

# CONSTRUCTION DRAWINGS

## FOR THE

# EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX

## MORRISTOWN, TENNESSEE

### PROJECT INFORMATION

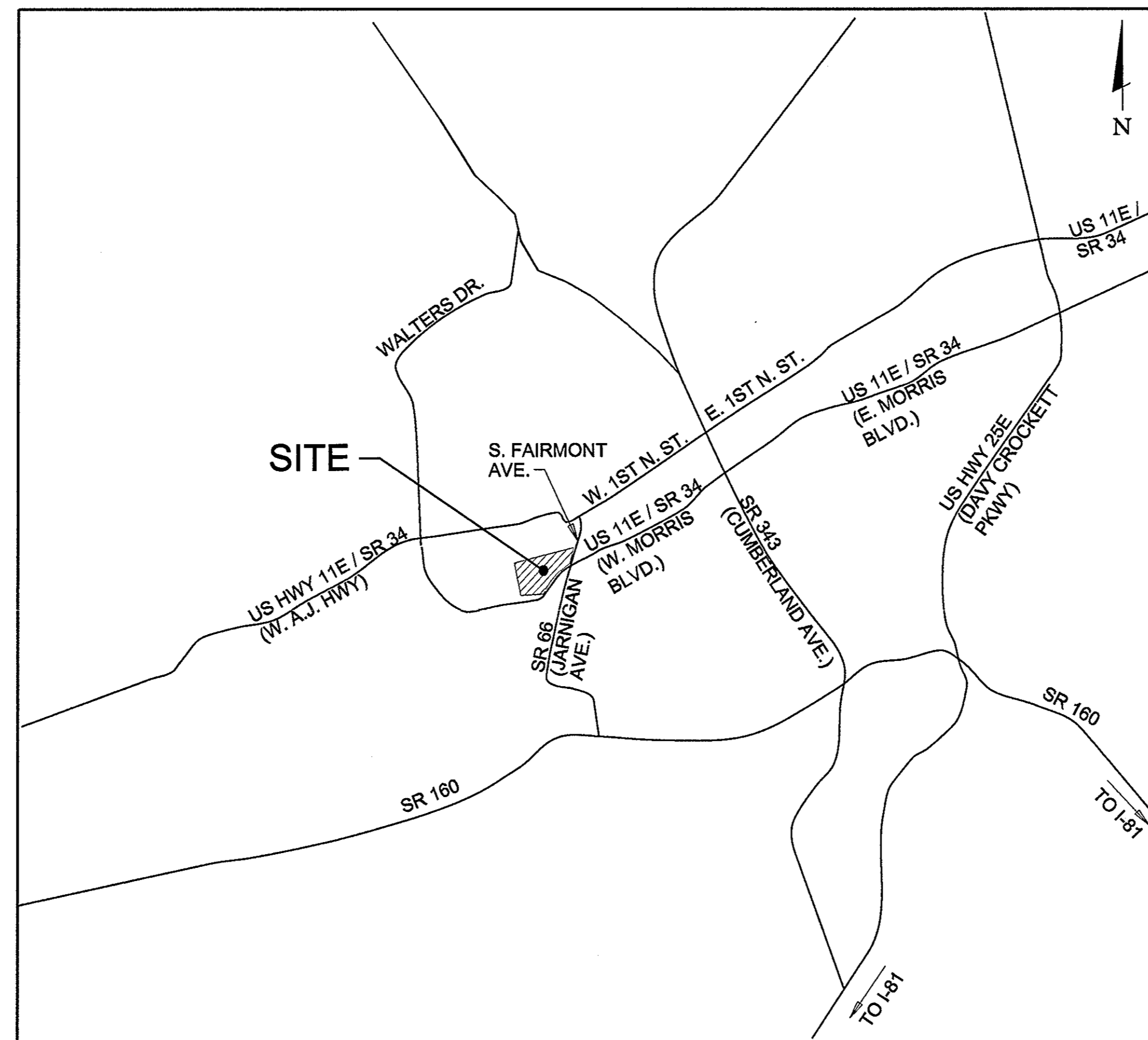
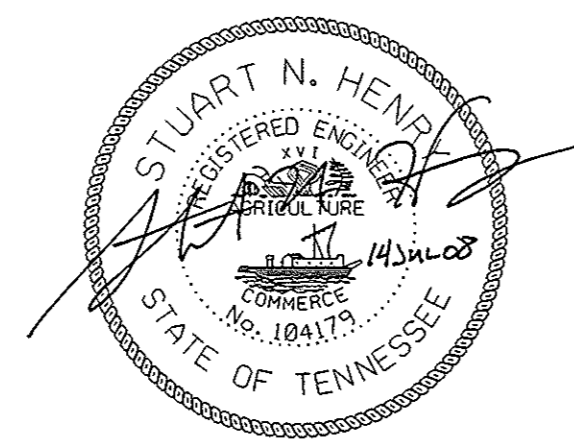
1. TAX MAP 41C, GROUP "C", PARCEL 4, TRACT 1, DB 320 PG 42
  2. SITE SIZE: 32.18 ACRES
  3. ZONING: IB
  4. ELECTRIC/WATER/SEWER: MORRISTOWN UTILITY SYSTEMS  
441 WEST MAIN STREET  
423-588-4121
- TELEPHONE: AT&T/BELLSOUTH  
1-888-757-6500
- CABLE: CHARTER COMMUNICATIONS  
2491 OLD HIGHWAY 25E  
1-800-464-6633
- GAS: ATMOS ENERGY  
1335 WEST ANDREW JOHNSON HIGHWAY  
1-888-824-3434

### OWNER

ED HURLEY  
LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.  
39905 HIGHWAY 194 EAST  
PHELPS, KY 41553  
PHONE: (606) 477-2788

### ENGINEER

BARGE, WAGGONER, SUMNER, & CANNON, INC.  
10133 SHERILL BOULEVARD, SUITE 200  
KNOXVILLE, TENNESSEE 37932  
PHONE: (865) 637-2810  
CONTACT: GREG EIDAM, P.E., PROJECT MANAGER  
STUART N. HENRY, P.E., PROJECT ENGINEER



**LOCATION MAP**

NOT TO SCALE

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EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
MORRISTOWN, TENNESSEE

BWSC

**BARGE  
WAGGONER  
SUMNER &  
CANNON, INC.**

ENGINEERS ARCHITECTS PLANNERS  
LANDSCAPE ARCHITECTS AND SURVEYORS

10133 Sherrill Blvd., Suite 200, Knoxville, Tennessee 37932  
PHONE (865) 637-2810 FAX (865) 673-8554



**GRADING & DRAINAGE NOTES**

1. COMPLY WITH TENNESSEE PUBLIC WORKS CONSTRUCTION STANDARDS FOR MORRISTOWN, TENNESSEE FOR ALL GRADING AND DRAINAGE APPURTENANCES SHOWN ON DRAWINGS.
2. ALL EXCAVATION IS UNCLASSIFIED WITHOUT REGARD TO MATERIALS ENCOUNTERED. CONTRACTOR SHALL VISIT SITE AND DRAW HIS OWN CONCLUSIONS ON CONDITIONS TO BE ENCOUNTERED. LINE AND GRADES SHOWN SHALL BE ACHIEVED WITHOUT ADDITIONAL COMPENSATION.
3. PROPOSED CONTOURS SHOWN ON DRAWINGS REPRESENT FINISH GRADE ELEVATION. PROPER ADJUSTMENT SHOULD BE MADE BY CONTRACTOR FOR SUBGRADE.
4. PROOFROLL ALL AREAS TO RECEIVE FILL. PERFORM PROOF ROLLING WITH A FULLY LOADED 8 TO 10 TON TANDEM AXLE DUMP TRUCK AT 2 TO 3 M.P.H. FOR A MINIMUM OF FOUR PASSES. UNDERCUT AREAS THAT DEFLECT MORE THAN 1 INCH OR EXHIBIT WEAK SOIL OR OTHERWISE UNSUITABLE CONDITIONS TO A FIRM LEVEL OF SOIL FOLLOWED BY BACK FILLING UNDERCUT AREAS USING AN ENGINEERED FILL.
5. EXISTING ELEVATIONS, CONTOURS, AND BENCHMARKS SHOWN ON PLANS ARE BASED ON MEAN SEA LEVEL DATUM.
6. PLACE ALL FILL MATERIAL IN 8" LIFTS AND COMPACT TO A MINIMUM 98% STANDARD DENSITY AS DETERMINED BY AASHTO T-99(STANDARD PROCTOR).
7. SHAPE AND SLOPE ALL DITCHES ACCORDING TO TYPICAL SECTION AND/OR GRADING PLAN. GRADE ALL DRAINAGE DITCHES AND SWALES TO HAVE A MINIMUM 2% LONGITUDINAL GRADE UNLESS SPECIFIED OTHERWISE.
8. PLACE OUTLET PROTECTION ON ALL SPILLWAYS AND PIPE OUTLETS. OUTLET PROTECTION TO BE TDOT CLASS A-1 RIP RAP PLACED 18" THICK MIN. INSTALL NON-WOVEN GEOTEXTILE FABRIC BETWEEN SOIL SUBGRADE AND RIP RAP.

**EROSION & SEDIMENT CONTROL NOTES**

1. PROVIDE AND MAINTAIN EROSION CONTROL AS NECESSARY TO MEET REQUIREMENTS OF TENNESSEE PUBLIC WORKS CONSTRUCTION STANDARDS FOR MORRISTOWN, TENNESSEE AND THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK. LATEST EDITION (EROSION & SEDIMENT CONTROL HANDBOOK IS AVAILABLE AT LOCAL TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION OFFICE, OR TENNESSEE.GOV/ENVIRONMENT/WPC/SED\_EROSION\_CONTROL/HANDBOOK).
2. KEEP CLEARING AND GRUBBING TO MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION.
3. STAGE CONSTRUCTION IN PHASES AS NECESSARY TO MINIMIZE CLEARED SURFACE AREA EXPOSURE TIME.
4. EROSION CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN. PROPERLY CONSTRUCT AND MAINTAIN EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION PERIOD. EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON DRAWINGS ARE MINIMUM REQUIRED. PROVIDE ADDITIONAL EROSION CONTROL APPURTENANCES AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS OR AS CONDITIONS REQUIRE.
5. CHECK EROSION CONTROL MEASURES WEEKLY. CHECK DAILY DURING PROLONGED RAINFALL. REPAIR OR REPLACE AS REQUIRED.
6. PRESERVE VEGETATIVE GROUND COVER UNLESS GRADE WORK IS TO BEGIN WITHIN 15 DAYS.
7. APPLY TEMPORARY SOIL STABILIZATION WITH APPROPRIATE ANNUAL VEGETATION ON AREAS REMAINING UNFINISHED MORE THAN 7 CALENDAR DAYS.
8. INSTALL STAKED AND ENTRENCHED SEDIMENTATION BARRIER ON CONTOUR, AT BASE OF ALL FILLS, CUTS, AND STOCKPILES TO MINIMIZE SEDIMENT TRANSPORT. TURN ENDS OF SILT FENCING UP HILL TO POND SURFACE WATER. REPLACE OR REPAIR SILT FENCE AT END OF WORK DAY OR PRIOR TO RAIN EVENT.
9. DIVERT ALL SURFACE WATER AWAY FROM CONSTRUCTION USING DIKES OR BERMS TO REDUCE EROSION POTENTIAL.
10. USE ONLY CLEAN, HARD ROCK CONTAINING NO SAND, DUST, OR ORGANIC MATERIAL.
11. WATER AREAS SUBJECT TO DUST FORMATION TO RETARD DUST AND PREVENT WIND EROSION, INCLUDE COST FOR DUST CONTROL WITHIN BID PRICE FOR EROSION AND SEDIMENT CONTROL.
12. TOPSOIL, SEED, FERTILIZE, AND MULCH ALL NEWLY GRADED AREAS WITHIN 7 DAYS AFTER GRADING ENDS. INSTALL TDOT TYPE II EXCEL SIOR EROSION CONTROL MATTING AFTER FINAL SEEDING ON SLOPES 3:1 OR STEEPER AND SWALES/FLOW LINES NOT SPECIFIED FOR HEAVIER MATTING.
13. EROSION CONTROL MATTING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND AS APPROPRIATE FOR TYPE OF APPLICATION (I.E. DITCH OR SLOPE PROTECTION).
14. DO NOT SEED DURING RAINFALL EVENTS OR WHEN HEAVY RAIN IS EXPECTED. DO NOT SEED DURING WINDY WEATHER OR WHEN GROUND SURFACE IS FROZEN, WET, OR OTHERWISE UNSUITABLE. DO NOT PERFORM PERMANENT SEEDING DURING DECEMBER AND JANUARY. TEMPORARY SEEDING MAY BE PERFORMED DURING WINTER MONTHS WITH EXPECTATIONS THAT ADDITIONAL SEEDING IS REQUIRED IN SPRING.
15. PLACE MINIMUM 4" OF TOPSOIL AND SEED ALL NEWLY GRADED EARTHEN AREAS. APPLY KENTUCKY 31 FESCUE AT A RATE OF 7 LBS. PER 1000 S.F. AND ANNUAL RYE AT A RATE OF 3 LBS. PER 1000 S.F. BETWEEN MARCH AND OCTOBER.

**SITE UTILITY NOTES**

1. CONSTRUCTION OF ALL SANITARY SEWER, WATER MAIN, AND RELATED APPURTENANCES SHALL BE IN STRICT ACCORDANCE WITH THE TENNESSEE PUBLIC WORKS CONSTRUCTION STANDARDS FOR MORRISTOWN, TENNESSEE UNLESS OTHERWISE SHOWN ON DRAWINGS.
2. LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. DETERMINE EXACT LOCATIONS IN THE FIELD PRIOR TO BEGINNING WORK. GENERAL LOCATION OF ALL KNOWN UTILITIES ARE SHOWN OR IDENTIFIED HEREIN AND REFLECT OWNER'S BEST RECORDS AND ON SITE INVESTIGATION. THE OWNER MAKES NO EXPRESSED OR IMPLIED GUARANTEE OF ACCURACY OR THAT OTHER UTILITIES ARE NOT LOCATED IN CONSTRUCTION VICINITY.
3. PRIOR TO COMMENCING WORK, CONTACT UTILITY OWNERS TO NOTIFY THEM OF WORK IN THE AREA AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY. GIVE NOTIFICATION AT LEAST THREE BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND UTILITY.
4. COOPERATE WITH EACH UTILITY COMPANY IN PROTECTION OF THEIR RESPECTIVE APPURTENANCES.
5. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT.
6. INSTALL STONE BEDDING AND BACKFILL IN STRICT ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS.
7. PIPE LENGTHS AND SLOPES ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
8. CLEANOUTS SHALL BE SAME SIZE AS LATERAL LINES.
9. SITE GRADES SHALL BE WITHIN 6" OF FINISHED GRADE PRIOR TO CONSTRUCTION OF WATER LINE.
10. BACKFILL PROPOSED UTILITIES IN PAVED AREAS WITH COMPACTED CRUSHED STONE UNLESS OTHERWISE DIRECTED BY ENGINEER.
11. BACKFLOW DEVICES WILL BE INSTALLED ACCORDING TO CITY OF MORRISTOWN REQUIREMENTS.
12. ALL SANITARY SEWER MANHOLES SHALL BE 4.0' DIA. MINIMUM. ACTUAL DIAMETERS SHALL BE DETERMINED BY CONTRACTOR BASED ON PIPE SIZES, NUMBER OF PIPES, AND ENTRY ANGLES.
13. SLOPE BASIS AND PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR ESTIMATING PURPOSES ONLY.
14. TOP OF CASTING ELEVATIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. ALL CASTINGS SHALL BE FIELD ADJUSTED TO MATCH FINAL GRADES.

**SITE LAYOUT NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DIMENSIONAL LAYOUT SURVEYING.
2. COORDINATES SHOWN ARE DATUM ADJUSTED NAD83 (1995) TENNESSEE STATE PLANE WITH A D.A. FACTOR OF 1.0009148. ELEVATIONS ARE NAVD1988. BOTH HORIZONTAL AND VERTICAL DATUM WERE ESTABLISHED FROM TDOT MONUMENTS 92-86-70 AND 92-85-71.
3. VERIFY LOCATION OF PROPOSED SIDEWALKS AND ENTRANCES WITH OWNER AND ADJUST IN FIELD TO MINIMIZE DISTURBED AREAS AND AVOID CONFLICTS. WALKS AND RAMPS SHALL MEET ALL ADA LATEST REVISION REQUIREMENTS.

**GENERAL NOTES**

1. KEEP SITE NEAT AND CLEAN AT ALL TIMES.
2. CONTINUOUSLY REMOVE DEBRIS AND LEGALLY DISPOSE OF UNSUITABLE MATERIAL. BURNING OF MATERIALS ON SITE IS PROHIBITED.
3. COMPLY WITH ALL PERTINENT FEDERAL, STATE, AND LOCAL REQUIREMENTS INCLUDING PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY THE ASSOCIATION OF GENERAL CONTRACTORS OF AMERICA, INC. AND THE U.S. DEPARTMENT OF LABOR.
4. CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. TRAFFIC CONTROL SHALL CONFORM TO FEDERAL HIGHWAY ADMINISTRATIONS "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICE FOR STREET AND HIGHWAY CONSTRUCTION".
5. NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC ALONG PROPOSED CONSTRUCTION AREA.
6. ALL WORK SHALL BE CONSTRUCTED PER CURRENT CITY OF MORRISTOWN CONSTRUCTION SPECIFICATIONS.

**EXISTING LEGEND**

- IRN IRON ROD (NEW)
- IP0 IRON ROD (OLD)
- SN SIGN
- POST POST
- BH BORE HOLE
- MON WELL MONITORING WELL
- TREE TREE
- FH FIRE HYDRANT
- WV WATER VALVE
- WM WATER METER
- PIV POST INDICATOR VALVE
- GM GAS METER
- PPLP POWER/LIGHT POLE
- PP POWER POLE
- LP LIGHT POLE
- GP GUY POLE
- TLP TELEPHONE PEDESTAL
- CO CLEANOUT
- AREA DRAIN AREA DRAIN
- CATCH BASIN CATCH BASIN
- (S4) SANITARY SEWER MANHOLE
- (S7) STORM SEWER MANHOLE
- (T) TELEPHONE MANHOLE
- EDGE OF WATER EDGE OF WATER
- DITCH LINE DITCH LINE
- RAILROAD TRACKS RAILROAD TRACKS
- SA SANITARY SEWER LINE
- G GAS LINE
- OHP OVERHEAD POWER LINE

**PROPOSED LEGEND**

- CONCRETE CURB & GUTTER
- PROPERTY LINE O.W.
- EDGE OF PAVEMENT
- BUILDING SETBACK
- SIDEWALK
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- WATERLINE VALVE
- 2' BLOW-OFF
- FIRE HYDRANT ASSEMBLY
- SANITARY SEWER
- SANITARY MANHOLE
- STORM SEWER
- FUTURE STORM SEWER
- STORM MANHOLE
- CATCH BASIN (CURB TYPE)
- AREA DRAIN
- HEADWALL
- ASPHALT ROADWAY
- ROCK FILL AREA

**EROSION CONTROL LEGEND**

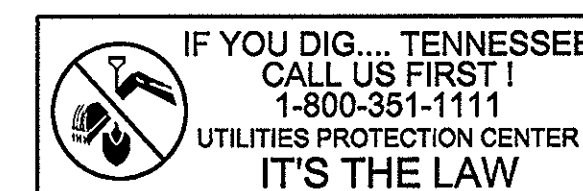
- \* SF \* SF \* SF SILT FENCE
- INLET PROTECTION
- TEMPORARY EROSION CONTROL MATTING
- CONSTRUCTION ENTRANCE
- OUTLET PROTECTION

**BWSC**  
 BERGE WAGNER & SUMNER & CANNON, INC.  
 ENGINEERS ARCHITECTS PLANNERS  
 LANDSCAPE ARCHITECTS AND SURVEYORS  
 1010 SPANGLER ROAD, SUITE 200, MORRISTOWN, TN 37132  
 PHONE: (615) 537-2200 FAX: (615) 537-9550



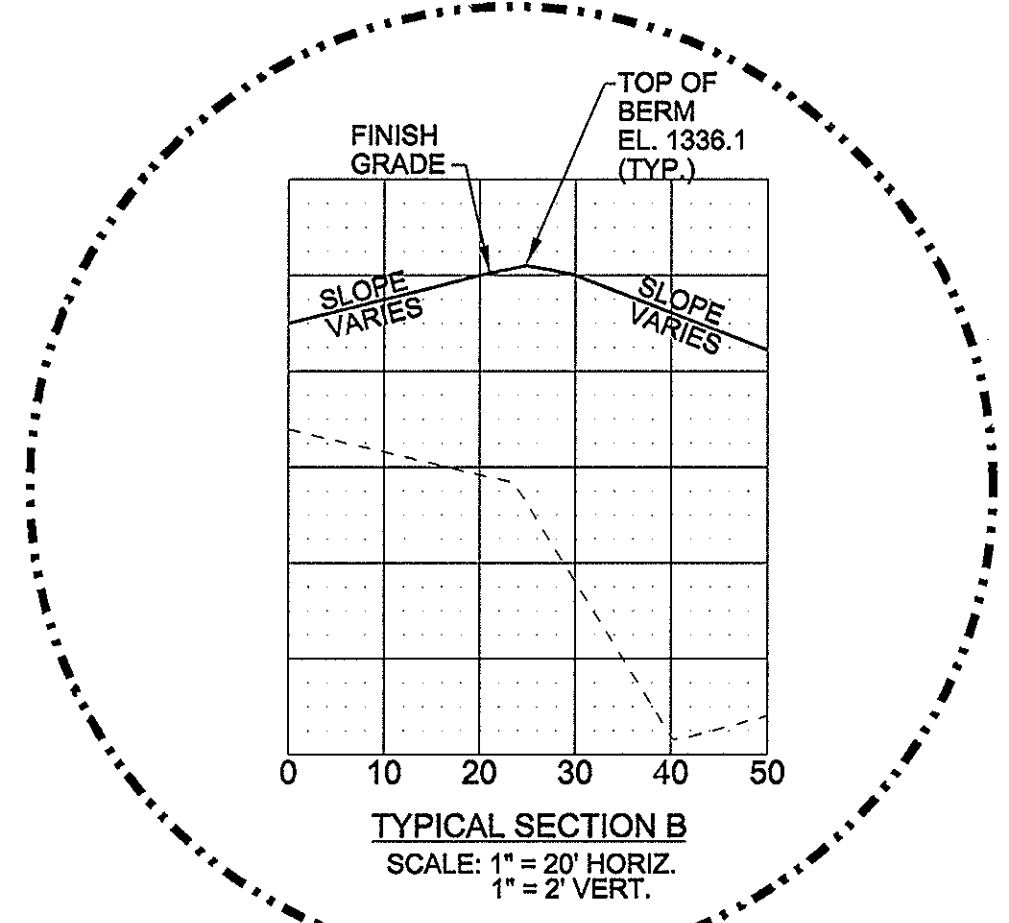
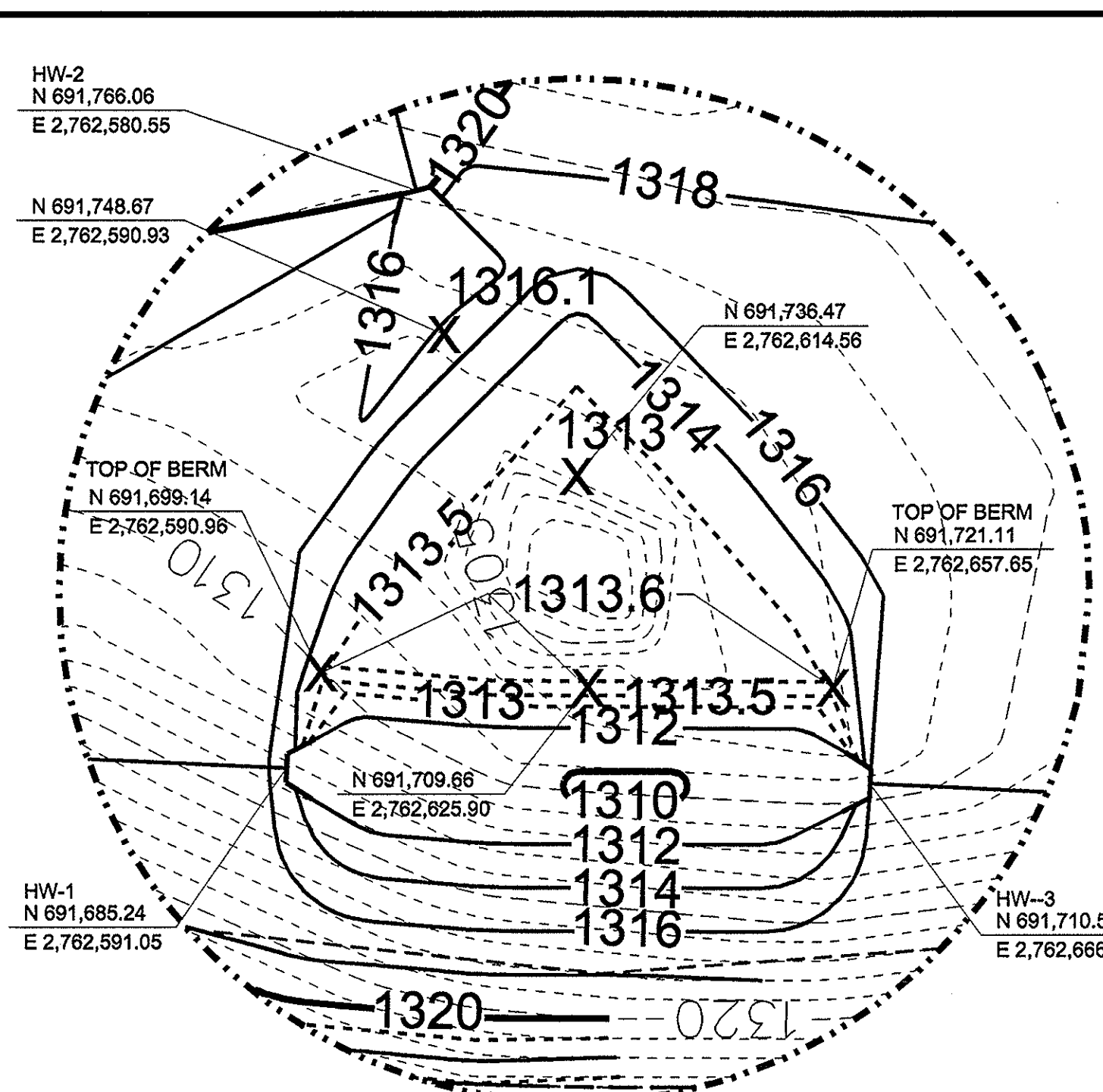
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE  
 EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX  
 GENERAL NOTES AND LEGENDS

DR.	CHK.	DATE	DESCRIPTION
MDH	GMW	02/12/08	ISSUED FOR PERMITTING AND CITY REVIEW
MDH	GRE	04/15/08	RE-ISSUED FOR PERMITTING
MDH	SAH	07/14/08	ISSUED FOR TDOT REVIEW



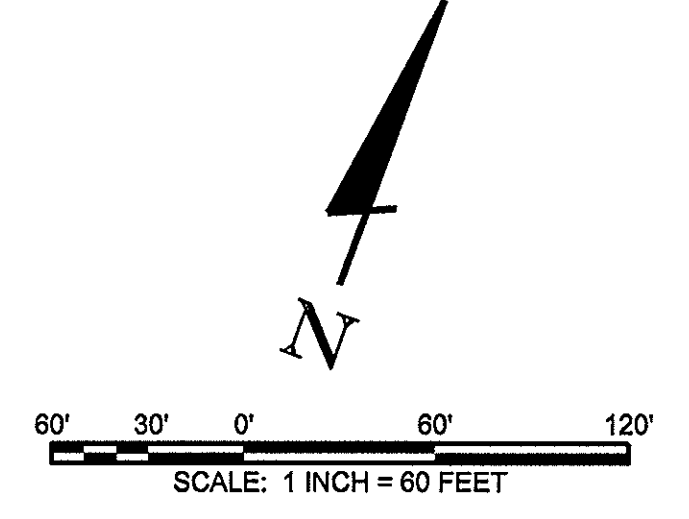
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 FILE NO. 33211-00



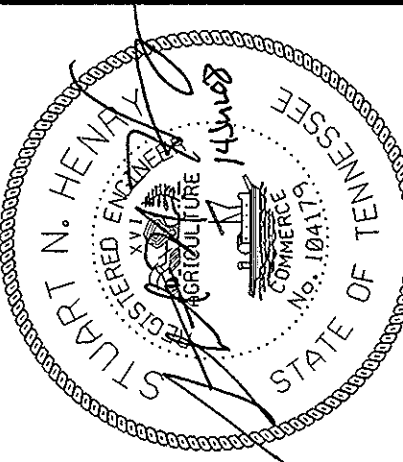


**TYPICAL SECTION A**  
SCALE: 1" = 20' HORIZ.  
1" = 2' VERT.

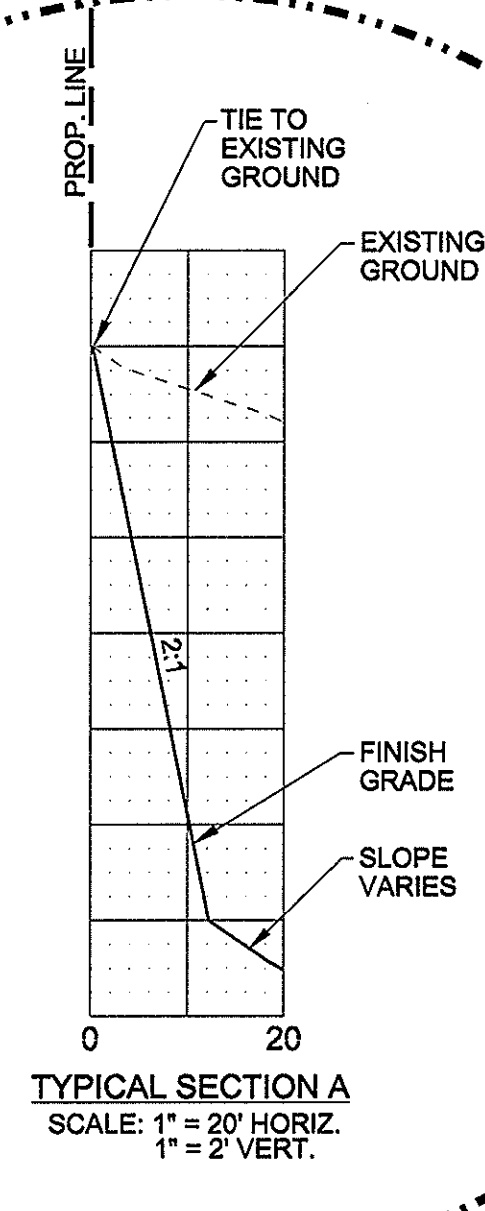
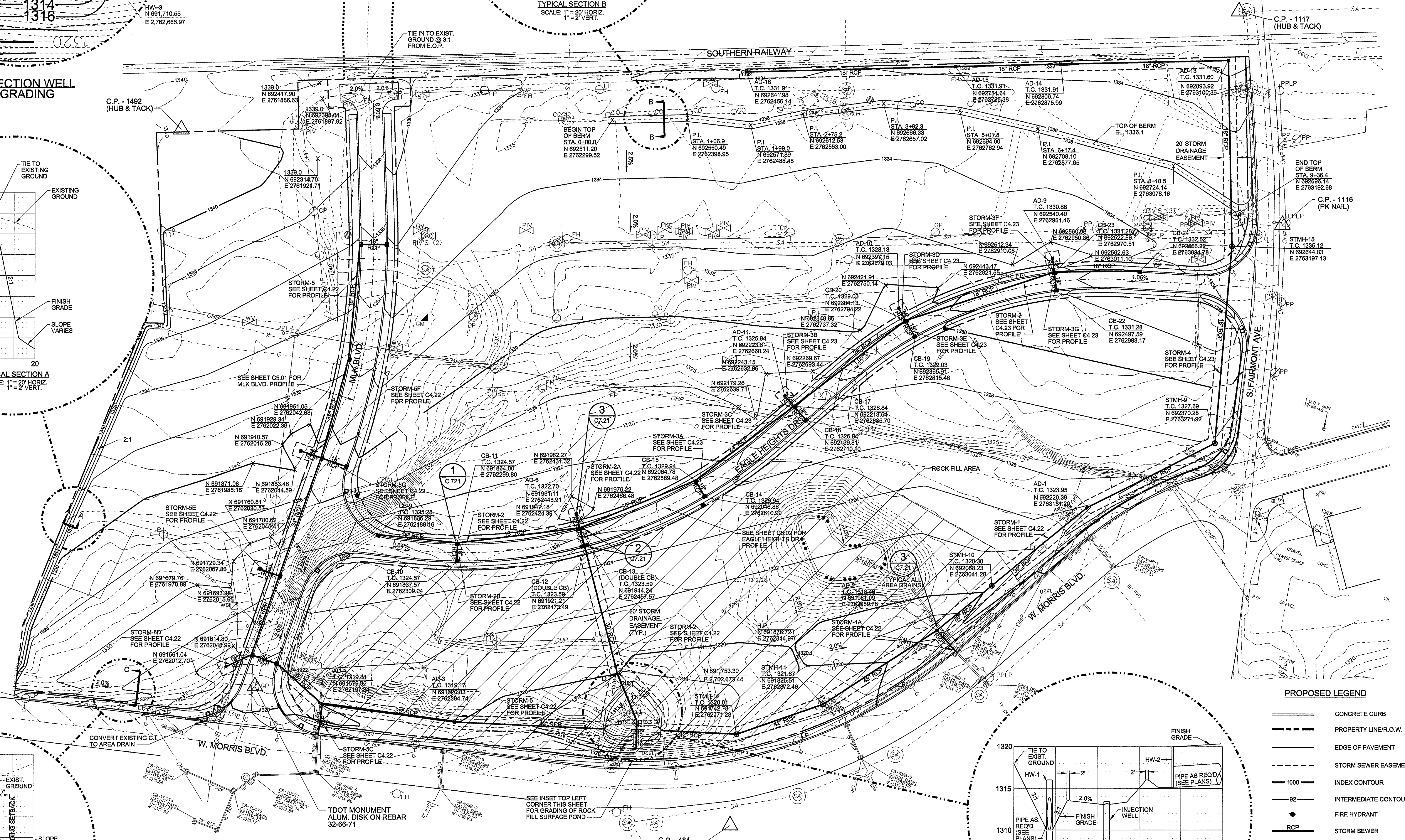
**TYPICAL SECTION B**  
SCALE: 1" = 20' HORIZ.  
1" = 2' VERT.



