

DRAINAGE NARRATIVE:

THIS PROJECT CONSISTS OF CONVERTING A PORTION OF OVERNIGHT PARKING AREAS ON THE KOA KAMPGROUND SITE INTO COVERED STORAGE FOR RECREATIONAL VEHICLES (RVs). THE PROJECT IS LOCATED WITHIN CITY OF ALBUQUERQUE (COA) ZONE ATLAS MAPS K-22 AND L-22 AND IS LOCATED IN A FEMA FLOOD HAZARD ZONE PER FIRM NUMBER 35001C03596, REVISED SEPTEMBER 26, 2008. PEAK DISCHARGE AND VOLUME CALCULATIONS WERE COMPLETED USING VOLUME II, CHAPTER 22.2, PART A OF THE COA DEVELOPMENT PROCESS MANUAL (DPM). THE SITE IS LOCATED IN COA PRECIPITATION ZONE 3. THE 100-YR, 24-HOUR DESIGN STORM IS USED FOR ALL CALCULATIONS UNLESS OTHERWISE NOTED.

EXISTING CONDITIONS

THE EXISTING SITE CONSISTS PRIMARILY OF ASPHALT PAVEMENT (TYPE "D") AND COMPACTED DIRT AREAS WITH LANDSCAPING (TYPE "C"). THE SITE DRAINS FROM EAST TO WEST ON THE EASTERN PORTION OF THE SITE, AND FROM NORTHEAST TO SOUTHWEST ON THE WESTERN PORTION OF THE SITE. THERE IS NO STORM DRAINAGE SYSTEM ON SITE. THE EXISTING SITE IS DIVIDED INTO 3 DRAINAGE BASINS, AND RUNOFF FROM EACH BASIN DISCHARGES TO SKYLINE ROAD. BASIN DISCHARGE LOCATIONS INTO SKYLINE ROAD ARE AS FOLLOWS:

BASIN A - THE SOUTHWEST CORNER OF THE PROPERTY, ACROSS FROM ZENA LONA ST.

BASIN B - ACROSS FROM BURMA DR.

BASIN C - SITE ENTRANCE LOCATED ACROSS FROM FIGUEROA ST.

BASIN AREAS, LAND USE PERCENTAGES, PEAK DISCHARGE, AND RUNOFF VOLUME VALUES FOR THE 100-YEAR, 24-HOUR STORM EVENT ARE PROVIDED IN THE "EXISTING CONDITIONS" TABLE ON THIS SHEET.

IN ADDITION TO THE ON-SITE BASINS, THERE IS A 0.16 AC PORTION OF THE ADJOINING PROPERTY TO THE EAST THAT DRAINS ONTO THE SITE. RUNOFF FROM THE OFFSITE BASIN DISCHARGES INTO BASIN C.

PROPOSED CONDITIONS

THE NEW RV STORAGE AREA WILL CONSIST OF STORAGE CANOPIES CONSTRUCTED OVER NEW ASPHALT PAVEMENT AND WILL IMPACT BASINS B AND C. NO NEW GRADING WITHIN THE RV STORAGE AREA IS ANTICIPATED. APPROXIMATELY 1.89 AC OF BASIN 2 AND 0.50 AC OF BASIN C WILL BE CONVERTED FROM TYPE "C" TO TYPE "D" LAND USE RESULTING IN APPROXIMATELY A 4 CFS TOTAL INCREASE IN PEAK DISCHARGE (3 CFS FROM BASIN 2 AND 1 CFS FROM BASIN 3) AND A 0.30 AC-FT INCREASE IN RUNOFF VOLUME. A SUMMARY OF THE PROPOSED CONDITIONS LAND USE, PEAK DISCHARGE, AND VOLUME VALUES FOR THE 100-YEAR, 24-HOUR STORM EVENT ARE PROVIDED IN THE "PROPOSED CONDITIONS" TABLE ON THIS SHEET.

