P	SODDING	____	EROSION CONTROL BLANKET

2. STRUCTURAL PRACTICES:

(Select T = Temporary or P = Permanent, as applicable)

T	SILT FENCES	____	DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
____	HAY BALES	____	DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
____	ROCK FILTER DAMS	____	DIVERSION DIKE AND SWALE COMBINATIONS
____	PIPE SLOPE DRAINS	____	ROCK BEDDING AT CONSTRUCTION EXIT
____	PAVED FLUMES	____	TIMBER MATTING AT CONSTRUCTION EXIT
____	CHANNEL LINERS	____	STONE OUTLET STRUCTURES
____	SEDIMENT TRAPS	____	VELOCITY CONTROL DEVICES
____	SEDIMENT BASINS	P	CURBS AND GUTTERS
P	STORM SEWERS	____	STORM INLET SEDIMENT TRAP
T	INLET PROTECTION	T	CONSTRUCTION ENTRANCE

RECORD DRAWING

AS-BUILT DRAWINGS:

TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS — KARTAVYA S. PATEL — 97534 — LICENSED PROFESSIONAL ENGINEER

12/13/2019

CASE # SP2017-023

EROSION CONTROL PLAN

OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC

T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013

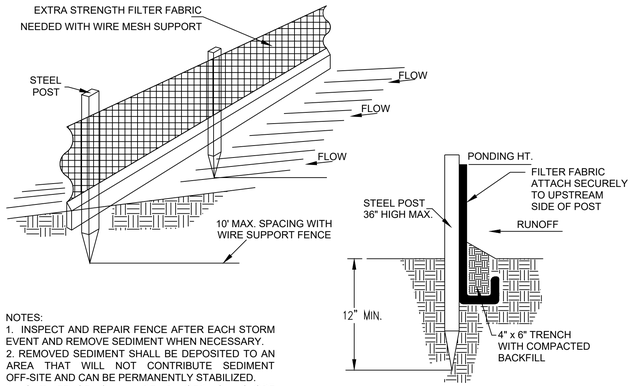
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	9

TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS



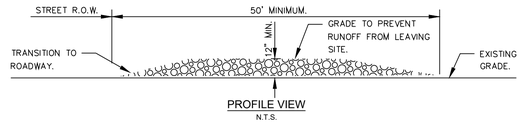
NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
4. NO STEEL POSTS ARE ALLOWED IN R.O.W.

1 / 9.1 SILT FENCE DETAILS
N.T.S.

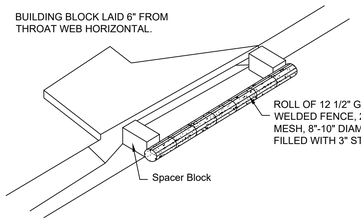
STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES

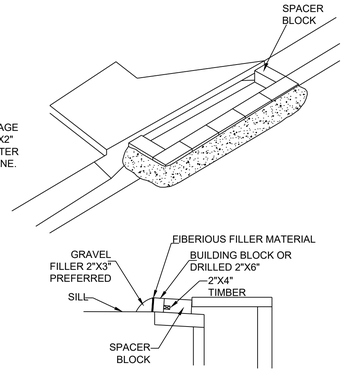
1. STABILIZED CONSTRUCTION ENTRANCES SHALL CONFORM TO CITY OF ROCKWALL EROSION CONTROL CRITERIA MANUAL.
2. STONE SIZE SHALL BE 4" – 6" OPEN GRADED ROCK, NO RECYCLED/CRUSHED CONCRETE ALLOWED
3. THICKNESS OF CRUSHED STONE PAD TO BE NOT LESS THAN 12".
4. LENGTH SHALL BE A MINIMUM OF 50' FROM ACTUAL ROADWAY, AND WIDTH NOT LESS THAN FULL WIDTH OF INGRESS/EGRESS.
5. ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY BY CONTRACTOR. AS NECESSARY, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.



