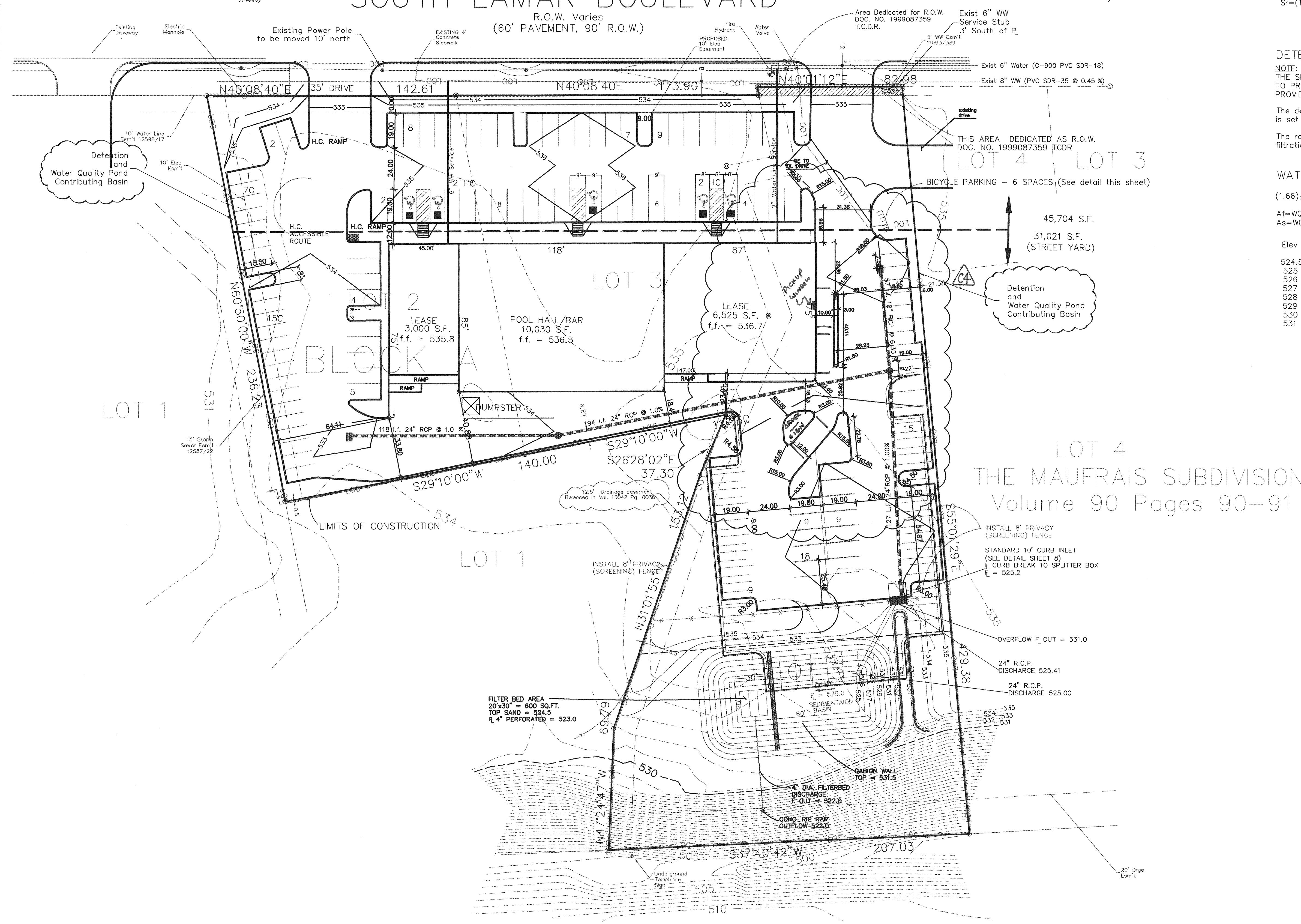


SOUTH LAMAR BOULEVARD

R.O.W. Varies
(60' PAVEMENT, 90' R.O.W.)

