

CONSTRUCTION PLANS FOR RCEC OFFICE BUILDING

LOT 2, BLOCK 1 RAYBURN COUNTRY ADDITION
AN ADDITION TO THE CITY OF ROCKWALL,
ROCKWALL COUNTY, TEXAS



VICINITY MAP
N.T.S.

SHEET INDEX

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- 1a. FINAL PLAT
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3. PAVING & DIMENSION CONTROL
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12. GENERAL NOTES & TYPICAL PAVING SECTIONS
13. WATER DETAILS
14. SANITARY SEWER DETAILS

RECORD DRAWINGS

To the best of our knowledge Engineering Concepts & Design, L.P., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor.

Todd Winters 4-8-15
TODD WINTERS DATE

CAUTION! EXISTING UTILITIES

CONTRACTOR SHOULD CALL 1-800-DIG-TESS PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES FOR EXISTING UTILITY LOCATIONS. EXISTING UTILITIES AND UNDERGROUND FACILITIES INDICATED ON THESE PLANS HAVE BEEN LOCATED FROM REFERENCE INFORMATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY BOTH HORIZONTALLY AND VERTICALLY THE LOCATION OF ALL EXISTING UTILITIES AND UNDERGROUND FACILITIES PRIOR TO CONSTRUCTION AND TO TAKE NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL FACILITIES ENCOUNTERED. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.

OWNER

Rayburn Country Electric
980 Sids Road
Rockwall, TX 75087
Telephone: 469.402.2100



ENGINEERING / PROJECT MANAGEMENT /
CONSTRUCTION SERVICES - FIRM REG. #F-001145
201 WINDCO CIR, STE 200, WYLIE, TX 75098
972-941-8400 FAX: 972-941-8401 WWW.ECDLP.COM

| | |
|----------------|-----------------------------------|
| REVISIONS: | |
| DATE: | APRIL, 2014 |
| PROJECT NO.: | 3551 |
| DWG FILE NAME: | 01 COVER (CONSTRUCTION PLANS).DWG |

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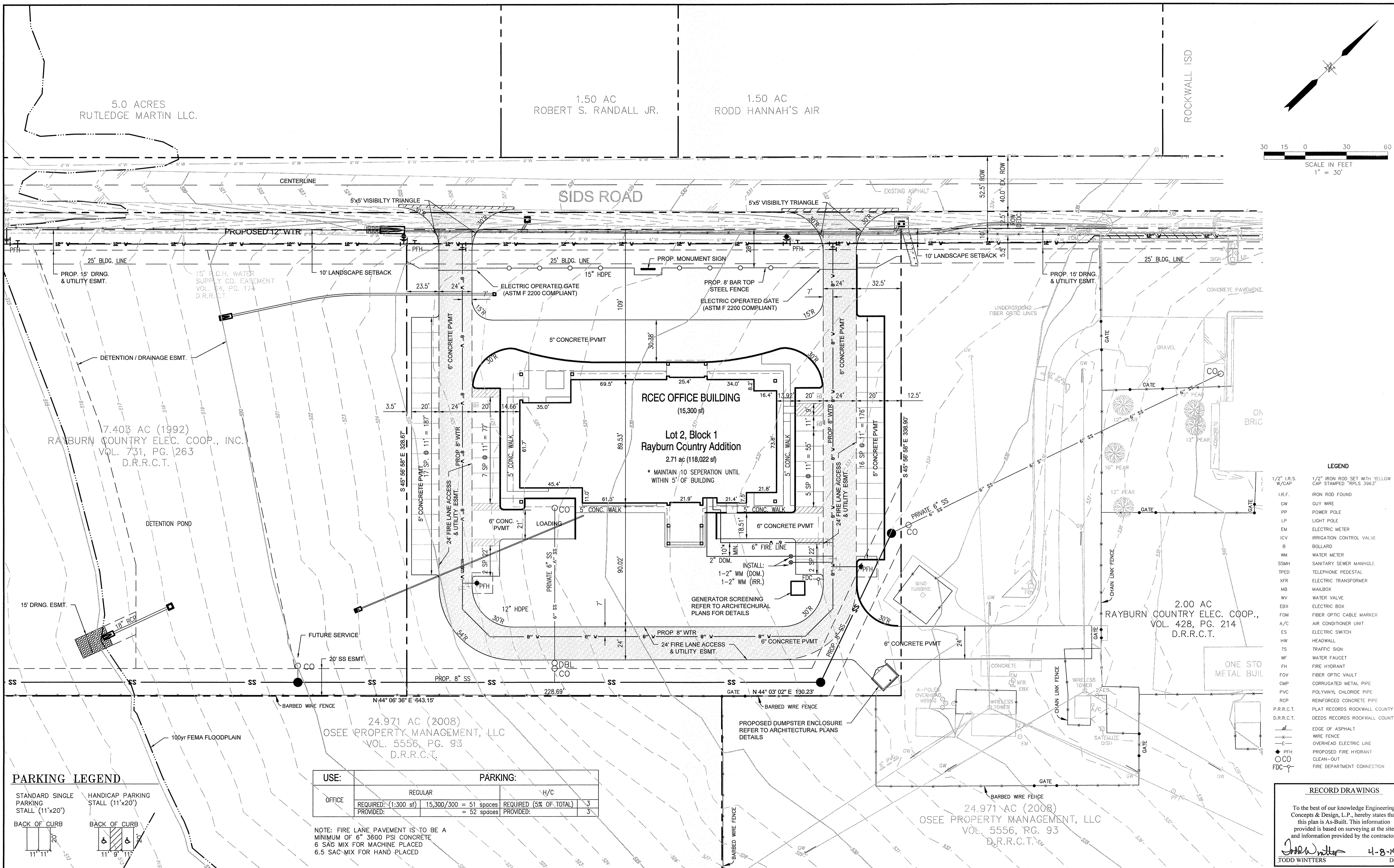
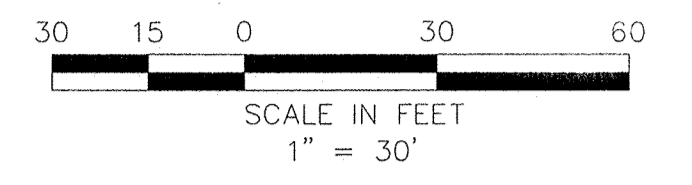


5.0 ACRES
RUTLEDGE MARTIN LLC.

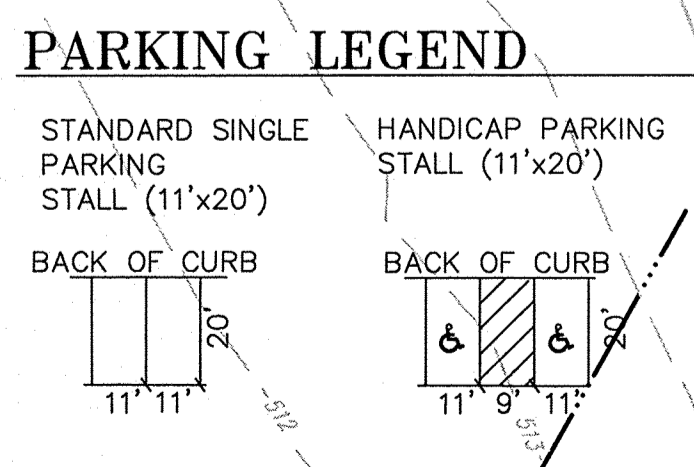
1.50 AC
ROBERT S. RANDALL JR.

1.50 AC
RODD HANNAH'S AIR

ROCKWALL ISD



- LEGEND**
- 1/2" I.R.S. W/CAP: 1/2" IRON ROD SET WITH YELLOW CAP STAMPED "RPLS 3963"
 - I.R.F.: IRON ROD FOUND
 - GW: GUY WIRE
 - PP: POWER POLE
 - LP: LIGHT POLE
 - EM: ELECTRIC METER
 - ICV: IRRIGATION CONTROL VALVE
 - B: BOLLARD
 - WM: WATER METER
 - SSMH: SANITARY SEWER MANHOLE
 - TPED: TELEPHONE PEDESTAL
 - XFR: ELECTRIC TRANSFORMER
 - MB: MAILBOX
 - WV: WATER VALVE
 - EBX: ELECTRIC BOX
 - FOM: FIBER OPTIC CABLE MARKER
 - A/C: AIR CONDITIONER UNIT
 - ES: ELECTRIC SWITCH
 - HW: HEADWALL
 - TS: TRAFFIC SIGN
 - WF: WATER FAUCET
 - FH: FIRE HYDRANT
 - FOV: FIBER OPTIC VAULT
 - CMP: CORRUGATED METAL PIPE
 - PVC: POLYVINYL CHLORIDE PIPE
 - RCP: REINFORCED CONCRETE PIPE
 - P.R.R.C.T.: PLAT RECORDS ROCKWALL COUNTY TEXAS
 - D.R.R.C.T.: DEEDS RECORDS ROCKWALL COUNTY TEXAS
 - : EDGE OF ASPHALT
 - - -: WIRE FENCE
 - - - - -: OVERHEAD ELECTRIC LINE
 - : PROPOSED FIRE HYDRANT
 - : CLEAN-OUT
 - : FIRE DEPARTMENT CONNECTION



| USE: | REGULAR | H/C |
|--------|--|---|
| OFFICE | REQUIRED: (1:300 sf) 15,300/300 = 51 spaces PROVIDED: = 52 spaces | REQUIRED (5% OF TOTAL) 3 PROVIDED: 3 |

NOTE: FIRE LANE PAVEMENT IS TO BE A MINIMUM OF 6" 3800 PSI CONCRETE 6 SAS MIX FOR MACHINE PLACED 6.5 SAC MIX FOR HAND PLACED

BENCHMARK:
"X" CUT IN CURB 23'± SOUTH OF EAST DRIVE APPROACH OF EXISTING RAYBURN COUNTRY ELECTRIC BUILDING.



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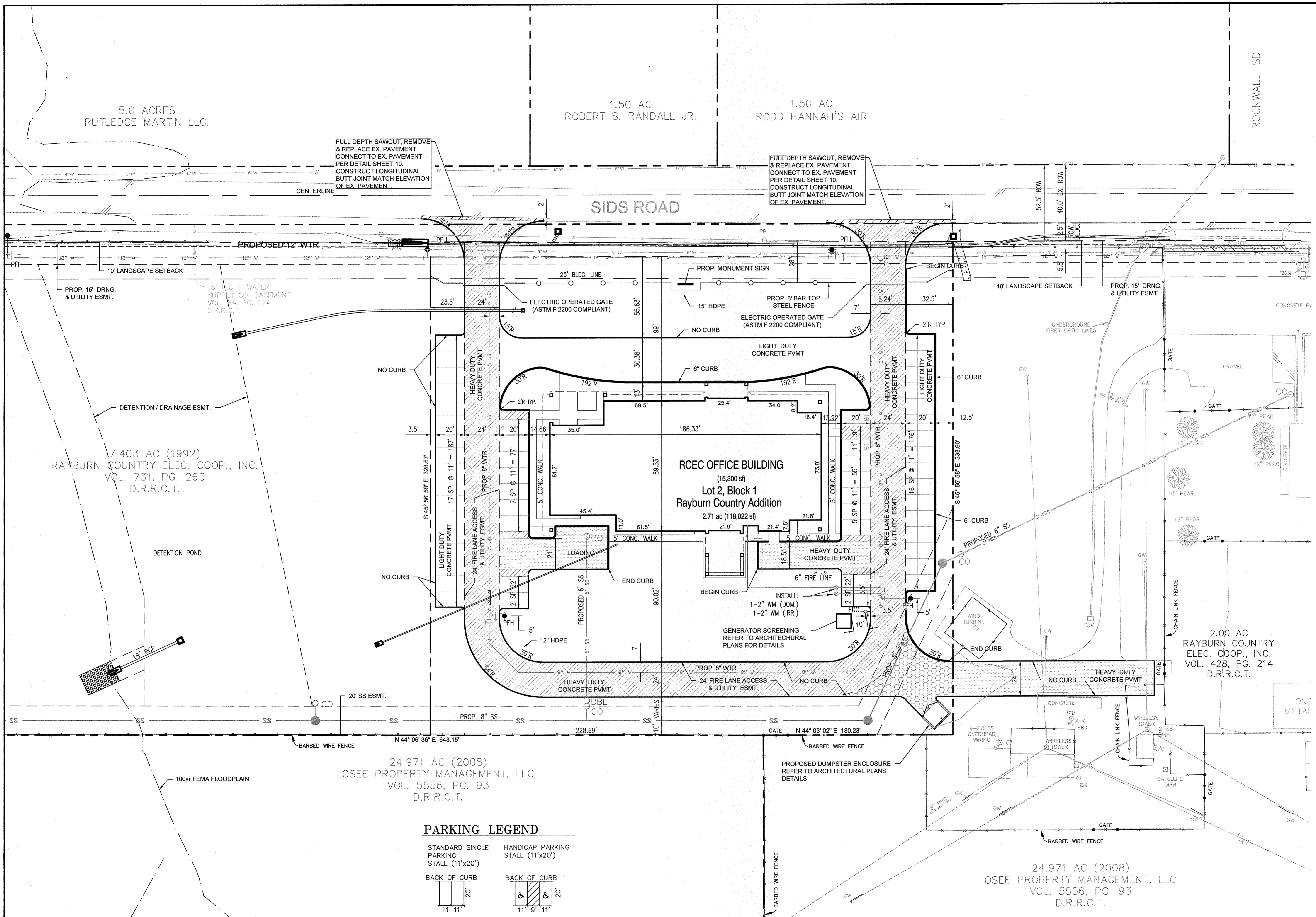
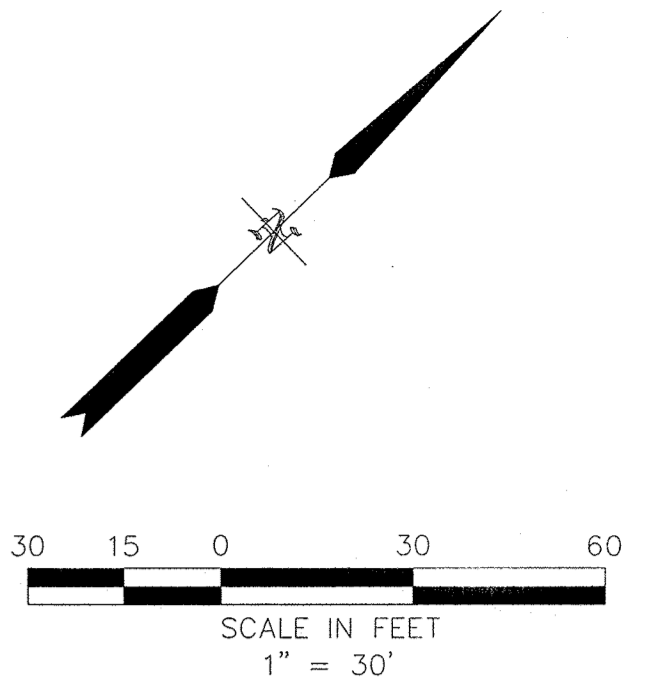
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|-------------------|-------------------|
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| CHECKED: TW | DATE: |
| PROJECT NO.: 3551 | |
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SITE PLAN
RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

RECORD DRAWINGS
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Todd Winters 4-8-15
TODD WINTERS DATE



LEGEND

| | |
|-------------------|--|
| 1/2" I.R.S. W/CAP | 1/2" IRON ROD SET WITH YELLOW CAP STAMPED "RPLS 396-3" |
| I.R.F. | IRON ROD FOUND |
| CW | GUY WIRE |
| PP | POWER POLE |
| LP | LIGHT POLE |
| EM | ELECTRIC METER |
| ICV | IRRIGATION CONTROL VALVE |
| B | BOLLARD |
| WM | WATER METER |
| SSMH | SANITARY SEWER MANHOLE |
| TPED | TELEPHONE PEDESTAL |
| XFR | ELECTRIC TRANSFORMER |
| MB | MAILBOX |
| WV | WATER VALVE |
| EBX | ELECTRIC BOX |
| FOM | FIBER OPTIC CABLE MARKER |
| A/C | AIR CONDITIONER UNIT |
| ES | ELECTRIC SWITCH |
| HW | HEADWALL |
| TS | TRAFFIC SIGN |
| WF | WATER FAUCET |
| FH | FIRE HYDRANT |
| FOV | FIBER OPTIC VAULT |
| CMP | CORRUGATED METAL PIPE |
| PVC | POLYVINYL CHLORIDE PIPE |
| RCF | REINFORCED CONCRETE PIPE |
| P.R.R.C.T. | PLAT RECORDS ROCKWALL COUNTY TEXAS |
| D.R.R.C.T. | DEEDS RECORDS ROCKWALL COUNTY TEXAS |
| | EDGE OF ASPHALT |
| | WIRE FENCE |
| | OVERHEAD ELECTRIC LINE |
| | PROPOSED FIRE HYDRANT |

LEGEND:

| | |
|--|--|
| | LIGHT DUTY PAVEMENT 5"- 3,000 psi (REF TO GEOTECH REPORT) 5.5 SACK MIN. |
| | HEAVY DUTY PAVEMENT 6"- 3,600 psi (REF TO GEOTECH REPORT) 6.0 SACK MIN. (MACHINE PLACED) 6.5 SACK MIN. (HAND PLACED) |
| | DUMPSTER AREA PAVEMENT 7"- 3,600 psi (REF TO GEOTECH REPORT) 6.0 SACK MIN. (MACHINE PLACED) 6.5 SACK MIN. (HAND PLACED) |

PARKING LEGEND

| | |
|--|---|
| | STANDARD SINGLE PARKING STALL (11'x20') |
| | HANDICAP PARKING STALL (11'x20') |
| | BACK OF CURB |

RECORD DRAWINGS

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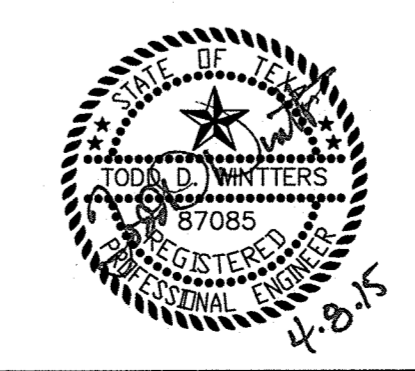
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PAVING & DIMENSION CONTROL PLAN

RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

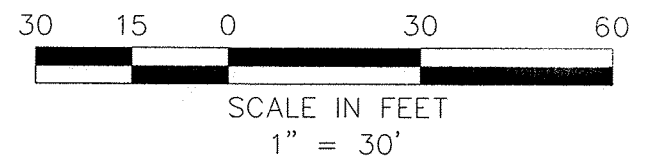
SHEET 3 OF 14

5.0 ACRES
RUTLEDGE MARTIN LLC.

1.50 AC
ROBERT S. RANDALL JR.

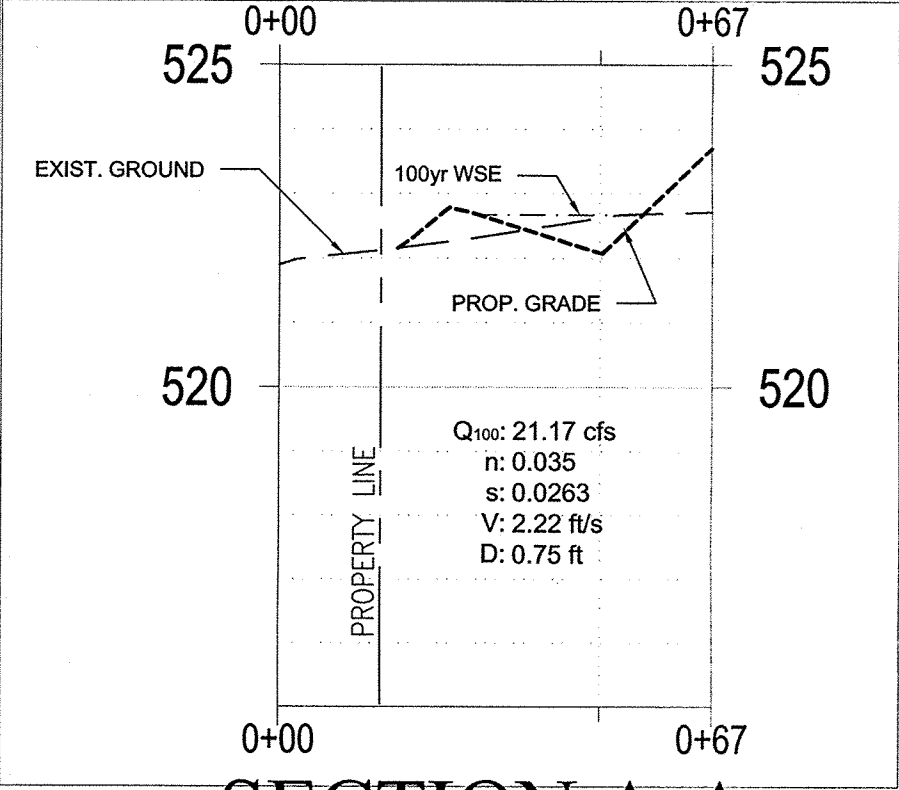
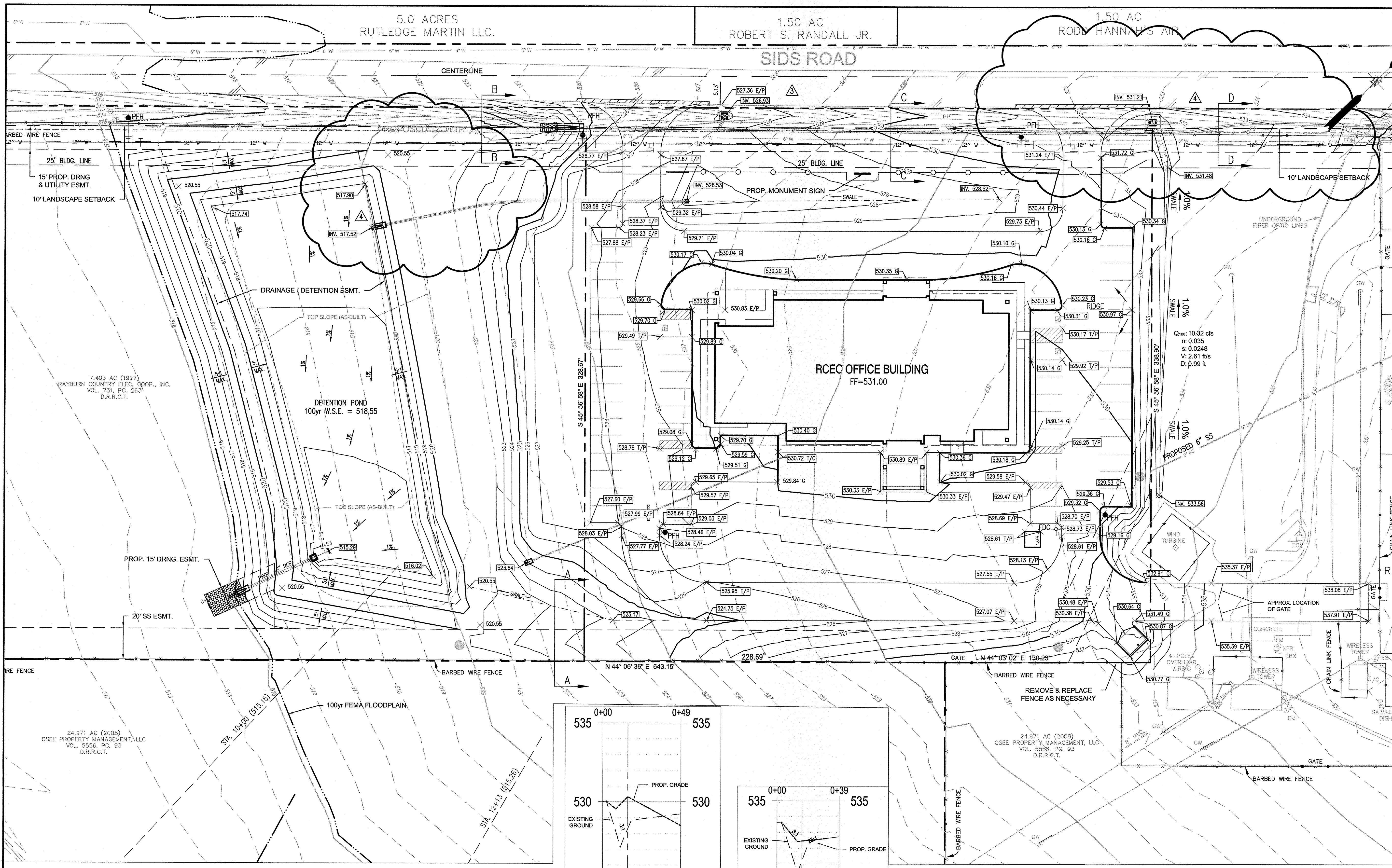
1.50 AC
ROD HANNAH'S AIR

