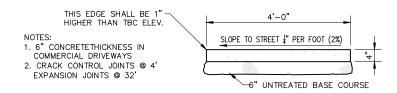


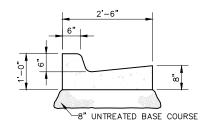
SURVEY MONUMENT SECTION

SCALE: N.T.S.

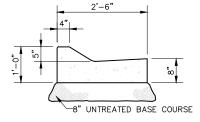


SIDEWALK SECTION

SCALE: N.T.S.



NOTES: CRACK CONTROL JOINTS @ 10' EXPANSION JOINTS @ 50'

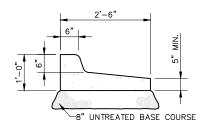


STANDARD CURB & SECTION

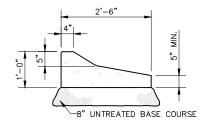
SCALE: N.T.S.

MODIFIED CURB & GUTTER SECTION (LOCAL STREETS ONLY)

SCALE: N.T.S.



NOTES: CRACK CONTROL JOINTS @ 10' EXPANSION JOINTS @ 50'



STANDARD SPILL CURB & SECTION

SCALE: N.T.S.

MODIFIED SPILL CURB & GUTTER SECTION (LOCAL STREETS ONLY)

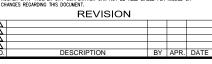
SCALE: N.T.S.

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REVISION

REVISION



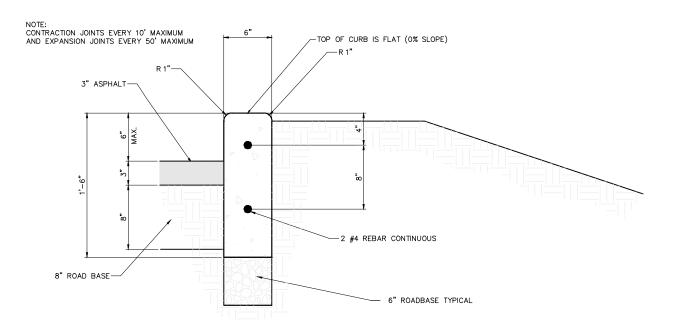


STREET IMPROVEMENT SECTIONS

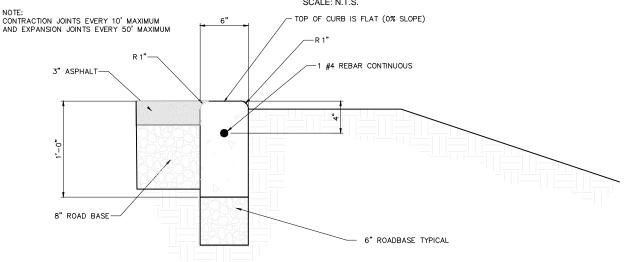
HOOPER CITY DEVELOPMENT STANDARDS

TANDARD RAWING JMBER:	2A
AD DWG:STR	EET_IMP_SE
OT SCALE:	1 = 3
RAWN BY:	JDN
SIGN BY:	TLA

CHECKED BY: TLA ADOPTED DATE:NOV 200



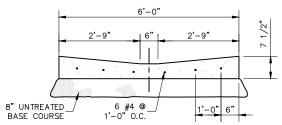
TYPICAL 18" CONCRETE CURB



TYPICAL 12" CONCRETE CURB

SCALE: N.T.S.

CONSTRUCTION & EXPANSION JOINTS @ 5' EXPANSION JOINTS @ EDGE OF APRON



NOTE: THIS STANDARD TO BE USED ONLY WHERE APPROVED BY HOOPER CITY PUBLIC WORKS.

CROSS DRAIN SECTION

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REVISION		

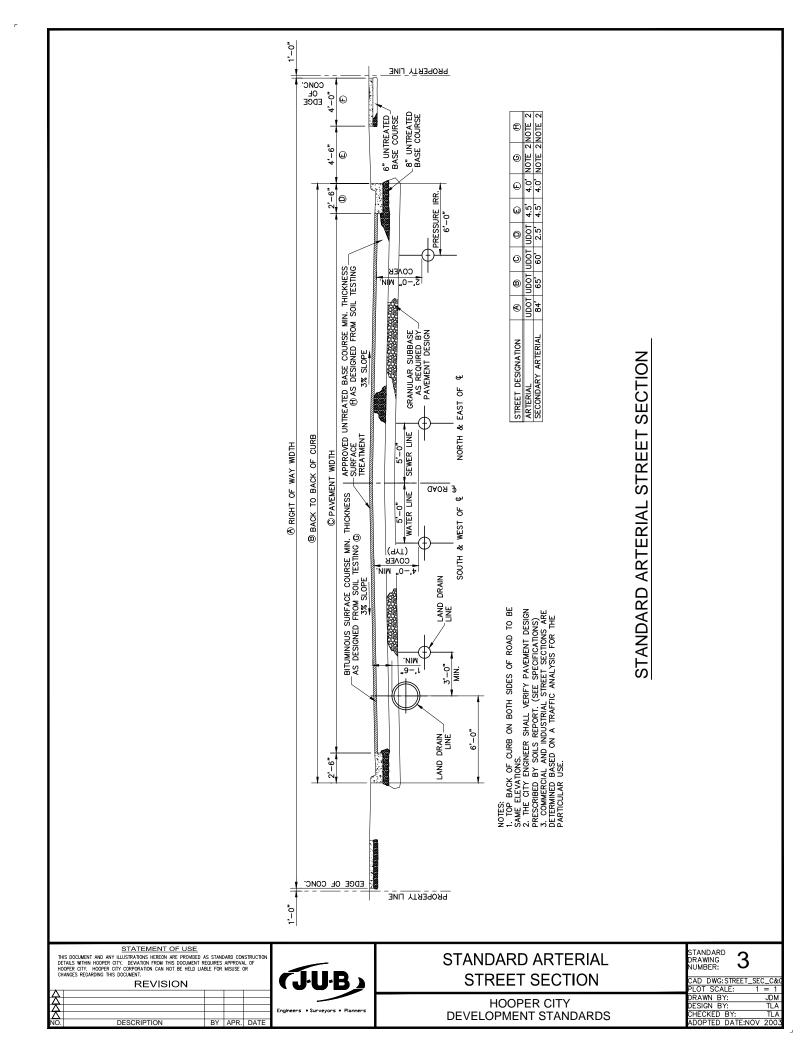
DESCRIPTION

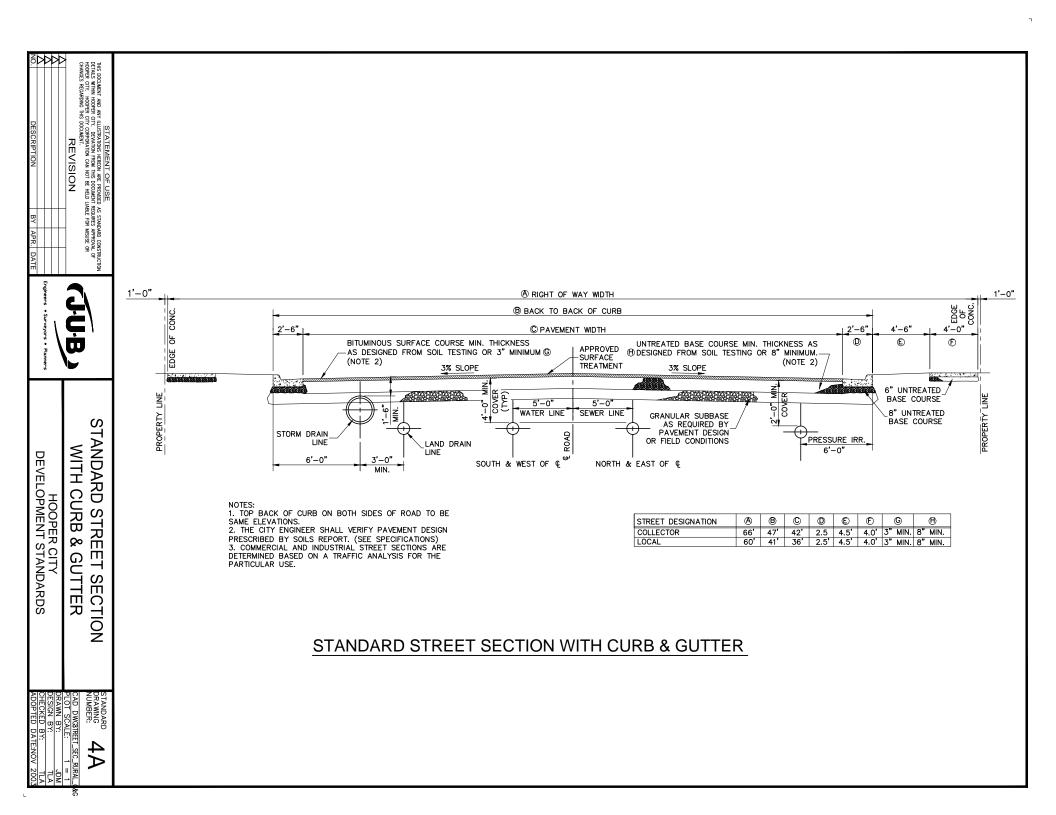


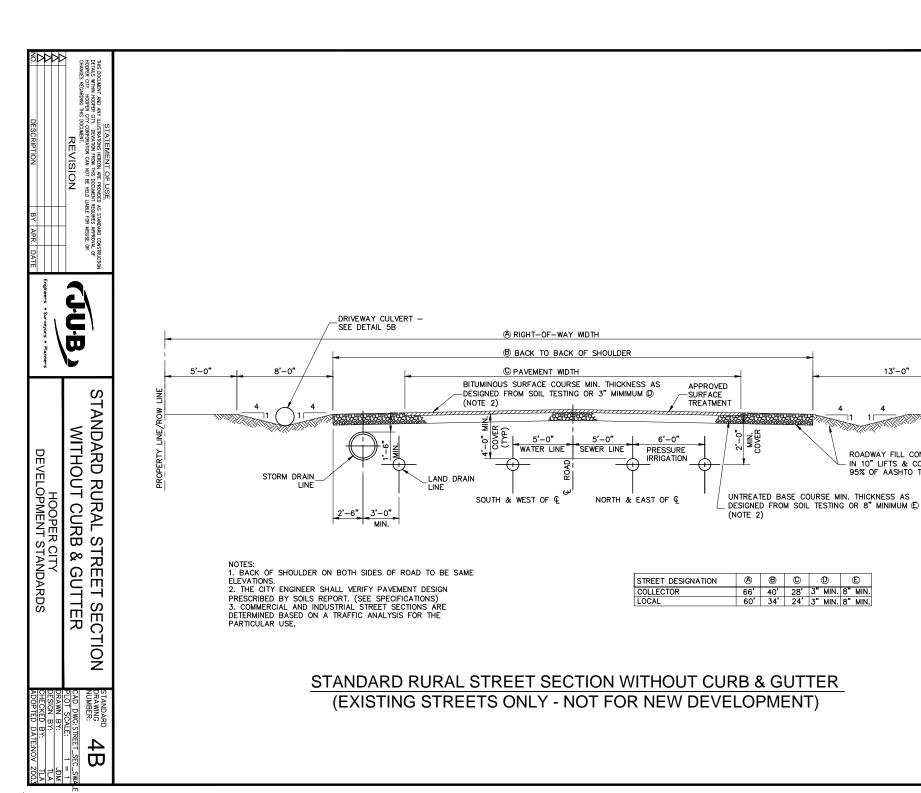
STREET IMPROVEMENT **SECTIONS**

ANDARD AWING MBER:	2E

CAD DWG:STREET_IMF	_SEC
PLOT SCALE: 1	= 32
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DATE:NOV	2005





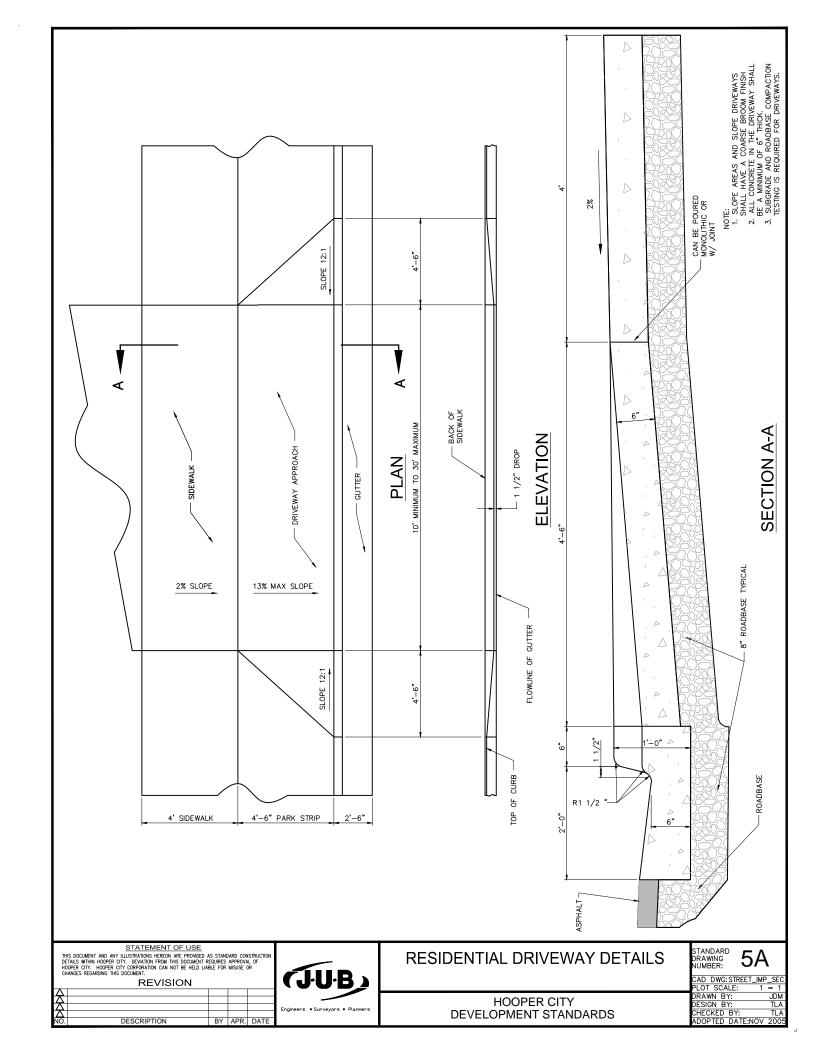


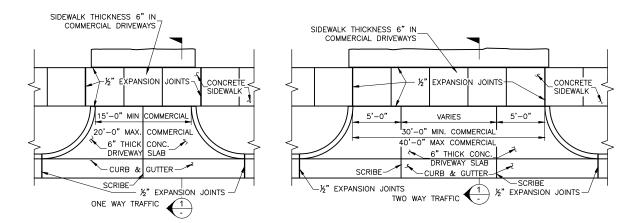
13'-0"

ROADWAY FILL CONSTRUCTED

IN 10" LIFTS & COMPACTED TO 95% OF AASHTO T-99

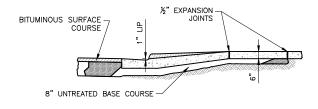
PROPERTY LINE/ROW LINE





TYPE 1 DRIVEWAY APPROACH

PREFERRED STYLE FOR COMMERCIAL DEVELOPMENT



SECTION 1

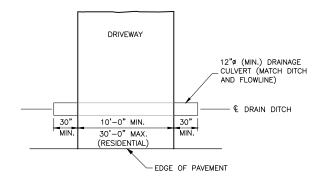
NOTE:

SCRIBE SIDEWALK ½" DEPTH AT EACH 4'-0"

EXPANSION JOINT AT EACH 32'-0"

CURB & GUTTER EXPANSION JOINT AT EACH 50'

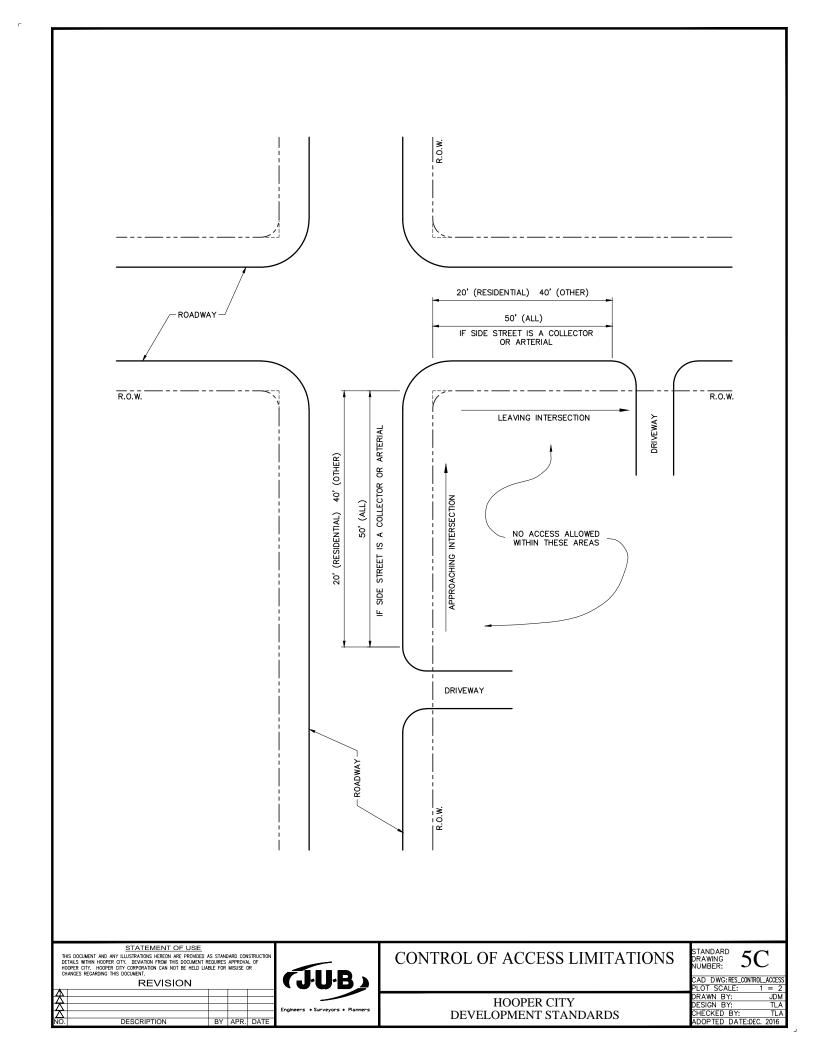
CURB & GUTTER CONSTRUCTION JOINT AT EACH 10'

