

1 LANDSCAPE/MITIGATION PLAN
 L1 SCALE: 1" = 20'

LAWN IRRIGATION SYSTEM SPECIFICATIONS

- (A) PROVIDE LAWN IRRIGATION SYSTEM CONSISTING OF SPRINKLER HEADS, BACKFLOW PREVENTION, AUTOMATIC CONTROL VALVES, TIMERS, AND RELATED PIPING AND ACCESSORIES FOR THE YARD AREAS INDICATED ON THE DRAWINGS AND AS REQUIRED TO COMPLY WITH LOCAL CODES AND REGULATIONS. CONTRACTOR SHALL PAY ALL ONE-TIME FEES AND CHARGES RELATED TO THIS WORK, INCLUDING WATER SUPPLY AND METERING. COORDINATE WITH THE WATER COMPANY AS REQUIRED FOR SERVICE ARRANGEMENTS. LAWN IRRIGATION CONTRACTOR SHALL PROVIDE ALL WORK, INCLUDING ALL POWER AND CONTROL WIRING, TESTING, ADJUSTING, AND START-UP AS REQUIRED FOR A COMPLETE, PROPERLY FUNCTIONING SYSTEM.
- (B) SPRINKLER HEADS, CONTROL VALVES, AND RELATED ACCESSORIES SHALL BE AS MANUFACTURED BY TORO OR EQUIVALENT APPROVED BY THE OWNER'S REPRESENTATIVE. INSTALLATION SHALL BE AS DESIGNED AND RECOMMENDED BY THE MANUFACTURER'S AUTHORIZED REPRESENTATIVE AND SHALL BE PERFORMED BY A COMPANY SPECIALIZING AND EXPERIENCED IN THIS TYPE OF WORK.
- (C) WATER SUPPLIES SHALL BE TAKEN FROM THE UNDERGROUND SITE WATER SUPPLY MAIN (WITH SEPARATE METERING) UNLESS REQUIRED OTHERWISE BY LOCAL CODES AND WATER COMPANY REGULATIONS. CONTRACTOR SHALL PROVIDE ALL WORK AND PAY ONE-TIME FEES AND CHARGES ASSOCIATED WITH THE IRRIGATION SYSTEM WATER SUPPLY SERVICE. PROVIDE BACKFLOW PREVENTION AS REQUIRED TO COMPLY WITH LOCAL CODES.
- (D) SPRINKLER HEADS SHALL BE TORO SERIES 570 POP-UP SPRAY HEADS OR APPROVED EQUIVALENT SELECTED FOR THE FLOW AND PATTERN REQUIRED TO PROVIDE COMPLETE, OVERLAPPING COVERAGE OF THE AREAS TO BE IRRIGATED.
- (E) EXCEPT AS OTHERWISE REQUIRED BY CODES, MAIN SUPPLY PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT CEMENTED JOINTS, AND BRANCH PIPING SHALL BE SDR 26, CLASS 160, PVC 1120 AND/OR SECTION 15C AND/OR LOCAL CODES. THREADED ADAPTORS AND THREADED PIPE FOR PVC SHALL BE SCHEDULE 80, MINIMUM. SOLVENT FOR PVC JOINTS SHALL BE NSF APPROVED AND PER PIPE MANUFACTURER'S RECOMMENDATIONS. MINIMUM PIPE SIZE SHALL BE AS REQUIRED BY LOCAL CODES.
- (F) THE IRRIGATION SYSTEM SHALL BE ZONED AS REQUIRED TO PROVIDE THE MOST ECONOMICAL LAYOUT AND PIPE SIZING. THE SYSTEM SHALL BE DESIGNED AND ZONED TO BE COMPATIBLE WITH A MAXIMUM OF 1-1/2" WATER METER SIZE, UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.
- (G) ALL CONTROL VALVES SHALL BE INSTALLED IN CONCRETE, FIBERGLASS, OR CAST IRON VALVE BOXES WITH HEAVY DUTY, VANDAL-PROOF COVERS. SET BOXES FLUSH WITH FINAL GRADES.
- (H) BACKFILL SHALL BE CLEAN MATERIALS FREE OF ROCKS LARGER THAN 1 1/2" AND SHALL BE COMPACTED TO PREVENT NOTICEABLE SETTLEMENT AND IRREGULARITIES.
- (I) ALL EXTERIOR WIRING SHALL BE DIRECT BURIAL CABLE OR SHALL BE IN SCHEDULE 40 PVC CONDUIT. MINIMUM WIRE SHALL BE 18 GAUGE FOR LOW VOLTAGE CONTROL WIRING WITH SIZE INCREASE FOR LONGER RUNS AS REQUIRED TO LIMIT VOLTAGE DROP FOR PROPER OPERATION. PROVIDE 120 VOLT POWER SUPPLY TO THE CONTROLLER. MOUNT CONTROLLER IN THE POWER ROOM OR LOCATION AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- (J) PRIOR TO INSTALLATION OF SPRINKLER HEADS, ALL PIPING SHALL BE THOROUGHLY FLUSHED AT FULL FLOW AND PRESSURE. AFTER FLUSHING ALL PIPING SHALL BE PRESSURE TESTED UNTIL PROVEN LEAK-FREE. FLUSHING AND PRESSURE TESTING SHALL BE COORDINATED WITH INSTALLATION OF PLANTING TO PREVENT DAMAGE TO BOTH PLANTS AND PIPING SYSTEM.
- (K) AFTER SPRINKLER HEADS AND PLANTING ARE INSTALLED, ADJUST ALL HEADS FOR OPTIMUM COVERAGE AND COORDINATION WITH PLANTINGS. ADJUST ALL VALVES, ALIGNMENTS, AND COVERAGE FOR OPTIMUM PERFORMANCE FOR FINAL APPROVAL BY THE OWNER'S REPRESENTATIVE.
- (L) LAWN IRRIGATION CONTRACTOR SHALL RECOMMEND AND SET THE PROGRAM ON THE CONTROLLER, PROVIDE TYPED WRITTEN DETAILED OPERATING INSTRUCTIONS FOR THIS SPECIFIC SYSTEM, AND GIVE VERBAL OPERATING INSTRUCTIONS TO THE OWNER'S OPERATING PERSONNEL.
- (M) CONTRACTOR SHALL PROVIDE LAYOUT AND SHOP DRAWINGS FOR APPROVAL BY STATE AND LOCAL BUILDING OFFICIALS AND/OR OTHER AGENCIES AND CASCO CORPORATION. CONTRACTORS SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS RELATED TO THIS WORK AND SUBMIT COPIES OF SAME FOR THE OWNER'S RECORDS.