2 / 9.1 CONSTRUCTION ENTRANCE DETAILS
N.T.S.

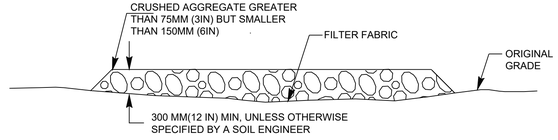




NOTES:

1. FIBEROUS FILLER MATERIAL IN FRONT OF BLOCK PREVENTS GRAVEL FROM WASHING INTO STRUCTURE.
2. 2"X4" BEHIND BLOCK AND ACROSS THROAT HELPS KEEP BLOCK IN PLACE. PLACE IN OUTER HOLE OF SPACER BLOCK.
3. BALES OF HAY AND SOD, SIMILARLY PLACED, MAY ALSO BE USED.

3 / 9.1 CURB INLET PROTECTION DETAILS
N.T.S.



5 / 9.1 CONCRETE WASHOUT AREA
N.T.S.

AS-BUILT DRAWINGS:
TO THE BEST OF OUR KNOWLEDGE TRIANGLE ENGINEERING LLC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THE INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED
PROFESSIONAL ENGINEER
12/13/2019

RECORD DRAWING

CASE # SP2017-023

EROSION CONTROL DETAILS
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

TRIANGLE ENGINEERING LLC
T: 214.609.9271 I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	9.1