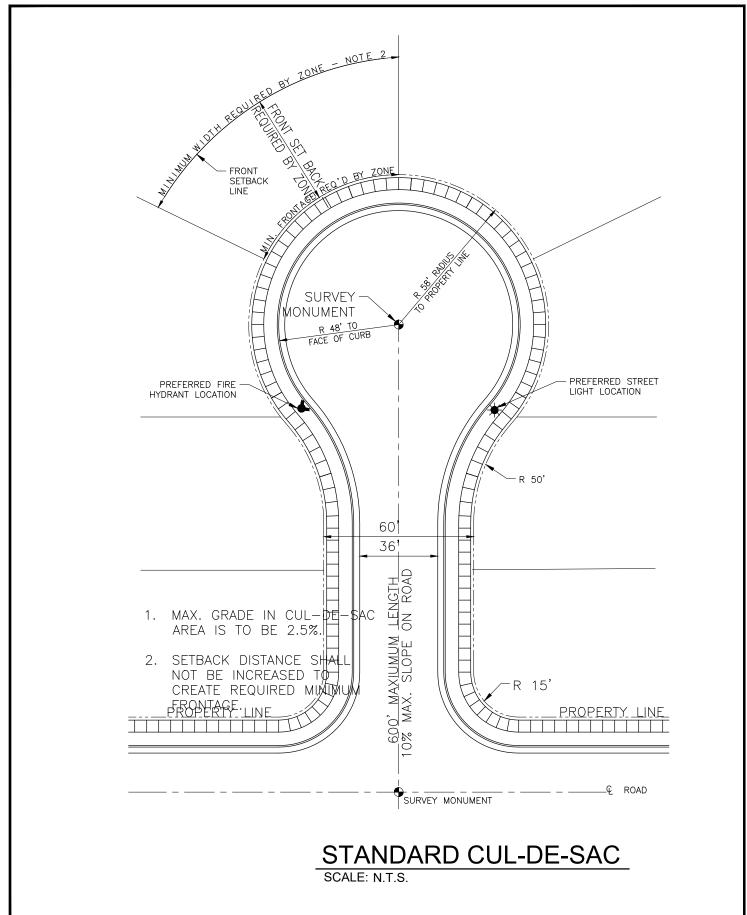


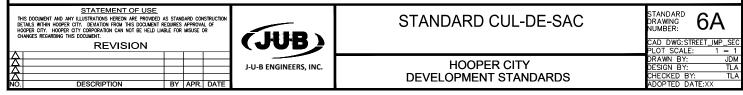
TYPE 2 DRIVEWAY APPROACH

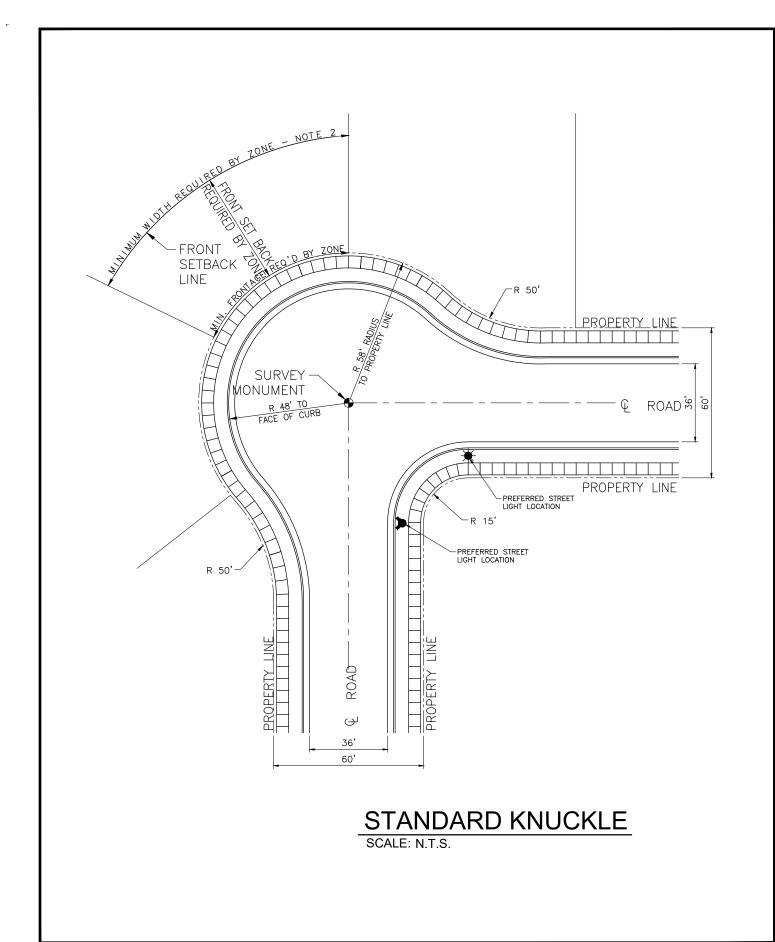
TYPICAL ON EXISTING SWALE DRAINAGE FACILITIES - NOT FOR NEW DEVELOPMENT











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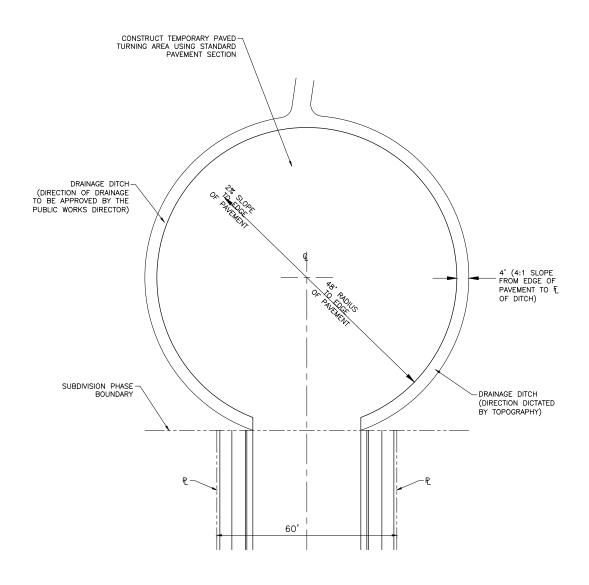
DESCRIPTION



STANDARD KNUCKLE AND TEMPORARY TURN-AROUND

STAN DRAV NUME		6	В
CAD	DWG: S	TREET_	_IMP_

CAD DWG:STREET_IM	P_SEC
PLOT SCALE: 1	= 1
RAWN BY:	JDM
ESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DATE:XX	



NOTES:

1. PAVED TEMPORARY TURN—AROUND WILL BE PERMITTED WHEN THE PERMANENT STREET IS PLANNED TO CONTINUE IN THE FUTURE AND THE PROPERTY ON WHICH THE TEMPORARY TURN—AROUND WILL BE BUILT IS OWNED BY THE DEVELOPER OF THE CURRENT DEVELOPMENT.

PAVED TEMPORARY TURN-AROUND SCALE: N.T.S.

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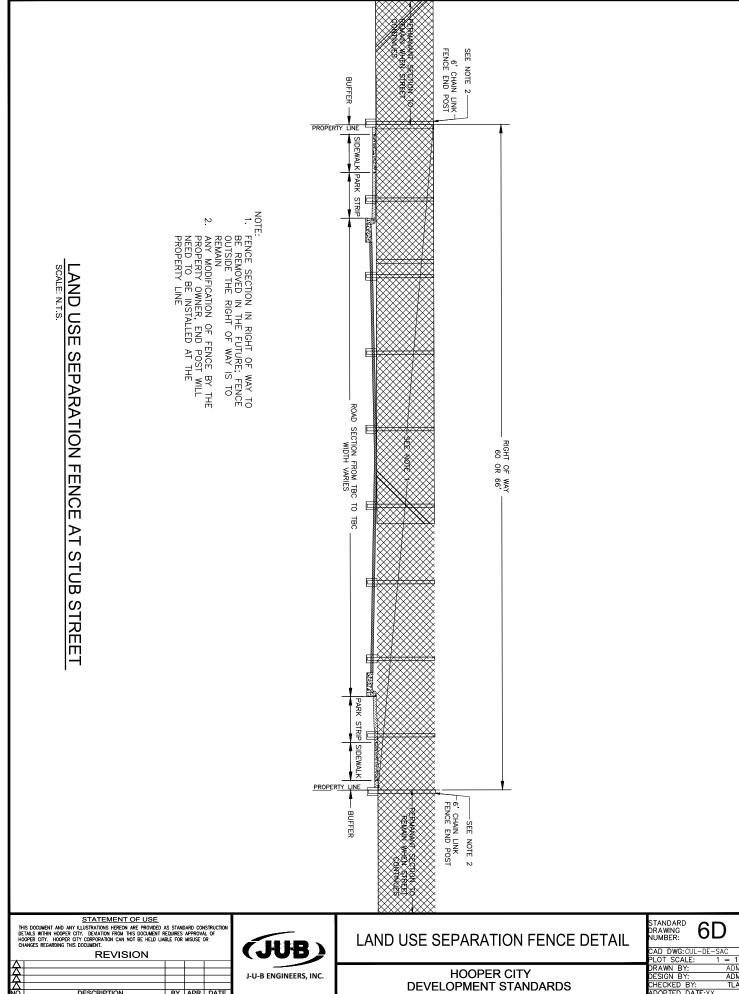
REVISION DESCRIPTION BY APR. DATE



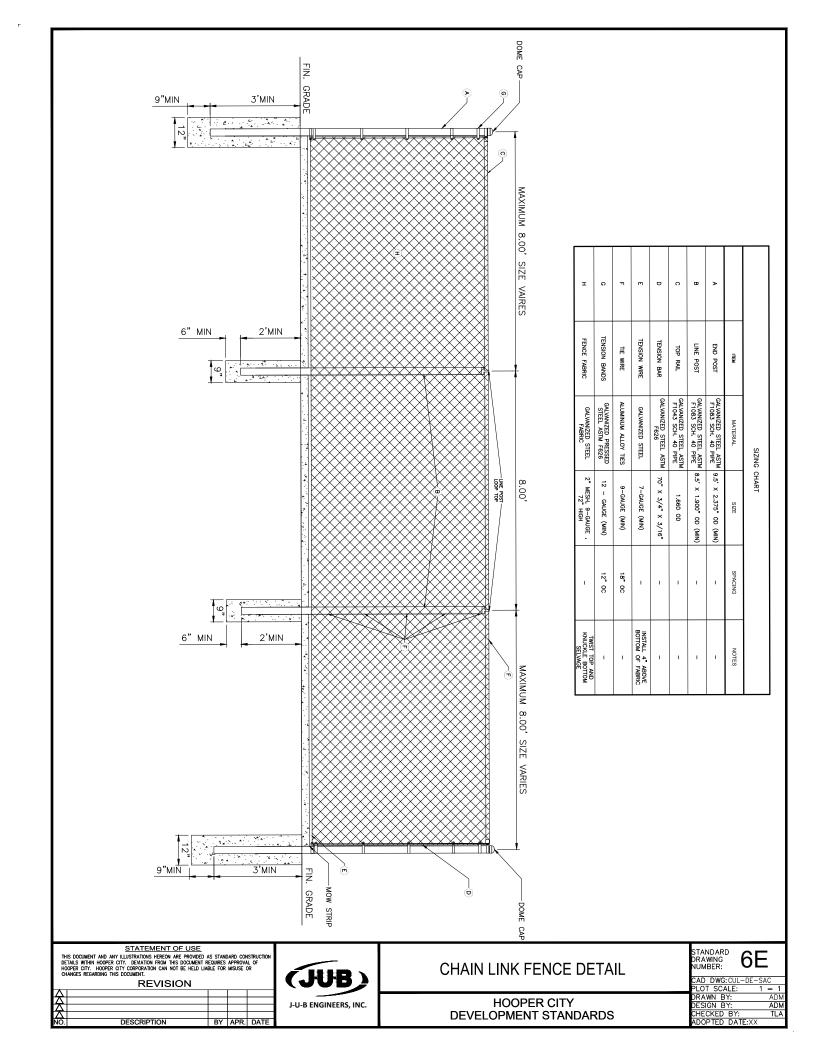
PAVED TEMPORARY TURN-AROUND

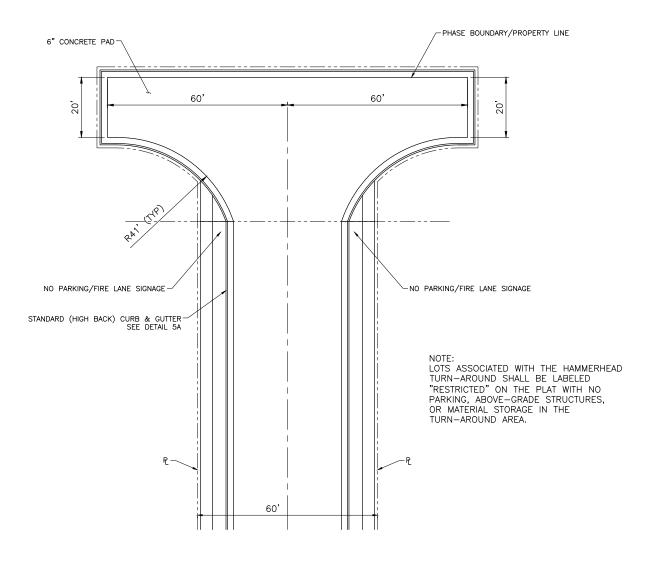
HOOPER CITY DEVELOPMENT STANDARDS STANDARD DRAWING NUMBER:

CAD DWG: CUL-DE-SAC CAD DWG:COL-DE-PLOT SCALE: DRAWN BY: DESIGN BY: CHECKED BY: ADOPTED DATE:XX



DESCRIPTION





NOTE:

1. HAMMERHEAD TEMPORARY TURN—AROUND WILL BE REQUIRED WHEN THE PERMANENT STREET IS PLANNED TO CONTINUE AND THE ADJACENT PROPERTY IS NOT OWNED BY THE CURRENT DEVELOPER OR IS NOT PLANNED FOR IMMEDIATE DEVELOPMENT. THE HAMMERHEAD SHALL BE CONSTRUCTED WITH A 6—INCH CONCRETE SLAB ON A MINIMUM OF 6 INCHES OF UNTREATED BASE COURSE.

2. WHEN A HAMMERHEAD TURN—AROUND IS CONSTRUCTED, THE DEVELOPER MUST PLACE IN ESCROW WITH THE CITY FUNDS SUFFICIENT TO REMOVE THE PORTION OF THE HAMMERHEAD NECESSARY FOR THE CONSTRUCTION OF CURB, GUTTER AND SIDEWALK, FUND FOR ALL FUTURE STREET IMPROVEMENTS NEEDED TO COMPLETE THE ROADWAY TO THE BOUNDARY OF THE DEVELOPMENT, AND FUNDS TO REPAIR ADJACENT PROPERTIES TO GOOD CONDITION.

3. ALL CONSTRUCTION SHALL MEET THE HOOPER CITY STANDARDS AND SPECIFICATIONS.

4. 5. ALL WEATHER HARD SURFACE MUST BE COMPLETE PRIOR TO DELIVERY OF COMBUSTIBLE MATERIALS/ISSUANCE OF BUILDING PERMITS.

COMBUSTIBLE MATERIALS/ISSUANCE OF BUILDING PERMITS.

HAMMERHEAD TEMPORARY TURN-AROUND

STANDARD (HIGH BACK) CURB & GUTTER

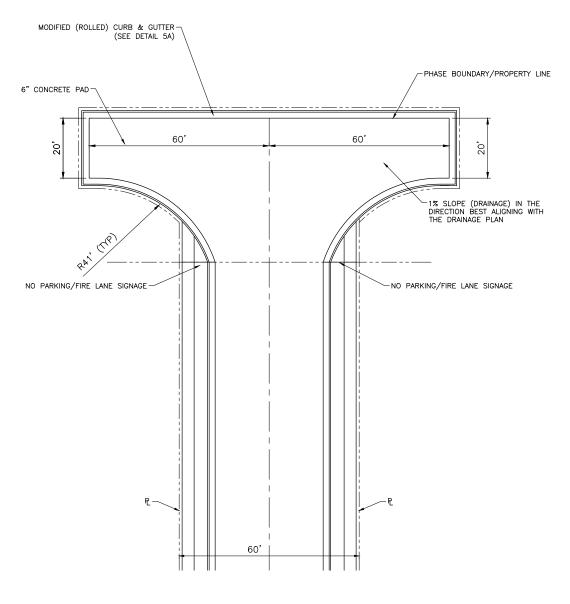
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NO.	DESCRIPTION	BY	APR.	DATE	



STANDARD (HIGH BACK) CURB & GUTTER **TEMPORARY TURN-AROUND**

STANDARD DRAWING NUMBER: 6F	-
CAD DWG: CUL-DE-S	AC
PLOT SCALE: 1	= 1
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DATE:XX	



- ITE:
 HAMMERHEAD TEMPORARY TURN—AROUND WILL BE REQUIRED WHEN THE PERMANENT STREET IS PLANNED TO CONTINUE AND THE ADJACENT PROPERTY IS NOT OWNED BY THE CURRENT DEVELOPER OR IS NOT PLANNED FOR IMMEDIATE DEVELOPMENT. LOTS ASSOCIATED WITH THE HAMMERHEAD TURN—AROUND SHALL BE LABELED "RESTRICTED" ON THE PLAT WITH NO PARKING OR ABOVE—GRADE STRUCTURES IN THE TURN—AROUND AREA.
 ALL HARD SURFACES SHALL HAVE A MIN OF 8" COMPACTED ROAD BASE PLACED OM SUITABLE SUB—BASE MATERIAL.
 ALL CONSTRUCTION SHALL MEET THE HOOPER CITY STANDARDS AND SPECIFICATIONS. ALL WEATHER HARD SURFACE MUST BE COMPLETE PRIOR TO DELIVERY OF COMMISTIBLE MATERIALS/ISSUANCE OF BUILDING PERMITS.

COMBUSTIBLE MATERIALS/ISSUANCE OF BUILDING PERMITS.

HAMMERHEAD TEMPORARY TURN-AROUND

SCALE: N.T.S.

MODIFIED (ROLLED) CURB & GUTTER

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NO.	DESCRIPTION	BY	APR.	DATE

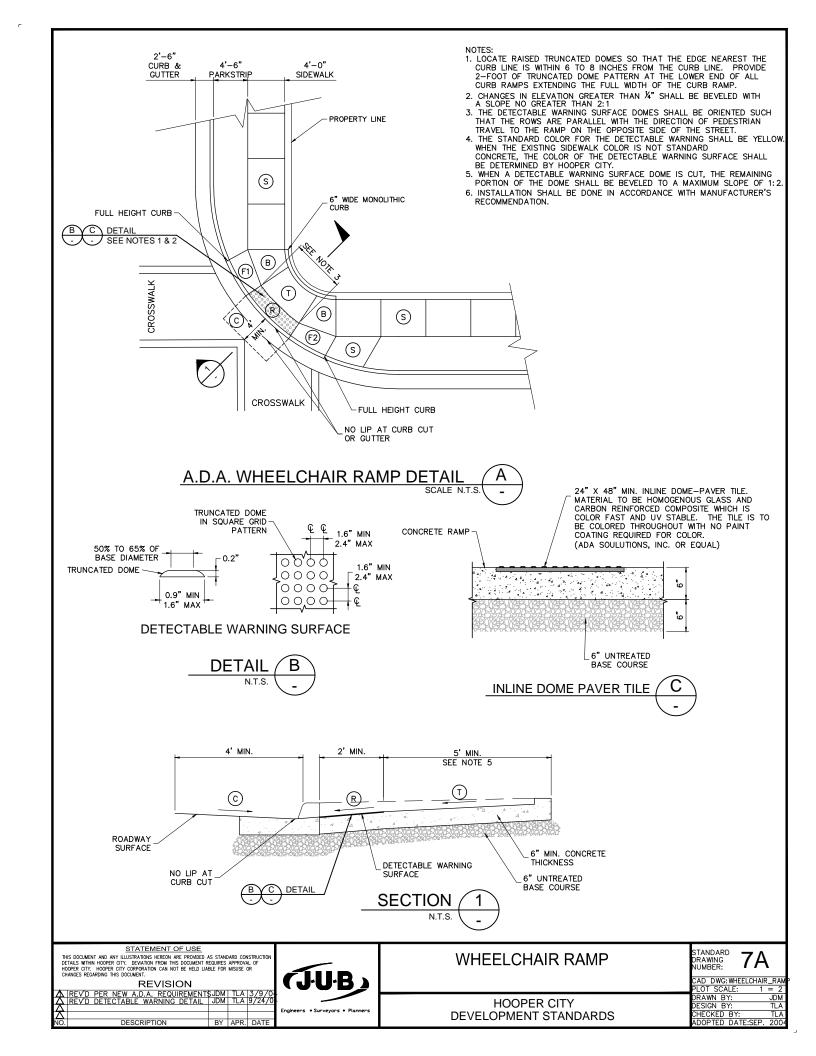


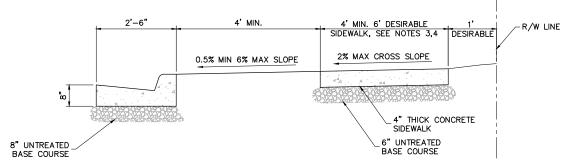
HAMMER HEAD TEMPORARY TURN-AROUND MODIFIED (ROLLED) CURB & GUTTER

DEVELOP

TANDARD RAWING UMBER:	6G
AD DWG: CU	L-DE-SAC
LOT SCALE	: 1 =
DAWN DV.	ID.