SIDS ROAD

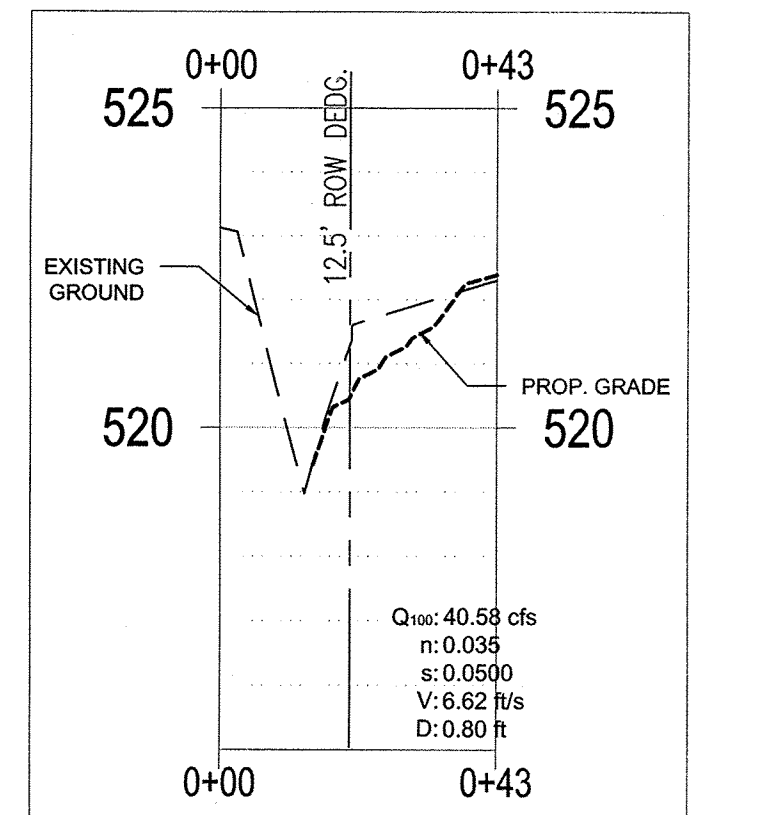


LEGEND

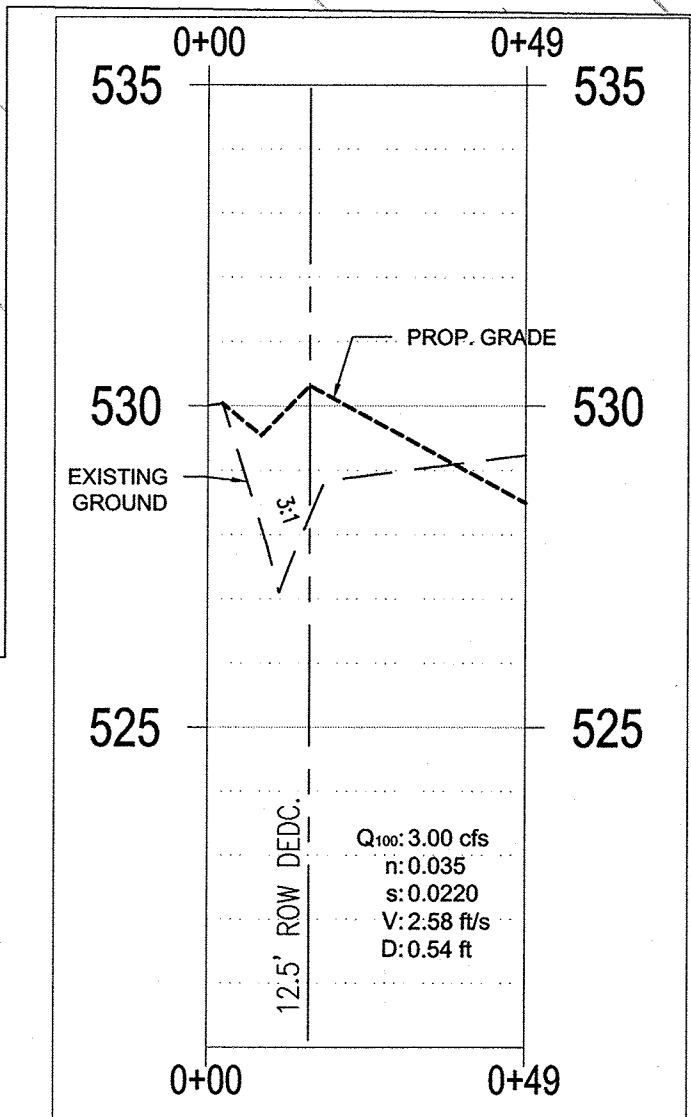
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| LP | LIGHT POLE |
| EM | ELECTRIC METER |
| ICV | IRRIGATION CONTROL VALVE |
| B | BOLLARD |
| WM | WATER METER |
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| TPED | TELEPHONE PEDESTAL |
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| A/C | AIR CONDITIONER UNIT |
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| RCP | REINFORCED CONCRETE PIPE |
| P.R.R.C.T. | PLAT RECORDS ROCKWALL COUNTY TEXAS |
| D.R.R.C.T. | DEEDS RECORDS ROCKWALL COUNTY TEXAS |
| - - - | EDGE OF ASPHALT |
| - - - | WIRE FENCE |
| - - - | OVERHEAD ELECTRIC LINE |
| + | PROPOSED FIRE HYDRANT |
| - - - | EX. CONTOUR |
| - - - | PROP. CONTOUR |



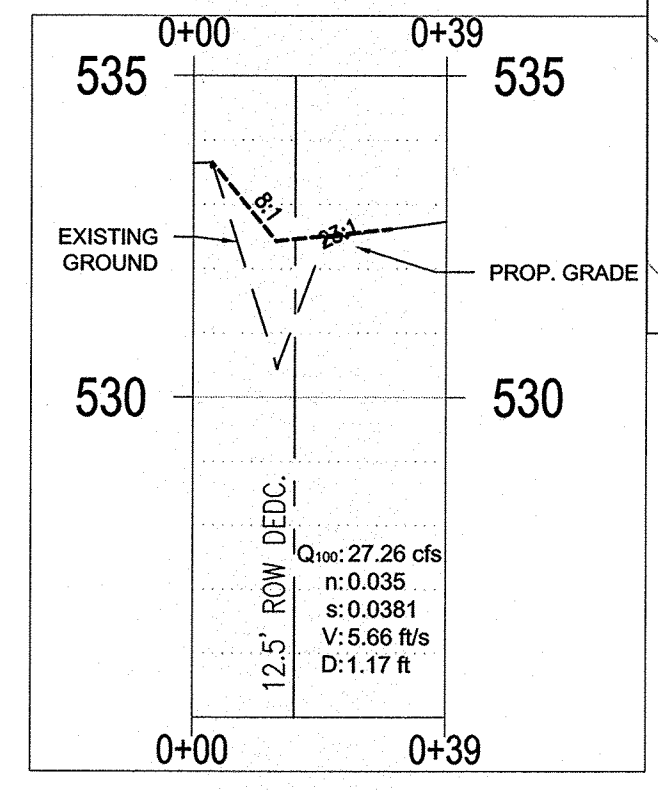
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

RECORD DRAWINGS

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Todd Winters 4-8-15
TODD WINTERS DATE

NOTE: ALL FILL TO BE COMPACTED TO 95% USING A SHEEP'S FOOT ROLLER.

BENCHMARK:
"X" CUT IN CURB 23± SOUTH OF EAST DRIVE APPROACH OF EXISTING RAYBURN COUNTRY ELECTRIC BUILDING.

ENGINEERINGCONCEPTS & DESIGN, L.P.

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| | | | |
|----------------|---|-------|-------------|
| REVISIONS: | 4/24/2014 MOVED DITCH ALONG SIDS RD. 3' CLOSER TO SIDS RD | | |
| | 5/29/2014 REVISED INLET/ROOF DRAIN CONNECTION | | |
| | 6/30/2014 REVISED GRADING, ADDED WYE INLET | | |
| | 8/21/2014 REVISED DITCH GRADING | | |
| DRAWN: | JIM | DATE: | APRIL, 2014 |
| CHECKED: | TW | DATE: | |
| PROJECT NO.: | 3551 | | |
| DWG FILE NAME: | | | |

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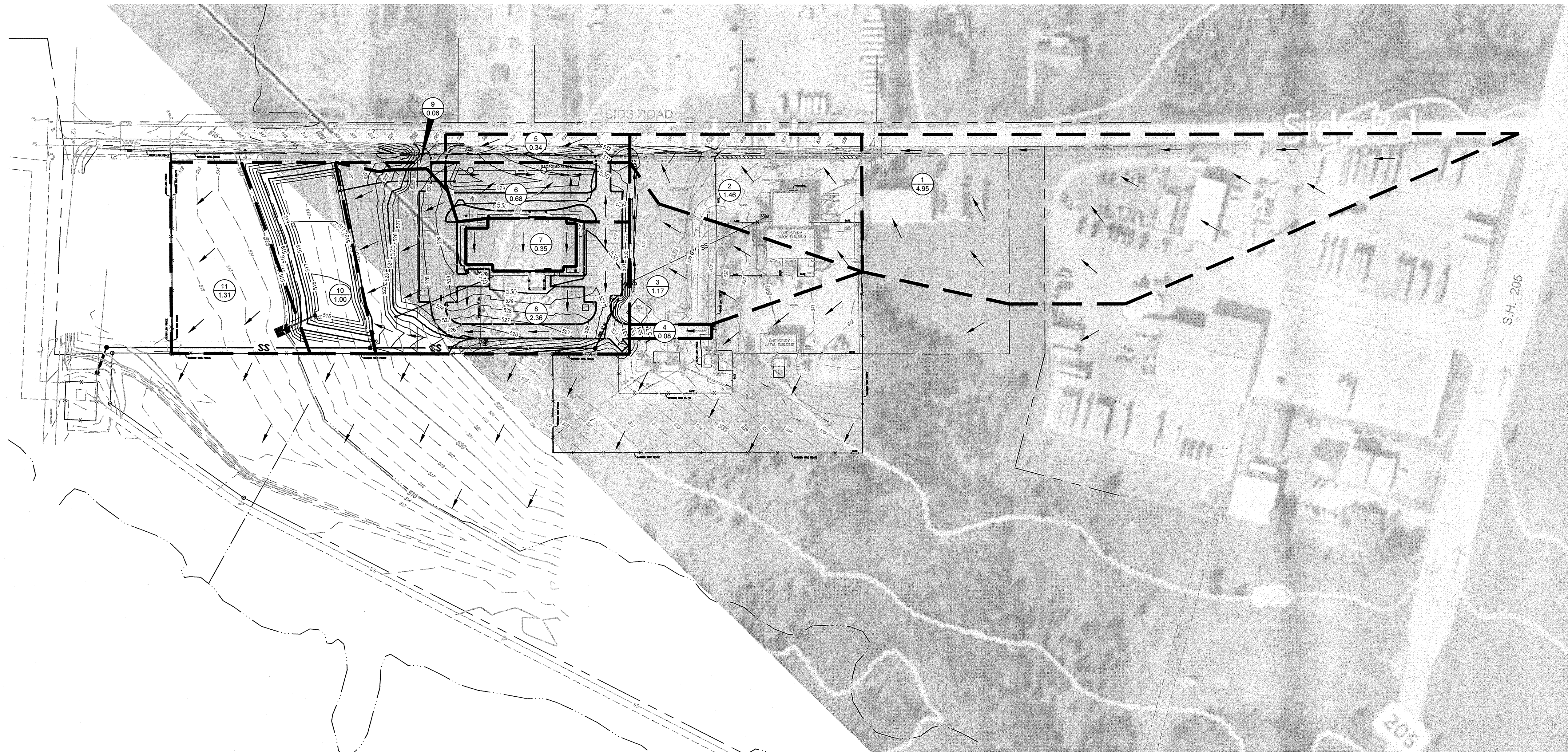
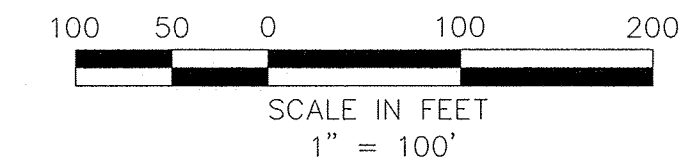
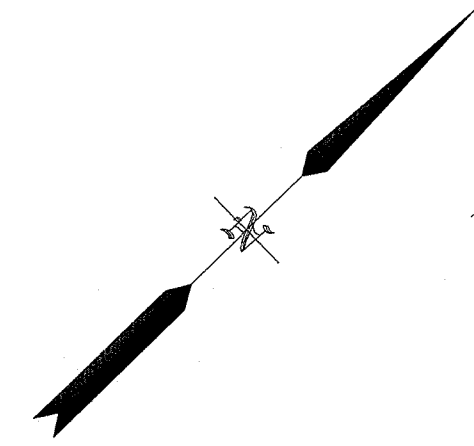


GRADING PLAN

RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET 4 OF 14

LEGEND:



| DETENTION POND VOLUME CALCULATOR | | | | | |
|----------------------------------|--------|---------|---------------------|-------|-----------|
| MODIFIED RATIONAL METHOD | | | | | |
| 5 YEAR FREQUENCY | | | | | |
| DETENTION REQUIRED | | | | | |
| Acres | 0 | | | | |
| site total | 4.47 | 7.82 | | | |
| ByPass | 0.06 | 0.37 | | | |
| Area, acre | 4.41 | | | | |
| Present Conditions | | | Proposed Conditions | | |
| C | 0.35 | | C | 0.90 | |
| Tc | 20.00 | | Tc | 10.00 | |
| i(100) | 5.00 | | i(100) | 6.90 | |
| Q(100) | 7.45 | | Q(100) | 27.39 | |
| Proposed Intensities | | | | | |
| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
| 5 | 10264 | 3352 | 6911 | 5 | 8.62 |
| 10 | 16432 | 4470 | 11962 | 10 | 6.9 |
| 15 | 20718 | 5587 | 15131 | 15 | 5.8 |
| 20 | 23814 | 6705 | 17109 | 20 | 5 |
| 30 | 27862 | 8940 | 18923 | 30 | 3.9 |
| 40 | 31434 | 11175 | 20260 | 40 | 3.3 |
| 50 | 33340 | 13410 | 19930 | 50 | 2.8 |
| 60 | 35721 | 15645 | 20076 | 60 | 2.5 |
| 70 | 36674 | 17880 | 18794 | 70 | 2.2 |
| 80 | 38102 | 20115 | 17988 | 80 | 2 |
| 90 | 40722 | 22350 | 18372 | 90 | 1.9 |

| DETENTION POND VOLUME CALCULATOR | | | | | |
|----------------------------------|--------|---------|---------------------|-------|-----------|
| MODIFIED RATIONAL METHOD | | | | | |
| 10 YEAR FREQUENCY | | | | | |
| DETENTION REQUIRED | | | | | |
| Acres | 0 | | | | |
| site total | 4.47 | 8.92 | | | |
| ByPass | 0.06 | 0.43 | | | |
| Area, acre | 4.41 | | | | |
| Present Conditions | | | Proposed Conditions | | |
| C | 0.35 | | C | 0.90 | |
| Tc | 20.00 | | Tc | 10.00 | |
| i(100) | 5.70 | | i(100) | 8.00 | |
| Q(100) | 8.49 | | Q(100) | 31.75 | |
| Proposed Intensities | | | | | |
| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
| 5 | 12026 | 3819 | 8208 | 5 | 10.1 |
| 10 | 19051 | 5091 | 13960 | 10 | 8.0 |
| 15 | 23576 | 6364 | 17212 | 15 | 6.6 |
| 20 | 27148 | 7637 | 19511 | 20 | 5.7 |
| 30 | 32149 | 10183 | 21966 | 30 | 4.5 |
| 40 | 36197 | 12728 | 23469 | 40 | 3.8 |
| 50 | 39293 | 15274 | 24019 | 50 | 3.3 |
| 60 | 41436 | 17820 | 23616 | 60 | 2.9 |
| 70 | 43341 | 20366 | 22976 | 70 | 2.6 |
| 80 | 45723 | 22911 | 22812 | 80 | 2.4 |
| 90 | 47152 | 25457 | 21695 | 90 | 2.2 |

| DETENTION POND VOLUME CALCULATOR | | | | | |
|----------------------------------|--------|---------|---------------------|-------|-----------|
| MODIFIED RATIONAL METHOD | | | | | |
| 25 YEAR FREQUENCY | | | | | |
| DETENTION REQUIRED | | | | | |
| Acres | 0 | | | | |
| site total | 4.47 | 10.48 | | | |
| ByPass | 0.06 | 0.50 | | | |
| Area, acre | 4.41 | | | | |
| Present Conditions | | | Proposed Conditions | | |
| C | 0.35 | | C | 0.90 | |
| Tc | 20.00 | | Tc | 10.00 | |
| i(100) | 6.70 | | i(100) | 9.30 | |
| Q(100) | 9.98 | | Q(100) | 36.91 | |
| Proposed Intensities | | | | | |
| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
| 5 | 14288 | 4491 | 9797 | 5 | 12.0 |
| 10 | 22147 | 5988 | 16159 | 10 | 9.3 |
| 15 | 27862 | 7485 | 20377 | 15 | 7.8 |
| 20 | 31911 | 8982 | 22929 | 20 | 6.7 |
| 30 | 37864 | 11976 | 25888 | 30 | 5.3 |
| 40 | 42865 | 14970 | 27895 | 40 | 4.5 |
| 50 | 46437 | 17964 | 28473 | 50 | 3.9 |
| 60 | 48581 | 20958 | 27623 | 60 | 3.4 |
| 70 | 51676 | 23952 | 27725 | 70 | 3.1 |
| 80 | 53243 | 26946 | 26397 | 80 | 2.8 |
| 90 | 55725 | 29940 | 25785 | 90 | 2.6 |

| DETENTION POND VOLUME CALCULATOR | | | | | |
|----------------------------------|--------|---------|---------------------|-------|-----------|
| MODIFIED RATIONAL METHOD | | | | | |
| 100 YEAR FREQUENCY | | | | | |
| DETENTION REQUIRED | | | | | |
| Acres | 0 | | | | |
| site total | 4.47 | 12.99 | | | |
| ByPass | 0.06 | 0.53 | | | |
| Area, acre | 4.41 | | | | |
| Present Conditions | | | Proposed Conditions | | |
| C | 0.35 | | C | 0.90 | |
| Tc | 20.00 | | Tc | 10.00 | |
| i(100) | 8.30 | | i(100) | 9.80 | |
| Q(100) | 12.46 | | Q(100) | 38.90 | |
| Proposed Intensities | | | | | |
| Time | Inflow | Outflow | Storage (cf) | Tc | Intensity |
| 5 | 17741 | 5605 | 12136 | 5 | 14.9 |
| 10 | 23338 | 7474 | 15864 | 10 | 9.8 |
| 15 | 32149 | 9342 | 22807 | 15 | 9.0 |
| 20 | 39531 | 11211 | 28321 | 20 | 8.3 |
| 30 | 49295 | 14947 | 34348 | 30 | 6.3 |
| 40 | 55248 | 18684 | 36564 | 40 | 5.8 |
| 50 | 59535 | 22421 | 37114 | 50 | 5.0 |
| 60 | 64288 | 26158 | 38140 | 60 | 4.5 |
| 70 | 66679 | 29895 | 36784 | 70 | 4.0 |
| 80 | 70489 | 33632 | 36858 | 80 | 3.7 |
| 90 | 75014 | 37368 | 37446 | 90 | 3.5 |

DRAINAGE CALCULATIONS

| AREA NO. | AREA (ACRES) | C | Tc (MIN) | I100 (IN/HR) | Q100 (CFS) | COMMENTS |
|----------|--------------|------|----------|--------------|------------|---|
| 1 | 4.95 | 0.35 | 20 | 8.3 | 14.38 | OFF-SITE TO DITCH ALONG SIDS ROAD (NO DET. REQ.) |
| 2 | 1.46 | 0.90 | 10 | 9.8 | 12.88 | OFF-SITE TO DITCH ALONG SIDS ROAD (NO DET. REQ.) |
| 3 | 1.17 | 0.90 | 10 | 9.8 | 10.32 | OFF-SITE TO DITCH ALONG SIDS ROAD (NO DET. REQ.) |
| 4 | 0.08 | 0.90 | 10 | 9.8 | 0.71 | OFF-SITE (TO POND) |
| 5 | 0.34 | 0.90 | 10 | 9.8 | 3.00 | SIDS ROW (NO DET. REQ.) |
| 6 | 0.68 | 0.90 | 10 | 9.8 | 6.00 | TO WYE INLET (ON-SITE DETENTION) |
| 7 | 0.35 | 0.90 | 10 | 9.8 | 3.09 | ROOF DRAIN LINE (ON-SITE DETENTION) |
| 8 | 2.36 | 0.90 | 10 | 9.8 | 20.82 | TO ON-SITE DETENTION |
| 9 | 0.06 | 0.90 | 10 | 9.8 | 0.53 | TO DITCH ALONG SIDS ROAD (BYPASS) |
| 10 | 1.00 | 0.35 | 10 | 9.8 | 3.43 | DETENTION POND |
| 11 | 1.31 | 0.35 | 10 | 9.8 | 4.49 | SHEET FLOW TO CREEK (BYPASS @ EXISTING CONDITION) |

RECORD DRAWINGS

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TODD WINTERS DATE

BENCHMARK:
"X" CUT IN CURB 23± SOUTH OF EAST DRIVE APPROACH OF EXISTING RAYBURN COUNTRY ELECTRIC BUILDING.