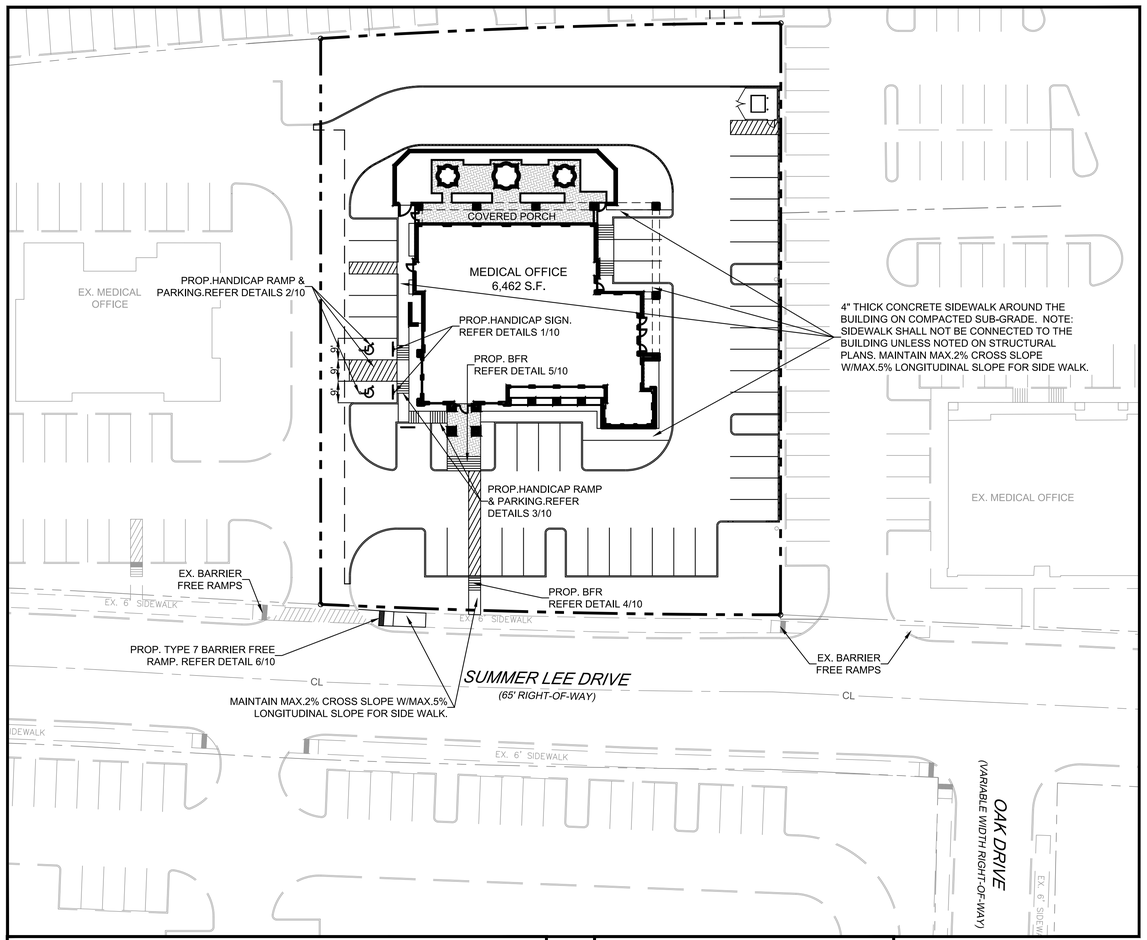
TX PE FIRM #11525

OFFICE BUILDING SITE DEVELOPMENT

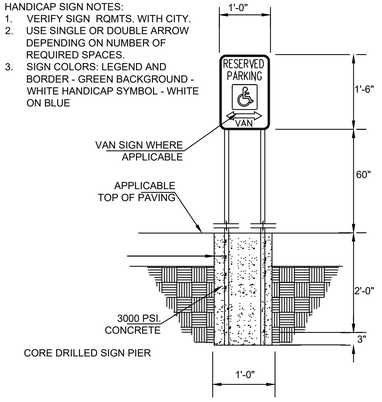
1.082 ACRES OF LAND BEING LOT 6, BLOCK A OF TEMUNOVIC ADDITION, AN ADDITION TO THE CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

0 30 60

SCALE: 1" = 30'



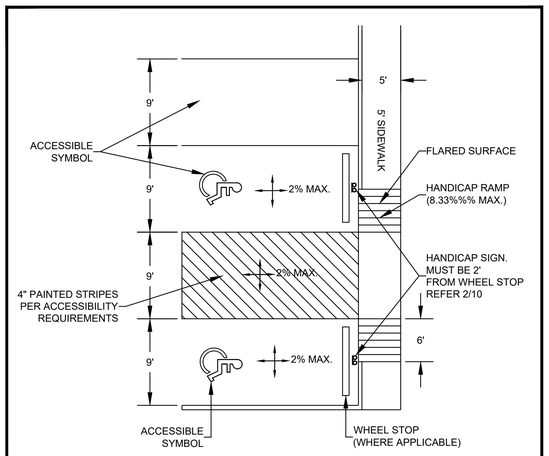
HANDICAP SIGN NOTES:
1. VERIFY SIGN RQMTS. WITH CITY.
2. USE SINGLE OR DOUBLE ARROW DEPENDING ON NUMBER OF REQUIRED SPACES.
3. SIGN COLORS: LEGEND AND BORDER - GREEN BACKGROUND - WHITE HANDICAP SYMBOL - WHITE ON BLUE



1/10 HANDICAP POLE SIGN
N.T.S.

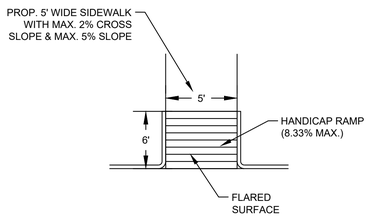
CONSTRUCTION NOTES:

