

Public Works / Finance Committee



Regular Meeting ~Agenda~

Laurie M. Hopkins
City Clerk

www.ci.moscow.id.us

208.883.7015

**Monday
March 8, 2021**

3:00 PM

**Council Chambers
206 E. Third St.**

REGULAR AGENDA

1. Approval of February 22, 2021 Public Works/Finance Committee Minutes (ACTION ITEM) - Taylor Riedner

2. Disbursement Report February 2021 (ACTION ITEM) - Sarah Banks

Staff will present the Accounts Payable Report for the month ending February 2021.

ACTION: Sign the Disbursements Report for the month of February 2021.

3. Fourth Quarter Financial Report July 1, 2020 to September 30, 2020 for FY2020 (ACTION ITEM) - Sarah Banks

Staff will present the financial report for the fourth quarter of Fiscal Year 2020 (July 1, 2020 to September 30, 2020).

PROPOSED ACTIONS: Approve the FY2020 Fourth Quarter Report, or provide staff further direction

4. Indian Hills Water Line Improvements Bid Results and Contract Award (ACTION ITEM) - Scott Bontrager

The Indian Hills Water Line Improvements project includes the replacement and upsizing of an existing 6-inch water line with a new 8-inch water line extending south from the Indian Hills Drive and Northwood Drive intersection south and east along Indian Hills Drive to the intersection with Atsirk Street. The replacement will also continue north on Atsirk Street and extend from the Nylarol Street and Pine Cone Road intersection north approximately 300-feet. New water laterals will be installed to service new fire hydrants and the existing water meters servicing the residential properties. Additionally, a new water line will be installed from Indian Hills Drive down to the future booster station on the north side of Southview Avenue and The Grove Apartments. The City published an advertisement for bids on February 6, 2021 and the Engineer's estimate for construction was \$998,403.

Bids were opened on Tuesday, March 2, 2021. Two responsive bids and one late bid were received, with bids ranging from \$899,560 to \$1,298,500.00. Of those, the lowest responsive bid was submitted by Germer Construction with a bid of \$899,560. A complete Bid Tabulation is attached.

PROPOSED ACTIONS: Recommend acceptance of the low bid from Germer Construction, award the contract for the bid amount of \$899,560.00, and authorize staff approval of construction change orders in an amount not to exceed 10% of the contract amount, or provide staff further direction.

5. Residential Street Standard Update Proposal (ACTION ITEM) - Bill Belknap

During the most recent update to the City Standard Construction Drawings containing the adopted street standards for the construction and development of new public and private streets within the City, the use of the 28-foot residential street standard was limited to cul-de-sacs and

short unextendible streets. The Planning and Zoning Commission is currently working on the development of new subdivision standards which include clustered and traditional development options to provide greater flexibility and allowing compact and innovative developments that would likely benefit from the 28-foot street standard. Narrower streets reduce current and future maintenance and replacement costs, provide traffic calming in residential areas, and facilitate the development of more cohesive neighborhoods. The Transportation Commission reviewed the proposal and concurred with the Planning and Zoning Commission's request and recommended approval to the City Council. Staff has prepared and updated draft of the Standard Construction Drawings that includes the proposed revisions for the Council's review and consideration.

Recommend approval of the proposed amended Standard Construction Drawings and associated Resolution; or provide staff further direction.

REPORTS

Staff Report (if needed)

ADJOURN

NOTICE: Moscow City Council and committee meetings are televised, videotaped and/or recorded. Individuals attending the meeting who require special assistance to accommodate physical, hearing, or other impairments, please contact the City Clerk, at (208) 883-7015 or TDD 883-7019, as soon as possible so that arrangements may be made.

Public Works / Finance Committee



Regular Meeting
~Minutes~

Laurie M. Hopkins
City Clerk

www.ci.moscow.id.us

208.883.7015

Monday, February 22, 2021

3:00 PM

Council Chambers
206 E. Third St.

The meeting was called to order at 3:00 p.m.

PRESENT: Art Bettge, Anne Zabala (Virtual), Maureen Laflin (Virtual)

OTHERS: Mayor Bill Lambert, Council Member Sandra Kelly, Council Member Gina Taruscio (Virtual)

STAFF: Bill Belknap, Alisa Anderson, Eric Warner, Amanda Argona, Tim Davis (Virtual), James Fry, Dustin Blaker, Mia Bautista (Virtual), Tyler Palmer (Virtual), Laurie Hopkins (Virtual), Taylor Riedner (Virtual)

REGULAR AGENDA

1. Approval of February 8, 2021 Public Works/Finance Committee Minutes (ACTION ITEM) - Taylor Riedner

Minutes presented for approval.

PROPOSED ACTIONS: Approve minutes as presented; approve minutes with amendments; or take such other action deemed appropriate.

The minutes were approved as presented.

2. Police - Annual Small Grant Requests (ACTION ITEM) - Alisa Anderson / James Fry / Eric Warner

The City of Moscow Police Department (MPD) applies for several small grants on an annual basis which assist the department with the purchase of equipment to include bullet proof vests, child passenger safety seats, and to host various traffic enforcement mobilizations and other prevention and safety activities. The grants awarded to MPD provide funding and resources to protect our youngest citizens, operational and personal safety equipment, and program support to implement and host multiple safety programs. These resources assist MPD in their mission of community-oriented policing to improve the quality of life for Moscow residents through community partnerships and problem-solving approaches while also making sure the officers are outfitted and equipped with everything they need to safely do their jobs. Grant funding programs include the Bulletproof Vest Partnership, Traffic Enforcement Emphasis, Child Passenger Safety Seats, Partnership for Success Law Enforcement Drug and Alcohol Patrol and Education, and Shop with a Cop.

PROPOSED ACTIONS: Recommend approval and/or ratification of the funding requests and awards for small grants applied for by the Moscow Police Department not to exceed a combined total of \$50,000 the FY2021 fiscal year or provide staff further direction.

Anderson introduced the item by explaining the requirements for application to the grant. For several years, the City has applied for many grants primarily through the Idaho Transportation Department (ITD) and the Bureau of Justice. Grant requests for multiple programs are being

presented as one item not to exceed \$50,000. The Bullet Proof Vest Program allows the MPD to receive up to 3 vests per year and the City would pay approximately 50% of the costs. The cost of each vest ranges up to \$2,500 based on the vendor and the custom fitting to each officer. The City has participated in the Traffic Enforcement Grant for roughly 15 years which allows officers to have overtime in order to participate in different emphasis programs organized by the state. The Car Seat Program awards \$6,000 from the state to allow the MPD to purchase car seats to give to families, care providers, Nimiiipuu Health, the Wish Program, and Gritman Medical Center as well as provide training to local residents from certified officers. Money awarded for the Shop with a Cop Program goes toward gift cards for officers to take kids shopping for their families. In 2019 there were roughly 200 children that participated in the program. Gift card amounts will vary based on the received grant monies. The Committee recommended approval and that it be placed on the Council consent agenda.

3. Police - Selective Traffic Enforcement Program (STEP) Grant Request (ACTION ITEM) - Alisa Anderson / James Fry / Eric Warner

The Moscow Police Department (MPD) has identified a funding opportunity to apply for a grant which is a nationwide program called Selective Traffic Enforcement Program (STEP). The Idaho Transportation Department (ITD), Office of Highway Safety (OHS) is sponsoring this program to address specific behaviors related to traffic safety priority areas and safety deficiencies within local law enforcement jurisdictions. The STEP is focused on combatting traffic crashes resulting in fatal and serious injuries. Using problem identification, the agencies focus on traffic safety issues within their jurisdiction. The Idaho STEP is a yearlong grant and awards are granted annually. STEP grants reimburse law enforcement departments for time dedicated to traffic enforcement. Police Officer(s) that participate in the STEP grant and must track all performance to include problem identification, a project plan including objectives, performance measures and targets, and budget expenses. The MPD is requesting to apply for the program maximum of 2,080 regular time traffic officer enforcement hours plus 200 hours of overtime with the allowable benefit percentages. The estimated amount of reimbursement is anticipated not to exceed \$100,900.00 for the upcoming program period beginning October 1, 2021 through September 30, 2022 which matches the City's FY2022 budget cycle.

PROPOSED ACTIONS: Recommend approval for the Moscow Police Department to apply for the STEP grant in an amount not to exceed \$100,900 for the FY2022 budget period or provide staff further direction.

Anderson and Warner introduced the item. The money applied for is equivalent to a full year of employment, plus 200 hours of overtime which will not overlap with the other programs the MPD will be involved in. The grant will also pay up to 24% of benefits and any cost differences will be differed to Council to determine allocation of funds. The Committee recommended approval and that it be placed on the Council consent agenda.

4. 2021 Moscow Farmers Market Handbook (ACTION ITEM) - Amanda Argona

In 2018, the Moscow Farmers Market implemented the first iteration of the Moscow Farmers Market Vendor Handbook. The Handbook is an expanded policy document meant to provide clarity and serve as a resource for current and future Market Vendors. At the end of each season, the policies that make up the Handbook are considered in depth by staff and

the Farmers Market Commission. The Commission reviewed the updated document on January 5, 2021, and moved unanimously to forward the Handbook on to the Council with a recommendation for approval and adoption for the 2021 Market Season.

PROPOSED ACTIONS: Recommend approval of the 2021 Moscow Farmers Market Handbook, or provide staff further direction.

Argona introduced the item as written above and shared that the legal department had already reviewed the handbook. An update to the Handbook allows for refunds to vendors in the event of Market cancellation. In Friendship Square, there is limited access and availability to electricity for vendors. The Farmers Market will continue to not allow the use of generators during operating hours. Other options such as the use of battery packs may be recommended instead to avoid the noise and smell of generators. To avoid the Farmers Market turning into a flea market, vendor merchandise will be limited to display no more than one type of approved merchandise item for sale. In the event of egregious behavior, it falls upon staff to handle. However, in extreme situations, the MPD may be called upon for assistance. The Committee recommended approval and that it be placed on the Council regular agenda.

5. Haddock Building Remodel Project Bid Award (ACTION ITEM) - Bill Belknap

The City recently purchased the Haddock Building, located at 504 S. Washington Street, to address the overcrowding currently present in the Mann Building. Prior to the purchase of the Mann Building the City had intended to remodel the existing Police Station for that purpose but it was determined that acquisition and remodel of the Haddock Building would be a more cost-effective option. The project is an interior remodel which includes the demolition and reconfiguration of interior walls, construction of a new permits service counter, new floor coverings, new LED lighting and ceiling system, demolition and reconstruction of a non-compliant interior staircase, replacement of an outdated electrical panel and other electrical system reconfiguration, and interior painting.

The project was advertised for bid on January 2nd and 16th with a bid opening on February 11th. Three bids were received. K&G Construction from Lewiston, Idaho was the lowest bidder with a base bid of \$311,000 and bid alternate #1 (replacement of the non-compliant interior staircase) of \$48,000 for a total bid amount of \$359,000. In addition to the interior remodel, the building also needs a new roof as well as the replacement of the HVAC units which are over 30 years old and reaching their end of life. The City has received bids for the roof replacement at \$29,192 and the HVAC unit replacement at \$21,875. With the addition of those additional items, the total construction cost is \$410,067. The City programed \$475,700 for the project within the City's Capital Improvement Plan and the City's FY2021 Capital Projects budget.

PROPOSED ACTIONS: Recommend acceptance of the low bid from K&G Construction, Inc., award the contract for the bid amount of \$359,000, and authorize staff approval of construction change orders in an amount not to exceed 10% of the contract amount; or take other action as deemed appropriate.

Belknap introduced the item as written above and explained that the Haddock building will be cost effective and a suitable location for the Engineering, Building Safety and Planning, and Grants groups. The original plan to renovate the existing police station would have cost \$1.5 million to meet the building planning and safety needs. The current completion date for the new

police building is July. An appraisal of the current police building is ordered for March to provide a fair market value of the facility. At that time, disposal of the property will be brought to Council for instruction. The Haddock building was available for little more than \$800,000 with an estimated \$474,000 in renovation costs. Currently, the building consists of 2 restrooms on the second floor which will be remodeled to be single-use gender-neutral facilities. Restrooms on the first floor are not anticipated to be remodeled, however, signage of the facilities may be changed. The proposal is to make all restrooms in the building gender-neutral. The Committee recommended approval and that it be placed on the Council regular agenda.

REPORTS

Moscow Recycling Truck Scales Report - Tim Davis

The 1994 truck scale at the Moscow Recycling Center had a main lever break on January 25th this year and could not be repaired with any certainty and a certified technician determined that more failures would possibly occur in the near future. The City was informed last summer that the scale was nearing the end of its useful service life and would likely need to be placed in the next year or two. Unfortunately, the failure had occurred before there was a chance to budget for the replacement as it was anticipated to be in the FY2022 budget. The scale needed to be replaced as quickly as possible due to the high demand and usage of a scale. Two options of replacement were to ask Council to declare the emergency and bypass a bidding process or to issue a tier two soft bid. This bidding process requires a written invitation to at least 3 vendors and allowing 3 days for a response. This option was acted upon and invitations were sent to 4 vendors on January 29th with responses due by February 4th. The bid was awarded to Scales Northwest in Spokane in the amount of \$78,938.20 which includes labor, equipment and installation as well as the removal of the existing scale. Though this was not specifically budgeted for, the FY2021 sanitation budget contains a \$200,000 operation contingency for unanticipated events such as this. The new scale will be installed in the existing pit at Moscow Recycling Center and the removal of the existing scale is scheduled to occur Tuesday, March 2. Concrete piers will be poured in the pit prior to installation of the new scale which will take approximately 3 to 4 weeks to cure. The new scale tentatively scheduled to be delivered on March 12 to Moscow Recycling and installation should be completed in one day.

ADJOURN

The meeting adjourned at 3:47 p.m.

COMMITTEE STAFF REPORT

DATE: Monday, March 8, 2021



RESPONSIBLE STAFF

ADDITIONAL PRESENTER(S)

OTHER RESOURCES

AGENDA ITEM TITLE

Disbursement Report February 2021 (ACTION ITEM) - Sarah Banks

DESCRIPTION

Accounts Payable Report for the month ending February 28, 2021. A summary of the major expenditures has been approximated by category and represents 98% of the total expenditure of \$3,145,719.49.

Payroll	\$1,088,423.00
Professional Services	\$245,475.00
Sanitation	\$297,929.00
Capital Outlay	\$60,566.00
Capital Outlay-Buildings	\$529,076.00
Capital Outlay - Improvements	\$254,016.00
Supplies	\$41,684.00
Utilities	\$76,611.00
Contractual Payments	\$478,919.00
ACH Wells Fargo	\$22,387.00
Total	\$3,095,086.00

STAFF RECOMMENDATION

Sign the Disbursements Report for the month of February 2021.

PROPOSED ACTIONS

ACTION: Sign the Disbursements Report for the month of February 2021.

