E2022-013

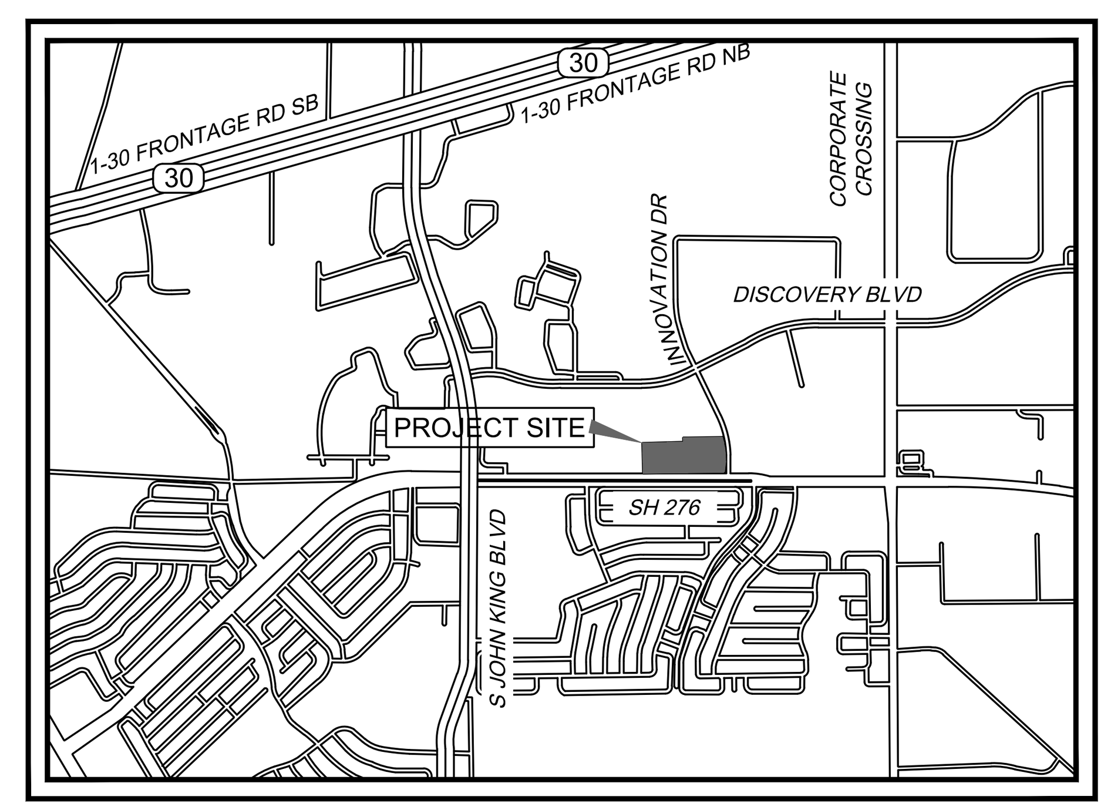
PLANS FOR THE CONSTRUCTION OF
WATER, SEWER, PAVING, GRADING & DRAINAGE IMPROVEMENTS
TO SERVE
INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B, ROCKWALL TECHNOLOGY PARK ADDITION
THE CITY OF ROCKWALL, ROCKWALL COUNTY COUNTY, TEXAS

DEVELOPER:
LINKS CONSTRUCTION, LLC
525 S. LOOP 288, SUITE 105
DENTON, TX 76205
PHONE: (940) 783-0920
CONTACT: ALISON WINGET
awinget@linksconstruction.com

ENGINEER:
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
PHONE: (817) 488-4960
CONTACT: JEREMY NELSON, P.E.
jeremy.nelson@trustke.com

SURVEYOR:
BARTON CHAPA SURVEYING
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
PHONE: (817) 864-1957
CONTACT: JACK BARTON, RPLS
jack@bcsdfw.com



VICINITY MAP
N.T.S.

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

SHEET LIST TABLE

PLAN SUBMITTAL/REVIEW LOG

1ST SUBMITTAL - NOT FOR CONSTRUCTION	03/16/2022
2ND SUBMITTAL -NOT FOR CONSTRUCTION	04/12/2022
3RD SUBMITTAL -NOT FOR CONSTRUCTION	05/03/2022
4TH SUBMITTAL - FOR CONSTRUCTION	05/19/2022

kirkman ENGINEERING
TEXAS FIRM NO. 15874

PROJECT NO. LNK21005

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

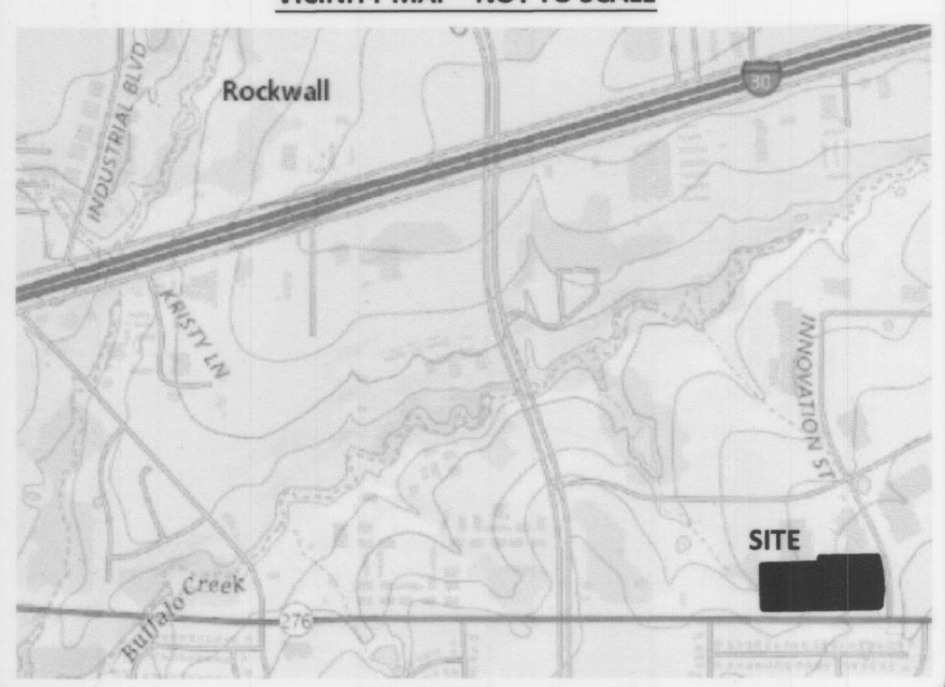
REV:	DATE:	DESCRIPTION:

MAY 2022

PLANS FOR THE CONSTRUCTION OF WATER, SANITARY SEWER, PAVING, GRADING & DRAINAGE IMPROVEMENTS TO SERVE: INTEGRATED DEFENSE PRODUCTS TM

20220000015612 1/2 PLAT 07/13/2022 01:03:21 PM

VICINITY MAP - NOT TO SCALE

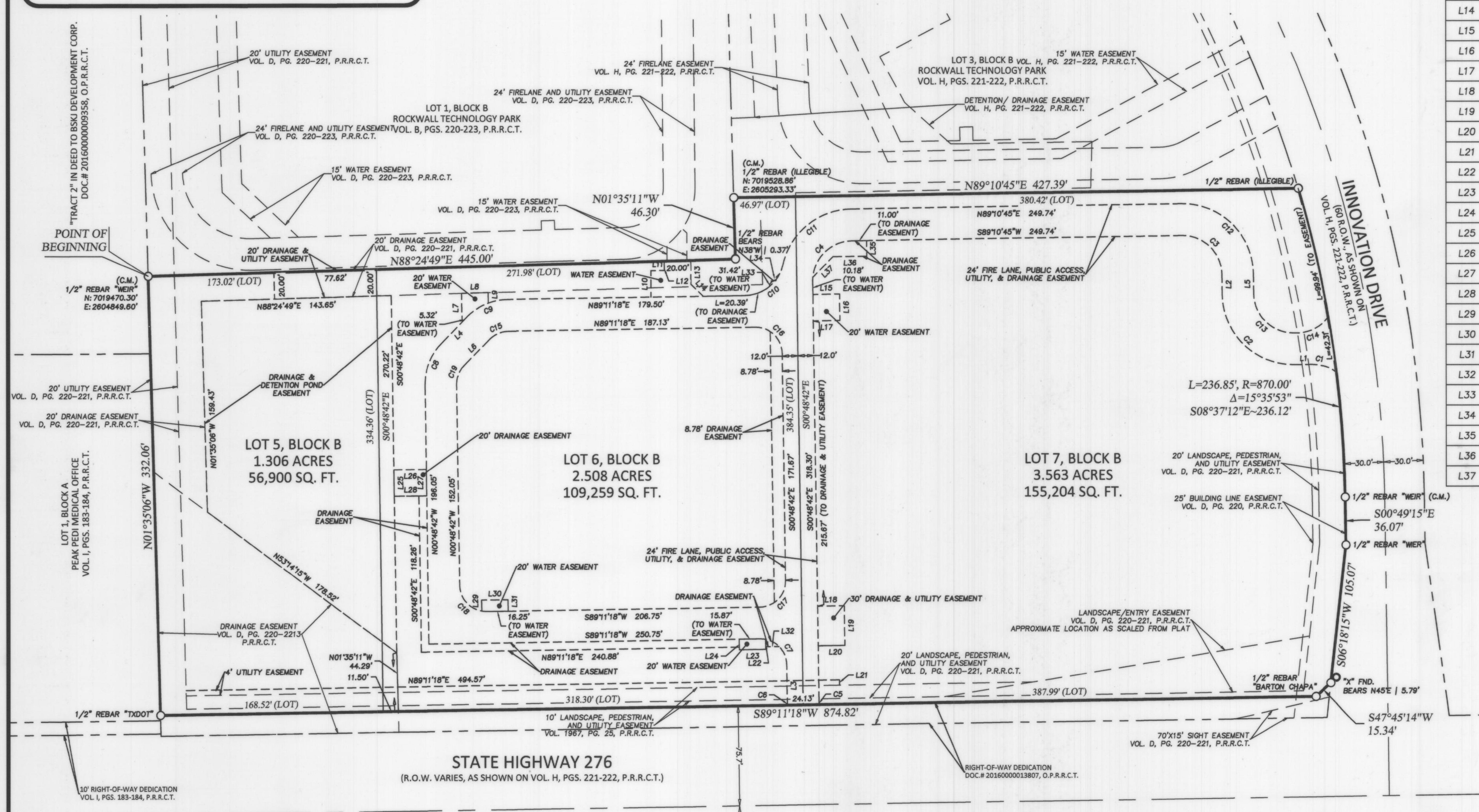


SCALE: 1" = 60'

Curve Data Table					
Curve #	Arc	Radius	Delta	Chord Bearing	Chord
C1	19.77'	30.00'	037°45'59"	N71°55'43"W	19.42'
C2	84.82'	54.00'	090°00'00"	N45°48'42"W	76.37'
C3	47.13'	30.00'	090°00'33"	N45°48'59"W	42.43'
C4	47.12'	30.00'	089°59'27"	S44°11'01"W	42.42'
C5	2.05'	30.00'	003°54'48"	S02°46'06"E	2.05'
C6	1.91'	30.00'	003°38'27"	N01°00'31"E	1.91'
C7	31.42'	20.00'	090°00'00"	N45°48'42"W	28.28'
C8	34.56'	44.00'	045°00'00"	N21°41'18"E	33.68'
C9	34.56'	44.00'	045°00'00"	N66°41'18"E	33.68'
C10	39.98'	30.00'	076°21'18"	N51°00'39"E	37.09'

Curve Data Table					
Curve #	Arc	Radius	Delta	Chord Bearing	Chord
C11	71.95'	54.00'	076°20'45"	N51°00'22"E	66.75'
C12	84.83'	54.00'	090°00'33"	S45°48'59"E	76.37'
C13	47.12'	30.00'	090°00'00"	S45°48'42"E	42.43'
C14	29.65'	30.34'	055°59'56"	N65°03'14"E	28.48'
C15	15.71'	20.00'	045°00'00"	N66°41'18"E	15.31'
C16	31.42'	20.00'	090°00'00"	S45°48'42"E	28.28'
C17	31.42'	20.00'	090°00'00"	S44°11'18"W	28.28'
C18	31.42'	20.00'	090°00'00"	N45°48'42"W	28.28'
C19	15.71'	20.00'	045°00'00"	N21°41'18"E	15.31'

Line Data Table		
Line #	Distance	Bearing
L1	13.24'	S89°11'18"W
L2	15.22'	N00°48'42"W
L3	28.59'	N00°48'42"W
L4	27.75'	N44°11'18"E
L5	15.22'	S00°48'42"E
L6	27.75'	N44°11'18"E
L7	21.71'	N00°48'42"W
L8	20.00'	N88°24'49"E
L9	7.92'	S00°48'42"E
L10	19.99'	N00°00'00"E
L11	10.34'	N89°11'18"E
L12	7.16'	N00°48'42"W
L13	18.27'	S00°48'42"E
L14	12.93'	S45°48'42"E
L15	20.00'	N89°11'18"E
L16	20.00'	S00°48'42"E
L17	20.00'	S89°11'18"W
L18	20.00'	N89°11'18"E
L19	30.00'	S00°48'42"E
L20	20.00'	S89°11'18"W
L21	4.00'	S00°49'15"E
L22	7.57'	S00°48'42"E
L23	20.00'	S89°11'18"W
L24	8.00'	N00°48'42"W
L25	20.00'	N00°48'42"W
L26	24.65'	N89°11'18"E
L27	20.00'	S00°48'42"E
L28	24.65'	S89°11'18"W
L29	8.36'	N00°48'42"W
L30	19.86'	N89°11'18"E
L31	8.69'	S00°48'42"E
L32	10.15'	S89°11'18"W
L33	1.77'	N00°48'42"W
L34	11.04'	N44°11'18"E
L35	11.75'	S00°48'42"E
L36	25.49'	S89°11'18"W
L37	21.74'	S44°11'18"W



LEGEND OF ABBREVIATIONS

- D.R.R.C.T. DEED RECORDS, ROCKWALL COUNTY, TEXAS
- P.R.R.C.T. PLAT RECORDS, ROCKWALL COUNTY, TEXAS
- O.P.R.R.C.T. OFFICIAL PUBLIC RECORDS, ROCKWALL COUNTY, TEXAS
- DOC.# DOCUMENT NUMBER
- C.M. CONTROLLING MONUMENT
- SQ. FT. SQUARE FEET
- ROW RIGHT OF WAY
- CRS CAPPED REBAR SET

SURVEYOR

BCS
BARTON CHAPA SURVEYING
BARTON CHAPA SURVEYING, LLC
JOHN H. BARTON, III RPLS# 6737
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
(817) 864-1957
JACK@BCSDFW.COM

JOB NO. 2021.024.011
DRAWN: BCS
CHECKED: JHB

TABLE OF REVISIONS

DATE	SUMMARY

ENGINEER

KIRKMAN ENGINEERING
5200 State Highway 121
Colleyville, TX 76034
Phone: 817-488-4960

OWNER

ROCKWALL ECONOMIC DEVELOPMENT CORPORATION
697 E. I.H. 30
P.O. BOX 968
ROCKWALL, TX 75087
PH. 972.772.0025

FINAL PLAT LOTS 5, 6, & 7, BLOCK B ROCKWALL TECHNOLOGY PARK

BEING A REPLAT OF LOT 4, BLOCK B, ROCKWALL TECHNOLOGY PARK
3 LOTS - 7.377 ACRES
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET:

1 OF 2

CITY CASE#P2022-023

E2022-013

JEREMY B. NELSON
138740

Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

FINAL PLAT SHEET 1 OF 2

SHEET:
C1.2

STATE OF TEXAS §

COUNTY OF ROCKWALL §

WHEREAS ROCKWALL ECONOMIC DEVELOPMENT CORPORATION is the owner of a portion of Lot 4 in Block B of Rockwall Technology Park, an addition in the City of Rockwall, Rockwall County, Texas, according to the plat recorded under Cabinet H, Slide 221, Plat Records, Rockwall County, Texas, (P.R.R.C.T.), the subject tract being more particularly described by metes and bounds as follows (bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83)):

BEGINNING at a 1/2 inch rebar with cap stamped, "WEIR" found for the northwest corner of said Lot 4, same being the northwest corner of the herein described tract;

THENCE with the perimeter and to the corners of said Lot 4, the following calls:

1. North 88 degrees 24 minutes 49 seconds East, a distance of 445.00 feet to a point from which a 1/2 inch rebar found bears North 38 degrees West, a distance of 0.37 feet;

2. North 01 degrees 35 minutes 11 seconds West, a distance of 46.30 feet to a 1/2 inch rebar found;

3. North 89 degrees 10 minutes 45 seconds East, a distance of 427.39 feet to a 1/2 inch rebar with an illegible cap found at the beginning of a non-tangent curve to the right, having a radius of 870.00 feet, with a delta angle of 15 degrees 35 minutes 53 seconds, whose chord bears South 08 degrees 37 minutes 12 seconds East, a distance of 236.12 feet;

4. Along said non-tangent curve to the right, an arc length of 236.85 feet to a 1/2 inch rebar with cap stamped, "WEIR" found;

5. South 00 degrees 49 minutes 15 seconds East, a distance of 36.07 feet to a 1/2 inch rebar with cap stamped, "WEIR " found;

6. South 06 degrees 18 minutes 15 seconds West, a distance of 105.07 feet to a point for the northeast corner of a tract of land described by deed to the State of Texas as recorded under Document Number 20160000013807, Official Public Records, Rockwall County, Texas, (O.P.R.R.C.T.), from which an "X" cut found bears North 45 degrees East, a distance of 5.79 feet;

THENCE South 47 degrees 45 minutes 14 seconds West, with the northwest line of said State of Texas tract, a distance of 15.34 feet to a 1/2 inch rebar with pink cap stamped, "BARTON CHAPA" found at a re-entrant corner thereof;

THENCE South 89 degrees 11 minutes 18 seconds West, with the north line of said State of Texas tract, a distance of 874.82 feet to a 1/2 inch rebar with cap stamped, "TXDOT" found for the northwest corner thereof, same being in the west line of said Lot 4;

THENCE North 01 degrees 35 minutes 06 seconds West, with the west line of said Lot 4, a distance of 332.06 feet to the **POINT OF BEGINNING** and enclosing 7.377 acres (321,342 square feet) of land, more or less.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

ROCKWALL ECONOMIC DEVELOPMENT CORPORATION, the undersigned owner(s) of the land shown on this plat, and designated herein as the **LOTS 5, 6, & 7, BLOCK B, ROCKWALL TECHNOLOGY PARK,** subdivision 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, water courses, 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 **LOTS 5, 6, & 7, BLOCK B, ROCKWALL TECHNOLOGY PARK** subdivision 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. I (we) 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.

[signature]

Rockwall Economic Development Corporation (authorized agent)

STATE OF TEXAS §

COUNTY OF Rockwall §

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared Phillip Wagner, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same as for the purpose and consideration therein expressed, and in the capacity therein stated.

[signature]

Notary Public in and for

the State of Texas

TANYA BUEHLER
Notary Public
STATE OF TEXAS
ID# 13099192-5
My Comm. Exp. MAR. 10, 2025

SURVEYOR'S NOTES:

1. Bearings are based on the State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83), distances are surface with a combined scale factor of 1.000146135.
2. This property lies within Zone "X" of the Flood Insurance Rate Map for Rockwall County, Texas and Incorporated Areas, map no. 48397C0045L, with an effective date of September 26, 2008, via scaled map location and graphic plotting.
3. Monuments are found unless specifically designated as set.
4. Elevations (if shown) are North American Vertical Datum of 1988 (NAVD '88).

PLAT NOTES:

1. 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.
2. Property owner shall be responsible for maintaining, repairing, and replacing all systems within the drainage and detention easements.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

SURVEYOR'S CERTIFICATE

I, John H. Barton III, a Registered Professional Land Surveyor of the State of Texas, do hereby certify that I prepared this plat from an actual and accurate survey of the land, and that the corner monuments shown thereon were properly placed under my personal supervision.

Date of Plat/Map: **May 27, 2022**

[signature]

John H. Barton III, RPLS# 6737

STATE OF TEXAS
REGISTERED
JOHN H. BARTON III
6737
PROFESSIONAL
LAND SURVEYOR

[signature]

Planning & Zoning Commission, Chairman   Date 7/12/2022

APPROVED:
I hereby certify that the above and foregoing plat of an addition to the City of Rockwall, Texas, was approved by the City Planning Director of the City of Rockwall on the 6 day of June, 20 22. 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 11th day of July, 20 22.

[signature]

Mayor, City of Rockwall

CITY OF ROCKWALL
TEXAS

Kristy Teague

City Secretary

Amy Williams, P.E.

City Engineer

Filed and Recorded
Official Public Records
Jennifer Fogg, County Clerk
Rockwall County, Texas
07/13/2022 01:03:21 PM
$100.00
20220000015612

ROCKWALL COUNTY TEXAS COUNTY CLERK

Jennifer Fogg

SURVEYOR

BCS

BARTON CHAPA SURVEYING

BARTON CHAPA SURVEYING, LLC
JOHN H. BARTON, III RPLS# 6737
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
(817) 864-1957
JACK@BCSDFW.COM

JOB NO.	2021.024.011
DRAWN:	BCS
CHECKED:	JHB

TABLE OF REVISIONS

DATE	SUMMARY

ENGINEER

5200 State Highway 121
Colleyville, TX 76034
Phone: 817-488-4960

OWNER
ROCKWALL ECONOMIC DEVELOPMENT CORPORATION
697 E. I.H. 30
P.O. BOX 968
ROCKWALL, TX 75087
PH. 972.772.0025

FINAL PLAT
LOTS 5, 6, & 7, BLOCK B
ROCKWALL TECHNOLOGY PARK

BEING A REPLAT OF LOT 4, BLOCK B, ROCKWALL TECHNOLOGY PARK
3 LOTS - 7.377 ACRES
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET:

2 OF 2

CITY CASE#P2022-023

E2022-013

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JEREMY B. NELSON
138740
LICENSED
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Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION LLC
BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288,
SUITE 105
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INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
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BY: JEREMY B. NELSON, P.E.   DATE: 10/02/2023

kirkman ENGINEERING

KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

FINAL PLAT SHEET 2 OF 2

SHEET:

C1.2

GENERAL NOTES

1. STANDARDS AND SPECIFICATIONS: ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT, SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES, REGULATIONS, REQUIREMENTS, STATUTES, SPECIFICATIONS AND DETAILS, LATEST PRINTING AND AMENDMENTS THERETO. THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS, PLUMBING CODES, AND FIRE DEPARTMENT REGULATIONS SHALL TAKE PRECEDENT FOR ALL PRIVATE IMPROVEMENTS WHERE APPLICABLE. ALL OTHER PRIVATE CONSTRUCTION, NOT REGULATED BY THE GOVERNING AUTHORITY, SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, LATEST PRINTING AND AMENDMENTS THERETO, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS.
2. EXAMINATION OF PLANS: PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL FAMILIARIZE THEIR SELF WITH THE CONTRACTOR DOCUMENTS AND SPECIFICATIONS. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE THEIR SELF WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THE WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
3. EXAMINATION OF SITE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INVESTIGATING AND SATISFYING THEIR SELF AS TO THE CONDITIONS AFFECTING THE WORK, INCLUDING BUT NOT RESTRICTED TO THE BEARING UPON TRANSPORTATION, DISPOSAL, HANDLING AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRIC POWER, ROADS AND UNCERTAINTIES OF WEATHER, OR SIMILAR PHYSICAL CONDITIONS AT THE SITE, CONDITIONS OF THE GROUND, THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING THE PERFORMANCE OF THE WORK.
   FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR ESTIMATING THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK.
4. SUBSURFACE INVESTIGATION: SUBSURFACE EXPLORATION TO ASCERTAIN THE NATURE OF SOILS HAS BEEN PERFORMED BY THE GEOTECHNICAL ENGINEER OF RECORD ON THE PROJECT. THE SUBSURFACE INFORMATION WILL BE MADE AVAILABLE FOR THE CONTRACTOR'S USE. THE ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION PREPARED BY OTHERS.
5. TOPOGRAPHY SURVEY: TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED.
6. COMPLIANCE WITH LAWS: THE CONTRACTOR SHALL FULLY COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS, INCLUDING ALL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS CONTRACT AND THE WORK TO BE DONE THEREUNDER, WHICH EXIST OR MAY BE ENACTED LATER BY GOVERNMENTAL BODIES HAVING JURISDICTION OR AUTHORITY FOR SUCH ENACTMENT. ALL WORK REQUIRED UNDER THIS CONTRACT SHALL COMPLY WITH ALL REQUIREMENTS OF LAW, REGULATION, PERMIT OR LICENSE. IF THE CONTRACTOR FINDS THAT THERE IS A VARIANCE, HE SHALL IMMEDIATELY REPORT THIS TO THE OWNER FOR RESOLUTION.
7. PUBLIC CONVENIENCE AND SAFETY: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONA AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. MATERIALS STORED ON THE WORK SITE SHALL BE PLACED, AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE DEVELOPER AND NOT TO PREVENT FREE UNINTERRUPTED ACCESS TO ALL HIRE HYDRANTS, WATER VAL YES, GAS VALVES, MANHOLES AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.
8. STORM WATER POLLUTION PREVENTION PLAN (SWPPP): THE CONTRACTOR SHALL COMPLY WITH THE CONDITIONS OF THE SWPPP WHILE CONDUCTING HIS ACTIVITIES ON THE PROJECT.
9. PERMITS AND LICENSES: THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATE COPIES OF SUCH PERMITS TO THE DEVELOPER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS HAVE BEEN OBTAINED. COSTS ASSOCIATED WITH PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
10. APPROVED PLANS: THE CONTRACTOR SHALL HAVE AT LEAST ONE SET OF APPROVED PLANS ON-SITE AT ALL TIMES.
11. BONDS: PERFORMANCE, PAYMENT AND MAINTENANCE BONDS MAY BE REQUIRED FROM THE CONTRACTOR FOR "PUBLIC" IMPROVEMENTS. IF REQUIRED, THE CONTRACTOR SHALL PROVIDE THE BONDS IN THE FORM AND IN THE AMOUNTS AS REQUIRED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH PROVIDING THE BONDS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
12. TESTING: THE TESTING AND CONTROL OF ALL MATERIALS USED IN THE WORK SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY, EMPLOYED AND PAID DIRECTLY BY THE OWNER. IN THE EVENT THE RESULTS OF THE INITIAL TESTING DO NOT COMPLY WITH THE PLANS AND SPECIFICATIONS, SUBSEQUENT TESTS NECESSARY TO DETERMINE THE ACCEPTABILITY OF MATERIALS OR CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE.
13. INSPECTION: THE GOVERNING AUTHORITIES AND/OR THE DEVELOPER WILL PROVIDE INSPECTION OF THE PROPOSED CONSTRUCTION. THE OWNER WILL PAY THE COSTS FOR INSPECTION SERVICES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR OWNER FOR SCHEDULING OF INSPECTION SERVICES.
14. SHOP DRAWINGS: THE CONTRACTOR SHALL HAVE PREPARED, REVIEW, AND SUBMIT ALL SHOP DRAWING, PRODUCT DATA AND SAMPLES REQUIRED BY THE GOVERNING AUTHORITIES AND THE PROJECT CONTRACT DOCUMENTS IN ACCORDANCE WITH ITEM 1.28 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS - NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS.
15. SURVEYING: ALL SURVEYING REQUIRED FOR CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER SHALL PROVIDE THE PROPERTY CORNERS AND TWO BENCHMARKS FOR USE AS HORIZONTAL AND VERTICAL DATUM. THE CONTRACTOR SHALL EMPLOY A REGISTERED PROFESSIONAL LAND SURVEY TO PERFORM ALL ADDITIONAL SURVEY, LAYOUT AND MEASUREMENT WORK NECESSARY FOR THE COMPLETION OF THE PROJECT. THE COSTS ASSOCIATED WITH THE CONSTRUCTION STAKING SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
16. PROTECTION OF PROPERTY CORNERS AND BENCHMARKS: THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS. WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
17. EXISTING STRUCTURES: THE PLANS SHOW THE LOCATION OF ALL KNOWN SURFACE AND SUB SURFACE STRUCTURES, HOWEVER, THE DEVELOPER AND ENGINEER ASSUME NO RESPONSIBILITY FOR THE FAILURE TO SHOW ANY OR ALL OF THESE STRUCTURES ON THE PLANS, OR TO SHOW THEM IN THEIR EXACT LOCATION. SUCH FAILURE SHALL NOT BE CONSIDERED SUFFICIENT BASIS FOR CLAIMS FOR ADDITIONAL COMPENSATION FOR EXTRA WORK OR FOR INCREASING THE PAY QUANTITIES IN ANY MANNER WHATSOEVER, UNLESS THE OBSTRUCTION ENCOUNTERED IN SUCH AS TO REQUIRE CHANGES IN THE LINES OR GRADES, OR REQUIRE THE CONSTRUCTION OF SPECIAL WORK, FOR WHICH PROVISIONS ARE NOT MADE IN THE PLANS.
18. PROTECTION OF EXISTING UTILITIES: AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT". TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON THE BEST RECORDS AND/OR FIELD INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE DEVELOPER OR ENGINEER TO BE ACCURATE AS TO THE LOCATION AND DEPTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING UTILITIES, SERVICES, AND STRUCTURES ENCOUNTERED WHETHER OR NOT THEY ARE ON THE PLANS. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. TO AVOID UNNECESSARY INTERFERENCE'S OR DELAYS, THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS, REPLACEMENTS AND CONSTRUCTION WITH THE APPROPRIATE GOVERNING AUTHORITIES. THE DEVELOPER WILL NOT BE LIABLE FOR DAMAGES DUE TO DELAY BECAUSE OF THE ABOVE.
19. DAMAGE TO EXISTING FACILITIES: ALL EXISTING UTILITIES, PAVEMENT, SIDEWALKS, WALLS, FENCE, ETC. DAMAGE DURING CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE TO A CONDITION AS GOOD AS OR BETTER THAN THE CONDITIONS PRIOR TO STARTING THE WORK.
20. FIRE AND LIFE SAFETY SYSTEMS: THE CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT RECEIVING PRIOR WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY.
21. TRENCH SAFETY: THE CONTRACTOR IS RESPONSIBLE FOR HAVING A TRENCH SAFETY PLAN PREPARED IN ACCORDANCE WITH OSHA REQUIREMENTS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS FOR THE IMPLEMENTATION OF TRENCH SAFETY CONTROL MEASURES THAT WILL BE IN EFFECT DURING THE CONSTRUCTION OF THE PROJECT. THE COSTS FOR PREPARATION OF THE TRENCH SAFETY PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
22. TRAFFIC CONTROL: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THE TRAFFIC CONTROL PLAN INCLUDED IN THIS PLAN SET. THE COSTS ASSOCIATED WITH THE IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
23. ACCESS TO ADJACENT PROPERTIES: ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING AUTHORITIES AND/OR OWNER.
24. ACCESS ROUTES, STAGING AREAS AND STORAGE AREAS: ALL PRIVATE HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIR ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT, ALL HAUL ROADS, ACCESS ROADS, STAGING AREAS AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT AT THE TIME THE CONTRACTOR COMMENCES WORK ON THE PROJECT.
25. PARKING OF CONSTRUCTION EQUIPMENT: AT NIGHT AND DURING ALL PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS WHICH ARE APPROVED BY THE OWNER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS AND LIGHTS TO PROTECT THE OWNER, THE GOVERNING AUTHORITIES, THE PUBLIC AND THE OTHER WORK. ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
26. WATER FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR HIS USE ON THE PROJECT SITE. COST ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
27. TEMPORARY ELECTRIC AND COMMUNICATIONS FOR CONSTRUCTION: THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR THE INSTALLATION AND PURCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE GOVERNING AUTHORITIES FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
28. FENCES: ALL FENCES ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED, SHALL BE RESTORED TO THE ORIGINAL OR BETTER THAN CONDITION UPON COMPLETION OF THE PROJECT.WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS NOT TO BE CROSSED, THE CONTRACTOR SHALL SET
   CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS NOT IN PROGRESS AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
29. COORDINATION WITH OTHERS: IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS.
30. CONDITION OF THE SITE DURING CONSTRUCTION: THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE. THE CONTRACTOR SHALL REMOVE MATERIAL, DEBRIS AND RUBBISH FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE DEVELOPER, SUCH MATERIAL, DEBRIS AND RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE.
31. EXISTING ROADWAYS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ROADS. COSTS ASSOCIATED WITH MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

GENERAL NOTES CONTINUED:

32. DUST CONTROL: THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH DUST CONTROL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
33. CLEAN UP FOR FINAL ACCEPTANCE: THE CONTRACTOR SHALL MAKE A FINAL CLEAN UP OF ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE OWNER. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE E MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE.
34. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK, WHICH HAS BEEN REJECTED OR CONDEMNED, SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN THE CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK, AND WILL BE CONSIDERED UNAUTHORIZED, AND AT THE OPTION OF THE OWNER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE OWNER, THE OWNER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF ANY MONIES DUE OR TO BECOME DUE THE CONTRACTOR.
35. DISPOSITION AND DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS: ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDED BUT NOT LIMITED TO EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. COSTS ASSOCIATED WITH THE DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
36. RECORD DRAWINGS: THE CONTRACT SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEM COVERED BY THE PROJECT CONTRACT DOCUMENTS. THE COMPLETE SET OF "RECORD DRAWINGS" MUST BE DELIVERED TO THE OWNER AND/OR ENGINEER BEFORE REQUESTING FINAL PAYMENT.

EROSION CONTROL NOTES:

1. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY THE GOVERNING AUTHORITIES, PERMITS ARE OBTAINED, AND ALL EROSION CONTROL MEASURES ARE IN PLACE.
2. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
3. THE GENERAL CONTRACTOR (AND ALL SUBCONTRACTORS INVOLVED WITH ANY CONSTRUCTION ACTIVITIES RELATED TO EARTHWORK, EROSION CONTROL, ETC. OR WHICH UTILIZE POSSIBLE POLLUTANTS AS DEFINED IN THE TPDES GENERAL PERMIT) SHALL REVIEW AND ADHERE TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT, AS WELL AS ALL THE TCEQ REQUIREMENTS SET FORTH IN THE TPDES GENERAL PERMIT.
4. THIS EROSION CONTROL PLAN IS A SUPPLEMENT TO THE SWPPP PREPARED BY OTHERS. REFER TO THE SWPPP FOR ADDITIONAL REQUIREMENTS.
5. ALL WASH WATER SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN WASH WATER POLLUTANTS AND STORM RUNOFF DISCHARGED FROM THIS SITE.
6. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.
7. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS IS PROHIBITED.
8. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY PLANTED AND/OR SEEDED AND WATERED.
9. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED SHALL BE PERMANENTLY PLANTED AND/OR SEEDED WITHIN 14 DAYS.
10. PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LANDSCAPING PLAN. AREAS BEYOND THE LIMITS OF THE LANDSCAPING PLAN (OR WHEN A LANDSCAPING PLAN DOES NOT EXIST) SHALL BE HYDROMULCHED WITH HIGHWAY MIX AND WATERED WITH TEMPORARY ABOVE GROUND IRRIGATION UNTIL THE VEGETATION IS ESTABLISHED.
11. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINT(S) BEFORE LEAVING THE SITE.
12. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY ANY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.
13. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES, WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESS SILTATION.
14. SILT FENCES SHALL BE PLACES AROUND ANY STOCKPILES USED ON THE SITE.
15. ADDITIONAL EROSION CONTROL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AT HIS DISCRETION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE ADDITION OR DELETION OF ANY EROSION CONTROL MEASURE MAY REQUIRE THAT THE SWPPP BE MODIFIED IN ACCORDANCE WITH THE TCEQ'S TPDES GENERAL PERMIT GUIDELINES.
16. ALL TEMPORARY EROSION CONTROL DEVICES (SILT FENCE, ETC.) SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL DISTURBED SURFACES IS COMPLETE.
17. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT OF WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS.
18. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASH DOWN AREA, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, ETC. AND POLLUTANT CONTROLS FOR EACH.
19. THE GENERAL CONTRACTOR, AS THE TCEQ DEFINED "OPERATOR," SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES OUTLINED IN THE TPDES GENERAL PERMIT, AND SHALL FILL OUT APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE SWPPP).
20. IF DIRT OR ROCK IS EXPORTED FROM THIS SITE, OR IF DIRT OR ROCK IS IMPORTED FROM AN OFF SITE BORROW LOCATION, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL TCEQ STORM WATER REQUIREMENTS FOR THE REMOTE SITE. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A COPY OF THE WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING PERMITTING AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED THEREON.

PAVING NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF A MAXIMUM NUMBER OF PASSING FIELD DENSITY TESTS ON THE STABILIZED SUBGRADE FOR SITE PAVING EQUAL TO THE RATIO OF 1 PER 5,000 SQUARE FEET OF PAVEMENT (AND ALL FAILING DENSITY TESTS AND REQUIRED MOISTURE DENSITY CURVES). ADDITIONAL FIELD DENSITY TESTS MAY BE REQUIRED FOR FOUNDATIONS REFER TO STRUCTURAL PLANS AND SPECIFICATIONS FOR SUCH. IN ADDITION, THE CONTRACTOR SHALL PROVIDE THE OWNER TEN (10) PASSING SITE PAVEMENT CORES FOR THE OWNERS USE IN THE OWNER'S TESTING FOR THICKNESS AND COMPRESSIVE STRENGTH. CORE LOCATIONS SHALL BE DESIGNATED BY THE OWNER. CONTRACTOR SHALL PATCH CORE HOLES AND FINISH WITH LIKE AND MATCHING MATERIALS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL TESTING COSTS SHOULD THE ABOVE TESTS FAIL MINIMUM CRITERIA AS ESTABLISHED BY NCTCOG. ANY NON-CONFORMING PAVING SHALL BE REPLACED OR RESOLVED IN ACCORDANCE WITH NCTCOG SPECIFICATIONS.
2. ALL EARTHWORK AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION AND REPORT AND CITY OF ROCKWALL MINIMUM REQUIREMENTS FOR THIS PROJECT AND THOSE RECOMMENDATIONS LISTED WITHIN THE REPORT. REFER TO THIS REPORT FOR ALL EARTHWORK AND RELATED ITEMS. REFER TO STRUCTURAL FOR BUILDING PREP. THE REPORT REFERENCES AGENCY/INDUSTRY STANDARDS. IN THE EVENT THAT THERE IS A QUESTION OR DISPUTE BETWEEN GOVERNING SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY SUCH THAT THE OWNER RECEIVES THE MOST ADVANTAGEOUS FINISHED PRODUCT.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PERFORMING ALL CONSTRUCTION LAYOUTS FROM THE SITE LAYOUT CONTROL POINTS AND FROM THE DIMENSIONS SHOWN. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN ADVANCE AND ALLOW FOR THE ENGINEER'S RESPONSE BEFORE PROCEEDING WITH THE WORK.
4. ALL PAVING DIMENSIONS ARE TO FACE OF CURB, AND EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE CITY AND THE ENGINEER WITH A CONCRETE MIX DESIGN AT THE PRE-CONSTRUCTION MEETING FOR REVIEW AND APPROVAL. THE COST OF THIS DESIGN SHALL BE INCLUDED IN THE UNIT PRICE OF PAVEMENT MATERIAL.
6. THE CONTRACTOR SHALL PROTECT ANY EXISTING AND/OR PROPOSED UTILITIES, WHICH ARE IN THE PROPOSED SUBGRADE DURING THE SUBGRADE STABILIZATION PROCESS.
7. CONTRACTOR SHALL ADJUST ALL UTILITIES (EXISTING AND PROPOSED) TO FINAL GRADE AT CONTRACTORS EXPENSE. ALL UTILITIES AND APPURTENANCES SHALL BE EXTENDED UP TO FINAL GRADE. UTILITY CLEAN-OUTS, VALVES, MANHOLES, ETC. LOCATED WITHIN PAVED AREAS SHALL BE PAVED PER DETAIL. IN NON-PAVED AREAS, SAID APPURTENANCES SHALL HAVE A 4" THICK CONCRETE PAD EXTENDING 12" BEYOND SAID APPURTENANCE (BLOCK OUT) POURED AT FINAL GRADE FOR PROTECTION AGAINST DAMAGE FROM MOWING AND MAINTENANCE EQUIPMENT. CONTRACTOR SHALL PLACE IRRIGATION AND OTHER SLEEVES PRIOR TO ANY PAVING, PER THE IRRIGATION PLAN, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE WITH THE CURBS SCORED TO IDENTIFY THE SLEEVE LOCATIONS.
8. UNLESS OTHERWISE NOTED, SUBGRADE SHALL BE STABILIZED TO 12" BEYOND THE BACK OF CURB OR EDGE OF PAVEMENT PER GEOTECH RECOMMENDATIONS UNLESS STATED OTHERWISE. ALL CONCRETE STRENGTH AND REINFORCING STEEL SHALL BE PER PROJECT GEOTECHNICAL RECOMMENDATIONS. FIRE LANES, PARKING STALLS, AND ROADWAY STRIPING & MARKINGS SHALL CONFORM TO CITY STANDARDS. SIDEWALKS WITHIN LANDSCAPE AREAS SHALL BE MINIMUM 4" THICK. LARGE EXPANSES OF CONCRETE FLATWORK (SUCH AS MAJOR PEDESTRIAN AREAS, PLAZA AREAS BETWEEN BUILDINGS OR OTHER STRUCTURES) SHALL BE TREATED LIKE VEHICULAR CONCRETE PAVEMENT AND RECEIVE SAME SUBGRADE STABILIZATION AS VEHICULAR PAVEMENT (6" DEEP MINIMUM AND IN ACCORDANCE WITH A LIME SERIES TEST) AND ALL JOINTS (CONTRACTION AND EXPANSION JOINTS) SHALL BE SEALED WITH SELF LEVELING POLYURETHANE SEALANT.
9. ALL PAVEMENT WITHIN 5' OF PROPOSED BUILDING(S) SHALL ADHERE TO THE STRUCTURAL RECOMMENDATIONS AND OR ARCHITECTURAL REQUIREMENTS. REFER TO STRUCTURAL AND ARCHITECTURAL PLANS AND RELATED TECHNICAL SPECIFICATIONS. CIVIL PAVEMENT LIMITS BEGIN 5' OUTSIDE THE BUILDING. IN THE EVENT OF OF A CONFLICT WITH THE STRUCTURAL AND OR ARCHITECTURAL WITHIN THIS AREA, THE STRUCTURAL/ ARCHITECT REQUIREMENTS SHALL GOVERN.
10. FOR "CURB INLETS" SUBTRACT 0.5' (6 INCHES) FOR STANDARD THROAT RECESS AT INLETS PER STANDARD DETAILS. SURROUNDING PAVEMENT AND GUTTER SHALL BE WARPED TO DRAIN FOR INLETS ON GRADE, FLUMES, AND SAG INLETS. INLETS ON GRADE SHALL BE SET IN PLACE TO MATCH THE CURB GRADE LINE.
11. ALL REINFORCING STEEL AND DOWEL BARS IN PAVEMENT SHALL BE SUPPORTED AND MAINTAINED AT THE CORRECT CLEARANCES BY THE USE OF BAR CHAIRS OR OTHER APPROVED SUPPORT.
12. CONNECTION OF THE PROPOSED SIDEWALK TO EXISTING PAVING, SIDEWALK, BUILDING, AND WHEELCHAIR RAMPS SHALL BE CONSIDERED SUBSIDIARY TO THE COST OF THE CONSTRUCTION OF THE SIDEWALK. ALL JOINTS (EXPANSION, ISOLATION, CONTRACTION, & CONSTRUCTION) FOR CONCRETE PAVING AND INCIDENTAL CRACKS SHALL BE SEALED AND INSTALLED IN ACCORDANCE WITH THE AMERICAN CONCRETE PAVEMENT ASSOCIATION (ACPA) RECOMMENDATIONS. CONTRACTOR SHALL OBSERVE THE ARCHITECTURAL AND STRUCTURAL JOINTING LAYOUTS. IN THE EVENT OF A DISCREPANCY OR CONFLICT FOR SITE PAVING, THE CONTRACTOR SHALL REFER TO ACPA PUBLICATION IS061.01P AND IS400.01P FOR THE JOINT SPECIFICATIONS AND THE LAYOUT OF PAVEMENT JOINTS (NON-PAY ITEM).
13. JOINT SPACING SHALL BE AS FOLLOWS:
    5 INCH PAVEMENT THICKNESS - 10' JOINT SPACING
    6+ INCH PAVEMENT THICKNESS - 12' JOINT SPACING
    IN AREAS WHERE PAVEMENT THICKNESS VARIES, THE SHORTER JOINT SPACING SHALL GOVERN
14. THE CONTRACTOR SHALL USE CARE DURING SOIL STABILIZATION AND COMPACTION ACTIVITIES SO AS NOT TO ADVERSELY AFFECT LANDSCAPE AREAS OR UTILITY LINES WITH SOIL STABILIZATION TREATMENTS. AFTER COMPACTION AND PRIOR TO PLACING GRASS, THE UPPER 8 INCHES (8") OF ALL LANDSCAPED AREAS SHALL BE AERATED, TILLED, OR OTHERWISE PROCESSED SO AS TO PROMOTE HEALTHY ROOT GROWTH FOR TURF AND OTHER VEGETATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY REPAIRS, UNDERCUTTING, REMOVAL, DISPOSAL, AND BACKFILLING OF THESE AREAS IF STABILIZATION IS DISCOVERED (NON-PAY ITEM).

DEMOLITION NOTES

1. NO EARTH-DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERMITS ARE OBTAINED AND PERIMETER EROSION CONTROL MEASURES ARE IN PLACE.
2. ALL DEMOLITION SHALL BE CLOSELY COORDINATED WITH THE OWNER'S REPRESENTATIVE REGARDING ITEMS TO BE SALVAGED, THOSE TO BE REMOVED, ETC. INCLUDING ANY AND ALL TREE PRESERVATION AND TRANSPLANTING ACTIVITIES, AS OUTLINED IN THE PRE-CONSTRUCTION MEETING. REMOVAL, RELOCATION AND/OR DISPOSAL OF ANY PRE-EXISTING ON-SITE TRASH, DEBRIS, OR STOCKPILES SHALL BE INCLUDED IN THE TOTAL COST OF DEMOLITION AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AT ALL TIMES.
3. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING AGENCIES REGARDING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
4. INGRESS AND EGRESS POINTS, PROPOSED DISPOSAL SITES, AND HAUL ROUTES MUST BE APPROVED BY CITY OFFICIALS PRIOR TO REMOVAL OF DEMOLITION DEBRIS OFF-SITE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING SITE WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES.
6. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATION AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
7. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, BENCHMARKS, CONTROL POINTS, ETC, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
8. THE CONTRACTOR SHALL INCUR ALL COSTS FOR MAINTENANCE AND REPAIR OF THE EXISTING FENCES TO REMAIN, IRRIGATION SYSTEMS TO REMAIN, UTILITY LINES, ETC, AS OUTLINED IN THE SPECIFICATIONS.
9. THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) UP TO A DEPTH OF 24 INCHES BELOW GRADE AS PART OF THE BASE BID.
10. THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING, CONDUIT, AND CABLES, REGARDLESS OF DEPTH, IN THE AREA OF THE PROPOSED BUILDING(S) FOUNDATIONS.
11. NOTES SHOWN HEREON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE SATISFACTION OF THE OWNER, AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS, AND TO THE EXTENT AS NOTED IN THE SPECIFICATIONS.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLUGGING, CAPPING, OR OTHERWISE TERMINATING UTILITY SERVICE LINES AT EXISTING METER LOCATIONS, CLEANOUTS, ETC. A MIN. DISTANCE OF 1 FOOT OUTSIDE THE LIMITS OF THE TRACT SHOWN.
13. THE CONTRACTOR SHALL CREATE AMPLE STAGING AND STOCKPILING AREAS FOR THE DELIVERIES OF CONSTRUCTION MATERIALS, CONCRETE DELIVERIES, TOPSOIL, ETC. IN ACCORDANCE WITH THE OWNER'S REPRESENTATIVE AND THE PROJECT SPECIFICATIONS.
14. IF ASBESTOS, LEAD-BASED ITEMS OR ANY OTHER HAZARDOUS MATERIALS ARE ENCOUNTERED THE CONTRACTOR IS REQUIRED TO FOLLOW ALL LOCAL, STATE, AND FEDERAL GUIDELINES FOR THE CONTAINMENT, REMOVAL, AND DISPOSAL PROCEDURES.

UTILITY NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PRIVATE OR PUBLIC, PRIOR TO MOBILIZATION. CONTRACTOR SHALL VISIT THE SITE AND MAKE ALL NECESSARY OBSERVATIONS AND INSPECTIONS TO FAMILIARIZE THEMSELVES WITH THE SITE AND THE SITE FACILITIES. THE INFORMATION AND DATA SHOWN WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AT OR CONTIGUOUS TO THE SITE IS APPROXIMATE AND BASED ON INFORMATION FURNISHED BY THE OWNERS OF SUCH UNDERGROUND FACILITIES OR ON PHYSICAL APPURTENANCES OBSERVED IN THE FIELD. THE OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA; AND, THE CONTRACTOR, SHALL HAVE FULL RESPONSIBILITY FOR REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA, FOR LOCATING ALL UNDERGROUND FACILITIES, FOR COORDINATION OF THE WORK WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES DURING CONSTRUCTION, FOR THE SAFETY AND PROTECTION THEREOF, AND REPAIRING ANY DAMAGE THERETO RESULTING FROM THE WORK. THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE.
2. CONTRACTOR SHALL, IN BASE BID PROVIDE ALL NECESSARY FITTINGS AND APPURTENANCES REQUIRED TO COMPLETE ALL CONNECTIONS, RESOLVE UTILITY CONFLICTS AND OTHER INCIDENTAL UTILITY WORK SHOWN ON THE PLANS OR CONTAINED IN THE SPECIFICATIONS OR REQUIRED BY GOVERNING AGENCIES TO INCLUDE, BUT NOT LIMITED TO TEMPORARY SERVICES: VALVES, BOXES, METERS, BACKFLOW PREVENTORS, FIRE DEPARTMENT CONNECTIONS, ETC. INCLUDING THE REPAIR OR REPLACEMENT OF ANY EXISTING IRRIGATION SYSTEM. CONTRACTOR SHALL RAISE/LOWER OR ADJUST ALL EXISTING UTILITY MAINS IN CONFLICT WITH PROPOSED UTILITIES AS PART OF THE BASE BID FOR ALL KNOWN OR UNKNOWN LINES.
3. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 1 WEEK PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND MAKE ARRANGEMENTS FOR ANY AND ALL TEMPORARY UTILITIES, PERMITS, AND AGREEMENTS.
4. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL GIVE THE CITY, RESIDENTS AND BUSINESSES AFFECTED BY ANY ANTICIPATED WATER OR SEWER SERVICE DISRUPTIONS AT LEAST FORTY-EIGHT (48) HOURS PRIOR NOTICE.
5. CONTRACTOR SHALL EXERCISE CAUTION AND MAINTAIN ADEQUATE CLEAR ZONE BETWEEN THE CONTRACTOR'S EQUIPMENT AND ANY POWER LINES.
6. THE CONTRACTOR SHALL PROTECT ALL EXISTING POWER POLES, SIGNS, MANHOLES, TELEPHONES RISERS, WATER VALVES, UTILITIES, ETC. DURING ALL CONSTRUCTION PHASES. CONTRACTOR WILL BE RESPONSIBLE TO REPLACE ANY DAMAGED ITEMS AND RESTORE ANY SERVICES THAT HAVE BEEN DISTURBED. ALL MANHOLES, CLEAN-OUTS, WATER VALVES, FIRE HYDRANTS AND OTHER APPURTENANCES MUST BE ADJUSTED TO FINAL GRADE BEFORE THE OWNER WILL ACCEPT THE WORK.
7. THE CONTRACTOR SHALL SALVAGE ALL EXISTING CITY UTILITIES (INCLUDING SIGNS, VALVES, FIRE HYDRANTS, ETC.) IN ACCORDANCE WITH CITY REQUIREMENTS AND PROVIDE TO THE CITY.
8. ALL UTILITIES WITHIN 5' OF PROPOSED BUILDING(S) SHALL ADHERE TO THE MEP'S RECOMMENDATIONS AND OR REQUIREMENTS. CONTRACTOR SHALL PROVIDE STORM DRAIN CONNECTIONS FOR ALL ROOF DRAIN LINES. REFER TO MEP'S PLANS AND RELATED TECHNICAL SPECIFICATIONS. CIVIL UTILITIES (WATER, SANITARY SEWER & STORM SEWER) LIMITS BEGIN 5' OUTSIDE THE BUILDING. IN THE EVENT OF OF A CONFLICT WITH THE MEP'S WITHIN THIS AREA, THE MEP'S REQUIREMENTS SHALL GOVERN.
9. TESTING OF UTILITY TRENCH BACKFILL COMPACTION SHALL BE AT 75' INTERVALS AND EACH LIFT'S BACKFILL UNLESS OTHERWISE DEFINED IN THE GEOTECHNICAL REPORT FOR THIS PROJECT. BACKFILL SHALL BE PROCESSED SUCH THAT NO DIRT CLODS ARE IN EXCESS OF 4" DIAMETER. ALL SANITARY SEWER LINES AND STORM SEWER LINES SHALL BE TV TESTED AT THE COMPLETION OF THE PROJECT (IN ADDITION TO MINIMUM CODE OR OTHER REQUIREMENTS) TO CHECK FOR DAMAGE CAUSED BY OTHER TRADES, UTILITY CONFLICTS, TRENCH SETTLEMENT, ETC. THE COST OF SUCH SHALL BE INCLUDED IN THE CONTRACTORS BASE PRICE.

STANDARD ABBREVIATIONS:

		LT	LEFT
APPROX	APPROXIMATELY	MBC	MULTIPLE BOX CULVERT
ASPH	ASPHALT	ME	MATCH EXISTING
BC	BACK OF CURB	MH	MANHOLE
B-B	BACK TO BACK OF CURB	N/A	NOT APPLICABLE
BFR	BARRIER FREE RAMPS	NG	NATURAL GROUND (EXISTING)
BM	BENCHMARK	PC	POINT OF CURVATURE
BW	BOTTOM OF WALL	PCC	POINT OF COMPOUND CURVATURE
CATV	CABLE TV	PI	POINT OF INTERSECTION
CFS	CUBIC FEET PER SECOND	PIV	POST INDICATOR VALVE
CI	CURB INLET	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
CO	CLEANOUT	PRC	POINT OF REVERSE CURVATURE
CONC	CONCRETE	PROP	PROPOSED
CONN	CONNECTION	PT	POINT OF TANGENCY
CONST	CONSTRUCT	PVC	POLYVINYL CHLORIDE PIPE
CL	CENTER LINE	PVMT	PAVEMENT
DCO	DOUBLE CLEANOUT	OCEW	ON CENTER EACH WAY
DE	DRAINAGE EASEMENT	OHE	OVERHEAD ELECTRIC
DI	DROP INLET	R	RADIUS
DIA	DIAMETER	RCB	REINFORCED CONCRETE BOX
DIP	DUCTILE IRON PIPE	RCI	RECESSED CURB INLET
DW	DOMESTIC WATER	RCP	REINFORCED CONCRETE PIPE
EJ	EXPANSION JOINT	RCCP	REINFORCED CONCRETE CYLINDRICAL PIPE
ELEV	ELEVATION	REINF	REINFORCED
EMH	ELECTRIC MANHOLE	RL	RIDGE LINE
EP	EDGE OF PAVEMENT	ROW	RIGHT OF WAY
ESMT	EASEMENT	RT	RIGHT
EX	EXISTING	SF	SQUARE FEET
FC	FACE OF CURB	SD	STORM DRAIN
F-F	FACE TO FACE OF CURB	SQ	SQUARE
FFE	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSE	SANITARY SEWER EASEMENT
FM	FORCE MAIN	STA	STATION
FO	FIBER OPTICS	SY	SQUARE YARD
FG	FINISHED GRADE	T	TELEPHONE
FP	FINISHED PAD	TC	TOP OF CURB
FPS	FEET PER SECOND	TG	TOP OF GROUND
FL	FLOW LINE	TMH	TELEPHONE MANHOLE
G	GUTTER	TP	TOP OF PAVEMENT
GI	GRATE INLET	TPIPE	TOP OF PIPE
GM	GAS METER	TW	TOP OF WALL
HDPE	HIGH DENSITY POLYETHYLENE PIPE	TYP	TYPICAL
HDWL	HEADWALL	UE	UTILITY EASEMENT
HMAC	HOT MIX ASPHALTIC CONCRETE	UGE	UNDERGROUND ELECTRIC
HORIZ	HORIZONTAL	VCP	VITRIFIED CLAY PIPE
HP	HIGH POINT	WTR	WATER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING	WE	WATER EASEMENT
IRR	IRRIGATION	WL	WATER LINE
JB	JUNCTION BOX	WM	WATER METER
JT	JOINT	WMH	WATER MANHOLE
LF	LINEAR FEET	WV	WATER VALVE
LP	LOW POINT	WW	WASTE WATER

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED
PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE

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INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING

KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

GENERAL NOTES

SHEET:
C1.1

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PLOTTED BY: Michael Heimlich
PLOTTED DATE: 10/2/2023

GENERAL ITEMS

1. All construction shall conform to the requirements set forth in the City of Rockwall's Engineering Department's "Standards of Design and Construction" and the "Standard Specifications for Public Works Construction" by the North Texas Central Council of Governments, 5th edition amended by the City of Rockwall. The CONTRACTOR shall reference the latest City of Rockwall standard details provided in the Rockwall Engineering Departments "Standards of Design and Construction" manual for details not provided in these plans. The CONTRACTOR shall possess one set of the NCTCOG Standard Specifications and Details and the City of Rockwall's "Standards of Design and Construction" manual on the project site at all times
2. Where any conflicting notes, details or specifications occur in the plans the City of Rockwall General Construction Notes, Standards, Details and Specifications shall govern unless detail or specification is more strict.
3. The City of Rockwall Engineering Departments "Standards of Design and Construction" can be found online at: http://www.rockwall.com/engr.asp
4. All communication between the City and the CONTRACTOR shall be through the Engineering Construction Inspector and City Engineer or designated representative only. It is the responsibility of the CONTRACTOR to contact the appropriate department for inspections that do not fall under this approved engineering plan set.
5. Prior to construction, CONTRACTOR shall have in their possession all necessary permits, plans, licenses, etc.
6. The CONTRACTOR shall have at least one original stamped and signed set of approved engineering plans and specifications on-site and in their possession at all times. A stop work order will be issued if items are not on-site. Copies of the approved plans will not be substituted for the required original "approved plans to be on-site".
7. All material submittals, concrete batch designs and shop drawings required for City review and approval shall be submitted by the CONTRACTOR to the City sufficiently in advance of scheduled construction to allow no less than 10 business days for review and response by the City.
8. All site dimensions are referenced to the face of curb or edge of pavement unless otherwise noted.
9. The City requires ten (10%) percent-two (2) year maintenance bond for paving, paving improvements, water systems, wastewater systems, storm sewer systems including detention systems, and associated fixtures and structures which are located within the right-of-ways or defined easements. The two (2) year maintenance bond is to state "from date of City acceptance" as the starting time.
10. A review of the site shall be conducted at twenty (20) months into the two (2) year maintenance period. The design engineer or their designated representative and the CONTRACTOR shall be present to walk the site with the City of Rockwall Engineering Inspection personnel.