LLED) CURD & GUITER	CAD DWG:CUL-DE-SAC		
,	PLOT SCALE: 1	= 1	
AODED OITV	DRAWN BY:	JDM	
	DESIGN BY:	TLA	
MENT STANDARDS	CHECKED BY:	TLA	
	ADOPTED DATE:XX		





NOTES:

1. INSTALL 8:1 OR FLATTER TAPER WHEN CHANGING THE WIDTH OF SIDEWALK.

2. PROVIDE A 5 FT X 5 FT PASSING SPACE ON PEDESTRIAN ACCESS ROUTES LESS THAN 5 FT WIDE AT INTERVALS OF 200 FT MAXIMUM.

3. SIDEWALK CROSS SLOPE DIMENSIONS SHOWN ARE NOT SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES. CONSTRUCT SIDEWALKS AND RAMPS SUCH THAT THE MINIMUM AND MAXIMUM VALUES ARE EXCEEDED. WORK THAT EXCEEDS THOSE VALUES WILL NOT BE ACCEPTED.

4. PROVIDE A 5 FT X 5 FT PASSING AREA ON SIDEWALKS OF LESS THAN 5 FT WIDE WHEN THERE IS NOT A HARD SURFACE PASSING AREA OF 5 FT MINIMUM WIDTH IN A 200 FT SEGMENT.

5. A MINIMUM OF 7 FT IS REQUIRED AT BACK OF SIDEWALK AT DRIVEWAY LOCATIONS TO MEET GRADING REQUIREMENTS.



	SLOPE TABLE				
	ITEM	MAX RUNNING SLOPE *	MAX CROSS SLOPE *		
T	TURNING SPACE	2%	2% (d)		
R	RAMP	8.3% (a) 5.1% MIN	2%		
В	BLENDED TRANSITION	5%	2% (d)		
0	CLEAR SPACE/GUTTER	5% (b)	2% (d)		
S	SIDEWALK	_	2%		
F1	FLARE WITHIN SIDEWALK	10% (c)	-		
F2	FLARE NOT IN SIDEWALK	25% (C)	-		
	CROSSWALK	5%	2% (e) (F)		

- RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL. CROSS SLOPE IS PERPENDICULAR TO PEDESTRIAN TRAVEL.
- SEE CLEAR SPACE/GUTTER DETAIL C
- (a) LENGTH OF RUNNING SLOPE FOR RAMPS IS NOT REQUIRED TO EXCEED 15 FT.
- MAINTAIN CONSISTENCY OF CLEAR SPACE RUNNING SLOPE ACROSS ENTIRE CURB CUT. WARP GUTTER PAN TO MEET REQUIRED CLEAR SPACE SLOPE AT CURB CUT.
- MEASURE FLARE SLOPE PARALLEL TO CURB LINE.
- DO NOT EXCEED THE ROADWAY PROFILE GRADE FOR THE CROSS SLOPE AT CROSSWALKS WITHOUT A STOP OR YIELD SIGN AND AT MID-BLOCK CROSSWALKS.
- DO NOT EXCEED 5 PERCENT CROSS SLOPE AT CROSSWALKS AT INTERSECTIONS WITHOUT A STOP OR YIELD SIGN.
- DO NOT EXCEED A CROSS SLOPE EQUAL TO THE STREET OR HIGHWAY GRADE AT MID BLOCK CROSSWALKS.

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DESCRIPTION



WHEELCHAIR RAMP

TANDARD DRAWING NUMBER:

HOOPER CITY DEVELOPMENT STANDARDS

AD DWG: WHEELCHAIR_RA RAWN BY CHECKED BY: ADOPTED DATE:SEP.

GENERAL NOTES:

- DIMENSIONS SHOWN IN THE SLOPE TABLE ARE NOT SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES. CONSTRUCT SIDEWALK S AND RAMPS SUCH THAT THE MAXIMUM OR MINIMUM VALUES ARE NOT EXCEEDED. WORK THAT EXCEEDS THOSE VALUES WILL NOT BE ACCEPTED.
- SITE CONDITIONS WILL VARY, CONFIGURATION OF RAMP, BLENDED TRANSITION, TURNING SPACE AND CLEAR SPACE MAY BE CHANGED, BUT THEY MUST MEET DIMENSIONS AND SLOPES SHOWN HERE. THE USE OF ITEMS SUCH AS FLARES AND CURB WALL ARE AT THE DISCRETION OF THE ENGINEER.
- 3. RAMP GRADE BREAK MUST BE PERPENDICULAR TO THE RUNNING SLOPE.
- 4. TURNING SPACE WIDTH: USE THE LARGER OF THE CURB CUT WIDTH OR A 4 FT MINIMUM WIDTH X 4 FT MINIMUM DEPTH.
- TURNING SPACE DEPTH: USE A 4 FT MINIMUM DEPTH WHEN THE TURNING SPACE IS UNCONSTRAINED. USE A 5 FT MINIMUM DEPTH WHEN THE TURNING SPACE IS CONSTRAINED.
- CONSTRUCT BLENDED TRANSITIONS WITHOUT A TURNING SPACE ONLY WHEN TECHNICAL INFEASIBILITY PREVENTS THE INSTALLATION OF A TURNING SPACE.
- 7. LOCATE CURB CUT WITHIN CROSSWALK.
- 8. USE A 4 FT MINIMUM CURB CUT. USE A 8 FT MINIMUM CURB CUT FOR BI-DIRECTIONAL CROSSWALKS.
- PROVIDE DIRECTIONAL WARNING SURFACE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS FOR FULL WIDTH OF CURB CUT AND 2 FT MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL. SEE DETECTABLE WARNING SURFACE DETAIL B FOR DIMENSIONS.
- 10. LOCATE DETECTABLE WARNING SURFACE SO THE OUTSIDE CORNER NEAREST THE STREET IS WITHIN 1 INCH OF THE BACK OF CURB.
- 11. PLACE DETECTABLE WARNING SURFACE PANELS ON A RADIUS IN A STRAIGHT LINE OR ACCORDING TO DETAIL X. TOP CORNERS OF ADJACENT PANELS TO TOUCH, BOTTOM CORNERS OF ADJACENT PANELS TO HAVE A 2 INCH MAXIMUM GAP.
- 12. GRIND OFF REMAINING PORTION OF ANY CUT DOMES WHEN DETECTABLE WARNING SURFACE IS CUT. SEAL ALL CUT PANEL EDGES TO PREVENT WATER DAMAGE.
- 13. PROVISE DETECTABLE WARNING SURFACE COLOR THAT CONTRASTS WITH ADJACENT WALKING SURFACE, GUTTER, STREET, AND PEDESTRIAN ACCESS ROUTE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.
- 14. CLEAR SPACE SIZE: USE A 4 FT MINIMUM DEPTH AND THE LARGER OF THE CURB CUT WIDTH OR A 4 FT MINIMUM WIDTH.

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REVISION
REV'D PER NEW A.D.A. REQUIREMENTS JDM TLA 3/9/0REV'D DETECTABLE WARNING DETAIL JDM TLA 9/24/0

DESCRIPTION BY APR. DATE

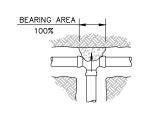


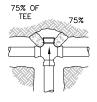
WHEELCHAIR RAMP

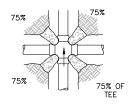
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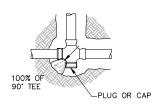
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PLOT SCALE: 1 = 2
DRAWN BY: JDM
DESIGN BY: TLA
CHECKED BY: TLA
ADOPTED DATE:SEP. 2004

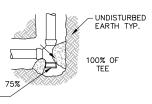






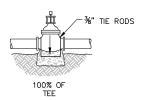




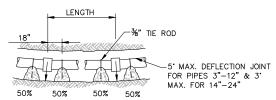












CURVE THRUST BLOCKING

ALL MJ AND FLANGED FITTINGS TO BE WRAPPED WITH POLYETHYLENE WRAP PRIOR TO POURING THRUST BLOCK.

DETAIL NOTES:

1. FIGURE (100%) AT THRUST BLOCK INDICATES PER CENT OF TOTAL THRUST TO BE APPLIED FOR BEARING AREA.
2. ARROW (--) INDICATES THRUST DIRECTION.
3. CONCRETE FOR THRUST BLOCKS TO BE 2000 P.S.I.

EXAMPLE: BY 90° ELBOW, PRESSURE-200 LB. / SQ. IN.
FROM TABLE: THRUST = 94 X 200 = 18800 LB.
ASSUME BEARING STRENGTH OF SOIL = 2000 LB. / SQ. FT.
18000 = 9.4 SQ. FT. = AREA OF BEARING REQUIRED
FOR THRUST BLOCK.

SIDE THRUST PER 1 PSI				
PIPE	DEAD END	90,	45°	22½*
SIZE	OR TEE	ELBOW	ELBOW	ELBOW
4	19	27	15	7
6	39	55	30	15
8	67	94	51	26
10	109	154	84	43
12	155	218	119	61
14	210	296	161	82
16	272	383	209	106
18	351	494	269	137
20	434	611	333	169
24	623	878	478	244
30	990	1400	757	386
36	1425	2015	1091	556

TABLE NOTES:

1. IN USING THE ABOVE TABLES, USE THE MAXIMUM INTERNAL PRESSURE ANTICIPATED (I.E. HYDROSTATIC TEST PRESSURE, POSSIBLE SURGE PRESSURE DUE TO PUMP SHUT-OFF, ETC.)

2. SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL IN THE ABSENCE OF A SOILS REPORT, AND AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 P.S.F.

THRUST BLOCK DETAILS

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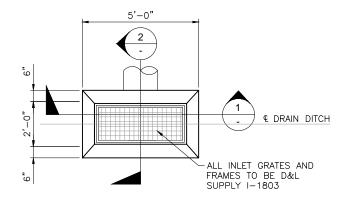
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THRUST BLOCK DETAILS

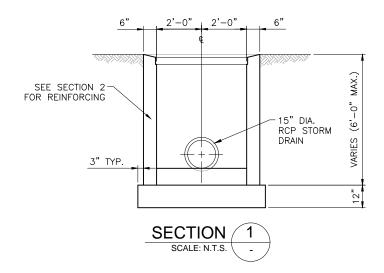
DRAWING NUMBER: CAD DWG: PLOT SCALE: DRAWN BY: DESIGN BY: THRUST_BLO CHECKED BY: TLANDOPTED DATE:NOV 200

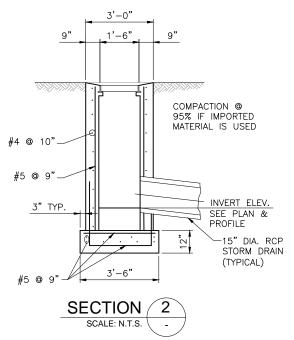
TANDARD



PLAN @ SINGLE CATCH BASIN

SCALE: N.T.S.





GENERAL NOTES:

- 1. ALL STRUCTURAL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGHT OF 4,000 PSI IN 28 DAYS.
- 2. REINFORCEMENT STEEL SHALL BE DEFORMED BARS CONFORMING IN QUALITY TO THE REQUIREMENTS OF ASTM DESIGNATION A-615, GRADE 60, INCLUDING SUPPLEMENTARY REQUIREMENTS (S1).
- 3. ALL DETAILING, FABRICATION AND PLACING OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" ACI—315, LATEST EDITION.
- 4. TOLERANCES IN PLACING REINFORCEMENT SHALL BE:
 - $\pm \%$ INCH FOR MEMBERS WITH D < 8 INCHES $\pm \%$ INCH FOR MEMBERS WITH D >= 8 INCHES
- 5. DOWELS, PIPES, WATERSTOPS AND OTHER INSTALLED MATERIALS AND ACCESSORIES SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
- 6. UNLESS OTHERWISE SHOWN, ASIDE FROM NORMAL ACCESSORIES USED TO HOLD REINFORCING BARS FIRMLY IN POSITION, THE FOLLOWING SHALL BE ADDED:
 - A) IN SLABS #5 RISER BARS AT 36 INCHES O.C. MAXIMUM TO SUPPORT TOP REINFORCING BARS.
 - B) IN WALLS WITH 2 CURTAINS #3 U OR Z SHAPE SPACES AT 6 FEET O.C. EACH WAY.

- 7. METAL CLIPS OR SUPPORTS SHALL NOT BE PLACED IN CONTACT WITH THE FORMS OR THE SUBGRADE. CONCRETE BLOCKS (OR DOBBIES) SUPPORTING BARS ON SUBGRADE SHALL BE IN SUFFICIENT NUMBERS TO SUPPORT THE BARS WITHOUT SETTLEMENT, BUT IN NO CASE SHALL SUCH SUPPORT BE CONTINUOUS.
- 8. DOWELS SHALL BE WIRED OR OTHERWISE HELD IN POSITION. THEY SHALL NOT BE SHOVED INTO FRESHLY PLACED CONCRETE.
- 9. REINFORCED BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE OR METAL PARTS EMBEDDED IN CONCRETE, A MINIMUM OF 2 INCHES CLEARANCE SHALL BE PROVIDED AT ALL TIMES.
- 10. STRUCTURES SHALL BE BACKFILLED WITH GRANULAR SOIL.
- 11. ALL CONSTRUCTION JOINTS SHALL BE ROUGHED AND CLEANED AND FREE OF LAITANCE.
- 12. STRUCTURES HAVE BEEN DESIGNED FOR THE FOLLOWING; IF CONDITIONS ARE EXCEEDED THE ENGINEER SHALL BE NOTIFIED.
 - A) AASHTO HS-20 TRUCK LOAD
 - B) 1'-6" MAX. SOIL ABOVE THE ROOF OF THE STRUCTURE
 - C) GROUND WATER TO TOP OF STRUCTURE
 - D) "AT-REST" LATERAL SOIL PRESSURE OF 60 PCF FOR DRY SOIL CONDITIONS AND 92.4 PCF WHEN GROUND WATER IS PRESENT

STATEMENT OF USE

STATEMENT OF USE

BY STATEMENT OF USE

STATEMENT OF USE

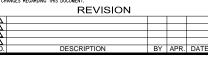
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HOOPER CITY. HOOPER CITY CORPORATION CAN NOT BE HELD LIBBLE FOR MISUSE OR

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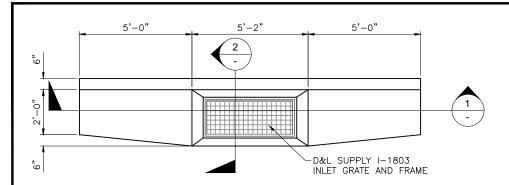
REVISION





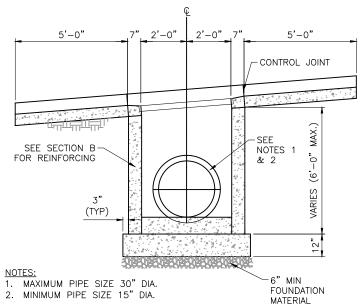
STANDARD SINGLE CATCH BASIN (NO CURB & GUTTER)

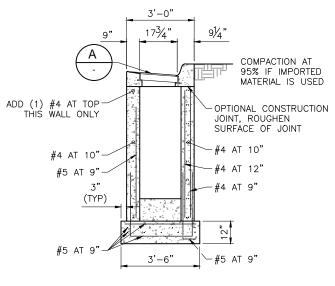
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PLAN @ SINGLE CATCH BASIN

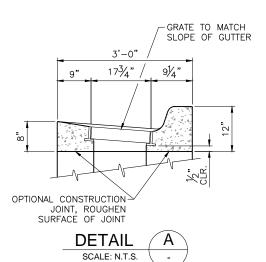
SCALE: N.T.S.





SECTION 2 SCALE: N.T.S.

SECTION 1



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REVISION

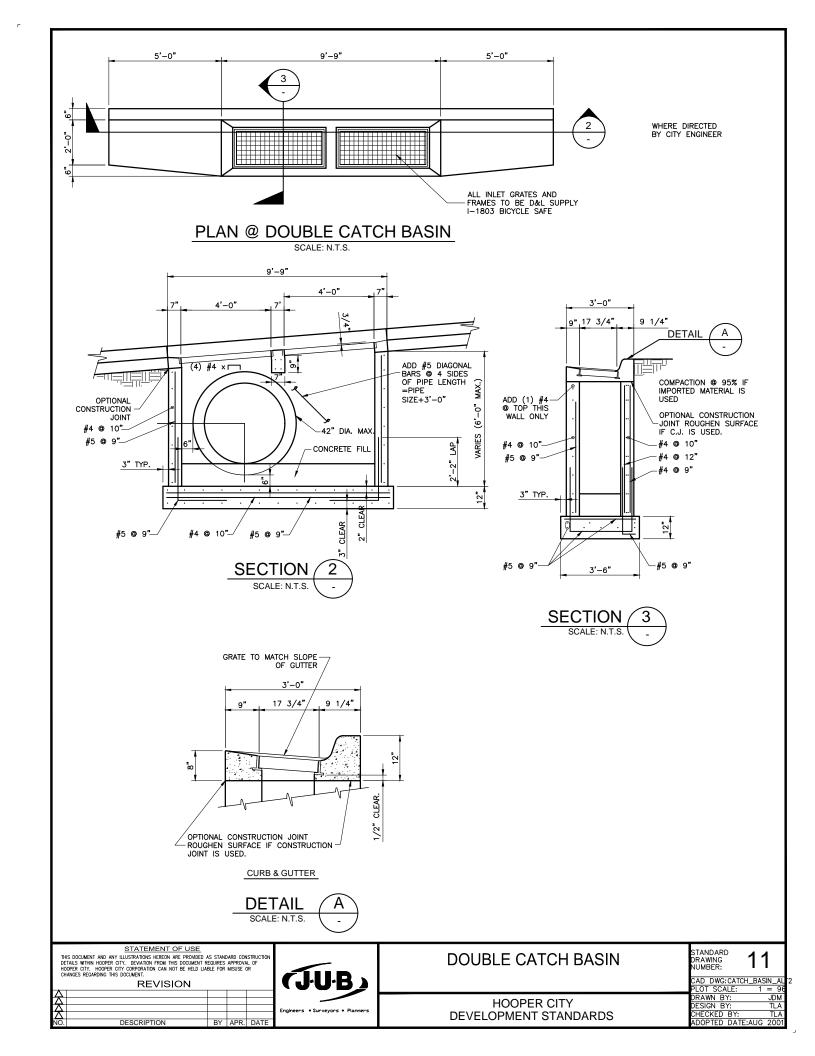
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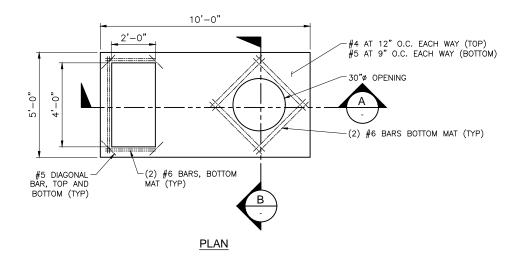


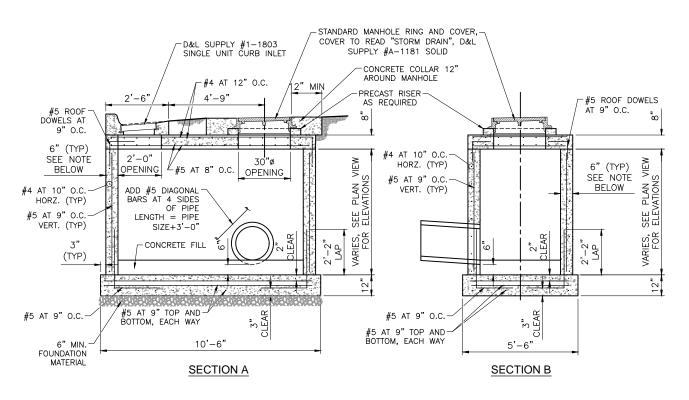
SINGLE CATCH BASIN (WITH CURB & GUTTER)

NDARD WING MBER:	1	C

CAD DWG: CATCH_BA	SIN_A
	= 48
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DATE:NOV	2003

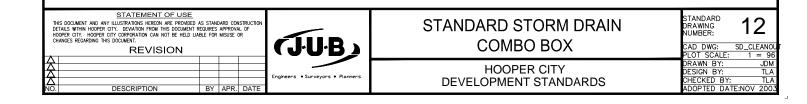


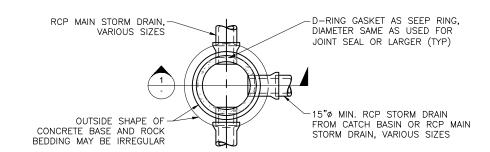




NOTE: USE 6" THICK WALLS FOR WALL HEIGHT UP TO 5'-0". FOR WALL HEIGHT GREATER THAN 5'-0", USE 8" THICK WALLS.

