

EXECUTIVE SUMMARY:

THIS COMMERCIAL PROJECT IS LOCATED AT 12700 LOMAS BLVD NE ALBUQUERQUE, NM. O'REILLY AUTO PARTS IS PROPOSING A 7,453 SQ. FT. BUILDING AND 23,050 SQ. FT. OF PARKING LOT. THE DRAINAGE FOR THIS SITE IS DIRECTED THROUGH THE PROPOSED CATCH BASINS AND PIPES TO THE PROPOSED WATER QUALITY RETENTION POND TO THE SOUTH OF THE DRIVEWAY OFF OF CHELWOOD PARK. THE WATER QUALITY VOLUME OF 876 CUFT WILL BE RETAINED AND INFILTRATED. ALL LARGER STORM EVENTS WILL BE DIRECTED THROUGH THE CONCRETE RUNDOWN AND SIDEWALK CULVERT TO CHELWOOD PARK. THERE ARE NO OFF-SITE FLOWS CONVEYED THROUGH THE SITE. THE PROPOSED DEVELOPMENT WILL INCREASE THE DISCHARGE FROM THE SITE BY 1.08 CFS. DUE TO THE SMALL INCREASE IN RUNOFF, NO DOWNSIDE CAPACITIES WERE CALCULATED. REFER TO SHEET C4 STORMWATER POLLUTION PREVENTION PLAN FOR STORMWATER POLLUTION POTENTIAL DURING CONSTRUCTION.

LEGAL DESCRIPTION (AS-SURVEYED):

ALL OF BLOCK ONE (1) OF CHELWOOD PARK, LYING WITHIN SECTION 22, T.10N., R.4E., N.M.P.M., WITHIN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, AS SHOWN ON PLAT OF SURVEY FILED ON MAY 25, 1955, IN PLAT BOOK D1, FOLIO 139, RECORDS OF BERNALILLO COUNTY, NEW MEXICO.

EXISTING CONDITIONS:

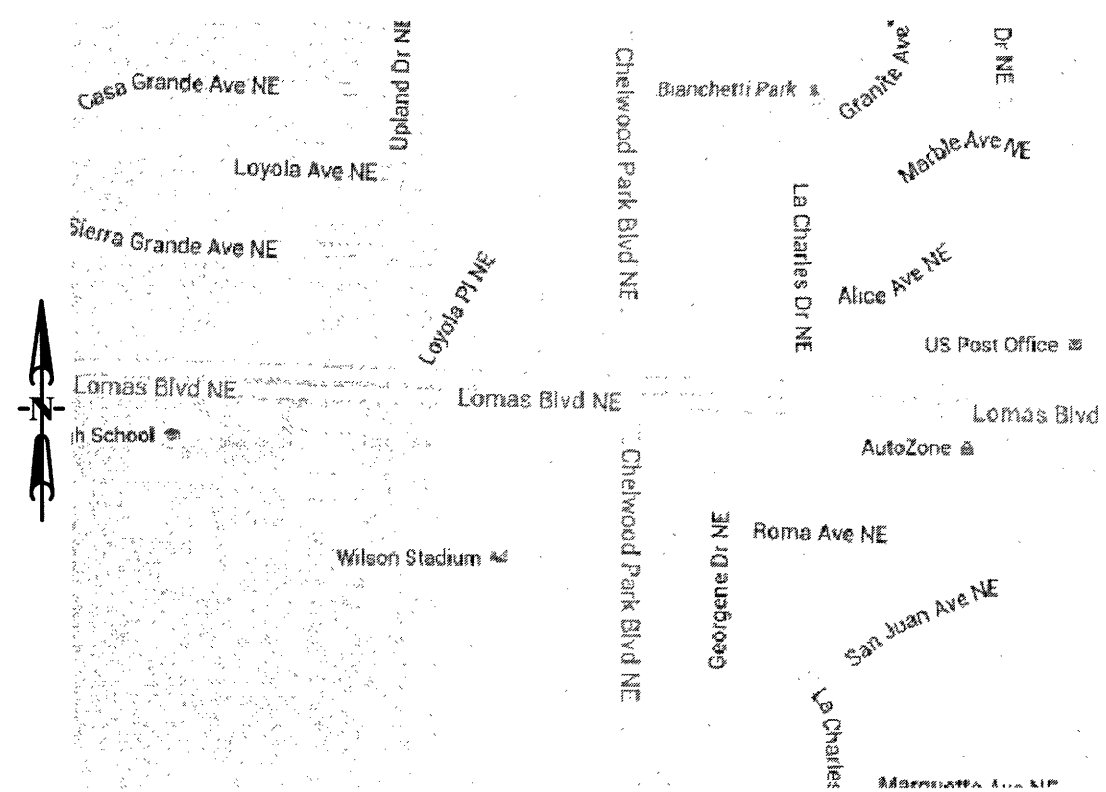
THE EXISTING SITE DRAINAGE SHEET FLOWS ACROSS THE PROPERTY TO CHELWOOD PARK TO THE WEST. THERE ARE NO EXISTING ON-SITE DRAINAGE FACILITIES. THERE ARE NO OFF-SITE DRAINAGE CONVEYED THROUGH THE SITE. REFER TO DETAIL 1/C4 FOR THE OFF-SITE DRAINAGE PATTERNS AND FACILITIES.

