

GENERAL NOTES

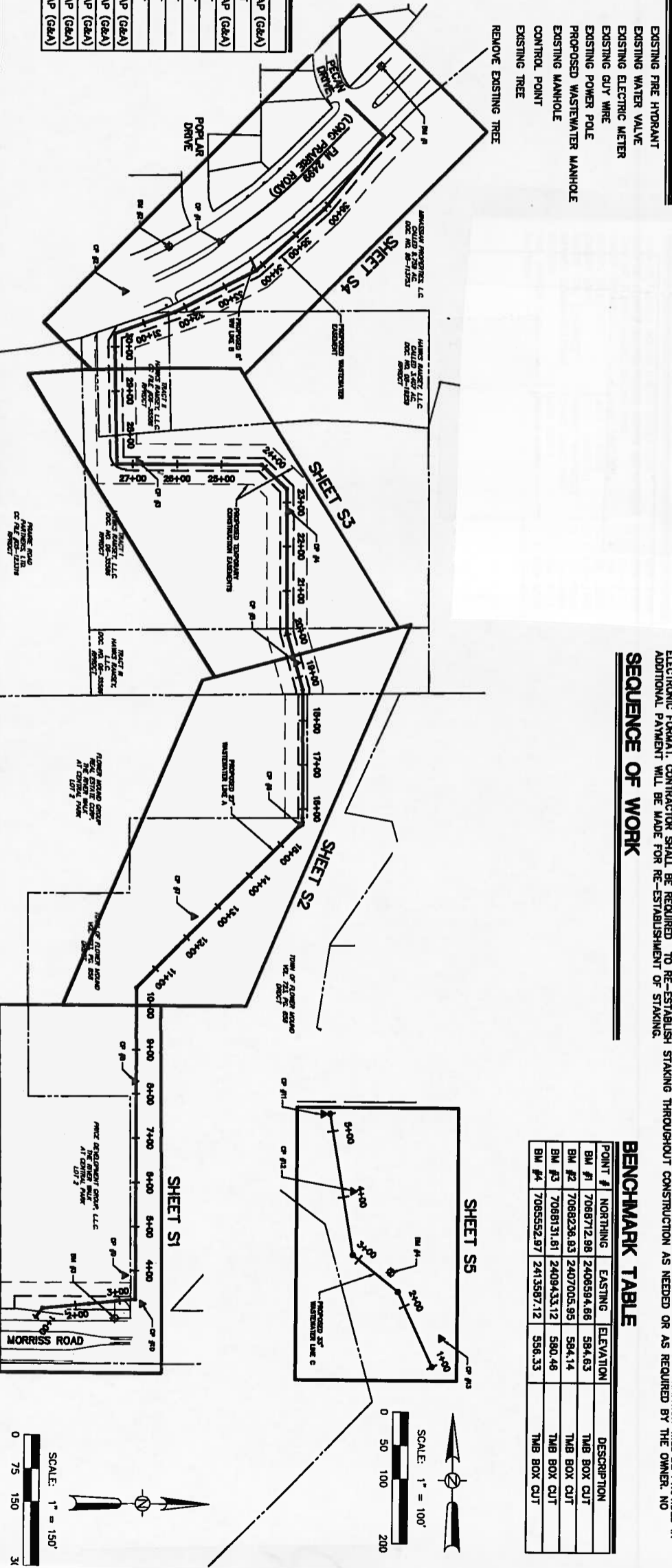
- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO EXCAVATION. THE INFORMATION AND DATA SHOWN WITH RESPECT TO EXISTING UNDERGROUND FACILITIES AT OR CONTIGUOUS TO THE SITE IS APPROXIMATE AND BASED ON INFORMATION FURNISHED BY THE OWNERS OF SUCH UNDERGROUND FACILITIES OR ON PHYSICAL APPEARANCES OBSERVED IN THE FIELD. THE OWNER AND ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY SUCH INFORMATION OR DATA. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR REMOVING AND CHECKING ALL SUCH INFORMATION AND DATA FOR LOCATING ALL UNDERGROUND FACILITIES, FOR CORROBORATION OF THE WORK WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES DURING CONSTRUCTION, AND FOR THE SAFETY AND PROTECTION THEREOF AND REPAIRING ANY DAMAGE THERE TO RESULTING FROM THE WORK. THE COST OF ALL WORK HAVING BEEN CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- 2) THE CONTRACTOR SHALL NOTIFY DIG TESS (1-800-344-8377) AND THE TOWN OF FLOWER MOUND TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 3) CAUTION BURIED FIBER OPTICS CABLES AND TELEPHONE CABLES MAY EXIST ALONG THIS PROJECT. CONTACT VERIZON (817-691-5772) 48 HOURS PRIOR TO EXCAVATION.
- 4) THE CONTRACTOR SHALL NOTIFY THE TOWN OF FLOWER MOUND PROJECT ENGINEER (972-674-6310) 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
- 5) THE CONTRACTOR SHALL COMPLY WITH OSHA REGULATIONS AND STATE OF TEXAS LAWS CONCERNING EXCAVATION, EMISSIONS, TRENCHING, SHORING, AND SITE SAFETY.
- 6) ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE TOWN OF FLOWER MOUND ENGINEERING STANDARD SPECIFICATIONS AND DETAILS, EXCEPT WHERE MODIFIED IN THESE PLANS OR IN THE SPECIAL CONDITIONS OF THE CONTRACT DOCUMENTS.
- 7) STANDARD DAYLIGHT HOURS SHALL BE DEFINED AS THE HOURS BETWEEN 7:00 AM AND 7:00 PM, MONDAY THRU FRIDAY, AND 8:00 AM TO 5:00 PM SATURDAY. NO CONSTRUCTION EQUIPMENT OR MACHINERY SHALL BE OPERATED BEFORE OR AFTER STANDARD DAYLIGHT HOURS, WORK BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM SHALL NOT BE DONE WITHIN 1,000 FEET OF ANY RESIDENCE AND SHALL NOT BE DONE WITHOUT THE WRITTEN CONSENT OF THE TOWN ENGINEER. WORK ON SATURDAY MUST BE REQUESTED BY THE CONTRACTOR TO THE ENGINEER NOT LATER THAN THE PRIOR THURSDAY. WORK ON SUNDAY SHALL NOT BE DONE EXCEPT IN EMERGENCIES.
- 8) THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL AT THE INTERSECTION OF FM 2489 AND PECAN DRIVE AS SHOWN ON SHEET T1. THE CONTRACTOR SHALL FURNISH A TRAFFIC CONTROL PLAN FOR ALL WORKING AREAS ALONG MORRIS ROAD AND TxDOT FOR APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL FURNISH A TRAFFIC CONTROL PLAN FOR ALL WORKING AREAS ALONG MORRIS ROAD TO THE TOWN TRAFFIC ENGINEER FOR APPROVAL PRIOR TO THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL MAINTAIN ALL TRAFFIC CONTROL DEVICES, WARNING SIGNS, LIGHT DEVICES, AND ETC. FOR THE GUIDANCE AND PROTECTION OF TRAFFIC THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL MAINTAIN TRAFFIC CONTROL DEVICES TEXAS DEPARTMENT OF TRANSPORTATION.
- 9) THE CONTRACTOR SHALL DISTRIBUTE LETTERS TO ALL AFFECTED PROPERTY OWNERS PRIOR TO BEGINNING WORK ON EACH PROPERTY. THE LETTER SHALL INCLUDE NAMES AND TELEPHONE NUMBERS OF CONTRACTOR CONTACTS. A DESCRIPTION OF THE WORK TO BE DONE AND THE TIME FRAME FOR DOING THE WORK. COPIES OF THE LETTER SHALL BE FORWARDED TO THE TOWN INSPECTOR. THE CONTRACTOR SHALL NOTIFY RESIDENTS 48 HOURS IN ADVANCE OF PERFORMING ANY WORK ON PRIVATE PROPERTY.
- 10) THE CONTRACTOR SHALL REMOVE ALL FENCES LOCATED WITHIN EASEMENTS WHICH INTERFERE WITH CONSTRUCTION OPERATIONS, AND PROVIDE TEMPORARY FENCING DURING CONSTRUCTION. REMOVED FENCES (WOODEN OR CHAIN LINK) SHALL BE REPLACED WITH A NEW FENCE OR UNDAMAGED ORIGINAL FENCING. ALL AFFECTED PROPERTY OWNERS SHALL BE NOTIFIED PRIOR TO CONSTRUCTION. APPROVAL OF THE REPAIRED OR REPLACED FENCE BY PROPERTY OWNER IS REQUIRED PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
- 11) THE CONTRACTOR SHALL NOT PLACE FILL OR WASTE MATERIAL ON ANY PRIVATE PROPERTY WITHOUT PRIOR WRITTEN AGREEMENT WITH PROPERTY OWNER.
- 12) NO EXCESS EXCAVATED MATERIAL SHALL BE DEPOSITED IN LOW AREAS OR ALONG NATURAL DRAINAGE WAYS, WITHOUT WRITTEN PERMISSIONS FROM THE TOWN OF FLOWER MOUND. IF THE CONTRACTOR PLACES EXCESS MATERIAL IN AREAS WITHOUT WRITTEN PERMISSION, HE SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM SUCH FILL AND HE SHALL REMOVE THE MATERIAL AT HIS OWN COST IF THE OWNER SO DIRECTS.
- 13) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OFF-SITE DISPOSAL OF ALL EXCESS EXCAVATION. THE CONTRACTOR SHALL SUBMIT A "STOCKPILE PLAN" THAT SHOULD DESIGNATE LOCATIONS FOR TEMPORARY STORAGE OF THE EXCAVATED SOIL. THIS STOCKPILE PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK.
- 14) THE CONTRACTOR(S) FOR THE PROJECT SHALL CLEAN UP AND REMOVE ALL TRASH AND DEBRIS CAUSED BY THE CONSTRUCTION, RECONSTRUCTION, AND MAINTENANCE OF THE PROJECT. AFTER ALL SUCH ACTIVITIES, THE CONTRACTOR SHALL RETURN THE SURFACE OF THE PROPERTIES TO THE PRE-CONSTRUCTION CONDITION.
- 15) THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PERFORMING ALL CONSTRUCTION LAYOUT FROM THE SITE LAYOUT CONTROL POINTS SHOWN ON THIS SHEET, AND FROM THE DIMENSIONS AND BASELINES SHOWN. THE CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. ELECTRONIC FILES WILL NOT BE PROVIDED FOR DIMENSIONAL CONTROL OF PROJECT LAYOUT OR ANY OTHER PURPOSES.

LEGEND

- EXISTING OVERHEAD ELECTRIC
- EXISTING UNDERGROUND TELEPHONE
- EXISTING UNDERGROUND FIBER OPTIC
- EXISTING PROPERTY LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING WASTEWATER LINE TO BE ABANDONED
- EXISTING STORM LINE
- PROPOSED WASTEWATER LINE
- PROPOSED STEEL CASING PIPE
- PROPOSED TEMPORARY FENCE
- EXISTING CONCRETE PAVEMENT
- MAJOR CONTOUR
- MINOR CONTOUR
- EXISTING GLAZED RAIL
- EXISTING BARBED WIRE FENCE
- EXISTING 100 YEAR FLOODPLAIN
- EXISTING CONCRETE SCREENWALL
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING ELECTRIC METER
- EXISTING GUY WIRE
- EXISTING POWER POLE
- PROPOSED WASTEWATER MANHOLE
- EXISTING MANHOLE
- CONTROL POINT
- EXISTING TREE
- REMOVE EXISTING TREE

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP #1	7088332.27	2408995.34	584.18	1/2" IRON ROD W/ CAP (G&A)
CP #2	7088157.800	2407107.33	585.90	600 NAIL SET
CP #3	7088512.78	2407492.04	579.48	1/2" IRON ROD W/ CAP (G&A)
CP #4	7088512.78	2407602.61	579.10	600 NAIL SET
CP #5	7088528.89	2407945.85	578.36	600 NAIL SET
CP #6	7088541.22	2408313.54	570.72	600 NAIL SET
CP #7	7088304.13	2408523.51	572.56	600 NAIL SET
CP #8	7088172.82	2408886.60	572.99	600 NAIL SET
CP #9	7088152.80	2409336.18	588.94	1/2" IRON ROD W/ CAP (G&A)
CP #10	7088192.78	2408400.65	583.80	1/2" IRON ROD W/ CAP (G&A)
CP #11	7085454.25	2413663.60	557.42	1/2" IRON ROD W/ CAP (G&A)
CP #12	7085674.74	2413529.25	554.94	1/2" IRON ROD W/ CAP (G&A)
CP #13	7085790.63	2413484.47	559.22	1/2" IRON ROD W/ CAP (G&A)