EROSION CONTROL & VEGETATION

1. The CONTRACTOR or developer shall be responsible, as the entity exercising operational control, for all permitting as required by the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ). This includes, but is not limited to, preparation of the Storm Water Pollution Prevention Plan (SWPPP), the Construction Site Notice (CSN), the Notice of Intent (NOI), the Notice of Termination (NOT) and any Notice of Change (NOC) and is required to pay all associated fees
2. Erosion control devices as shown on the erosion control plan for the project shall be installed prior to the start of land disturbing activities.
3. All erosion control devices are to be installed in accordance with the approved plans, specifications and Storm Water Pollution Prevention Plan (SWPPP) for the project. Erosion control devices shall be placed and in working order prior to start of construction. Changes are to be reviewed and approved by the design engineer and the City of Rockwall prior to implementation.
4. If the Erosion Control Plans and Storm Water Pollution Prevention Plan (SWPPP) as approved cannot appropriately control erosion and off-site sedimentation from the project, the erosion control plan and/or the SWPPP is required to be revised and any changes reported to the Texas Commission on Environmental Quality (TCEQ), when applicable.
5. All erosion control devices shall be inspected weekly by the CONTRACTOR and after all major rain events, or more frequently as dictated in the project Storm Water Pollution Prevention Plan (SWPPP). CONTRACTOR shall provide copies of inspection's reports to the engineering inspection after each inspection.
6. The CONTRACTOR shall not dispose of waste and any materials into streams, waterways or floodplains. The CONTRACTOR shall secure all excavation at the end of each day and dispose of all excess materials.
7. CONTRACTOR shall take all available precautions to control dust. CONTRACTOR shall control dust by sprinkling water or other means as approved by the City Engineer.
8. CONTRACTOR shall establish grass and maintain the seeded area, including watering, until a "Permanent Stand of Grass" is obtained at which time the project will be accepted by the City. A "Stand of Grass" (not winter rye or weeds) shall consist of 75% to 80% coverage of all disturbed areas and a minimum of one-inch (1") in height as determined by the City. No bare spots will be allowed. Re-seeding will be required in all washed areas and areas that don't grow.
9. All City right-of-ways shall be sodded if disturbed. No artificial grass is allowed in any City right-of-way and/or easements.
10. All adjacent streets/alleys shall be kept clean at all times
11. CONTRACTOR shall keep construction site clean at all times, immediately contain all debris and trash, all debris and trash shall be removed at the end of each work day, and all vegetation on the construction site 10-inches or taller in height must be cut immediately.
12. Suspension of all construction activities for the project will be enforced by the City if any erosion control requirements are not meet. Work may commence after deficiency has been rectified.
13. During construction of the project, all soil stockpiles and borrow areas shall be stabilized or protected with sediment trapping measures. The CONTRACTOR is responsible for the temporary protection and permanent stabilization of all soil stockpiles on-site as well as borrow areas and soil intentionally transported from the project site.
14. Where construction vehicles access routes intersect paved or public roads/alleys, construction entrances shall be installed to minimize the transport of sediment by vehicular tracking onto paved surfaces. Where sediment is transferred onto paved or public surfaces, the surface shall be immediately cleaned. Sediment shall be removed from the surface by shoveling or sweeping and transported to a sediment disposal area. Pavement washing shall be allowed only after sediment is removed in this manner.
15. All drainage inlets shall be protected from siltation, ineffective or unmaintained protection devices shall be immediately replaced and the inlet and storm system cleaned. Flushing is not an acceptable method of cleaning.
16. During all dewatering operations, water shall be pumped into an approved filtering device prior to discharge into a receiving outlet.

TRAFFIC CONTROL

1. All new Detouring or Traffic Control Plans are required to be submitted to the City for review and approval a minimum of 21 calendar days prior to planned day of implementation.
2. When the normal function of the roadway is suspended through closure of any portion of the right-of-way, temporary construction work zone traffic control devices shall be installed to effectively guide the motoring public through the area. Consideration for road user safety, worker safety, and the efficiency of road user flow is an integral element of every traffic control zone.
3. All traffic control plans shall be prepared and submitted to the Engineering Department in accordance with the standards identified in Part VI of the most recent edition of the TMUTCD. Lane closures will not occur on roadways without an approval from the Rockwall Engineering Department and an approved traffic control plan. Traffic control plans shall be required on all roadways as determined by the City Engineer or the designated representative.
4. All traffic control plans must be prepared, signed, and sealed by an individual that is licensed as a professional engineer in the State of Texas. All traffic control plans and copies of work zone certification must be submitted for review and approval a minimum of three (3) weeks prior to the anticipated temporary traffic control.
5. The CONTRACTOR executing the traffic control plan shall notify all affected property owners two (2) weeks prior to any the closures in writing and verbally.
6. Any deviation from an approved traffic control plan must be reviewed by the City Engineer or the designated representative. If an approved traffic control plan is not adhered to, the CONTRACTOR will first receive a verbal warning and be required to correct the problem immediately. If the deviation is not corrected, all construction work will be suspended, the lane closure will be removed, and the roadway opened to traffic.
7. All temporary traffic control devices shall be removed as soon as practical when they are no longer needed. When work is suspended for short periods of time at the end of the workday, all temporary traffic control devices that are no longer appropriate shall be removed or covered. The first violation of this provision will result in a verbal warning to the construction foreman. Subsequent violations will result in suspension of all work at the job site for a minimum of 48 hours. All contractors working on City funded projects will be charged one working day for each 24 hour closure.
8. Lane closures on any major or minor arterial will not be permitted between the hours of 6:00 am to 9:00 am and 3:30 pm to 7:00 pm. Where lane closures are needed in a school area, they will not be permitted during peak hours of 7:00 am – 9:00 am and 3:00 pm to 5:00 pm. Closures may be adjusted according to the actual start-finish times of the actual school with approval by the City Engineer. The first violation of this provision will result in a verbal warning to the construction foreman. Subsequent violations will result in suspension of all work at the job site for a minimum of 48 hours. All contractors working on City funded projects will be charged one working day for each 24 hour closure of a roadway whether they are working or not.
9. No traffic signs shall be taken down without permission from the City.
10. No street/roadway will be allowed to be fully closed.

UTILITY LINE LOCATES

1. It is the CONTRACTOR's responsibility to notify utility companies to arrange for utility locates at least 48 hours prior to beginning construction. The completeness and accuracy of the utility data shown on the plans is not guaranteed by the design engineer or the City. The CONTRACTOR is responsible for verifying the depth and location of existing underground utilities proper to excavating, trenching, or drilling and shall be required to take any precautionary measures to protect all lines shown and .or any other underground utilities not on record or not shown on the plans.
2. The CONTRACTOR shall be responsible for damages to utilities
3. CONTRACTOR shall adjust all City of Rockwall utilities to the final grades.
4. All utilities shall be placed underground.
5. CONTRACTOR shall be responsible for the protection of all existing main lines and service lines crossed or exposed by construction operations. Where existing mains or service lines are cut, broken or damaged, the CONTRACTOR shall immediately make repairs to or replace the entire service line with same type of original construction or better. The City of Rockwall can and will intervene to restore service if deemed necessary and charge the CONTRACTOR for labor, equipment, material and loss of water if repairs aren't made in a timely manner by the CONTRACTOR.
6. The City of Rockwall (City utilities) is not part of the Dig Tess or Texas one Call – 811 – line locate system. All City of Rockwall utility line locates are to be scheduled with the City of Rockwall Service Center. 972-771-7730. A 48-hour advance notice is required for all non-emergency line locates.
7. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
   a. No more than 500 linear feet of trench may be opened at one time.
   b. Material used for backfilling trenches shall be properly compacted to 95% standard density in order to minimize erosion, settlement, and promote stabilization that the geotechnical engineer recommends.
   c. Applicable safety regulations shall be complied with.
11. This plan details pipes up to 5 feet from the building. Refer to the building plans for building connections. CONTRACTOR shall supply and install pipe adapters as necessary.
12. All underground lines shall be installed, inspected, and approved prior to backfilling.
13. All concrete encasement shall have a minimum of 28 days compressive strength at 3,000 psi (min. 5.5 sack mix).

WATER LINE NOTES

1. The CONTRACTOR shall maintain existing water service at all times during construction.
2. Proposed water lines shall be AWWA C900-16 PVC Pipe (blue in color) for all sizes, DR 14 (PC 305) for pipeline sizes 12-inch and smaller, and DR 18 (PC 235) for 14-inch and larger water pipelines unless otherwise shown on water plan and profiles sheets. Proposed water lines shall be constructed with minimum cover of 4 feet for 6-inch through 8-inch, 5 feet for 12-inch through 18-inch and 6 feet for 20-inch and larger.
3. Proposed water line embedment shall be NCTCOG Class 'B-3' as amended by the City of Rockwall's engineering standards of design and construction manual.
4. CONTRACTOR shall coordinate the shutting down of all water lines with the City of Rockwall Engineering Inspector and Water Department. The City shall operate all water valves. Allow 5 business days from the date of notice to allow City personnel time to schedule a shut down. Two additional days are required for the CONTRACTOR to notify residents in writing of the shut down after the impacted area has been identified. Water shut downs impacting businesses during their normal operation hours is not allowed. CONTRACTOR is required to coordinate with the Rockwall Fire Department regarding any fire watch requirements as well as any costs incurred when the loss of fire protection to a structure occurs.
5. CONTRACTOR shall furnish and install gaskets on water lines between all dissimilar metals and at valves (both existing and proposed).
6. All fire hydrants and valves removed and salvaged shall be returned to the City of Rockwall Municipal Service Center.
7. Blue EMS pads shall be installed at every change in direction, valve, curb stop and service tap on the proposed water line and every 250'.
8. All water valve hardware and valve extensions, bolts, nuts and washers shall be 316 stainless steel.
9. All fire hydrants bolts, nuts and washers that are buried shall be 316 stainless steel.
10. Abandoned water lines to remain in place shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product. Valves to be abandoned in place shall have any extensions and the valve box removed and shall be capped in concrete.
11. All fire hydrants will have a minimum of 5 feet of clearance around the appurtenance including but not limited to parking spaces and landscaping.
12. All joints are to be megalug joints with thrust blocking.
13. Water and sewer mains shall be kept 10 feet apart (parallel) or when crossing 2 feet vertical clearance.
14. CONTRACTOR shall maintain a minimum of 4 feet of cover on all water lines.
15. All domestic and irrigation services are required to have a testable backflow device with a double check valve installed per the City of Rockwall regulations at the property line and shown on plans.

WASTEWATER LINE NOTES

1. The CONTRACTOR shall maintain existing wastewater service at all times during construction.
2. Wastewater line for 4-inch through 15-inch shall be Green PVC – SDR 35 (ASTM D3034) [less 10 ft cover] and SDR 26 (ASTM D3034) [10 ft or more cover]. For 18-inch and lager wastewater line shall be Green PVC – PS 46 (ASTM F679) [less 10 ft cover] and PS 115 (ASTM F679) [10 ft or more cover]. No services will be allowed on a sanitary sewer line deeper than 10 feet.
3. Proposed wastewater line embedment shall be NCTCOG Class 'H' as amended by the City of Rockwall's public works standard design and construction manual.
4. Green EMS pads shall be installed at every 250', manhole, clean out and service lateral on proposed wastewater lines.
5. CONTRACTOR shall CCTV all existing wastewater lines that are to be abandoned to ensure that all laterals are accounted for and transferred to proposed wastewater lines prior to abandonment.
6. All abandoned wastewater and force main lines shall be cut and plugged and all void spaces within the abandoned line shall be filled with grout, flowable fill or an expandable permanent foam product.
7. Existing manholes and cleanouts not specifically called to be relocated shall be adjusted to match final grades.
8. All wastewater pipes and public services shall be inspected by photographic means (television and DVD) prior to final acceptance and after franchise utilities are installed. The CONTRACTOR shall furnish a DVD to the Engineering Construction Inspector for review. Pipes shall be cleaned prior to TV inspection of the pipes. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the CONTRACTOR at the CONTRACTOR's expense. A television survey will be performed as part of the final testing in the twentieth (20th) month of the maintenance period.
9. All manholes (public or private) shall be fitted with inflow prevention. The inflow prevention shall conform to the measures called out in standard detail R-5031.
10. All new or existing manholes being modified shall have corrosion protection being Raven Liner 405 epoxy coating, ConShield, or approved equal.. Consheild must have terracotta color dye mixed in the precast and cast-in-place concrete. Where connections to existing manholes are made the CONTRACTOR shall rehab manhole as necessary and install a 125 mil thick coating of Raven Liner 405 or approved equal.
11. All new or existing manholes that are to be placed in pavement shall be fitted with a sealed (gasketed) rim and cover to prevent inflow.
12. If an existing wastewater main or trunk line is called out to be replaced in place a wastewater bypassing pump plan shall be required and submitted to the Engineering Construction Inspector and City Engineer for approval prior to implementation. Bypass pump shall be fitted with an auto dialer and conform to the City's Noise Ordinance. Plan shall be to the City sufficiently in advance of scheduled construction to allow no less than 10 business days for review and response by the City.
13. CONTRACTOR shall maintain a minimum of 4 feet of cover on all wastewater lines.

GENERAL CONSTRUCTION NOTES
Sheet 1 of 2
October 2020

CITY OF ROCKWALL
ENGINEERING DEPARTMENT

385 S. Goliad P (972) 771-7746
Rockwall, Texas 75087 F (972) 771-7748

DEMOLITION, REMOVAL, DISPOSAL AND EXCAVATION NOTES

1. All pavements to be removed and replaced shall be saw cut to full depth along neat squared lines shown in the plans.
2. Proposed concrete pavement shall be constructed with longitudinal butt construction joints at all connections to existing concrete pavement.
3. All public concrete pavement to be removed and replaced shall be full panel replacement, 1-inch thicker and on top of 6-inch thick compacted flexbase.
4. No excess excavated material shall be deposited in low areas or along natural drainage ways without written permission from the affected property owner and the City of Rockwall. No excess excavation shall be deposited in the City Limits without a permit from the City of Rockwall. If the CONTRACTOR places excess materials in these areas without written permission, the CONTRACTOR will be responsible for all damages resulting from such fill and shall remove the material at their own cost.

PAVING AND GRADING

1. All detention systems are to be installed and verified for design compliance along with the associated storm sewer and outflow structures, prior to the start of any paving operations (including building foundations). Erosion protection shall be placed at the pond outflow structures, silt fence along the perimeter of the pond along with any of the associated erosion BMPs noted on the erosion control plan, and the sides and bottom of the detention system shall have either sod or anchored seeded curlex installed prior to any concrete placement.
2. All paving roadway, driveways, fire lanes, drive-isles, parking, dumpster pads, etc. sections shall have a minimum thickness, strength, reinforcement, joint type, joint spacing and subgrade treatment shall at a minimum conform to the City standards of Design and Construction and table below.

Street/Pavement Type	Minimum Thickness (inches)	Strength 28-Day (psi)	Minimum Cement (sacks / CY)		Steel Reinforcement	
			Machine placed	Hand Placed	Bar #	Spacing (O.C.E.W.)
Arterial	10"	3,600	6.0	6.5	#4 bars	18"
Collector	8"	3,600	6.0	6.5	#4 bars	18"
Residential	6"	3,600	6.0	6.5	#3 bars	24"
Alley	7"-5"-7"	3,600	6.0	6.5	#3 bars	24"
Fire Lane	6"	3,600	6.0	6.5	#3 bars	24"
Driveways	6"	3,600	6.0	6.5	#3 bars	24"
Barrier Free Ramps	6"	3,600	N/A	6.5	#3 bars	24"
Sidewalks	4"	3,000	N/A	5.5	#3 bars	24"
Parking Lot/Drive Aisles	5"	3,000	5.0	5.5	#3 bars	24"
Dumpster Pads	7"	3,600	6.0	6.5	#3 bars	24"

3. Reinforcing steel shall be tied (100%). Reinforcing steel shall be set on plastic chairs. Bar laps shall be minimum 30 diameters. Sawed transverse dummy joints shall be spaced every 15 feet or 1.25 time longitudinal butt joint spacing whichever is less. Sawing shall occur within 5 to 12 hours after the pour, including sealing. Otherwise, the section shall be removed and longitudinal butt joint constructed.
4. No sand shall be allowed under any paving.
5. All concrete mix design shall be submitted to the City for review and approval prior to placement.
6. Fly ash may be used in concrete pavement locations provided that the maximum cement reduction does not exceed 20% by weight per C.Y. of concrete. The fly ash replacement shall be 1.25 lbs. per 1.0 lb. cement reduction.
7. All curb and gutter shall be integral (monolithic) with the pavement.
8. All fill shall be compacted by sheep's foot roller to a minimum 95% standard proctor. Maximum loose lift for compaction shall be 8 inches. All lifts shall be tested for density by an independent laboratory. All laboratory compaction reports shall be submitted to the City Engineering Construction Inspector once results are received. All reports will be required prior to final acceptance.
9. All concrete compression tests and soil compaction/density tests are required to be submitted to the City's Engineering Inspector immediately upon results.
10. All proposed sidewalks shall include barrier free ramps at intersecting streets, alleys, etc. Barrier free ramps (truncated dome plate in Colonial or brick red color) shall meet current City and ADA requirements and be approved by the Texas Department of Licensing and Regulation (TDLR).
11. All public sidewalks shall be doweled into pavement where it abuts curbs and driveways. Expansion joint material shall be used at these locations.
12. All connection of proposed concrete pavement to existing concrete pavement shall include a longitudinal butt joint as the load transfer device. All longitudinal butt joints shall be clean, straight and smooth (not jagged in appearance)
13. Cracks formed in concrete pavement shall be repaired or removed by the CONTRACTOR at the City's discretion. CONTRACTOR shall replace existing concrete curbs, sidewalk, paving, a gutters as indicated on the plans and as necessary to connect to the existing infrastructure, including any damage caused by the CONTRACTOR.
14. All residential lots will require individual grading plans submitted during the building permit process that correspond with the engineered grading and drainage area plans.
15. Approval of this plan is not an authorization to grade adjacent properties when the plans or field conditions warrant off-site grading. Written permission must be obtained and signed from the affected property owner(s) and temporary construction easements may be required. The written permission shall be provided to the City as verification of approval by the adjacent property owner(s). Violation of this requirement will result in suspension of all work at the job site until issue has been rectified.
16. All cut or fill slopes of non-paved areas shall be a maximum of 4:1 and minimum of 1%.
17. CONTRACTOR agrees to repair any damage to property and the public right-of-way in accordance with the City Standards of Design and Construction.
18. CONTRACTOR shall protect all monuments, iron pins/rods, and property corners during construction.
19. CONTRACTOR shall ensure positive drainage so that runoff will drain by gravity flow to new or existing drainage inlets or sheet flow per these approved plans.

DRAINAGE / STORM SEWER NOTES

1. The CONTRACTOR shall maintain drainage at all times during construction. Ponding of water in streets, drives, trenches, etc. will not be allowed. Existing drainage ways shall not be blocked or removed unless explicitly stated in the plans or written approval is given by the City.
2. All structural concrete shall be 4200 psi compressive strength at 28 days minimum 7.0 sack mix, air entrained, unless noted otherwise. Fly ash shall not be allowed in any structural concrete.
3. Proposed storm sewer embedment shall be NCTCOG Class 'B' as amended by the City of Rockwall's Engineering Department Standards of Design and Construction Manual.
4. All public storm pipe shall be a minimum of 18-inch reinforced concrete pipe (RCP), Class III, unless otherwise noted.
5. All storm pipe entering structures shall be grouted to assure connection at the structure is watertight.
6. All storm structures shall have a smooth uniform poured mortar invert from invert in to invert out.
7. All storm sewer manholes in paved areas shall be flush with the paving grade, and shall have traffic bearing ring and covers.
8. All storm sewer pipes and laterals shall be inspected by photographic means (television and DVD) prior to final acceptance and after franchise utilities are installed. The CONTRACTOR shall furnish a DVD to the Engineering Construction Inspector for review. Pipes shall be cleaned prior to TV inspection of the pipes. Any sags, open joints, cracked pipes, etc. shall be repaired or removed by the CONTRACTOR at the CONTRACTOR's expense. A television survey will be performed as part of the final testing in the twentieth (20th) month of the maintenance period.

RETAINING WALLS

1. All retaining walls, regardless of height, will be reviewed and approved by the City Engineering Department
2. All retaining walls (including foundation stem walls), regardless of height, will be constructed of rock/stone/brick or rock/stone/brick faced. No smooth concrete walls are allowed. Wall materials shall be the same for all walls on the project.
3. All portions, including footings, tie-backs, and drainage backfill, of the wall shall be on-site and not encroach into any public easements or right-of-way. The entire wall shall be in one lot and shall not be installed along a lot line.
4. All walls 3 feet and taller will be designed and signed/sealed by a registered professional engineer in the State of Texas. The wall design engineer is required to inspect the wall construction and supply a signed/sealed letter of wall construction compliance to the City of Rockwall along with wall as-builts prior to City Engineering acceptance.
5. No walls are allowed in detention easements. A variance to allow retaining walls in a detention easement will require approval by the Planning and Zoning Commission with appeals being heard by the City Council.

FINAL ACCEPTANCE AND RECORD DRWINGS/AS-BUILTS

1. Final Acceptance shall occur when all the items on the Checklist for Final Acceptance have been completed and signed-off by the City. An example of the checklist for final acceptance has been included in the Appendix of the Standards of Design and Construction. Items on the checklist for final acceptance will vary per project and additional items not shown on the check list may be required.
2. After improvements have been constructed, the developer shall be responsible for providing to the City "As Built" or "Record Drawings". The Design Engineer shall furnish all digital files of the project formatted in Auto Cad 14, or 2000 format or newer and Adobe Acrobat (.pdf) format with a CD-ROM disk or flash drive. The disk or drive shall include a full set of plans along with any landscaping, wall plans, and details sheets.
3. Submit 1-set of printed drawings of the "Record Drawings" containing copies of all sheets to the Engineering Construction Inspector for the project. The printed sheets will be reviewed by the inspector PRIOR to producing the "Record Drawing" digital files on disk or flash drive. This will allow any revisions to be addressed prior to producing the digital files.
4. Record Drawing Disk drawings shall have the Design Engineers seal, signature and must be stamped and dated as "Record Drawings" or "As Built Drawings" on all sheets.
5. The City of Rockwall will not accept any Record Drawing disk drawings which include a disclaimer. A disclaimer shall not directly or indirectly state or indicate that the design engineer or the design engineer's surveyor/surveyors did not verify grades after construction, or that the Record Drawings were based solely on information provided by the construction contractor/contractors. Any Record Drawings which include like or similar disclaimer verbiage will not be accepted by the City of Rockwall.
6. Example of Acceptable Disclaimer: "To the best of our knowledge ABC Engineering, Inc., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor."

GENERAL CONSTRUCTION NOTES
Sheet 2 of 2
October 2020

CITY OF ROCKWALL
ENGINEERING DEPARTMENT

385 S. Goliad P (972) 771-7746
Rockwall, Texas 75087 F (972) 771-7748

E2022-013

JEREMY B. NELSON
138740
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM
LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

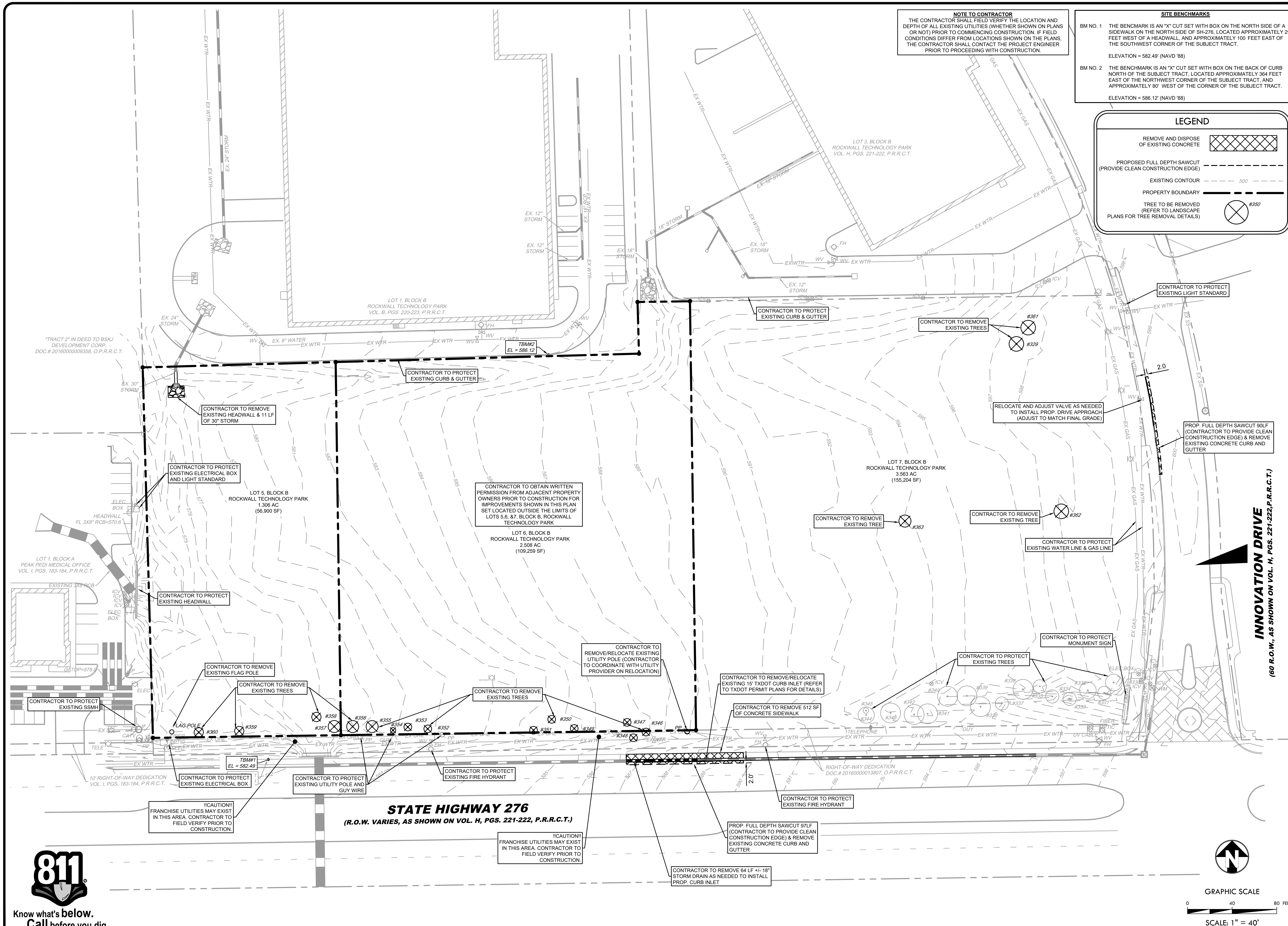
RECORD DRAWING
THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.
BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

CITY OF ROCKWALL GENERAL NOTES

SHEET:
C1.2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SITE BENCHMARKS
BM NO. 1 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTH SIDE OF A SIDEWALK ON THE NORTH SIDE OF SH-276, LOCATED APPROXIMATELY 29 FEET WEST OF A HEADWALL, AND APPROXIMATELY 100 FEET EAST OF THE SOUTHWEST CORNER OF THE SUBJECT TRACT.
ELEVATION = 582.49' (NAVD '88)
BM NO. 2 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE BACK OF CURB NORTH OF THE SUBJECT TRACT, LOCATED APPROXIMATELY 364 FEET EAST OF THE NORTHWEST CORNER OF THE SUBJECT TRACT, AND APPROXIMATELY 80' WEST OF THE CORNER OF THE SUBJECT TRACT.
ELEVATION = 586.12' (NAVD '88)
LEGEND
REMOVE AND DISPOSE OF EXISTING CONCRETE
PROPOSED FULL DEPTH SAWCUT (PROVIDE CLEAN CONSTRUCTION EDGE)
EXISTING CONTOUR
PROPERTY BOUNDARY
TREE TO BE REMOVED (REFER TO LANDSCAPE PLANS FOR TREE REMOVAL DETAILS)
LOT 1, BLOCK B ROCKWALL TECHNOLOGY PARK VOL. B, PGS. 220-223, P.R.R.C.T.
LOT 3, BLOCK B ROCKWALL TECHNOLOGY PARK VOL. H, PGS. 221-222, P.R.R.C.T.
"TRACT 2" IN DEED TO BSKJ DEVELOPMENT CORP. DOC.# 20160000009358, O.P.R.R.C.T.
TBM#2 EL = 586.12
CONTRACTOR TO PROTECT EXISTING CURB & GUTTER
CONTRACTOR TO PROTECT EXISTING LIGHT STANDARD
CONTRACTOR TO REMOVE EXISTING TREES
CONTRACTOR TO REMOVE EXISTING HEADWALL & 11 LF OF 30" STORM
CONTRACTOR TO PROTECT EXISTING ELECTRICAL BOX AND LIGHT STANDARD
LOT 5, BLOCK B ROCKWALL TECHNOLOGY PARK 1.306 AC (56,900 SF)
CONTRACTOR TO OBTAIN WRITTEN PERMISSION FROM ADJACENT PROPERTY OWNERS PRIOR TO CONSTRUCTION FOR IMPROVEMENTS SHOWN IN THIS PLAN SET LOCATED OUTSIDE THE LIMITS OF LOTS 5,6, &7, BLOCK B, ROCKWALL TECHNOLOGY PARK
LOT 6, BLOCK B ROCKWALL TECHNOLOGY PARK 2.508 AC (109,259 SF)
LOT 7, BLOCK B ROCKWALL TECHNOLOGY PARK 3.563 AC (155,204 SF)
RELOCATE AND ADJUST VALVE AS NEEDED TO INSTALL PROP. DRIVE APPROACH (ADJUST TO MATCH FINAL GRADE)
PROP. FULL DEPTH SAWCUT 90LF (CONTRACTOR TO PROVIDE CLEAN CONSTRUCTION EDGE) & REMOVE EXISTING CONCRETE CURB AND GUTTER
CONTRACTOR TO REMOVE EXISTING TREE
CONTRACTOR TO PROTECT EXISTING WATER LINE & GAS LINE
LOT 1, BLOCK A PEAK PEDI MEDICAL OFFICE VOL. I, PGS. 183-184, P.R.R.C.T.
CONTRACTOR TO PROTECT EXISTING HEADWALL
INNOVATION DRIVE
(60 R.O.W., AS SHOWN ON VOL. H, PGS. 221-222,P.R.R.C.T.)
CONTRACTOR TO PROTECT MONUMENT SIGN
CONTRACTOR TO PROTECT EXISTING TREES
CONTRACTOR TO REMOVE EXISTING FLAG POLE
CONTRACTOR TO PROTECT EXISTING SSMH
CONTRACTOR TO REMOVE/RELOCATE EXISTING UTILITY POLE (CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER ON RELOCATION)
CONTRACTOR TO REMOVE/RELOCATE EXISTING 15' TXDOT CURB INLET (REFER TO TXDOT PERMIT PLANS FOR DETAILS)
CONTRACTOR TO REMOVE 512 SF OF CONCRETE SIDEWALK
TBM#1 EL = 582.49
10' RIGHT-OF-WAY DEDICATION VOL. I, PGS. 183-184, P.R.R.C.T.
CONTRACTOR TO PROTECT EXISTING ELECTRICAL BOX
CONTRACTOR TO PROTECT EXISTING UTILITY POLE AND GUY WIRE
CONTRACTOR TO PROTECT EXISTING FIRE HYDRANT
RIGHT-OF-WAY DEDICATION DOC.# 20160000013807, O.P.R.R.C.T.
!!CAUTION!! FRANCHISE UTILITIES MAY EXIST IN THIS AREA. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION.
STATE HIGHWAY 276
(R.O.W. VARIES, AS SHOWN ON VOL. H, PGS. 221-222, P.R.R.C.T.)
PROP. FULL DEPTH SAWCUT 97LF (CONTRACTOR TO PROVIDE CLEAN CONSTRUCTION EDGE) & REMOVE EXISTING CONCRETE CURB AND GUTTER
CONTRACTOR TO REMOVE 64 LF +/- 18" STORM DRAIN AS NEEDED TO INSTALL PROP. CURB INLET
811
Know what's below. Call before you dig.
GRAPHIC SCALE
0 40 80 FEET
SCALE: 1" = 40'

E2022-013

JEREMY B. NELSON 138740
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV.	DATE:	DESCRIPTION:

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

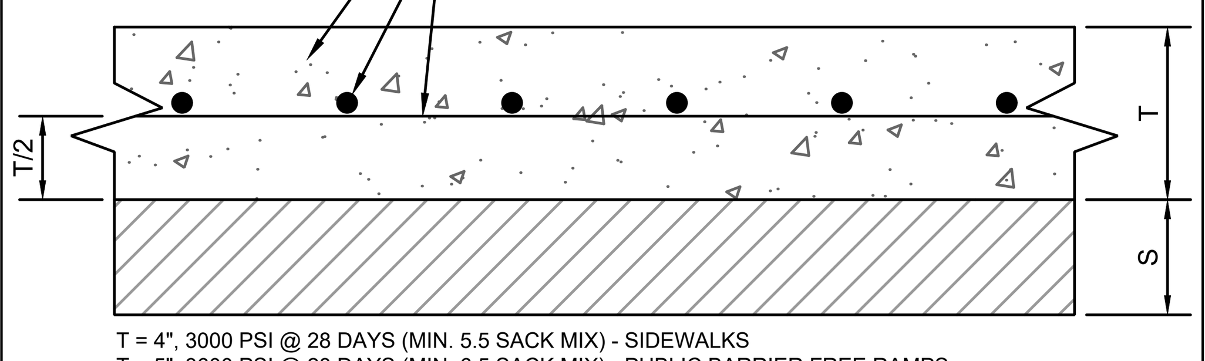
kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

DEMOLITION PLAN

SHEET:
C2.0



T = 4", 3000 PSI @ 28 DAYS (MIN. 5.5 SACK MIX) - SIDEWALKS
T = 5", 3600 PSI @ 28 DAYS (MIN. 6.5 SACK MIX) - PUBLIC BARRIER FREE RAMPS
T = 6", 3600 PSI @ 28 DAYS (MIN. 6.5 SACK MIX) - PARKING LOT AREAS
T = 7", 3600 PSI @ 28 DAYS (MIN. 6.5 SACK MIX) - FIRE LANE & DUMPSTER AREAS
S = PER GEOTECH REPORT (PRIVATE)
PER CITY OF ROCKWALL STANDARD DETAILS (PUBLIC)

NOTE:
ALL FIRE LANES TO BE CONSTRUCTED TO CITY OF ROCKWALL STANDARDS. REFER TO CITY OF ROCKWALL STANDARD DETAILS FOR PAVING AND SUBGRADE SPECIFICATIONS AND RECOMMENDATIONS.

1 TYPICAL PAVEMENT SECTION

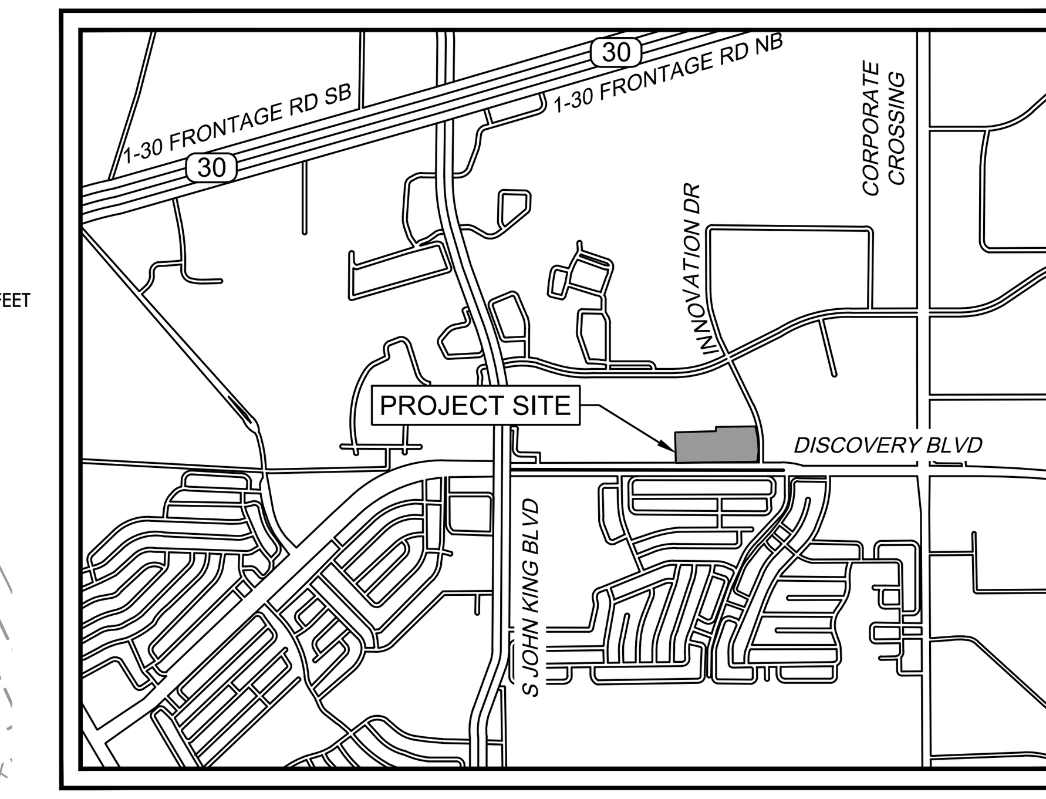
SITE DATA SUMMARY TABLE

GENERAL SITE DATA	LOT 4
ZONING	LI - LIGHT INDUSTRIAL
LAND USE	OFFICE/WAREHOUSE
LOT AREA	109,258 SF/2.50 AC
BUILDING FOOTPRINT AREA	20,930 SF
TOTAL BUILDING AREA	3,765 SF OFFICE
	17,165 SF WAREHOUSE
	TOTAL 20,930 SF
BUILDING HEIGHT (# STORIES)	1
BUILDING HEIGHT	29'-8"
LOT COVERAGE	12.59%
FLOOR AREA RATIO	0.13
PARKING	
PARKING RATIO	OFFICE: ONE SPACE PER 300 SF
	WAREHOUSE: ONE SPACE PER 1000 SF
REQUIRED PARKING (# SPACES)	31
PROVIDED PARKING (# SPACES)	50
ACCESSIBLE PARKING REQUIRED (# SPACES)	2
ACCESSIBLE PARKING PROVIDED (# SPACES)	2

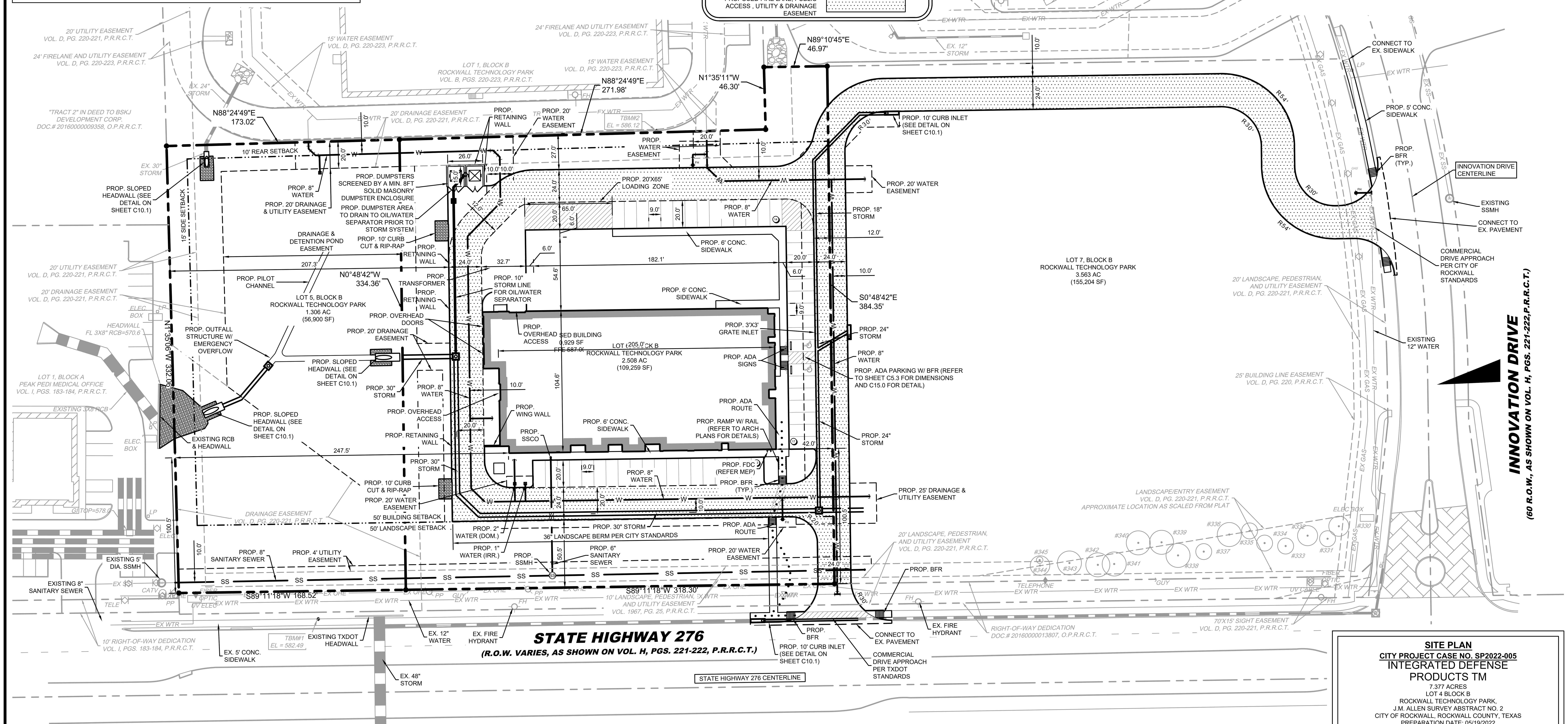
LEGEND

PROPOSED SIGN
FIRE LANE STRIPING
EXISTING WATER
PROPOSED WATER
EXISTING SANITARY SEWER
PROPOSED SANITARY SEWER
EXISTING STORM DRAIN
PROPOSED STORM DRAIN
PROPOSED FIRE HYDRANT
PROPOSED SANITARY SEWER MANHOLE
PROPOSED GRATE INLET
ACCESSIBLE ROUTE
PARKING COUNT
PROPOSED RETAINING WALL
PROPOSED FDC
PROPERTY BOUNDARY
PROPOSED FIRE LANE, PUBLIC ACCESS, UTILITY & DRAINAGE EASEMENT

GRAPHIC SCALE
0 40 80 FEET
SCALE: 1" = 40'



VICINITY MAP
N.T.S.



LAYOUT & DIMENSIONAL CONTROL NOTES:

1. BOUNDARY LINES AND EASEMENT: REFER TO THE FINAL PLAT TO VERIFY PROPERTY LINES AND EXISTING EASEMENT LOCATIONS.
2. DIMENSION CONTROL: UNLESS NOTED OTHERWISE, ALL PAVING DIMENSIONS SHOWN ARE TO FACE OF CURB.
3. CURB RADII: UNLESS NOTED OTHERWISE, ALL CURB RADII SHALL BE 3' AT FACE OF CURB.
4. BUILDING DIMENSIONS: REFERENCE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATES PRIOR TO CONSTRUCTION.
6. ALL COORDINATES ARE U.S. SURVEY FEET, NAD '83 SURFACE.

NOTE TO CONTRACTOR
THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) PRIOR TO COMMENCING CONSTRUCTION. IF FIELD CONDITIONS DIFFER FROM CONDITIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

811
Know what's **below.**
Call before you dig.

OWNER
ROCKWALL TECHNOLOGY PARK
PO BOX 968
ROCKWALL, TX 75087
PH: (972) 772-0025
CONTACT: PHIL WAGNER

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the ___ day of ________, ____.

WITNESS OUT HANDS, THIS ___ day of ________, ____

Planning & Zoning Commission, Chairman | Director of Planning and Zoning

SITE PLAN
CITY PROJECT CASE NO. SP2022-005
INTEGRATED DEFENSE PRODUCTS TM
7.377 ACRES
LOT 4 BLOCK B
ROCKWALL TECHNOLOGY PARK,
J.M. ALLEN SURVEY ABSTRACT NO. 2
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS
PREPARATION DATE: 05/19/2022

APPLICANT
LINKS CONSTRUCTION
525 S. LOOP 288, SUITE 105
DENTON, TX 76034
PH: 940-783-0920
CONTACT: ALISON WINGET, PE

LANDSCAPE ARCHITECT
STUDIO GREEN SPOT, INC.
1784 W. McDERMOTT DR. STE. 110
ALLEN, TX 75013
PH: 469-369-4448
CONTACT: CHRIS TRONZANO, RLA

ENGINEER
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
PH: 817-488-4960
CONTACT: JEREMY NELSON, PE

SURVEYOR
BARTON CHAPA SURVEYING
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
PH: 817-864-1957
CONTACT: JACK BARTON, RPLS

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM
LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
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ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

REV:	DATE:	DESCRIPTION:

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

SITE PLAN

SHEET:
C3.0

CASE NUMBER: SP2022-005

LEGEND

PROPOSED SIGN	
FIRE LANE STRIPING	FIRELANE
PROPOSED FIRE HYDRANT	FH
PROPOSED SANITARY MANHOLE	SS
PROPOSED CURB INLET	
PROPOSED GRATE INLET	
ACCESSIBLE ROUTE	
PARKING COUNT	10
PROPOSED RETAINING WALL	
PROPOSED FDC	
PROPERTY BOUNDARY	

LAYOUT & DIMENSIONAL CONTROL NOTES:

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3. CURB RADII: UNLESS NOTED OTHERWISE, ALL CURB RADII SHALL BE 3' AT FACE OF CURB.
4. REFER TO ARCHITECTURAL/STRUCTURAL PLANS FOR EXACT BUILDING AND FOUNDATION DIMENSIONS AND DETAILS.
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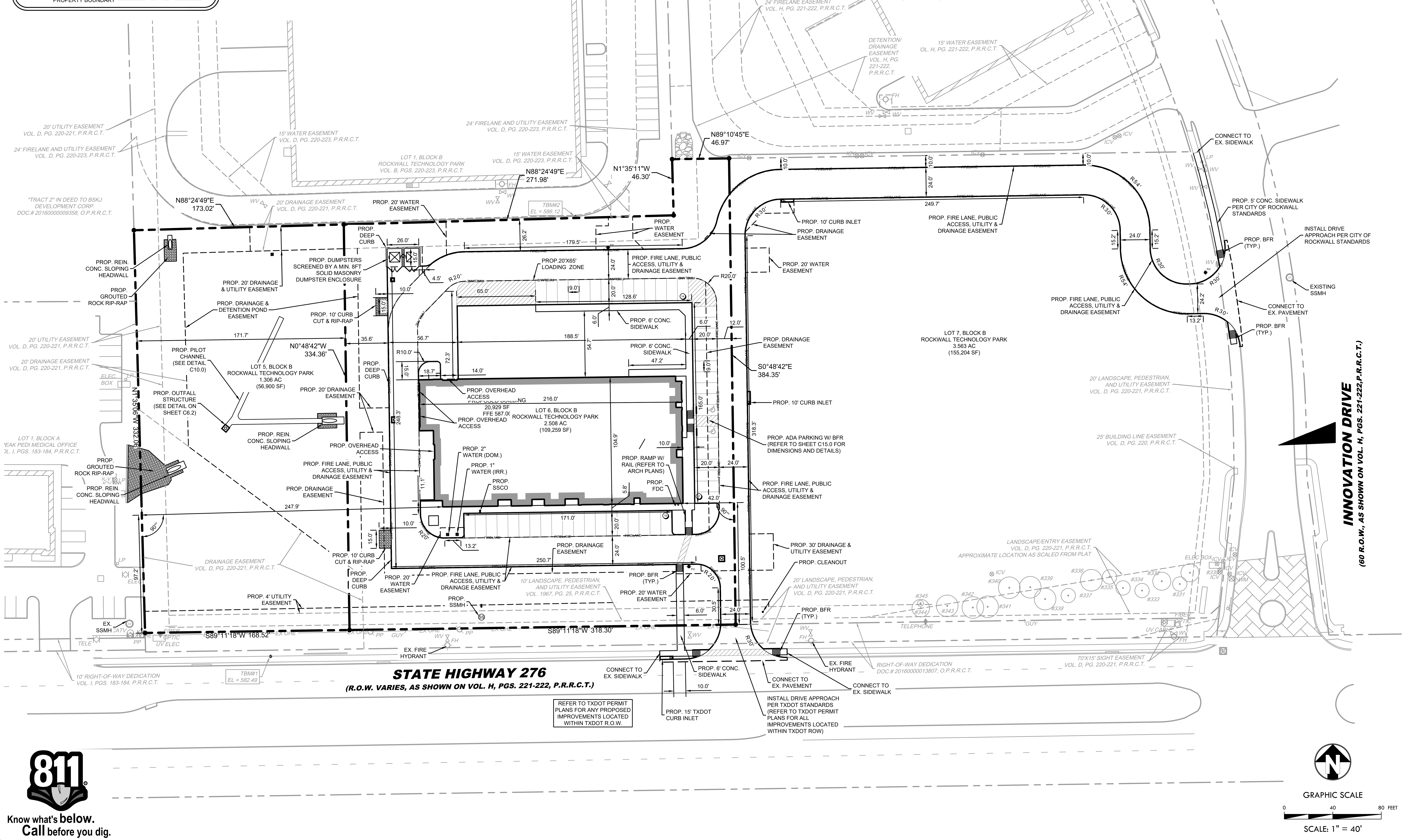
ELEVATION = 582.49' (NAVD '88)

BM NO. 2 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE BACK OF CURB NORTH OF THE SUBJECT TRACT, LOCATED APPROXIMATELY 364 FEET EAST OF THE NORTHWEST CORNER OF THE SUBJECT TRACT, AND APPROXIMATELY 80' WEST OF THE CORNER OF THE SUBJECT TRACT.

ELEVATION = 586.12' (NAVD '88)



E2022-013

JEREMY B. NELSON 138740 05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288, SUITE 105
DENTON, TX 76205
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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

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KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

DIMENSIONAL CONTROL PLAN

SHEET: C4.0

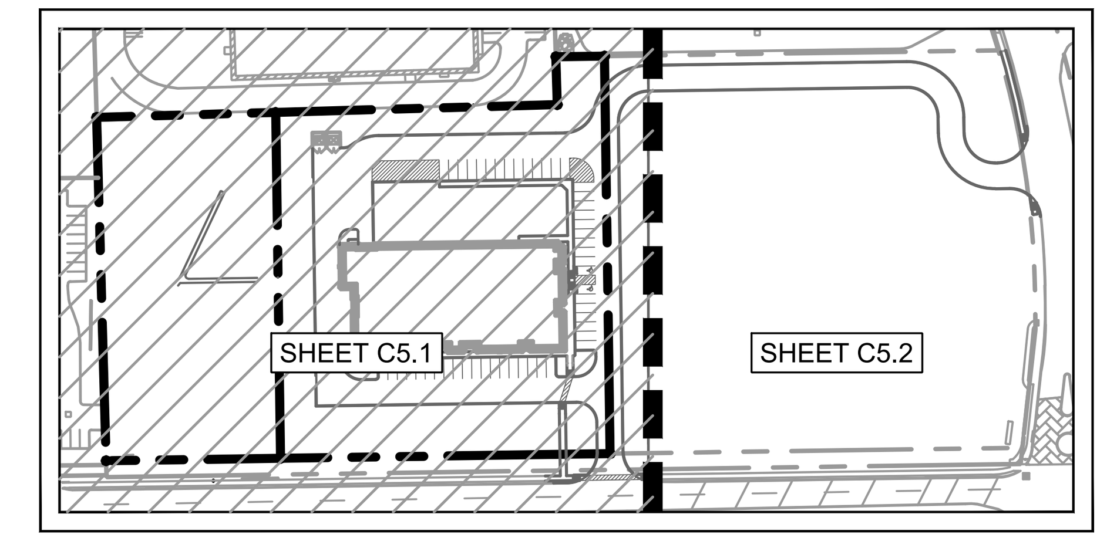
LEGEND	
PROPOSED CONTOUR	500
EXISTING CONTOUR	500
GRADE BREAK	
PROPOSED SWALE	
PROPOSED FINISHED GRADE	FG 700.00
PROPOSED TOP OF CURB/GUTTER	TC 700.50 G 700.00
PROPOSED TOP OF WALL/ BOTTOM OF WALL	TW 700.00 BW 699.00
PROPOSED TOP OF INLET	TI 700.00
EXISTING SPOT GRADE	EX 700.5±
EXISTING TOP OF CURB/GUTTER	TC 700.5± G 700.0±
PROPOSED DRAINAGE FLOW ARROW	
EXISTING DRAINAGE FLOW ARROW	
PROPERTY BOUNDARY	

GRADING NOTES:

1. GEOTECHNICAL REPORT: SITE PREPARATION, GRADING, FILL COMPACTION, AND BUILDING PAD PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY D&S ENGINEERING LABS, LLC, DATED DECEMBER 2021 . IN THE EVENT OF A CONFLICT BETWEEN THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT AND THE NOTES ON THE GRADING PLAN, THE GEOTECHNICAL REPORT SHALL GOVERN.
2. TOPOGRAPHIC SURVEY: TOPOGRAPHIC SURVEY INFORMATION IS BASED ON THE TOPOGRAPHIC SURVEY PREPARED BY BARTON CHAPA SURVEYING, DATED JANUARY 2022.
3. EXISTING CONDITIONS: PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS, INCLUDING GRADES AND DIMENSIONS. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES.
4. EROSION CONTROL: EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO COMMENCING CLEARING, STRIPPING AND GRADING OPERATIONS. REFER TO THE EROSION CONTROL PLAN FOR THE SEQUENCE OF EROSION CONTROL DEVICES TO BE INSTALLED.
5. PROPOSED GRADES: THE PROPOSED ELEVATIONS AND CONTOURS SHOWN ARE TO FINISHED GRADE. THE PROPOSED CONTOURS ARE APPROXIMATE. THE PROPOSED SPOT ELEVATIONS AND GRADIENTS ARE TO BE USED IN THE EVENT OF ANY DISCREPANCY WITH THE PROPOSED CONTOURS. MINOR ADJUSTMENT TO FINISH GRADE TO ACCOMPLISH SPOT DRAINAGE IS ACCEPTABLE.
6. ACCESSIBLE ROUTES/PARKING: SIDEWALKS AND CROSSWALKS ALONG ACCESSIBLE ROUTES SHALL BE IN ACCORDANCE WITH TAS AND ADA STANDARDS WITH A MAXIMUM RUNNING SLOPE OF 5% AND A MAXIMUM CROSS SLOPE OF 2%. ACCESSIBLE PARKING SPACES SHALL HAVE A MAXIMUM SLOPE OF 2% IN ALL DIRECTIONS.
7. TESTING: TESTING SHALL BE PERFORMED BY A QUALIFIED TESTING LABORATORY, EMPLOYED AND PAID DIRECTLY BY THE OWNER. TESTING SHALL BE PERFORMED AT A MINIMUM, IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. IN THE EVENT THE RESULTS OF THE INITIAL TESTING DO NOT COMPLY WITH THE PLANS AND SPECIFICATIONS, SUBSEQUENT TESTS NECESSARY TO DETERMINE THE ACCEPTABILITY OF CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE.
8. MAXIMUM SITE SLOPES SHALL BE 4:1 UNLESS OTHERWISE NOTED.
9. CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS.
10. CONTRACTOR TO ADJUST ALL UTILITY APPURTENANCES (EXISTING OR PROPOSED) TO FINAL GRADE.

NOTE TO CONTRACTOR

THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) PRIOR TO COMMENCING CONSTRUCTION. IF FIELD CONDITIONS DIFFER FROM LOCATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.



KEY MAP
N.T.S.

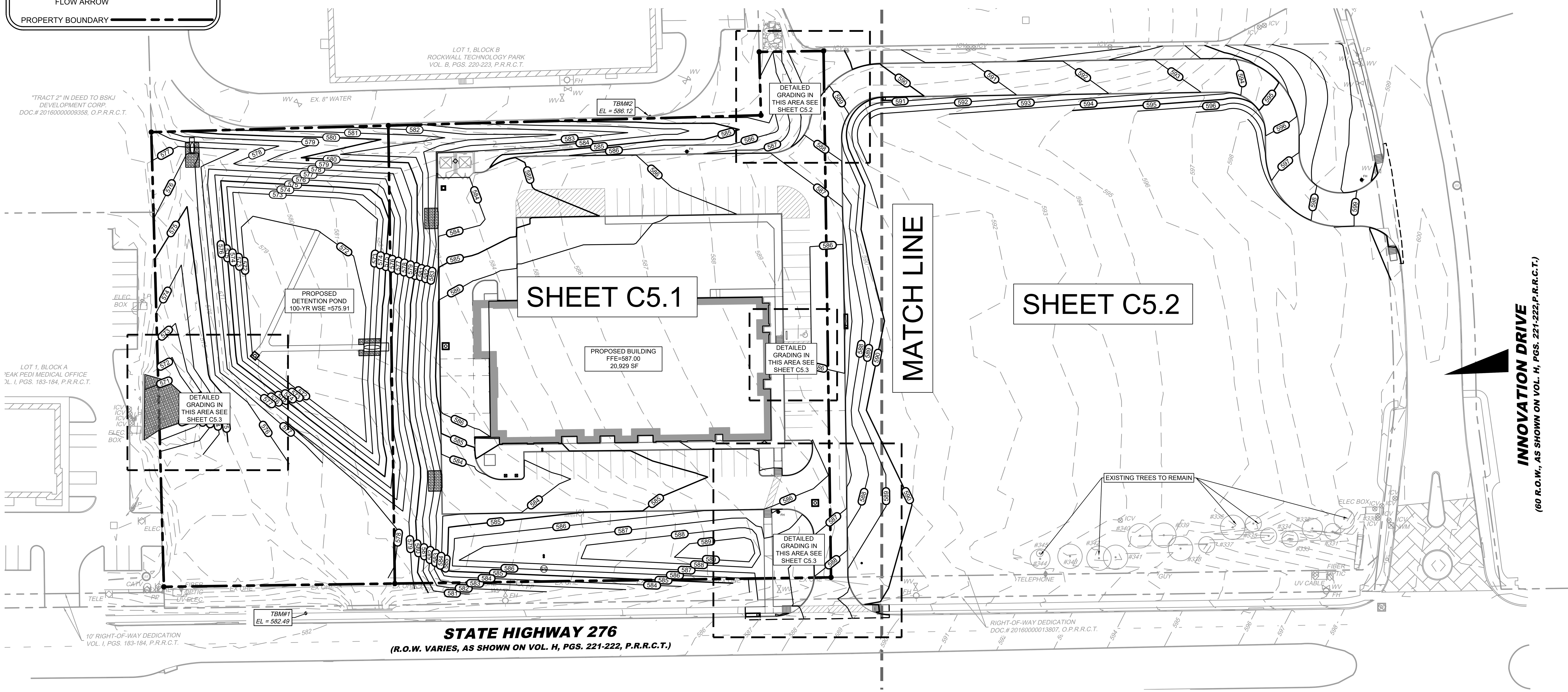
SITE BENCHMARKS

BM NO. 1 THE BENCMARK IS AN "X" CUT SET WITH BOX ON THE NORTH SIDE OF A SIDEWALK ON THE NORTH SIDE OF SH-276, LOCATED APPROXIMATELY 29 FEET WEST OF A HEADWALL, AND APPROXIMATELY 100 FEET EAST OF THE SOUTHWEST CORNER OF THE SUBJECT TRACT.