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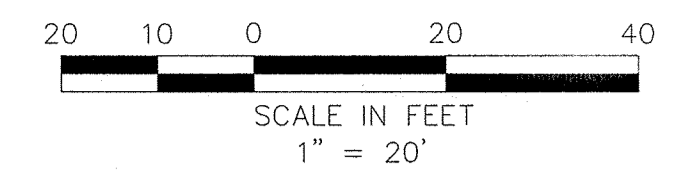
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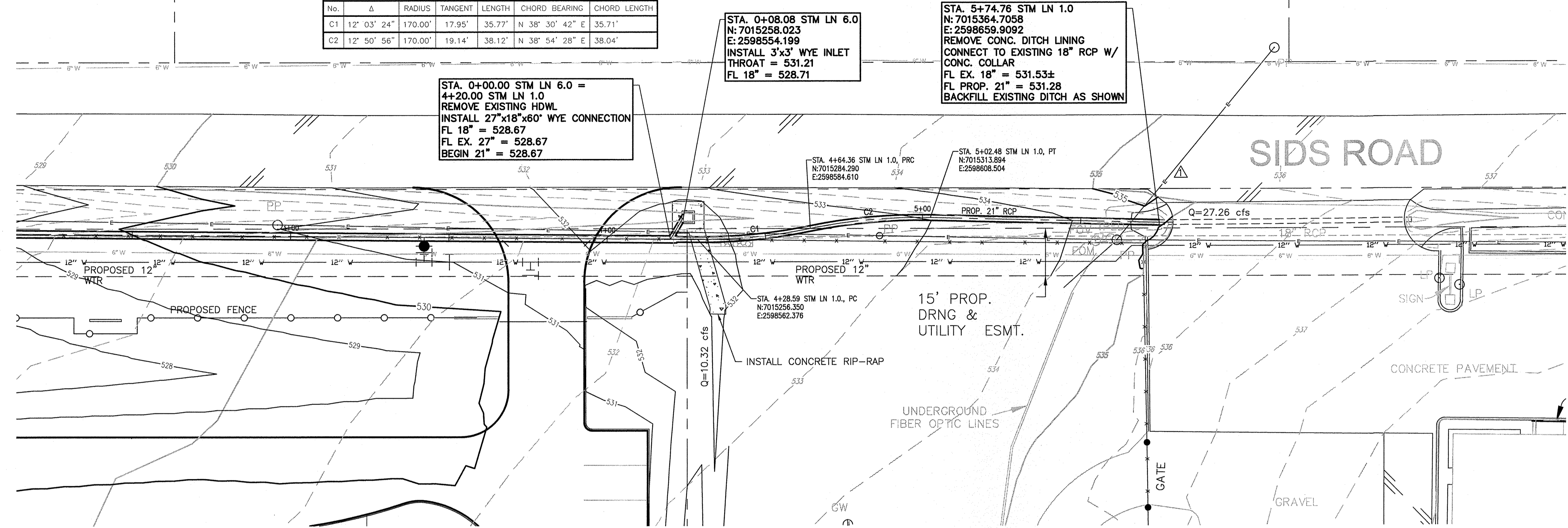


DRAINAGE AREA MAP
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LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET
5
OF
14



| CURVE TABLE | | | | | | |
|-------------|-------------|---------|---------|--------|-----------------|--------------|
| No. | Δ | RADIUS | TANGENT | LENGTH | CHORD BEARING | CHORD LENGTH |
| C1 | 12° 03' 24" | 170.00' | 17.95' | 35.77' | N 38° 30' 42" E | 35.71' |
| C2 | 12° 50' 56" | 170.00' | 19.14' | 38.12' | N 38° 54' 28" E | 38.04' |



STA. 0+00.00 STM LN 6.0 =
4+20.00 STM LN 1.0
REMOVE EXISTING HDWL
INSTALL 27"x18"x60" WYE CONNECTION
FL 18" = 528.67
FL EX. 27" = 528.67
BEGIN 21" = 528.67

STA. 0+08.08 STM LN 6.0
N: 7015258.023
E: 2598554.199
INSTALL 3"x3" WYE INLET
THROAT = 531.21
FL 18" = 528.71

STA. 5+74.76 STM LN 1.0
N: 7015364.7058
E: 2598659.9092
REMOVE CONC. DITCH LINING
CONNECT TO EXISTING 18" RCP W/
CONC. COLLAR
FL EX. 18" = 531.53±
FL PROP. 21" = 531.28
BACKFILL EXISTING DITCH AS SHOWN

15' PROP. DRNG & UTILITY ESMT.

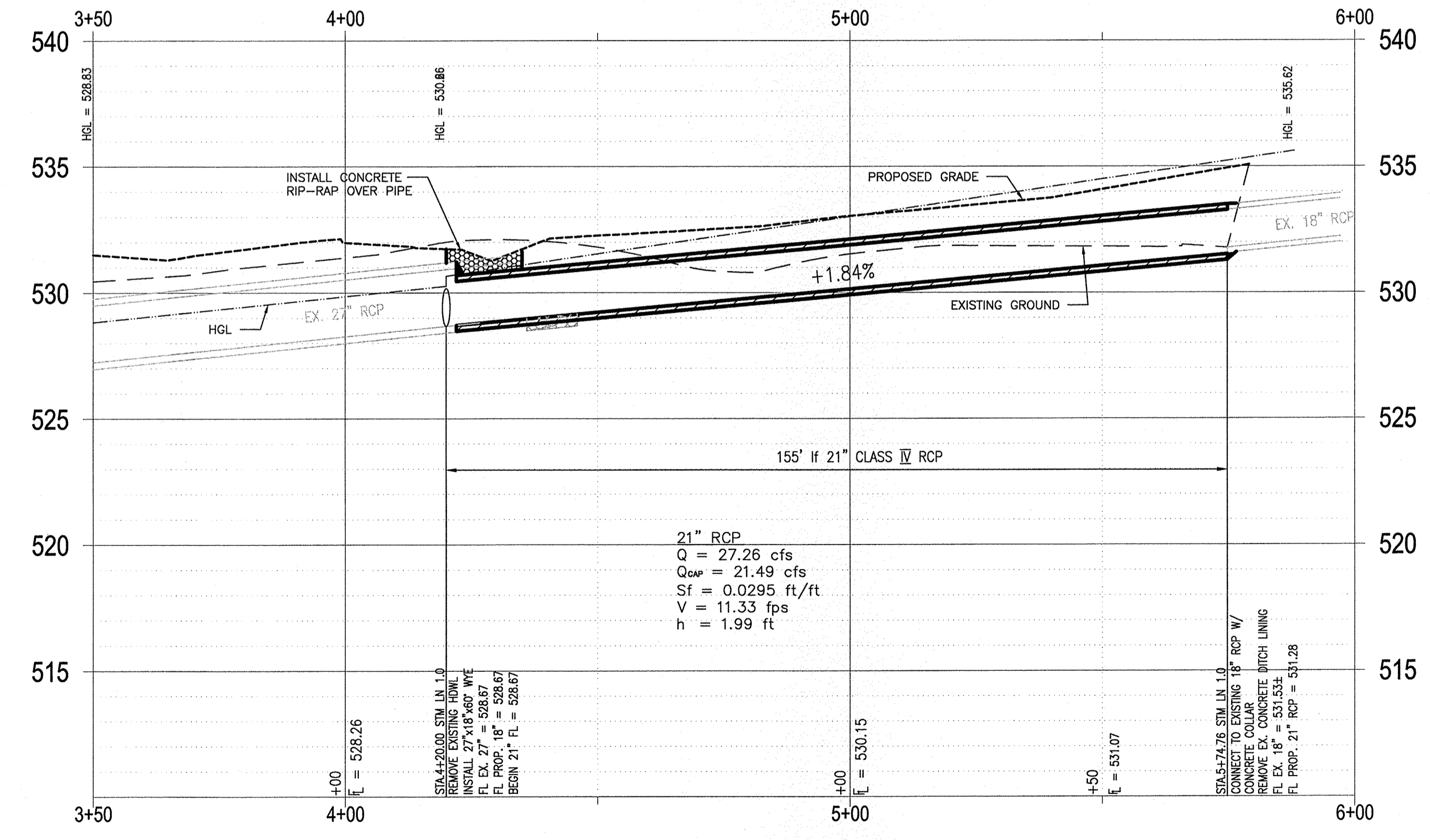
INSTALL CONCRETE RIP-RAP

UNDERGROUND FIBER OPTIC LINES

CONCRETE PAVEMENT

GRAVEL

STM LN 1.0



21" RCP
Q = 27.26 cfs
Q_{sw} = 21.49 cfs
S_f = 0.0295 ft/ft
V = 11.33 fps
h = 1.99 ft

STA. 4+20.00 STM LN 1.0
N: 7015256.350
E: 2598662.376
INSTALL 27"x18"x60" WYE
FL EX. 27" = 528.67
FL PROP. 18" = 528.67
BEGIN 21" FL = 528.67

STA. 5+74.76 STM LN 1.0
N: 7015364.7058
E: 2598659.9092
REMOVE EX. CONC. DITCH LINING
CONCRETE COLLAR
FL EX. 18" = 531.53±
FL PROP. 21" RCP = 531.28

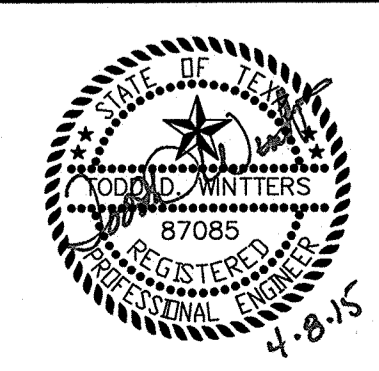
RECORD DRAWINGS
To the best of our knowledge Engineering Concepts & Design, L.P., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor.
Todd Winters 4-8-15
TODD WINTERS DATE

BENCHMARK:
"X" CUT IN CURB 23± SOUTH OF EAST DRIVE APPROACH OF EXISTING RAYBURN COUNTRY ELECTRIC BUILDING.

ENGINEERINGCONCEPTS & DESIGN, L.P.
ENGINEERING / PROJECT MANAGEMENT / CONSTRUCTION SERVICES - FIRM REG. #F-001145
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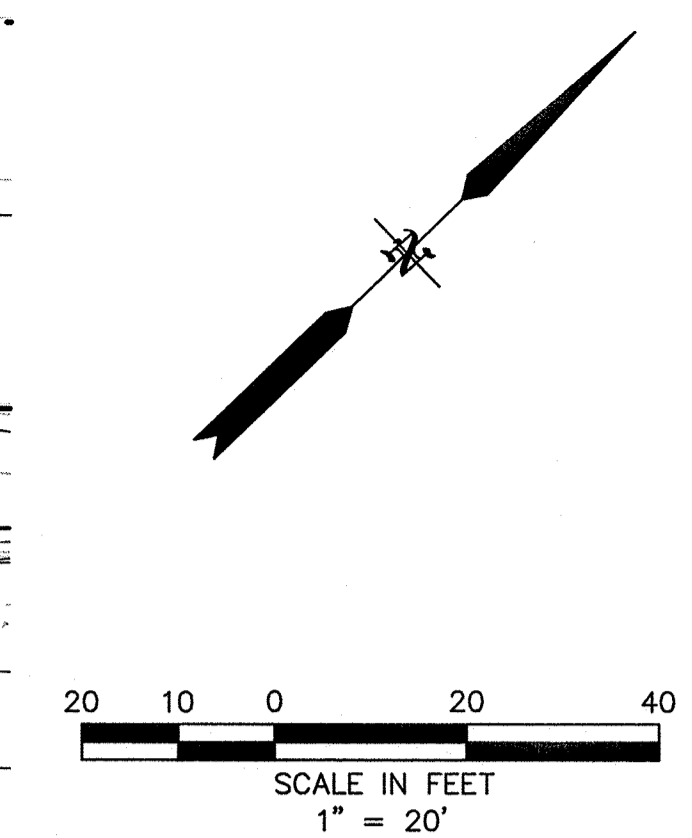
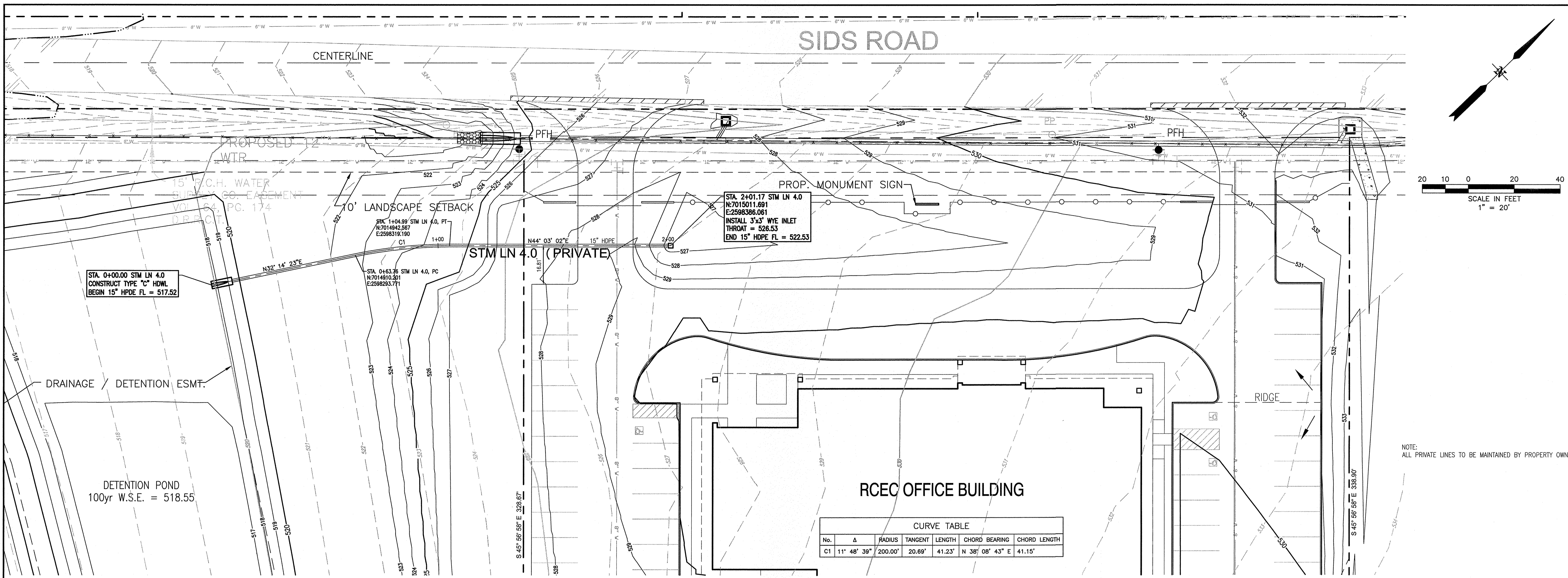
| REVISIONS: | |
|-------------------|-------------------|
| DRAWN: JIM | DATE: APRIL, 2014 |
| CHECKED: TW | DATE: |
| PROJECT NO.: 3551 | |
| DWG FILE NAME: | |

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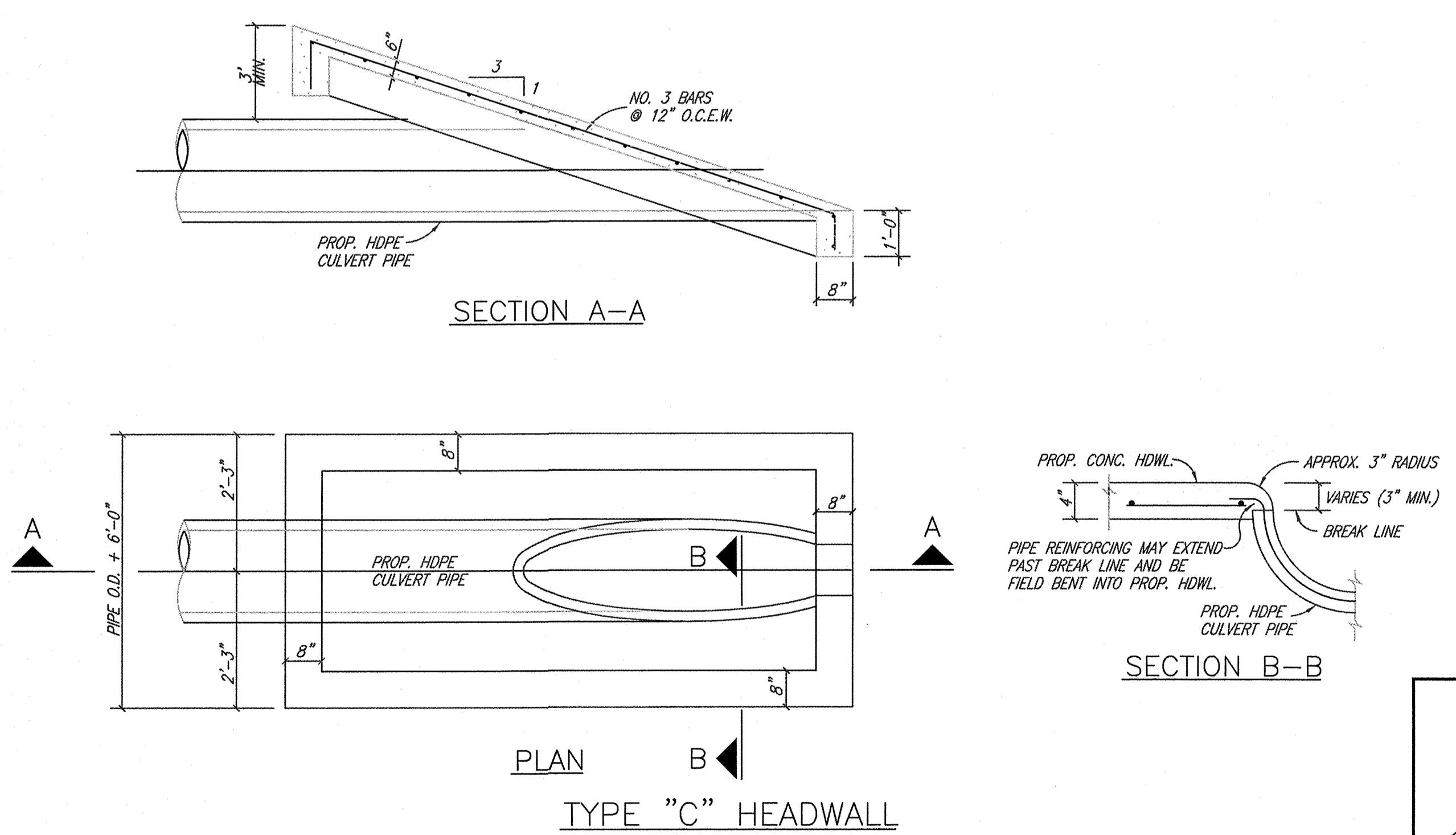
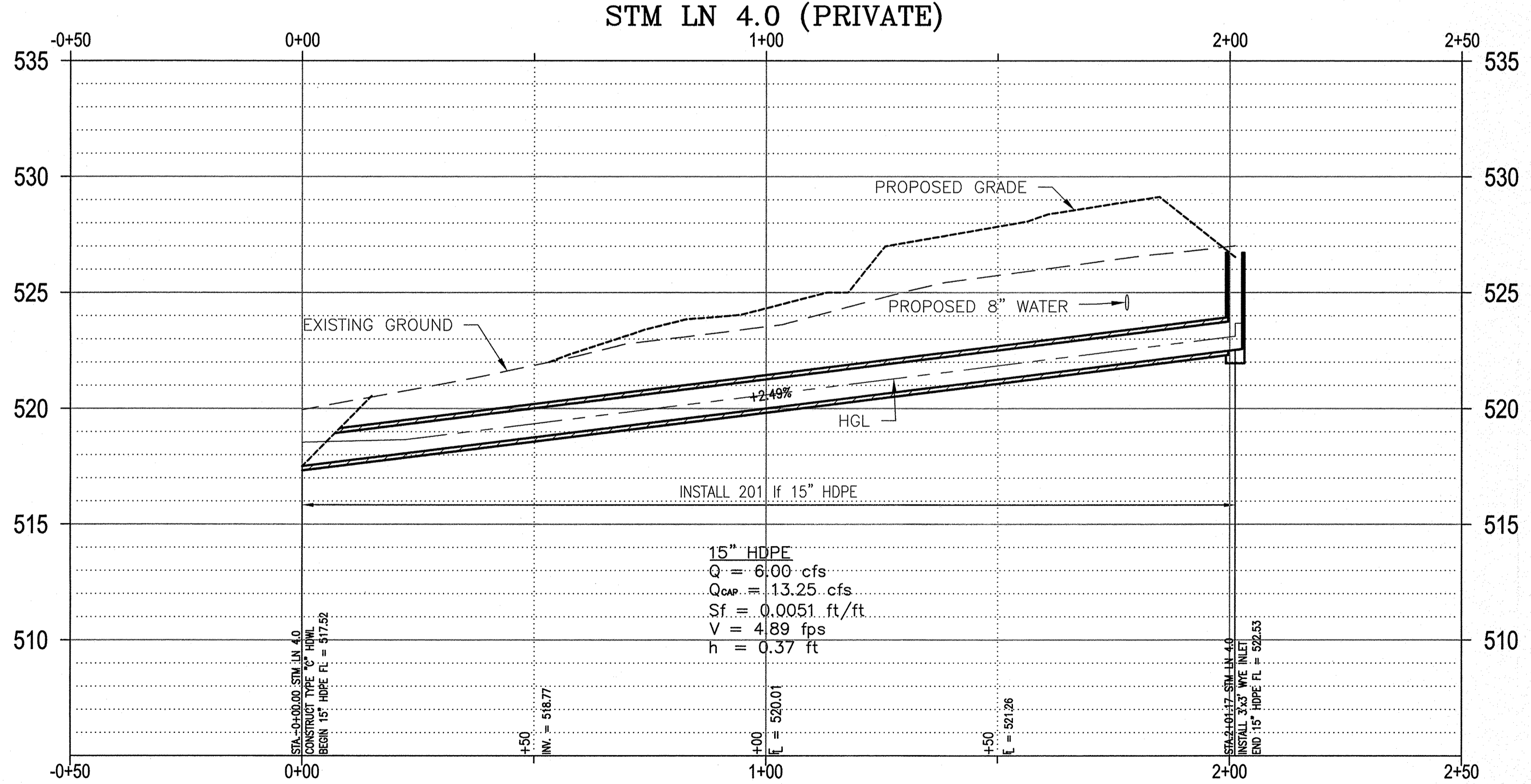
STORM SEWER PLAN & PROFILE
RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALLY COUNTY, TEXAS

SHEET
6A
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CURVE TABLE

| No. | Δ | RADIUS | TANGENT LENGTH | CHORD BEARING | CHORD LENGTH |
|-----|-------------|---------|----------------|------------------------|--------------|
| C1 | 11° 48' 39" | 200.00' | 20.69' | 41.23' N 38° 08' 43" E | 41.15' |



RECORD DRAWINGS

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Todd Winters 4-8-15
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ENGINEERINGCONCEPTS & DESIGN, L.P.