SEQUENCE OF WORK

- 16) THE CONTRACTOR(S) ON THE PROJECT SHALL PROPERLY RESTORE ANY DAMAGES THAT MAY OCCUR TO THE PROPERTIES, WHICH RESTORATION SHALL BE TO AT LEAST THE SAME CONDITION THAT THE PROPERTIES WERE IN PRIOR TO THE DAMAGES AND SUBJECT TO OWNER'S PRIOR APPROVAL. THE CONTRACTOR(S) SHALL FURNISH A LETTER TO THE TOWN, SIGNED BY OWNER, ENDORSED THAT OWNER IS SATISFIED THAT THE PROPERTIES HAVE BEEN RESTORED TO THE CONDITION OF THE PROPERTIES EXISTING PRIOR TO THE CONSTRUCTION ACTIVITIES RELATED TO THE PROJECT.
- 17) AT SEWER TIE-IN LOCATIONS OR LOCATIONS WHERE PROPOSED INTERCEPTOR ALIGNMENT REQUIRES EXISTING INTERCEPTOR TO BE REMOVED OR TAKEN OUT OF SERVICE, DETERMINE TIME AND DURATION OF ALLOWABLE LINE SHUTDOWNS. NO ADDITIONAL PAYMENT WILL BE MADE IF BYPASS PUMPING IS REQUIRED.
- 18) NEW MANHOLES SHALL BE CONSTRUCTED SUCH THAT THE MANHOLE COVER IS AT FINISHED SURFACE GRADE, OR AS NOTED ON THE PLANS. CONCRETE COLLARS SHALL BE PROVIDED WITH ALL NEW MANHOLES, AS REQUIRED FOR THIS PROJECT.
- 19) THE PROPOSED SANITARY SEWER LINES, AT TIMES, WILL BE LAID CLOSE TO OTHER EXISTING UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW GROUND. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS FOR THE SUPPORT AND PROTECTION OF ALL UTILITY FACILITIES, AND FIBER OPTIC CABLES, SANITARY SEWER LINES, WATER LINES, DRAINAGE PIPES, AND ALL OTHER UTILITIES AND STRUCTURES BOTH ABOVE AND BELOW GROUND DURING CONSTRUCTION. THE CONTRACTOR IS LIABLE FOR ALL DAMAGES DONE TO SUCH EXISTING FACILITIES AS A RESULT OF THE CONTRACTOR'S OPERATIONS.
- 20) THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO LIMIT THE AMOUNT OF TREE DAMAGE. THE CONTRACTOR, ALONG WITH THE OWNER'S REPRESENTATIVE, SHALL IDENTIFY WHICH TREES WILL NEED TO BE REMOVED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT TREES WHICH ARE NOT IDENTIFIED TO BE RELATED TO TREE PRESERVATION AND REMOVAL.
- 21) ALL TREE REMOVAL ACTIVITIES WILL BE REQUIRED TO TAKE PLACE PRIOR TO ANY OTHER CONSTRUCTION. THE CONTRACTOR SHALL BEGIN REMOVING TREES WITHIN 48 HOURS OF THE PRE-CONSTRUCTION MEETING. ANY TREE THAT IS REMOVED SHALL BE TRANSPORTED FROM THE PROJECT SITE THAT SAME DAY. OWNER'S REPRESENTATIVE SHALL BE PRESENT DURING ALL TREE REMOVAL ACTIVITIES.
- 22) THE CONTRACTOR SHALL RE-VEGETATE ALL DISTURBED AREAS. RE-VEGETATION SHALL BE PERFORMED IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS 02936 UNLESS OTHERWISE DIRECTED. RE-VEGETATION SHALL BE ACCEPTABLE WHEN VEGETATION GROWTH ACHIEVES ONE INCH IN HEIGHT, WITH 85% COVERAGE, AND LESS THAN 10 SQUARE FEET BARE.
- 23) ALL DRAINAGE SWALES AND DRY GREEK BEDS SHALL BE RESTORED TO PRE-CONSTRUCTION GRADES AND ELEVATIONS. CONTRACTOR SHALL PROVIDE A VIDEO SURVEY OF THE PROJECT SITE PRIOR TO CONSTRUCTION TO BE USED AS REFERENCE FOR FINISHED CONDITIONS.
- 24) THE CONTRACTOR IS REQUIRED TO SAW CUT PAVED SURFACES PRIOR TO TRENCHING TO ASSURE AN EVEN CUT.
- 25) WHERE THE CONTRACTOR DESIRES TO MOVE EQUIPMENT NOT LICENSED FOR OPERATION ON PUBLIC HIGHWAYS OR ON ACROSS ANY PAVEMENT, HE SHALL PROTECT THE PAVEMENT FROM ALL DAMAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DAMAGED PAVEMENT TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION.
- 26) THE CONTRACTOR SHALL REESTABLISH ANY PROPERTY MARKER, BENCHMARK, ETC. DISTURBED DURING CONSTRUCTION TO ITS ORIGINAL LOCATION.
- 27) ONLY THOSE TEAS LISTED IN THE BID FORM WILL BE MEASURED AND PAID FOR AT THE UNIT PRICE. ALL OTHER WORK WILL BE CONSIDERED SUBSIDIARY AND SHOULD BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS BID TEAS.
- 28) HORIZONTAL CONTROL POINTS AND VERTICAL BENCHMARKS HAVE BEEN ESTABLISHED ALONG THE ROUTE OF THE WASTEWATER LINE AND ARE SHOWN ON THE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH AND MAINTAIN HORIZONTAL AND VERTICAL ALIGNMENT OF THE WASTEWATER LINE BEFORE AND DURING CONSTRUCTION.
- 29) CONTRACTOR SHALL SURVEY ALL EXISTING FLOW LINES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF DISCREPANCIES TO THESE PLANS EXIST.
- 30) ALL COORDINATES REFERENCED IN THESE PLANS ARE BASED ON A SURFACE COORDINATE SYSTEM. A SURFACE ADJUSTMENT FACTOR OF 0.98989898788 CAN BE USED TO TRANSULATE COORDINATES BETWEEN BUCKTHORN CT AND FM 1771 TO A GRID COORDINATE SYSTEM.
- 31) SPOLS, EMBEDED, BACKFILL AND ALL OTHER MATERIALS (EXCLUDING PIPE) WILL NOT BE PERMITTED TO BE STOCKPILED IN THE FLOODPLAIN. ALL MATERIAL STOCKPILE LOCATIONS TO BE APPROVED BY THE TOWN PRIOR TO CONSTRUCTION AND IN ADVANCE OF PLACEMENT.
- 32) CONTRACTOR SHALL BE REQUIRED TO STAKE FLOOD PLAIN BOUNDARY PRIOR TO ANY CONSTRUCTION. STAKES SHALL BE PLACED AT INCREMENTS NO GREATER THAN 50-FEET. OWNER WILL PROVIDE FLOOD PLAN LIMITS IN ELECTRONIC FORMAT FOR STAKE PURPOSES. NO OTHER DESIGN INFORMATION WILL BE PROVIDED IN ELECTRONIC FORMAT. CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH STAKING THROUGHOUT CONSTRUCTION AS NEEDED OR AS REQUIRED BY THE OWNER. NO ADDITIONAL PAYMENT WILL BE MADE FOR RE-ESTABLISHMENT OF STAKING.

BENCHMARK TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM #1	7086712.98	2408594.68	584.63	TMB BOX CUT
BM #2	7086236.83	2407005.95	584.14	TMB BOX CUT
BM #3	7086131.81	2408433.12	580.48	TMB BOX CUT
BM #4	7085552.97	2413587.12	556.33	TMB BOX CUT

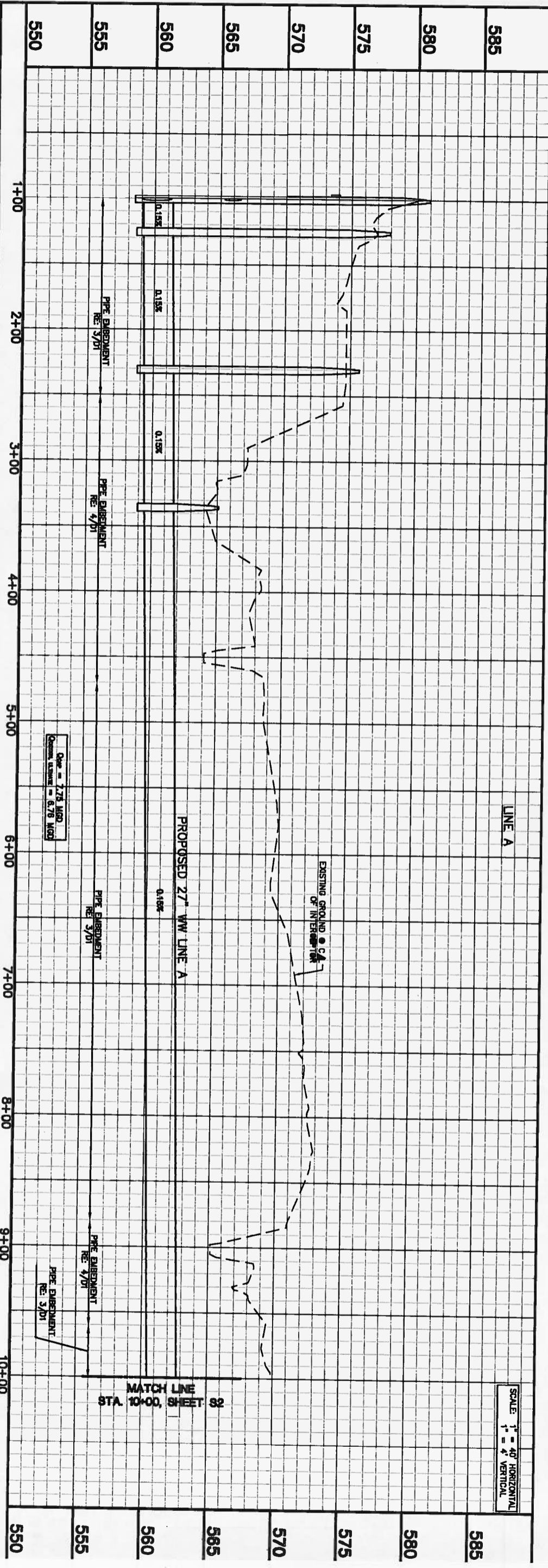
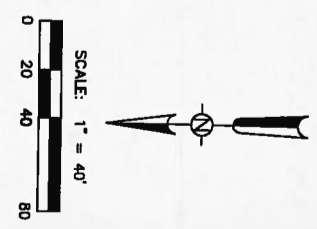
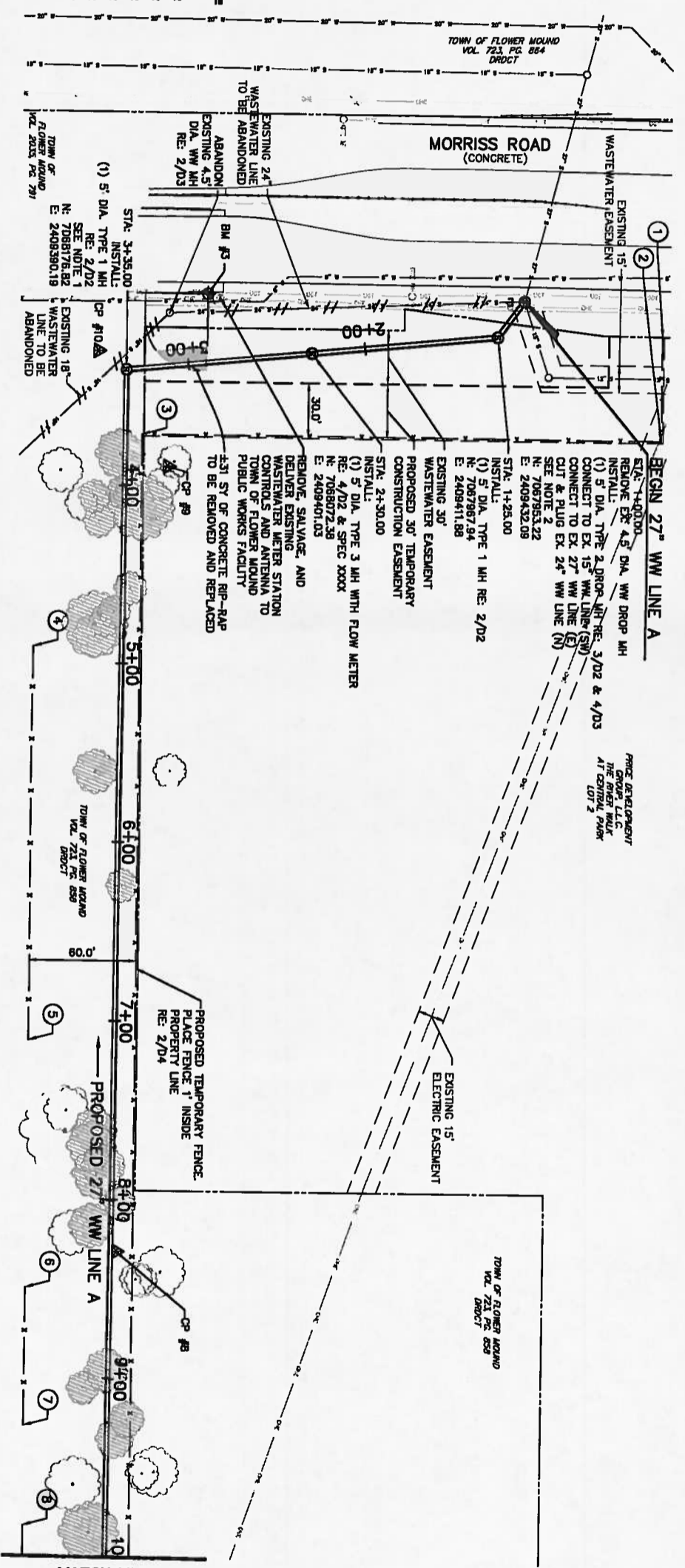
NOTES:

1. CONTRACTOR SHALL LOCATE EXISTING 18" WASTEWATER LINE PRIOR TO CONSTRUCTION TO VERIFY PROPOSED ALIGNMENT IS NOT IN CONFLICT WITH EXISTING LINE. CONTRACTOR SHALL NOTIFY OWNER IF CONFLICTS EXIST.
2. CONTRACTOR SHALL SURVEY ALL EXISTING FLOW LINES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF DISCREPANCIES TO THESE PLANS EXIST.
3. AT SEWER TIE-IN LOCATIONS, OR LOCATIONS WHERE PROPOSED INTERCEPTOR ALIGNMENT REQUIRES EXISTING INTERCEPTOR TO BE REMOVED OR TAKEN OUT OF SERVICE, CONTRACTOR SHALL BYPASS PUMP SEWAGE OR PLUG THE EXISTING WASTEWATER LINE UPSTREAM. CONTRACTOR SHALL COORDINATE WITH THE TOWN OF FLOWER MOUND TO DETERMINE TIME AND DURATION OF ALLOWABLE LINE SHUTDOWNS. NO ADDITIONAL PAYMENT WILL BE MADE IF BYPASS PUMPING IS REQUIRED.

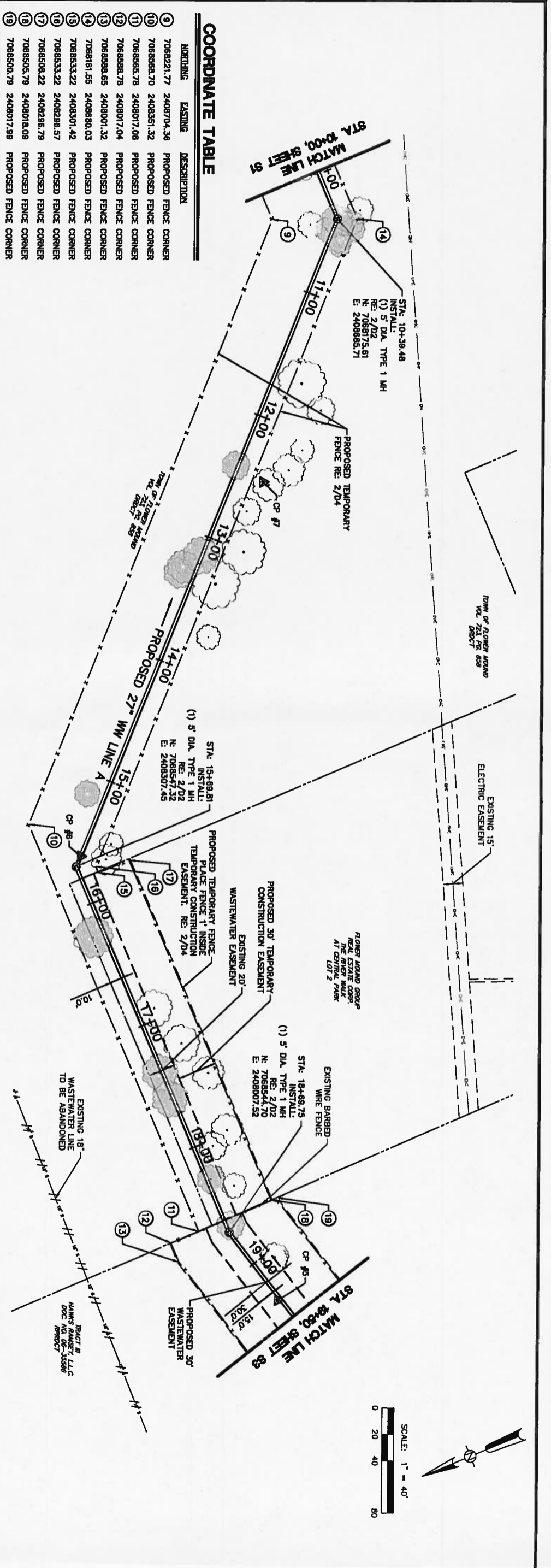
CAUTION: BURIED TELEPHONE IN AREA. CONTRACTOR SHALL LOCATE TELEPHONE LINE PRIOR TO CONSTRUCTION AND NOTIFY OWNER IF LOCATION IS NOT AS SHOWN ON PLANS.