ELEVATION = 582.49' (NAVD '88)

BM NO. 2 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE BACK OF CURB NORTH OF THE SUBJECT TRACT, LOCATED APPROXIMATELY 364 FEET EAST OF THE NORTHWEST CORNER OF THE SUBJECT TRACT, AND APPROXIMATELY 80' WEST OF THE CORNER OF THE SUBJECT TRACT.

ELEVATION = 586.12' (NAVD '88)



811
Know what's **below.**
Call before you dig.

GRAPHIC SCALE
0 40 80 FEET
SCALE: 1" = 40'

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM
LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman
ENGINEERING

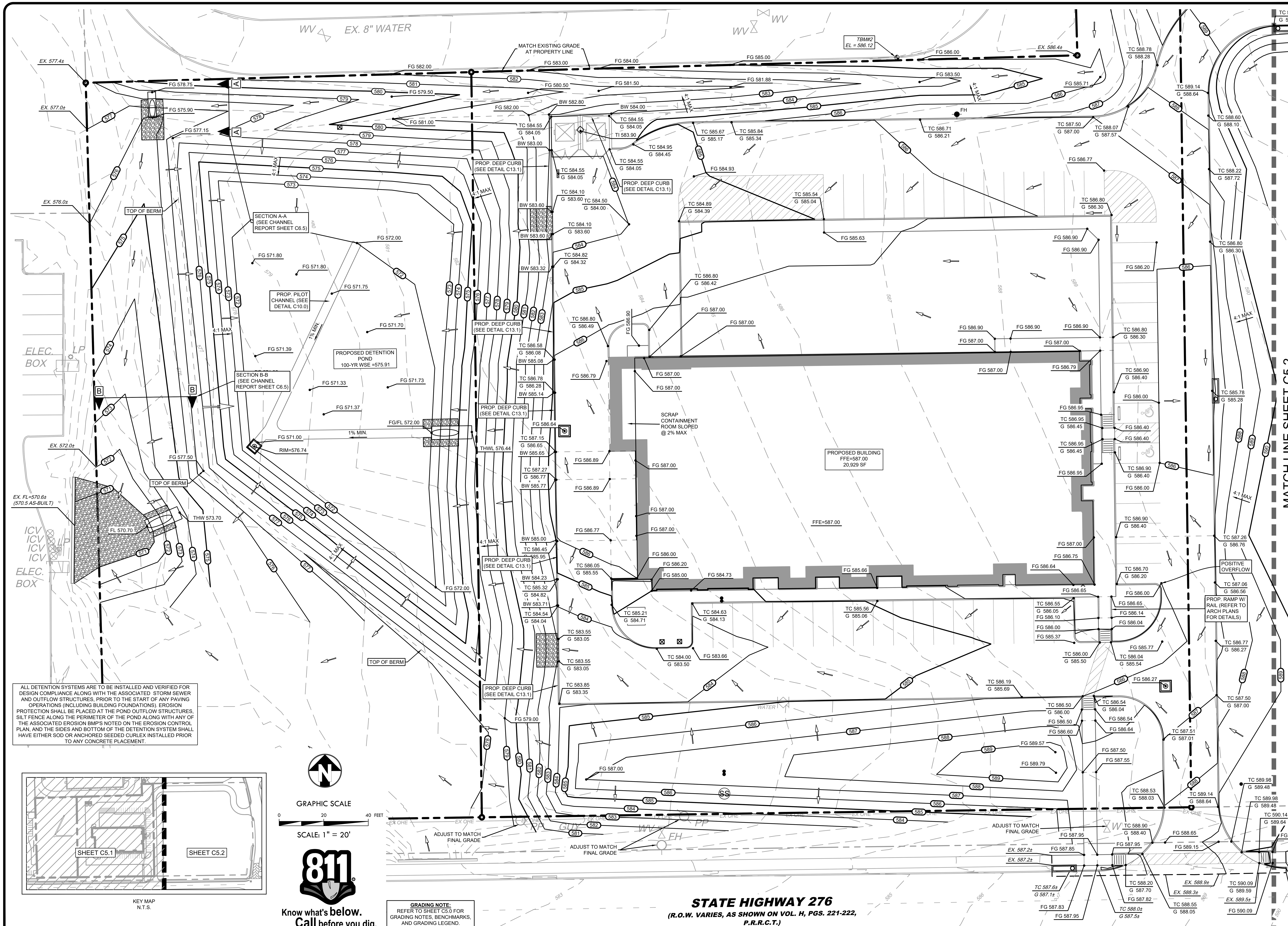
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

OVERALL GRADING PLAN

SHEET:
C5.0



ALL DETENTION SYSTEMS ARE TO BE INSTALLED AND VERIFIED FOR DESIGN COMPLIANCE ALONG WITH THE ASSOCIATED STORM SEWER AND OUTFLOW STRUCTURES, PRIOR TO THE START OF ANY PAVING OPERATIONS (INCLUDING BUILDING FOUNDATIONS). EROSION PROTECTION SHALL BE PLACED AT THE POND OUTFLOW STRUCTURES, SILT FENCE ALONG THE PERIMETER OF THE POND ALONG WITH ANY OF THE ASSOCIATED EROSION BMP'S NOTED ON THE EROSION CONTROL PLAN, AND THE SIDES AND BOTTOM OF THE DETENTION SYSTEM SHALL HAVE EITHER SOD OR ANCHORED SEEDED CURLEX INSTALLED PRIOR TO ANY CONCRETE PLACEMENT.

SHEET C5.1 | SHEET C5.2

KEY MAP
N.T.S.

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

Know what's **below.**
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GRADING NOTE:
REFER TO SHEET C5.0 FOR GRADING NOTES, BENCHMARKS, AND GRADING LEGEND.

E2022-013

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MATCH LINE SHEET C5.2

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COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

GRADING PLAN

SHEET:
C5.1

FULL PATH: K:\Jobs\lnk21005_rockwall Industrial\Drawings\03_ENGR\03 - Production\C5.0 GRADING PLAN_LNK21005
FILENAME: C5.0 GRADING PLAN_LNK21005.dwg
PLOTTED BY: Michael Heimlich
PLOTTED DATE: 10/2/2023

GRADING DETAIL ALONG LOT 1 & 2 ROCKWALL TECHNOLOGY PARK PROPERTY LINE

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LEGEND

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EXISTING CONTOUR	500
GRADE BREAK	
PROPOSED SWALE	
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PROPOSED TOP OF INLET	TI 700.00
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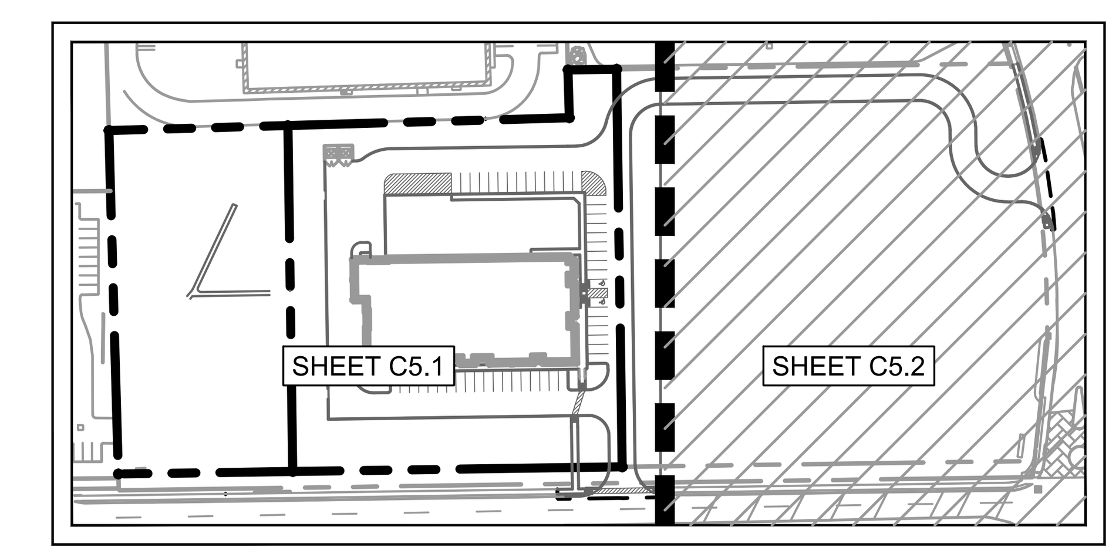
EXISTING TOP OF CURB/GUTTER	TC 700.5± G 700.0±
PROPOSED DRAINAGE FLOW ARROW	
EXISTING DRAINAGE FLOW ARROW	
PROPERTY BOUNDARY	



KEY MAP
N.T.S.

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

E2022-013

JEREMY B. NELSON
138740
05/19/2022

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

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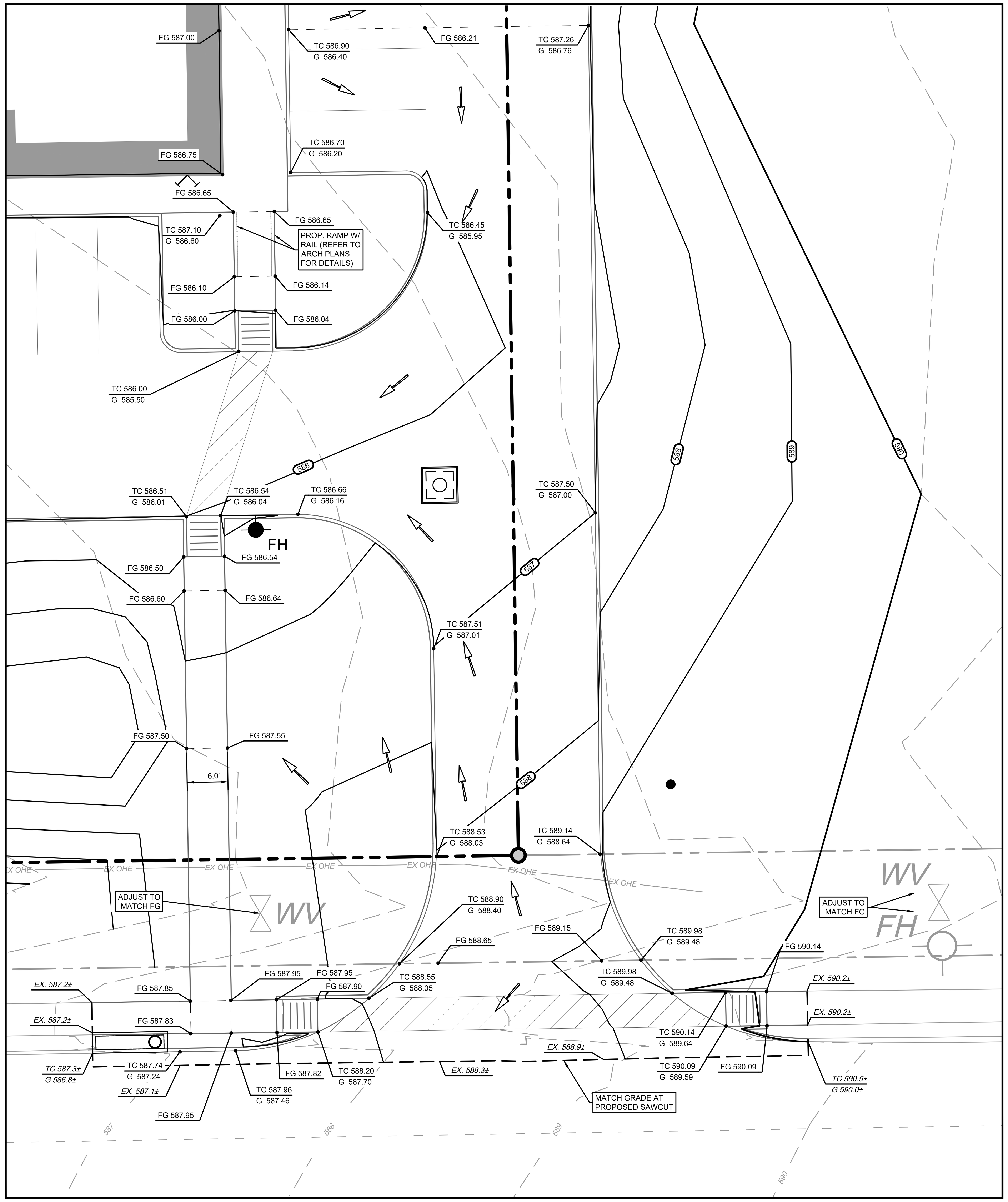
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

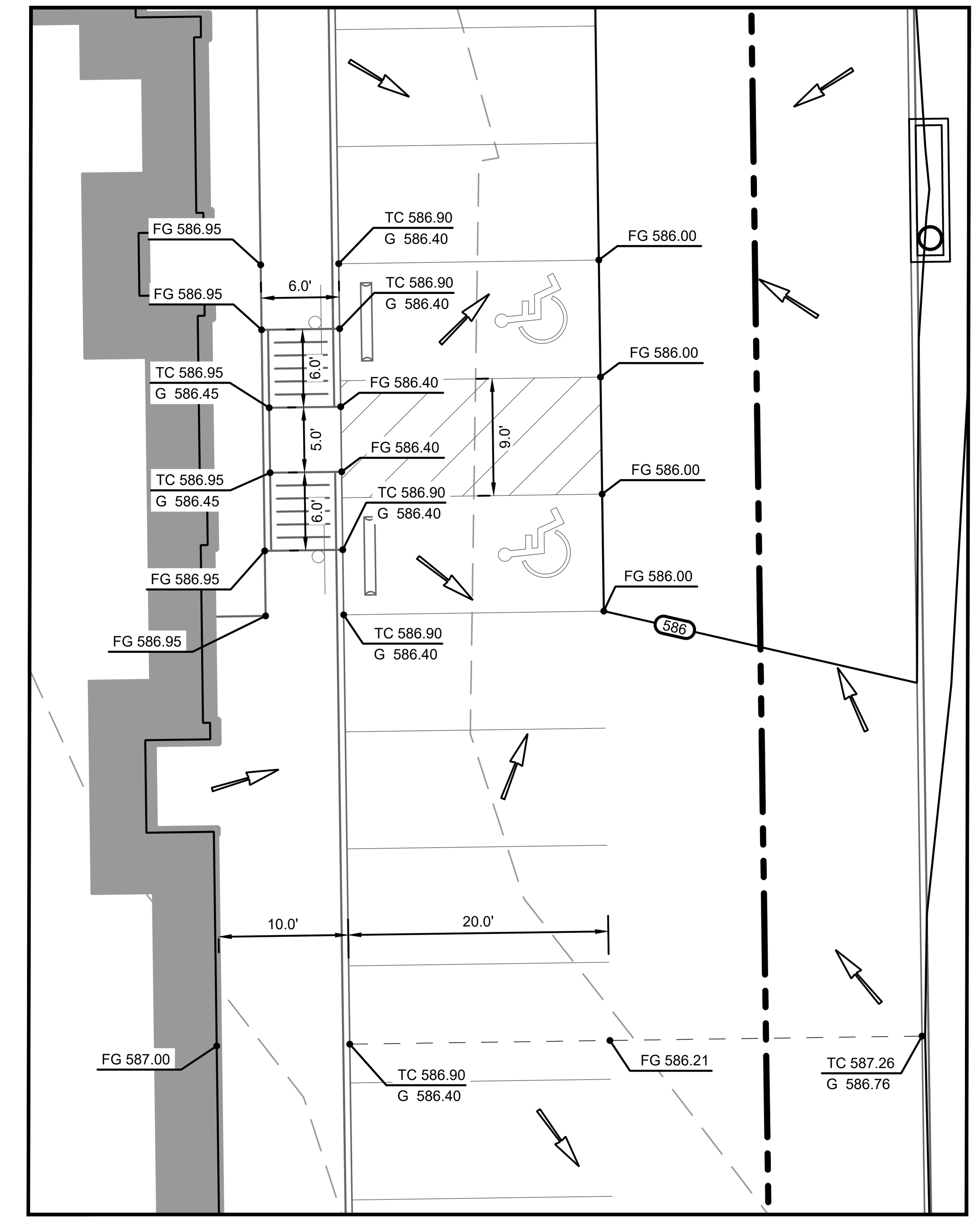
JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

GRADING PLAN

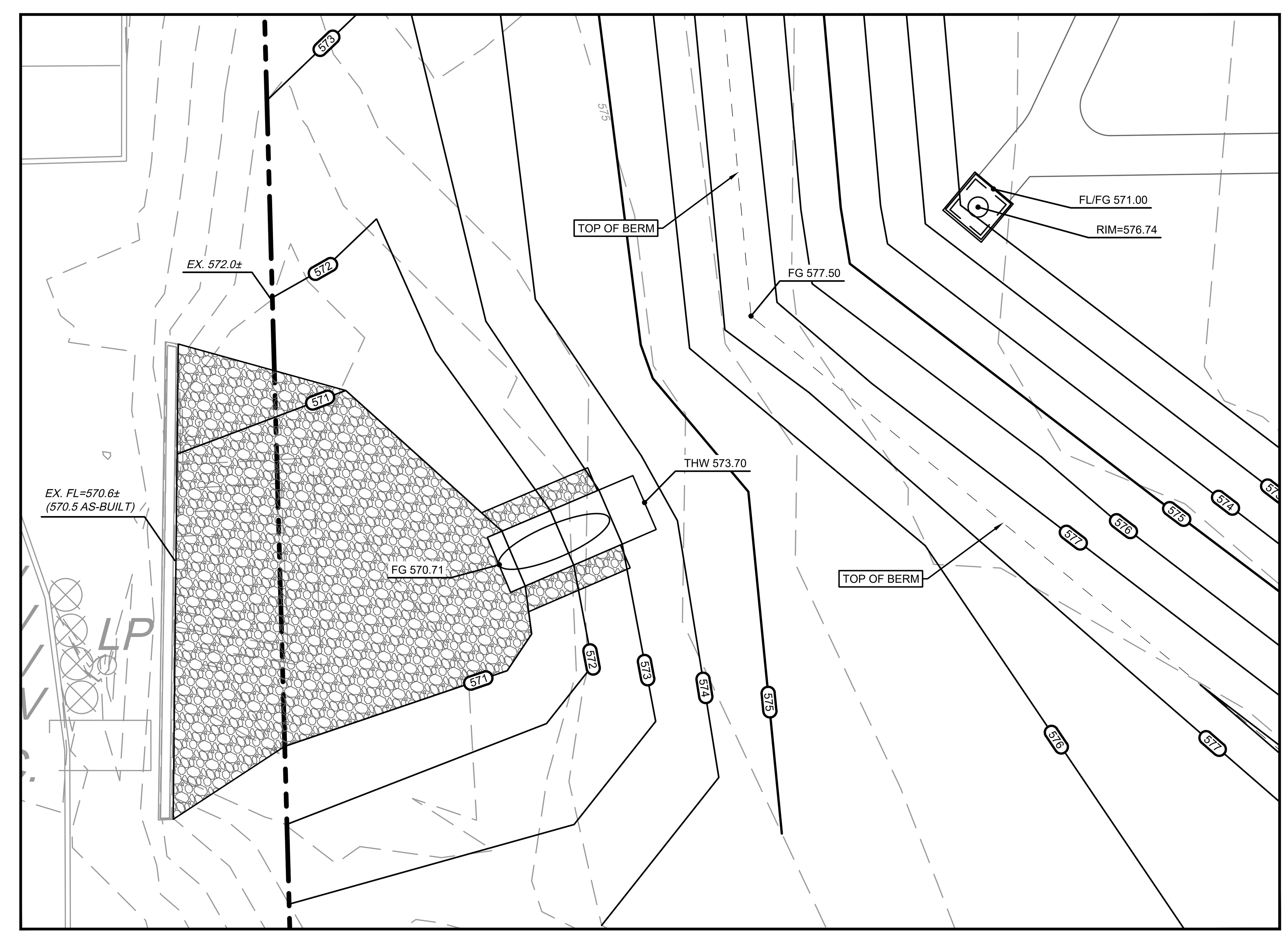
SHEET: C5.2



DETAILED GRADING 1



ADA DETAILED GRADING



OUTFALL DETAILED GRADING

LEGEND

PROPOSED CONTOUR	500
EXISTING CONTOUR	500
GRADE BREAK	
PROPOSED SWALE	
PROPOSED FINISHED GRADE	FG 700.00
PROPOSED TOP OF CURB/GUTTER	TC 700.50 G 700.00
PROPOSED TOP OF WALL/ BOTTOM OF WALL	TW 700.00 BW 699.00
PROPOSED TOP OF INLET	TI 700.00
EXISTING SPOT GRADE	EX. 700.5±
EXISTING TOP OF CURB/GUTTER	TC 700.5± G 700.0±
PROPOSED DRAINAGE FLOW ARROW	
EXISTING DRAINAGE FLOW ARROW	
PROPERTY BOUNDARY	

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N

GRAPHIC SCALE
0 10 20 FEET
SCALE: 1" = 10'

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811

E2022-013

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

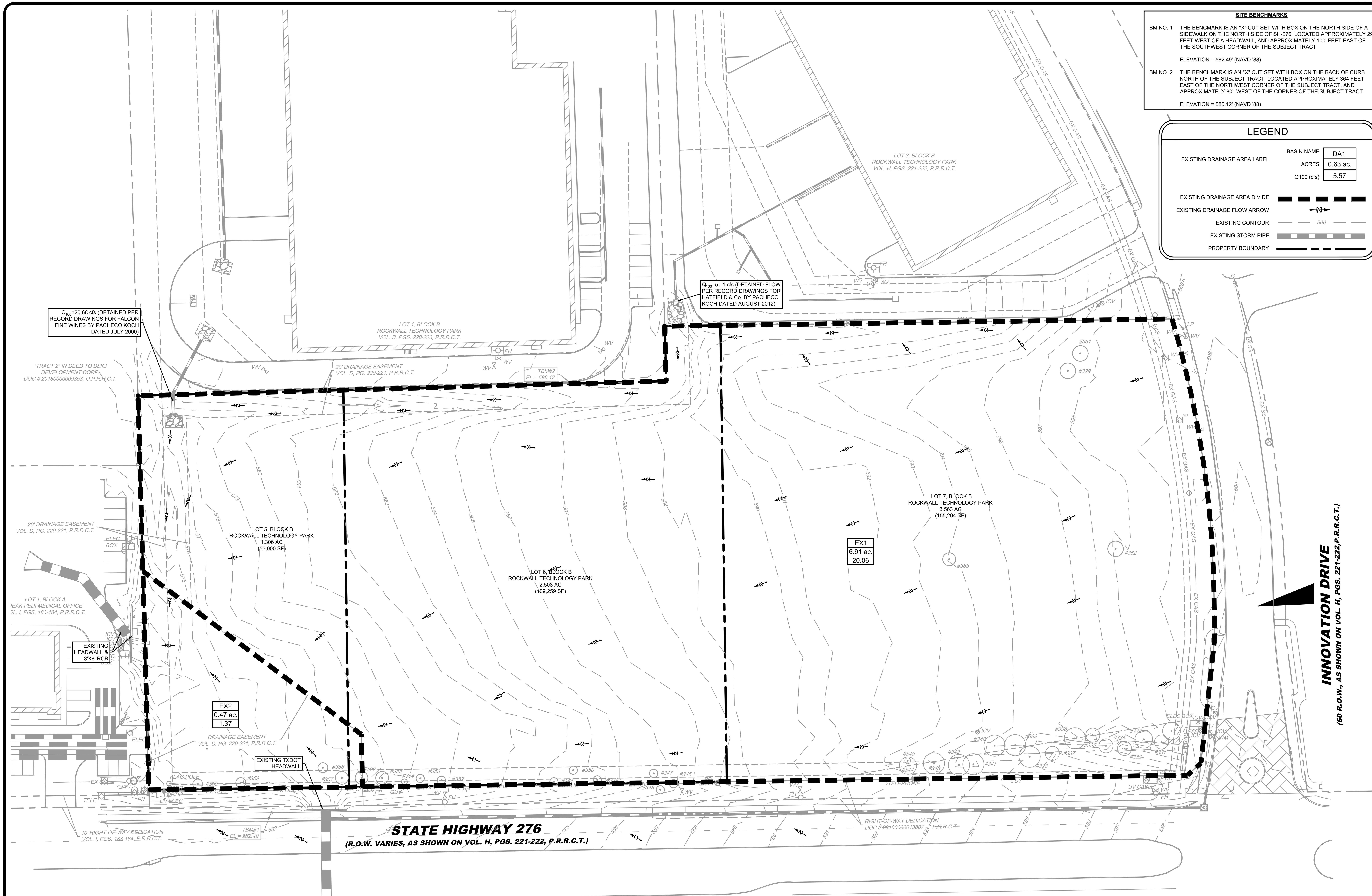
REV.	DATE:	DESCRIPTION:

KE
kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

DETAILED GRADING PLAN

SHEET:
C5.3


LOT 1, BLOCK B
ROCKWALL TECHNOLOGY PARK
LOT 3, BLOCK B
ROCKWALL TECHNOLOGY PARK
VOL. H, PGS. 221-222, P.R.R.C.T.
Q100=20.68 cfs (DETAINED PER RECORD DRAWINGS FOR FALCON FINE WINES BY PACHECO KOCH DATED JULY 2000)
Q100=5.01 cfs (DETAINED FLOW PER RECORD DRAWINGS FOR HATFIELD & Co. BY PACHECO KOCH DATED AUGUST 2012)
"TRACT 2" IN DEED TO BSKJ DEVELOPMENT CORP. DOC.# 20160000009358, O.P.R.R.C.T.
20' DRAINAGE EASEMENT VOL. D, PG. 220-221, P.R.R.C.T.
LOT 5, BLOCK B
ROCKWALL TECHNOLOGY PARK
1.306 AC
(56,900 SF)
LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK
2.508 AC
(109,259 SF)
LOT 7, BLOCK B
ROCKWALL TECHNOLOGY PARK
3.563 AC
(155,204 SF)
EX1
6.91 ac.
20.06
EX2
0.47 ac.
1.37
EXISTING HEADWALL & 3'X8' RCB
EXISTING TXDOT HEADWALL
DRAINAGE EASEMENT VOL. D, PG. 220-221, P.R.R.C.T.
STATE HIGHWAY 276
(R.O.W. VARIES, AS SHOWN ON VOL. H, PGS. 221-222, P.R.R.C.T.)
INNOVATION DRIVE
(60 R.O.W., AS SHOWN ON VOL. H, PGS. 221-222, P.R.R.C.T.)
10' RIGHT-OF-WAY DEDICATION VOL. I, PGS. 183-184, P.R.R.C.T.
TBM#1 EL = 582.49
TBM#2 EL = 586.12

SITE BENCHMARKS

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ELEVATION = 586.12' (NAVD '88)

LEGEND

EXISTING DRAINAGE AREA LABEL	BASIN NAME DA1 / ACRES 0.63 ac. / Q100 (cfs) 5.57
EXISTING DRAINAGE AREA DIVIDE	
EXISTING DRAINAGE FLOW ARROW	
EXISTING CONTOUR	500
EXISTING STORM PIPE	
PROPERTY BOUNDARY	

EXISTING DRAINAGE AREA CALCULATIONS Q=CiA								
DRAINAGE AREA ID	Tc (min.)	RUNOFF COEFFICIENT "C"	AREA (acres)	I5 (in./hr.)	Q5 (cfs)	I100 (in./hr.)	Q100 (cfs)	COMMENTS
EX1	20	0.35	6.91	4.90	11.84	8.30	20.06	DRAINS WEST TO EX. HEADWALL
EX2	20	0.35	0.47	4.90	0.81	8.30	1.37	DRAINS WEST TO EX. HEADWALL

NOTE: DRAINAGE CRITERIA TAKEN FROM CITY OF ROCKWALL ENGINEERING DESIGN MANUAL DATED OCTOBER 2019.

NOTE TO CONTRACTOR

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GRAPHIC SCALE

0 40 80 FEET

SCALE: 1" = 40'

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JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

EXISTING DRAINAGE AREA MAP

SHEET:

C6.0

PROPOSED DRAINAGE AREA CALCULATIONS Q=CiA

DRAINAGE AREA ID	Tc (min.)	RUNOFF COEFFICIENT "C"	AREA (acres)	I5 (in./hr.)	Q5 (cfs)	I100 (in./hr.)	Q100 (cfs)	COMMENTS
DA1	20	0.35	0.47	4.90	0.81	8.30	1.37	DRAINS TO EX. HEADWALL (UNDETAINED)
DA2	10	0.90	0.49	6.10	2.69	9.80	4.32	DRAINS TO EX. HEADWALL (BYPASS)
DA3	10	0.90	0.13	6.10	0.70	9.80	1.12	DRAINS TO EX. HEADWALL (BYPASS)
DA4	10	0.90	0.16	6.10	0.88	9.80	1.42	DRAINS TO SH-276 (BYPASS)
DA5	10	0.90	0.82	6.10	4.48	9.80	7.20	PROPOSED DETENTION POND
DA6	10	0.90	0.70	6.10	3.85	9.80	6.19	DRAINS TO PROP. CURB CUT
DA7	10	0.90	0.09	6.10	0.47	9.80	0.76	ROOF DRAINAGE TO PROP. CURB CUT
DA8	10	0.90	0.13	6.10	0.71	9.80	1.14	ROOF DRAINAGE TO PROP. CURB CUT
DA9	10	0.90	0.27	6.10	1.49	9.80	2.39	ROOF DRAINAGE TO PROP. CURB INLET
DA10	10	0.90	0.76	6.10	4.17	9.80	6.71	DRAINS TO PROP. CURB CUT
DA11	10	0.90	0.27	6.10	1.49	9.80	2.39	DRAINS TO PROP. CURB INLET
DA12	10	0.90	0.50	6.10	2.77	9.80	4.45	DRAINS TO PROP. CURB INLET
DA13	10	0.90	2.56	6.10	14.04	9.80	22.56	FUTURE DEVELOPMENT DRAINAGE TO PROP. STORM STUBOUT

INTERIM DRAINAGE AREA CALCULATIONS Q=CiA

DRAINAGE AREA ID	Tc (min.)	RUNOFF COEFFICIENT "C"	AREA (acres)	I100 (in./hr.)	Q100 (cfs)	COMMENTS
INT-1	20	0.35	0.19	8.30	0.55	DRAINS TO PROP. CURB CUT
INT-2	20	0.35	1.48	8.30	4.30	DRAINS TO PROP. CURB INLET
INT-3	20	0.35	0.88	8.30	2.56	DRAINS TO PROP. CURB CUT

LEGEND

- PROPOSED DRAINAGE AREA LABEL — BASIN NAME: DA1; ACRES: 1.82 Ac.; Q100 (cfs): 14.52
- INTERIM DRAINAGE AREA LABEL — BASIN NAME: INT-1; ACRES: 0.63 ac.; Q100 (cfs): 5.57
- PROPOSED DRAINAGE AREA DIVIDE
- INTERIM DRAINAGE AREA DIVIDE
- EXISTING DRAINAGE FLOW ARROW
- PROPOSED DRAINAGE FLOW ARROW
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- PROPERTY BOUNDARY

DRAINAGE AREA NOTES:

- DRAINAGE CRITERIA TAKEN FROM CITY OF ROCKWALL ENGINEERING DESIGN MANUAL DATED OCTOBER 2019.
- DRAINAGE CRITERIA FOR INTERIM DRAINAGE AREAS: C = 0.35 & i100 = 8.30 in./hr.
- PROPOSED STORM SYSTEM DESIGNED FOR THE ULTIMATE CONDITION. INTERIM DRAINAGE AREAS HAVE BEEN PROVIDED WITHIN LOT 6, BLOCK B TO ANALYZE THE ADDITIONAL DISCHARGE DRAINING TO THE GRATE INLET IN DA14 AND THE CURB CUTS FOR THE INTERIM SITE CONDITIONS.
- DRAINAGE AREA DA1 HAS NOT BEEN ACCOUNTED FOR THE IN THE DETENTION CALCULATIONS AND IS UNDETAINED. ANY FUTURE DEVELOPMENT WITHIN DA1, OR INCREASE IN IMPERVIOUS AREA IN THE FUTURE WILL REQUIRE DETENTION.

SITE BENCHMARKS

BM NO. 1 THE BENCMARK IS AN "X" CUT SET WITH BOX ON THE NORTH SIDE OF A SIDEWALK ON THE NORTH SIDE OF SH-276, LOCATED APPROXIMATELY 29 FEET WEST OF A HEADWALL, AND APPROXIMATELY 100 FEET EAST OF THE SOUTHWEST CORNER OF THE SUBJECT TRACT.

ELEVATION = 582.49' (NAVD '88)

BM NO. 2 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE BACK OF CURB NORTH OF THE SUBJECT TRACT, LOCATED APPROXIMATELY 364 FEET EAST OF THE NORTHWEST CORNER OF THE SUBJECT TRACT, AND APPROXIMATELY 80' WEST OF THE CORNER OF THE SUBJECT TRACT.

ELEVATION = 586.12' (NAVD '88)

Q_{100}=20.68 cfs (DETAINED PER RECORD DRAWINGS FOR FALCON FINE WINES BY PACHECO KOCH DATED JULY 2000)

SECTION A-A (SEE CHANNEL REPORT SHEET C6.5)

SECTION B-B (SEE CHANNEL REPORT SHEET C6.5)

20' DRAINAGE EASEMENT VOL. D, PG. 220-221, P.R.R.C.T.

Q_{100}=5.01 cfs (DETAINED FLOW PER RECORD DRAWINGS FOR HATFIELD & Co. BY PACHECO KOCH DATED AUGUST 2012)

INLET No. 1

INLET No. 2

DA1 0.47 ac. 1.37

DA2 0.49 ac. 4.32

DA3 0.13 ac. 1.12

DA4 0.16 ac. 1.42

DA5 0.82 ac. 7.20

LOT 5, BLOCK B ROCKWALL TECHNOLOGY PARK 1.30 AC (56,900 SF)

DETENTION POND AREA 100-YR WSE =575.91

DA6 0.70 ac. 6.19

DA7 0.09 ac. 0.76

DA8 0.13 ac. 1.14

DA9 0.27 ac. 2.39

DA10 0.76 ac. 6.71

DA11 0.27 ac. 2.39

DA12 0.50 ac. 4.45

DA13 2.56 ac. 22.56

INT. 1 0.19 ac. 0.55

INT. 2 1.48 ac. 4.30

INT. 3 0.88 ac. 2.56

PROPOSED BUILDING 20,929 SF FFE 587.00

LOT 6, BLOCK B ROCKWALL TECHNOLOGY PARK 2.50 AC (109,258 SF)

LOT 7, BLOCK B ROCKWALL TECHNOLOGY PARK 3.56 AC (155,204 SF)

FUTURE DEVELOPMENT STORM STUBOUT (22.56 cfs) LOT 7, BLOCK B

DRAINAGE EASEMENT VOL. D, PG. 220-221, P.R.R.C.T.

INNOVATION DRIVE
(60 R.O.W., AS SHOWN ON VOL. H, PGS. 221-222,P.R.R.C.T.)

STATE HIGHWAY 276
(R.O.W. VARIES, AS SHOWN ON VOL. H, PGS. 221-222, P.R.R.C.T.)

Know what's **below.** **Call** before you dig.

GRAPHIC SCALE
0 40 80 FEET
SCALE: 1" = 40'

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED
PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288, SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING
THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT AND INFORMATION PROVIDED BY OTHERS AND INFORMATION PROVIDED BY THE CONTRACTOR, TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION WAS PROVIDED BY SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.
BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

PROPOSED DRAINAGE AREA MAP

SHEET:
C6.1

FILE NAME: K:\Jobs\lnk21005_rockwall Industrial\Drawings\03_ENGR\03 - Products\civil\Xrefs\lnk21005_rockwall Industrial\Drawings\03_ENGR\03 - Products\C6.1 PROPOSED DRAINAGE AREA MAP_LNK21005.dwg
PLOTTED BY: Richard Horrocks
PLOTTED DATE: 10/2/2023

FULL PATH: K:\Jobs\lnk21005_rockwall Industrial\Drawings\03_ENGR\03 - Products\civil\Xrefs\lnk21005_rockwall Industrial\Drawings\03_ENGR\03 - Products\C6.1 PROPOSED DRAINAGE AREA MAP_LNK21005

DETENTION POND CALCULATIONS - 100 YEAR STORM

EXISTING CONDITIONS:		PROPOSED CONDITIONS:	
RUNOFF COEFFICIENT "C":	0.35	RUNOFF COEFFICIENT "C":	0.90
Frequency Factor "Cf"	1.00	Frequency Factor "Cf"	1.00
TC (min.):	20	TC (min.):	10
RAINFALL INTENSITY (in./hr.):	8.30	RAINFALL INTENSITY (in./hr.):	9.80
ON-SITE DRAINAGEAREA (acres):	6.91	ON-SITE DRAINAGEAREA (acres):	6.91
OFF-SITE DRAINAGE AREA (acres):	0	OFF-SITE DRAINAGE AREA (acres)	
EXISTING RUNOFF (cfs)	20.07	BYPASS (acres):	0.78
ALLOWABLE RUNOFF (cfs):	13.19	PROPPOSED RUNOFF (cfs):	60.95

STORM (min.)	INTENSITY (in./hr.)	Q (cfs)	INFLOW (cf)	OUTFLOW (cf)	STORAGE (cf)
5	10.87	59.95	17,985.25	5,937.28	12,047.98
10	9.80	54.07	32,439.96	7,916.37	24,523.59
15	9.00	49.65	44,687.70	9,895.46	34,792.24
20	8.30	45.79	54,949.32	11,874.56	43,074.77
30	6.90	38.07	68,521.14	15,832.74	52,688.40
40	5.80	32.00	76,796.64	19,790.93	57,005.72
50	5.00	27.59	82,755.00	23,749.11	59,005.89
60	4.50	24.83	89,375.40	27,707.30	61,668.11
70	4.00	22.07	92,685.60	31,665.48	61,020.12
80	3.70	20.41	97,981.92	35,623.67	62,358.26
90	3.50	19.31	104,271.30	39,581.85	64,689.45
100	3.40	18.76	112,546.80	43,540.04	69,006.77
110	3.20	17.65	116,519.04	47,498.22	69,020.82
120	2.17	11.95	86,027.85	51,456.41	34,571.44
130	2.05	11.29	88,044.93	55,414.59	32,630.34
140	1.94	10.71	89,924.98	59,372.78	30,552.21
150	1.85	10.19	91,686.83	63,330.96	28,355.87
160	1.76	9.72	93,345.63	67,289.15	26,056.48
170	1.69	9.31	94,913.78	71,247.33	23,666.45
180	1.62	8.93	96,401.53	75,205.52	21,196.01

DETENTION POND CALCULATIONS - 50 YEAR STORM

EXISTING CONDITIONS:		PROPOSED CONDITIONS:	
RUNOFF COEFFICIENT "C":	0.35	RUNOFF COEFFICIENT "C":	0.90
Frequency Factor "Cf"	1.00	Frequency Factor "Cf"	1.00
TC (min.):	20	TC (min.):	10
RAINFALL INTENSITY (in./hr.):	7.50	RAINFALL INTENSITY (in./hr.):	9.00
ON-SITE DRAINAGEAREA (acres):	6.91	ON-SITE DRAINAGEAREA (acres):	6.91
OFF-SITE DRAINAGE AREA (acres):	0	OFF-SITE DRAINAGE AREA (acres)	
EXISTING RUNOFF (cfs)	18.14	BYPASS (acres):	0.78
ALLOWABLE RUNOFF (cfs):	11.82	PROPPOSED RUNOFF (cfs):	55.97

STORM (min.)	INTENSITY (in./hr.)	Q (cfs)	INFLOW (cf)	OUTFLOW (cf)	STORAGE (cf)
5	10.15	56.02	16,805.40	5,319.34	11,486.06
10	9.00	49.65	29,791.80	7,092.45	22,699.35
15	8.10	44.69	40,218.93	8,865.56	31,353.37
20	7.50	41.38	49,653.00	10,638.68	39,014.33
30	6.10	33.65	60,576.66	14,184.90	46,391.76
40	5.20	28.69	68,852.16	17,731.13	51,121.04
50	4.50	24.83	74,479.50	21,277.35	53,202.15
60	3.90	21.52	77,458.68	24,823.58	52,635.11
70	3.70	20.41	85,734.18	28,369.80	57,364.38
80	3.50	19.31	92,685.60	31,916.03	60,769.58
90	3.30	18.21	98,312.94	35,462.25	62,850.69
100	3.00	16.55	99,306.00	39,008.48	60,297.53
110	2.90	16.00	105,595.38	42,554.70	63,040.68
120	2.13	11.78	84,798.83	46,100.93	38,697.90
130	2.02	11.14	86,902.89	49,647.15	37,255.74
140	1.92	10.58	88,867.60	53,193.38	35,674.22
150	1.83	10.08	90,711.86	56,739.60	33,972.26
160	1.75	9.63	92,450.92	60,285.83	32,165.09
170	1.67	9.23	94,097.26	63,832.05	30,265.21
180	1.61	8.86	95,661.26	67,378.28	28,282.98

DETENTION POND CALCULATIONS - 25 YEAR STORM

EXISTING CONDITIONS:		PROPOSED CONDITIONS:	
RUNOFF COEFFICIENT "C":	0.35	RUNOFF COEFFICIENT "C":	0.90
Frequency Factor "Cf"	1.00	Frequency Factor "Cf"	1.00
TC (min.):	20	TC (min.):	10
RAINFALL INTENSITY (in./hr.):	6.60	RAINFALL INTENSITY (in./hr.):	8.30
ON-SITE DRAINAGEAREA (acres):	6.91	ON-SITE DRAINAGEAREA (acres):	6.91
OFF-SITE DRAINAGE AREA (acres):	0	OFF-SITE DRAINAGE AREA (acres)	
EXISTING RUNOFF (cfs)	15.96	BYPASS (acres):	0.78
ALLOWABLE RUNOFF (cfs):	10.14	PROPPOSED RUNOFF (cfs):	51.62

STORM (min.)	INTENSITY (in./hr.)	Q (cfs)	INFLOW (cf)	OUTFLOW (cf)	STORAGE (cf)
5	9.52	52.54	15,762.27	4,560.98	11,201.30
10	8.30	45.79	27,474.66	6,081.30	21,393.36
15	7.50	41.38	37,239.75	7,601.63	29,638.13
20	6.60	36.41	43,694.64	9,121.95	34,572.69
30	5.00	27.59	49,653.00	12,162.60	37,490.40
40	4.60	25.38	60,907.68	15,203.25	45,704.43
50	4.00	22.07	66,204.00	18,243.90	47,960.10
60	3.50	19.31	69,514.20	21,284.55	48,229.65
70	3.30	18.21	76,465.62	24,325.20	52,140.42
80	3.10	17.10	82,092.96	27,365.85	54,727.11
90	2.90	16.00	86,396.22	30,406.50	55,989.72
100	2.70	14.90	89,375.40	33,447.15	55,928.25
110	2.50	13.79	91,030.50	36,487.80	54,542.70
120	1.91	10.53	75,839.42	39,528.45	36,310.97
130	1.80	9.96	77,666.26	42,569.10	35,097.16
140	1.71	9.45	79,371.85	45,609.75	33,762.10
150	1.63	9.00	80,972.65	48,650.40	32,322.25
160	1.56	8.59	82,481.97	51,691.05	30,790.92
170	1.49	8.23	83,910.69	54,731.70	29,178.99
180	1.43	7.90	85,267.83	57,772.35	27,495.48

DETENTION POND STAGE/STORAGE CALCULATIONS

ELEVATION (ft)	AREA (sf)	VOLUME (cf)	CUMMULATIVE VOL. (cf)
571.00	-	-	-
572.00	10,118.00	5,059.00	5,059.00
573.00	14,388.00	12,253.00	17,312.00
574.00	16,621.00	15,504.50	32,816.50
575.00	18,992.00	17,806.50	50,623.00
576.00	21,518.00	20,255.00	70,878.00
577.00	24,206.00	22,862.00	93,740.00

100-YR

Outfall FL (ft)=	571.00	WSE (ft)	575.91
DIA. (in)=	6.02	HO (ft)	3.18
QO (cfs)=	7.57	WEIR INVERT (ft)	574.43
QW (cfs)=	5.62	Lw (ft)	1.04
QTOT (cfs)=	13.19	Hw (ft)	1.48
		ORIFICE COEFF.	0.67
		WEIR COEFF.	3.00
$Q_{allowable}$=	13.19	G (ft/sec2)	32.2

25-YR

Outfall FL (ft)=	571.00	WSE (ft)	575.26
DIA. (in)=	6.02	HO (ft)	3.18
QO (cfs)=	7.57	WEIR INVERT (ft)	574.43
QW (cfs)=	2.39	Lw (ft)	1.04
QTOT (cfs)=	9.96	Hw (ft)	0.83
		ORIFICE COEFF.	0.67
		WEIR COEFF.	3.00
$Q_{allowable}$=	10.14	G (ft/sec2)	32.2

10-YR

Outfall FL (ft)=	571.00	WSE (ft)	574.98
DIA. (in)=	6.02	HO (ft)	3.18
QO (cfs)=	7.57	WEIR INVERT (ft)	574.43
QW (cfs)=	1.29	Lw (ft)	1.04
QTOT (cfs)=	8.86	Hw (ft)	0.55
		ORIFICE COEFF.	0.67
		WEIR COEFF.	3.00
$Q_{allowable}$=	9.28	G (ft/sec2)	32.2

5-YR

Outfall FL (ft)=	571.00	WSE (ft)	574.43
DIA. (in)=	6.02	H (ft)	3.18
Q (cfs)=	7.57	ORIFICE COEFF.	0.67
$Q_{allowable}$=	7.57	G (ft/sec2)	32.2

EMERGENCY OVERFLOW

Outfall FL (ft)=	571.00	WSE (ft)	575.91
DIA. (in)=	N/A	HO (ft)	N/A
QO (cfs)=	N/A	WEIR INVERT (ft)	575.41
QW (cfs)=	13.19	Lw (ft)	12.50
QTOT (cfs)=	13.19	Hw (ft)	0.50
		ORIFICE COEFF.	N/A
		WEIR COEFF.	3.00
$Q_{allowable}$=	13.19	G (ft/sec2)	32.2

DETENTION POND CALCULATIONS - 10 YEAR STORM

EXISTING CONDITIONS:		PROPOSED CONDITIONS:	
RUNOFF COEFFICIENT "C":	0.35	RUNOFF COEFFICIENT "C":	0.90
Frequency Factor "Cf"	1.00	Frequency Factor "Cf"	1.00
TC (min.):	20	TC (min.):	10
RAINFALL INTENSITY (in./hr.):	5.90	RAINFALL INTENSITY (in./hr.):	7.10
ON-SITE DRAINAGEAREA (acres):	6.91	ON-SITE DRAINAGEAREA (acres):	6.91
OFF-SITE DRAINAGE AREA (acres):	0	OFF-SITE DRAINAGE AREA (acres)	
EXISTING RUNOFF (cfs)	14.27	BYPASS (acres):	0.78
ALLOWABLE RUNOFF (cfs):	9.28	PROPPOSED RUNOFF (cfs):	44.15

STORM (min.)	INTENSITY (in./hr.)	Q (cfs)	INFLOW (cf)	OUTFLOW (cf)	STORAGE (cf)
5	7.55	41.65	12,494.57	4,178.23	8,316.34
10	7.10	39.17	23,502.42	5,570.97	17,931.45
15	6.50	35.86	32,274.45	6,963.71	25,310.74
20	5.90	32.55	39,060.36	8,356.46	30,703.91
30	4.80	26.48	47,666.88	11,141.94	36,524.94
40	4.00	22.07	52,963.20	13,927.43	39,035.78
50	3.50	19.31	57,928.50	16,712.91	41,215.59
60	3.00	16.55	59,583.60	19,498.40	40,085.21
70	2.80	15.45	64,879.92	22,283.88	42,596.04
80	2.60	14.34	68,852.16	25,069.37	43,782.80
90	2.50	13.79	74,479.50	27,854.85	46,624.65
100	2.40	13.24	79,444.80	30,640.34	48,804.47
110	2.30	12.69	83,748.06	33,425.82	50,322.24
120	1.48	8.16	58,787.68	36,211.31	22,576.38
130	1.40	7.71	60,170.49	38,996.79	21,173.70
140	1.33	7.32	61,460.55	41,782.28	19,678.28
150	1.26	6.96	62,670.53	44,567.76	18,102.77
160	1.20	6.65	63,810.65	47,353.25	16,457.40
170	1.15	6.36	64,889.24	50,138.73	14,750.51
180	1.11	6.10	65,913.25	52,924.22	12,989.03

DETENTION POND CALCULATIONS - 5 YEAR STORM

EXISTING CONDITIONS:		PROPOSED CONDITIONS:	
RUNOFF COEFFICIENT "C":	0.35	RUNOFF COEFFICIENT "C":	0.90
Frequency Factor "Cf"	1.00	Frequency Factor "Cf"	1.00
TC (min.):	20	TC (min.):	10
RAINFALL INTENSITY (in./hr.):	4.90	RAINFALL INTENSITY (in./hr.):	6.10
ON-SITE DRAINAGEAREA (acres):	6.91	ON-SITE DRAINAGEAREA (acres):	6.91
OFF-SITE DRAINAGE AREA (acres):	0	OFF-SITE DRAINAGE AREA (acres)	
EXISTING RUNOFF (cfs)	11.85	BYPASS (acres):	0.78
ALLOWABLE RUNOFF (cfs):	7.57	PROPPOSED RUNOFF (cfs):	37.94

STORM (min.)	INTENSITY (in./hr.)	Q (cfs)	INFLOW (cf)	OUTFLOW (cf)	STORAGE (cf)
5	7.06	38.97	11,692.47	3,405.80	8,286.67
10	6.10	33.65	20,192.22	4,541.07	15,651.15
15	5.50	30.34	27,309.15	5,676.34	21,632.81
20	4.90	27.03	32,439.96	6,811.61	25,628.36
30	4.10	22.62	40,715.46	9,082.14	31,633.32
40	3.40	18.76	45,018.72	11,352.68	33,666.05
50	2.80	15.45	46,342.80	13,623.21	32,719.59
60	2.60	14.34	51,639.12	15,893.75	35,745.38
70	2.40	13.24	55,611.36	18,164.28	37,447.08
80	2.30	12.69	60,907.68	20,434.82	40,472.86
90	2.10	11.59	62,562.78	22,705.35	39,857.43
100	1.90	10.48	62,893.80	24,975.89	37,917.92
110	1.80	9.93	65,541.96	27,246.42	38,295.54
120	1.36	7.51	54,074.83	29,516.96	24,557.88
130	1.29	7.09	55,321.95	31,787.49	23,534.46
140	1.22	6.72	56,484.65	34,058.03	22,426.63
150	1.16	6.40	57,574.52	36,328.56	21,245.96
160	1.11	6.10	58,600.88	38,599.10	20,001.79
170	1.06	5.84	59,571.38	40,869.63	18,701.75
180	1.02	5.60	60,492.31	43,140.17	17,352.15

DETENTION POND CALCULATIONS - 2 YEAR STORM

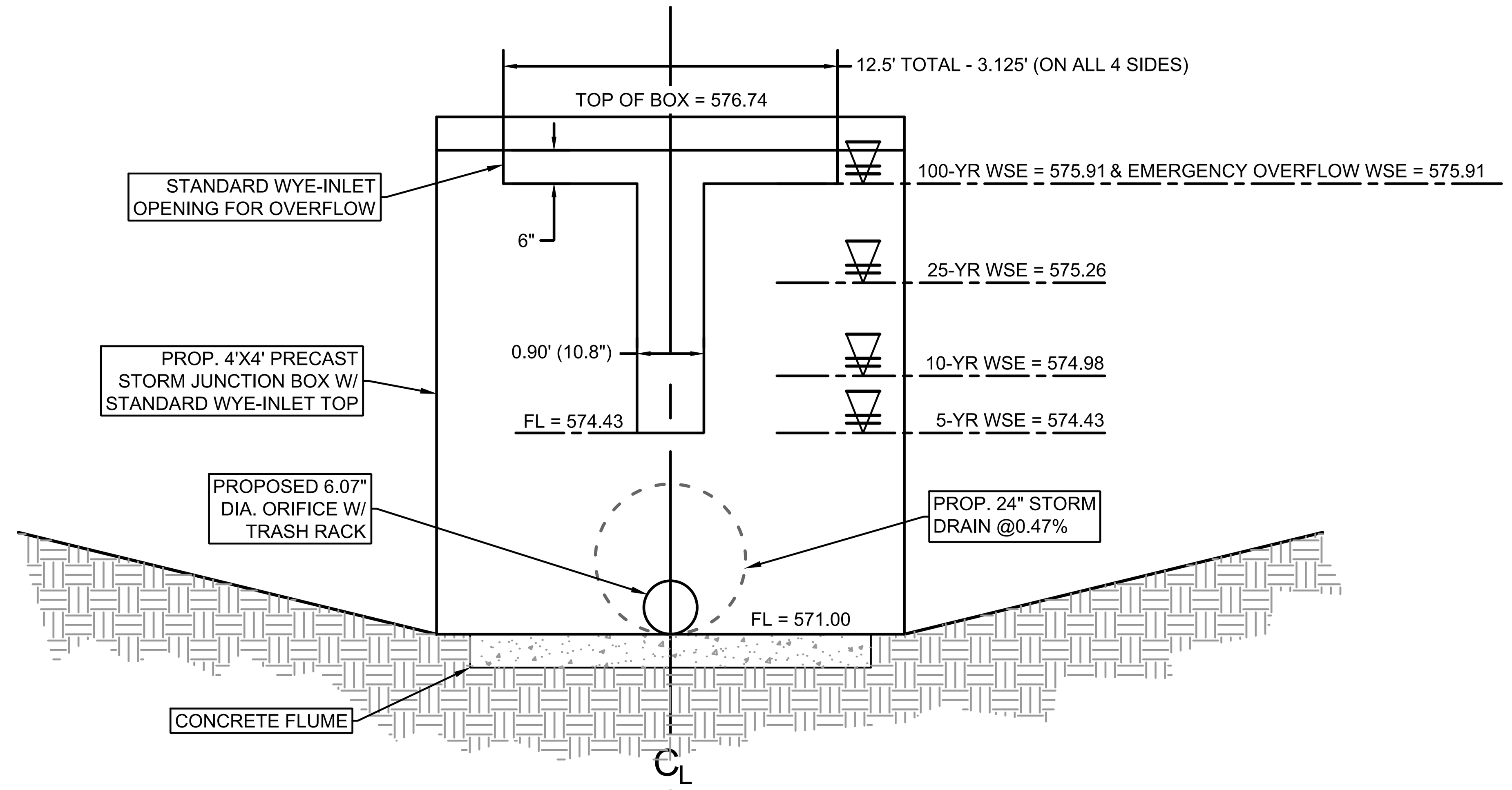
EXISTING CONDITIONS:		PROPOSED CONDITIONS:	
RUNOFF COEFFICIENT "C":	0.35	RUNOFF COEFFICIENT "C":	0.90
Frequency Factor "Cf"	1.00	Frequency Factor "Cf"	1.00
TC (min.):	20	TC (min.):	10
RAINFALL INTENSITY (in./hr.):	3.90	RAINFALL INTENSITY (in./hr.):	5.30
ON-SITE DRAINAGEAREA (acres):	6.91	ON-SITE DRAINAGEAREA (acres):	6.91
OFF-SITE DRAINAGE AREA (acres):	0	OFF-SITE DRAINAGE AREA (acres)	
EXISTING RUNOFF (cfs)	9.43	BYPASS (acres):	0.78
ALLOWABLE RUNOFF (cfs):	5.71	PROPPOSED RUNOFF (cfs):	32.96

STORM (min.)	INTENSITY (in./hr.)	Q (cfs)	INFLOW (cf)	OUTFLOW (cf)	STORAGE (cf)
5	5.65	31.19	9,355.52	2,570.20	6,785.32
10	5.30	29.24	17,544.06	3,426.93	14,117.13
15	4.50	24.83	22,343.85	4,283.66	18,060.19
20	3.90	21.52	25,819.56	5,140.40	20,679.17
30	3.30	18.21	32,770.98	6,853.86	25,917.12
40	2.60	14.34	34,426.08	8,567.33	25,858.76
50	2.30	12.69	38,067.30	10,280.79	27,786.51
60	1.90	10.48	37,736.28	11,994.26	25,742.03
70	1.80	9.93	41,708.52	13,707.72	28,000.80
80	1.70	9.38	45,018.72	15,421.19	29,597.54
90	1.60	8.83	47,666.88	17,134.65	30,532.23
100	1.50	8.28	49,653.00	18,848.12	30,804.89
110	1.40	7.72	50,977.08	20,561.58	30,415.50
120	1.07	5.89	42,404.86	22,275.05	20,129.82
130	1.01	5.56	43,361.02	23,988.51	19,372.51
140	0.95	5.27	44,251.81	25,701.98	18,549.84
150	0.91	5.01	45,086.26	27,415.44	17,670.82
160	0.87	4.78	45,871.61	29,128.91	16,742.71
170	0.83	4.57	46,613.81	30,842.37	15,771.44
180	0.79	4.38	47,317.73	32,555.84	14,761.90

STORM EVENT (YEAR)	REQUIRED STORAGE (cf)	WSE ELEVATION (ft)	MAXIMUM ALLOWABLE DISCHARGE (cfs)	PROPOSED DETENTION DISCHARGE (cfs)
5-YR	40,472.86	574.43	7.57	7.57
10-YR	50,322.24	574.98	9.28	8.86
25-YR	55,989.72	575.26	10.14	9.96
100-YR	69,020.82	575.91	13.19	13.19

DETENTION CALCULATION NOTES

- DETENTION CALCULATIONS BASED ON MODIFIED RATIONAL METHODOLOGY TAKEN FROM THE CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION DATED OCTOBER 2019.
- RAINFALL INTENSITY VALUES FOR 10-110 MINUTE STORM EVENTS TAKEN FROM CITY OF ROCKWALL STANDARDS OF DESIGN AND CONSTRUCTION DATED OCTOBER 2019.
- RAINFALL INTENSITIES FOR ALL OTHER STORMS EVENTS CALCULATED USING e,b,d VALUES FROM TXDOT RAINFALL INTENSITY-DURATION-FREQUENCY COEFFICIENTS FOR TEXAS.
- DETENTION POND STAGE-STORAGE CALCULATIONS PROVIDED USING AVERAGE END AREA METHOD AND VERIFIED BY COMPUTER AIDED DRAFTING.