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201 WINDCO CIR. STE 200, WYLIE, TX 75098
972-941-8400 FAX: 972-941-8401 WWW.ECDLP.COM

REVISIONS:

| | |
|-----------|--------------------------------|
| 5/29/2014 | REVISED INLET LOCATION/GRADING |
| 8/21/2014 | EXTENDED/REVISED STM LN 4.0 |

DRAWN: JIM DATE: APRIL, 2014
CHECKED: TW DATE:
PROJECT NO: 3551
DWG FILE NAME:

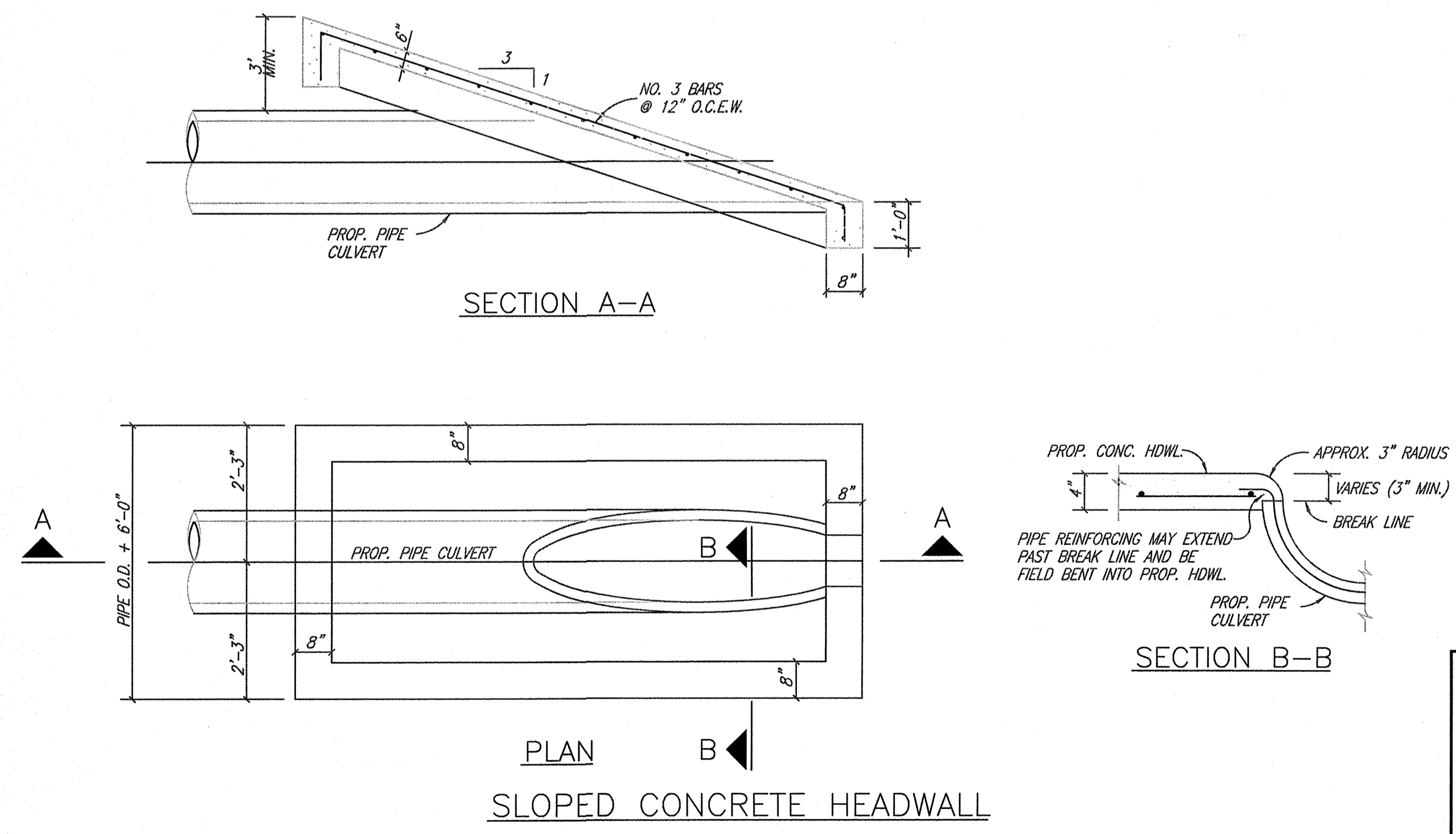
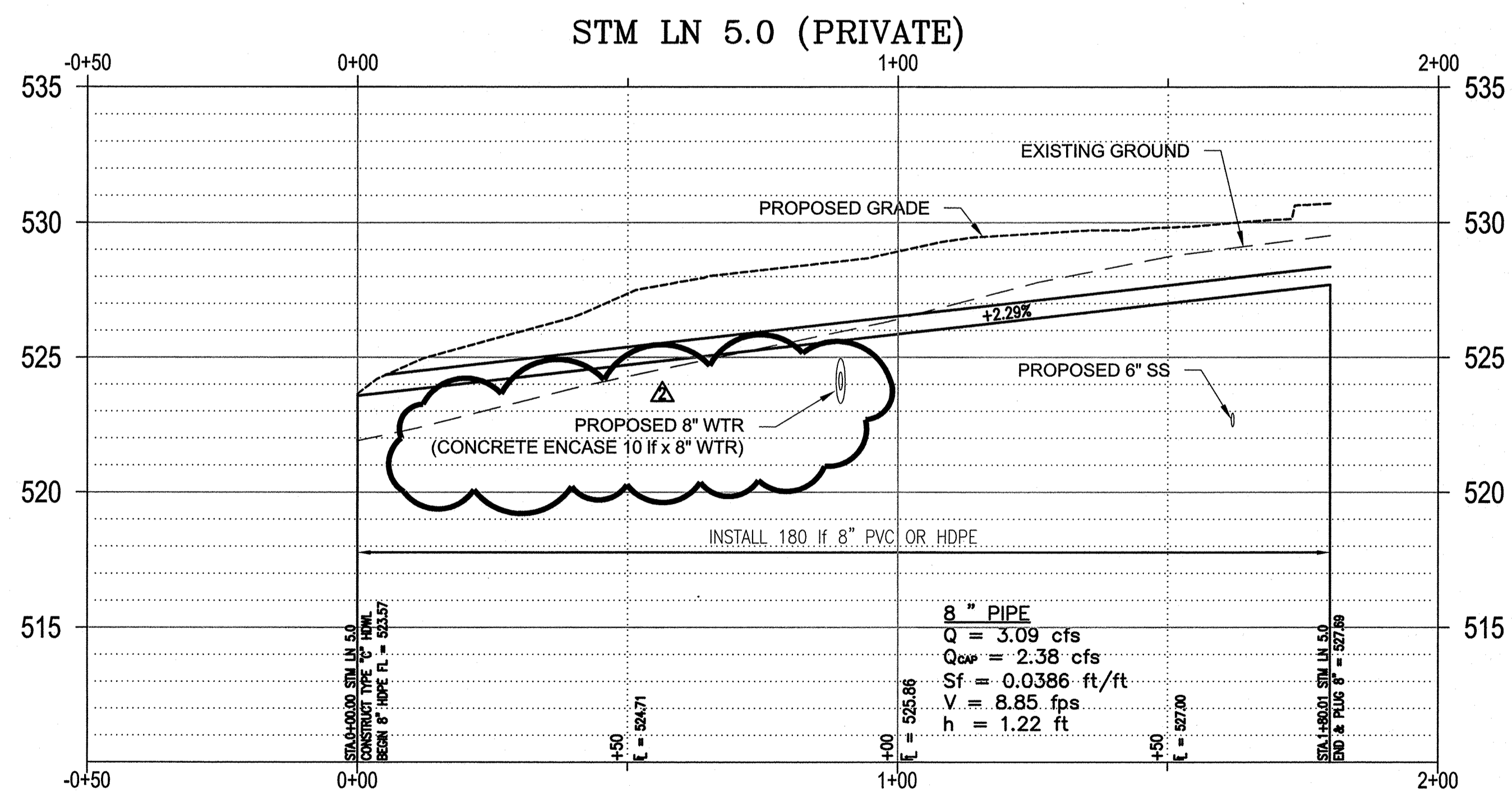
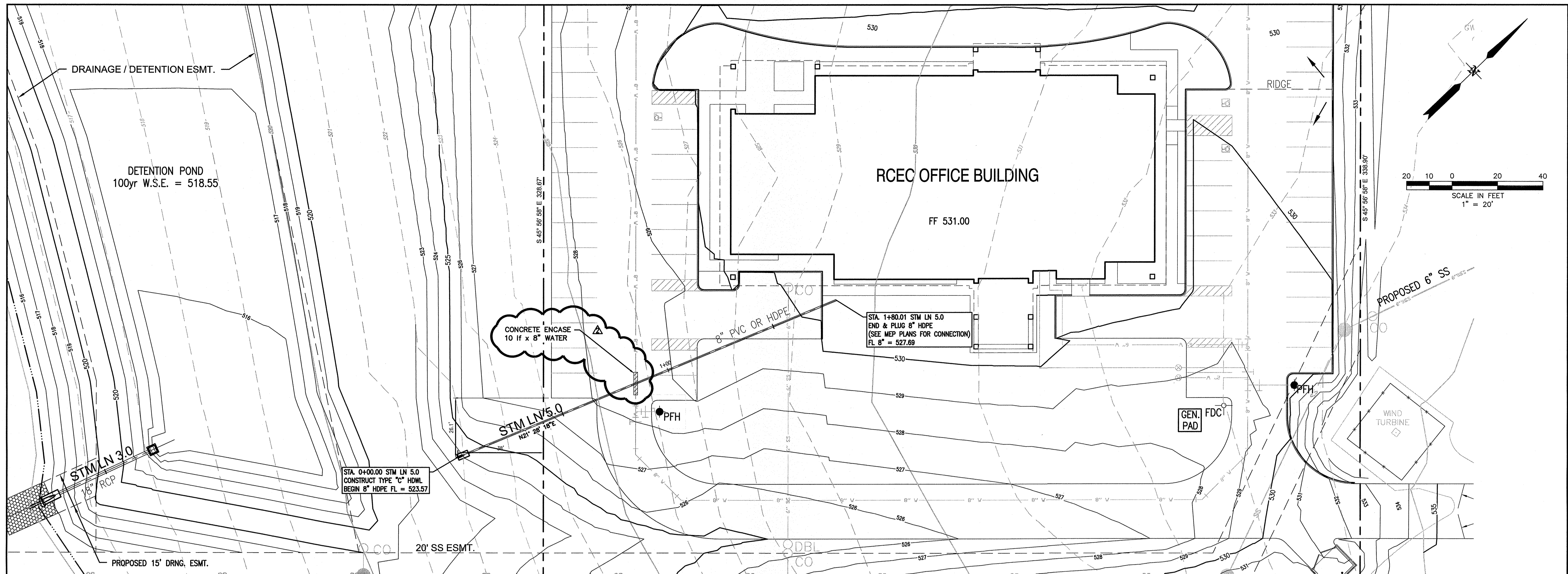
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STORM SEWER PLAN & PROFILE

STM LN 4.0
RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET
7
OF
14



RECORD DRAWINGS

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Todd Winters 4-8-15
TODD WINTERS DATE

BENCHMARK:
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| | |
|-------------------|-------------------------------|
| REVISIONS: | |
| 5/29/2014 | REVISED ROOF DRAIN CONNECTION |
| 6/02/2014 | ADDED CONCRETE ENCASMENT |
| DRAWN: JIM | DATE: APRIL, 2014 |
| CHECKED: TW | DATE: |
| PROJECT NO.: 3551 | |
| DWG FILE NAME: | |

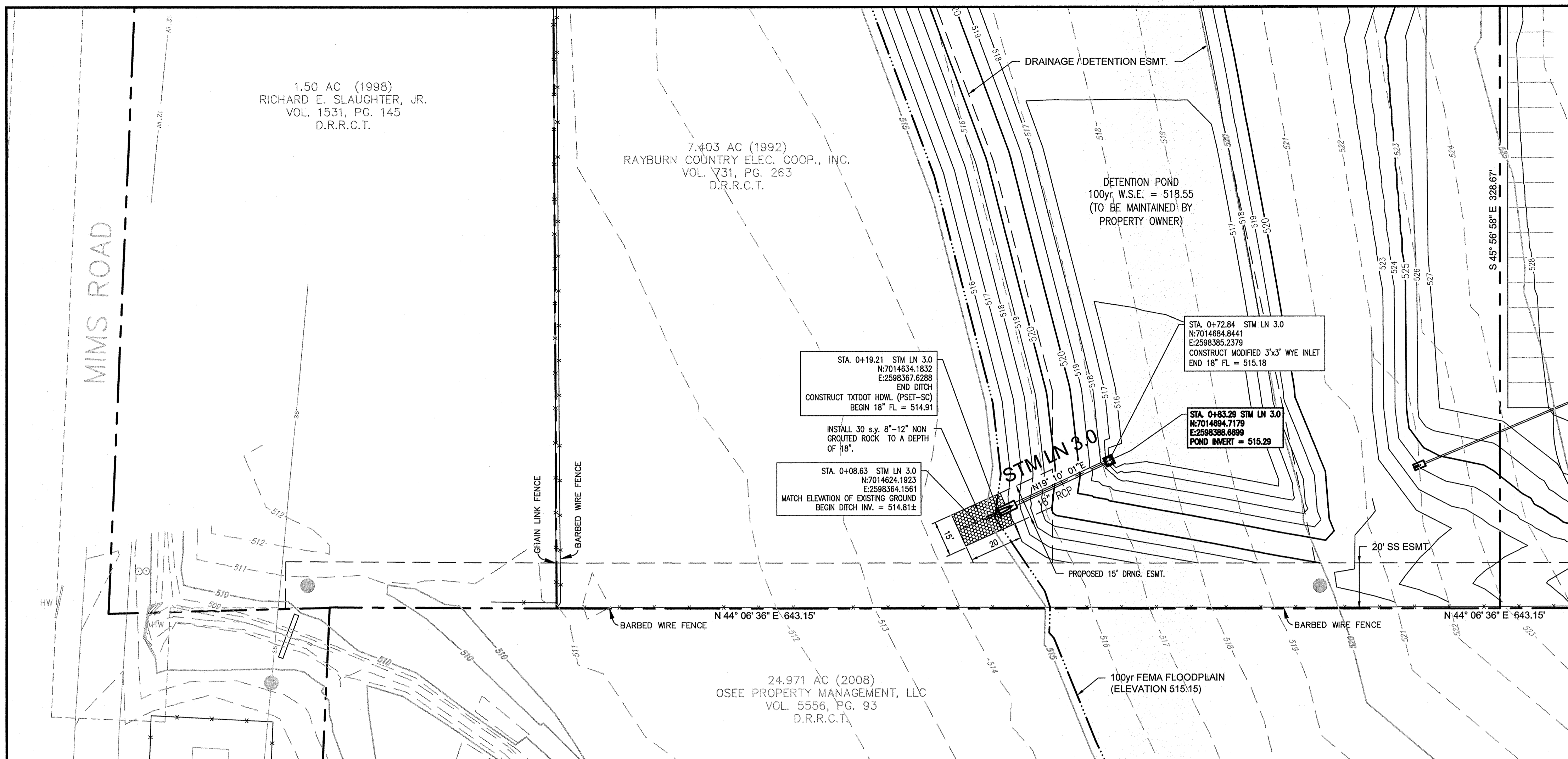
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STORM SEWER PLAN & PROFILE

STM LN 5.0
RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

SHEET 8 OF 14



DETENTION POND

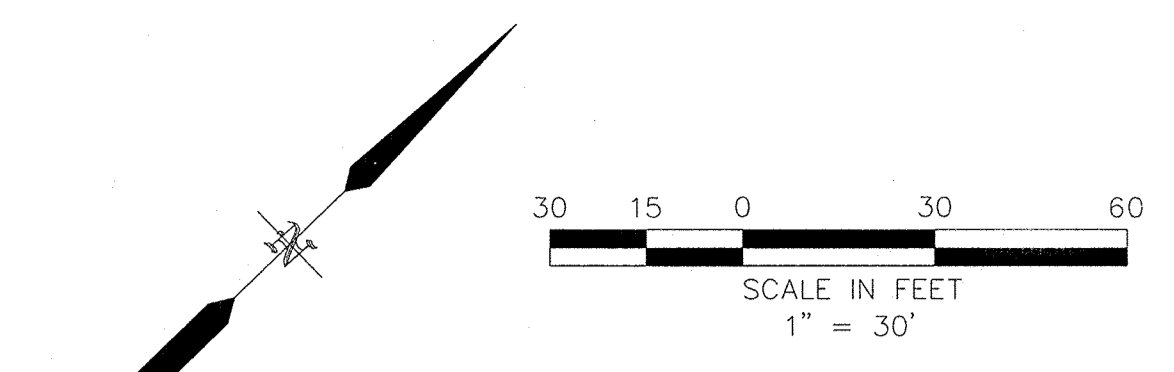
TOTAL DRAINAGE AREA = 4.47 ACRES
 EXISTING C FACTOR, C=0.35
 DEVELOPED C FACTOR, C=0.90

ALLOWABLE RELEASE, 5 YEAR (Q= CIA)
 5 YEAR 20 MINUTE INTENSITY I=5.00
 C=0.35
 Q(5)= 7.45 cfs (ALLOWABLE RELEASE)

ALLOWABLE RELEASE, 10 YEAR (Q= CIA)
 10 YEAR 20 MINUTE INTENSITY I=5.7
 C=0.35
 Q(10)= 8.49 cfs (ALLOWABLE RELEASE)

ALLOWABLE RELEASE, 25 YEAR (Q= CIA)
 25 YEAR 20 MINUTE INTENSITY I=6.7
 C=0.35
 Q(25)= 9.98 cfs (ALLOWABLE RELEASE)

ALLOWABLE RELEASE, 100 YEAR (Q= CIA)
 100 YEAR 20 MINUTE INTENSITY I=8.3
 C=0.35
 Q(100)= 12.46 cfs (ALLOWABLE RELEASE)



Detention Pond Volume Calculations

| Contour Elevation | Surface Area (sf) | Average Area | Cumulative Volume (cf) |
|-------------------|-------------------|--------------|------------------------|
| 515.15 | 0 | 154 | 54 |
| 515.50 | 308 | 2,224 | 1,166 |
| 516.00 | 4,140 | 8,253 | 9,419 |
| 517.00 | 12,365 | 16,883 | 26,302 |
| 518.00 | 21,401 | 22,403 | 38,624 |
| 518.55 | 23,404 | | |

**Outlet Structure Calculations
 5 Year Discharge @ Max Water Surface**

Q total = 7.45 cfs Allowed
 Storage Elevation = 517.65
 Invert Elevation = 515.15
 Width Weir (1) = 0.55

Q total = 7.25 cfs Provided
 Q ALLOW TO Q DESIGN, 10yr DIFFERENCE = -2.7%

WEIR (1)
 $Q = C(H)^{3/2}$
 C = 3.353
 H = 2.50 {H = Storage elev. minus FL of weir}
 L = 0.55
 Q = 7.25 cfs
 Weir opening 0.55 feet x 2.50' @ FL 517.65

**Outlet Structure Calculations
 10 Year Discharge @ Max Water Surface**

Q total = 8.49 cfs Allowed
 Storage Elevation = 517.86
 Invert Elevation = 515.15
 Width Weir (1) = 0.55

Q total = 8.18 cfs Provided
 Q ALLOW TO Q DESIGN, 10yr DIFFERENCE = -3.7%

WEIR (1)
 $Q = C(H)^{3/2}$
 C = 3.353
 H = 2.71 {H = Storage elev. minus FL of weir}
 L = 0.55
 Q = 8.18 cfs
 Weir opening 0.55 feet x 2.71' @ FL 517.86

**Outlet Structure Calculations
 25 Year Discharge @ Max Water Surface**

Q total = 9.98 cfs Allowed
 Storage Elevation = 518.10
 Invert Elevation = 515.15
 Width Weir (1) = 0.55