COORDINATE TABLE

NORthing	EASTING	DESCRIPTION
7087874.82	2408413.78	PROPOSED FENCE CORNER
7087874.87	2408355.32	PROPOSED FENCE CORNER
7081874.44	2408354.07	PROPOSED FENCE CORNER
7088228.39	2408233.97	PROPOSED FENCE CORNER
7088224.47	2408013.85	PROPOSED FENCE CORNER
7088223.28	2408875.78	PROPOSED FENCE CORNER
7088222.58	2408788.45	PROPOSED FENCE CORNER
7088222.10	2408742.30	PROPOSED FENCE CORNER

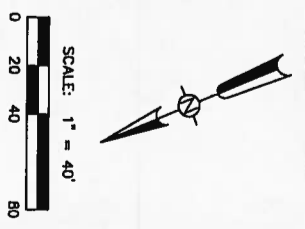
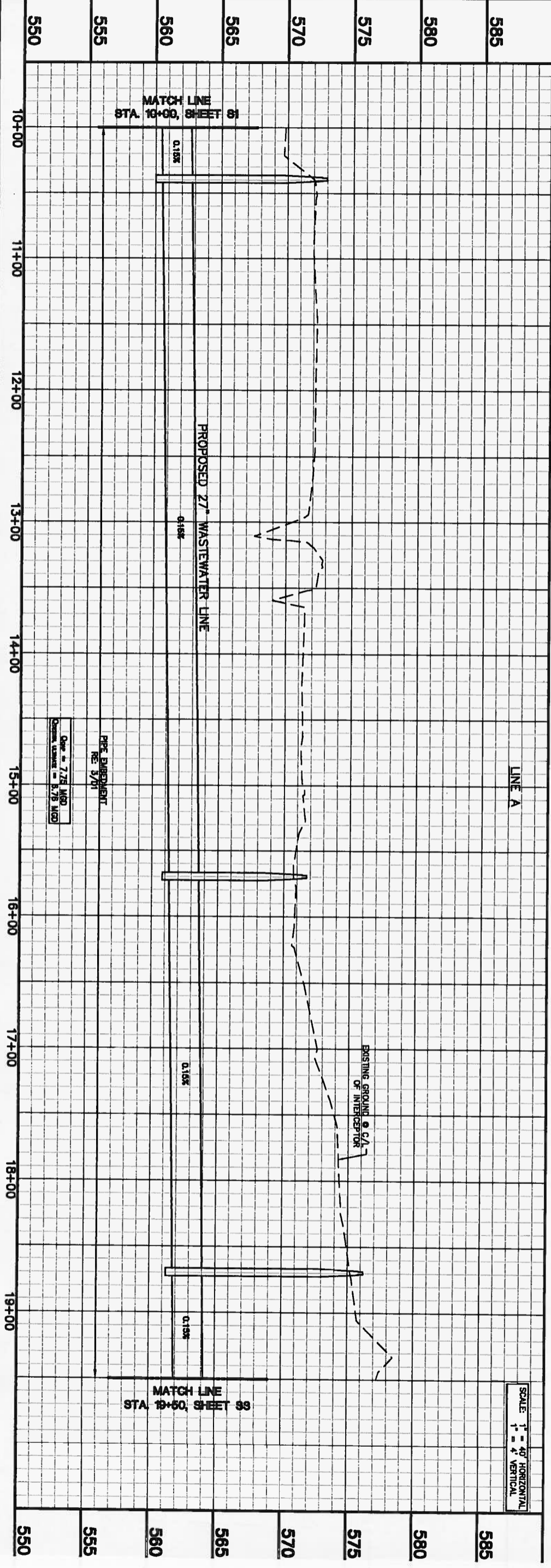


S1



COORDINATE TABLE

NORIDING	EASTING	DESCRIPTION
9	7068221.77	2408704.36 PROPOSED FENCE CORNER
10	7068568.70	2408351.32 PROPOSED FENCE CORNER
11	7068565.78	2408017.08 PROPOSED FENCE CORNER
12	7068568.78	2408017.04 PROPOSED FENCE CORNER
13	7068568.65	2408001.32 PROPOSED FENCE CORNER
14	7068161.55	2408880.03 PROPOSED FENCE CORNER
15	7068533.22	2408301.42 PROPOSED FENCE CORNER
16	7068533.22	2408296.57 PROPOSED FENCE CORNER
17	7068508.22	2408296.79 PROPOSED FENCE CORNER
18	7068505.79	2408018.09 PROPOSED FENCE CORNER
19	7068500.79	2408017.99 PROPOSED FENCE CORNER



SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL

TRACT B
HAWKS RAHWAY, LLC
DOC. NO. 09-135586
PROJECT

TRACT 1
HAWKS RAHWAY, LLC
DOC. NO. 09-135586
PROJECT

TRACT B
HAWKS RAHWAY, LLC
CC FILE #09-135586
PROJECT

INSTALL:
(1) 8" WW PLUG
N: 708810.59
E: 2407500.15
STA: 27+35.58
INSTALL:
(1) 5" DIA. TYPE 2 DROP MH
RE: 3/D2 & 4/D3
10 LF 8" WW (S)
N: 7068123.22
E: 2407497.40
STA: 27+35.58

PROPOSED TEMPORARY FENCE PLACE
FENCE 1' INSIDE TEMPORARY
CONSTRUCTION EASEMENT RE: 2/D4
INSTALL:
(1) 5" DIA. TYPE 1 MH
RE: 2/D2
N: 7068508.63
E: 2407878.04
STA: 20+04.16

EXISTING
STONE WALL TO BE
DEMOLISHED AND DISPOSED

EXISTING WOOD SHED TO
BE DEMOLISHED AND
DISPOSED

EXISTING 18"
WASTEWATER LINE TO
BE ABANDONED

EXISTING PEDESTRIAN
BRIDGE TO BE DEMOLISHED
AND DISPOSED

INSTALL:
(1) 5" DIA. TYPE 1 MH
RE: 2/D2
N: 7098506.35
E: 2407551.82
STA: 23+30.58

INSTALL:
(1) 5" DIA. TYPE 1 MH
RE: 2/D2
N: 7068448.15
E: 2407497.11
STA: 24+08.63

TRACT B
HAWKS RAHWAY, LLC
CC FILE #09-135586
PROJECT

EXISTING
STORM PIPE

EXISTING BARBED
WIRE FENCE

PROPOSED 30'
TEMPORARY
CONSTRUCTION EASEMENT

PROPOSED 30'
TEMPORARY
CONSTRUCTION EASEMENT

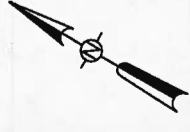
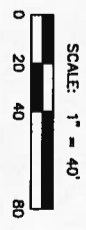
PROPOSED 30'
WASTEWATER EASEMENT

EXISTING BARBED
WIRE FENCE

INSTALL:
(1) 5" DIA. TYPE 1 MH
RE: 2/D2
N: 7068448.15
E: 2407497.11
STA: 24+08.63

COORDINATE TABLE

NORTHING	EASTING	DESCRIPTION
708851.39	2407872.67	PROPOSED FENCE CORNER
708850.52	2407532.88	PROPOSED FENCE CORNER
708846.45	2407452.84	PROPOSED FENCE CORNER
708816.14	2407453.00	PROPOSED FENCE CORNER
708846.49	2407883.56	PROPOSED FENCE CORNER
7088482.51	2407570.50	PROPOSED FENCE CORNER
7068431.26	2407540.85	PROPOSED FENCE CORNER
7088080.28	2407541.05	PROPOSED FENCE CORNER



SCALE: 1" = 40' HORIZONTAL
1" = 4' VERTICAL

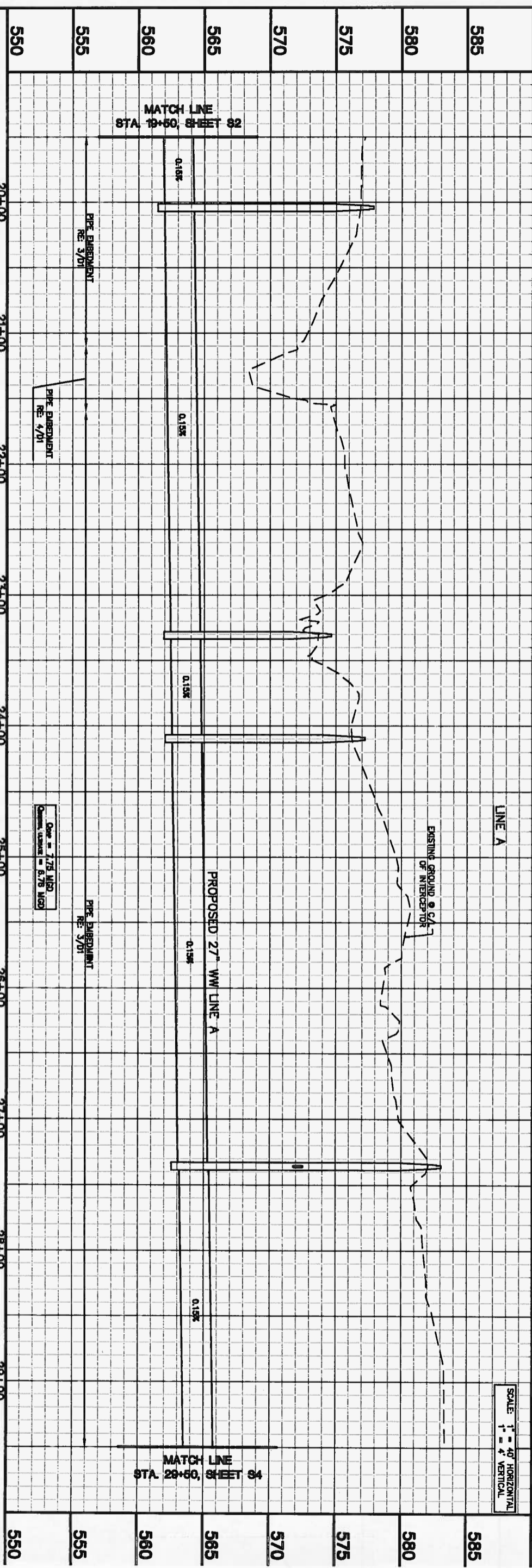
LINE A

EXISTING GROUND @ C/A
OF INTERCEPT

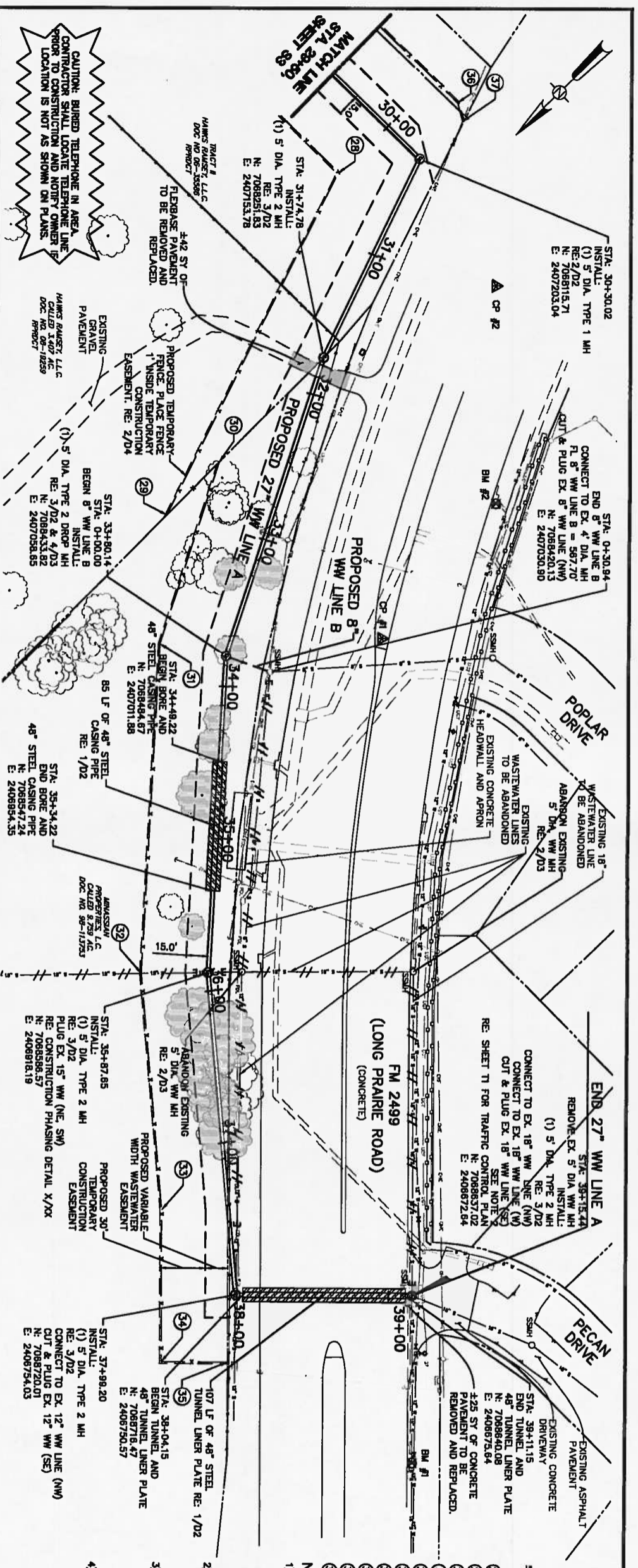
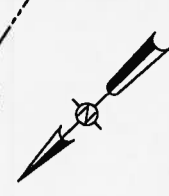
MATCH LINE
STA. 28+50, SHEET 85