1. MAXIMUM SLOPE OF CURB RAMP SHALL BE 1:12 (8.33%) - 5% RECOMMENDED.
2. MAXIMUM SLOPE OF THE CURB RAMP'S "FLARED SIDES" SHALL BE (8.33% MAX).
3. SLOPE AND CROSS-SLOPE OF A SIDEWALK LEADING INTO A CURB RAMP'S SYSTEM SHALL BE A MAXIMUM OF 1:20 (5%) AND 2% CROSS-SLOPE.
4. MAXIMUM SLOPE OF A HANDICAPPED ACCESSIBLE ROUTE ALONG A SIDEWALK LEADING INTO A CURB RAMP, BEFORE IT MUST BE CONSIDERED A RAMP IS 1:20 (5%) AND ,2% CROSS SLOPE.
5. ALL SLOPED SURFACES AT CURB RAMP SYSTEMS MUST HAVE A "SIGNIFICANT COLOR CONTRAST" FOR THE SEEING IMPAIRED. THEREFORE ALL SUCH SLOPES MUST HAVE "INTEGRAL COLOR IN CONCRETE" OR "STAINED" (SCOFFIELD), COMPARED TO THE ADJACENT "FLAT" SIDEWALK/PAVING SURFACE.
6. SLOPED CURB-RAMP SURFACE TO HAVE TEXTURE (IE.-FORMED/SAWCUT GROVES 3/4" WIDE X 1/4" DEEP @ 2" ON-CENTER) FORMED PERPENDICULAR TO PATH OF TRAVEL FOR THE BLIND TO FEEL TEXTURE BENEATH THEIR FEET & FOR WHEELCHAIR TRACTION - ARRANGED SO WATER WILL NOT ACCUMULATE.
7. MAXIMUM SLOPE AND CROSS-SLOPE OF HANDICAPPED ACCESSIBLE PARKING SPACE & ADJACENT ACCESS AISLE IS 1:50 (2%) IN ANY DIRECTION.

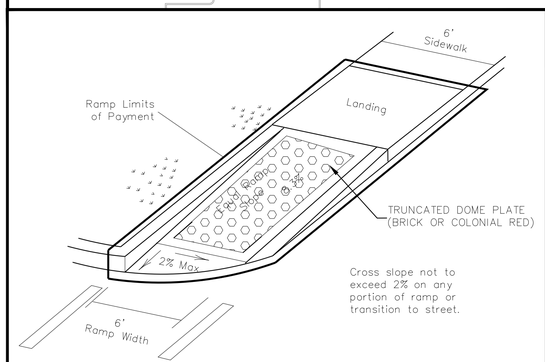


(8'-0" MIN. AT VAN ACCESSIBLE SPACE)

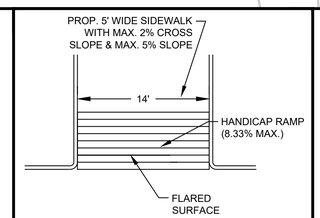
2/10 HANDICAP RAMP DETAILS
N.T.S.



4/10 HANDICAP RAMP DETAIL
N.T.S.



6/10 BARRIER FREE RAMP WITHIN RADIUS (TXDOT TYPE 7)
N.T.S.



5/10 HANDICAP RAMP DETAIL
N.T.S.

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KARTAVYA S. PATEL, P.E. NO. 97534