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. Disbursement Report February 2021
2. Revenue Report February 2021
3. Cash & Investments FEB 2021

DISBURSEMENTS REPORT FOR FEBRUARY 2021										
DATE	FUND NAME	ACCOUNTS PAYABLE	ACCOUNTS PAYABLE	ACCOUNTS PAYABLE	ACCOUNTS PAYABLE	ACCOUNTS PAYABLE	VOID CHECKS	PAYROLL	PAYROLL	GRAND TOTALS
		2/4/2021	2/11/2021	2/16/2021	2/25/2021	2/16/2021		2/12/2021	2/26/2021	
		00001.02.2021	00002.02.2021	00003.02.2021	AP 2.25.2021	3/1/2021 00004.02.2021 AP 3.01.2021		00100.02.2021	00200.02.2021	
CHECK #'s		97176-97245	97246-97315	97316-97335	97336-97406	February's CC ACH's		21398-21408	21409 21415-21423	
Fund #										
101	ACH for Wells Fargo to be Imported									
105	GENERAL	96,487.34	19,944.88	93,362.49	165,673.47	8,996.78		318,632.70	338,865.82	1,041,963.48
120	STREETS	8,704.94	21,954.89	29,041.38	8,202.33	724.11		25,509.73	31,578.26	125,715.64
121	RECREATION AND CULTURE	12,832.92	16,605.50	26,012.13	632.90	2,895.88		49,864.21	47,839.63	156,683.17
123	MSD COMM. PLAY FIELDS	187.37	388.01	1,213.00		317.00		2,090.20	2,148.45	6,344.03
128	1912 CENTER			7,916.67						7,916.67
220	TRANSIT CENTER	466.20	1,238.75			29.85				1,734.80
230	WATER	41,360.58	42,056.07	20,551.30	3,043.04	2,339.79		47,028.74	50,559.96	206,939.48
240	SEWER	55,218.23	63,361.37	16,007.73	7,294.37	2,160.27		48,579.34	49,873.18	242,494.49
290	SANITATION	36,590.50	290,015.03	753.00		519.98		5,516.95	5,615.05	339,010.51
295	FLEET	3,765.35	9,434.28	4,183.00	8,760.88	1,419.45		11,861.63	11,991.60	51,416.19
320	INFORMATION SYSTEMS	21,554.60		26,491.71	26,531.06	2,983.96		20,385.61	20,481.51	118,428.45
330	WATER CAPITAL PROJECTS	246,505.67			31,738.98					278,244.65
340	SEWER CAPITAL PROJECTS	515,656.41			956.52					516,612.93
350	SANITATION CAPITAL PROJ									0.00
355	CAPITAL PROJECTS		29,234.12		22,980.88					52,215.00
380	LID CONSTRUCTION									
590	HAMILTON - PARKS & REC									
	BONDS & INTEREST									
	TOTAL	1,039,330.11	494,232.90	225,532.41	275,814.43	22,387.07	0.00	529,469.11	558,953.46	3,145,719.49

WIRE Transfers:

Maureen Laffin

Anne Zabala

Art Bettge

Sarah L. Banks, Finance Director

RECEIPTS REPORT FOR FEBRUARY 2021

Fund #	FUND NAME	Taxes	Franchise Fees	Licenses & Permits	Intergovernmental	Charges for Services	Fines & Penalties	Investment Income	Refunds & Reimbursements	Contributions & Donations	Other	Grand Total
101	GENERAL	78,517.19	107,727.57	30,929.15	717,021.69	138,175.96	15,414.03	27,617.63	34,379.75	0.00	4,397.25	1,154,180.22
105	STREETS	13,383.91	0.00	0.00	0.00	24,549.51	0.00	0.00	0.00	0.00	0.00	37,933.42
120	RECREATION AND CULTURE	0.00	0.00	75.00	0.00	5,590.08	0.00	0.00	0.00	5.00	0.00	5,670.08
121	MSD COMMUNITY PLAY FIELDS	0.00	0.00	0.00	5,340.71	0.00	0.00	0.00	0.00	0.00	0.00	5,340.71
123	1912 CENTER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
128	TRANSIT CENTER	0.00	0.00	0.00	0.00	1,474.30	0.00	0.00	0.00	0.00	0.00	1,474.30
220	WATER	0.00	0.00	0.00	0.00	474,065.26	0.00	1,718.78	70.00	0.00	0.00	475,854.04
230	SEWER	0.00	0.00	0.00	0.00	588,050.52	0.00	587.94	753.88	0.00	0.00	589,392.34
240	SANITATION	0.00	0.00	0.00	0.00	383,313.89	0.00	0.00	0.00	0.00	0.00	383,313.89
290	FLEET	0.00	0.00	0.00	0.00	76,825.91	0.00	0.00	0.00	0.00	0.00	76,825.91
295	INFORMATION SYSTEMS	0.00	0.00	0.00	0.00	111,976.00	0.00	0.00	23.80	0.00	0.00	111,999.80
320	WATER CAPITAL PROJECTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330	SEWER CAPITAL PROJECTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4,181.27	0.00	0.00	4,181.27
340	SANITATION CAPITAL PROJECTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
350	CAPITAL PROJECTS	0.00	0.00	0.00	0.00	0.00	0.00	2,335.06	0.00	0.00	266.04	2,601.10
355	LID CONSTRUCTION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
380	HAMILTON P&R	0.00	0.00	0.00	0.00	0.00	0.00	563.18	0.00	0.00	0.00	563.18
590	BOND & INTEREST	12,895.59	0.00	0.00	0.00	0.00	0.00	23.02	0.00	0.00	0.00	12,918.61
595	LID FUNDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	166.89	166.89
	TOTAL	104,796.69	107,727.57	31,004.15	722,362.40	1,804,021.43	15,414.03	32,845.61	39,408.70	5.00	4,830.18	2,862,415.76

City of Moscow
Cash and Investments
Balances as of 2/28/2021

Fund		Year to Date Balance
General Fund	\$	8,496,580.58
Street Fund	\$	1,773,906.93
Culture & Recreation	\$	1,160,597.26
MSDCPF	\$	177,109.06
1912 Fund	\$	56,596.69
Transit Center	\$	100,637.56
Water Fund	\$	2,635,180.10
Sewer / WRRF	\$	4,131,415.36
Sanitation Fund	\$	2,884,674.96
Fleet Fund	\$	4,718,584.46
Information Systems	\$	2,684,243.96
Water Capital	\$	7,081,860.86
Sewer Capital	\$	14,084,076.80
Capital Projects	\$	9,900,085.19
Sanitation Capital	\$	6,510,123.41
LID construction	\$	26,503.80
Hamilton	\$	2,110,752.41
Bond & Interest	\$	674,418.18
LID Funds	\$	35,772.39
Payroll Service	\$	997,131.13
Total Cash & Investments	\$	70,240,251.09

COMMITTEE STAFF REPORT

DATE: Monday, March 8, 2021



RESPONSIBLE STAFF

ADDITIONAL PRESENTER(S)

OTHER RESOURCES

AGENDA ITEM TITLE

Fourth Quarter Financial Report July 1, 2020 to September 30, 2020 for FY2020 (ACTION ITEM) - Sarah Banks

DESCRIPTION

Staff will present the financial report for the fourth quarter of Fiscal Year 2020 (July 1, 2020 to September 30, 2020).

STAFF RECOMMENDATION

Approve the FY2020 Fourth Quarter Report.

PROPOSED ACTIONS

PROPOSED ACTIONS: Approve the FY2020 Fourth Quarter Report, or provide staff further direction

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. 4th Quarter Financials FY20 - Council

City of Moscow
QUARTERLY FINANCIAL REPORT
Budget For Fiscal Year Ending September 30, 2020
SUMMARY FINANCIAL REPORT BY FUND - BUDGET AND ACTUAL

Fund	Original Budget	Final Budget	September-20 YTD	Percent of Year 100% Budget to Actual To Date
General Fund Revenues	16,851,897	17,114,397	16,767,086	97.97%
Salaries & Benefits	9,369,885	9,369,885	8,873,915	94.71%
Operations	4,268,629	4,531,129	3,388,457	74.78%
Capital Outlay	6,000	6,000	5,456	90.93%
Transfers	3,207,383	3,207,383	4,453,247	138.84%
Total General Fund Expenditures	16,851,897	17,114,397	16,721,075	97.70%
Street Department Revenues	3,332,714	3,359,714	3,161,034	94.09%
Salaries & Benefits	951,091	951,091	738,010	77.60%
Operations	1,302,878	1,329,878	940,416	70.71%
Capital Outlay	0	0	0	0.00%
Transfers	1,078,745	1,078,745	1,704,288	157.99%
Total Street Fund Expenditures	3,332,714	3,359,714	3,382,714	100.68%
Recreation & Culture Revenues	3,397,237	3,397,237	2,608,921	76.80%
Salaries & Benefits	2,036,417	2,036,417	1,548,820	76.06%
Operations	1,308,820	1,308,820	927,405	70.86%
Capital Outlay	40,000	40,000	0	0.00%
Debt Service	0	0	0	0.00%
Transfers	12,000	12,000	413,767	3448.06%
Total Parks & Rec Expenditures	3,397,237	3,397,237	2,889,992	85.07%
MSD Community Playfields Revenues	148,734	148,734	130,515	87.75%
Salaries & Benefits	66,922	66,922	49,129	73.41%
Operations	77,801	77,801	46,090	59.24%
Transfers	4,011	4,011	4,011	100.00%
Total MSD Community Playfields	148,734	148,734	99,230	66.72%
1912 Center Revenues	110,100	110,100	110,500	100.36%
Operations	106,100	106,100	98,274	92.62%
Capital Outlay	4,000	4,000	0	0.00%
Total 1912 Center Expenditures	110,100	110,100	98,274	89.26%
Transit Center Revenues	36,508	36,508	37,284	102.13%
Operations	36,508	36,508	24,121	66.07%
Total Transit Center Fund	36,508	36,508	24,121	66.07%
Water Fund Revenues	6,770,380	6,770,380	7,987,577	117.98%
Salaries & Benefits	1,417,290	1,417,290	1,313,968	92.71%
Operations	2,306,065	2,306,065	1,384,287	60.03%
Capital Outlay	210,000	210,000	27,757	13.22%
Debt Service	0	0	275,160	0.00%
Transfers	2,837,025	2,837,025	3,687,025	129.96%
Total Water Fund Expenditures	6,770,380	6,770,380	6,688,197	98.79%
Sewer Fund Revenues	9,699,474	9,699,474	9,257,692	95.45%
Salaries & Benefits	1,380,365	1,380,365	1,252,670	90.75%
Operations	2,273,028	2,273,028	1,783,055	78.44%
Capital Outlay	230,000	230,000	97,191	42.26%
Debt Service	1,106,582	1,106,582	1,092,760	98.75%

Transfers	4,709,499	4,709,499	5,009,499	106.37%
Total Sewer Fund Expenditures	9,699,474	9,699,474	9,235,175	95.21%
Sanitation Fund Revenues	6,205,773	6,205,773	6,334,641	102.08%
Salaries & Benefits	138,823	138,823	142,834	102.89%
Operations	4,430,970	4,430,970	4,422,562	99.81%
Capital Outlay	0	0	0	0.00%
Transfers	1,635,980	1,635,980	1,588,052	97.07%
Total Sanitation Fund	6,205,773	6,205,773	6,153,448	99.16%
Fleet Management Revenues	3,562,993	3,935,445	2,644,841	67.21%
Salaries & Benefits	329,978	329,978	312,884	94.82%
Operations	2,729,715	2,729,715	391,883	14.36%
Capital Outlay	469,800	842,252	683,436	81.14%
Debt Service	8,500	8,500	7,404	87.11%
Transfers	25,000	25,000	25,000	100.00%
Total Fleet Management Expenditures	3,562,993	3,935,445	1,420,607	36.10%
Information Systems	1,746,953	2,007,208	2,137,900	106.51%
Salaries & Benefits	546,549	546,549	508,442	93.03%
Operations	960,904	1,221,159	783,354	64.15%
Capital Outlay	235,500	235,500	93,126	39.54%
Transfers	4,000	4,000	4,000	100.00%
Total Information Systems Expenditures	1,746,953	2,007,208	1,388,922	69.20%
Revenue for Miscellaneous Funds				
Water Construction Fund	7,293,632	7,293,632	2,081,848	28.54%
Sewer Construction Fund	10,018,376	10,018,376	3,471,739	34.65%
Sanitation Construcion Fund	5,935,060	5,935,060	683,591	11.52%
Capital Projects Fund	15,292,981	16,571,981	11,943,978	72.07%
LID Construction Fund	166,748	166,748	1,274	0.76%
Hamilton P & R	93,903	93,903	33,588	35.77%
Bond & Interest Debt Service Fund	10,752,964	10,752,964	48,704	0.45%
LID Bonded Debt Service Fund	30,618	30,618	5,742	18.75%
Total Miscellaneous Fund Revenue	49,584,282	50,863,282	18,270,464	35.92%
Expenses for Miscellaneous Funds				
Water Construction Fund	7,293,632	7,293,632	1,636,586	22.44%
Sewer Construction Fund	10,018,376	10,018,376	409,025	4.08%
Sanitation Construcion Fund	5,935,060	5,935,060	0	0.00%
Capital Projects Fund	15,292,981	16,571,981	5,071,321	30.60%
LID Construction Fund	166,748	166,748	125,000	74.96%
Hamilton P & R	93,903	93,903	92,403	98.40%
Bond & Interest Debt Service Fund	10,752,964	10,752,964	9,475,914	88.12%
LID Bonded Debt Service Fund	30,618	30,618	0	0.00%
Total Miscellaneous Fund Expenses	49,584,282	50,863,282	16,810,249	33.05%
Total City Revenue (1)	101,447,045	103,648,252	69,448,455	67.00%
Total City Expenses	101,447,045	103,648,252	64,912,003	62.63%

Note: Citizens are invited to inspect the detailed supporting records of the above financial statements.

(1) Revenues do not include beginning fund balance as a resource available in this report

COMMITTEE STAFF REPORT

DATE: Monday, March 8, 2021



RESPONSIBLE STAFF

Scott Bontrager, Assistant City Engineer

ADDITIONAL PRESENTER(S)

OTHER RESOURCES

AGENDA ITEM TITLE

Indian Hills Water Line Improvements Bid Results and Contract Award (ACTION ITEM) - Scott Bontrager

DESCRIPTION

The Indian Hills Water Line Improvements project includes the replacement and upsizing of an existing 6-inch water line with a new 8-inch water line extending south from the Indian Hills Drive and Northwood Drive intersection south and east along Indian Hills Drive to the intersection with Atsirk Street. The replacement will also continue north on Atsirk Street and extend from the Nylarol Street and Pine Cone Road intersection north approximately 300-feet. New water laterals will be installed to service new fire hydrants and the existing water meters servicing the residential properties. Additionally, a new water line will be installed from Indian Hills Drive down to the future booster station on the north side of Southview Avenue and The Grove Apartments. The City published an advertisement for bids on February 6, 2021 and the Engineer's estimate for construction was \$998,403.

Bids were opened on Tuesday, March 2, 2021. Two responsive bids and one late bid were received, with bids ranging from \$899,560 to \$1,298,500.00. Of those, the lowest responsive bid was submitted by Germer Construction with a bid of \$899,560. A complete Bid Tabulation is attached.

STAFF RECOMMENDATION

Recommend acceptance of the low bid from Germer Construction, award the contract for the bid amount of \$899,560.00, and authorize staff approval of construction change orders in an amount not to exceed 10% of the contract amount.

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend acceptance of the low bid from Germer Construction, award the contract for the bid amount of \$899,560.00, and authorize staff approval of construction change orders in an amount not to exceed 10% of the contract amount, or provide staff further direction.

FISCAL IMPACT

Funding for the project will be expended from Water Capital Projects line item 320-220-770-73 Improvements - Water Lines. Expenditure of \$899,560.00 plus an additional 10% allocated for possible change orders to fund contract with Germer Construction for the construction of project.

PERSONNEL IMPACT

City staff will administer the construction contract and inspection.

ATTACHMENTS

1. Indian Hills Water Line - JUB Bid Evaluation
2. Construction Agreement

March 4, 2021

Scott Bontrager, P.E.
Community Planning & Design Engineering Division
221 E. Second Street
Moscow, Idaho 83843

RE: Indian Hills Water Line Improvements Bid Evaluation

Dear Mr. Bontrager,

This letter is a follow-up to the bid opening for the Indian Hills Water Line Improvements Project at 2:00 p.m. on March 2, 2021. J-U-B Engineers, Inc. (J-U-B) reviewed the bids that were supplied from the following contractors:

- Germer Construction, Inc. (Germer)
- M.L. Albright & Sons, Inc. (Albright)
- Stewart Contracting, Inc. (Stewart)

We focused our review on the base bid cost and the contents of the bid packets to ensure that the required information was present. The required information was outlined in the Bid Submission form, which was provided in the contract documents. Refer to **Table 1** for a summary of our evaluation.