MATCH LINE
STA. 19+50, SHEET 82

MATCH LINE
STA. 29+50, SHEET 84



S3



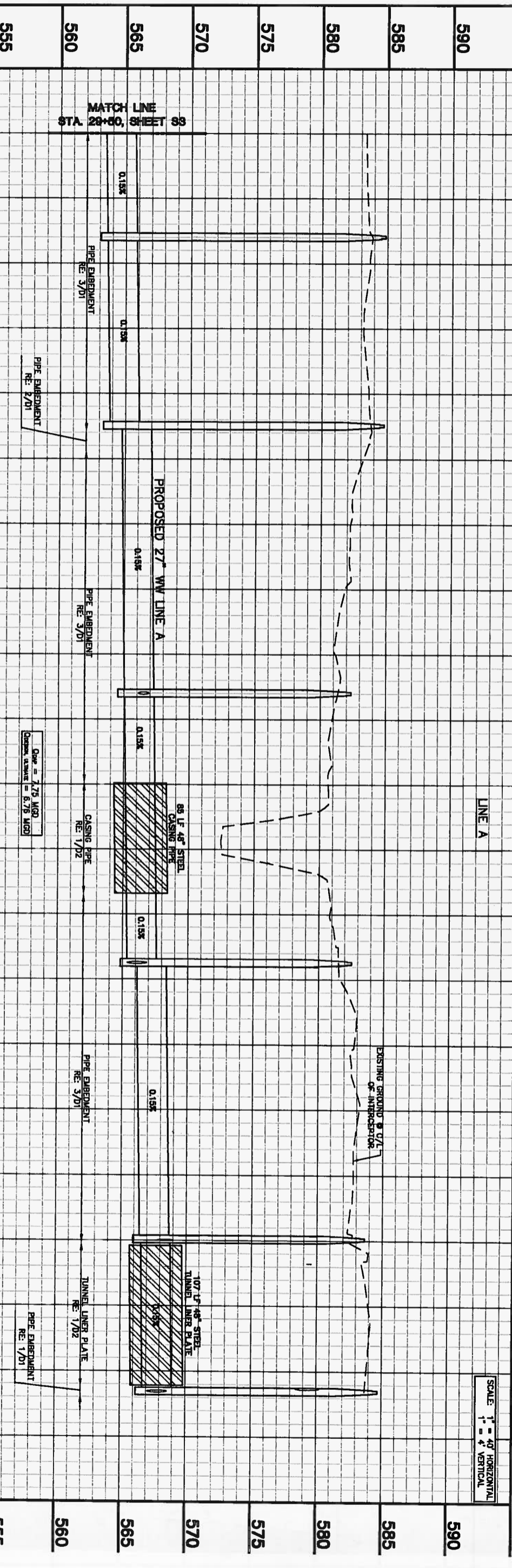
SCALE: 1" = 40'

0 20 40 80

COORDINATE TABLE

NORTHING	EASTING	DESCRIPTION
7088160.82	2407233.91	PROPOSED FENCE CORN
7088397.83	2407151.99	PROPOSED FENCE CORN
7086349.08	2407152.59	PROPOSED FENCE CORN
7088459.34	2407094.96	PROPOSED FENCE CORN
7086818.70	2406948.42	PROPOSED FENCE CORN
7088716.66	2406827.90	PROPOSED FENCE CORN
7088785.87	2406757.10	PROPOSED FENCE CORN
7088754.98	2406726.31	PROPOSED FENCE CORN
7088072.01	2407211.92	PROPOSED FENCE CORN
7088078.39	2407200.82	PROPOSED FENCE CORN

- ### NOTES:
- 1) CONTRACTOR SHALL MAINTAIN ACCESS TO PECAN DRIVE THROUGHOUT CONSTRUCTION. REFERENCE SHEET T1 FOR TRAFFIC CONTROL PLAN. CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION TO ALL PROPERTY OWNERS OF ANY CONSTRUCTION ACTIVITY THAT WILL OBSTRUCT PROPERTY ACCESS.
 - 2) CONTRACTOR SHALL SURVEY ALL EXISTING FLOW LINES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF DISCREPANCIES TO THESE PLANS ENST.
 - 3) CONTRACTOR WILL NOT BE ABLE TO ACCESS MINASSIAN PROPERTY AFTER 6/22/2013. ALL LANDSCAPING SHALL BE ESTABLISHED BY 6/22/2013.
 - 4) AT SEWER TIE-IN LOCATIONS, OR LOCATIONS WHERE PROPOSED INTERCEPTOR ALIGNMENT TAKES EXISTING INTERCEPTOR TO BE REMOVED OR TAKEN OUT OF SERVICE, CONTRACTOR SHALL BYPASS FLOW SEWAGE OR PLUG THE EXISTING WASTEWATER LINE UPSTREAM. CONTRACTOR SHALL DETERMINE THE TIME AND DURATION OF ALLOWABLE LINE SHUTDOWNS. NO ADDITIONAL PAYMENT WILL BE MADE IF BYPASS PUMPING IS REQUIRED.



CAUTION: BURIED TELEPHONE IN AREA. CONTRACTOR SHALL LOCATE TELEPHONE LINE PRIOR TO CONSTRUCTION AND NOTIFY OWNER IF LOCATION IS NOT AS SHOWN ON PLANS.

TRACT 4
HAWKS REQUEST, LLC
DOC NO 08-33586
PROJECT

EXISTING GRAVEL PAVEMENT
HAWKS REQUEST, LLC
CALLED 1/30/13
DOC. PROJECT

EXISTING 18" WASTEWATER LINE TO BE ABANDONED
ABANDON EXISTING 5" DIA. WW MH RE: 2/03
EXISTING WASTEWATER LINES TO BE ABANDONED
EXISTING CONCRETE HEADWALL AND APRON

END 27" WW LINE A
REMOVE EX. 5" DIA. WW MH
INSTALL:
(1) 5" DIA. TYPE 2 MH RE: 3/02
CONNECT TO EX. 18" WW LINE (NW) CUT & PLUG EX. 18" WW LINE (NW) SEE NOTE 3

FM 2499 (LONG PRAIRIE ROAD) (CONCRETE)

PECAN DRIVE
EXISTING ASPHALT PAVEMENT
EXISTING CONCRETE DRIVEWAY
STA: 39+11.15
END TUNNEL AND 48" TUNNEL LINER PLATE RE: 2406875.64
4.25 SY OF CONCRETE PAVEMENT TO BE REMOVED AND REPLACED.

107" LF OF 48" STEEL TUNNEL LINER PLATE RE: 1/02

STA: 30+30.02
INSTALL:
(1) 5" DIA. TYPE 1 MH RE: 2/02
N: 708815.71
E: 2407203.04

STA: 0+30.94
END 8" WW LINE B
CONNECT TO EX. 4" DIA. MH FL 8" WW LINE B = 587.70'
CUT & PLUG EX. 8" WW LINE (NW) N: 7088420.13
E: 2407030.80

STA: 31+74.78
INSTALL:
(1) 5" DIA. TYPE 2 MH RE: 3/02
N: 7088251.83
E: 2407153.78

4.42 SY OF FLEASHE PAVEMENT TO BE REMOVED AND REPLACED.

PROPOSED TEMPORARY FENCE. PLACE FENCE INSIDE TEMPORARY EASEMENT. RE: 2/04

STA: 33+80.14
BEGIN 8" WW LINE B
INSTALL:
3/02 & 4/03
N: 7088433.82
E: 2407058.85

STA: 34+49.22
BEGIN BORE AND 48" STEEL CASING PIPE RE: 2/03
N: 7088484.67
E: 2407011.88

85 LF OF 48" STEEL END BORE AND 48" STEEL CASING PIPE RE: 1/02
N: 7088547.24
E: 2406864.35

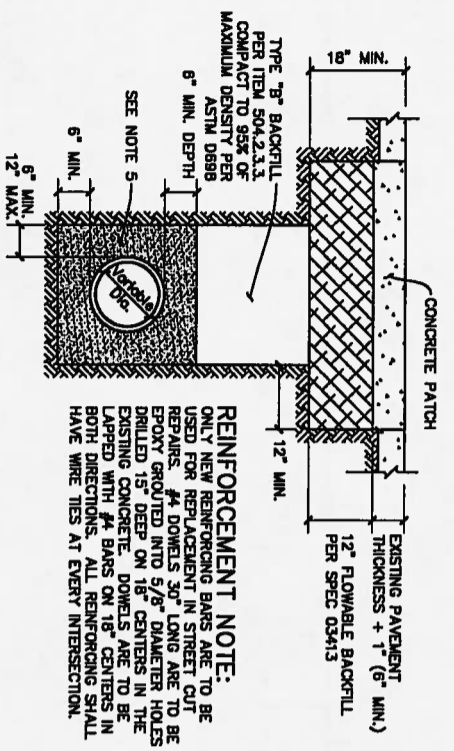
AMASSIAN PROPERTIES, L.C.
CALLED 2/29/13
DOC. NO 98-11753

STA: 35+87.85
INSTALL:
(1) 5" DIA. TYPE 2 MH RE: 3/02
CONNECT TO EX. 15" WW (NE, SW) RE: 7088586.57
CUT & PLUG EX. 12" WW (SE) RE: 7088720.01
E: 2406754.03

STA: 37+98.20
INSTALL:
(1) 5" DIA. TYPE 2 MH RE: 3/02
CONNECT TO EX. 12" WW LINE (NW) RE: 7088718.47
N: 7088720.01
E: 2406754.03

107 LF OF 48" STEEL TUNNEL LINER PLATE RE: 1/02

STA: 38+04.15
BEGIN TUNNEL AND 48" TUNNEL LINER PLATE RE: 2406750.57
E: 2406750.57

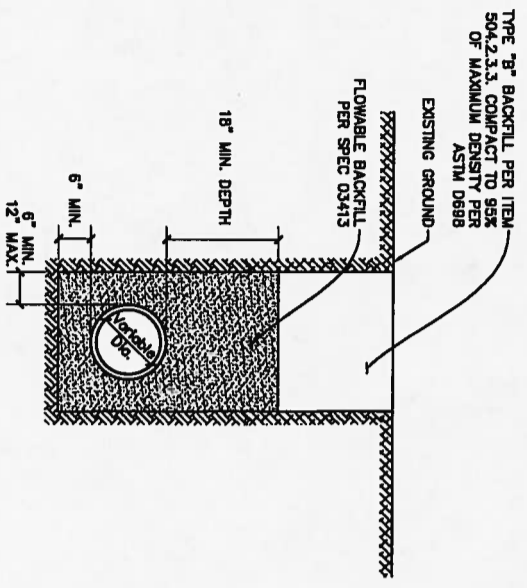


REINFORCEMENT NOTE:
ONLY NEW REINFORCING BARS ARE TO BE USED FOR REPAIRS IN STREET CUT REPAIRS. #4 DOWELS 30" LONG ARE TO BE EPOXY GROUTED INTO 5/8" DIAMETER HOLES DRILLED 15" DEEP ON 18" CENTERS IN THE EXISTING CONCRETE. DOWELS ARE TO BE LAPPED WITH #4 BARS ON 18" CENTERS IN BOTH DIRECTIONS. ALL REINFORCING SHALL HAVE WIRE TIES AT EVERY INTERSECTION.

- NOTES:**
1. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE TOWN & TROTT ROW, UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE OWNER TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
 2. A MAXIMUM OF 300-FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY TOWN ENGINEER.
 3. IF GROUND WATER IS ENCOUNTERED, THE PIPE EMBEDMENT SHALL BE CRUSHED ROCK GRADE 4 PER ITEM 504.2.2.1(9), IN SANDY SOILS THE CRUSHED ROCK EMBEDMENT SHALL BE WRAPPED IN A FILTER FABRIC.

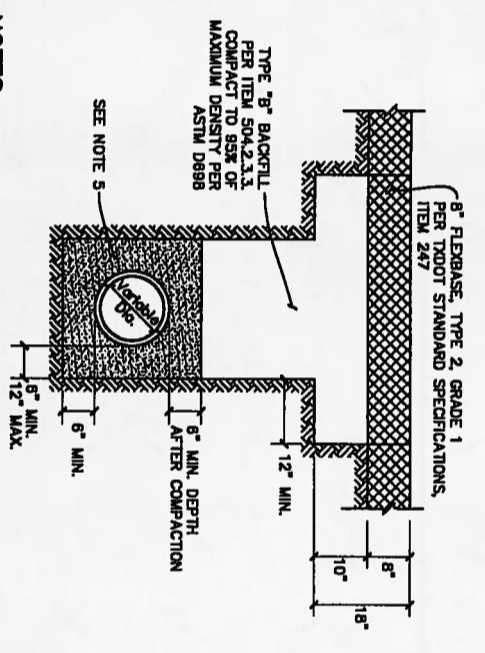
4. WHEN PIPE IS INSTALLED BENEATH EXISTING PIPELINES OR CULVERTS, FLOWABLE BACKFILL (PER ITEM 504.2.3.4) SHALL BE USED BETWEEN THE WASTEWATER LINE EMBEDMENT AND REMAINDER OF THE BACKFILL ABOVE THE EXISTING PIPELINE EMBEDMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE DETAIL SHOWN ABOVE.
5. EMBEDMENT SHALL BE FINE CRUSHED ROCK AGGREGATE GRADE 8, EMBEDMENT "B"-1", PER ITEMS 504.2.2.1 AND 504.5.2.5.
6. ALL PAVEMENT SHALL BE REMOVED ALONG NEAR CUT LINES PER ITEM 402.3.
7. NATIVE MATERIALS ARE NOT ACCEPTABLE FOR USE IN FLOWABLE BACKFILL MIX.

1
Embedment & Backfill - Concrete
D1 SCALE: NOT TO SCALE



- NOTES:**
1. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE TOWN & TROTT ROW, UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE OWNER TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
 2. A MAXIMUM OF 300-FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY TOWN ENGINEER.