FLOOD ZONE:

THE PROPERTY IS LOCATED INSIDE FLOOD ZONE "X"; AREAS DETERMINED TO HAVE MINIMAL FLOODING BY FLOOD INSURANCE RATE MAP (FIRM) NO. 3500103395G, REVISED DATE: SEPTEMBER 26, 2008.

SPECIAL NOTE:
DEPRESS ALL LANDSCAPED AREAS TO RETAIN STORMWATER.

SITE INFORMATION:
THE PROPOSED SITE IS OWNED AND WILL BE OPERATED AND MAINTAINED BY O'REILLY AUTOMOTIVE STORES, INC.



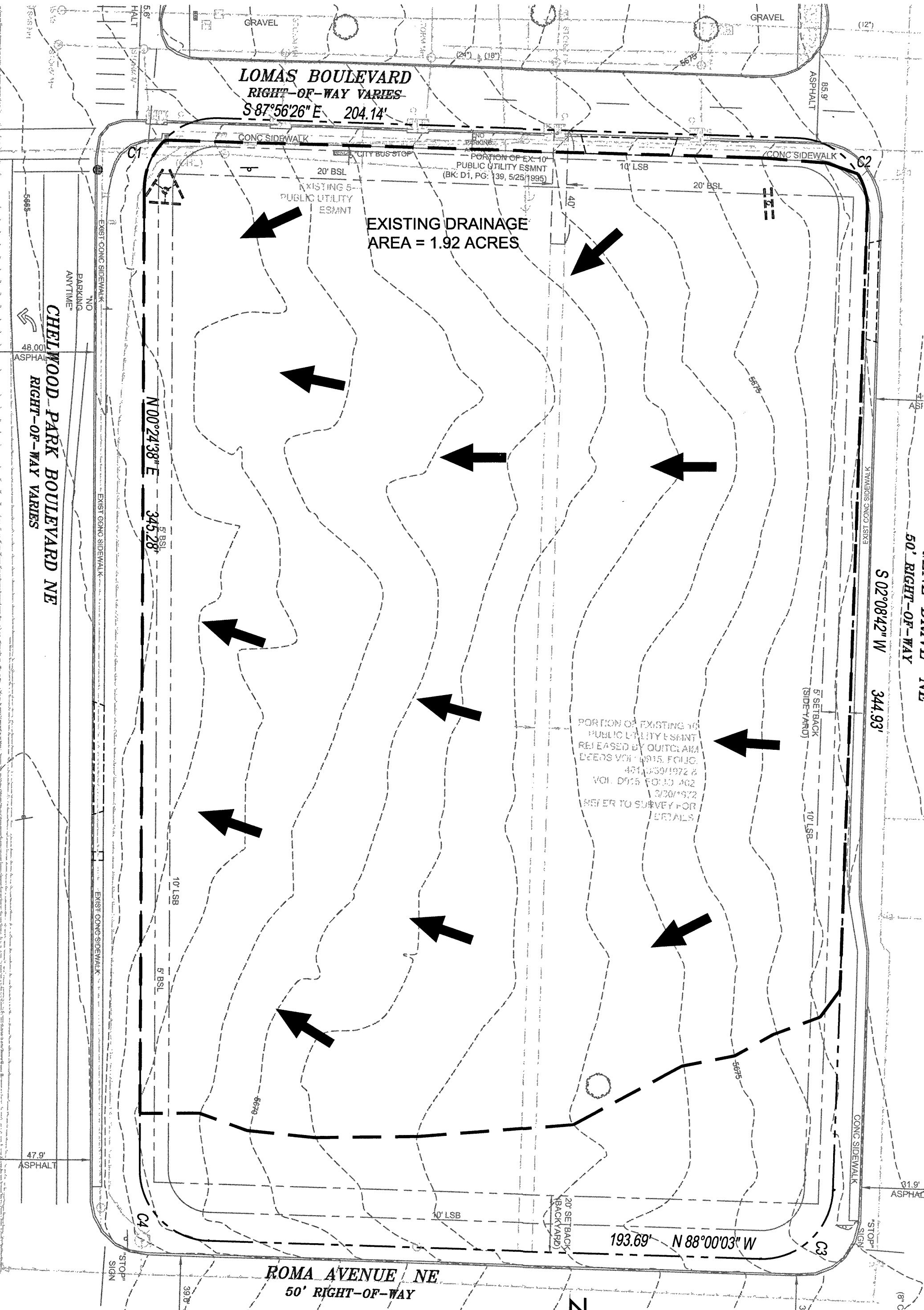
VICINITY MAP:
(NOT TO SCALE)
ZONE ATLAS PAGE: K-22-Z