Table 1 - Bid Review Evaluation

Item #	Evaluation Criteria	Germer Construction, Inc.	M.L. Albrights & Sons, Inc.	Stewart Contracting, Inc.
		P.O. Box 10003 Moscow, ID 83843	P.O. Box 603 Lewiston, ID 83501	P.O. Box 1275 Pinehurst, ID 83850
1	Bid received on-time and in a properly sealed envelope?	Yes	Yes	No
2	Addenda properly acknowledged?	Yes	Yes	Yes
3	Bid schedule completed in general conformance with the Instructions to Bidders?	Yes	Yes	Yes

Item #	Evaluation Criteria	Germer Construction, Inc.	M.L. Albrights & Sons, Inc.	Stewart Contracting, Inc.
4	Bid security signed & included?	Yes	Yes	Yes
5	Idaho Contractor's license number included, if required?	Yes, PWC-C-11359-AAA-1-2-3	Yes, PWC-C-12040-U-1-2-3	Yes, 025627-U-1
6	Bid signed?	Yes	Yes	Yes
7	Naming of Subcontractors Form completed, if applicable (Plumbing, electrical, HVAC)?	Yes	Yes	Yes
8	Non-Collusion Affidavit included?	Yes	Yes	Yes
9	Anti-Discrimination Affidavit	Yes	Yes	Yes
	Total Base Bid Amount	\$899,560.00	\$1,041,633.50	\$1,298,500.00

Bid Discrepancies

- Germer did not state on page 6 of 7 in the ISPWC 00410 Bid Form if Germer Construction, Inc. is a General Business, Professional, Service, or Limited Liability corporation.
- The Stewart bid did not arrive on time and is therefore considered late.

Since this is an I.C. 67-2805 "Category A" Bid, the Bidder's qualifications were not evaluated. Award should be made to the lowest bidder who is in compliance with the administrative requirements of the bidding process, and who holds the requisite license. The bidders' licenses were researched and all three have active licenses that are appropriate for the bid amounts.

You should work with legal counsel to review the Bids, conduct any further review that is warranted, consider irregularities we discovered and others that may be present based on your review, waive any informalities, and make a final recommendation to your City Council. Based on this evaluation, it is our opinion that Germer Construction, Inc. is the lowest responsive bidder, and we recommend that they be considered for award of the contract. If you would like to discuss our evaluation and recommendation, please do not hesitate to contact me at 208-746-9010.

Sincerely,



Adam Rushold, Project Engineer
J-U-B ENGINEERS, Inc.

Attachments:
Bid Tab Summary (PDF)

Indian Hills Water Line Improvements
Bids Opened 03/2/2021

Received Past Deadline
Considered Informal Bid

				Engineers Estimate		Bid From: Germer Construction		Bid From: M.L. Albright & Sons		Bid From: Stewart Contracting, Inc.	
Item No.	Item Description	Qty.	Unit	Unit Price	Amount	Price	Total	Price	Total	Price	Total
1	Removal of Miscellaneous Landscaping	77	SY	\$3.00	\$231.00	\$8.00	\$616.00	\$20.00	\$1,540.00	\$50.00	\$3,850.00
2	Removal of Miscellaneous Pasture	448	SY	\$2.00	\$896.00	\$11.00	\$4,928.00	\$5.00	\$2,240.00	\$10.00	\$4,480.00
3	Removal of Additional Asphalt Surface	127	SY	\$16.00	\$2,032.00	\$3.50	\$444.50	\$15.00	\$1,905.00	\$10.00	\$1,270.00
4	Removal of Asphalt Surface	3063	LF	\$16.00	\$49,008.00	\$3.00	\$9,189.00	\$17.00	\$52,071.00	\$10.00	\$30,630.00
5	Removal of Concrete Sidewalk/Curb	675	LF	\$15.00	\$10,125.00	\$18.50	\$12,487.50	\$4.50	\$3,037.50	\$20.00	\$13,500.00
6	Exploratory Excavation	150	HR	\$445.00	\$66,750.00	\$185.00	\$27,750.00	\$350.00	\$52,500.00	\$150.00	\$22,500.00
7	Trench Backfill - Class C (12" PVC Water Lne)	448	LF	\$15.00	\$6,720.00	\$3.00	\$1,344.00	\$11.00	\$4,928.00	\$80.00	\$35,840.00
8	Trench Backfill - Class D (8" PVC Water Lne)	3032	LF	\$29.00	\$87,928.00	\$13.50	\$40,932.00	\$19.00	\$57,608.00	\$80.00	\$242,560.00
9	Trench Backfill - Class D (6" PVC Water Lne)	80	LF	\$32.00	\$2,560.00	\$13.50	\$1,080.00	\$26.00	\$2,080.00	\$100.00	\$8,000.00
10	Miscellaneous Surface Repair (Landscaping)	77	SY	\$6.00	\$462.00	\$45.45	\$3,499.65	\$30.00	\$2,310.00	\$100.00	\$7,700.00
11	Miscellaneous Surface Repair (Pasture)	448	SY	\$2.00	\$896.00	\$10.00	\$4,480.00	\$15.00	\$6,720.00	\$20.00	\$8,960.00
12	Concrete Sidewalk/Curb Repair	675	LF	\$126.00	\$85,050.00	\$104.00	\$70,200.00	\$54.00	\$36,450.00	\$60.00	\$40,500.00
13	Asphalt Surface Repair	3063	LF	\$16.00	\$49,008.00	\$42.00	\$128,646.00	\$43.00	\$131,709.00	\$50.00	\$153,150.00
14	Additional Asphalt Surface Repair	127	SY	\$16.00	\$2,032.00	\$52.50	\$6,667.50	\$48.00	\$6,096.00	\$50.00	\$6,350.00
15	8" DR18 C900 PVC Water Line	3032	LF	\$39.00	\$118,248.00	\$82.00	\$248,624.00	\$67.00	\$203,144.00	\$30.00	\$90,960.00
16	12" DR18 C900 PVC Water Line	425	LF	\$151.00	\$64,175.00	\$92.00	\$39,100.00	\$105.00	\$44,625.00	\$50.00	\$21,250.00
17	8" Gate Valve	32	EA	\$1,251.00	\$40,032.00	\$1,250.00	\$40,000.00	\$2,100.00	\$67,200.00	\$3,000.00	\$96,000.00
18	6" Isolation Gate Valve	5	EA	\$822.00	\$4,110.00	\$950.00	\$4,750.00	\$1,450.00	\$7,250.00	\$3,000.00	\$15,000.00
19	New Hydrant, Assembly, and Installation	10	EA	\$9,796.00	\$97,960.00	\$5,216.00	\$52,160.00	\$7,100.00	\$71,000.00	\$9,000.00	\$90,000.00
20	Existing Hydrant Removal	8	EA	\$1,335.00	\$10,680.00	\$450.00	\$3,600.00	\$1,500.00	\$12,000.00	\$1,000.00	\$8,000.00
21	Water Service Assembly and Connection	42	EA	\$4,137.00	\$173,754.00	\$2,810.00	\$118,020.00	\$2,560.00	\$107,520.00	\$4,000.00	\$168,000.00
22	6" DR18 C900 PVC Gravity Sewer Line	80	LF	\$34.00	\$2,720.00	\$125.00	\$10,000.00	\$145.00	\$11,600.00	\$100.00	\$8,000.00
23	Construction Sediment Control	1	LS	\$1,112.00	\$1,112.00	\$4,800.00	\$4,800.00	\$12,000.00	\$12,000.00	\$5,000.00	\$5,000.00
24	Construction Traffic Control	1	LS	\$11,118.00	\$11,118.00	\$19,600.00	\$19,600.00	\$40,000.00	\$40,000.00	\$10,000.00	\$10,000.00
25	Mobilization	1	LS	\$87,426.00	\$87,426.00	\$32,416.85	\$32,416.85	\$93,000.00	\$93,000.00	\$180,000.00	\$180,000.00
26	Reference and Reset Monuments	10	EA	\$1,168.00	\$11,680.00	\$862.50	\$8,625.00	\$550.00	\$5,500.00	\$2,000.00	\$20,000.00
27	Driveway Approach - Type I	70	SY	\$167.00	\$11,690.00	\$80.00	\$5,600.00	\$80.00	\$5,600.00	\$100.00	\$7,000.00
				TOTAL	\$998,403.00	TOTAL	\$899,560.00	TOTAL	\$1,041,633.50	TOTAL	\$1,298,500.00

**CONSTRUCTION AGREEMENT
FOR INDIAN HILLS WATER LINE IMPROVEMENTS
BETWEEN CITY OF MOSCOW, IDAHO
AND GERMER CONSTRUCTION, INC.**

THIS CONSTRUCTION AGREEMENT FOR INDIAN HILLS WATER LINE IMPROVEMENTS BETWEEN CITY OF MOSCOW, IDAHO AND GERMER CONSTRUCTION, INC. (hereinafter "Agreement"), dated this _____ day of _____, 2021, by and between the City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY"), and Germer Construction, Inc. P.O. Box 10003, Moscow, Idaho, 83843 (hereinafter "CONTRACTOR");

WITNESSETH:

WHEREAS, pursuant to the invitation of CITY, extended through a "Solicitation for Bids", CONTRACTOR submitted a Bid Proposal containing an offer invited by said solicitation; and

WHEREAS, CITY has determined that said offer was the lowest responsive Bid Proposal; and

WHEREAS, CITY has accepted CONTRACTOR's Bid Proposal;

NOW THEREFORE, the Parties to this Agreement, in consideration of the mutual covenants and stipulations set out, agree as follows:

**ARTICLE 1.
CONTRACT DOCUMENTS**

The Contract Documents which comprise the entire Agreement between CITY and CONTRACTOR concerning the work to be performed, are this Agreement, pages one (1) through six (6), and the following:

1. Advertisement for Bids;
2. Project Specifications titled: Indian Hills Water Line Improvements
City of Moscow Project No. 114-019
3. Bid/Proposal of CONTRACTOR, dated March 2, 2021, attached to this Agreement;
4. The Engineering Plans;
5. Performance and Payment Bonds, and Insurance Certificates, physically attached to this Agreement;
6. Addenda issued prior to the opening of bids, to be physically attached to this Agreement;
7. Change Orders which may be delivered or issued after the effective date of this Agreement.

There are no Contract Documents other than those listed in Article 1. This Agreement may only be amended by change order as provided in the Project Specifications.

ARTICLE 2. WORK

CONTRACTOR shall complete the entire Work as specified, indicated, and required under the Contract Documents contained herein under Article 1., for CITY project (hereinafter "Project") titled:

"Indian Hills Water Line Improvements"

ARTICLE 3. CONTRACT TIME/SUBSTANTIAL COMPLETION

The work to be performed pursuant to this Agreement shall be substantially completed within fifty-five (55) calendar days of the Notice to Proceed, unless adjustment of the Agreement time is made in accordance with the provisions of the Contract Documents.

CONTRACTOR and CITY recognize that time is of the essence and that CITY will suffer financial loss if the Project is not completed within the time specified above, unless approved extensions thereof are permitted in accordance with Article 12 of the General Conditions. The Parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by CITY if the Project is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY One Half of One Percent (0.5%) of the Contract Sum for each day that expires after the time specified above for Substantial Completion until the Project is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Project within the Time of Completion or by any proper extension thereof granted by CITY, CONTRACTOR shall pay CITY One Half of One Percent (0.5%) of the Contract Sum for each day that expires after the time specified above for completion, until the Project is completed and ready for final payment.

ARTICLE 4. CONTRACT SUM

CITY shall pay CONTRACTOR for completion of the Project in accordance with the Contract Documents in current funds in the amount of Eight Hundred Ninety-Nine Thousand Five Hundred Sixty 00/100 Dollars (\$899,560.00), as submitted by CONTRACTOR. In no event shall Contract amount exceed CONTRACTOR's bid amount of Eight Hundred Ninety-Nine Thousand Five Hundred Sixty 00/100 Dollars (\$899,560.00) unless otherwise authorized by CITY in writing. Any work additional to the current Agreement shall be compensated in accordance with pricing terms specified in the Bid Proposal, and shall be agreed to by the Parties in writing. Said Contract Sum shall be paid in accordance with the Contract Documents.

ARTICLE 5. INDEPENDENT CONTRACTOR

The Parties warrant by their signature that no employer-employee relationship is established between CONTRACTOR and CITY by the terms of this Agreement. It is understood by the Parties

hereto that CONTRACTOR is an independent contractor and, as such, neither CONTRACTOR nor CONTRACTOR's employees, agents, representatives or Subcontractors, if any, are employees of CITY for purposes of tax, retirement system, or social security (FICA) withholding.

ARTICLE 6. SCOPE OF SERVICES

CONTRACTOR shall perform all Work required by the Contract Documents. All Work shall be completed in accordance with the specifications and plans established for this Project.

ARTICLE 7. HOLD HARMLESS/INDEMNIFICATION

In addition to other rights granted CITY by the Contract Documents, CONTRACTOR agrees to indemnify, defend, and hold harmless CITY, its officers, agents, employees, and engineers, from and against any and all losses, lawsuits, actions, claims, judgements for damages, or any injuries or damages received or sustained by any person, persons, or property and losses, and expenses, and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with the acts and/or any performances, activities, errors or omissions by CONTRACTOR, CONTRACTOR's servants, agents, officers, employees, representatives, guests, business invitees or its Subcontractors; or on account of or in consequence of any neglect in safeguarding the Project; or through use of unacceptable materials in constructing the Project; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising out of or recovered under the Workmen's Compensation Act or any other law, ordinance, order, or decree.

ARTICLE 8. CONFLICT OF INTEREST

CONTRACTOR covenants that it presently has no interest and will not acquire any interest, direct or indirect, in the Project which would conflict in any manner or degree with the performance of CONTRACTOR's services hereunder. CONTRACTOR further covenants that, in performing this Agreement, CONTRACTOR will employ no person who has any such interest. Should any conflict of interest arise during the performance of this Agreement, CONTRACTOR shall immediately disclose such conflict to the Engineer and CITY.

ARTICLE 9. ENTIRE AGREEMENT, MODIFICATION AND ASSIGNABILITY

This Agreement and the exhibits hereto contain the entire Agreement between the Parties, and no statements, promises, or inducements made by either Party, or agents of either Party are valid or binding unless contained herein. This Agreement may not be enlarged, modified or altered except upon written agreement signed by the Parties hereto. CONTRACTOR may not subcontract or assign its rights (including the right to compensation) or duties arising hereunder, other than as provided within the Contract Documents, without the prior written consent and express authorization of CITY.

ARTICLE 10.
LICENSES AND ADHERENCE TO LAW REQUIRED

CONTRACTOR represents that it possesses the skill and experience necessary and all licenses required to perform the Work under this Agreement. CONTRACTOR further agrees to comply with all applicable Federal, State and Local Statutes and Regulations in the performance of the Work hereunder, and are hereby made a part of this Agreement and shall be adhered to at all times. Violation of any of these statutes or regulations by CONTRACTOR shall be deemed material and shall subject CONTRACTOR to termination of this Agreement for cause. No pleas of misunderstanding or ignorance on the part of CONTRACTOR will in any way serve to modify the provisions of this requirement. CONTRACTOR and its surety shall indemnify, defend and hold harmless CITY and its employees, agents, engineers and representatives, against any claim or liability arising from or based on the violation of any such laws, codes, ordinances, or regulations, whether by CONTRACTOR, CONTRACTOR's employees, or its Subcontractors.

ARTICLE 11.
EMPLOYMENT DISCRIMINATION

It is illegal under the U.S. Federal law to discriminate against an employee, either intentionally or through disparate impact, on account of race, color, gender, religion, sex (including pregnancy), national origin, physical or mental disability, age, marital or familial status, sexual orientation, and gender expression or identity. CONTRACTOR shall not discriminate against any employee or applicant for employment. CONTRACTOR's action under this Section shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and other applicants for employment, notices setting forth the provisions of this non-discrimination Section.