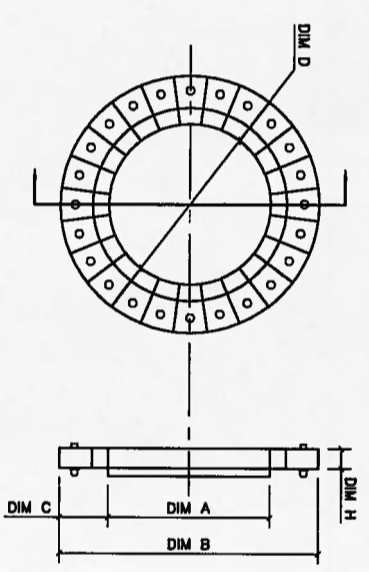
4
Embedment & Backfill - Flowable Fill
D1 SCALE: NOT TO SCALE



- NOTES:**
1. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE TOWN & TROTT ROW, UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE OWNER TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
 2. A MAXIMUM OF 300-FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY TOWN ENGINEER.
 3. IF GROUND WATER IS ENCOUNTERED, THE PIPE EMBEDMENT SHALL BE CRUSHED ROCK GRADE 4 PER ITEM 504.2.2.1(9), IN SANDY SOILS THE CRUSHED ROCK EMBEDMENT SHALL BE WRAPPED IN A FILTER FABRIC.

4. WHEN PIPE IS INSTALLED BENEATH EXISTING PIPELINES OR CULVERTS, FLOWABLE BACKFILL (PER ITEM 504.2.3.4) SHALL BE USED BETWEEN THE WASTEWATER LINE EMBEDMENT AND REMAINDER OF THE BACKFILL ABOVE THE EXISTING PIPELINE EMBEDMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE DETAIL SHOWN ABOVE.
5. EMBEDMENT SHALL BE FINE CRUSHED ROCK AGGREGATE GRADE 8, EMBEDMENT "B"-1", PER ITEMS 504.2.2.1 AND 504.5.2.5.

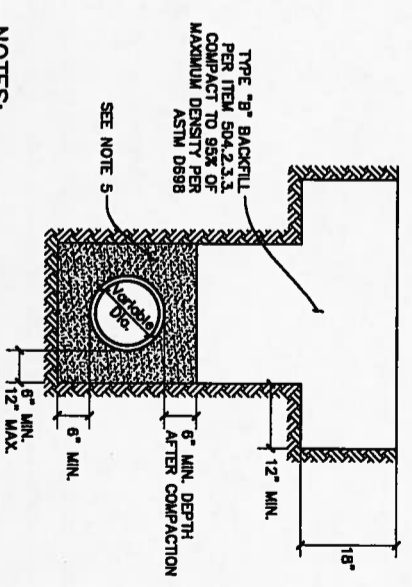
2
Embedment & Backfill - Flexbase
D1 SCALE: NOT TO SCALE



DIMENSION SCHEDULE

CONE SIZE	DIM A	DIM B	DIM C	DIM D	DIM H
24	23.75	33.50	3.00	23.25	1.25, 1.50, 2.00, 4.00
27	28.75	38.50	3.00	28.25	1.25, 1.50, 2.00, 3.25
30	28.75	38.50	3.00	28.25	1.50, 2.00, 3.25
32	31.75	41.50	3.00	31.25	2.00, 3.00
34	31.75	41.50	4.00	33.25	2.00, 3.00

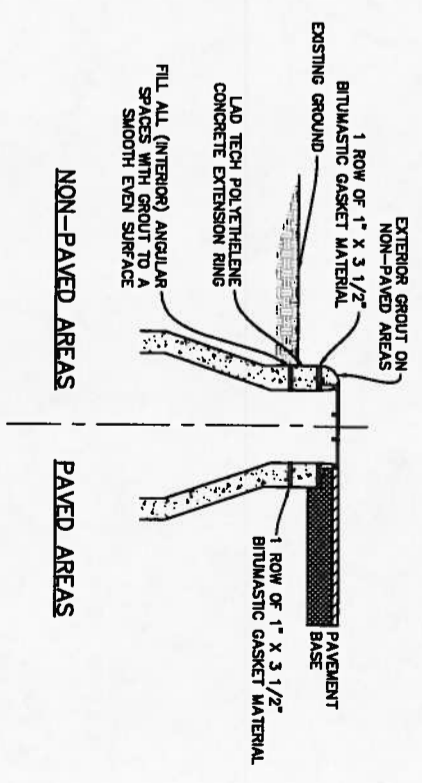
5
Manhole Adjustment Ring Flat Design
D1 SCALE: NOT TO SCALE



- NOTES:**
1. AT THE END OF EACH WORK DAY ALL SPOILS SHALL BE REMOVED FROM THE TOWN & TROTT ROW, UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE OWNER TO STORE SPOILS IN DESIGNATED SPOIL STORAGE AREAS THAT DO NOT OBSTRUCT AUTOMOBILE OR PEDESTRIAN TRAFFIC.
 2. A MAXIMUM OF 300-FT OF OPEN TRENCH WILL BE ALLOWED AT ANY TIME, UNLESS APPROVED BY TOWN ENGINEER.
 3. IF GROUND WATER IS ENCOUNTERED, THE PIPE EMBEDMENT SHALL BE CRUSHED ROCK GRADE 4 PER ITEM 504.2.2.1(9), IN SANDY SOILS THE CRUSHED ROCK EMBEDMENT SHALL BE WRAPPED IN A FILTER FABRIC.

4. WHEN PIPE IS INSTALLED BENEATH EXISTING PIPELINES OR CULVERTS, FLOWABLE BACKFILL (PER ITEM 504.2.3.4) SHALL BE USED BETWEEN THE WASTEWATER LINE EMBEDMENT AND REMAINDER OF THE BACKFILL ABOVE THE EXISTING PIPELINE EMBEDMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE DETAIL SHOWN ABOVE.
5. EMBEDMENT SHALL BE FINE CRUSHED ROCK AGGREGATE GRADE 8, EMBEDMENT "B"-1", PER ITEMS 504.2.2.1 AND 504.5.2.5.

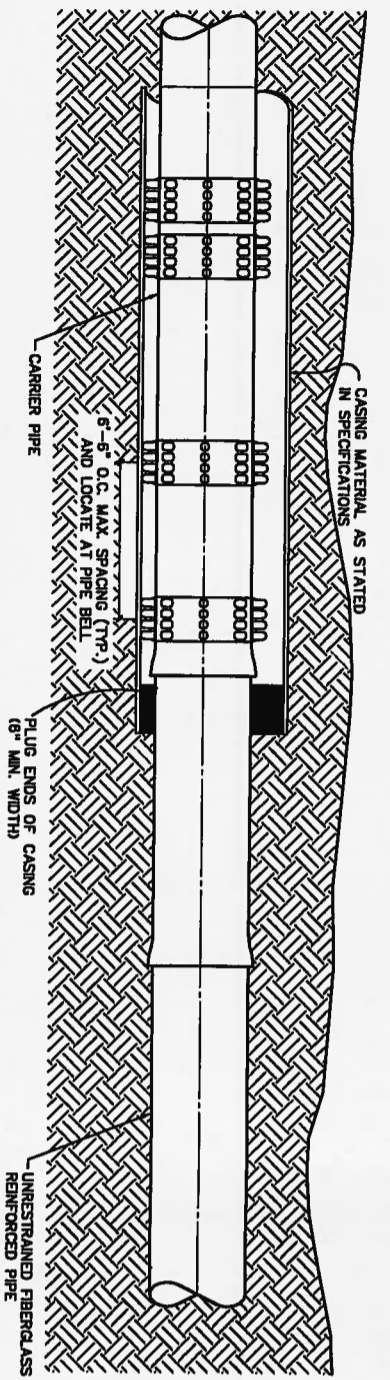
3
Embedment & Backfill - Unpaved & Future
D1 SCALE: NOT TO SCALE



- NOTES:**
1. NO GAPS WILL BE ALLOWED IN BITUMASTIC GASKET.
 2. THERE SHALL BE SMOOTH TRANSITION BETWEEN THE FRAME AND CONE OR GRADE RING, OR THE GRADE RING AND THE CONE.
 3. LAD TECH OR CONCRETE EXTENSION RINGS MAY BE PRECAST OR CAST-IN-PLACE. BRICK EXTENSION RINGS WILL NOT BE ALLOWED.
 4. LAD TECH RISERS NEED TO BE THE 30-INCH RISERS, RE: 5/D1 - MANHOLE ADJUSTMENT RING FLAT DESIGN FOR DIMENSIONS.
 5. STANDARD EXTENSIONS SHALL BE 2-INCH, 3-INCH, 4-INCH, 6-INCH, AND 12-INCH. EXTENSIONS SHALL BE SIZED TO MINIMIZE THE NUMBER REQUIRED TO RAISE THE MANHOLE. NO MORE THAN 1 - 2-INCH EXTENSION WILL BE ALLOWED ON ANY MANHOLE.

6
Extension Ring Installation
D1 SCALE: NOT TO SCALE

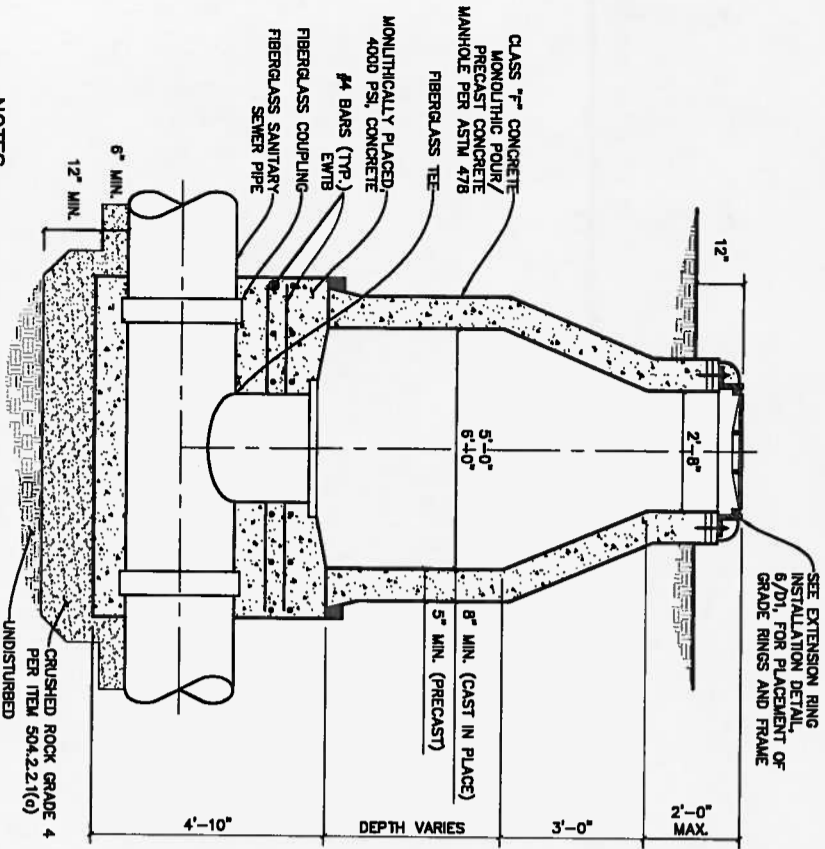
D1



NOTES:

1. PIPE SHALL HAVE UNIFORM ALIGNMENT AND BEARING WHEN INSTALLED AS A CARRIER PIPE IN A TUNNEL OR CASING PIPE TO PROVIDE STRAIGHT ALIGNMENT AND GRADE. CONCRETE PAVING MAY BE REQUIRED.
2. PRESSURE GROUT SPACE OUTSIDE OF TUNNEL OR CASING AFTER TUNNEL OR CASING IS INSTALLED.
3. GROUT SPACE BETWEEN THE CARRIER PIPE AND THE CASING OR TUNNEL WALL WITH GROUT FOR THE ENTIRE LENGTH AND CIRCUMFERENCE. SEAL ENDS OF TUNNEL LINER OR CASING WITH SAND BAGS. PRICE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CASING OR TUNNEL LINER.
4. ELECTRICAL DISCONTINUITY BETWEEN THE CARRIER PIPE AND THE CASING OR TUNNEL LINER SHALL BE VERIFIED AT INTERVALS NO LESS THAN ONE (1) TEST PER JOINT OF PIPE. CONTRACTOR SHALL DOCUMENT EACH TEST.
5. CASING SPACERS SHALL BE STEEL. CASING SPACERS SHALL FIT SNUG OVER THE CARRIER PIPE AND POSITION THE CARRIER PIPE APPROXIMATELY IN THE CENTER OF THE CASING PIPE TO PROVIDE ADEQUATE CLEARANCE BETWEEN THE CARRIER PIPE BELL AND THE CASING PIPE. CASING SPACERS SHALL BE MANUFACTURED BY P.S. OR APPROVED EQUAL.
6. WHERE A BORE PIT EXCEEDS 5 FEET IN DEPTH, THE CONTRACTOR SHALL INSTALL SHORING OF THE PIT WALLS AS REQUIRED BY OSHA.

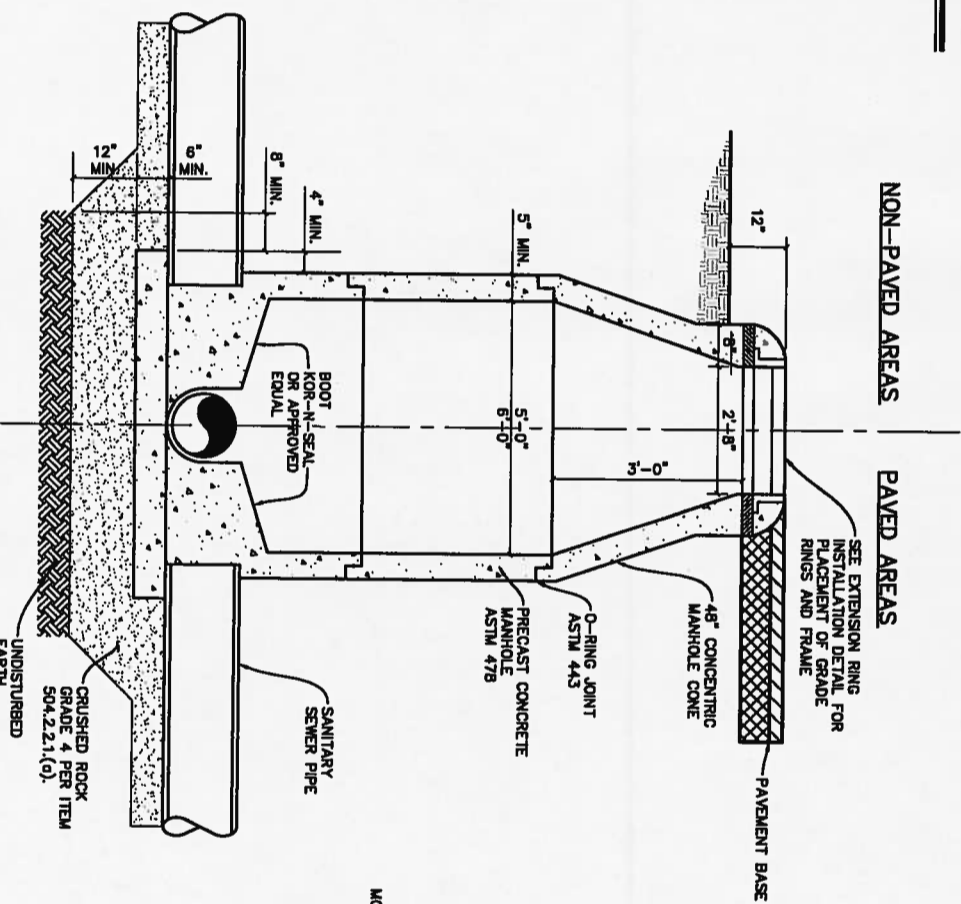
1
Detail
Casing or Tunnel
SCALE: NOT TO SCALE



NOTES:

1. MAXIMUM CHIMNEY HEIGHT SHALL BE 24".
2. MANHOLES SHALL BE CONCENTRIC UNLESS OTHERWISE APPROVED BY THE TOWN ENGINEER.
3. INVERTS SHALL BE EQUAL TO OR GREATER THAN THE PIPE DIAMETER.
4. FOR MANHOLE DEPTHS GREATER THAN 12 FEET, ADD AN ADDITIONAL 4 INCHES OF CONCRETE TO THE WALL THICKNESS FOR EACH ADDITIONAL 6 FEET OF DEPTH.
5. MANHOLE INTERIOR SHALL BE COATED WITH SPECTRA-SHIELD OR APPROVED EQUIVALENT.
6. TEES ON 27" FIBERGLASS MAIN SHALL BE 27" X 27". TEES ON 33" MAIN SHALL BE 33" X 33".

