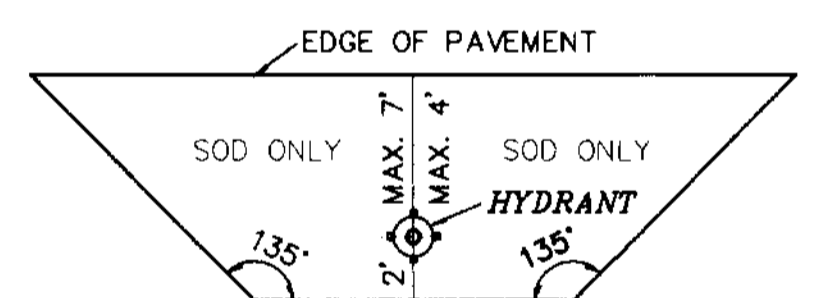


**POTABLE WATER/SEWER SYSTEM  
& REUSE WATER SEPARATION NOTES**

- SANITARY SEWER SYSTEMS AND/OR REUSE WATER MAINS SHOULD CROSS UNDER POTABLE WATER MAINS WHENEVER PHYSICALLY POSSIBLE. SANITARY SEWERS SYSTEMS AND/OR REUSE WATER MAINS CROSSING POTABLE WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE.
  - WHERE SANITARY SEWER SYSTEMS AND/OR REUSE WATER MAINS MUST CROSS UNDER A POTABLE WATER MAIN WITH LESS THAN THE REQUIRED MINIMUM OF 18 INCHES VERTICAL SEPARATION DISTANCE, OR MUST CROSS OVER THE WATER MAIN, REGARDLESS OF THE VERTICAL SEPARATION DISTANCE, THEN THE SEWER SYSTEM AND OR THE REUSE WATER AND THE POTABLE WATER MAIN PIPING MATERIAL MUST BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING (SEE 1B).
  - SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL CROSSINGS SHALL ALWAYS BE ARRANGED SO THAT THE SEWER SYSTEM AND/OR REUSE WATER MAIN PIPE JOINTS AND THE POTABLE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON CROSSING). A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS. ADDITIONALLY, ALL JOINTS ON THE POTABLE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.
- A MINIMUM OF A 10 FOOT HORIZONTAL SEPARATION DISTANCE SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER SYSTEM AND POTABLE WATER MAIN PARALLEL INSTALLATIONS WHENEVER PHYSICALLY POSSIBLE. THE MINIMUM HORIZONTAL SEPARATION FOR A REUSE WATER MAIN IN REFERENCE TO A POTABLE WATER MAIN OR A SANITARY SYSTEM IS 5 FEET ON CENTER, OR 3 FEET OUTSIDE TO OUTSIDE OF PIPE, WHICHEVER IS GREATER. IN SOME CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN THE HORIZONTAL SEPARATION, THEN THE POTABLE WATER MAIN MAY BE LAID, AT THE MAXIMUM HORIZONTAL SEPARATION DISTANCE POSSIBLE, IN A SEPARATE TRENCH, OR, ON AN UNDISTURBED EARTH SHELF, BUT AT SUCH AN ELEVATION AS THAT THE BOTTOM OF THE WATER MAIN IS AT A MINIMUM OF 18 INCHES OR MORE ABOVE THE TOP OF THE SEWER SYSTEM AND/OR REUSE WATER MAIN, THUS CONFORMING TO THE MINIMUM CROSSING STANDARDS. WHENEVER THE MINIMUM STANDARDS CANNOT BE MAINTAINED, THEN BOTH OF THE SEWER SYSTEM AND/OR THE REUSE WATER MAIN AND THE POTABLE WATER MAIN PIPING MATERIAL MUST BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) (SEE 1B).
- ALL DIP SHALL BE CLASS 50 OR HIGHER. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN.