Q total = 9.29 cfs Provided
 Q ALLOW TO Q DESIGN, 10yr DIFFERENCE = -6.9%

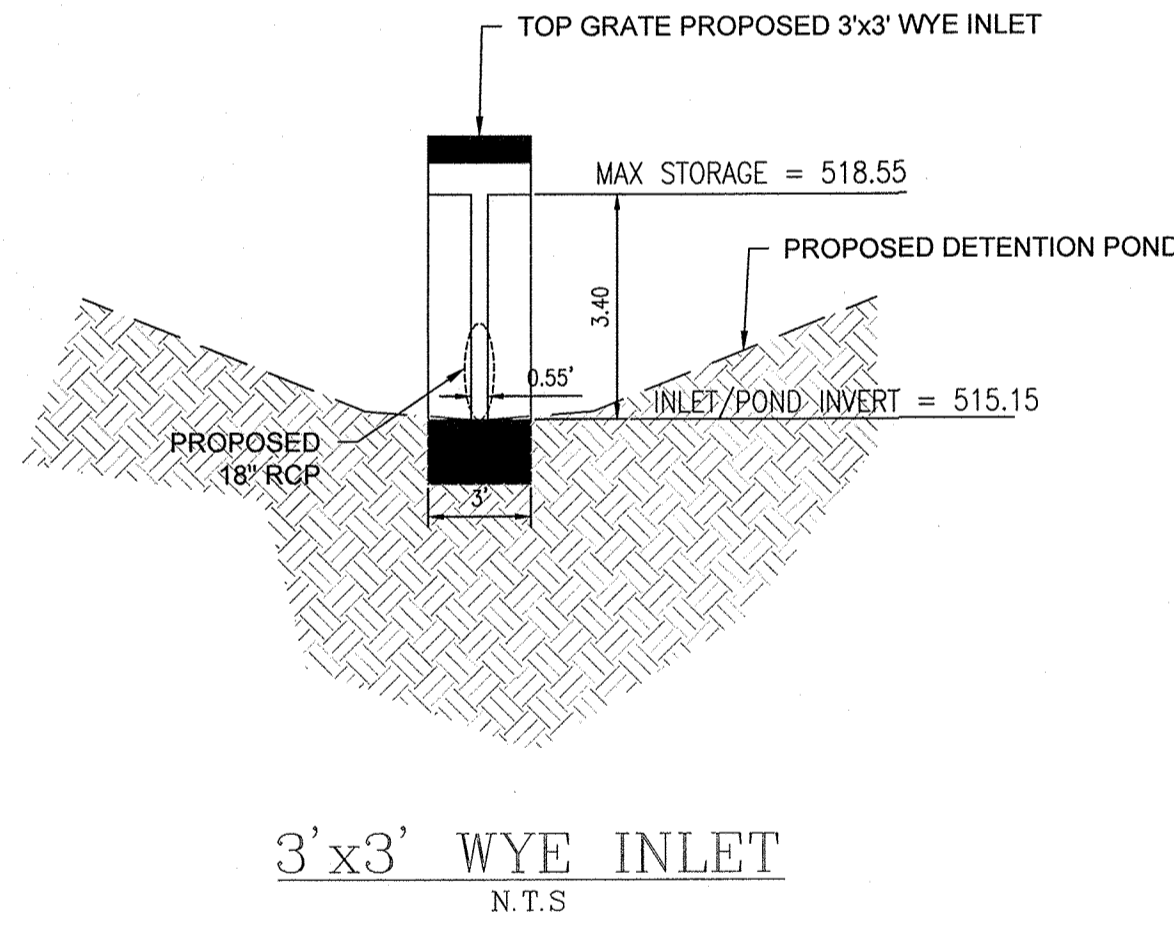
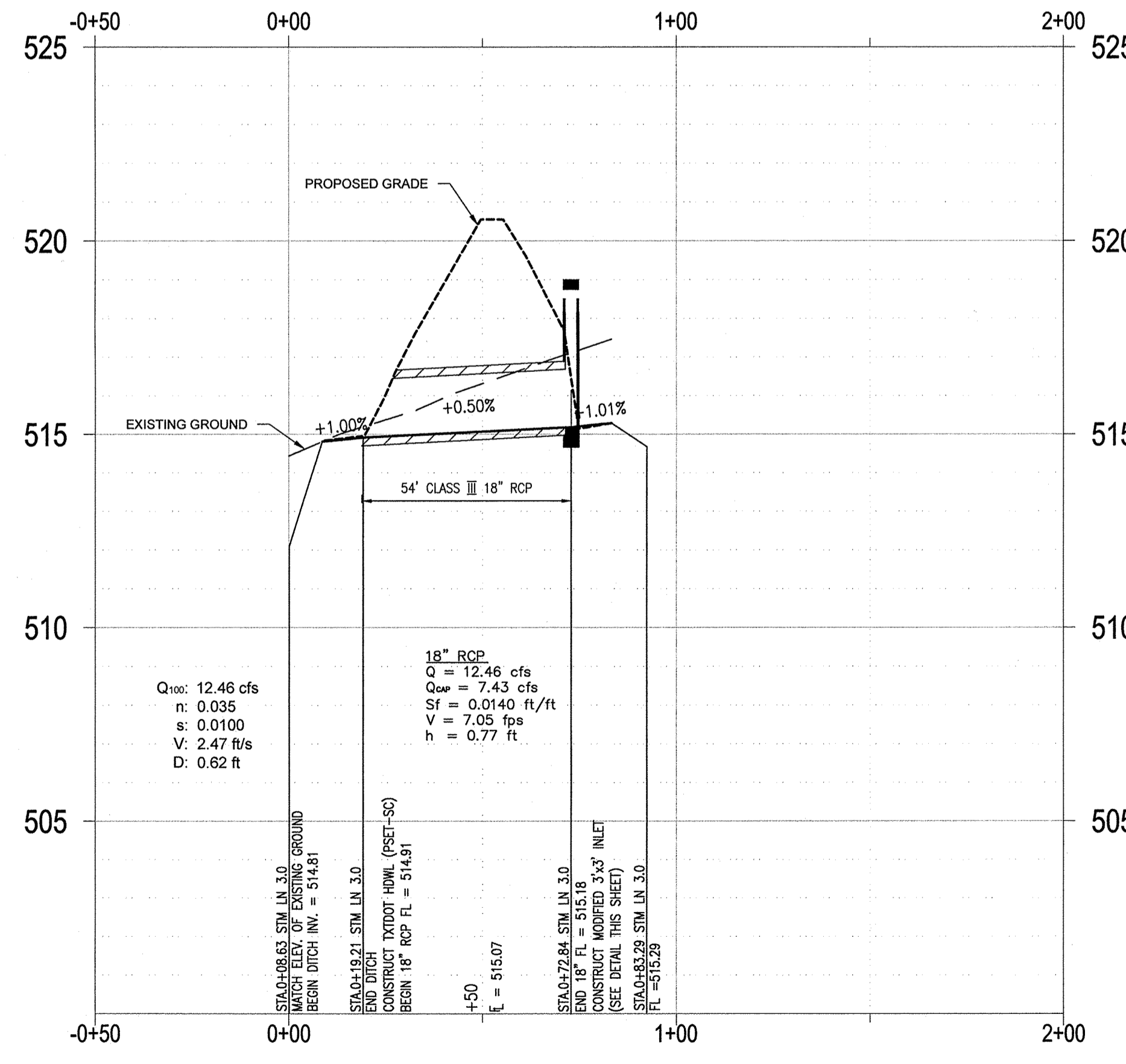
WEIR (1)
 $Q = C(H)^{3/2}$
 C = 3.353
 H = 2.95 {H = Storage elev. minus FL of weir}
 L = 0.55
 Q = 9.29 cfs
 Weir opening 0.55 feet x 2.95' @ FL 518.10

**Outlet Structure Calculations
 100 Year Discharge @ Max Water Surface**

Q total = 12.46 cfs Allowed
 Storage Elevation = 518.53
 Invert Elevation = 515.15
 Width Weir (1) = 0.55

Q total = 11.39 cfs Provided
 Q ALLOW TO Q DESIGN, 10yr DIFFERENCE = -8.6%

WEIR (1)
 $Q = C(H)^{3/2}$
 C = 3.353
 H = 3.38 {H = Storage elev. minus FL of weir}
 L = 0.55
 Q = 11.39 cfs
 Weir opening 0.55 feet x 3.38' @ FL 518.53



RECORD DRAWINGS

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John Winters 4-8-15
 TODD WINTERS DATE

NOTE:
 ENTIRE DETENTION SYSTEM TO BE MAINTAINED BY PROPERTY OWNER.

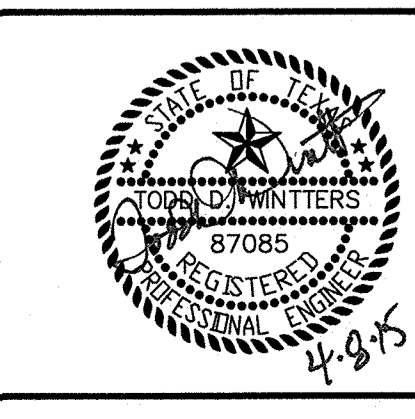
BENCHMARK:
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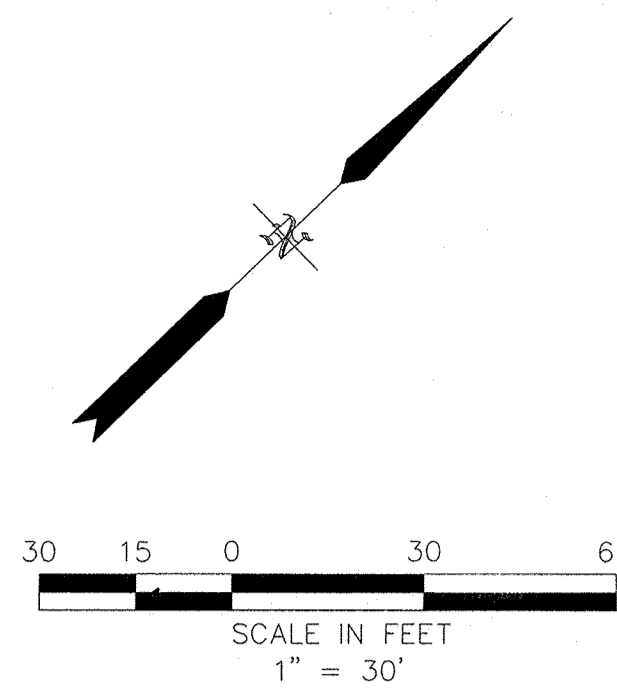
| REVISIONS: | |
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| DRAWN: JIM | DATE: APRIL, 2014 |
| CHECKED: TW | DATE: |
| PROJECT NO.: 3551 | |
| DWG FILE NAME: | |

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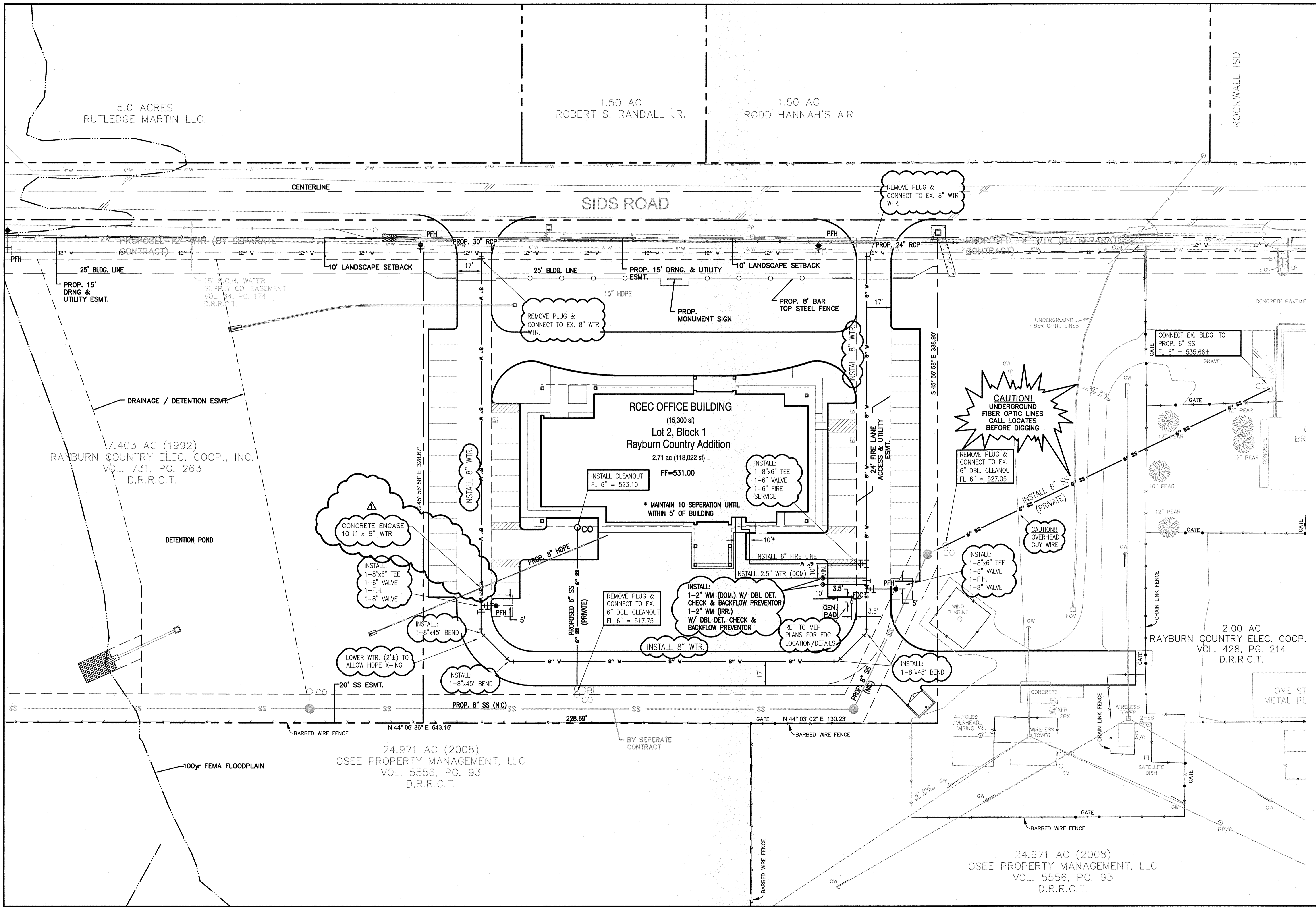
DETENTION POND OUTFALL PLAN & PROFILE

RCEC OFFICE BUILDING
 LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
 CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS



LEGEND

| | |
|-------------------|---|
| 1/2" I.R.S. W/CAP | 1/2" IRON ROD SET WITH YELLOW CAP STAMPED "RPLS 3963" |
| I.R.F. | IRON ROD FOUND |
| GW | GUY WIRE |
| PP | POWER POLE |
| LP | LIGHT POLE |
| EM | ELECTRIC METER |
| ICV | IRRIGATION CONTROL VALVE |
| B | BOLLARD |
| WM | WATER METER |
| SSMH | SANITARY SEWER MANHOLE |
| TPED | TELEPHONE PEDESTAL |
| XFR | ELECTRIC TRANSFORMER |
| MB | MAILBOX |
| WV | WATER VALVE |
| EBX | ELECTRIC BOX |
| FOM | FIBER OPTIC CABLE MARKER |
| A/C | AIR CONDITIONER UNIT |
| ES | ELECTRIC SWITCH |
| HW | HEADWALL |
| TS | TRAFFIC SIGN |
| WF | WATER FAUCET |
| FH | FIRE HYDRANT |
| FOV | FIBER OPTIC VAULT |
| CMP | CORRUGATED METAL PIPE |
| PVC | POLYVINYL CHLORIDE PIPE |
| RCP | REINFORCED CONCRETE PIPE |
| P.R.R.C.T. | PLATS RECORDS ROCKWALL COUNTY TEXAS |
| D.R.R.C.T. | DEEDS RECORDS ROCKWALL COUNTY TEXAS |
| - | EDGE OF ASPHALT |
| - | WIRE FENCE |
| - | OVERHEAD ELECTRIC LINE |
| + | PROPOSED FIRE HYDRANT |
| NIC | NOT IN CONTRACT |



BENCHMARK:
 "X" CUT IN CURB 23'± SOUTH OF EAST DRIVE APPROACH OF EXISTING RAYBURN COUNTRY ELECTRIC BUILDING.

24.971 AC (2008)
 OSEE PROPERTY MANAGEMENT, LLC
 VOL. 5556, PG. 93
 D.R.R.C.T.

ENGINEERINGCONCEPTS & DESIGN, L.P.

ENGINEERING / PROJECT MANAGEMENT / CONSTRUCTION SERVICES - FIRM REG. #F-001145
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REVISIONS:
 6/02/2014 ADDED CONCRETE ENCASUREMENT

DRAWN: JIM DATE: APRIL, 2014
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WATER & SANITARY SEWER PLAN

RCEC OFFICE BUILDING
 LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
 CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

24.971 AC (2008)
 OSEE PROPERTY MANAGEMENT, LLC
 VOL. 5556, PG. 93
 D.R.R.C.T.

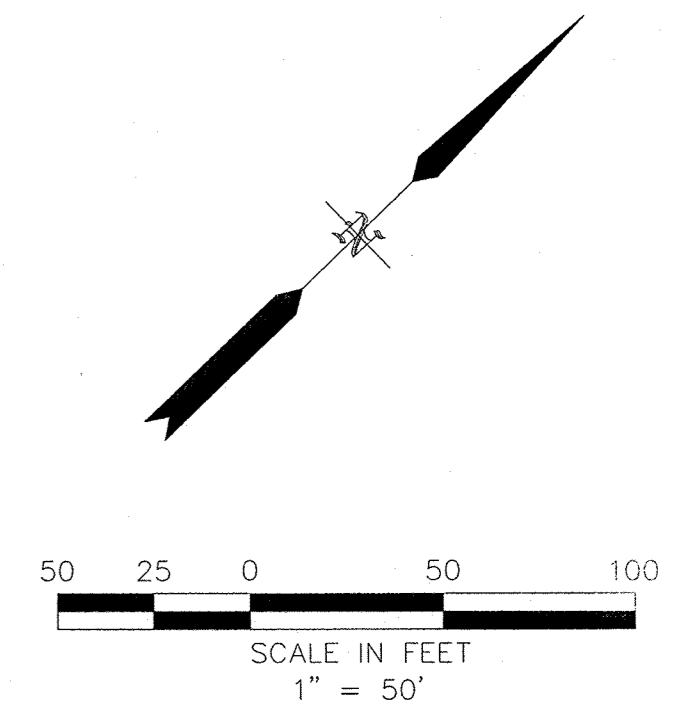
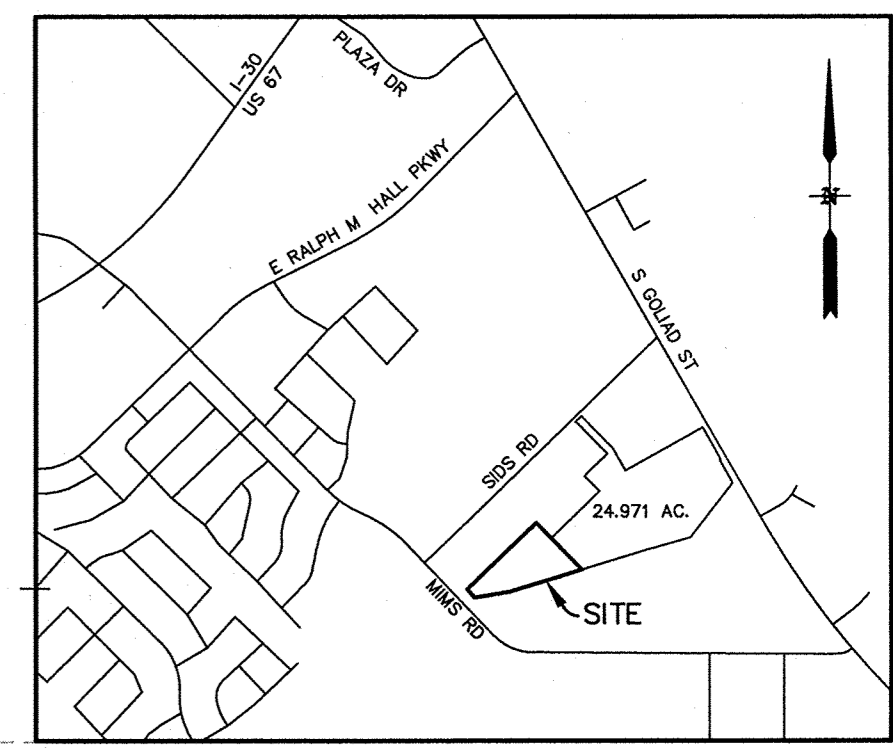
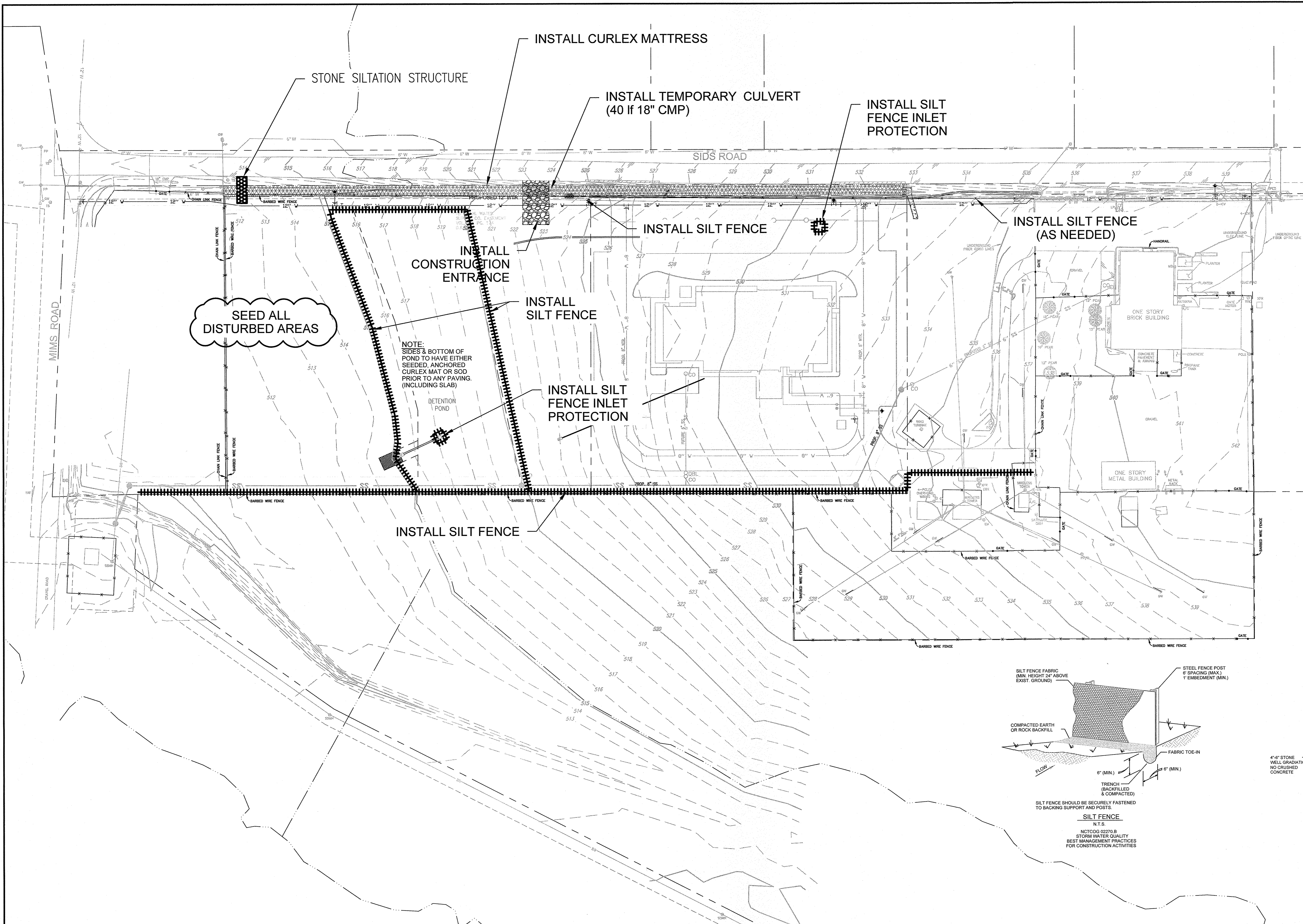
TODD WINTERS 4-8-15 DATE