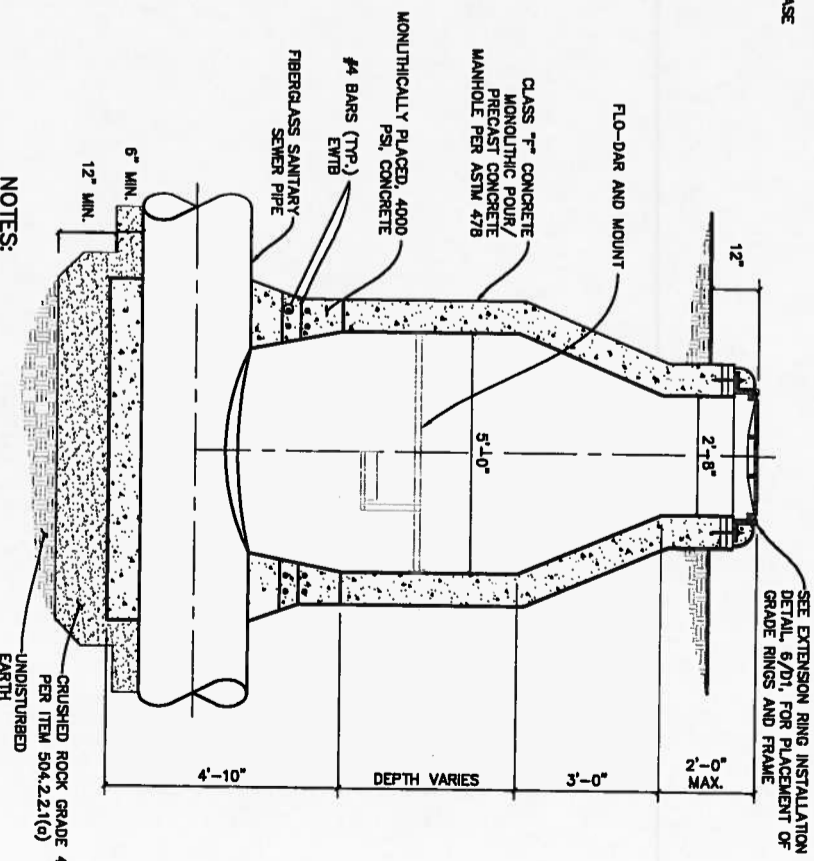
2
Detail
Precast or Cast-in-Place Type 1 Manhole
SCALE: 1/2" = 1'-0"



NOTES:

1. MAXIMUM CHIMNEY HEIGHT SHALL BE 24".
2. MANHOLES SHALL BE CONCENTRIC UNLESS OTHERWISE APPROVED BY THE TOWN ENGINEER.
3. TRANSITIONS TO 5" AND 6" BARREL DIAMETERS SHALL OCCUR JUST BELOW THE CONE SECTION.
4. INVERTS SHALL BE EQUAL TO OR GREATER THAN THE PIPE DIAMETER.
5. MANHOLE SHALL BE LINED WITH SPECTRA-SHIELD OR APPROVED EQUAL.

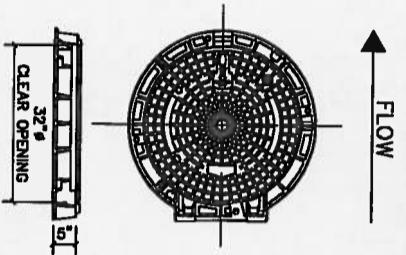
3
Detail
Precast Type 2 Manhole
SCALE: NOT TO SCALE



NOTES:

1. MAXIMUM CHIMNEY HEIGHT SHALL BE 24".
2. MANHOLES SHALL BE CONCENTRIC UNLESS OTHERWISE APPROVED BY THE TOWN ENGINEER.
3. FOR MANHOLE DEPTHS GREATER THAN 12 FEET, ADD AN ADDITIONAL 4 INCHES OF CONCRETE TO THE WALL THICKNESS FOR EACH ADDITIONAL 6 FEET OF DEPTH.
4. MANHOLE INTERIOR SHALL BE COATED WITH SPECTRA-SHIELD OR APPROVED EQUIVALENT.
5. PIPE CUTOFF NOT TO EXCEED PAST MIDPOINT OF PIPE.

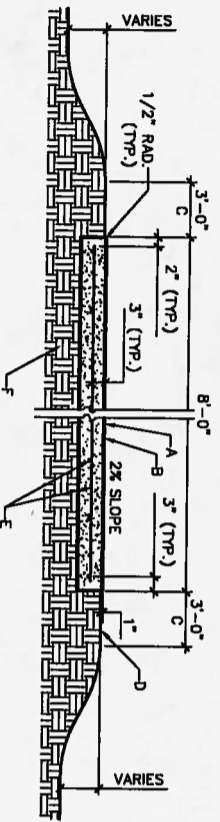
4
Detail
Precast or Cast-in-Place Type 3 Manhole
SCALE: 1/2" = 1'-0"



NOTES:

1. MANHOLE FRAME AND COVER ON MANHOLES WITH A RIM ELEVATION BELOW 572'-FEET SHALL BE PAINTIGHT AS MANUFACTURED BY CERTAINTED. MANHOLE FRAME AND COVER ON MANHOLES WITH A RIM ELEVATION ABOVE 572'-FEET SHALL BE PAIRREX AS MANUFACTURED BY CERTAINTED OR MODEL B200 WITH MODEL B210 MANHOLE ID MARKER AS MANUFACTURED BY POWERSEAL. COVER AND FRAME SHALL BE MANUFACTURED FROM DUCTILE IRON.
2. ALL COMPONENTS SHALL BE COATED BLACK.
3. NO WATERTIGHT MANHOLE INSERT IS REQUIRED WITH PAIRREX OR MODEL B200 MANHOLE COVERS.
4. PAIRREX AND MODEL B200 COVERS SHALL BE DUALY HINGED AND INCORPORATE A 90° BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE. FRAMES SHALL INCORPORATE A SEATING RING AND A FITTED PLUG IN EACH HINGE HOUSING.
5. PAINTIGHT COVERS SHALL BE BOLT-DOWN AND SHALL INCORPORATE A WATERTIGHT SEALING GASKET.
6. COVERS SHALL BE ONE MAN OPERABLE USING STANDARD TOOLS AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 80,000 POUNDS.
7. COVERS FOR SANITARY SEWER MANHOLES SHALL CONTAIN THE WORD "SEWER".
8. FRAMES SHALL BE CIRCULAR, HAVE A 32-INCH CLEAR OPENING, AND THE FRAME DEPTH SHALL NOT EXCEED 5 INCHES. THE FLANGE SHALL INCORPORATE BEDDING SLOTS, BOLT HOLES, AND LIFTING EYES.
9. HINGES SHALL BE LOCATED ON THE UPSTREAM SIDE OF THE MANHOLE.

1
Manhole Cover & Frame
DETAIL
SCALE: NOT TO SCALE



CONCRETE TRAIL SECTION

- NOTES:**
1. GRADE TRAIL WITH DRAINAGE SWALES ON BOTH SIDES AND DIVERT FLOW UNDER TRAIL SECTIONS WITH PVC WHEN NEEDED. DO NOT FLOW UNDER TRAIL IN SITUATIONS THAT IT WILL RECEIVE FLOWS OVER THE TRAIL.
 2. THE MATERIALS AND WORKMANSHIP FOR CONCRETE PAVING SHALL BE IN ACCORDANCE WITH N.C.T.C.O.G. SPECIFICATIONS AS MODIFIED BY THE TOWN OF FLOWER MOUND.
 3. CONSTRUCTION JOINT SPACING SHALL BE WIDTH OF TRAIL.
 4. CONSTRUCTION JOINTS AT LOCATIONS WHERE TRAIL AND WALL ARE MONOLITHIC SHALL HAVE THE JOINT CONTINUOUS ACROSS THE TRAIL, TOP OF WALL AND FACE OF WALL.
 5. DO NOT ASSUME A CUT AND FILL BARGE. INSTALL TRAIL ALONG EXISTING GRADE WHEREVER POSSIBLE. MAINTAIN SWALE AND CONDUIT UNDER TRAIL WHEN NECESSARY TO AVOID DRAINING OVER THE TRAIL. HOLD TO 2% CROSS SLOPE FOR DRAINAGE AND NO MORE THAN 5% SLOPE ALONG TRAIL ALIGNMENT.

CONSTRUCTION NOTES:

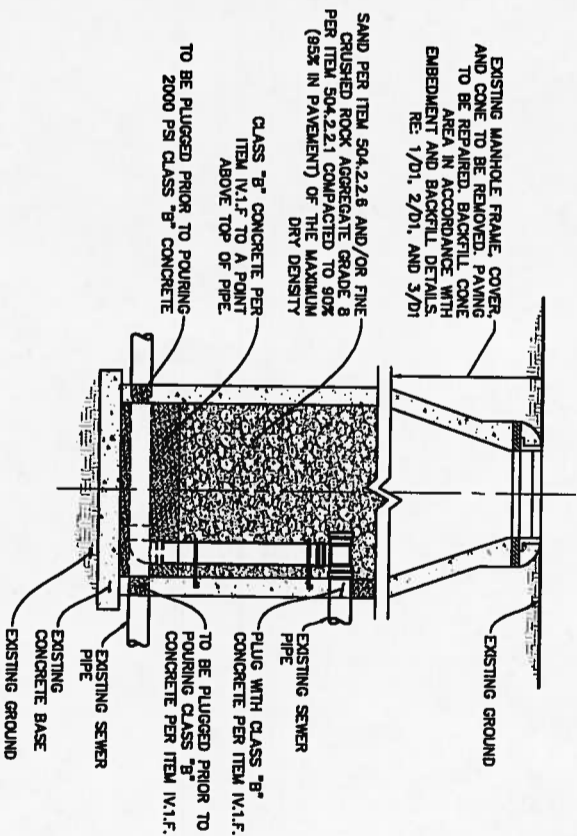
- A. 5 1/2" THICK 3800 PSI CONCRETE TRAIL.
- B. HEAVY BROOM FINISH.
- C. RESEED ALL DISTURBED AREA WITH APPROPRIATE SEASONAL GRASS.
- D. FINISH GRADE.
- E. #3 BARS 1'-6" O.C. (MAX.) BOTH WAYS.
- F. COMPACT SUBGRADE TO 95% STANDARD PROCTOR DENSITY.

DOWELED EXPANSION JOINTS

NOTES:

1. LOCATE DOWELED EXPANSION JOINTS ON 40'-0" CENTERS (MAX.).
2. USE #4 SMOOTH DOWEL, 1'-6" LONG & LUBRICATED ON ONE END. 5 PER JOINT @ 1'-6" O.C. WITH CAP.
3. INSTALL REDWOOD EXPANSION JOINT 1/2" BELOW FINISHED GRADE OF EXPANSION JOINTS WITH PREMOULDED BITUMINOUS EXPANSION JOINT FILLER - GREY COLOR.

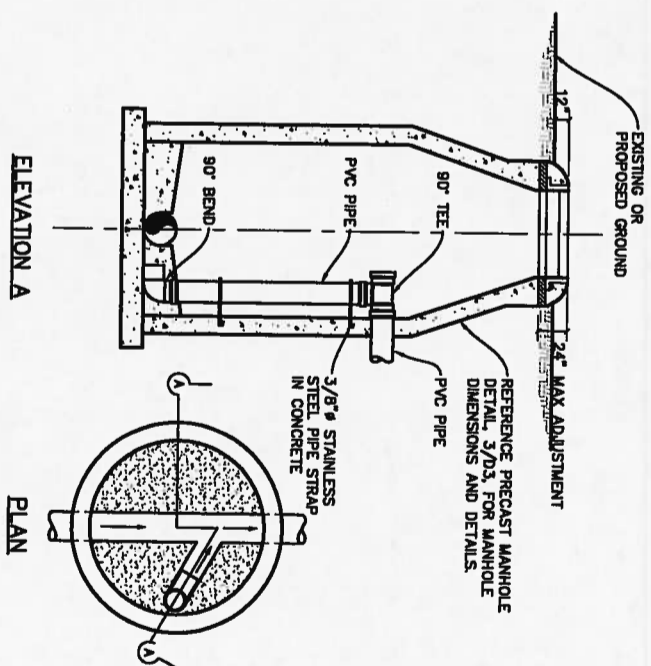
3
80" Concrete Trail
DETAIL
SCALE: NOT TO SCALE



NOTE:

1. CONTRACTOR SHALL REMOVE EXISTING AREA VELOCITY METER AND ASSOCIATED EQUIPMENT FROM METER STATION AND DELIVER TO TOWN WASTEWATER TREATMENT PLANT, LOCATED AT 3000 DUNCAN LANE, FLOWER MOUND, TEXAS 75028.