SCALE 1" = 30'



DETENTION VOLUME CALCULATIONS:

Assume $T_d = 61.79$ Min.

$$\frac{[(61.79 + 17.83) \cdot 1.7625]}{[129.03(61.79 + 17.83 - (0.7625)(61.79))]} = 0.5345$$

$$\frac{2(0.95)(1.66)/5.86}{0.5382/0.5345} = 1.0071$$
 Final $T_d = (61.79)(1.0071) = 62.23$

$S_d = \{(60)(0.95)\{129.03\}[62.23 + 17.83] \cdot 0.7625\} + \{30(5.86)(62.23 + 10)\} = 14,175$ c.f.
 $S_r = (14,175)(6.87/4.56) = 20,588$ c.f.

DETENTION VOLUME:

NOTE:
 THE SITE RECEIVED A WAIVER FROM PROVIDING DETENTION FOR ALL STORMS WITH AN AGREEMENT TO PROVIDE EXTENDED DETENTION FOR THE TWO (2) YEAR AND FIVE (5) YEAR STORMS WHICH IS PROVIDED IN THE WATER QUALITY POND. THIS POND HAS A DESIGN VOLUME OF 21,198 c.f..

The design stage containing 20,600 c.f. is 530.8. The overflow weir (maximum pond design capacity) is set at 531.0, containing 21,198 c.f..

The required sedimentation pond bottom area is 800 s.f. and 1000 s.f. is provided. The required filtration area pond bottom is 445 s.f. and 400 s.f. is provided.

WATER QUALITY VOLUME CALCULATIONS:

$(1.66)\{[(0.5) + (0.1)(10.0 - 2.0)]/12\}(43,560) = 7,833$ c.f. > SAY 8,000 c.f.

$A_f = WQV/18 = 8,000/18 = 445$ s.f.
 $A_s = WQV/10 = 8,000/10 = 800$ s.f.

| Elev | Area s.f. | Storage c.f. | |
|-------|-----------|--------------|------------------------|
| 524.5 | 400 | 0 | |
| 525 | 1,400 | 450 | ← WATER QUALITY VOLUME |
| 526 | 1,976 | 2,138 | |
| 527 | 2,624 | 4,438 | |
| 528 | 3,344 | 7,422 | ← 100 Yr Stage |
| 529 | 4,136 | 11,162 | |
| 530 | 5,000 | 15,730 | |
| 531 | 5,936 | 21,198 | ← Over Flow Weir Crest |

| Size (ac) | Detention & WQP Basin | | Storm Sewer | |
|-----------------|-----------------------|----------|-------------|----------|
| | Pre-dev | Post-dev | Basin #1 | Basin #2 |
| Imp Cvr (%) | 0.00 | 100.00 | 100.00 | 100.00 |
| Per c(100) | 0.41 | 0.41 | 0.41 | 0.41 |
| Per c(25) | 0.34 | 0.34 | 0.34 | 0.34 |
| Per c(10) | 0.28 | 0.28 | 0.28 | 0.28 |
| Per c(5) | 0.22 | 0.22 | 0.22 | 0.22 |
| Per c(2) | 0.17 | 0.17 | 0.17 | 0.17 |
| Per c(1) | 0.13 | 0.13 | 0.13 | 0.13 |
| Per c(0.5) | 0.09 | 0.09 | 0.09 | 0.09 |
| Per c(0.2) | 0.04 | 0.04 | 0.04 | 0.04 |
| Per c(0.1) | 0.03 | 0.03 | 0.03 | 0.03 |
| Per c(0.05) | 0.02 | 0.02 | 0.02 | 0.02 |
| Per c(0.02) | 0.01 | 0.01 | 0.01 | 0.01 |
| Per c(0.01) | 0.00 | 0.00 | 0.00 | 0.00 |
| Tc (min) | 17.00 | 5.00 | 5.00 | 5.00 |
| I (100) (in/hr) | 8.61 | 11.88 | 11.88 | 11.88 |
| I (25) (in/hr) | 7.02 | 9.84 | 9.84 | 9.84 |
| I (10) (in/hr) | 6.02 | 8.64 | 8.64 | 8.64 |
| I (5) (in/hr) | 5.33 | 7.68 | 7.68 | 7.68 |
| I (2) (in/hr) | 4.35 | 6.48 | 6.48 | 6.48 |
| I (100) (cfs) | 5.86 | 18.73 | 12.08 | 6.66 |
| I (25) (cfs) | 3.96 | 14.05 | 9.05 | 4.99 |
| I (10) (cfs) | 3.00 | 11.62 | 7.49 | 4.13 |
| I (5) (cfs) | 2.48 | 9.82 | 6.33 | 3.48 |
| I (2) (cfs) | 1.81 | 7.85 | 5.06 | 2.79 |