SHEET 10 OF 14

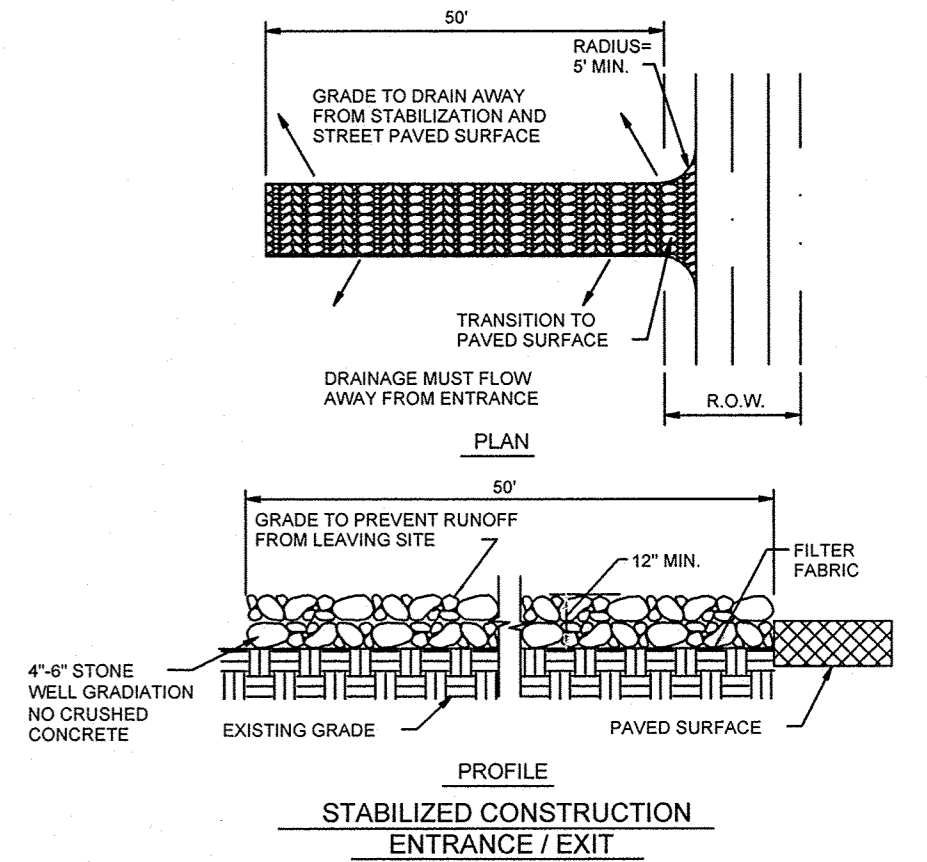
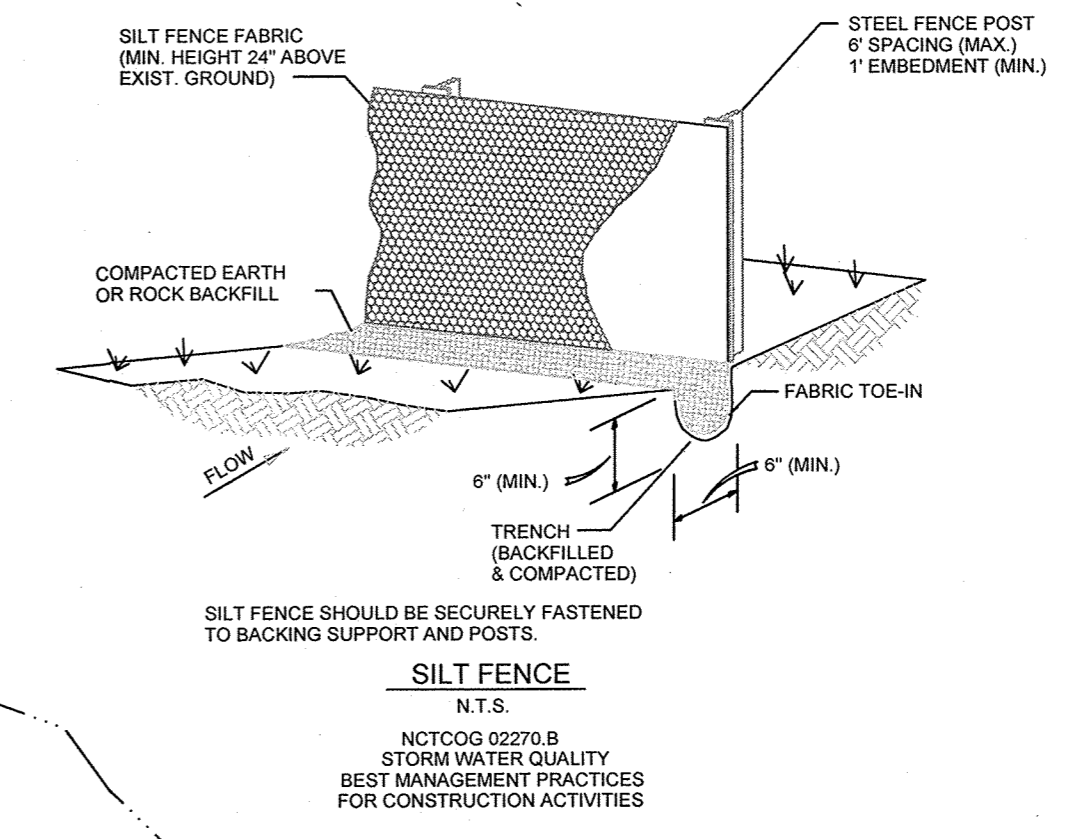
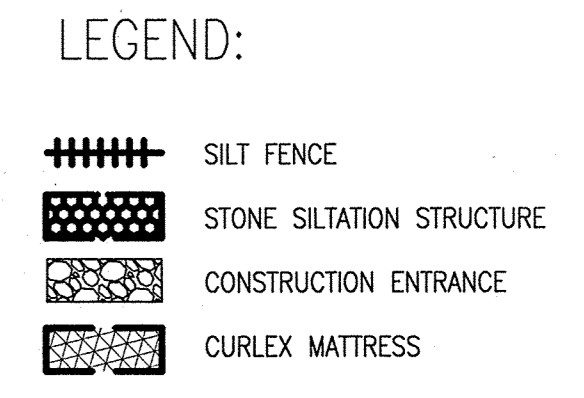
RECORD DRAWINGS

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TODD WINTERS 4-8-15 DATE



NOTE:
ALL DISTURBED AREAS TO HAVE GRASS ESTABLISHED AT A HEIGHT OF 1" AND 80% COVERAGE PRIOR TO FINAL ENGINEERING ACCEPTANCE.



RECORD DRAWINGS

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Todd Winters 4-8-15
TODD WINTERS DATE

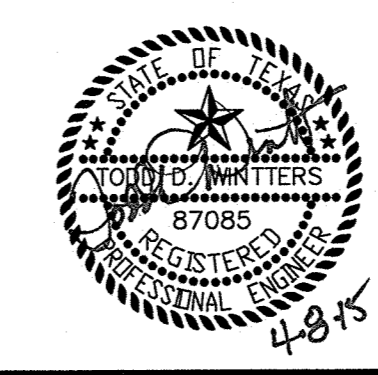
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ENGINEERINGCONCEPTS & DESIGN, L.P.

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EROSION CONTROL PLAN & DETAILS

RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS

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OF
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GENERAL NOTES:

1. All work, methods, materials, and equipment shall conform to City of Rockwall Subdivision Regulations, the North Central Texas Council of Government construction standards 3rd edition, any special provisions to the NCTCOG approved by the city of Rockwall. Standard details can be obtained from NCTCOG and the City of Rockwall.
2. Prior to construction, the contractor shall familiarize himself with the contract documents and specifications, the plans including all notes and any other applicable standards or specifications relevant to the proper completion of the work specified. Failure on the part of the contractor to familiarize himself with all standards or specifications pertaining to this work shall in no way relieve the contractor of responsibility for performing the work in accordance with all such applicable standards and specifications.
3. Contractor shall have in his possession, prior to construction, all necessary permits, licenses, etc. Contractor shall have at least one set of approved engineering plans and specifications on site at all time.
4. Any item of work called for by the plans and/or specification and not included, as a bid item shall be subsidiary to the construction of the various bid items.
5. Construction inspection will be performed by representatives of the owner, engineer, City, geotechnical engineer, and reviewing authorities and agencies. Unrestricted access shall be provided to them at all times. Contractor is responsible for scheduling required inspections as required by contract documents.
6. The contractor and all subcontractors must confine their activities to the work area. Any damage resulting from work outside the work area, shall be the contractor's responsibility.
7. It will be the responsibility of each contractor to protect all existing public and private utilities throughout the construction of this project. Contractor shall contact the appropriate utility companies for line locations prior to commencement of construction and shall assume full liability to those companies for any damages caused to their facilities. Location of utilities are taken from the City and Utility Company records. Contractor shall field verify to determine exact location of utilities.
8. Trench safety design will be the responsibility of the contractor. The contractor shall abide by all applicable federal, state, and local laws governing excavation. Trench side slopes shall meet OSHA standards. Shoring, shoring, and bracing shall be required when side slope standards are not met. A pull box, meeting OSHA standards will be acceptable. The contractor shall submit detailed plans to the City Engineer for review showing how OSHA Standards for excavation shall be met prior to the start of any utility construction. The plans shall be sealed by an Engineer registered by the State of Texas.
9. Contractor shall stockpile salvage materials for inspection. All items not salvaged by the owner shall be removed from the site at the contractor's expense. The owner will transport salvaged materials away from the site at the owner's expense. Salvage, stockpile, and removal of materials shall be considered subsidiary to the various bid items and shall not be paid for directly unless such items are specifically included in the bid items.
10. The contractor shall be responsible for providing and maintaining all necessary warning and safety work, material, and operations needed to provide for the health and safety of the public until all work has been completed, including maintenance bond periods, and to be accepted by City of Rockwall in writing.
11. All fill to be compacted to 95% with sheeps foot roller in 8" lifts.

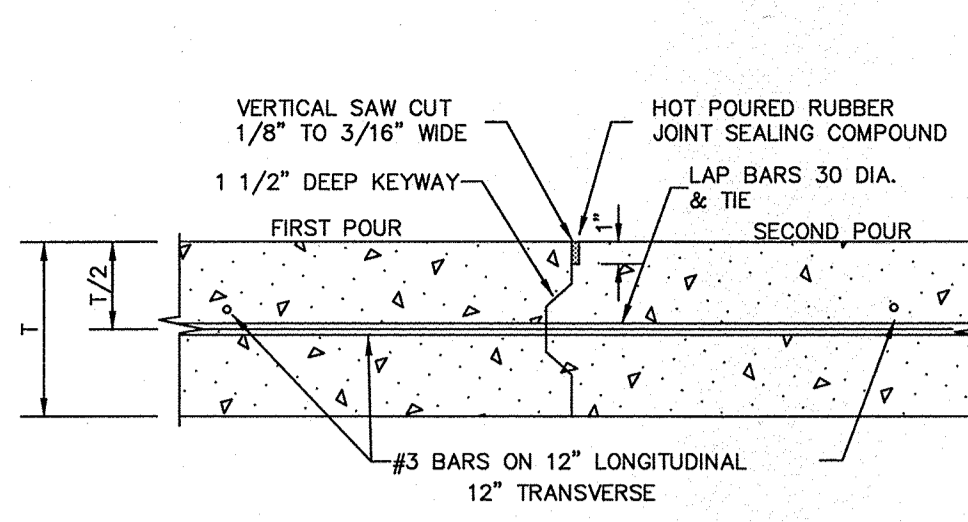
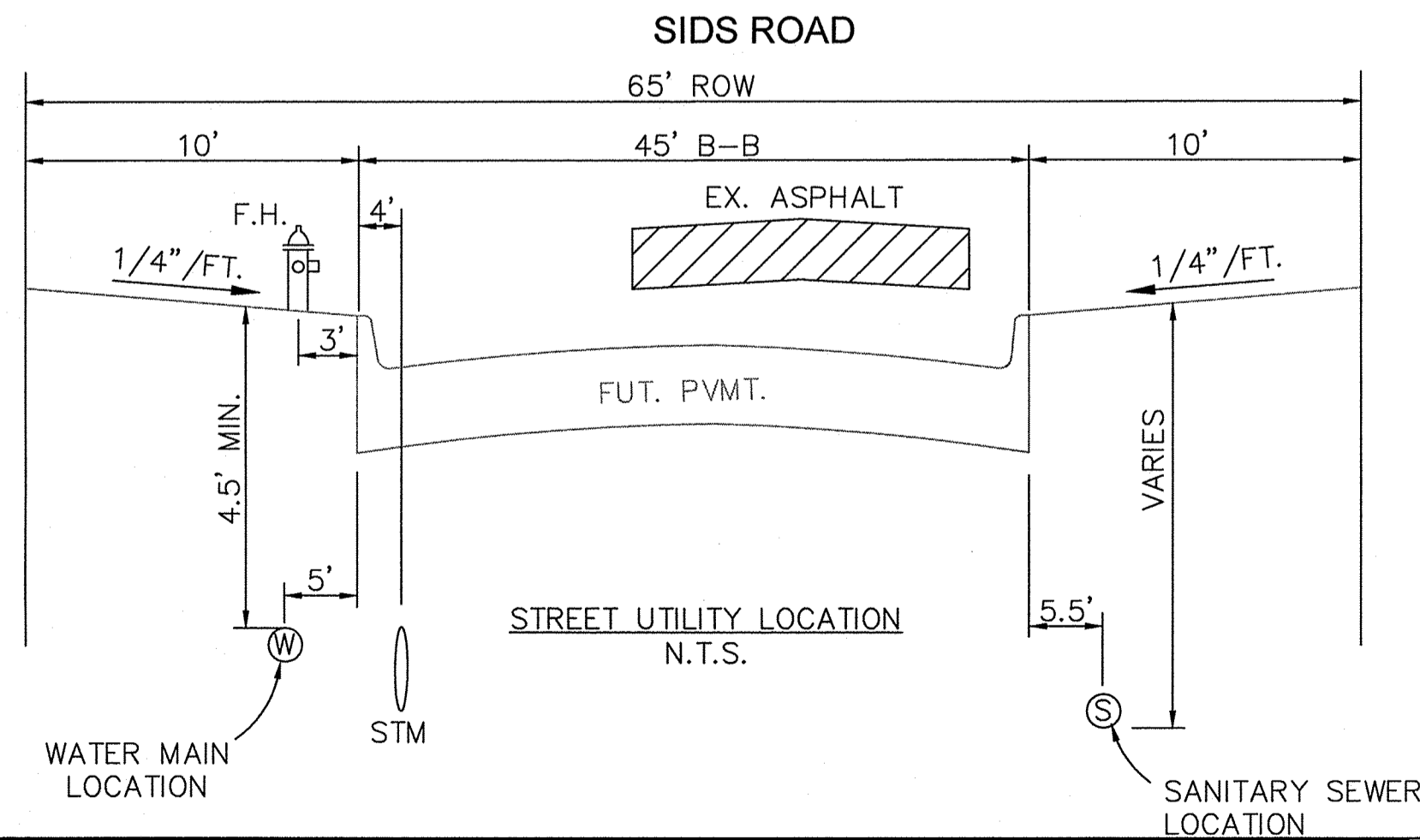
WATER NOTES:

1. All new water line shall be fully purged. Do not test against existing valves when connecting to existing lines.
2. Where water mains either cross or otherwise come within 9 feet of a sanitary sewer main, the contractor will conform to Texas Administrative Code Title 30, Part 1, Chapter 290, Subchapter D, Rule 8290.44.
3. Utility contractor shall use MEGALUG when installing the water line and double strap services when installing the services.
4. Water services shall be installed w/double strap saddle and tap installed with a corporation stop at the distribution pipeline and an angle stop.
5. All water lines shall be pressure tested and disinfected in accordance with AWWA C 601. A passing Bacteriological test (negative for coliform) shall be achieved prior to acceptance.
6. Water pipelines shall be PVC pipe conforming to the Standard Specifications for Construction. In general, the water pipelines shall be Class 200 PVC C900 DR14 pipe, and installed with a minimum of four feet (4') of cover, unless approved by the City. All pipes shall be installed in embedment material as shown on the Standard Drawings and in conformance with the Standard Specifications for Construction. Blue EMS locator pads to be installed on waterline every 250' and at every bend, service, and valve.
7. All gate valves shall be manufactured by Mueller or Kennedy, or an approved equal with resilient seat only and shall conform to and shall be installed according to the Standard Specifications for Construction.
8. Fire hydrants shall be either Mueller, American Darling or an approved equal conforming to the requirements set forth in the Standard Specifications for Construction. All fire hydrants shall be installed with a six-inch (6") gate valve on the hydrant lead. The installation shall be as set forth in the Standard Specifications for Construction. Fire hydrants shall be painted to meet the City's requirements for color code as set forth in the Standard Specifications. In general, the fire hydrant will be reflective silver with differing cap color, which corresponds to the size of hydrant feeder line, as detailed in Table 5.2 Fire hydrants shall be installed at the end of each dead end line. Minimum main size for a fire hydrant shall be eight inches (8") if main is over fifty feet (50') long.

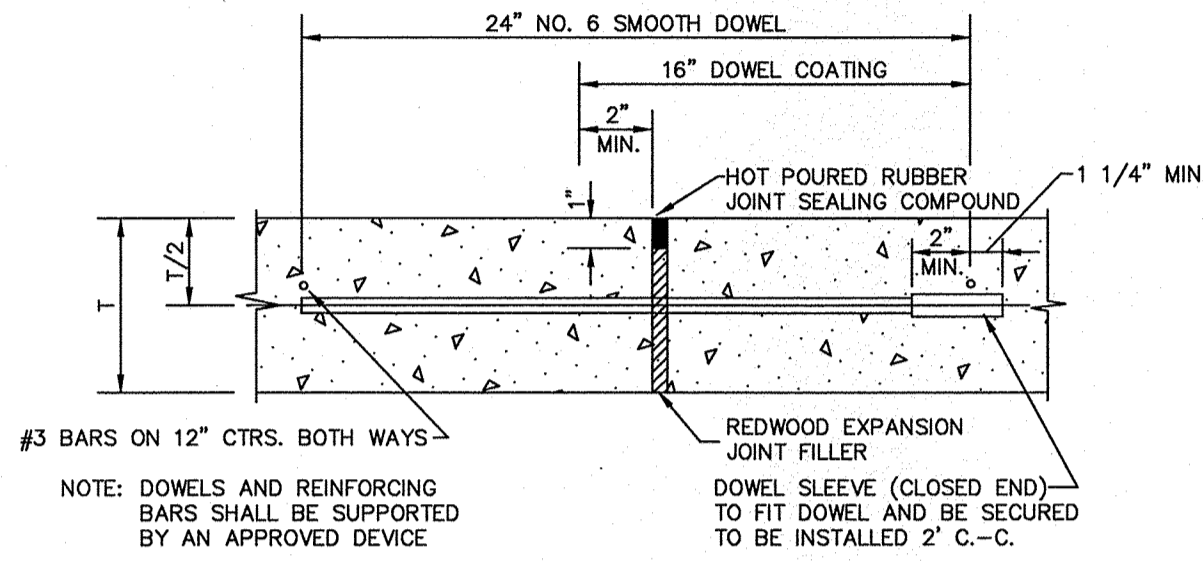
In non-residential developments an eight inch (8") lead will be required on all fire hydrants that are located more than fifty feet (50') from a looped water line.
9. Service pipelines shall be in accordance with the designs shown on the Standard Drawings. The materials shall be Mueller or approved equal and shall be installed in accordance with the Standard Specifications for Construction. All connections shall be flare type or approved equal.
10. Mega-lugs or approved equal shall be installed at all horizontal change in directions at all vertical changes in directions that require a bend. The restraints shall be placed at the bend and at the next pipe joint in each direction from the bend.
11. Commercial irrigation meters shall have a testable double check backflow preventer.
12. Install blue ENS disks on the water line at every change in direction, valve, fire hydrant, and every 250'.

WASTEWATER NOTES:

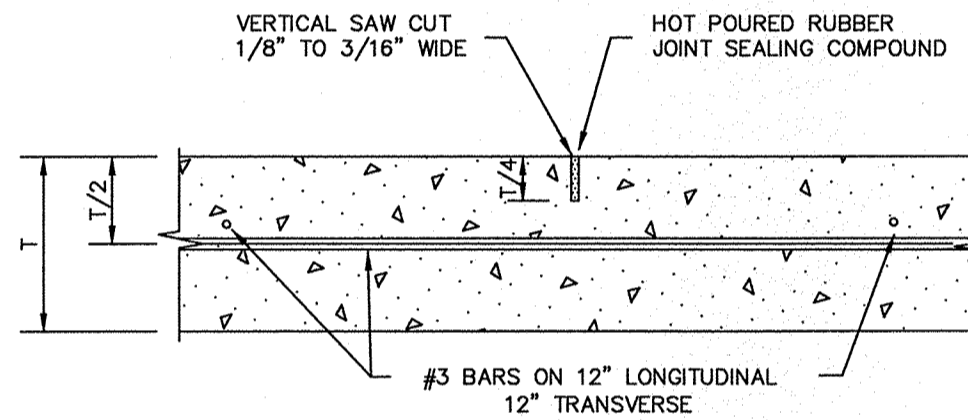
1. All wastewater lines shall be tested for infiltration in accordance with the procedures set forth in the Standard Specifications for Construction. In general, all wastewater pipe shall be installed so that the completed wastewater will have a maximum exfiltration of one hundred fifty (150) gallons per inch of internal diameter, per mile of pipe, per 24 hours, where the maximum hydrostatic head at the centerline of the pipe does not exceed twenty-five (25) feet. A television survey will be performed as part of the final testing in the tenth (10th) month of the maintenance period. The City's representative shall be present at all testing. All expenses for this work shall be the developer's responsibility.
2. Install green ENS disks on sanitary sewer line at every change in direction, manhole, service, & clean out.
3. All manholes to be Raven lined or approved equal.