ARTICLE 12.
LEGAL FEES

In the event either Party incurs legal expenses to enforce the terms and conditions of this Agreement, the prevailing Party is entitled to recover attorney's fees and other costs and expenses, whether the same are incurred with or without a lawsuit.

ARTICLE 13.
JURISDICTION, VENUE AND NONWAIVER

It is agreed that this Agreement shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah. Failure of CITY to exercise any of the rights under this Agreement, or breach thereof, shall not be deemed to be a waiver of such right or a waiver of any subsequent breach.

**ARTICLE 14.
SPECIAL WARRANTY**

CONTRACTOR warrants that nothing of monetary value has been given, promised, or implied as remuneration or inducement to enter into the Agreement. CONTRACTOR declares that no improper personal, political or social activities have been used or attempted in an effort to influence the outcome of the competition, discussion, or negotiation leading to the award of this Agreement. Any such activity by CONTRACTOR shall make this Agreement null and void. CONTRACTOR further warrants that all materials and goods supplied under this Agreement shall be of good merchantable quality and that all services will be performed in a good workmanlike manner. CONTRACTOR acknowledges that it will be liable for any breach of this warranty.

**ARTICLE 15.
COMMUNICATIONS**

Such communications as are required by this Agreement shall be satisfied by mailing or by personal delivery to the Parties at the following addresses:

Contractor:

Germer Construction, Inc.
PO Box 10003
Moscow, ID 83843

City:

City Engineer
City of Moscow
206 East Third Street
P O Box 9203
Moscow, Idaho 83843

**ARTICLE 16.
NON-APPROPRIATIONS**

This Agreement is contingent upon CITY receiving the necessary funding to cover the obligations of CITY. In the event that such funding is not received or appropriated, then, and in that event, CITY's obligations under this Agreement shall cease and each Party shall be released from further performance under this Agreement without any liability to the other Party, and CONTRACTOR shall be entitled to receive just and equitable compensation for any Work satisfactorily completed hereunder.

**ARTICLE 17.
APPROVAL REQUIRED AND SEVERABILITY**

This Agreement shall not become effective or binding until approved by the CITY. If any part of this Agreement is held unenforceable, the remaining portions of the Agreement will, nevertheless, remain in full force and effect.

**ARTICLE 18.
EXECUTION**

IN WITNESS WHEREOF, said CONTRACTOR and CITY have caused this Agreement to be executed on the day and year first above written.

CONTRACTOR

Germer Construction, Inc.

CITY

City of Moscow, Idaho

By: _____

Bill Lambert, Mayor

ATTEST:

By: _____

Laurie M. Hopkins, City Clerk

Approved As To Form:

Mia Bautista, City Attorney

ACKNOWLEDGMENT

STATE OF _____)
) ss:
County of _____)

On this ____ day of _____, 2021, before me, the undersigned, a Notary in and for said State, personally appeared _____ and _____ known to me to be the person(s) whose name(s) is/are subscribed to the foregoing Agreement and acknowledged to me that he/she/they executed the same in his/her/their capacity as _____ for Germer Construction, Inc.

(seal)

Notary Public residing at: _____
My commission expires: _____

COMMITTEE STAFF REPORT

DATE: Monday, March 8, 2021



RESPONSIBLE STAFF

Bill Belknap, Deputy City Supervisor, Community Planning and Design

ADDITIONAL PRESENTER(S)

OTHER RESOURCES

AGENDA ITEM TITLE

Residential Street Standard Update Proposal (ACTION ITEM) - Bill Belknap

DESCRIPTION

During the most recent update to the City Standard Construction Drawings containing the adopted street standards for the construction and development of new public and private streets within the City, the use of the 28-foot residential street standard was limited to cul-de-sacs and short unextendible streets. The Planning and Zoning Commission is currently working on the development of new subdivision standards which include clustered and traditional development options to provide greater flexibility and allowing compact and innovative developments that would likely benefit from the 28-foot street standard. Narrower streets reduce current and future maintenance and replacement costs, provide traffic calming in residential areas, and facilitate the development of more cohesive neighborhoods. The Transportation Commission reviewed the proposal and concurred with the Planning and Zoning Commission's request and recommended approval to the City Council. Staff has prepared and updated draft of the Standard Construction Drawings that includes the proposed revisions for the Council's review and consideration.

STAFF RECOMMENDATION

Recommend approval of the proposed amended Standard Construction Drawings and associated Resolution.

PROPOSED ACTIONS

Recommend approval of the proposed amended Standard Construction Drawings and associated Resolution; or provide staff further direction.

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. P&Z Request Memo
2. Transportation Commission Minutes 20201008
3. Standard Construction Drawings (revised 2021) pages 1-24
4. Standard Construction Drawings (revised 2021) pages 25-49



Memo

To: Bill Belknap, Deputy City Supervisor – Community Planning & Design

From: Tyler Palmer, Deputy City Supervisor – Public Works & Services

C.c. Steve Schulte, Streets/Storm Manager

Scott Bontrager, City Engineer

Date: March 5, 2020

Re: Lifecycle Cost and Other Advantages of a 28' Residential Street Profile

Bill,

For several years I have advocated for narrower street profile options where feasible. Transportation funding is a continual challenge for local government, and, as such, it is imperative that we do not over-build, and thus force ourselves into inflated maintenance costs in perpetuity. In residential areas, when we construct on-street parking, we are constructing a linear public parking lot. The utilization of this parking infrastructure is generally very low, and the costs are exaggeratedly high as we are building the full profile to a roadway standard.

A narrower profile is a way for us to achieve many goals; traffic calming, higher utilization of the roadway, improved snow removal services, and significant cost savings. For example, a 28' profile (10' travel lanes and an 8' parking lane), in one mile, can save the City well in excess of \$500,000 over a 50-year lifecycle when compared to the same mile at a 36' width (our current standard). I believe that, while not universally applicable, this profile would serve many of our residential areas quite well.

I am attaching a spreadsheet that shows the savings strictly from a pavement management perspective. You will see that the savings for surface treatments, overlay, and eventual replacement, by themselves total over \$500,000. This reduction of 22% of the surface area that we treat and maintain can very quickly ring up large savings.

There is ample research demonstrating that a narrower profile helps calm traffic. We never get calls from residents complaining that vehicles are going too slow through their neighborhoods, and with the rapid transition to electric vehicles, even air-quality concerns wane with slower

speeds. We currently have 28' profiles with parking on both sides of the street in a few locations, and, while less than ideal at times, we rarely get complaints.

There are other maintenance cost savings that make this option attractive. A 28' profile with parking on one side, with an adequate green-strip, allows us to push snow consistently away from parked vehicles to an area with room for snow storage. The diminished passes with a plow truck are estimated to generate a savings of about \$14,000/mile over the same 50-year period, and would allow us to quicken the pace of plowing, thus improving services. A peripheral benefit to this scheme is that we could site the waterline on the parking-side of the center-line of the road, and place hydrants in the green-strip on the parking side. The hydrant would provide gaps in parking to allow larger vehicles room for passing, and keep hydrants from becoming buried by plows during heavy snow years.

On these low-volume residential streets, a shared lane is a comfortable for most cyclists, and sidewalks are available and likely used by those uncomfortable using the street. This approach could allow us to focus our limited funds for cycling infrastructure on providing separated bike lanes on key facilities, and not incurring the expense of continued striping of residential bike lanes that are underutilized, and unnecessary given the volume and speeds of the target facilities.

Our storm system would also benefit from a narrower street. With less impervious surface, we would diminish the loading in our storm system, and reduce the surface area covered by our sweepers. With the known limitations of Paradise Creek, any reduction in impervious surface not only helps us meet the water quality standards in our Phase II Stormwater Permit, but also helps with flood mitigation.

I am happy to discuss this further, and look forward to a hearing the thoughts of the Community Planning & Design Group on the concept.

Regards,

Tyler

***Lifecycle Cost Assesment Residential Mile**

Treatment:	Lifecycle Occurance:	Cost/SQYRD	36' Profile	28'Profile	Savings
Slurry Seal	3	\$ 1.75	\$ 36,960.00	\$ 28,743.75	\$ 8,216.25
AR Chip Seal	1	\$ 10.00	\$ 211,200.00	\$ 164,250.00	\$ 46,950.00
Grind and Overlay	1	\$ 30.00	\$ 633,600.00	\$ 492,750.00	\$ 140,850.00
Rebuild	1	\$ 65.00	\$ 1,372,800.00	\$ 1,067,625.00	\$ 305,175.00
Totals			\$ 2,254,560.00	\$ 1,753,368.75	\$ 501,191.25

*40 year lifecycle

Estimated Snow Removal Savings \$ 13,200.00

Memo

To: Bill Belknap – Deputy City Supervisor, Community Planning and Design
From: Mike Ray, AICP - Planning Manager
Date: March 3, 2020
Re: Proposed Subdivision Code Amendments Related to the Application of City Street Standards

Over the past two years the Planning and Zoning Commission has been working on revisions to the subdivision code, which is the chapter of the City Code that establishes the process and standards for the subdivision of land within the City of Moscow. Within the proposed subdivision code are design standards that are intended to promote the public health, safety, and welfare, as well as implement the goals, objectives, and policies of various City plans such as the Comprehensive Plan, Parks and Recreation Master Plan, Multimodal Transportation Plan, and Comprehensive Utility Plans. The subdivision design standards are also intended to provide efficient circulation through coordinated and connected street, bike and pedestrian path systems, secure adequate infrastructure for streets, emergency services, parks, recreation facilities, and utilities necessary to serve proposed subdivisions. The existing and proposed subdivision codes require that streets, alleys, sidewalks, and pathways be constructed in accordance with City Standard Construction and Specification Drawings.

As part of the proposed update to the subdivision code, the Planning and Zoning Commission has been working on subdivision concepts that allow alternatives to conventional subdivision development. The two concepts that have been discussed have been the traditional subdivision and the conservation subdivision options. The traditional subdivision development option would encourage a traditional neighborhood development pattern which is characterized by smaller lot sizes, a mixture of housing types, neighborhood open space, and a gridded street system with alleys that is pedestrian oriented. The conservation subdivision development option would allow and encourage subdivision development at a higher density, while preserving sensitive areas such as floodplains, steep slopes, wetlands, critical habitat, natural areas, as well as general open space. It is contemplated that both of these new subdivision concepts should utilize local streets where the width is less than the typical suburban residential street standard.

During the formation of the alternate subdivision concepts, the Planning and Zoning Commission discussed the need to review the City's Standard Construction and

Specification Drawings to determine whether there is an existing street standard that could be applied in the development of subdivisions utilizing the two alternative options. In my review of the existing street standards, it appears that the Alternate Local Street (28' Street) standard would be the most appropriate to be utilized for traditional and conservation subdivision development. However, the use of this street standard is currently limited to cul-de-sacs and one to two block unextendible streets. In order to implement the alternative subdivision concepts that are being proposed, I would recommend removing the current limitations on the use of the Alternate Local Street (28' Street) standard.

TRANSPORTATION COMMISSION



Phil Cook
Commission Chair

~Meeting Minutes~
October 8, 2020

Bill Belknap
Staff Liaison

trans@ci.moscow.id.us

208.883.7011

<https://www.ci.moscow.id.us/556/Transportation-Commission>

Cook called the meeting to order at 4:00 PM

MEMBERS PRESENT: Phil Cook (virtual), Chair; Erin Bacon (virtual), Randy Baukol (virtual), Mary DuPree (virtual), Mike McGahan, Joel Hamilton (virtual), Bob Sanders (virtual)

MEMBERS ABSENT: Ben Calabretta, Brian Johnson

EX-OFFICIO MEMBERS: Ben Aiman (virtual)

STAFF IN ATTENDANCE: Bill Belknap, Jennifer Fleischman, Brandy Sullivan (virtual)

1. Approval of Minutes from September 10, 2020

Hamilton moved for approval of the minutes as proposed, seconded by Baukol. Vote by Acclamation: Ayes: Five (5). Nays: None. Abstentions: Two (DuPree and McGahan). Motion carried.

2. Public Comment

None.

3. Commission Communications

McGahan asked Staff about the progress with the left-turn signal on D St and Jackson. The materials list is being reviewed but almost ready to purchase the needed supplies and will be sharing the costs with ITD. Late fall or early winter will be the earliest that it can be installed.

There were introductions made by Baukol and Bacon to the members that were absent at the last meeting and vice versa.

Belknap reported on the A Street project updates, informing the Board that paving has begun and is to be completed by the current week. Sidewalks and other clean up tasks will be finished by the end of October.

4. Election of Officers

Following the resignation of the Chair and Vice Chair, the Commission will need to elect members to those positions for the remainder of the 2020 calendar year.

Michael Kyte and Don Meyer, prior Chair and Vice Chair respectively, both resigned earlier in the year and the Commission needed to elect new Officers. Cook asked for nominations to Chair and Vice Chair the remaining 2020 meetings.

Hamilton nominated Phil Cook as Chair, seconded by Bacon. Vote by Acclamation: Ayes: Seven (7). Nays: None. Abstentions: None. Motion carried.

Cook nominated Mary Dupree as Vice Chair, seconded by Hamilton. Vote by Acclamation: Ayes: Seven (7). Nays: None. Abstentions: None. Motion carried.

5. Review of the Draft Transportation Commission Code Amendment

At the Commission's March 12, 2020 meeting, the Commission discussed possible modifications to Moscow City Code pertaining to Commission membership and ex-officio representatives. Staff has prepared a proposed code amendment that incorporates the recommended changes for the Commission's review and discussion.

Belknap reviewed the item as written above, focusing on the Organization, Member Obligation and Responsibilities, and Ex-Officio Membership sections. Commissioners agreed that the draft looked acceptable and were supportive of making the proposed changes. Bacon wanted to be sure more of an effort was made to notify all ex-officio members that they are on the Commission. Belknap reminded the Board that the ITD ex-officio member has been historically present, as well as the Local Transit Provider ex-officio member. DuPree moved to advance the Moscow City Code Title 3 Chapter 11 proposed changes to City Council, with the recommendation for adoption, with Hamilton seconding. Vote by Acclamation: Ayes: Seven (7). Nays: None. Abstentions: None. Motion carried.

6. Street Standard Review

During the most recent update to the City Standard Construction Drawings containing the adopted street standards for the construction and development of new public and private streets within the City, the use of a 28-foot residential street standard was limited to use in cul-de-sacs and one- to two-block unextendable streets. The Planning and Zoning Commission is currently working on the development of new subdivision standards which include clustered and traditional development options to provide greater flexibility, allowing compact and innovative developments that would likely benefit from the 28-foot street standard. Narrower streets reduce current and future maintenance and replacement costs, provide traffic calming in residential areas, and facilitate the development of more cohesive neighborhoods. The Commission reviewed this item on March 12th and wished to continue the discussion to a future meeting.

Belknap the Street Standards as presented above and mentioned that Planning & Zoning is working on the development of new standards in regards to subdivisions. It has been requested that the Transportation Commission consider the wider allowance of the 28-foot street standard currently present within the adopted standards. He displayed several images outlining the difference between a 28ft street standard versus a 36ft street standard. The savings to the City budget would be approx. \$500,000 per mile of roadway over the next 50 years. Some of the benefits of the narrower standard include traffic calming, expedited snow removal operations, and an increase in housing affordability because of the decrease in roadway expenditures.

Hamilton agrees with this proposed standard, but is concerned about the future of some streets that may become major thoroughfares and how that would affect parking. Belknap responded that this standard would only be used for local residential streets and not collector or arterial roadways.

Sullivan asked if the 28ft standard has the ability to accommodate a bike lane as well as wondering if parking will become an issue down the road with new developments. Belknap said that local residential streets do not require bike lanes. Bike lanes are generally reserved for collector or arterial roadways where roadway volumes exceed 3,000 cars per day and have higher speed limits. He also let the Commission know that on-street parking is there for extra parking for guests and not intended as primary parking for the street residents.

Bacon motioned to approve the recommendations as written for the new Streets Standards, and Dupree seconded. Vote by Acclamation: Ayes: Seven (7). Nays: None. Abstentions: None. Motion carried.