A STORM WATER DETENTION POND IS PROPOSED FOR THE SOUTHWEST CORNER OF THE SITE TO LIMIT THE PEAK DISCHARGE FROM THE SITE TO THE EXISTING CONDITIONS VALUE. THE PROPOSED DETENTION POND WILL COLLECT RUNOFF FROM BASINS A AND B. A CHANNEL WILL BE PLACED ALONG THE SOUTH EDGE OF THE SITE TO INTERCEPT BASIN B FLOWS AT THE HISTORICAL DISCHARGE LOCATION AND INSTEAD DIVERT THEM TO THE DETENTION POND. THE PEAK INFLOW TO THE POND WILL BE 57 CFS (23 CFS FROM BASIN A + 34 CFS FROM BASIN B). THE PEAK DISCHARGE RATE FROM THE DETENTION POND WILL BE LIMITED TO A MAXIMUM 53 CFS TO ACCOUNT FOR THE 4 CFS INCREASE FROM EXISTING TO PROPOSED CONDITIONS. THE POND WILL DISCHARGE TO SKYLINE ROAD THROUGH A SERIES OF SIDEWALK CULVERTS. THE AVAILABLE POND STORAGE EXCEEDS THE INCREASE IN RUNOFF VOLUME FROM EXISTING TO PROPOSED CONDITIONS. SINCE THE POND OUTFLOW WILL BE LIMITED BY THE INCREASE IN PEAK DISCHARGE FOR THE ENTIRE SITE, ALL 14 CFS OF THE PROPOSED CONDITIONS RUNOFF FROM BASIN C WILL DISCHARGE INTO SKYLINE ROAD AT FIGUEROA ST.

A PORTION OF THE POND WILL BE DEDICATED TO RETENTION FOR STORM WATER QUALITY PURPOSES. THE FIRST 0.44" OF EXCESS PRECIPITATION OVER THE CHANGE IN IMPERVIOUS AREA WILL BE RETAINED. THE REQUIRED RETENTION VOLUME FOR STORM WATER QUALITY IS 0.09 AC-FT.

$\therefore \text{Prop discharge} = 67 \text{ cfs } (53 + 14)$

PROPOSED CONDITIONS

BASIN	AREA (AC)	LAND USE TYPE				PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	CHANGE IN IMPERVIOUS AREA (AC)	VOLUME FROM FIRST 0.44" OF RUNOFF (AC-FT)
		A	B	C	D				
A	5.17	0%	0%	39%	61%	23	0.96	0.00	0.00
B	7.09	0%	0%	16%	84%	34	1.52	1.89	0.07
C	3.14	0%	0%	30%	70%	14	0.62	0.50	0.02
TOTAL	15.4					71	3.09	2.39	0.09

EXISTING CONDITIONS

BASIN	AREA (AC)	LAND USE TYPE				PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)
		A	B	C	D		
A	5.17	0%	0%	39%	61%	23	0.96
B	7.09	0%	0%	43%	57%	31	1.28
C	3.14	0%	0%	46%	54%	13	0.55
TOTAL	15.4					67	2.79

LEGEND

- FLOW DIRECTION
- APPROXIMATE GRADE BREAK
- SPOT ELEVATION
- DRAINAGE BASIN BOUNDARY

KEYED NOTES:

- NEW STORAGE CANOPIES.
- DETENTION POND. SEE DETAIL ON SHEET 2A. BOTTOM ELEVATION = 5558.70 VOLUME = 0.362 AC/FT
- 2' WIDE SIDEWALK CULVERT PER COA STD DWG 2236. (9 EA.)
- NEW SECURITY DECORATIVE FENCE.
- EXISTING CHAIN LINK FENCE (8' HIGH)
- NEW DRAINAGE CHANNEL. SEE DETAIL ON SHEET 2A.
- NEW CONCRETE CUT-OFF-WALL PER COA STD. DWG. 2415B.