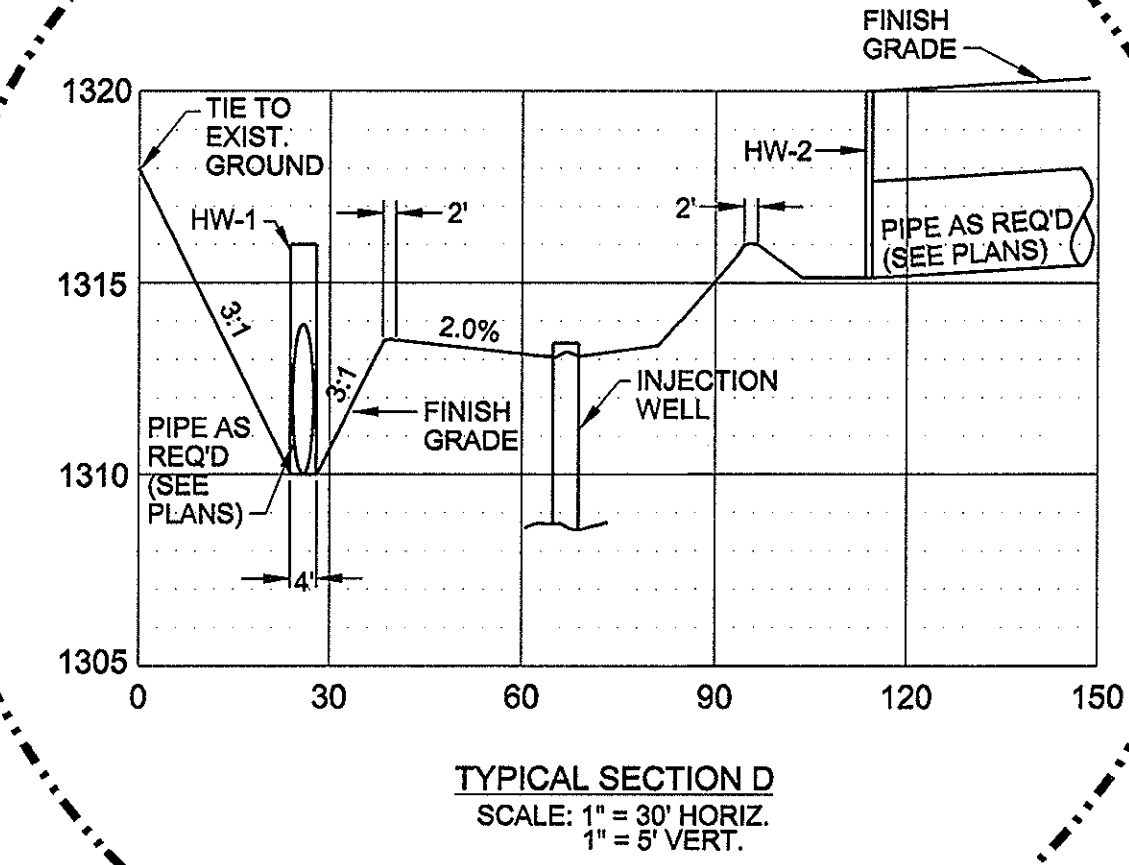
**BWSC**  
BARGE WAGGONER SUMNER & CANNON, INC.  
ENGINEERS ARCHITECTS PLANNERS  
LANDSCAPE ARCHITECTS AND SURVEYORS  
9555 PINE BLVD. SUITE 100  
MEMPHIS, TN 38125



**GRADING & DRAINAGE PLAN**  
EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
MORRISTOWN, TENNESSEE



**TYPICAL SECTION C**  
SCALE: 1" = 20' HORIZ.  
1" = 2' VERT.



**TYPICAL SECTION D**  
SCALE: 1" = 30' HORIZ.  
1" = 3' VERT.

**PROPOSED LEGEND**

—	CONCRETE CURB
- - -	PROPERTY LINE/R.O.W.
—	EDGE OF PAVEMENT
- - -	STORM SEWER EASEMENT
—	INDEX CONTOUR
- - -	INTERMEDIATE CONTOUR
—	FIRE HYDRANT
—	STORM SEWER
—	STORM MANHOLE
—	CATCH BASIN (CURB TYPE)
—	AREA DRAIN
—	ROCK FILL AREA

**CONTROL POINT TABLE**

CONTROL POINT	NORTHING	EASTING	ELEVATION
C.P. 484	691816.4117	2762807.7293	1337.01
C.P. 1116	692698.3631	2763254.3074	1337.32
C.P. 1117	692965.3435	2763090.0856	1332.74
C.P. 1492	692287.5296	2761723.6512	1340.50
TDOT 32-66-71	691571.2999	2762097.9933	1322.07

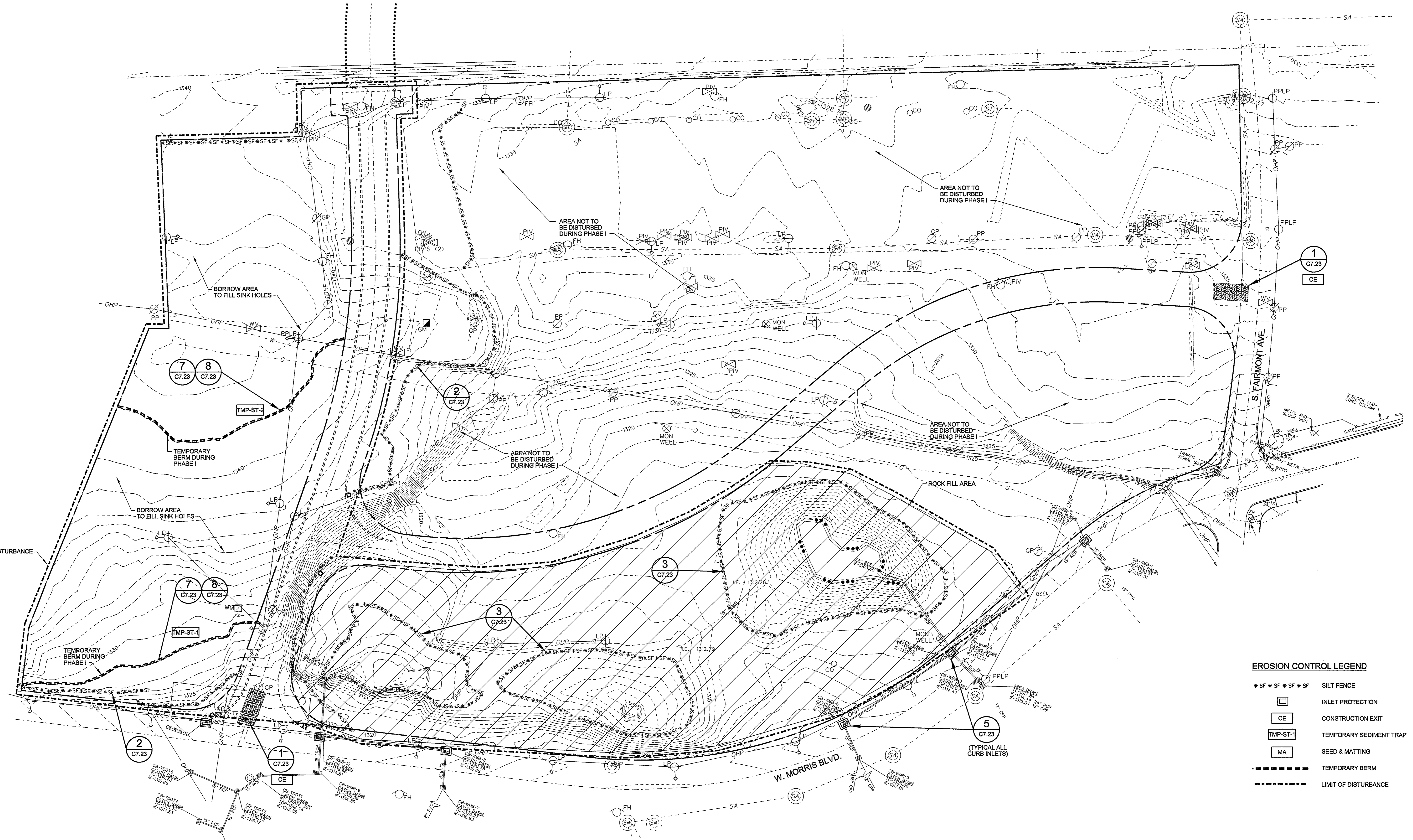
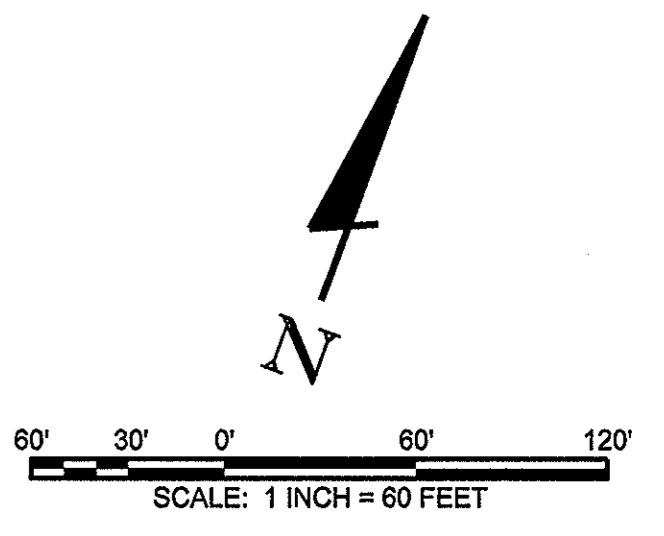
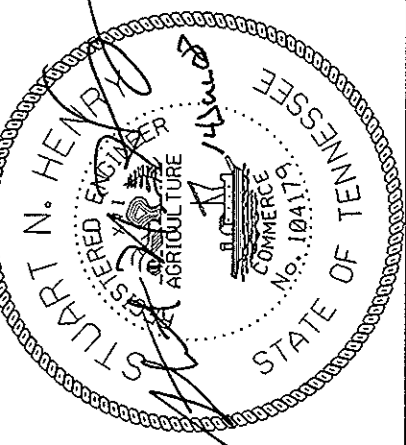
**INJECTION WELL NOTE:**  
INJECTION WELL LOCATION AND DESIGN TO BE DETERMINED BY GEOTECHNICAL ENGINEER BASED ON ACTUAL FIELD CONDITIONS FOUND AFTER REMOVAL OF UNSUITABLE MATERIALS.

NOTES: 1. FOR STRUCTURE STAKE OUT INFORMATION, SEE TYPICAL DETAILS.  
2. TOP OF CASTING ELEVATIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. ALL CASTING SHALL INCLUDE ADJUSTMENT PROVISIONS AS SHOWN IN DETAILS ON SHEET C7.21 AND SHALL BE FIELD ADJUSTED TO MATCH FINAL GRADES.

IF YOU DIG... TENNESSEE  
CALL US FIRST!  
1-800-351-1111  
UTILITIES PROTECTION CENTER  
IT'S THE LAW

**C2.01**  
FILE NO. 33211-00

7/15/2008  
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MORRISTOWN, TN  
BWS



**EROSION CONTROL LEGEND**

- SF • SF • SF • SF SILT FENCE
- [Symbol] INLET PROTECTION
- [Symbol] CONSTRUCTION EXIT
- [Symbol] TMP-ST-1 TEMPORARY SEDIMENT TRAP
- [Symbol] MA SEED & MATTING
- TEMPORARY BERM
- LIMIT OF DISTURBANCE

**NOTES:**

- CUT AND FILL OPERATIONS MAY NOT COMMENCE UNTIL INJECTION WELL IS OPERATIONAL TO REDUCE THE FLOODING POTENTIAL ON WEST MORRIS BOULEVARD.
- TEMPORARY BERMS SHALL BE MAINTAINED WITH MINIMUM VOLUME AND AREAS SHOWN DURING ALL CONSTRUCTION ACTIVITIES. BERMS SHALL BE RAISED OR LOWERED AS REQUIRED TO MATCH CUT AND FILL OPERATIONS.

**SEDIMENT TRAP TABLE (5-YEAR RAINFALL EVENT)**

SED. TRAP	REQ'D MIN. VOL. (FT <sup>3</sup> )	AREA OF TRAP @ CREST (S.F.)	DIMS. OF TRAP @ CREST (FT.)	BERM HEIGHT (FT.)	WEIR LENGTH (FT.)
TMP-ST-1	16211	7945	400'x20'	3.0	14
TMP-ST-2	26840	9945	400'x25'	3.0	22

**EROSION CONTROL PLAN - PHASE I**

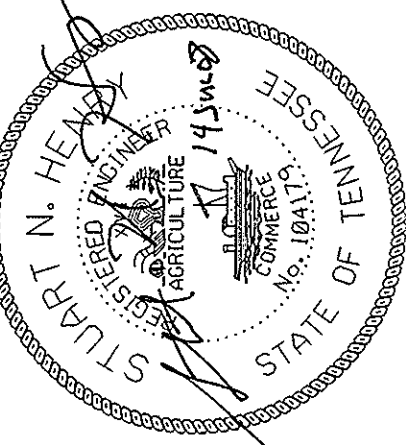
**EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX  
 LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE

DR.	CHK.	DATE	DESCRIPTION
MOR	OWJ	02/22/08	ISSUED FOR PERMITTING AND CITY REVIEW
MOR	ORE	04/18/08	RE-ISSUED FOR PERMITTING
MOR	MSH	07/14/08	ISSUED FOR TDD REVIEW

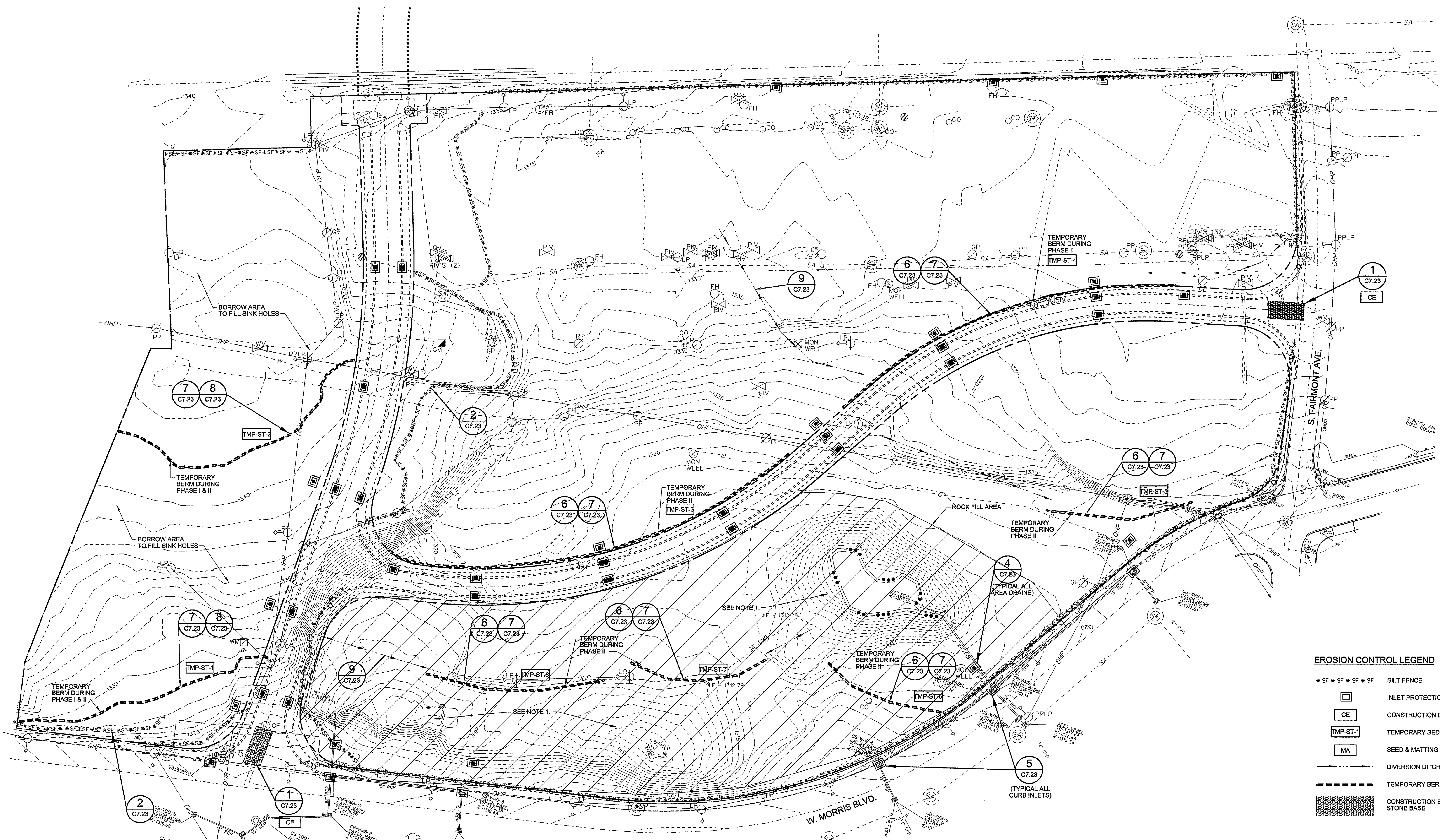
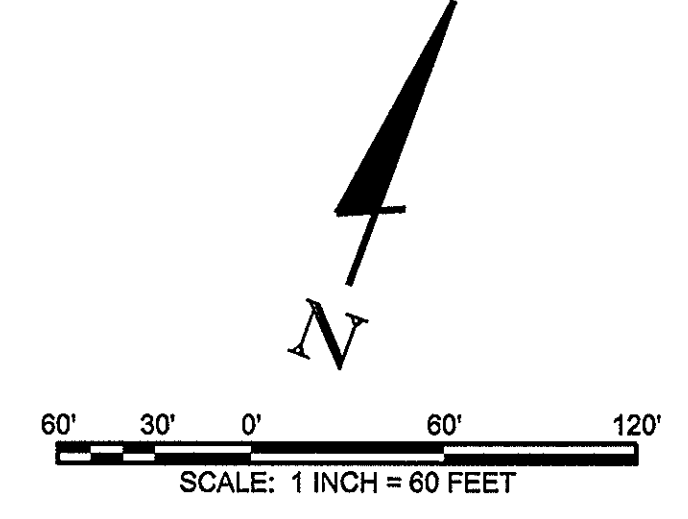


**C2.31**

FILE NO. 33211-00



**EROSION CONTROL PLAN - PHASE II**  
**EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX**  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE



**EROSION CONTROL LEGEND**

- \* SF \* SF \* SF \* SF SILT FENCE
- INLET PROTECTION
- CE CONSTRUCTION EXIT
- TMP-ST-1 TEMPORARY SEDIMENT TRAP
- MA SEED & MATTING
- DIVERSION DITCH
- - - TEMPORARY BERM
- CONSTRUCTION EXIT STONE BASE

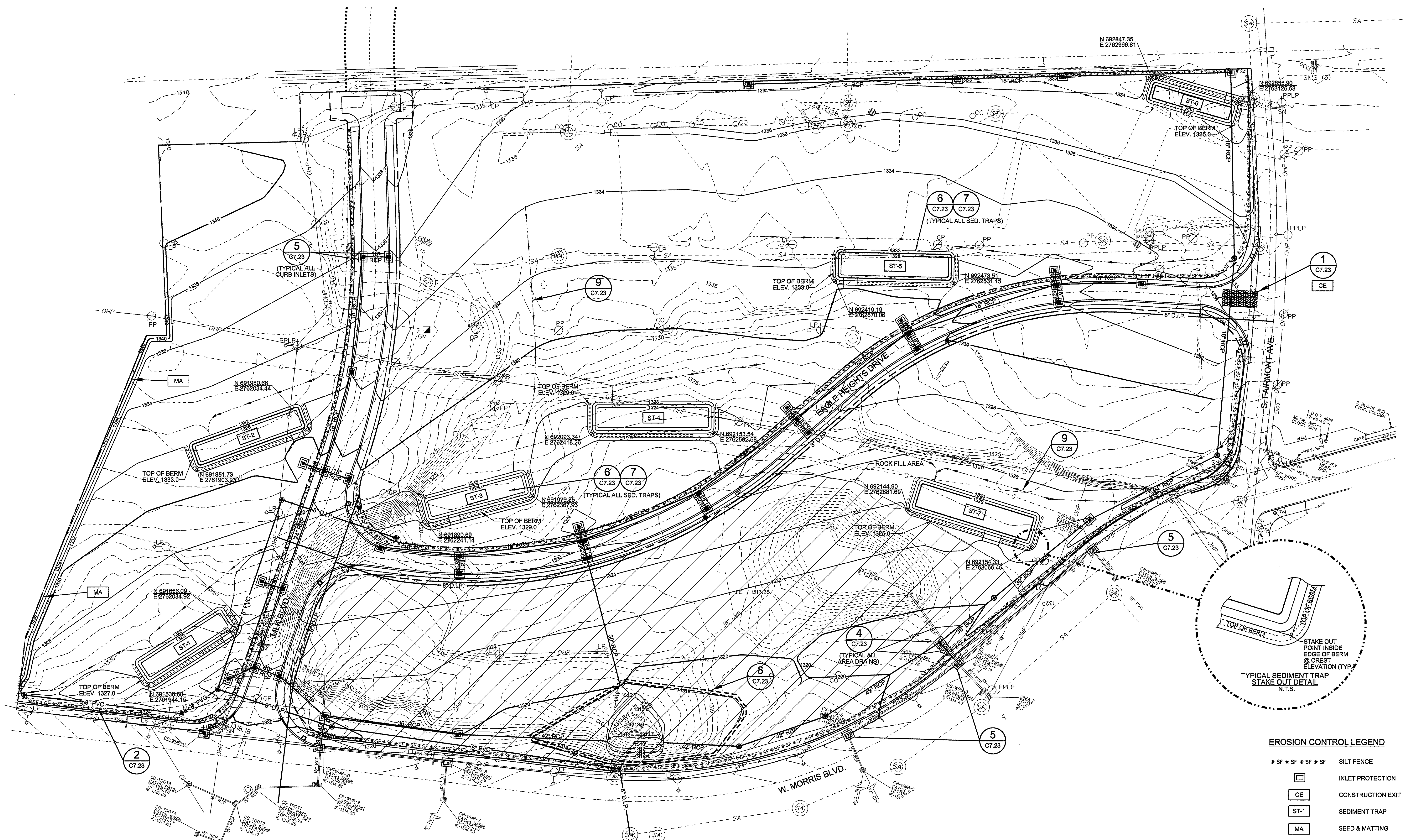
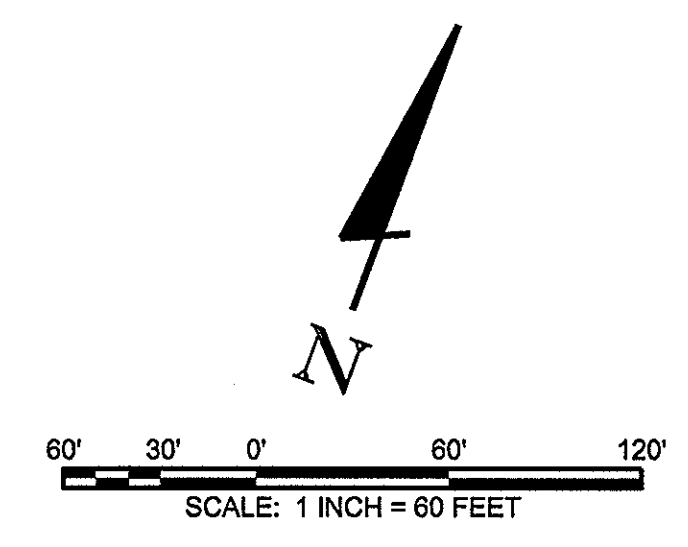
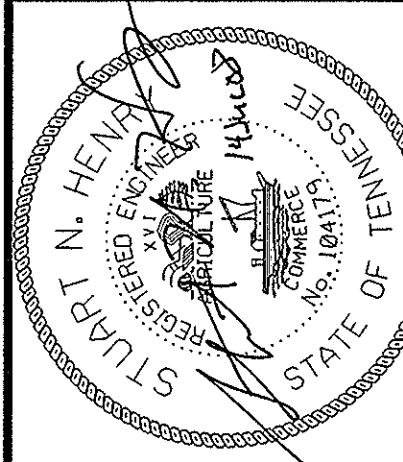
**SEDIMENT TRAP TABLE (6-YEAR RAINFALL EVENT)**

SED. TRAP	REQ'D MIN. VOL. (FT <sup>3</sup> )	AREA @ CREST OF TRAP (S.F.)	MIN @ CREST OF TRAP (FT.)	BERM HEIGHT (FT.)	WEIR LENGTH (FT.)
TMP-ST-1	18211	7945	400' X 20'	3.0	14
TMP-ST-2	25540	8945	400' X 25'	3.0	22
TMP-ST-3	65575	19145	600' X 32'	3.0	48
TMP-ST-4	41890	14945	500' X 30'	3.0	35
TMP-ST-5	23102	7945	200' X 40'	3.0	20
TMP-ST-6	19130	6595	175' X 38'	3.0	18
TMP-ST-7	10440	4345	200' X 22'	3.0	9
TMP-ST-8	10355	4945	250' X 20'	3.0	9

**NOTES:**

- PHASE II STARTS AFTER SINKHOLE CLOSURE AND INJECTION WELL INSTALLATION, BUT BEFORE MASS FILL PLACEMENT.
- TEMPORARY BERMS SHALL BE MAINTAINED WITH MINIMUM VOLUME AND AREAS SHOWN DURING ALL CONSTRUCTION ACTIVITIES. BERMS SHALL BE RAISED OR LOWERED AS REQUIRED TO MATCH CUT AND FILL OPERATIONS.





**EROSION CONTROL LEGEND**

- \* SF \* SF \* SF \* SF SILT FENCE
- [Symbol] INLET PROTECTION
- [Symbol] CE CONSTRUCTION EXIT
- [Symbol] ST-1 SEDIMENT TRAP
- [Symbol] MA SEED & MATTING
- [Symbol] DIVERSION DITCH
- [Symbol] ROCK BERM
- [Symbol] CONSTRUCTION EXIT STONE BASE

NOTE: FOR STRUCTURE STAKE OUT INFORMATION, SEE TYPICAL DETAILS SHEET C7.21

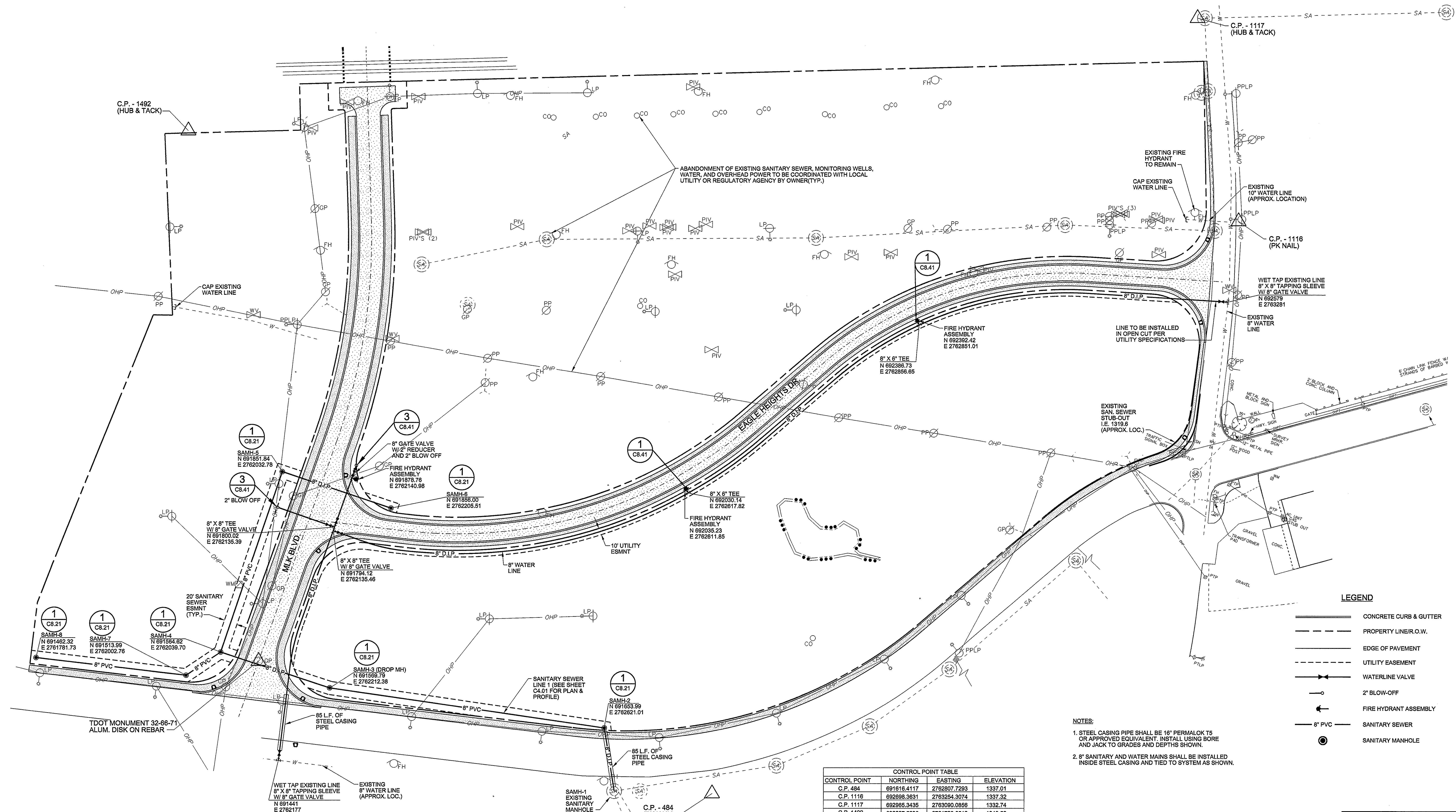
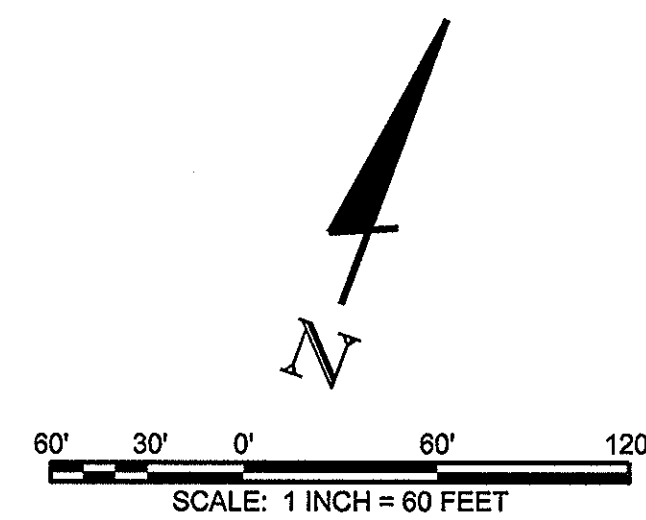
SED. TRAP	REQ'D MIN. VOL. (FT <sup>3</sup> )	AREA OF TRAP @ CREST (S.F.)	MIN TRAP DIMS @ CREST (FT.)	BERM HEIGHT (FT.)	SPILLWAY ELEV. (FT.)	WEIR LENGTH (FT.)
ST-1	13409	5945	150' X 40'	3.0	1328.0	15
ST-2	15028	6745	170' X 40'	3.0	1332.0	17
ST-3	14046	6145	165' X 40'	3.0	1328.0	16
ST-4	18357	7820	175' X 45'	3.0	1328.0	21
ST-5	17899	7695	170' X 45'	3.0	1332.0	20
ST-6	9648	4495	130' X 35'	3.0	1334.0	11
ST-7	29502	9195	185' X 50'	3.0	1324.0	25

**EROSION CONTROL PLAN - PHASE III**  
**EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX**  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE

DR.	CHK.	DATE	DESCRIPTION
MRH	CMJ	02/12/08	ISSUED FOR PERMITTING AND CITY REVIEW
MRH	CRE	04/18/08	RE-ISSUED FOR PERMITTING
MRH	SMH	07/14/08	ISSUED FOR TROT REVIEW







ABANDONMENT OF EXISTING SANITARY SEWER, MONITORING WELLS, WATER, AND OVERHEAD POWER TO BE COORDINATED WITH LOCAL UTILITY OR REGULATORY AGENCY BY OWNER(TYP.)

EXISTING FIRE HYDRANT TO REMAIN  
 CAP EXISTING WATER LINE  
 EXISTING 10" WATER LINE (APPROX. LOCATION)  
 C.P. - 1116 (PK NAIL)  
 WET TAP EXISTING LINE 8" X 8" TAPPING SLEEVE W/ 8" GATE VALVE  
 N 692579 E 2763281  
 EXISTING 8" WATER LINE

LINE TO BE INSTALLED IN OPEN CUT PER UTILITY SPECIFICATIONS  
 EXISTING SAN. SEWER STUB-OUT I.E. 1319.6 (APPROX. LOC.)  
 8" X 8" TEE  
 N 692386.73 E 2762856.65  
 FIRE HYDRANT ASSEMBLY  
 N 692392.42 E 2762851.01

- LEGEND**
- CONCRETE CURB & GUTTER
  - - - PROPERTY LINE/R.O.W.
  - EDGE OF PAVEMENT
  - - - UTILITY EASEMENT
  - WATERLINE VALVE
  - 2" BLOW-OFF
  - FIRE HYDRANT ASSEMBLY
  - 8" PVC
  - SANITARY SEWER
  - SANITARY MANHOLE

**NOTES:**  
 1. STEEL CASING PIPE SHALL BE 16" PERMALOK T5 OR APPROVED EQUIVALENT. INSTALL USING BORE AND JACK TO GRADES AND DEPTHS SHOWN.  
 2. 8" SANITARY AND WATER MAINS SHALL BE INSTALLED INSIDE STEEL CASING AND TIED TO SYSTEM AS SHOWN.

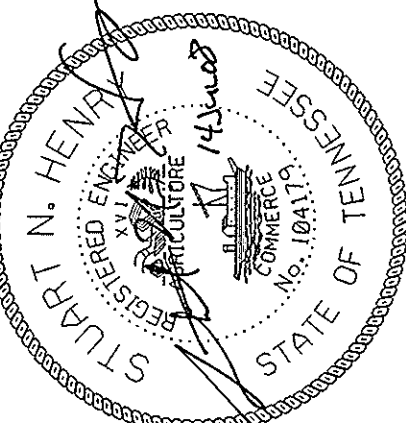
CONTROL POINT TABLE			
CONTROL POINT	NORTHING	EASTING	ELEVATION
C.P. 484	691616.4117	2762807.7293	1337.01
C.P. 1116	692698.3631	2763254.3074	1337.32
C.P. 1117	692965.3435	2763090.0856	1332.74
C.P. 1492	692287.8296	2761723.6512	1340.50
TDOT 32-66-71	691571.2999	2762097.9633	1322.07

**SITE UTILITIES PLAN**  
**EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX**  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE

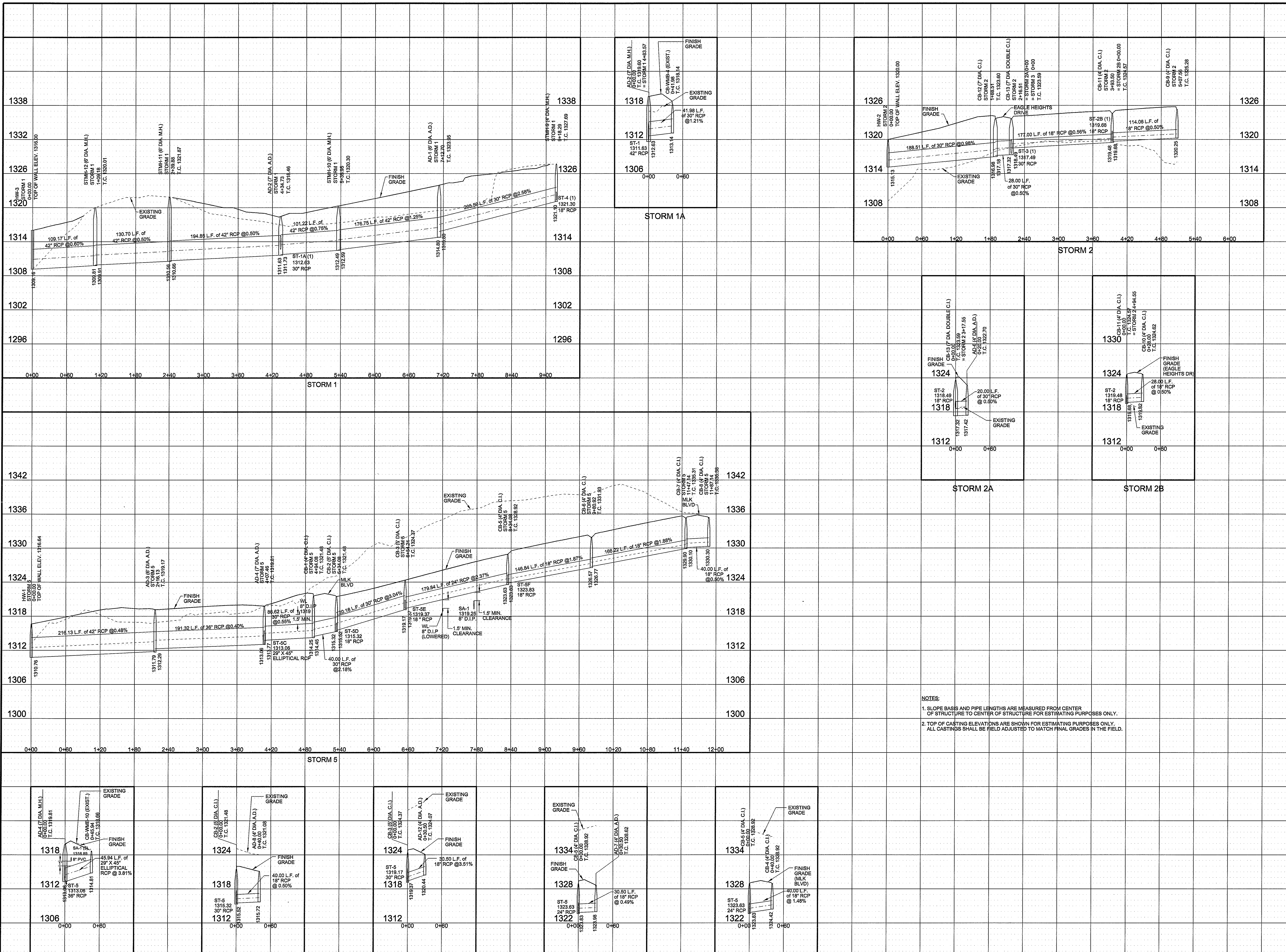
DR.	CHK.	DATE	DESCRIPTION
MDH	OWJ	02/22/08	ISSUED FOR PERMITTING AND CITY REVIEW
MDH	GRE	04/18/08	RE-ISSUED FOR PERMITTING
MDH	GRE	07/09/08	RE-ISSUED FOR PERMITTING
MDH	MDH	07/14/08	ISSUED FOR TDOT REVIEW

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STORM SEWER PROFILES - STORM 1 THROUGH STORM 2B, STORM 5,  
 AND STORM 5C THROUGH 5G  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE



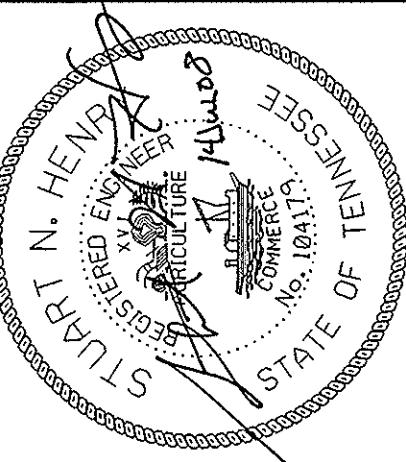
**NOTES:**  
 1. SLOPE BASIS AND PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR ESTIMATING PURPOSES ONLY.  
 2. TOP OF CASTING ELEVATIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. ALL CASTINGS SHALL BE FIELD ADJUSTED TO MATCH FINAL GRADES IN THE FIELD.