DETENTION POND OUTFALL DETAIL

NTS

E2022-013

JEREMY B. NELSON 138740 LICENSED PROFESSIONAL ENGINEER

Jeremy B. Nelson 05/19/2022

LINKS CONSTRUCTION BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B ROCKWALL TECHNOLOGY PARK, CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS (2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT, MODIFIED BY ADDENDUM, CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING

KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

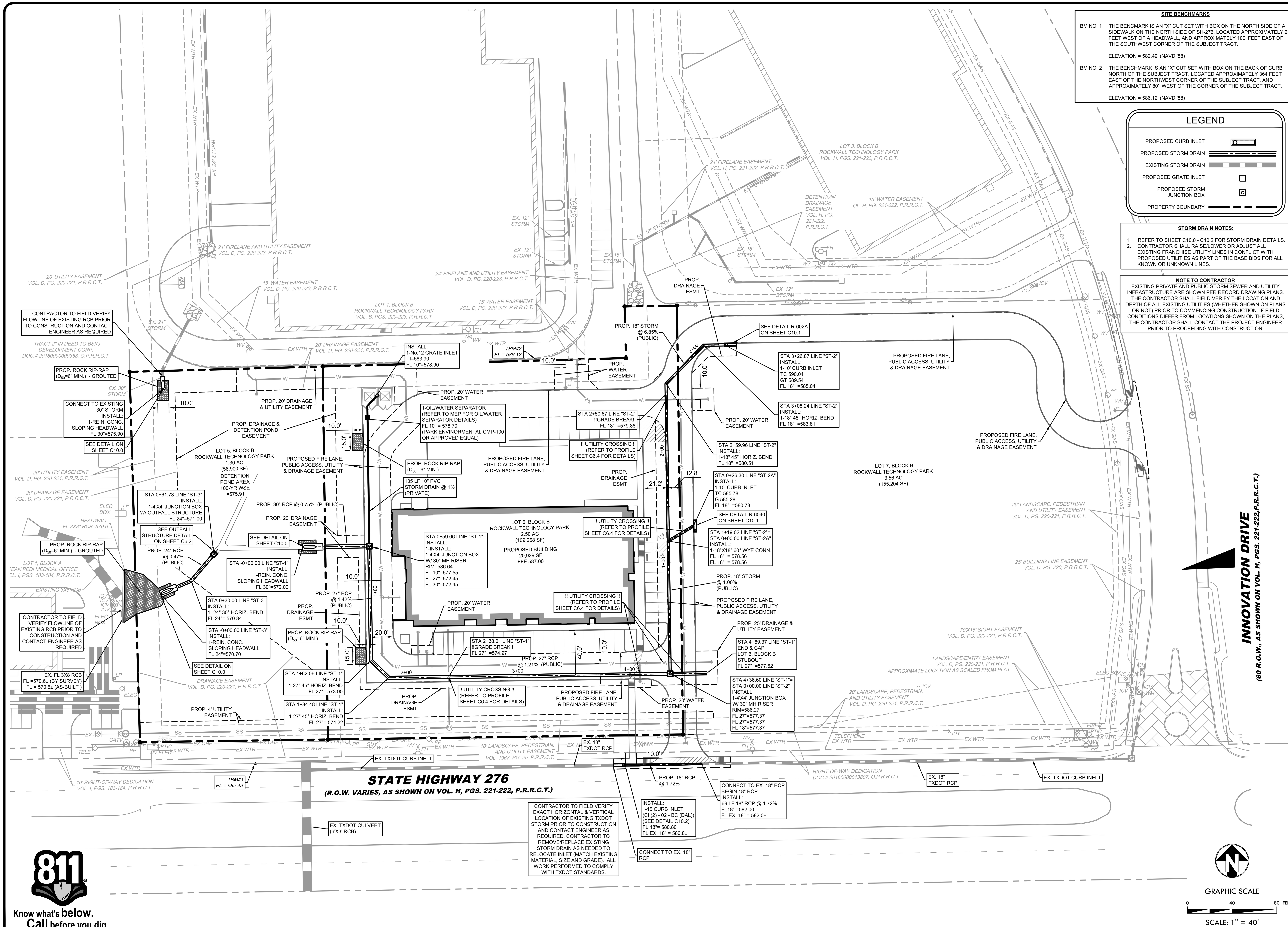
JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

DETENTION CALCULATIONS & DETAILS

SHEET:

C6.2



SITE BENCHMARKS

BM NO. 1 THE BENCMARK IS AN "X" CUT SET WITH BOX ON THE NORTH SIDE OF A SIDEWALK ON THE NORTH SIDE OF SH-276, LOCATED APPROXIMATELY 29 FEET WEST OF A HEADWALL, AND APPROXIMATELY 100 FEET EAST OF THE SOUTHWEST CORNER OF THE SUBJECT TRACT.

ELEVATION = 582.49' (NAVD '88)

BM NO. 2 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE BACK OF CURB NORTH OF THE SUBJECT TRACT, LOCATED APPROXIMATELY 364 FEET EAST OF THE NORTHWEST CORNER OF THE SUBJECT TRACT, AND APPROXIMATELY 80' WEST OF THE CORNER OF THE SUBJECT TRACT.

ELEVATION = 586.12' (NAVD '88)

LEGEND

- PROPOSED CURB INLET
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- PROPOSED GRATE INLET
- PROPOSED STORM JUNCTION BOX
- PROPERTY BOUNDARY

STORM DRAIN NOTES:

1. REFER TO SHEET C10.0 - C10.2 FOR STORM DRAIN DETAILS.
2. CONTRACTOR SHALL RAISE/LOWER OR ADJUST ALL EXISTING FRANCHISE UTILITY LINES IN CONFLICT WITH PROPOSED UTILITIES AS PART OF THE BASE BIDS FOR ALL KNOWN OR UNKNOWN LINES.

NOTE TO CONTRACTOR

EXISTING PRIVATE AND PUBLIC STORM SEWER AND UTILITY INFRASTRUCTURE ARE SHOWN PER RECORD DRAWING PLANS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES (WHETHER SHOWN ON PLANS OR NOT) PRIOR TO COMMENCING CONSTRUCTION. IF FIELD CONDITIONS DIFFER FROM LOCATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

811 Know what's **below.** **Call** before you dig.

E2022-013

STATE OF TEXAS JEREMY B. NELSON 138740 LICENSED PROFESSIONAL ENGINEER

Jeremy B. Nelson 05/19/2022

LINKS CONSTRUCTION BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288, SUITE 105 DENTON, TX 76205 (940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B ROCKWALL TECHNOLOGY PARK, CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS (2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

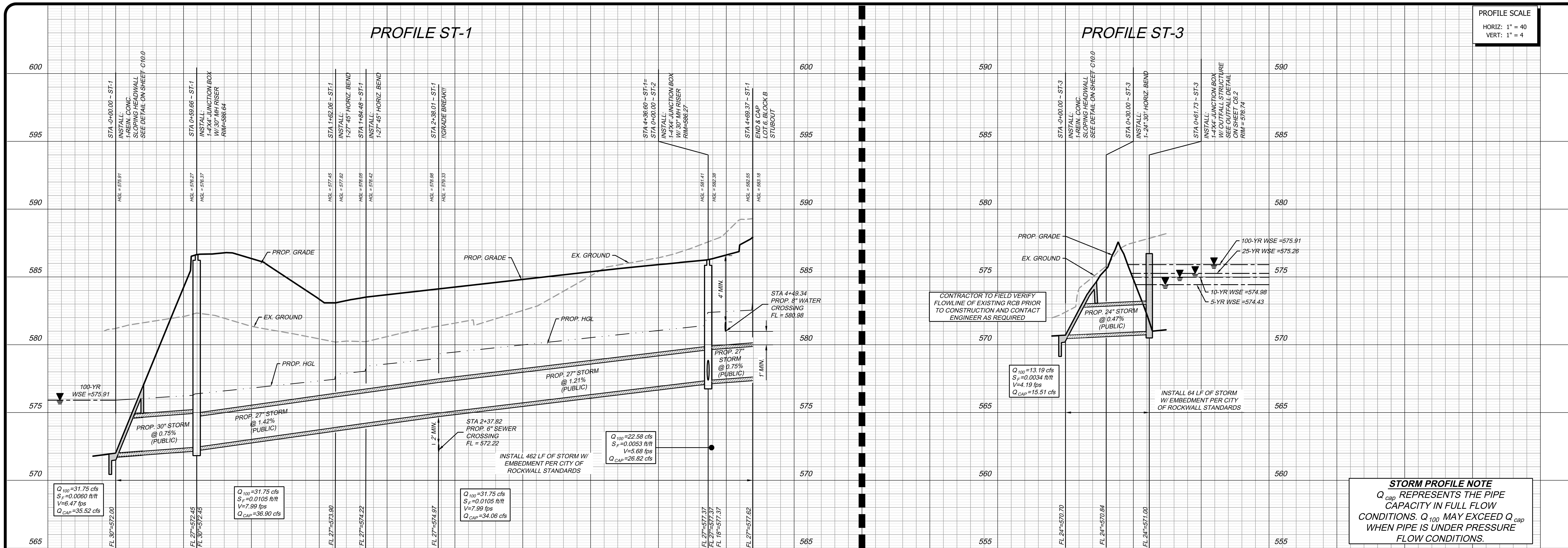
ISSUE DATE: 05/19/2022

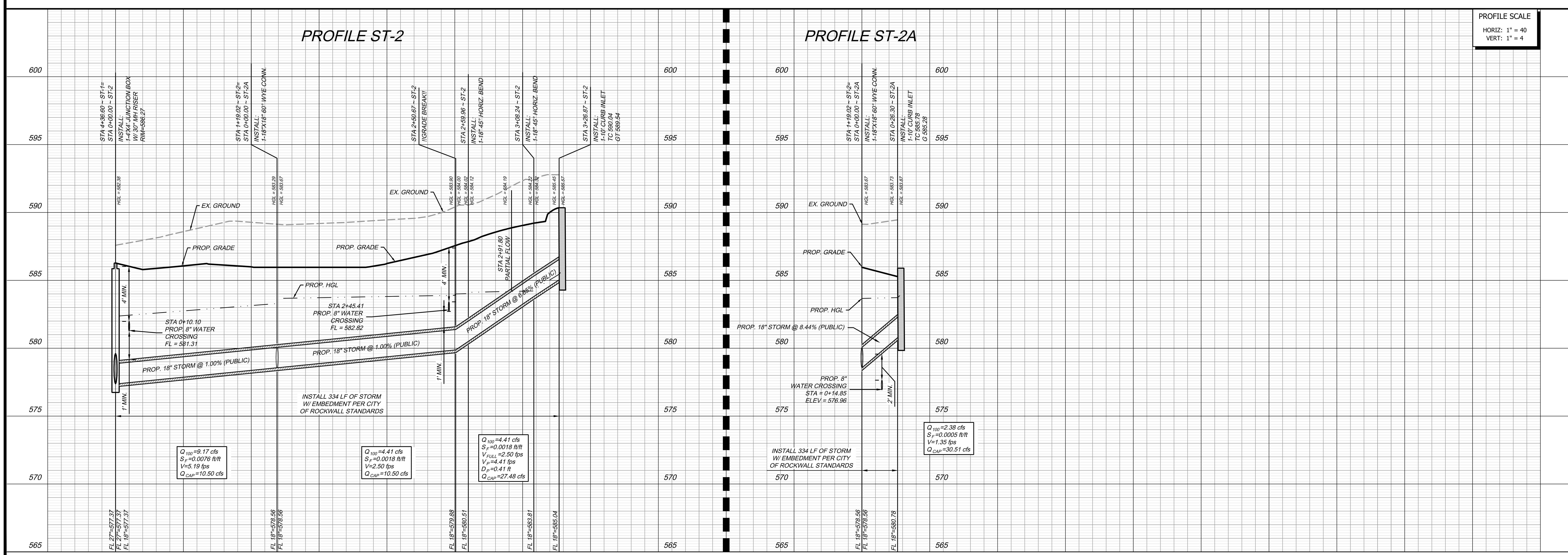
STORM PLAN

SHEET: C6.3

FULL PATH: K:\Jobs\lnk21005_rockwall Industrial\Drawings\03_ENGR\03 - Production\C6.2 STORM PLAN_LNK21005

FILENAME: C6.2 STORM PLAN_LNK21005.dwg
PLOTTED BY: Michael Heimlich
PLOTTED DATE: 10/2/2023





E2022-013

JEREMY B. NELSON 138740 05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288, SUITE 105
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INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT MODIFIED BY ADDENDUM, CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

REV.	DATE:	DESCRIPTION:

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

STORM PROFILE

SHEET: C6.4

FULL PATH: K:\Jobs\lnk21005_rockwall Industrial\Drawings\03_ENGR\03 - Production\C6.2 STORM PLAN_LNK21005

FILENAME: C6.2 STORM PLAN_LNK21005.dwg
PLOTTED ON: Monday, October 02, 2023
PLOTTED AT: 2:35:19 PM

STARTING HGL NOTE:
1. STARTING HGL TAKEN AS THE 100-YEAR WSEL 575.91

HYDRAULIC CALCULATIONS

Runoff Design Point Upstrm Station	Runoff Design Point Dwnstrm Station	Pipe Length Between Points	Drainage Area Incremental No.	Drainage Area Incremental Area (Acres)	Drainage Area Total Area (Acres)	Runoff Coeff	Runoff Incr.	Runoff Total	Time of Concentration Inlet Time	Time of Concentration Travel Time	Time of Concentration Total Time	5-Year Intensity	100-Year Intensity	Q 5 Runoff	Q 100 Runoff	Inlet Bypass	Q in Pipe	Qcap	Box Culvert Storm Pipe Diameter	Box Culvert No. of Storm Drain Spans	Box Culvert Storm Drain Width	Box Culvert Storm Drain Heigth	Type	Area	Wetted Perimeter	Hydraulic Radius	Manning n Value	Hydr Grade Line Elevation "Sf"	Hydraulic Grade Line Elevation Dwnstrm	Hydraulic Grade Line Elevation Upstrm	V1 Flow (In)	V2 Flow (Out)	Head Loss Calculations V1^2 / 2g	Head Loss Calculations V2^2 / 2g	Head Loss Calculations Loss Coeff	Head Loss Calculations Loss K	V1^2 / 2g	Head Loss at Structure "Hk"	Design HGL Elevation	Partial Flow	Invert Elevation Dwnstrm	Invert Elevation Upstrm	TC / FG Elev	JUNCTION TYPE	TC / FG HGL Diff.
				"A"	"A"	"C"	"CA"	"CA"	(min.)	(min.)	(min.)	"I" (in./hr)	"I" (in./hr)	"Q" (c.f.s.)	"Q" (c.f.s.)	"Q" (c.f.s.)	"Q" (c.f.s.)	(c.f.s.)	(in.)				(ft)	(ft)				(ft/ft.)				(f.p.s.)	(f.p.s.)	(feet)	(feet)			(K)	(feet)	(feet)	(feet)		(feet)	(feet)	(feet)		(feet)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	20a	20b	20c	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
STORM DRAIN LINE 'ST-1'																																												
4+69.37	4+36.60	32.77	DA13	2.56	2.56	0.90	2.30	2.30	10.00	0.10	10.10	6.10	9.80	14.05	22.58	0.00	22.58	35.52	27				RCP	3.98	7.85	0.51	0.013	0.0053	582.38	582.55		5.68		0.50	1.25		0.63	583.18	No	577.37	577.62	587.92	END & CAP (STUB FOR LOT 7, BLOCK B)	4.74
4+36.60	2+38.01	198.59	DA9,11,12	1.04	3.60	0.90	0.94	3.24	10.10	0.41	10.51	6.10	9.80	19.76	31.75	0.00	31.75	35.52	27				RCP	3.98	7.85	0.51	0.013	0.0105	579.33	581.41	5.68	7.99	0.50	0.99	0.05	0.03	0.97	582.38	No	575.90	577.37	586.27	JUNCTION BOX	3.89
2+38.01	1+84.48	53.53			3.60	0.90	0.00	3.24	10.51	0.11	10.62	6.10	9.80	19.76	31.75	0.00	31.75	56.97	27				RCP	3.98	7.85	0.51	0.013	0.0105	578.42	578.98	7.99	7.99	0.99	0.99	0.35	0.35	0.35	579.33	No	574.86	575.90	584.12	GRADE BREAK	4.79
1+84.48	1+62.06	22.42			3.60	0.90	0.00	3.24	10.62	0.05	10.67	6.10	9.80	19.76	31.75	0.00	31.75	56.97	27				RCP	3.98	7.85	0.51	0.013	0.0105	577.82	578.05	7.99	7.99	0.99	0.99	0.37	0.37	0.37	578.42	No	574.43	574.86	583.51	45° HORIZ. BEND	5.09
1+62.06	0+59.66	102.40			3.60	0.90	0.00	3.24	10.67	0.21	10.88	6.10	9.80	19.76	31.75	0.00	31.75	56.97	27				RCP	3.98	7.85	0.51	0.013	0.0105	576.37	577.45	7.99	7.99	0.99	0.99	0.37	0.37	0.37	577.82	No	572.70	574.43	583.09	45° HORIZ. BEND	5.27
0+59.66	0+00.00	59.66			3.60	0.90	0.00	3.24	10.88	0.15	11.04	6.10	9.80	19.76	31.75	0.00	31.75	56.97	30				RCP	3.98	7.85	0.51	0.013	0.0060	575.91	576.27	7.99	6.47	0.99	0.65	0.55	0.54	0.11	576.37	No	572.00	572.45	586.64	JUNCTION BOX	10.27
STORM DRAIN LINE 'ST-2'																																											
3+26.87	3+08.24	18.63	DA12 (INLET 1)	0.50	0.50	0.90	0.45	0.45	10.00	0.12	10.12	6.10	9.80	2.75	4.41	0.00	4.41	27.48	18				RCP	1.77	1.66	1.06	0.013	0.0018	584.32	585.45		2.50		0.10	1.25		0.12	585.57	Yes	583.81	585.04	590.04	INLET	4.47
3+08.24	2+59.96	48.28			0.50		0.00	0.45	10.12	0.32	10.45	6.10	9.80	2.75	4.41	0.00	4.41	27.48	18				RCP	1.77	1.66	1.06	0.013	0.0018	584.12	584.22	2.50	2.50	0.10	0.10	0.37	0.04	0.10	584.32	No	580.51	583.81	589.21	45° HORIZ. BEND	4.89
2+59.96	2+50.67	9.29			0.50		0.00	0.45	10.45	0.06	10.51	6.10	9.80	2.75	4.41	0.00	4.41	27.48	18				RCP	1.77	4.71	0.38	0.013	0.0018	584.00	584.02	2.50	2.50	0.10	0.10	0.37	0.04	0.10	584.12	No	579.88	580.51	587.85	45° HORIZ. BEND	3.73
2+50.67	1+19.02	131.65			0.50		0.00	0.45	10.51	0.88	11.39	6.10	9.80	2.75	4.41	0.00	4.41	10.50	18				RCP	1.77	4.71	0.38	0.013	0.0018	583.67	583.90	2.50	2.50	0.10	0.10	0.35	0.03	0.10	584.00	No	578.66	579.88	587.57	GRADE BREAK	3.57
1+19.02	0+00.00	119.02	DA9.11	0.54	1.04	0.90	0.49	0.94	11.39	0.38	11.77	6.10	9.80	5.71	9.17	0.00	9.17	10.50	18				RCP	1.77	4.71	0.38	0.013	0.0076	582.38	583.29	2.50	5.19	0.10	0.42	0.35	0.03	0.38	583.67	No	577.37	578.56	585.96	WYE 60	2.29
STORM DRAIN LINE 'ST-2A'																																											
0+26.30	0+00.00	26.30	DA9.11 (INLET 2)	0.54	0.54	0.90	0.49	0.49	10.00	0.16	10.16	6.10	9.80	2.96	4.76	0.00	4.76	30.51	18				RCP	1.77	4.71	0.38	0.013	0.0021	583.67	583.73		2.70		0.11	1.25		0.14	583.87	No	578.56	580.78	585.78	INLET	1.91

INLET CALCULATIONS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
INLET NO.	STORM DRAIN LINE	STATION	STREET NAME	INLET TYPE	INLET CONDITION	DRAINAGE AREA	Q100 DRAINAGE AREA (cfs)	Q100 CARRYOVER (cfs)	Q100 TOTAL GUTTER FLOW (cfs)	STREET LONGITUDINAL SLOPE SL (ft/ft)	STREET SECTION	ROADWAY SLOPE SX CROSS-SLOPE (ft/ft)	MANNING'S COEFFECIENT FOR PAVEMENT "n"	STREET CAPACITY (cfs)	RIGHT-OF-WAY CAPACITY (cfs)	Q100 DEPTH OF FLOW (ft)	Q100 SPEAD OF FLOW "T" (ft)	GUTTER SLOPE "SX" (ft/ft)	WIDTH OF DEPRESSED GUTTER SECTION "W" (ft)	Q100 RATIO OF FLOW "EO"	GUTTER DEPRESSION "a" (ft)	EQUIVALENT CROSS-SLOPE "SE" (ft/ft)	Q100 REQUIRED LENGTH "LT" (ft) ON-GRADE	Q100 REQUIRED LENGTH "LT" (ft) SAG	LENGTH PROVIDED "L" (ft)	INLET EFFICIENCY "E"	Q100 CAPACITY (cfs)	Q100 CARRYOVER FLOW "q" (cfs)	TARGET INLET NO.
1	ST-2	3+67.00	PRIVATE ROAD	CURB	ON-GRADE	DA12	4.45	0.00	4.45	0.0149	N/A	0.02	0.0175	N/A	N/A	0.24	12.08	0.17	2.00	0.60	0.33	0.120	12.87	N/A	10	0.93	4.15	0.30	N/A
2	ST-2A	0+26.88	PRIVATE ROAD	CURB	SAG	DA11,DA9	4.63	0.00	4.63	0.0190	N/A	0.03	0.0175	N/A	N/A	0.27	9.09	0.17	2.00	N/A	0.33	N/A	N/A	7.23	10	1.00	4.63	0.00	N/A

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Mar 3 2022

CHANNEL SECTION 'A-A'

User-defined		Highlighted	
Invert Elev (ft)	= 576.53	Depth (ft)	= 0.82
Slope (%)	= 0.64	Q (cfs)	= 7.870
N-Value	= 0.030	Area (sqft)	= 3.70
		Velocity (ft/s)	= 2.13
Calculations		Wetted Perim (ft)	= 9.19
Compute by:	Known Q	Crit Depth, Yc (ft)	= 0.67
Known Q (cfs)	= 7.87	Top Width (ft)	= 9.02
		EGL (ft)	= 0.89

(Sta, El, n)-(Sta, El, n)...
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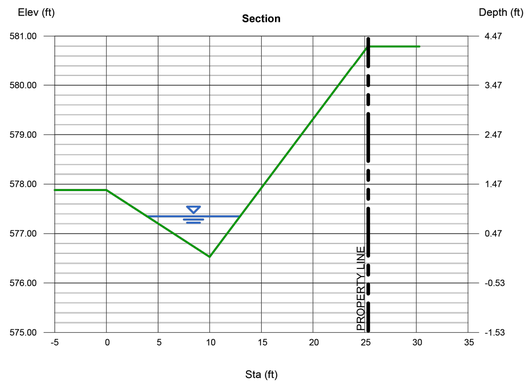

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Mar 3 2022

SECTION 'B-B'

User-defined		Highlighted	
Invert Elev (ft)	= 572.93	Depth (ft)	= 0.71
Slope (%)	= 2.33	Q (cfs)	= 29.86
N-Value	= 0.030	Area (sqft)	= 7.45
		Velocity (ft/s)	= 4.01
Calculations		Wetted Perim (ft)	= 19.18
Compute by:	Known Q	Crit Depth, Yc (ft)	= 0.75
Known Q (cfs)	= 29.86	Top Width (ft)	= 19.10
		EGL (ft)	= 0.96

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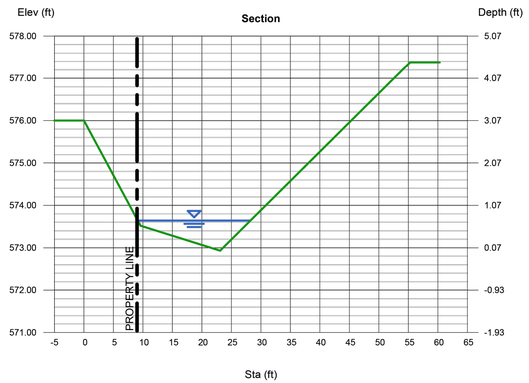


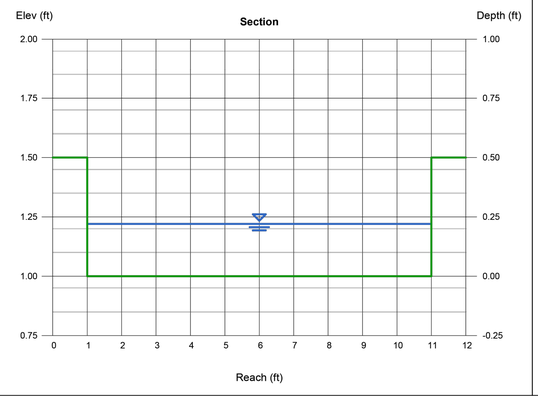
Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Friday, Apr 29 2022

NORTH CURB CUT

Rectangular		Highlighted	
Bottom Width (ft)	= 10.00	Depth (ft)	= 0.22
Total Depth (ft)	= 0.50	Q (cfs)	= 8.400
		Area (sqft)	= 2.20
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 3.82
Slope (%)	= 1.00	Wetted Perim (ft)	= 10.44
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.28
		Top Width (ft)	= 10.00
Calculations		EGL (ft)	= 0.45
Compute by:	Known Q		
Known Q (cfs)	= 8.40		

NOTE: THIS CURB CUT WAS ANALYZED FOR INTERIM CONDITIONS.



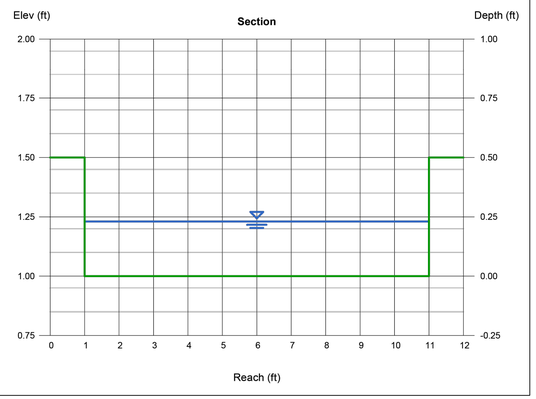
Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Friday, Apr 29 2022

SOUTH CURB CUT

Rectangular		Highlighted	
Bottom Width (ft)	= 10.00	Depth (ft)	= 0.23
Total Depth (ft)	= 0.50	Q (cfs)	= 9.510
		Area (sqft)	= 2.30
Invert Elev (ft)	= 1.00	Velocity (ft/s)	= 4.13
Slope (%)	= 1.00	Wetted Perim (ft)	= 10.46
N-Value	= 0.013	Crit Depth, Yc (ft)	= 0.31
		Top Width (ft)	= 10.00
Calculations		EGL (ft)	= 0.50
Compute by:	Known Q		
Known Q (cfs)	= 9.51		

NOTE: THIS CURB CUT WAS ANALYZED FOR INTERIM CONDITIONS.



CHANNEL REPORT SECTION 'A-A'

CHANNEL REPORT SECTION 'B-B'

RIP-RAP CALCULATIONS

C = 0.86 - HIGH TURBULENCE
1.20 - LOW TURBULENCE

g = 32.2 ft/sec^2

Y_W = 62.4 lb/ft^3

Y_S = 155.0 lb/ft^3

V_{ALL} = ALLOWABLE VELOCITY ft/s

$$D_{50} = \frac{(Y_W * V_{ALL}^2)}{C^2(2g(Y_S - Y_W))}$$

$$D_{50} = \frac{(62.4 * 4.19^2)}{0.86^2(2(32.2)(155.0-62.4))}$$

$$D_{50} = \frac{1095.50}{4410.56}$$

D_{50} = 0.25 ft = 3.00 in.

D_{50} = 6 in. MIN.

18" THICK W/ 6" BEDDING

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED
PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM
LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

E2022-013

RECORD DRAWING
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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023
DESCRIPTION:
DATE:
REV:

KIRKMAN ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

HYDRAULIC CALCULATIONS

SHEET:
C6.5

UTILITY PLAN

LEGEND

EXISTING SANITARY SEWER	EX SS
PROPOSED SANITARY SEWER	SS
EXISTING WATER	EX WTR
PROPOSED WATER	W
EXISTING SANITARY SEWER MANHOLE	
PROPOSED SANITARY SEWER MANHOLE	
PROPOSED SANITARY SEWER CLEANOUT	
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	FH
EXISTING OVERHEAD ELECTRIC	EX OHE
PROPERTY BOUNDARY	
!!A!!	!! UTILITY CROSSING !! REFER TO SHEET C6.4 FOR DETAILS
!!B!!	!! UTILITY CROSSING !! REFER TO SHEET C7.1 FOR DETAILS

WATER & SANITARY SEWER GENERAL NOTES

1. ALL WATER MAINS, UNLESS OTHERWISE NOTED, SHALL HAVE A MINIMUM COVER OF 48" BELOW FINISHED GRADE. PROVIDE VALVE EXTENSIONS TO ALL VALVES ON LINES DEEPER THAN 48".
2. WHEN WATER AND SANITARY SEWERS LINES ARE INSTALLED, THEY SHALL BE INSTALLED PER TCEQ SEPARATION REQUIREMENTS.
3. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
4. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
5. THE UTILITY CONTRACTOR SHALL INSTALL THE WATER SERVICES TO A POINT AS SHOWN ON THE PLANS. THE METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER FINE GRADING HAS BEEN COMPLETED.
6. ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
7. CONTRACTOR SHALL RAISE/LOWER OR ADJUST ALL EXISTING FRANCHISE UTILITY LINES IN CONFLICT WITH PROPOSED UTILITIES AS PART OF THE BASE BIDS FOR ALL KNOWN OR UNKNOWN LINES.
8. REFER TO MEP PLANS FOR EXACT SIZE, LOCATION, AND INVERT OF UTILITIES AT BUILDING.
9. FIRE SPRINKLER LINES AND FIRE DEPARTMENT CONNECTIONS SHALL BE SIZED, DESIGNED, AND INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR.
10. BACKFLOW DEVICE FOR FIRE SERVICE TO BE LOCATED INSIDE THE BUILDING PER CITY OF ROCKWALL STANDARDS UNLESS OTHERWISE NOTED.
11. REFER TO SHEET C11.0 FOR WATER DETAILS.
12. REFER TO SHEET C12.0 FOR SEWER DETAILS.

NOTE TO CONTRACTOR

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CONTRACTOR TO FIELD VERIFY EXACT HORIZONTAL & VERTICAL LOCATION OF EXISTING WATER AND SANITARY SEWER PRIOR TO CONSTRUCTION AND CONTACT ENGINEER AS REQUIRED.

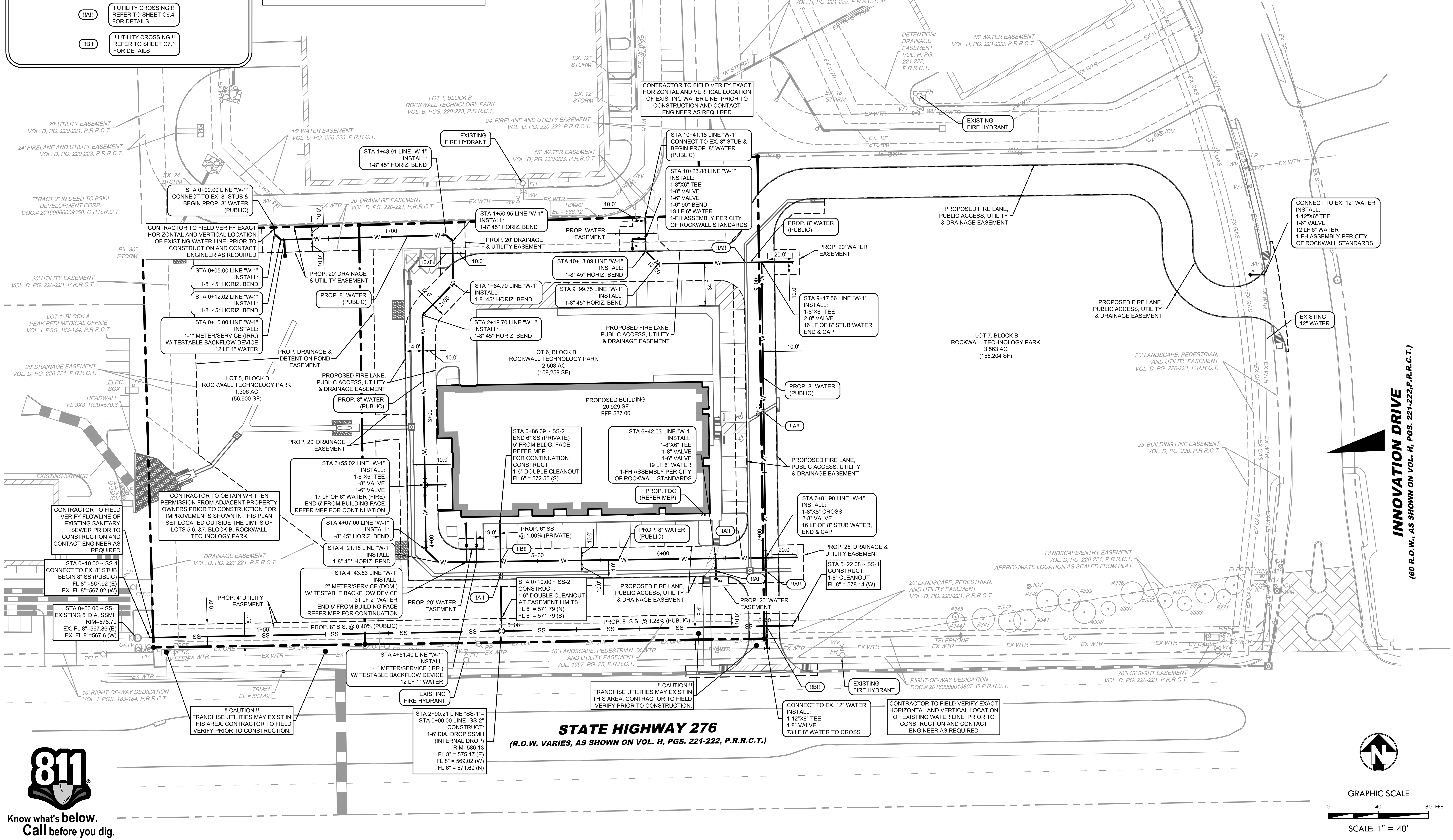
SITE BENCHMARKS

BM NO. 1 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE NORTH SIDE OF A SIDEWALK ON THE NORTH SIDE OF SH-276, LOCATED APPROXIMATELY 29 FEET WEST OF A HEADWALL, AND APPROXIMATELY 100 FEET EAST OF THE SOUTHWEST CORNER OF THE SUBJECT TRACT.

ELEVATION = 582.49' (NAVD '88)

BM NO. 2 THE BENCHMARK IS AN "X" CUT SET WITH BOX ON THE BACK OF CURB NORTH OF THE SUBJECT TRACT, LOCATED APPROXIMATELY 364 FEET EAST OF THE NORTHWEST CORNER OF THE SUBJECT TRACT, AND APPROXIMATELY 80' WEST OF THE CORNER OF THE SUBJECT TRACT.

ELEVATION = 586.12' (NAVD '88)



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E2022-013

JEREMY B. NELSON 138740 — 05/19/2022

LINKS CONSTRUCTION — BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288, SUITE 105
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(940) 566-5465

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

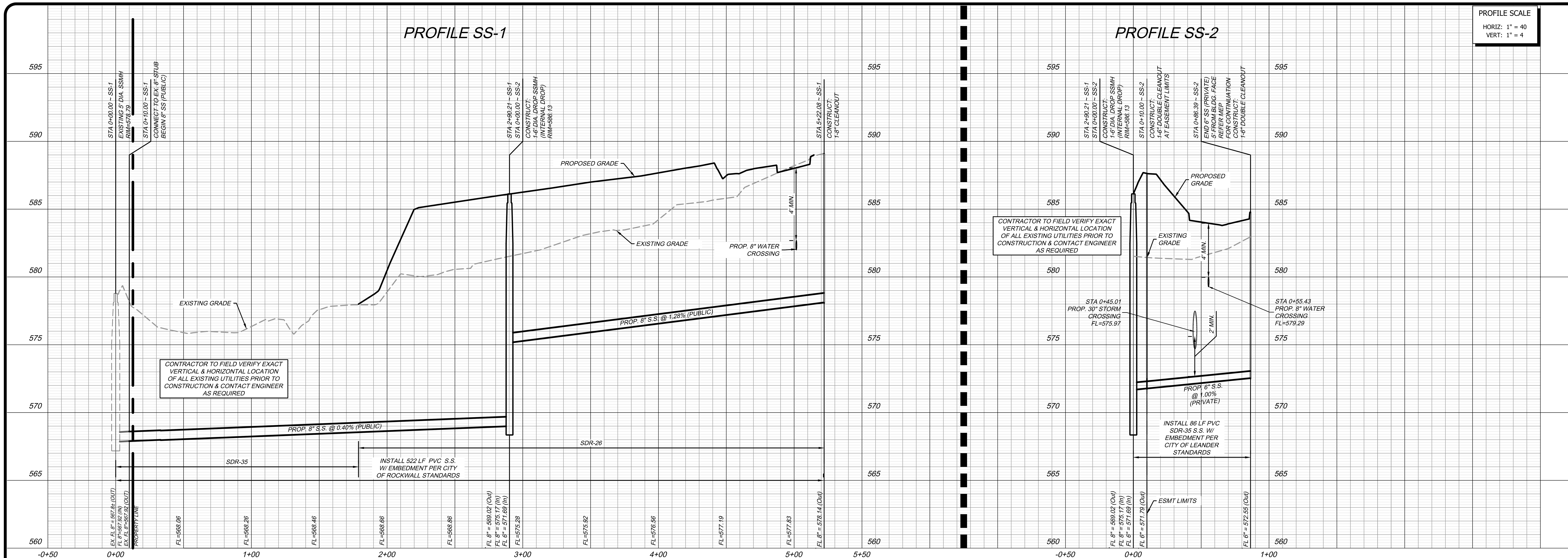
REV.	DATE:	DESCRIPTION:

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

UTILITY PLAN

SHEET: C7.0



PROFILE SCALE
HORIZ: 1" = 40
VERT: 1" = 4

E2022-013

JEREMY B. NELSON
138740
05/19/2022

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UTILITY PROFILE

SHEET:
C7.1

LEGEND

PARKING AREAS 6" 3,600 PSI CLASS "C" (28 DAYS) REIN. CONC. PAVEMENT W/ No. 3 BARS @ 18" O.C.E.W. (6.5 SACK MIX)	(light grey fill)
FIRE LANE & DUMPSTER AREAS 7" 3,600 PSI CLASS "C" (28 DAYS) REIN. CONC. PAVEMENT W/ No. 4 BARS @ 18" O.C.E.W. (6.5 SACK MIX)	(dark grey fill)
TXDOT PAVEMENT 12" 4,500 PSI (7.5 SACK MIX) (28 DAYS) REIN. CONC. W/ No. 6 BARS @ 8" O.C.E.W. & No. 5 @ 48" O.C.E.W. TRANSVERSE OVER 4" TYPE D ASPHALT BASE W/ 6" LIME STABILIZED SUBGRADE	(diagonal hatch)
PRIVATE SIDEWALK & PILOT CHANNEL 4" 3,000 PSI CLASS "A" (28 DAYS) REIN. CONC. W/ No. 3 BARS @ 18" O.C.E.W. (5.5 SACK MIX)	(dotted)
PUBLIC SIDEWALK 4" 3,000 PSI CLASS "A" (28 DAYS) REIN. CONC. W/ No. 3 BARS @ 18" O.C.E.W. (5.5 SACK MIX)	(cross hatch)
TXDOT SIDEWALK (REFER DETAIL CSWD (FTW)	(grey cross hatch)
CITY OF ROCKWALL DRIVE APPROACH 7" 3,600 PSI CLASS "C" (28 DAYS) REIN. CONC. PAVEMENT W/ No. 4 BARS @ 18" O.C.E.W. (6.5 SACK MIX) ON 6" LIME STABILIZED SUBGRADE	(hexagon pattern)
PROPERTY BOUNDARY	(dashed line)

PAVING NOTES

1. PAVING RECOMMENDATIONS ARE MADE BY D&S ENGINEERING LABS REPORT No. GP21-2349 DATED 12/2021.
2. CONTRACTOR SHALL OBTAIN A COPY OF SAID GEOTECHNICAL ENGINEERING REPORT AND FAMILIARIZE THEMSELVES PRIOR TO BIDDING AND CONSTRUCTING THE IMPROVEMENTS OF THE PROJECT.
3. ALL PROPOSED PUBLIC PAVEMENT TO BE PER THE CITY OF ROCKWALL STANDARDS & SPECIFICATIONS.
4. PAINT PARKING STALL STRIPE 4" SOLID WHITE @ 9' O.C..
5. PAINT ACCESSIBLE PARKING LOGO SOLID WHITE.
6. PAINT ACCESSIBLE PEDESTRIAN CROSSWALK 6" SOLID WHITE REFLECTIVE @ 2' O.C. @ 45°.
7. PAINT FIRE LANE STRIPE IN ACCORDANCE WITH LOCAL AUTHORITIES' STANDARDS. STRIPE SHALL BE 6" "TRAFFIC RED" WITH 4" HIGH "TRAFFIC WHITE" LETTERS.
8. REFER TO SHEET C13.0 - C13.1 FOR PAVING DETAILS.
9. CONTRACTOR SHALL FURNISH A JOINTING PLAN FOR ENGINEER REVIEW.
10. INSTALLATION AND PLACEMENT OF IRRIGATION SLEEVES AND UTILITY CONDUITS SHALL BE IN ACCORDANCE WITH LANDSCAPE ARCHITECT AND MEP PLANS. CONTRACTOR TO VERIFY ALL SLEEVES HAVE BEEN PLACED PRIOR TO PAVING BEING PLACED.

NOTE TO CONTRACTOR

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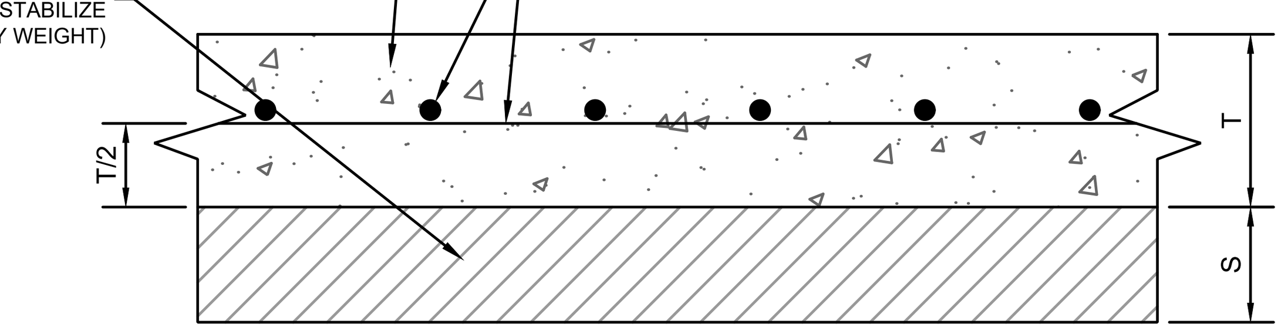
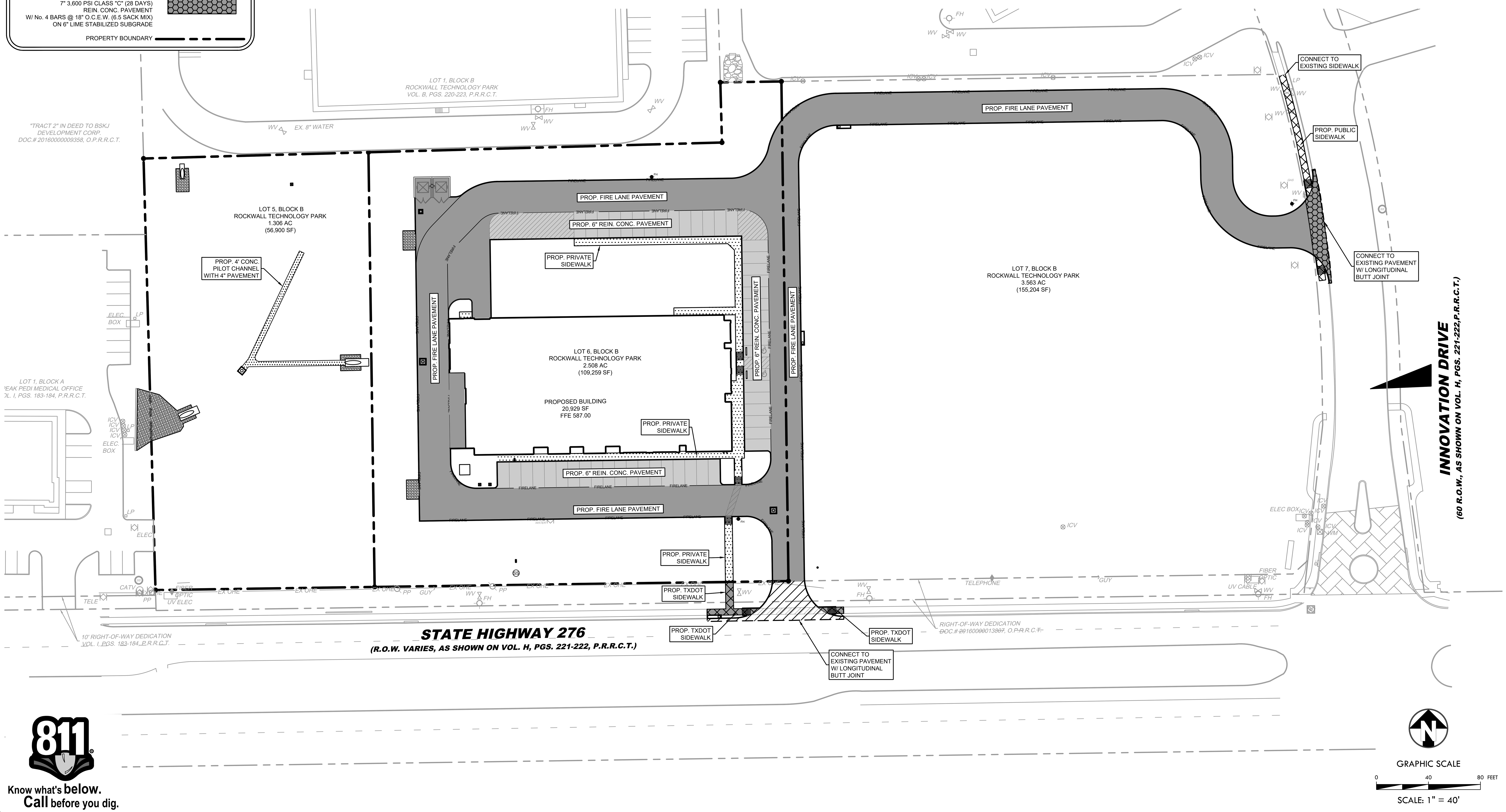


NOTE:
ALL FIRE LANES TO BE CONSTRUCTED TO CITY OF ROCKWALL STANDARDS. REFER TO CITY OF ROCKWALL STANDARD DETAILS FOR PAVING AND SUBGRADE SPECIFICATIONS AND RECOMMENDATIONS.

T = 4", 3000 PSI @ 28 DAYS (MIN. 5.5 SACK MIX) - SIDEWALKS
T = 5", 3600 PSI @ 28 DAYS (MIN. 6.5 SACK MIX) - PUBLIC BARRIER FREE RAMPS
T = 6", 3600 PSI @ 28 DAYS (MIN. 6.5 SACK MIX) - PARKING LOT AREAS
T = 7", 3600 PSI @ 28 DAYS (MIN. 6.5 SACK MIX) - FIRE LANE, DUMPSTER AREAS & CITY OF ROCKWALL DRIVE APPROACH
S = 6" LIME STABILIZED SUBGRADE (PARKING LOT AREAS)
S = 8" LIME STABILIZED SUBGRADE (FIRELANE, DUMPSTER AREAS, CITY OF ROCKWALL DRIVE APPROACH)

1 TYPICAL PAVEMENT SECTION

NOT TO SCALE



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JEREMY B. NELSON
138740
05/19/2022

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REV:	DATE:	DESCRIPTION:

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING

KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

PAVING PLAN

SHEET:
C8.0

E2022-013

EROSION CONTROL PLAN

EROSION CONTROL MAINTENANCE NOTES:

1. ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTI0N PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON ON A SCHEDULE WHICH COMPLIES WITH THE GENERAL PERMIT REQUIREMENTS AND CLEANED AND REPAIRED WITHIN 48 HOURS OF THE INSPECTION IN ACCORDANCE WITH THE FOLLOWING:

1.A. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
1.B. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED AND RESEEDED AS NEEDED.
1.C. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
1.D. THE TEMPORARY PARKING AND STORAGE AREA (IF PRESENT) SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
1.E. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS OR SEDIMENT TRAPS (IF PRESENT) SHALL BE MAINTAINED IN OPERATIONAL CONDITION AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.
1.F. MAINTENANCE PROCEDURES FOR THE EROSION AND SEDIMENTATION CONTROL SYSTEMS SPECIFIED ARE GIVEN IN SECTION 5 OF THE STORM WATER POLLUTION PREVENTION PLAN.

EROSION CONTROL SEQUENCE:

1. INSTALL SILT FENCES AROUND PERIMETER OF PROPERTY AND DISTURBED AREAS AS SHOWN.
2. INSTALL INLET PROTECTION FOR ALL EXISTING GRATE INLETS, CURB INLETS AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES, IF PRESENT.
3. CONSTRUCT TEMPORARY CONSTRUCTION EXIT.
4. COMMENCE GRUBBING AND REMOVAL OF VEGETATION IN AREA TO RECEIVE CUT OR FILL.
5. COMMENCE GRADING OPERATION FOR BUILDING PAD PREPARATION.
6. INSTALL ALL UNDERGROUND UTILITIES.
7. FINALIZE PAVEMENT SUBGRADE PREPARATION.
8. INSTALL ALL PROPOSED STORM SEWER PIPES AND INSTALL INLET PROTECTION SILT FENCES AT ENDS OF EXPOSED PIPES.
9. CONSTRUCT ALL GRATE INLETS AND DRAINAGE STRUCTURES. INLET PROTECTION SILT FENCES MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION.
10. REMOVE SILT FENCES AROUND INLETS AND MANHOLES NO MORE THAN 48 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
11. INSTALL BASE MATERIAL AS REQUIRED FOR PAVEMENT, CURB & GUTTER.
12. INSTALL ALL PAVING, CURB & GUTTER.
14. COMPLETE PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION, IN ACCORDANCE WITH NCTCOG STANDARDS.
15. REMOVE TEMPORARY CONSTRUCTION EXIT & SILT FENCES.

VEGETATIVE STABILIZATION REQUIREMENTS

TEMPORARY SEEDING:
ALL DISTURBED AREAS WHICH WILL BE LEFT DORMANT FOR GREATER THAN 14 DAYS SHALL BE SEEDED WITH FAST-GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING OPERATIONS. SELECTION OF THE SEED WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED (SEE DESCRIPTIONS IN TABLE 2). ALL TEMPORARY SEEDING MATERIALS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO APPLICATION.

TABLE 2 - VEGETATION TABLE (USE ONLY USDA CERTIFIED SEED)

SPECIES	PLANTING RATE	PLANTING DATES
CRIMSON CLOVER	7 (LBS/AC.)	08/15-11/30
MILLET, FOXTAIL	30 (LBS/AC.)	05/01-08/31
RYEGRASS, ANNUAL	30 (LBS/AC.)	08/15-09/30
SPRANGLETOP, GREEN	2.5 (LBS/AC.)	02/01-05/01
TALL FESCUE	7-10 (LBS/AC.)	09/01-10/15

SURFACE PREPARATION FOR TEMPORARY SEEDING:
1. INSTALL EROSION STRUCTURES SUCH AS DIKES, DIVERSIONS, ETC. PRIOR TO SEEDING.
2. FURROW SLOPES GREATER THAN 3:1 ON THE CONTOUR LINE BEFORE SEEDING.
3. ENSURE SEED BED IS PULVERIZED, LOOSE AND UNIFORM.

APPLICATION:
1. WHEN HYDRO-MULCHING IS USED, DO NOT MIX SEED AND FERTILIZER MORE THAN 30 MINUTES PRIOR TO APPLICATION.
2. APPLY SEED EVENLY USING PROPER EQUIPMENT AND WATER TO AID VEGETATION GROWTH.
3. EROSION CONTROL NETTING SHALL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT AGAINST EROSION. MULCH (STRAW OF FIBER) SHALL BE USED ON RELATIVELY FLAT SLOPES.

NOTES FOR CHANGES TO SWPPP:

CONTRACTOR SHALL BE REQUIRED TO UPDATE THIS SWPPP WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, OR WHENEVER THE RESULT OF AN INSPECTION INDICATES THAT THIS SWPPP IS INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANTS IN STORMWATER DISCHARGES. HOWEVER, THE REGULATIONS OF THE TEXAS BOARD OF PROFESSIONAL ENGINEERS REQUIRE THAT CHANGES MADE BY THE CONTRACTOR DURING CONSTRUCTION MUST BE AUTHORIZED BY A LICENSED TEXAS ENGINEER. THESE CHANGES MAY BE AUTHORIZED BY THE ENGINEER OF RECORD THROUGH UPDATED DRAWINGS, WORK ORDER CHANGES, OR OTHER METHODS ACCEPTABLE TO THE ENGINEER; OR BY ANOTHER ENGINEER PROVIDED THAT THEY NOTIFY THE ENGINEER OF RECORD.

NOTE TO CONTRACTOR
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LEGEND

PROPOSED LIMITS OF DISTURBANCE	LD
PROPOSED SILT FENCE	SF
PROPOSED INLET PROTECTION	
PROPOSED CONSTRUCTION ENTRANCE	
PROPOSED ROCK CHECK FILTER DAM	
PROPOSED CONCRETE WASHOUT PIT	
EXISTING CONTOUR	500
PROPOSED CONTOUR	500
EXISTING DRAINAGE FLOW ARROW	
PROPOSED DRAINAGE FLOW ARROW	
PROPERTY BOUNDARY	

SITE BENCHMARKS

BM NO. 1 THE BENCMARK IS AN "X" CUT SET WITH BOX ON THE NORTH SIDE OF A SIDEWALK ON THE NORTH SIDE OF SH-276, LOCATED APPROXIMATELY 29 FEET WEST OF A HEADWALL, AND APPROXIMATELY 100 FEET EAST OF THE SOUTHWEST CORNER OF THE SUBJECT TRACT.

ELEVATION = 582.49' (NAVD '88)

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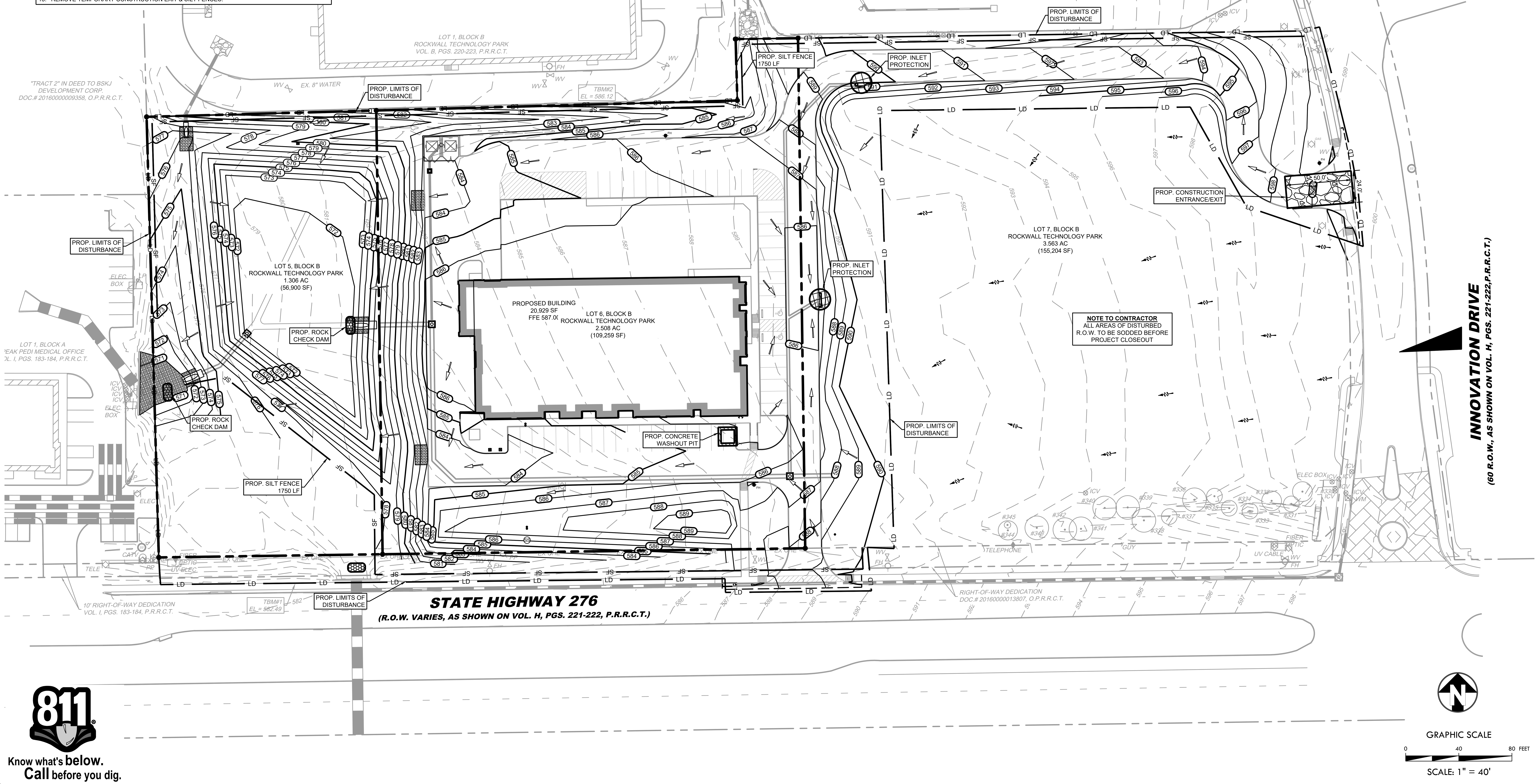
ELEVATION = 586.12' (NAVD '88)

EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR PREPARING AND IMPLEMENTING A STORMWATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE TPDES.
2. TOTAL DISTURBED AREA = 6.65 ACRES
3. REFER TO SHEET C14.0 FOR EROSION CONTROL DETAILS.
4. CONTRACTOR TO REESTABLISH VEGETATION IN ALL DISTURBED AREAS WHETHER SHOWN ON THESE PLANS OR NOT.