NO.	DATE	DESCRIPTION	BY
1	12/13/2019	AS-BUILT RECORD DRAWING	KP

STATE OF TEXAS
KARTAVYA S. PATEL
97534
LICENSED PROFESSIONAL ENGINEER
12/13/2019

RECORD DRAWING

CASE # SP2017-023

ADA PLAN
OFFICE BUILDING
1306 SUMMER LEE DRIVE
CITY OF ROCKWALL
ROCKWALL COUNTY, TEXAS

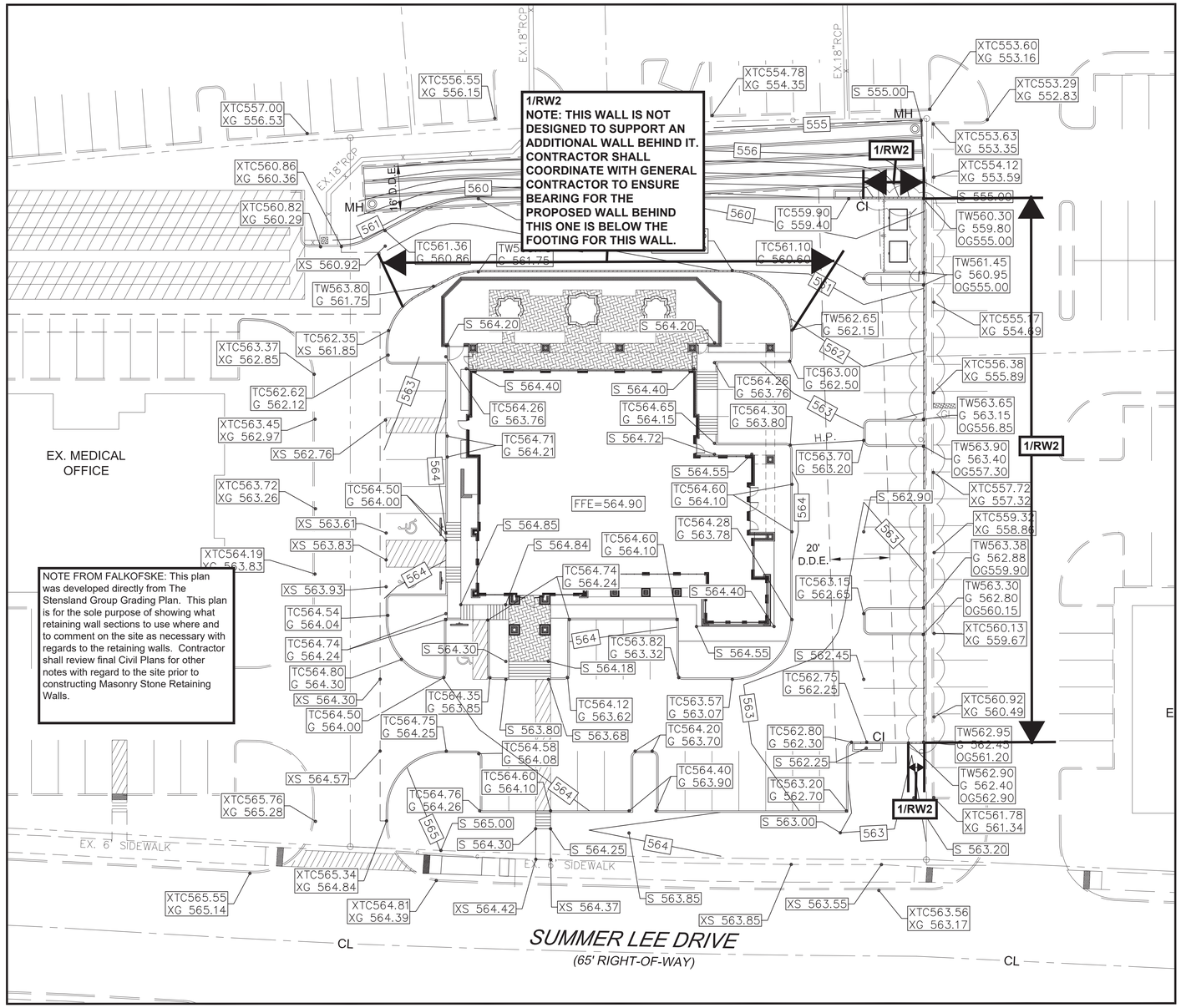
TRIANGLE ENGINEERING LLC
T: 214.609.9271I F: 469.359.6709 I E: kpatel@triangle-engr.com
W: triangle-engr.com I O: 1784 W. McDermott Drive, Suite 110, Allen, TX 75013
Planning | Civil Engineering | Construction Management

DESIGN	DRAWN	DATE	SCALE	PROJECT NO.	SHEET NO.
KP	DS	07/04/17	SEE SCALE BAR	018-17	10

TX PE FIRM #11525

0 20 40

SCALE: 1" = 20'