SCALE: 1" = 60' HORIZ.  
 1" = 6' VERT.

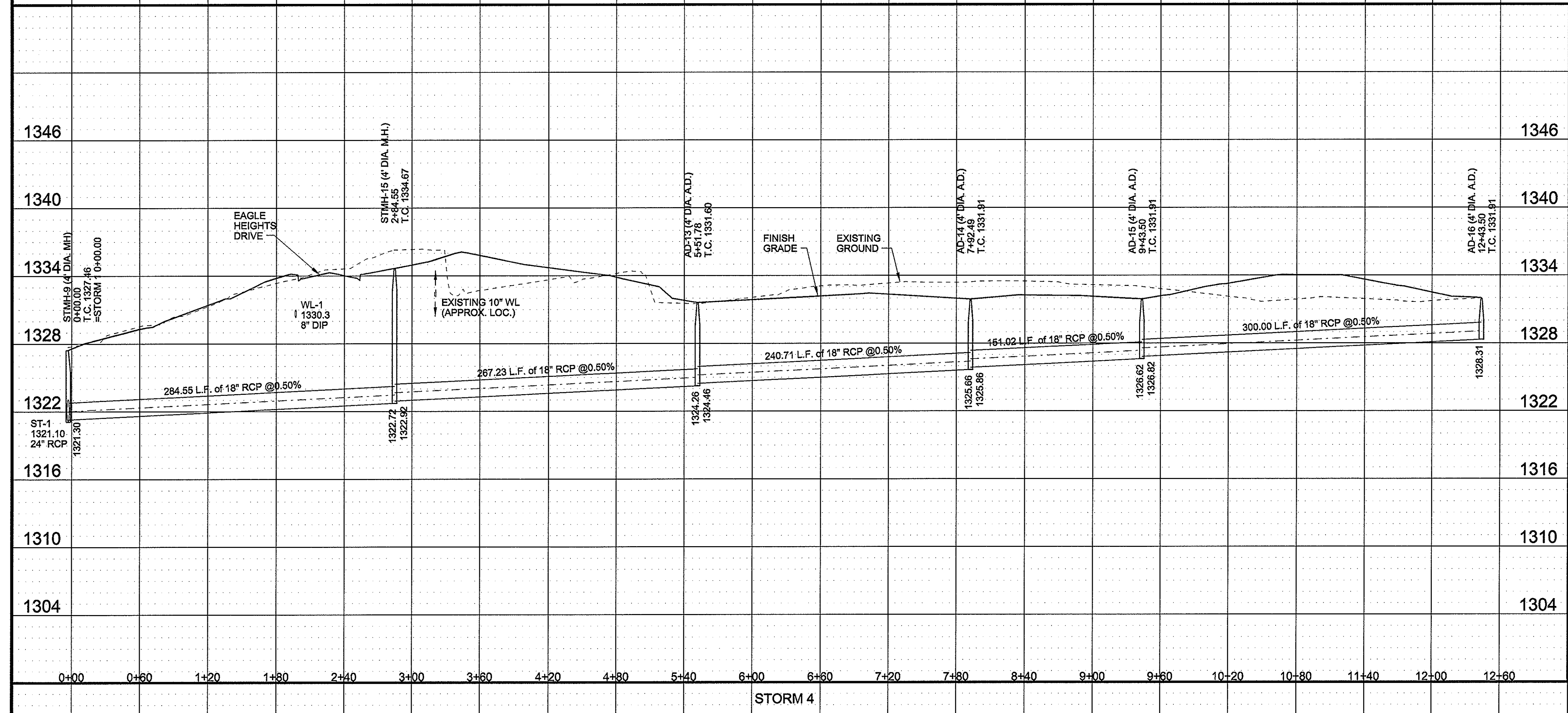
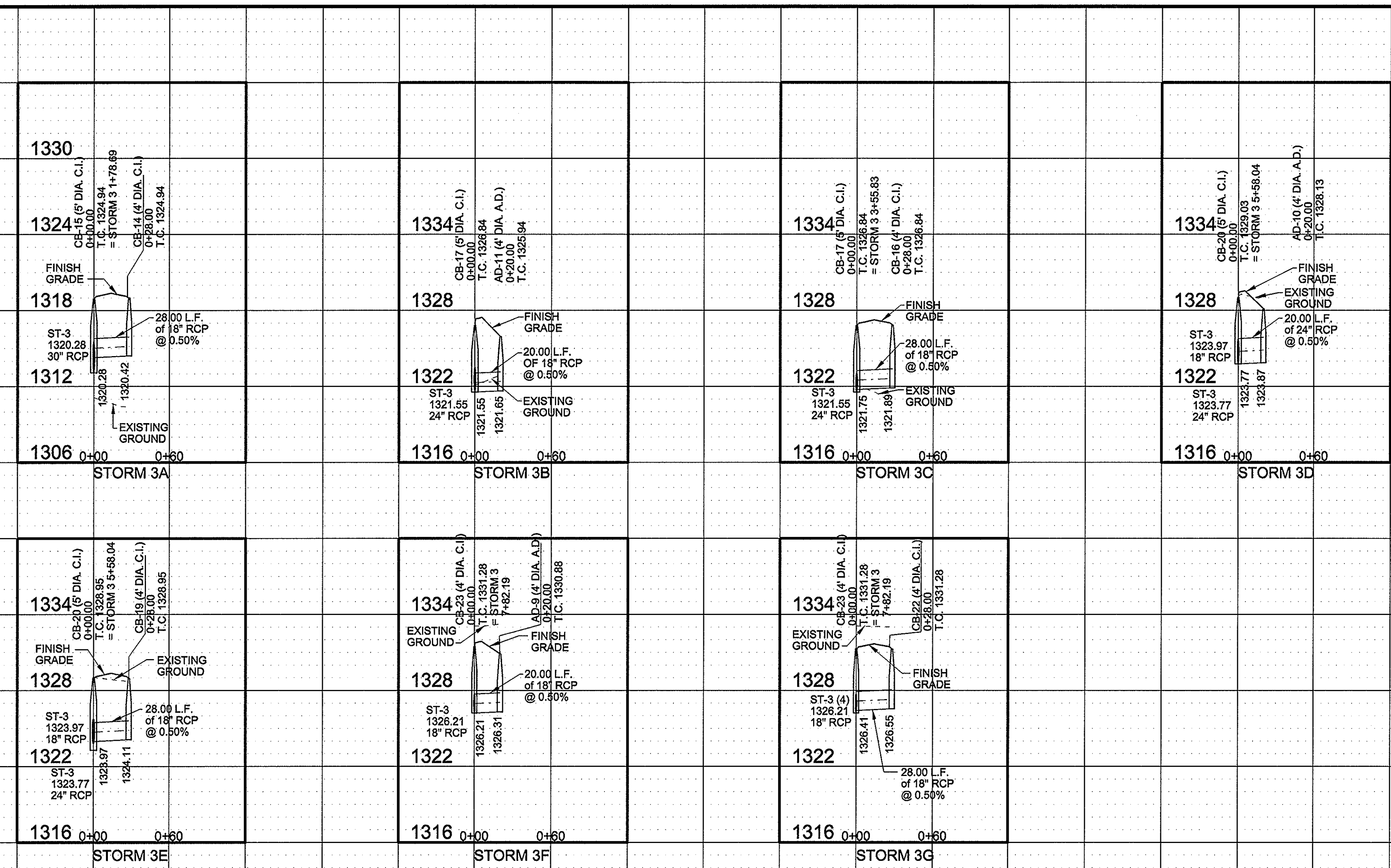
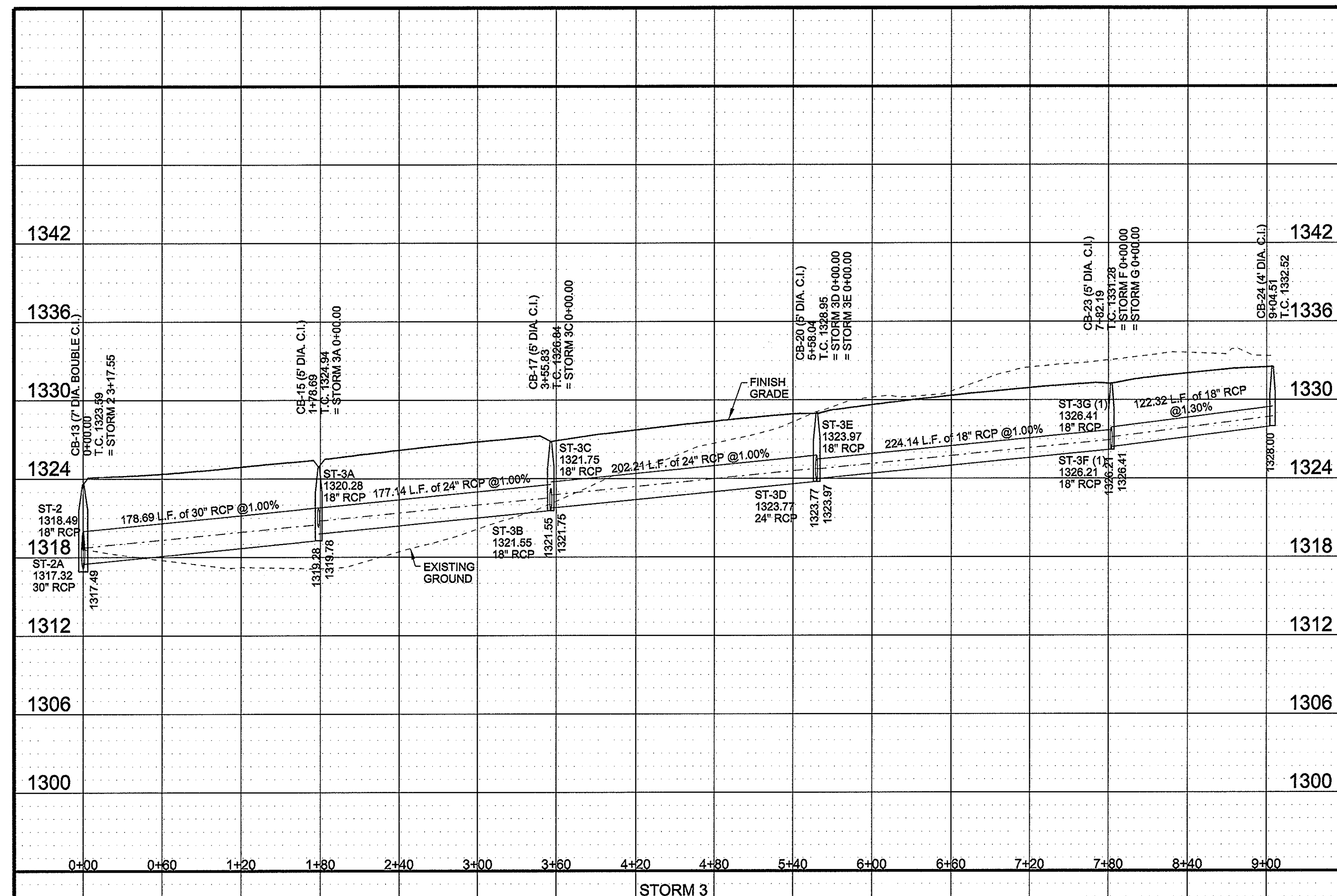
DR.	CHK.	DATE	DESCRIPTION
MDH	GMJ	02/22/08	ISSUED FOR PERMITTING AND CITY REVIEW
MDH	GRE	04/18/08	RE-ISSUED FOR PERMITTING
MDH	SMH	07/14/08	ISSUED FOR TDD REVIEW

**C4.22**  
 FILE NO. 33211-00



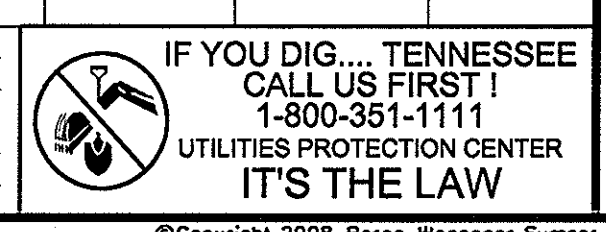


STORM SEWER PROFILES - STORM 3 THROUGH STORM 4  
 EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE



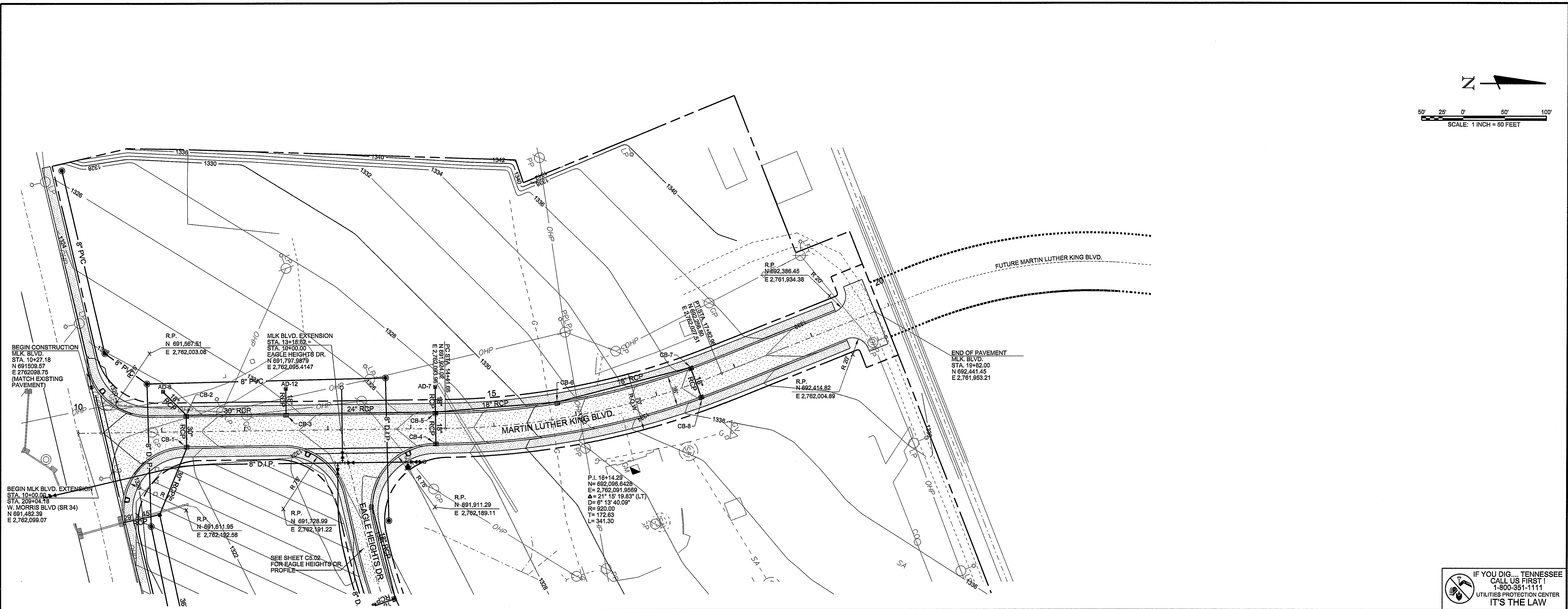
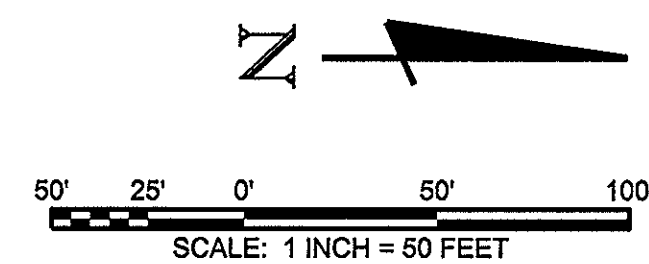
NOTES:  
 1. SLOPE BASIS AND PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR ESTIMATING PURPOSES ONLY.  
 2. TOP OF CASTING ELEVATIONS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. ALL CASTINGS SHALL BE FIELD ADJUSTED TO MATCH FINAL GRADES IN THE FIELD.

SCALE: 1" = 60' HORIZ.  
 1" = 6' VERT.

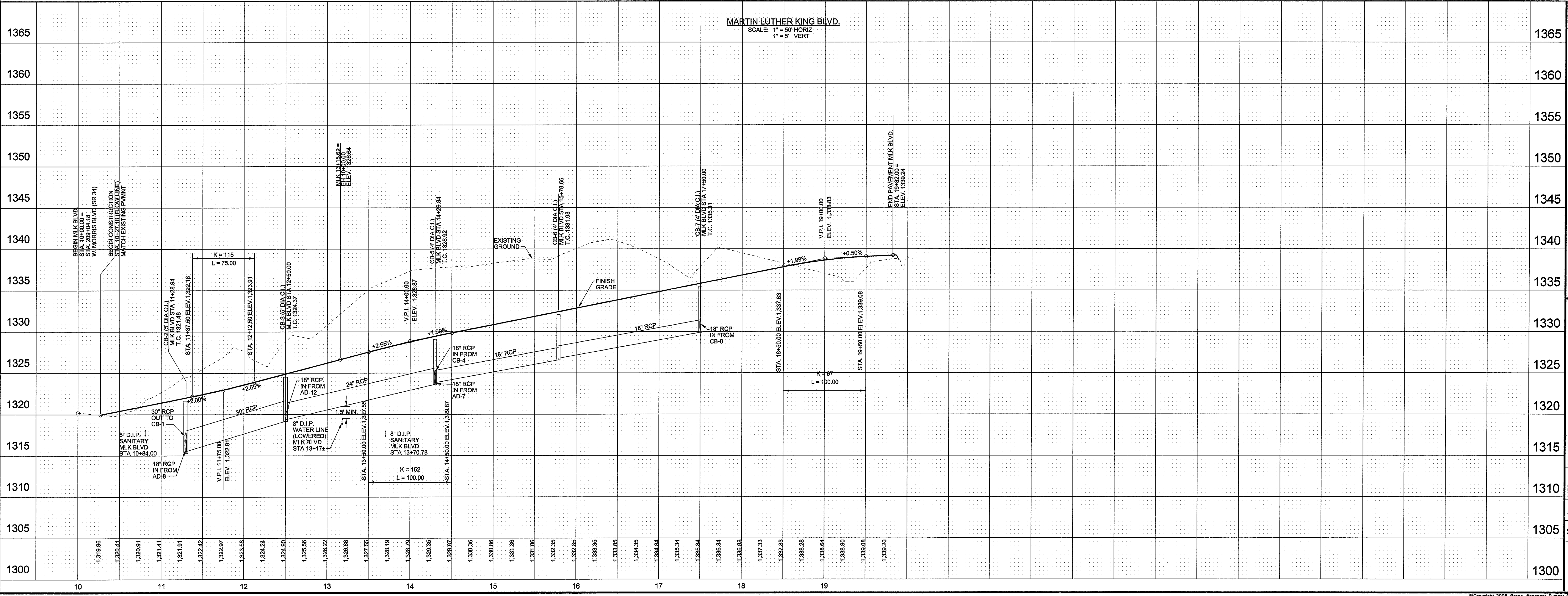


**C4.23**  
 FILE NO. 33211-00

DR.	CHK.	DATE	DESCRIPTION
MJH	OWJ	02/12/08	ISSUED FOR PERMITTING AND CITY REVIEW
MJH	ORE	04/18/08	RE-ISSUED FOR PERMITTING
MJH	OWJ	07/14/08	ISSUED FOR TROT REVIEW



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MARTIN LUTHER KING BLVD.  
SCALE: 1" = 50' HORIZ  
1" = 5' VERT

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LANDSCAPE ARCHITECTS AND SURVEYORS  
1033 Summit Blvd., Ste. 200 Knoxville, Tennessee 37932  
Phone: (615) 517-1200 Fax: (615) 517-1202

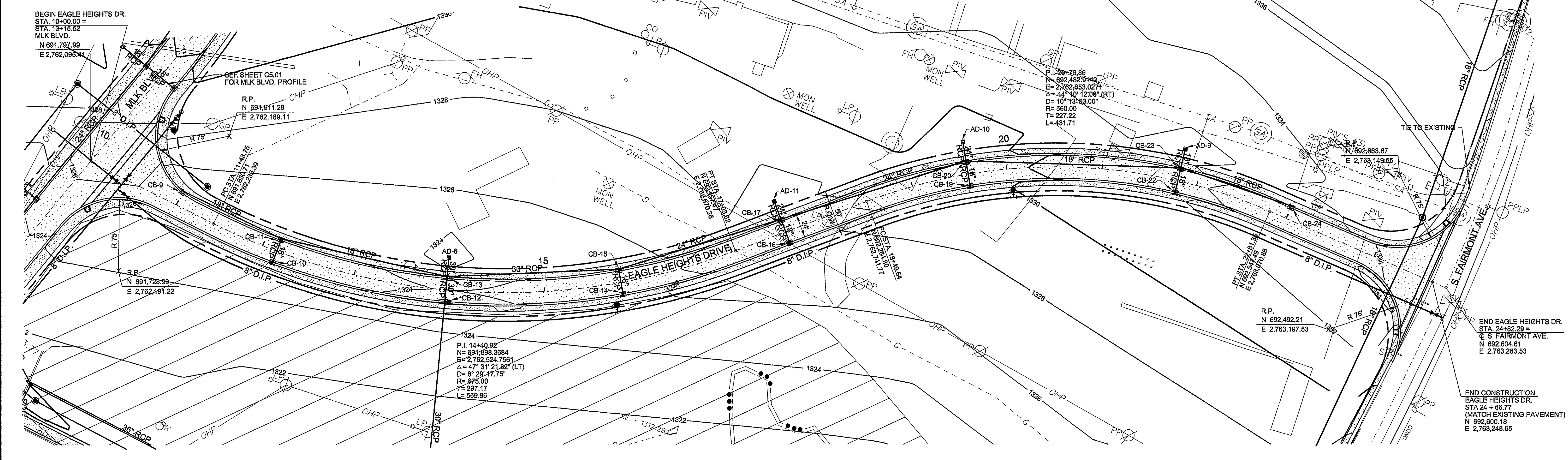
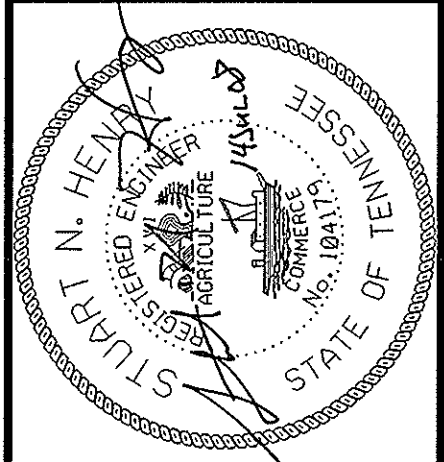
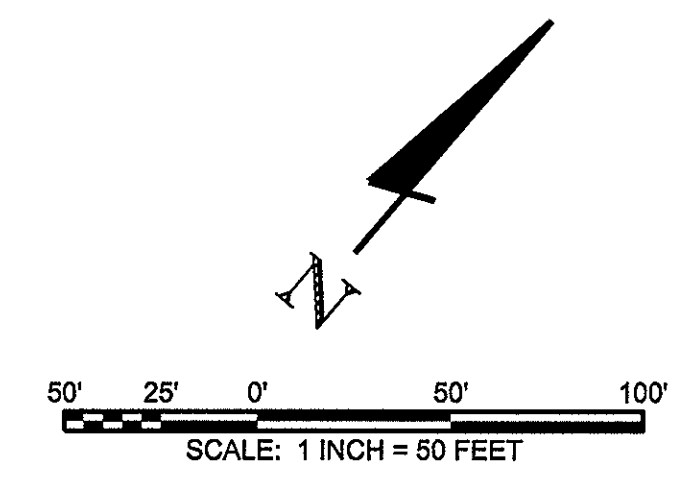


ROADWAY PLAN AND PROFILE  
MLK BLVD. EXTENSION - STA. 10+00.00 TO STA. 19+88.96  
EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
MORRISTOWN, TENNESSEE

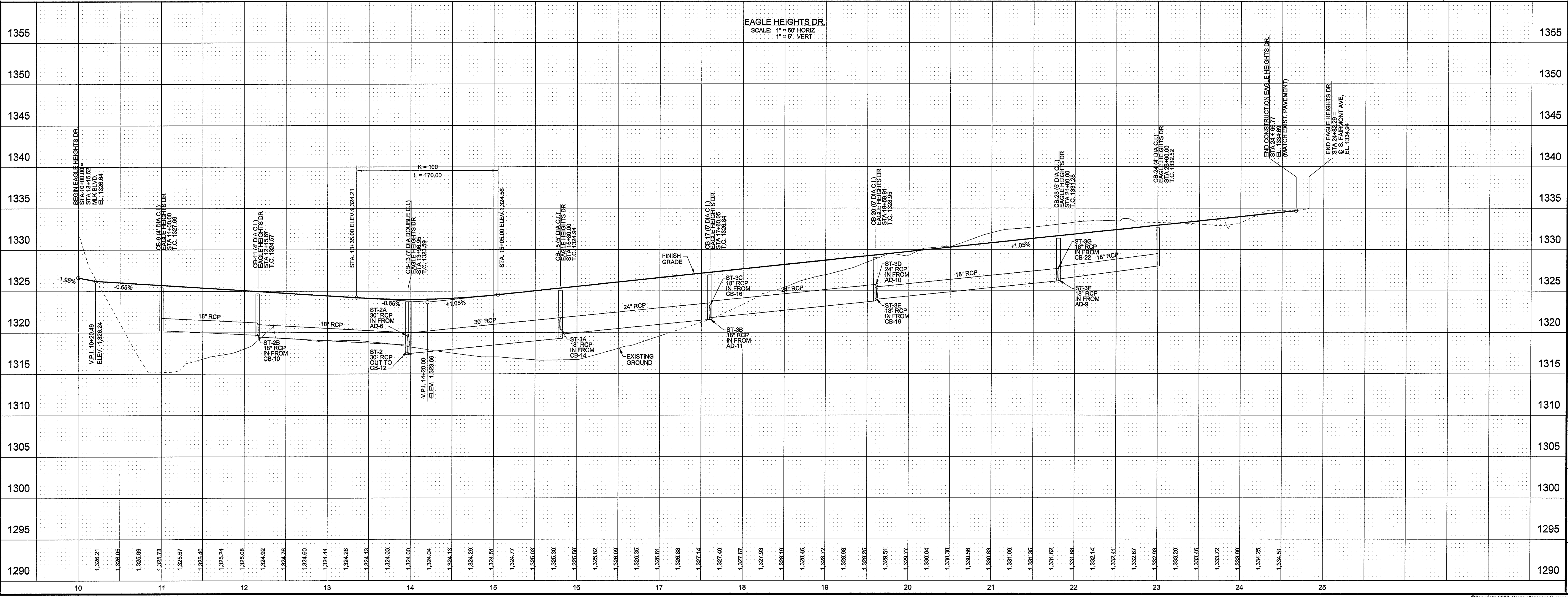
DR.	CHK.	DATE	DESCRIPTION
MBH	OWJ	02/27/08	ISSUED FOR PERMITTING AND CITY REVIEW
MBH	ORE	04/18/08	RE-ISSUED FOR PERMITTING
MBH	SAH	07/14/08	ISSUED FOR TDD REVIEW

**C5.01**  
FILE NO. 33211-00

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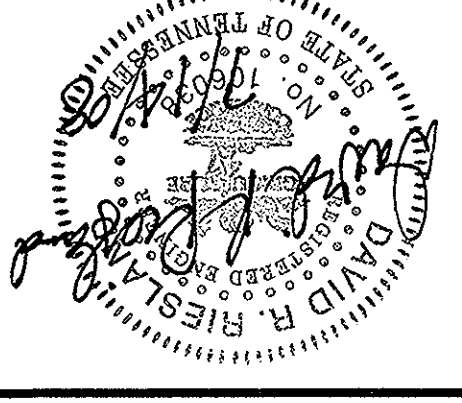
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**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX  
 ROADWAY PLAN AND PROFILE  
 EAGLE HEIGHTS DRIVE - STA. 10+00.00 TO STA. 24+82.29  
 MORRISTOWN, TENNESSEE

DR.	CHK.	DATE	DESCRIPTION
MSH	CHW	02/12/08	ISSUED FOR PERMITTING AND CITY REVIEW
MSH	CHW	04/18/08	RE-ISSUED FOR PERMITTING
MSH	SAH	07/14/08	ISSUED FOR TDD REVIEW

**C5.02**  
 FILE NO. 33211-00



**SIGNAL MODIFICATION PLAN**

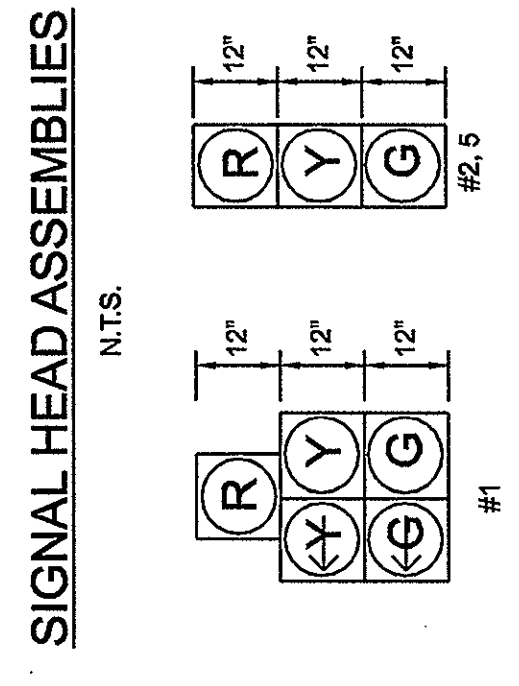
DR.	CHK.	DATE	DESCRIPTION
		07-14-08	ISSUED FOR T001 REVIEW

**ESTIMATED QUANTITIES**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
7300-1.02	REMOVAL OF SIGNAL EQUIPMENT	1	EACH
7300-1.03	SIGNAL HEAD ASSEMBLY (130" WITH BACKPLATE)	4	EACH
7300-1.04	SIGNAL HEAD ASSEMBLY (80" WITH BACKPLATE)	1	EACH
7300-1.05	SIGNAL CABLE - 7 CONDUCTOR	605	L.F.
7300-1.06	CONDUIT 2" DIAMETER (PVC)	20	L.F.
7300-1.07	TRIPPING	20	EACH
7300-1.08	WOOD POLE UTILITY AND SIGNAL SUPPORT	1	EACH

**NOTE**  
THE EXISTING TRAFFIC SIGNAL IS TO REMAIN IN OPERATION AS LONG AS IS PRACTICAL. THE NEW INSTALLATION INVOLVES REMOVAL OF THE EXISTING TRAFFIC SIGNAL CONTROLLER. EXISTING EQUIPMENT IS TO BE RETURNED TO THE CITY OF MORRISTOWN.

**NOTE**  
MINIMUM BREAKING STRENGTH IS BASED ON 4% MINIMUM SAG IN THE LENGTH OF THE SPAN WIRE AND A SAFETY FACTOR OF 3.



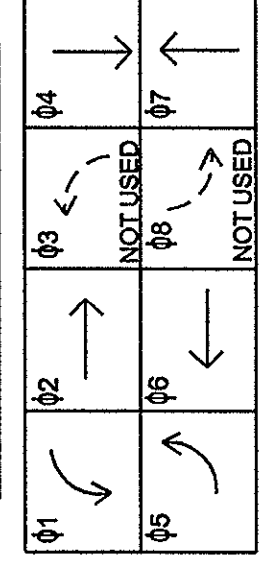
**NOTE:**  
SIGNAL HEADS 6-10 ARE EXISTING TO REMAIN.

**SIGNAL SUPPORT POLE DATA**

POLE NO.	POLE TYPE	ATTACH HEIGHT
1	WOODEN UTILITY	28'-0" E 28'-0" S

\* ATTACHMENT HEIGHTS WERE COMPUTED ASSUMING 6% SAG IN THE LENGTH OF THE SPAN WIRE.