7. Reports

Belknap gave a Development Report:

- New Target store plans, location, and building site drawings
- Gateway Project building site plans and location
- SEL property acquisition
- ITD Hwy 95-S updates
- EMSI timeline discussion
- South Couplet expansion plan

Upcoming Meetings

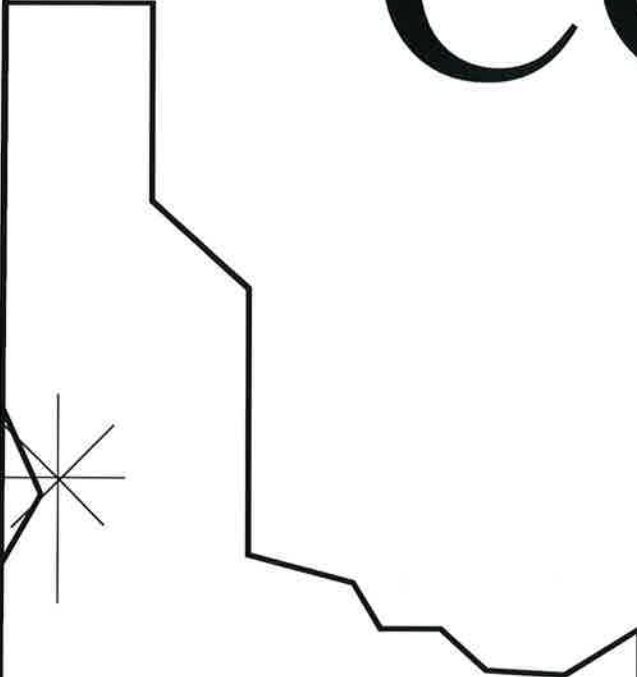
The next scheduled meeting is November 12, 2020.

The meeting adjourned at 5:20 PM

Phil Cook, Chair

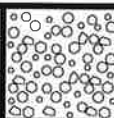


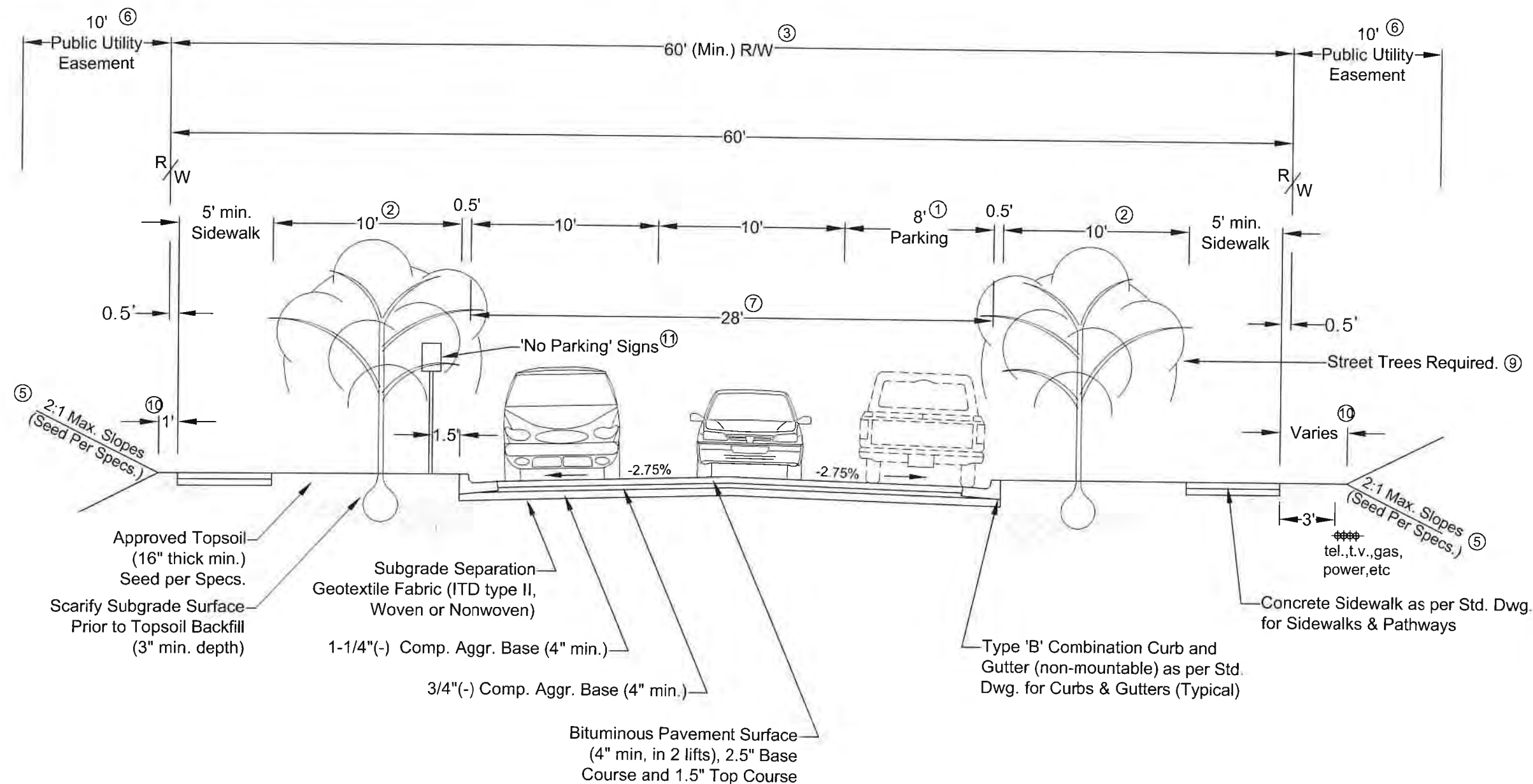
STANDARD CONSTRUCTION DRAWINGS



PUBLIC WORKS
ENGINEERING DEPT.
221 E. SECOND ST.
(208) 883-7034

"CALL BEFORE YOU DIG" 811

STANDARD CONSTRUCTION DRAWINGS TABLE OF CONTENTS									
1a	LOCAL STREET - (28' Street)		18	SUBSURFACE DRAINAGE					
1b	ALTERNATE LOCAL STREET - (36' Street)		19	STREET MONUMENT					
1c	COLLECTOR		20	SURVEY MONUMENT					
1d	COLLECTOR WITH LEFT TURN LANE		21	STORM SEWER MANHOLE					
1e	COLLECTOR PARKING DETAIL		22	SANITARY SEWER MANHOLE					
1f	MINOR ARTERIAL		23	SHALLOW SANITARY MANHOLE					
1g	MINOR ARTERIAL WITH LEFT TURN LANE		24	STORM & SANITARY MANHOLE RING & COVER					
1h	LARGE LOT SUBDIVISION STREET		25	MANHOLE BASE DETAILS					
2	ALLEY STANDARD		26	CATCH BASIN & CATCH INLET					
3	PRIVATE STREETS		27a	CURB & GUTTER PAN					
4	CUL-DE-SAC DETAILS		27b	COMBINATION INLET					
5	TEMPORARY TURNAROUND		27c	CATCH BASIN & INLET TYPE 'A' GRATE					
6	CURBS & GUTTERS		27d	CATCH BASIN & INLET TYPE 'B' GRATE (Rolled Curb)					
7	SIDEWALKS & PATHWAYS		28	SANITARY & STORM SEWER SERVICE CONNECTIONS					
8	PEDESTRIAN RAMPS		29	WATER SERVICE CONNECTIONS					
9	DRIVEWAY APPROACHES		30	FIRE HYDRANT ASSEMBLY					
10	CEMENT CONCRETE PAVEMENT		31	WATER MAIN THRUST BLOCKING					
11	PARKING LOT STANDARDS		32	WATER MAIN CREEK CROSSING					
12	DRIVEWAY GRADE LIMITATIONS		33a	BACKFILL - CLASS A & B					
13	UTILITY & MAILBOX LOCATIONS		33b	BACKFILL - CLASS C & D					
14	FRANCHISE UTILITY DETAILS		33c	BACKFILL - CLASS E & F					
15	RESIDENTIAL STREET LIGHTING		34	STREET / ALLEY CUT REPAIR					
16	END OF ROAD MARKERS & DEAD END SIGNS		35	SILT FENCE					
17	INTERSECTION SIGHT TRIANGLE		36	CONSTRUCTION ENTRANCE AND INLET PROTECTION					
A.S.T.M.	AMERICAN SOCIETY FOR TESTING & MATERIALS		JT.	JOINT			AGGREGATE		METAL
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS		MECH.	MECHANICAL			CONCRETE	NOTE: ② CIRCLED NUMBERS HEREIN THESE STANDARDS INDICATE A NOTE REFERENCE	
A.D.A.	AMERICAN DISABILITIES ACT		M.J.	MECHANICAL JOINT					
AGGR.	AGGREGATE		MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES					
C.I.	CAST IRON		O/C	ON CENTER			EARTH		
CL.	CLASS		OSHA	OCCUPATIONAL AND SAFETY HAZARD ASSOCIATION					
CMP	CORRUGATED METAL PIPE		R	RADIUS					
COMP.	COMPACTED or COMPACTION		R/W	RIGHT-OF-WAY			PAVEMENT		
CONC.	CONCRETE		SPEC.	SPECIFICATION					
D.I.	DUCTILE IRON		STA.	STATION					
DIA.	DIAMETER		SL.	SLOPE					
I.D.	INSIDE DIAMETER		THK.	THICK					
FLG.	FLANGE		TYP.	TYPICAL					
G.V.	GATE VALVE		WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION					



Notes:

- This street section should be used as the minimum standard for all streets not classified as Collector or Arterial, or under conditions in which the Standard Drawing for Alternate Local Street (36' Street) is not used. Engineering plans for subdivisions must specify on which side of street parking will be allowed.
- The ten foot (10') wide green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.
- Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way shall be required as necessary to accommodate topography, utilities, or other needs as determined by the City Engineer.
- Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
- Seed all roadside backfill and excavations as per Standard Specifications.
- Wider platted rights-of-way allow narrower easements, proportionately. Additional easement may be required as necessary.
- Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
- Subgrade underdrain systems are required in inherently "wet" areas, as specified by the Engineer, see Standard Drawing for Subsurface Drainage.
- Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
- This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
- All signs to be furnished and installed by 'Developer.' Signs and installation to be in accordance with MUTCD.

REVISIONS	
DATE	DESCRIPTION
2-4-2021	Switched sheets 1a and 1b

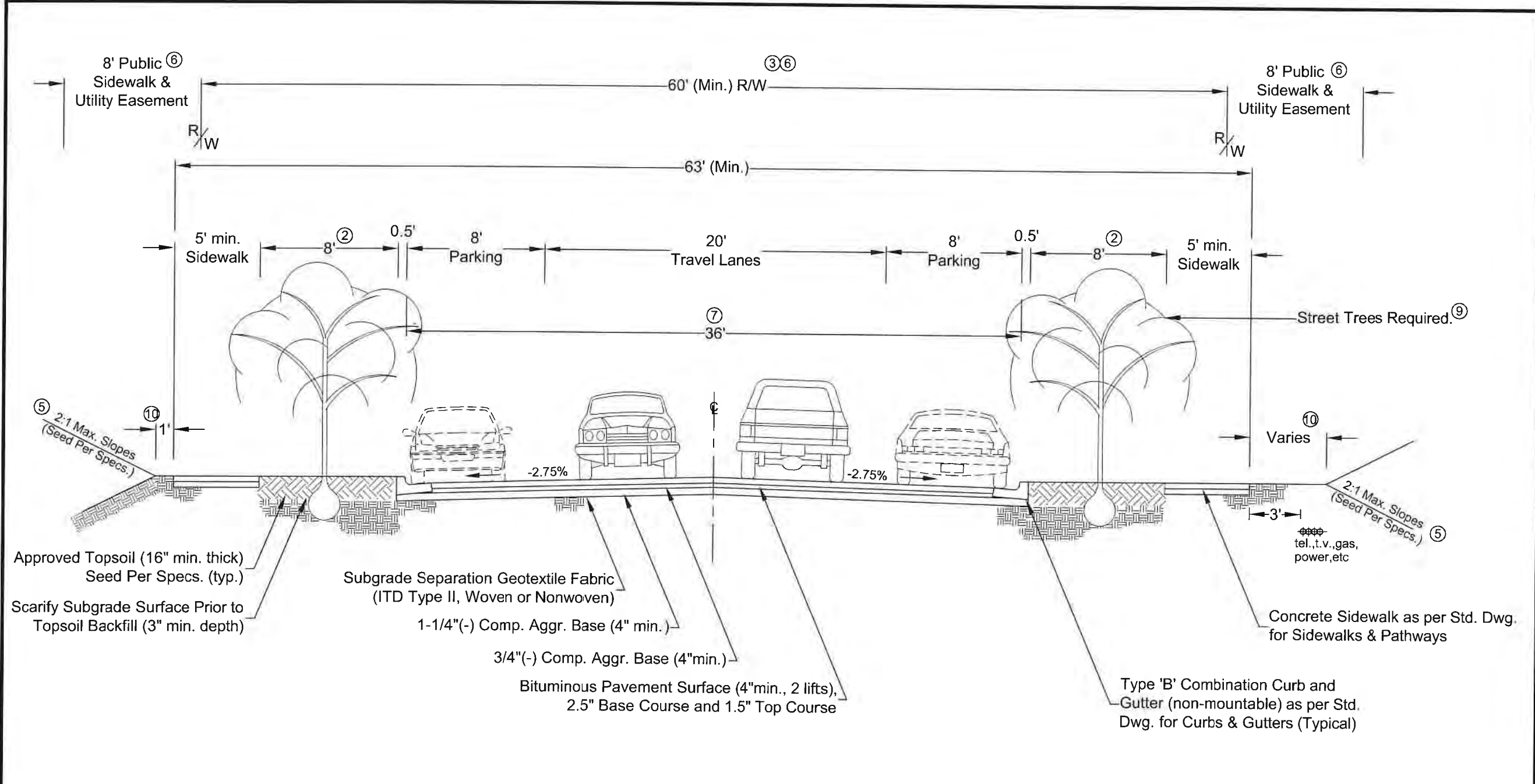


DRAFTED BY: C. Edwards	CHECKED BY: K. Lilly	DRAWING SCALE: NTS	DATE: 3-31-2014
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Local Street
(28' Street)

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
1a



Notes:

1. This alternate street section can be used for all streets not classified as Collector or Arterial.

2. The eight foot (8') wide green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.

3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way shall be required as necessary to accommodate topography, utilities, or other needs as determined by the City Engineer.

4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.

