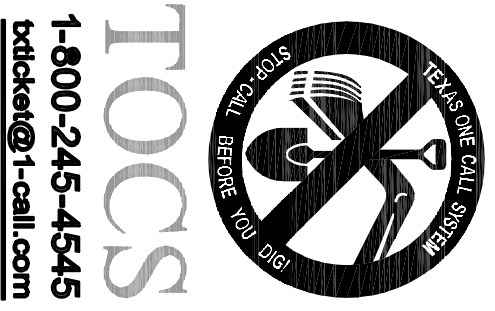


**CIVIL CONSTRUCTION PLANS  
FOR  
MANSIONS SENIOR  
18.17 GROSS ACRE TRACT B  
J.M. ALLEN SURVEY,  
ABSTRACT NO. 2  
ROCKWALL COUNTY, TEXAS**



**TOCCS**  
1-800-245-4545  
toccscorp@1-call.com

CIVIL ENGINEER:

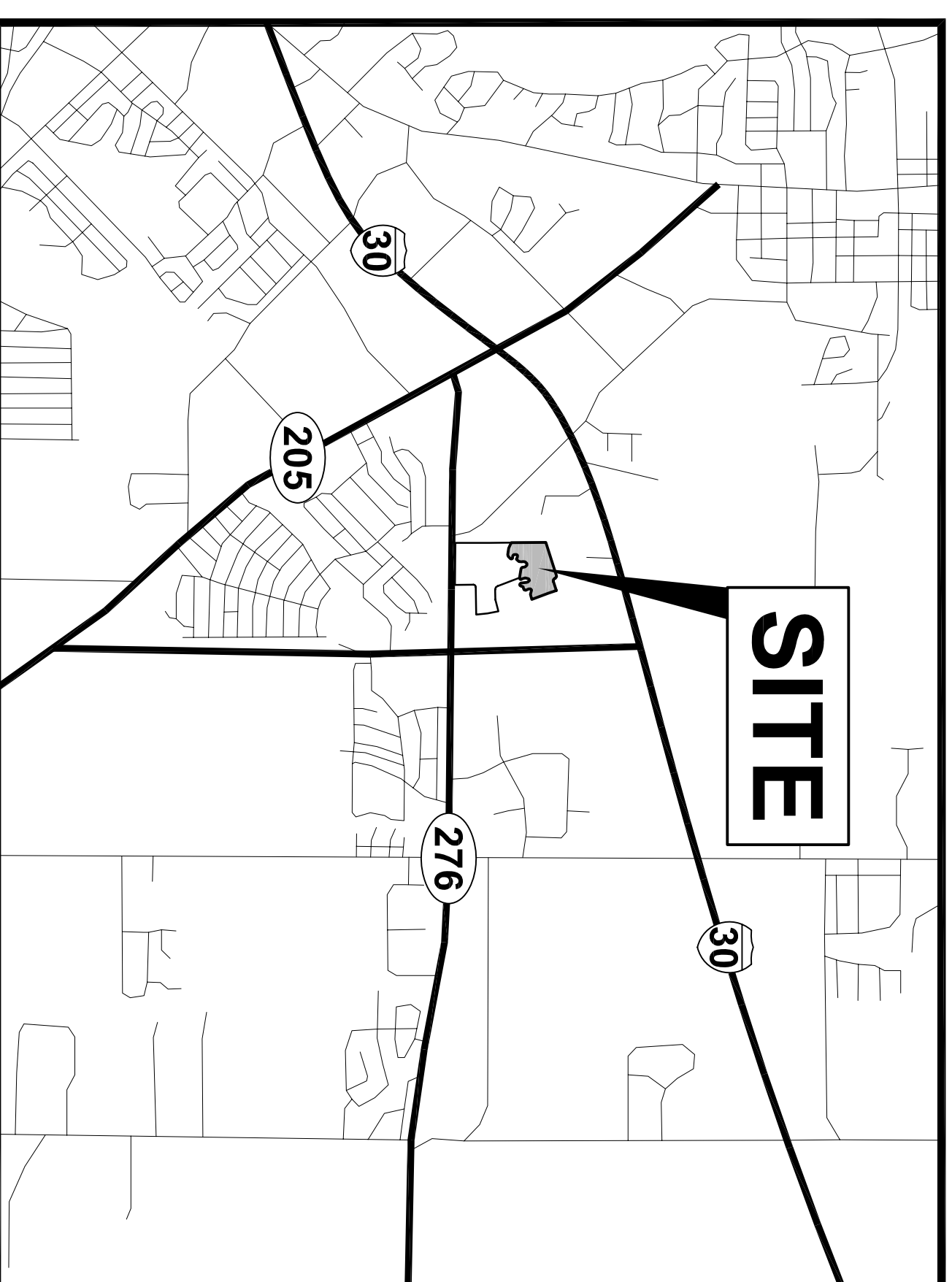
RKM CONSULTING ENGINEERS, INC.  
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DALLAS, TEXAS 75251  
(214) 432-8070 PH  
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JONATHAN R. YOUNESS, P.E.

APPLICANT/OWNER:

WESTERN RIM INVESTMENT ADVISORS, INC.  
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COPELL, TEXAS 75019  
(972) 471-8700 PH  
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MATT HILES

SUBMITTAL LOG

- 1ST SUBMITTAL TO CITY OF ROCKWALL NOT FOR CONSTRUCTION 08/21/2008
- 2ND SUBMITTAL TO CITY OF ROCKWALL FOR CONSTRUCTION PERMIT 12/10/2008
- 3RD SUBMITTAL TO CITY OF ROCKWALL FOR REVIEW 01/16/2009
- 4TH SUBMITTAL TO CITY OF ROCKWALL FOR CONSTRUCTION PERMIT 02/05/2009

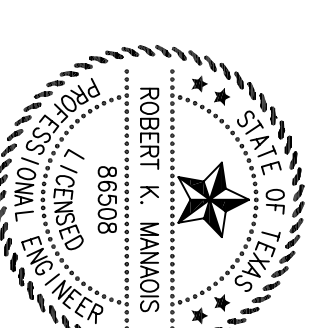


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4	OFFSITE PAVING AND GRADING PLAN	
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\* BUFFALO CREEK GRAVITY SEWER LINE STA. 169+50 TO STA. 195+50 PLANS PREPARED BY BIRKHOFF, HENDRICKS & CONWAY, L.L.P., INCLUDED IN THIS SET.

**FEBRUARY 2009**

**RECORD DRAWING**  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS



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## GENERAL NOTES

1. ALL CONSTRUCTION, TESTING AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF ROCKWALL'S STANDARD SPECIFICATIONS AND GENERAL NOTES. THE MOST RECENT EDITION OF GOVERNMENT'S (MCTCOG) 3RD EDITION STANDARDS AND THESE PLANS, IN THE EVENT OF CONFLICT, IS THE MOST STRINGENT SHALL APPLY.
2. CONTRACTOR SHALL COORDINATE WITH THE OWNER, ENGINEER OR HIS REPRESENTATIVE, AND CITY REPRESENTATIVE REGARDING ANY DEVIATIONS FROM THESE PLANS.
3. CONTRACTOR SHALL FURNISH A MAINTENANCE BOND TO THE CITY TO RUN TWO (2) YEARS FROM THE DATE OF FINAL ACCEPTANCE OF ALL PUBLIC IMPROVEMENTS. THE COST OF THE MAINTENANCE BOND SHALL BE INCLUDED IN THE BID PRICE - NO EXTRA PAYMENT ALLOWED.
4. CONTRACTOR SHALL INDEMNIFY, HOLD HARMLESS AND DEFEND, AT ITS OWN EXPENSE, THE OWNER, DEVELOPER, OWNERS REPRESENTATIVES, PROJECT ARCHITECT, AND RKM CONSULTING ENGINEERS, INC., INCLUDING THE ENGINEERS, SURVEYORS AND THIRD PARTIES OF THE PROJECT, FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING REASONABLE ATTORNEY'S FEES, THAT MAY BE ASSERTED AGAINST OR INCURRED BY OR ARISING OUT OF THE WORK AND SERVICES TO BE PERFORMED HEREUNDER BY CONTRACTOR. ITS OFFICERS, AGENTS, EMPLOYEES, SUBCONTRACTORS, LICENSEES OR INLITEES, WHETHER OR NOT ANY SUCH INJURY, DAMAGE OR DEATH IS CAUSED, IN WHOLE OR IN PART, BY THE NEGLIGENCE OR ALLEGED NEGLIGENCE OF THE AFORESAID.
5. THE PRIME CONTRACTOR SHALL FURNISH THE OWNER WITH SATISFACTORY PROOF OF COVERAGE BY INSURANCE REQUIRED BY THE CONTRACT DOCUMENTS IN AMOUNTS AND BY CARRIERS SATISFACTORY TO THE OWNER. ALL INSURANCE REQUIREMENTS MADE UPON THE CONTRACTOR SHALL APPLY TO ALL SUBCONTRACTORS SHOULD THE PRIME CONTRACTOR'S INSURANCE NOT COVER THE SUBCONTRACTOR'S WORK OPERATIONS.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN NEAT AND ACCURATE CONSTRUCTION RECORD PLANS. A COPY OF THESE RECORD PLANS SHALL BE SUBMITTED TO THE ENGINEER UPON COMPLETION OF CONSTRUCTION.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF ALL EXISTING MATERIALS TO BE REMOVED. CONTRACTOR SHALL DISPOSE OF ALL EXCESS MATERIALS OFFSITE OR AS DIRECTED BY THE OWNER.
8. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING CONSTRUCTION OF THIS PROJECT.
9. SAFETY NOTICE TO CONTRACTOR: THESE PLANS, PREPARED BY RKM CONSULTING ENGINEERS, DO NOT EXTEND TO OR INCLUDE DESIGN OR SYSTEMS DESIGN. THE SEAL OF RKM CONSULTING ENGINEERS, REGISTERED PROFESSIONAL ENGINEERS, HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM THAT MAY NOW OR HEREAFTER BE INCORPORATED IN THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS, INCLUDING THE PLANS AND SPECIFICATIONS REQUIRED BY THE HOUSE BILL 662 AND 668 ENACTED BY THE TEXAS STATE LEGISLATURE IN THE 70TH LEGISLATURE - REGULAR SESSION, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE SAFETY OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS WORKING ON THE JOB. THIS REQUIREMENT APPLIES TO ALL PERSONS AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
10. REFER TO GEOTECHNICAL INVESTIGATION REPORT NO. 07-1383 PREPARED BY ROME ENGINEERING IN MARCH, 2008 FOR SUBSURFACE CONDITIONS, PAVEMENT RECOMMENDATIONS, SUBGRADE PREPARATION, SITEWORK AND EARTHWORK CONSIDERATIONS.

## EXISTING FACILITIES NOTES

1. THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN (MAIN LINES, NO LATERAL OR SERVICES SHOWN) ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER NOR THE CITY ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO TRENCHING AND SHALL BE REQUIRED TO TAKE ANY PRECAUTIONARY MEASURES TO PROTECT ALL LINES SHOWN AND / OR ANY OTHER UNDERGROUND UTILITIES NOT OF RECORD OR NOT SHOWN ON THE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND RESPECTING AGENCIES AND COORDINATING THE LOCATION AND MARKING OF ALL TRENCHES AND CITY UTILITIES PRIOR TO CONSTRUCTION.
2. ANY CONTRACTOR / SUBCONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS. SAID EXISTING IMPROVEMENTS SHALL INCLUDE BUT NOT BE LIMITED TO EXISTING UTILITIES, FENCES, AND PLANTS. ANY REMOVAL OR DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPAIRED TO ITS ORIGINAL OR BETTER CONDITION BY THE CONTRACTOR AT HIS EXPENSE.
3. CONTRACTOR SHALL SALVAGE AND PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT INCLUDING, BUT NOT LIMITED TO, POWER POLES, SIGNS, MANHOLES, TELEPHONE RISERS, WATER VALVES, CLEANOUTS, FIRE HYDRANTS, CABLES.
4. ALL EXISTING TRAFFIC AND STREET SIGNS DISTURBED DURING CONSTRUCTION SHALL BE REINSTALLED WHERE APPLICABLE BY THE CONTRACTOR.
5. CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES.

## HORIZONTAL AND VERTICAL CONTROL NOTES

1. CONTRACTOR SHALL VERIFY AND VERIFY ALL DIMENSIONS SHOWN ON THE PLANS AND ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION SHOULD DISCREPANCIES OCCUR. THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENSING WITH THE CONSTRUCTION.
2. CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS SHOWN, INCLUDING THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING AND PROPOSED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT ONCE OF ANY DISCREPANCIES.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SURVEYING REQUIRED, UNLESS OTHERWISE SPECIFIED BY THE OWNER.
4. ALL DIMENSIONS ARE TO FACE OF CURB WHERE CURB IS PRESENT.

## GRADING NOTES

1. CONTRACTOR SHALL CLEAR AND GRUB THE SITE AND PLACE, COMPACT, AND MOISTURE CONDITION ALL FILL PER THE PROJECT GEOTECHNICAL ENGINEER'S SPECIFICATIONS. THE FILL MATERIAL TO BE USED SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. ALL WORK AND MATERIALS FOR CLEARING AND GRUBBING SHALL BE INCLUDED IN THE COST OF THE PROJECT - NO ADDITIONAL PAYMENT WILL BE ALLOWED.
2. ALL EXCAVATING IS UNCLASSIFIED AND SHALL INCLUDE ALL MATERIALS ENCOUNTERED, UNLESS AS EXCAVATED MATERIAL, AND ALL WASTE RESULTING FROM SITE CLEARING AND GRUBBING SHALL BE DISPOSED OF OFFSITE BY THE GRADING CONTRACTOR AT HIS EXPENSE.
3. EXISTING CONTOURS AS SHOWN ON THIS PLAN WERE TAKEN FROM A FIELD TOPOGRAPHIC SURVEY PREPARED BY DOUGLAS S. LOOMIS, R.P.L.S.
4. GRADING CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR ANY REQUIRED UTILITY ADJUSTMENTS AND/OR RELOCATIONS.
5. BEFORE ANY EARTHWORK IS DONE, THE CONTRACTOR SHALL STAKE OUT AND MARK THE LIMITS OF PAYMENT AND OTHER ITEMS ESTABLISHED BY THE PLANS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ENGINEERING AND SURVEYING FOR LINE AND GRADE CONTROL POINTS RELATED TO THE EARTHWORK.
6. REFER TO STRUCTURAL AND GEOTECHNICAL SPECIFICATIONS FOR BUILDING PAD PREPARATION. ALL FILL PLACEMENT AND BUILDING PAD PREPARATION SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. ALL FILL SHALL BE COMPACTED WITH A SHEEP'S FOOT-ROLLER TO 95 PERCENT STANDARD PROCTOR.
7. PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREAS REFLECT TOP OF PAVEMENT SURFACE OR TOP OF CURB AT CURB LINE. THE LIMITS OF EARTHWORK IN PAVED AREAS IS TO THE BOTTOM OF PAVEMENT.
8. ALL SLOPES SHALL BE GRADED TO ±1 OR FLATTER UNLESS OTHERWISE INDICATED ON THE PLANS.
9. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AT ALL LOCATIONS (2% MIN.).
10. PROPOSED ELEVATIONS AT CURB ARE TOP OF PAVEMENT. ADD 0.6" (6") FOR TOP OF CURB ELEVATION.
11. FINISH GRADING ELEVATIONS IN PAVED AREAS ARE AS FOLLOWS: SIX (6) INCHES BELOW FINISHED CONTOURS FOR HEAVY DUTY PAVEMENT AREAS, FIVE (5) INCHES BELOW FINISHED CONTOURS FOR LIGHT DUTY PAVINGS. LANDSCAPE AREAS ARE FINISHED CONTOURS.
12. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND TOP-SOIL APPLIED DEPTH TO BE AS SPECIFIED IN THE LANDSCAPE DOCUMENTS. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON-SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
13. THE POND'S SIDES AND BOTTOM WILL BE STABILIZED WITH ANCHORED SEDED CURTLEX (OR SOID) PRIOR TO PAVING.

## EROSION CONTROL NOTES

1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, OR LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES.
2. FOR CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP's) AND DETAILS OF STABILIZATION AND EROSION CONTROL MEASURES, REFER TO THE "INTEGRATED STORM WATER MANAGEMENT - DESIGN MANUAL FOR CONSTRUCTION", DECEMBER 2009 PREPARED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (MCTCOG).
3. PERMETER EROSION CONTROL MEASURES AND THE ROCK STABILIZED CONSTRUCTION EXIT MUST BE IN PLACE PRIOR TO ANY SOIL DISTURBANCE.
4. THE GENERAL CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS AFTER A STORM EVENT OF 0.2 INCH OR GREATER TO MAINTAIN FUNCTION OF THE CONTROLS. MAINTENANCE IS CRUCIAL TO EROSION CONTROL EFFECTIVENESS. EROSION CONTROL MEASURES THAT PROVE TO BE INEFFECTIVE SHALL BE REPLACED WITH MORE EFFECTIVE MEASURES OR ADDITIONAL MEASURES.
5. CONTRACTOR SHALL TAKE ALL AVAILABLE PRECAUTIONS TO CONTROL DUST. CONTRACTORS SHALL CONTROL DUST BY SPRINKLING WATER, OR BY OTHER MEANS APPROVED BY THE CITY ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR IS RESPONSIBLE FOR PREVENTING THE FLOW OR OFF-SITE TRACKING OF SEDIMENT AND OTHER POLLUTANTS TO EXISTING STREETS AND ADJACENT PROPERTIES.
7. CONTRACTOR SHALL INSTALL A TEMPORARY STABILIZED CONSTRUCTION ENTRANCE AT A LOCATION SUITED TO THE MOVEMENT OF CONSTRUCTION TRAFFIC INTO AND OUT OF THE SITE. THE CONSTRUCTION ENTRANCE SHALL MEET THE "INTEGRATED STORM WATER MANAGEMENT - DESIGN MANUAL FOR CONSTRUCTION", DECEMBER 2009 PREPARED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (MCTCOG) 3RD EDITION AND SHALL BE A MINIMUM OF TWENTY FEET (20') IN WIDTH AND FIFTY FEET (50') IN LENGTH. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS POINTS AND PREVENTING EROSION AT UNPROTECTED LOCATIONS.
8. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL USE SILT FENCES OR OTHER METHODS APPROVED BY THE ENGINEER AND CITY AS REQUIRED TO PREVENT SILT AND CONSTRUCTION DEBRIS FROM FLOWING ONTO ADJACENT PROPERTIES.
9. IF "SLUMP" PUMPS ARE USED TO REMOVE WATER FROM EXCAVATED AREAS, THE CONTRACTOR SHALL FILTER THE DISCHARGE TO REMOVE SEDIMENT AND OTHER POLLUTANTS BEFORE THE WATER LEAVES THE SITE.
10. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAIN AND GRASS OR OTHER GROWTH TO PREVENT EROSION.
11. ALL SURFACE AREAS DISTURBED WITHIN OR ADJACENT TO THE CONSTRUCTION LIMITS MUST BE PERMANENTLY STABILIZED. STABILIZATION IS OBTAINED WHEN THE SITE IS COVERED WITH IMPERVIOUS STRUCTURES, PAVING OR A UNIFORM PERENNIAL VEGETATIVE COVER. THE PERENNIAL VEGETATION MUST HAVE A COVERAGE DENSITY OF AT LEAST 75 PERCENT (MIN. HT. OF 1"). STABILIZATION IS REQUIRED BEFORE TERMINATING MAINTENANCE AND REMOVAL OF EROSION CONTROL MEASURES AND MUST BE CITY ACCEPTED.
12. PERMANENT SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED WITHIN FOURTEEN (14) DAYS OF COMPLETION OF FINISHED GRADING FOR ANY AREA DISTURBED DURING CONSTRUCTION. REFER TO LANDSCAPE AND IRRIGATION CONSTRUCTION DOCUMENTS FOR FINAL RESTORATION OF ALL DISTURBED AREAS.
13. DISTURBED SOIL MUST BE STABILIZED WITHIN FOURTEEN (14) DAYS IN AREAS WHERE GRADING IS TEMPORARILY OR PERMANENTLY STOPPED FOR MORE THAN TWENTY-ONE (21) DAYS. IN THE EVENT THAT FINAL EROSION CONTROL MEASURES CANNOT BE COMPLETED, TEMPORARY MEASURES SHALL BE INSTALLED AND MAINTAINED AT NO ADDITIONAL COST TO THE OWNER. AREAS DISTURBED SHALL BE SEED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HEAVY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. SEEDING SHALL BE BROADCAST SEEDING (BERMUDA GRASS) IN ACCORDANCE WITH MCTCOG SPECIFICATIONS ITEM 5.10 "SEEDING".