DETENTION AND WATER QUALITY POND NOTE:

See Grading Plan (Sheet 8), the Dimension Control Plan (Sheet 5), and Site Plan (Sheet 4) for additional information concerning the design attributes and construction of the pond for this project.

SITE PLAN RELEASE Sheet 4 of 4

FILE NUMBER: 02-97-0445 EXPIRATION DATE: 8-25-2002

CASE MANAGER: L. CARMON APPLICATION DATE: 10-14-97

APPROVED ADMINISTRATIVELY ON: 8-25-99

APPROVED BY PLANNING COMMISSION ON: 7-14-98

APPROVED BY CITY COUNCIL ON: _____

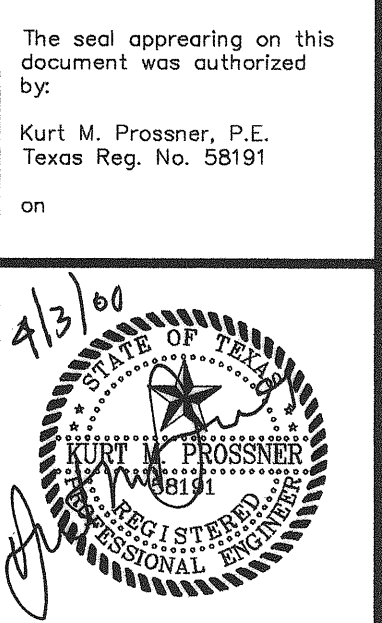
under Section 111 of Chapter 25 of the Austin City Code.

DATE OF RELEASE: 8-25-99 Zoning: CS, CS-CO

Rev. 1 _____ Correction # 11-13-00 CDL

Rev. 2 _____ Correction 2 _____

Rev. 3 _____ Correction 3 _____



NOTE: AS THIS IS A SINGLE SEDIMENTATION/FILTRATION POND, RELEASE RATES FOR STORM EVENTS WILL BE THE EXPECTED FILTER RATE FROM THE POND. THE POND IS DESIGNED FOR UP TO THE 25 YEAR DETENTION REQUIREMENT AND WE RECEIVED A WAIVER FROM STORMWATER MANAGEMENT FOR ALL STORMS EXCEPT 2 YEAR AND 5 YEAR.

| | |
|--|--------------|
| REVISED PARKING LOT FOR 'STARBUCKS' | SHEET |
| | 0 |
| | OF 14 |

This drawing is copyrighted by: **Prossner and Associates, Inc.** Consulting Engineers
 1337 Ford Springs Rd. Suite 104 Austin, Texas 78756 Phone: (512) 918-3443 Fax: (512) 918-2431
AINBINDER RETAIL CENTER
1509 SOUTH LAMAR BOULEVARD, AUSTIN, TEXAS 78745
DRAINAGE BASIN MAP