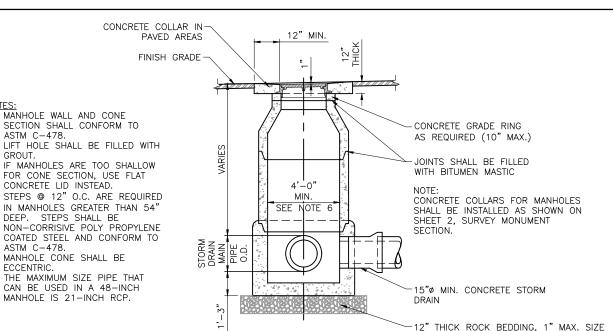
COMBINATION INLET/CLEANOUT DETAIL SCALE: NOT TO SCALE





MANHOLE PLAN VIEW BELOW CONE

SCALE: N.T.S.



TYPICAL MANHOLE SECTION SCALE: N.T.S.

NOTE: CONCRETE COLLARS FOR MANHOLES SHALL BE INSTALLED AS SHOWN ON SHEET 2, SURVEY MONUMENT SECTION.

NOTES:

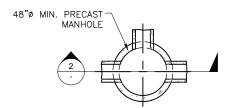
MANHOLE WALL AND CONE

MANHOLE IS 21-INCH RCP.

ASTM C-478.

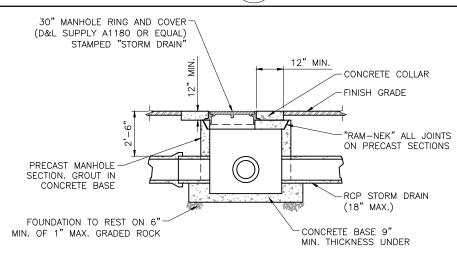
GROUT.

ECCENTRIC.



FLAT LID STORM DRAIN MANHOLE PLAN

SCALE: N.T.S.





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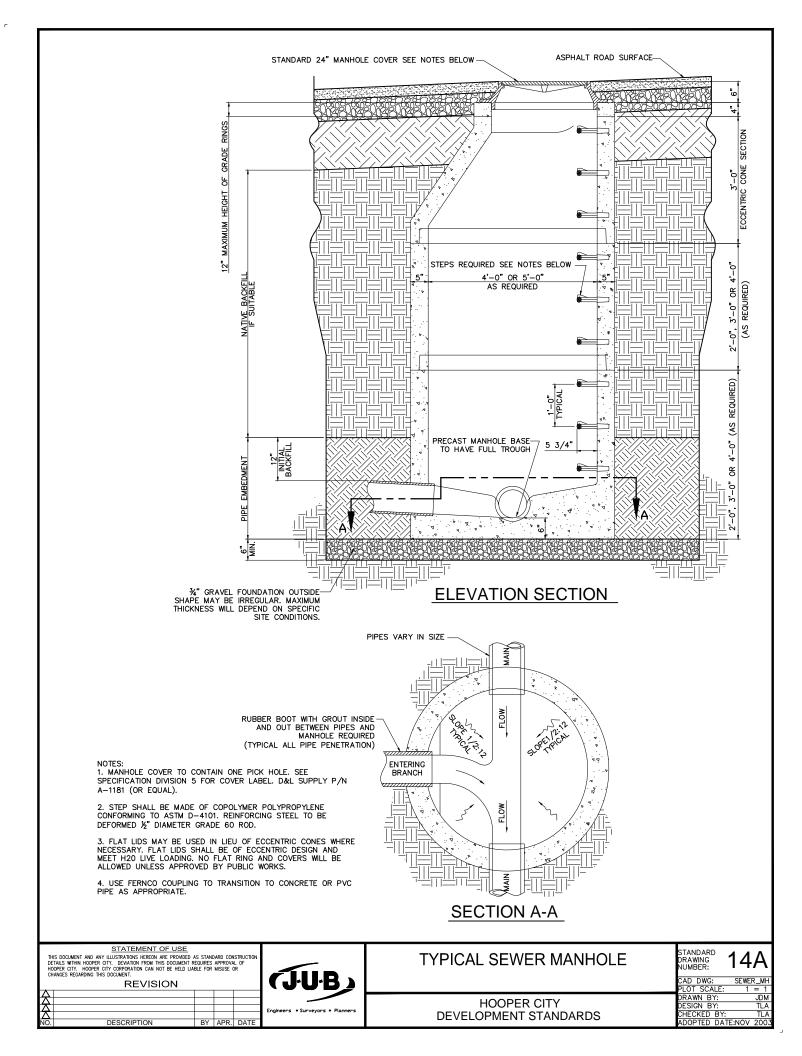
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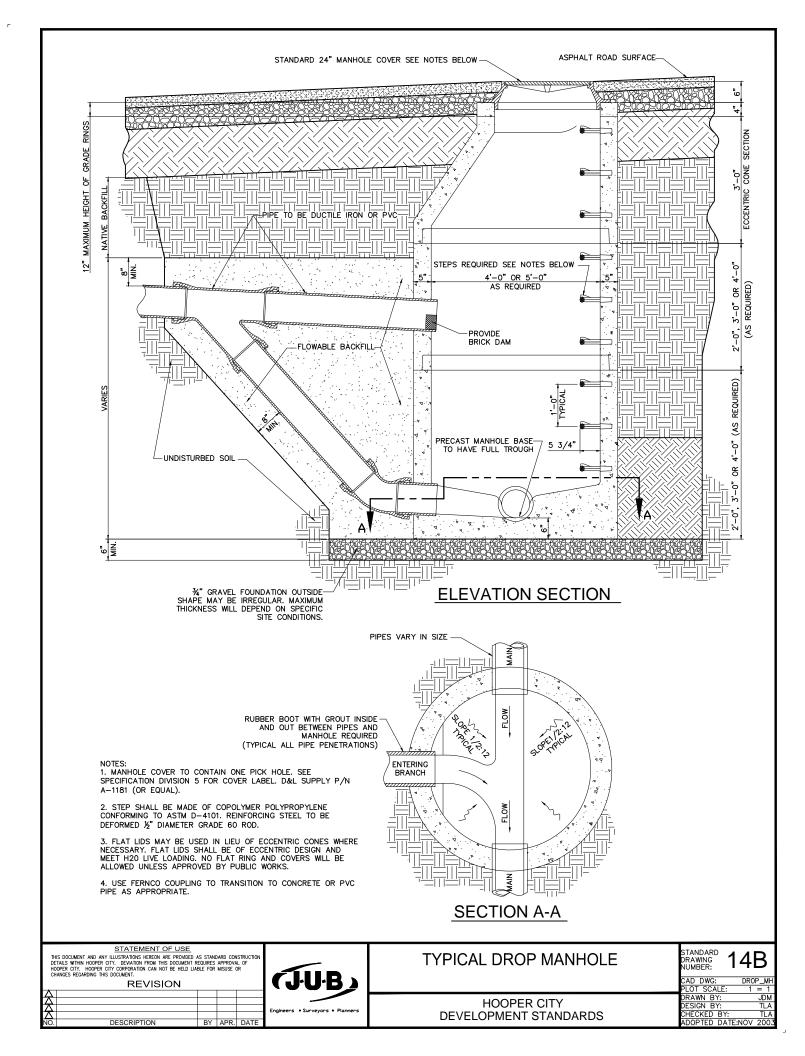


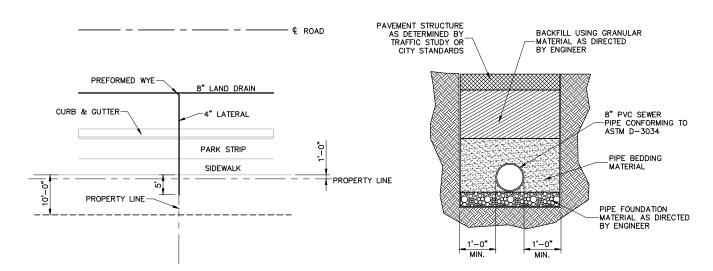
STANDARD STORM DRAIN MANHOLES

	NOWIDEN.	
	CAD DWG:	SDMH
	PLOT SCALE:	1 = 48
LICODED OITV	DRAWN BY:	JDM
HOOPER CITY	DESIGN BY:	TLA
DEVELOPMENT STANDARDS	CHECKED BY:	TLA
BEVEEO! MEITH OTHER MED	ADOPTED DATE:	NOV 2003

13







- NOTES: 1. ALL CONNECTIONS SHALL BE MADE USING PREFORMED FITTINGS CONFORMING TO ASTM D-3034.

- D-3034.

 2. CONTRACTOR SHALL PROVIDE A CLEANOUT WITHIN 5'-0" OF HOUSE.

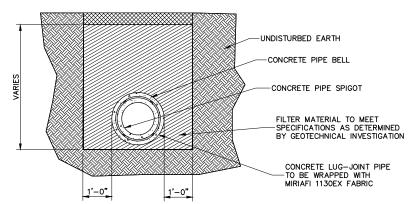
 3. LAND DRAIN LATERALS TO BE WHITE PVC TO DIFFERENTIATE FROM SANITARY SEWER LATERALS. MARK END WITH 2X4, PAINTED GREEN.

 4. LAND DRAIN LATERAL MUST FLOW BY GRAVITY TO THE MAIN.

TIGHT JOINT LAND DRAIN LATERAL DETAIL

BACKFILL USING GRANULAR FILTER MATERIAL TO MAXIMUM GROUNDWATER ELEVATION AS DIRECTED BY THE

1. DEWATERING SHALL NOT ALLOW PIPING OF FINES.

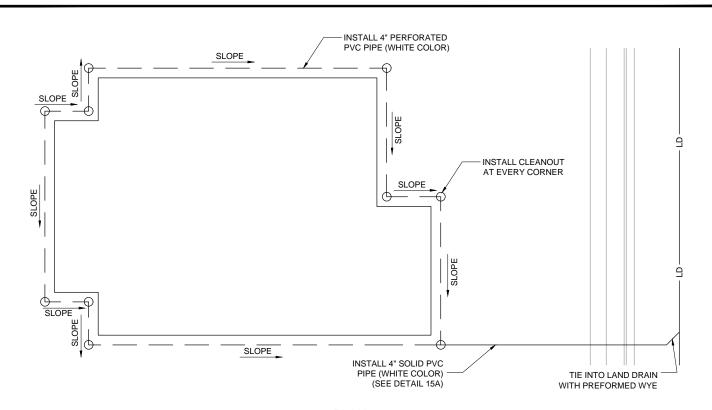


OPEN JOINT LAND DRAIN LATERAL DETAIL

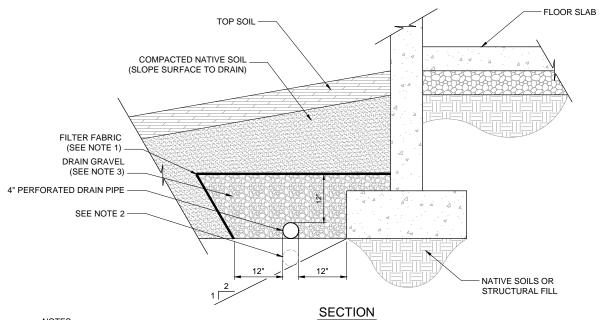
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CHANGES REGARDING THIS DOCUMENT. TANDARD LAND DRAIN DETAILS 15A DRAWING NUMBER: CAD DWG: PLOT SCALE DRAWN BY: DESIGN BY: REVISION **HOOPER CITY** CHECKED BY: TLA ADOPTED DATE:NOV 200 **DEVELOPMENT STANDARDS** DESCRIPTION BY APR. DATE



PLAN



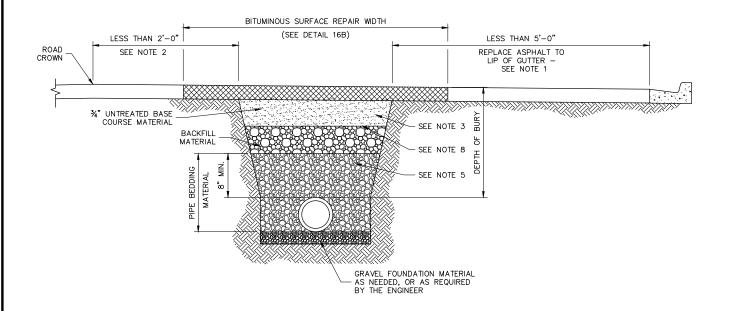
NOTES:

- 1. FILTER FABRIC IS NON-WOVEN GEOTEXTILE (MIRAFI 140N, OR EQUIVALENT).
- 2. LAY PERFORATED DRAIN PIPE ON MINIMUM 0.5% GRADIENT, WIDENING EXCAVATION AS REQUIRED. MAINTAIN PIPE ABOVE 2:1 SLOPE AS SHOWN.
- 3. DRAIN GRAVEL TO BE CLEAN, WASHED, 3/4" TO 1 1/2" GRAVEL.
- 4. PROVIDE SOLID DRAIN PIPE BEYOND BUILDING PERIMETER TO TIE TO LAND DRAIN SYSTEM.
- 5. LAND DRAIN LATERALS SHALL BE "WHITE" PVC PIPE.

FOOTING DRAIN

NOT TO SCALE





- NOTES:

 1. WHERE NO CURB & GUTTER EXISTS AND THE EDGE OF THE TRENCH IS LESS THAN 5'-0" FROM THE EXISTING EDGE OF ASPHALT, REPLACE ENTIRE SECTION OF PAVEMENT FROM EDGE OF TRENCH TO EXISTING EDGE OF ASPHALT.

 2. WHERE THE EDGE OF THE TRENCH IS LESS THAN 2'-0" FROM THE EXISTING CROWN OF THE ROAD, SAW CUT AT EXISTING CROWN AND REPLACE AFFECTED LANE FULL DEPTH.

 3. SAW CUT BITUMINOUS ASPHALT SURFACE WIDER THAN TRENCH ON EACH SIDE FOR FINAL TRENCH REPAIR WHERE BITUMINOUS SURFACE EXISTS. (DETAIL 16B).

 4. BITUMINOUS SURFACE IS TO BE 6" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER FOR STATE ROADS & 3" OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER FOR OTHER ROADS.

 5. FOR TRENCH REPAIR, 3/4" UNTREATED BASE COURSE MATERIAL IS TO BE 12" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER. FOR NEW ROAD CONSTRUCTION, 3/4" UNTREATED BASE COURSE MATERIAL IS TO BE 10" MIN. OR AS DIRECTED BY THE ENGINEER. BASE COURSE TO BE COMPACTED TO 96% ASTM D-1557.

 6. SLOPE TRENCH SIDES TO MEET OSHA SAFETY REGULATIONS. (LATEST REV.)

 7. BACKFILL TO BE COMPACTED TO 96% ASTM D-1557.

 8. USE GEOTEXTILE FABRIC TO MATCH EXISTING OR WHERE REQUIRED.

BITUMINOUS SURFACE REPAIR & TYPICAL TRENCH SECTION

SCALE: N.T.S.

* NOTE: EXISTING BITUMINOUS SURFACE COURSE NEWER THAN ROAD CUT MORATORIUM PLUS FIVE YEARS

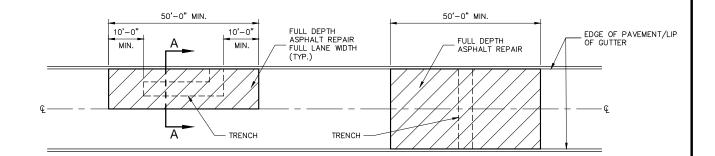
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DESCRIPTION

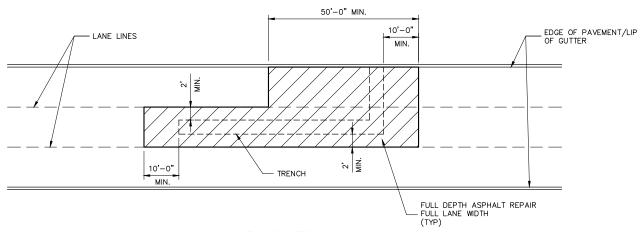


BITUMINOUS SURFACE REPAIR & TYPICAL TRENCH SECTION

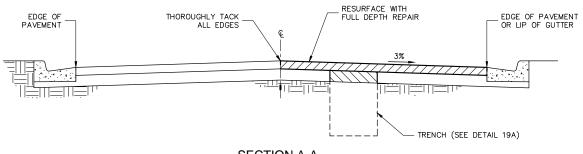
STANDARD DRAWING NUMBER:	16A
CAD DWG:	TRENCH_SEC
PLOT SCALE:	1 = 96
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	
ADOPTED DAT	ΓΕ:NOV 2010



PLAN VIEW



PLAN VIEW



SECTION A-A

NOTES:

- THIS STANDARD APPLIES TO ALL ROAD CUTS ON PAVEMENT NEWER THAN ROAD CUT MORATORIUM PLUS 5 YEARS.
- ADJUST ALL VALVE BOXES, MANHOLE RINGS AND COVERS, AND SURVEY MONUMENTS TO FINISH GRADE AND ADD CONCRETE COLLAR PER CITY STANDARDS.
- 3. FOR MULTIPLE TRENCHES, PROVIDE CONTINUOUS FULL DEPTH REPAIR FROM THE FIRST TRENCH TO THE CAST TRENCH.