5. Seed all roadside backfill and excavations as per Standard Specifications.

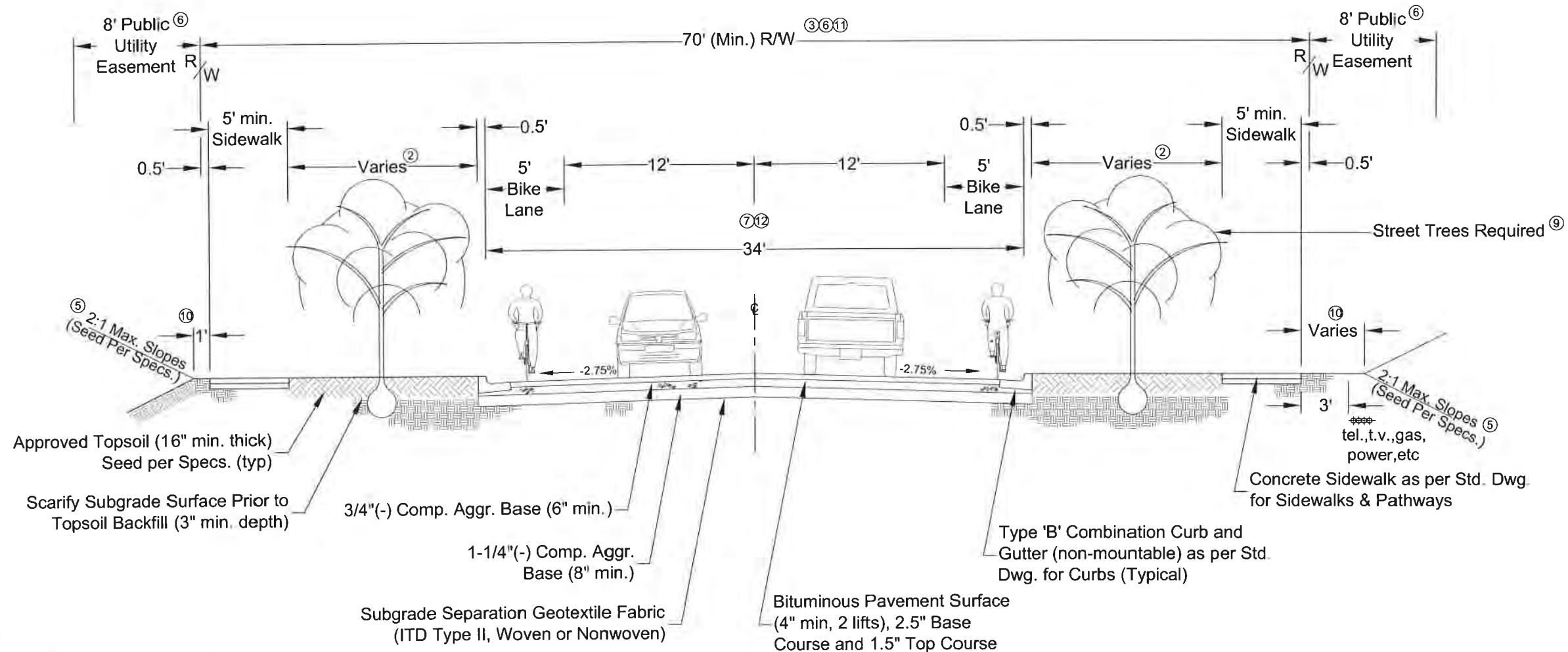
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easements may be required as necessary.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.

8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the City Engineer, see Standard Drawing for Subsurface Drainage.

9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.

10. This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).

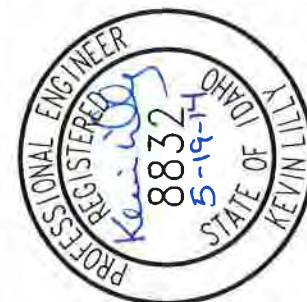
REVISIONS	
DESCRIPTION	DATE
Switched sheets 1a and 1b	2-4-2021
PROFESSIONAL ENGINEER LICENSED 14816 3-2-21 STATE OF IOWA BRIAN SCOTT BONTRAGER	
DRAFTED BY: C. Edwards	CHECKED BY: K. Lilly
DRAWING SCALE: NTS	DATE: 3-31-2014
Alternate Local Street (36' Street)	
CITY OF MOSCOW ENGINEERING DEPARTMENT	
DRAWING NUMBER: 1b	



Notes:

1. This street section shall be used as a minimum standard for Collector class streets in all zones or for other high volume Collector streets where on-street parking is not considered essential and future travel lanes are not anticipated.
2. The green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.
3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way width shall be required as necessary to accommodate topography, utilities, turn lanes, roundabouts, signalized intersections, or other needs as determined by the City Engineer. Additional right-of-way required for transit stops at Minor Arterial and Collector intersections or every thousand feet (1000').
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Seed all roadside backfill and excavations as per Standard Specifications.
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easements may be required as necessary.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the City Engineer, see Standard Drawing for Subsurface Drainage.
9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
10. This dimension shall be four feet (4') where standard franchise utility pedestals (no transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
11. On-street parking (9' width for Residential and 10' width for Collector/Industrial) is optional in this road standard. If included on one or both sides, then additional right-of-way shall be required (see Standard Drawing for Collector Parking Detail).
12. A center median is an option in this road standard. Minimum planter width shall be seven feet (7') with curbs on each side. Travel lanes adjacent to median shall be increased two feet (2') in width. Additional ROW shall be required to accommodate the median, curbs, and additional lane widths.
13. Collector streets in Commercial and Industrial zones shall be subject to access control.

REVISIONS	DESCRIPTION
	DATE



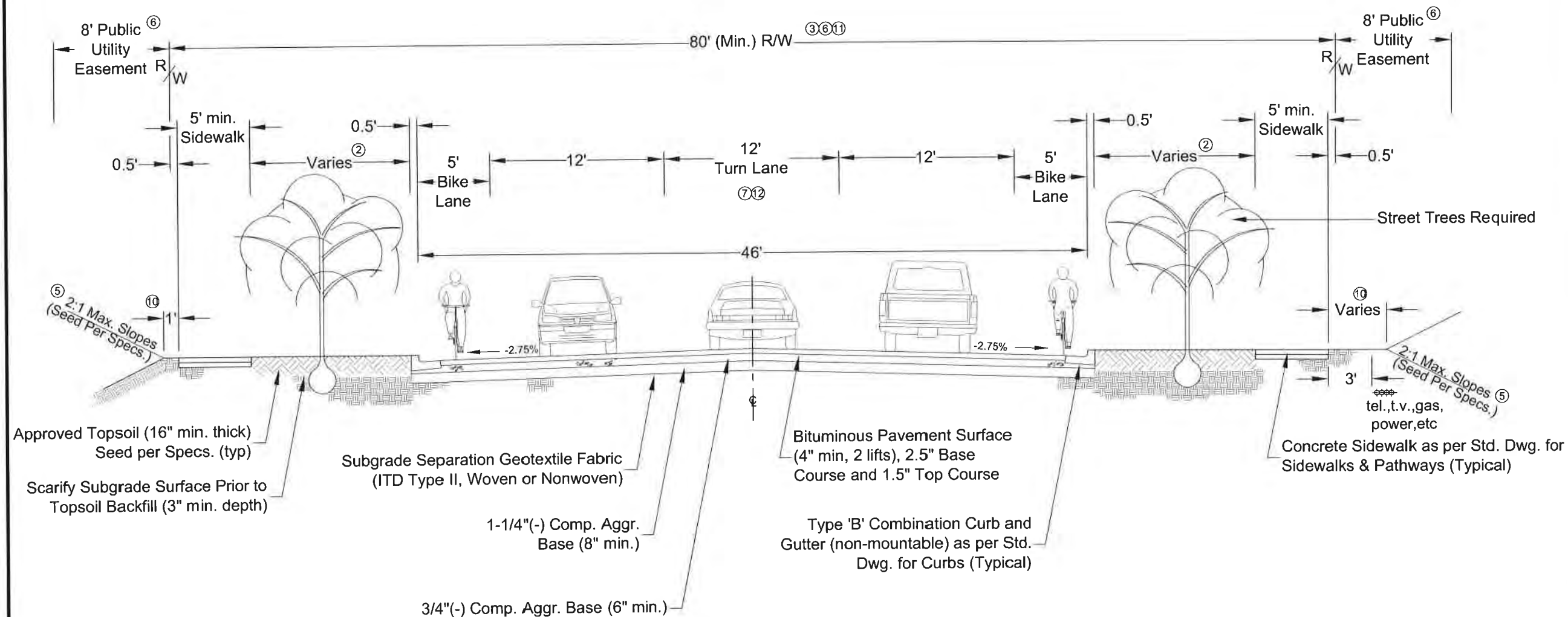
DRAFTED BY: C. Edwards	CHECKED BY: K. Lilly	DRAWING SCALE: NTS	DATE: 3-31-2014
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Collector

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:

1c



Notes:

1. This street section shall be used as a minimum standard for collector class streets in all zones or for other high volume Collector streets where on-street parking is not considered essential and future travel lanes are not anticipated.
2. The green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.
3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way width shall be required as necessary to accommodate topography, utilities, turn lanes, roundabouts, signalized intersections, or other needs as determined by the City Engineer. Additional right-of-way required for transit stomps at Minor Arterial and Collector intersections or every thousand feet (1000').
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Seed all roadside backfill and excavations as per Standard Specifications.
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easements may be required as necessary.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the City Engineer, see Standard Drawing for Subsurface Drainage.
9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
10. This dimension shall be four feet (4') where standard franchise utility pedestals (no transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
11. On-street parking (9' width for Residential and 10' width for Collector/Industrial) is optional in this road standard. If included on one or both sides, then additional right-of-way shall be required (see Standard Drawing for Collector Parking Detail).
12. A center median is an option in this road standard. Minimum planter width shall be seven feet (7') with curbs on each side. Travel lanes adjacent to median shall be increased two feet (2') in width. Additional right-of-way shall be required to accommodate the median, curbs, and additional lane widths.
13. Collector streets in Commercial and Industrial zones shall be subject to access control.

REVISIONS

DESCRIPTION

DATE



DRAFTED BY:
C. Edwards

CHECKED BY:
K. Lilly

DRAWING SCALE:
NTS

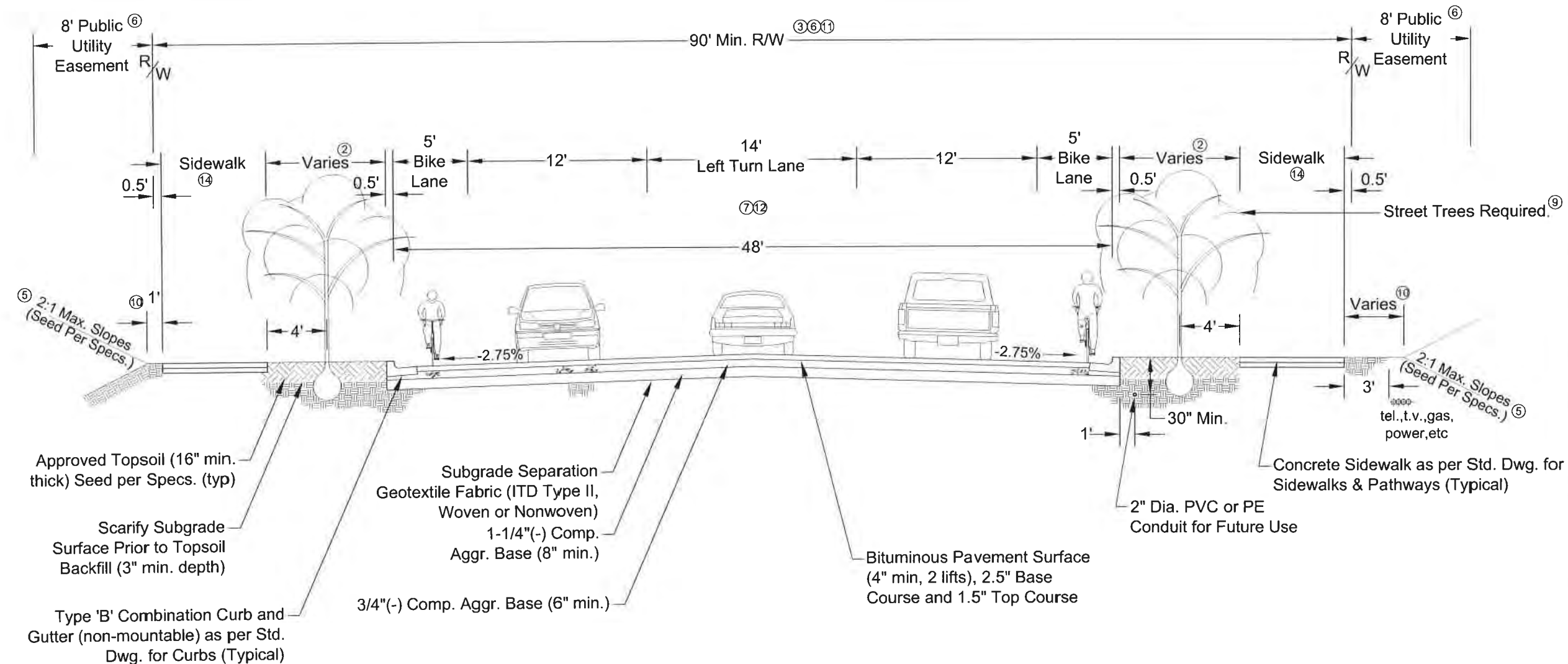
DATE:
3-31-2014

Collector
With Left Turn Lane

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:

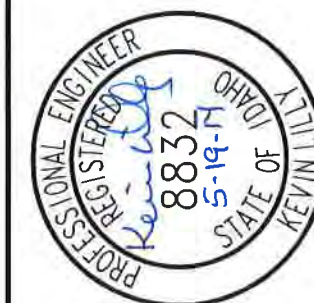
1d



Notes:

- This street section shall be used as a minimum standard for Minor Arterial class streets in all zones.
- The green strip may be narrowed to a minimum width of eight feet (8') to accommodate bus pull-outs, additional lanes, and other needs, as approved by City Engineer.
- Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way width shall be required as necessary to accommodate topography, utilities, turn lanes, roundabouts, signalized intersections, or other needs as determined by the City Engineer. Additional right-of-way required for transit stops at Minor Arterial and Collector intersections or every thousand feet (1000').
- Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
- Seed all roadside backfill and excavation as per Standard Specifications.
- Wider platted rights-of-way allow narrower easements, proportionately. Additional easements may be required.
- Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
- Subgrade underdrain systems are required in inherently "wet" areas, as specified by the City Engineer, see Standard Drawing for Subsurface Drainage.
- Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
- This dimension shall be four feet (4') where standard franchise utility pedestals (no transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
- On-street parking (9' width for Residential and 10' width for Collect/industrial) is optional in this road standard. If included on one or both sides, additional right-of-way shall be required.
- A center curbed median is an option in this road standard. Minimum median planter width shall be ten feet (10') for Residential and eleven feet (11') for Commercial/Industrial with curbs on each side. Travel lanes adjacent to median shall be increased two feet (2') in width. Additional right-of-way shall be required to accommodate the median, curbs, and additional lane widths.
- Minor Arterial streets shall be subject to access control. No residential driveways shall be permitted.
- Minimum sidewalk widths shall be six feet (6') in Residential zones and eight feet (8') in Commercial and Industrial zones. Back of sidewalk to be at the right-of-way line.