811
Know what's **below.**
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GRAPHIC SCALE
0 40 80 FEET
SCALE: 1" = 40'

JEREMY B. NELSON
138740
Jeremy B. Nelson
05/19/2022

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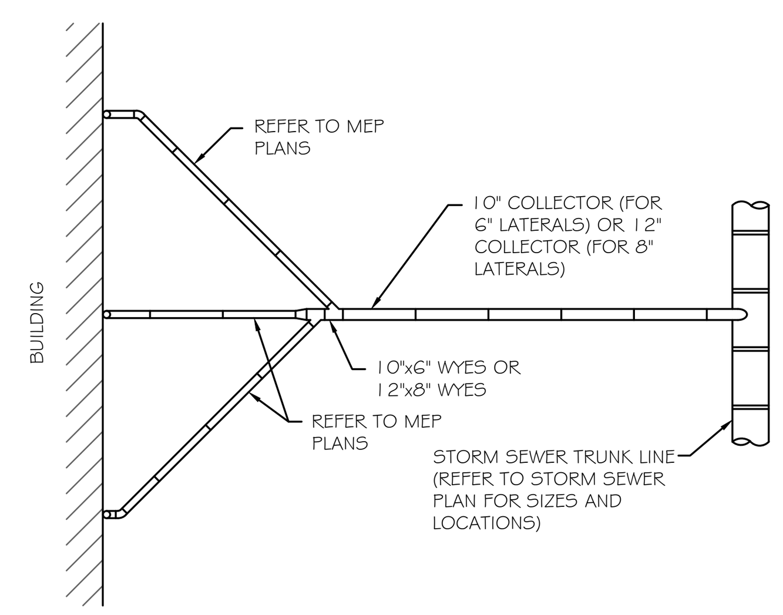
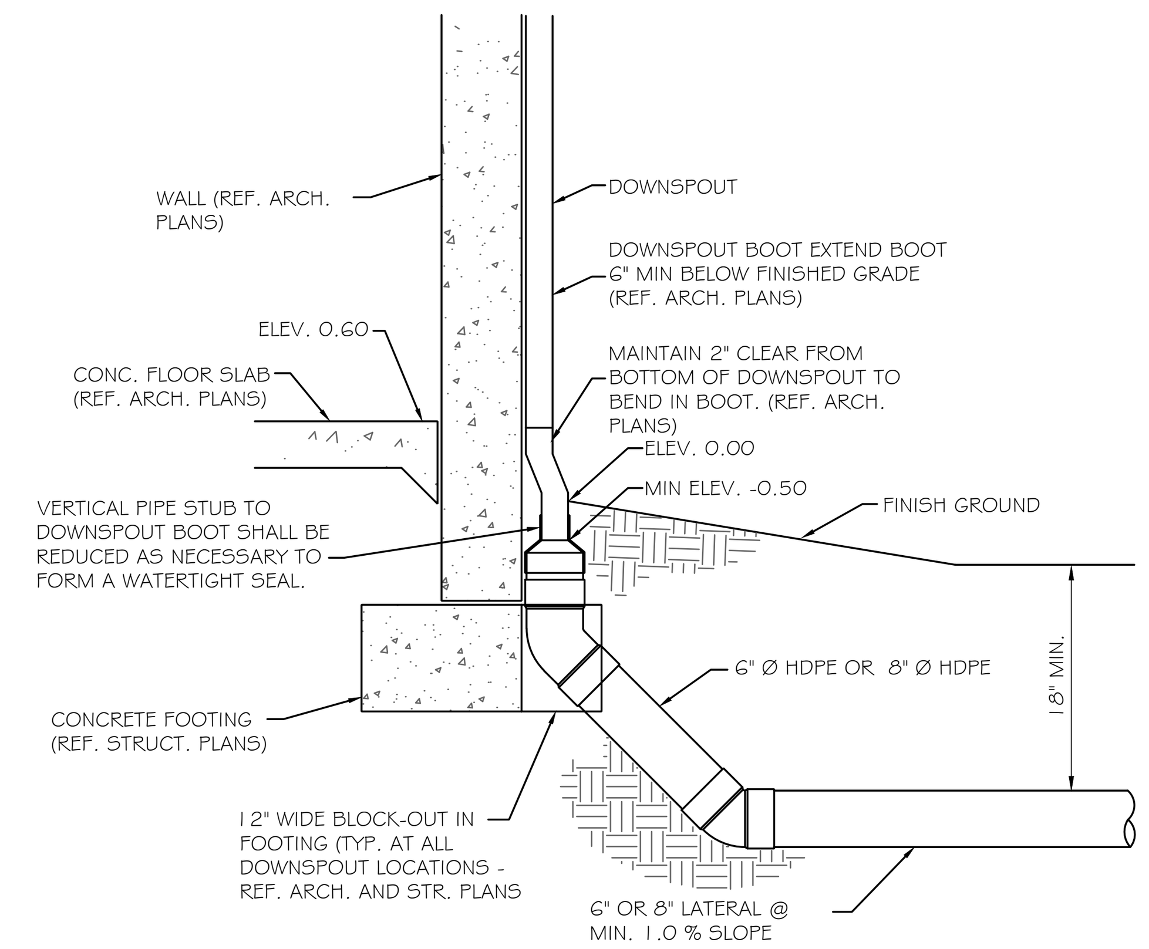
EROSION CONTROL PLAN

SHEET:
C9.0



SUGGESTED COLLECTOR LAYOUT

NOTE: ALTERNATE CONNECTION SCENARIOS ARE SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.

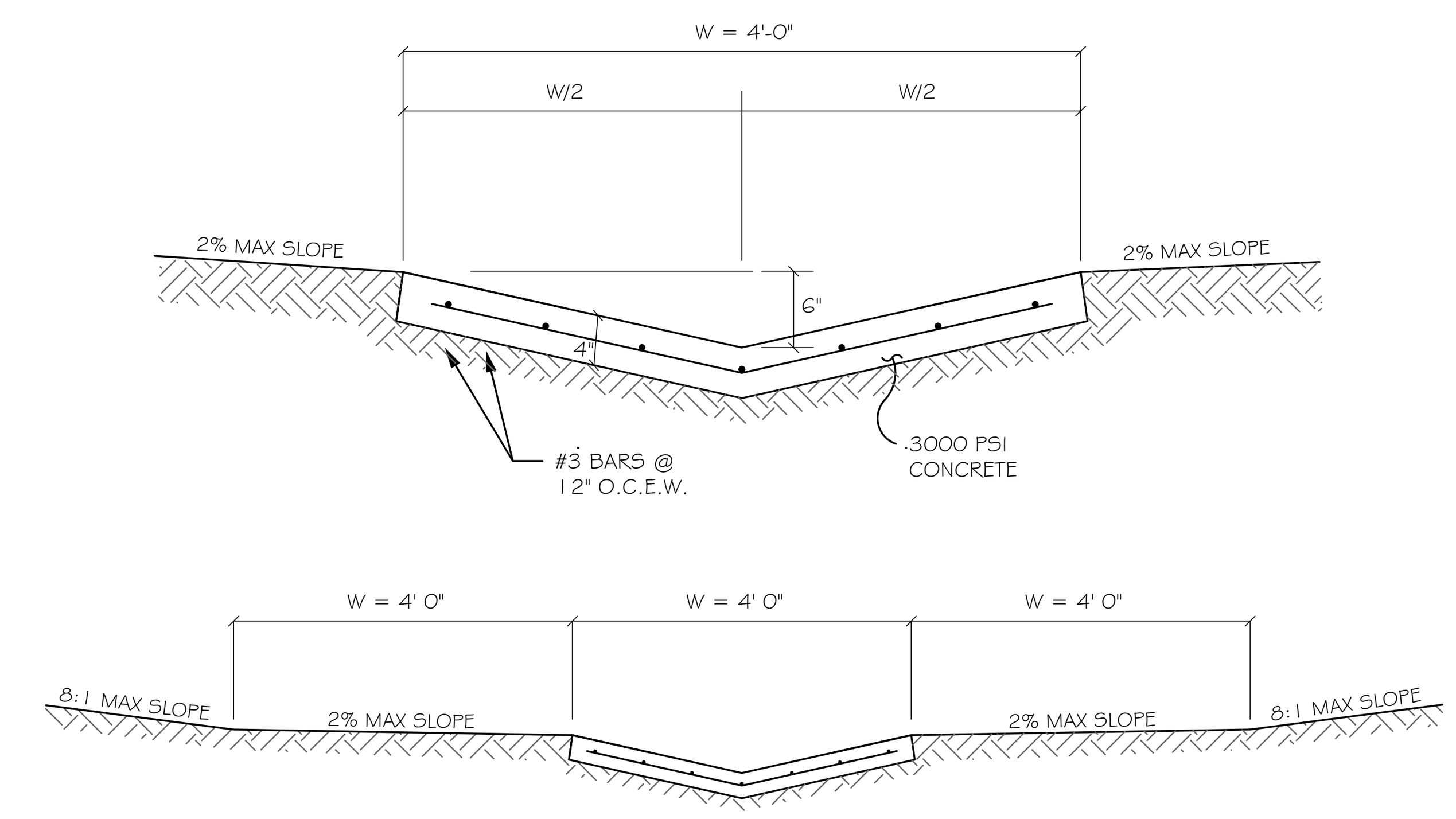


NOTES:

1. LATERAL AND COLLECTOR PIPING SHALL BE HPDE. THE CONTRACTOR SHALL MAINTAIN A WATERTIGHT CONNECTION BETWEEN DIFFERING PIPE TYPES.
2. REFER TO MEP PLANS FOR DOWNSPOUT SIZES. THE SITEWORK CONTRACTOR SHALL PROVIDE THE REQUIRED PIPE OPENING BASED ON THE CORRESPONDING DOWNSPOUT SIZE, BY USE OF A REDUCER.

DOWNSPOUT CONNECTION TO UNDERGROUND DRAIN DETAIL

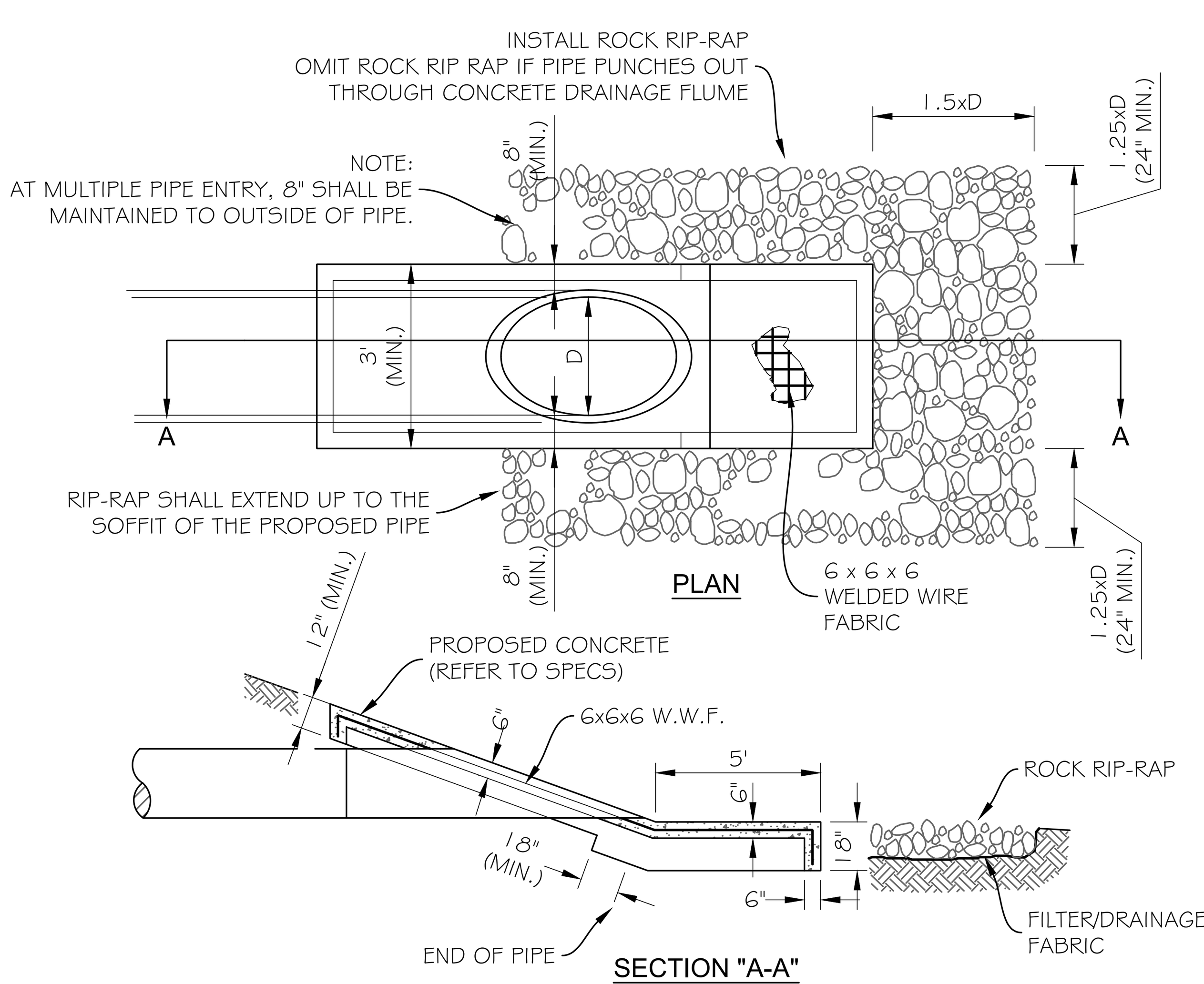
N.T.S.



NOTES:
1. SIDE SLOPES TO BE HYDROMULCHED.

CONCRETE FLUME

N.T.S.

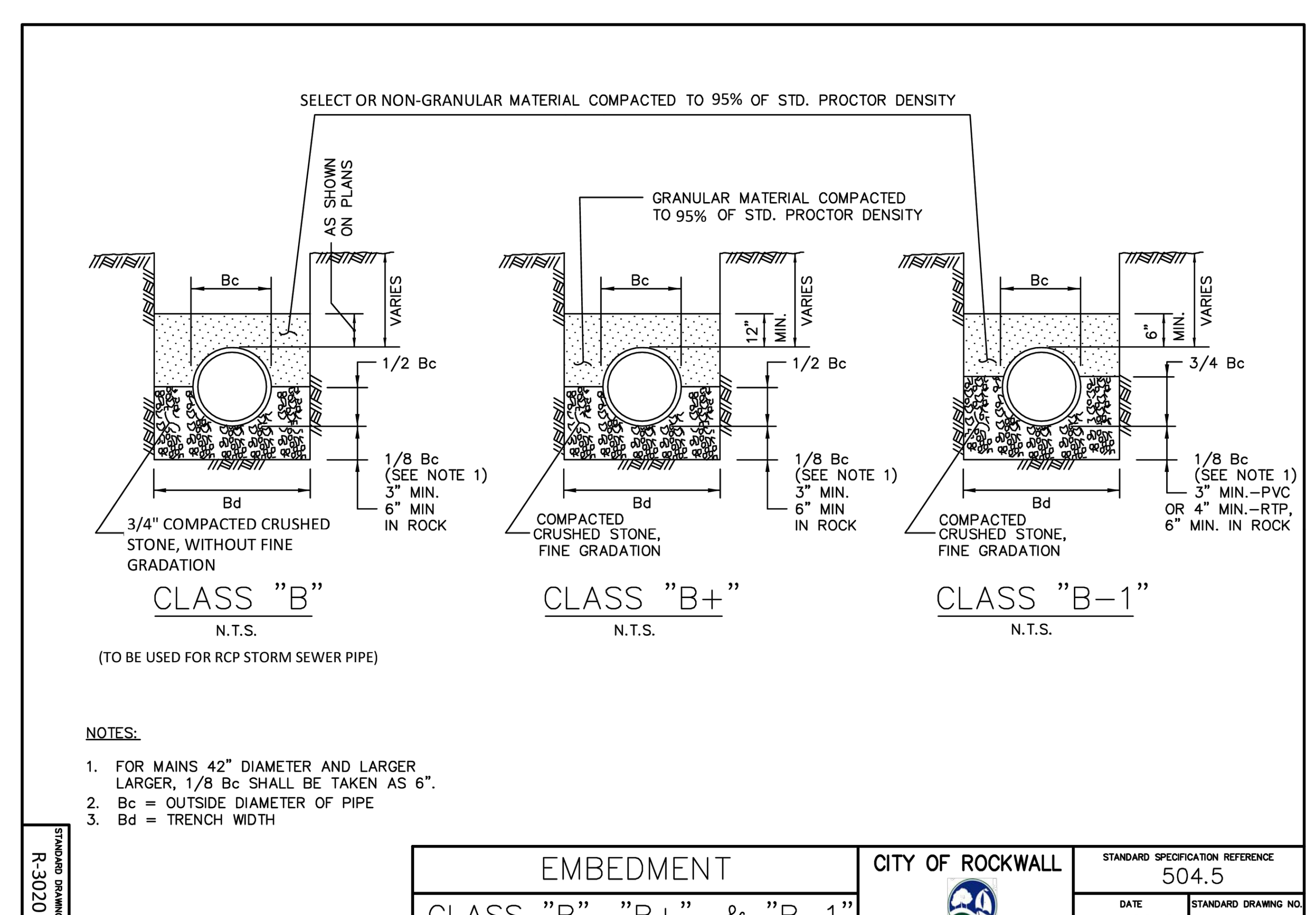


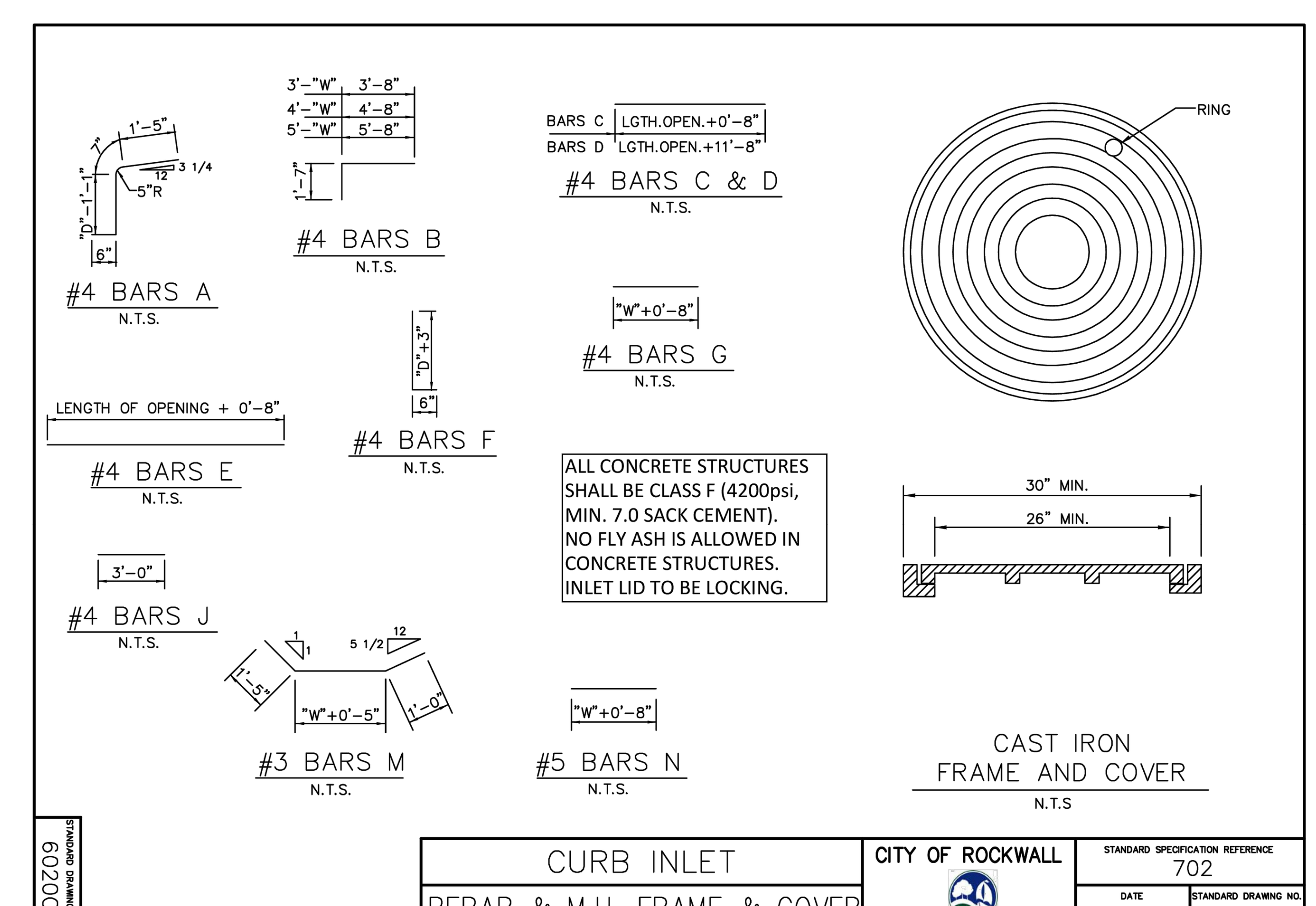
NOTES:

1. SLOPE PROTECTION SHALL BE INSTALLED ON ALL PIPES DISCHARGING INTO A POND.
2. HDPE PIPE SHALL NOT HAVE BEVELED END AND THUS SHALL UTILIZE A PRECAST HEADWALL BY OLDCASTLE PRECAST, AMERICAN INDUSTRIAL, CSR, OR HANSON PIPE.

HEADWALL/OUTFALL DETAIL

N.T.S.





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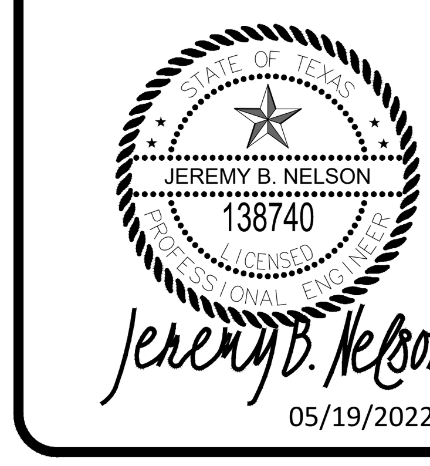

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE

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(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT, MODIFIED BY ADDENDUM, CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

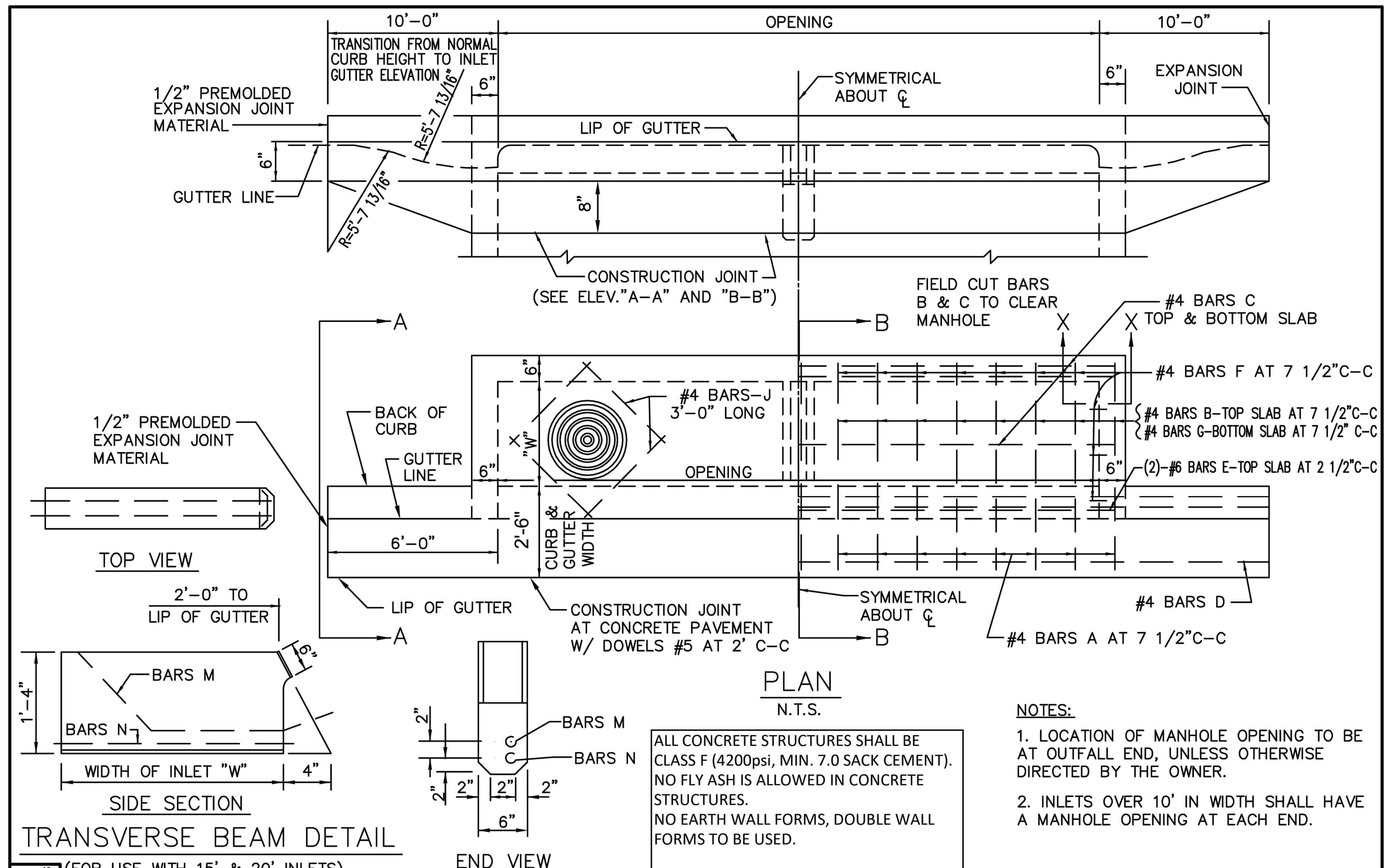
ISSUE DATE: 05/19/2022

DRAINAGE DETAILS

SHEET:
C10.0

FULL PATH: K:\Jobs\LNK21005_rockwall Industrial\Drawings\03_ENGR\03 - Production\C10.0 DRAINAGE DETAILS_LNK21005

FILENAME: C10.0 DRAINAGE DETAILS_LNK21005.dwg
PLOTTED BY: Michael Wallach
PLOTTED DATE: 10/2/2023

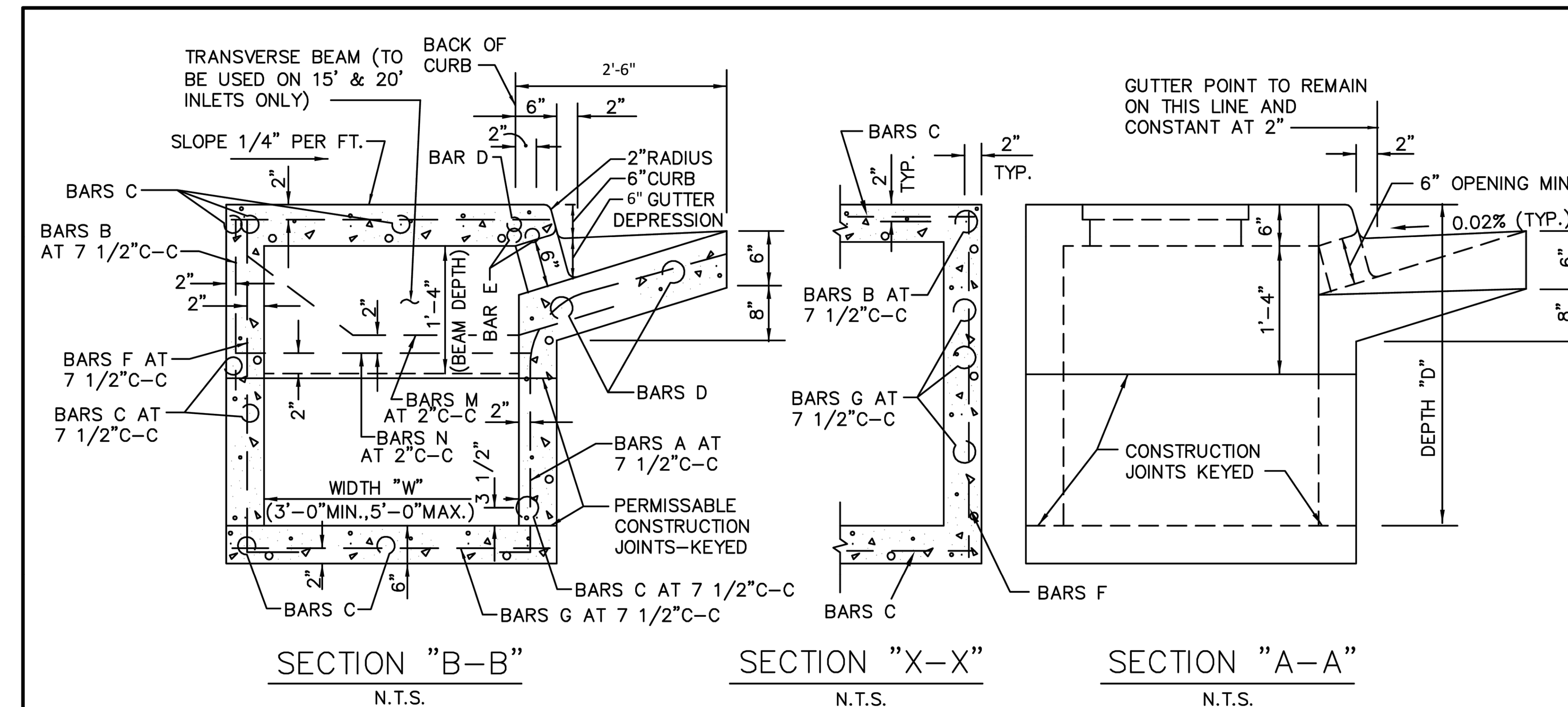


ALL CONCRETE STRUCTURES SHALL BE CLASS F (4200psi, MIN. 7.0 SACK CEMENT).
NO FLY ASH IS ALLOWED IN CONCRETE STRUCTURES.
NO EARTH WALL FORMS, DOUBLE WALL FORMS TO BE USED.

NOTES:

1. LOCATION OF MANHOLE OPENING TO BE AT OUTFALL END, UNLESS OTHERWISE DIRECTED BY THE OWNER.
2. INLETS OVER 10' IN WIDTH SHALL HAVE A MANHOLE OPENING AT EACH END.

CURB INLET	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 702
5', 10', 15' OR 20' OPENING		DATE AUG. 2019 / STANDARD DRAWING NO. R-6020A



GENERAL NOTES:

1. ALL CONCRETE SHALL BE CLASS "A" CONCRETE.
2. REINFORCING BARS SHALL BE STANDARD GRADE STEEL, DEFORMED REINFORCING BARS OF A DIAMETER AND LENGTH AS SHOWN.
3. CHAMFER ALL EXPOSED CORNERS 3/4" EXCEPT WHERE OTHERWISE NOTED.
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMODATE STORM SEWER PIPE.
6. RING AND COVER SHALL BE APPROVED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.

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NO EARTH WALL FORMS, DOUBLE WALL FORMS TO BE USED.

CURB INLET	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 702
CROSS SECTION & INLET THROAT		DATE AUG. 2019 / STANDARD DRAWING NO. R-6020B

SUMMARY OF QUANTITIES FOR CURB INLETS

DEPTH "D"	5'-0" OPENING						10'-0" OPENING						15'-0" OPENING						20'-0" OPENING					
	WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"	
	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.
3'-6"	2.62	306	2.95	332	3.28	373	4.12	479	4.64	521	5.20	564	5.69	667	6.40	721	7.10	775	7.20	846	8.11	909	9.03	976
3'-9"	2.70	309	3.04	341	3.39	373	4.25	494	4.78	536	5.34	579	5.87	687	6.58	741	7.30	796	7.42	874	8.34	937	9.27	1010
4'-0"	2.78	328	3.14	364	3.49	399	4.38	518	4.92	565	5.49	610	6.05	718	6.77	776	7.49	835	7.64	909	8.58	976	9.51	1046
4'-3"	2.87	334	3.23	370	3.59	406	4.51	526	5.06	573	5.64	619	6.22	729	6.95	787	7.69	847	7.87	922	8.81	990	9.75	1061
4'-6"	2.95	356	3.32	394	3.69	431	4.64	558	5.20	607	5.79	656	6.40	770	7.14	830	7.88	891	8.09	973	9.04	1043	9.99	1115
4'-9"	3.03	361	3.41	410	3.79	438	4.77	566	5.34	616	5.94	665	6.57	780	7.32	841	8.07	903	8.31	986	9.27	1056	10.23	1129
5'-0"	3.12	367	3.51	416	3.90	445	4.90	574	5.47	624	6.09	674	6.75	791	7.51	853	8.27	915	8.53	999	9.50	1070	10.47	1144
5'-3"	3.20	383	3.60	424	4.00	465	5.03	600	5.61	652	6.23	704	6.93	827	7.69	890	8.46	955	8.76	1044	9.73	1118	10.71	1194
5'-6"	3.28	389	3.69	430	4.10	472	5.16	608	5.75	661	6.38	713	7.11	837	7.88	901	8.66	967	8.98	1057	9.97	1131	10.95	1208
5'-9"	3.37	405	3.78	451	4.20	495	5.29	635	5.89	690	6.53	744	7.28	874	8.07	940	8.85	1007	9.20	1102	10.20	1178	11.19	1258
6'-0"	3.45	415	3.88	460	4.30	504	5.42	646	6.03	702	6.68	757	7.45	888	8.25	954	9.05	1022	9.42	1119	10.43	1196	11.43	1276
6'-3"	3.53	425	3.97	470	4.41	515	5.55	661	6.17	718	6.83	773	7.63	908	8.44	975	9.24	1044	9.64	1147	10.66	1223	11.67	1305
6'-6"	3.62	437	4.06	486	4.51	532	5.68	681	6.31	739	6.97	797	7.81	935	8.62	1005	9.43	1057	9.87	1178	10.89	1258	11.92	1340
6'-9"	3.70	441	4.15	490	4.61	537	5.81	688	6.45	747	7.12	806	7.98	945	8.81	1015	9.63	1066	10.09	1191	11.12	1272	12.15	1355
7'-0"	3.78	460	4.25	510	4.71	560	5.94	716	6.59	777	7.27	837	8.16	981	8.99	1053	9.82	1126	10.31	1237	11.35	1319	12.40	1404
7'-3"	3.86	465	4.34	516	4.81	567	6.07	724	6.72	785	7.42	846	8.33	992	9.18	1065	10.02	1138	10.53	1249	11.59	1333	12.64	1418
7'-6"	3.95	477	4.43	529	4.91	570	6.20	742	6.86	804	7.57	866	8.51	1016	9.36	1089	10.21	1163	10.75	1290	11.82	1365	12.88	1451
7'-9"	4.03	491	4.53	544	5.02	597	6.33	762	7.00	826	7.71	890	8.67	1040	9.55	1116	10.41	1193	10.98	1313	12.05	1399	13.12	1498
8'-0"	4.12	496	4.62	550	5.12	604	6.46	770	7.14	834	7.86	899	8.86	1051	9.73	1129	10.60	1205	11.20	1325	12.28	1412	13.36	1510
8'-3"	4.20	504	4.71	559	5.22	613	6.59	784	7.28	849	8.01	915	9.04	1069	9.92	1149	10.80	1228	11.42	1353	12.51	1440	13.60	1529
8'-6"	4.28	519	4.80	576	5.32	632	6.71	804	7.42	871	8.16	938	9.21	1107	10.10	1176	10.99	1257	11.64	1385	12.74	1474	13.84	1565
8'-9"	4.37	528	4.90	586	5.42	643	6.84	819	7.56	886	8.31	954	9.39	1119	10.29	1199	11.18	1280	11.87	1410	12.97	1500	14.08	1592
9'-0"	4.45	545	4.99	605	5.53	664	6.97	842	7.70	912	8.46	982	9.56	1148	10.47	1231	11.38	1313	12.09	1447	13.21	1539	14.32	1631
9'-3"	4.53	554	5.08	614	5.63	674	7.10	858	7.84	929	8.60	999	9.74	1169	10.66	1252	11.57	1335	12.31	1474	13.44	1563	14.56	1660
9'-6"	4.62	568	5.17	630	5.73	692	7.23	878	7.97	950	8.75	1022	9.92	1195	10.84	1280	11.77	1365	12.53	1505	13.67	1600	14.80	1696
10'-0"	4.78	582	5.36	645	5.93	708	7.49	900	8.11	974	9.05	1048	10.27	1227	11.21	1312	12.16	1399	12.98	1546	14.13	1642	15.29	1739

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

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NO FLY ASH IS ALLOWED IN CONCRETE STRUCTURES.

CURB INLET	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 702
SUMMARY OF QUANTITIES		DATE Mar. 2018 / STANDARD DRAWING NO. R-6020E

BILL OF REINFORCING STEEL

DEPTH "D"	ALL WIDTHS AND LENGTHS				OPENING LENGTH "L" = 5ft						OPENING LENGTH "L" = 10ft						OPENING LENGTH "L" = 15 ft								OPENING LENGTH "L" = 20 ft							
					Widths "W"						Widths "W"						Widths "W"								Widths "W"							
					3ft	4ft	5ft				3ft	4ft	5ft				3ft	4ft	5ft						3ft	4ft	5ft					
	BARS C	BARS D	BARS E	BARS J	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS M	BARS N	BARS F	BARS F	BARS F	BARS A	BARS B	BARS G	BARS M	BARS N
3'-6"	17	3	2	4	20	24	28	10	10	20	28	32	36	18	18	28	36	40	44	26	26	36	2	2	44	48	52	34	34	44	2	2
3'-9"	18	"	"	"	"	"	"	"	"	20	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	"	"	44	"	"
4'-0"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	"	"	48	"	"
4'-3"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	"	"	48	"	"
4'-6"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	50	"	"
4'-9"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	50	"	"
5'-0"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	50	"	"
5'-3"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	"	"	52	"	"
5'-6"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	"	"	52	"	"
5'-9"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	54	"	"
6'-0"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	54	"	"
6'-3"	26	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	54	"	"
6'-6"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	"	"	56	"	"
6'-9"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	"	"	56	"	"
7'-0"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	58	"	"
7'-3"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	58	"	"
7'-6"	30	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	58	"	"
7'-9"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	52	"	"	"	"	"	"	"	60	"	"
8'-0"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	52	"	"	"	"	"	"	"	60	"	"
8'-3"	32	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	52	"	"	"	"	"	"	"	60	"	"
8'-6"	33	"	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	54	"	"	"	"	"	"	"	62	"	"
8'-9"	34	"	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	54	"	"	"	"	"	"	"	62	"	"
9'-0"	35	"	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	56	"	"	"	"	"	"	"	64	"	"
9'-3"	36	"	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	56	"	"	"	"	"	"	"	64	"	"
9'-6"	37	"	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	58	"	"	"	"	"	"	"	66	"	"
10'-0"	38	"	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	58	"	"	"	"	"	"	"	66	"	"

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CURB INLET	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 702
BILL OF REINFORCING STEEL		DATE Mar. 2018 / STANDARD DRAWING NO. R-6020D

E2022-013

JEREMY B. NELSON
138740
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE

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DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

RECORD DRAWING

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

REV: DATE: DESCRIPTION:

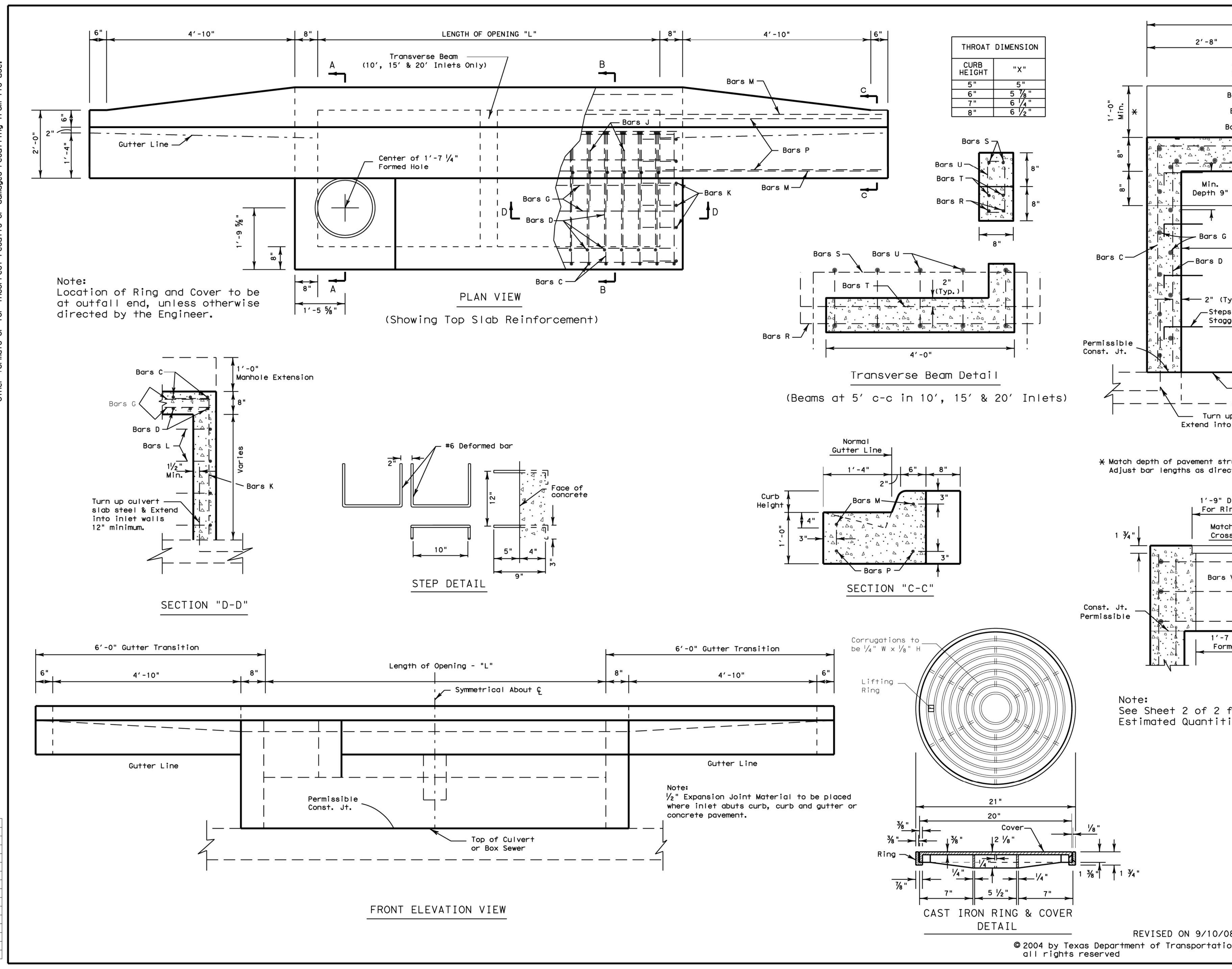
KIRKMAN ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

DRAINAGE DETAILS

SHEET:
C10.1


PLAN VIEW
(Showing Top Slab Reinforcement)
Note: Location of Ring and Cover to be at outfall end, unless otherwise directed by the Engineer.
THROAT DIMENSION
Transverse Beam Detail
(Beams at 5' c-c in 10', 15' & 20' Inlets)
SECTION "B-B"
SECTION "D-D"
STEP DETAIL
SECTION "C-C"
SECTION "A-A"
FRONT ELEVATION VIEW
CAST IRON RING & COVER DETAIL
Note: See Sheet 2 of 2 for Details of Reinforcing Steel, Estimated Quantities, and General Notes.

Texas Department of Transportation
DALLAS DISTRICT
TYPE 2-C
CURB INLET ON BOX CULVERT
FOR USE W/ 5" TO 8" BARRIER CURB
5',10',15' & 20' OPENINGS
CI(2)-02-BC(DAL)
SHEET 1 OF 2 SHEETS

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6	SEE TITLE SHEET	337

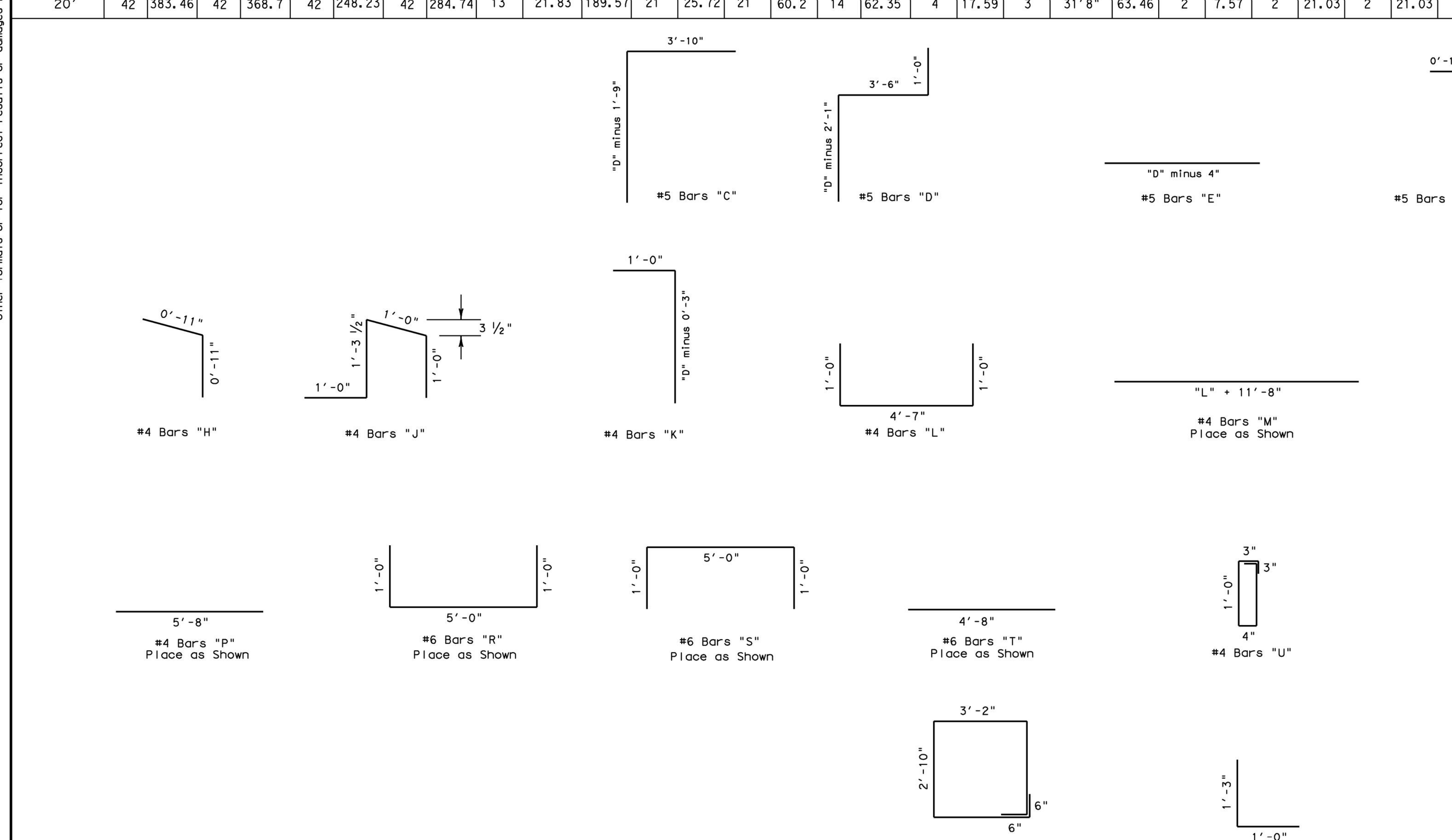
STATE	DIST.	COUNTY
TEXAS	DAL	ROCKWALL

CONT.	SECT.	JOB	HIGHWAY NO.
1290	02	017	SH 276

REVISED ON 9/10/08

Bill Of Reinforcing Steel for Inlet Depth of 6'

Length of Opening	#5 Bars C @ 6" No.	Wt.	#5 Bars D @ 6" No.	Wt.	#5 Bars E @ 6" No.	Wt.	#5 Bars F @ 6" No.	Wt.	#4 Bars G No.	Length	Wt.	#4 Bars H @ 12" No.	Wt.	#4 Bars J @ 12" No.	Wt.	#4 Bars K @ 8" No.	Wt.	#4 Bars L @ 12" No.	Wt.	#4 Bars M No.	Length	Wt.	#4 Bars P No.	Wt.	#6 Bars R No.	Wt.	#6 Bars S No.	Wt.	#6 Bars T No.	Wt.	#4 Bars U @ 10" No.	Wt.	#4 Bars V @ 5" No.	Wt.	#4 Bars W No.	Wt.
5'	12	109.56	12	105.34	12	70.92	12	81.35	13	6.83	59.34	6	7.35	6	17.2	14	62.35	4	17.59	3	16'8"	33.4	2	7.57	2	21.03	2	21.03	2	15.02	4	8.46	3	24.72	6	9.02
10'	22	200.86	22	193.13	22	130.03	22	149.15	13	11.83	102.73	11	13.47	11	31.54	14	62.35	4	17.59	3	21'8"	43.42	2	7.57	2	21.03	2	21.03	2	15.02	4	8.46	3	24.72	6	9.02
15'	32	292.16	32	280.91	32	189.13	32	216.94	13	16.83	146.15	16	19.59	16	45.87	14	62.35	4	17.59	3	26'8"	53.44	2	7.57	2	21.03	2	21.03	2	15.02	4	8.46	3	24.72	6	9.02
20'	42	383.46	42	368.7	42	248.23	42	284.74	13	21.83	189.57	21	25.72	21	60.2	14	62.35	4	17.59	3	31'8"	63.46	2	7.57	2	21.03	2	21.03	2	15.02	4	8.46	3	24.72	6	9.02


#5 Bars "C"
#5 Bars "D"
#5 Bars "E"
#5 Bars "F"
#4 Bars "G"
#4 Bars "H"
#4 Bars "J"
#4 Bars "K"
#4 Bars "L"
#4 Bars "M" Place as Shown
#4 Bars "P" Place as Shown
#6 Bars "R" Place as Shown
#6 Bars "S" Place as Shown
#6 Bars "T" Place as Shown
#4 Bars "U"
#4 Bars "V"
#4 Bars "W" 6 EACH TO BE PLACED AT 16" SPACING ALONG GUTTER SIDE AND INLET SIDE OF RING. (3 EACH SIDE)

Bar Spacing: Bottom Slab, Lower Mat - 1'-6"
Bottom Slab, Upper Mat - 1'-3"
Back Wall, Outer Mat - 0'-9"
Back Wall, Inner Mat - 0'-10"
Front Wall, Outer Mat - 0'-9"
Front Wall, Inner Mat - 0'-10"
Upper Slab, Lower Mat - 0'-8"
Upper Slab, Upper Mat - 0'-9"
Gutter - Place as Shown

GENERAL NOTES

1. All concrete shall be Class "A".
2. Chamfer all exposed corners ¾" except where otherwise noted.
3. Dimensions related to reinforcing steel are to the centers of bars.
4. Field cut and bend bars as necessary to accommodate storm drain pipe.
5. Cast iron ring and cover shall conform to Item 471.
6. Depths other than those shown may be used whenever necessary. Quantities for other depths within the limits of the tables may be found by interpolation.
7. During Stage 1 construction, inlets will not be constructed above subgrade elevation unless permission is granted..
8. A temporary wood cover shall be installed after Stage 1 is completed, and will remain in place until Stage 2 begins.
9. The location of inlet as shown in the plans refers to the control point at the face of curb and mid-point of the inlet.
10. Place bond breaker between inlet deck and concrete pavement. Place a sealed ½" expansion joint along all vertical faces abutting concrete pavement. Seal joint with Class 3,4,5 or 7 joint sealant.

Summary of Quantities

	C.Y. Class "A" Concrete		Lbs. Reinforcing Steel	
"L" (Ft)	"D" = 6'	Add P.L.F.	"D" = 6'	Add P.L.F.
5'	4.2	76.56	671	6.27
10'	6.8	113.59	1051	8.83
15'	11.54	160.00	1431	11.09
20'	14.78	185.25	1811	13.02

Texas Department of Transportation
DALLAS DISTRICT
TYPE 2-C
CURB INLET ON BOX CULVERT
FOR USE W/ 5" TO 8" BARRIER CURB
5',10',15' & 20' OPENINGS
CI(2)-02-BC(DAL)
SHEET 2 OF 2 SHEETS

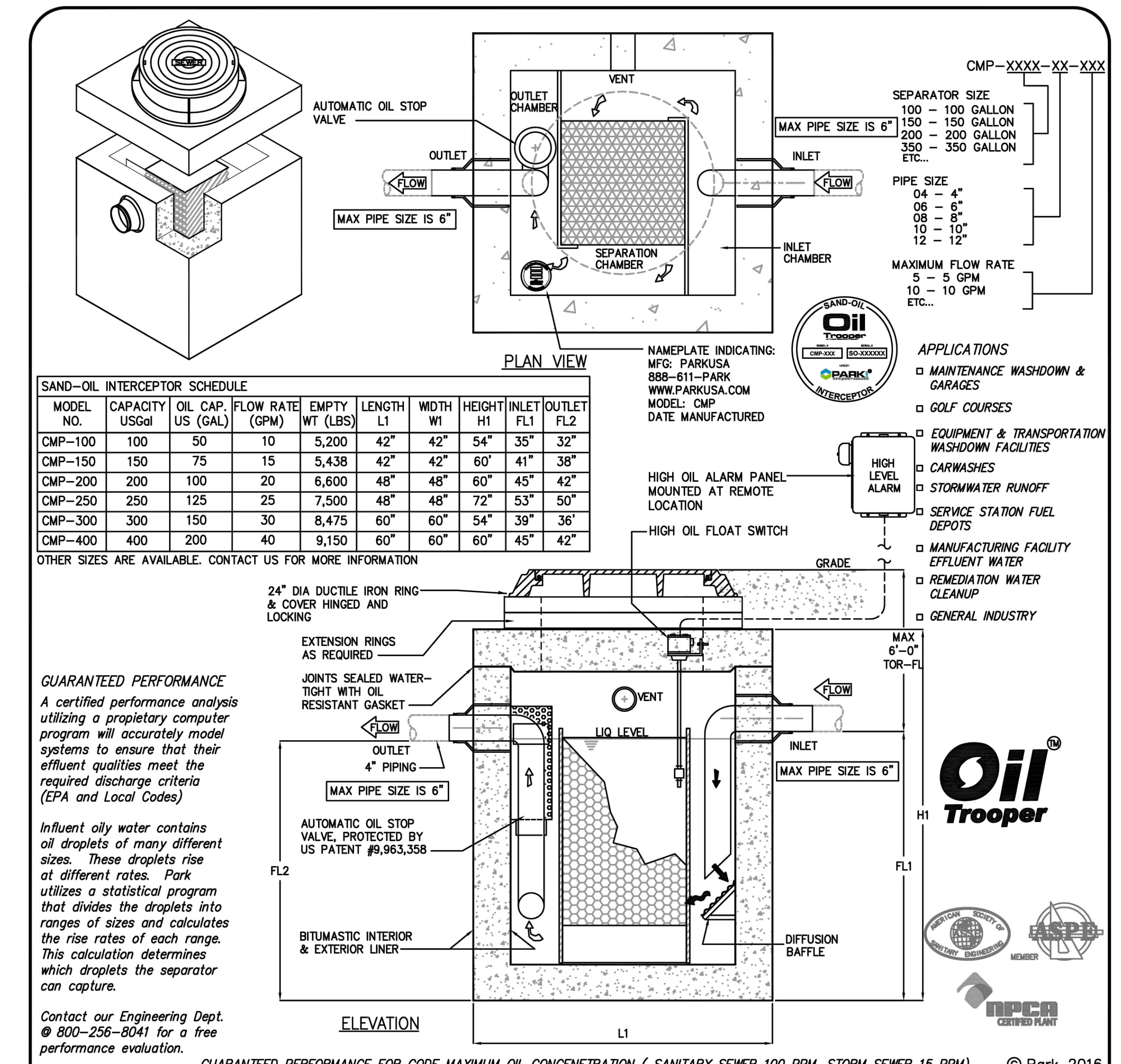
FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6	SEE TITLE SHEET	338

STATE	DIST.	COUNTY
TEXAS	DAL	ROCKWALL

CONT.	SECT.	JOB	HIGHWAY NO.
1290	02	017	SH 276

REVISED ON 9/10/08

CONTRACTOR TO COORDINATE WITH THE CITY OF ROCKWALL AND VENDOR FOR FINAL SELECTION AND DESIGN OF OIL/WATER SEPARATOR


PLAN VIEW
ELEVATION
MAX PIPE SIZE IS 6"
AUTOMATIC OIL STOP VALVE
SEPARATION CHAMBER
DIFFUSION BAFFLE
BITUMASTIC INTERIOR & EXTERIOR LINER
24" DIA DUCTILE IRON RING & COVER HINGED AND LOCKING
EXTENSION RINGS AS REQUIRED
JOINTS SEALED WATER-TIGHT WITH OIL RESISTANT GASKET
HIGH OIL ALARM PANEL MOUNTED AT REMOTE LOCATION
HIGH OIL FLOAT SWITCH
APPLICATIONS
MAINTENANCE WASHDOWN & GARAGES
GOLF COURSES
EQUIPMENT & TRANSPORTATION WASHDOWN FACILITIES
CARWASHES
STORMWATER RUNOFF
SERVICE STATION FUEL DEPOTS
MANUFACTURING FACILITY EFFLUENT WATER
REMEDIATION WATER CLEANUP
GENERAL INDUSTRY
Oil Trooper

SAND-OIL INTERCEPTOR SCHEDULE									
MODEL NO.	CAPACITY USGal	OIL CAP. US (GAL)	FLOW RATE (GPM)	EMPTY WT (LBS)	LENGTH L1	WIDTH W1	HEIGHT H1	INLET FL1	OUTLET FL2
CMP-100	100	50	10	5,200	42"	42"	54"	35"	32"
CMP-150	150	75	15	5,438	42"	42"	60'	41"	38"
CMP-200	200	100	20	6,600	48"	48"	60"	45"	42"
CMP-250	250	125	25	7,500	48"	48"	72"	53"	50"
CMP-300	300	150	30	8,475	60"	60"	54"	39"	36'
CMP-400	400	200	40	9,150	60"	60"	60"	45"	42"

OTHER SIZES ARE AVAILABLE. CONTACT US FOR MORE INFORMATION

GUARANTEED PERFORMANCE

A certified performance analysis utilizing a propietary computer program will accurately model systems to ensure that their effluent qualities meet the required discharge criteria (EPA and Local Codes)

Influent oily water contains oil droplets of many different sizes. These droplets rise at different rates. Park utilizes a statistical program that divides the droplets into ranges of sizes and calculates the rise rates of each range. This calculation determines which droplets the separator can capture.