NOTE: REF. IRRIGATION PLAN L3 FOR IRRIGATION HEAD AND SLEEVE LOCATIONS

GENERAL NOTES:

- A. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
- B. COORDINATE WORK WITH OTHER SITE DEVELOPMENT RELATED DRAWINGS.
- C. ALL PLANT MATERIALS MUST MEET THE SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- D. ALL TREE AND SHRUB PLANTINGS TO RECEIVE 3" CREEK GRAVEL & FILTER FABRIC. EXTENT OF CREEK GRAVEL TO BE 6" DIA. AT TREES AND 18" BEYOND SHRUB DRIP LINES. ALL OTHER PLANTINGS TO RECEIVE 3" CREEK GRAVEL ONLY, (WITHOUT FILTER FABRIC).
- E. ALL LANDSCAPING TO BE RETAINED SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITY BY A FENCED BARRIER AT DRIP LINE OF TREES & SHRUBS. DO NOT STORE MATERIALS OR DRIVE VEHICLES WITHIN DRIP LINE OF TREES. REPLACE ANY EXISTING LANDSCAPING DAMAGED BY THIS CONSTRUCTION TO ORIGINAL CONDITION. (REFER TO 7/12)
- F. FIELD VERIFY LOCATION OF ALL UTILITIES AND SITE FIXTURES AND RESPACE PLANTINGS IF REQUIRED.
- G. NO TREE TO BE PLACED WITHIN 5'-0" OF ANY UTILITY.

KEY NOTES:

- 1 ALL AREAS DISTURBED BY CONSTRUCTION ARE FIRST, TO BE FINE GRADED & THEN FOLLOWED BY HYDRO MULCH OR SEED & STRAW, UNLESS OTHERWISE NOTED, OVER MIN. 4" TOPSOIL STOCKPILED FROM SITE OR HAULED IN AS REQUIRED.
- 2 SOD TO BE INSTALLED AT DETENTION POND AREA. REF. (1/12) FOR INSTALLATION DETAIL.
- 3 AREA OF CREEK GRAVEL, REFER TO 2/L2. (SEE GENERAL NOTE "D" ABOVE).
- 4 EXTENT OF SOD INSTALLATION AT DETENTION POND AREA. REFERENCE CIVIL DRAWINGS FOR ACTUAL EXTENT OF DETENTION POND LIMITS AND FOR MORE INFORMATION.
- 5 LOCATION OF NEW GROUND MONUMENT SIGN.
- 6 LOCATION OF NEW LIGHT POLE.
- 7 LOCATION OF NEW VINYL EDGING ALONG SHRUB LINE.
- 8 TOP EDGE OF DETENTION BASIN RETAINING WALL.
- 9 WATER METER SET BY CITY, G.C. TO TAP FOR CONNECTION OF IRRIGATION SYSTEM REF. IRRIGATION SYSTEM SPECIFICATIONS.
- 10 MITIGATE EXISTING TREE AND REPLACE PER CITY STANDARDS.
- 11 EXISTING TREE TO REMAIN, PROTECT PER CITY STANDARDS DURING CONSTRUCTION.
- 12 BUILDING MOUNTED LIGHT FIXTURE, REF. SPO.