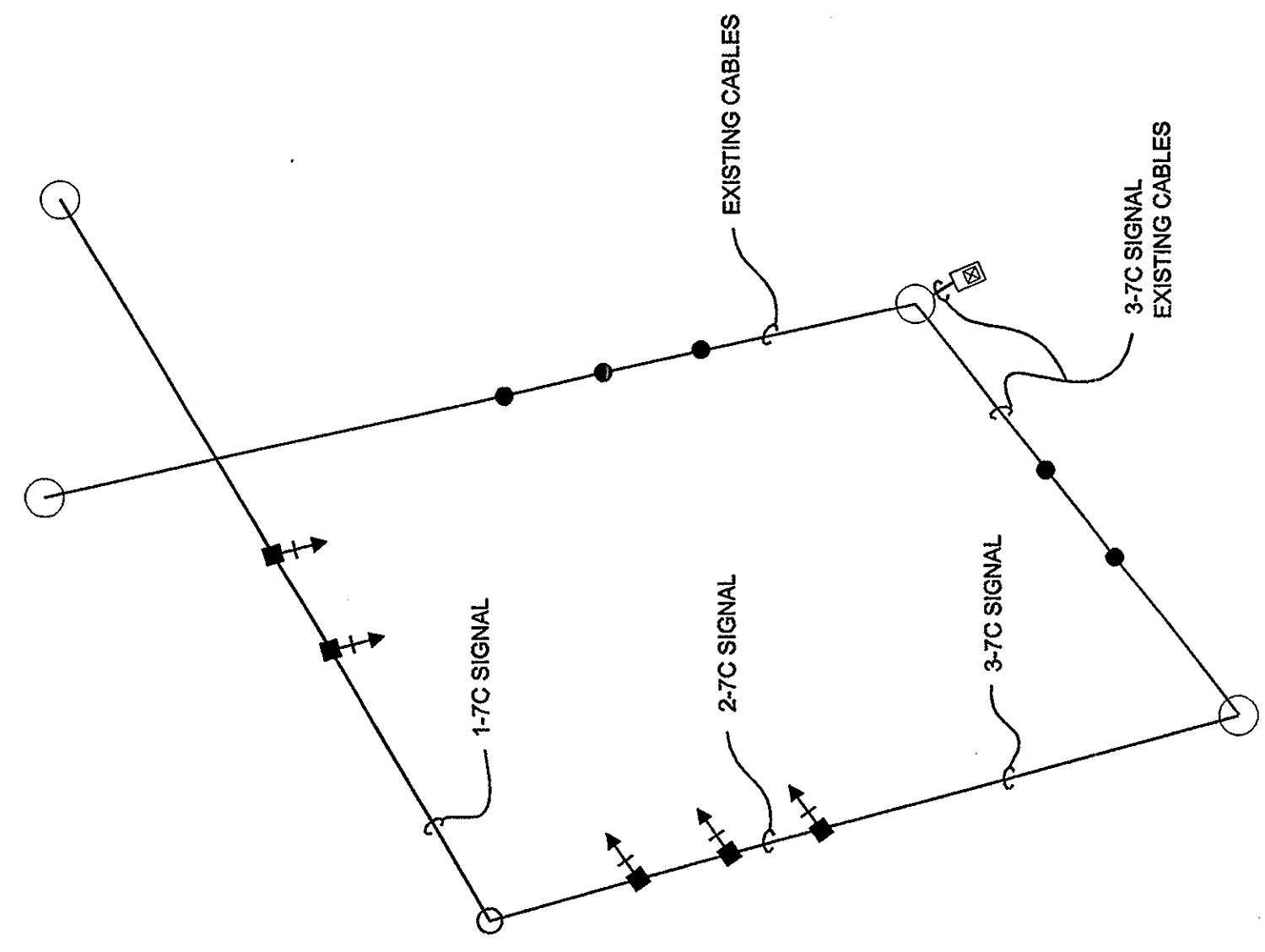
**PHASING DIAGRAM**



**SIGNALIZATION NOTES**

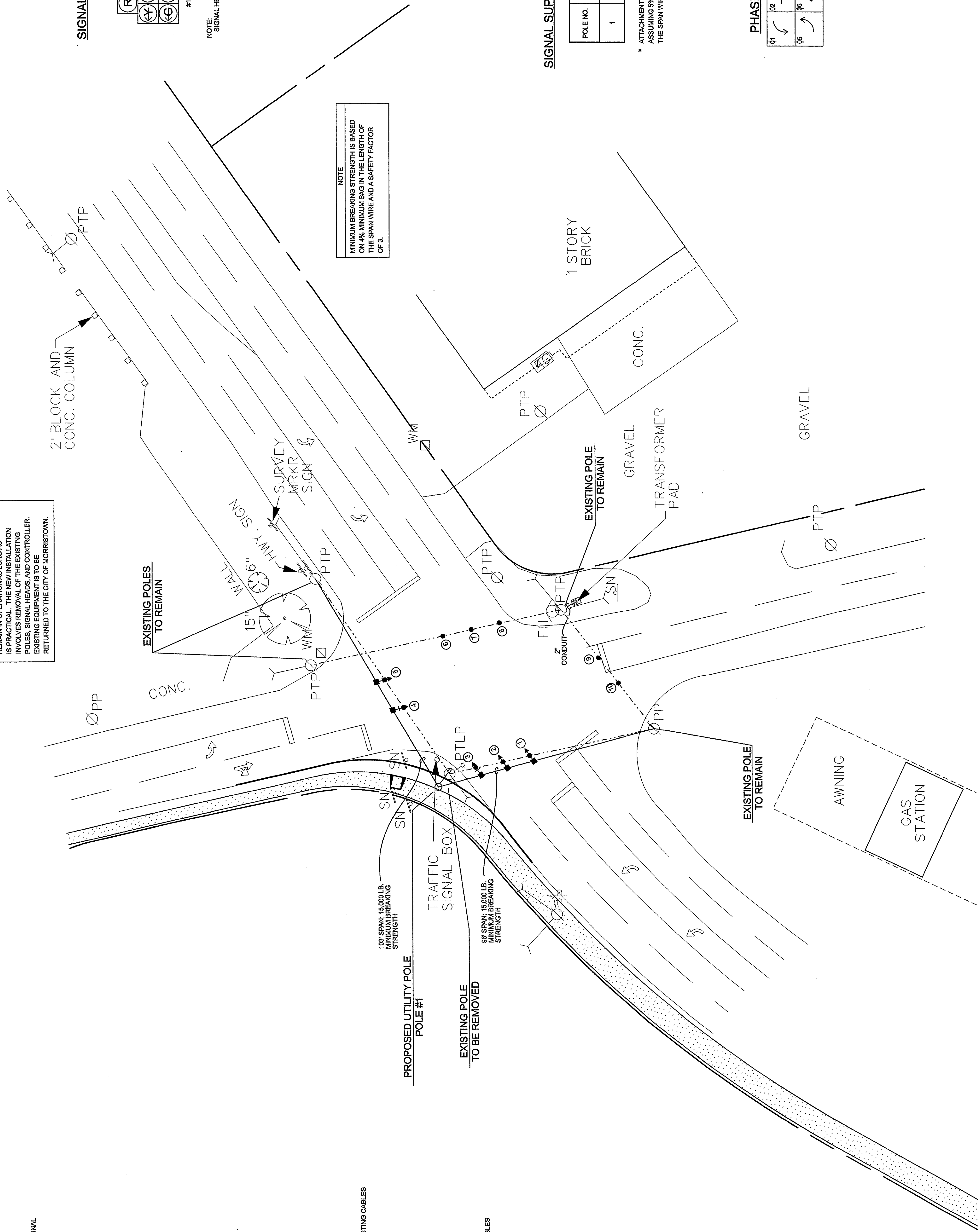
- TIMINGS AND PHASING ARE TO BE PROVIDED BY THE CITY OF MORRISTOWN. CONTRACTOR IS TO NOTIFY THE CITY A MINIMUM OF 30 DAYS PRIOR TO ACTIVATION OF THE NEW SIGNAL EQUIPMENT.
- ALL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.
- ALL UTILITY LOCATIONS, AS SHOWN, ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS OF THE TDOT.
- ALL TRAFFIC CONTROL SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS.
- SIGNAL HEAD PLACEMENT SHALL BE IN ACCORDANCE WITH TDOT STANDARD DRAWINGS.
- ALL SIGNAL HEADS SHALL BE ALUMINUM WITH LOUVERED BACKPLATES.
- CONTRACTOR SHALL REPAIR ALL DISTURBED AREAS ASSOCIATED WITH THE SIGNAL MODIFICATION.

**WIRING DIAGRAM**  
N.T.S.



**LEGEND**

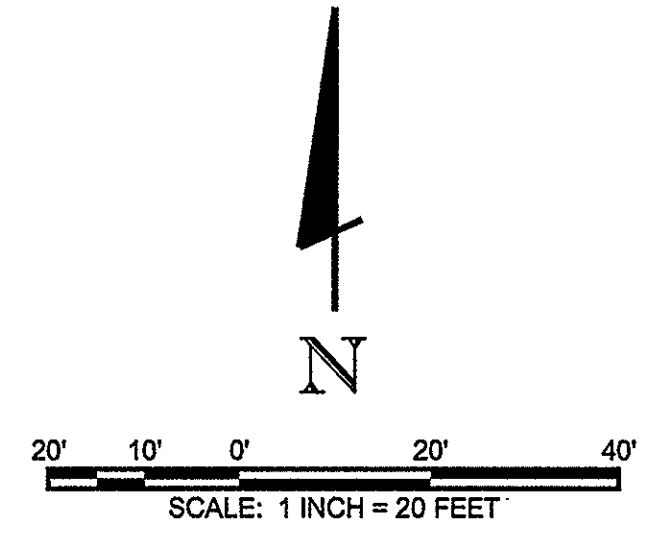
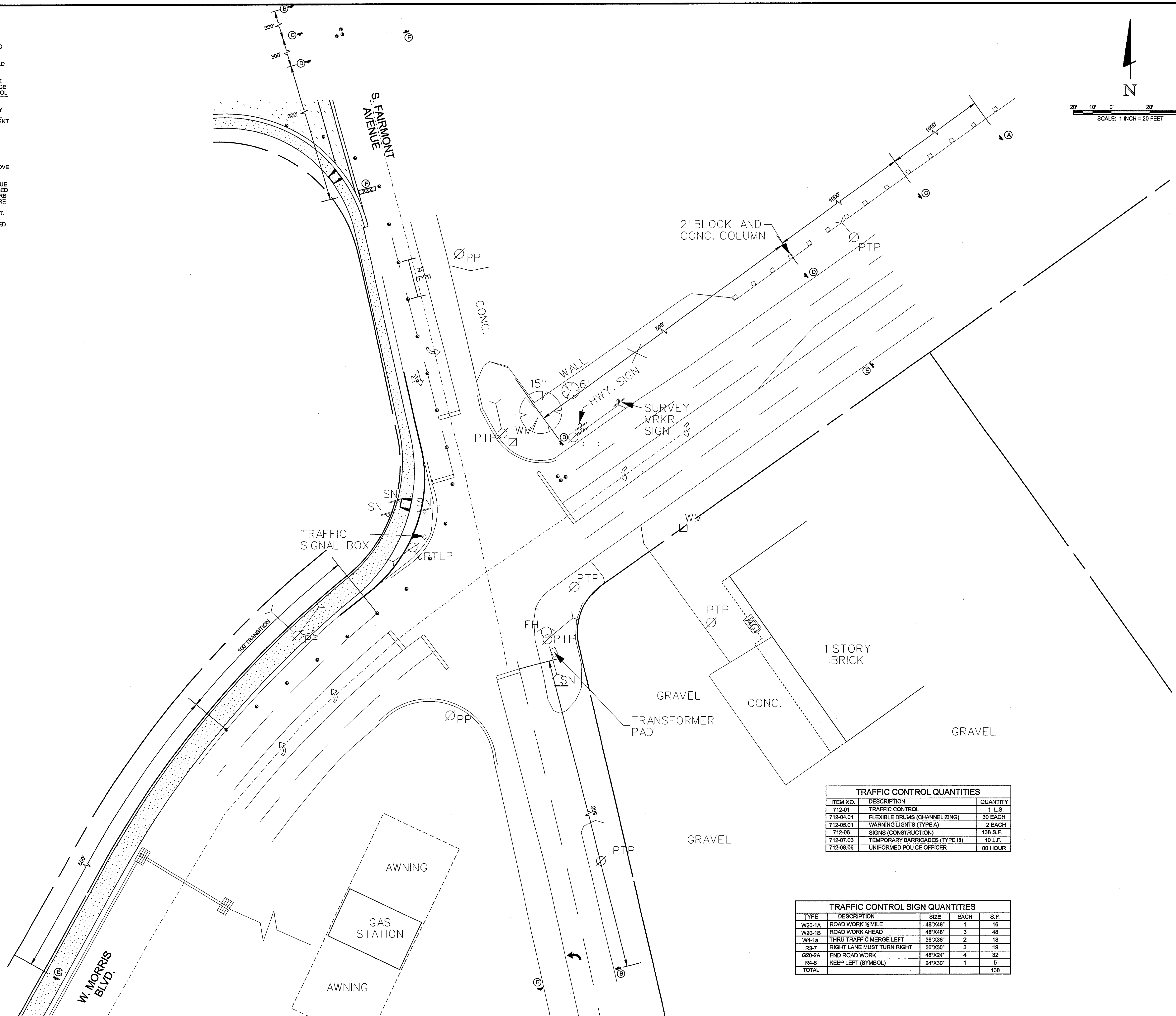
- PROPOSED UTILITY POLE FOR SIGNAL SUPPORT
- ⊙ PROPOSED SIGNAL HEAD WITH BACKPLATE AND NUMBER
- ◆◆◆ EXISTING PAD MOUNTED CONTROLLER CABINET



**TRAFFIC CONTROL NOTES**

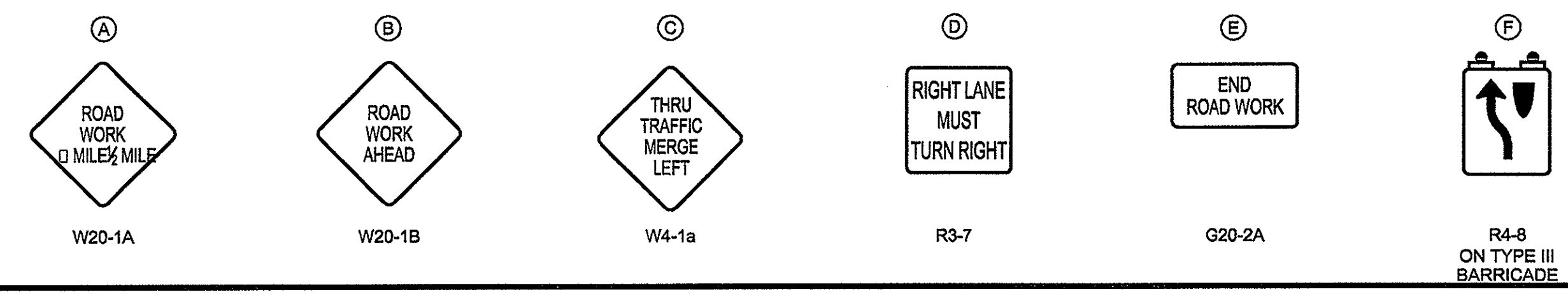
1. ADVANCE WARNING SIGNS TO BE PLACED PRIOR TO CONSTRUCTION AND TO REMAIN IN PLACE UNTIL THE COMPLETION OF THIS PROJECT. ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
2. THE TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. THE LOCATION OF ALL TRAFFIC CONTROL DEVICES ARE TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
4. ALL PROPERTY OWNERS WITH DRIVEWAYS WHICH FALL WITHIN THE WORK ZONE SHALL BE NOTIFIED BY THE ENGINEER AND CONTRACTOR OF THE OPERATING PROCEDURES OF THE TRAFFIC CONTROL PLAN PRIOR TO INSTALLATION OF EACH PHASE.
5. IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER.
6. ANY LANE CLOSURES ON MORRIS BOULEVARD AND SOUTH FAIRMONT AVENUE FOR WORK ADJACENT TO THE EXISTING TRAVEL LANES WILL NOT BE ALLOWED DURING PEAK HOURS. THESE CLOSURES SHOULD BE LIMITED TO THE HOURS OF 8:00 AM TO 3:00 PM ON WEEKDAYS ONLY. DURING THOSE PERIODS WHERE NO LANE CLOSURES ARE BEING UTILIZED, THE DRUMS AND TEMPORARY BARRICADES SHOULD BE RELOCATED TO THE EXISTING EDGE OF PAVEMENT.
7. TRAFFIC CONTROL ITEMS USED ON THIS PROJECT SHOULD BE COORDINATED WITH THOSE USED ON ADJACENT PROJECTS.

TRAFFIC CONTROL LEGEND	
	SIGN AND SUPPORT
	FLEXIBLE DRUMS (CHANNELIZING)
	TEMPORARY BARRICADE (TYPE III)
	WARNING LIGHT (TYPE A)



TRAFFIC CONTROL QUANTITIES		
ITEM NO.	DESCRIPTION	QUANTITY
712-01	TRAFFIC CONTROL	1 L.S.
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	30 EACH
712-05.01	WARNING LIGHTS (TYPE A)	2 EACH
712-06	SIGNS (CONSTRUCTION)	138 S.F.
712-07.03	TEMPORARY BARRICADES (TYPE III)	10 L.F.
712-08.06	UNIFORMED POLICE OFFICER	80 HOUR

TRAFFIC CONTROL SIGN QUANTITIES				
TYPE	DESCRIPTION	SIZE	EACH	S.F.
W20-1A	ROAD WORK 1/2 MILE	48"X48"	1	16
W20-1B	ROAD WORK AHEAD	48"X48"	3	48
W4-1a	THRU TRAFFIC MERGE LEFT	36"X36"	2	18
R3-7	RIGHT LANE MUST TURN RIGHT	30"X30"	3	19
G20-2A	END ROAD WORK	48"X24"	4	32
R4-8	KEEP LEFT (SYMBOL)	24"X30"	1	5
<b>TOTAL</b>				<b>138</b>



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 BARGE WAGGONER SUMNER & COMMON, INC.  
 ENGINEERS ARCHITECTS PLANNERS  
 LANDSCAPE ARCHITECTS AND SURVEYORS  
 4933 Sparta Road, Suite 200 Memphis, Tennessee 38122  
 PHONE: (901) 527-2800 FAX: (901) 527-9554

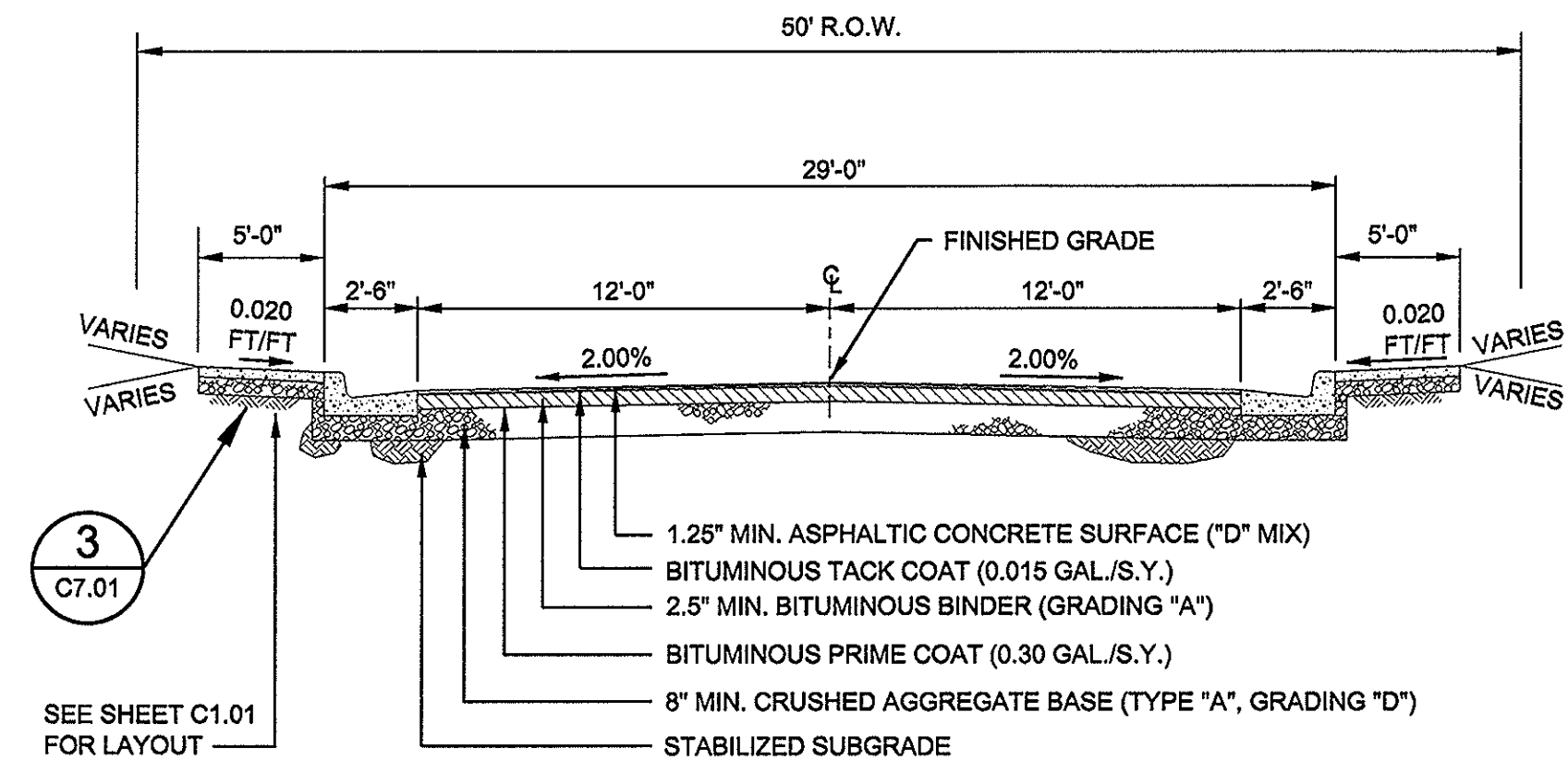
**TRAFFIC CONTROL PLAN**  
**EAGLE HEIGHTS BUSINESS & SHOPPING COMPLEX**  
**LAKEVIEW MANAGEMENT AND DEVELOPMENT, L.L.C.**  
 MORRISTOWN, TENNESSEE

DR.	CHK.	DATE	DESCRIPTION
		07-14-08	ISSUED FOR TDDT REVIEW

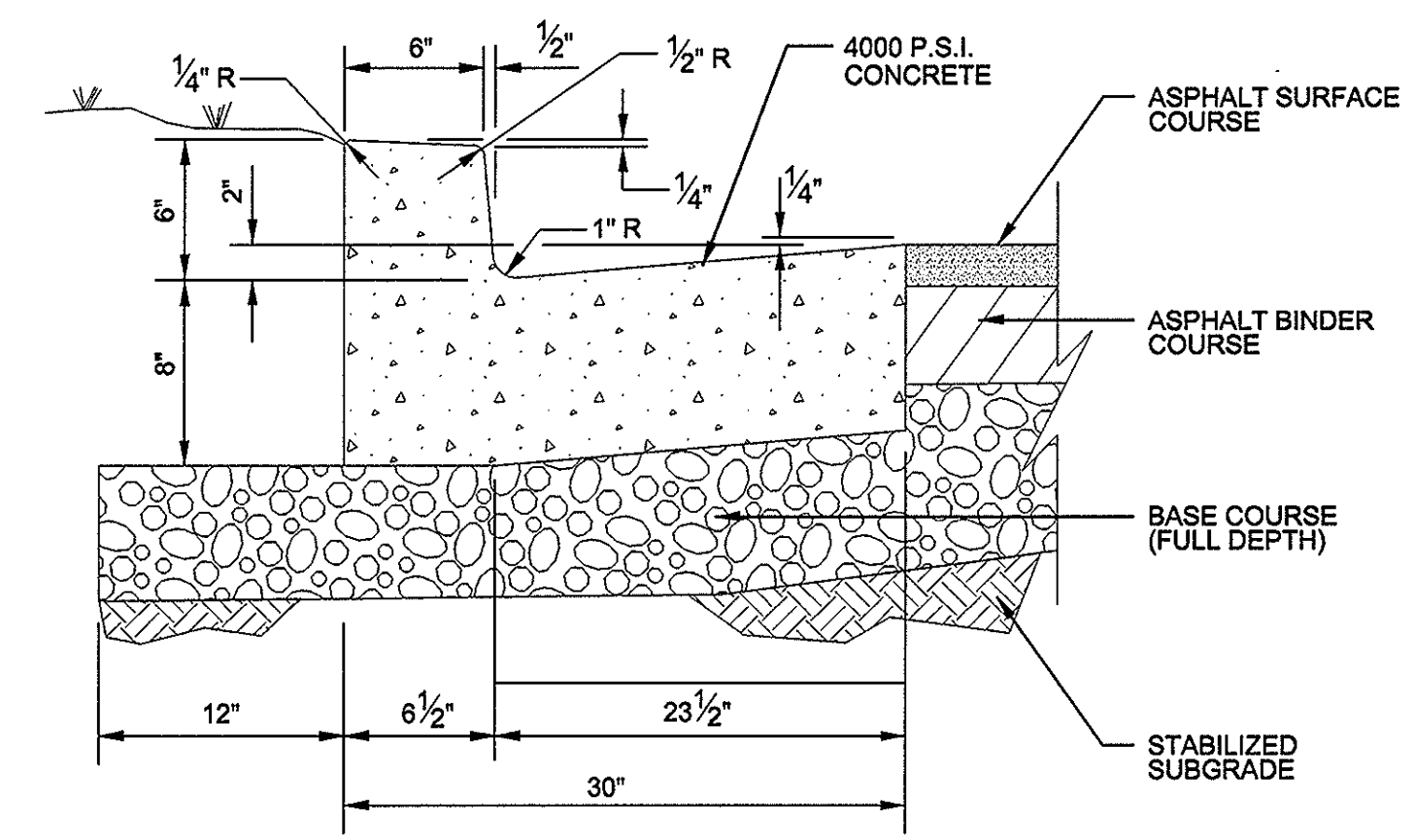
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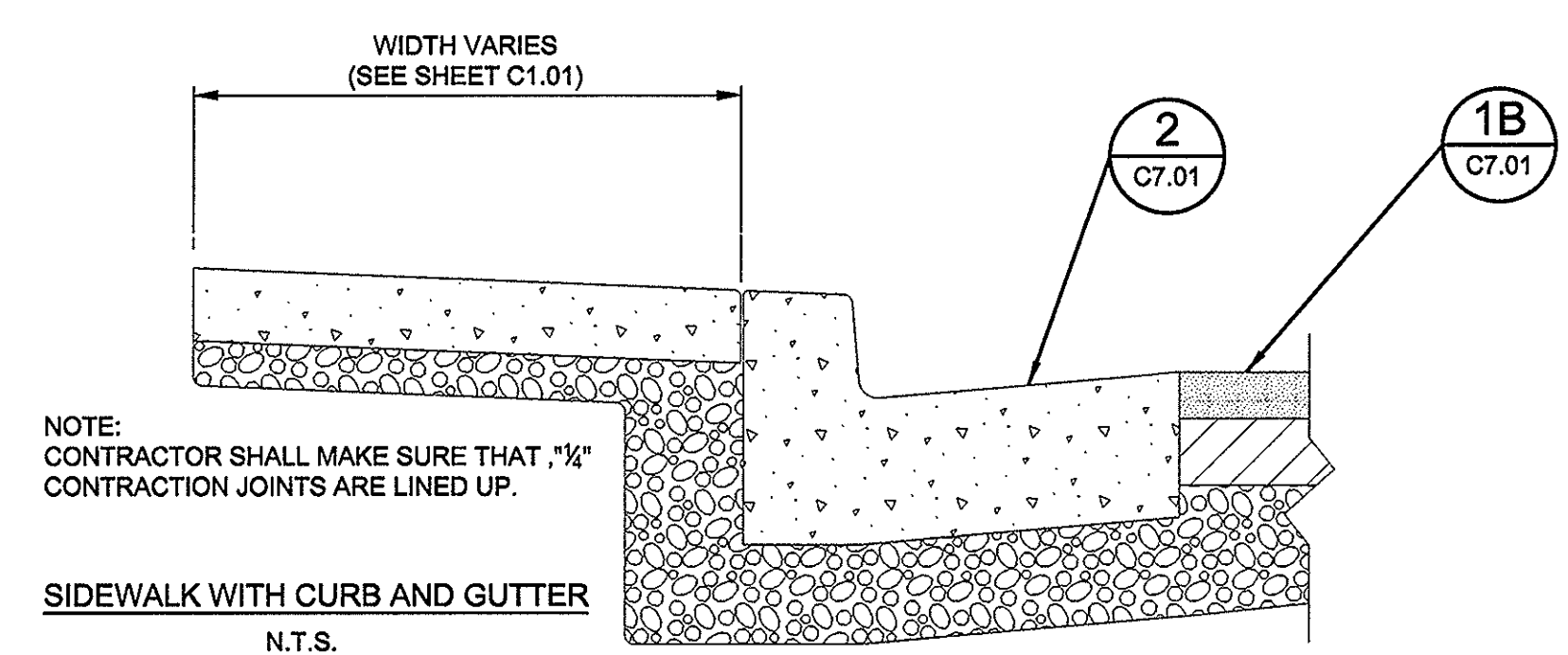


**1B TYPICAL SECTION (EAGLE HEIGHTS DRIVE)**  
NTS

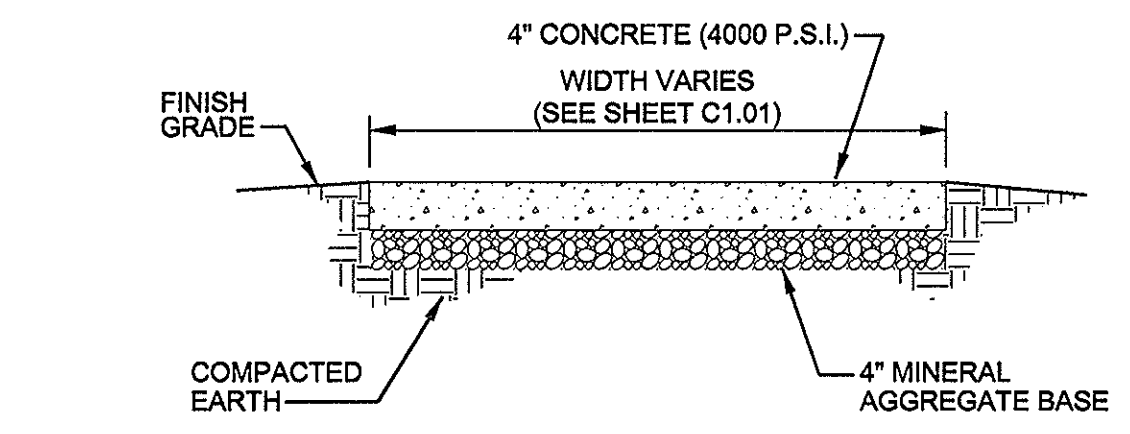


- NOTES:
1. PREFORMED 1/2\"/>
  2. EXACT CURB DIMENSIONS MAY BE ALTERED SLIGHTLY TO FIT STANDARD EXTRUDED CURB MACHINES, BUT SUCH VARIANCES MUST BE APPROVED BY THE ENGINEER.
  3. SEE PAVING DETAILS FOR PAVEMENT SECTIONS, SUBBASE, SUBGRADE, AND COMPACTION REQUIREMENTS.

**2 6\"/>CURB & GUTTER**  
NTS

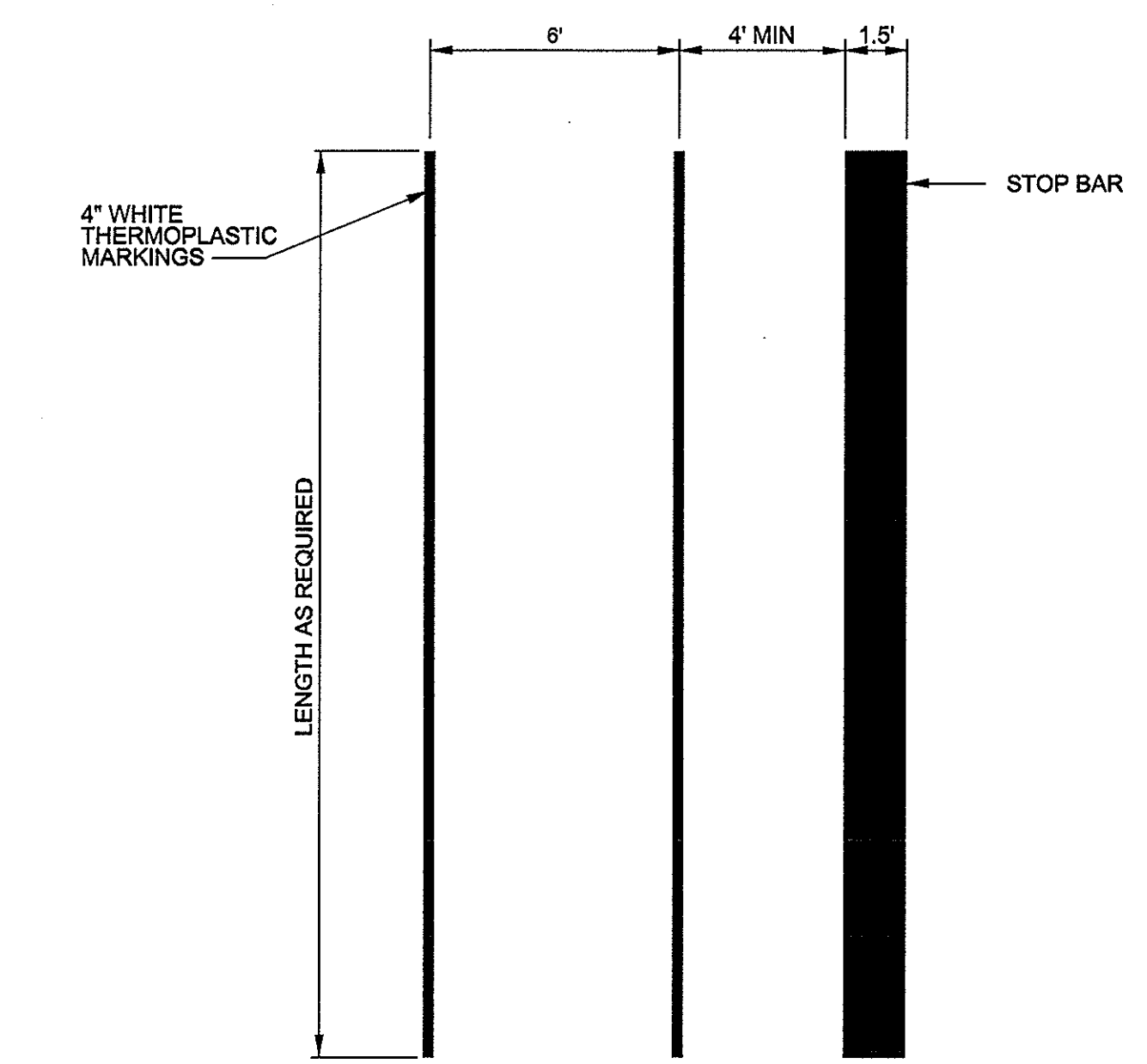


NOTE: CONTRACTOR SHALL MAKE SURE THAT 1/4\"/>CONTRACTION JOINTS ARE LINED UP.