BITUMINOUS SURFACE REPAIR

SCALE: N.T.S.

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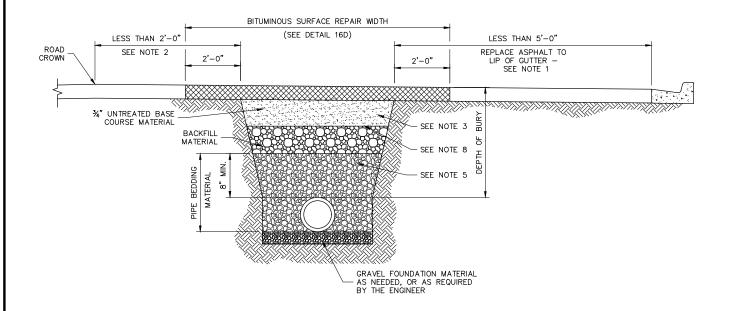
OLD DESCRIPTION

BY APR. DATE



BITUMINOUS SURFACE REPAIR PLAN AND SECTION VIEWS

STANDARD DRAWING NUMBER:	16	В
CAD DWG:	TRENCH	I_SEC
PLOT SCALE:	1 =	= 96
DRAWN BY:		JDM
DESIGN BY:		TLA
CHECKED BY:		TLA
ADOPTED DA	TE: NOV	2010



- NOTES:

 1. WHERE NO CURB & GUTTER EXISTS AND THE EDGE OF THE TRENCH IS LESS THAN 5'-0" FROM THE EXISTING EDGE OF ASPHALT, REPLACE ENTIRE SECTION OF PAVEMENT FROM EDGE OF TRENCH TO EXISTING EDGE OF ASPHALT.

 2. WHERE THE EDGE OF THE TRENCH IS LESS THAN 2'-0" FROM THE EXISTING CROWN OF THE ROAD, SAW CUT AT EXISTING CROWN AND REPLACE AFFECTED LANE FULL DEPTH.

 3. SAW CUT BITUMINOUS ASPHALT SURFACE WIDER THAN TRENCH ON EACH SIDE FOR FINAL TRENCH REPAIR WHERE BITUMINOUS SURFACE EXISTS. (DETAIL 16D).

 4. BITUMINOUS SURFACE IS TO BE 6" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER FOR STATE ROADS & 3" OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER FOR OTHER ROADS.

 5. FOR TRENCH REPAIR, 3/4" UNTREATED BASE COURSE MATERIAL IS TO BE 12" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER. FOR NEW ROAD CONSTRUCTION, 3/4" UNTREATED BASE COURSE MATERIAL IS TO BE 10" MIN. OR AS DIRECTED BY THE ENGINEER. BASE COURSE TO BE COMPACTED TO 96% ASTIN D-1557.

 6. SLOPE TRENCH SIDES TO MEET OSHA SAFETY REGULATIONS. (LATEST REV.)
- SLOPE TRENCH SIDES TO MEET OSHA SAFETY REGULATIONS. (LATEST REV.) BACKFILL TO BE COMPACTED TO 96% ASTM D-1557. USE GEOTEXTILE FABRIC TO MATCH EXISTING OR WHERE REQUIRED.

BITUMINOUS SURFACE REPAIR & TYPICAL TRENCH SECTION

SCALE: N.T.S.

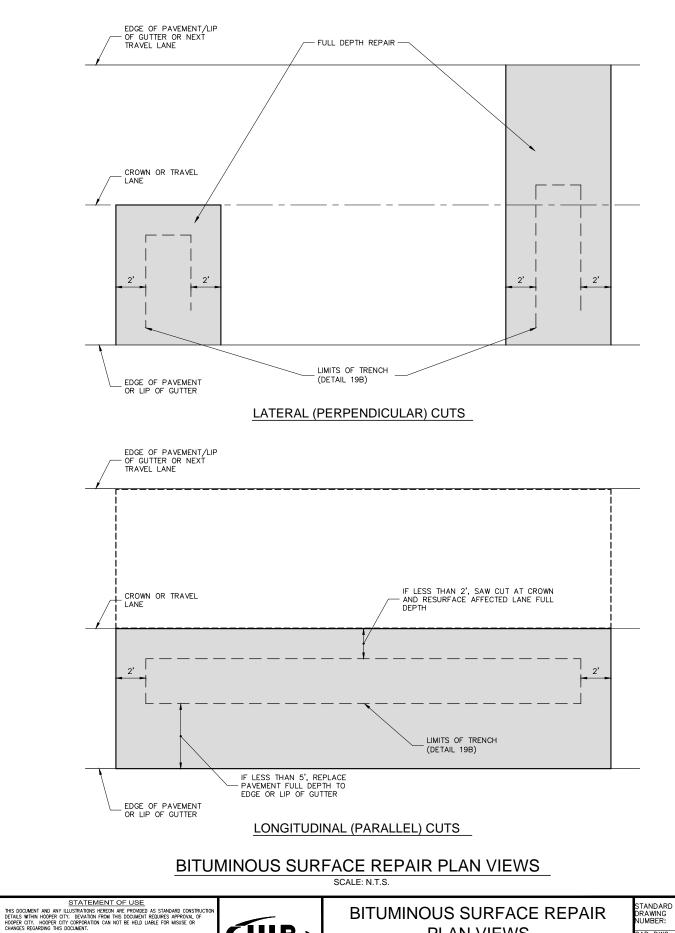
* NOTE: EXISTING BITUMINOUS SURFACE COURSE OLDER THAN ROAD CUT MORATORIUM PLUS FIVE YEARS

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BITUMINOUS SURFACE REPAIR & TYPICAL TRENCH SECTION

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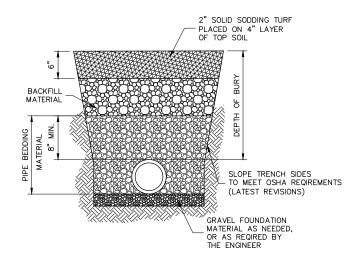
REVISION

HOOPER CITY DEVELOPMENT STANDARDS

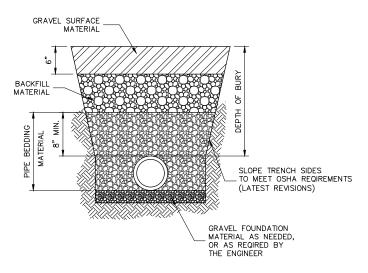
PLAN VIEWS

STANDARD
STRAWING
NUMBER:

CAD DWG: TRENCH_SEC
PLOT SCALE: 1 = 96
DRAWN BY: JDM
DESIGN BY: TLA
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TURF SURFACE TRENCH SECTION



GRAVEL SURFACE TRENCH SECTION

NOTES:

 SLOPE TRENCH SIDES TO MEET OSHA SAFETY REGULATIONS. (LATEST REV.)
 BACKFILL TO BE COMPACTED TO 96% ASTM D-1557 IN ROADWAYS AND 90% IN LANDSCAPED AREAS.

NON-BITUMINOUS SURFACE REPAIR - TYPICAL TRENCH SECTIONS

SCALE: N.T.S.

STATEMENT OF USE

STATEMENT OF USE

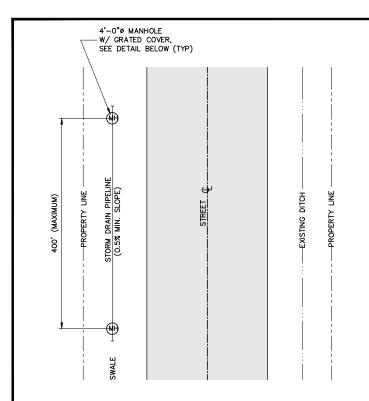
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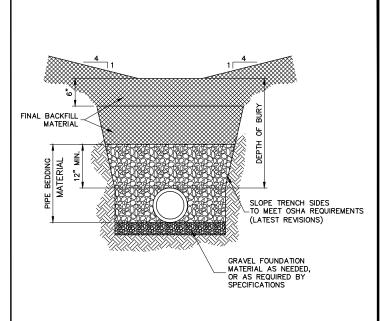
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NON-BITUMINOUS SURFACE REPAIR & TYPICAL TRENCH SECTIONS

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CAD DWG:	TRENCH_SEC
PLOT SCALE:	1 = 96
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY	: TLA
ADOPTED DA	TE:NOV 2010

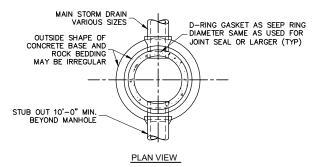




PLAN VIEW

SCALE: N.T.S.

TYPICAL TRENCH DETAIL



30" MH RING AND GRATE (D&L SUPPLY 2670 OR EQUAL) CONSTRUCT SWALE-4:1 SLOPE REQ'D NOTES:

1. MANHOLE WALL AND CONE SECTION SHALL CONFORM TO ASTM C 478.

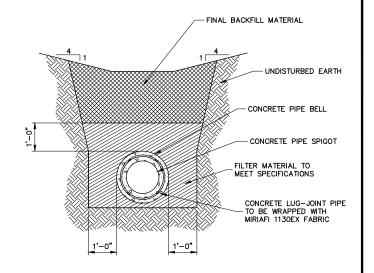
2. LIFT HOLE SHALL BE FILLED WITH GROUT.

3. IF MANHOLES ARE TOO SHALLOW FOR CONE SECTION, SUSFILAT CONCRETE LID INSTEAD.

4. THE MAXIMUM SIZE PIPE CONCRETE GRADE RING AS REQUIRED. (10" MAX) JOINTS WILL BE FILLED WITH BITUMEN MASTIC INSIEAD.

4. THE MAXIMUM SIZE PIPE THAT CAN BE USED IN A 48-INCH MANHOLE IS 21-INCH RCP. SEE NOTE 4 PRE-CAST OR CAST-IN-PLACE BASE ROCK BEDDING 1" MAX SIZE

NOTES:
1. DEWATERING SHALL NOT ALLOW PIPING OF FINES.



TYPICAL MANHOLE SECTION

SCALE: N.T.S.

ALTERNATE TRENCH DETAIL-OPEN JOINT

ONLY WHEN APPROVED BY CITY PUBLIC WORKS

SCALE: N.T.S.

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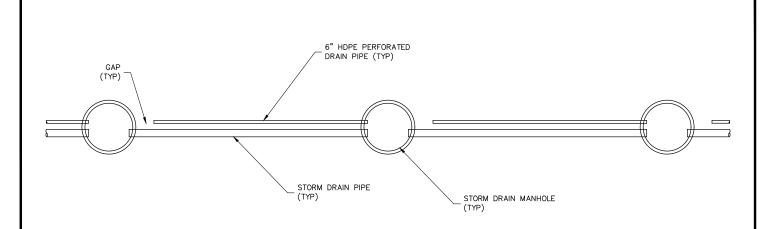


PIPED DRAIN DITCHES WITHIN CITY RIGHTS-OF-WAY (NO CURB & GUTTER)

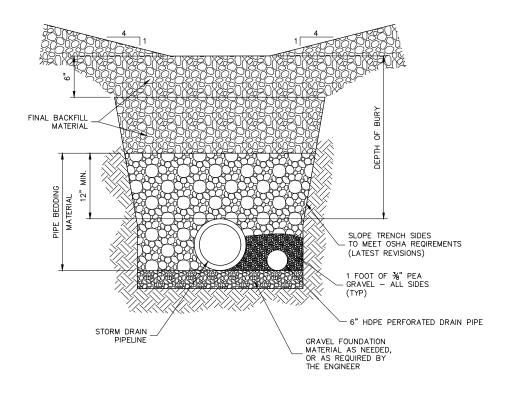
> **HOOPER CITY DEVELOPMENT STANDARDS**

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PLOT SCALE: 1	= 1
DRAWN BY:	ASC
DESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DATE: NOV	200

STANDARD DRAWING



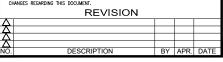
TYPICAL PLAN VIEW



STORM DRAIN PIPING WITH ADJACENT DRAIN PIPE SCALE: N.T.S.

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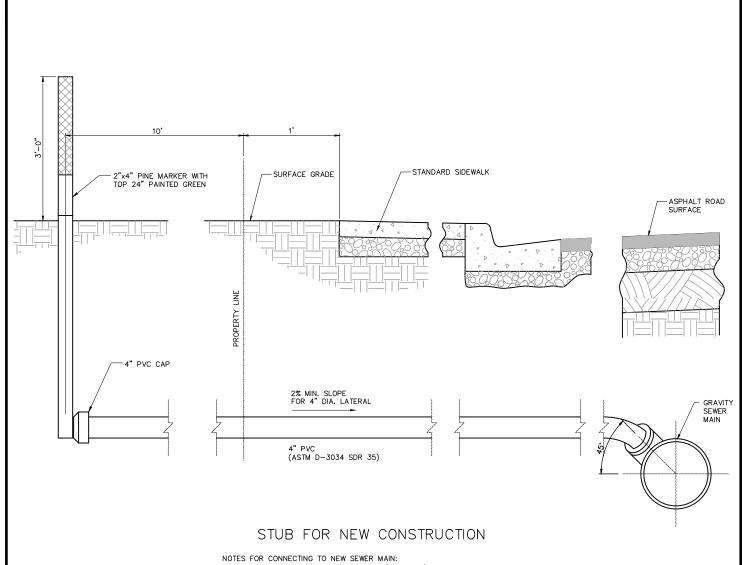


STORM DRAIN PIPING WITH ADJACENT DRAIN PIPE

HOOPER CITY DEVELOPMENT STANDARDS

STANDARD 17B

CAD DWG: PIPE_DITC	HES_2
PLOT SCALE: 1	= 96
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DATE JAN	2020



- 1. CONNECTION TO MAIN SHALL BE BY WYE'S OR TEE'S INSTALLED
- AS PART OF THE SEWER MAIN CONSTRUCTION.

 2. HOOPER CITY MAINTAINS THE SEWER LATERAL FROM THE SEWER MAIN TO THE STREET RIGHT-OF-WAY LINE. THE PROPERTY OWNER MAINTAINS THE SEWER LATERAL FROM THE BUILDING TO THE STREET $\label{eq:right-of-way-line.} \mbox{ A PLUGGED LATERAL IS THE PROPERTY OWNERS}$ RESPONSIBILITY FROM THE BUILDING TO THE SEWER MAIN.

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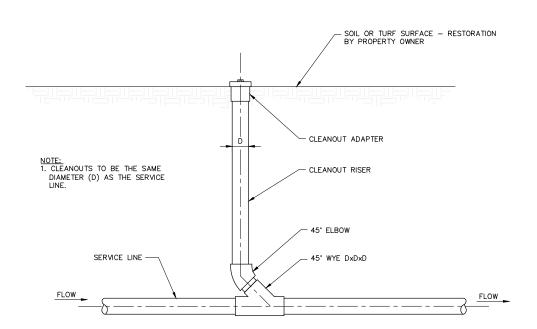
REVISION DESCRIPTION



TYPICAL SEWER LATERAL **NEW CONSTRUCTION - (NON VACUUM)**

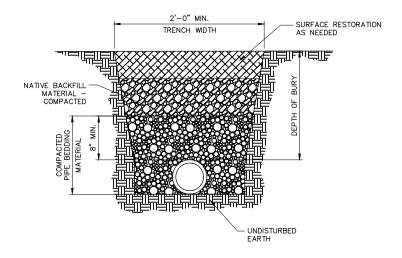
STANDARD PRAWING IUMBER:	18A

CAD DWG: SEW_LAT_	_GRAV
PLOT SCALE: 1	= 1
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DATE:NOV	2005



ELEVATION VIEW

TYPICAL GRAVITY SEWER CLEANOUT DETAIL SCALE: N.T.S.



TYPICAL GRAVITY SEWER TRENCH SECTION SCALE: N.T.S.

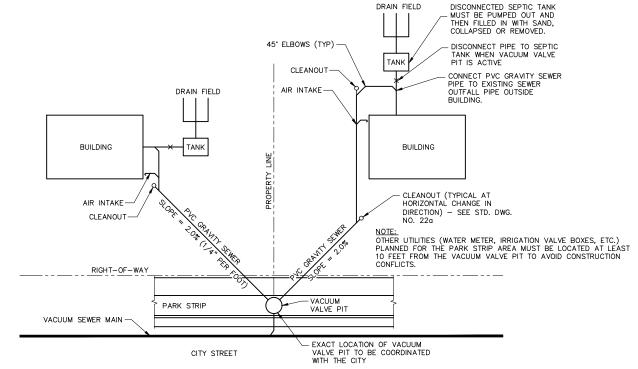
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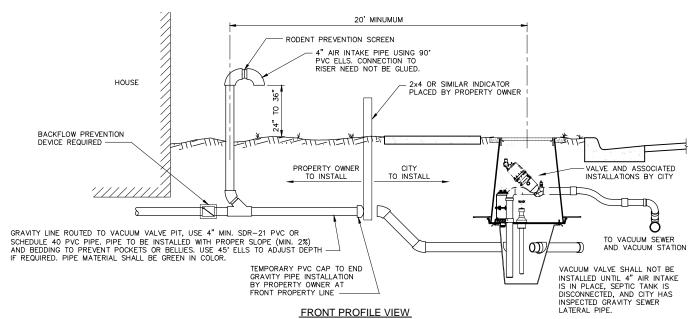


TYPICAL GRAVITY SEWER LATERAL **CLEANOUT DETAIL & TRENCH SECTION**

STANDARD DRAWING NUMBER:	18B
CAD DWG:	SEWER_LAT
PLOT SCALE:	1 = 48
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	TLA
ADOPTED DAT	E:JUN 2005



PLAN VIEW



- NOTES:

 1. PROPERTY OWNER TO INSTALL A GRAVITY SEWER PIPE (SERVICE LATERAL) FROM THE EXISTING SEWER OUTFALL FROM THEIR RESIDENCE OR OTHER BUILDING TO THE FRONT PROPERTY LINE ALONG AN EXISTING CITY STREET.

 2. EACH SEPARATELY—OWNED BUILDING SHALL HAVE ITS OWN SEPARATE GRAVITY SEWER SERVICE LATERAL TO THE VALVE PIT.

 3. THE LOCATION OF THE VALVE PIT SHALL BE DETERMINED BY THE CITY. IF THE SEWER SERVICE LATERAL IS INSTALLED PRIOR TO THE INSTALLATION OF THE VALVE PIT, COORDINATE WITH PUBLIC WORKS FOR THE PLANNED LOCATION OF THE VALVE PIT.

 4. VALVE PIT LIDS SHALL NOT BE BURIED, COVERED, NOR ACCESS OTHERWISE OBSTRUCTED BY ANY ACTION OF THE PROPERTY OWNER.
- OWNER.

 OWNER.

 SIT IS ILLEGAL TO DISCHARGE ANY FLOWS OTHER THAN SANITARY SEWER FROM THE PRIMARY STRUCTURE'S MAIN OUTFALL INTO THE SEWER SERVICE LATERAL, INCLUDING, BUT NOT LIMITED TO, ROOF DRAINS, SUMP DRAINS, LAND DRAINS, ETC.

 6: 90-DEGREE ELBOWS AND TEE FITTINGS SHALL NOT BE PERMITTED FOR USE ON THE THE GRAVITY SEWER SERVICE LATERAL.

 A WYE FITTING SHALL BE USED INSTEAD OF A TEE. TWO 45 DEGREE ELBOWS SEPARATED BY A 3-FOOT PIPE LENGTH SHALL

 BE USED INSTEAD OF A 90 DEGREE ELBOW.