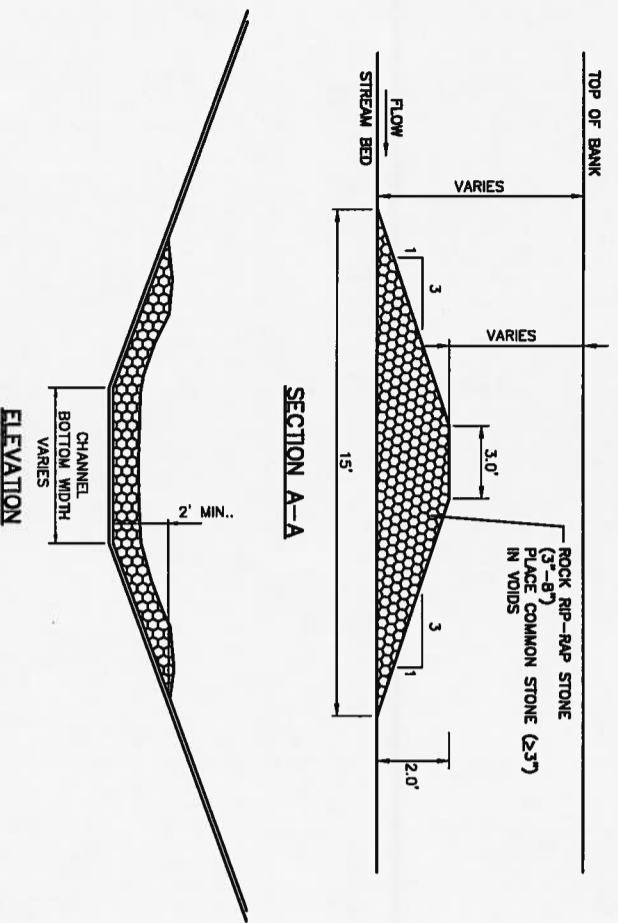
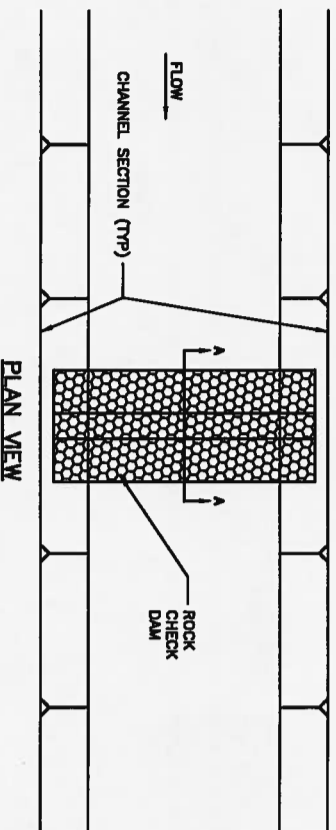
2
Abandonment of Existing Manhole & Meter Station
DETAIL
SCALE: NOT TO SCALE



NOTES:

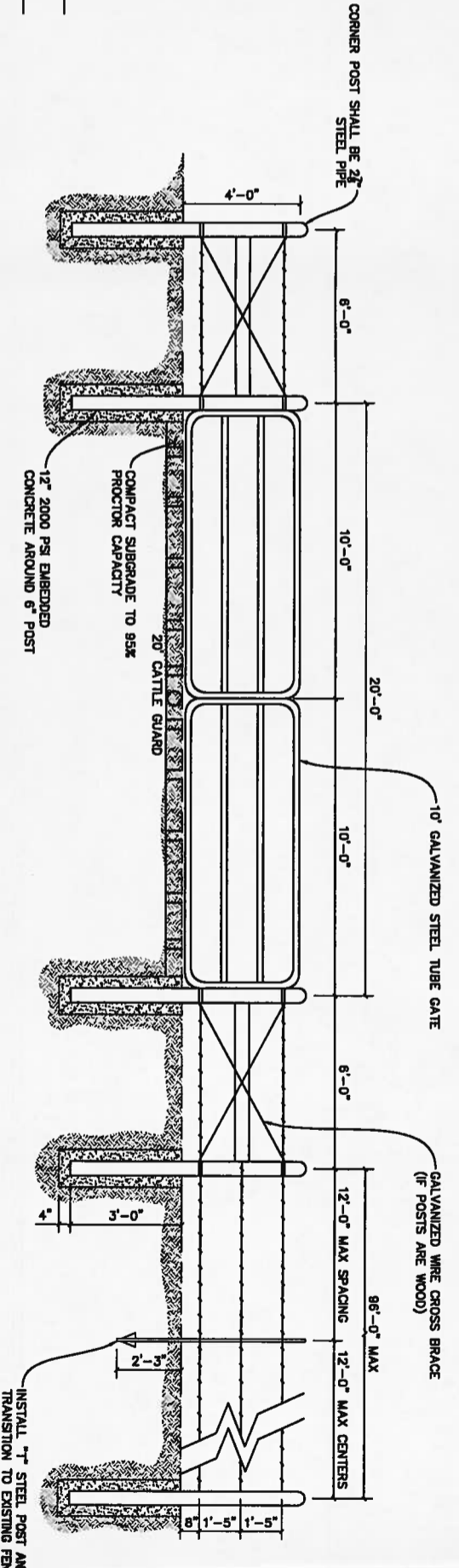
1. PVC PIPE WITHIN MANHOLE SHALL BE SDR-35 FOR DEPTHS LESS THAN 12 FEET.
2. PVC PIPE WITHIN MANHOLE SHALL BE SDR-26 FOR DEPTHS 12 FEET AND GREATER.
3. MANHOLE MAY BE EITHER PRECAST OR MONOLITHIC TYPE.
4. INSIDE PIPE SHALL NOT BE PLACED IN CONE AREA.

4
Sanitary Sewer Drop Manhole
DETAIL
SCALE: NOT TO SCALE



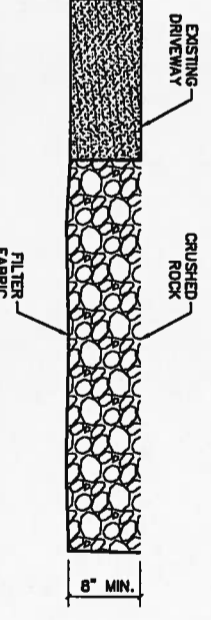
- NOTES:**
1. USE ONLY OPEN GRADED ROCK 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADE ROCK 3-5 INCHES FOR OTHER CONDITIONS.
 2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH, A MINIMUM WIRE SIZE OF 20 GAUGE, AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP
 3. THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
 5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
 6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.

1
Rock Check Dam
DETAIL
SCALE: NOT TO SCALE



- NOTES:**
1. PRESSURE TREATED WOOD POSTS (4" DIAMETER) ARE ALLOWED FOR TEMPORARY FENCE INSTALLATION. POSTS SHALL BE STEEL FOR PERMANENT FENCE REPLACEMENT.
 2. TEMPORARY FENCING SHALL BE MINIMUM 3-STRAND BARBED WIRE. LARGE LIVESTOCK MAY REQUIRE MORE SUBSTANTIAL TEMPORARY FENCING. CONTRACTOR WILL BE REQUIRED TO INSTALL ADEQUATE TEMPORARY FENCING TO CONTAIN LIVESTOCK.
 3. 20' DOUBLE SWING GATE SHOWN IN DETAIL. WHEN OTHER GATE SIZES ARE INDICATED ON PLANS, CONTRACTOR SHALL ADJUST ACCORDINGLY. GATES SHOWN LESS THAN 20' ARE ASSUMED TO BE SINGLE GATES.

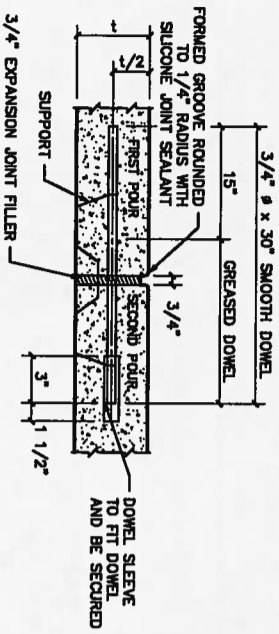
2
Temporary Fence and Gate
DETAIL
SCALE: NOT TO SCALE



- NOTES:**
1. STONE SIZE - 3 TO 5 INCHES CRUSHED ROCK.
 2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
 3. THICKNESS - NOT LESS THAN 8 INCHES.
 4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS OR 24 FEET.
 5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
 6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANUP OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY, MUST BE REMOVED IMMEDIATELY.
 7. DRAINAGE - ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
 8. CONTRACTOR SHALL MAINTAIN AT LEAST ONE CONSTRUCTION ENTRANCE ON EITHER FM 2499 OR MORRIS ROAD THROUGHOUT CONSTRUCTION.

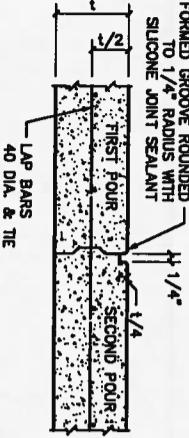
3
Construction Entrance
DETAIL
SCALE: NOT TO SCALE

D4



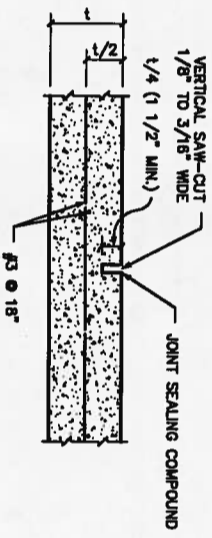
EXPANSION JOINT

- NOTE:**
1. ALL DOWEL BARS SHALL BE INSTALLED PERPENDICULAR TO JOINT @ 18" SPACING.
 2. SILICONE JOINT SEALANT SHALL BE DOW CORNING 880 SL OR APPROVED EQUAL.
 3. HOT-POURED RUBBER MAY BE USED AS A SUBSTITUTE FOR SILICONE JOINT SEALANT WITH THE APPROVAL OF THE TOWN ENGINEER.



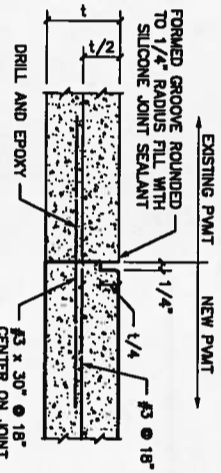
1 Construction Joint DETAIL

SCALE: NOT TO SCALE



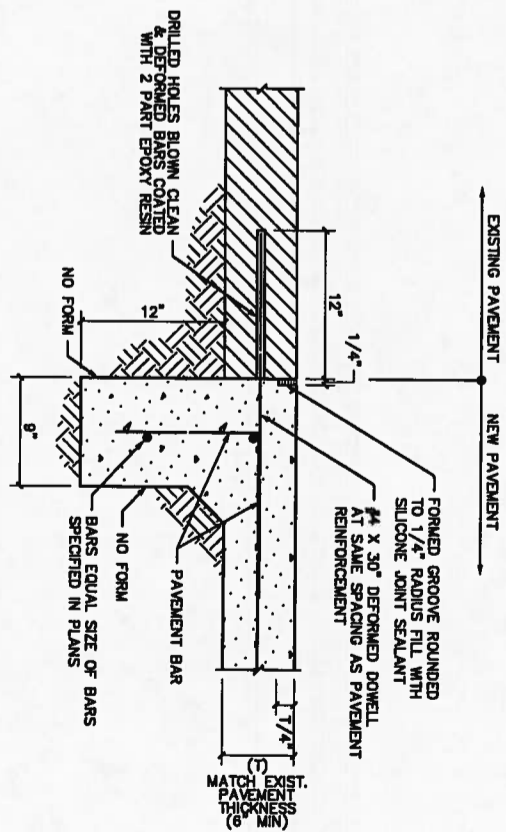
SAW JOINT

- NOTE:**
1. ALL DOWEL BARS SHALL BE INSTALLED PERPENDICULAR TO JOINT @ 18" SPACING.
 2. SILICONE JOINT SEALANT SHALL BE DOW CORNING 880 SL OR APPROVED EQUAL.
 3. TOP OF CUT SHALL BE CHAMFERED @ 45° ANGLE, MINIMUM OF 1/4" DEEP.
 4. HOT-POURED RUBBER MAY BE USED AS A SUBSTITUTE FOR SILICONE JOINT SEALANT WITH APPROVAL OF THE TOWN ENGINEER.