**UNDERGROUND FIRE AND SERVICE MAIN NOTES**

- UNDERGROUND FIRE SPRINKLER SYSTEM SHALL BE INSTALLED BY A CONTRACTOR LICENSED BY THE STATE SPECIFICALLY TO INSTALL FIRE PREVENTION SYSTEMS PER FLORIDA STATUTE 633. UNDERGROUND FIRE SPRINKLER SYSTEM SHALL CONSTITUTE ALL PIPING AND APPURTENANCES FROM THE "POINT OF SERVICE". THE POINT OF SERVICE IS THE POINT AT WHICH ALL UNDERGROUND PIPING FOR A SPRINKLER SYSTEM USING WATER AS THE EXTINGUISHING AGENT BECOMES USED EXCLUSIVELY FOR THE SPRINKLER SYSTEM. REFER TO FIRE PROTECTION DRAWINGS FOR CONSTRUCTION PAST THE POINT OF SERVICE.
- UNDERGROUND FIRE SPRINKLER AND DOMESTIC WATER SERVICE PIPING MUST BE FLUSHED AND DISINFECTED IN ACCORDANCE WITH ANSI/AWWA C651-92 OR LATEST REVISION. THE WATER DISTRIBUTION MAIN CERTIFICATION FOR PRESSURE TESTING AND DISINFECTION WILL INCLUDE THE FIRE MAIN TO THE POINT OF BUILDING CONNECTION, AND THE BUILDING DOMESTIC MAIN SERVICE PIPE TO THE POINT OF BUILDING CONNECTION, AS REQUIRED BY THE BROWARD COUNTY HEALTH DEPT.

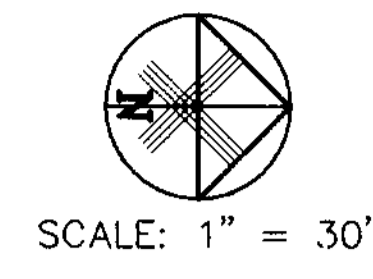


**FIRE HYDRANT CLEAR ZONE DETAIL**

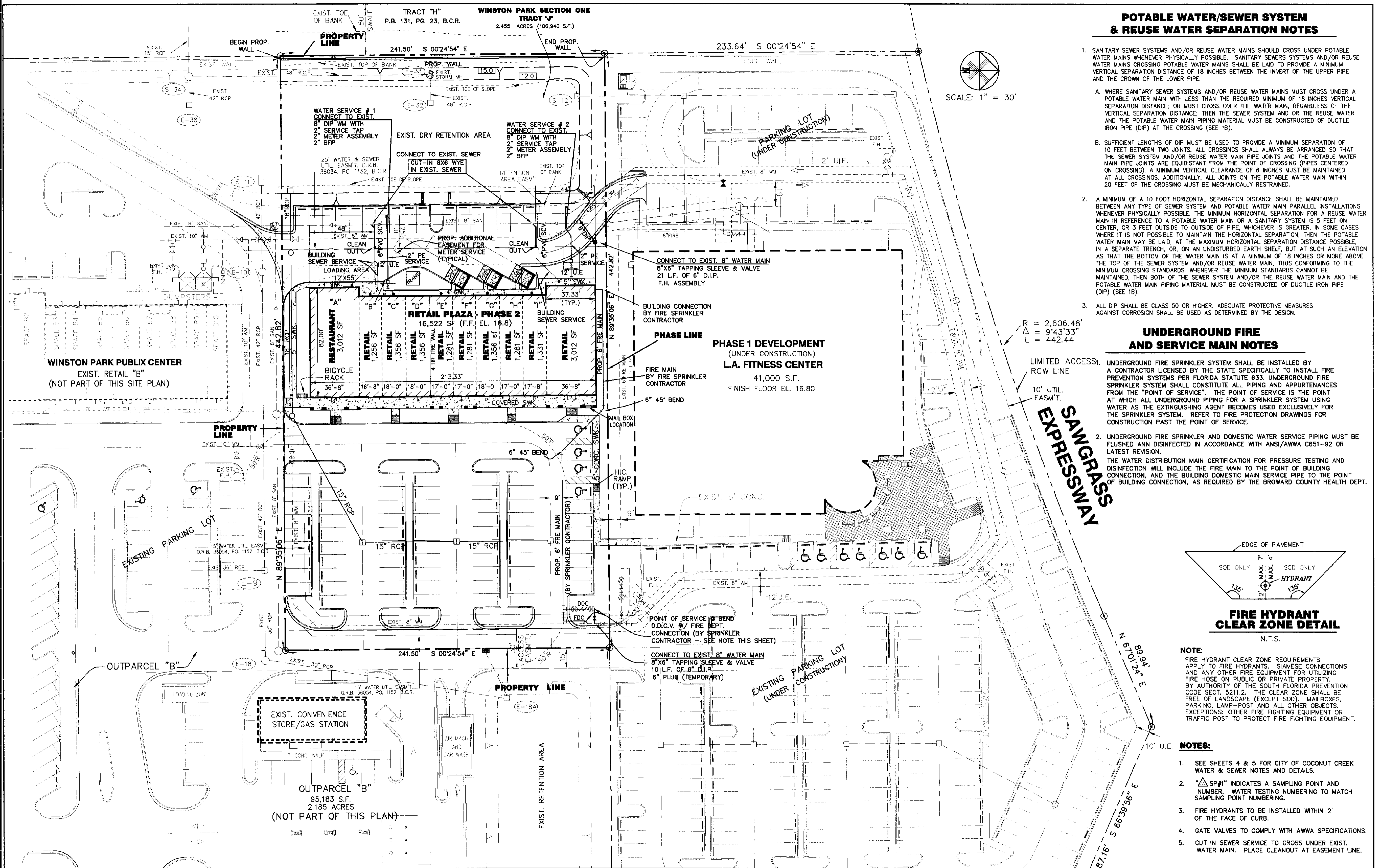
N.T.S.