NO.	DATE	REVISION	BY

DES. 03-20-18 AMB
DRN. 03-20-18 EG
CHK. 03-20-18 AMB

Falkofske Engineering, Inc.
Structural Engineering Consultants
TX Reg. Engineering Firm F-4038
722 North Fielder Road
Arlington, Texas 76012
(817) 261-8300

FALKOFSKE ENGINEERING

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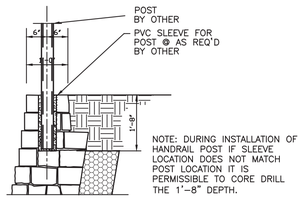
MASONRY RETAINING WALLS – SITE PLAN
ROCKWALL OFFICE BUILDING
SUMMER LEE DRIVE AND OAK DRIVE
ROCKWALL, TEXAS

TEXAS – ERW SITE SOLUTION
FORT WORTH, TEXAS

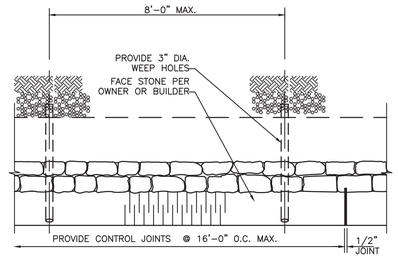
STATE OF TEXAS
AARON M. PERKES
107154
LICENSED
PROFESSIONAL ENGINEER
5-30-18

JOB NO. 168.18

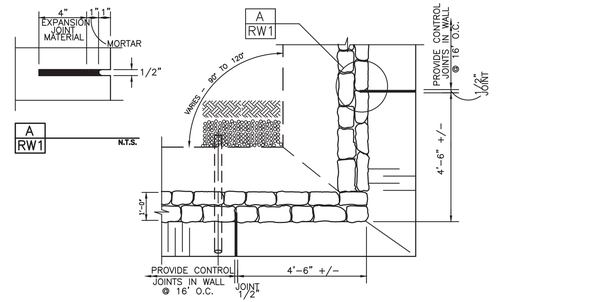
SP1



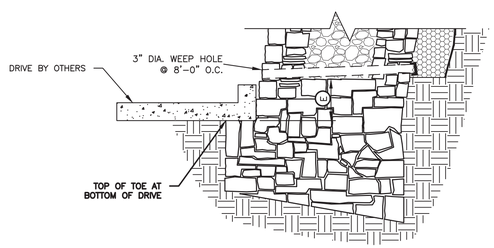
1 RW1 WALL SECTION W/HANDRAIL POST CONTRACTOR OPTION N.T.S.



2 RW1 TYPICAL PLAN VIEW AT BASE N.T.S.



3 RW1 TYPICAL PLAN VIEW AT CORNERS N.T.S.



4 RW1 CROSS SECTION OF WALL WITH DRIVE ON TOP OF TOE N.T.S.

1. Design Building Code

International Building Code, 2015 Edition

2. Geotechnical Report

Firm: ECS Southwest, LLP
Report No. 19.7170 Dated: August 7, 2017
Allowable Bearing Capacity 1500 psf

Note:
All of the above noted bearing capacities are anticipated throughout the site. Each wall section has a design for multiple bearing capacity options. It will be field verified which bearing condition to use based on the conditions of the soil at the base of the wall during excavation. If the bearing capacity changes along the length of the retaining wall it is permitted to change bearing capacity designs as needed.

3. Geotechnical Criteria

Bearing on Hard Natural Undisturbed Clayey Soils

Allowable Bearing = 1500 psf, min.
Friction Angle Between Base of Wall and Soil - 19 deg

Backfill Soil Parameters:
Backfill Soil - Natural Clays or Fill Soils
Backfill Angle of Internal Friction PHI = 26 deg

Base Soil Parameters:
Soil at Toe - Natural, Undisturbed Soils
Angle of Internal Friction PHI = 26 deg

The use of very wet or very dry backfill soil should be avoided. The use of heavy equipment within 3'-0" of the wall could damage the wall and should be avoided.