KOA CENTRAL CAMPGROUND
ALBUQUERQUE, NEW MEXICO

DRAINAGE PLAN

SOLUTIONS FOR TODAY ...
VISION FOR TOMORROW

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TEXAS



NEW MEXICO

JOB NO:

115805

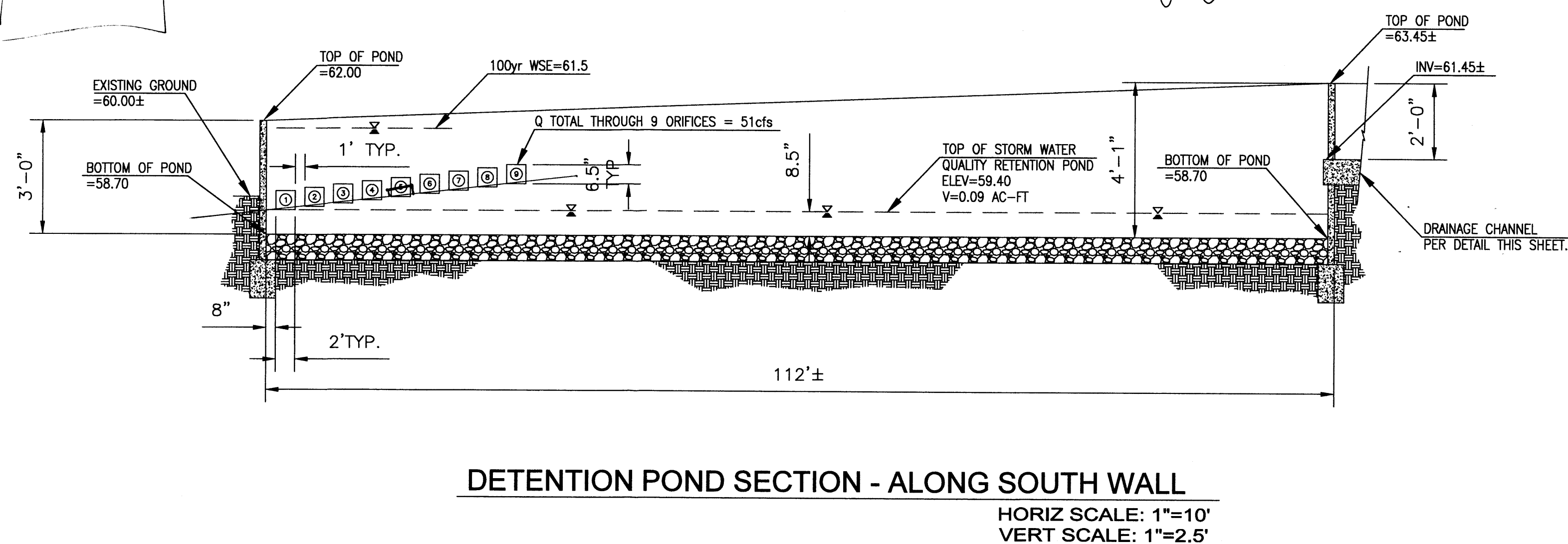