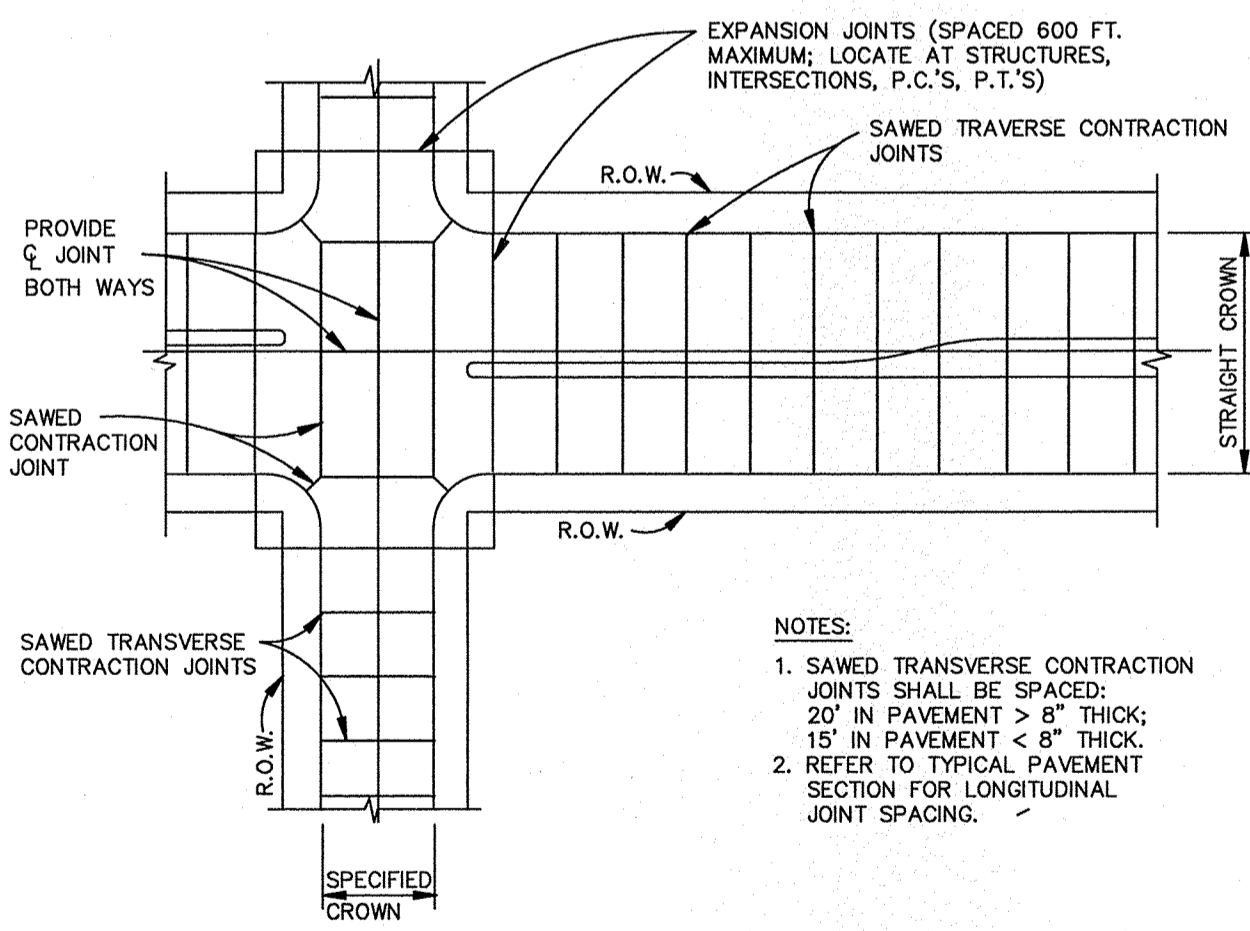
CONSTRUCTION JOINT DETAIL



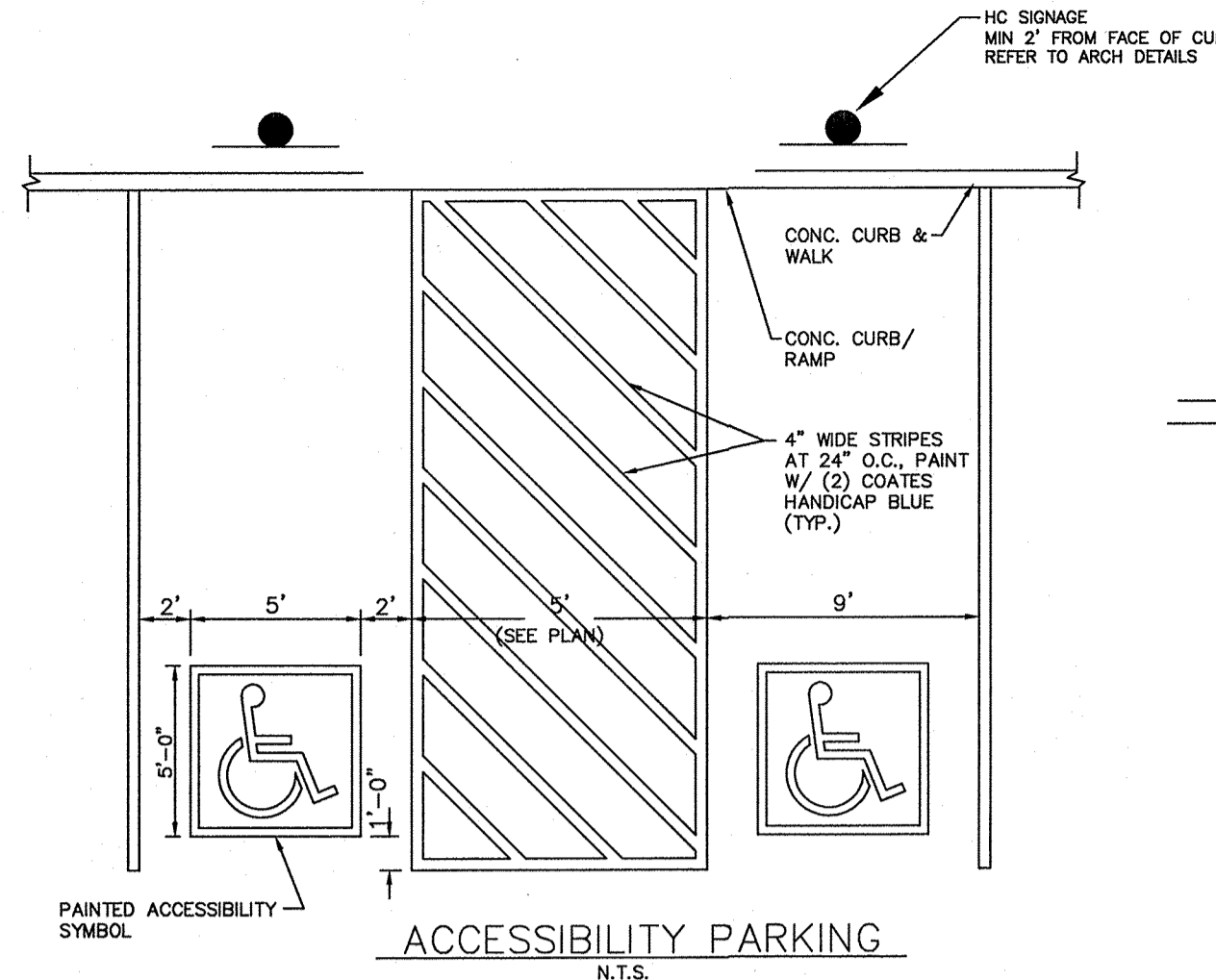
TRANSVERSE EXPANSION JOINT DETAIL



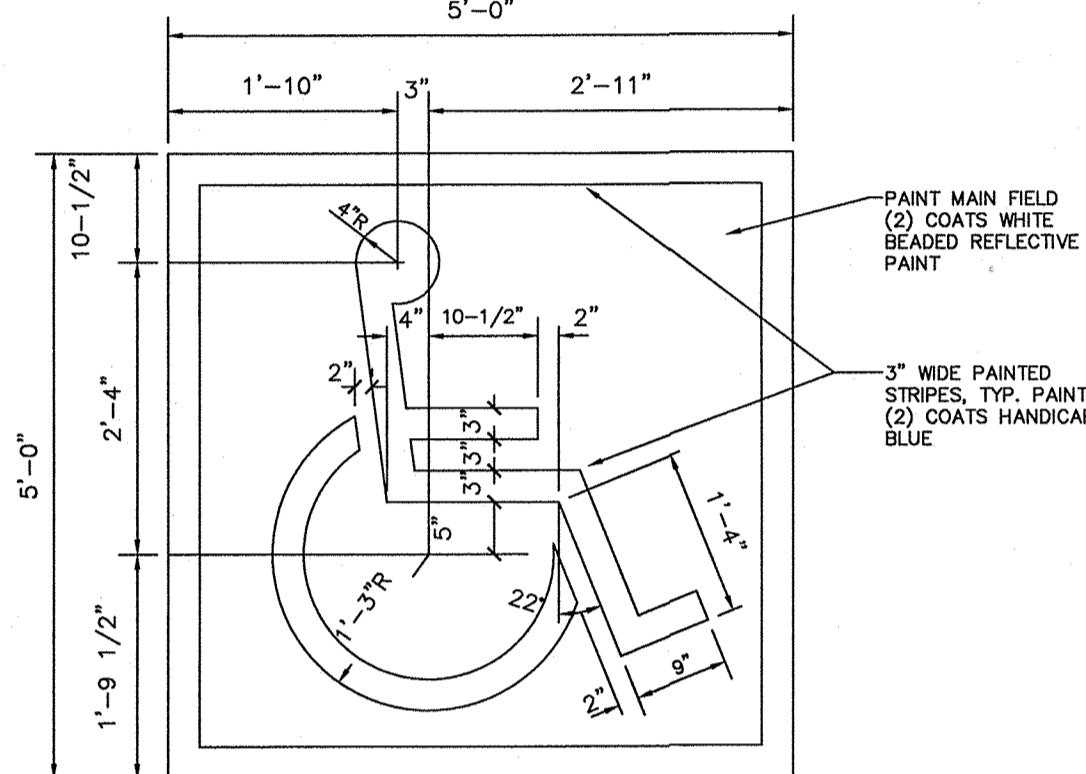
SAWED DUMMY JOINT DETAIL



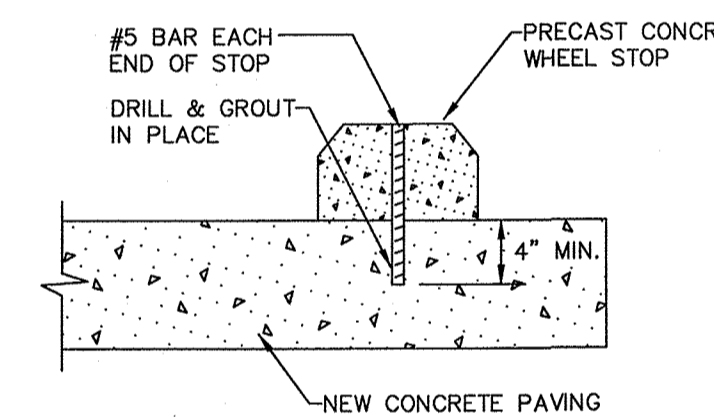
SPACING DIAGRAM FOR TRANSVERSE JOINTS



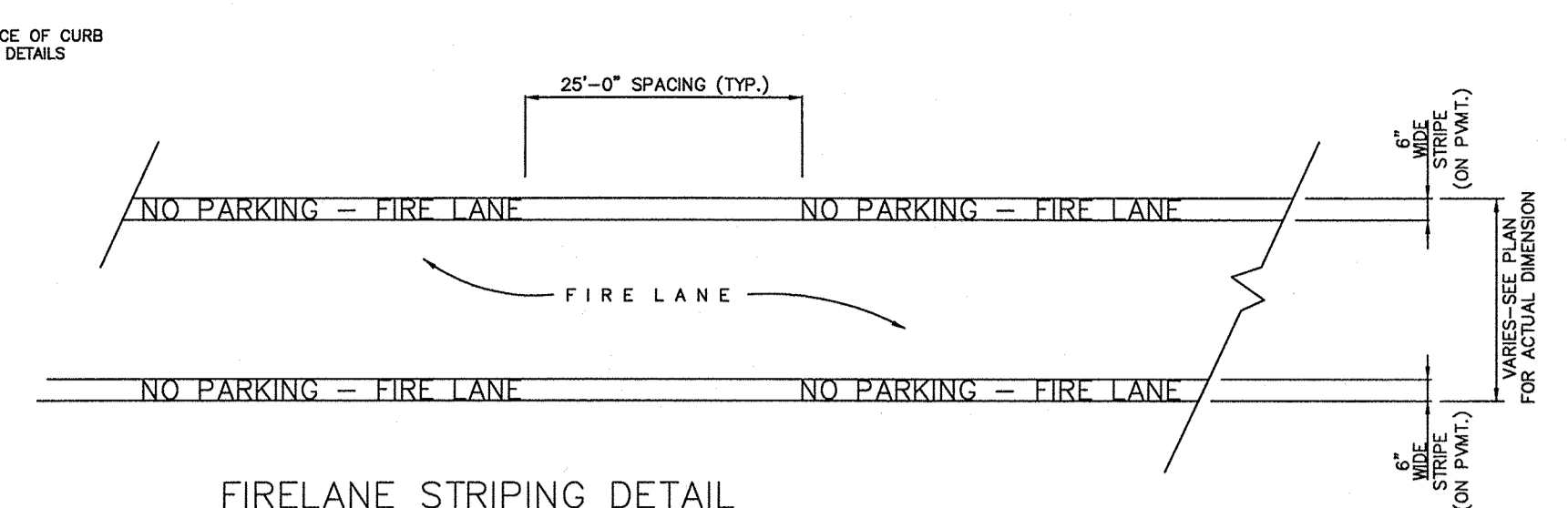
ACCESSIBILITY PARKING



PAINTED ACCESSIBILITY SYMBOL

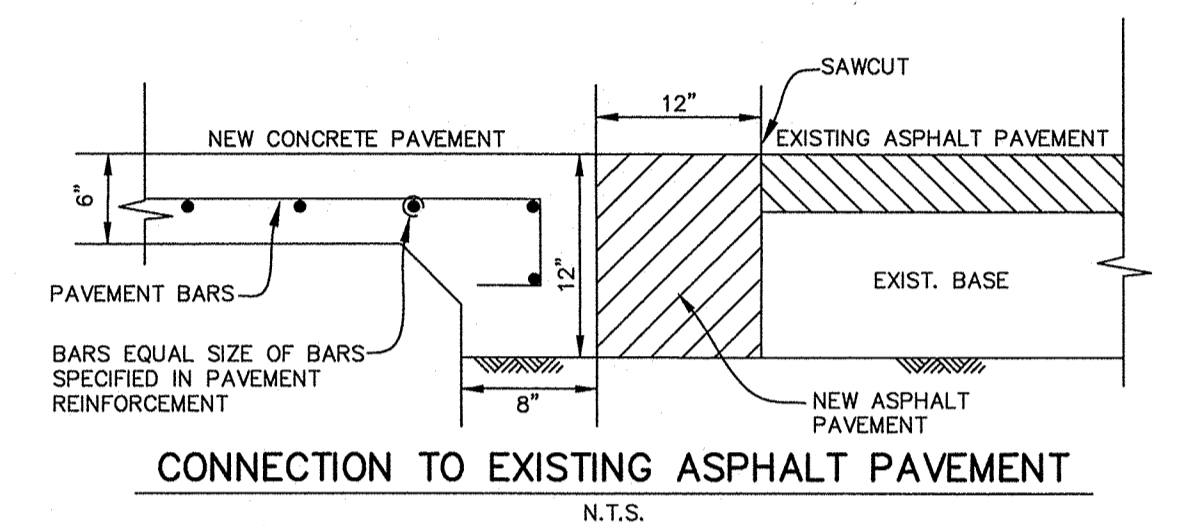


WHEEL STOP DETAIL

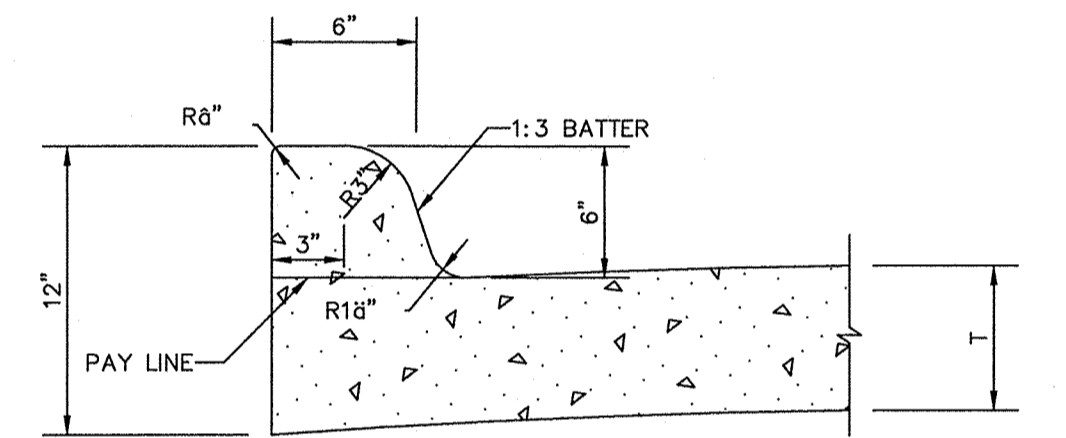


FIRELANE STRIPING DETAIL

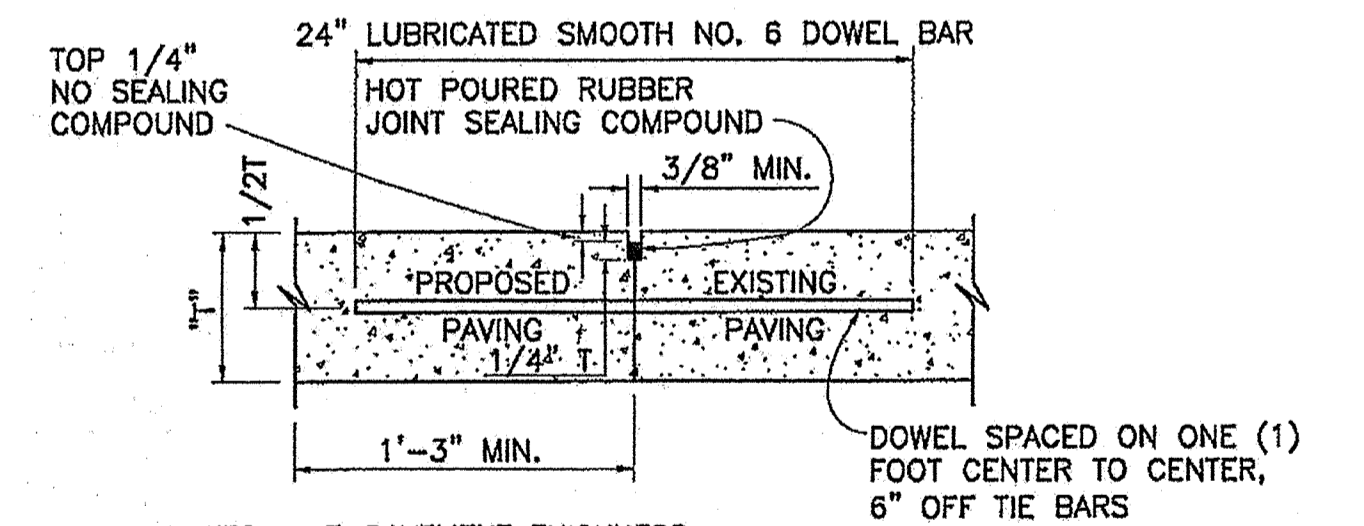
- STRIPING DETAILS AND SPECIFICATIONS**
- A. Paint:**
1. Stripe shall be six (6) inches wide when on pavement and from the top of the curb to a point even with the driving surface when on curb, painted with an exterior acrylic latex paint.
a. Color shall be "Traffic Red" Glidden No. 63251 or equal.
2. Letters shall be four (4) inches high painted with an exterior acrylic latex paint.
b. Color shall be "Traffic White" Glidden No. 563245 or equal.
- B. Application:**
1. Stripe may be brushed or sprayed, one coat to finish.
2. Letters shall be stencil formed, brush applied and spaced as detailed on this sheet.



CONNECTION TO EXISTING ASPHALT PAVEMENT



INTEGRAL CURB DETAIL



- NOTES:** T=PAVEMENT THICKNESS
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.
- DRILLING BY HAND IS NOT ACCEPTABLE, PUSHING DOWEL BARS INTO GREEN CONCRETE NOT ACCEPTABLE

LONGITUDINAL BUTT JOINT

RECORD DRAWINGS

To the best of our knowledge Engineering Concepts & Design, L.P., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor.

TODD WINTERS 4-2-15 DATE

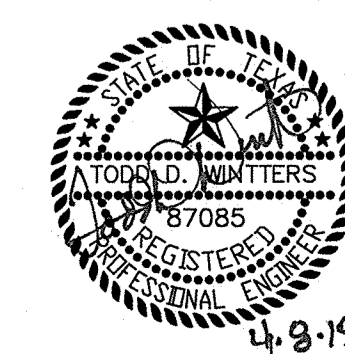
BENCHMARK:
"X" CUT IN CURB 23'± SOUTH OF EAST DRIVE APPROACH OF EXISTING RAYBURN COUNTRY ELECTRIC BUILDING.

ENGINEERINGCONCEPTS & DESIGN, L.P.