Contact our Engineering Dept. @ 800-256-8041 for a free performance evaluation.

GUARANTEED PERFORMANCE FOR CODE MAXIMUM OIL CONCENETRATION (SANITARY SEWER 100 PPM, STORM SEWER 15 PPM)

Specifications

CONCRETE : Class I/II concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Rated for H-20 Loading.

REINFORCEMENT: Grade 60 reinforced. No. 4 steel rebar to conform to ASTM A615 on required centers or equal. Bar bending and placement shall conform the latest ACI standards.

D.I. CASTINGS: Manhole frames, covers or grates are manufactured of ductile iron conforming to ASTM A536, AASHTO M306, & AASHTO M105 Standards. Manhole shall be nominal 24" diameter and be traffic duty.

Engineering Data

Interceptor is structurally and hydraulically engineered conforming to Uniform Plumbing Code. Nominal total liquid capacity and oil holding capacity as indicated. Recommended for flow rates of 5 to 25 GPM (consult Park for proper sizing). Manufacturer shall submit performance calculations for oil & water seperation certified by a licensed professional engineer. Field excavation and preparation shall be completed prior to delivery of interceptor. Use dimensional data as shown.

PROJECT:	XX
CUSTOMER:	XX
ENGINEER:	XX
ORDER #:	XX
PROJ #:	XX
DATE:	XX

888.611.PARK
www.park-usa.com
PARK USA DESIGN FOR WATER

SAND-OIL SEPARATOR
MODEL CMP – 100 THRU 400 GALLONS

PM	DRN	CHK	DWG. NO.	REV.
.	.	.	CMP-1	A
DATE 06/16				

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED PROFESSIONAL ENGINEER
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM
LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

KIRKMAN ENGINEERING

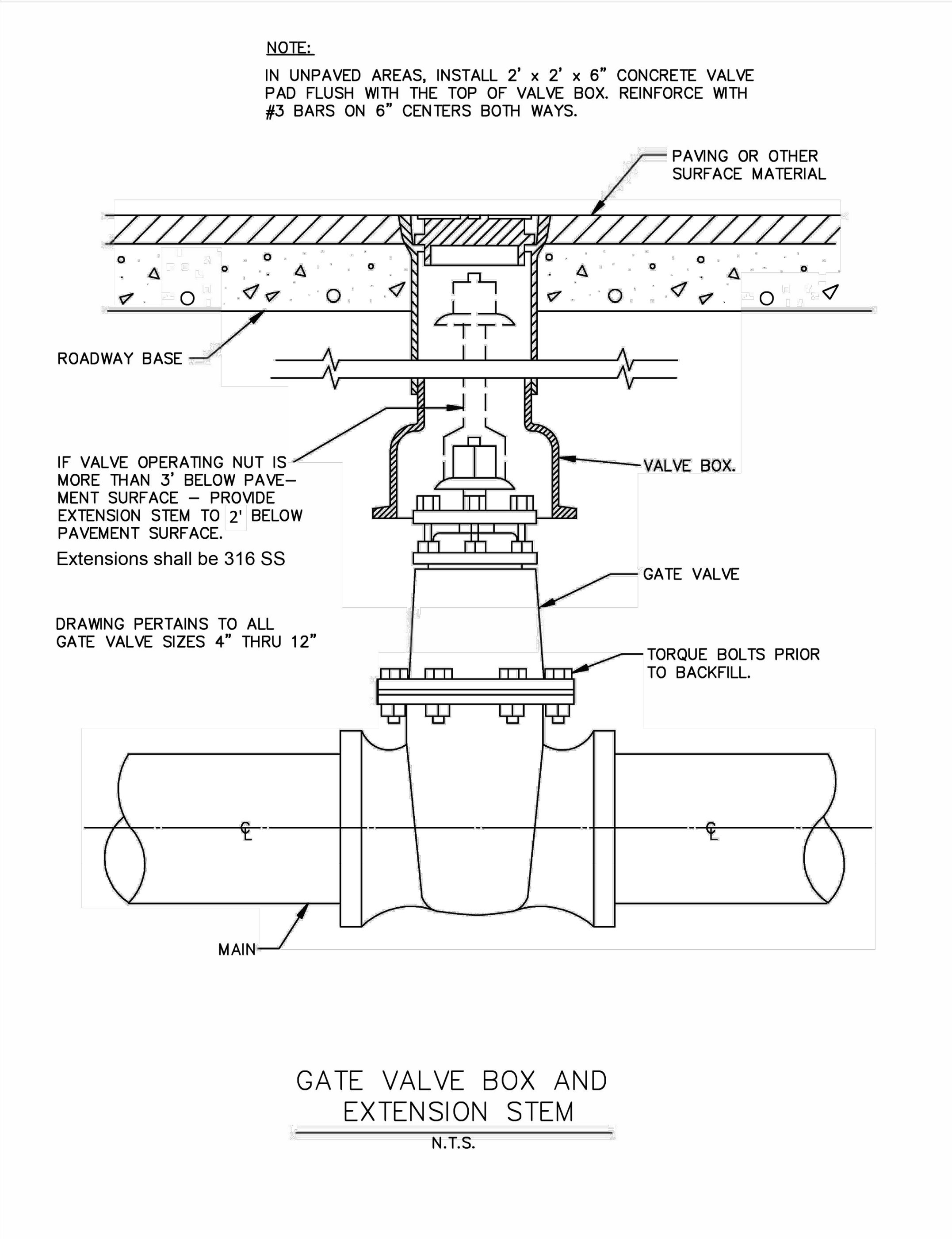
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

DRAINAGE DETAILS

SHEET:
C10.2

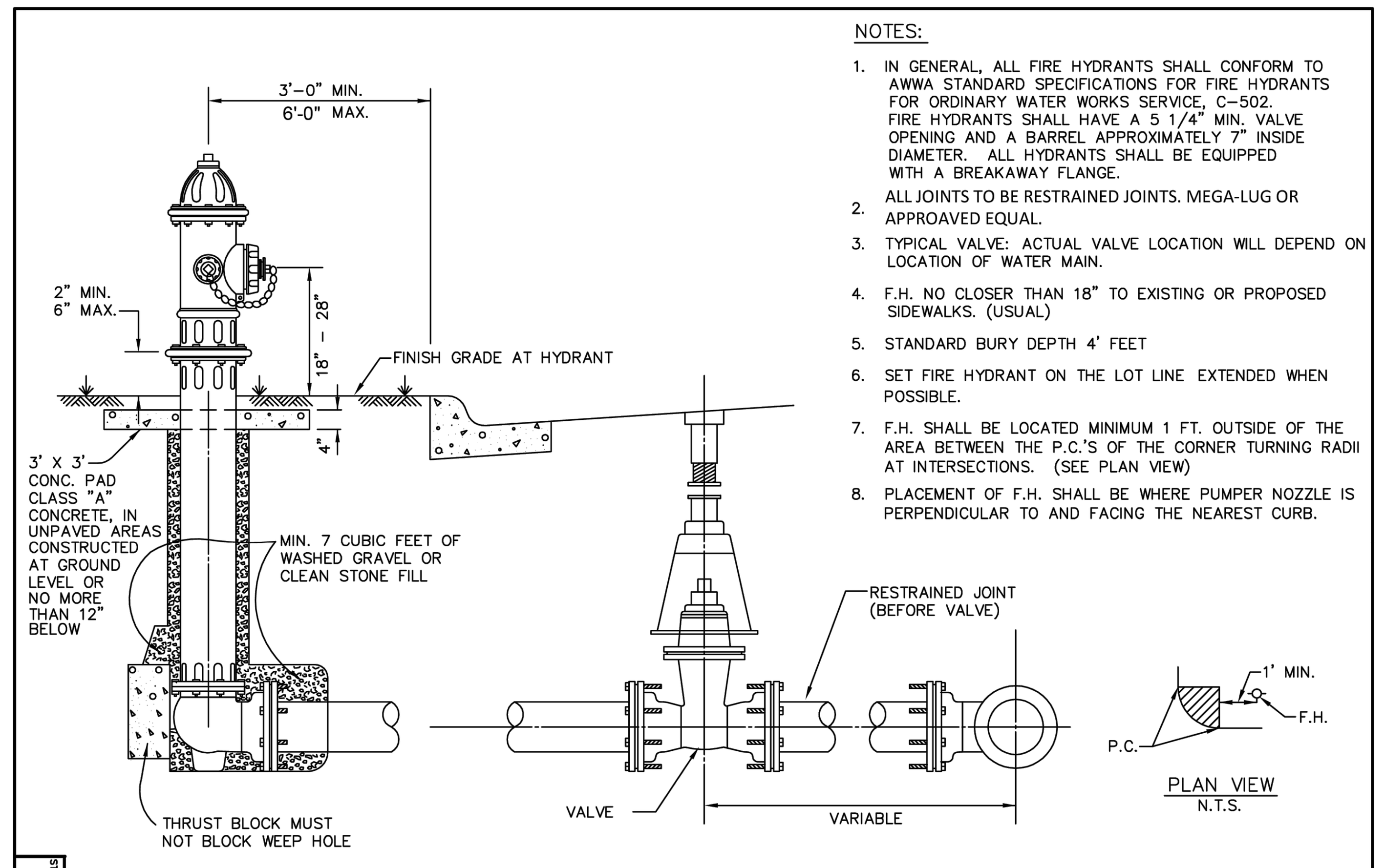
GATE VALVE BOX AND EXTENSION STEM



GATE VALVE 4" TO 12" BOX & EXTENSION STEM	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 502.6.6*
		DATE AUG. '19 / STANDARD DRAWING NO. R-4050

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

FIRE HYDRANT INSTALLATION

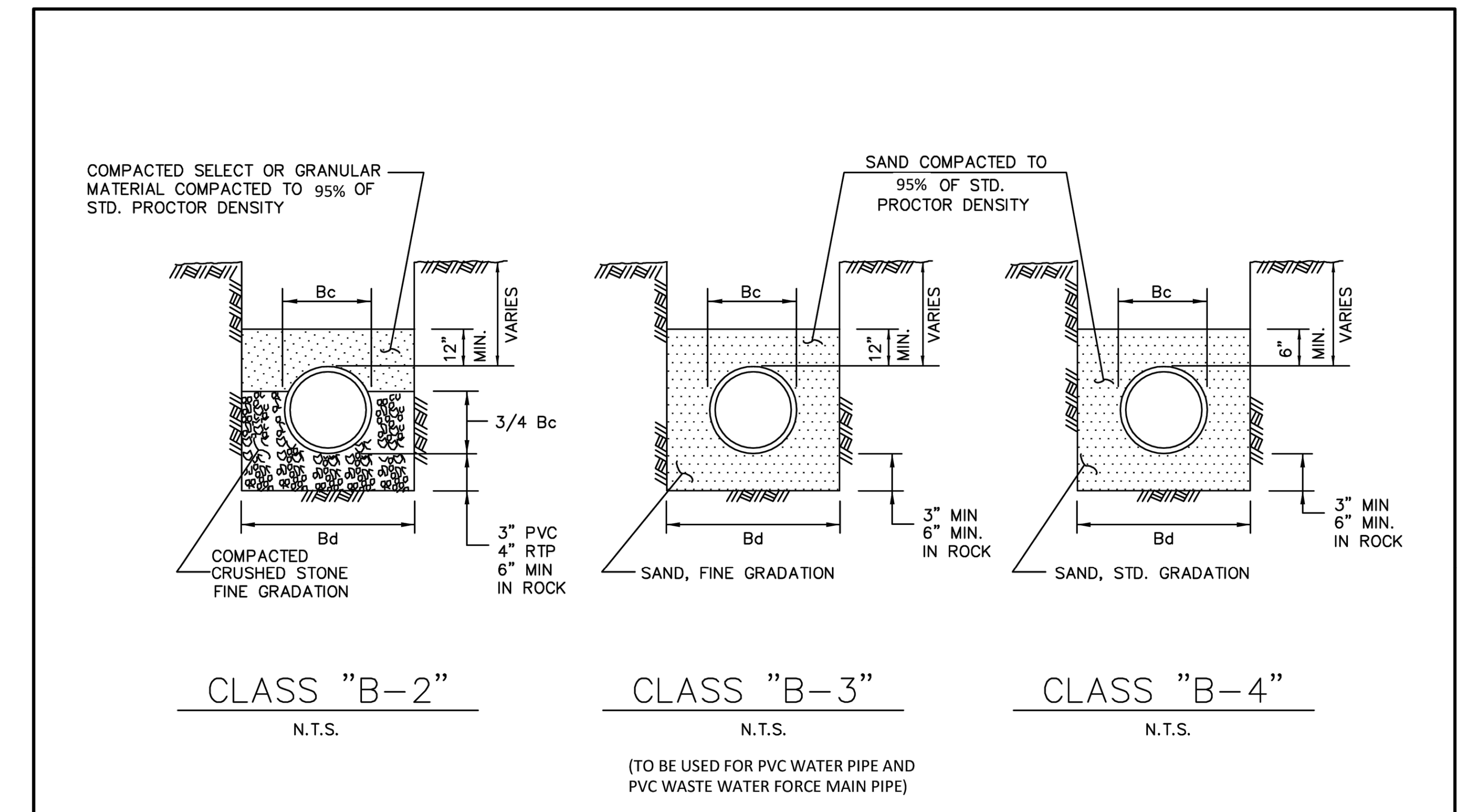


NOTES:

1. IN GENERAL, ALL FIRE HYDRANTS SHALL CONFORM TO AWWA STANDARD SPECIFICATIONS FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, C-502. FIRE HYDRANTS SHALL HAVE A 5 1/4" MIN. VALVE OPENING AND A BARREL APPROXIMATELY 7" INSIDE DIAMETER. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE.
2. ALL JOINTS TO BE RESTRAINED JOINTS. MEGA-LUG OR APPROVED EQUAL.
3. TYPICAL VALVE: ACTUAL VALVE LOCATION WILL DEPEND ON LOCATION OF WATER MAIN.
4. F.H. NO CLOSER THAN 18" TO EXISTING OR PROPOSED SIDEWALKS. (USUAL)
5. STANDARD BURY DEPTH 4' FEET
6. SET FIRE HYDRANT ON THE LOT LINE EXTENDED WHEN POSSIBLE.
7. F.H. SHALL BE LOCATED MINIMUM 1 FT. OUTSIDE OF THE AREA BETWEEN THE P.C.'S OF THE CORNER TURNING RADII AT INTERSECTIONS. (SEE PLAN VIEW)
8. PLACEMENT OF F.H. SHALL BE WHERE PUMPER NOZZLE IS PERPENDICULAR TO AND FACING THE NEAREST CURB.

FIRE HYDRANT INSTALLATION	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 502.3
R-4120		Aug. 2019 / STANDARD DRAWING NO. R-4120

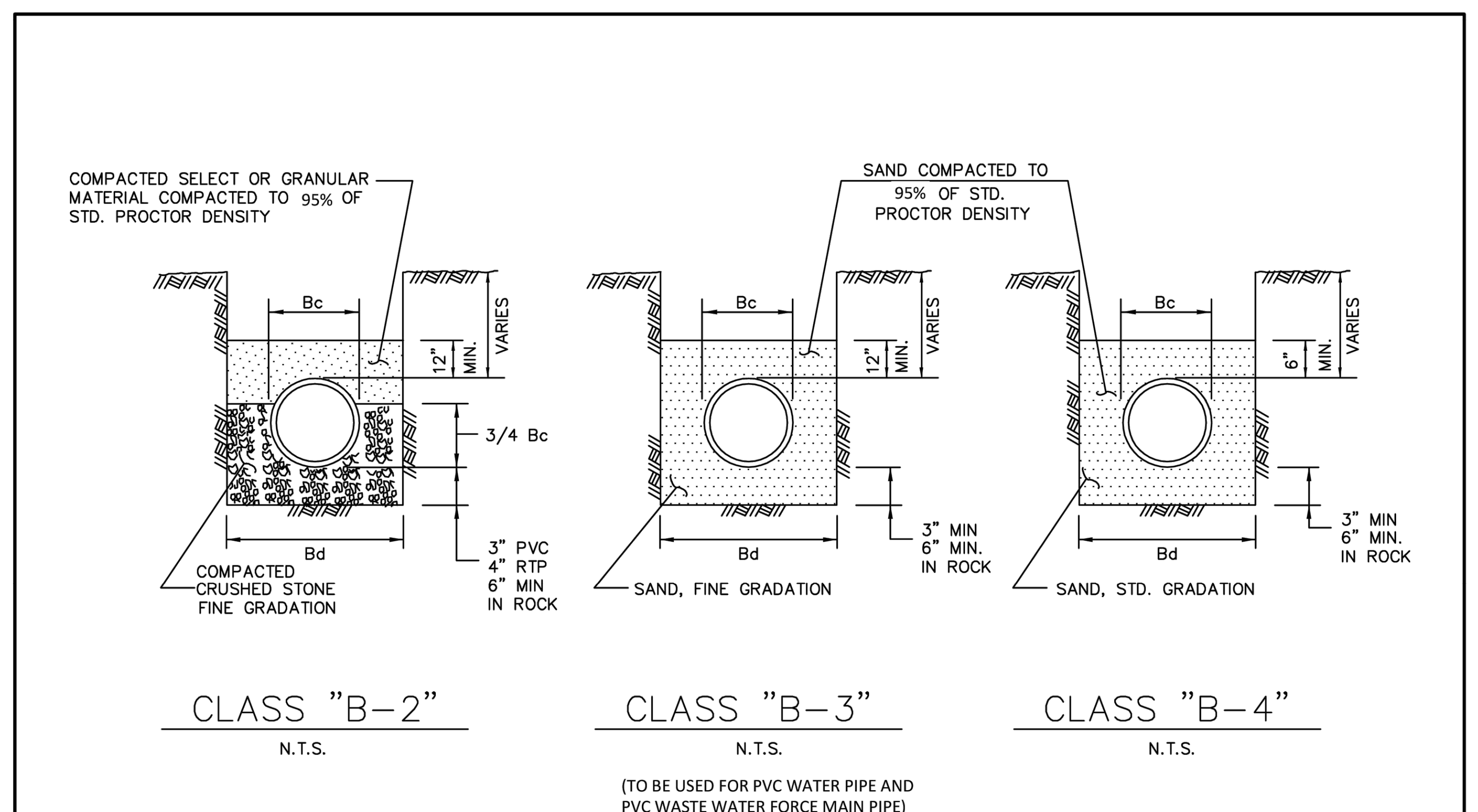
EMBEDMENT CLASS "B-2","B-3", & "B-4"



NOTES:

1. Bc = OUTSIDE DIAMETER OF PIPE
2. Bd = TRENCH WIDTH
3. NO GRANULAR MATERIAL ABOVE ROCK OR STONE EMBEDMENT

EMBEDMENT CLASS "B-2","B-3", & "B-4"	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 504.5
3030		DATE AUG. '19 / STANDARD DRAWING NO. R-3030



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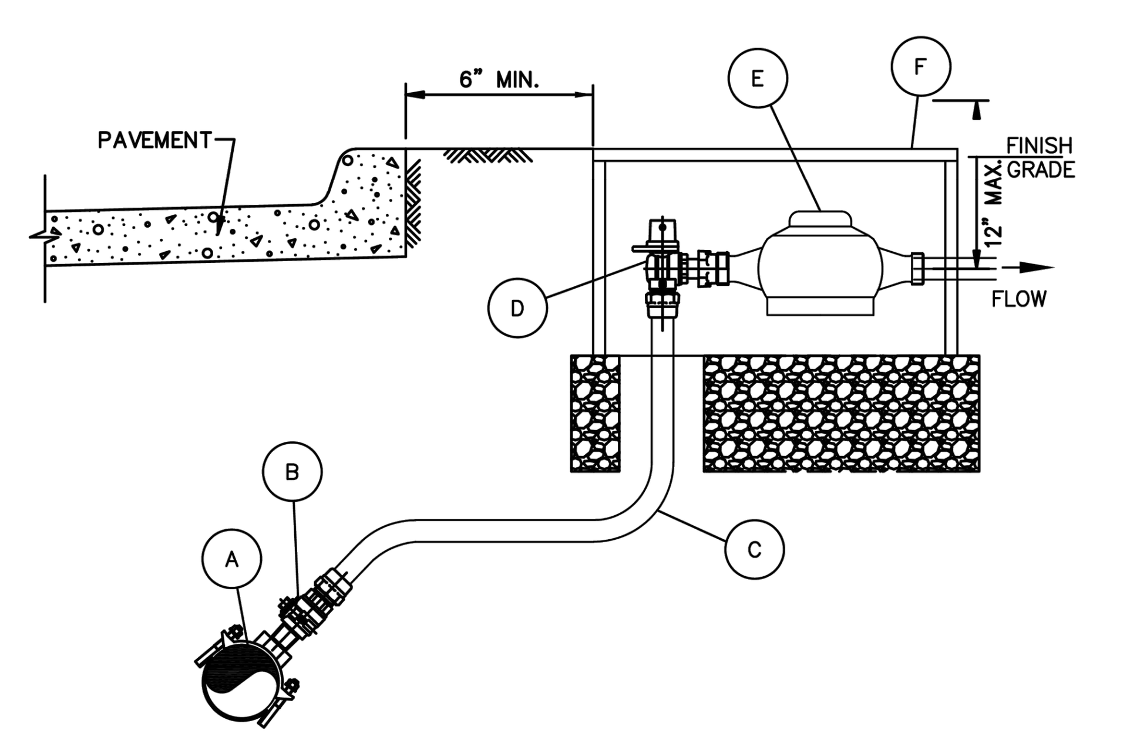
EMBEDMENT CLASS "B-2","B-3", & "B-4"	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 504.5
3030		DATE AUG. '19 / STANDARD DRAWING NO. R-3030

WATER SERVICE INSTALLATION



NOTES:

1. SERVICE PIPE SHALL BE 1" OR 2" SEAMLESS 250 PSI BLUE COLORED POLYETHYLENE ASTM D2737, SDR 9, CTS WATER SERVICE PIPE, NSF61 APPROVED.
2. TOP OF METER BOXES SHALL BE 1" ABOVE FINISHED GRADE.
3. METER BOX SHALL HAVE A MINIMUM OF 6" OF GRAVEL BENEATH METER BOX AS ILLUSTRATED.
4. LOCATION OF THE METER BOX SHALL BE LOCATED TO ALLOW 6" CLEARANCE FROM CURB.

MATERIAL LIST:

A. SERVICE SADDLE SHALL BE BRASS WITH DOUBLE BRONZE FLATTENED STRAPS OR STAINLESS STEEL DOUBLE BOLT WIDE STRAPS. NO BANDED OR HINGED STRAPS SHALL BE ALLOWED. SERVICE SADDLES SHALL MEET AWWA/CC TAPPING OUTLET (TAPERED THREADS) REQUIREMENTS. ALL SERVICE SADDLES SHALL BE PER APPROVED WATER MATERIALS LIST.
B. 1" OR 2" CORPORATION STOP PER APPROVED WATER MATERIALS LIST.
C. 1" OR 2" SERVICE PIPE SHALL BE SEAMLESS 250 PSI BLUE COLORED POLYETHYLENE ASTM D2737, SDR9, CTS WATER SERVICE PIPE, NSF61 APPROVED.
D. 1" OR 2" LOCKING ANGLE METER VALVE (STOP) PER APPROVED WATER MATERIALS LIST.
E. WATER METERS CENTERED IN BOX AS ILLUSTRATED.
F. ROUND METER BOX PER APPROVED WATER MATERIALS LIST.

WATER SERVICE INSTALLATION 1" OR 2" LINE	CITY OF ROCKWALL	DATE AUG '19	DRAWING NO. R-4130

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
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ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
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(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV.	DATE:	DESCRIPTION:

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

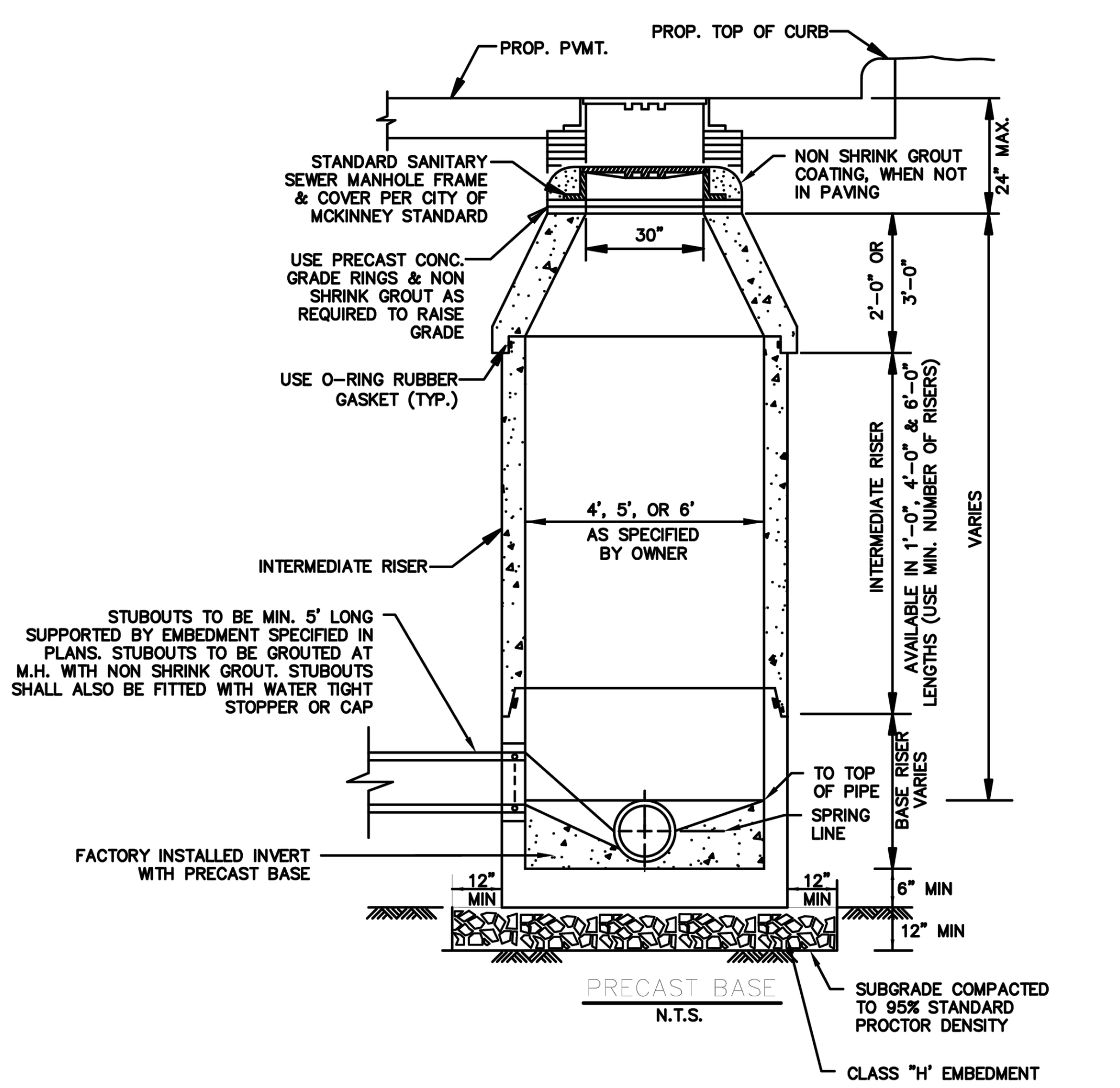
kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

WATER DETAILS

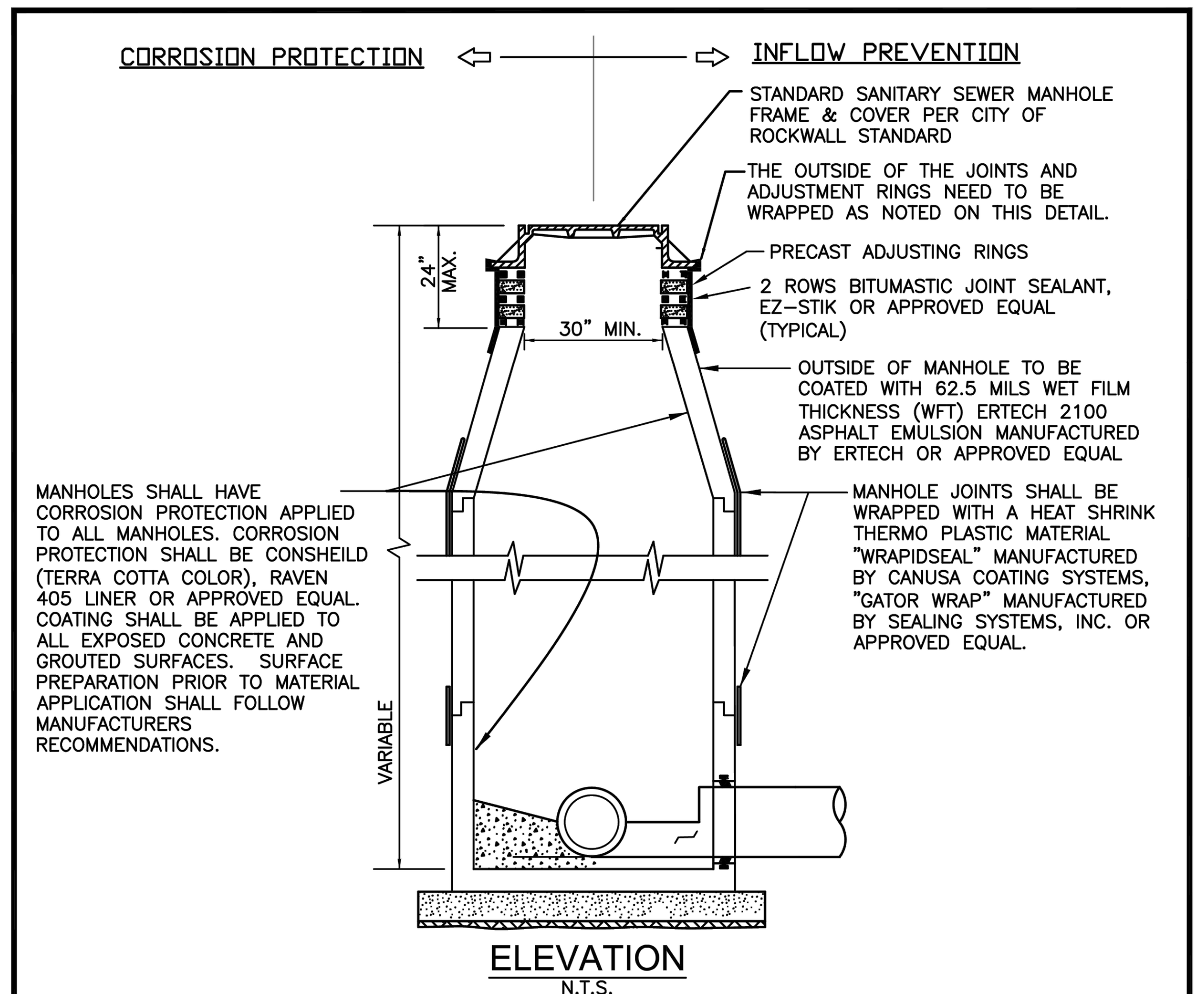
SHEET:
C11.0

NOTES:
1. FIRST MAIN LINE JOINT TO BE A MIN. OF 5' LONG.
2. IF FALSE M.H. ARE REQUIRED, THEY SHALL BE CONSTRUCTED, INSTALLED AND REMOVED PER STD. DWG. NO. 5100.
3. M.H.'S LOCATED OUTSIDE OF PAVING SHALL BE CONSTRUCTED WITH A CONCRETE MOW STRIP PER STD. DWG. NO. R-7005.
4. REFER TO STD. DWG. NO. R-5031 FOR INFLOW PROTECTION AT MANHOLE GRADE RINGS, MANHOLE JOINTS AND ON OUTSIDE OF STRUCTURE.
5. REFER TO STD. DWG. NO. R-5032 FOR CORROSION PROTECTION.
6. CONCRETE SHALL BE 4,200 PSI (7.0 SACK/CY) 28 DAY STRENGTH.
7. REINFORCING SHALL MEET OR EXCEED ASTM C478 REQUIREMENTS.
8. INSTALL GREEN EMS DISK AT ALL MANHOLES.
9. LIP TO BE PRECAST.



PRECAST BASE
N.T.S.

WASTEWATER MANHOLE	CITY OF ROCKWALL		
PRECAST		DATE AUG '19	DRAWING NO. R-5020

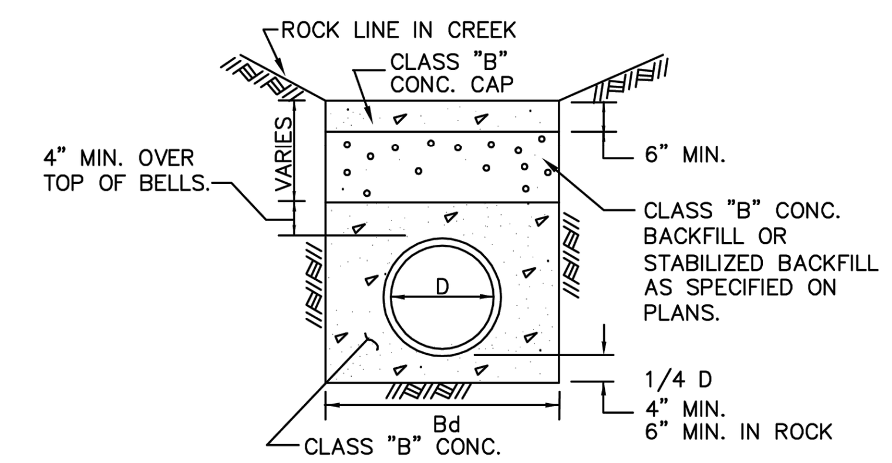


ELEVATION
N.T.S.

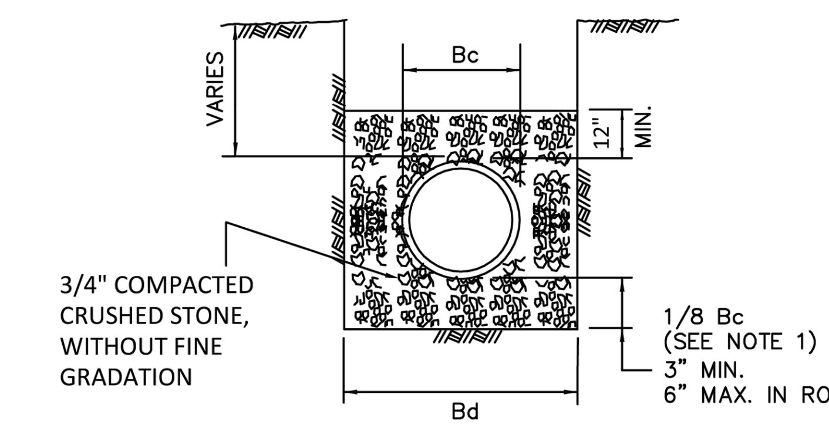
INFLOW PREVENTION NOTES:
1. REQUIRED ON ALL SANITARY SEWER MANHOLES AND LIFT STATION WET WELLS AND VALVE VAULTS.

CORROSION PREVENTION NOTES:
1. TO CORROSION PROTECTIVE COATING PROCESS, PRESSURE WASH AND CLEAN STRUCTURE. FILL BUG HOLES, JOINTS, HONEYCOMBS AND AROUND PIPE PENETRATIONS WITH A CEMENTITOUS REPAIR MATERIAL (CRM) AS NEEDED. USE STRONG SEAL MS2C MANUFACTURED BY THE STRONG COMPANY, INC. OR APPROVED EQUAL. THEN APPLY A MINIMUM OF 125 MILS (1/8 INCH) THICKNESS OF A POLYURETHANE COATING MATERIAL (EXISTING MANHOLES REQUIRE A MINIMUM OF 250 MILS THICKNESS OF POLYURETANE COATING MATERIAL). FOR THE POLYURETHANE COATING MATERIAL USE RAVEN 405 LINER OR APPROVED EQUAL.
2. ADDITIONAL CLEANING, PREPARATION, AND REPAIR METHODS MAY BE REQUIRED FOR EXISTING MANHOLES DEPENDING ON CONDITION ASSESSMENT OF THE MANHOLE. CONTACT ENGINEERING DIVISION FOR ADDITIONAL SPECIFICATIONS.
3. SPARK TESTING IS REQUIRED FOR COATINGS. COST FOR TESTING IS SUBSIDIARY TO OTHER BID ITEMS. CITY INSPECTOR TO BE PRESENT FOR SPARK TESTING. CONTRACTOR TO PROVIDE WRITTEN SPARK TEST RESULTS TO CITY.
4. EXISTING BRICK MANHOLES SHALL BE REPLACED.
5. REQUIRED ON ALL WASTEWATER MANHOLES AND LIFT STATION WET WELLS.

WASTEWATER MANHOLE	CITY OF ROCKWALL		
INFLOW PREVENTION & CORROSION PROTECTION		DATE AUG '19	DRAWING NO. R-5031



CLASS "G-1"
(FOR ROCK DITCHES IN CREEKS)
N.T.S.



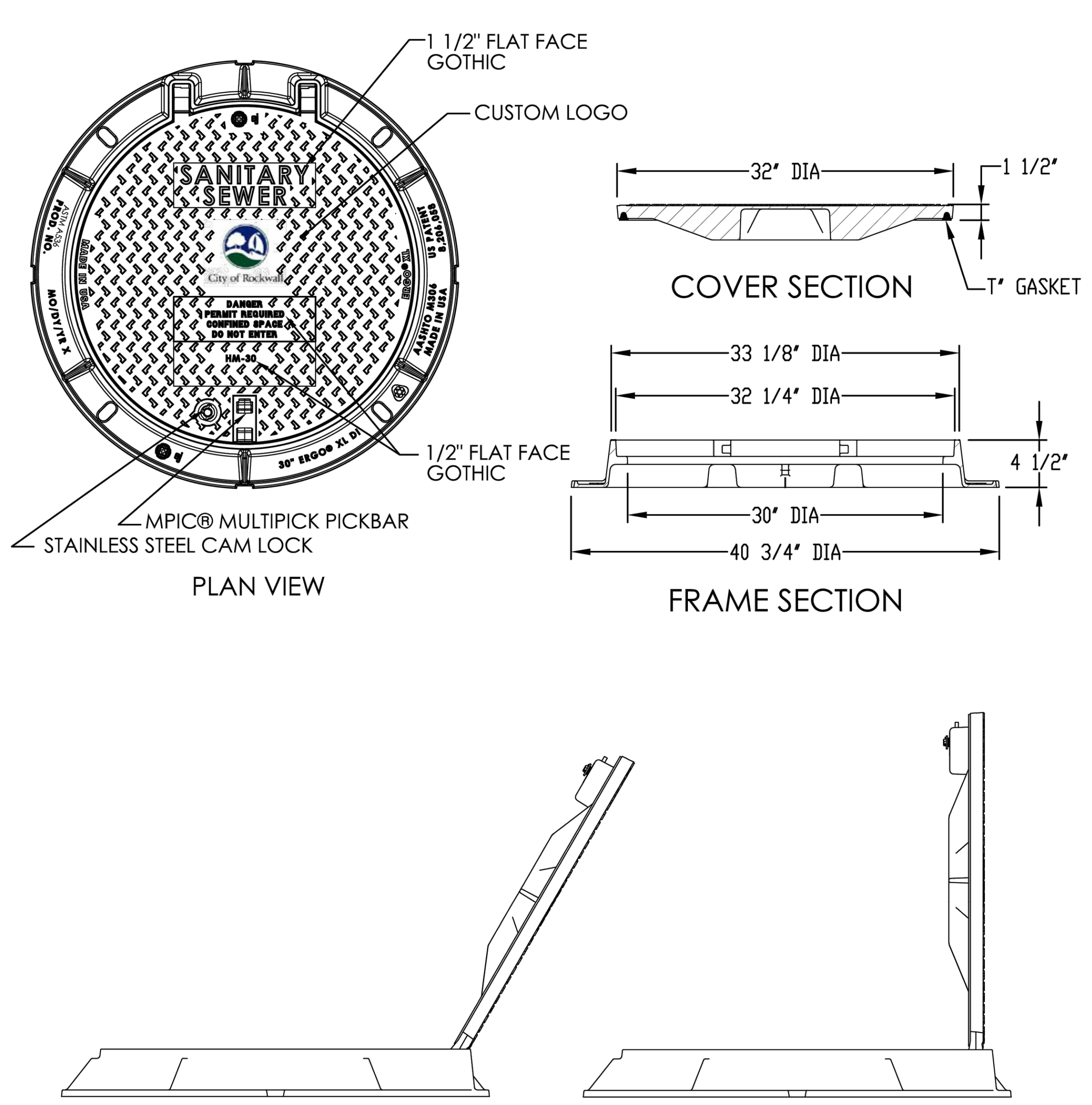
CLASS "H"
N.T.S.

(TO BE USED FOR PVC WASTEWATER PIPE)

NOTES:
1. FOR MAINS 42" DIAMETER AND LARGER, 1/8 Bc SHALL BE TAKEN AS 6".
2. Bd = TRENCH WIDTH
3. Bc = OUTSIDE DIAMETER OF PIPE
4. D = INSIDE DIAMETER OF PIPE

STANDARD DRAWING NO. R-3060

EMBEDMENT	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 504.5	
CLASS "G-1" & "H"		DATE AUG. '19	STANDARD DRAWING NO. R-3060



PLAN VIEW

COVER SECTION

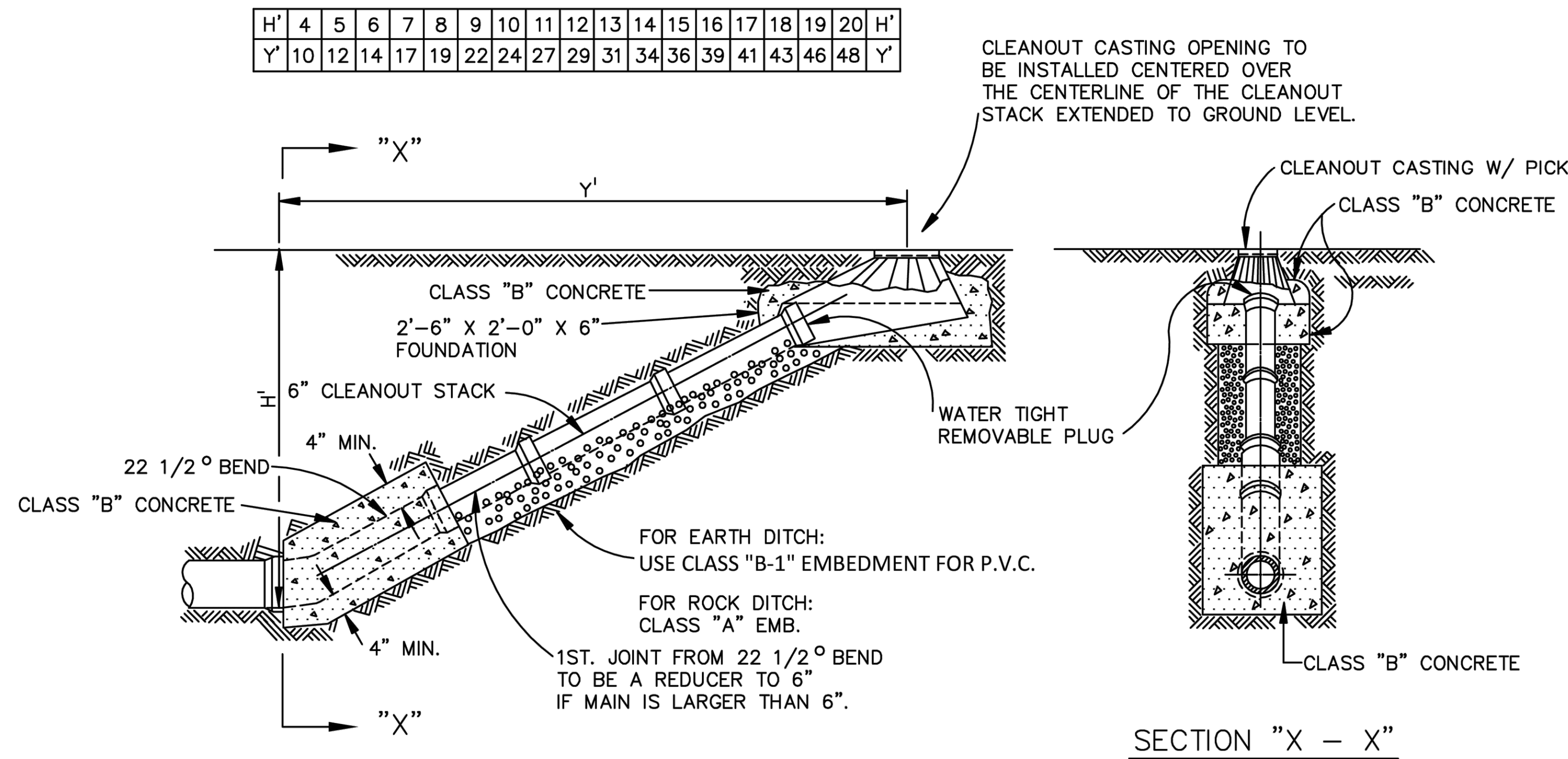
FRAME SECTION

FULLY OPENED POSITION AT 120°

SAFETY LOCK & REMOVAL POSITION AT 90°

WASTEWATER MANHOLE	CITY OF ROCKWALL		
HINGED RIM AND COVER		DATE AUG '19	DRAWING NO. R-5101

H'	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	H'
Y'	10	12	14	17	19	22	24	27	29	31	34	36	39	41	43	46	48	Y'



PROFILE VIEW
N.T.S.

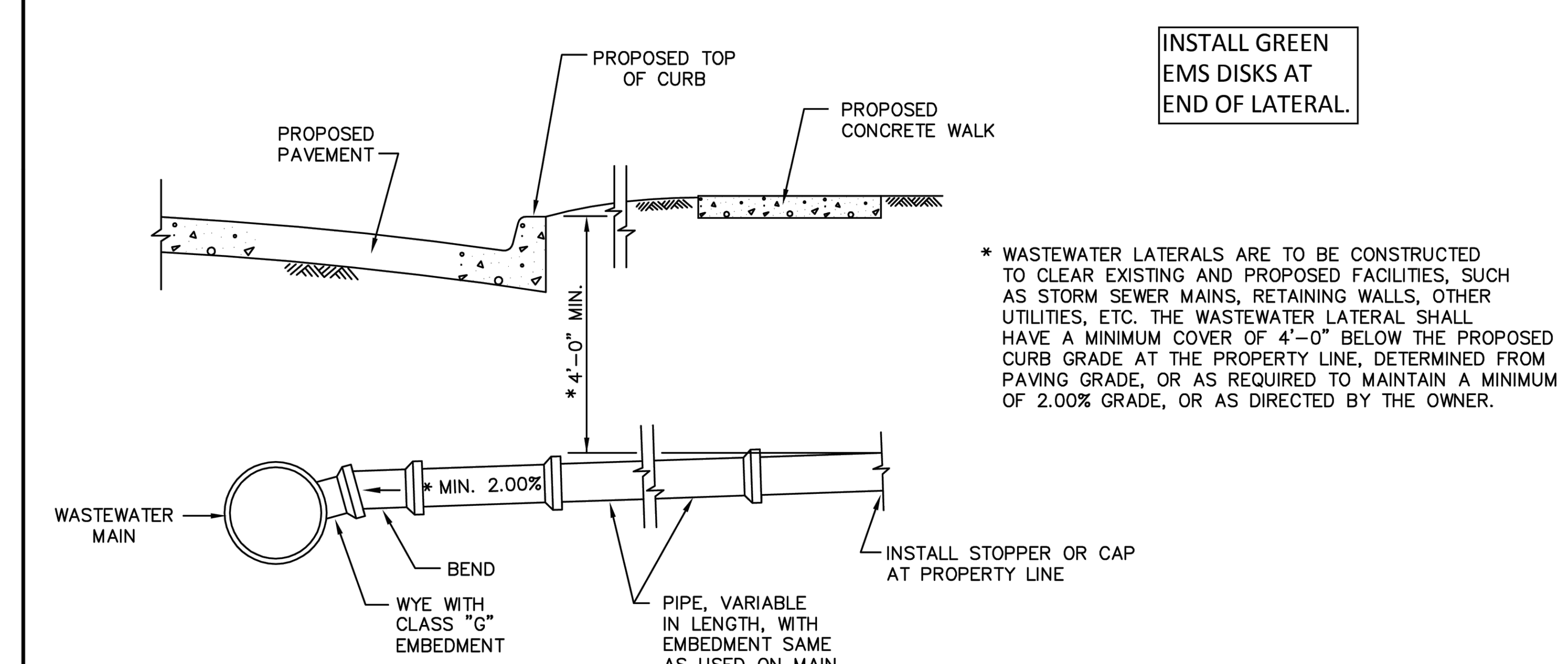
SECTION "X – X"
N.T.S.

NOTES:
1. IF CLEANOUT IS PLACED IN ADVANCE OF PAVEMENT PLACE SAND AROUND CLEANOUT CASTING IN LIEU OF CLASS "B" CONCRETE.
2. IF CLEANOUT IS OUTSIDE OF PAVEMENT, CENTER CASTING IN 15"x15" CLASS "A" CONCRETE PAD "4" THICK.

STANDARD DRAWING NO. R-5110

WASTEWATER MAIN	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 502.2	
CLEANOUT		DATE Mar. 2018	STANDARD DRAWING NO. R-5110

INSTALL GREEN EMS DISKS AT END OF LATERAL.



* WASTEWATER LATERALS ARE TO BE CONSTRUCTED TO CLEAR EXISTING AND PROPOSED FACILITIES, SUCH AS STORM SEWER MAINS, RETAINING WALLS, OTHER UTILITIES, ETC. THE WASTEWATER LATERAL SHALL HAVE A MINIMUM COVER OF 4'-0" BELOW THE PROPOSED CURB GRADE AT THE PROPERTY LINE, DETERMINED FROM PAVING GRADE, OR AS REQUIRED TO MAINTAIN A MINIMUM OF 2.00% GRADE, OR AS DIRECTED BY THE OWNER.

WASTEWATER LATERAL STUBOUT
(FOR FUTURE CONNECTION, 4" OR 6" AS SPECIFIED)
N.T.S.

STANDARD DRAWING NO. R-5150

WASTEWATER LATERAL STUBOUT	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 502.10	
IN ADVANCE OF PAVING		DATE Mar. 2018	STANDARD DRAWING NO. R-5150

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
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LICENSED PROFESSIONAL ENGINEER
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CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

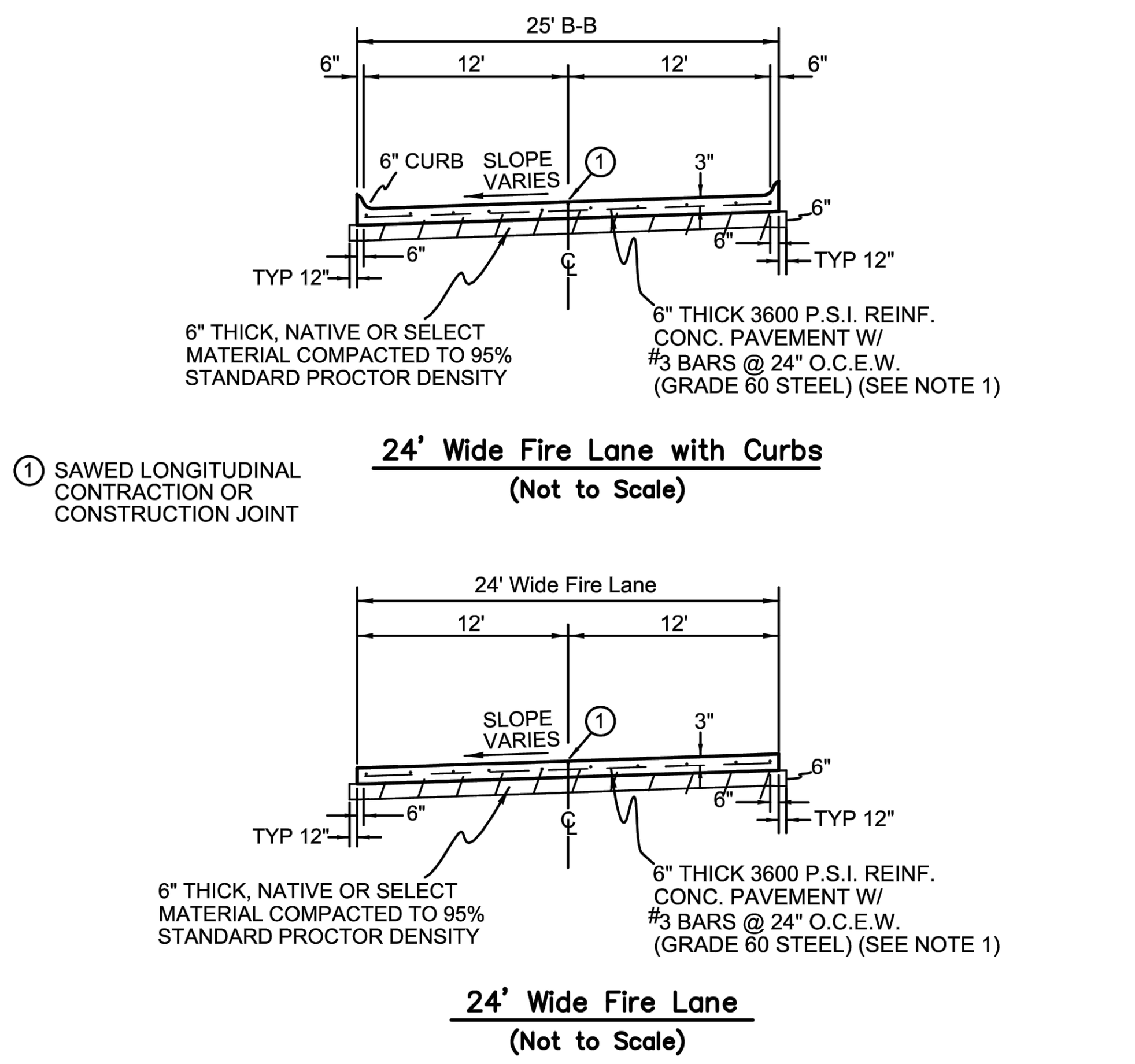
kirkman ENGINEERING
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005
ISSUE DATE: 05/19/2022

SANITARY SEWER DETAILS

SHEET:
C12.0

FULL PATH: K:\Jobs\LNK21005_rockwall Industrial\Drawings\03_ENGR\03 - Production\C13.0 SANITARY SEWER DETAILS_LNK21005
FILENAME: C13.0 SANITARY SEWER DETAILS_LNK21005.dwg
PLOTTED DATE: 10/2/2023



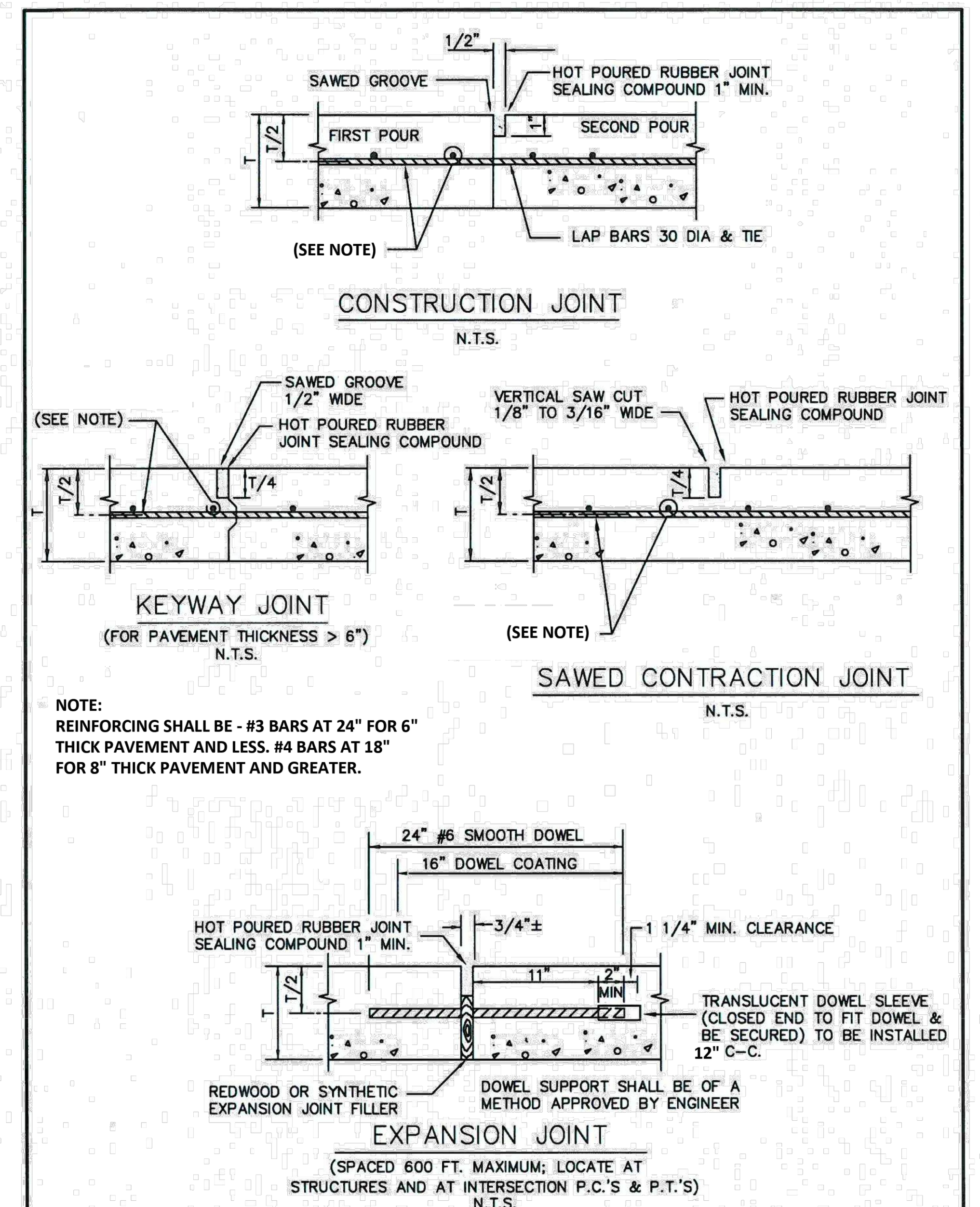
24' Wide Fire Lane

(Not to Scale)

NOTES:

1. Street pavement cement content to be no less than 6 sacks per cubic yard for machine placed and not less than 6.5 sacks per cubic yard for hand placed.
2. Sidewalk Cement content of not less than 5.5 sack per cubic yard.
3. No sand allowed under pavement or sidewalks.