REVISIONS	DESCRIPTION	
	DATE	

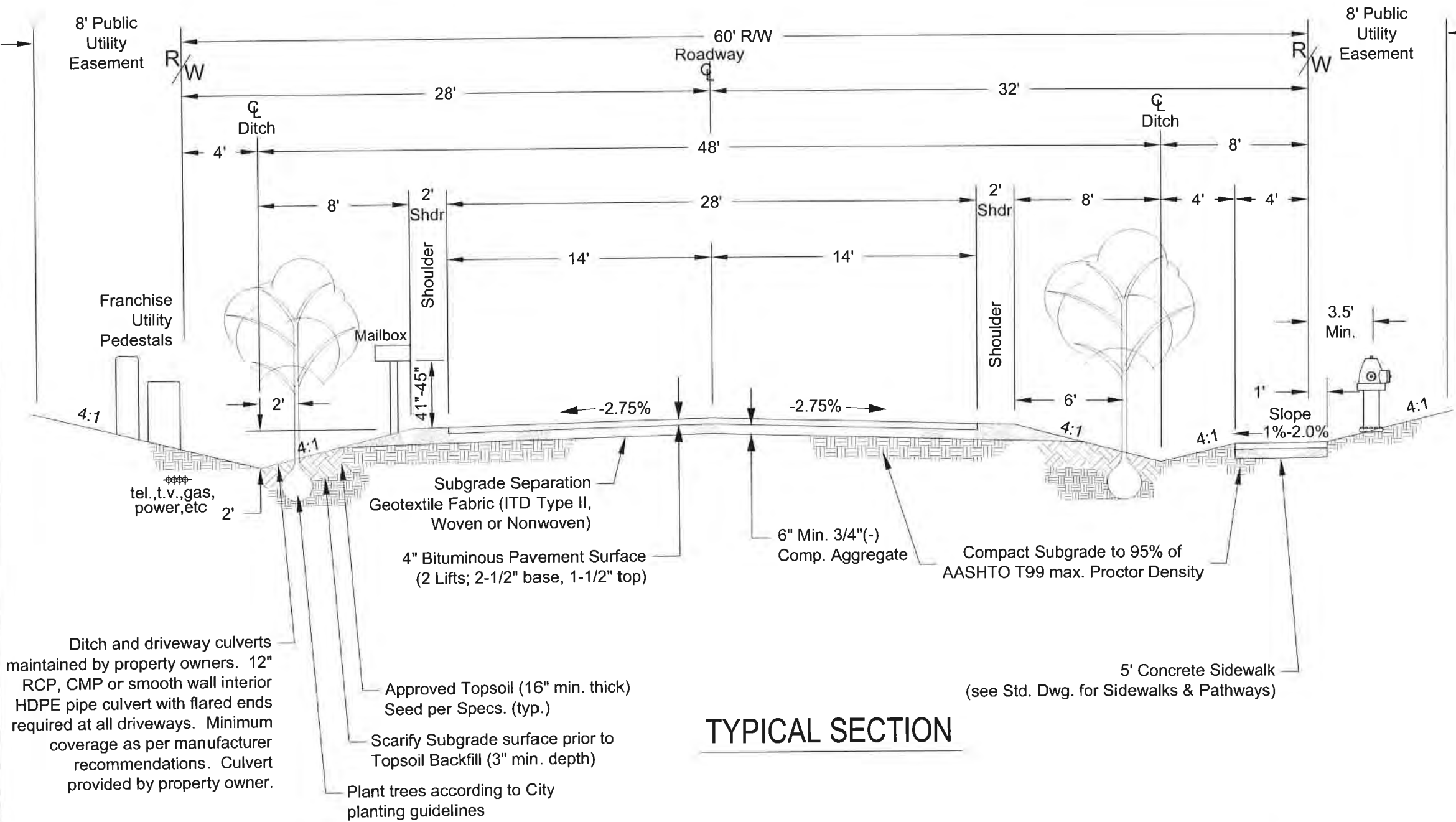


DRAFTED BY: C. Edwards	CHECKED BY: K. Lilly	DRAWING SCALE: NTS	DATE: 3-31-2014
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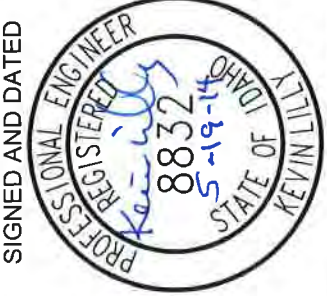
Minor Arterial With Left Turn Lane		CITY OF MOSCOW
		ENGINEERING DEPARTMENT
DRAWING NUMBER: 1g		

NOTES:

1. No parking allowed on either side of street.
2. Use of this street standard shall be limited to areas with low potential for "pass through" traffic and shall not conflict with or hinder the public street system configuration and logical extensions.



REVISIONS	DESCRIPTION
DATE	



DRAFTED BY: K. Kipp / C. Edwards	CHECKED BY: K. Lilly	DRAWING SCALE: NTS	DATE: 2-26-2014
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**LARGE LOT SUBDIVISION
STREET STANDARD**

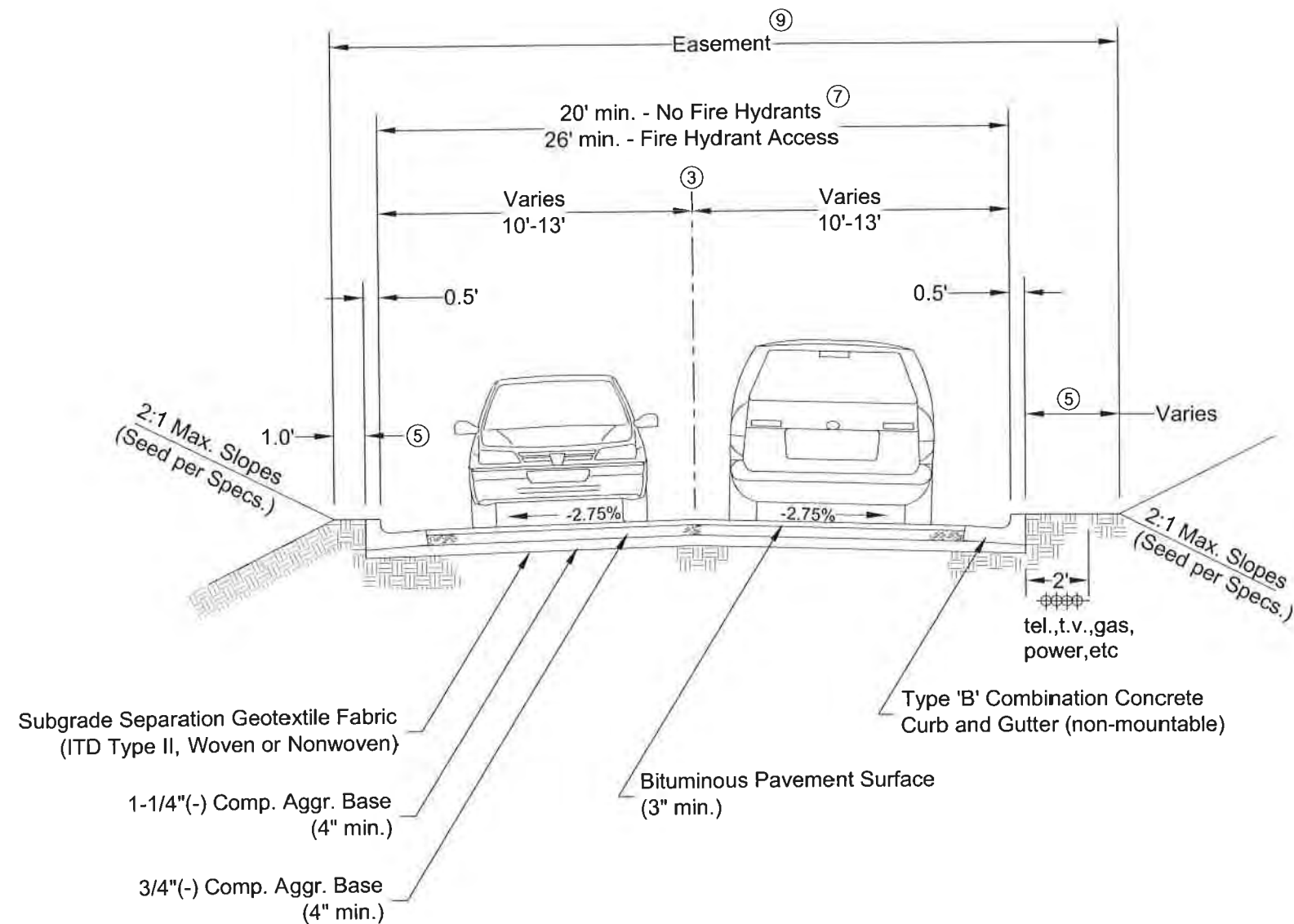
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
1h

1. No parking allowed on either side of alley.
2. "No Parking in Alley" signage to be installed by developer in accordance with MUTCD and City Specifications if required by City Engineer.
3. Drainage system required as approved by the City Engineer.
4. Geotechnical Engineering assessment of soil conditions may be required by City Engineer to determine if additional asphalt pavement and aggregate base depth will be required.
5. Truncated domes are required at sidewalk crossings of public alleys.



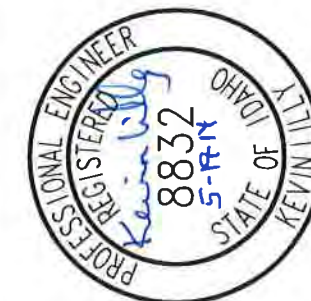
PUBLIC ALLEY CITY OF MOSCOW ENGINEERING DEPARTMENT	DRAFTED BY: C. Edwards	SIGNED AND DATED 	REVISIONS	
	CHECKED BY: K. Lilly		DATE	DESCRIPTION
	DRAWING SCALE: NTS			
	DATE: 3-5-2014			
DRAWING NUMBER: 2				



NOTES:

1. Compact all subgrade and aggregate base to 95% of AASHTO T99 max. proctor density.
2. Seed all roadside backfill and excavations as per specifications.
3. Maximum centerline profile grade equals 10.0% or as approved by the City Engineer. Additional easements may be required as necessary.
4. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the Engineer.
5. This dimension shall be four feet (4') where standard franchise utility pedestals (no transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
6. Sidewalks, vehicular cuts/cuts/approaches, and pedestrian drops shall comply with City Standards where required and installed.
7. Designated fire lanes shall be signed for no parking and curbs (if present) shall be painted yellow. Additional width may be required for Fire Department access.
8. Gates shall not be permitted.
9. Public utility and franchise utility easements shall be provided per City Standards for utilities within the roadway area.
10. Private streets shall be limited in use to Planned Unit Developments (PUD) and shall not conflict with or hinder the public street system configuration and logical extensions. Private streets shall not promote "pass through" traffic between public streets.
11. Sidewalks or other pedestrian pathways shall be installed if required by the PUD process and shall be a minimum of five feet (5') in width.
12. City shall not provide any maintenance, repair, or snow removal on private streets.
13. A street light shall be installed at each intersection of a private street with a public street per the Residential Street Lighting Standard Drawing.
14. Vertical and horizontal alignment of private streets shall meet the requirements for Fire Department access as per the International Fire Code.

REVISIONS	
DATE	DESCRIPTION



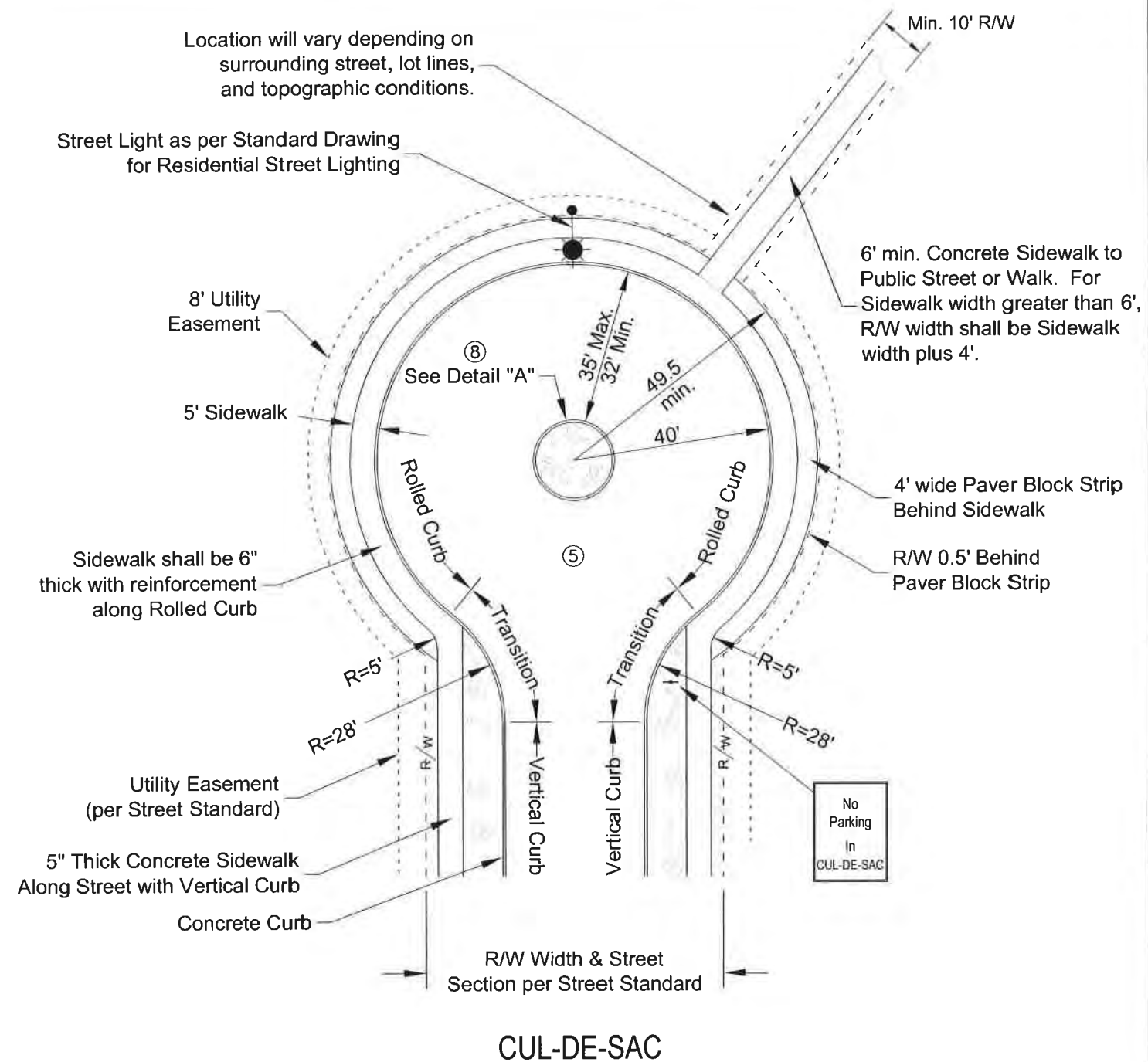
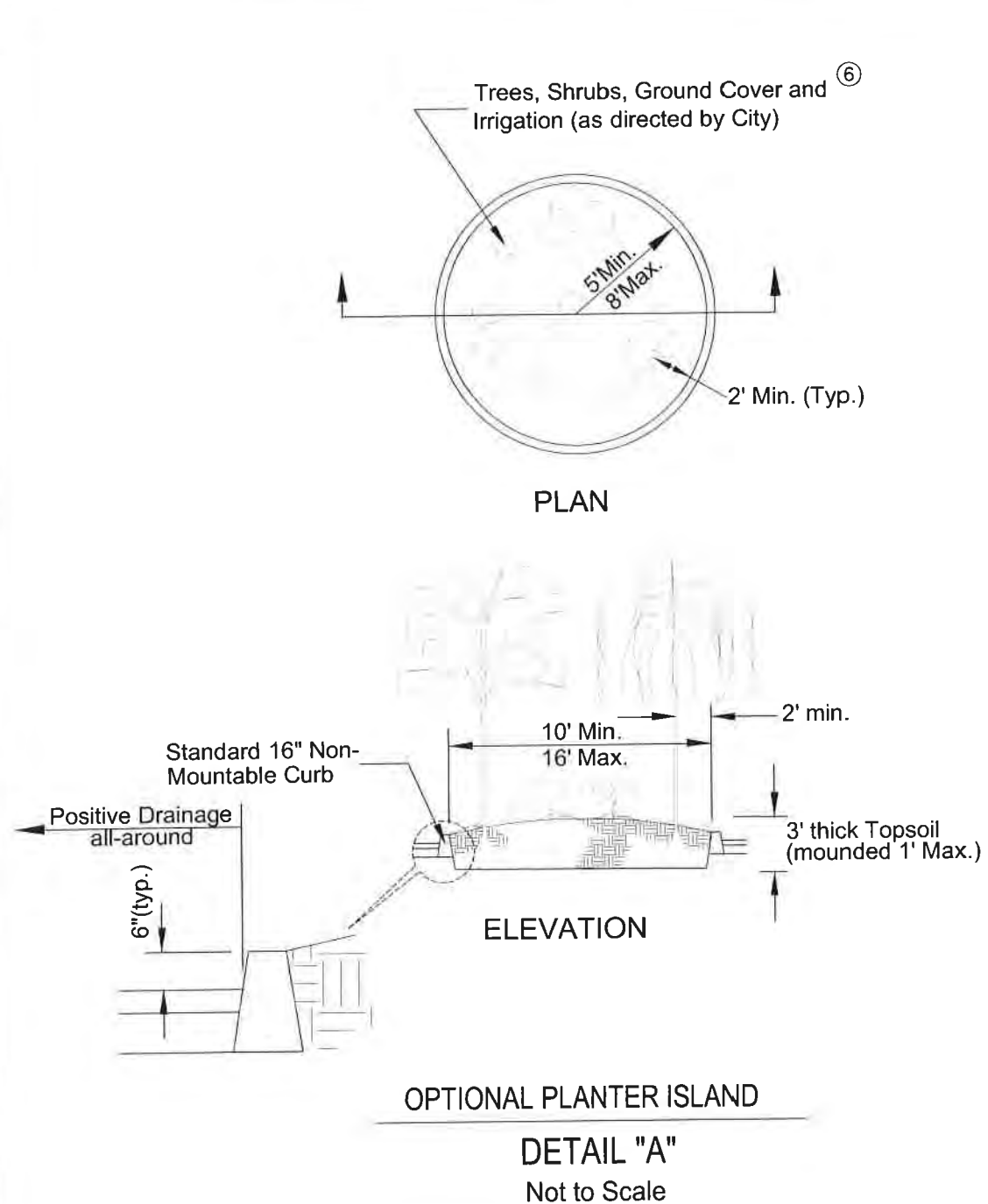
DRAFTED BY: C. Edwards	CHECKED BY: K. Lilly	DRAWING SCALE: NTS	DATE: 2-26-2014
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PRIVATE STREETS

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:

3



NOTES:

1. Use of cul-de-sac and 'dead end' streets shall be limited to promote street connectivity and emergency vehicle access. Cul-de-sacs shall only be allowed when topographic conditions or other factors prohibit reasonable extension of the street.
2. Center cul-de-sacs and turnarounds in platted right-of-way unless otherwise approved by the City Engineer.
3. All signs to be furnished and installed by 'Developer'. Signs and installation to be in accordance with MUTCD and City Specifications.
4. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.