ENGINEERING / PROJECT MANAGEMENT / CONSTRUCTION SERVICES - FIRM REG. #F-001145
201 WINDCO CIR, STE 200, WYLIE, TX 75098
972-941-8400 FAX: 972-941-8401 WWW.ECDLP.COM

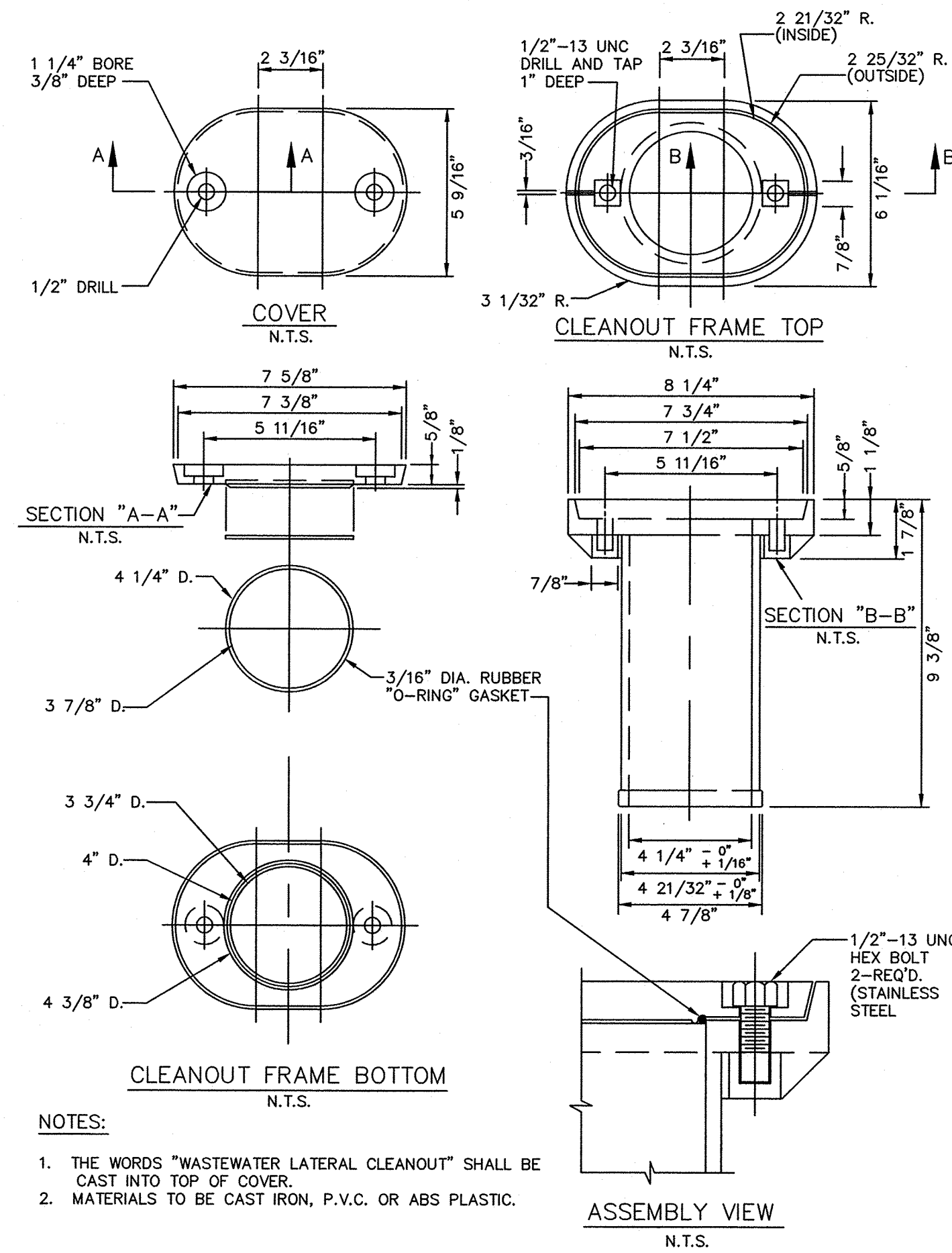
| | |
|-------------------|-------------------|
| REVISIONS: | |
| DRAWN: JIM | DATE: APRIL, 2014 |
| CHECKED: TW | DATE: |
| PROJECT NO.: 3551 | |
| DWG FILE NAME: | |

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF CONSTRUCTION.

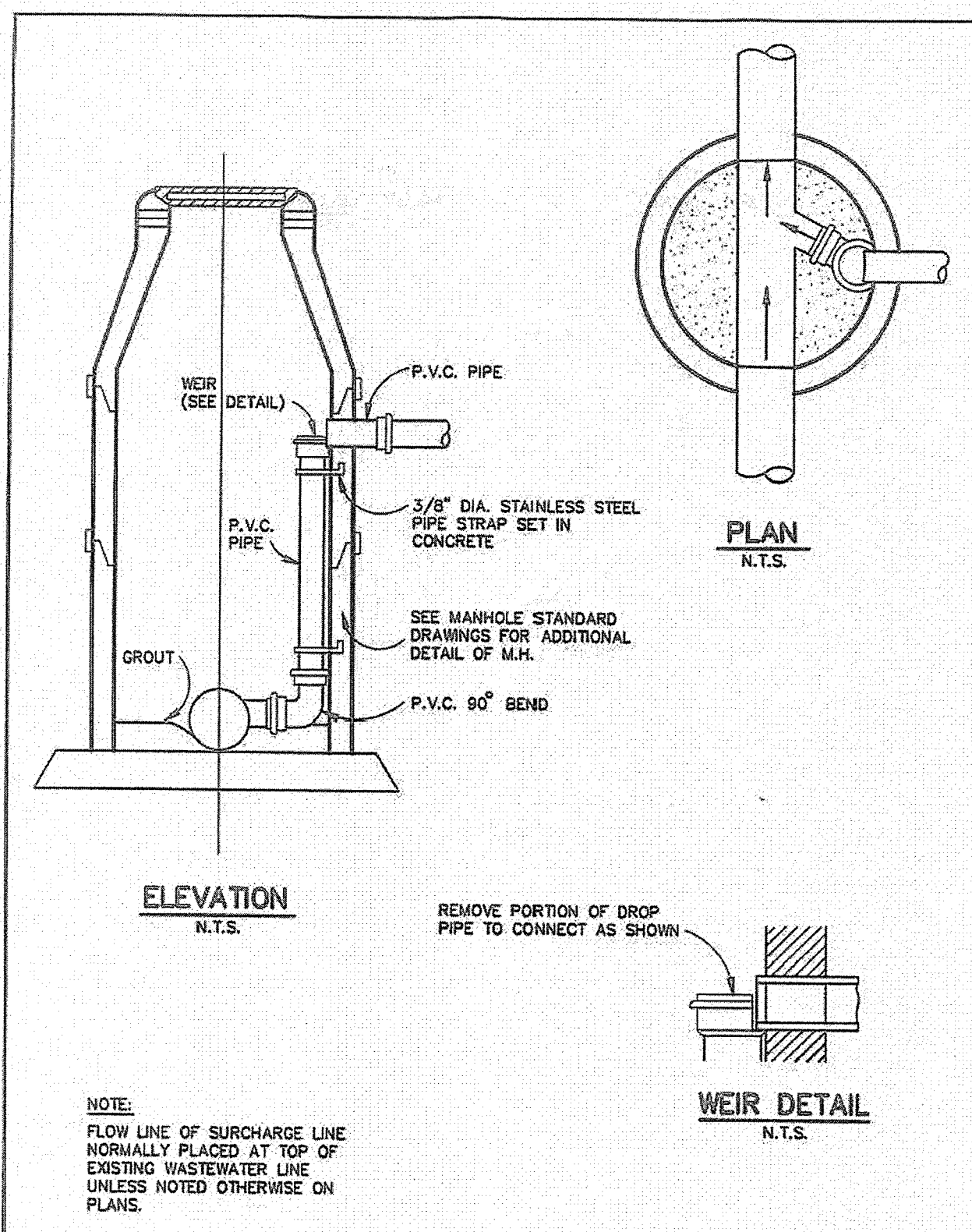


GENERAL NOTES & TYPICAL PAVING SECTIONS

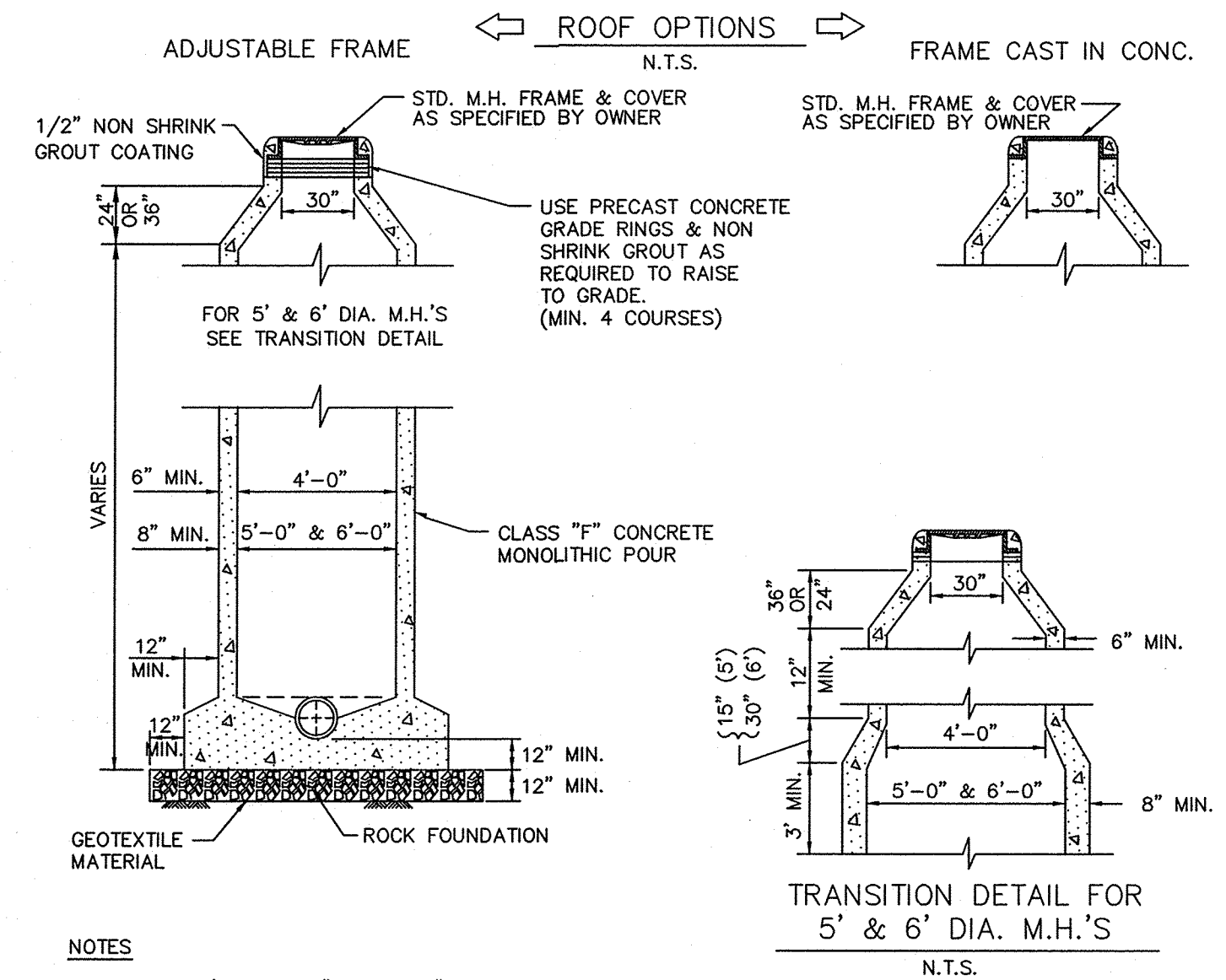
RCEC OFFICE BUILDING
LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
CITY OF ROCKWALL, ROCKWALL COUNTY, TEXAS



NOTES:
 1. THE WORDS "WASTEWATER LATERAL CLEANOUT" SHALL BE CAST INTO TOP OF COVER.
 2. MATERIALS TO BE CAST IRON, P.V.C. OR ABS PLASTIC.



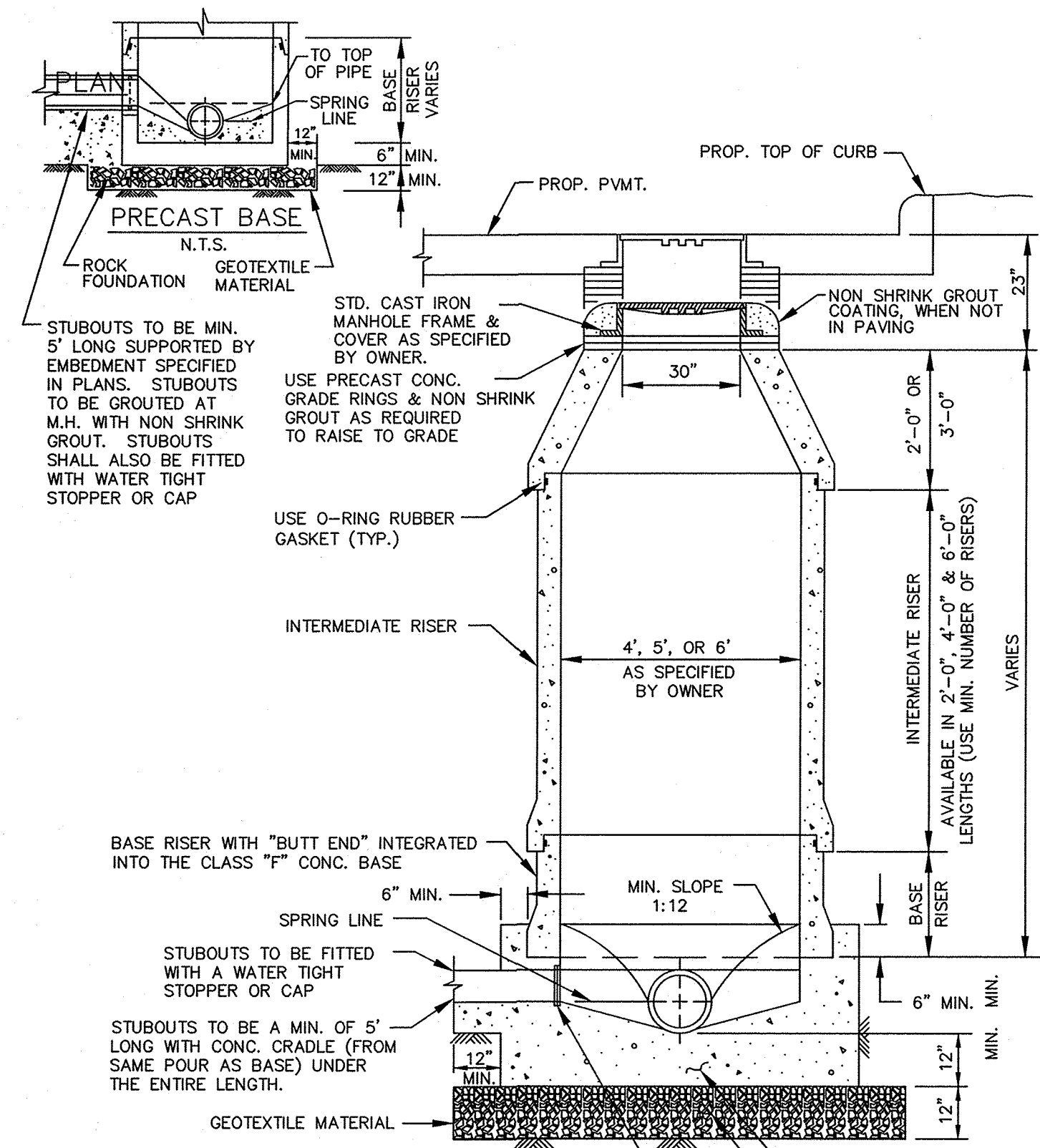
WASTEWATER MANHOLE INSIDE DROP CONNECTION
 STANDARD SPECIFICATION REFERENCE: 6.7.
 DATE: NOV. '96
 STANDARD DRAWING NO.: 5080



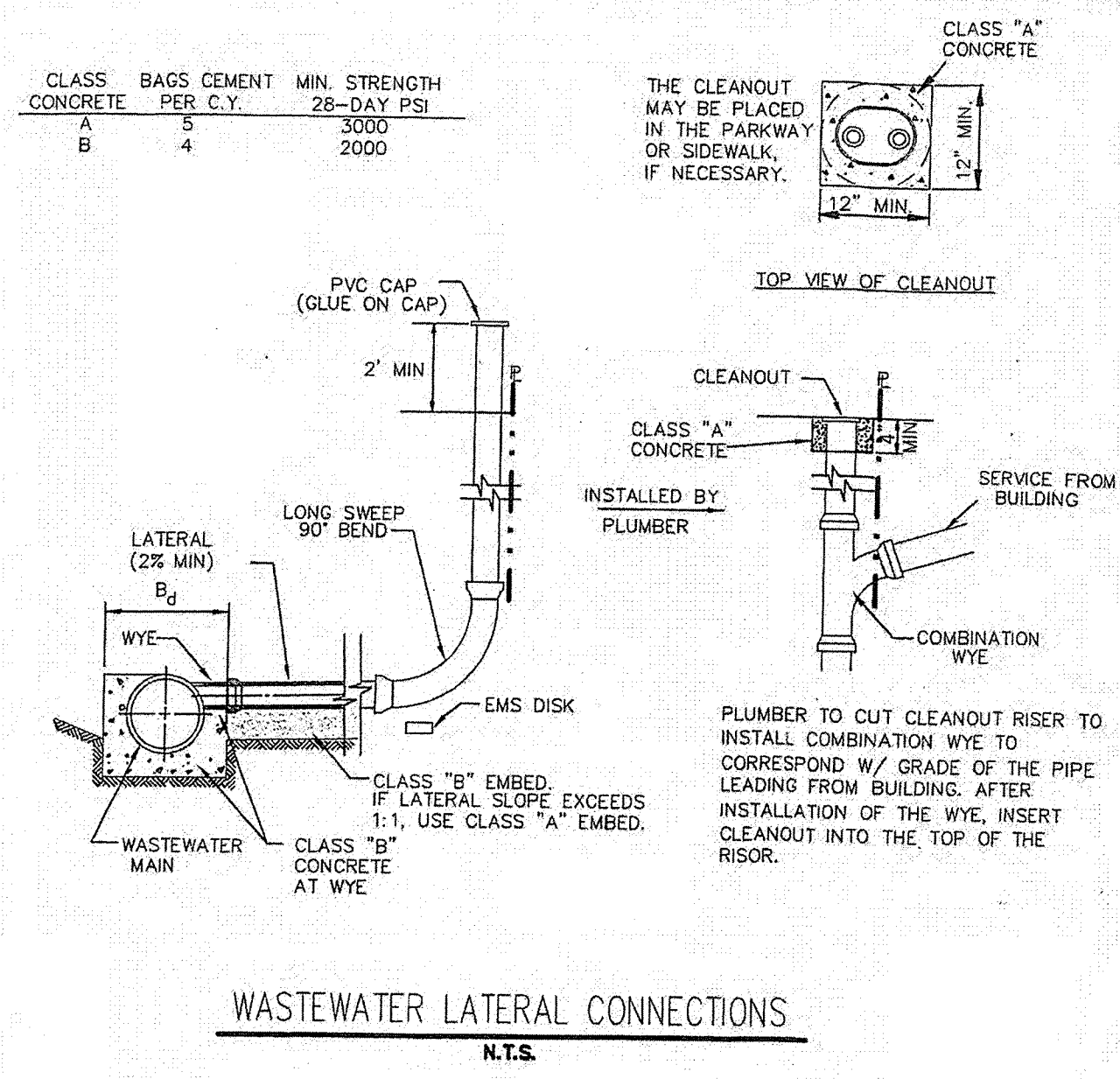
NOTES:
 1. WHERE M.H.'S ARE IN "PROPOSED" PAVING, FRAME & COVER SHALL BE SET 23" BELOW THE PROPOSED PAVEMENT GRADE.
 2. IF FALSE M.H. BOTTOMS ARE REQUIRED THEY SHALL BE CONSTRUCTED, INSTALLED AND REMOVED, PER STD. DWG. NO. 5100.

STUBOUT CONNECTION
 N.T.S.

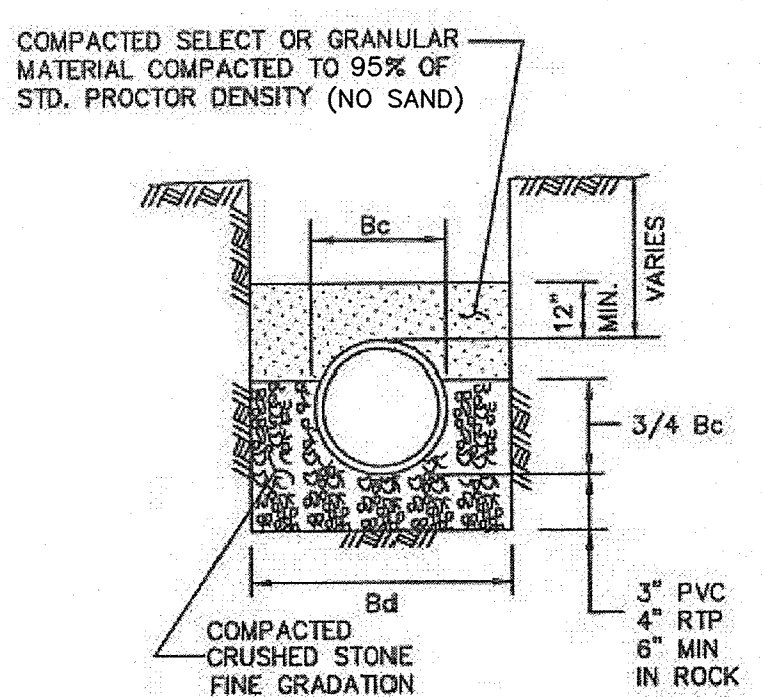
WASTEWATER MANHOLE CAST IN PLACE



NOTES:
 1. FIRST MAIN LINE JOINT TO BE A MIN. OF 5' LONG WITH CONC. CRADLE (FROM SAME POUR AS BASE) UNDER THE ENTIRE LENGTH.
 2. IF FALSE M.H. BOTTOMS ARE REQUIRED, THEY SHALL BE CONSTRUCTED, INSTALLED AND REMOVED PER STD. DWG. NO. 5100.



PLUMBER TO CUT CLEANOUT RISER TO INSTALL COMBINATION WYE TO CORRESPOND W/ GRADE OF THE PIPE LEADING FROM BUILDING. AFTER INSTALLATION OF THE WYE, INSERT CLEANOUT INTO THE TOP OF THE RISER.



NOTES:
 1. Bc = OUTSIDE DIAMETER OF PIPE
 2. Bd = TRENCH WIDTH

| SIZE OF PIPE IN INCHES DIA. | KIND OF PIPE | EXTERNAL DIA. (Bc) IN INCHES | TRENCH WIDTH (Bd) IN INCHES |
|-----------------------------|----------------|------------------------------|-----------------------------|
| 6" | PVC SEWER PIPE | 6.28 | 24 |
| 8" | PVC SEWER PIPE | 8.16 | 24 |
| 10" | PVC SEWER PIPE | 10.2 | 26 |

SANITARY SEWER EMBEDMENT CLASS "B-2"

RECORD DRAWINGS
 To the best of our knowledge Engineering Concepts & Design, L.P., hereby states that this plan is As-Built. This information provided is based on surveying at the site and information provided by the contractor.
 Todd Winters 4.8.15
 TODD WINTERS DATE

BENCHMARK:
 "X" CUT IN CURB 23± SOUTH OF EAST DRIVE APPROACH OF EXISTING RAYBURN COUNTRY ELECTRIC BUILDING.

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REVISIONS:
 DRAWN: JIM DATE: APRIL, 2014
 CHECKED: TW DATE:
 PROJECT NO.: 3551
 DWG FILE NAME:

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF CONSTRUCTION.



SEWER DETAILS
 RCEC OFFICE BUILDING
 LOT 2, BLOCK 1, RAYBURN COUNTRY ADDITION
 CITY OF ROCKWALL, ROCKWALLY COUNTY, TEXAS

SHEET
 14
 OF
 14