## PAVING NOTES

1. ALL CONCRETE PAVING SHALL BE OF THE THICKNESS AS SHOWN ON THE PLANS AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,600 POUNDS PER SQUARE INCH IN 28 DAYS. CONCRETE WILL HAVE A ONE INCH (1") TO FOUR INCH (4") SLUMP AND REINFORCED WITH #3 BARS @ 18" O.C.E.W. REINFORCING SHALL BE SUPPLIED BY CHAIRS SPACED AT 16.5", (4" X 4" PATTERN) MAXIMUM INTERVAL. FREELANE REINFORCED WITH #3 BARS @ 18" O.C.E.W. REINFORCING SHALL BE NCH IN 28 DAYS, 8 GACK MIX FOR MACHINE POUR AND 9 1/2 GACK MIN. FOR HAND POUR.
2. ALL REINFORCING STEEL SHALL BE NEW DOMESTIC BILLET STEEL CONFORMING TO ASTM A415, GRADE 60, AND SHALL BE SUPPORTED BY BAR CHAIRS.
3. CONCRETE SHALL BE FLOAT FINISHED OR AS SPECIFIED BY THE OWNER AND CURED FOR A MINIMUM OF 72 HOURS.
4. CONTRACTOR SHALL PROOF-FLOOR THE SUBGRADE WITH HEAVY PNEUMATIC EQUIPMENT, ANY SORT OR PUMPING AREAS SHALL BE EXCAVATED TO A FIRM SUBGRADE AND BACKFILLED FOLLOWING PROCEDURES DESCRIBED IN THE SITE GRADING SECTION OF THE PROJECT GEOTECHNICAL INVESTIGATION REPORT.
5. ALL SURFACE AREAS SHALL BE SCATTERED TO A DEPTH OF 4 INCHES AND UNIFORMLY RECOMPACTED TO A MINIMUM DENSITY OF 95 PERCENT OF ASTM D693 DENSITY AT OPTIMUM MOISTURE CONTENT UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. ALL FILL TO BE COMPACTED WITH SHEEP'S FOOT ROLLER. ALL SUBGRADE AREAS IN PUBLIC AREAS, INCLUDING FIRE Lanes, SHALL MEET THE CITY REQUIREMENTS, NO SAID ALLOWED.
6. TESTING OF MATERIALS REQUIRED FOR THE CONSTRUCTION OF THE PAVING IMPROVEMENTS SHALL BE PERFORMED BY AN APPROVED AGENCY FOR TESTING MATERIALS. THE WORKING TITLE OF THE TESTING LABORATORY AND THE PAYMENT FOR SUCH TESTING SERVICES SHALL BE MADE BY THE CONTRACTOR. THE OWNER SHALL CONTACT THE LABORATORY TO DO THE TESTING OF MATERIALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SHOW BY STANDARD TESTING PROCEDURES THAT THE WORK CONSTRUCTED MEETS THE CITY REQUIREMENTS.
7. BREAKOUTS FOR REMOVAL OF EXISTING PAVEMENT AND CURBS SHALL BE MADE BY SAWCUTTING THE EXISTING THE FULL DEPTH.
8. CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN TO THE ENGINEER PRIOR TO PLACEMENT OF CONCRETE PAVEMENT. CONTROL JOINTS SHALL BE INSTALLED AT A MAXIMUM SPACING OF TWELVE FEET (12') O.C.E.W. FOR 6" THICK PAVEMENT AND FIFTEEN FEET (15') O.C.E.W. FOR 8" PAVEMENT. ALL JOINTS SHALL EXTEND THROUGH THE CURB. MINIMUM LENGTH OF JOINTS AT RADIUS POINTS IS 1.5 FEET. ALL JOINTS SHALL BE SEALED WITH JOINT SEALANT. EXPANSION JOINTS SHALL BE INSTALLED AT A MAXIMUM SPACING OF NINETY FEET (90') LEVEL OR SAND WILL NOT BE ALLOWED UNDER CONCRETE PAVING. PAVEMENT SHALL BE FINISHED IN MAXIMUM THIRTY (30) MINUTE STRIPS OR LEVELS.
9. JOINT SEALANT SHALL BE TWO PART SELF LEVELING POLYURETHANE SEALANT (SONORON SP-2 OR EQUAL). SPECIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO INSTALLATION.
10. PROPOSED PAVEMENT SHALL MATCH ELEVATIONS OF EXISTING PAVEMENT WHERE THEY MEET.
11. CONTRACTOR SHALL FURNISH A MAINTENANCE BOND TO THE CITY TO RUN TWO (2) YEARS FROM THE DATE OF ACCEPTANCE OF THE PROJECT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "RECORD DRAWING" PLANS TO THE ENGINEER.

## PAVEMENT MARKINGS AND SIGNAGE NOTES

1. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
2. CONTRACTOR SHALL FURNISH AND INSTALL ALL PAVEMENT MARKINGS FOR FIRE LINES, PARKING STALLS, HANDICAPPED PARKING SYMBOLS, AND MISCELLANEOUS STRIPING WITHIN PARKING LOT AND AROUND BUILDING AS SHOWN ON THE PLANS. ALL PAINT FOR PAVEMENT MARKINGS SHALL ADHERE TO SECTION 2.9 OF THE MCTCOG STANDARD SPECIFICATIONS UNDER "TRAFFIC PAINT".
3. FIRE LINES SHALL BE DESIGNATED BY CONTINUOUS PAINTED LINES SIX (6) INCHES IN WIDTH ON EACH SIDE OF THE FIRE LINE STARTING AT THE FIRE LINE FROM THE STREET END AND TO BE COMPLETED THE ENTIRE FIRE LINES SHALL BE MARKED ON THE CURB AND THE CURB IS TO BE PAINTED WITH WHITE TRAFFIC PAINT (2 COATS). THE LETTERING SHALL BE FOUR INCHES (4") HIGH WITH A ONE INCH (1") WIDE STROKE PAINTED WITH WHITE TRAFFIC PAINT (2 COATS).
4. ALL HANDICAP PARKING, STRIPING, AND PAVEMENT MARKINGS SHALL CONFORM TO THE TEXAS DEPARTMENT OF TRANSPORTATION'S TEXAS ACCESSIBILITY STANDARDS (TAS), AND THE AMENDMENTS WITH DISABILITIES ACT (ADA) OF 1990 AND AMENDMENTS THEREIN.
5. ALL PARKING SPACES AND STRIPED ISLANDS SHOWN ON PROPOSED SITE SHALL BE MARKED WITH TWO COATS 4" WIDE WHITE PAINTED PAVEMENT STRIPING. ALL PARKING SPACES ARE NINE (9) FEET IN WIDTH UNLESS OTHERWISE NOTED.

## STORM SEWER

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE CITY OF ROCKWALL STANDARD SPECIFICATION AND THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (MCTCOG) 3RD EDITION.
2. THE CONTRACTOR SHALL FURNISH A MAINTENANCE BOND TO THE CITY TO RUN TWO (2) YEARS FROM THE DATE OF FINAL ACCEPTANCE OF THE WATER, STORM SEWER & SANITARY SEWERS IN PUBLIC BASINMENTS.
3. TOP RIM ELEVATIONS OF ALL STORM SEWER MANHOLES AND INLETS SHALL BE COORDINATED WITH TOP OF PAVEMENT, TOP OF CURB OR FINISHED GRADE. THE CONTRACTOR SHALL SET ALL UTILITIES TO PROPER LINE AND GRADE PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT.
4. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE STORM SEWER. THE CONTRACTORS BID PRICE SHALL INCLUDE ALL INSPECTION FEES, AS AN ALTERNATE, THE OWNER RESERVES THE RIGHT TO PAY THE INSPECTION FEES DIRECTLY TO THE CITY.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.

## SANITARY SEWER NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE CITY OF ROCKWALL STANDARD SPECIFICATIONS AND THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (MCTCOG) 3RD EDITION.
2. THE CONTRACTOR SHALL FURNISH A MAINTENANCE BOND TO THE CITY TO RUN TWO (2) YEARS FROM THE DATE OF FINAL ACCEPTANCE OF THE WATER, STORM SEWER & SANITARY SEWERS IN PUBLIC BASINMENTS.
3. TOP RIM ELEVATIONS OF ALL SANITARY SEWER MANHOLES SHALL BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE. THE CONTRACTOR SHALL SET ALL UTILITIES TO PROPER LINE AND GRADE PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT.
4. ALL PVC SEWER PIPE SHALL BE SDR 35, GREEN IN COLOR, CONFORM TO ASTM D 3034, AND SHALL BE Laid ON AN EMBEDEDMENT PER THE CITY AND MCTCOG SPECIFICATIONS.
5. ALL SANITARY SEWER LATERALS SHALL BE FOUR (4) INCHES MINIMUM IN DIAMETER.
6. SANITARY SEWER PIPE MUST BE KEPT CLEAN OF BROKEN CONCRETE, DIRT OR ANY OTHER DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.
7. ALL SANITARY SEWER MAINS ARE TO HAVE 1 - 2" JOINT CENTERED ON EITHER SIDE OF WATER MAINS WHERE CROSSING OCCURS. THIS JOINT MUST HAVE A 150 PSI PRESSURE RATING IF THE VERTICAL SEPARATION IS LESS THAN TWO FEET.
8. ALL TRENCHES SHALL BE TAMBED AND COMPACTED TO 95% PROCTOR.
9. NO WATER JETTING OF BACKFILL IS ALLOWED.
10. CONTRACTOR SHALL TIE A ONE (1) INCH WIDE PIECE OF RED PLASTIC FLAGGING TO END OF SEWER SERVICE OR DEAD END RUN EXPOSED AFTER CONSTRUCTION SHALL CUT THE CURB TO MARK THE SEWER SERVICE.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "RECORD" PLANS TO THE ENGINEER SHOWING THE LOCATION OF WATER AND SEWER SERVICES. THIS INFORMATION SHALL BE PLANNED ON THE ENGINEERING PLANS AND MARKED "RECORD DRAWINGS" BY THE ENGINEER. COPIES OF THESE "RECORD DRAWINGS" AND SERVICES.
12. ALL SANITARY SEWER LINES SHALL BE TESTED FOR INFILTRATION AND EXFILTRATION IN ACCORDANCE WITH THE CITY OF ROCKWALL'S STANDARD SPECIFICATIONS. TV INSPECTIONS, LOW PRESSURE AIR TESTING, VACUUM TESTING OF THE MANHOLES AND MANHOLE TESTING ARE REQUIRED ON ALL SEWER LINES.
13. GREEN EMS DISK SHALL BE PLACED AT EVERY MANHOLE, SERVICE AND CLEANOUT.

## WATER NOTES

1. ALL MATERIALS AND INSTALLATION SUCH AS VALVES, FIRE HYDRANTS, FITTINGS, STRUCTURES, AND APPURTENANCES THERE TO SHALL BE IN ACCORDANCE WITH THE CITY OF ROCKWALL'S STANDARDS AND THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (MCTCOG) 3RD EDITION.
2. CONTRACTOR SHALL COORDINATE OPERATION OF ALL EXISTING VALVES WITH THE CITY. CONTACT THE ENGINEERING DEPARTMENT INSPECTOR.
3. CONTRACTOR SHALL FURNISH A MAINTENANCE BOND TO THE CITY TO RUN TWO (2) YEARS FROM THE DATE OF ACCEPTANCE OF THE WATER, STORM SEWER & SANITARY SEWER IN PUBLIC BASINMENTS.
4. THE SITE UTILITY CONTRACTOR SHALL PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR COMPLETE INSTALLATION OF THE UTILITIES. ALL PUBLIC PIPE STRUCTURES AND PRESSURE TESTING OF ALL MAINS. THE CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES, AS AN ALTERNATE, THE OWNER RESERVES THE RIGHT TO PAY THE INSPECTION FEES DIRECTLY TO THE CITY.
5. ALL 6", 8", AND 12" WATER MAINS SHALL BE BLUE PVC AWWA C900, DR 14, CLASS 200 MINIMUM WATER PIPE AND HAVE A MINIMUM COVER AS FOLLOWS: 6" - 8" - 10" AND 12" - 48" BELOW FINISHED PAVEMENT GRADE OR 60" BELOW EXISTING OR FINISHED GRADE IN UNPAVED AREAS, OR AS REQUIRED TO CLEAR OTHER UTILITIES.
6. ALL WATER SERVICES SHALL BE AS FOLLOWS:
  - a. UNLESS OTHERWISE SHOWN ON THE PLANS, THE WATER SERVICES SHALL BE TWO (2) INCH DIAMETER SDR 9 POLY/TUBE CTS. TAPPING SADDLES SHALL BE USED. TAPS AT MAINS SHALL BE MARKED WITH BLUE EMS LOCATOR PADS. BLUE EMS DISK SHALL BE INSTALLED AT EVERY CHANGE IN DIRECTION, SERVICE AND VALVES.
  - b. THE CONTRACTOR SHALL TIE A ONE (1) INCH WIDE PIECE OF BLUE PLASTIC FLAGGING TO THE WATER SERVICE METER SETTER AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACK FILL AFTER CURB AND PAVING IS COMPLETE.
7. ALL TAPPING SADDLES AND VALVES SHALL BE FULL BODY CAST IRON.
8. ALL SERVICE LINE FITTINGS SHALL BE COMPRESSION.
9. MEGA LUGS SHALL BE USED ON ALL BENDS AND TEES.
10. ANCHOR FITTINGS SHALL BE USED TO ATTACH FIRE HYDRANTS.
11. FIRE HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH THE CITY OF ROCKWALL'S STANDARDS.
12. STEAMER NOZZLES ON FIRE HYDRANTS SHALL BE EIGHTEEN INCHES (18") ABOVE THE TOP OF THE CURB OR FINISHED GRADE AND SHALL FACE THE CENTER OF THE FIRE LINE OR STREET. THE HYDRANTS SHALL BE LOCATED TWO (2) FEET BEHIND THE CURB UNLESS NOTED OTHERWISE ON THE PLANS.
13. VALVE BOXES SHALL BE FINISHED AND SET ON EACH GATE VALVE. AFTER THE FINAL CLEAN-UP AND ALIGNMENT HAS BEEN COMPLETED, THE CONTRACTOR (UTILITY) SHALL POUR A CONCRETE BLOCK 24" X 24" X 6" AROUND ALL VALVE BOXES SO THE FINISHED GRADE IS LEVEL WITH THE FINISHED GROUND. VALVE STACKS SHALL BE FULL LENGTH CAST IRON.
14. ALL WATER AND SANITARY SEWER SERVICES SHALL TERMINATE FIVE (5) FEET OUTSIDE THE BUILDING, UNLESS NOTED OTHERWISE.
15. ALL FIRE HYDRANTS, FITTINGS, VALVES, AND PIPE ENDS SHALL BE BLOCKED WITH CONCRETE PER CITY STANDARDS.
16. WATER LINES CROSSING UNDER STORM DRAINS AND SANITARY SEWER LINES SHALL HAVE A MINIMUM OF 34" CLEARANCE BETWEEN UTILITIES. WATER LINES SHALL BE ENCASED IN CONCRETE 10" FEET EITHER SIDE OF UTILITY CROSSING, WHERE WATER LINES CROSS CREEKS OR DITCHES THE WATER LINE SHALL BE PROTECTED BY CONCRETE ENCASEMENT 10" FEET PAST SLOPE ON EACH SIDE.
17. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE TRENCH SAFETY DURING ALL PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A TRENCH EXCAVATION PROTECTION PLAN, SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS, FOR ALL TRENCHES DEEPER THAN FIVE (5) FEET.
18. ALL UTILITY TRENCHES SHALL BE BACKFILLED WITH MATERIAL PER THE CITY OF ROCKWALL SPECIFICATIONS AND SHALL BE TAMBED AND COMPACTED TO 95% PROCTOR.
19. NO WATER JETTING OF BACKFILL ALLOWED.
20. ALL DENSITY TESTING FOR TRENCHES SHALL BE IN ACCORDANCE WITH THE CITY OF ROCKWALL'S SPECIFICATIONS OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.
21. ALL WATER LINES SHALL BE HYDROSTATICALLY TESTED AND STRUTTED IN ACCORDANCE WITH THE CITY OF ROCKWALL'S STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL FLUSH AND STERILIZE LINES AND PROVIDE LINES TO BE FREE OF CHLOROPHORM ORGANISMS BY OBTAINING SAMPLES FOR LABORATORY TESTS FOR CONTAMINATION. THE CONTRACTOR SHALL REFRESH AND RESTERILIZE UNTIL SAMPLES FOR TEST ARE FREE FROM CONTAMINATION.
22. REFERENCE REPAIRMANUAL AND DRAINING PLANS FOR BUILDING FIRE PROTECTION SYSTEM. SEE M.E.P. SITE PLANS FOR LOCATION AND SIZING OF GAS ELECTRIC, AND TELEPHONE SERVICES.
23. ALL FIRE HYDRANTS SHALL HAVE 6 FOOT MINIMUM CLEARANCE AROUND THEM.
24. BLUE EMS DISKS SHALL BE PLACED AT EVERY CHANGE IN DIRECTION, VALVE AND SERVICE.

RECORD DRAWING  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS



REV	DATE	REMARKS	BY

CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	N/A	2

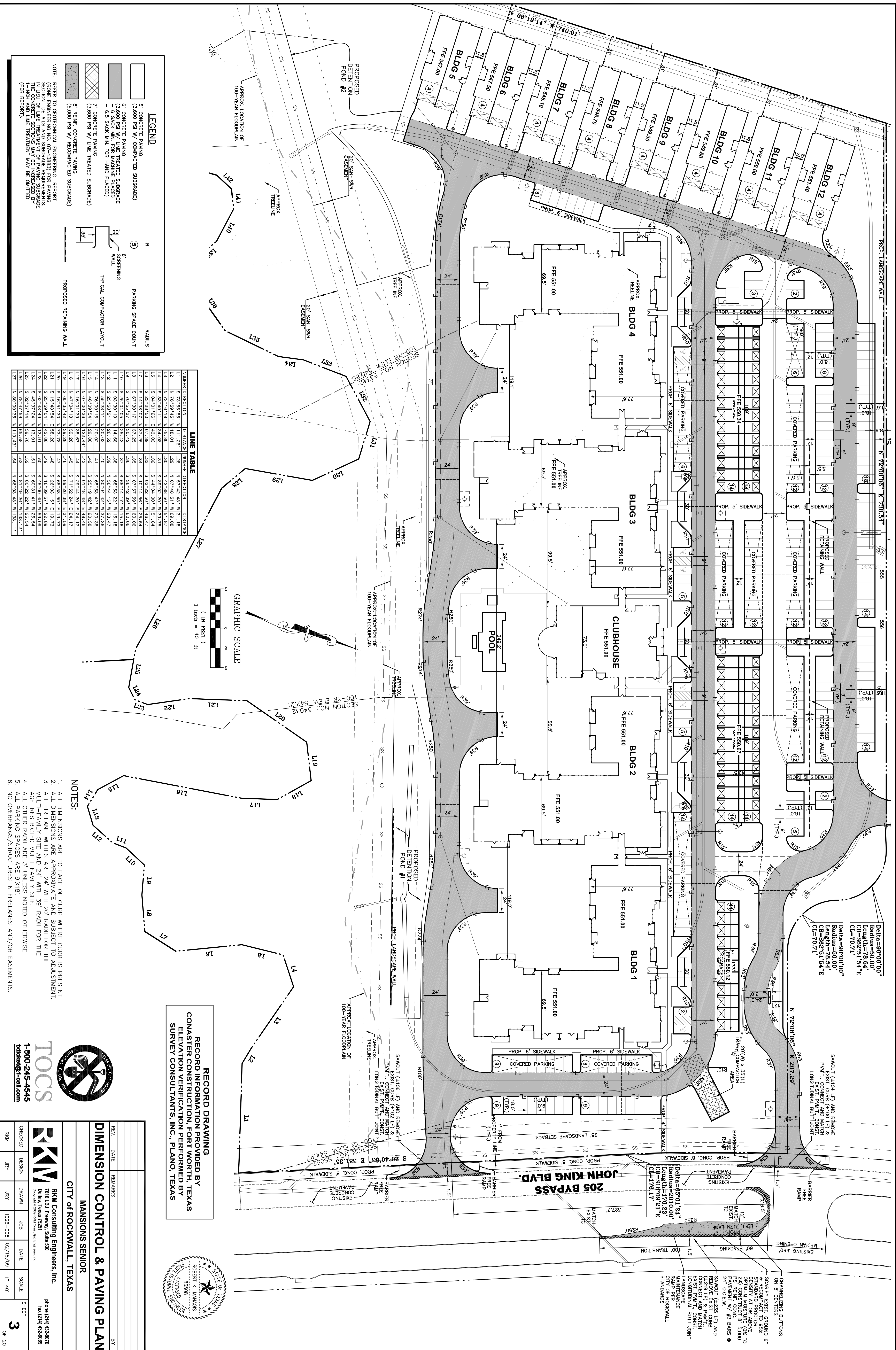
of 20

**RKM** Consulting Engineers, Inc.  
7616 EBI Freeway, Suite 500  
Dallas, Texas 75251  
Phone: (214) 432-8070  
Fax: (214) 432-8069

## GENERAL NOTES

### MANIONS SENIOR

### CITY OF ROCKWALL, TEXAS



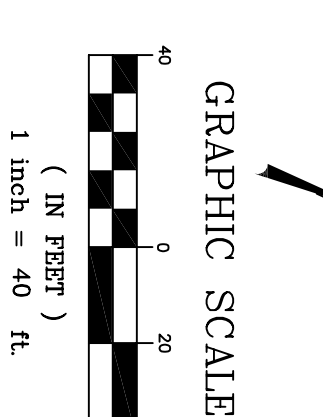
**LEGEND**

[Symbol]	5" CONCRETE PAVING	[Symbol]	R
[Symbol]	(3600 PSI W/ COMPACTED SUBGRADE)	[Symbol]	(5)
[Symbol]	6" CONCRETE PAVING	[Symbol]	PARKING SPACE COUNT
[Symbol]	(3600 PSI W/ LIME TREATED SUBGRADE	[Symbol]	TYPICAL COMPACTOR LAYOUT
[Symbol]	- 6.5 SACK MIN. FOR MACHINE PLACED	[Symbol]	PROPOSED RETAINING WALL
[Symbol]	7" CONCRETE PAVING	[Symbol]	
[Symbol]	(3600 PSI W/ LIME TREATED SUBGRADE)		
[Symbol]	8" REIN. CONCRETE PAVING		
[Symbol]	(3000 PSI W/ RECOMPACTED SUBGRADE)		

**NOTE:** REFER TO GEOTECHNICAL ENGINEERING REPORT FOR PAVING AND SUBGRADE REQUIREMENTS. THE CONCRETE SECTIONS MAY BE INCREASED BY (PER REPORT).