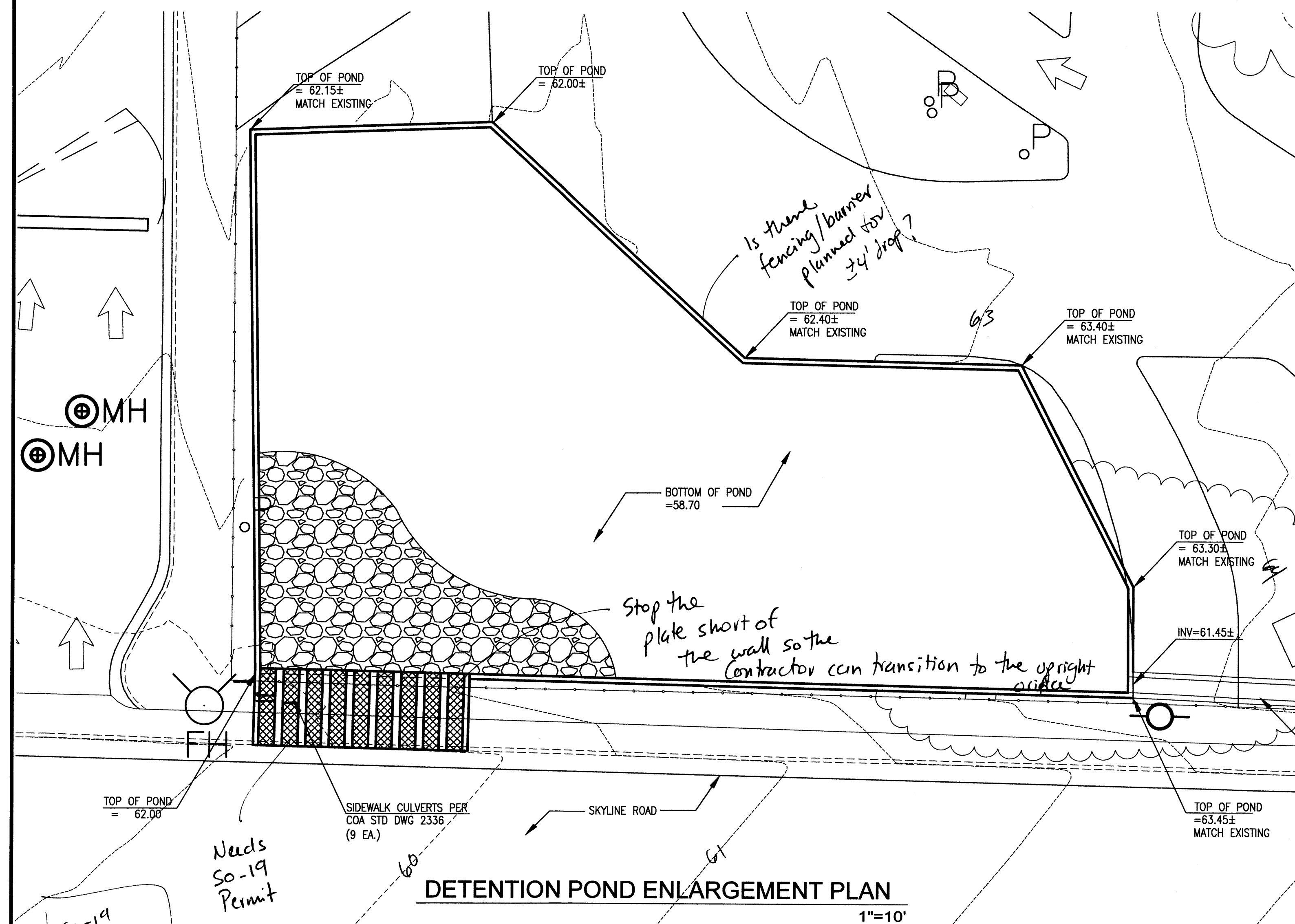
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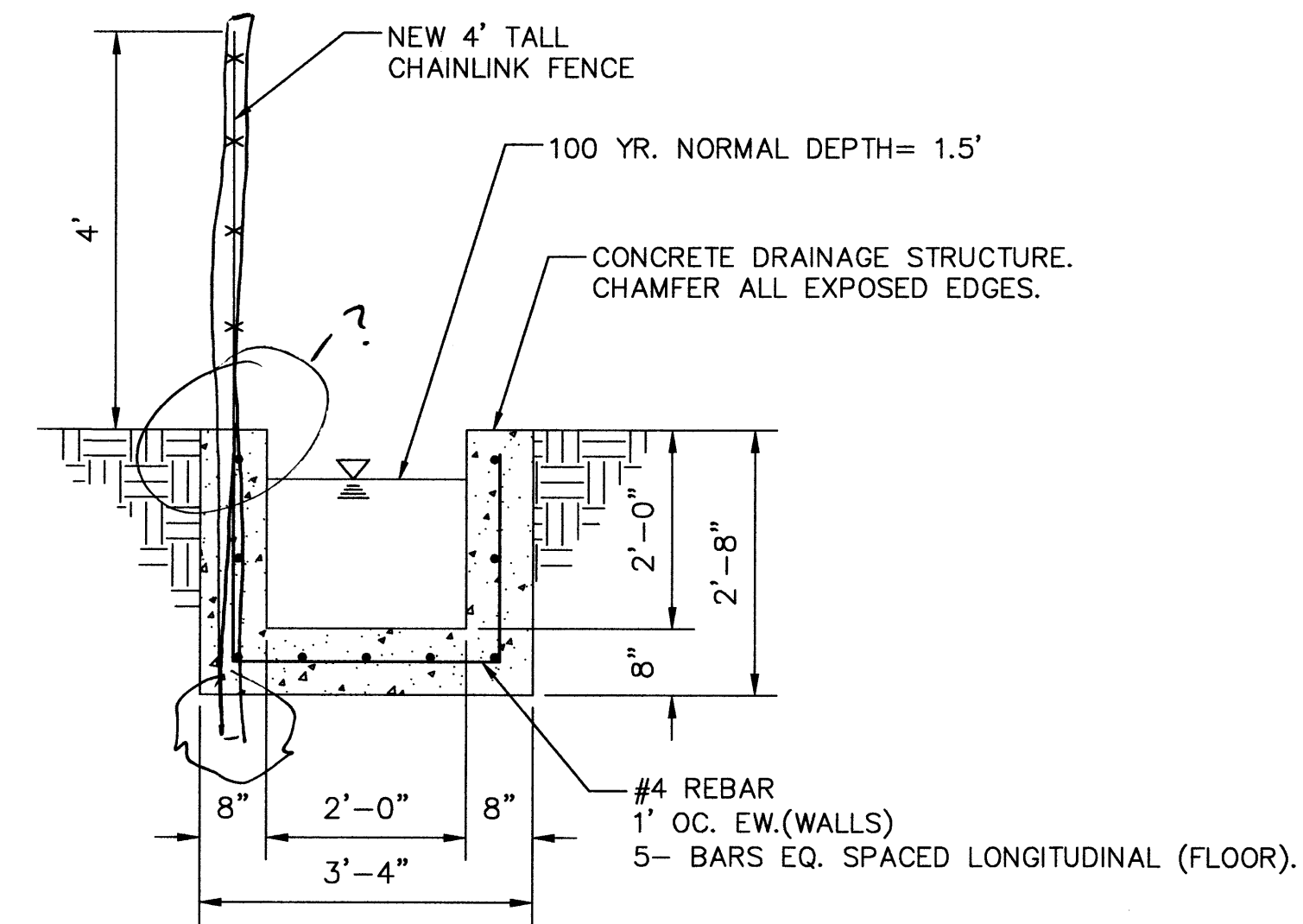
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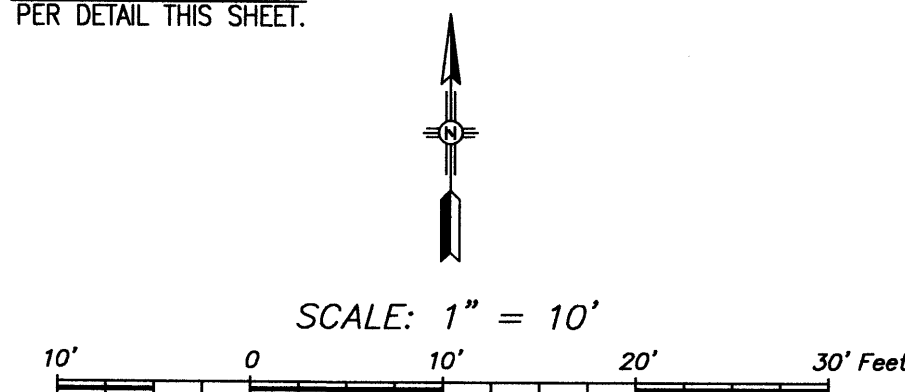


NOTE: ALL ELEVATIONS ARE PLUS 5500'
① = CULVERT NUMBER (SEE DISCHARGE COMPUTATIONS)



TYPICAL DRAINAGE CHANNEL

N.T.S.



2-29-16

[illegible]

DRAINAGE DETAILS

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TEXAS



JOB NO:
115805

DATE:
01-20-16

SHEET NO:
2A