 7: A PVC SEWER CLEANOUT AS SHOWN IN STANDARD DRAWING 220 SHALL BE REQUIRED AT EVERY HORIZONTAL CHANGE IN DIRECTION, AND EVERY 100-FEET MAXIMUM ALONG THE SERVICE LATERAL.

 8: THE ENTIRE GRAVITY SEWER SERVICE LATERAL MUST BE INSPECTED AND APPROVED BY THE CITY PUBLIC WORKS OFFICIALS BEFORE BACKFILLING AND BEFORE THE VACUUM VALVE IS INSTALLED IN THE VALVE PIT.

TYPICAL GRAVITY SEWER LATERAL INSTALLATION BUILDING OUTFALL TO VACUUM VALVE PIT

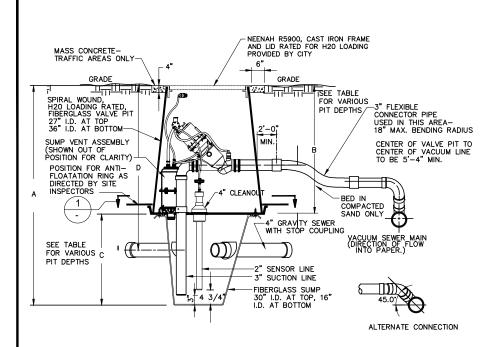
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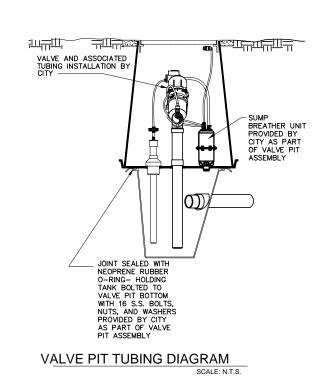
TYPICAL GRAVITY SEWER LATERAL (VACUUM) INSTALLATION DETAILS

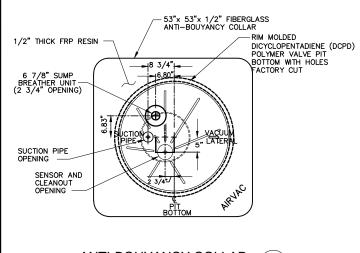
TANDARD RAWING IUMBER:	18C
AD DWG:	SEWER_LAT
LOT SCALE:	1 = 48
RAWN BY:	JDM
ESIGN BY:	TLA



VALVE PIT DEPTH TABLE				
TOTAL PIT DEPTH A	.VALVE PIT HEIGHT B	SUMP HEIGHT C	4" INLET DEPTH D	MODEL NUMBER
5'	2.5'	2.5'	3.5'	VP3030WT
6'	3.5'	2.5'	4.5'	VP4230WT
7'	3.5'	3.5'	5.5'	VP4242
8'	4.5'	3.5'	6.5'	VP5442
10'	4.5'	5.5'	8.5'	VP5466

VALVE PIT





ANTI-BOUYANCY COLLAR SCALE: N.T.S. 1

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REVISION

DESCRIPTION

BY APR. DATE



VACUUM SEWER DETAILS

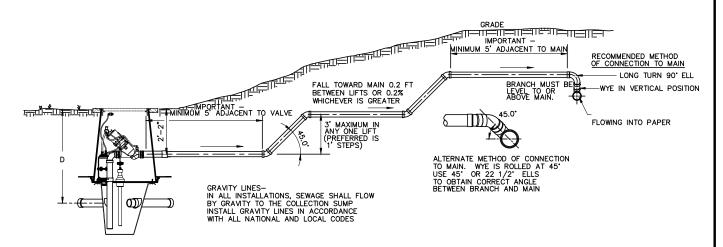
HOOPER CITY DEVELOPMENT STANDARDS

DRAWING NUMBER:	19A
CAD DWG:	VALVE_PIT
PLOT SCALE:	1 = 48
DRAWN BY:	JDM
DESIGN BY:	TLA

CHECKED BY: TLA ADOPTED DATE:JUN 2009

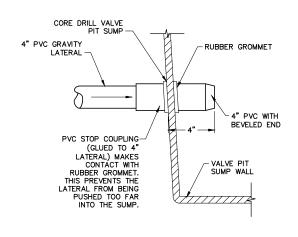
- ALL HOLES IN VALVE PIT AND PIT BOTTOM ARE FACTORY CUT. ALL GRANTY LINE CONNECTION OPENINGS IN THE SUMP ARE FIELD CUT. WHEN INSTALLING ANY PIPE THROUGH A GROMMET USE ONLY WATER OR MILD DETERGENT AS A LUBRICANT CITY SHALL INSTALL VACUUM VALVE WHEN HOME GRAVITY LINE IS COMPLETED AND AIR INTAKE PIPING IS IN PLACE AND COUPONS ARE ACCOUNTED.

 INTERNAL SUMP BREATHER IS TO BE EQUIPPED WITH AUTOMATIC SHUT OFF DEVICES TO PREVENT LIQUID CONTAMINATION OF THE CONTROLLER AND INTERFACE VALVE DURING AN EMERGENCY HIGH LIQUID LEVEL EVENT. THESE DEVICES SHALL BE POSITIVE SEALING, SHALL NOT INHIBIT THE VALVE'S PERFORMANCE UNDER NORMAL CONDITIONS AND SHALL RESET AUTOMATICALLY WHEN RECOVERING FROM AN EMERGENCY HIGH LIQUID LEVEL EVENT.
- 3" SERVICE LENGTH SHALL NOT EXCEED 300 FEET.

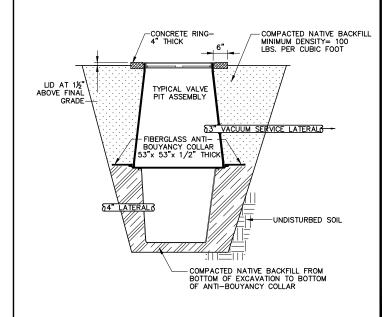


NOTE:
THE PVC STOP COUPLING CAN BE MADE BY CUTTING OFF
4" OF A 4" PVC, SLICING ONE SIDEWALL OF THE CUTPIPE PIECE TO ALLOW THE DIAMETER TO EXPAND, SLIDE
IT OVER THE BEVELED END OF THE 4" LATERAL, GLUE IT 4" FROM THE BEVELED END.

LIFT DETAILS FOR 3" SERVICE LATERAL







VALVE PIT BEDDING AND BACK FILL

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REVISION DESCRIPTION BY APR. DATE

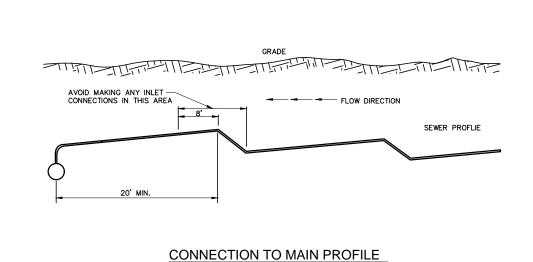


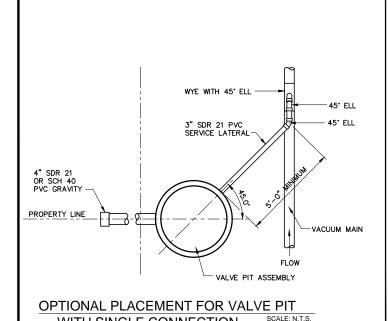
VACUUM SEWER DETAILS

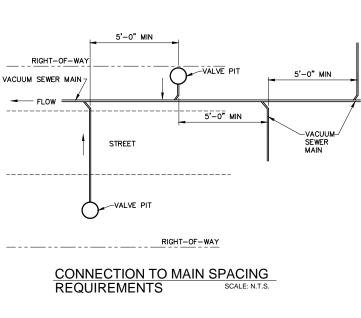
HOOPER CITY **DEVELOPMENT STANDARDS**

RAWING IUMBER:	19B
AD DWG:	VALVE_PIT
LOT SCALE:	1 = 48
RAWN BY:	JDM

CHECKED BY: TLA
ADOPTED DATE:JUN 2005







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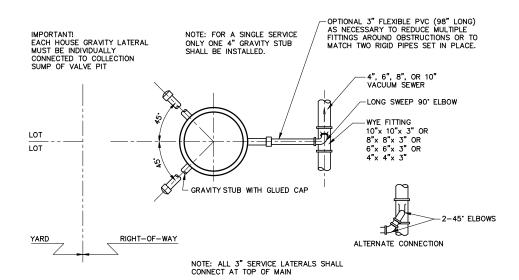
WITH SINGLE CONNECTION

DESCRIPTION

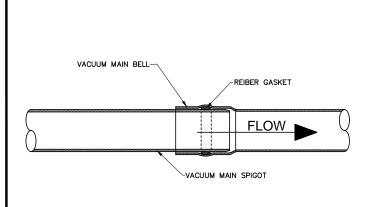


VACUUM SEWER DETAILS

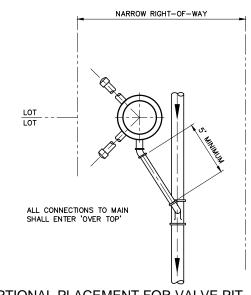
HOOPER CITY **DEVELOPMENT STANDARDS** STANDARD DRAWING NUMBER: 19C CAD DWG: VALVE PIT 1
PLOT SCALE: 1 = 48
DRAWN BY: JDM
DESIGN BY: TLA
CHECKED BY: TLA
ADOPTED DATE:JUN 2005



PREFERRED PLACEMENT FOR VALVE PIT WITH 1 OR 2 CONNECTIONS SCALE: N.T.S.



ALTERNATE VACUUM MAIN BELL CONNECTION
WITH FLOW DIRECTION
SCALE: N.T.S.



OPTIONAL PLACEMENT FOR VALVE PIT NARROW RIGHT-OF-WAY

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O. DESCRIPTION BY APR. DATE

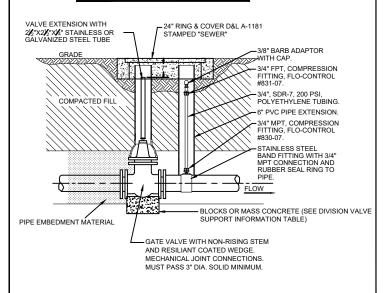


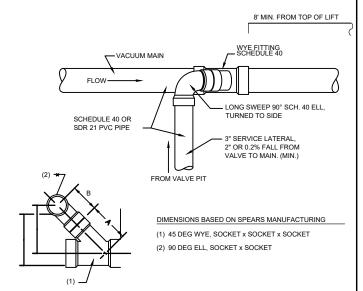
VACUUM SEWER DETAILS

STANDARD DRAWING NUMBER:	19D
CAD DWG:	VALVE PIT 1
PLOT SCALE:	1 = 48
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY	: TLA
ADOPTED DAT	ΓΕ:JUN 2005

DIVISION VALVE SUPPORT INFORMATION

VALVE SIZE	MIN. SUPPORT SIZE
4"	1" THICK X 1.75' SQUARE
6"	1" THICK X 2.25' SQUARE
8"	1" THICK X 3.00' SQUARE
10"	1" THICK X 3.50' SQUARE



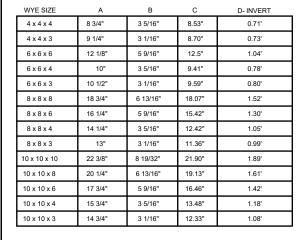


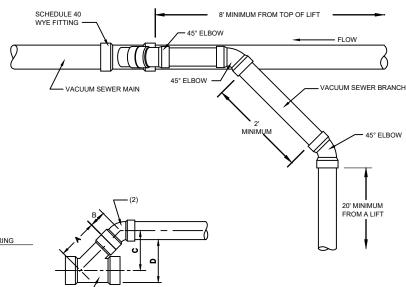
WYE SIZE	Α	В	С	D- INVERT
4 x 4 x 3	9 1/4"	3 25/32"	9.32"	0.78'
6 x 6 x 3	10 1/2"	3 25/32"	10.21"	O.85'
8 x 8 x 3	13"	3 25/32"	11.86"	1.00'
10 x 10 x 3	14 3/8"	3 25/32"	12.84"	1.10'

PREFERRED VACUUM SERVICE CONNECTION TO MAIN SCALE: N.T.S.

DIVISION VALVE AND GAUGE TAP

SCALE: N.T.S.





DIMENSIONS BASED ON SPEARS MANUFACTURING

- (1) 45 DEG WYE, SOCKET x SOCKET x SOCKET
- (2) 45 DEG ELL, SOCKET x SOCKET

ALTERNATE VACUUM BRANCH TO MAIN LINE CONNECTION SCALE: N.T.S.

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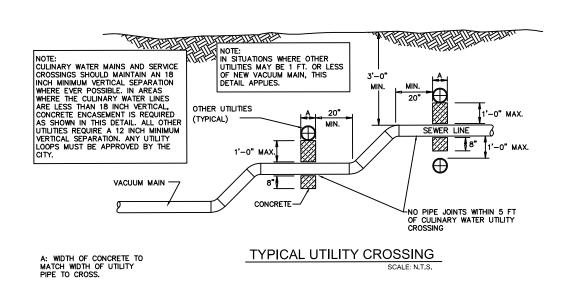
VACUUM SEWER DETAILS

HOOPER CITY DEVELOPMENT STANDARDS

STANDARD DRAWING NUMBER:	19E
CAD DWG:	VALVE_PIT 2
PLOT SCALE:	1 = 48
DRAWN BY:	JDM

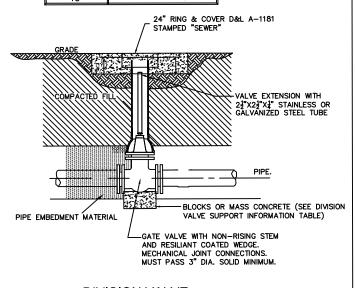
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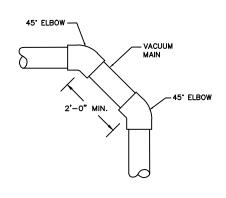
DESIGN BY



DIVISION VALVE SUPPORT INFORMATION

VALVE SIZE	MIN. SUPPORT SIZE
4"	1" THICK X 1.75' SQUARE
6"	1" THICK X 2.25' SQUARE
8"	1" THICK X 3.00' SQUARE
10"	1" THICK X 3.50' SQUARE





CHANGE IN DIRECTION
SCALE: N.T.S.

DIVISION VALVE

SCALE: N.T.S.

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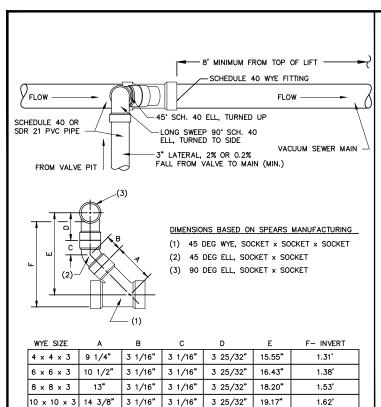
*	REVISION					
	DESCRIPTION	BY	APR.	DATE		
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VACUUM SEWER DETAILS

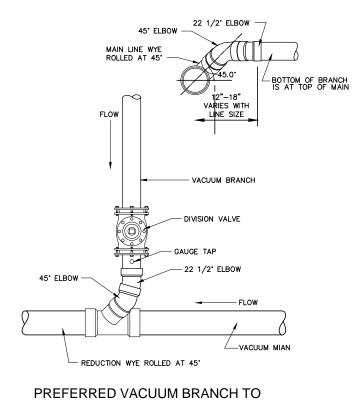
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CAD DWG:	VALVE_PIT 2
PLOT SCALE:	1 = 48
DRAWN BY:	JDM
DESIGN BY:	TLA
CHECKED BY:	
ADOPTED DAT	F:JUN 2005

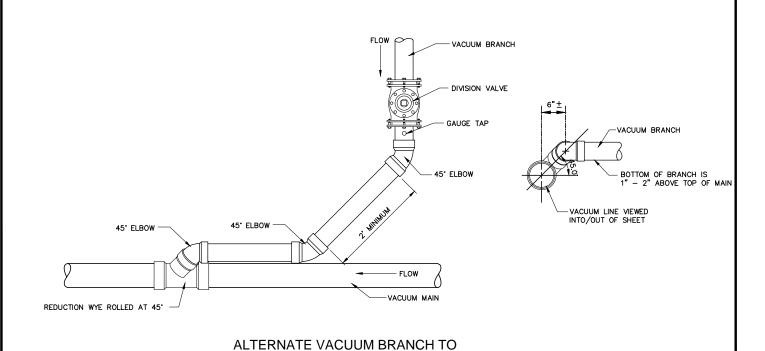


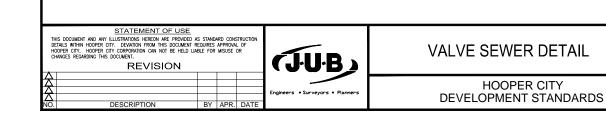
ALTERNATE VACUUM SERVICE

CONNECTION TO MAIN



MAIN LINE CONNECTION



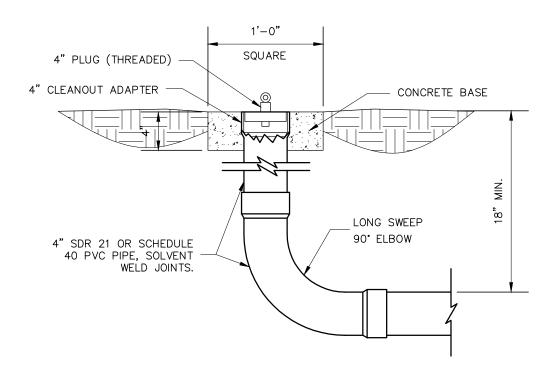


MAIN LINE CONNECTION

STANDARU
DRAWING
NUMBER:

CAD DWG:
VALVE PIT 3
PLOT SCALE:
1 = 48
DRAWN BY:
JDM
DESIGN BY:
TLA
CHECKED BY:
TLA
ADOPTED DATE-JIIN 2005

STANDARD



RV SANITARY SEWER DUMP

SCALE: N.T.S.

STATEMENT OF USE

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BRAWNING NUMBER:

STANDARD DRAWNING 20

STANDARD DRAWNING 20

STANDARD DRAWNING 20

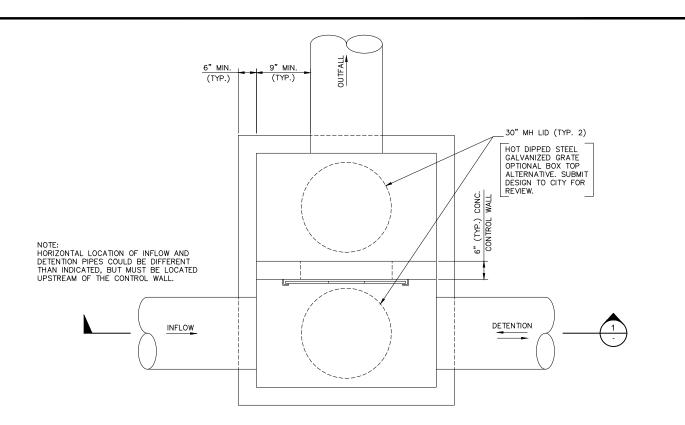
BRAWNING NUMBER:

STANDARD DRAWNING 20

BRAWNING 1 = 1

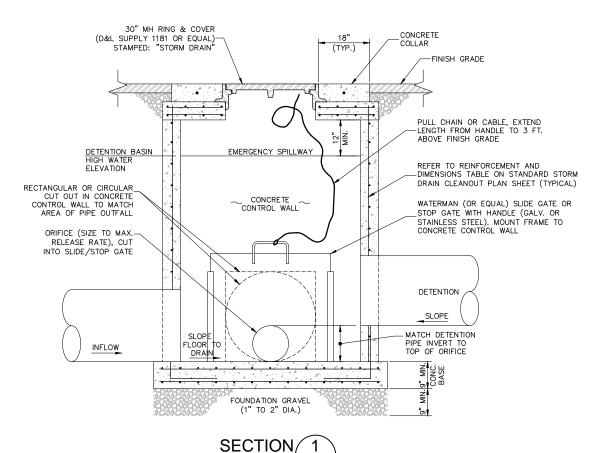
HOOPER CITY DESIGN BY: TLA

ADOPTED DATE: JUL 2006



STANDARD CONTROL BOX PLAN VIEW

SCALE: N.T.S.