**LINE TABLE**

NUMBER	DIRECTION	DISTANCE	NUMBER	DIRECTION	DISTANCE
L1	S 79°57'55" W	111.28	L28	N 07°42'43" W	51.18
L2	S 79°58'45" W	118.01	L29	N 07°48'51" W	69.08
L3	N 79°16'18" W	75.80	L30	N 42°38'50" W	51.97
L4	S 02°01'20" E	43.43	L31	S 02°22'50" W	59.24
L5	S 02°01'20" E	43.43	L32	S 02°22'50" W	59.24
L6	S 23°28'50" E	67.29	L33	S 02°22'50" W	59.24
L7	S 14°38'07" W	97.25	L34	S 02°22'50" W	59.24
L8	S 67°30'17" W	37.25	L35	S 10°14'46" E	25.54
L9	S 76°55'37" W	30.42	L36	S 36°42'39" W	60.06
L10	S 25°04'02" W	25.43	L37	S 65°14'17" W	15.18
L11	S 25°04'02" W	25.43	L38	S 65°14'17" W	15.18
L12	S 65°23'11" W	20.02	L39	N 80°04'42" W	57.26
L13	N 76°08'16" W	20.02	L40	N 80°04'42" W	57.26
L14	N 76°08'16" W	20.02	L41	S 65°58'42" W	20.38
L15	N 46°08'54" W	29.88	L42	S 25°19'42" W	20.38
L16	N 07°00'36" W	22.44	L43	S 01°48'48" E	48.46
L17	N 16°01'39" W	35.97	L44	S 29°44'20" E	24.17
L18	N 16°01'39" W	35.97	L45	S 29°44'20" E	24.17
L19	S 65°36'42" W	38.28	L46	S 80°26'38" E	51.59
L20	S 16°51'30" W	73.78	L47	S 65°58'42" W	20.38
L21	S 15°43'54" E	58.28	L48	S 28°03'15" E	19.73
L22	S 02°58'04" W	33.91	L49	S 16°39'57" W	22.89
L23	S 02°58'04" W	33.91	L50	S 45°00'49" W	39.09
L24	S 45°31'24" W	33.91	L51	S 60°51'41" W	25.54
L25	S 45°31'24" W	33.91	L52	N 81°46'26" W	133.12
L26	N 78°47'58" W	65.58	L53	N 81°46'26" W	133.12
L27	N 80°09'35" W	119.43	L54	N 80°09'43" W	133.11



- NOTES:**
1. ALL DIMENSIONS ARE TO FACE OF CURB WHERE CURB IS PRESENT.
  2. ALL DIMENSIONS ARE APPROXIMATE AND SUBJECT TO ADJUSTMENT.
  3. ALL FREELANE WIDTHS ARE 24' WITH 20' RADI FOR THE MULTI-FAMILY SITE AND 24' WITH 39' RADI FOR THE AGE-RESTRICTED MULTI-FAMILY SITE.
  4. ALL OTHER RADII ARE 3' UNLESS NOTED OTHERWISE.
  5. ALL PARKING SPACES ARE 9'X18'.
  6. NO OVERHANGS/STRUCTURES IN FREELANES AND/OR EASEMENTS.

**RECORD DRAWING**  
 RECORD INFORMATION PROVIDED BY  
 COMASTER CONSTRUCTION, FORT WORTH, TEXAS  
 ELEVATION CONSULTANTS, INC., PLANO, TEXAS

**TOCCS**  
 1-800-245-4545  
 toccs@tccs.com

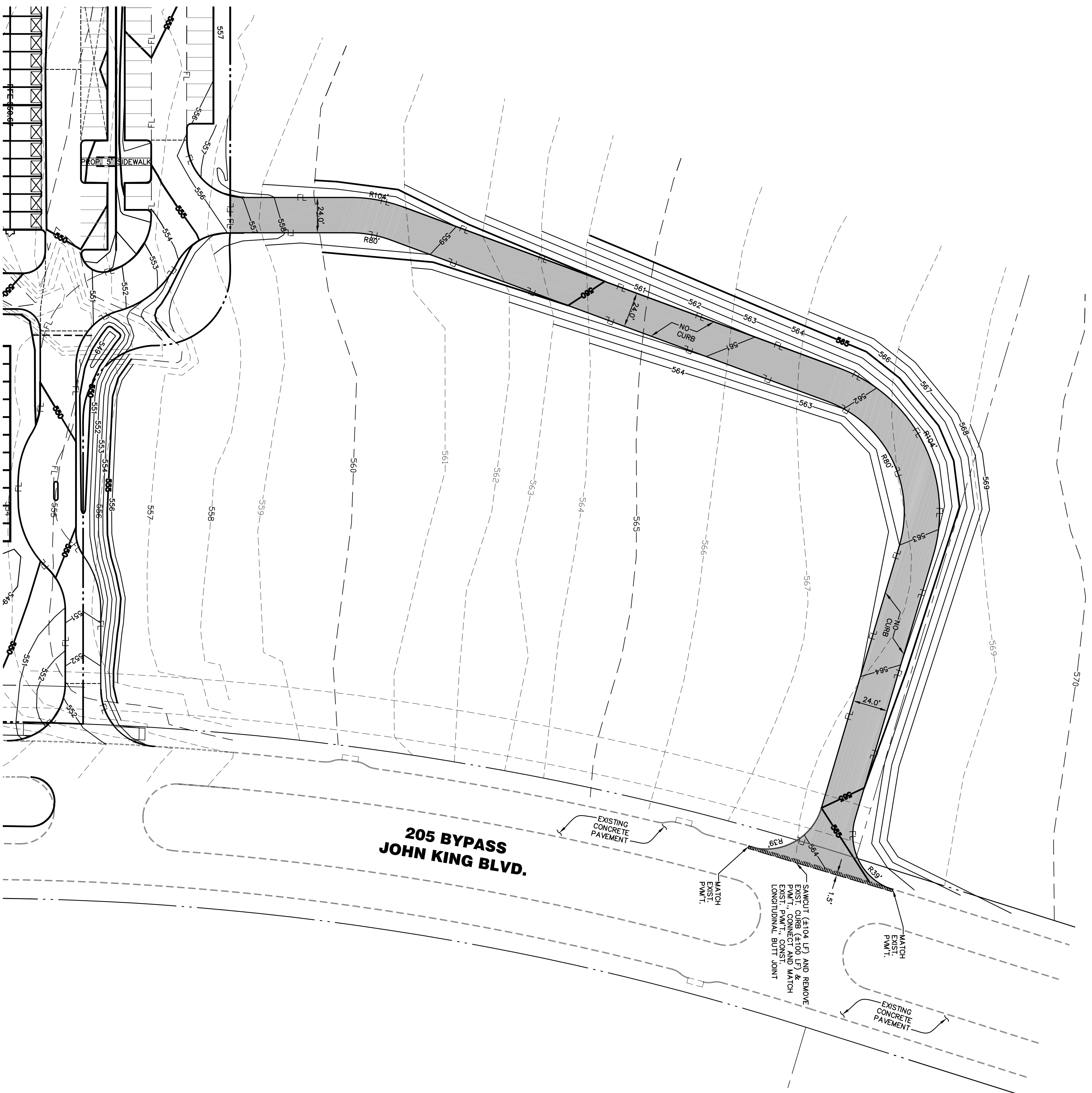
**RKM**  
 RKM Consulting Engineers, Inc.  
 7616 LBJ Freeway, Suite 500  
 Dallas, Texas 75251  
 phone (214) 623-8070  
 fax (214) 623-8069

**CITY OF ROCKWALL, TEXAS**  
 MANSON'S SENIOR  
 DIMENSION CONTROL & PAVING PLAN

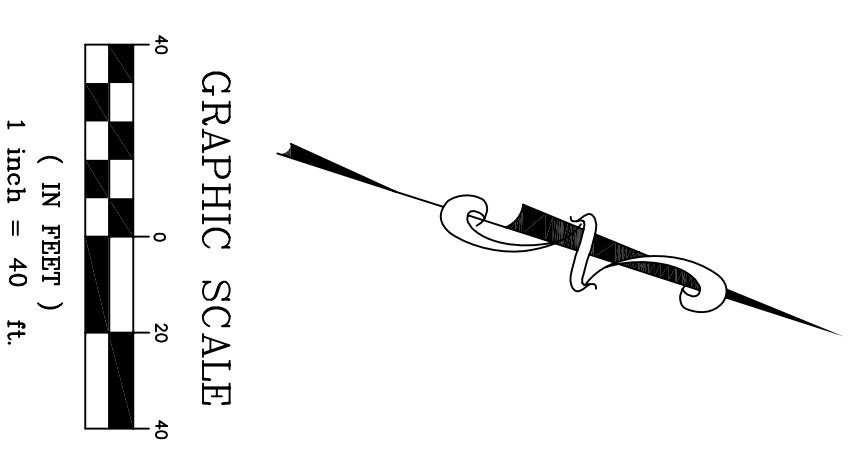
REV.	DATE	REMARKS	BY

Checked: [Signature] Design: [Signature] Drawn: [Signature] Job: [Signature] Date: 02/18/09 Scale: 1"=40' Sheet: 3 of 20

**Professional Engineer Seal:**  
 ROBERT K. MANSON  
 LICENSED PROFESSIONAL ENGINEER  
 STATE OF TEXAS  
 86508




**205 BYPASS  
JOHN KING BLVD.**



**LEGEND**


 6" CONCRETE PAVING  
 (3,600 PS W/ LIME TREATED SUBGRADE  
 - 6 SACK FOR MACHINE PLACED - 6.5  
 SACK FOR HAND PLACED)

**RECORD DRAWING**  
 RECORD INFORMATION PROVIDED BY  
 CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
 ELEVATION VERIFICATION PERFORMED BY  
 SURVEY CONSULTANTS, INC., PLANO, TEXAS




**TOCS**  
 1-800-245-4545  
 tucson@1-call.com



REV.	DATE	REMARKS	BY

**OFFSITE PAVING AND GRADING PLAN**

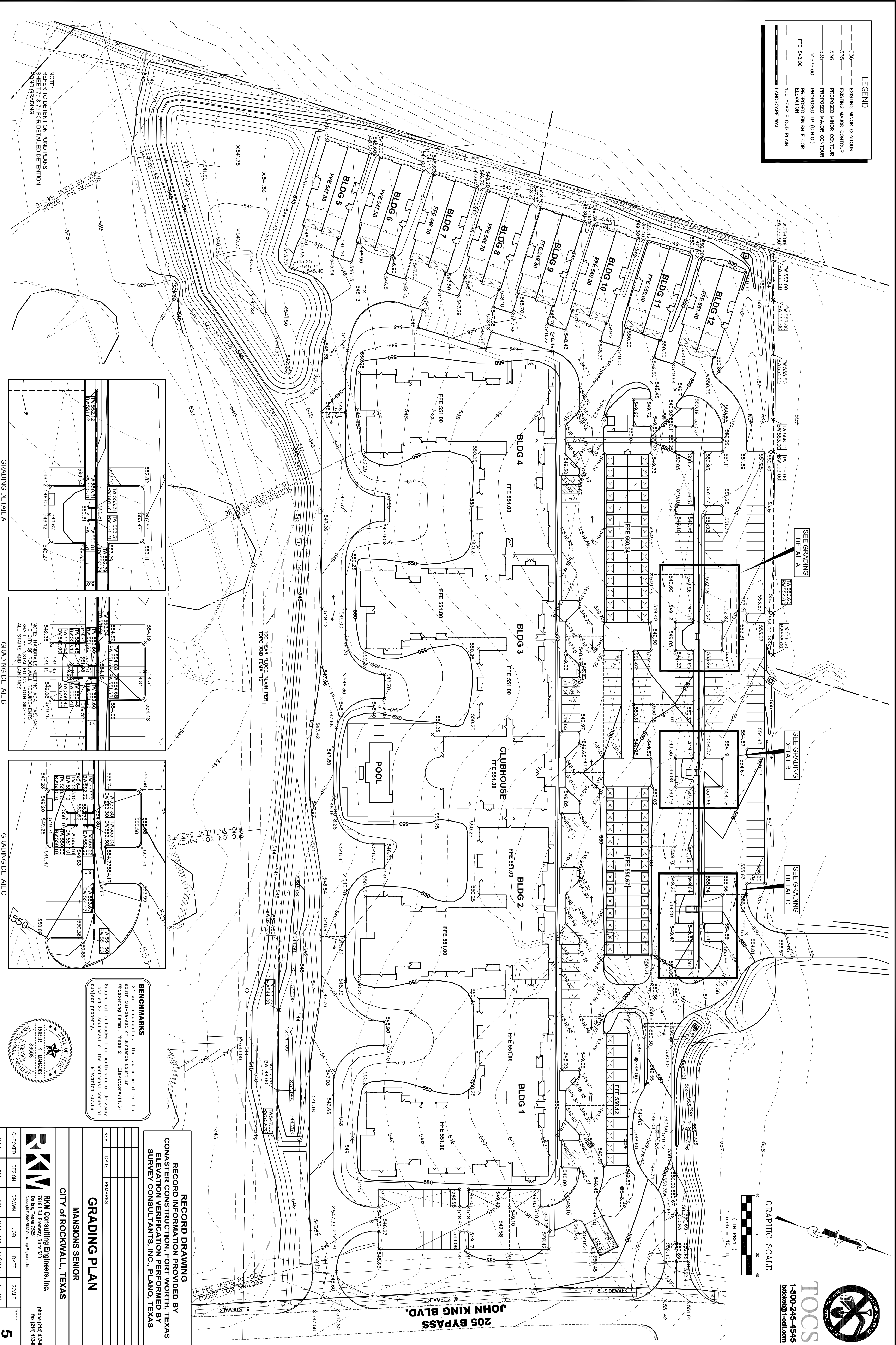
**MANSIONS SENIOR**  
 CITY OF ROCKWALL, TEXAS



**RKM Consulting Engineers, Inc.**  
 7616 LBJ Freeway, Suite 530  
 Dallas, Texas 75247  
 phone (214) 432-8070  
 fax (214) 432-8069

CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	1"=40'	<b>4</b> OF 20

LEGEND	
---	EXISTING MINOR CONTOUR
---	EXISTING MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
X 535.00	PROPOSED TP (U.N.G.) ELEVATION
---	PROPOSED FINISH FLOOR ELEVATION
---	100 YEAR FLOOD PLAN
---	LANDSCAPE WALL



SEE GRADING DETAIL A  
SEE GRADING DETAIL B  
SEE GRADING DETAIL C

**TOCS**  
1-800-245-4545  
tocs.com

**GRAPHIC SCALE**  
1 inch = 40 ft

**ROCKWALL**  
100 YEAR FLOOD PLAN PER TOPO AND FEMA FIS

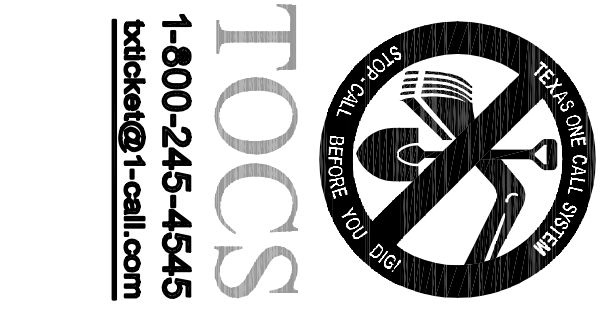
**GRADING DETAIL A**  
SCALE: 1"=50'

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559.70	559.54	559.47	559.54	559.70
559.77	559.61	559.54	559.61	559.77
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560.00	559.82	559.75	559.82	560.00

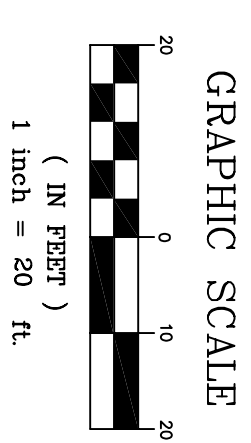
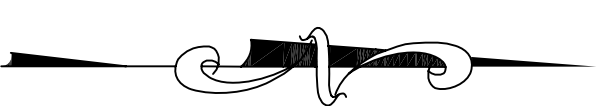
**GRADING DETAIL B**  
SCALE: 1"=50'

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549.47	549.40	549.33	549.40	549.47
549.54	549.47	549.40	549.47	549.54
549.61	549.54	549.47	549.54	549.61
549.68	549.61	549.54	549.61	549.68
549.75	549.68	549.61	549.68	549.75
549.82	549.75	549.68	549.75	549.82
549.89	549.82	549.75	549.82	549.89
549.96	549.89	549.82	549.89	549.96
550.03	549.96	549.89	549.96	550.03
550.10	550.03	549.96	550.03	550.10
550.17	550.10	550.03	550.10	550.17
550.24	550.17	550.10</		

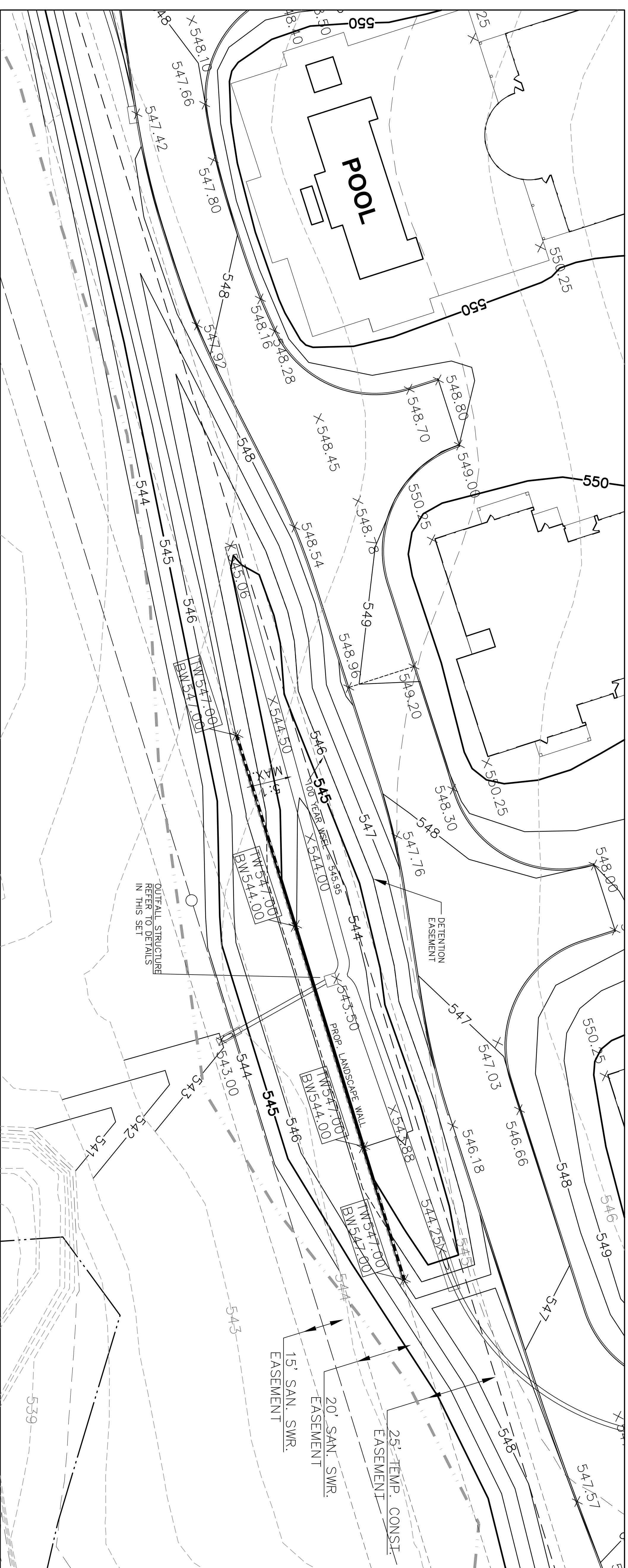




**TOCS**  
1-800-245-4545  
tocs@tocs-1.com



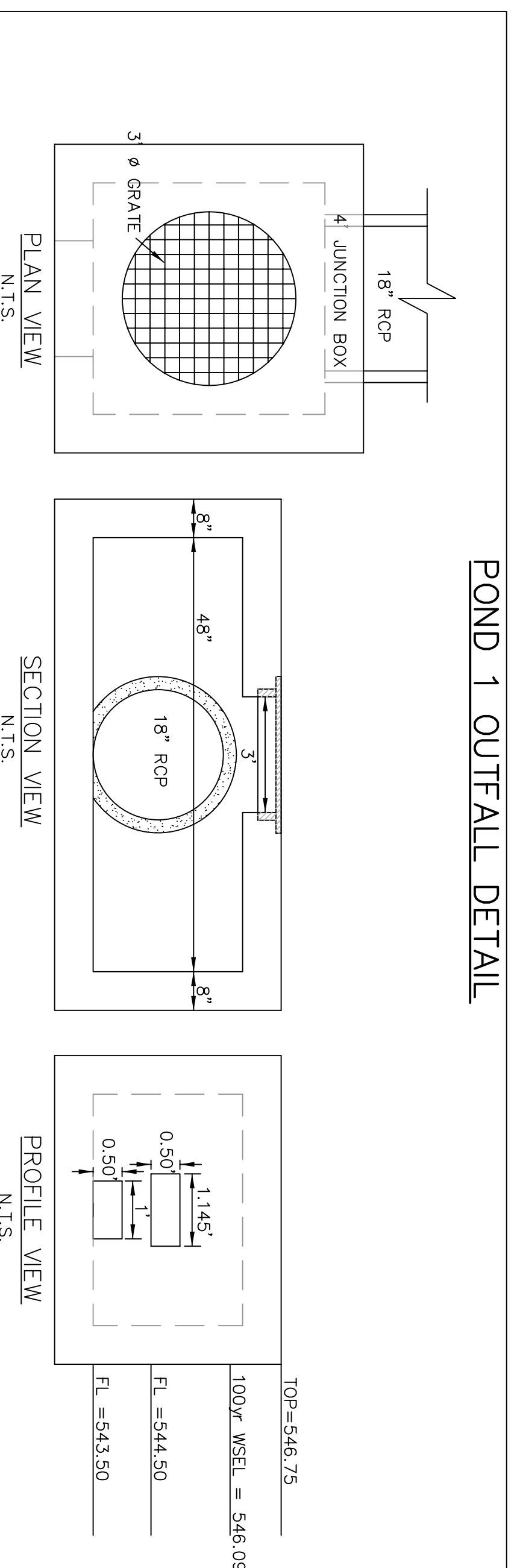
LEGEND	
---	EXISTING MINOR CONTOUR
---	EXISTING MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
X	PROPOSED SPOT GRADE
---	PROPOSED FINISH FLOOR ELEVATION
---	FFE 548.06