REINFORCED CONCRETE PAVEMENT	CITY OF ROCKWALL	DATE	DRAWING NO.
FIRE LANE		AUG. '19	R-2041



REINFORCED CONCRETE PAVEMENT	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE	
		303.5.4.	
JOINTS		DATE: Mar. 2018	STANDARD DRAWING NO.: R-2050

PEDESTRIAN ACCESSIBILITY (WITHIN PUBLIC R.O.W.)

All newly constructed sidewalks, curb ramps and crosswalks installed within City of Rockwall public rights-of-way shall be considered a pedestrian access route and shall conform to the most current Guidelines for Public Rights-of-Way created by the United States Access Board.

CURB RAMPS

1. All slopes shown are MAXIMUM ALLOWABLE. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
2. Landings shall be 5'x 5' minimum with a maximum 2% slope in the transverse and longitudinal directions..
3. Clear space at the bottom of curb ramps shall be a minimum of 5'x 5' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
4. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
5. Additional information on curb ramp location, design, light reflective value and texture may be found in the most current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102. Federal guidelines shall supersede any conflicts.
6. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps and accessible routes shall align with theoretical crosswalks unless otherwise directed.
7. Handrails are not required on curb ramps.
8. Provide a flush transition where the curb ramps connect to the street.
9. Accessible routes are considered "ramps" when longitudinal slopes are between 5% and 8.3% (maximum allowable). Sidewalks under 5% longitudinal slope are deemed accessible routes and must follow all applicable guidelines.

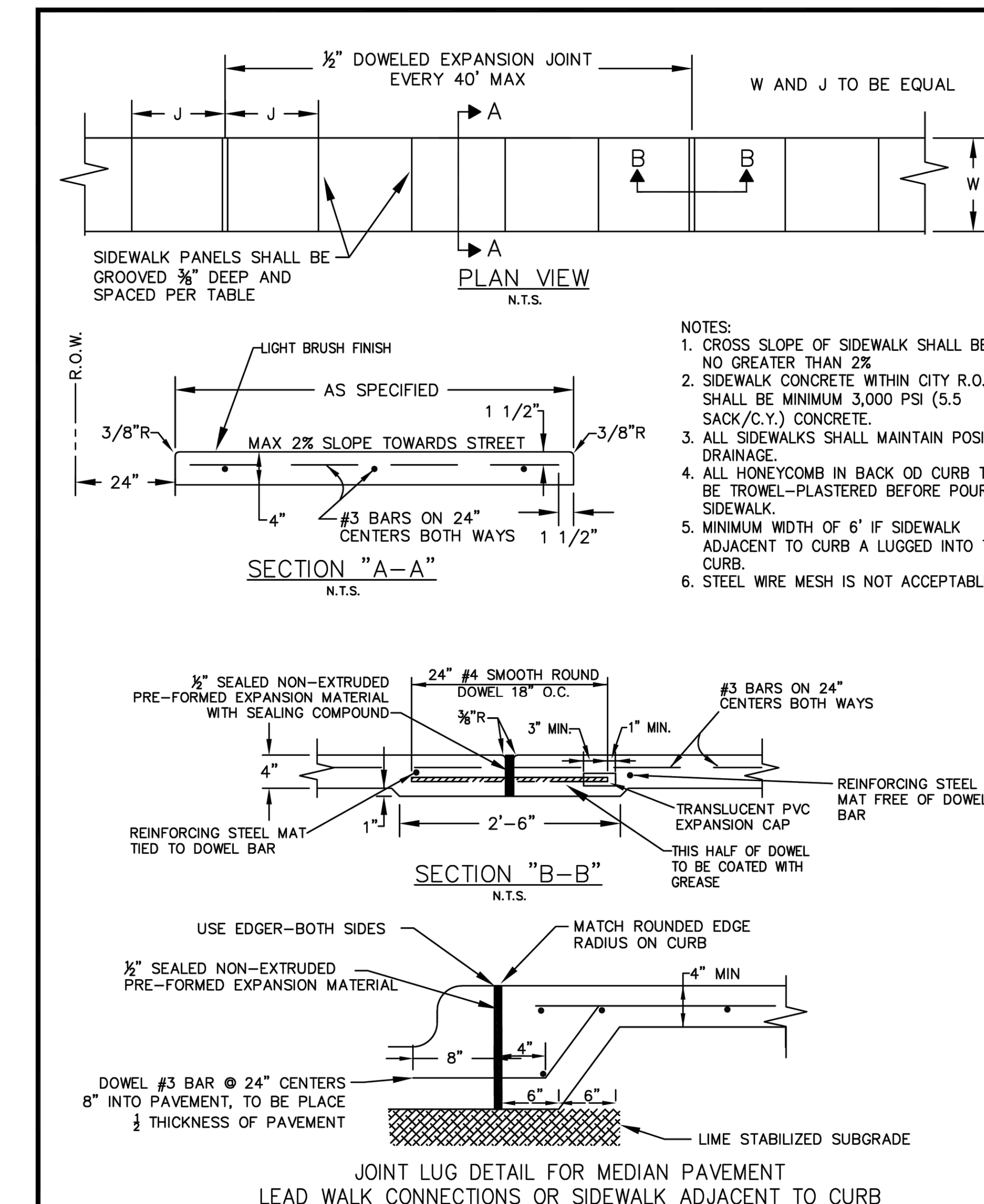
DETECTABLE WARNING DEVICE

10. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces. Furnish and install an approved cast-in-place dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
11. Detectable Warning Materials shall be truncated dome plates in the color approved by the City. Install products in accordance with manufacturer's specifications.
12. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
13. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
14. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. When placed on the ramp, align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Where detectable warning surfaces are provided on a surface with a slope that is less than 5 percent, dome orientation is less critical. Detectable warning surfaces may be curved along the corner radius.

SIDEWALKS

15. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
16. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
17. Street grades and cross slopes shall be as shown elsewhere in the plans.
18. Changes in level greater than 1/4 inch are not permitted (1/2 inch with bevel).
19. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
20. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.

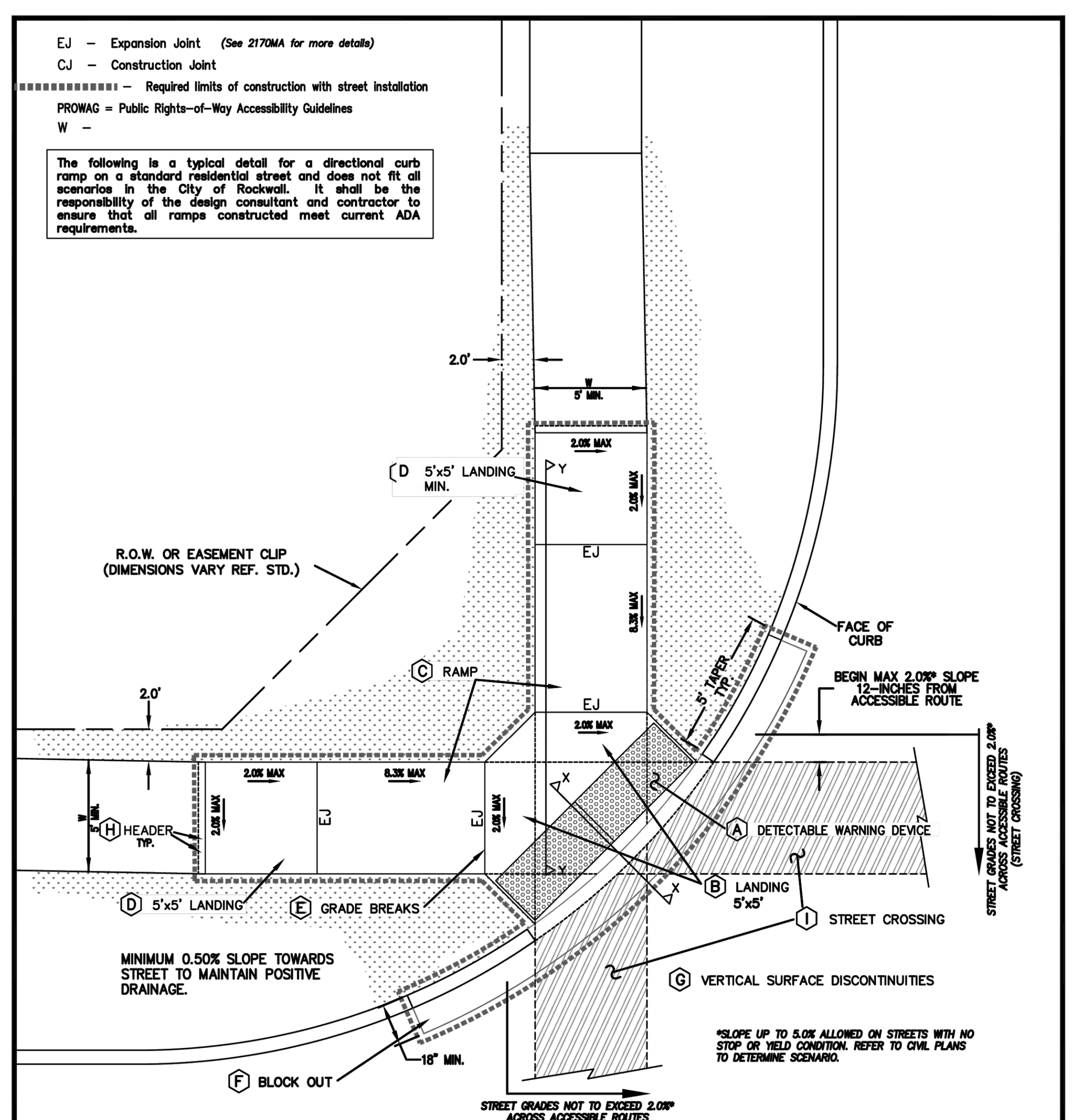
DIRECTIONAL CURB RAMP	CITY OF ROCKWALL	DATE	DRAWING NO.
		MAR. '17	R-2125D



NOTES:

1. CROSS SLOPE OF SIDEWALK SHALL BE NO GREATER THAN 2%
2. SIDEWALK CONCRETE WITHIN CITY R.O.W. SHALL BE MINIMUM 3,000 PSI (5.5 SACK/C.Y.) CONCRETE.
3. ALL SIDEWALKS SHALL MAINTAIN POSITIVE DRAINAGE.
4. ALL HONEYCOMB IN BACK OD CURB TO BE TROWEL-PLASTERED BEFORE POURING SIDEWALK.
5. MINIMUM WIDTH OF 6' IF SIDEWALK ADJACENT TO CURB A LUGGED INTO THE CURB.
6. STEEL WIRE MESH IS NOT ACCEPTABLE.

REINFORCED CONCRETE SIDEWALKS	CITY OF ROCKWALL	DATE	DRAWING NO.
JOINTS AND SPACING		AUG '19	R-2170



NOTES: All newly constructed sidewalks, curb ramps and crosswalks installed within City of Rockwall public rights-of-way shall be considered a pedestrian access route and shall conform to the most current "Draft" Guidelines for Public Rights-of-Way created by the United States Access Board.

1. SEE DETAIL R-2125B FOR RAMP FEATURE DESCRIPTIONS
2. SEE DETAIL R-2125C FOR SECTIONS X-X AND Y-Y
3. SEE DETAIL R-2125D FOR ADDITIONAL NOTES

DIRECTIONAL CURB RAMP	CITY OF ROCKWALL	DATE	DRAWING NO.
		MAR. '17	R-2125A

A. Detectable Warning Devices (DWD) shall be pre-manufactured cast-in-place truncated dome plates installed to the manufacturer's specifications, and shall meet all ADA requirements. No Brick Pavers allowed. Color to be approved by the City. DWD shall be 24 inches in length for the full width of the street connection starting at the back of curb. A maximum 2-inch border shall be allowed on the sides of the DWD for proper installation.

B. Also known as "Clear Space" per ADA PROWAG, the City requires a minimum landing space of 5-foot by 5-foot at the bottom of every ramp. This landing space shall have a cross slope in both directions that does not exceed 2.0%. and shall be wholly outside the parallel vehicular travel path.

C. The ramp component of the directional curb ramp shall have a continuous longitudinal slope more than 5% and less than 8.3%. The ramp shall also have a cross slope of no more than 2.0%. Length of ramp can vary, but shall not exceed 15 feet to achieve desired elevation change.

D. Also known as "Turning Space" per ADA PROWAG, a minimum landing space of 5-foot by 5-foot shall be at the top of every ramp. This landing (turning) space shall have a cross slope in both directions that does not exceed 2.0%. Landing must match width of sidewalk and length shall be the same distance ("Squared" Landing).

E. All curb ramps shall have grade breaks at the top and bottom that are perpendicular to the direction of the ramp run. Where the ends of the bottom grade break are less than or equal to 5 feet, the DWD shall be placed within the ramp at the bottom grade break. Where either end of the bottom grade break is greater than 5 feet, the DWD shall be placed behind the back of the curb.

F. Paving contractor shall leave block out with a keyway joint installed, minimum of 18 inches measured from back of curb. Block out shall be poured monolithically with Curb Ramp. Concrete shall tie to street paving with a keyway joint per NCTCOG detail 2050. No curb shall be constructed where a DWD is provided. The curb on either side shall have a typical 5 foot taper to transition from the standard 6-inch curb height to be flush with ramp.

G. All work associated with accessible routes shall be installed flush with all features to minimize vertical surface discontinuities. Each segment along accessible route shall be flush with no more (zero tolerance) than a ¼-inch grade separation (elevation difference), or ½-inch grade separation if beveled (bevel slope shall not be steeper than 50%).

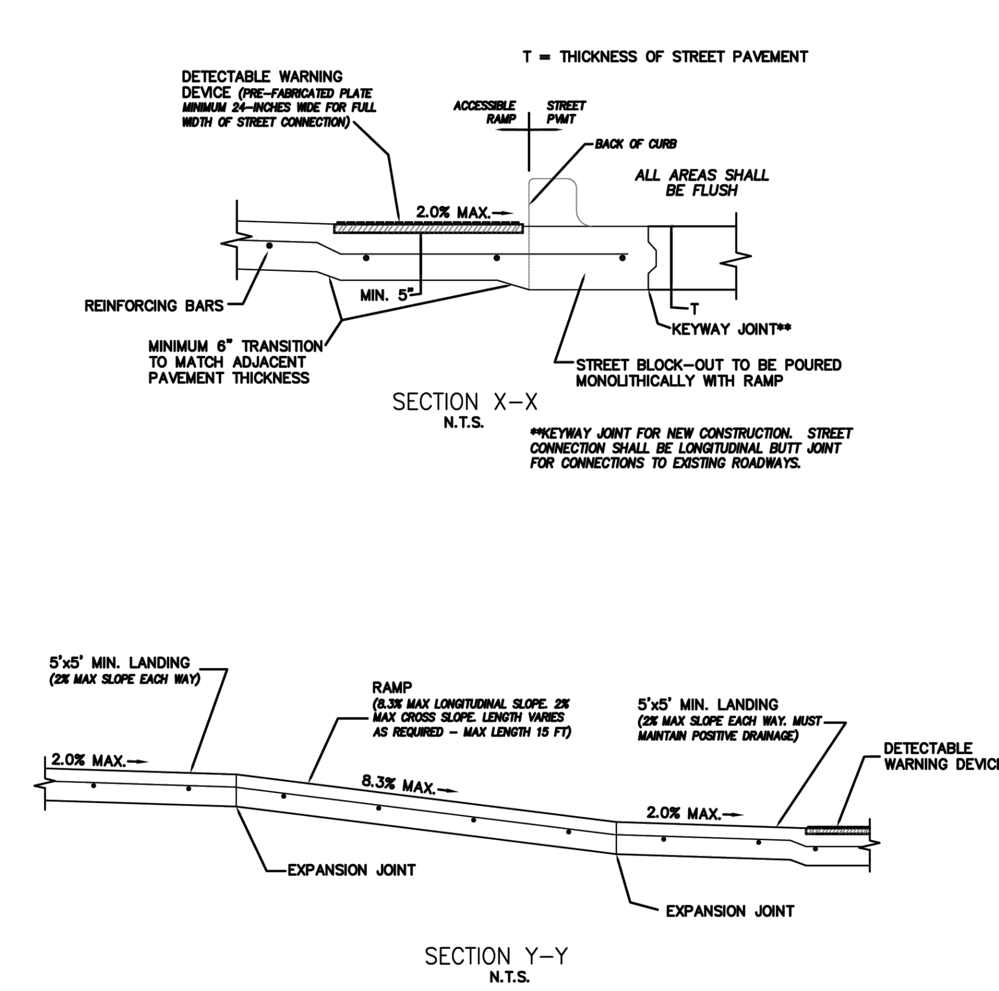
H. A sidewalk header shall be constructed at ends of all work performed.

I. Street crossings shall adhere to same guidelines as other accessible routes within public right-of-way, and shall be for the full width of the in-line accessible route. Cross slope shall not exceed 2%*. New street construction shall incorporate all ADA design requirements. It shall be the responsibility of the Design Professional and Contractor to ensure all street crossings meet the requirements of PROWAG. Street alterations on existing streets to bring to compliance shall be at the City Engineer's discretion.

J. All curbs constructed as part of an ADA Ramp shall match City curb standards.

** See PROWAG special design considerations when street crossing has no stop or yield condition.*

DIRECTIONAL CURB RAMP	CITY OF ROCKWALL	DATE	DRAWING NO.
		MAR. '17	R-2125B



NOTE: ALL SIDEWALK CURB RAMPS WILL BE 3,600 PSI (6.5 SACK/CY) CONCRETE.

DIRECTIONAL CURB RAMP	CITY OF ROCKWALL	DATE	DRAWING NO.
		MAR. '17	R-2125C

GENERAL NOTES:

1. REINFORCED CONCRETE PAVEMENT:
   A. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT UNLESS OTHERWISE APPROVED BY THE OWNER.
   B. CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS SPECIFIED FOR THE PAVEMENT.
   C. BAR LAPS SHALL BE 30 DIAMETERS.
   D. REINFORCING BARS SHALL BE SUPPORTED BY CHAIRS OR OTHER DEVICES APPROVED BY THE OWNER.
2. SUBGRADE: (UNLESS OTHERWISE SPECIFIED BY OWNER)
   A. SUBGRADE UNDER ALL PAVEMENTS SHALL BE STABILIZED TO A MINIMUM DEPTH OF SIX (6") INCHES WITH HYDRATEDLIME CEMENT. LABORATORY TESTS WILL BE PERFORMED TO DETERMINE THE AMOUNT OF LIME OR CEMENT TO USE.

PAVEMENT SYSTEMS	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE	
		302,303	
GENERAL NOTES		DATE: Mar. 2018	STANDARD DRAWING NO.: R-2190

E2022-013

STATE OF TEXAS
JEREMY B. NELSON
138740
LICENSED PROFESSIONAL ENGINEER
05/19/2022

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BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

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TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

PAVING DETAILS

SHEET:

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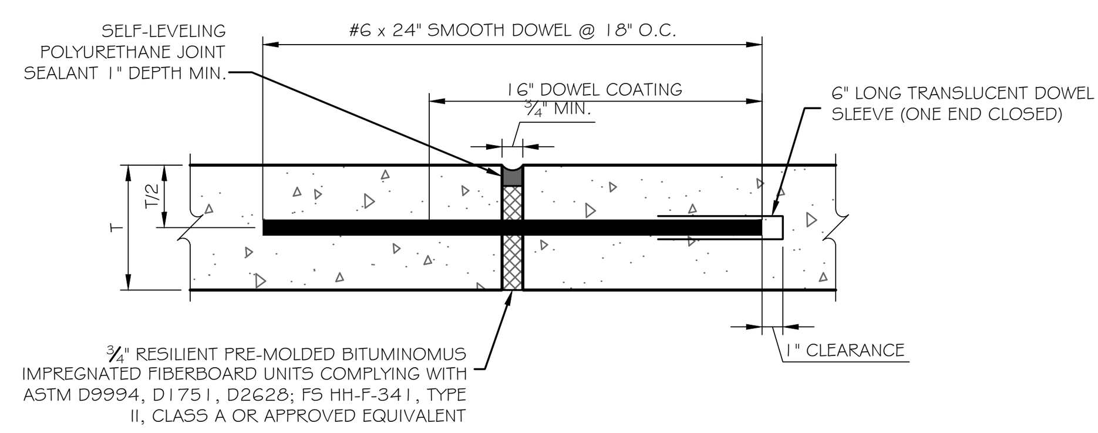
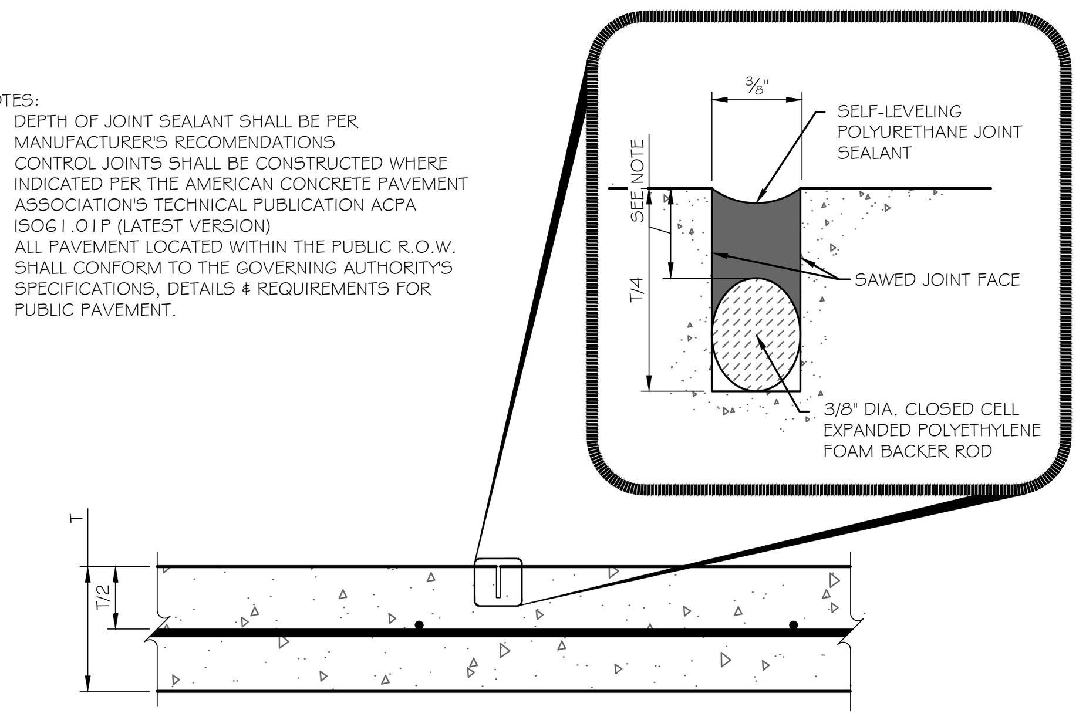


NOTES:
1. SLEEVES FOR DOWELS SHALL HAVE AN INSIDE DIAMETER OF 1/16" GREATER THAN THE DIAMETER OF THE DOWELS AND SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO USE.
2. EXPANSION JOINTS SHALL BE CONSTRUCTED A MAXIMUM OF 500' APART ON STRAIGHT PAVING, AND WHERE INDICATED PER THE AMERICAN CONCRETE PAVEMENT ASSOCIATION'S TECHNICAL PUBLICATION ACPA IS061.01P (LATEST VERSION)
3. DOWEL COATING SHALL BE ASPHALTIC COATING.
4. DOWELS SHALL NOT BE TIED TO OTHER REINFORCEMENT.
5. REFER TO SIDEWALK DETAILS THIS SHEET FOR EXPANSION JOINTS IN SIDEWALK AREAS.
6. ALL PAVEMENT LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR PUBLIC PAVEMENT.
7. FINISHED SURFACES SHALL BE INSTALLED FLUSH WITH A DIFFERENTIAL ELEVATION NOT TO EXCEED 1/8".

EXPANSION JOINT (ISOLATION)

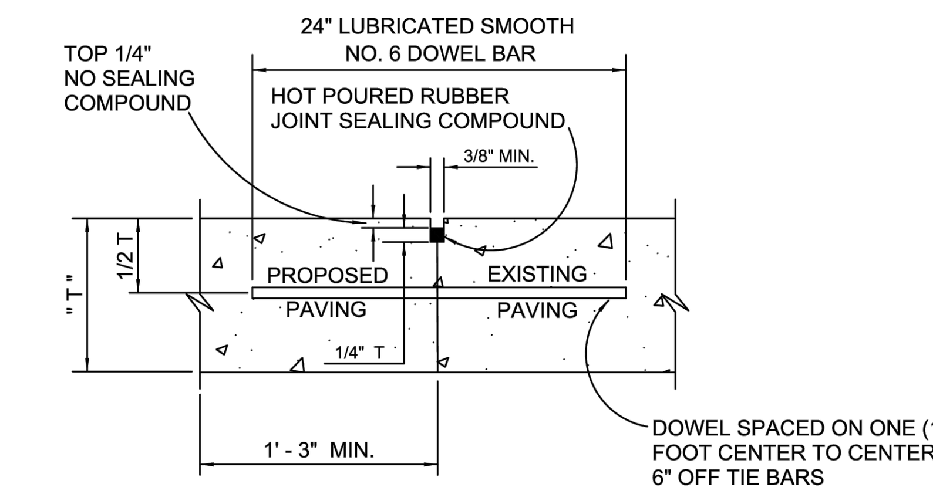
N.T.S.

NOTES:
1. DEPTH OF JOINT SEALANT SHALL BE PER MANUFACTURER'S RECOMENDATIONS
2. CONTROL JOINTS SHALL BE CONSTRUCTED WHERE INDICATED PER THE AMERICAN CONCRETE PAVEMENT ASSOCIATION'S TECHNICAL PUBLICATION ACPA IS061.01P (LATEST VERSION)
3. ALL PAVEMENT LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR PUBLIC PAVEMENT.



CONTROL JOINT (CONTRACTION)

N.T.S.



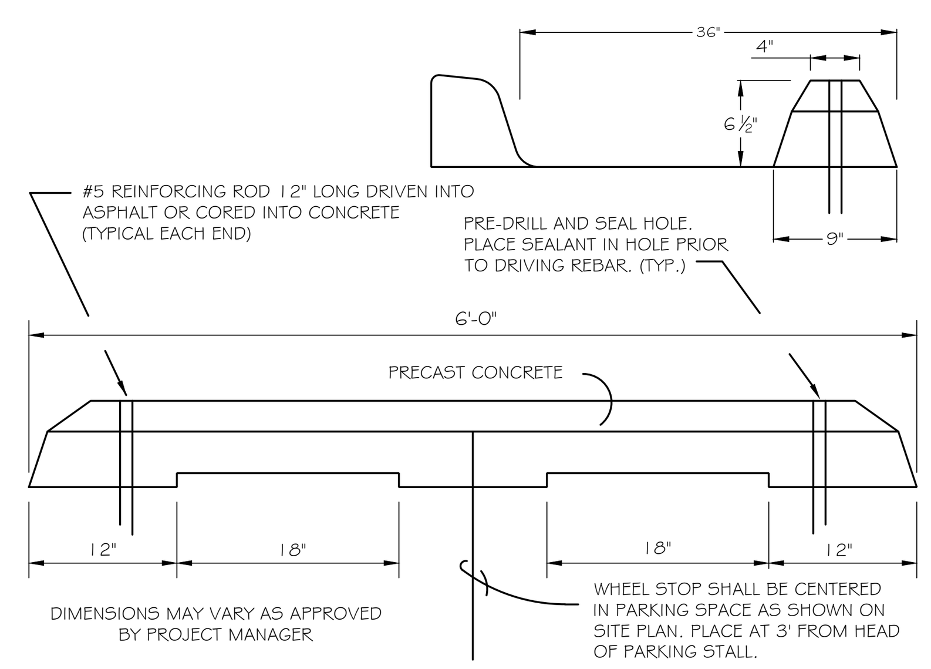
NOTES: T = PAVEMENT

1. LONGITUDINAL BUTT CONSTRUCTION MAY BE UTILIZED IN PLACE OF LONGITUDINAL HINGED (KEYWAY) JOINT AT CONTRACTORS OPTION.
2. DOWEL BARS SHALL BE DRILLED INTO PAVEMENT HORIZONTALLY BY USE OF A MECHANICAL RIG.
3. DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE.

LONGITUDINAL BUTT JOINT

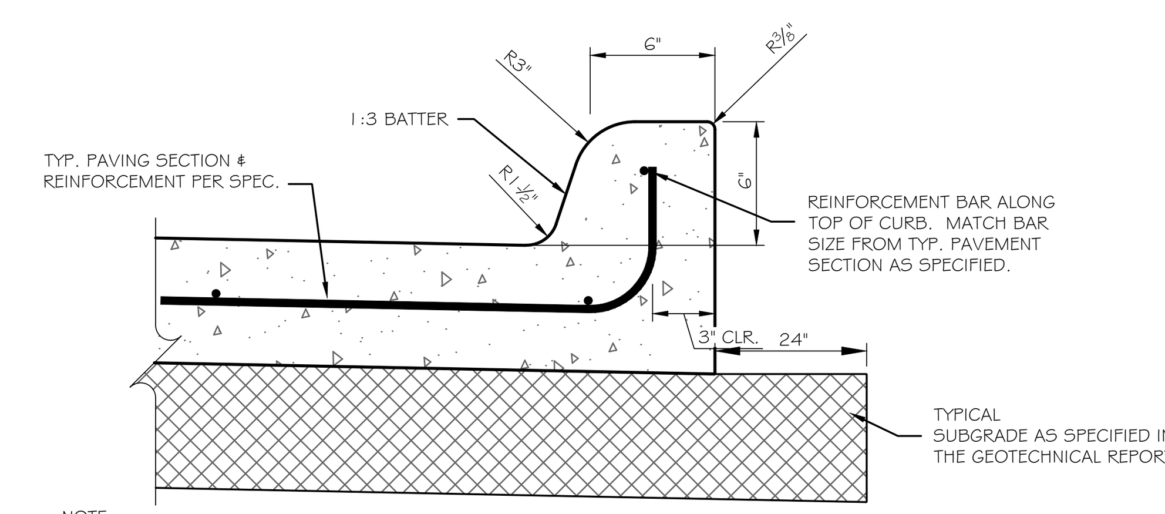
NOT TO SCALE

REINFORCED CONCRETE PAVEMENT	CITY OF ROCKWALL		
LONGITUDINAL BUTT JOINT		DATE OCT. '17	DRAWING NO. R-2051



WHEEL STOP DETAIL

N.T.S.



NOTE:
1. ALL CURBS ARE CONSTRUCTED OF PORTLAND CEMENT CONCRETE UNLESS OTHERWISE SHOWN.
2. GRADES SHALL BE MEASURED AT BACK OF CURB UNLESS OTHERWISE SPECIFIED.
3. ALL PAVEMENT LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR PUBLIC PAVEMENT.
4. CONTROL JOINTS THROUGH CURB SHALL BE SEALED IN THE PAVEMENT AND TERMINATE AT THE GUTTER.

MONOLITHIC CURB DETAIL

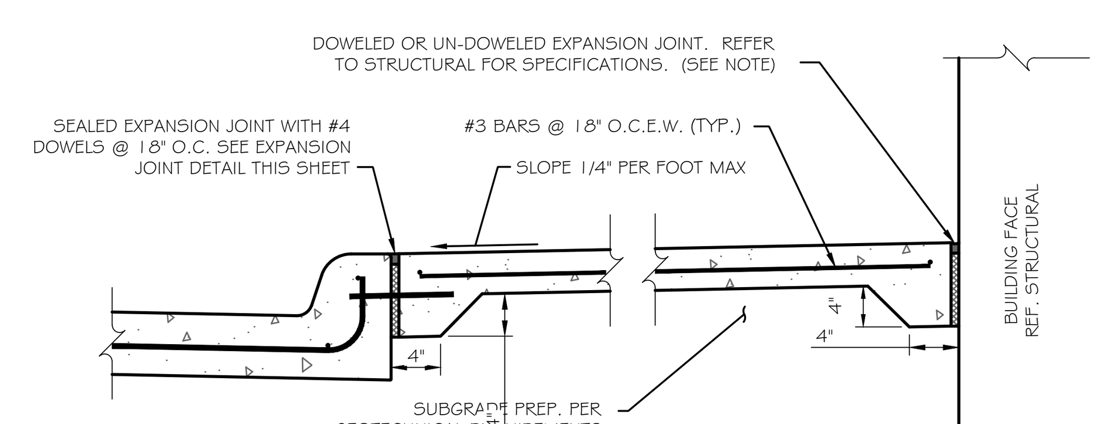
N.T.S.

GENERAL NOTES

NOTES:
1. CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP OR TRANSITION SURFACE.
2. RAMPS SHALL BE CONSTRUCTED PER ADA & APPLICABLE STATE ACCESSIBILITY STANDARDS..
3. CURB RAMPS SHALL BE MONOLITHIC POUR & SEPARATED FROM SITE PAVING WITH A DOWELED EXPANSION JOINT.

DETECTABLE WARNING SURFACE:
1. TRUNCATED DOMES SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
2. TRUNCATED DOMES TO RUN PARALLEL TO PEDESTRIAN TRAVEL.
3. DETECTABLE WARNING PAVERS, OR PLATES MEETING ADA & STATE REQUIREMENTS ARE ACCEPTABLE.

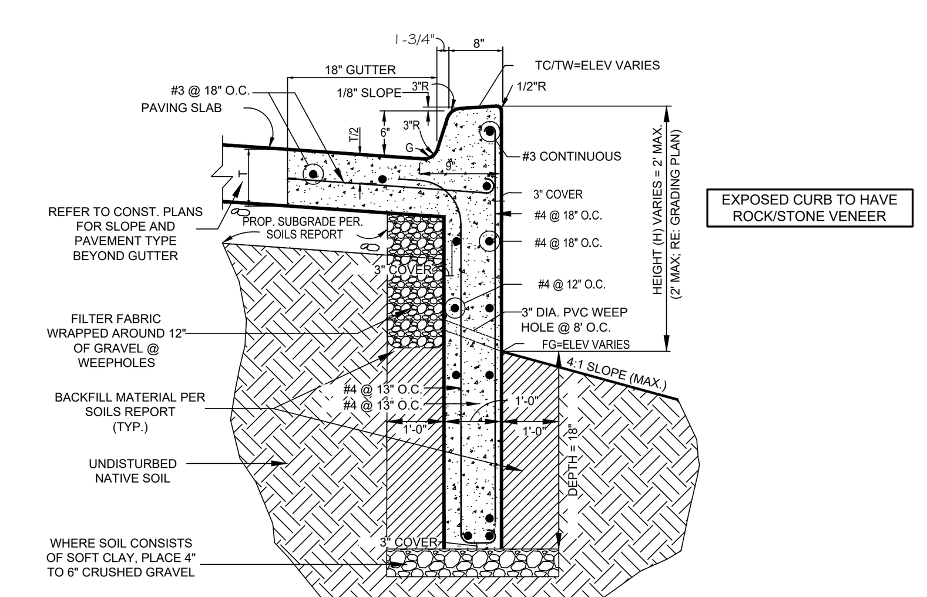
GROOVED SURFACE:
1. CURB RAMP SURFACES SHALL BE TEXTURED WITH GROOVES 1/4" DEEP, 3/4" WIDE, 2" APART AND ARRANGED SO THAT WATER WILL NOT ACCUMULATE IN THE GROOVES.
2. CURB RAMP SURFACE SHALL HAVE A LIGHT REFLECTIVE VALUE AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF THE ADJOINING PEDESTRIAN ROUTE.



NOTES
1. ALL SIDEWALK JOINTS LOCATED WITHIN 25' OF A BUILDING FACE OR ADJACENT TO ANY STRUCTURE SHALL BE SEALED.
2. REFER TO STRUCTURAL PLANS/DETAILS FOR DOWEL/HINGE JOINT AT ALL CONNECTIONS BETWEEN FOUNDATIONS/STOOPS AND FLATWORK.
3. THE SUBGRADE PREPARATION FOR ANY FLATWORK OR SIDEWALK PAVEMENT WITHIN 25' FROM ANY BUILDING FACE OR ADJACENT TO ANY STRUCTURE SHALL AS SPECIFIED BY THE GEOTECHNICAL REPORT. IN THE EVENT THAT THE GEOTECHNICAL REPORT DOES NOT CONTAIN A RECOMMENDATION THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. ALL PAVEMENT LOCATED WITHIN THE PUBLIC R.O.W. SHALL CONFORM TO THE GOVERNING AUTHORITY'S SPECIFICATIONS, DETAILS & REQUIREMENTS FOR PUBLIC PAVEMENT.
5. FINISHED SURFACES SHALL BE INSTALLED FLUSH WITH A DIFFERENTIAL ELEVATION NOT TO EXCEED 1/8".

SIDEWALK/CURB/BUILDING DETAIL

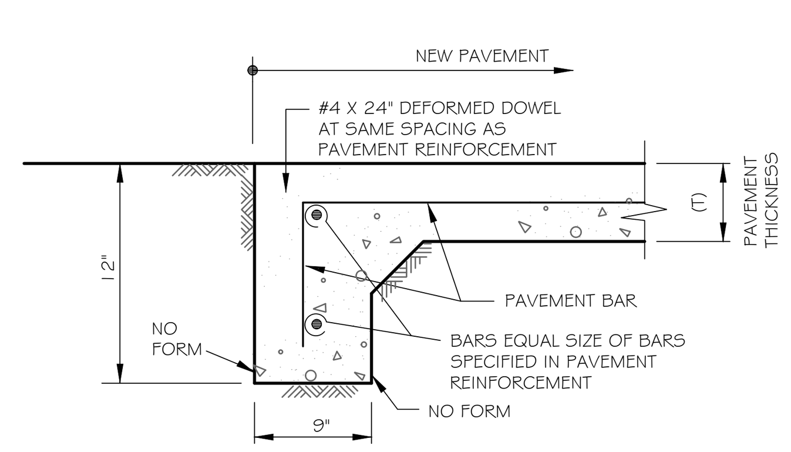
N.T.S.



1. THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 3,500 PSI AND SHALL COMPLY WITH ACI 318.
2. REINFORCING STEEL SHALL COMPLY WITH ASTM A615 AND SHALL HAVE A YIELD STRENGTH OF 60,000 PSI.
3. BACKFILLING AGAINST REINFORCED TALL CURB SHALL NOT BE PERMITTED UNTIL CONCRETE HAS REACHED ITS 28 DAY STRENGTH. CARE SHALL BE TAKEN TO AVOID EXERTING LARGE IMPACT FORCES ON THE TALL CURB.

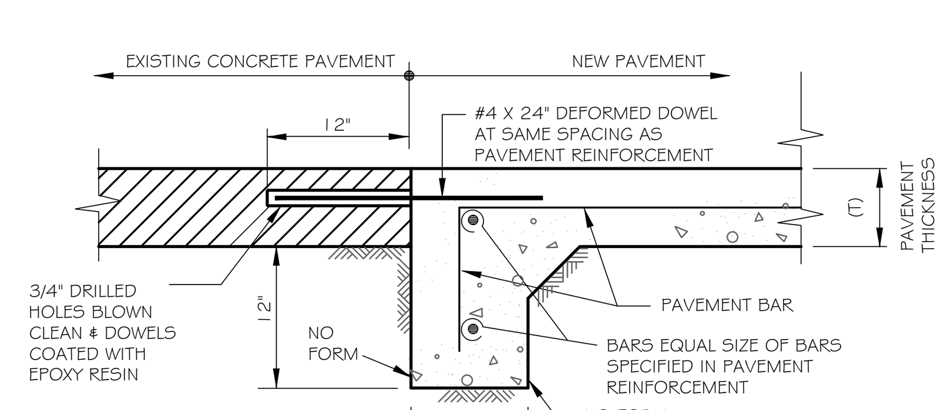
DEEP CURB

N.T.S.



THICKENED PAVEMENT EDGE

N.T.S.



STREET HEADER AT EXISTING PAVEMENT

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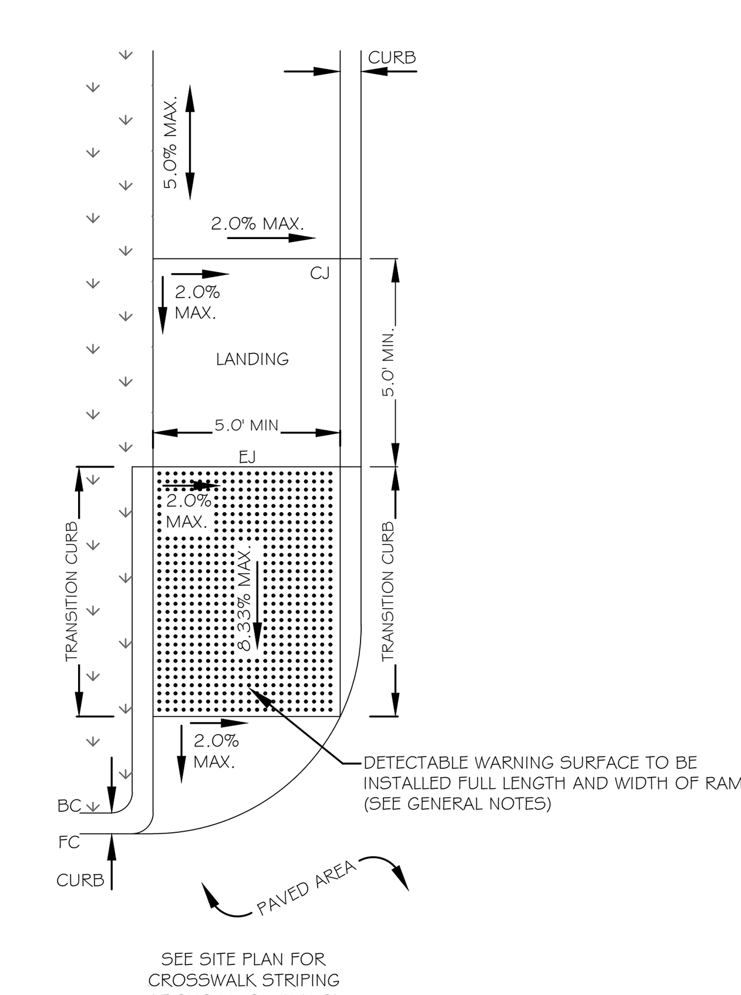
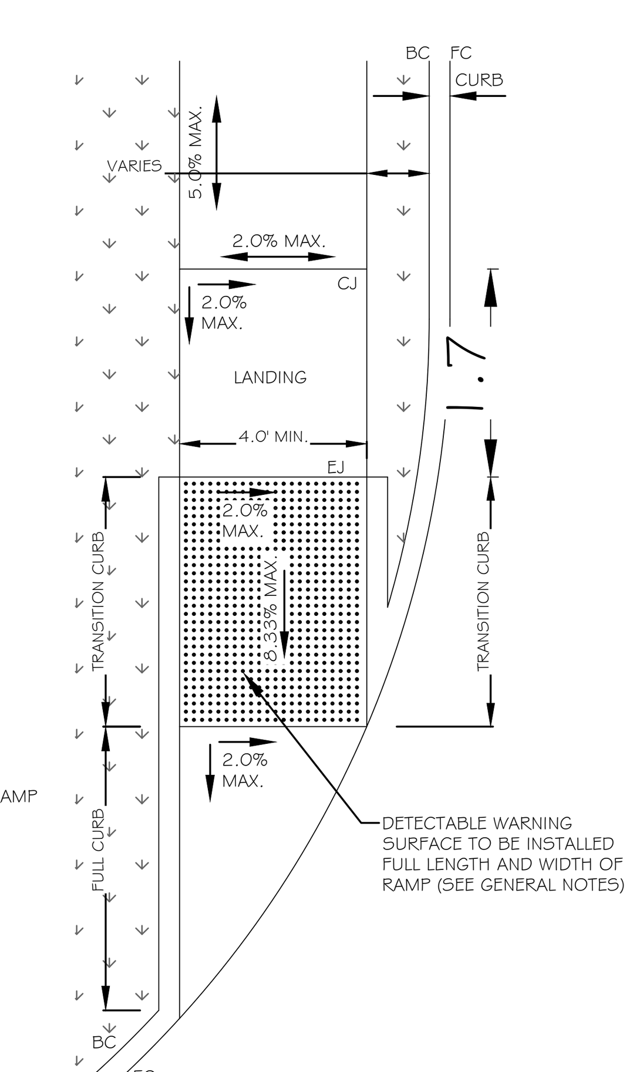


DIRECTIONAL RAMP WITHIN RADIUS DETAIL

N.T.S. - SIDEWALK ADJACENT TO CURB



DIRECTIONAL RAMP WITHIN RADIUS DETAIL

N.T.S. -SIDEWALK SET BACK FROM CURB

E2022-013

05/19/2022

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SHEET:
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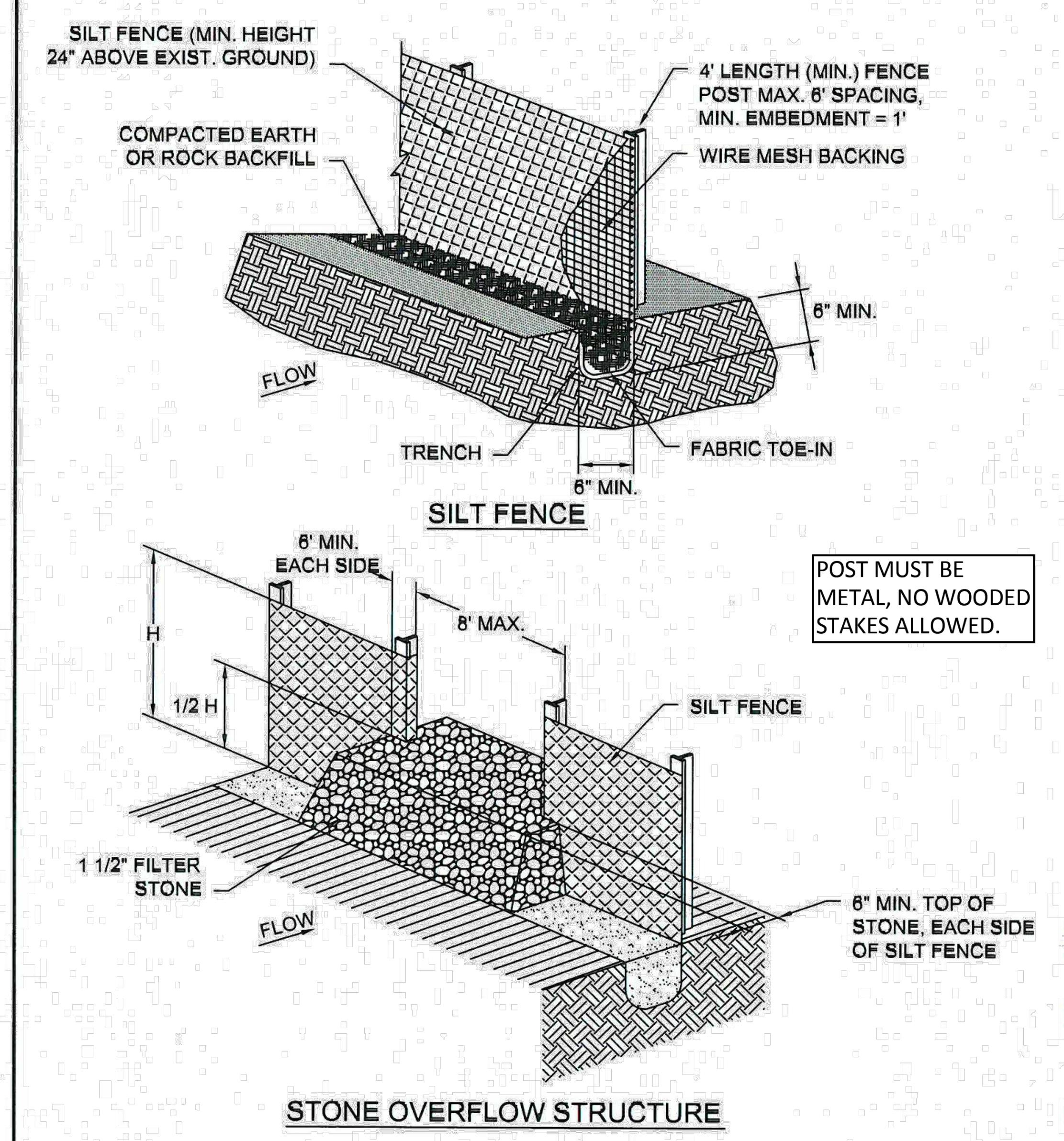


SILT FENCE	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 202.5 *
		DATE Mar. 2018 / STANDARD DRAWING NO. R-1020A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

SILT FENCE GENERAL NOTES:

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WIRE BACKING, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

5. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

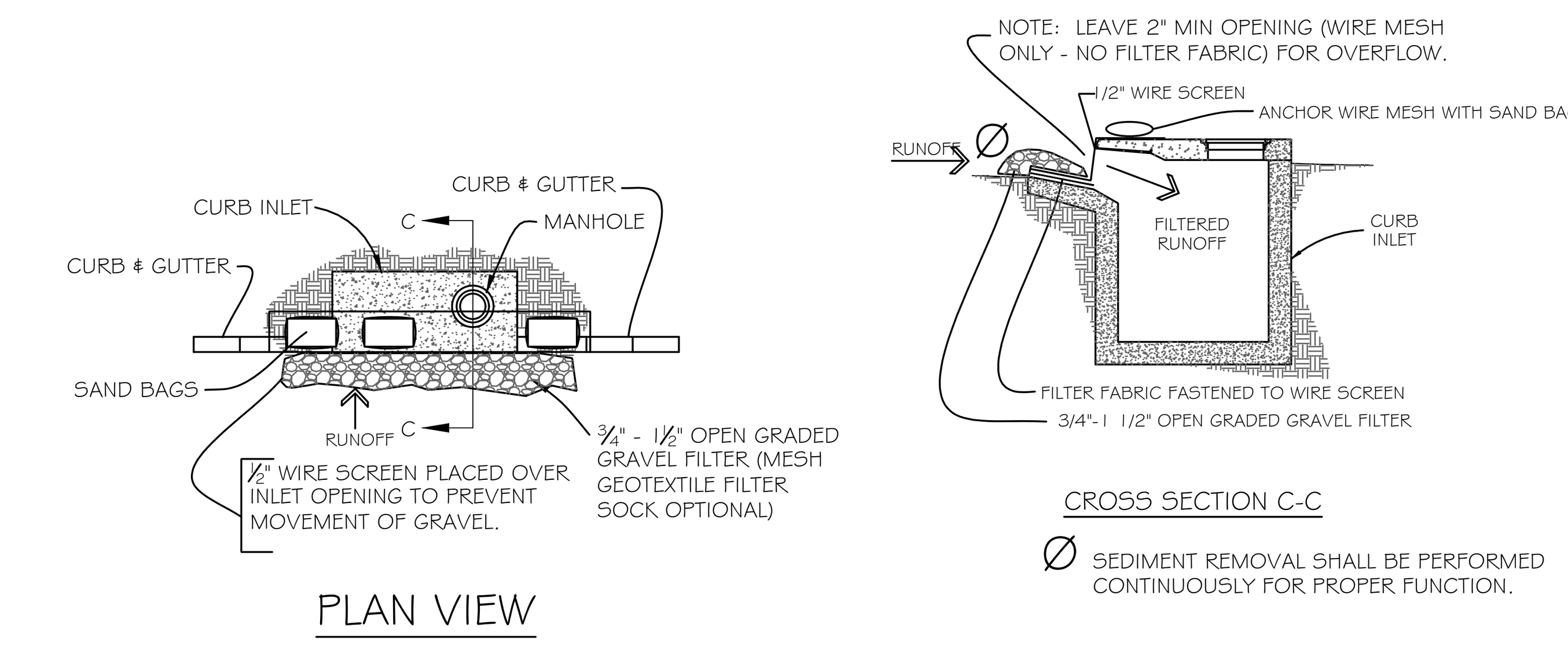
6. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

8. FILTER STONE SHALL BE WRAPPED IN FILTER FABRIC AND BURIED SIX (6") INCHES MINIMUM.

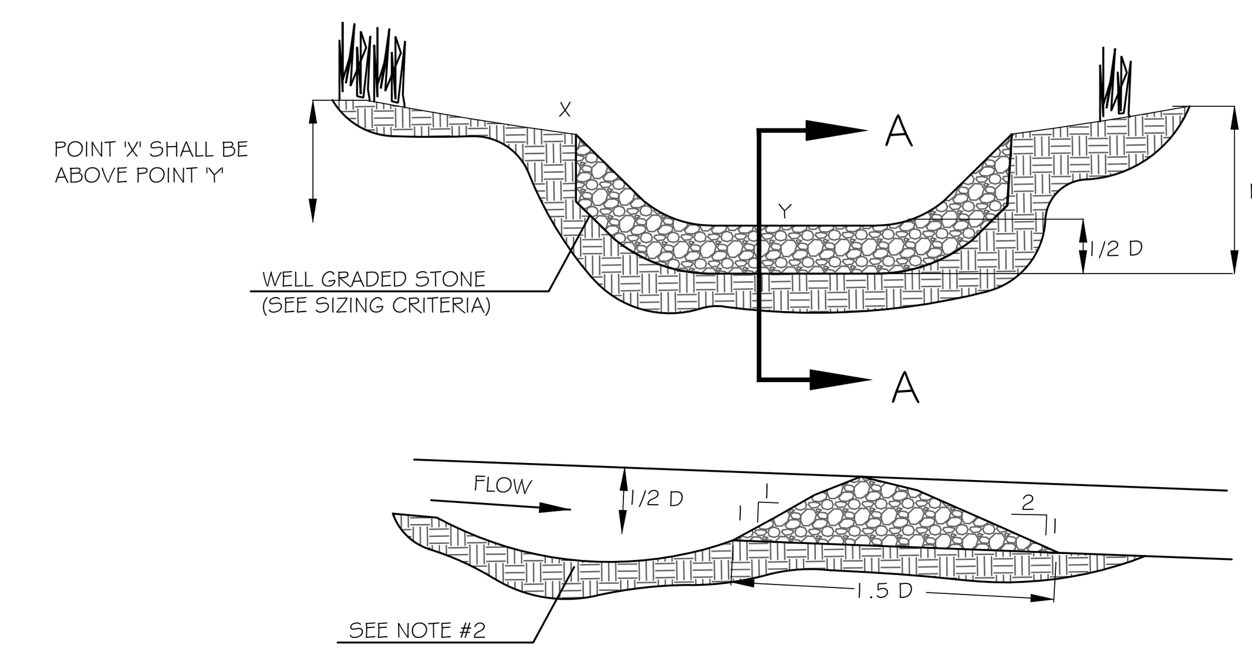
SILT FENCE	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 202.5 *
		DATE Mar. 2018 / STANDARD DRAWING NO. R-1020B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



INLET PROTECTION

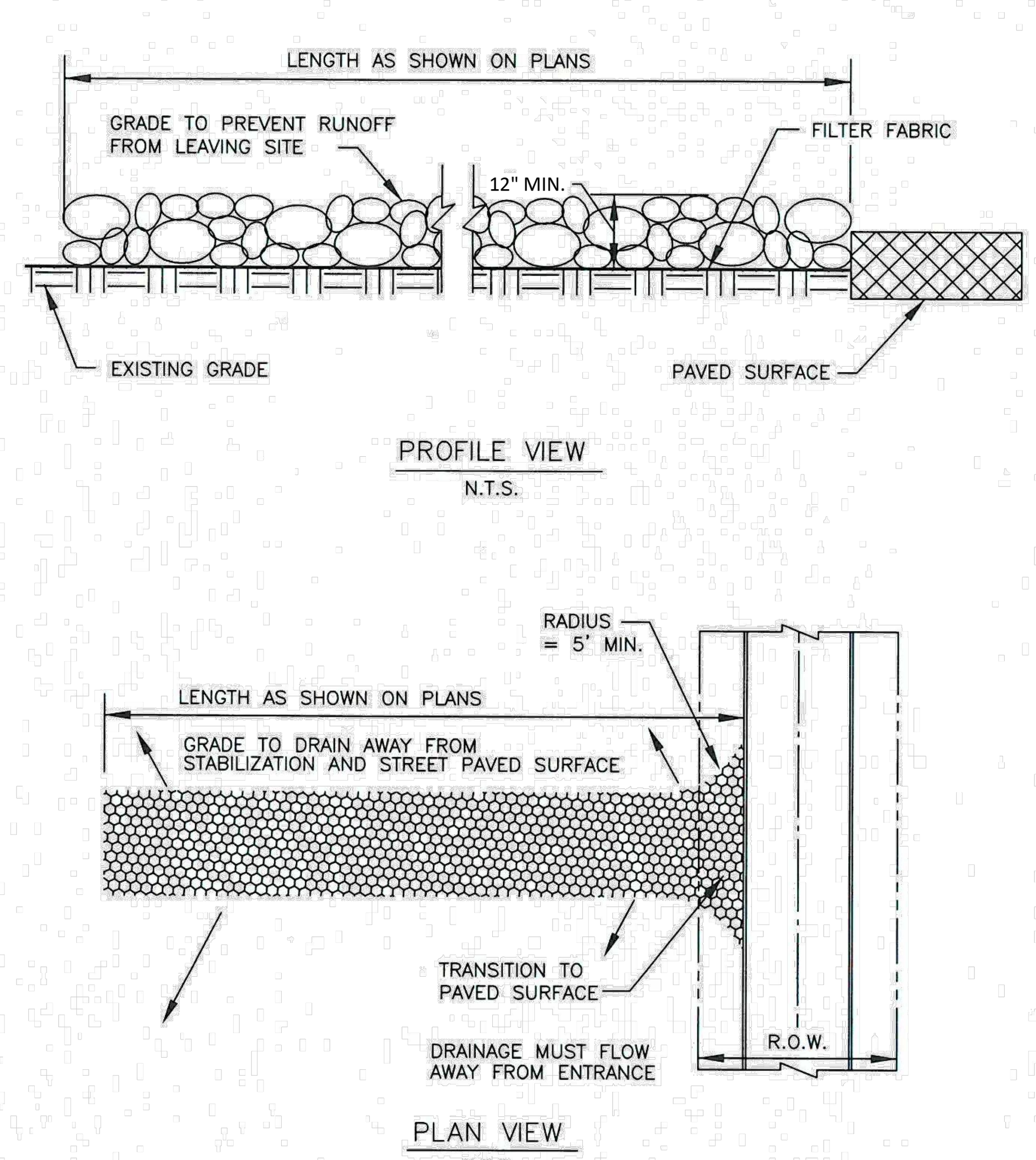
N.T.S.