SCALE: N.T.S.

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REVISION

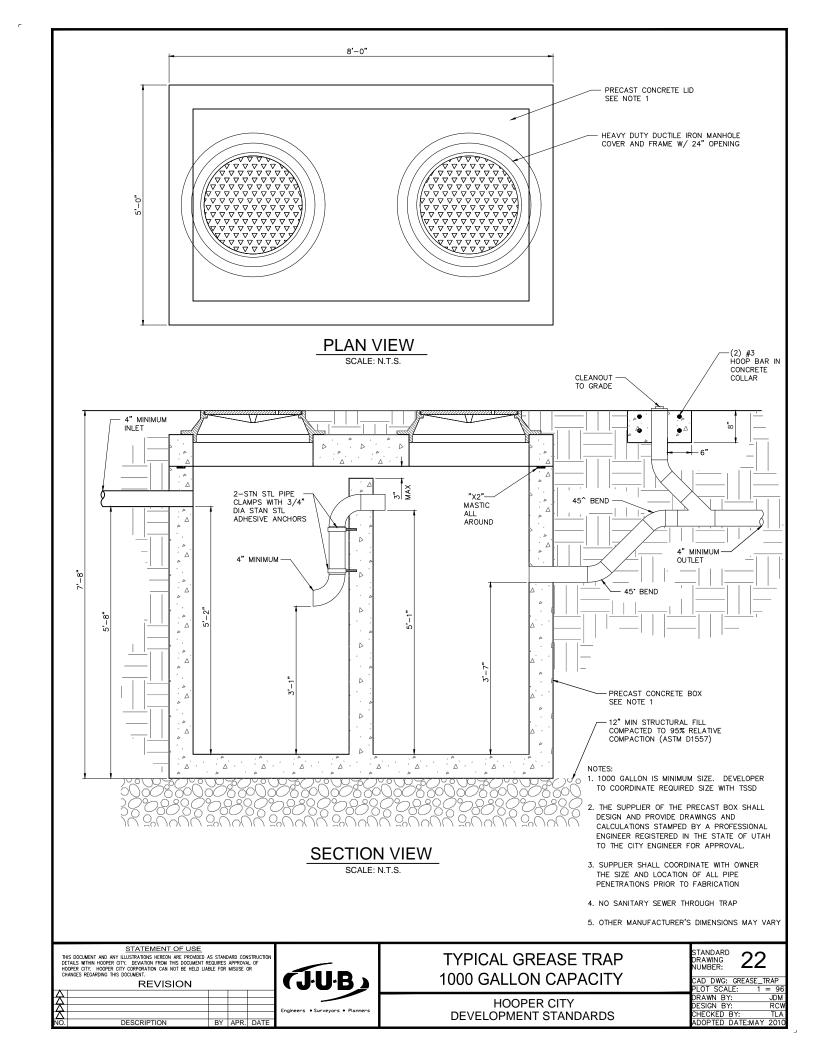
DESCRIPTION BY APR. DATE

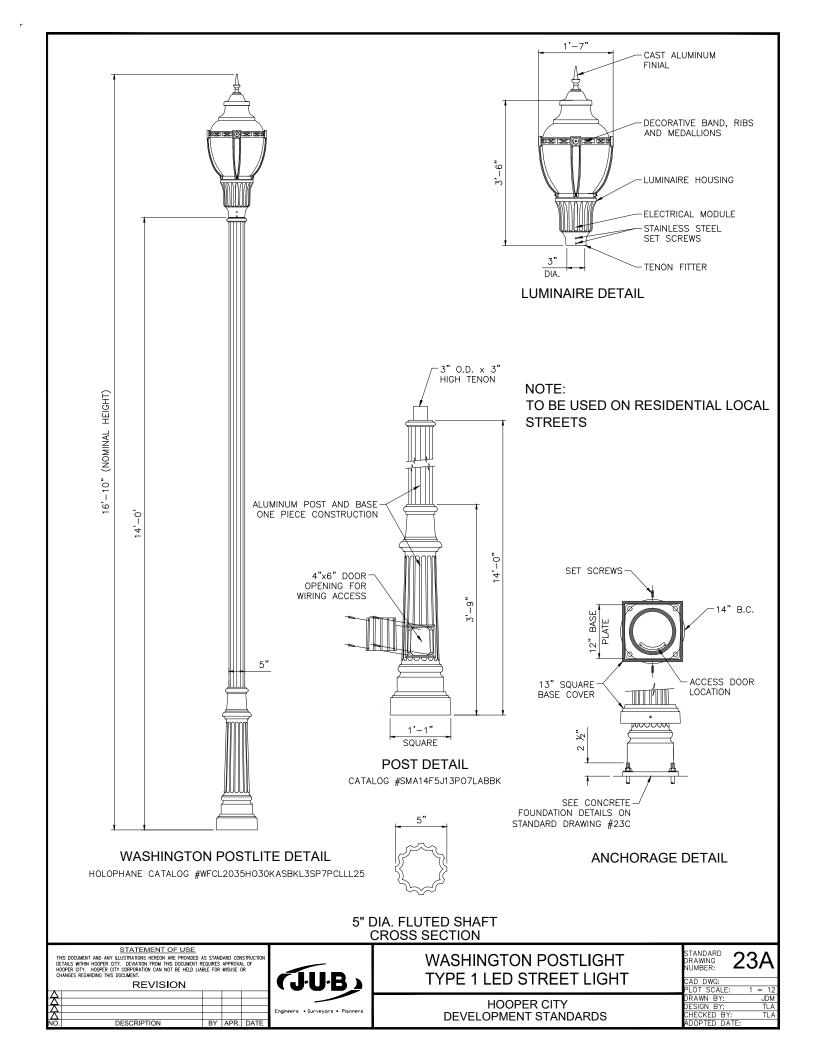


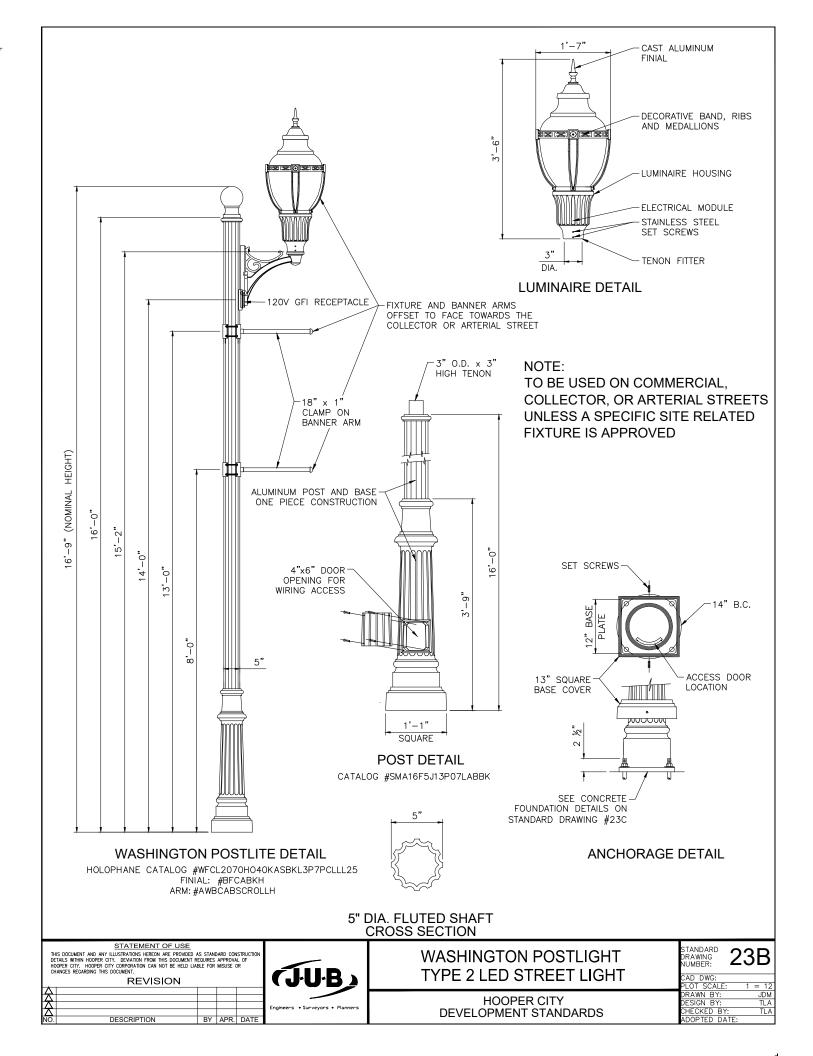
STANDARD STORM DRAIN CONTROL BOX

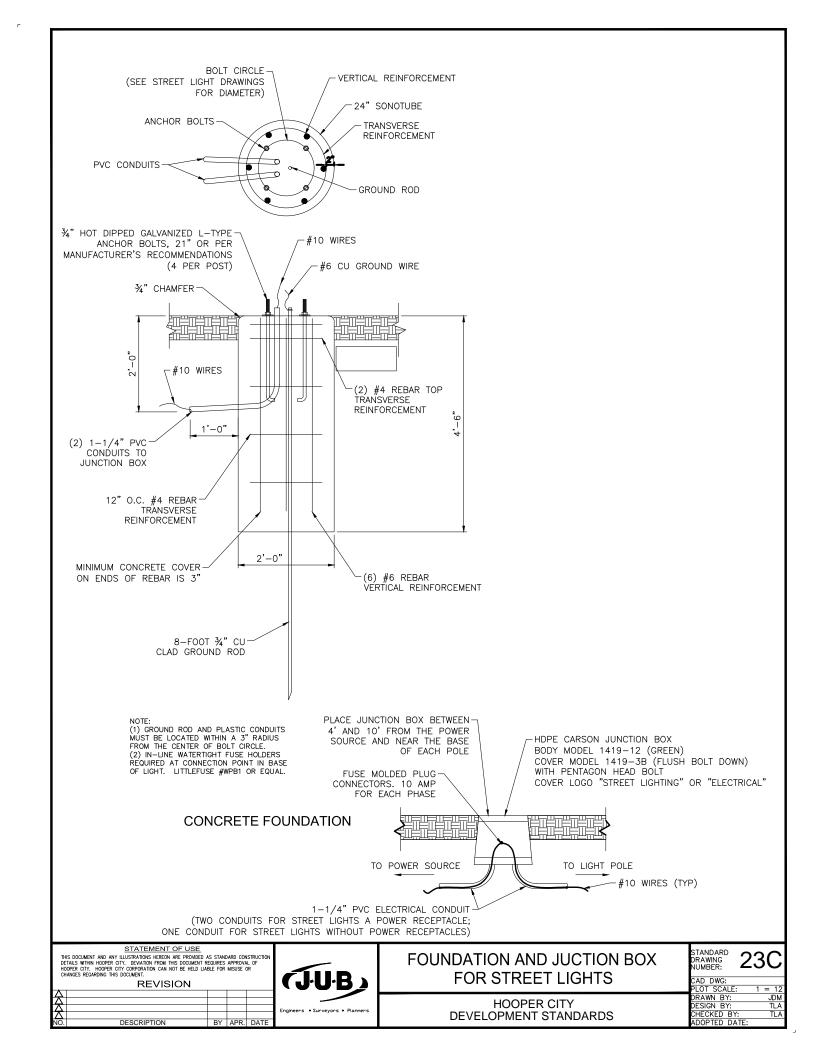
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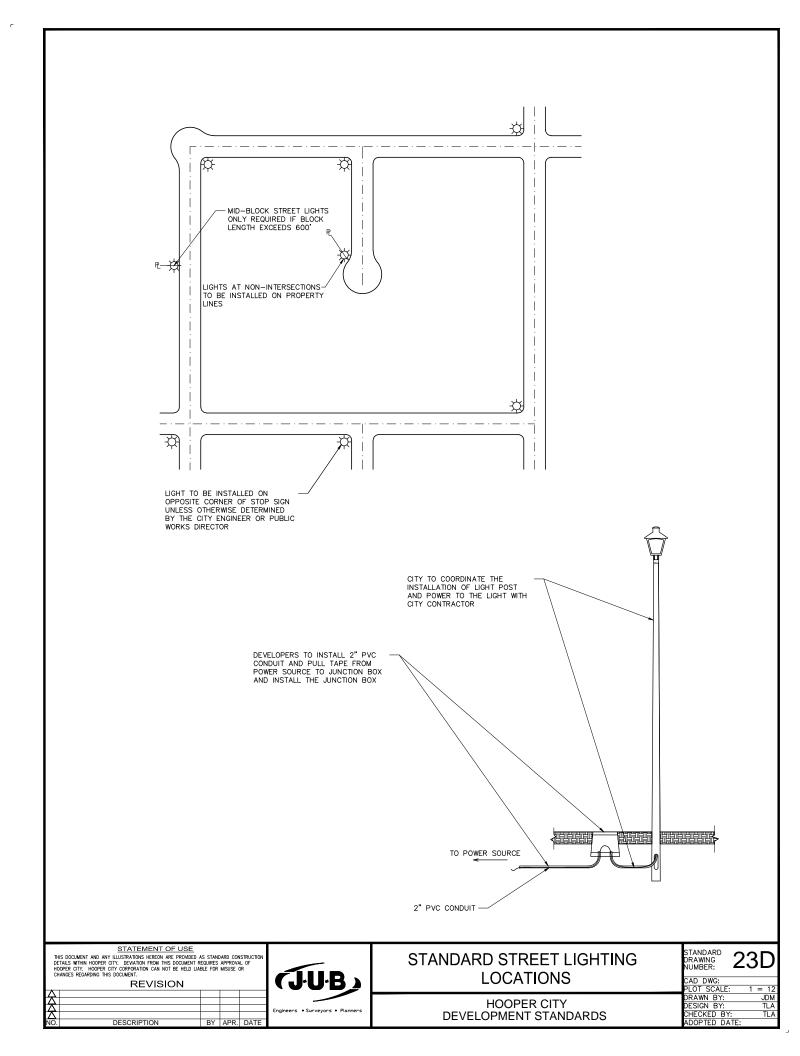
CAD DWG: SD_CONTR			
PLOT SCALE: 1		96	
DRAWN BY:	JE	M	ı
DESIGN BY:	R	CW	ı
CHECKED BY:		LA	
ADOPTED DATE:MAY	20	010	ı





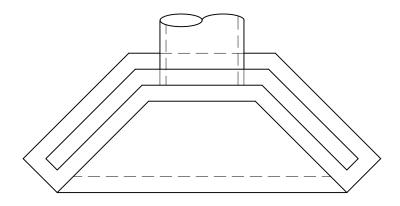




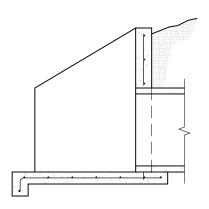


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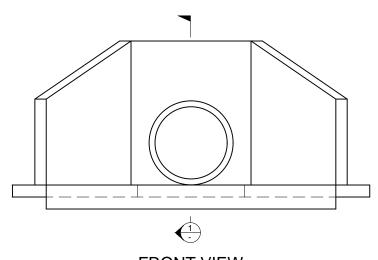
- TES:
 THIS DETAIL APPLIES WHEN REQUIRED BY
 PUBLIC WORKS FOR TRANSITION FROM
 PIPED DITCH TO OPEN CHANNEL.
 STRUCTURAL DESIGN SHALL BE
 COMPLETED BY THE
 ENGINEER-OF-RECORD FOR THE PROJECT.
 DETAILS SHALL BE INCLUDED IN PROJECT DETAILS SHALL BE INCLUDED IN PROJECT DRAWINGS.
- DRAWINGS.
 THE CONCRETE SPLASH PAD IS OPTIONAL
 UNLESS REQUIRED BY PUBLIC WORKS.
 DESIGNED HEIGHT OF HEADWALL AND
 SLOPE OF WINGWALLS MUST CONSIDER
 MOTORIST SAFETY IF STRUCTURE IS
 ADJACENT TO A ROADWAY



PLAN VIEW SCALE: N.T.S.







FRONT VIEW SCALE: N.T.S.

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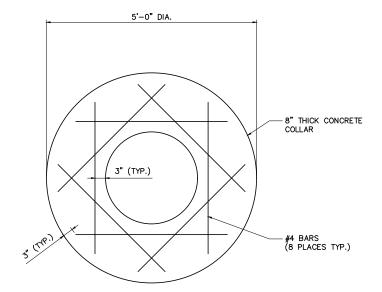
REVISION DESCRIPTION BY APR. DATE



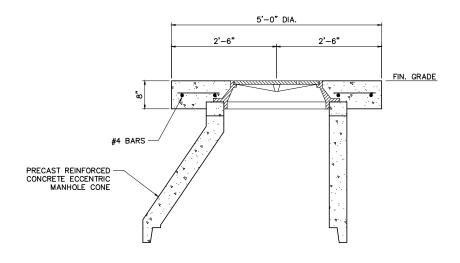
CONCRETE HEADWALL WITH WINGWALLS

HOOPER CITY **DEVELOPMENT STANDARDS** STANDARD DRAWING NUMBER:

CAD DWG: WING WALL
PLOT SCALE: 1 = 1
DRAWN BY: JDM
DESIGN BY: TLA
ADOPTED DATE:NOV 2006



<u>PLAN</u>



SECTION

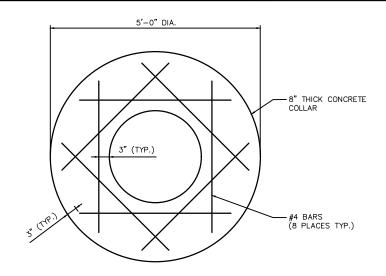
NOTE: USE GRADE RINGS AS NECESSARY TO ARRIVE AT REQUIRED FINISH GRADE.

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	TAILS WITHIN HOOPER CITY. DEVIATION FROM THIS DOCUMENT R				
	CHANGES REGARDING THIS DOCUMENT.				
	REVISION				
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NO.	DESCRIPTION	BY	APR.	DATE	

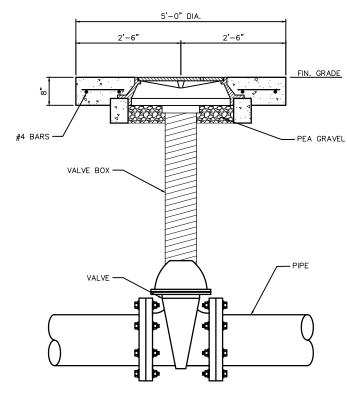


MANHOLE CONCRETE COLLAR

	STANDARD DRAWING NUMBER:	26A
	CAD DWG:	CONC_COLLAR
	PLOT SCAL	
LICODED CITY	DRAWN BY:	
HOOPER CITY	DESIGN BY:	
EVELOPMENT STANDARDS	CHECKED B	Y: TLA
DEVELOT MENT OTHER MODE	ADOPTED D	ATE:NOV 2003



PLAN



- NOTE:
 1. NOT FOR VAC SEWER
 2. CAST IRON "SEWER" LID
 3. COORDINATE CONCRETE COLLAR
 AND VALVE BOX LID
 REQUIREMENTS WITH INDIVIDUAL
 UTILITY COMPANIES.