EVENT	WSEL
2 YEAR	544.88
10 YEAR	545.42
25 YEAR	545.70
50 YEAR	545.90
100 YEAR	546.09

**POND-1**

**POND 1 OUTFALL DETAIL**



**RECORD DRAWING**  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS

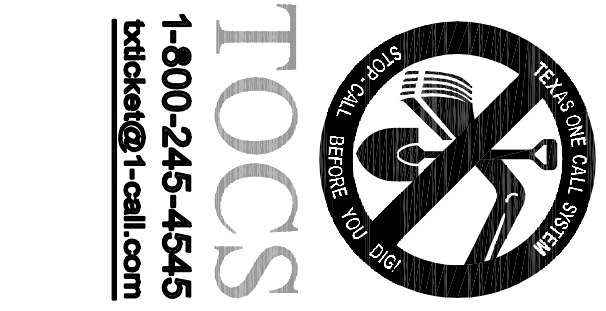
REV.	DATE	REMARKS	BY

**DETENTION POND-1 PLAN**

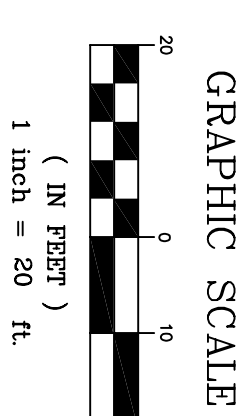
**MANSIONS SENIOR**  
CITY of ROCKWALL, TEXAS

**RKM Consulting Engineers, Inc.**  
7616 LBJ Freeway, Suite 530  
Dallas, Texas 75241  
phone (214) 432-8070  
fax (214) 432-8069

CHECKED: RKM  
DESIGN: JRY  
DRAWN: JRY  
JOB: 1026-005  
DATE: 02/18/09  
SCALE: 1"=20'  
SHEET: **7a**  
OF: 20

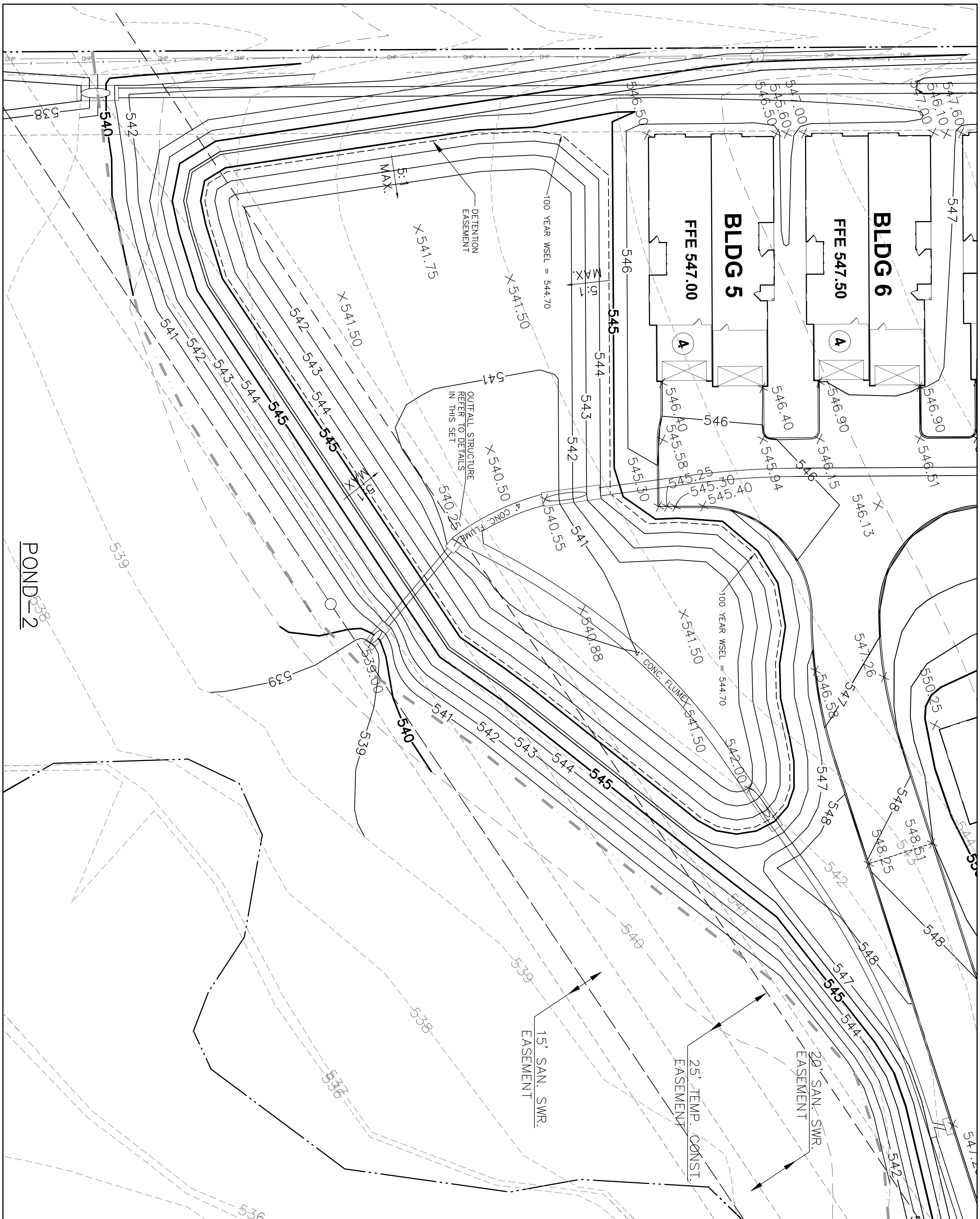


**TOCS**  
1-800-245-4545  
tocs@tocs1-call.com

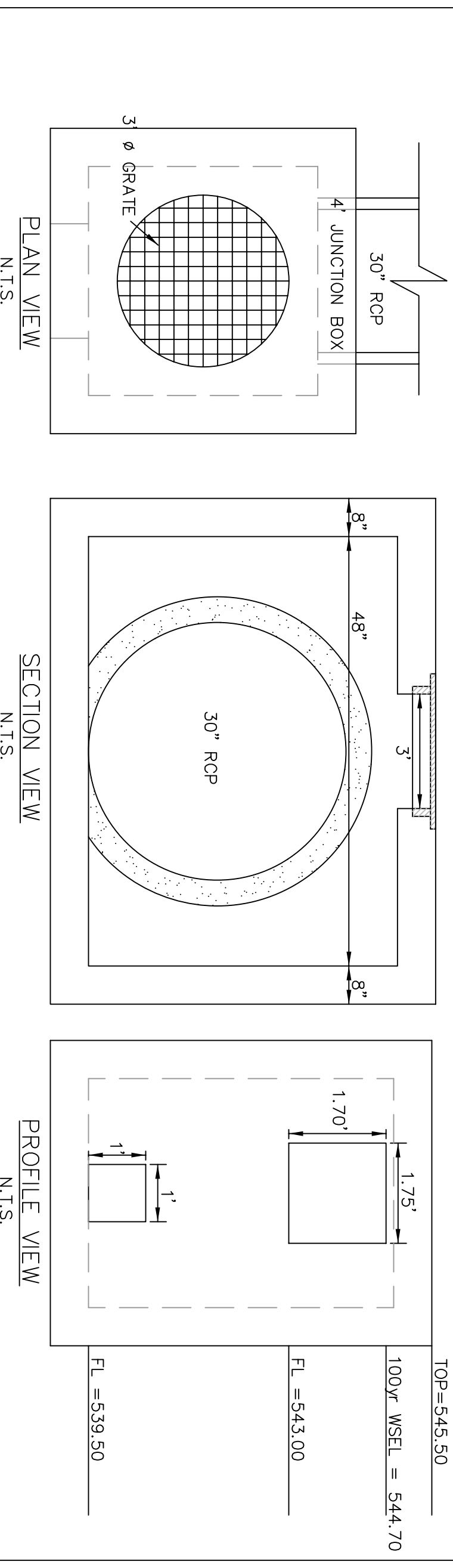


LEGEND	
---	EXISTING MINOR CONTOUR
---	EXISTING MAJOR CONTOUR
---	PROPOSED MINOR CONTOUR
---	PROPOSED MAJOR CONTOUR
X	PROPOSED SPOT GRADE
FFE	PROPOSED FINISH FLOOR ELEVATION

EVENT	WSEL
2 YEAR	543.00
10 YEAR	543.95
25 YEAR	544.25
50 YEAR	544.40
100 YEAR	544.70



**POND 2 OUTFALL DETAIL**



**RECORD DRAWING**  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS

REV.	DATE	REMARKS	BY

**DETENTION POND-2 PLAN**

**MANSIONS SENIOR**  
CITY of ROCKWALL, TEXAS

**RKM** Consulting Engineers, Inc.  
7616 LBJ Freeway, Suite 500  
Dallas, Texas 75247  
phone (214) 432-8070  
fax (214) 432-8069

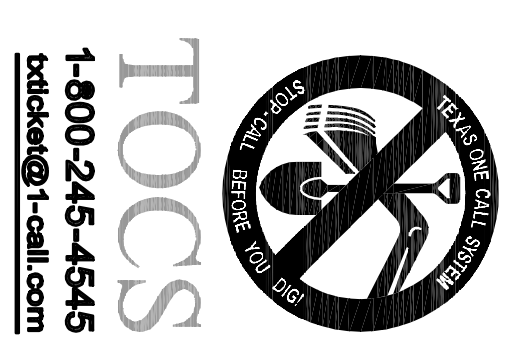
CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	1"=20'	7b OF 20











1-800-245-4545  
 TOCCS  
 tollcenter@1-call.com

RUNOFF COLLECTION POINT			DRAINAGE AREA			STORMWATER RUNOFF			PROPOSED STORM SEWER			SLOPE OF HYDRAULIC			DEPTH OF FLOW			ACTUAL FLOW			HEAD LOSS			PIPE ELEVATION			FULL/PARTIAL FLOW							
Downstream Station	Upstream Station	Distance Between Points (ft)	Drainage Area Name	Increm. Area (acres)	Accum. Area (acres)	Runoff Coeff. "C"	Inc. "C" (acres)	Intensity "I" (in/hr)	Inc. "I" (in/hr)	Inc. "Q" (cfs)	Accum. "Q" (cfs)	Pipe or Box Diameter (in)	Rectangular Box Width (ft)	Rectangular Box Height (ft)	Proposed Storm Sewer Slope (ft/ft)	Hydraulic Gradient "S" (ft/ft)	Flow Capacity (cfs)	Depth of Flow (ft)	Actual Flow Velocity (ft/s)	Q100 Flow Velocity (ft/s)	Head Loss Coeff. K <sub>L</sub>	Head Loss at Station (ft)	Pipe Flowline Elev. Downstream	Pipe Flowline Elev. Upstream	Top of Pipe Elev. Downstream	Top of Pipe Elev. Upstream	H <sub>g</sub> Elev. Downstream	H <sub>g</sub> Elev. Upstream	Flow					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Storm Sewer Line E																																		
8+37.00	8+37.00	81.00	Inlet	0.22	0.22	0.75	0.17	9.80	1.62	1.62	1.62	24	-	-	0.0023	0.0001	10.85	0.02	2.88	0.51	1.25	0.01	545.17	545.17	547.17	547.17	546.45	546.44					PARTIAL	
Storm Sewer Line F																																		
7+56.00	7+56.00	46.00	60 Wye	0.33	0.55	0.75	0.41	9.80	2.43	4.04	4.04	24	-	-	0.0023	0.0003	10.85	0.84	3.21	1.29	0.50	0.02	544.98	544.98	546.98	546.98	546.44	546.44					PARTIAL	
Storm Sewer Line G																																		
7+10.00	7+10.00	89.00	60 Wye	0.32	0.87	0.75	0.65	9.80	2.35	6.39	6.39	24	-	-	0.0023	0.0008	10.85	1.10	3.60	2.04	0.50	0.05	544.88	544.88	546.88	546.88	546.40	546.40					PARTIAL	
Storm Sewer Line H																																		
6+21.00	6+21.00	203.00	60 Wye	0.38	1.25	0.75	0.94	9.80	2.79	9.19	9.19	30	-	-	0.0023	0.0005	19.67	1.37	3.81	1.87	0.50	0.02	544.67	544.67	547.17	546.67	546.28	546.28					PARTIAL	
Storm Sewer Line I																																		
4+18.00	4+18.00	109.00	60 Wye	0.40	1.65	0.75	1.24	9.80	2.94	12.13	12.13	30	-	-	0.0023	0.0009	19.67	1.59	4.09	2.47	0.50	0.07	543.71	543.71	546.21	546.21	546.15	546.15					PARTIAL	
Storm Sewer Line J																																		
3+09.00	3+09.00	103.00	60 Wye	0.30	1.95	0.75	1.46	9.80	2.21	14.33	14.33	30	-	-	0.0023	0.0012	19.67	1.74	4.27	2.92	0.50	0.08	543.45	543.45	545.95	545.95	545.99	545.99					PARTIAL	
Storm Sewer Line K																																		
2+06.00	2+06.00	106.00	60 Wye	0.26	2.21	0.75	1.66	9.80	1.91	16.24	16.24	30	-	-	0.0023	0.0016	19.67	1.86	4.41	3.31	0.50	0.10	543.22	543.22	545.72	545.72	545.78	545.78					PARTIAL	
Storm Sewer Line L																																		
1+19.69	1+19.69	19.69	Inlet	0.26	0.26	0.75	0.20	9.80	1.91	1.91	1.91	18	-	-	0.0250	0.0003	16.61	0.06	6.94	1.08	1.25	0.02	544.21	544.21	545.71	545.71	545.81	545.81					FULL	
Storm Sewer Line M																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line N																																		
1+34.84	1+34.84	34.84	Inlet	0.30	0.30	0.75	0.23	9.80	2.21	2.21	2.21	18	-	-	0.0300	0.0004	18.19	0.04	7.80	1.25	1.25	0.03	545.00	545.00	546.50	546.50	546.03	546.03					PARTIAL	
Storm Sewer Line O																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line P																																		
1+14.11	1+14.11	14.11	Inlet	0.40	0.40	0.75	0.30	9.80	2.94	2.94	2.94	18	-	-	0.0500	0.0008	23.49	0.04	10.23	1.66	1.25	0.05	544.91	544.91	546.41	546.41	546.22	546.22					PARTIAL	
Storm Sewer Line Q																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line R																																		
1+14.02	1+14.02	14.02	Inlet	0.38	0.38	0.75	0.29	9.80	2.79	2.79	2.79	18	-	-	0.0520	0.0007	23.95	0.05	10.07	1.66	1.25	0.05	545.40	545.40	546.90	546.90	546.33	546.33					PARTIAL	
Storm Sewer Line S																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line T																																		
1+34.47	1+34.47	34.47	Inlet	0.32	0.32	0.75	0.24	9.80	2.35	2.35	2.35	18	-	-	0.0108	0.0005	10.92	0.03	3.25	1.33	1.25	0.03	545.50	545.50	547.00	547.00	546.45	546.45					PARTIAL	
Storm Sewer Line U																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line V																																		
2+52.00	2+52.00	72.00	Inlet	0.27	0.27	0.75	0.20	9.80	1.98	1.98	1.98	24	-	-	0.0020	0.0001	10.12	0.13	3.01	0.63	1.25	0.01	545.29	545.29	547.29	547.29	546.47	546.47					PARTIAL	
Storm Sewer Line W																																		
1+80.00	1+80.00	33.71	60 Wye	0.06	0.33	0.75	0.25	9.80	0.44	2.43	2.43	24	-	-	0.0020	0.0001	10.12	0.63	2.66	0.77	0.50	0.01	545.14	545.14	547.14	547.14	546.46	546.46					PARTIAL	
Storm Sewer Line X																																		
1+46.29	1+46.29	46.29	45 Bend	0.00	0.33	0.75	0.25	9.80	0.00	2.43	2.43	24	-	-	0.0020	0.0001	10.12	0.63	2.66	0.77	0.50	0.00	545.08	545.08	547.08	547.08	546.45	546.45					PARTIAL	
Storm Sewer Line Y																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line Z																																		
4+52.00	4+52.00	214.00	Inlet	1.50	1.50	0.75	1.13	9.80	11.03	11.03	11.03	24	-	-	0.0030	0.0024	12.39	1.39	4.55	3.51	1.25	0.24	543.49	543.49	545.49	545.49	545.78	545.78					FULL	
Storm Sewer Line AA																																		
2+38.00	2+38.00	138.00	60 Wye	0.87	2.37	0.75	1.78	9.80	6.39	17.42	17.42	30	-	-	0.0025	0.0018	20.61	1.89	4.63	3.55	0.50	0.08	542.85	542.85	545.35	545.35	545.03	545.03					PARTIAL	
Storm Sewer Line AB																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line AC																																		
1+06.74	1+06.74	5.74	Inlet	0.87	0.87	0.75	0.65	9.80	6.39	6.39	6.39	18	-	-	0.0750	0.0037	28.77	0.34	13.81	3.62	1.25	0.25	543.28	543.28	544.78	544.78	545.31	545.31					FULL	
Storm Sewer Line AD																																		
1+00.00	1+00.00																																	FULL
Storm Sewer Line AE																																		
4+37.50	4+37.50	337.50	Outfall	0.46	0.46	0.75	0.35	9.80	3.38	3.38	3.38	18	-	-	0.0025	0.0010	6.25	0.72	3.32	1.91	1.25	0.07	545.09	545.09	546.59	546.59	546.51	546.51					PARTIAL	
Storm Sewer Line AF																																		
1+00.00	1+00.00																																	FULL