Locate base of walls on undisturbed or properly compacted soil.

4. Materials:

Rock for Wall Construction:

Average density of masonry stone wall varies from 135 pcf to 145 pcf. Size of stone within wall varies from 4" to 18". Crushed concrete is acceptable to be used in the wall construction in place of natural stone. Face stone to be coordinated between contractor and owner/developer.

Drainage Zone Materials:

Drainage zone materials may be composed of clean gravel or stone ranging from 1" to 5". Crushed concrete is acceptable provided it is clean and generally free of dust or other deleterious materials. Drainage zone shall be wrapped with filter fabric. Filter fabric shall be Mirafi 140N or approved equal.

Portland Cement Mortar for Retaining Wall Construction.

The portland cement mortar used for construction of the masonry stone retaining walls shall be provided with the following proportions per cubic yard of concrete. The portland cement mortar supplier shall provide "batch tickets" clearly indicating that the appropriate amount of materials are provided in each concrete mixer truck load. The batch tickets shall clearly indicate the amount batched, the date, the project name and shall be provided to Falkofske Engineering, Inc. for review, documentation, and file.

Contents	Amount per cubic yard
Type 1 Portland cement:	376 lbs
Type F Fly Ash	94 lbs
Fine Aggregate (sand):	3250 lbs
Potable Water	235 lbs
Admixture Eucon 100	48 oz average

Concrete retarders such as "Eucon 100 Retarder" may be used at the discretion of the masonry wall contractor. A greater amount of retarder (about 64 ounces) is typically used during hot periods and a less amount of retarder (about 32 ounces) is typically used during cool weather.

Please note that the above proportions will provide a portland cement mortar with a compressive strength of about f'c = 2500 psi. Falkofske Engineering, Inc. does not require any concrete testing provided the above proportions are verified by way of the "batch tickets".

5. Construction Reviews

Falkofske Engineering, Inc. shall be called for construction review of masonry wall.

6. Retaining Wall Design Constraints

Retaining walls should not have solid fence placed on top of wall other than that shown on these plans. Retaining walls shall not have additional surcharge placed above wall other than that shown on these plans. Retaining walls shall not have slope at base or top of wall that exceed that which is shown on these plans. The retaining walls noted above require special design.

Minor variations in the construction of the retaining walls from these documents may be accepted at the discretion of the design engineer.

NO.	DATE	REVISION	BY

DES.	03-20-18 AMB
DRN.	03-20-18 EG
CHK.	03-20-18 AMB

Falkofske Engineering, Inc.
Structural Engineering Consultants
TX Reg. Engineering Firm F-4038
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(817) 261-8300

FALKOFSKE ENGINEERING

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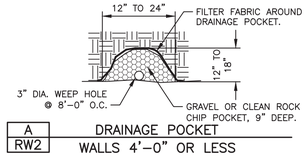
MASONRY RETAINING WALLS - NOTES & STANDARD DETAILS
ROCKWALL OFFICE BUILDING
SUMMER LEE DRIVE AND OAK DRIVE
ROCKWALL, TEXAS