**NOTE:**  
FIRE HYDRANT CLEAR ZONE REQUIREMENTS APPLY TO FIRE HYDRANTS, SIAMOSE CONNECTIONS AND ANY OTHER FIRE EQUIPMENT FOR UTILIZING FIRE HOSE ON PUBLIC OR PRIVATE PROPERTY BY AUTHORITY OF THE SOUTH FLORIDA PREVENTION CODE SECT. 5211.2. THE CLEAR ZONE SHALL BE FREE OF LANDSCAPE (EXCEPT SOD), MAILBOXES, PARKING, LAMP-POST AND ALL OTHER OBJECTS. EXCEPTIONS: OTHER FIRE FIGHTING EQUIPMENT OR TRAFFIC POST TO PROTECT FIRE FIGHTING EQUIPMENT.

- NOTES:**
- SEE SHEETS 4 & 5 FOR CITY OF COCONUT CREEK WATER & SEWER NOTES AND DETAILS.
  - SP#1 INDICATES A SAMPLING POINT AND NUMBER. WATER TESTING NUMBERING TO MATCH SAMPLING POINT NUMBERING.
  - FIRE HYDRANTS TO BE INSTALLED WITHIN 2' OF THE FACE OF CURB.
  - GATE VALVES TO COMPLY WITH AWWA SPECIFICATIONS.
  - CUT IN SEWER SERVICE TO CROSS UNDER EXIST. WATER MAIN. PLACE CLEANOUT AT EASEMENT LINE.



SCALE: 1" = 30'



|             |     |      |                       |     |             |
|-------------|-----|------|-----------------------|-----|-------------|
| DESIGNED BY | JWR | 8/04 |                       |     |             |
| DRAWN BY    | JWR | 8/04 |                       |     |             |
| CHECKED BY  | JWR | 8/04 |                       |     |             |
| APPROVED BY | JWR | 8/04 | REV PER CITY COMMENTS | 1   | 9/23/04 JWR |
| NAME        |     | DATE | REVISIONS             | NO. | DATE BY     |

**JOSEPH ROLES AND ASSOC., INC.**  
CONSULTING ENGINEERS  
7501 N.W. 4th STREET, SUITE 101  
PLANTATION, FLORIDA 33317  
PHONE (954) 581-1945  
CERTIFICATE OF AUTHORIZATION NO. 3948

**RETAIL CENTER AT WINSTON PARK**  
LYONS ROAD AND WINSTON PARK BLVD.  
COCONUT CREEK, FLORIDA  
**WATER AND SEWER SERVICE PLAN**

|             |                |
|-------------|----------------|
| DATE:       | AUGUST, 2004   |
| SCALE:      | 1" = 30'       |
| PROJECT NO. | 102-419-03     |
| SHEET NO.   | <b>3</b> OF 10 |