RECORD DRAWING  
 RECORD INFORMATION PROVIDED BY  
 CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
 ELEVATION VERIFICATION PERFORMED BY  
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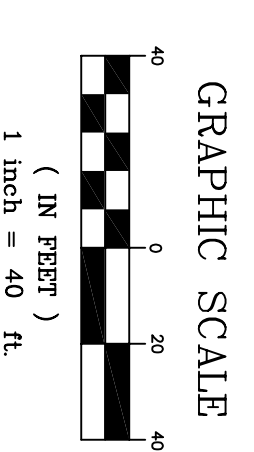
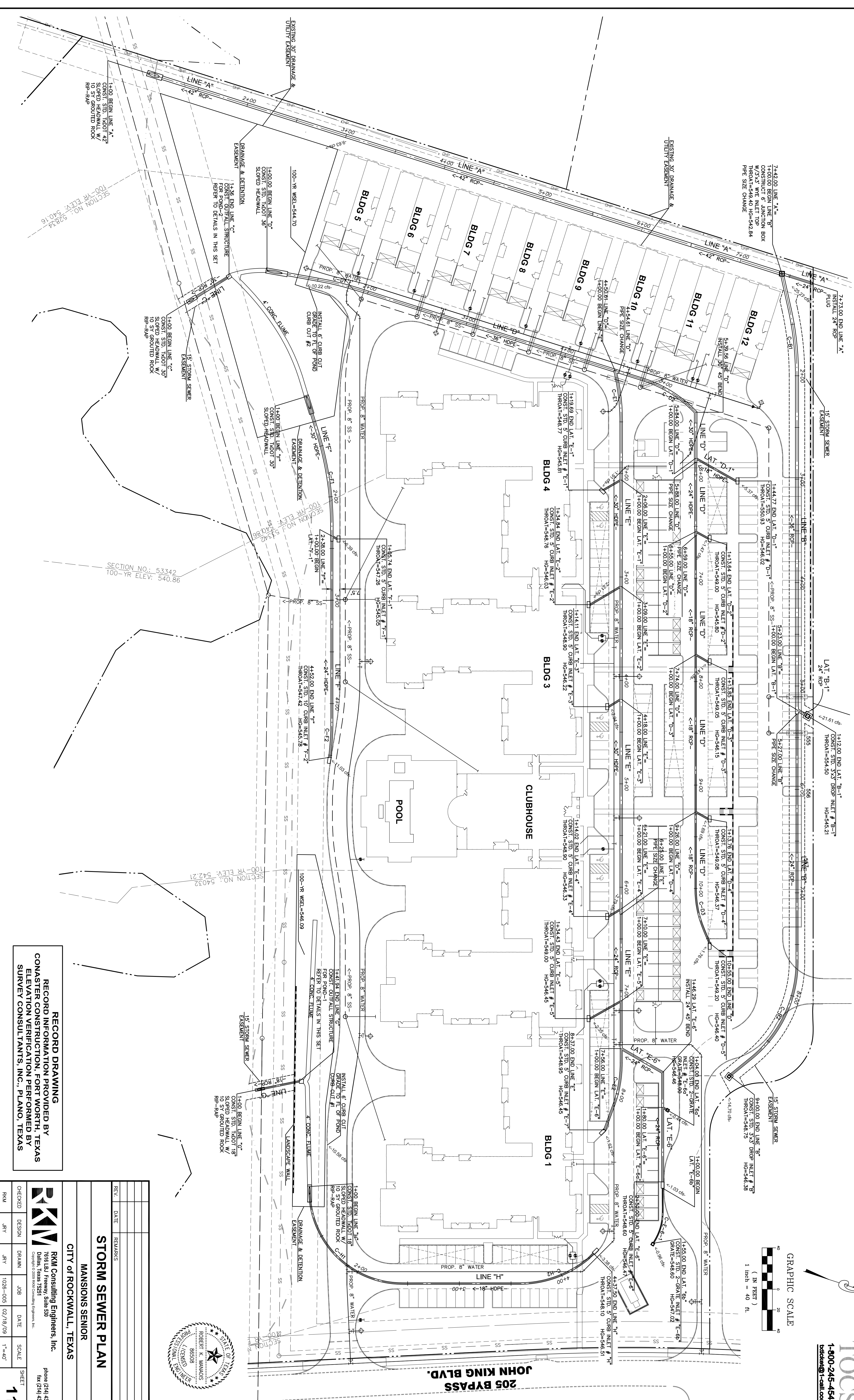
STORM SEWER CALCULATIONS  
 MANSIONS SENIOR  
 CITY OF ROCKWALL, TEXAS  
 RKM Consulting Engineers, Inc.  
 7616 LBJ Freeway, Suite 530  
 Dallas, Texas 75247  
 Phone (214) 432-8070  
 Fax (214) 432-8069



REV	DATE	REMARKS	BY

CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	N/A	10 OF 20

STORM SEWER CENTER LINE CURVE DATA			
Station	PC STA	PT STA	Curve Data
C-B1	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-B2	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-01	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-02	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-03	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-E1	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-E2	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-E-6-1	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-F1	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-F2	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-H1	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0
C-H2	1444.92	1444.92	PC STA 1444.92, PT STA 1444.92, A=0, L=0, R=0, T=0



**TOCS**  
1-800-245-4545  
tocs@tocs.com

**RECORD DRAWING**  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS

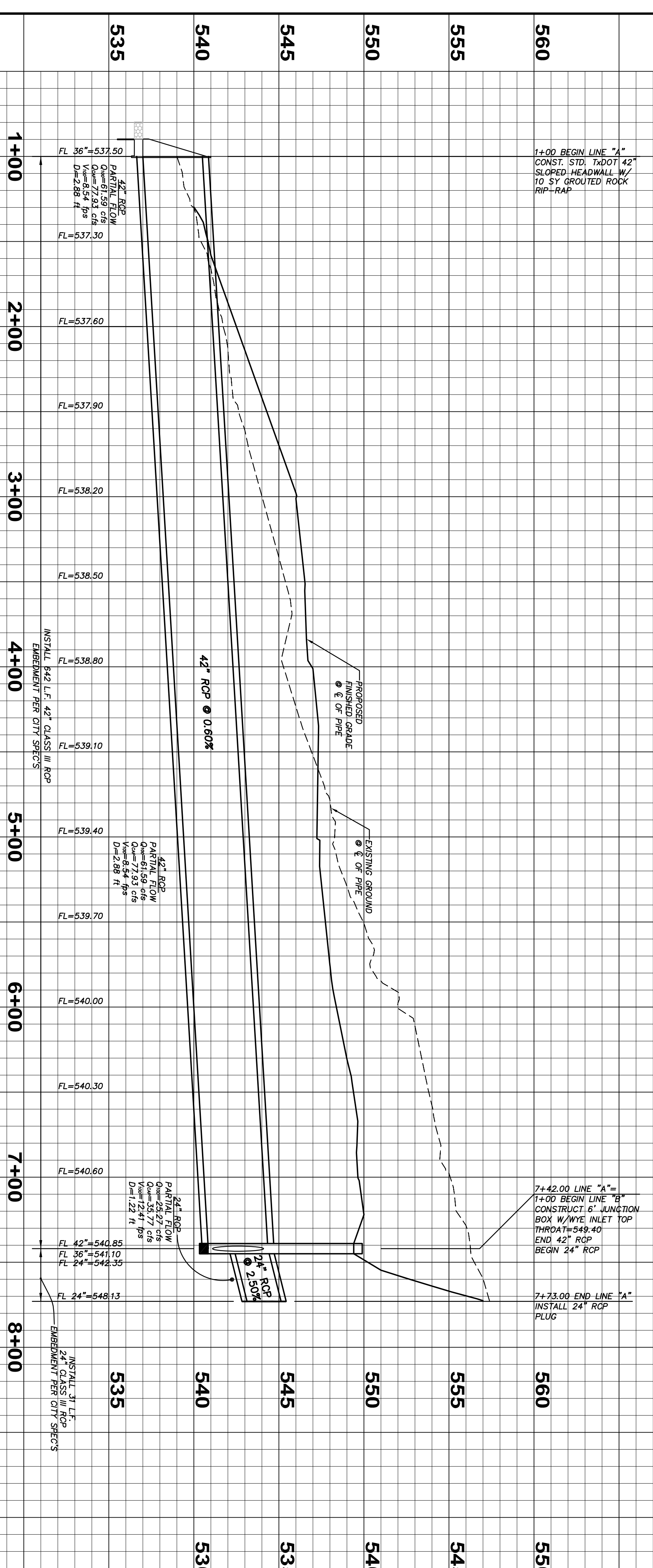
**STORM SEWER PLAN**  
MANIONS SENIOR  
CITY OF ROCKWALL, TEXAS

**RKM** Consulting Engineers, Inc.  
7616 EBI Freeway, Suite 500  
Dallas, Texas 75231  
phone (214) 432-8070  
fax (214) 432-8069

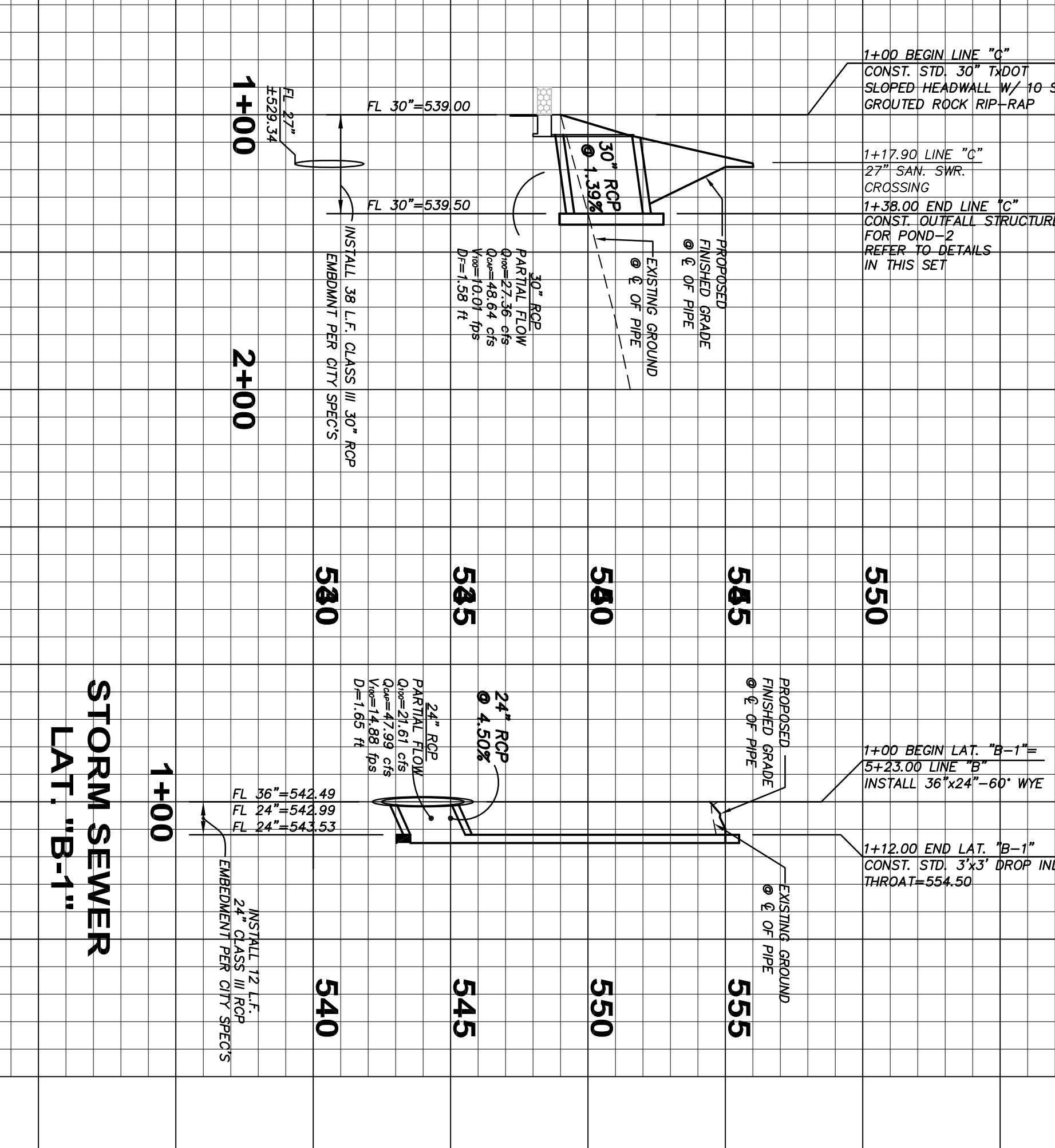
REV	DATE	REMARKS	BY

CHECKED: JRY  
DESIGN: JRY  
DRAWN: JRY  
JOB: 1026-005  
DATE: 02/18/09  
SCALE: 1"=40'  
SHEET: 11 OF 20

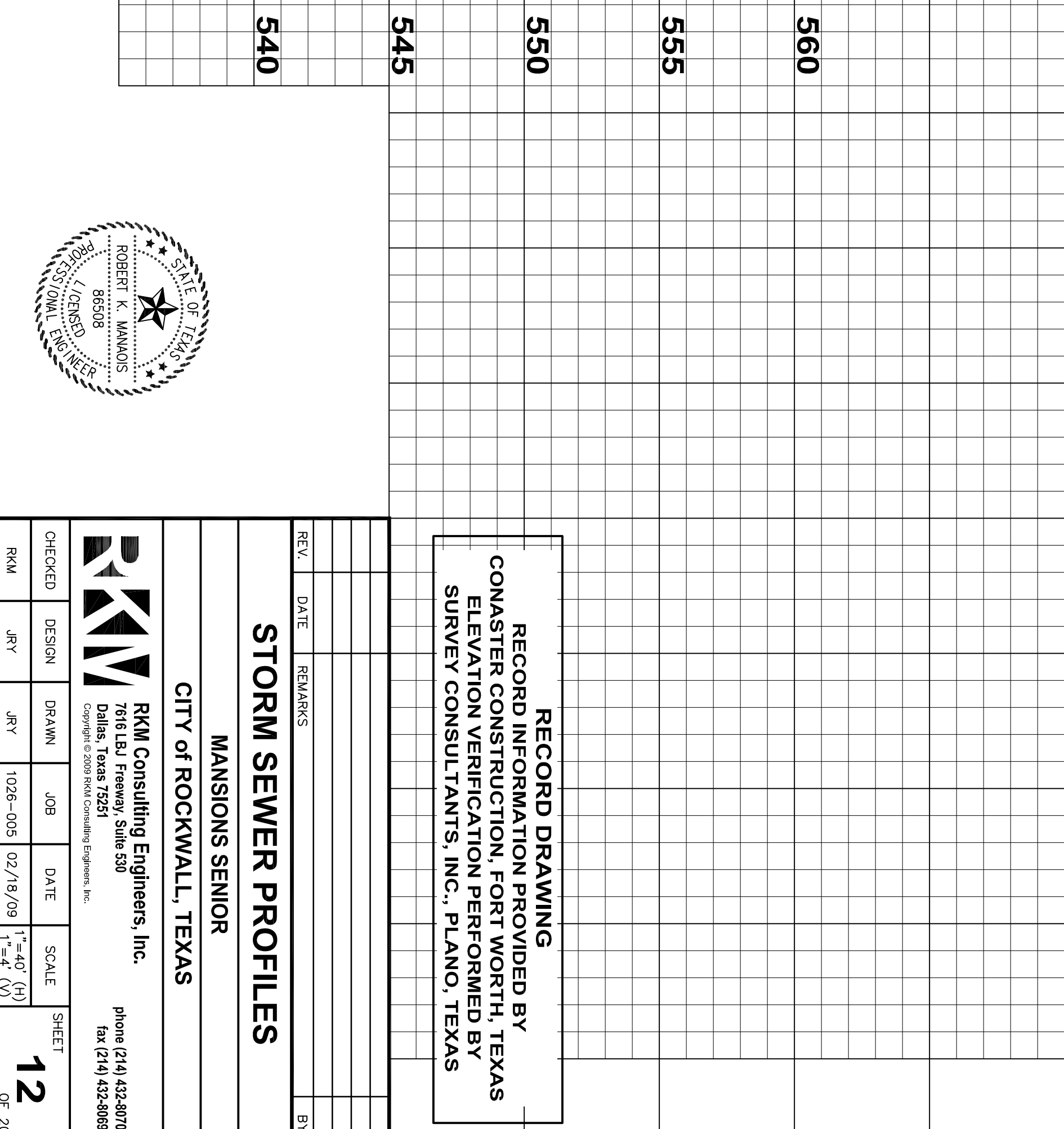
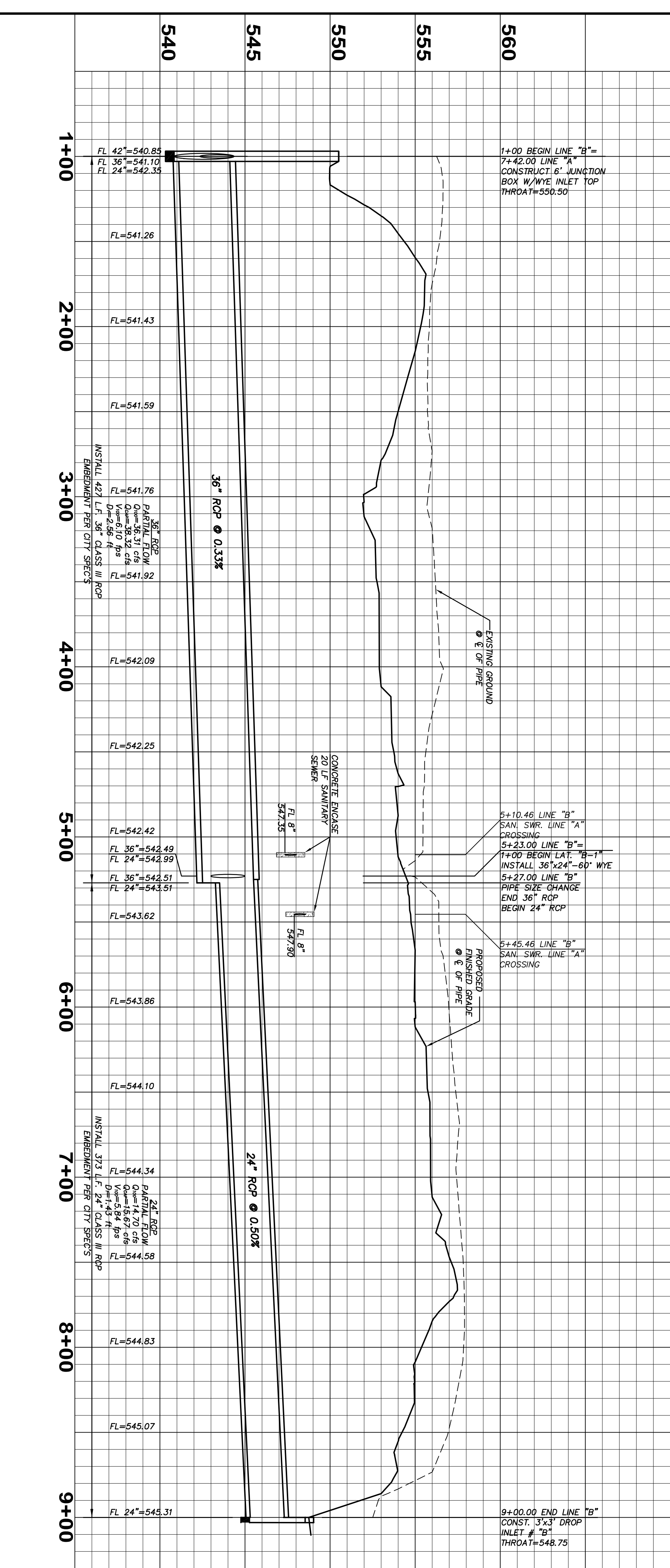
STORM SEWER LINE "A"



STORM SEWER LINE "C"

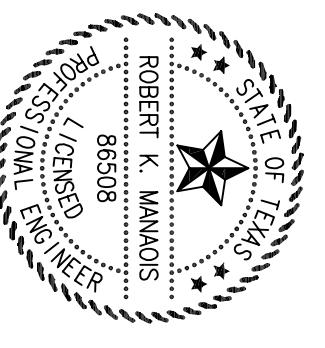


STORM SEWER LINE "B"



RECORD DRAWING  
 RECORD INFORMATION PROVIDED BY  
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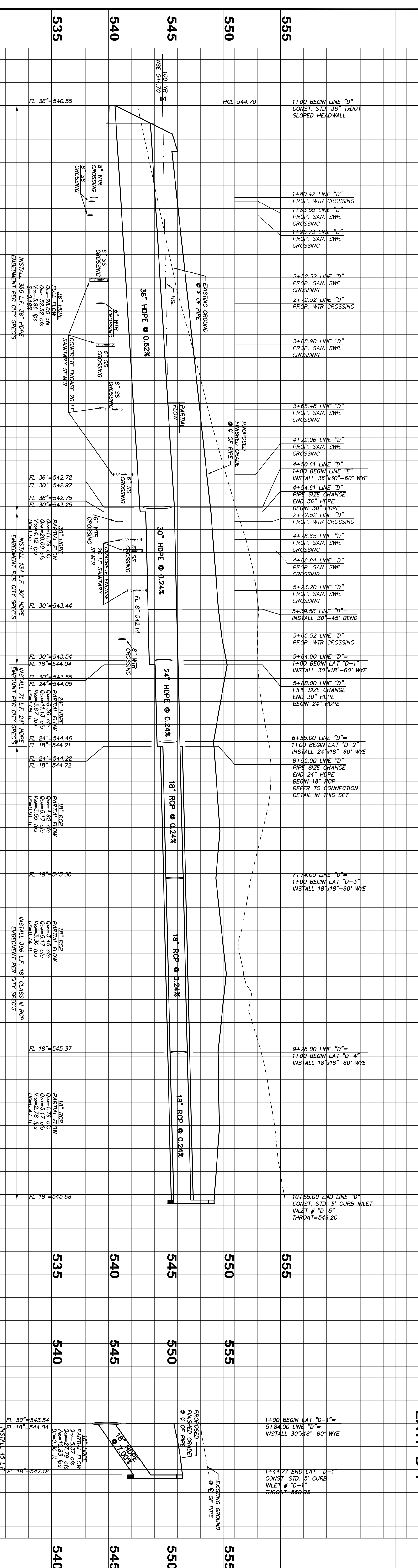
STORM SEWER PROFILES  
 MANSIONS SENIOR  
 CITY OF ROCKWALL, TEXAS  
 RKM Consulting Engineers, Inc.  
 7816 EBI Freeway, Suite 530  
 Dallas, Texas 75251  
 phone (214) 432-8070  
 fax (214) 432-8069