LANDSCAPE CALCULATIONS:

LANDSCAPE AREA			
15% OF TOTAL AREA LANDSCAPED	45,039 SF x .15 = 6755 SF	REQUIRED	
TOTAL LANDSCAPED AREA PROVIDED	10996 SF		
PARKING LOT LANDSCAPING			
5% OF 200 SQ. FT. INTERIOR PARKING LOT REQUIRED	2487 SF.	OF 10996 TOTAL	
STREET TREES			
REQUIRED 1 TREE PER 30 LINEAL FT.			
200 LINEAL FT. STREET FRONTAGE	200/30 = 7 TREES	PROVIDED IN FRONT	
SHRUBS			
10' LANDSCAPE BUFFER PROVIDED IN FRONT			
SHRUBS REQUIRED AT R.O.W.	= 28 SHRUBS	PROVIDED	
ADDITIONAL SHRUBS PROVIDED	= 8	BETWEEN DRIVE ENTRIES	
ADDITIONAL SHRUBS PROVIDED	= 15	BETWEEN BUILDING AND ACCESS EASEMENT	

PLANTING SCHEDULE

KEY	COMMON NAME	BOTANICAL NAME	QTY.	SIZE	DETAIL
T-1	LIVE OAK	QUERCUS VIRGINIANA	7	3" CALIPER (MIN) 10'-12" TALL (MIN)	5/12
T-2	JAPANESE BLACK PINE	PINUS THUNBERGIANA	9	3" CALIPER (MIN) 10'-12" TALL (MIN)	4/12
S-1	INDIAN HAWTHORNE	RAPHIOLEPIS INDICA	51	5 GALLON (MIN)	5/12

NOTE: REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS

SYMBOLS LEGEND

NOTE: REFER TO SURVEY FOR EXISTING CONDITION SYMBOLS LEGEND.

	EXISTING TREE/ SHRUBS TO REMAIN
	AREA OF CREEK GRAVEL
	AREA OF SOD. (NOTE: LAWN AREA WHICH EXCEEDS 25% SLOPE, TO BE PROVIDED WITH SOD. SEE GRADING PLAN.)
	NEW BUILDING
	NEW GROUND MONUMENT SIGN LOCATION - SEE A1 FOR SIGN DETAIL
	NEW LIGHT POLE LOCATION
	NEW CONCRETE PARKING BLOCK
	NEW TREES (REFER TO PLANTING LEGEND)
	NEW SHRUBS (REFER TO PLANTING LEGEND)

LANDSCAPE/MITIGATION

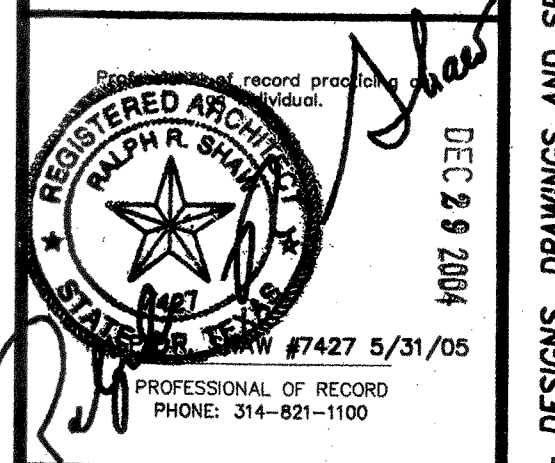


OWNER REVIEW:	6/25/04
ISSUED FOR PERMIT:	7/7/04
ISSUED FOR BID:	7/7/04
REVISIONS:	
NO.#	DATE
REMARKS:	
REV 1	11/11/04
ENGINEERING PLANS RESUBMITTAL	
REV 2	12/30/04
ENGINEERING PLANS RESUBMITTAL	

O'Reilly AUTO PARTS

PROJECT: **NEW O'REILLY AUTO PARTS STORE**
RIDGE ROAD
ROCKWALL, TEXAS

233 SOUTH PATTERSON
 SPRINGFIELD, MO 65802
 PHONE: (417) 862-3333



JOB NO.:	904522
DRAWN:	MAD
CHECKED:	CRM
DATE:	7/7/04
SCALE:	1" = 20'
SHEET:	

L1