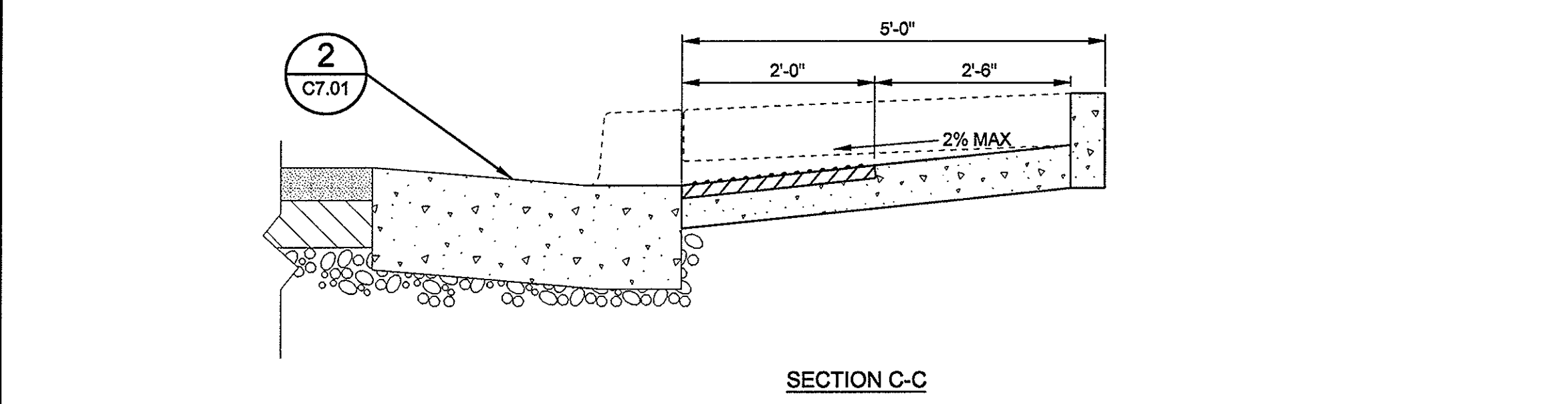
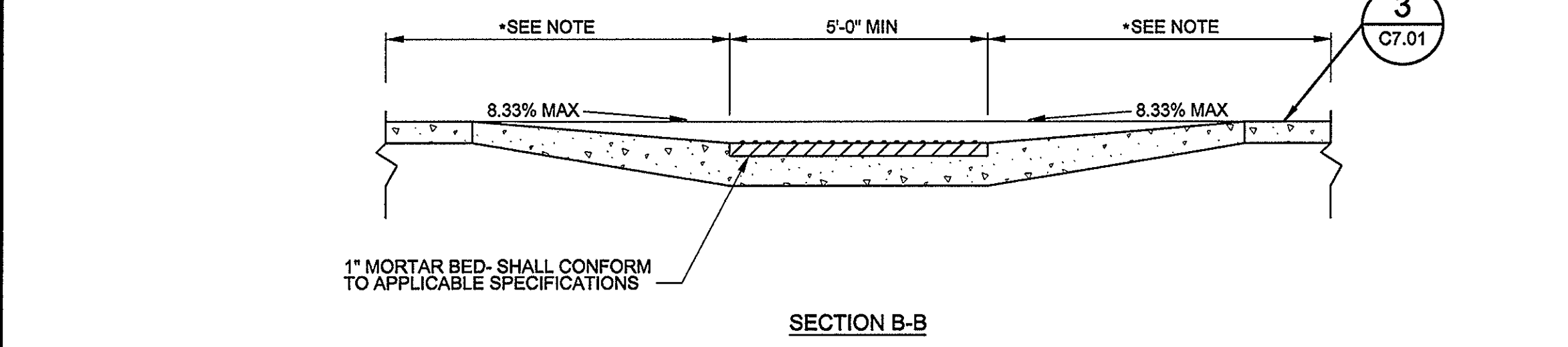
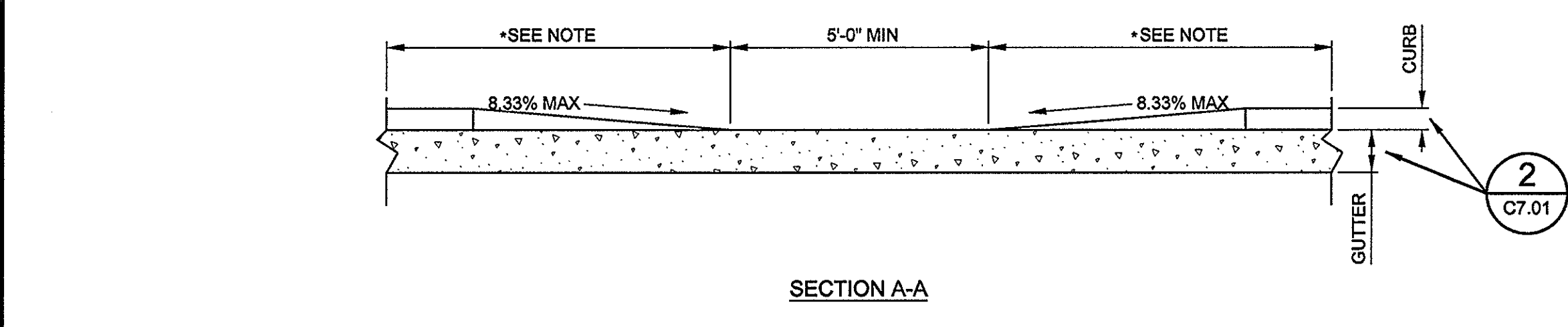
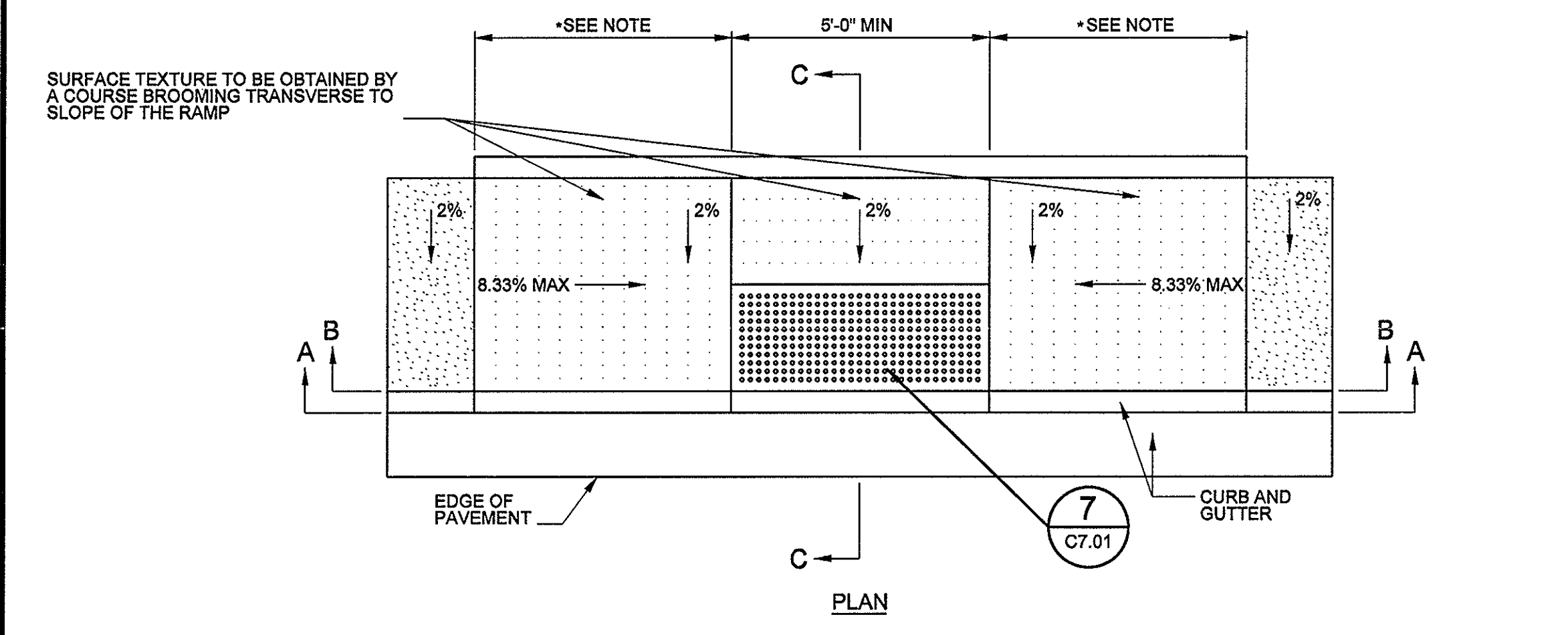


- NOTE:
1. PREFORMED 1/2\"/>
  2. SEE PAVING DETAILS FOR PAVEMENT SECTIONS, SUBBASE, SUBGRADE, AND COMPACTION REQUIREMENTS.

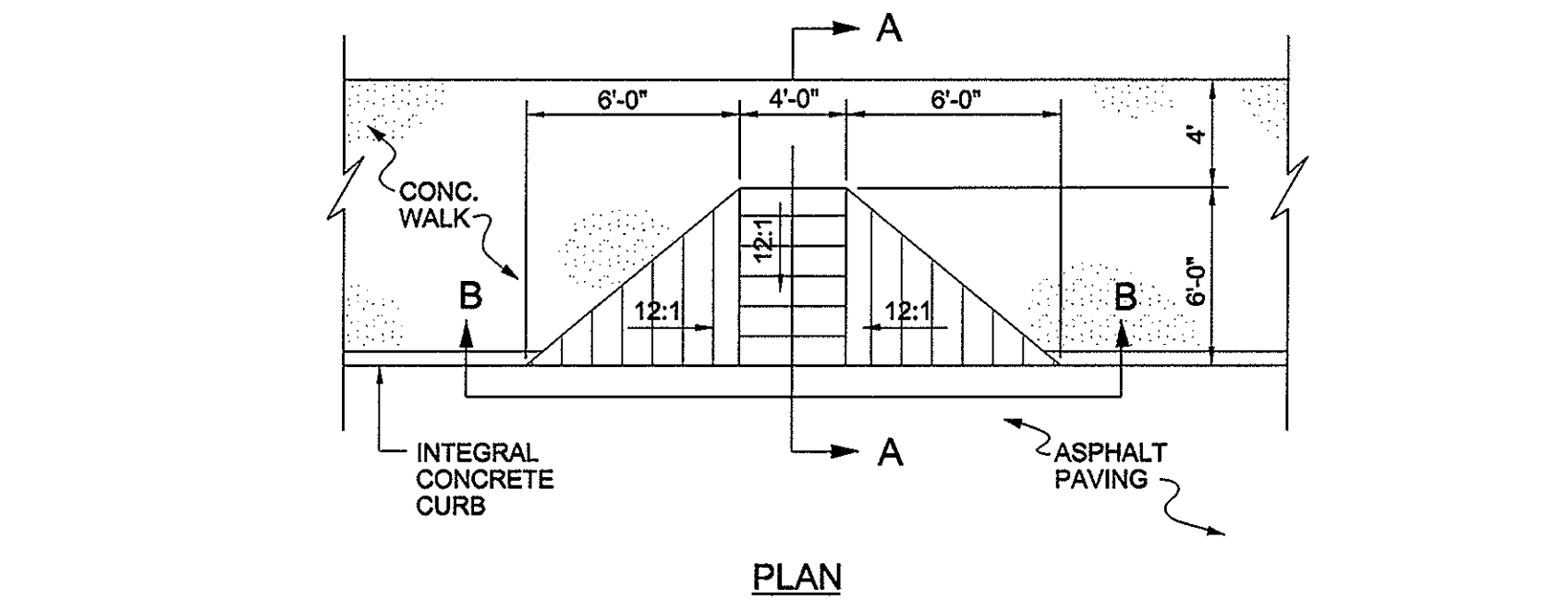
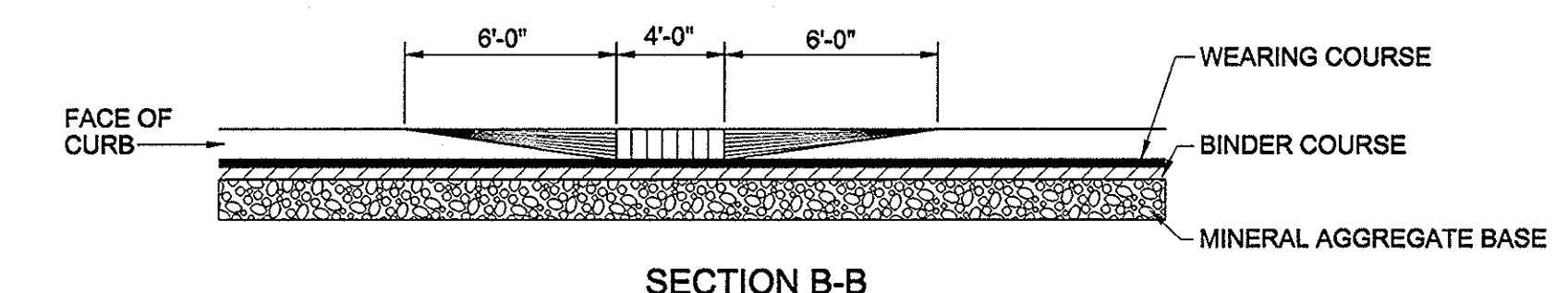
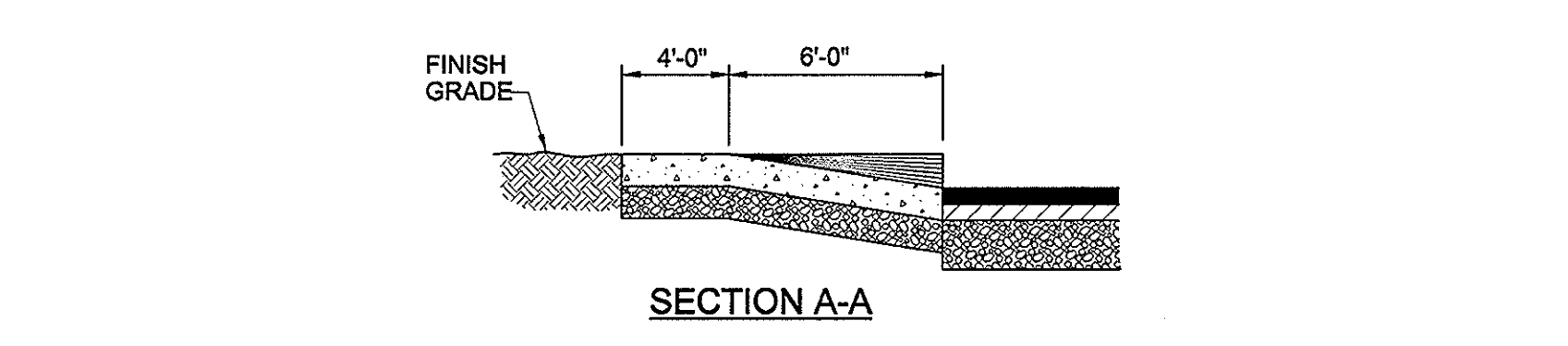
**3 SIDEWALK DETAILS**  
NTS



**4 CROSSWALK DETAIL**  
NTS

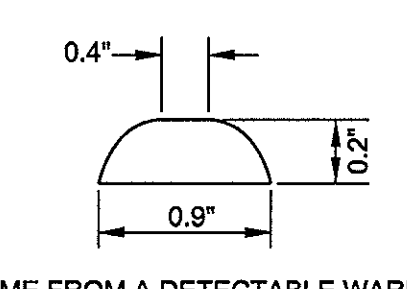


**5 PARALLEL ACCESSIBLE RAMP PLAN & SECTIONS**  
NTS

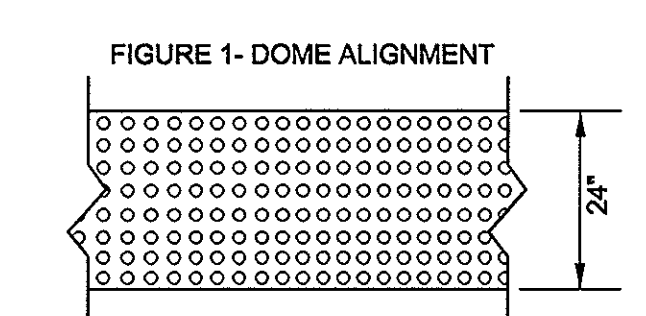


**6 PERPENDICULAR ACCESSIBLE RAMP PLAN & SECTIONS**  
NTS

- (A) SIZE: DETECTABLE WARNINGS SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
- (B) LOCATION: THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES FROM THE CURB LINE OR OTHER POTENTIAL HAZARD, SUCH AS A REFLECTING POOL EDGE OR THE DYNAMIC ENVELOPE OF RAIL OPERATIONS.
- (C) DOME SIZE AND SPACING: TRUNCATED DOMES SHALL HAVE A DIAMETER OF 0.9 INCH AT THE BOTTOM, A DIAMETER OF 0.4 INCH AT THE TOP, A HEIGHT OF 0.2 INCH AND A CENTER-TO-CENTER SPACING OF 2.35 INCHES MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT.
- (D) DOME ALIGNMENT: DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

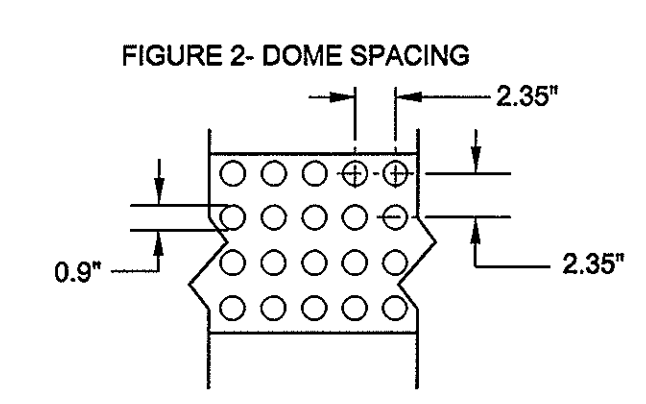


SECTION OF DOME FROM A DETECTABLE WARNING. DRAWING SHOWS HEIGHT, TOP AND BOTTOM DIMENSIONS.



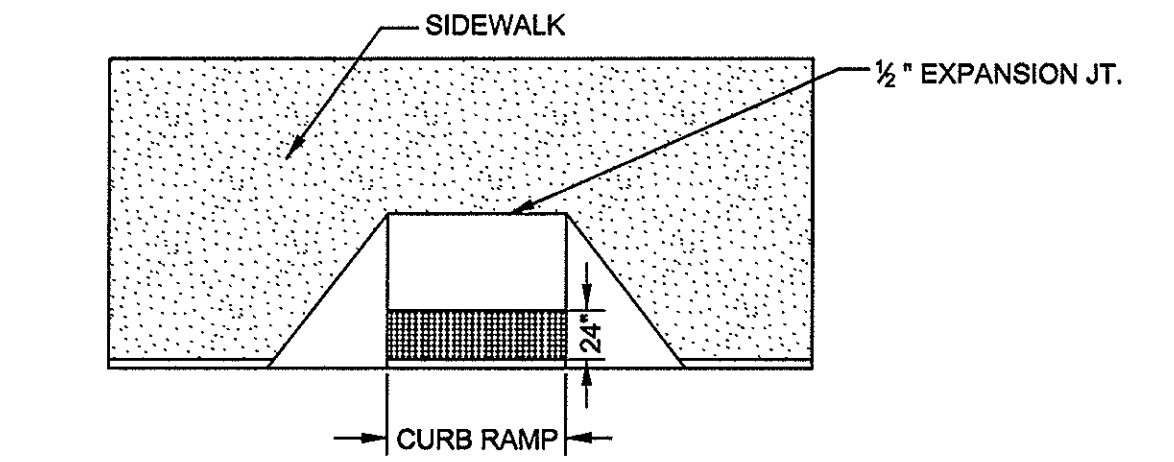
PLAN VIEW OF A DETECTABLE WARNING SURFACE SHOWING DOMES ALIGNED IN ROWS, NOT SKEWED DIAGONALLY

- (E) VISUAL CONTRAST: THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE. OR THE DETECTABLE WARNING SHALL BE "SAFETY YELLOW". THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE (OWNER MUST APPROVE COLOR PRIOR TO ORDERING).
- ADVISORY: BOTH DOMES AND UNDERLYING SURFACE MUST MEET THE CONTRAST.

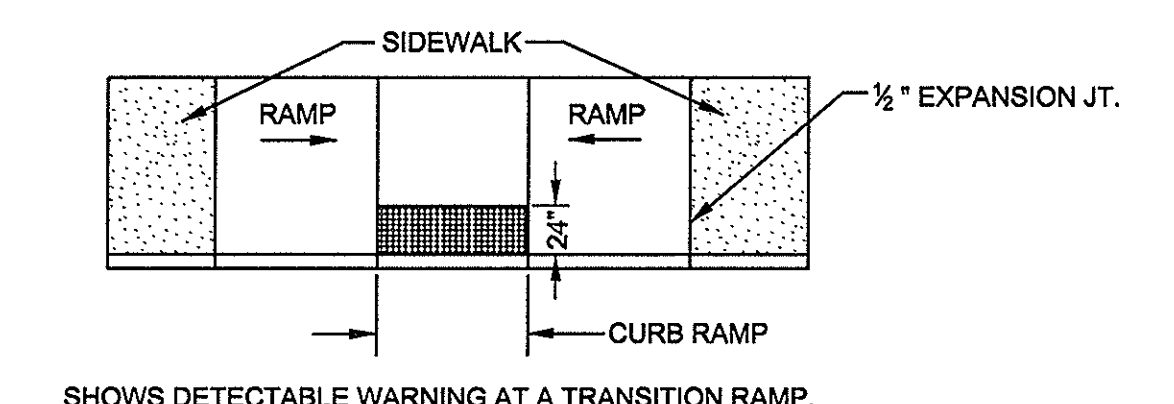


PLAN AND SECTION VIEWS OF DETECTABLE WARNING DOMES AND THEIR RELATIVE SPACING ON THE X AND Y AXIS.

NOTE: ALL CONSTRUCTION ACTIVITIES SHALL BE COMPLETED IN FULL COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD, FEDERAL REGISTER 38CFR PARTS 1190 AND 119, ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES; ARCHITECTURAL BARRIERS ACT (ABA) ACCESSIBILITY GUIDELINES; PROPOSED RULE, NOVEMBER 1999.



ILLUSTRATES 24\"/>DEEP DETECTABLE WARNING LOCATED NEAR THE STREET EDGE OF THE CURB RAMP.

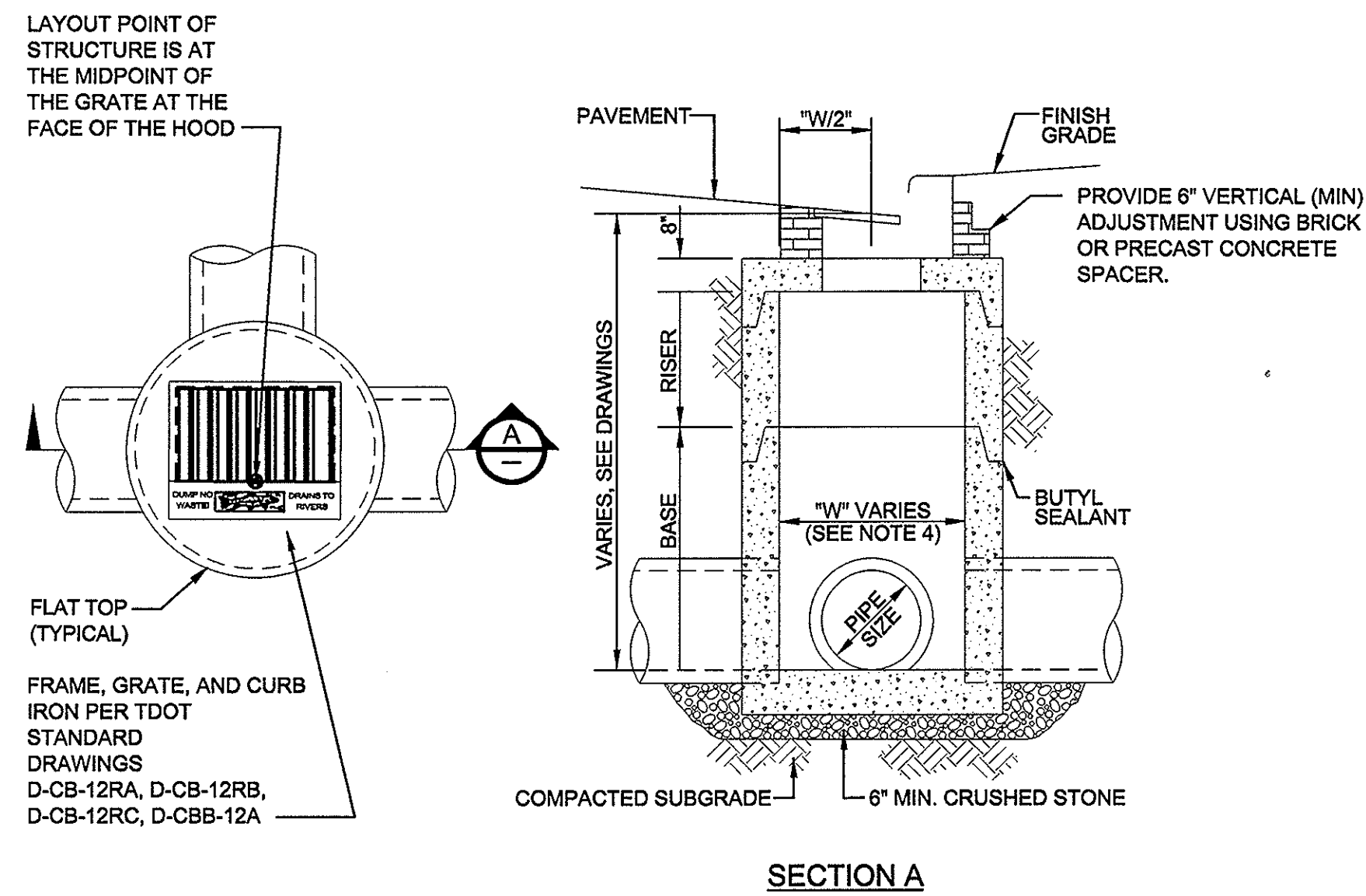


SHOWS DETECTABLE WARNING AT A TRANSITION RAMP.

NOTE: USE MINIMUM 4000 PSI FIBER REINFORCED CONCRETE ON 4\"/>MINERAL AGGREGATE BASE.

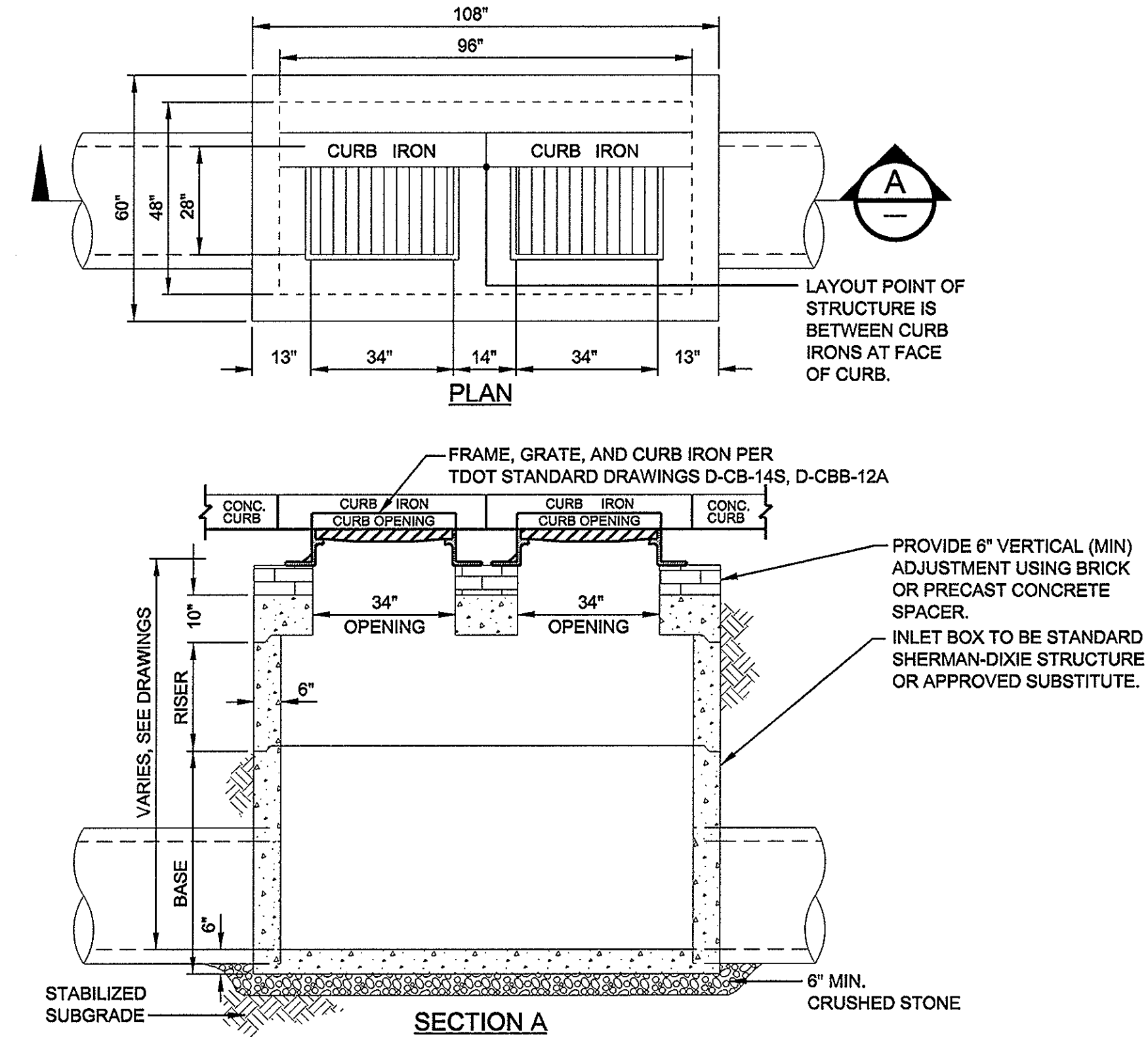
**7 A.D.A DETECTABLE WARNING DETAIL**  
NTS

DR.	CHK.	DATE	DESCRIPTION
MSH	CHW	02/12/08	ISSUED FOR PERMITTING AND CITY REVIEW
MSH	CHW	04/18/08	RE-ISSUED FOR PERMITTING
MSH	CHW	07/14/08	ISSUED FOR TROT REVIEW

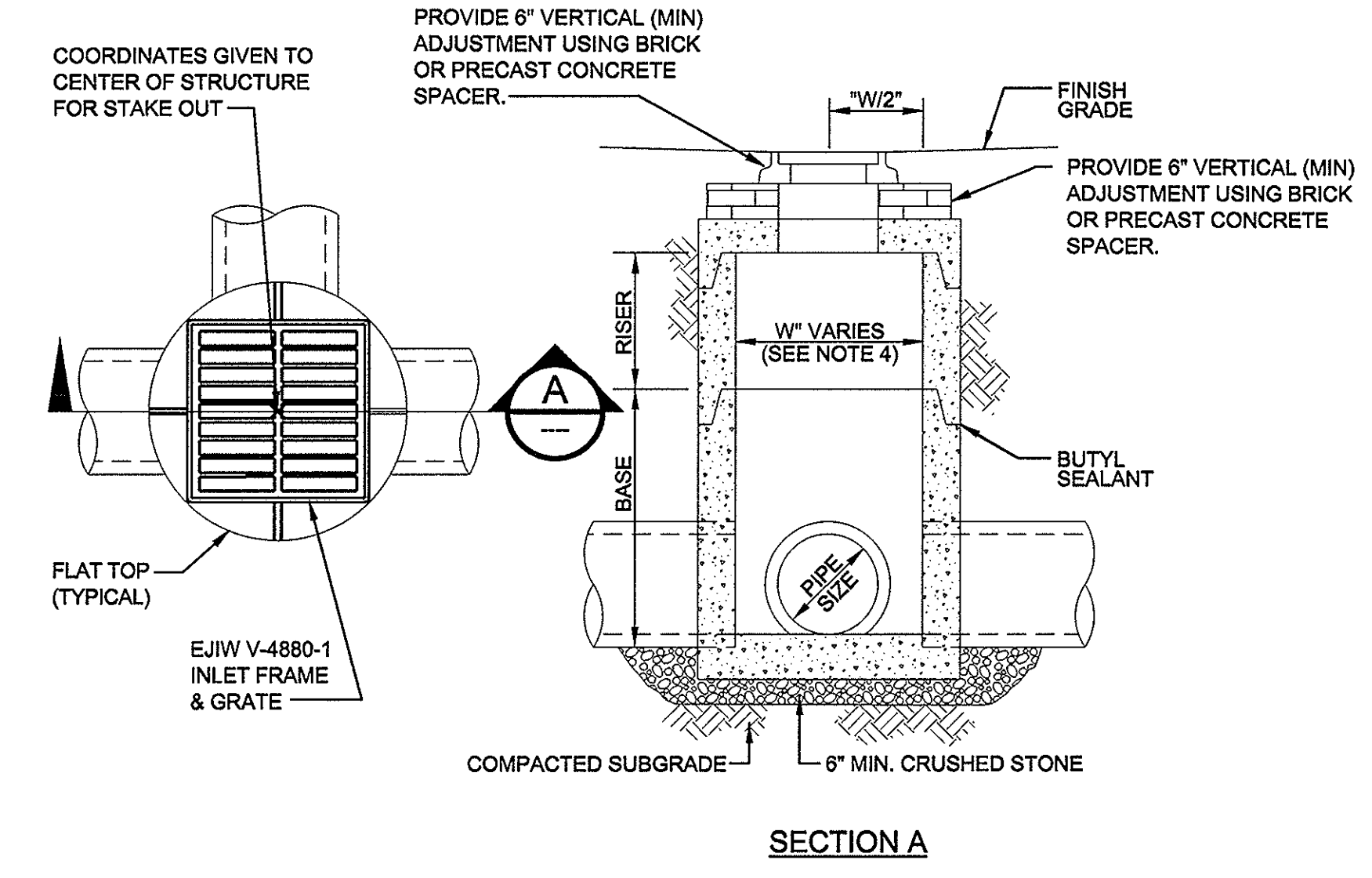


- NOTES:
1. MINIMUM CONCRETE STRENGTH - 4000 PSI.
  2. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
  3. PRECAST CATCH BASIN STRUCTURES SHALL BE STANDARD SHERMAN DIXIE STRUCTURES OR APPROVED SUBSTITUTION.
  4. STRUCTURE SHALL BE SIZED TO ACCOMMODATE PIPE DIAMETER AND MATERIALS CALLED OUT ON PLAN, AND AS REQUIRED BY TDOT STANDARD SPECIFICATIONS.
  5. PROVIDE LADDER BARS ON STRUCTURES OVER 4.0' DEEP.
  6. ANGULAR SPACE BETWEEN PIPE O.D. AND STRUCTURE SHALL BE SEALED USING NON-SHRINK GROUT.