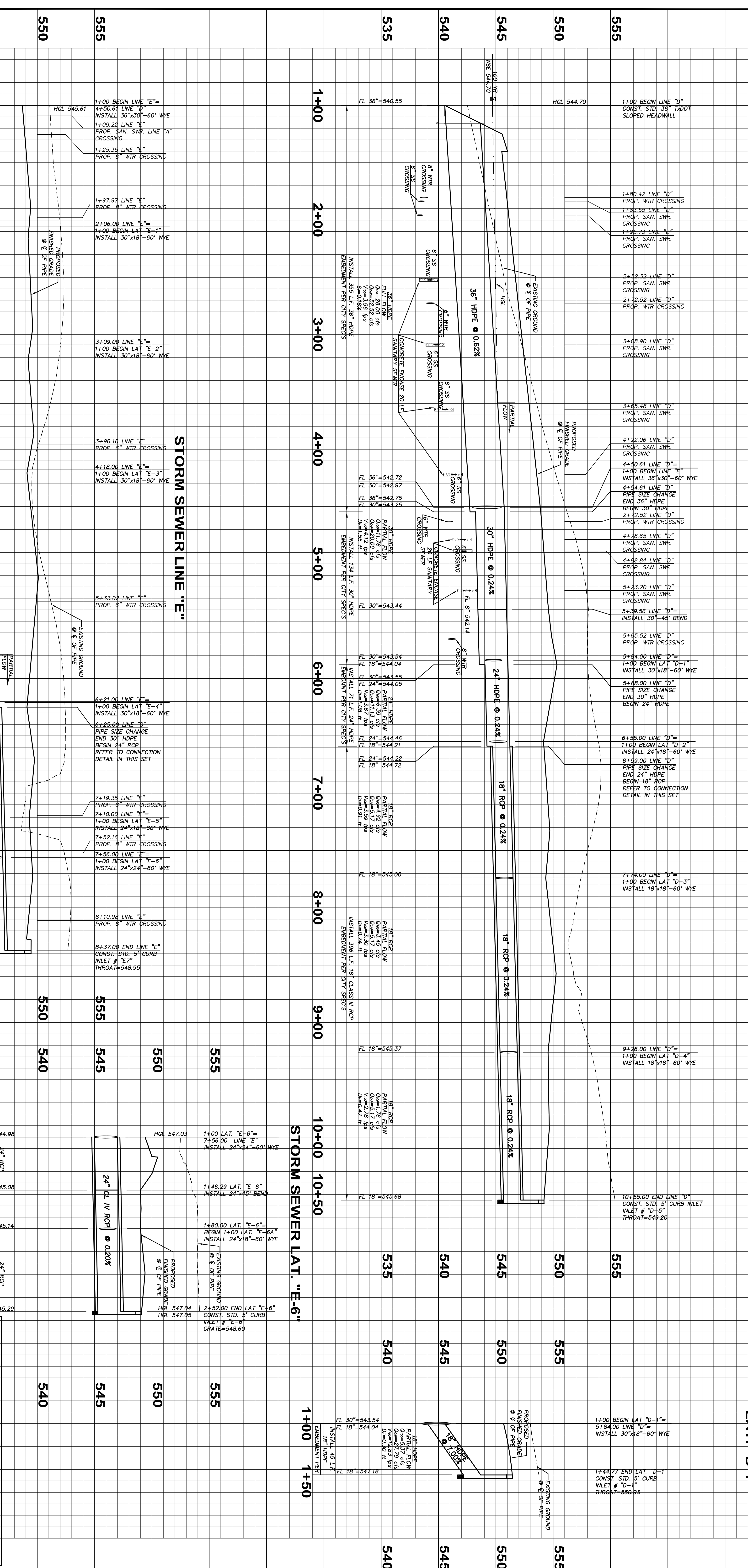
REV	DATE	REMARKS	BY

CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	1"=40' (H) 1"=4' (V)	12 of 20

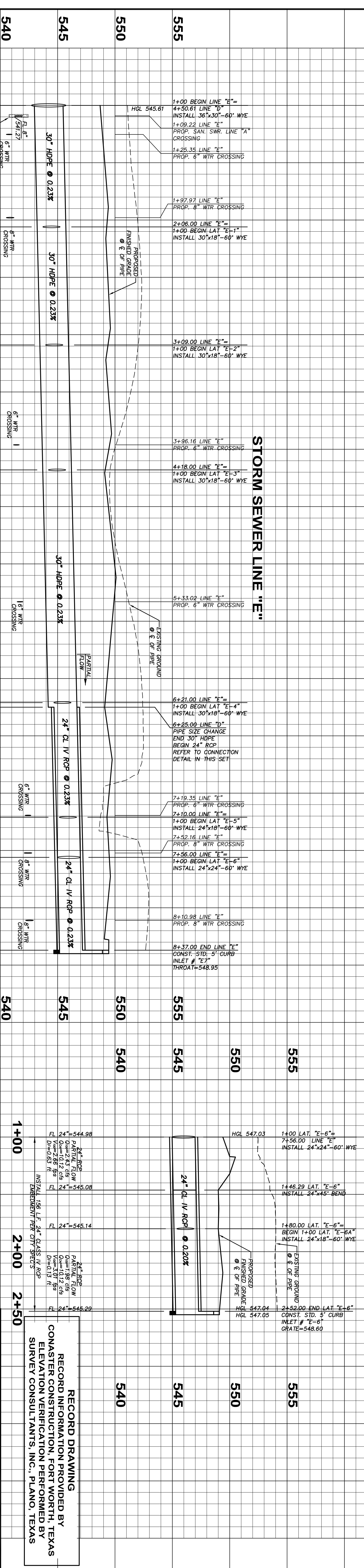
**STORM SEWER LINE "D"**



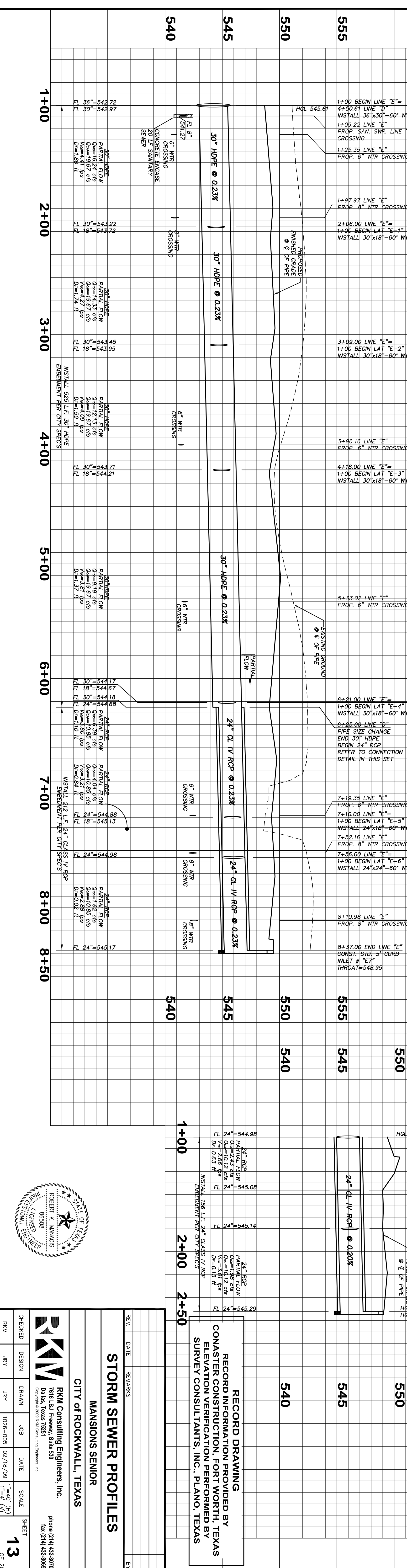
**STORM SEWER LAT. "D-1"**



**STORM SEWER LAT. "E-6"**



**STORM SEWER LINE "E"**

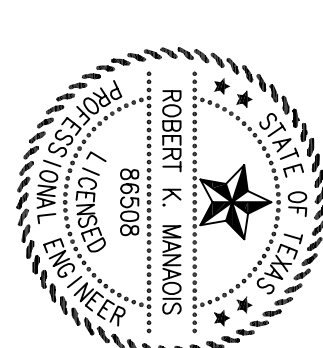


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 RECORD INFORMATION PROVIDED BY  
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 ELEVATION VERIFICATION PERFORMED BY  
 SURVEY CONSULTANTS, INC., PLANO, TEXAS

**STORM SEWER PROFILES**

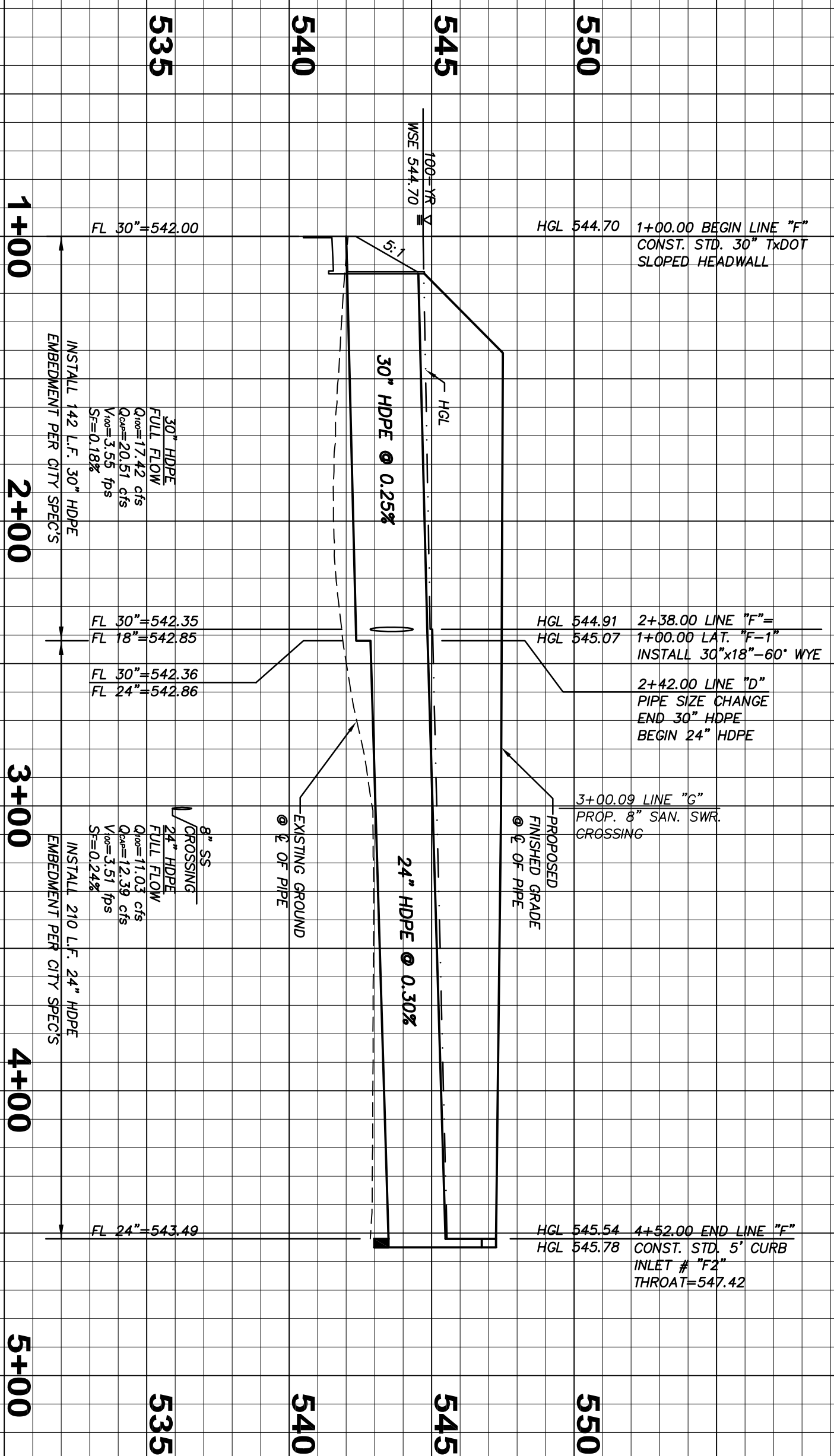
**MANSON'S SENIOR**  
 CITY OF ROCKWALL, TEXAS

**RKM Consulting Engineers, Inc.**  
 7616 EBI Freeway, Suite 530  
 Dallas, Texas 75251  
 phone (214) 432-8070  
 fax (214) 432-8069

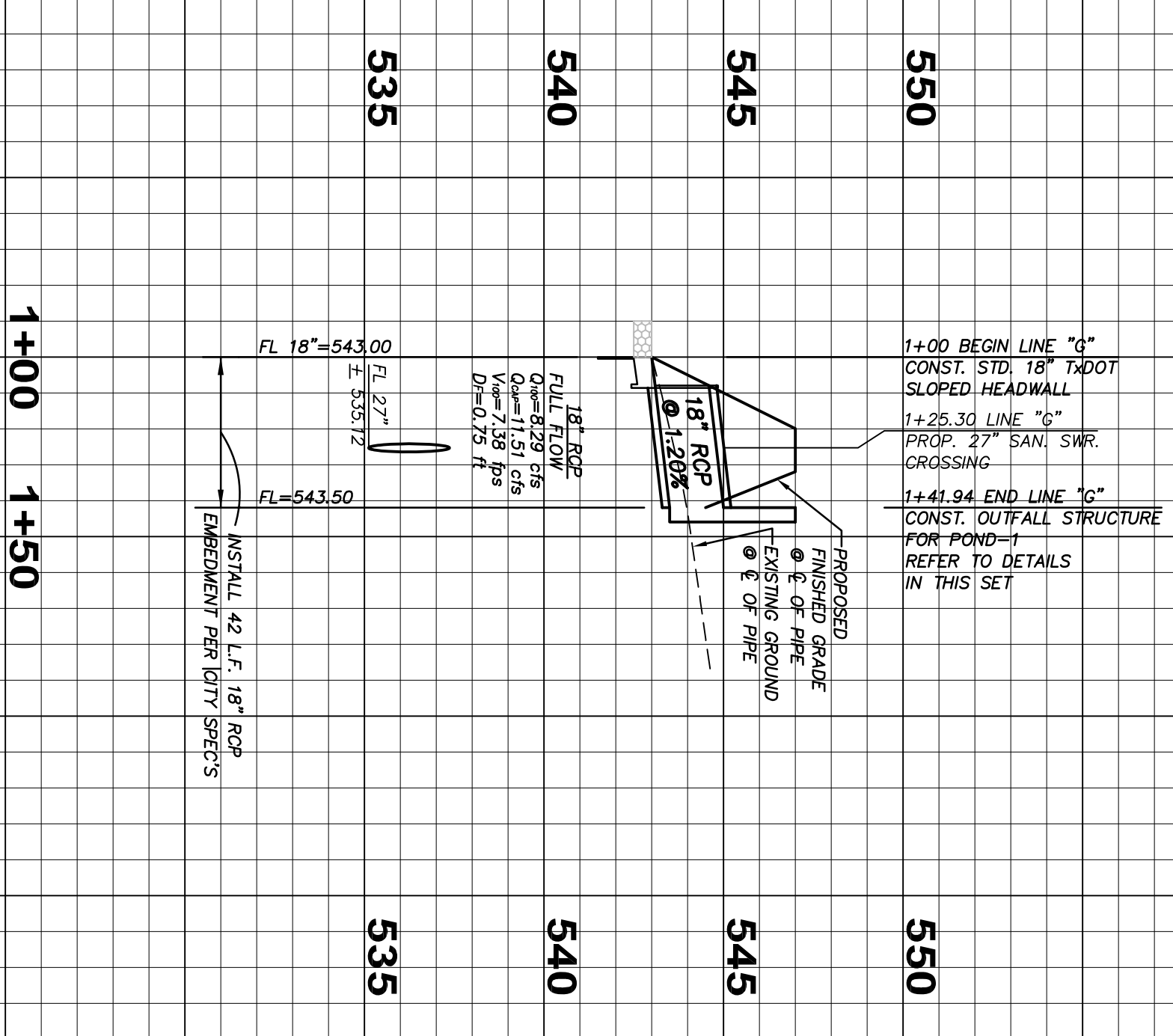


CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	1"=40' (H) 1"=4' (V)	13 of 20

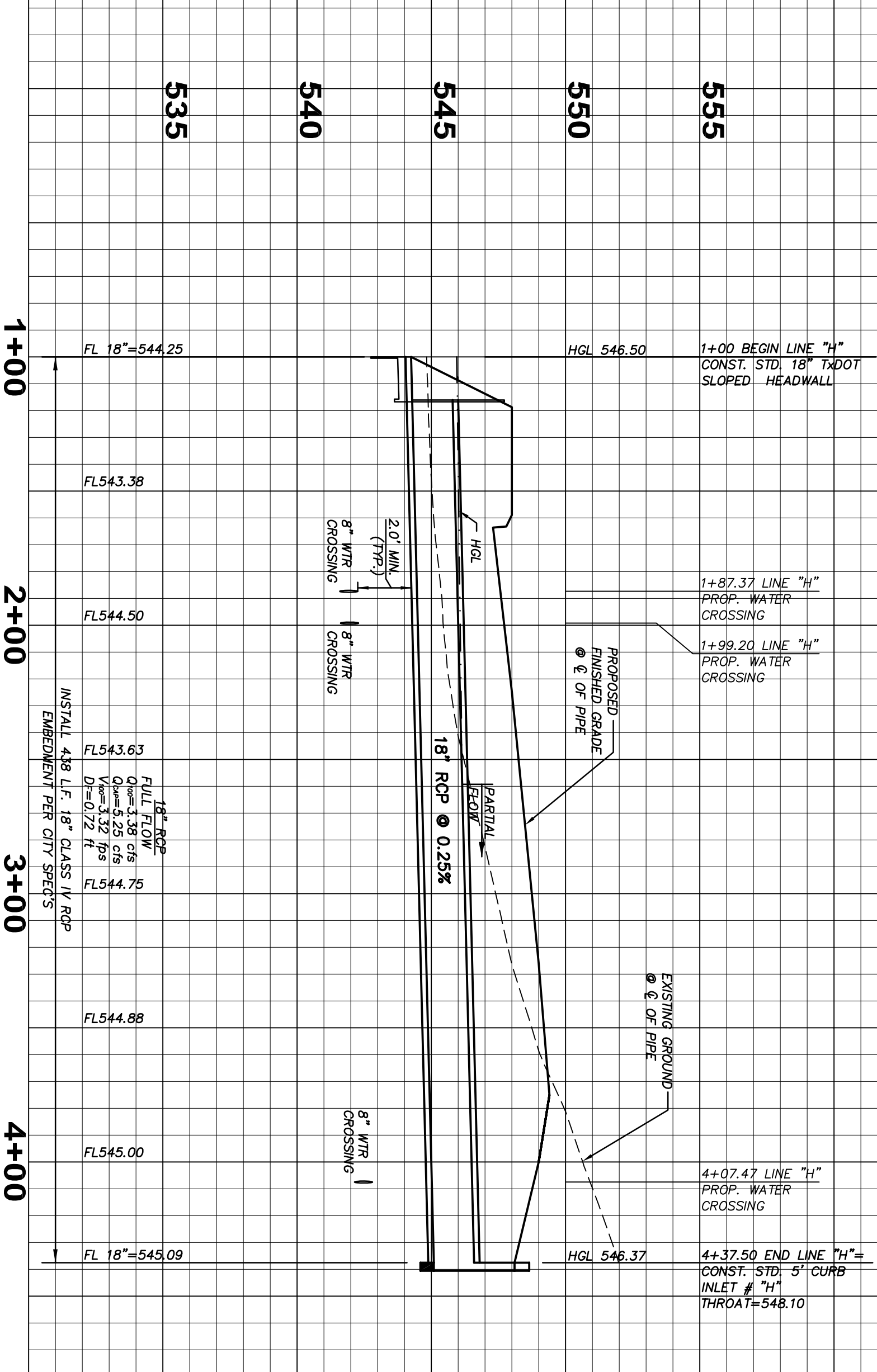
STORM SEWER LINE "F"