2 Sawn Construction Joint DETAIL

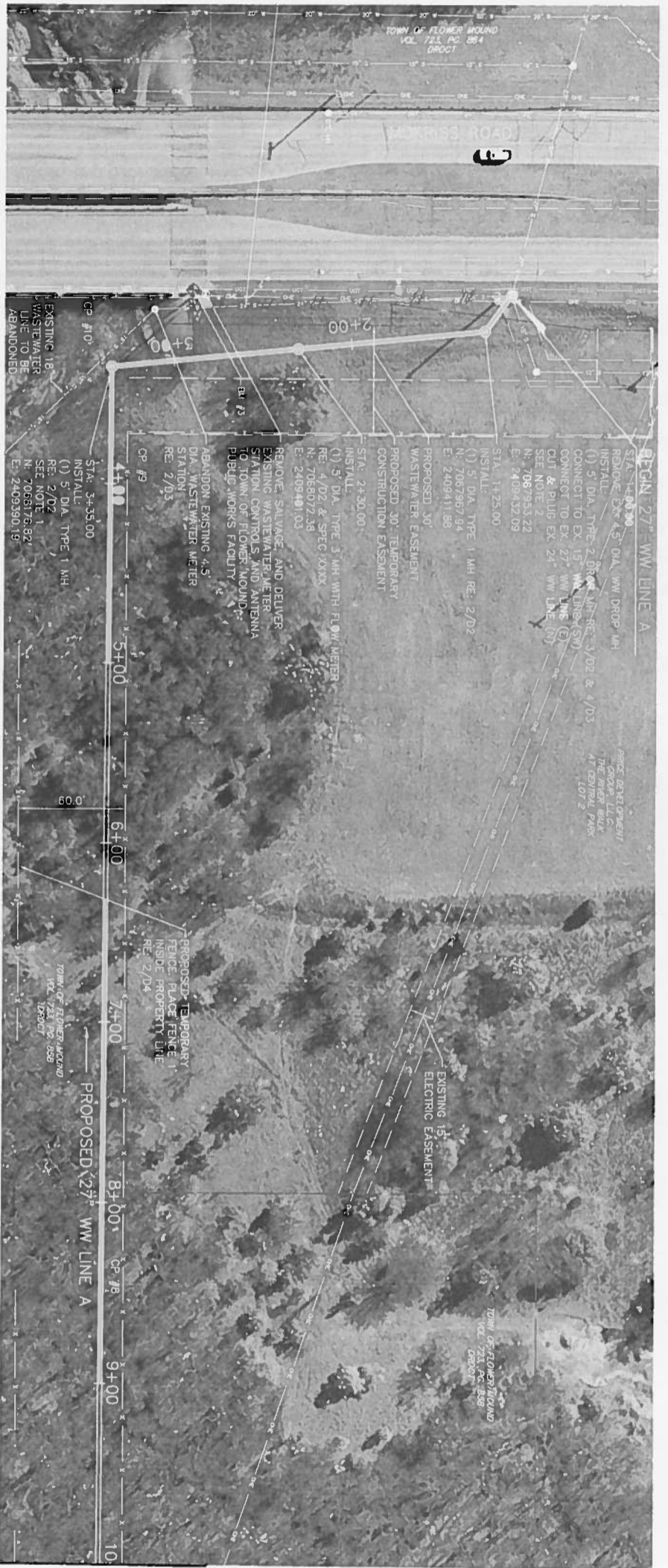
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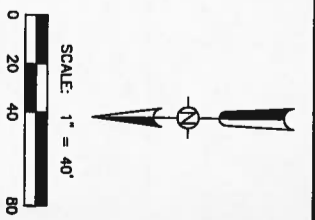
- NOTES:**
1. ELIMINATE DEFORMED DOWEL WHERE EXISTING PAVEMENT SECTION IS ASPHALT
 2. ALL SAWCUTS SHALL BE FULL DEPTH CUTS. CONTRACTOR SHALL MAKE EFFORTS TO PROTECT CONCRETE EDGES. ANY LARGE SPALLED OR BROKEN EDGES SHALL BE REMOVED BY SAWCUTTING PAVEMENT PRIOR TO REPLACEMENT. COST FOR SAWCUTS SHALL BE INCIDENTAL TO PAVEMENT REMOVAL.
 3. COST FOR INSTALLATION OF ALL JOINTS SHALL BE INCIDENTAL TO CONCRETE PAVEMENT CONSTRUCTION. CONCRETE PAVING EXPANSION JOINTS SHALL BE CONSTRUCTED AT 400 FOOT INTERVALS. SAW JOINT SPACING SHALL NOT EXCEED 20 FEET FOR CONCRETE VEHICLE PAVEMENT. JOINTS SHALL BE SAWN AS SOON AS PRACTICAL AFTER CONCRETE IS PLACED (COMPRESSIVE STRENGTH SHALL REACH APPROXIMATELY 1000 PSI), BUT NOT EXCEEDING 18 HOURS AFTER CONCRETE PLACEMENT. ALL CONCRETE VEHICLE PAVEMENT JOINTS SHALL BE SEALED IN ACCORDANCE WITH THE STANDARD DETAILS. CONTRACTOR SHALL MATCH NEW PAVEMENT JOINTS WITH EXISTING ADJOINING PAVEMENT WHERE APPLICABLE.

3 Pavement Header at Existing Pavement DETAIL

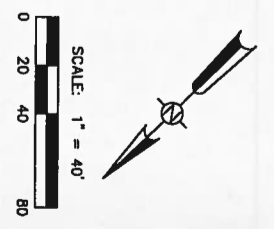
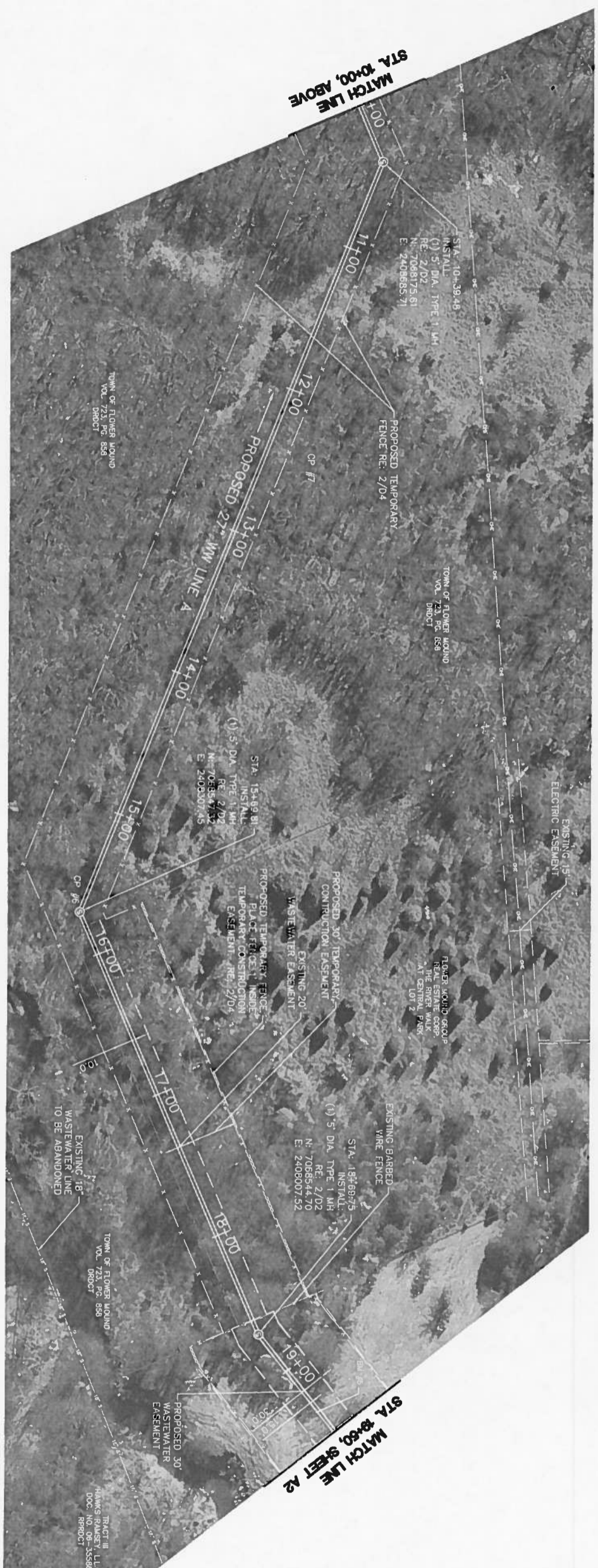
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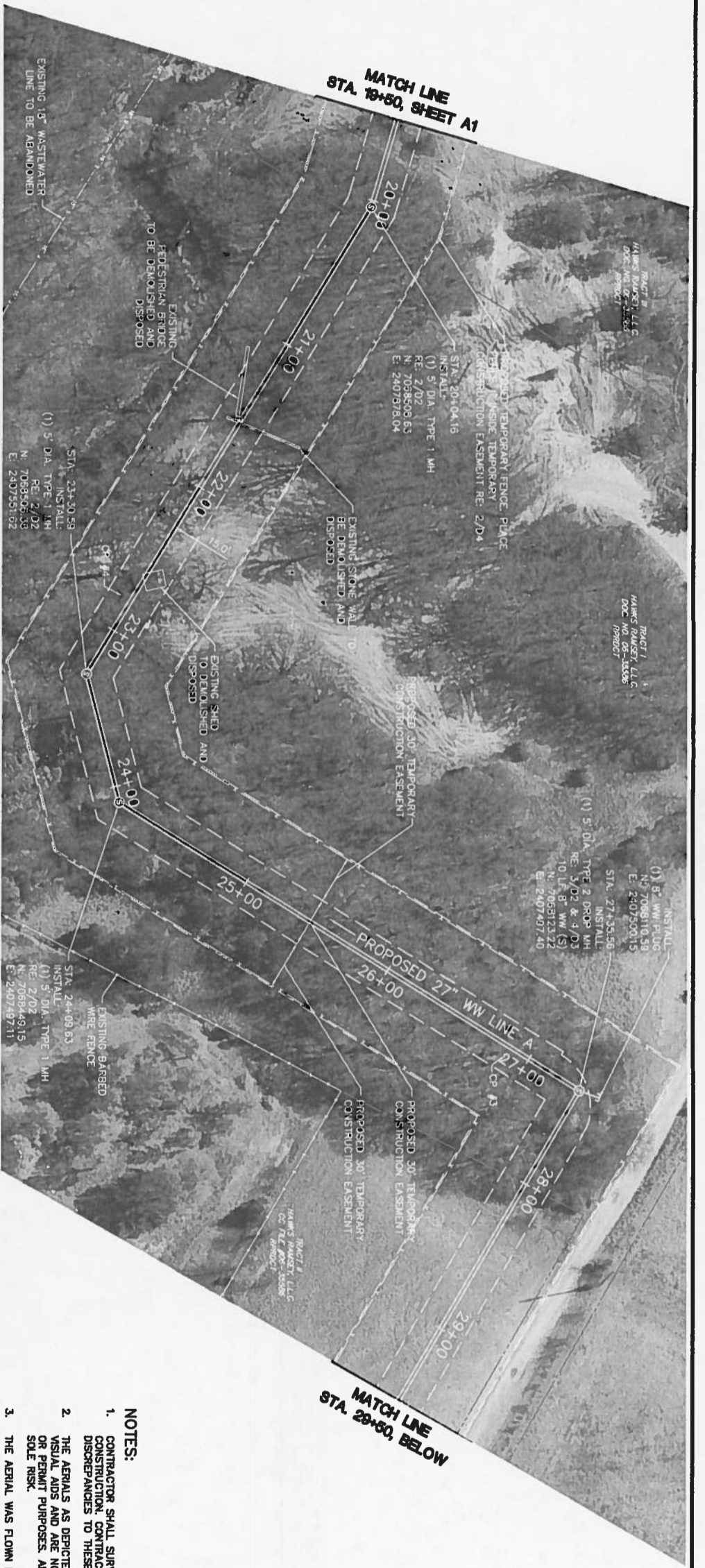


MATCH LINE
STA. 10+00, BELOW



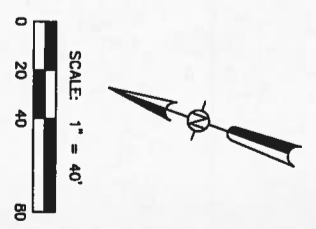
- NOTES:**
1. CONTRACTOR SHALL LOCATE EXISTING 18" WASTEWATER LINE PRIOR TO CONSTRUCTION TO VERIFY PROPOSED MANHOLE IS NOT IN CONFLICT WITH EXISTING LINE. CONTRACTOR SHALL NOTIFY OWNER IF CONFLICTS EXIST.
 2. CONTRACTOR SHALL SURVEY, EXISTING FLOW LINES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF DISCREPANCIES TO THESE PLANS EXIST.
 3. THE AERIALS AS DEPICTED ON SHEETS A1 & A2 ARE PROVIDED AS VISUAL AIDS AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. ANY USE WILL BE AT THE CONTRACTOR'S SOLE RISK.
 4. THE AERIAL WAS FLOWN IN DECEMBER 2008.



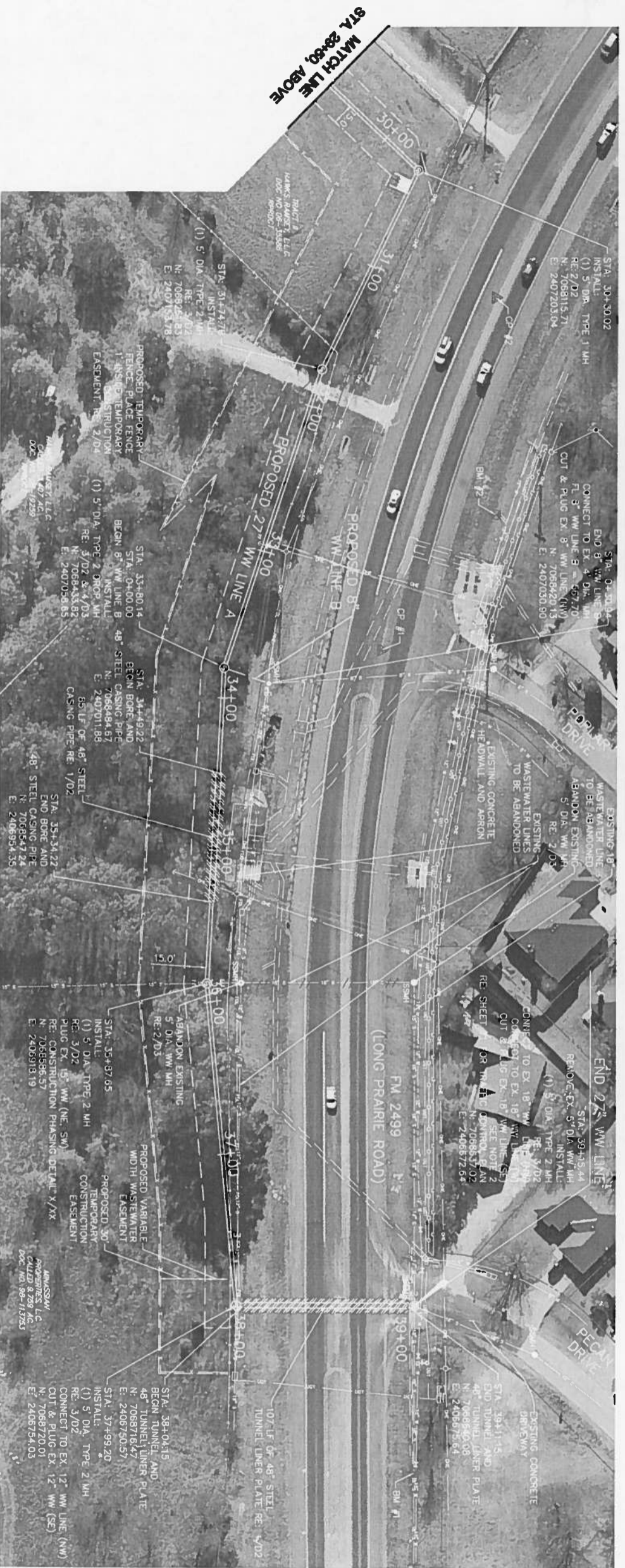


MATCH LINE
STA. 19+50, SHEET A1

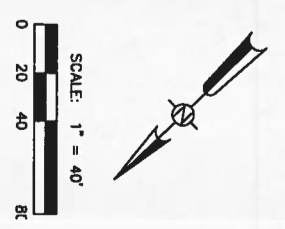
MATCH LINE
STA. 28+50, BELOW



- NOTES:**
1. CONTRACTOR SHALL SURVEY ALL EXISTING FLOW LINES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER IF DISCREPANCIES TO THESE PLANS EXIST.
 2. THE AERIALS AS DEPICTED ON SHEETS A1 & A2 ARE PROVIDED VISUAL AIDS AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES. ANY USE WILL BE AT THE CONTRACTOR'S SOLE RISK.
 3. THE AERIAL WAS FLOWN IN DECEMBER 2008.



MATCH LINE
STA. 28+50, ABOVE



A2