SECTION

UTILITY	LID	CONCRETE COLLAR	NOTES
HOOPER CITY VACUUM SEWER	ROUND "SEWER"	60" ROUND	
HOOPER WATER IMPROVEMENT DISTRICT	ROUND "WATER"	COORDINATE	SURVEY MONUMENT REQUIRED
HOOPER IRRIGATION COMPANY	TRIANGULAR "WATER"	24" ROUND	
TAYLOR-WEST WEBER WATER IMPROVEMENT DISTRICT	ROUND "WATER"	COORDINATE	COORDINATE

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NO.	DESCRIPTION	BY	APR.	DATE



VALVE CONCRETE COLLAR

HOOPER CITY **DEVELOPMENT STANDARDS** STANDARD DRAWING NUMBER: 26B

CAD_DWG:CONC_COLLAR
PLOT SCALE: 1 = 1
DRAWN BY: JDM
DESIGN BY: TLA
CHECKED BY: TLA
ADOPTED_DATE:NOV,2003

CONSTRUCTION NOTES:

- 1. PUMP STATION MECHANICAL EQUIPMENT SHOWN IS SCHEMATIC. CONTRACTOR IS RESPONSIBLE FOR CORRECT QUANTITIES AND PIPE SPOOL LENGTHS AS REQUIRED FOR A FULLY FUNCTIONAL INSTALLATION. VERIFY ALL DIMENSIONS (BOTH VERTICAL AND HORIZONTAL). VERIFY MANUFACTURERS CONNECTION DETAILS AND INSTALLATION REQUIREMENTS. PROVIDE A DIMENSIONED DRAWING SHOWING ALL VALVES, FITTINGS, PIPE SPOOLS, AND PUMP CONNECTIONS WITH SHOP DRAWING SUBMITTAL. COORDINATE ALL WORK WITH RELATED TRADES TO AVOID CONFLICTS.
- 2. INITIAL FLOAT SWITCH SETTINGS (FIELD ADJUST TO OPTIMIZE PERFORMANCE AS REQUIRED):

ELEVATION (FEET)	CONTROLLER FUNCTION FOR RISING LEVEL	CONTROLLER FUNCTION FOR FALLING LEVEL
XXXX.XX	HIGH WATER ALARM ON	HIGH WATER ALARM OFF
XXXX.XX	LAG PUMP ON	
XXXX.XX	LEAD PUMP ON	
xxxx.xx		BOTH PUMPS OFF AND ALTERNATE LEAD/LAG

- 3. INSTALL PUMP AND ALL RELATED PUMP EQUIPMENT IN STRICT ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND MANUFACTURERS RECOMMENDATIONS.
- 4. GENERATOR BUILDING AND SITE REQUIREMENTS ARE NOT INCLUDED IN THESE DRAWINGS. REFER TO LIFT STATION SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.
- 5. REFER TO GEOTECH REPORT FOR BACKFILL REQUIREMENTS. IMPORTED BACKFILL MAY BE REQUIRED.
- 6. PROTECT BUILDINGS, FENCES, CURBS, AND SIDEWALKS ADJACENT TO THE SITE, UNLESS NOTED OTHERWISE. DAMAGE BY CONTRACTORS OPERATIONS SHALL BE REPAIRED AT CONTRACTORS EXPENSE.
- 7. UNLESS NOTED OTHERWISE, ALL PIPING AND FITTINGS FROM THE PUMPS THROUGH THE VALVE VAULT SHALL BE DUCTILE IRON CLASS 53 AND HAVE A 2-PART HIGH BUILD COAL TAR EPOXY COATING (40 MIL THICKNESS) ON INTERIOR AND EXTERIOR SURFACES.
- 8. ALL BOLTS, NUTS, WASHERS, FASTENERS, ETC. SHALL BE STAINLESS STEEL, TYPE 304 OR 316.
- 9. INSTALL EXPANSION JOINT MATERIAL BETWEEN CONCRETE STRUCTURES AND ANY CONCRETE SLABS
- NOT ALL FEATURES ARE SHOWN IN BOTH PLAN AND SECTION VIEWS FOR CLARITY.

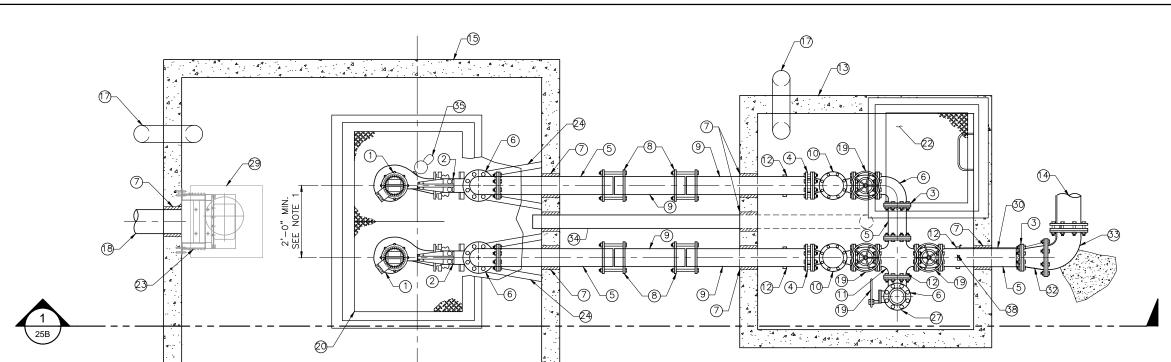
KEYED NOTES:

- (1) 20HP FLYGT SUBMERSIBLE PUMP MODEL NP3153.185-462 UNLESS OTHERWISE APPROVED BY THE CITY
- (2) 4" PUMP QUICK DISCONNECT DISCHARGE ELBOW AND MOUNTING BASE WITH EPOXY—SET ST.ST. ANCHOR BOLTS, VERIFY SIZE WITH PLIMP MFTR
- (3.) 6" UNI-FLANGE (MEGA-LUG)
- 4. 6" RESTRAINED FLANGE COUPLING ADAPTER
- (5) 6" DI PIPE SPOOL (FLxPE)
- (6.) 6" DI 90° LONG RADIUS ELBOW (FLGxFLG)
- (7) WATERTIGHT WALL PENETRATION, MANHOLE ADAPTER "A-LOK", "KOR-N-SEAL" OR EQUIVALENT. FOR DEPTHS GRATER THAN 15', USE A PENETRATION SEAL THAT IS RATED FOR HIGHER HYDROSTATIC GROUNDWATER PRESSURES SUCH AS "LINK-SEAL".
- (8) DUAL 6" FLEXIBLE SLEEVE-TYPE PIPE COUPLINGS
- (9) 6" DI PIPE SPOOL (PExPE)
- (0). 6" SWING CHECK VALVE (FLGxFLG)
- (11). 6"x6" DI CROSS (FLG)
- (12). VALVE/PIPE SUPPORT, SEE DETAIL
- (3). 6'-0"x6'-0"x6'-6" HIGH PRECAST CONCRETE VALVE VAULT WITH PLASTIC COATED STEPS. 6" MIN. WALL THICKNESS. HS-20 RATED. MODIFY OPENINGS AS REQ'D TO ACCOMMODATE PIPING AND ACCESS HATCH AS SHOWN. COAT EXTERIOR WITH WATERPROOFING TREATMENT
- 14. 8" PVC C-900 FORCEMAIN
- (5). 8'x10' PRECAST CONCRETE WETWELL HS-20 RATED WITH MONOLITHIC BASE. CHECK BUOYANCY CALC'S TO DETERMINE MIN. BASE THICKNESS AND IF WING IS NEEDED. DESIGN PER GEOTECH REPORT. COAT EXTERIOR WITH WATERPROOF TREATMENT.

4 4 4

- (6) STAINLESS STEEL PUMP REMOVAL SYSTEM, COMPLETE WITH MOUNTING BRACKETS AND INTERMEDIATE SUPPORT BRACES.
- (1). SCREENED VENT, SEE DETAIL
- (B) INLET SEWER. A SINGLE INLET SEWER IS PREFERABLE. TO MULTIPLE INLET SEWERS. MINIMIZE CASCADING FLOW INTO WETWELL. ENTRAINED AIR AND TURBULENCE REDUCES EFFICIENCY OF PUMPS.
- (19). 6" PLUG VALVE WITH HAND WHEEL (FLGxFLG)
- ②0. 36"x60" MIN. ALUMINUM DOUBLE LEAF ACCESS DOOR WITH STAINLESS STEEL HARDWARE AND ORANGE SAFETY GRATE — OPENING DIMENSIONS AND DOOR LOCATION SHALL BE IN ACCORDANCE WITH PUMP MANUFACTURERS REQUIREMENTS. HATCH SHALL BE HS-20 TRAFFIC RATED AND WATER-TIGHT. PROVIDE RECESSED, LOCKABLE HASP COVERED WITH HINGED LID FLUSH WITH SURFACE. INSTALL DOOR SUCH THAT ENTRY SYSTEM IS NOT IN CONFLICT WITH DOOR.
- (2). STAINLESS STEEL CABLE SUPPORT BRACKET FOR POWER CABLES AND FLOAT SWITCHES, THE BRACKET IS SHOWN SCHEMATICALLY IN THESE DRAWINGS. THE SUPPORT BRACKET NEEDS TO BE LOCATED SO THE CABLES AND FLOATS ARE EASILY ACCESSIBLE FROM THE ACCESS HATCH. FIELD ADJUST TO AVOID CONFLICTS WITH PUMP REMOVAL AND TO OPTIMIZE FLOAT SWITCH PERFORMANCE.
- (2). 30"x30" MIN. ALUMINUM SINGLE LEAF ACCESS DOOR WITH STAINLESS STEEL HARDWARE. HATCH SHALL BE HS-20 TRAFFIC RATED AND WATER-TIGHT. PROVIDE RECESSED, LOCKABLE HASP COVERED WITH HINGED LID FLUSH WITH SURFACE. INSTALL DOOR SUCH THAT ENTRY SYSTEM IS NOT IN CONFLICT WITH DOOR. PLUMB HATCH RIM DRAIN TO VAULT FLOOR DRAIN.
- (3). STAINLESS STEEL LIFTING CHAIN OR CABLE (MIN. STRENGTH 6,000 LBS.) WITH S.S. CLEVIS FITTING AT EACH END.
- 24. THRUST RESTRAINT PIPE SUPPORT, SEE DETAIL.
- (3). MANHOLE JOINT WITH EXTRUDED BUTYL RUBBER SEAL OR EQUIVALENT. GROUT JOINT INSIDE AND OUT OR VULLCEM 16 JOINT SEALANT CAULKING, TYP.

- (2). CRUSHED AGGREGATE (¾" MINUS) COMPACTED TO 95% ASTM D-698 OR MODIFIED PROCTOR UNLESS INDICATED OTHERWISE IN GEOTECH REPORT.
- (2). 6" ALUM. LOCKING CAM-LOCK FITTING WITH PRESSURE CAP. EXTEND THROUGH TOP OF VAULT TO 18" ABOVE GRADE.
- (28). INSTALL SLIDE RAILS AND ELECTRICAL CONDUIT FOR FUTURE GRINDER. COORDINATE WITH GRINDER SUPPLIER (JWC ENVIRONMENTAL MUFFIN MONSTER MODEL 30005-0012)
- 29. 2'x2' ALUMINUM ACCESS HATCH FOR FUTURE GRINDER (HS-20 TRAFFIC RATED AND WATER-TIGHT)
- (3). LOCATING WIRE. PROVIDE SUFFICIENT LENGTH FOR WIRE TO BE PULLED TO GROUND SURFACE.
- (31). 4" FLAP GATE
- 3. 8"x6" DI CONCENTRIC REDUCER, (MJxMJ)
- 3. 8" DI BEND (MJXMJ) WITH THRUST BLOCK
- 3. 6" CAST IRON FLOOR DRAIN, P-TRAP, & 4" PVC DRAIN TO WETWELL SLOPED AT 2% MIN.
- (35). ITT FLYGT MIX FLUSH VALVE, ONE PUMP ONLY
- (36). APPLY SPECTRASHIELD LINER (OR APPROVED EQUAL) TO INTERIOR OF WETWELL AFTER ALL JOINTS ARE SEALED AND PIPES ARE INSTALLED.
- (37). GROUT PLUG (WATER-TIGHT)
- 38. PRESSURE GAUGE ASSEMBLY (SEE DETAIL 2 OF M-102)
- 39. 6"x4" CONCENTRIC REDUCER (FLGxFLG)
- 40. 4" UNI-FLANGE (MEGA-LUG)



NOTE

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES

CALL 48 HOURS BEFORE YOU DIG 811 J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC 466 North 900 West Kaysville, Utah 84037 Phone: 801.547.0393 Fax: 801.547.0397

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TANDARD LIFT STATION DETAIL HOOPER CITY

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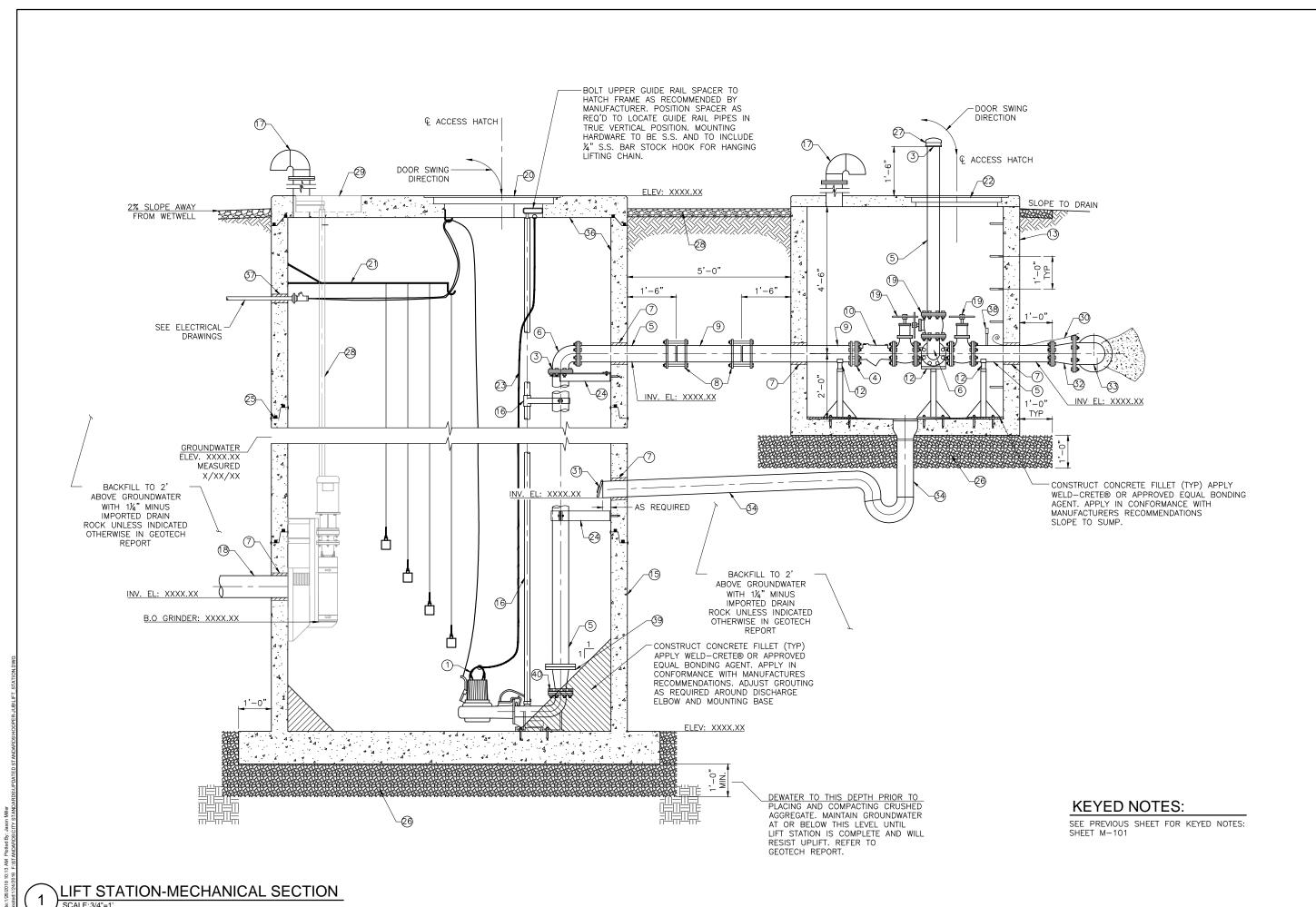
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STANDARD LIFT STATION DETAIL HOOPER CITY

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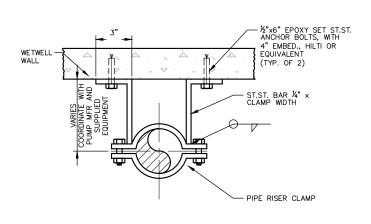
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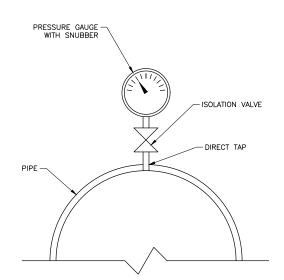
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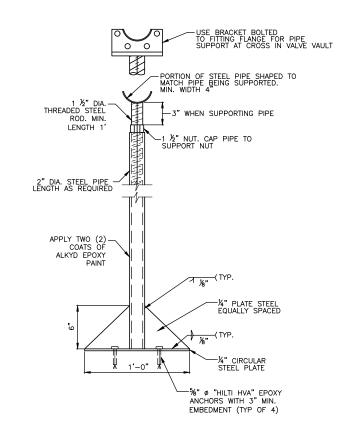
PLAN VIEW

NOTES:

- 1. MATERIALS TO BE STAINLESS STEEL
- 2. USE WHERE REQUIRED THRUST RESTRAINT IS MINIMAL.

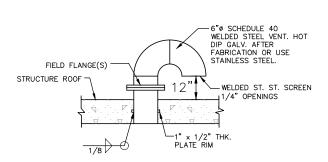


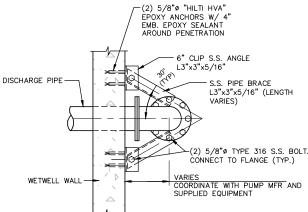
PRESSURE GAUGE ASSEMBLY
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TYP. STEEL PIPE SUPPORT DETAIL 3

PIPE BRACE DETAIL





PLAN VIEW

NOTES:

- 1. MATERIALS TO BE STAINLESS STEEL
- 2. TOP SUPPORT MUST PROVIDE THRUST RESTRAINT.

THRUST RESTRAINT PIPE SUPPORT DETAIL

/	POXY ANCHORS W/ 4 EMB. EPOXY SEALANT AROUND PENETRATION
DISCHARGE PIPE	6" CLIP S.S. ANGLE L3"x3"x5/16" S.S. PIPE BRACE L3"x3"x5/16" (LENGTH VARIES)
WETWELL WALL	(2) 5/8"Ø TYPE 316 S.S. BOLCONNECT TO FLANGE (TYP.) VARIES COORDINATE WITH PUMP MFR AND SUPPLIED EQUIPMENT

STANDARD LIFT STATION DETAIL HOOPER CITY

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