STORM SEWER LINE "G"



STORM SEWER LINE "H"



535

540

545

550

555

535

540

545

550

555

535

540

545

550

555

535

540

545

550

555

RECORD DRAWING  
 RECORD INFORMATION PROVIDED BY  
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 ELEVATION VERIFICATION PERFORMED BY  
 SURVEY CONSULTANTS, INC., PLANO, TEXAS

REV	DATE	REMARKS	BY

STORM SEWER PROFILES

MANSIONS SENIOR

CITY OF ROCKWALL, TEXAS

RKM Consulting Engineers, Inc.  
 7616 LBJ Freeway, Suite 530  
 Dallas, Texas 75241  
 Phone (214) 432-8070  
 Fax (214) 432-8069



CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	1"=40' (H) 1"=4' (V)	14 OF 20



**RECORD DRAWING PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS**



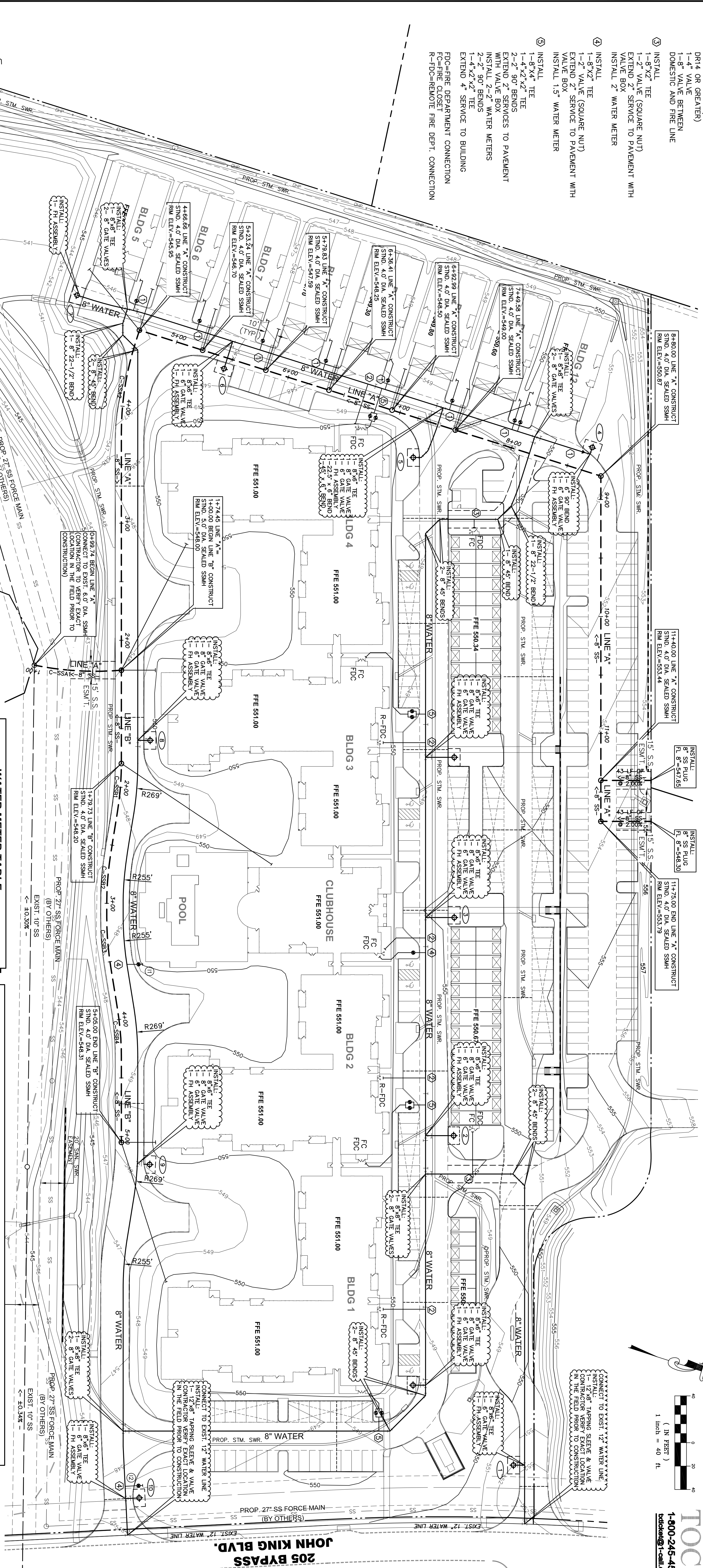
**TOCS**  
1-800-245-4545  
tocsurvey@1-call.com



- ① INSTALL  
1-8"x1" TEE  
1-1" VALVE (SQUARE NUT)  
EXTEND 1" SERVICE TO PAVEMENT WITH  
VALVE BOX  
INSTALL 1" WATER METER
- ② INSTALL  
1-4" FIRE LINE (CLASS 200  
DRI-4 OR GREATER)  
1-6" VALVE BETWEEN  
DOMESTIC AND FIRE LINE
- ③ INSTALL  
1-8"x2" TEE  
1-2" VALVE (SQUARE NUT)  
EXTEND 2" SERVICE TO PAVEMENT WITH  
VALVE BOX  
INSTALL 2" WATER METER
- ④ INSTALL  
1-8"x2" TEE  
1-2" VALVE (SQUARE NUT)  
EXTEND 2" SERVICE TO PAVEMENT WITH  
VALVE BOX  
INSTALL 1.5" WATER METER
- ⑤ INSTALL  
1-8"x4" TEE  
1-4"x2"x2" TEE  
2-2" 90° BENDS  
EXTEND 2" SERVICES TO PAVEMENT  
WITH VALVE BOX  
INSTALL 2-2" WATER METERS  
1-4"x2"x2" TEE  
EXTEND 4" SERVICE TO BUILDING  
FCC= FIRE DEPARTMENT CONNECTION  
R-FDC= REMOVE FIRE DEPT. CONNECTION

**SANITARY SEWER CENTER LINE CURVE DATA**

C-SSA1	C-SSA2	C-SSB1	C-SSB2	C-SSB3	C-SSB4
PC STA. 0+98.74 P.S. STA. 1+00.00 A = 16.2747° L = 280.00' T = 37.61'	PC STA. 3+77.48 P.S. STA. 3+77.48 A = 17.3240° L = 250.00' T = 38.58'	PC STA. 1+78.73 P.S. STA. 1+78.73 A = 09.0548° L = 255.00' T = 40.34'	PC STA. 3+11.28 P.S. STA. 3+11.28 A = 09.0548° L = 259.00' T = 42.71'	PC STA. 3+41.80 P.S. STA. 3+41.80 A = 09.0548° L = 255.00' T = 40.48'	PC STA. 3+49.97 P.S. STA. 3+49.97 A = 09.0548° L = 255.00' T = 40.48'



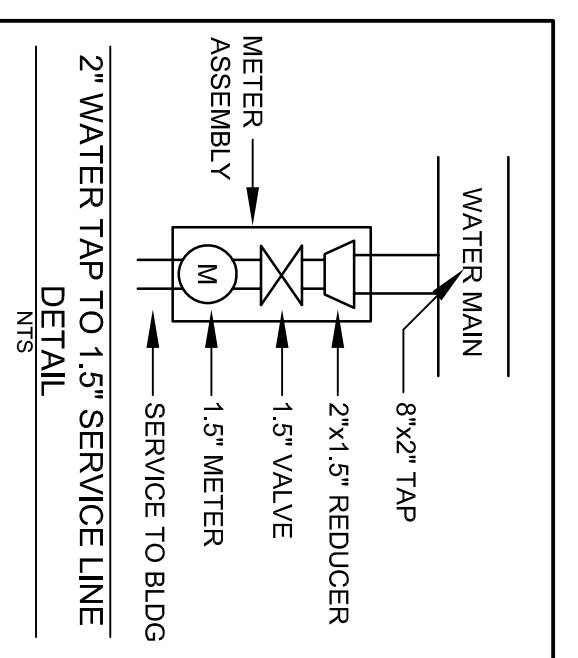
**WATER METER TABLE**

BLDG#	TYPE	TAP SIZE	METER SIZE	NO.	FIRE	SAN. SEWER
④	DOMESTIC	2"	1.5"	1	4"	1-6"
①	DOMESTIC	2-2"	2-2"	1	4"	1-6"
②	DOMESTIC	2-2"	2-2"	1	4"	1-6"
③	DOMESTIC	2-2"	2-2"	1	4"	1-6"
④	DOMESTIC	1"	1"	1	N/A	1-6"
⑤	DOMESTIC	1"	1"	1	N/A	1-6"
⑥	DOMESTIC	1"	1"	1	N/A	1-6"
⑦	DOMESTIC	1"	1"	1	N/A	1-6"
⑧	DOMESTIC	1"	1"	1	N/A	1-6"
⑨	DOMESTIC	1"	1"	1	N/A	1-6"
⑩	DOMESTIC	1"	1"	1	N/A	1-6"
⑪	DOMESTIC	1"	1"	1	N/A	1-6"
⑫	DOMESTIC	1"	1"	1	N/A	1-6"
⑬	IRRIGATION	2"	1.5"	1	N/A	N/A
⑭	IRRIGATION	2"	1.5"	1	N/A	N/A

- NOTES:**
1. FIRE LINE SHALL HAVE MIN. 10 SEPARATION FROM ANY UTILITY (DOMESTIC WATER SERVICE, SANITARY SEWER SERVICE, ETC).
  2. FIRE HYDRANT NEXT TO PARKING AND/OR STRUCTURE MUST HAVE 6' CLEARANCE.
  3. ALL FIRE HYDRANTS SHOWN ON THESE PLANS ARE WITHIN MIN. 10X15' EASEMENTS.
  4. SANITARY SEWER LINES TO AND FROM ARE PUBLIC LINES. ALL OTHER PROPOSED SANITARY SEWER LINES ON THIS PROJECT ARE CONSIDERED PRIVATE.
  5. ALL SANITARY SEWER MANHOLES TO BE SEALED.
  6. CONTRACTOR TO ADJUST PROPOSED MANHOLE RIM ELEVATION TO MATCH PROPOSED FINISHED GRADE.

**LEGEND**

○	EXISTING SS LINE
○	EXISTING SS MANHOLE
○	EXISTING WATER LINE
○	PROPOSED SS LINE
○	PROPOSED SS MANHOLE
○	PROPOSED WATER LINE
○	PROPOSED FIRE HYDRANT
○	PROPOSED TEE
○	PROPOSED VALVE
○	PROPOSED FIRE DEPARTMENT CONNECTION
○	PROPOSED WATER METER

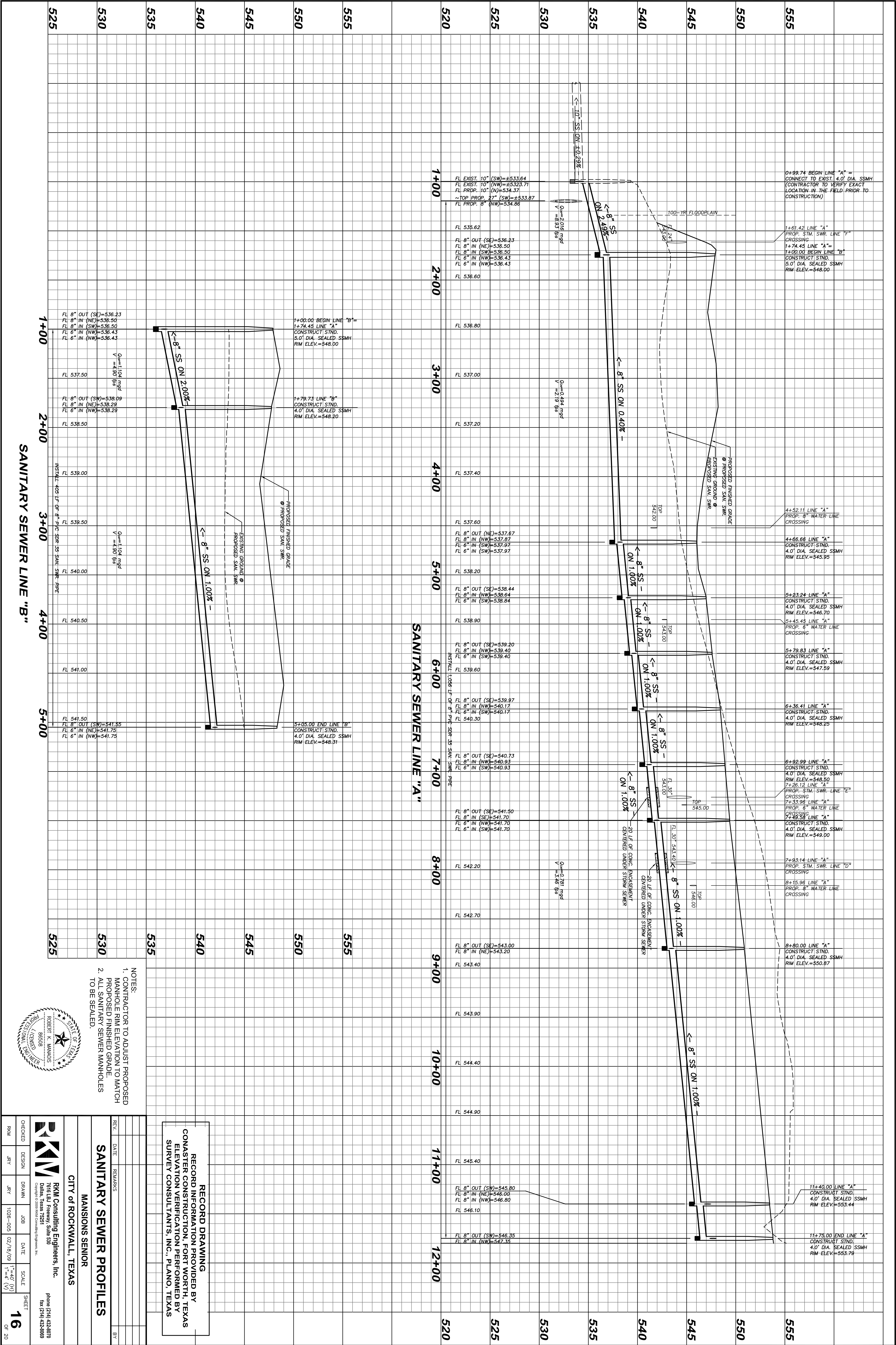


**UTILITY PLAN**  
MANSONS SENIOR  
CITY OF ROCKWALL, TEXAS

**RKM Consulting Engineers, Inc.**  
7616 I81 Freeway, Suite 530  
Dallas, Texas 75251  
phone (214) 432-8070  
fax (214) 432-8069

REV.	DATE	REMARKS	BY

CHECKED: RKM  
DESIGN: JRY  
DRAWN: JRY  
JOB: 1026-005  
DATE: 02/18/09  
SCALE: 1"=40'  
SHEET: 15 OF 20



0+59.74 BEGIN LINE "A" =  
CONNECT TO EXIST. 4.0' DIA. SSMH  
(CONTRACTOR TO VERIFY EXACT  
LOCATION IN THE FIELD PRIOR TO  
CONSTRUCTION)

1+61.42 LINE "A"  
PROP. STM. SWR. LINE "F"  
CROSSING  
1+74.45 LINE "A" =  
1+00.00 BEGIN LINE "B"  
CONSTRUCT. STND.  
5.0' DIA. SEALED SSMH  
RIM ELEV.=548.00

4+52.11 LINE "A"  
PROP. 8" WATER LINE  
CROSSING

4+66.66 LINE "A"  
4.0' DIA. SEALED SSMH  
RIM ELEV.=545.95

5+23.24 LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=546.70

5+45.45 LINE "A"  
PROP. 8" WATER LINE  
CROSSING

5+79.83 LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=547.59

6+36.41 LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=548.25

6+92.99 LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=548.50  
1+26.12 LINE "A"  
PROP. STM. SWR. LINE "E"  
CROSSING  
7+33.96 LINE "A"  
PROP. 8" WATER LINE  
CROSSING  
7+49.58 LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=549.00

7+93.14 LINE "A"  
PROP. STM. SWR. LINE "D"  
CROSSING

8+15.96 LINE "A"  
PROP. 8" WATER LINE  
CROSSING

8+80.00 LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=550.87

11+40.00 LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=553.44

11+75.00 END LINE "A"  
CONSTRUCT. STND.  
4.0' DIA. SEALED SSMH  
RIM ELEV.=553.79

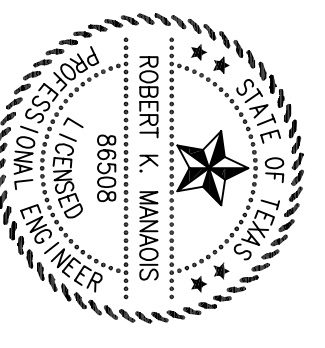
**SANITARY SEWER LINE "B"**

1+00	FL 8" OUT (SE)=536.23 FL 8" IN (NE)=536.50 FL 8" IN (SW)=536.50 FL 6" IN (NW)=536.43 FL 6" IN (NW)=536.43	1+00.00 BEGIN LINE "B" 1+74.45 LINE "A" CONSTRUCT. STND. 5.0' DIA. SEALED SSMH RIM ELEV.=548.00
2+00	FL 537.50	1+79.73 LINE "B" CONSTRUCT. STND. 4.0' DIA. SEALED SSMH RIM ELEV.=548.20
3+00	FL 539.00	
4+00	FL 539.50	
5+00	FL 540.00	
6+00	FL 541.00	
7+00	FL 541.50	
8+00	FL 541.50	
9+00	FL 541.50	
10+00	FL 541.50	
11+00	FL 541.50	
12+00	FL 541.50	

**SANITARY SEWER LINE "A"**

1+00	FL 535.62 FL 8" OUT (SE)=536.23 FL 8" IN (NE)=536.50 FL 8" IN (SW)=536.50 FL 6" IN (NW)=536.43 FL 6" IN (NW)=536.43	FL EXIST. 10" (SW)=±533.64 FL EXIST. 10" (NW)=±5323.71 FL PROP. 10" (N)=534.37 ~TOP PROP. 27" (SW)=±533.87 FL PROP. 8" (NW)=534.86
2+00	FL 536.60	
3+00	FL 537.00	
4+00	FL 537.40	
5+00	FL 537.60	
6+00	FL 538.20	
7+00	FL 538.90	
8+00	FL 539.60	
9+00	FL 539.97	
10+00	FL 540.30	
11+00	FL 540.73	
12+00	FL 540.93	

- NOTES:  
1. CONTRACTOR TO ADJUST PROPOSED  
MANHOLE RIM ELEVATION TO MATCH  
PROPOSED FINISHED GRADE.  
2. ALL SANITARY SEWER MANHOLES  
TO BE SEALED.