ANDERSON ENGINEERING, INC.
ENGINEERS • SURVEYORS • LABORATORIES • DRILLING
2045 W. WOODLAND • SPRINGFIELD, MISSOURI 65807 • PHONE (417) 966-2741
ANDERSON ENGINEERING, INC. CO. #2620767 • NEIL S. BRADY, P.E. #6260

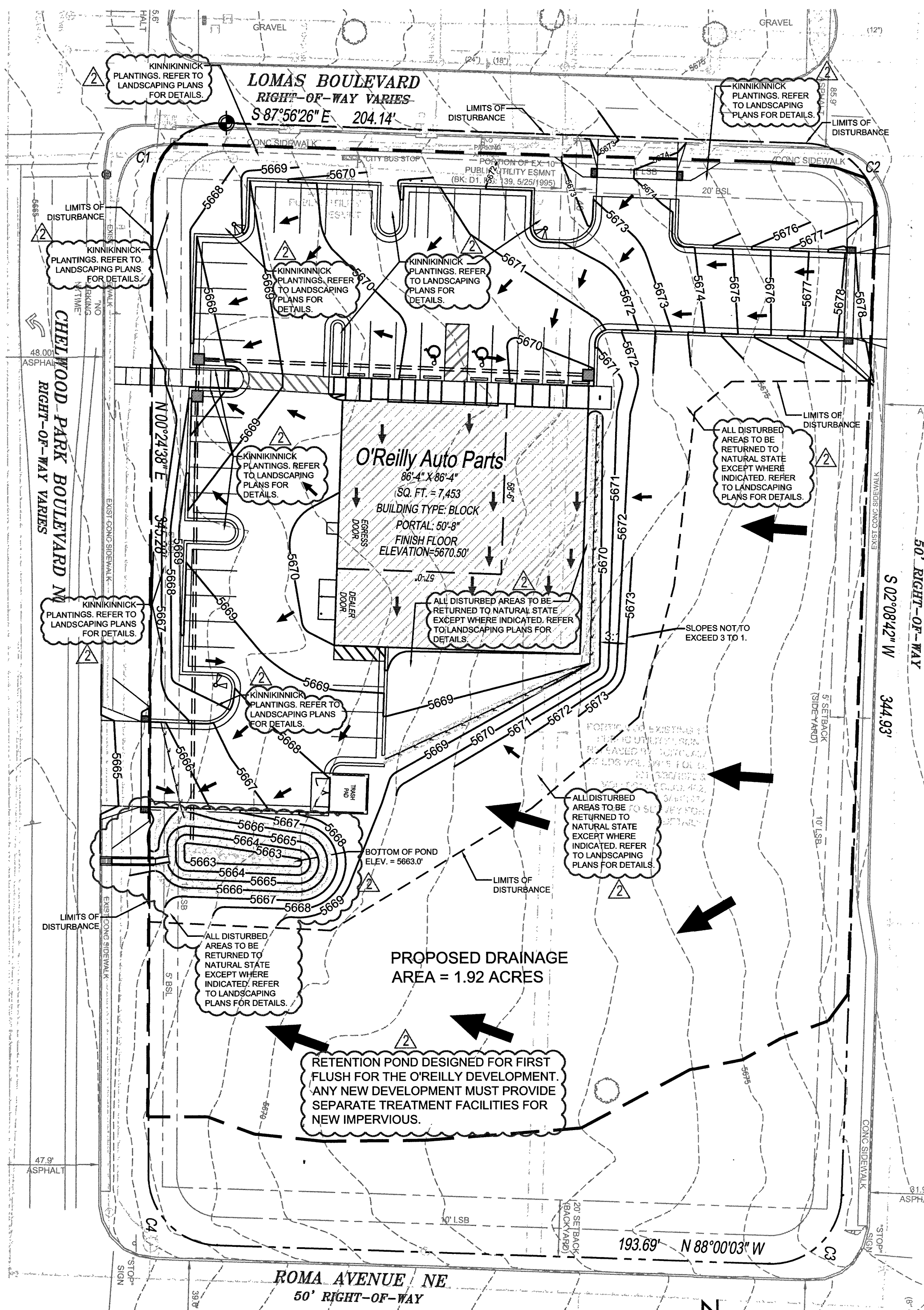
PROJ. # 10143-15
BY: MRR
REVISIONS:
DATE: 12-11-2015
DRAWING # WB-110-427