1 PRE-CAST ROUND COMBINATION INLET  
NTS

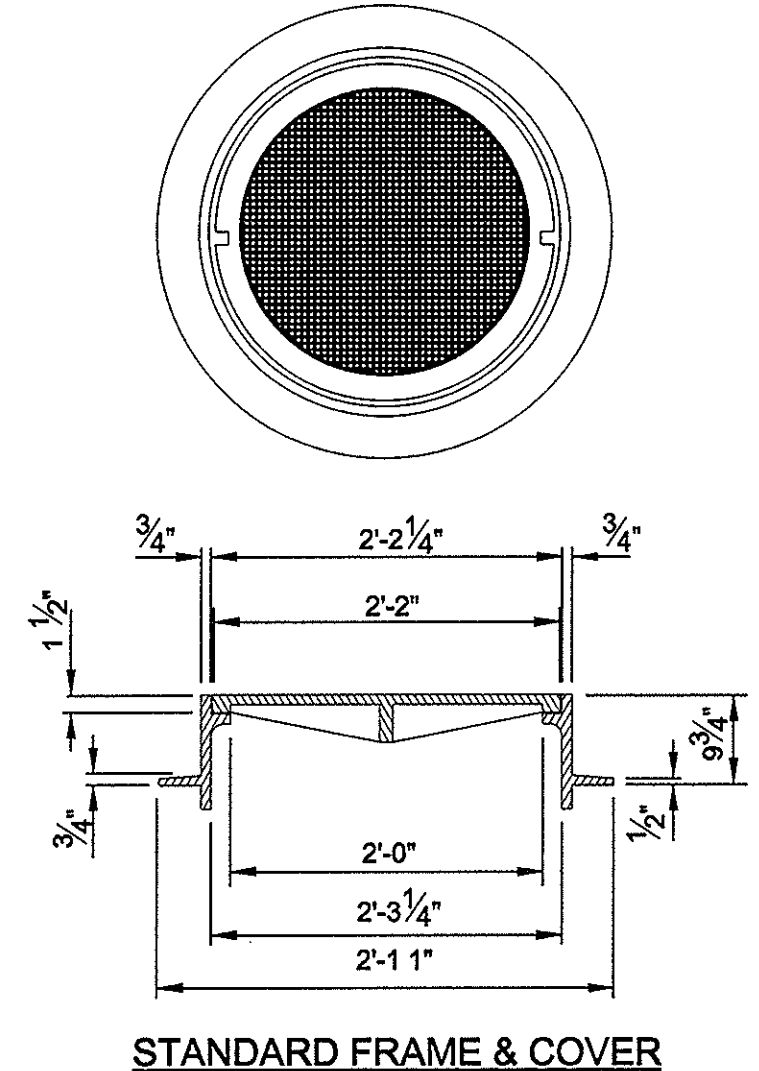


2 PRE-CAST CONCRETE DOUBLE COMBINATION INLET  
NTS



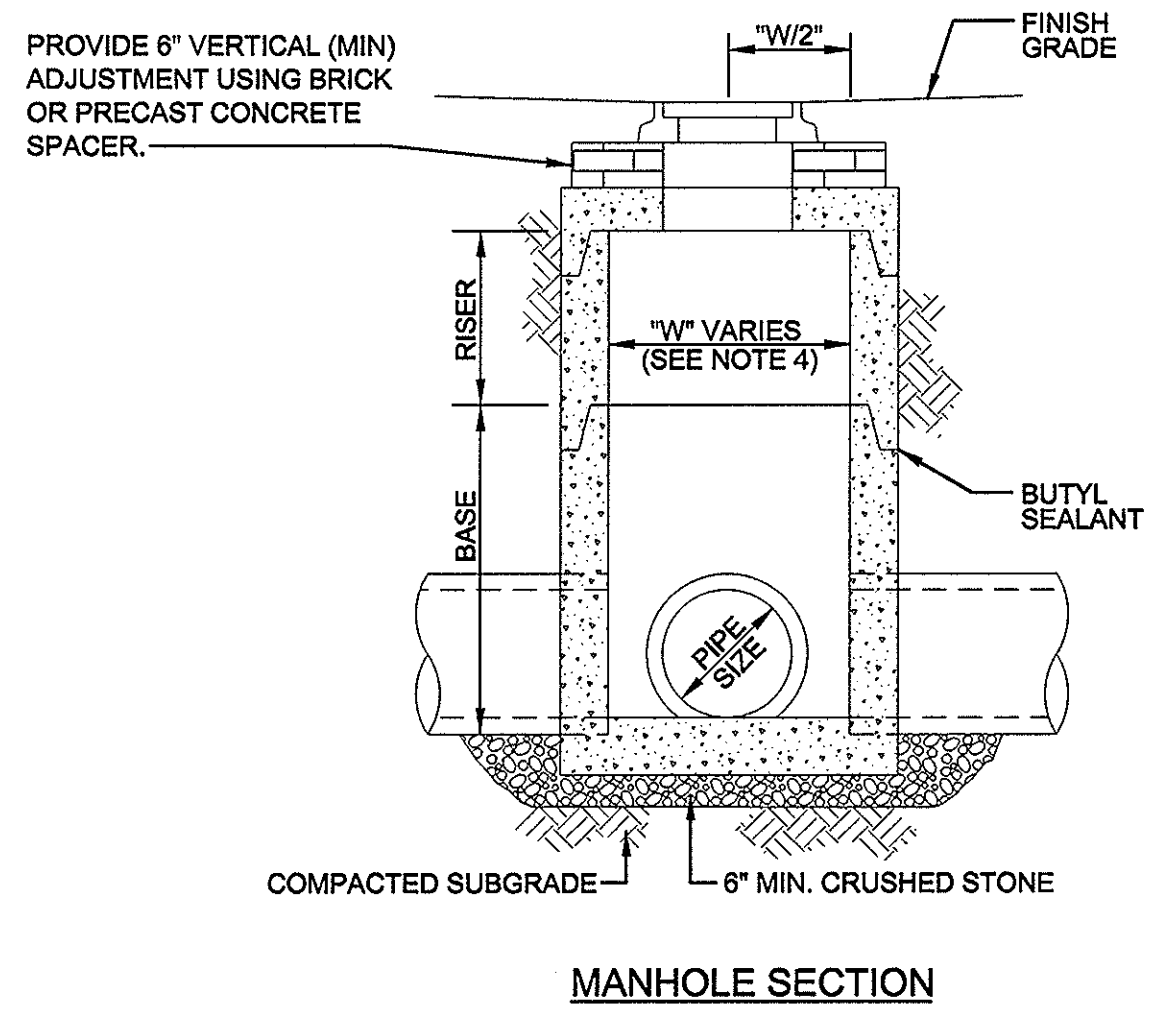
- NOTES:
1. MINIMUM CONCRETE STRENGTH - 4000 PSI.
  2. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
  3. PRECAST CATCH BASIN STRUCTURES SHALL BE STANDARD SHERMAN DIXIE STRUCTURES OR APPROVED SUBSTITUTION.
  4. STRUCTURE SHALL BE SIZED TO ACCOMMODATE PIPE DIAMETER AND MATERIALS CALLED OUT ON PLAN, AND AS REQUIRED BY TDOT STANDARD SPECIFICATIONS.
  5. PROVIDE LADDER BARS ON STRUCTURES OVER 4.0' DEEP.
  6. ANGULAR SPACE BETWEEN PIPE O.D. AND STRUCTURE SHALL BE SEALED USING NON-SHRINK GROUT.

3 PRE-CAST ROUND AREA DRAIN  
NTS

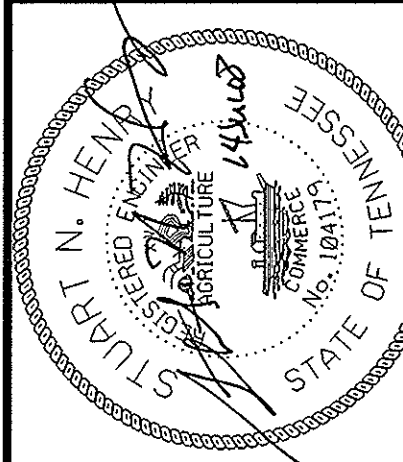


- NOTES:
1. ALL MATERIAL, DESIGN, MANUFACTURE, PHYSICAL TEST REQUIREMENTS, FINISH MARKING, INSPECTION, REJECTION & REPAIRS TO MEET SPECIFICATIONS FOR PRECAST-REINFORCED CONCRETE MANHOLE RISERS & TOPS PER ASTM-C478 LATEST REVISION.
  2. PLASTIC COATED STEPS, IF DESIRED, SHALL BE PLACED STRAIGHT IN LINE ON 12\"/>

4 PRE-CAST ROUND STORM MANHOLE  
NTS

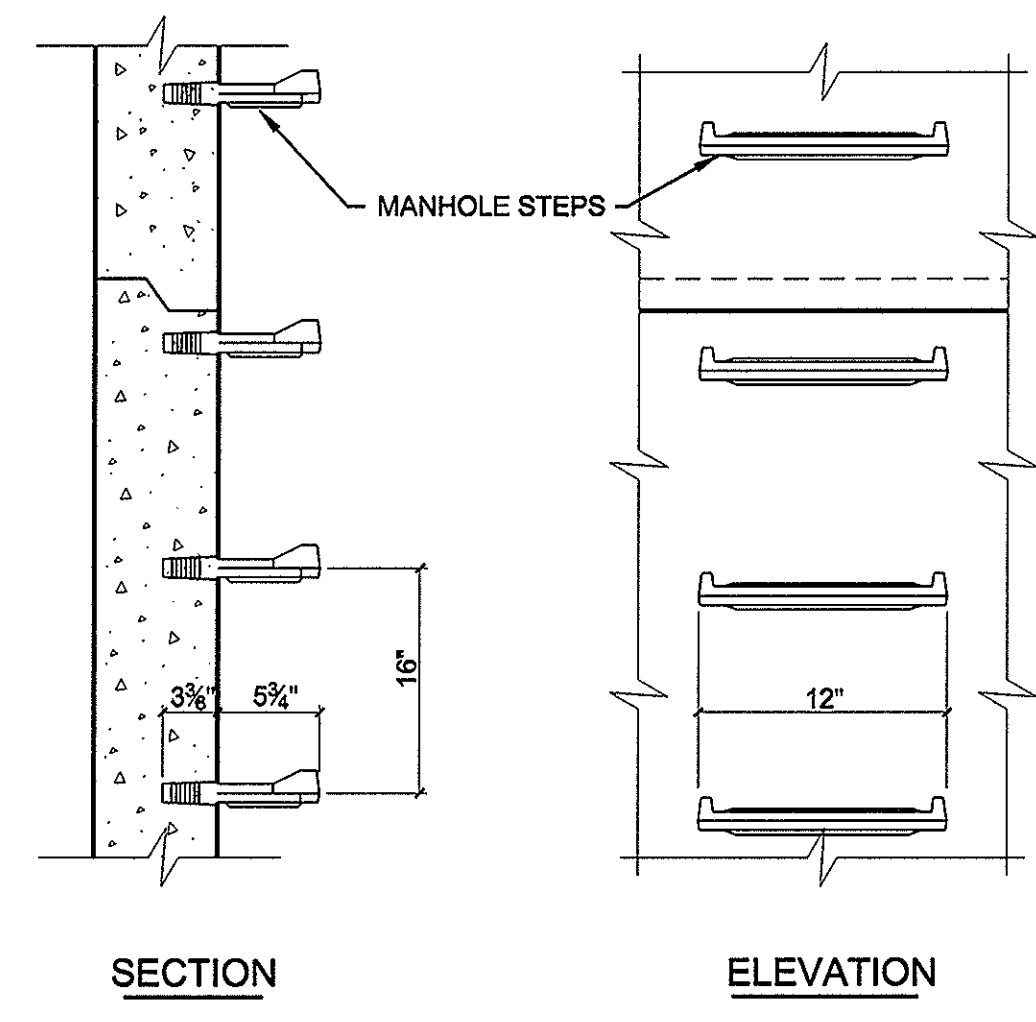


- NOTES:
1. MINIMUM CONCRETE STRENGTH - 4000 PSI.
  2. SEE GRADING AND DRAINAGE PLAN FOR PIPE SIZES, LOCATIONS, AND FLOW LINES.
  3. PRECAST CATCH BASIN STRUCTURES SHALL BE STANDARD SHERMAN DIXIE STRUCTURES OR APPROVED SUBSTITUTION.
  4. STRUCTURE SHALL BE SIZED TO ACCOMMODATE PIPE DIAMETER AND MATERIALS CALLED OUT ON PLAN, AND AS REQUIRED BY TDOT STANDARD SPECIFICATIONS.
  5. PROVIDE LADDER BARS ON STRUCTURES OVER 4.0' DEEP.
  6. ANGULAR SPACE BETWEEN PIPE O.D. AND STRUCTURE SHALL BE SEALED USING NON-SHRINK GROUT.

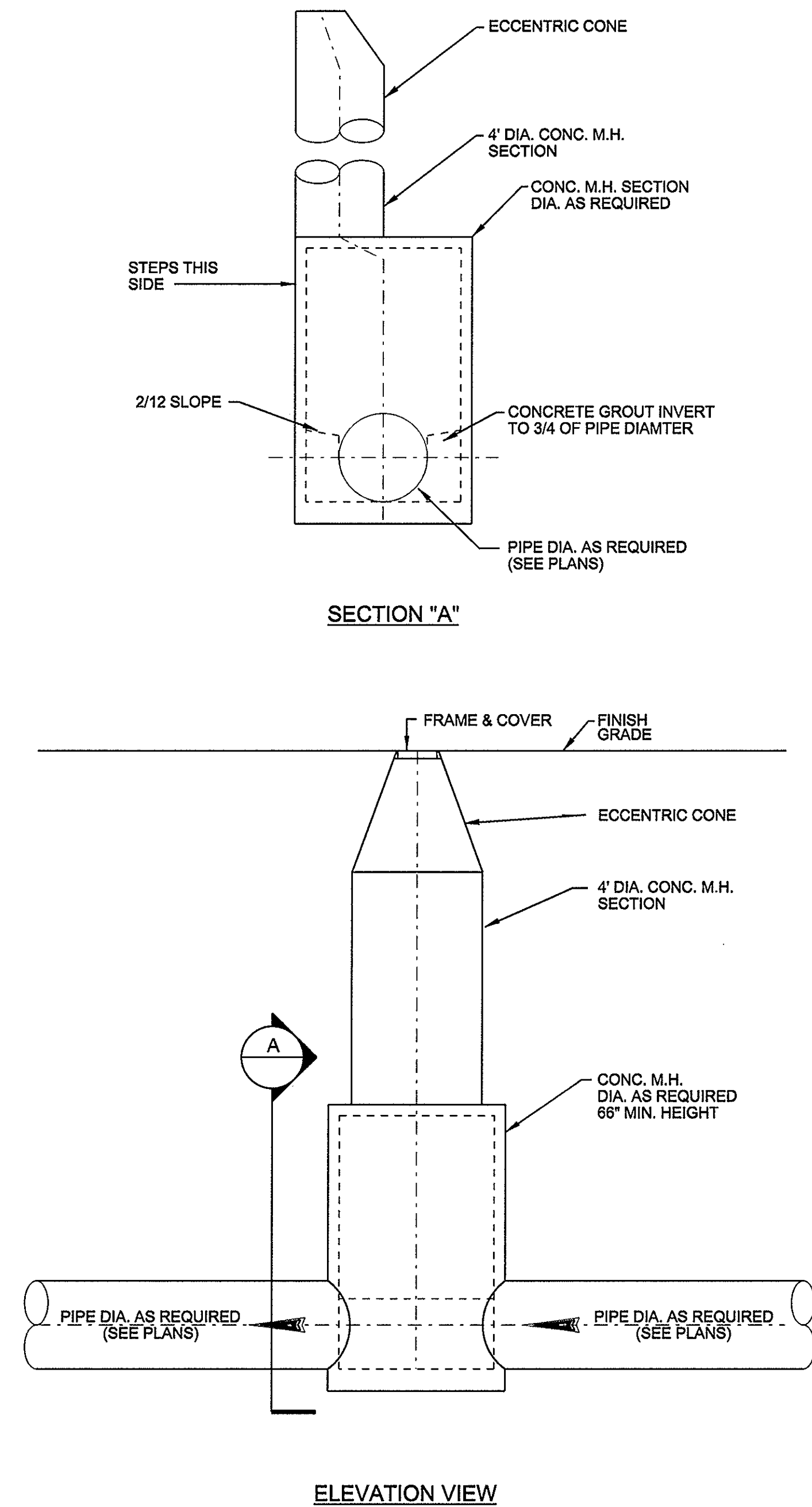


DR.	CHK.	DATE	DESCRIPTION
MRH	GWJ	02/12/08	ISSUED FOR PERMITTING AND CITY REVIEW
MRH	GRE	04/18/08	RE-ISSUED FOR PERMITTING
MRH	MRH	07/14/08	ISSUED FOR TDOT REVIEW

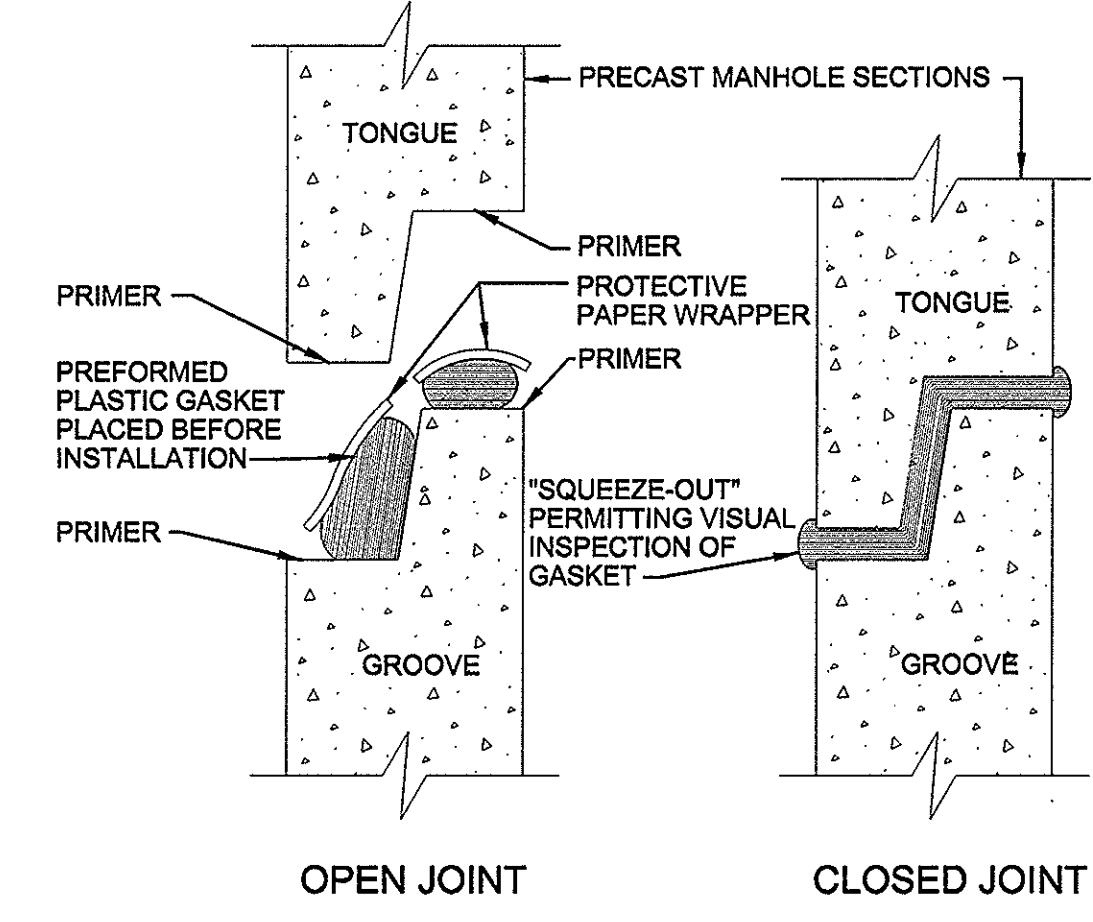
NOTE:  
3/8" STEEL REINFORCED ROD ENCAPSULATED  
IN POLYPROPYLENE PLASTIC OR EQUAL



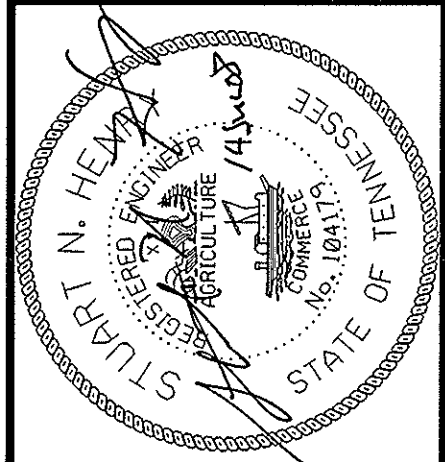
STANDARD LADDER BARS DETAIL  
NOT TO SCALE



1 STORM MANHOLE DETAIL W/4' DIA. RISER  
NTS

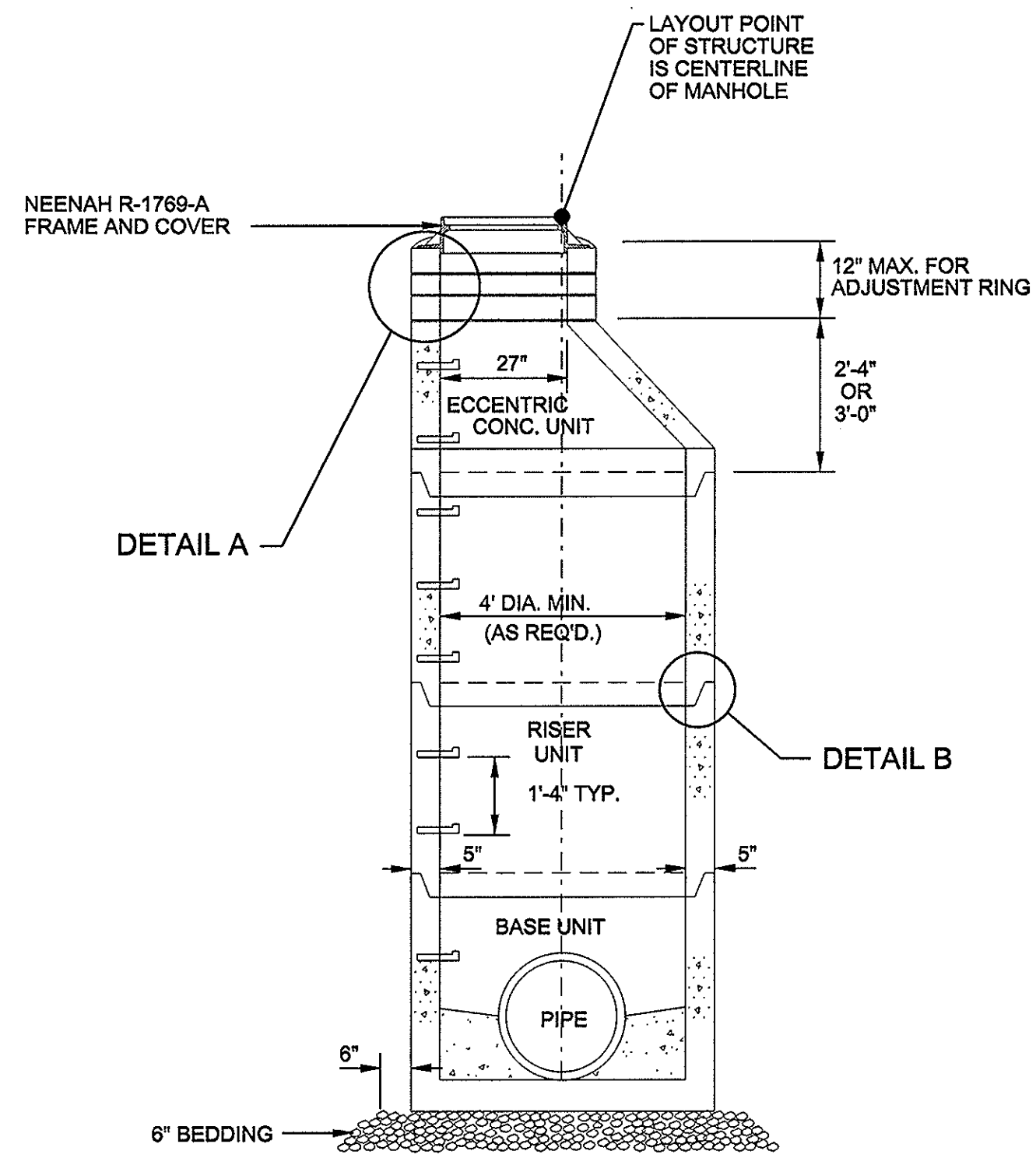


NOTE:  
1. CONTRACTOR SHALL COORDINATE MANHOLE BASE SIZE  
AS REQUIRED TO ACCOMMODATE PIPE SIZES CALLED ON PLANS  
AT THE REQUIRED LAYOUT GEOMETRY.

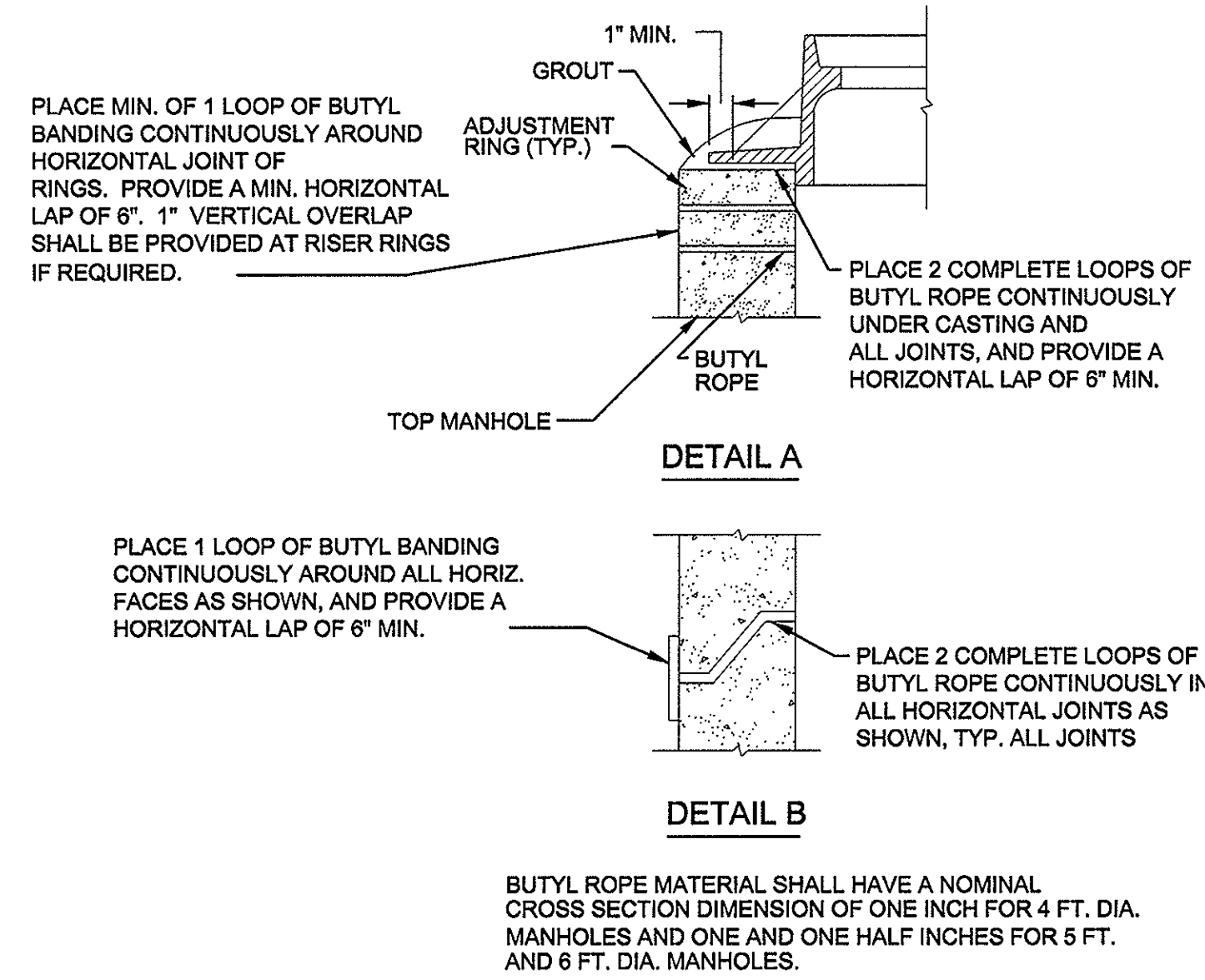


DR.	CHK.	DATE	DESCRIPTION
MPH	GWJ	02/12/08	ISSUED FOR PERMITTING AND CITY REVIEW
MPH	GRE	04/18/08	RE-ISSUED FOR PERMITTING
MPH	SPK	07/14/08	ISSUED FOR TOOT REVIEW

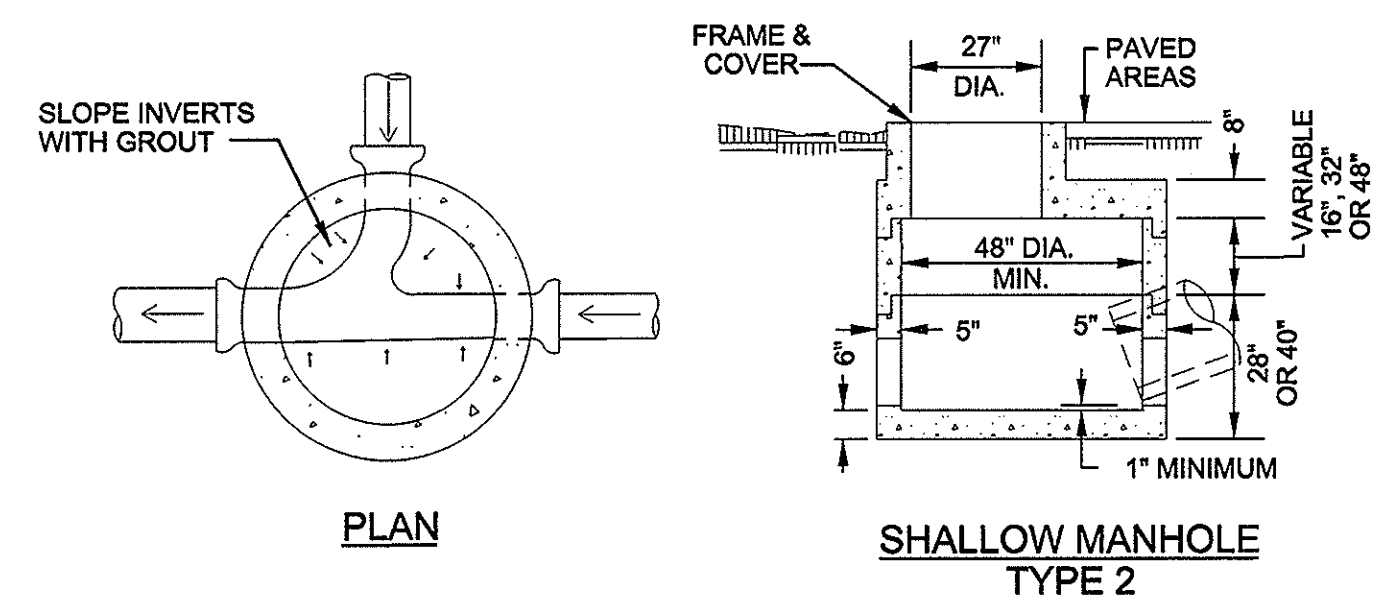




**PRECAST SANITARY MANHOLE**  
N.T.S.

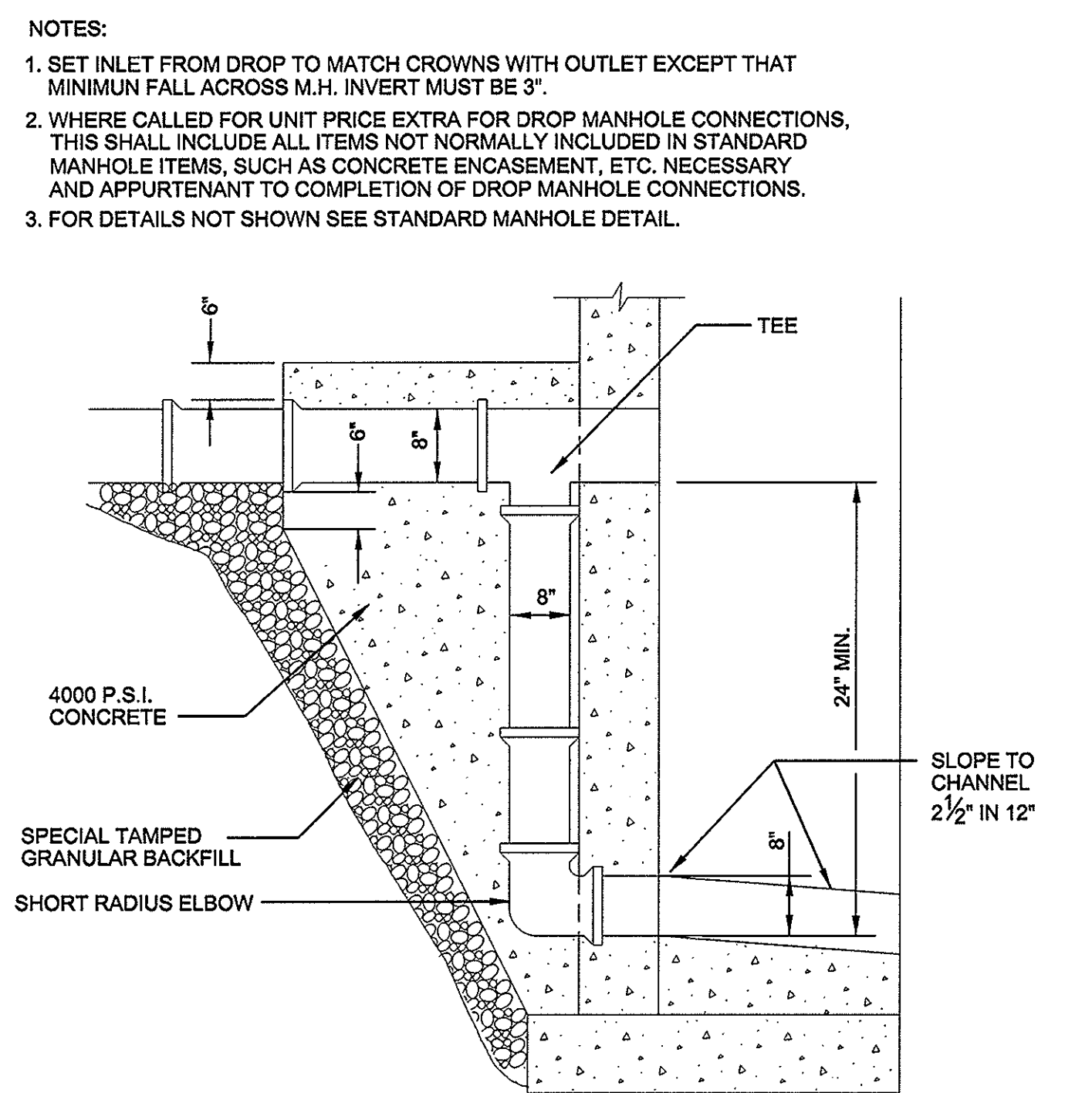


**SANITARY MANHOLE JOINT DETAIL**  
N.T.S.

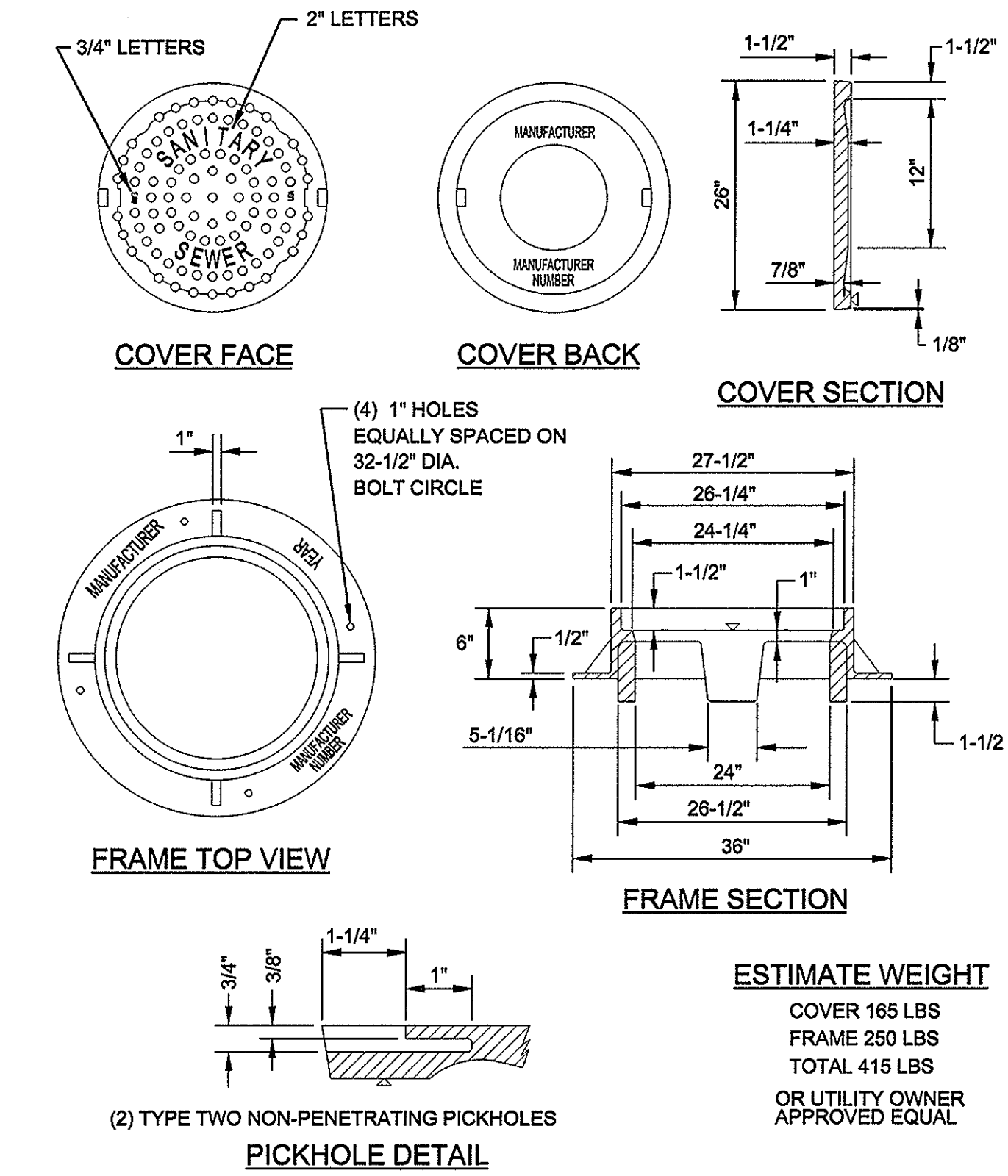


- NOTES:**
- ALL ELEMENTS PRECAST TO MEET SPECIFICATION ASTM C-478 LATEST REVISION.
  - SEAL ALL PRECAST JOINTS WITH PREFORMED MASTIC GASKET AS PER MANUFACTURER'S RECOMMENDATIONS.
  - THE HOLE FOR PIPE IS TO BE MANUFACTURED AS TO ALLOW FOR LATERAL AND VERTICAL MOVEMENT, AS WELL AS ANGULAR ADJUSTMENTS THRU 20°.
  - OPENINGS FOR PIPE ARE CORED TO PROVIDE REQUIRED SIZE AND LOCATION.
  - FLEXIBLE BOOT MEETING ASTM C-443 WITH KORBRAND AND EXTERNAL BAND SHALL BE USED FOR SANITARY SEWER, STORM SEWER CONNECTIONS SHALL BE SEALED USING NON-SHRINK GROUT.
  - PROVIDE LADDER BARS ON STRUCTURES OVER 4.0' DEEP.