**RECORD DRAWING**  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS

**SANITARY SEWER PROFILES**

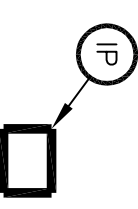

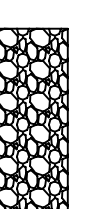
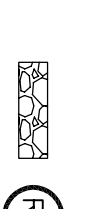
MANSON'S SENIOR  
CITY OF ROCKWALL, TEXAS

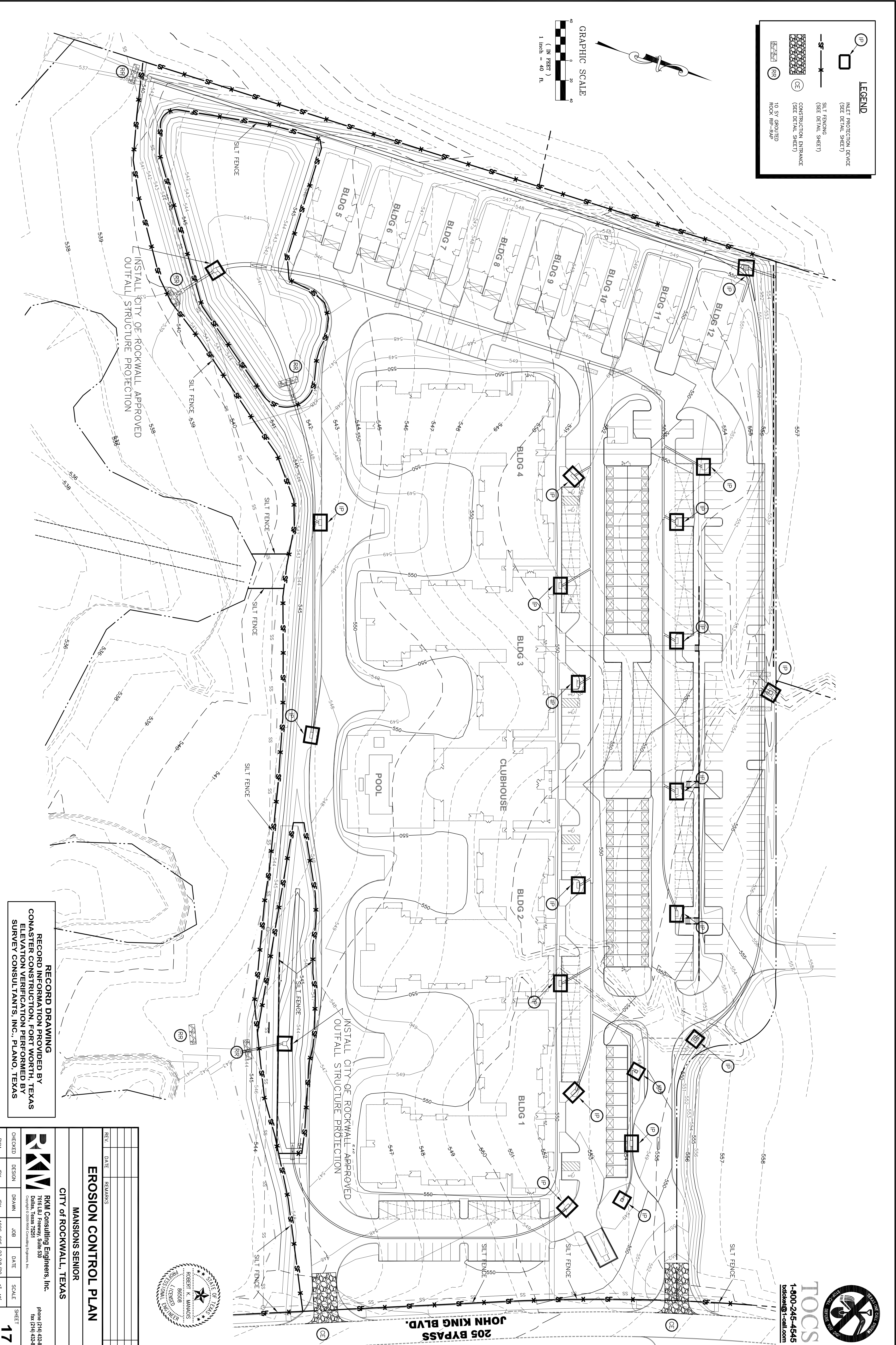
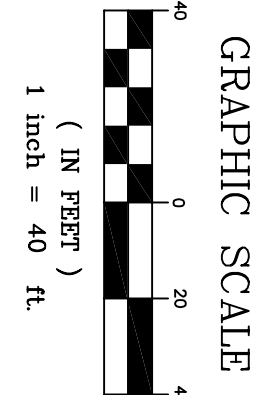
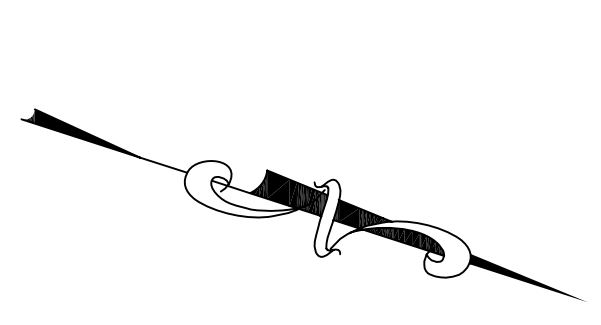
REV.	DATE	REMARKS	BY

**RKM**  
RKM Consulting Engineers, Inc.  
7616 EBI Freeway, Suite 500  
Dallas, Texas 75231  
phone (214) 432-8070  
fax (214) 432-8069

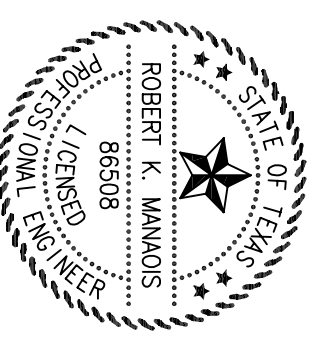
CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	1"=40' (H) 1"=4' (V)	16 of 20

**LEGEND**

-  INLET PROTECTION DEVICE (SEE DETAIL SHEET)
-  SILT FENCE (SEE DETAIL SHEET)
-  CONSTRUCTION ENTRANCE (SEE DETAIL SHEET)
-  10 SY GROUTED ROCK RIP-RAP



**RECORD DRAWING**  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS



**TOCS**  
1-800-245-4545  
tocs@tocs1-call.com

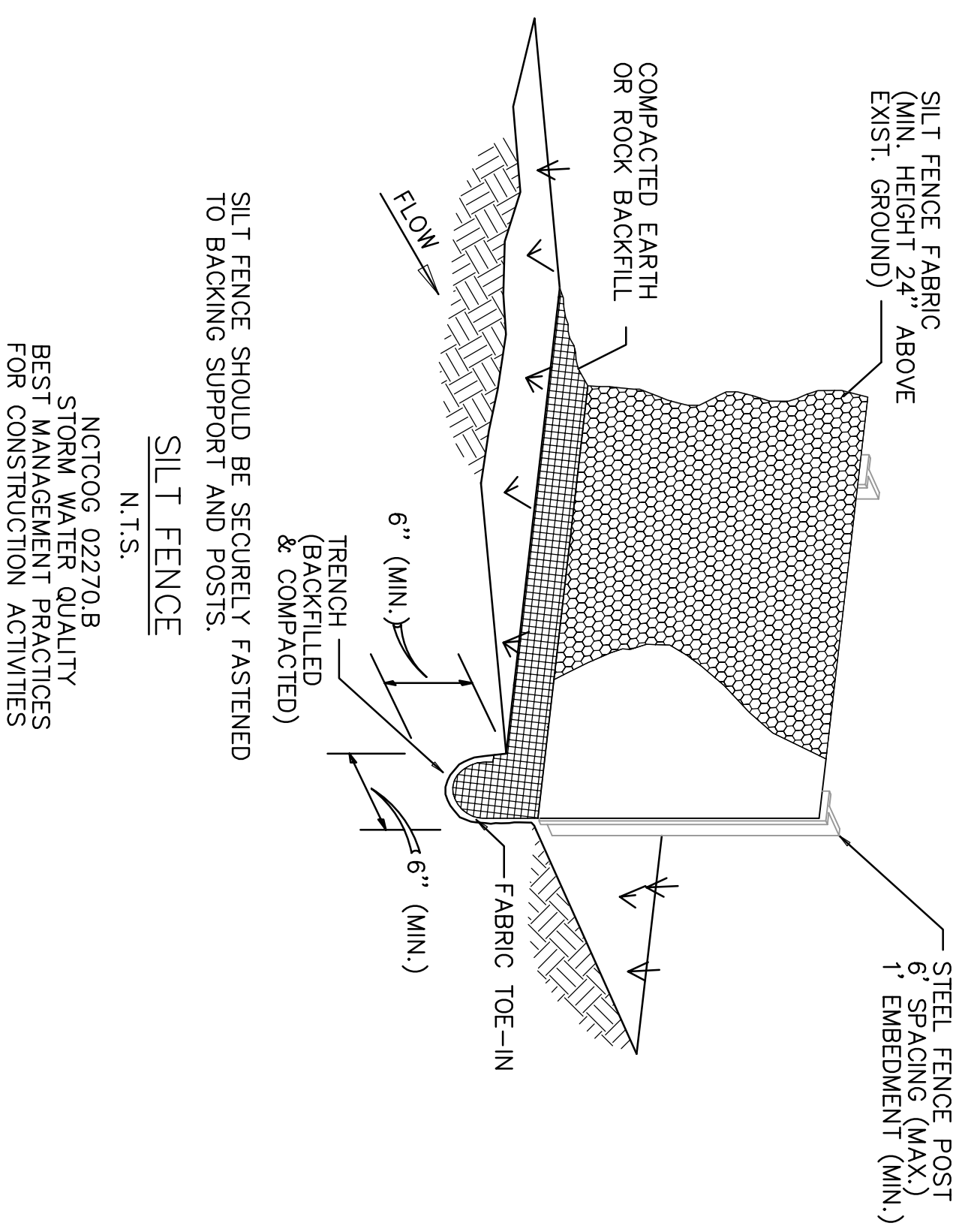
REV.	DATE	REMARKS	BY

**EROSION CONTROL PLAN**

**MANSIONS SENIOR**  
CITY OF ROCKWALL, TEXAS

**RKM Consulting Engineers, Inc.**  
7616 LBJ Freeway, Suite 500  
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CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	1"=40'	<b>17</b> OF 20



1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. FENCED) METAL FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

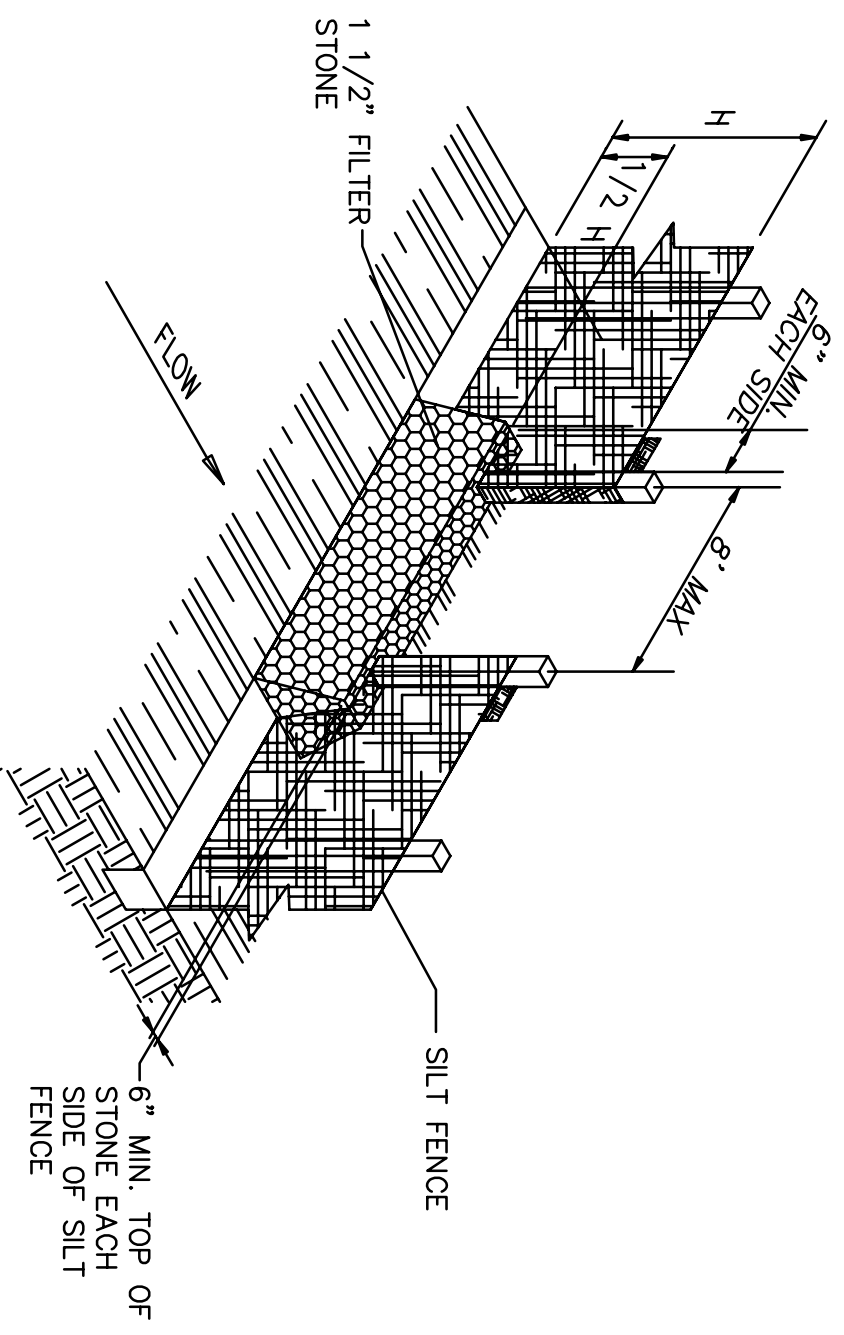
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

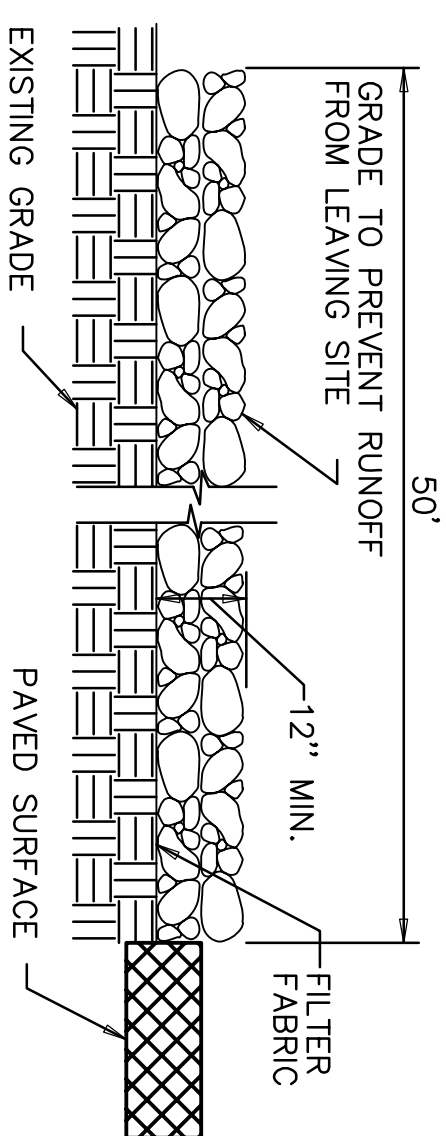
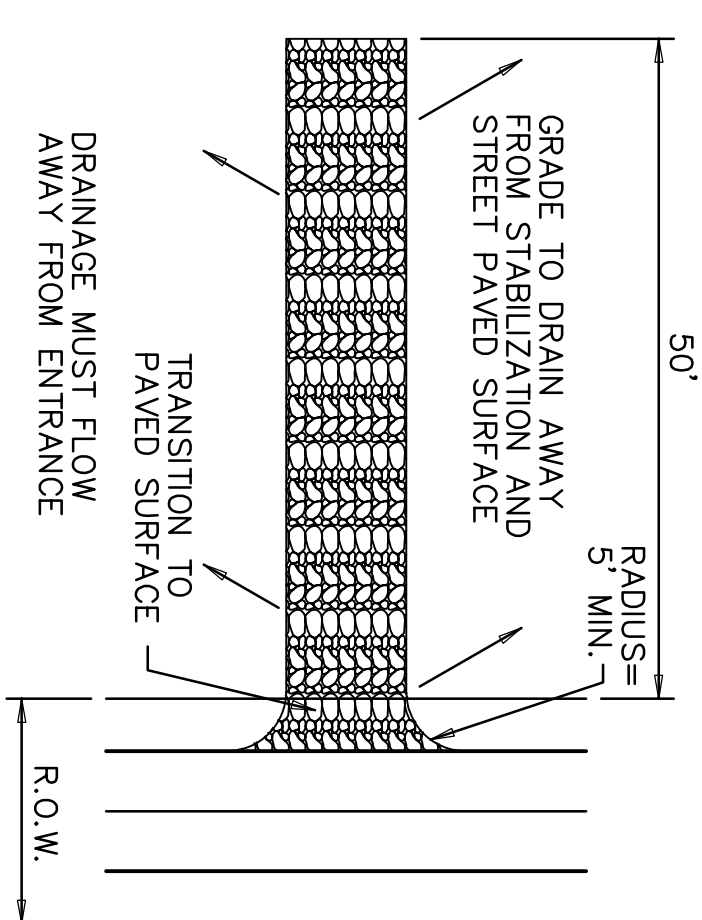
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF IN AN APPROVED MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

NCTCOG 02270.B  
STORM WATER QUALITY  
BEST MANAGEMENT PRACTICES  
FOR CONSTRUCTION ACTIVITIES

SILT FENCE  
N.T.S.



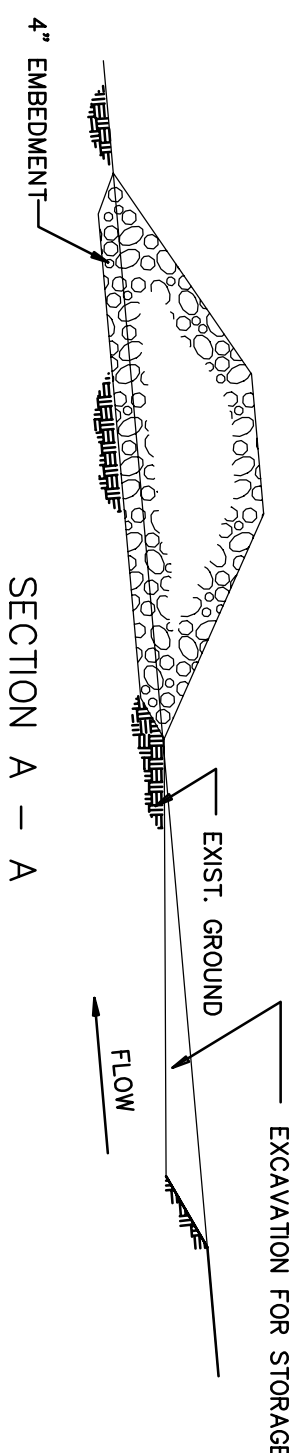
STONE OVERFLOW STRUCTURE  
N.T.S.



STABILIZED CONSTRUCTION  
ENTRANCE / EXIT  
N.T.S.

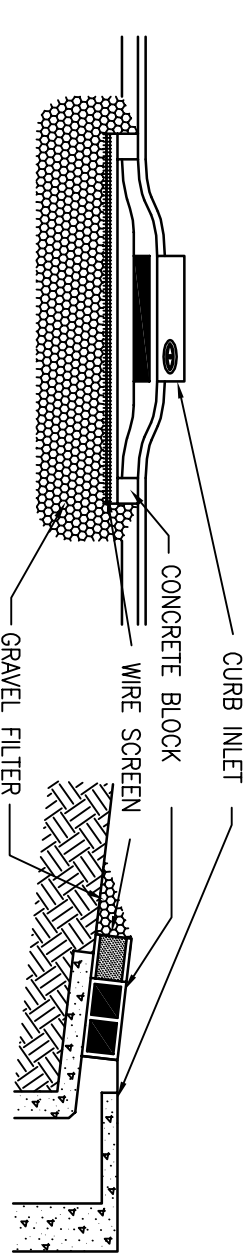
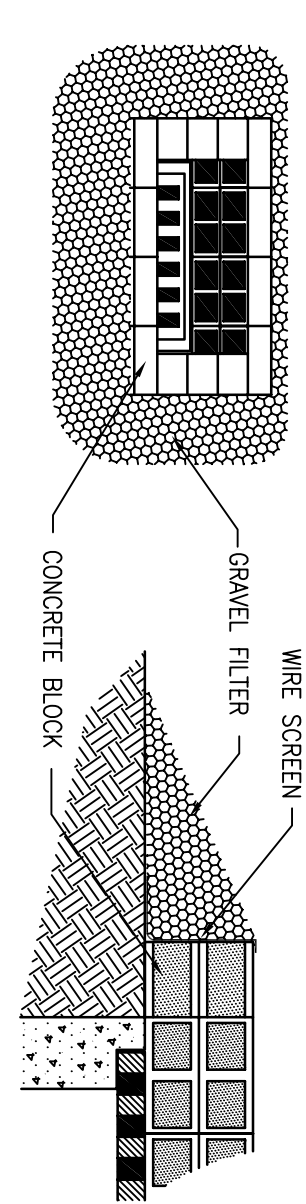
NCTCOG 02270.G  
STORM WATER QUALITY  
BEST MANAGEMENT PRACTICES  
FOR CONSTRUCTION ACTIVITIES

1. STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK NO CRUSHED PORTLAND CEMENT CONCRETE ALLOWED.
2. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 30 FEET FOR LENGTHS LESS THAN 150 FEET. FROM 150 FEET TO 300 FEET, THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET.
3. THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.
4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING AND EXITING ROADWAYS. WASHING EQUIPMENT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SHALL BE WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



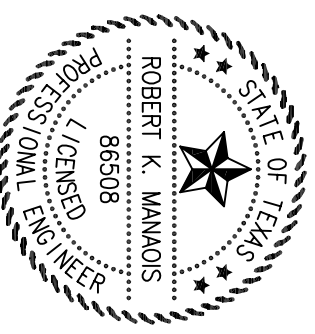
STONE SILTATION STRUCTURE  
N.T.S.

Stone Siltation Structure To Be Installed Prior To Beginning Work On Site.



INLET PROTECTION BLOCK AND GRAVEL  
N.T.S.

RECORD DRAWING  
RECORD INFORMATION PROVIDED BY  
CONASTER CONSTRUCTION, FORT WORTH, TEXAS  
ELEVATION VERIFICATION PERFORMED BY  
SURVEY CONSULTANTS, INC., PLANO, TEXAS



REV.	DATE	REMARKS	BY

**EROSION CONTROL DETAILS**

MANSIONS SENIOR

CITY OF ROCKWALL, TEXAS

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Dallas, Texas 75247  
Phone (214) 432-8070  
Fax (214) 432-8069

CHECKED	DESIGN	DRAWN	JOB	DATE	SCALE	SHEET
RKM	JRY	JRY	1026-005	02/18/09	N/A	18