CASCO
PROJECT MANAGERS
10877 Watson Road
St. Louis, MO 63127
Phone: (314) 821-1100

REVISIONS:
CODE / ADD #1 11/12/15
CODE / ADD #2 2/1/16



1 EXISTING DRAINAGE PLAN
SCALE: 1"=30'
GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.



2 PROPOSED DRAINAGE PLAN
SCALE: 1"=30'
GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

STORM WATER RUNOFF SUMMARY:

TOTAL PROPERTY AREA= 2.25 ACRES
TOTAL DISTURBED AREA = 1.21 ACRES > 1.0 ACRES THEREFORE A LAND DISTURBANCE PERMIT IS REQUIRED.

1. EXISTING DISCHARGE AND VOLUME CALCULATIONS:
DRAINAGE AREA = 1.92 ACRES
PRECIPITATION ZONE 4, PER TABLE A-1
DESIGN STORM: 6 HOUR, 100 YEAR
LAND TREATMENT TYPE C, PER TABLE A-4:
AREA = 1.92 ACRES
VOLUME:
EXCESS PRECIPITATION, E = 1.46 INCHES
WEIGHTED E = [(E1*A1)+(E2*A2)]/(A1 + A2) PER EQUATION a-5
WEIGHTED E = [(1.46*1.92)]/1.92
WEIGHTED E = 1.46 INCHES
VOLUME = WEIGHTED E * (A1 + A2) PER EQUATION a-6
VOLUME = (1.46*1.92)/(1.92*43,560)
VOLUME = 10.176 CUFT
DISCHARGE:
Qpa = 3.73 CFS/ACRE
Aa = 1.92 ACRES
Qp = Qpa*Aa + Qpb*Ab PER EQUATION a-10
Qp = 3.73*1.92
Qp = 7.16 CFS
2. PROPOSED DISCHARGE AND VOLUME CALCULATIONS:
DRAINAGE AREA = 1.92 ACRES
PRECIPITATION ZONE 4, PER TABLE A-1
DESIGN STORM: 6 HOUR, 100 YEAR
LAND TREATMENT TYPE C, PER TABLE A-4:
AREA = 1.21 ACRES
LAND TREATMENT TYPE D, PER TABLE A-4:
AREA = 0.71 ACRES
VOLUME:
EXCESS PRECIPITATION, E TYPE C = 1.46 INCHES
EXCESS PRECIPITATION, E TYPE D = 2.64 INCHES
WEIGHTED E = [(E1*A1)+(E2*A2)]/(A1 + A2) PER EQUATION a-5
WEIGHTED E = [(1.46*1.21) + (2.64*0.71)]/(0.50 + 0.71)
WEIGHTED E = 2.15 INCHES
VOLUME = WEIGHTED E * (A1 + A2) PER EQUATION a-6
VOLUME = (2.15/12)*(1.21 + 0.71)*43,560
VOLUME = 19.117 CUFT
DISCHARGE:
Qpa, TYPE C = 3.73 CFS/ACRE
Aa = 1.21 ACRES
Qpb, TYPE D = 5.25 CFS/ACRE
Ab = 0.71 ACRES
Qp = Qpa*Aa + Qpb*Ab PER EQUATION A-10
Qp = 3.73*1.21 + 5.25*0.71
Qp = 8.24 CFS

STORM WATER RUNOFF TREATMENT:

TOTAL PROPERTY AREA= 2.25 ACRES
TOTAL DISTURBED AREA = 1.21 ACRES > 1.0 ACRES THEREFORE A LAND DISTURBANCE PERMIT IS REQUIRED.