**1 SANITARY MANHOLE**  
N.T.S.

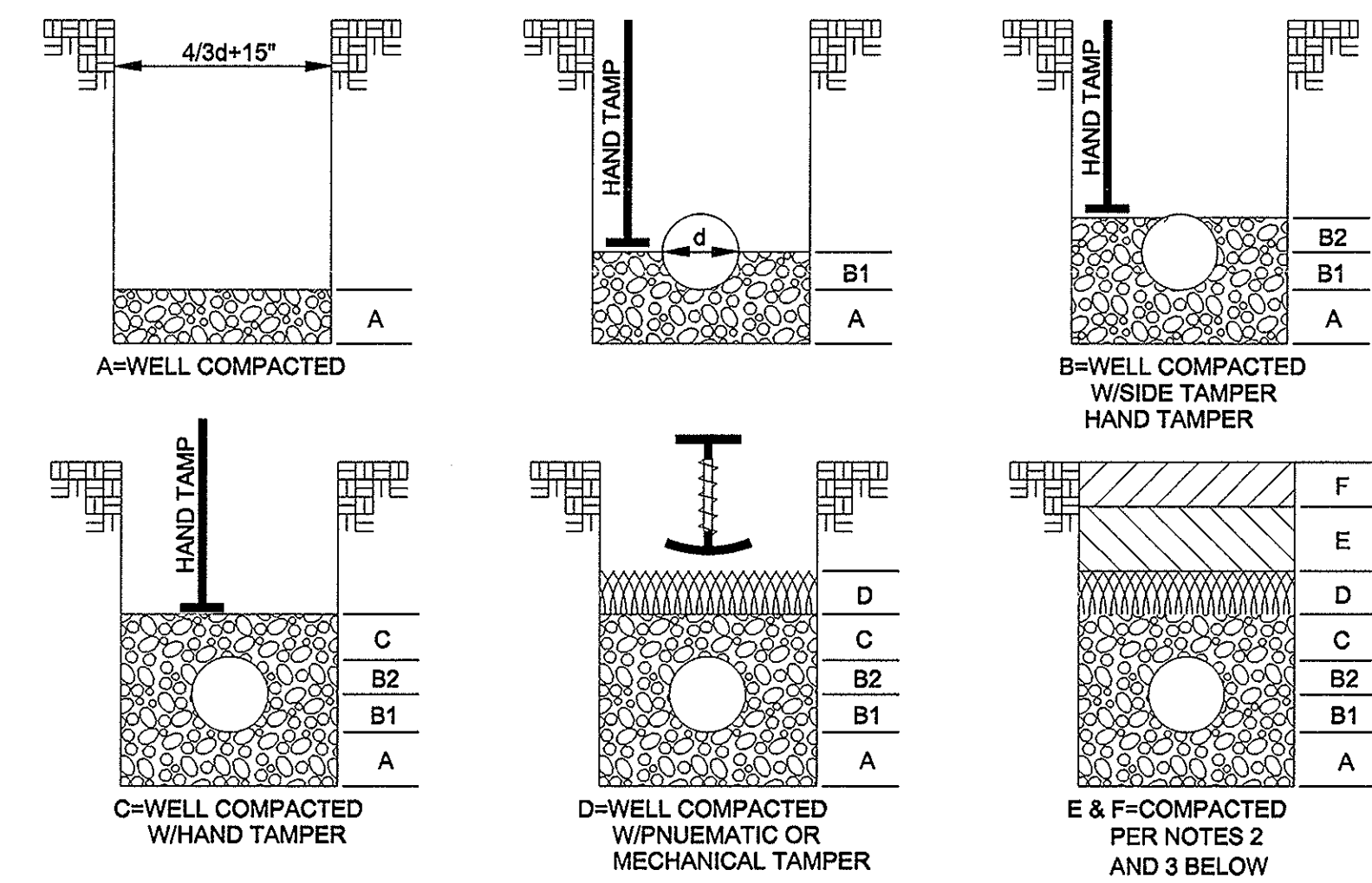


**DROP CONNECTION AT PRECAST MANHOLE**  
N.T.S.



**2 SANITARY MANHOLE FRAME AND COVER**  
N.T.S.

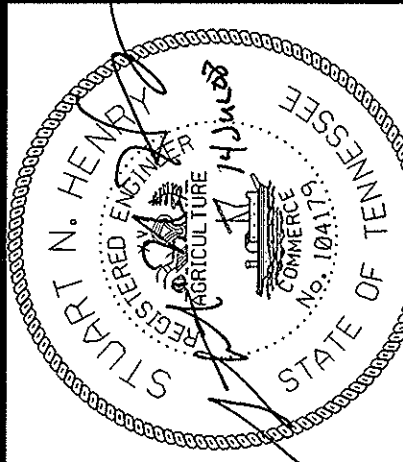
**ESTIMATE WEIGHT**  
COVER 165 LBS  
FRAME 250 LBS  
TOTAL 415 LBS  
ON SITE BY OWNER  
APPROVED EQUAL



LAYER	DEPTH	MATERIAL
A	6" MIN.	CLASS 1A OR 1B OUTSIDE R.O.W., CLASS 1B INSIDE R.O.W.
B	VARIES	CLASS 1A OR 1B OUTSIDE R.O.W., CLASS 1B INSIDE R.O.W.
C	6"	CLASS 1A OR 1B OUTSIDE R.O.W., CLASS 1B INSIDE R.O.W.
D	6"	CLASS 1B BENEATH PAVED AREAS (INCLUDING SIDEWALKS), CLASS III OR IV BENEATH LANDSCAPE AREAS
E	VARIES	CLASS 1B BENEATH PAVED AREAS (INCLUDING SIDEWALKS), CLASS III OR IV BENEATH LANDSCAPE AREAS
F	12"	CLASS 1B BENEATH PAVED AREAS (INCLUDING SIDEWALKS), CLASS III OR IV BENEATH LANDSCAPE AREAS

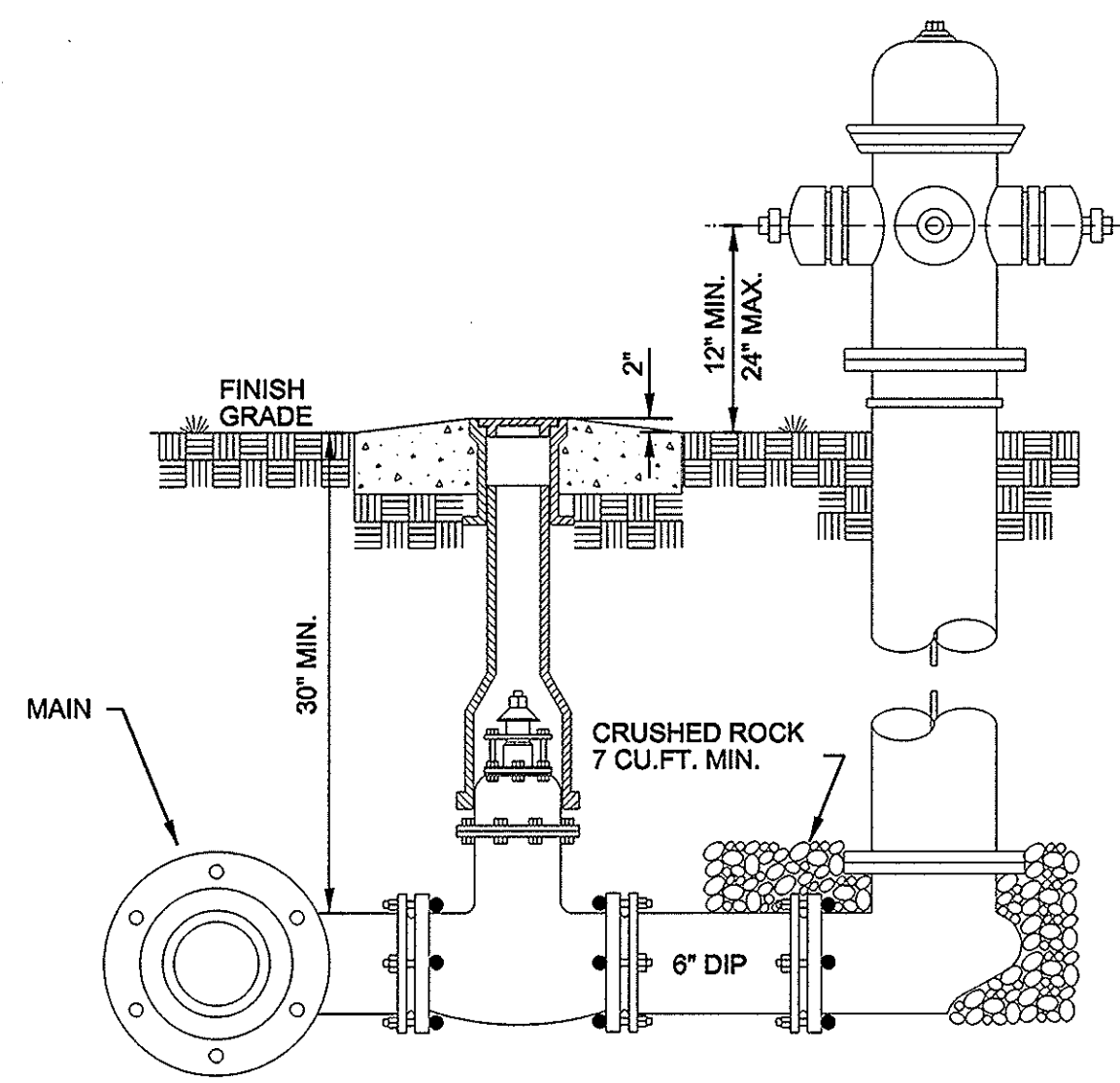
- NOTES:**
- SOIL CLASSES ARE DESCRIBED BY AASHTO T-99.
  - CLASS 1A MATERIAL SHALL BE #57 OR #67 STONE. CLASS 1B MATERIAL SHALL BE MINERAL AGGREGATE BASE, TDOT CLASS A GRADING D, COMPACTED IN 6" LIFTS TO 100% MAXIMUM DRY DENSITY PER AASHTO T-99.
  - CLASS III OR IV MATERIAL SHALL CONSIST OF NATIVE SILTY AND CLAYEY SOILS, CAPABLE OF SUSTAINING ROOT GROWTH, AND IS TO BE TAMPED IN LIFTS NO GREATER THAN 12" THICK TO 95% MAXIMUM DRY DENSITY PER AASHTO T-99.

**3 TRENCH BACKFILL DETAIL**  
N.T.S.



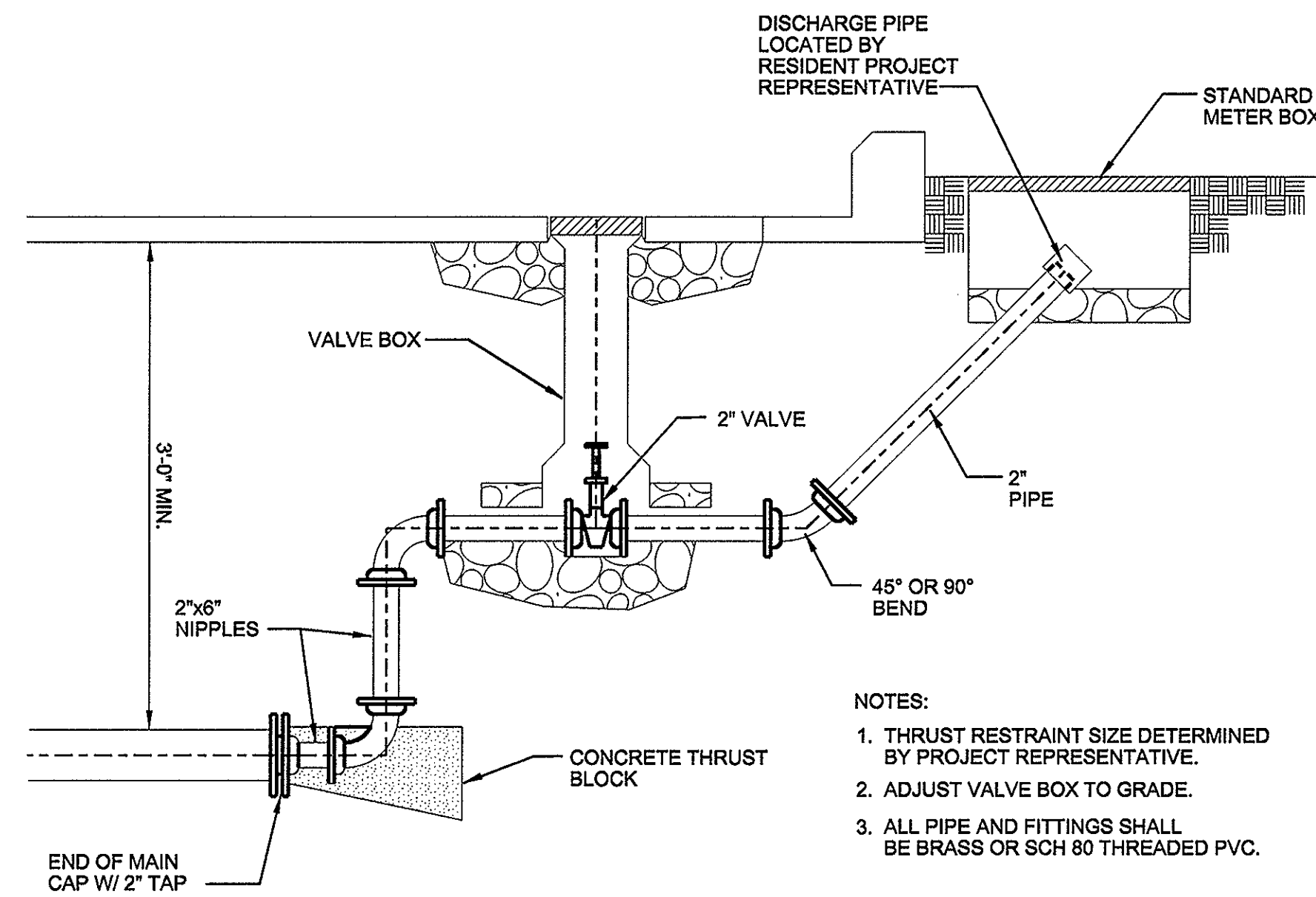
DR.	CHK.	DATE	DESCRIPTION
MPH	OWJ	02/22/08	ISSUED FOR PERMITTING AND CITY REVIEW
MPH	GRE	04/18/08	RE-ISSUED FOR PERMITTING
MPH	GRE	07/09/08	RE-ISSUED FOR PERMITTING
MPH	SMH	07/14/08	ISSUED FOR TDOT REVIEW

**C8.21**  
FILE NO. 33211-00



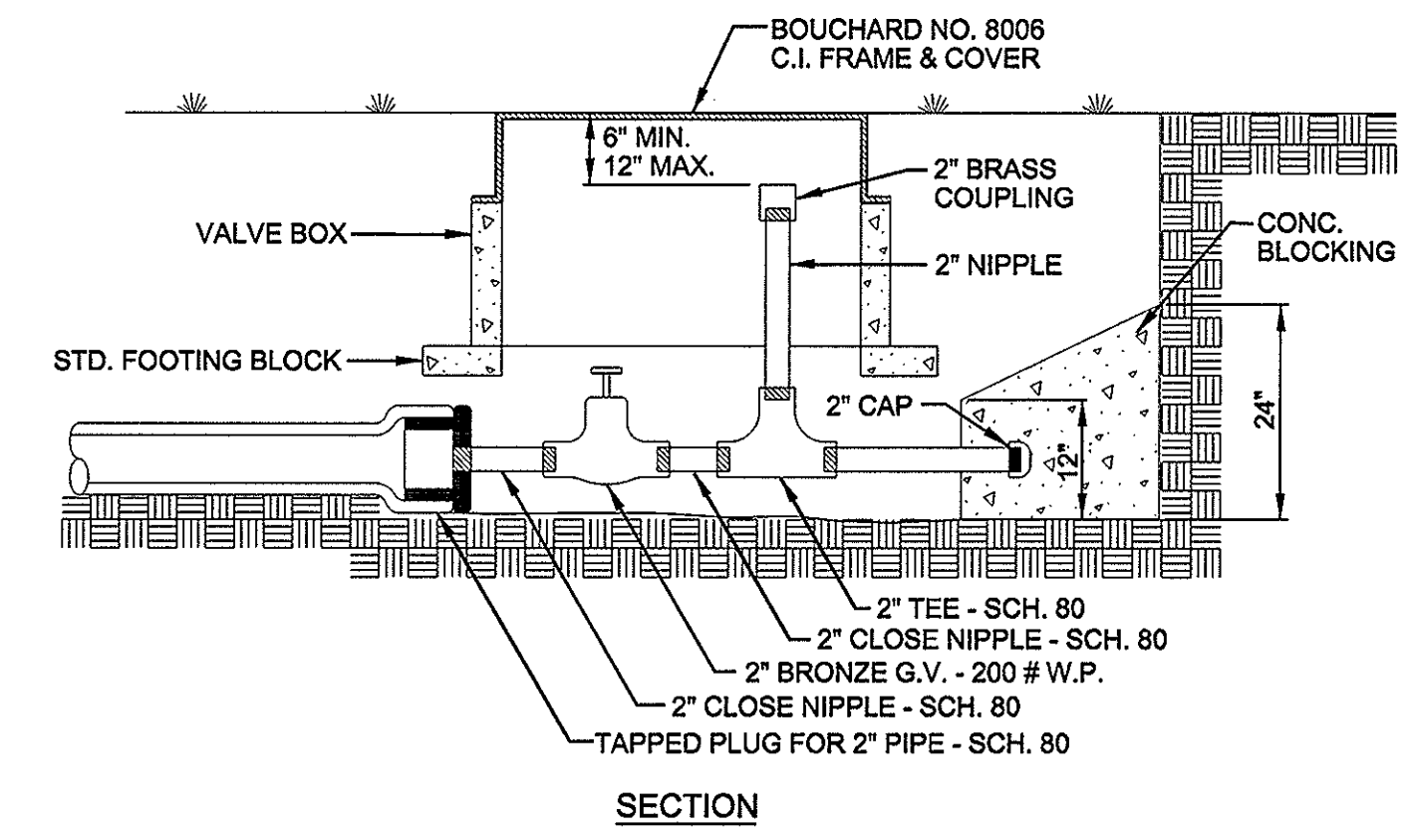
- NOTES:
1. FIRE HYDRANT MAKE AND MODEL IS TO BE ONE THAT HAS BEEN APPROVED BY THE GOVERNING AUTHORITY.
  2. OPERATING NUT, DIRECTION OF OPENING, CAP NUT AND THREAD AND CONNECTIONS MUST BE APPROVED IN WRITING BY THE UTILITY OWNER AS CONFORMING TO THEIR STANDARDS.
  3. CAST AROUND THE TOP OF EACH VALVE BOX A CONCRETE DISK 2'-0" DIA. OR 2'-0" SQUARE AND 8" THICK WHEN VALVES ARE LOCATED IN UNPAVED AREA. NOT REQUIRED IN PAVED AREAS.
  4. BLOCK HYDRANT AS SHOWN ON CONCRETE THRUST BLOCKING DETAILS IN THIS SHEET.
  5. USE CARE TO ENSURE THAT DRAIN HOLES ARE NOT PLUGGED.

1 FIRE HYDRANT ASSEMBLY  
N.T.S.

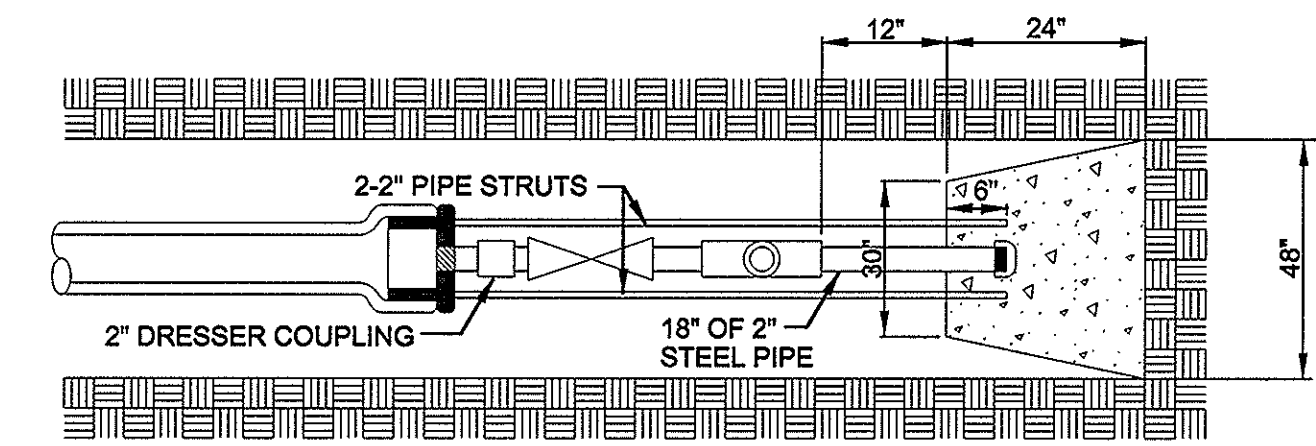


- NOTES:
1. THRUST RESTRAINT SIZE DETERMINED BY PROJECT REPRESENTATIVE.
  2. ADJUST VALVE BOX TO GRADE.
  3. ALL PIPE AND FITTINGS SHALL BE BRASS OR SCH 80 THREADED PVC.

2 MAIN LINE BLOW-OFF  
N.T.S.

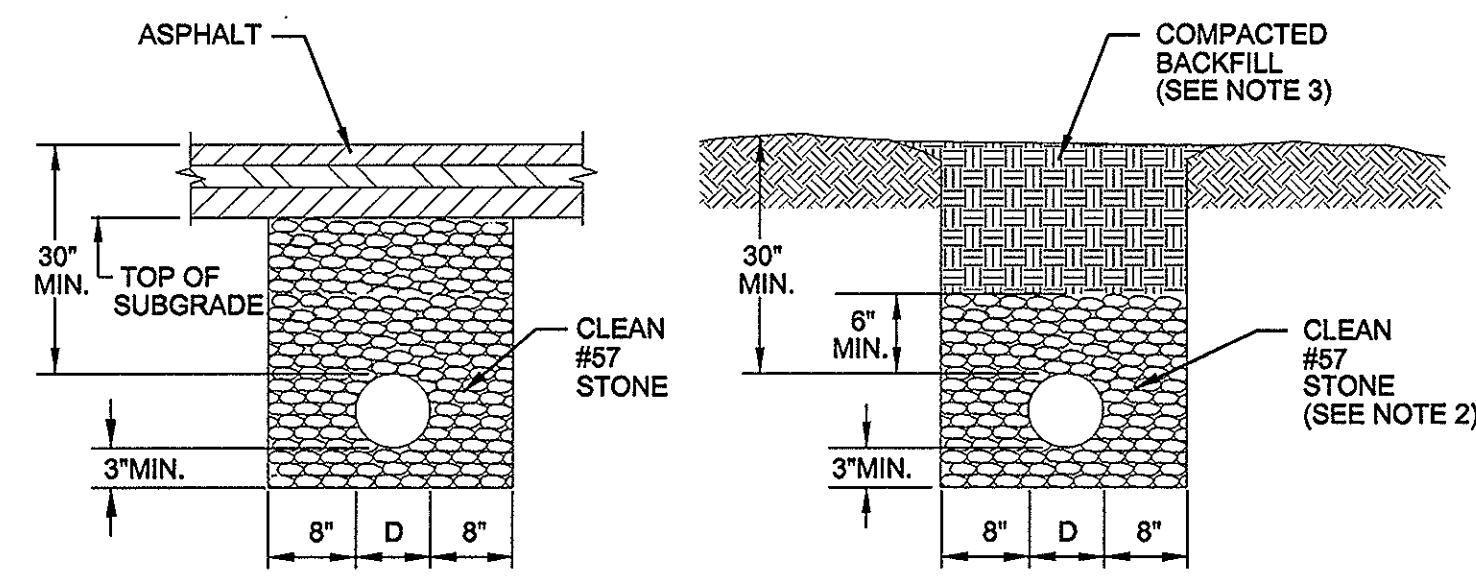


SECTION



PLAN OF CONG. BLOCKING

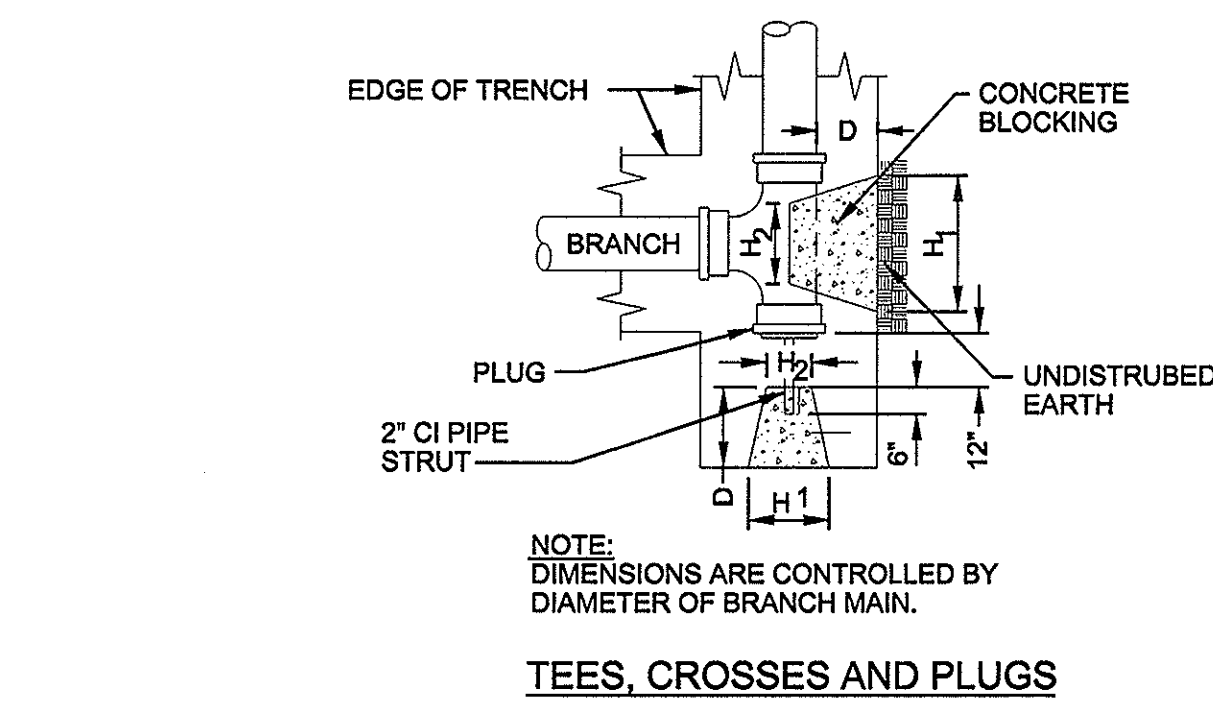
3 2" BLOW-OFF  
N.T.S.



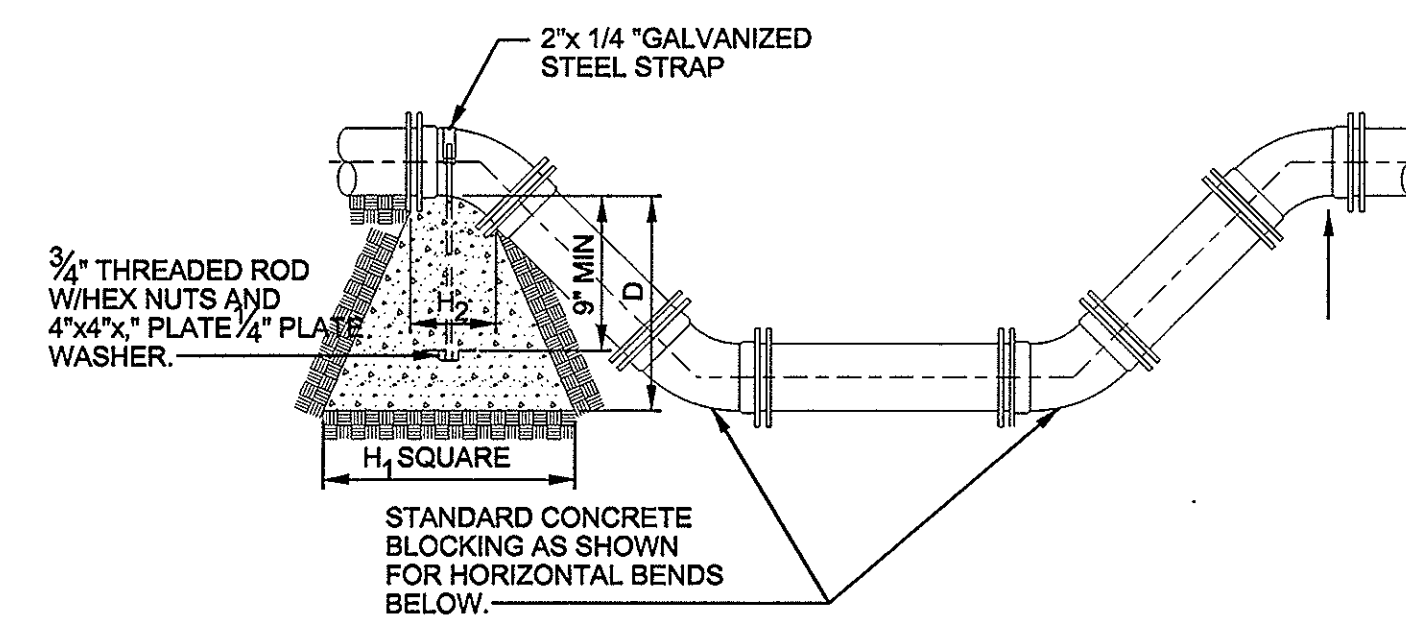
NEW PAVED AREAS (SEE NOTE 1) UNPAVED AREAS (PVC PIPE)

- NOTES:
1. SEE ADDITIONAL DETAIL FOR INSTALLATION UNDER EXISTING ROADWAYS.
  2. DUCTILE IRON PIPE MAY OPTIONALLY BE BEDDED WITH CLASS I, II, OR III MATERIALS IN ACCORDANCE WITH ASTM D2321.
  3. ALL WATER LINES WITHIN THREE FEET OF BACK OF CURB MEASURED FROM CENTER LINE OF PIPE SHALL BE BACKFILLED ABOVE EMBEDMENT MATERIAL TO WITHIN ONE FOOT OF FINISHED GROUND ELEVATION WITH NO. 57 STONE.
  4. BEDDING AND BACKFILL MATERIAL CLASSIFICATIONS AS FOLLOWS:  
 A. CLASS 1 MATERIALS: ANGULAR 1/4 TO 1 INCH GRADED TOOT NO. 67 STONE.  
 B. CLASS 2 MATERIALS: COARSE SANDS AND GRAVELS WITH A MAXIMUM PARTICLE DIMENSION OF 1 1/2 INCH INCLUDING VARIOUSLY GRADED SAND AND GRAVELS CONTAINING SMALL PERCENTAGES OF FINES. GENERALLY GRANULAR AND NON-COHESIVE, EITHER WET OR DRY.  
 C. CLASS 3 MATERIALS: FINE SAND AND CLAYEY GRAVELS, INCLUDING FINE SANDS, SAND-CLAY MIXTURES, AND GRAVEL-CLAY MIXTURES.  
 D. CLASS 4 MATERIALS: SILT, SILTY CLAYS AND CLAYS, INCLUDING INORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY AND LIQUID LIMITS.  
 E. CLASS 5 MATERIALS: ORGANIC SOILS, AS WELL AS SOIL CONTAINING FROZEN EARTH, DEBRIS, ROCKS LARGER THAN 1 1/2 INCHES AND OTHER FOREIGN MATERIALS.

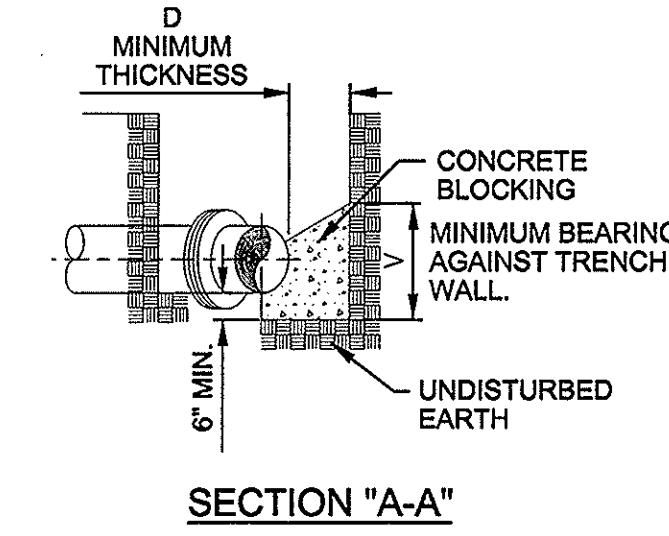
4 BACKFILLING AND COMPACTION OF WATER LINES  
N.T.S.



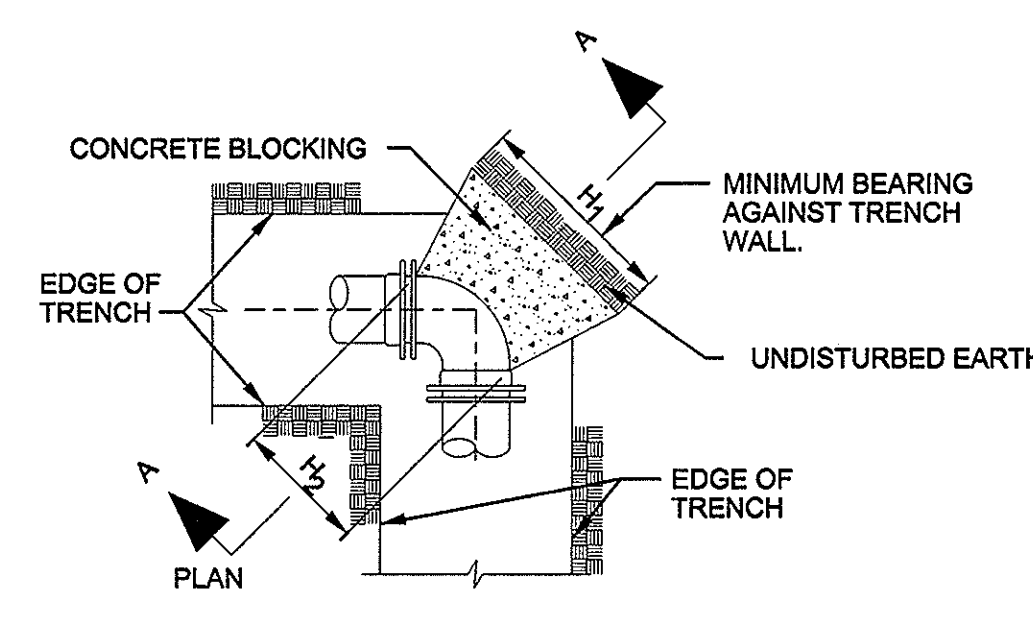
TEES, CROSSES AND PLUGS



VERTICAL BENDS



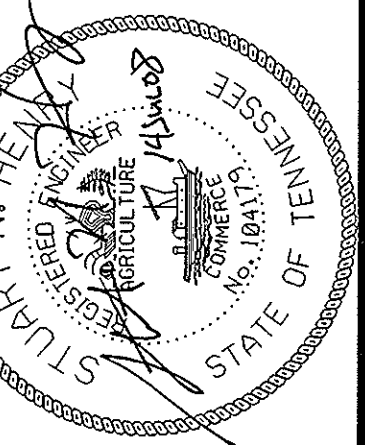
SECTION "A-A"



HORIZONTAL BENDS

- NOTES:
1. CONTRACTOR SHALL COORDINATE USE IF THRUST BLOCKS AND/OR RESTRAINED JOINT DEVICES WITH THE UTILITY.
  2. THRUST BLOCK SIZE SHALL BE CALCULATED BASED UPON SOIL BEARING CAPACITY, FOR SITE CONDITIONS, AND PIPE TEST PRESSURE.
  3. ALL JOINT RESTRAINT SHALL MEET OR EXCEED PIPE MANUFACTURER'S REQUIREMENTS.