TEXAS - ERW SITE SOLUTION
FORT WORTH, TEXAS

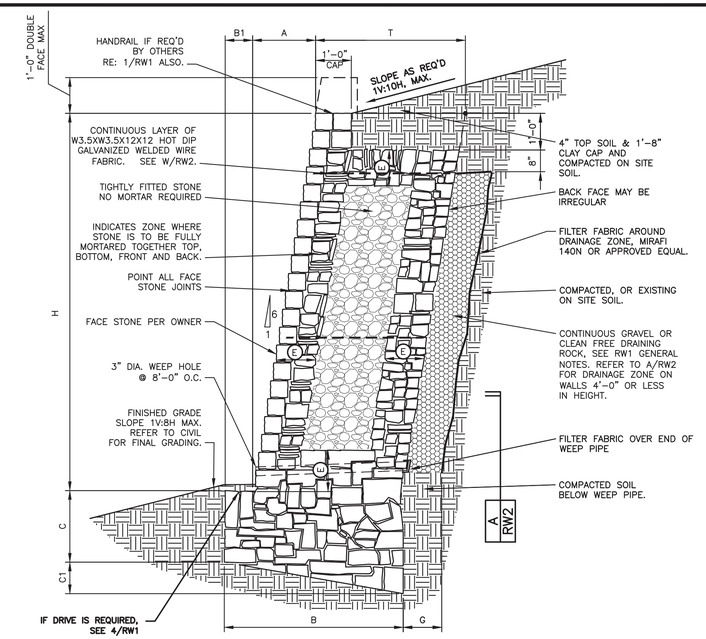
STATE OF TEXAS
AARON M. PERKES
107154
LICENSED
PROFESSIONAL ENGINEER
3-20-18

JOB NO. 168.18

RW1



A / RW2 — DRAINAGE POCKET
WALLS 4'-0" OR LESS



MASONRY WALL SCHEDULE

1500 psf – BEARING CAPACITY (STIFF NATURAL UNDISTURBED SOILS SEE GENERAL NOTES SHEET RW1)

WALL HEIGHT H	BASE WIDTH B	TOE B1	BASE DEPTH (TOE) C	BASE DEPTH (HEEL) C1	BATTER A	FULLY MORTARED ZONE E	THICKNESS OF WALL T	DRAINAGE ZONE THICKNESS G	BEARING CAPACITY
1'-0"	1'-0"	0'-0"	0'-6"	0'-2"	0'-2"	FULLY MORTARED	1'-0"	SEE A/RW2	1500 psf
2'-0"	1'-2"	0'-2"	0'-9"	0'-3"	0'-4"	FULLY MORTARED	1'-0"	SEE A/RW2	
3'-0"	1'-7"	0'-3"	0'-9"	0'-4"	0'-6"	FULLY MORTARED	1'-4"	SEE A/RW2	
4'-0"	2'-3"	0'-4"	1'-0"	0'-5"	0'-8"	FULLY MORTARED	1'-11"	SEE A/RW2	
5'-0"	2'-9"	0'-5"	1'-3"	0'-6"	0'-10"	0'-8"	2'-4"	1'-0"	
6'-0"	3'-5"	0'-7"	1'-6"	0'-8"	1'-0"	0'-10"	2'-10"	1'-0"	
7'-0"	4'-1"	0'-9"	1'-9"	0'-9"	1'-2"	0'-10"	3'-4"	1'-0"	

WALL DESIGN CRITERIA

BEARING Qa	SLOPE TOP β	SLOPE BOT β1	ACTIVE PRESSURE Ka	PASSIVE PRESSURE Kp	FRICTION ANGLE BASE δ	SLOPE OF BACK OF WALL η	SURCHARGE q
1500PSF	5.71 deg	7.13 deg	26 deg	26 deg	17 deg	99.46 deg	0 psf

USE THIS SCHEDULE FOR 1/RW2

1 / RW2 — TYPICAL WALL SECTION – 1V:10H MAX SLOPE ABOVE WALL
1V:8H MAX SLOPE BELOW WALL
BEARING IN CLAYEY OR SANDY SOILS
1/2" = 1'-0"

NO.	DATE	REVISION	BY

DES. — DATE 03-20-18 — BY AMB
DRN. — DATE 03-20-18 — BY EG
CHK. — DATE 03-20-18 — BY AMB

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MASONRY RETAINING WALLS
ROCKWALL OFFICE BUILDING
SUMMER LEE DRIVE AND OAK DRIVE
ROCKWALL, TEXAS

TEXAS – ERW SITE SOLUTION
FORT WORTH, TEXAS

JOB NO. 168.18

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