SECTION 'A'-'A'

ROCK CHECK DAM GENERAL NOTES:

1. STONE SHALL BE WELL GRADED WITH SIZE RANGE FROM 3" TO 8" IN DIAMETER DEPENDING ON EXPECTED FLOWS.
2. CONTRACTOR SHALL EXCAVATE A DEPRESSION AT UPSTREAM FACE TO ALLOW FOR ACCUMULATION OF SILTATION.
3. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
5. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.



Note: No crushed concrete or recycled concrete allowed.

STABILIZED CONSTRUCTION ENTRANCE	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 202.11 *
		DATE Mar. 2018 / STANDARD DRAWING NO. R-1070A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:

1. STONE SHALL BE 4 TO 6 INCH DIAMETER COARSE AGGREGATE.

2. MINIMUM LENGTH SHALL BE 50 FEET AND WIDITH SHALL BE 20 FEET.

3. THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.

4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.

7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

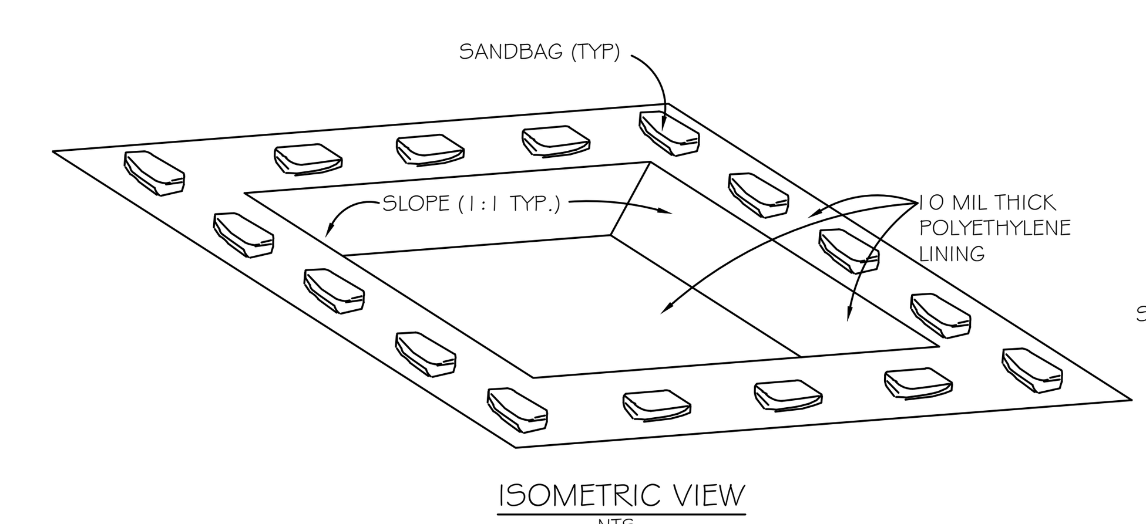
8. PREVENT SHORTCUTTING OF THE FULL LENGTH OF THE CONSTRUCTION ENTRANCE BY INSTALLING BARRIERS AS NECESSARY.

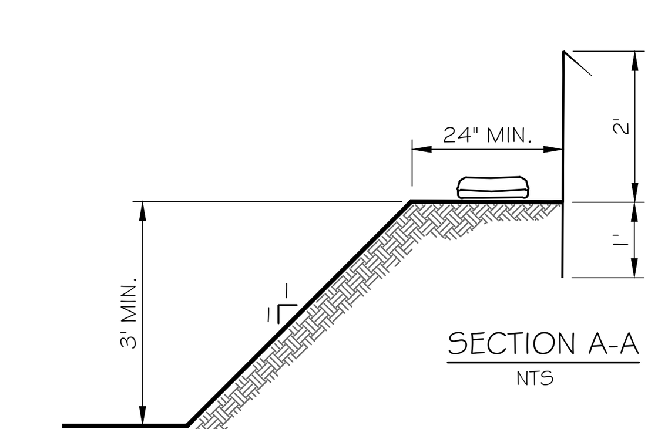
9. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.

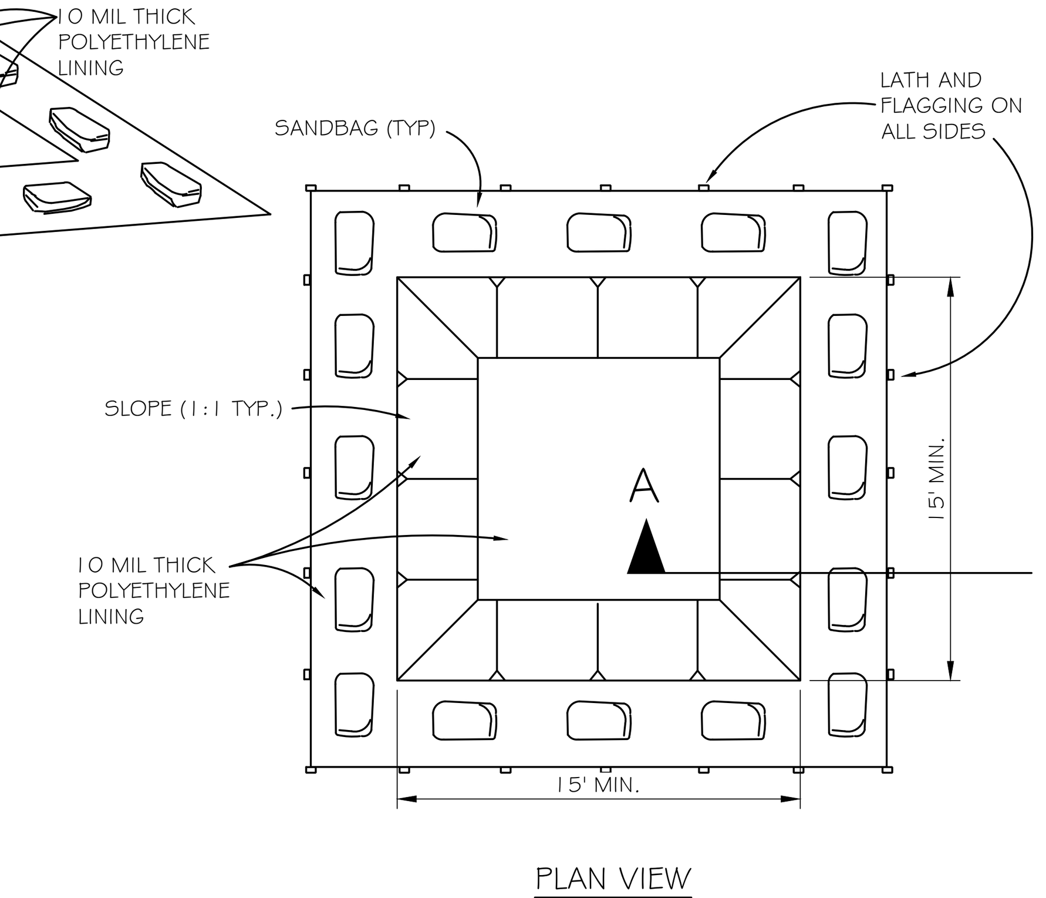
10. NO CRUSHED OR RECYCLED CONCRETE ALLOWED.

STABILIZED CONSTRUCTION ENTRANCE	CITY OF ROCKWALL	STANDARD SPECIFICATION REFERENCE 202.11 *
		DATE Mar. 2018 / STANDARD DRAWING NO. R-1070B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*





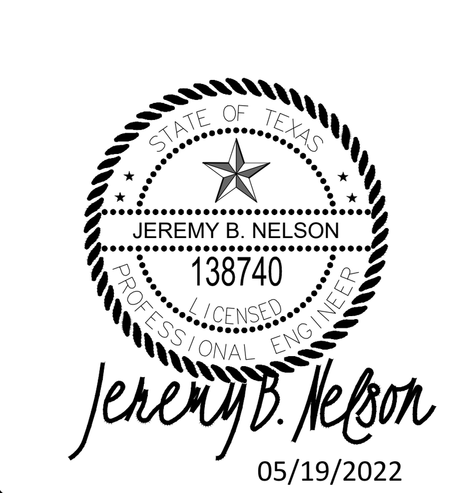


NOTES
1. Actual layout, size and location to be determined by Contractor.
2. The concrete washout sign shall be installed within 30 ft. of the temporary concrete washout facility.
3. Once concrete wastes are allowed to harden, the concrete should be broken up, removed and disposed of properly. dispose of hardened concrete on a regular basis.

TEMPORARY CONCRETE WASHOUT AREA

N.T.S.

E2022-013



LINKS CONSTRUCTION — BUILDING & DEVELOPING THE FUTURE

525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM

LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

REV:	DATE:	DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT; MODIFIED BY ADDENDUM CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR. TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

kirkman ENGINEERING

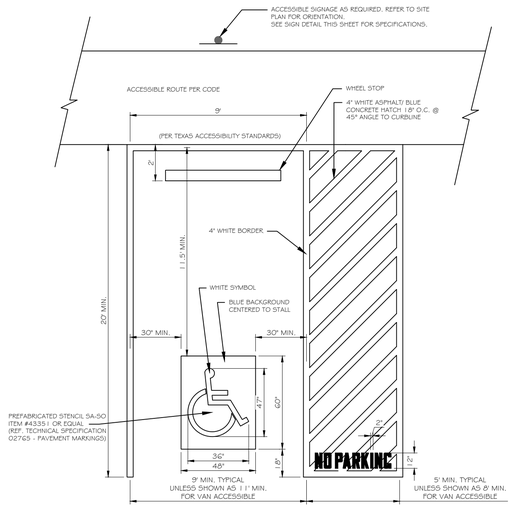
KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

ISSUE DATE: 05/19/2022

EROSION CONTROL DETAILS

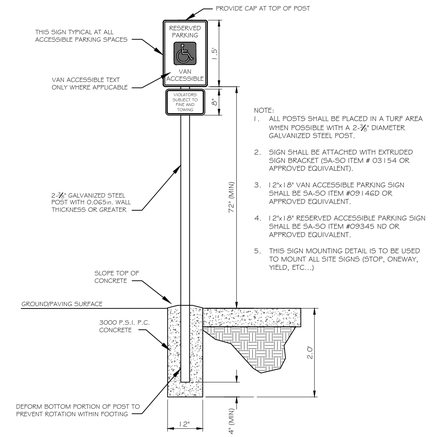
SHEET:
C14.0



NOTES:
1. RE: SITE PLAN FOR LOCATION OF ADA PARKING SPACES AND ACCESS AISLE IN RELATIONSHIP TO THE DOOR LOCATION. (THIS DETAIL IS FOR STRIPING LAYOUT ONLY)
2. PARKING STRIPES AND THE ADA INTERNATIONAL HANDICAP SYMBOL ARE TO BE PAINTED PER THE MANUFACTURER'S RECOMMENDATIONS.
3. THE WORDS "NO PARKING" SHALL BE PAINTED ON ANY ACCESS AISLE ADJACENT TO THE PARKING SPACE. THE WORDS MUST BE PAINTED IN ALL CAPITAL LETTERS, WITH A LETTER HEIGHT OF AT LEAST TWELVE INCHES, AND A STROKE WIDTH OF AT LEAST TWO INCHES.

ACCESSIBLE PARKING SPACE

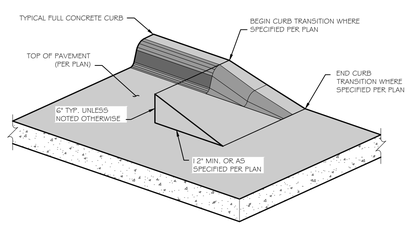
N.T.S.



NOTE:
1. ALL POSTS SHALL BE PLACED IN A TURF AREA WHEN POSSIBLE WITH A 2-½" DIAMETER GALVANIZED STEEL POST.
2. SIGN SHALL BE ATTACHED WITH EXTRUDED SIGN BRACKET (SA-SO ITEM # 03154 OR APPROVED EQUIVALENT).
3. 12"x18" VAN ACCESSIBLE PARKING SIGN SHALL BE SA-SO ITEM #OR14GD OR APPROVED EQUIVALENT.
4. 12"x18" RESERVED ACCESSIBLE PARKING SIGN SHALL BE SA-SO ITEM #09345 ND OR APPROVED EQUIVALENT.
5. THIS SIGN MOUNTING DETAIL IS TO BE USED TO MOUNT ALL SITE SIGNS (STOP, ONEWAY, YIELD, ETC...)

SIGN MOUNTING DETAIL

N.T.S.



CURB TRANSITION/TERMINATION

N.T.S.

JEREMY B. NELSON
138740
LICENSED
PROFESSIONAL ENGINEER
Jeremy B. Nelson
05/19/2022

LINKS CONSTRUCTION
BUILDING & DEVELOPING THE FUTURE
525 S. LOOP 288,
SUITE 105
DENTON, TX 76205
(940) 566-5465

INTEGRATED DEFENSE PRODUCTS TM
LOT 6, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS
(2.508 ACRES) J.M. ALLEN SURVEY A-2

E2022-013

REV: | DATE: | DESCRIPTION:

RECORD DRAWING

THIS RECORD DRAWING IS A COMPILATION OF A COPY OF THE APPROVED SEALED ENGINEERING DRAWING FOR THIS PROJECT AS MODIFIED BY CONSTRUCTION CHANGE ORDERS AND INFORMATION PROVIDED BY THE CONTRACTOR, TO THE BEST OF OUR KNOWLEDGE KIRKMAN ENGINEERING, LLC HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION IS PROVIDED AS BASED ON SURVEYING THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.

BY: JEREMY B. NELSON, P.E. DATE: 10/02/2023

KIRKMAN ENGINEERING, LLC
5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034
TEXAS FIRM NO. 15874

JOB NUMBER: LNK21005

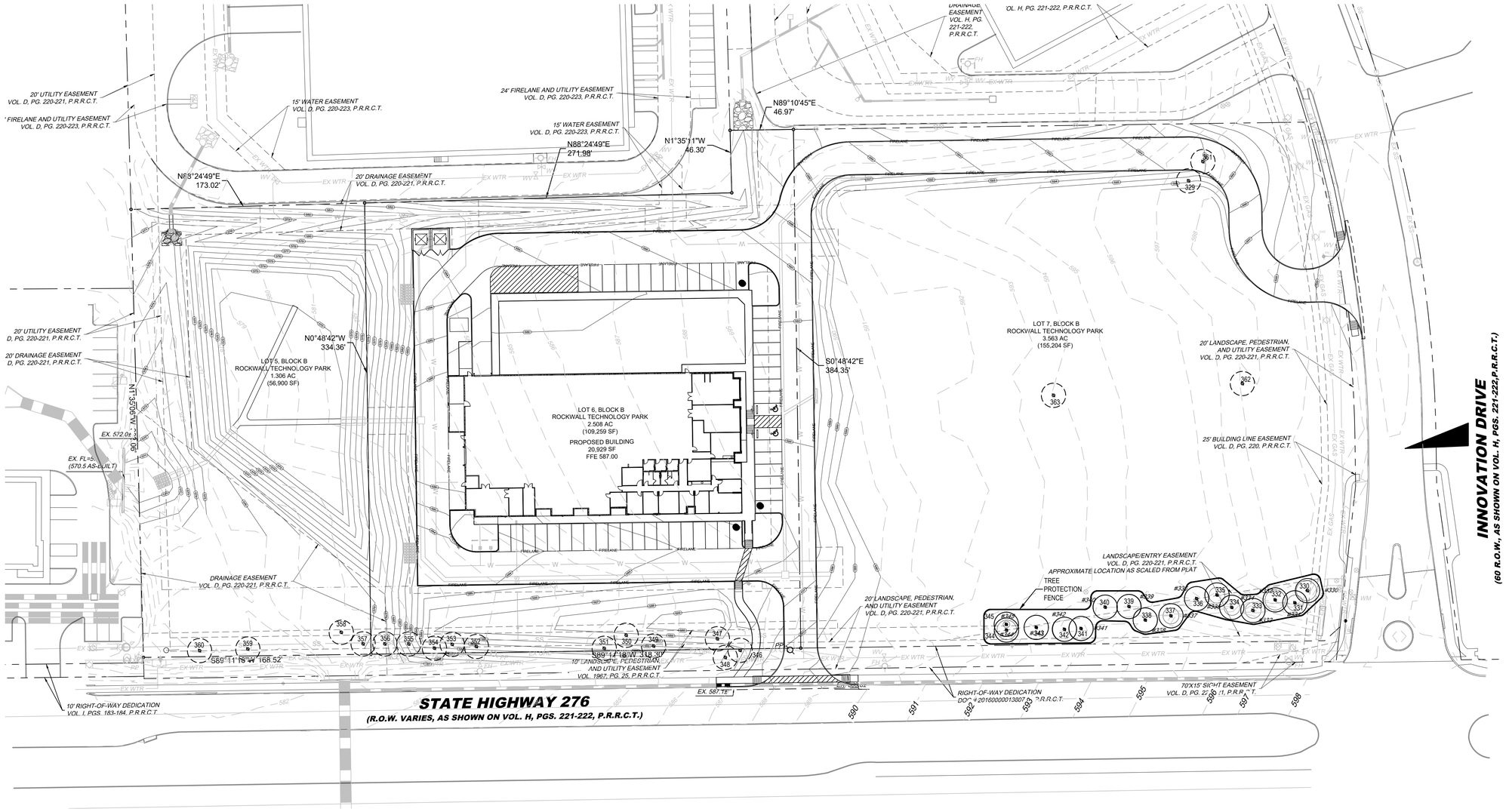
ISSUE DATE: 05/19/2022

SITE DETAILS

SHEET:
C15.0

FILE PATH: K:\Jobs\lnk2005_rockwall Industrial\Drawings\03_ENGR\03 - Products\en\K:\Jobs\lnk2005_rockwall Industrial\Drawings\03_ENGR\03 - Products\en\C15.0 SITE DETAILS_LNK21005

FILENAME: C15.0 SITE DETAILS_LNK21005.dwg
PLOTTED BY: Michael Hentsch
PLOTTED DATE: 10/2/2023



EXISTING TREE LEGEND

- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCING TO REMAIN DURING CONSTRUCTION REFER TO DTL1.00

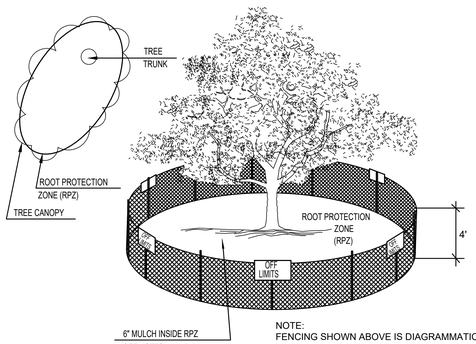
EXISTING TREE NOTES

1. *Existing trees to remain shall be protected during construction from tree structure damage and compaction of soil under and around dripline (canopy) of tree.*
2. *If any root structure is damaged during adjacent excavation/construction, notify the Architect immediately. It is recommended that a licensed Arborist be secured for the treatment of any possible tree wounds.*
3. *No disturbance of the soil greater than 4" shall be located closer to the tree trunk than 1/2 the distance of the drip line to the tree trunk. A minimum of 75% of the drip line and root zone shall be preserved at natural grade.*
4. *Any fine grading done within the critical root zones of the protected trees must be done with light machinery such as a bobcat or light tractor. No earth moving equipment with tracks is allowed within the critical root zone of the trees.*
5. *Material Storage: No materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the dripline of any tree.*
6. *Equipment Cleaning/Liquid Disposal: No equipment may be cleaned, toxic solutions, or other liquid chemicals shall be deposited within the limits of the dripline of a tree. This would include but not be limited to paint, oil, solvents, asphalt, concrete, mortar, primers, etc.*
7. *Tree Attachments: No signs, wires or other attachments, other than those of a protective nature shall be attached to any tree.*
8. *Vehicular Traffic: No vehicular and construction equipment traffic or parking is allowed within the limits of the dripline of trees.*
9. *Boring of Utilities: May be permitted under protected trees in certain circumstances. The minimum length of the bore shall be the width of the tree's canopy and shall be a minimum depth of forty-eight (48") inches.*
10. *Trenching: Any irrigation trenching which must be done within the critical root zone of a tree shall be dug by hand and enter the area in a radial manner.*
11. *Tree Flagging: All trees to be removed from the site shall be flagged by the Contractor with bright red vinyl tape (3" width) wrapped around the main trunk at a height of four (4') feet above grade. Flagging shall be approved by Landscape Architect prior to any tree removal. Contractor shall contact Landscape Architect with 72 hour notice to schedule on-site meeting.*
12. *Protective Fencing: All trees to remain, as noted on drawings, shall have protective fencing located at the tree's dripline. The protective fencing may be comprised of snow fencing, orange vinyl construction fencing, chain link fence or other similar fencing with a four (4') foot approximate height. The protective fencing will be located as indicated on the Tree Protection Detail(s).*
13. *Bark Protection: In situations where a tree remains in the immediate area of intended construction, the tree shall be protected by enclosing the entire circumference of the tree's trunk with lumber encircled with wire or other means that does not damage the tree. Refer to Tree Protection Detail(s).*
14. *Construction Pruning: In a case where a low hanging limb is broken during the course of construction, the Contractor shall notify the Landscape Architect immediately. In no instance shall the Contractor prune any portion of the damaged tree without the prior approval by the Landscape Architect.*

EXISTING TREES PREVIOUS BUILDING DEVELOPMENT

NO.	DIA. INCHES	SPECIES (COMMON NAME)	REMARKS	MITIGATION REQUIRED
329	11	CEDAR	TO BE REMOVED	11
330	15	CEDAR	TO REMAIN	
331	11	CEDAR	TO REMAIN	
332	14	CEDAR	TO REMAIN	
333	12	CEDAR	TO REMAIN	
334	13	CEDAR	TO REMAIN	
335	12	CEDAR	TO REMAIN	
336	15	CEDAR	TO REMAIN	
337	12	CEDAR	TO REMAIN	
338	14	CEDAR	TO REMAIN	
339	15	CEDAR	TO REMAIN	
340	15	CEDAR	TO REMAIN	
341	22	CEDAR MULTI-TRUCK	TO REMAIN	
342	15	CEDAR	TO REMAIN	
343	18	CEDAR	TO REMAIN	
344	14	CEDAR	TO REMAIN	
345	5	HERCULES CLUB	TO REMAIN	
346	7	OAK	TO BE REMOVED	7
347	6	OAK	TO BE REMOVED	6
348	7	OAK	TO BE REMOVED	7
349	6	OAK	TO BE REMOVED	6
350	5	OAK	TO BE REMOVED	5
351	5	OAK	TO BE REMOVED	5
352	7	OAK	TO BE REMOVED	7
353	8	OAK	TO BE REMOVED	8
354	5	OAK	TO BE REMOVED	5
355	11	OAK	TO BE REMOVED	11
356	9	OAK	TO BE REMOVED	9
357	10	OAK	TO BE REMOVED	10
358	8	OAK	TO BE REMOVED	8
359	9	OAK	TO BE REMOVED	9
360	7	OAK	TO BE REMOVED	7
361	17	CEDAR MULTI-TRUCK	TO BE REMOVED	17
362	13	CEDAR	TO BE REMOVED	13
363	15	CEDAR MULTI-TRUCK	TO BE REMOVED	15

TOTAL MITIGATION REQUIRED: 166 CAL. INCHES
MITIGATION PROVIDED: (42) 4" CALIPER TREES
TOTAL INCHES OF MITIGATION TREES PLANTED ON SITE: 168 CAL. INCHES



NOTE:
FENCING SHOWN ABOVE IS DIAGRAMMATIC ONLY AND WILL CONFORM TO THE DRIP LINE AND LIMITED TO PROJECT BOUNDARY

01 TREE PROTECTION FENCE A
NOT TO SCALE

01 TREE PRESERVATION PLAN
SCALE 1"=40'-0"
0 15 40 80

SITE DATA SUMMARY TABLE	
GENERAL SITE DATA	**LOT 4**
ZONING	LI - LIGHT INDUSTRIAL
LAND USE	OFFICE/WAREHOUSE
LOT AREA	109,258 SF/2.50 AC
BUILDING FOOTPRINT AREA	20,930 SF
TOTAL BUILDING AREA	3,765 SF OFFICE
	17,165 SF WAREHOUSE
	TOTAL 20,930 SF
BUILDING HEIGHT (# STORIES)	1
BUILDING HEIGHT	29'-8"
LOT COVERAGE	12.59%
FLOOR AREA RATIO	0.13
PARKING	
PARKING RATIO	OFFICE: ONE SPACE PER 300 SF
	WAREHOUSE: ONE SPACE PER 1000 SF
REQUIRED PARKING (# SPACES)	31
PROVIDED PARKING (# SPACES)	50
ACCESSIBLE PARKING REQUIRED (# SPACES)	2
ACCESSIBLE PARKING PROVIDED (# SPACES)	2

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the day of . .

WITNESS OUT HANDS, THIS day of .

Planning & Zoning Commission, Chairman | **Director of Planning and Zoning**

OWNER
ROCKWALL TECHNOLOGY PARK
PO BOX 968
ROCKWALL, TX 75087
PH: (972) 772-0025
CONTACT: PHIL WAGNER

LANDSCAPE PLAN
CITY PROJECT CASE NO. SP2022-005
INTEGRATED DEFENSE PRODUCTS TM
7.38 ACRES
LOT 4 BLOCK B
ROCKWALL TECHNOLOGY PARK,
J.M. ALLEN SURVEY ABSTRACT NO. 2
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS
PREPARATION DATE: 03/01/2022

APPLICANT	LANDSCAPE ARCHITECT
LINKS CONSTRUCTION	STUDIO GREEN SPOT, INC.
525 S. LOOP 288, SUITE 105	1784 W. McDERMOTT DR. STE. 110
DENTON, TX 76034	ALLEN, TX 75013
PH: 940-783-0920	PH: 469-369-4448
CONTACT: ALISON WINGET, PE	CONTACT: CHRIS TRONZANO, RLA
ENGINEER	**SURVEYOR**
KIRKMAN ENGINEERING, LLC	BARTON CHAPA SURVEYING
5200 STATE HIGHWAY 121	5200 STATE HIGHWAY 121
COLLEYVILLE, TX 76034	COLLEYVILLE, TX 76034
PH: 817-488-4960	PH: 817-864-1957
CONTACT: JEREMY NELSON, PE	CONTACT: JACK BARTON, RPLS

LANDSCAPE ARCHITECT
STUDIO GREEN SPOT, INC.
1784 W. McDERMOTT DR.
SUITE 110
ALLEN, TEXAS 75013
(469) 369-4448
CHRIS@STUDIOGREENSPOT.COM

REGISTERED LANDSCAPE ARCHITECT
CHRIS TRONZANO
2042
STATE OF TEXAS
04.07.2022

INTEGRATED DEFENSE PRODUCT TM

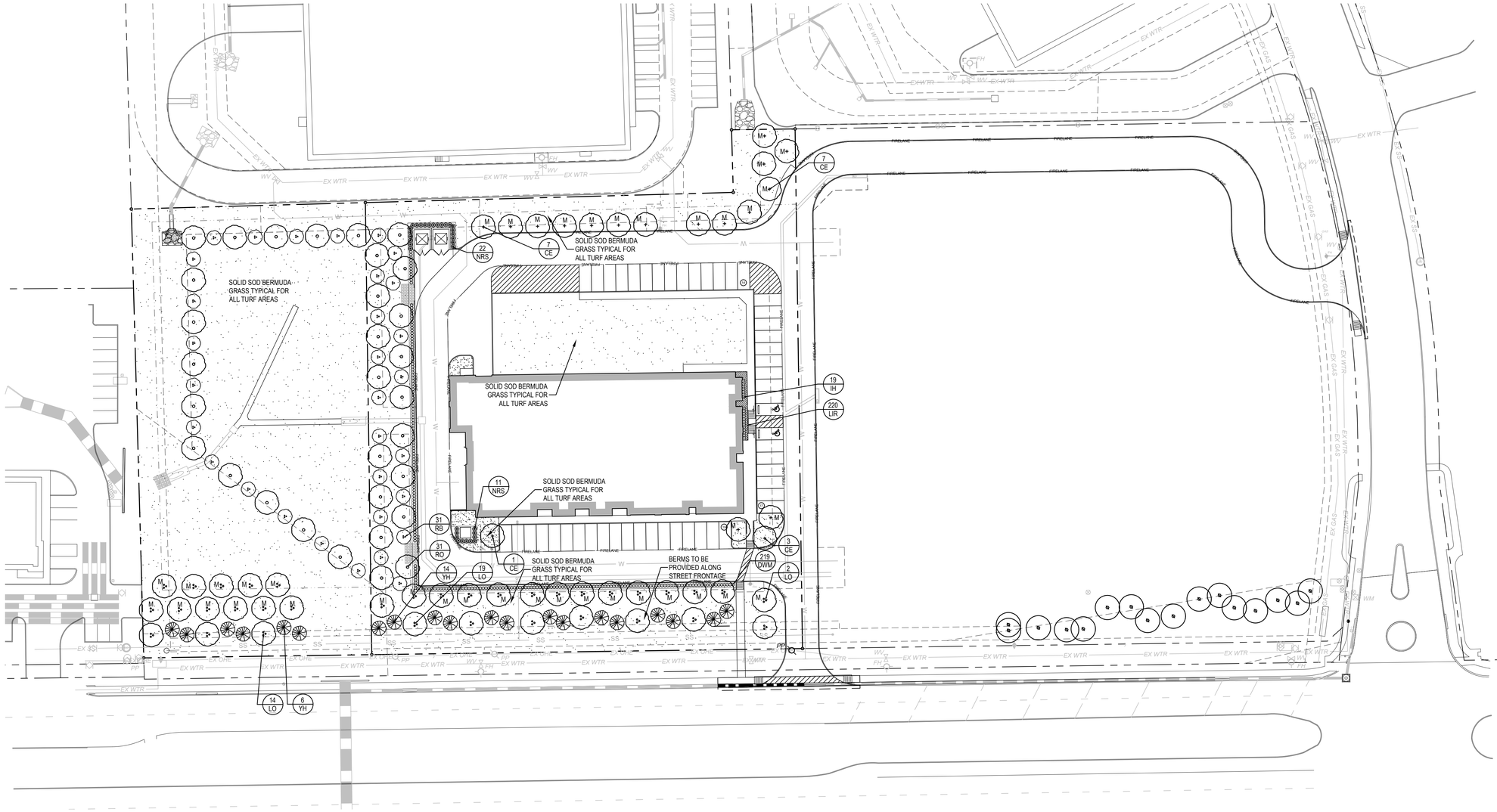
LOT 4, BLOCK B
ROCKWALL TECHNOLOGY PARK
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS

ISSUE:
FOR APPROVAL 02.04.2022
CITY COMMENTS 02.18.2022
CITY COMMENTS 03.03.2022
CITY COMMENTS 03.09.2022
CITY COMMENTS 04.07.2022

DATE:
04.07.2022

SHEET NAME:
TREE PRESERVATION PLAN

SHEET NUMBER:
L.1



01 LANDSCAPE PLAN
SCALE 1"=40'-0"

0 15 40 80

LANDSCAPE TABULATIONS:
SITE REQUIREMENTS (site area 166,159 s.f.)
Requirements: 15% site area to be landscaped

Required	Provided
24,924 s.f. (15%)	91,875 s.f. (55%)

FRONT YARD REQUIREMENTS
Requirements: 50% of required landscape must be located in front yard

Required	Provided
12,462 s.f. (50%)	30,208 s.f. (121%)

STREET REQUIREMENTS
Requirements: (2) canopy tree, 4" cal. & (4) accent tree, 4' ht. per 100 l.f. of frontage

STATE HIGHWAY 276 (487 l.f.)

Required	Provided
(10) canopy trees	(10) canopy trees
(20) accent trees	(20) accent trees

PARKING LOT REQUIREMENTS (50 spaces)
Requirements: (1) canopy tree, 4" cal. per 20 parking spaces

Required	Provided
(3) canopy trees	(3) canopy trees

DETENTION AREA REQUIREMENTS (23,448 s.f.)
Requirements: (1) canopy tree, 4" cal. & (1) accent tree, 4' ht. per 750 sf dention area

Required	Provided
(31) canopy trees	(31) canopy trees
(31) accent trees	(31) accent trees

PERVIOUS VS. IMPERVIOUS COVER
PERVIOUS COVER - 46,174 SF
IMPERVIOUS COVER - 63,084 SF

M- TREES COUNTED FOR TREE MITIGATION

PLANT MATERIAL SCHEDULE

TYPE	QTY.	COMMON NAME	*BOTANICAL NAME*	SIZE	REMARKS
TREES					
CE	19	Cedar Elm	*Ulmus Crassifolia*	4" cal.	container, 12' ht., 5' spread, 6' clear straight trunk
YH	20	Yaupon Holly	*Ilex vomitoria*	4' ht.	container, 4' ht., 4' spread, 3 or 5 caines, tree form
LO	35	Live Oak	*Quercus virginiana*	4" cal.	container, 12' ht., 5' spread, 6' clear straight trunk
RB	31	Redbud	*Cercis canadensis*	4' ht.	container, 4' ht., 4' spread, straight trunk
RO	31	Red Oak	*Quercus rubra*	4" cal.	container, 12' ht., 5' spread, 6' clear straight trunk
SHRUBS					
TYPE	QTY.	COMMON NAME	*BOTANICAL NAME*	SIZE	REMARKS
DWM	219	Dwarf Wax Myrtle	*Myrica pusilla*	5 gal.	container, 30" ht., 24" spread
IH	19	Indian Hawthorn	*Rhaphiolepis indica*	5 gal.	container, 20" ht., 20" spread
NRS	33	Nellie R Stevens Holly	*Ilex x Nellie R. Stevens*	7 gal.	container, 36" ht., 30" spread
GROUNDCOVERS					
TYPE	QTY.	COMMON NAME	*BOTANICAL NAME*	SIZE	REMARKS
LIR	220	Liriope 'Tiftuf' Bermudagrass	*Liriope muscari Cynodon transvaalensis x Cyndon dactylon*	4" pots	container full, well rooted Solid Sod refer to notes

NOTE: Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated. All trees are to be measured at Diameter Breast Height (dbh). Trees to have straight trunks and be matching within varieties.

SITE DATA SUMMARY TABLE	
GENERAL SITE DATA	**LOT 4**
ZONING	LI - LIGHT INDUSTRIAL
LAND USE	OFFICE/WAREHOUSE
LOT AREA	109,258 SF/2.50 AC
BUILDING FOOTPRINT AREA	20,930 SF
TOTAL BUILDING AREA	3,765 SF OFFICE
	17,165 SF WAREHOUSE
	TOTAL 20,930 SF
BUILDING HEIGHT (# STORIES)	1
BUILDING HEIGHT	29'-8"
LOT COVERAGE	12.59%
FLOOR AREA RATIO	0.13
PARKING	
PARKING RATIO	OFFICE: ONE SPACE PER 300 SF
	WAREHOUSE: ONE SPACE PER 1000 SF
REQUIRED PARKING (# SPACES)	31
PROVIDED PARKING (# SPACES)	50
ACCESSIBLE PARKING REQUIRED (# SPACES)	2
ACCESSIBLE PARKING PROVIDED (# SPACES)	2

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the day of , .

WITNESS OUT HANDS, THIS day of ,

Planning & Zoning Commission, Chairman **Director of Planning and Zoning**

SOLID SOD NOTES

1. FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED. LEAVE AREAS TO RECEIVE TOPSOIL 3" BELOW FINAL DESIRED GRADE IN PLANTING AREAS AND 1" BELOW FINAL GRADE IN TURF AREAS.
2. ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
3. ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM OF 1" BELOW FINAL FINISH GRADE. CONTRACTOR TO COORDINATE OPERATIONS WITH ON-SITE CONSTRUCTION MANAGER.
4. CONTRACTOR TO COORDINATE WITH ON-SITE CONSTRUCTION MANAGER FOR AVAILABILITY OF EXISTING TOPSOIL.
5. PLANT SOD BY HAND TO COVER INDICATED AREA COMPLETELY. INSURE EDGES OF SOD ARE TOUCHING. TOP DRESS JOINTS BY HAND WITH TOPSOIL TO FILL VOIDS.
6. ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE, FREE FROM UNNATURAL UNDULATIONS.
7. WATER SOD THOROUGHLY AS SOD OPERATION PROGRESSES.
8. CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL ACCEPTANCE. THIS SHALL INCLUDE, BUT NOT LIMITED TO: MOWING, WATERING, WEEDING, CULTIVATING, CLEANING AND REPLACING DEAD OR BARE AREAS TO KEEP PLANTS IN A VIGOROUS, HEALTHY CONDITION.
9. CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF AN ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT FROM LOCAL SUPPLY IF NECESSARY.
10. IF INSTALLATION OCCURS BETWEEN SEPTEMBER 1 AND MARCH 1, ALL SOD AREAS TO BE OVER-SEEDED WITH WINTER RYEGRASS, AT A RATE OF (4) POUNDS PER ONE THOUSAND (1000) SQUARE FEET.

LANDSCAPE NOTES

1. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.
2. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY ARCHITECT OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.
4. CONTRACTOR TO PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
5. ALL PLANTING BEDS AND LAWN AREAS TO BE SEPARATED BY STEEL EDGING. NO STEEL TO BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS.
6. ALL LANDSCAPE AREAS TO BE 100% IRRIGATED WITH AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM AND SHALL INCLUDE RAIN AND FREEZE SENSORS.
7. ALL LAWN AREAS TO BE SOLID SOD BERMUDAGRASS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
8. DECOMPOSED GRANITE SHALL BE (3) THREE INCHES DEEP W/ FILTER FABRIC BETWEEN NATIVE SOIL AND GRANITE

GENERAL LAWN NOTES

1. FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED ON CIVIL PLANS.
2. ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
3. ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM OF 1" BELOW FINAL FINISH GRADE. CONTRACTOR TO COORDINATE OPERATIONS WITH ON-SITE CONSTRUCTION MANAGER.
4. IMPORTED TOPSOIL SHALL BE NATURAL, FRIABLE SOIL FROM THE REGION, KNOWN AS BOTTOM AND SOIL, FREE FROM LUMPS, CLAY, TOXIC SUBSTANCES, ROOTS, DEBRIS, VEGETATION, STONES, CONTAINING NO SALT AND BLACK TO BROWN IN COLOR.
5. *ALL LAWN AREAS TO BE FINE GRADED, IRRIGATION TRENCHES COMPLETELY SETTLED, AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR ARCHITECT PRIOR TO INSTALLATION.*
6. *ALL ROCKS 3/4" DIAMETER AND LARGER, DIRT CLODS, STICKS, CONCRETE SPOILS, ETC. SHALL BE REMOVED PRIOR TO PLACING TOPSOIL AND ANY LAWN INSTALLATION*
7. CONTRACTOR SHALL PROVIDE (1") ONE INCH OF IMPORTED TOPSOIL ON ALL AREAS TO RECEIVE LAWN.

IRRIGATION NOTE:

1. ALL IRRIGATION WILL MEET THE REQUIREMENTS OF THE UDC.

OWNER
ROCKWALL TECHNOLOGY PARK
PO BOX 968
ROCKWALL, TX 75087
PH: (972) 772-0025
CONTACT: PHIL WAGNER

LANDSCAPE PLAN
CITY PROJECT CASE NO. SP2022-005
INTEGRATED DEFENSE PRODUCTS TM
7.38 ACRES
LOT 4 BLOCK B
ROCKWALL TECHNOLOGY PARK,
J.M. ALLEN SURVEY ABSTRACT NO. 2
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS
PREPARATION DATE: 03/01/2022

APPLICANT	LANDSCAPE ARCHITECT
LINKS CONSTRUCTION	STUDIO GREEN SPOT, INC.
525 S. LOOP 288, SUITE 105	1784 W. McDERMOTT DR. STE. 110
DENTON, TX 76034	ALLEN, TX 75013
PH: 940-783-0520	PH: 469-369-4448
CONTACT: ALISON WINGET, PE	CONTACT: CHRIS TRONZANO, RLA
ENGINEER	**SURVEYOR**
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REGISTERED LANDSCAPE ARCHITECT — CHRIS TRONZANO — 2042 — STATE OF TEXAS

04.24.2023

INTEGRATED DEFENSE PRODUCT TM

LOT 4, BLOCK B
ROCKWALL TECHNOLOGY PARK
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS

ISSUE:
FOR APPROVAL 02.04.2022
CITY COMMENTS 02.18.2022
CITY COMMENTS 03.03.2022
CITY COMMENTS 03.09.2022
CITY COMMENTS 04.07.2022
SITE PLAN CHANGES 04.24.2024

DATE:
04.24.2023

SHEET NAME:
LANDSCAPE PLAN

SHEET NUMBER:
L.2

SECTION 02900 - LANDSCAPE

PART 1 - GENERAL

1.1 REFERENCED DOCUMENTS

Refer to bidding requirements, special provisions, and schedules for additional requirements.

1.2 DESCRIPTION OF WORK

Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these specifications and landscaping plans, including:

1. Planting (trees, shrubs, and grass)
2. Bed preparation and fertilization
3. Notification of sources
4. Water and Maintenance until final acceptance
5. Guarantee

1.3 REFERENCE STANDARDS

A. American Standard for Nursery Stock published by American Association of Nurserymen: 27 October 1980, Edition; by American National Standards Institute, Inc. (Z60.1) – plant material.

B. American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.

C. Texas Association of Nurserymen, Grades and Standards.

D. Hortis Third, 1976 - Cornell University

1.4 NOTIFICATION OF SOURCES AND SUBMITTALS

A. The Contractor shall, within ten (10) days following acceptance of bid, notify the Architect/Owner of the sources of plant materials and bed preparation required for the project.

B. Samples: Provide representative quantities of sandy loam soil, mulch, bed mix material, gravel, and crushed stone. Samples shall be approved by Architect before use on project.

C. Product Data: Submit complete product data and specifications on all other specified materials.

D. Submit three representative samples of each variety of ornamental trees, shrubs, and groundcover plants for Architect's approval. When approved, tag, install, and maintain as representative samples for final installed plant materials.

E. File Certificates of Inspection of plant material by state, county, and federal authorities with Architect, if required.

F. Soil Analysis: Provide sandy loam soil analysis if requested by the Architect.

JOB CONDITIONS

A. General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape installation, General Contractor shall leave planting bed areas three (3") inches below finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the finish grade of sidewalks, drives, and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.

B. General Contractor shall provide topsoil as described in Section 02200 - Earthwork.

C. Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

1.6 MAINTENANCE AND GUARANTEE

A. Maintenance:

1. The Landscape Contractor will be held responsible for the maintenance of all work from the time of planting until final acceptance by the Owner. No trees, shrubs, groundcover or grass will be accepted unless they show a healthy growth and satisfactory foliage conditions.
2. Maintenance shall include watering of trees and plants, cultivation, weeding spraying, edging, pruning of trees, mowing of grass, cleaning up and all other work necessary of maintenance.
3. A written notice requesting final inspection and acceptance should be submitted to the Owner at least seven (7) days prior to completion. An on-site inspection by Owner and Landscape Contractor will be completed prior to written acceptance.
4. After final acceptance of installation, the Landscape Contractor will not be required to do any of the above listed work.

B. Guarantee:

1. Trees shall be guaranteed for a twelve (12) month period after acceptance. Shrubs and groundcover shall be guaranteed for twelve (12) months. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry has been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
   a. Plants used for replacement shall be of the same size and kind as those originally planted and shall be planted as originally specified. All work, including materials, labor and equipment used in replacements, shall carry a twelve (12) month guarantee. Any damage, including ruts in lawn or bed areas, incurred as a result of making replacements shall be immediately repaired.
   b. At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises immediately.
   c. When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and reinspected for full compliance with Contractor requirements. All replacements are to be included under "Work" of this section.
2. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final acceptance.
3. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or theft.
4. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a completed, undamaged condition, and there is a stand of grass in all lawn areas. At this time, the Owner will assume maintenance on the accepted work.

C. Repairs: Any necessary repairs under the Guarantee must be made within ten (10) days after receiving notice, weather permitting, and in the event the Landscape Contractor does not make repairs accordingly, the Owner, without further notice to Contractor, may provide materials and men to make such repairs at the expense of the Landscape Contractor.

1.7 QUALITY ASSURANCE

A. General: Comply with applicable Federal, State, County and Local regulations governing landscape materials and work

B. Personnel: Employ only experienced personnel who are familiar with the required work. Provide full time supervision by a qualified foreman acceptable to Landscape Architect.

C. Selection of Plant Material:

1. Make contact with suppliers immediately upon obtaining notice of contract acceptance to select and book materials. Develop a program of maintenance (pruning and fertilization) which will insure the purchased materials will meet and/or exceed project specifications.
2. Landscape Architect will provide a key identifying each tree location on site. Written verification will be required to document material selection, source and delivery schedules to site.
3. Owner and/or Architect shall inspect all plant materials when reasonable at place of growth for compliance with requirements for genus, species, cultivar/variety, size and quality.
4. Owner and/or Architect retains the right to further inspect all plant material upon arrival at the site and during installation for size and condition of root balls, limbs, branching habit, insects, injuries, and latent defects.
5. Owner and/or Architect may reject unsatisfactory or defective material at any time during the process of work. Remove rejected materials from the site immediately. Plants damaged in transit or at job site shall be rejected.

1.8 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Preparation:

1. Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape, and future development.
2. Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.

A. Delivery:

1. Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.
2. Deliver only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
3. Protect root balls by heeling in with sawdust or other approved moisture retaining material if not planted within 24 hours of delivery.
4. Protect plants during delivery to prevent damage to root balls or desiccation of leaves. Keep plants moist at all times. Cover all materials during transport.
5. Notify Architect of delivery schedule 72 hours in advance so plant material may be observed upon arrival at job site.
6. Remove rejected plant material immediately from site.
7. To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

PART 2 - PRODUCTS

2.1 PLANTS

A. General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Architect and his decision as to their acceptability shall be final.

B. Quantities: The drawings and specifications are complimentary. Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.

C. Quality and size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched, and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae and are to be of specimen quality.

D. Approval: All plant materials shall be subject to the approval of the Owner. All plants which are found unsuitable in growth, or in any unhealthy, badly shaped, or undersized condition, will be rejected by the Landscape Architect, either before or after planting, and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plants as specified.

E. Trees shall be healthy, full-branched, well-shaped and shall meet the trunk diameter and height requirements of the plant schedule. Balls shall be firm, neat, slightly tapered, and well wrapped in burlap. Any tree loose in the ball or with broken ball at time of planting will be rejected. Balls shall be ten (10") inched in diameter for each one (1") inch of trunk diameter, Measured six (6") inched above ball.
   Nomenclature conforms to the customary nursery usage: for clarification, the term "multi-trunk" defines a plant having three (3) or more trunks of nearly equal diameter.

F. Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect, shall be executed by the Landscape Contractor at no additional cost to the Owner.

2.2 SOIL PREPARATION MATERIALS

A. Sandy Loam:

1. Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam containing Dallasgrass or Nutgrass shall be rejected.
2. Physical properties as follows:
   Clay – between 7-27 percent
   Silt – between 15-25 percent
   Sand – less than 52 percent
3. Organic matter shall be 3%-10% of total dry weight.
4. If requested, provide a certified soil analysis conducted by an approved soil testing laboratory verifying that sandy loam meets the above requirements.

B. Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of course and fine textured material.

C. Premixed Bedding Soil as supplied by Vital Earth Resources, Gladewater, Texas; Professional Bedding Soil as supplied by Living Earth Technology, Dallas, Texas or Acid Gro Municipal Mix as supplied by Soil Building Systems, Dallas, Texas or approved equal.

D. Sharp Sand: Sharp sand must be free of seeds, soil particles and weeds.

E. Mulch: Double Shredded Hardwood Mulch, partially decomposed, dark brown. Living Earth Technologies or approved equal.

F. Organic Fertilizer: Fertilaid, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.

A. Commercial Fertilizer: 10-20-10 or similar analysis. Nitrogen source to be a minimum 50% slow release organic Nitrogen (SCU or UF) with a minimum 8% sulphur and 4% iron, plus micronutrients.

B. Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or other approved organic material.

2.3 MISCELLANEOUS MATERIALS

A. Steel Edging: Shall be Ryerson "Estate Curbing", 1/8" x 4" with stakes 4' on center.

B. Staking Material for Shade Trees:

1. Post: Studded T-Post, #1 Armco with anchor plate; 6'-0" length; paint green.
2. Wire: 12 gauge, single strand, galvanized wire.
3. Rubber hose: 2 ply, fiber reinforced hose, minimum ½ inch inside diameter. Color: Black.

C. Gravel: Washed native pea gravel, graded 1 in. to 1-1/2 in.

D. Filter Fabric: Mirafi 140N by Celanese Fibers Marketing Company, available at Loftland Co., (214) 631-5250 or approved equal.

PART 3 - EXECUTION

3.1 BED PREPARATION & FERTILIZATION

A. Landscape Contractor to inspect all existing conditions and report any deficiencies to the Owner.

B. All planting areas shall be conditioned as follows:

1. Prepare new planting beds by scraping away existing grass and weeds as necessary. Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer. Apply fertilizer as per manufacturers recommendations. Add six (6") inches of compost and till into a depth of six (6") inches of the topsoil. Apply organic fertilizer such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand (1,000) square feet.
2. All planting areas shall receive a two (2") inch layer of specified mulch.
3. Backfill for tree pits shall be as follows: Use existing top soil on site (use imported topsoil as needed) free from large clumps, rocks, debris, caliche, subsoils, etc., placed in nine (9") inch layers and watered in thoroughly.

C. Grass Areas:

1. Areas to be Solid Sod Bermudagrass: Blocks of sod should be laid joint to joint, (staggered joints) after fertiilizing the ground first. Roll grass areas to achieve a smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gaped open, then watered thoroughly.
2. Areas to be Hydromulch Common Bermudagrass: Hydromulch with bermudagrass seed at a rate of two (2) pounds per one thousand (1,000) square feet. Use a 4' x 8' batter board against the bed areas.

3.2 INSTALLATION

A. Maintenance of plant materials shall begin immediately after each plant is delivered to the site and shall continue until all construction has been satisfactorily accomplished.

B. Plant materials shall be delivered to the site only after the beds are prepared and area ready for planting. All shipments of nursery materials shall be thoroughly protected from the drying winds during transit. All plants which cannot be planted at once, after delivery to the site, shall be well protected against the possibility of drying by wind and sun. Balls of earth of B & B plants shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final acceptance.

C. Position the trees and shrubs in their intended location as per plan.

D. Notify the Landscape Architect for inspection and approval of all positioning of plant materials.

E. Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to permit handling and planting without injury to balls of earth or roots and shall be of such depth that, when planted and settled, the crown of the plant shall bear the same relationship to the finish grade as it did to soil surface in original place of growth.

F. Shrub and tree pits shall be no less than two (2') feet, twenty-four (24") inches, wider than the lateral dimension of earth ball and six (6") inches deeper than it's vertical dimension. Remove and haul from site all rocks and stones over one (1") inch in diameter. Plants should be thoroughly moist before removing containers.

G. Dig a wide, rough sided hole exactly the same depth as the height of the ball, especially at the surface of the ground. The sides of the hole should be rough and jagged, never slick or glazed.

H. Percolation Test: Fill the hole with water. If the water level does not percolate within 24 hours, the tree needs to move to another location or have drainage added. Install a PVC stand pipe per tree planting detail as approved by the Landscape Architect.

I. Backfill only with 5 parts existing soil or sandy loam and 1 part bed preparation. When the hole is dug in solid rock, topsoil from the same area should not be used. Carefully settle by watering to prevent air pockets. Remove the burlap from the top 1/3 of the ball, as well as all nylon, plastic string and wire mesh. Container trees will usually be pot bound, if so follow standard nursery practice of 'root scoring'.

J. Do not wrap trees.

K. Do not over prune.

L. Mulch the top of the ball. Do not plant grass all the way to the trunk of the tree. Leave the area above the top of the ball and mulch with at least two (2") inches of specified mulch.

M. All plant beds and trees to be mulched with a minimum settled thickness of two (2") inches over the entire bed or pit.

N. Obstruction below ground: In the event that rock, or underground construction work or obstructions are encountered in any plant pit excavation work to be done under this section, alternate locations may be selected by the Owner. Where locations cannot be changed, the obstructions shall be removed to a depth of not less than three (3') feet below grade and no less than six (6") inches below the bottom of ball when plant is properly set at the required grade. The work of this section shall include the removal from the site of such rock or underground obstructions encountered at the cost of the Landscape Contractor.

O. Trees and large shrubs shall be staked as site conditions require. Position stakes to secure tree against seasonal prevailing winds.

P. Pruning and Mulching: Pruning shall be directed by the Architect and shall be pruned in accordance with standard horticultural practice following Fine Pruning, Class I pruning standards provided by National Arborist Association.

1. Dead wood or suckers and broken badly bruised branches shall be removed. General tipping of the branched is not permitted. Do not cut terminal branches.
2. Pruning shall be done with clean, sharp tools.
3. Immediately after planting operations are completed, all tree pits shall be covered with a layer of organic material two (2") inches in depth. This limit of the organic material for trees shall be the diameter of the plant pit.

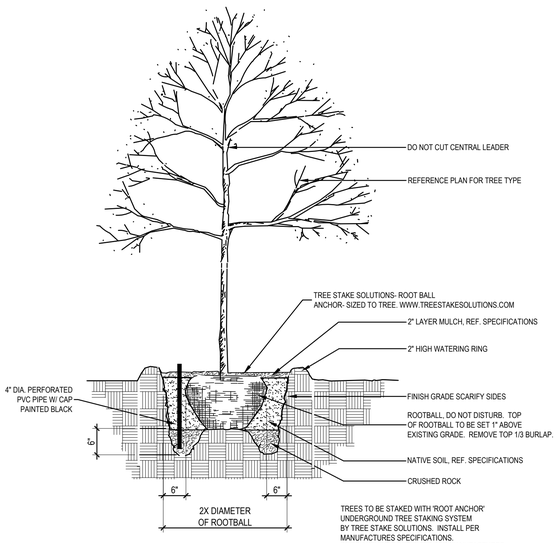
Q. Steel Curbing Installation:

1. Curbing shall be aligned as indicated on plans. Stake out limits of steel curbing and obtain Owners approval prior to installation.
2. All steel curbing shall be free of kinks and abrupt bends.
3. Top of curbing shall be 3/4" maximum height above grade.
1. Stakes are to be installed on the planting bed side of the curbing, as opposed to the grass side.
2. Do not install steel edging along sidewalks.
3. Cut steel edging at 45 degree angle where edging meets sidewalk.

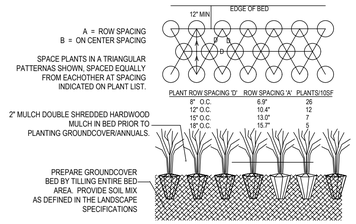
3.3 CLEANUP AND ACCEPTANCE

A. Cleanup: During the work, the premises shall be kept neat and orderly at all times. Storage areas for all materials shall be so organized that they, too, are neat and orderly. All trash and debris shall be removed from the site as work progresses. Keep paved areas clean by sweeping or hosing at end of each days work.

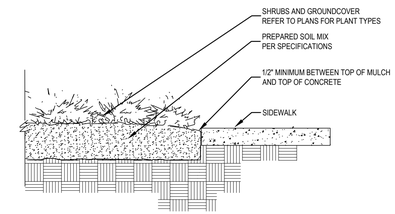
END OF SECTION



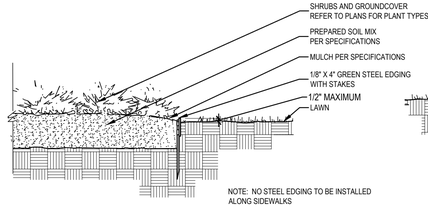
01 TREE PLANTING DETAIL
NOT TO SCALE



02 GROUNDCOVER PLANTING DETAIL
NOT TO SCALE

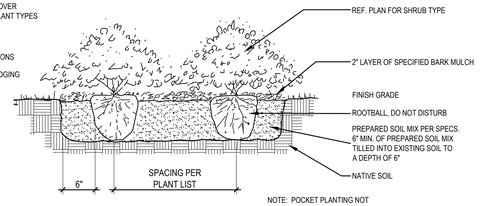


03 SIDEWALK / MULCH DETAIL
no steel along sidewalks NOT TO SCALE



NOTE: NO STEEL EDGING TO BE INSTALLED ALONG SIDEWALKS

04 STEEL EDGING DETAIL
NOT TO SCALE



NOTE: POCKET PLANTING NOT ALLOWED

05 SHRUB PLANTING DETAIL
NOT TO SCALE

APPROVED:
I hereby certify that the above and foregoing site plan for a development in the City of Rockwall, Texas, was approved by the Planning & Zoning Commission of the City of Rockwall on the day of . .

WITNESS OUT HANDS, THIS day of .

Planning & Zoning Commission, Chairman

Director of Planning and Zoning

OWNER
ROCKWALL TECHNOLOGY PARK
PO BOX 968
ROCKWALL, TX 75087
PH: (972) 772-0025
CONTACT: PHIL WAGNER

LANDSCAPE PLAN
CITY PROJECT CASE NO. SP2022-005
INTEGRATED DEFENSE PRODUCTS TM
7.38 ACRES
LOT 4 BLOCK B
ROCKWALL TECHNOLOGY PARK,
J.M. ALLEN SURVEY ABSTRACT NO. 2
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS
PREPARATION DATE: 03/01/2022

APPLICANT	LANDSCAPE ARCHITECT
LINKS CONSTRUCTION 525 S. LOOP 288, SUITE 105 DENTON, TX 76034 PH: 940-783-0920 CONTACT: ALISON WINGET, PE	STUDIO GREEN SPOT, INC. 1784 W. McDERMOTT DR. STE. 110 ALLEN, TX 75013 PH: 469-369-4448 CONTACT: CHRIS TRONZANO, RLA
ENGINEER	**SURVEYOR**
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LANDSCAPE ARCHITECT
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REGISTERED LANDSCAPE ARCHITECT
CHRIS TRONZANO
2042
STATE OF TEXAS

03.09.2022

INTEGRATED DEFENSE PRODUCT TM
LOT 4, BLOCK B
ROCKWALL TECHNOLOGY PARK,
CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS

ISSUE:
FOR APPROVAL 02.04.2022
CITY COMMENTS 03.03.2022
CITY COMMENTS 03.09.2022

DATE:
03.09.2022

SHEET NAME:
LANDSCAPE SPECIFICATIONS

SHEET NUMBER:
L.3