5 CONCRETE THRUST BLOCKING  
N.T.S.

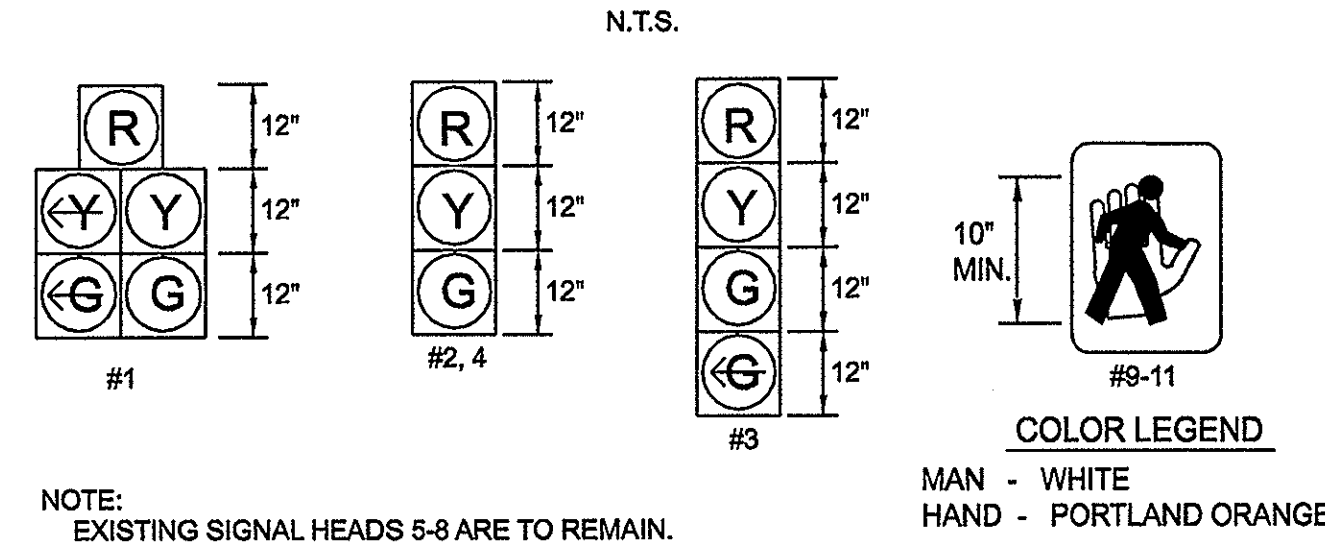


DR.	CHK.	DATE	DESCRIPTION
MDH	GWJ	02/22/08	ISSUED FOR PERMITTING AND CITY REVIEW
MDH	GRE	04/18/08	RE-ISSUED FOR PERMITTING
MDH	GRE	07/09/08	RE-ISSUED FOR PERMITTING
MDH	SAH	07/14/08	ISSUED FOR TOOT REVIEW

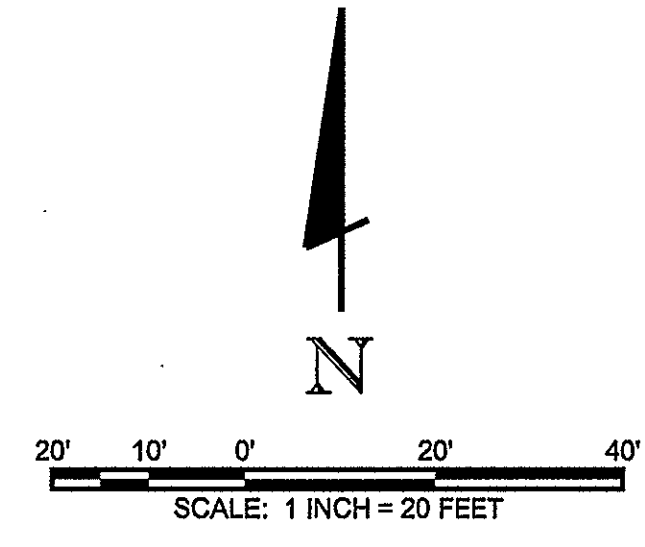
**ESTIMATED QUANTITIES**

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
730-01.02	REMOVAL OF SIGNAL EQUIPMENT	1	EACH
730-02.08	SIGNAL HEAD ASSEMBLY (130 WITH BACKPLATE)	2	EACH
730-02.17	SIGNAL HEAD ASSEMBLY (150A2H WITH BACKPLATE)	1	EACH
730-02.30	SIGNAL HEAD ASSEMBLY (140A1 WITH BACKPLATE)	1	EACH
730-03.21	INSTALL PULL BOX (TYPE B)	1	EACH
730-06.02	SIGNAL CABLE - 5 CONDUCTOR	180	L.F.
730-06.03	SIGNAL CABLE - 7 CONDUCTOR	200	L.F.
730-06.10	SIGNAL CABLE (MISC. EXISTING)	100	L.F.
730-12.01	CONDUIT 1" DIAMETER (PVC)	25	L.F.
730-12.02	CONDUIT 2" DIAMETER (PVC)	160	L.F.
730-12.30	TRENCHING	185	L.F.
730-13.01	VEHICLE LOOP DETECTOR (SHELF MOUNT)	2	EACH
730-14.02	SAW SLOT	340	L.F.
730-14.03	LOOP WIRE	1050	L.F.
730-15.07	CABINET (8 PHASE, BASE MOUNTED)	1	EACH
730-16.02	EIGHT PHASE ACTUATED CONTROLLER	1	EACH
730-23.30	PEDESTAL POLE (8')	1	EACH
730-23.96	CANTILEVER SIGNAL SUPPORT (2 @ 45' & 70')	1	EACH
730-26.01	PEDESTRIAN SIGNAL DISPLAY	3	EACH

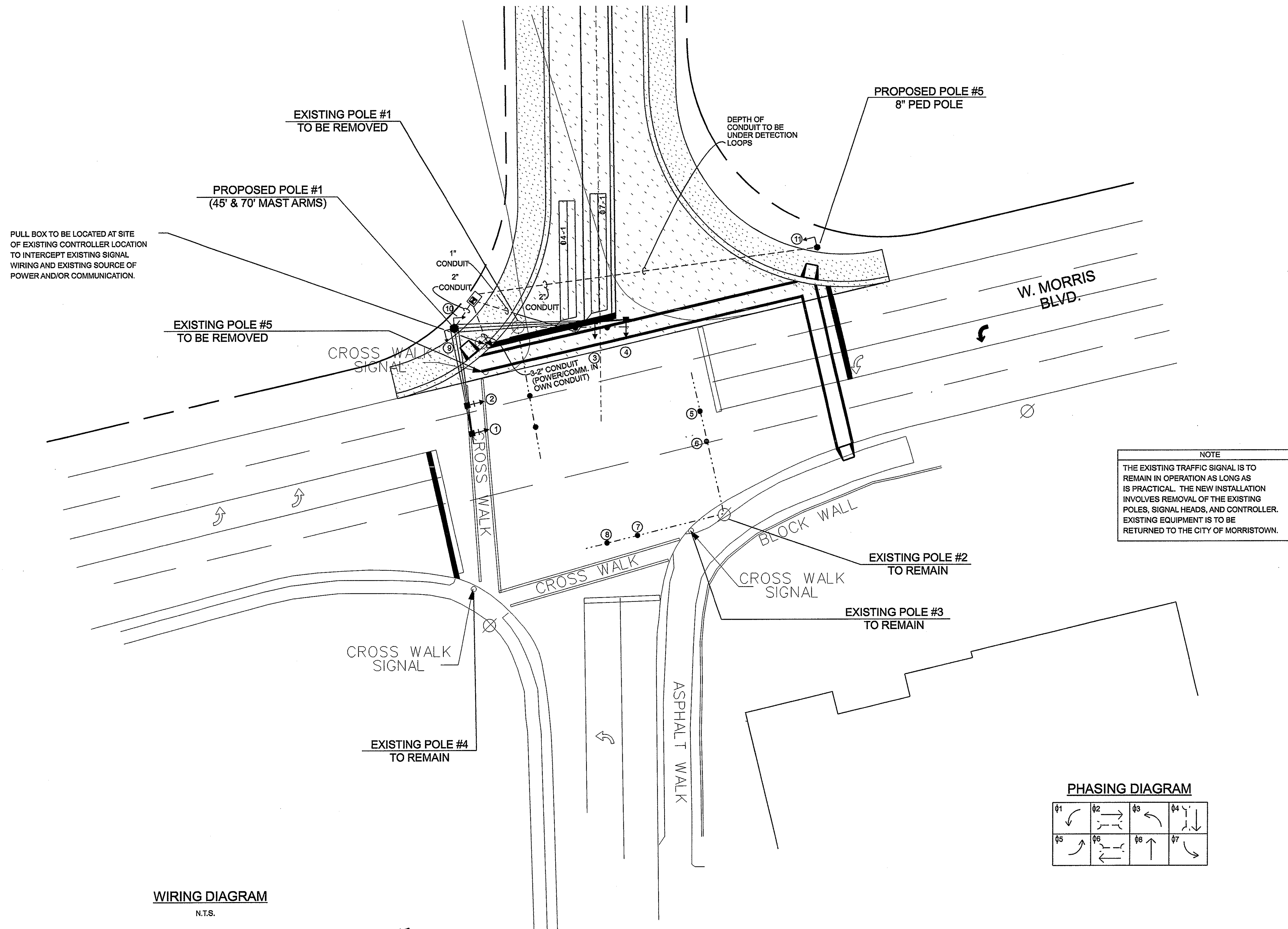
**SIGNAL HEAD ASSEMBLIES**



NOTE: EXISTING SIGNAL HEADS 5-8 ARE TO REMAIN.



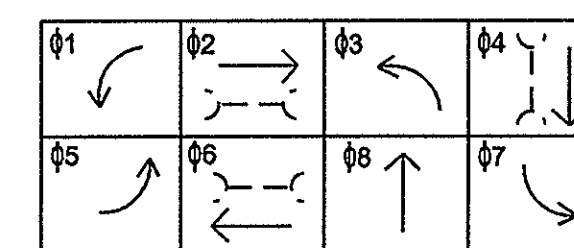
**MARTIN LUTHER KING BLVD. EXTENSION**



**SIGNALIZATION NOTES**

- THE CONTROLLER SHALL BE AN EIGHT-PHASE FULLY-ACTUATED CONTROLLER WITH VOLUME-DENSITY CAPABILITIES IN ACCORDANCE WITH TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT) SPECIFICATIONS.
- CONSTRUCT THE CONTROLLER CABINET AND FOUNDATION IN ACCORDANCE WITH TDOT STANDARD DRAWINGS. AN APPROPRIATE CABINET AND FOUNDATION SHALL BE INSTALLED. THE CONTROLLER SHALL BE COMPATIBLE WITH ADJACENT MORRIS BLVD. SIGNALS.
- TIMINGS AND PHASING ARE TO BE PROVIDED BY THE CITY OF MORRISTOWN. CONTRACTOR IS TO NOTIFY THE CITY A MINIMUM OF 30 DAYS PRIOR TO ACTIVATION OF THE NEW SIGNAL EQUIPMENT.
- VEHICLE DETECTION LOOPS SHALL MEASURE 6' X 45' WITH TWO TURNS OF WIRE, UNLESS OTHERWISE SPECIFIED. LOOPS SHALL BE CENTERED IN THE TRAVEL LANES. LOOPS SHALL BE INSTALLED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, UNLESS OTHERWISE NOTED. LOOP DETECTORS SHALL BE SHELF MOUNTED WITH DELAY SETTING, SENSITIVITY SETTINGS, AND RESET BUTTON. LOOP DETECTORS SHALL BE EQUAL TO OR UPGRADE OF A SARASOTA 538B.
- ALL CONDUIT SHALL BE SCHEDULE 80 PVC UNLESS OTHERWISE NOTED.
- ALL UTILITY LOCATIONS, AS SHOWN, ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS OF THE TDOT.
- ALL TRAFFIC CONTROL SHALL BE IN STRICT ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR IS RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS.
- SIGNAL HEAD PLACEMENT SHALL BE IN ACCORDANCE WITH TDOT STANDARD DRAWINGS.
- ALL SIGNAL HEADS SHALL BE ALUMINUM WITH LOUVERED BACKPLATES.
- ALL PAVEMENT MARKINGS ARE SHOWN ON THIS SHEET FOR REFERENCE ONLY. SEE THE PAVEMENT MARKING PLAN FOR THE INTERSECTION FOR FURTHER DETAILS.
- THE PROPOSED LOCATION OF THE SIGNAL SUPPORT POLES, AS SHOWN ON THESE PLANS, IS APPROXIMATE. SOME FIELD ADJUSTMENTS MAY BE REQUIRED IN ORDER TO AVOID CONFLICTS WITH EITHER UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING AND STAKING THE OPTIMUM LOCATION FOR THE POLES AND CONTROLLER AND FOR RECEIVING APPROVAL FROM THE STATE AND THE APPROPRIATE UTILITIES BEFORE INSTALLATION BEGINS. IF FIELD ADJUSTMENTS RESULT IN CHANGES TO SPAN LENGTHS OR ATTACHMENT HEIGHTS, THE ENGINEER SHALL BE ADVISED TO DETERMINE IF CHANGES ARE STRUCTURALLY ACCEPTABLE.
- SHAFTS FOR FOOTINGS SHALL BE DRILLED THROUGH FIRM, UNDISTURBED, UNSATURATED SOIL AND SHALL BE VISUALLY INSPECTED BY THE ENGINEER PRIOR TO PLACEMENT OF REINFORCEMENT. THE ENGINEER SHALL BE ADVISED BY THE CONTRACTOR OF ANY GROUND WATER OR LOOSE SOIL ENCOUNTERED DURING DRILLING. FOOTINGS SHALL COMPLY WITH TDOT STANDARD DRAWINGS.
- ASSUMED DESIGN SOIL PARAMETERS:  
PASSIVE PRESSURE,  $P_p = 1.89 \text{ ksf}$   
COEFFICIENT OF PASSIVE SUBGRADE REACTION,  $k = 94.3 \text{ kcf}$
- TRAFFIC SIGNAL SUPPORT POLES SHALL BE TDOT STANDARD ROUND, TAPERED, GALVANIZED STEEL STRAIN POLES WITH MAST ARMS IN ACCORDANCE WITH TDOT STANDARD DRAWINGS.
- CABINET SHALL BE CAPABLE OF HOUSING EQUIPMENT FOR INTERCONNECTION OF ADJACENT SIGNALS ON MORRIS BLVD.
- CONTRACTOR SHALL REPAIR ALL DISTURBED AREAS ASSOCIATED WITH THE SIGNAL INSTALLATION.
- OVERHEAD STREET NAME SIGNS SHALL BE CONSTRUCTED AND INSTALLED BY THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF EXISTING CONFLICTING PAVEMENT MARKINGS. EXISTING PAVEMENT MARKINGS TO BE REMOVED SHALL BE REMOVED BY GRINDING THEM OFF AND NOT BY ATTEMPTING TO COVER THEM.

**PHASING DIAGRAM**



**LOOP & AMPLIFIER ASSIGNMENTS**

LOOP	AMP	MODE
01-1	1	PRESENCE (EXISTING)
03-1	2	PRESENCE
04-1	3	PRESENCE
05-1	4	PRESENCE
07-1	5	PRESENCE (EXISTING)
08-1	6	PRESENCE (EXISTING)

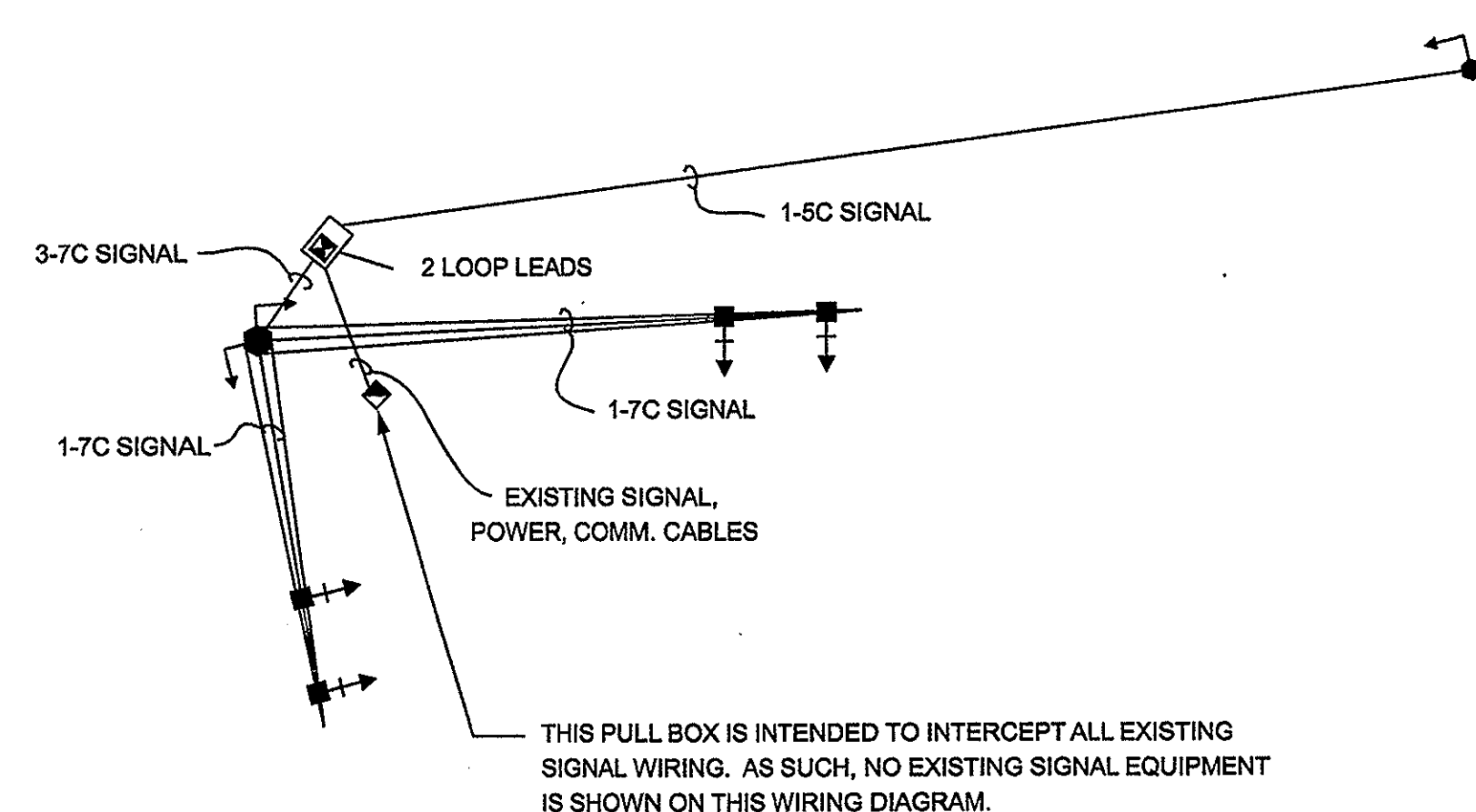
**SIGNAL SUPPORT POLE DATA (PROPOSED POLES ONLY)**

POLE NO.	POLE TYPE	HEIGHT	MAST ARM LENGTH	ATTACH. HEIGHT*	FOOTING DEPTH**	FOOTING DESIGN MOMENT @ BASE OF POLE
1	CANTILEVER	20'-0"	70'-0" E 45'-0" S	16'-2" E 16'-8" S	13'-0"	92 k · ft
5	PEDESTAL	8'-0"	N/A	N/A	4'-0"	8 k · ft

\* ATTACHMENT HEIGHTS HAVE BEEN COMPUTED ASSUMING 1/2" INCH RISE IN MAST 1/2" INCH RISE IN MAST ARM FOR EACH 1' FOOT LENGTH OF ARM LENGTH.  
\*\* PROVIDED FOR ESTIMATION PURPOSES ONLY. CONTRACTOR SHALL SUBMIT SIGNAL POLE FOOTING DESIGN CALCULATIONS ALONG WITH SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. DESIGN SHALL BE BASED UPON ASSHTO LOADING AND DESIGN CRITERIA PUBLISHED IN THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".

**WIRING DIAGRAM**

N.T.S.

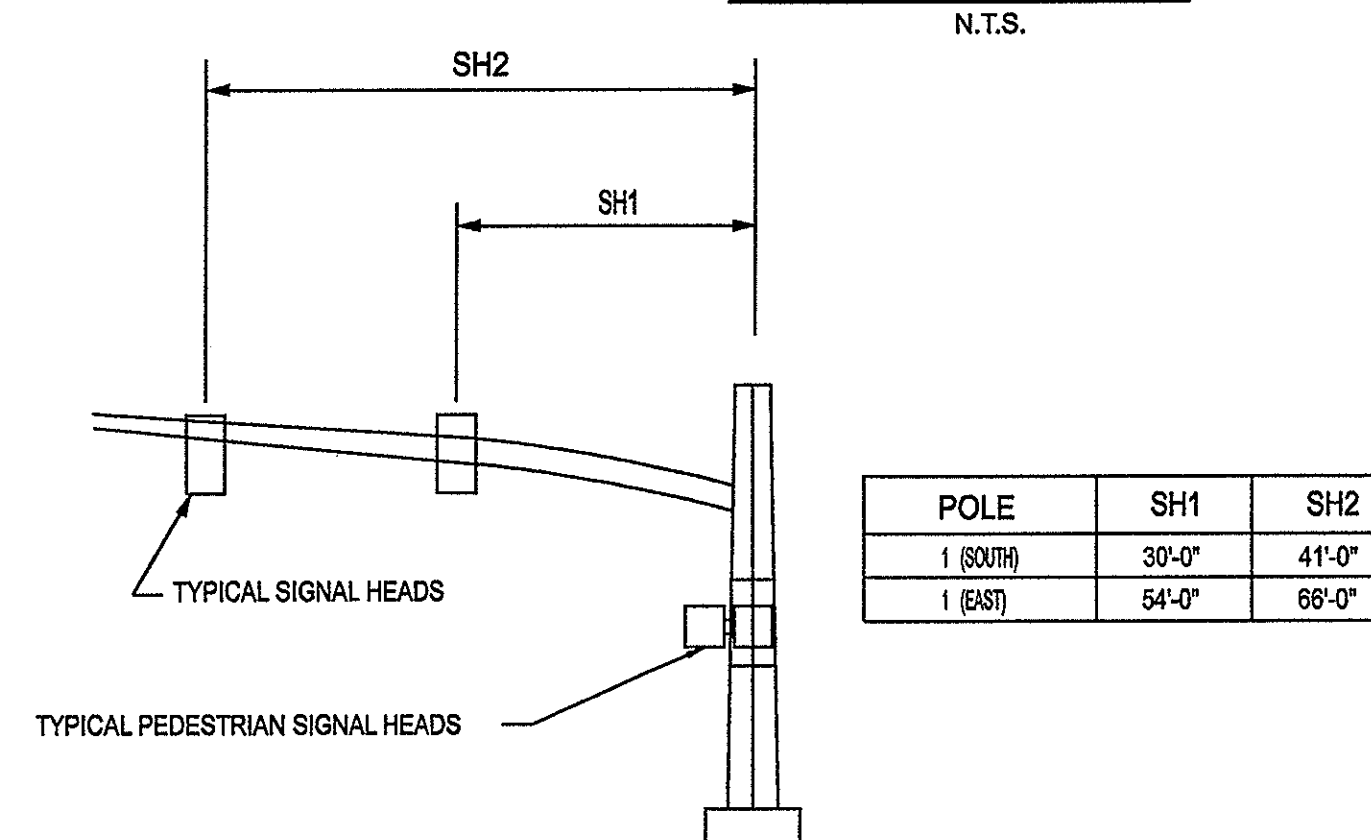


**LEGEND**

- PROPOSED SIGNAL SUPPORT POLE WITH MAST ARM
- PROPOSED PEDESTRIAN POLE
- PEDESTRIAN SIGNAL HEAD WITH NUMBER
- PROPOSED SIGNAL HEAD WITH BACKPLATE AND NUMBER
- PROPOSED PAD MOUNTED CONTROLLER CABINET
- PROPOSED PULL BOX
- VEHICLE QUADRAPOLE DETECTION LOOP (6' X 45' WITH TWO TURNS)
- PROPOSED 24" STOP BAR (THERMOPLASTIC)
- PROPOSED TURN LANE ARROW (THERMOPLASTIC)
- PROPOSED 6" CROSSWALK (THERMOPLASTIC)

**MAST ARM DETAILS**

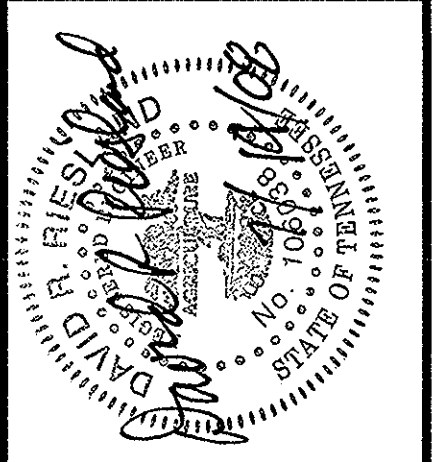
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**SIGNAL MODIFICATION PLAN**

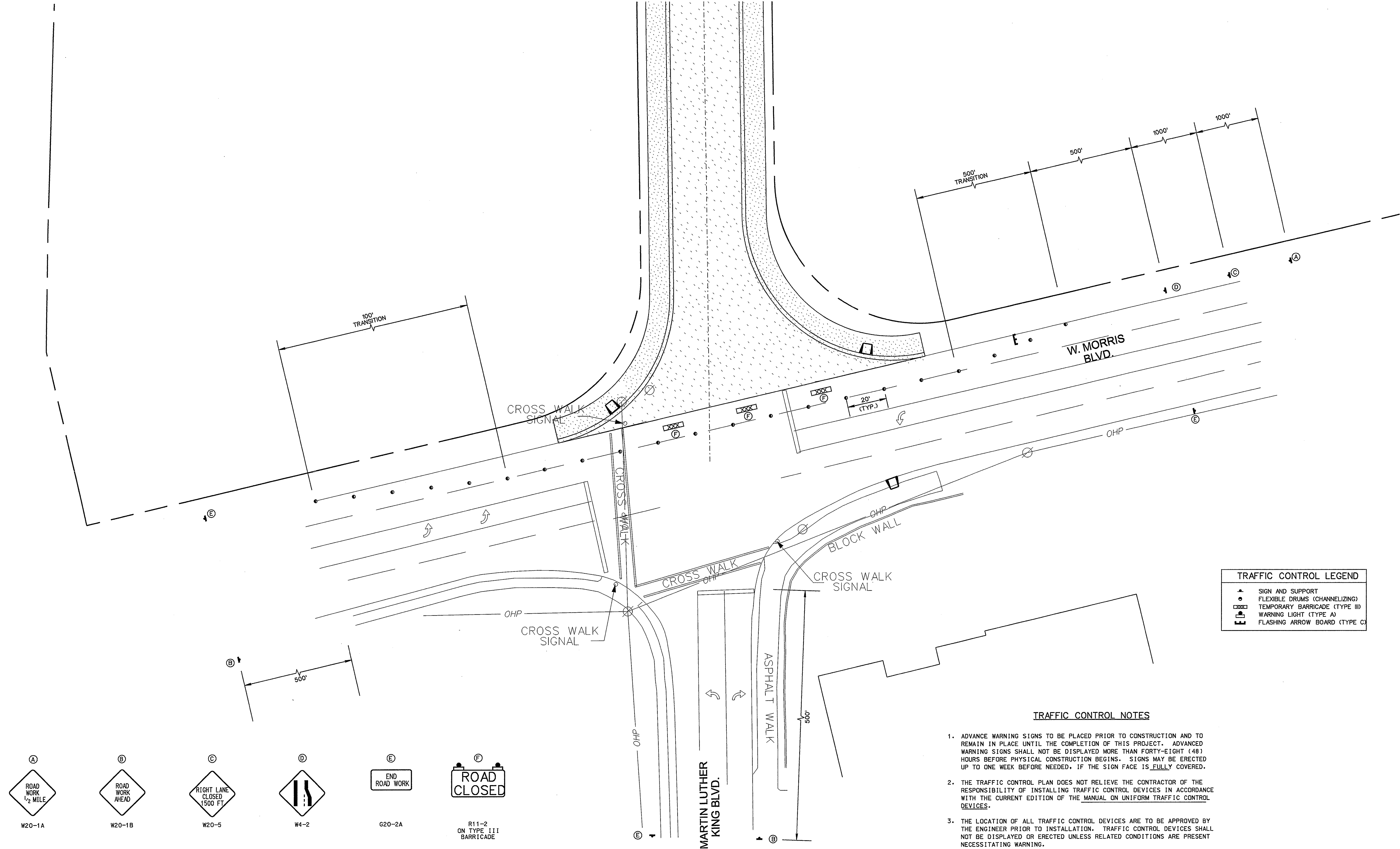
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**TRAFFIC CONTROL PLAN**

**MARTIN LUTHER KING BLVD. EXTENSION**

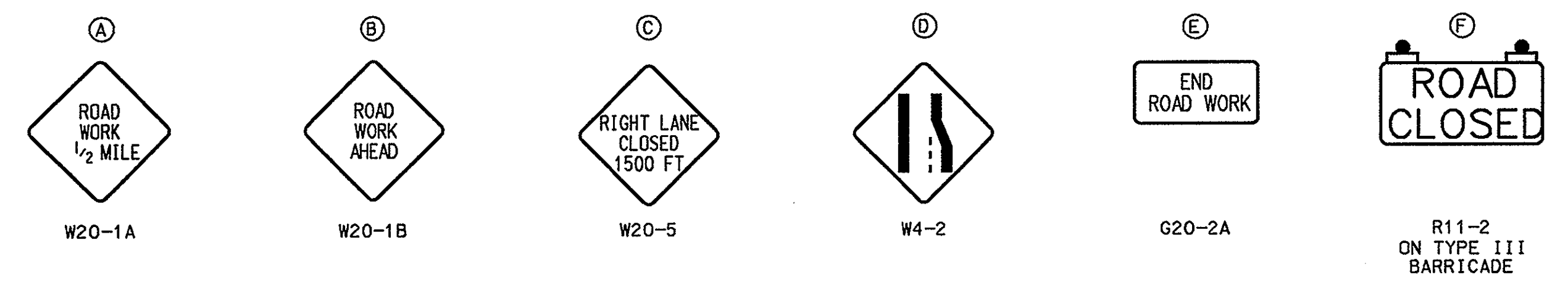


**TRAFFIC CONTROL LEGEND**

	SIGN AND SUPPORT
	FLEXIBLE DRUMS (CHANNELIZING)
	TEMPORARY BARRICADE (TYPE III)
	WARNING LIGHT (TYPE A)
	FLASHING ARROW BOARD (TYPE C)

**TRAFFIC CONTROL NOTES**

1. ADVANCE WARNING SIGNS TO BE PLACED PRIOR TO CONSTRUCTION AND TO REMAIN IN PLACE UNTIL THE COMPLETION OF THIS PROJECT. ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERRECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
2. THE TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. THE LOCATION OF ALL TRAFFIC CONTROL DEVICES ARE TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERRECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
4. ALL PROPERTY OWNERS WITH DRIVEWAYS WHICH FALL WITHIN THE WORK ZONE SHALL BE NOTIFIED BY THE ENGINEER AND CONTRACTOR OF THE OPERATING PROCEDURES OF THE TRAFFIC CONTROL PLAN PRIOR TO INSTALLATION OF EACH PHASE.
5. IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER.
6. ANY LANE CLOSURES ON MORRIS BOULEVARD FOR WORK ADJACENT TO THE EXISTING TRAVEL LANES WILL NOT BE ALLOWED DURING PEAK HOURS. THESE CLOSURES SHOULD BE LIMITED TO THE HOURS OF 9:00 AM TO 3:00 PM ON WEEKDAYS ONLY. DURING THOSE PERIODS WHERE NO LANE CLOSURES ARE BEING UTILIZED, THE DRUMS AND TEMPORARY BARRICADES SHOULD BE RELOCATED TO THE EXISTING EDGE OF PAVEMENT. HOWEVER, THE MESSAGE CONVEYED BY THE SIGNS MOUNTED ON THE TEMPORARY BARRICADE REMAINS APPLICABLE.
7. TRAFFIC CONTROL ITEMS USED ON THIS PROJECT SHOULD BE COORDINATED WITH THOSE USED ON ADJACENT PROJECTS.

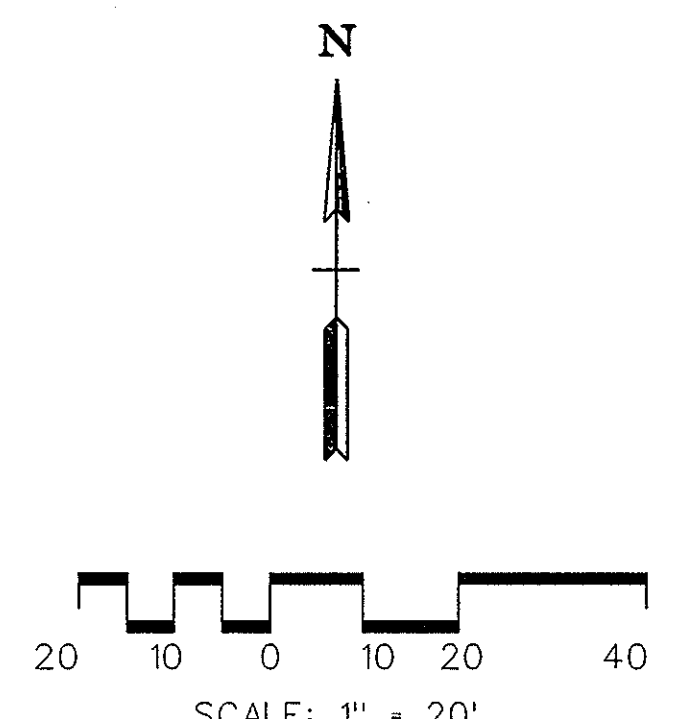


**TRAFFIC CONTROL SIGN QUANTITIES**

TYPE	DESCRIPTION	SIZE	EACH	S.F.
W20-1A	ROAD WORK 1/2 MILE	48"X48"	1	16
W20-1B	ROAD WORK AHEAD	48"X48"	2	32
W20-5	RIGHT LANE CLOSED 1500 FT	48"X48"	1	16
W4-2	RIGHT LANE CLOSED (SYMBOL)	48"X48"	1	16
G20-2A	END ROAD WORK	48"X24"	3	24
R11-2	ROAD CLOSED	48"X30"	3	30
<b>TOTAL</b>				<b>134</b>

**TRAFFIC CONTROL QUANTITIES**

ITEM NO.	DESCRIPTION	QUANTITY
712-01	TRAFFIC CONTROL	1 L.S.
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	42 EACH
712-05.01	WARNING LIGHTS (TYPE A)	6 EACH
712-06	SIGNS (CONSTRUCTION)	134 S.F.
712-07.03	TEMPORARY BARRICADES (TYPE III)	30 L.F.
712-08.03	ARROW BOARD (TYPE C)	1 EACH
712-08.06	UNIFORMED POLICE OFFICER	80 HOUR



DR.	CHK.	DATE	DESCRIPTION
		07-14-08	ISSUED FOR TPOOT REVIEW