1. ON-SITE AREAS & CURVE NUMBERS:
DRAINAGE AREA = 1.92 ACRES
PRE-DEVELOPMENT:
PERVIOUS AREA: 1.92 ACRES (LAND TREATMENT TYPE C)
IMPERVIOUS AREA: 0.00 ACRES (LAND TREATMENT TYPE D)
POST-DEVELOPMENT:
DEVELOPED GRASS GOOD CONDITION
PERVIOUS AREA = 1.92 ACRES (LAND TREATMENT TYPE C)
PARKING LOT & BUILDING:
IMPERVIOUS AREA = 0.71 ACRES (LAND TREATMENT TYPE D)
2. FIRST FLUSH RETENTION CALCULATIONS:
IMPERVIOUS AREA = 0.71 ACRES
PERVIOUS AREA = 30,930 SF
FIRST FLUSH DEPTH = 0.44 INCHES
INITIAL ABSTRACTIONS DEPTH = 0.10 INCHES
DESIGN DEPTH = 0.44 - 0.10 = 0.34 INCHES
DESIGN DEPTH = 0.0283 INCHES
REQUIRED RETENTION VOLUME:
V = (30,930 SF)*(0.0283 FT)
V = 876 CUFT
3. RETENTION VOLUME PROVIDED:
ELEVATION SUM SUM
(ft) (cu) (cu)
5663.00 0 0.000
5664.00 340 0.008
5665.00 1,011 0.023
5666.00 2,067 0.047

THE FIRST FLUSH RETENTION VOLUME REQUIREMENT IS PROVIDED WITH A RETENTION POND SOUTH OF THE SOUTHWEST DRIVEWAY AND IS MET AT 5664.80' IN THE POND. ALL STORM WATER WILL BE CONVEYED THROUGH THE STORM WATER SYSTEM TO THE RETENTION POND. THE REQUIRED RUNOFF TREATMENT VOLUME OF 876 CUFT WILL STORE IN THE POND AND INFILTRATE. ALL LARGER STORM WATER EVENTS WILL BE CONVEYED OUT OF THE SITE THROUGH THE OVERFLOW CONCRETE RUNDOWN IN THE RETENTION POND AND THE SIDEWALK CULVERT ALONG CHELWOOD PARK BOULEVARD NE. THE POND PROVIDES 1.2' OF FREEBOARD. THE RETENTION POND IS DESIGNED TO HAVE CAPACITY FOR FIRST FLUSH FOR THE O'REILLY DEVELOPMENT. ANY NEW DEVELOPMENT MUST PROVIDE SEPARATE TREATMENT FACILITIES FOR NEW IMPERVIOUS.

SYMBOLS LEGEND			
REFER TO SURVEY (SV1) FOR EXISTING CONDITION SYMBOLS LEGEND AND SITE CONTROL.			
---5670---	EXISTING GRADE LINES	+ 5670.00 PVT	NEW SPOT ELEVATIONS
—5670—	PROPOSED NEW GRADE LINES		LIST
[Symbol]	NEW BUILDING CONSTRUCTION		GRADE
[Symbol]	NEW CONCRETE PAVING BLOCK		SIDEWALK
[Symbol]	SILT FENCE		TOP OF WALL
[Symbol]	SURFACE FLOW ARROW		TOP OF CURB
			TOP OF PAVEMENT
			NEW GRADE
			CONCRETE
			EXISTING TOP OF CURB
			ETC
			EPIT
			EXISTING SIDEWALK
			FLOW LINE
			TOP OF BERM
			TEMPORARY BENCHMARK: THE TEMPORARY ELEVATION BENCHMARK UTILIZED FOR THIS SURVEY IS THE RIM OF STORM MANHOLE (#1032). ELEV. = 5666.82' (NAVD 88 DATUM)

O'Reilly AUTO PARTS

PROJECT:
NEW O'REILLY AUTO PARTS STORE
12700 LOMAS BLVD NE
ALBUQUERQUE, NM 87123
SITE DRAINAGE PLAN

CORPORATE OFFICES
233 SOUTH PATTERSON
SPRINGFIELD, MISSOURI 65802
417-862-2674 PHONE

Professional Engineer Seal for Neil S. Brady, No. 125-16, State of New Mexico.

DRAWN: MRR
CHECKED: NSB
DATE: 12-11-2015
JOB NO.: 315621 (A15)
SHEET: C5
SHEET 6 OF 6