5. All cul-de-sacs to be constructed with a minimum of 1.0% sloping surface to drain.
6. All curb radii dimensions are measured as per the Standard Drawing for Curbs.
7. Seed all cut/fill slopes and green strips per city specifications.
8. Installation of optional Planter Island as per approval by the City Engineer.
9. 'Not A Through Street' sign required at the entrance of cul-de-sac streets.
10. No utility poles, lights standards, mailboxes, fire hydrants, or other vertical features allowed in sidewalk or paver block strip within cul-de-sac.
11. Geotechnical Engineering assessment of soil conditions may be required by City Engineer to determine if additional asphalt pavement and aggregate base depth will be required.

REVISIONS	
DATE	DESCRIPTION

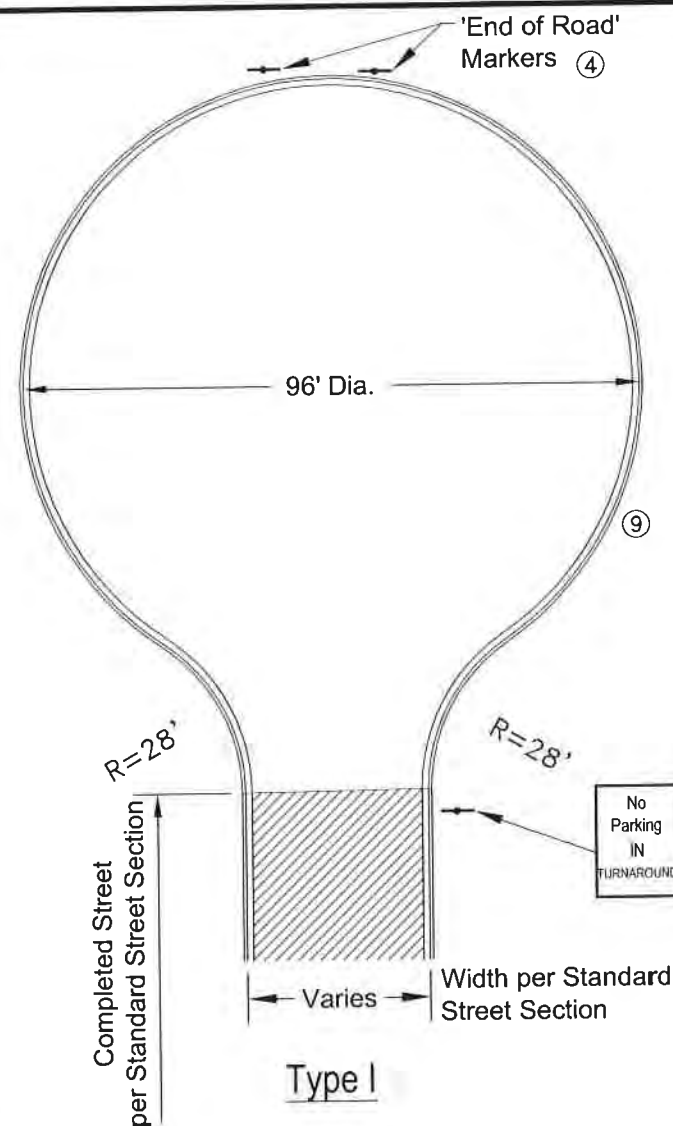
DRAFTED BY: K.Kipp / C.Edwards	CHECKED BY: K.Lilly	DRAWING SCALE: NTS	DATE: 2-26-2014
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CUL-DE-SAC DETAILS

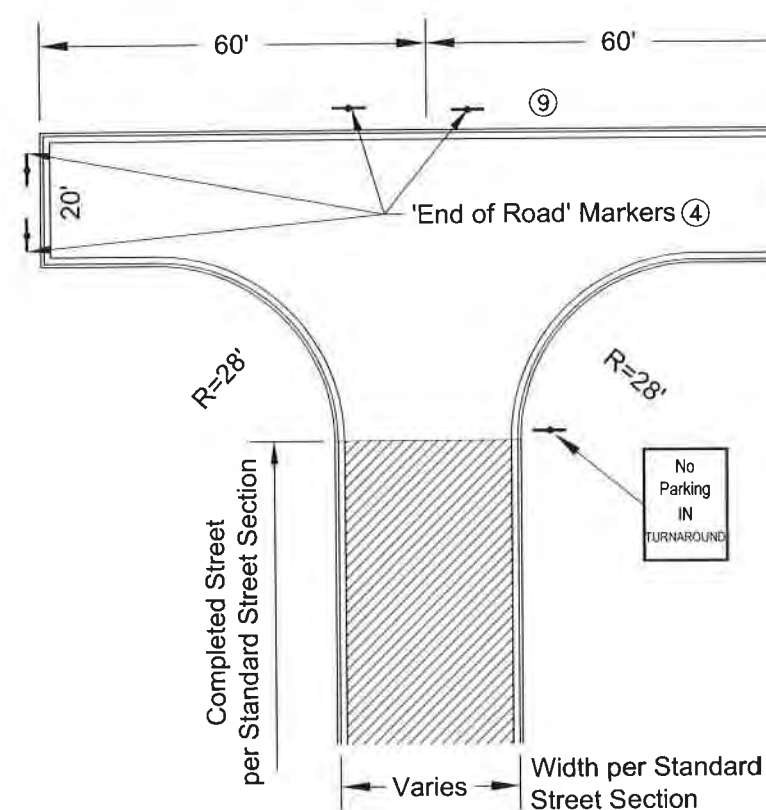
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:

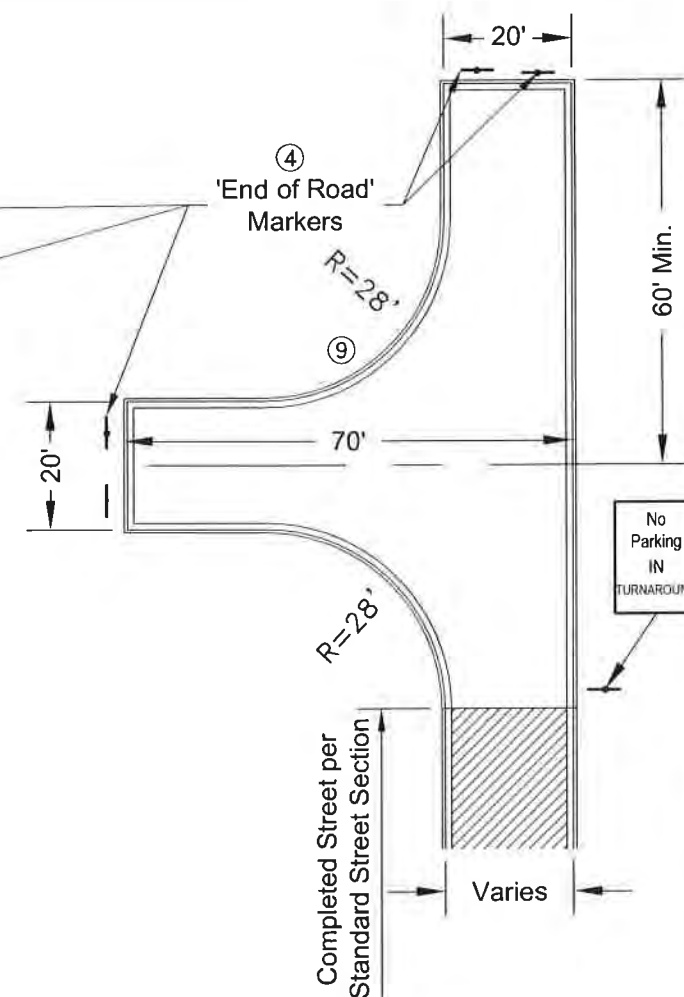
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Type I



Type II

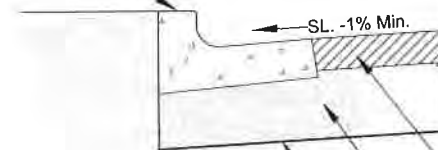


Type III

NOTES:

- Other configurations may be approved by the City Engineer and Fire Marshal; basic dimensional criterion shown herein must be satisfied.
- Temporary easements must be granted for those portions of temporary turnarounds outside of platted public utility easements and rights-of-way.
- Temporary turnarounds may be designed to include driveways; public easement required.
- 'End of Roadway' markers per Standard Drawing for End of Road Marker & Dead End Signs must be placed as shown.
- All signs to be furnished and installed by 'Developer.' Signs and installation to be in accordance with MUTCD and City Specifications.
- One street light required. Locate as per Standard Drawing for Residential Street Lighting.
- Temporary turnarounds with steep embankments exceeding three feet (3') in height must have guardrail or barrier protection; as required and/or approved by the City Engineer.
- Temporary turnarounds shall be designed to provide a minimum drainage slope of 1% to an approved public storm drainage system; including catch basins and piping, as required.
- Curb, Type 'B' required all-around or as approved by the City Engineer.

Type 'B' Curb



Typical Section

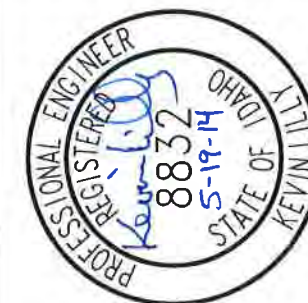
4" Min. Thick Bituminous Pavement Surface in 2 lifts, 2.5" Base Course and 1.5" Top Course

8" of 3/4"(-) Base Aggr. (95% Compaction)

Subgrade Separation Geotextile Fabric (ITD Type II, Woven or Nonwoven)

Compact Subgrade

REVISIONS	DESCRIPTION
DATE	



DRAFTED BY:	C. Edwards
CHECKED BY:	K. Lilly
DRAWING SCALE:	NTS
DATE:	3-5-2014

TEMPORARY
TURNAROUND

CITY OF MOSCOW
ENGINEERING DEPARTMENT

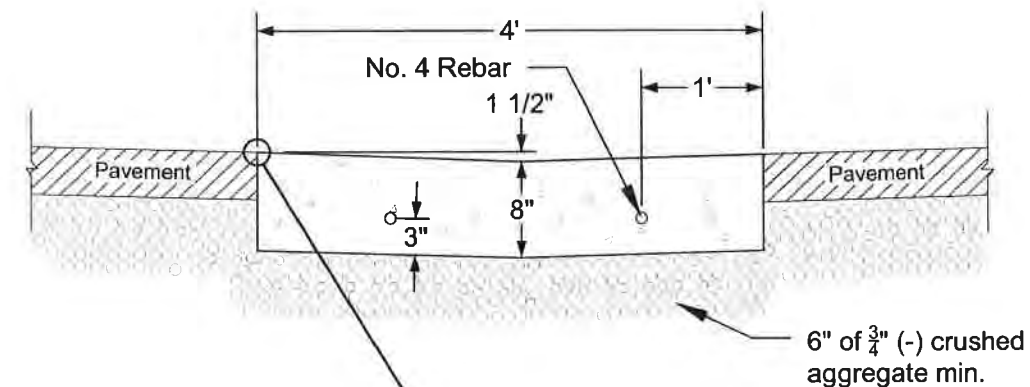
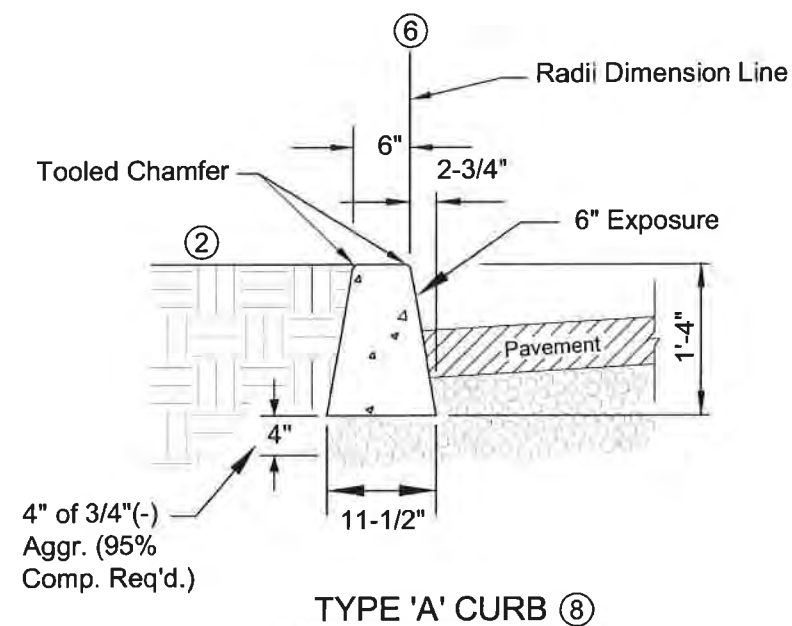
DRAWING NUMBER:

5

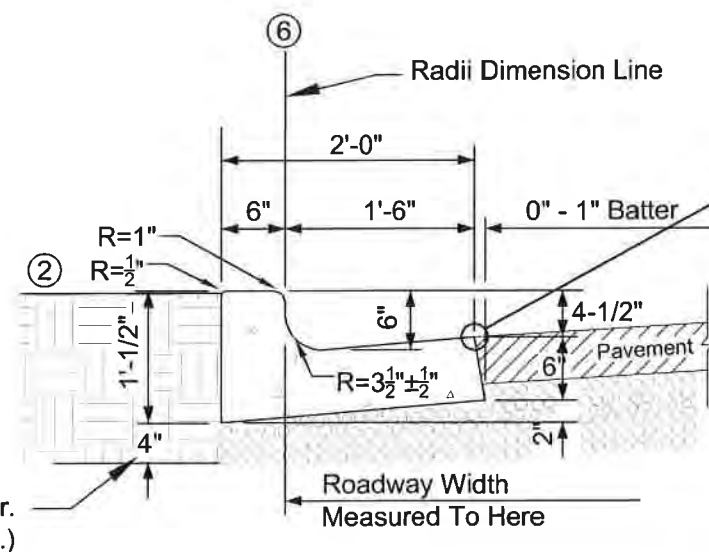
NOTES:

1. Replacement curb and sidewalk may be cast monolithic with prior approval of City Engineer.
2. Sidewalk to back-of-curb slope may not exceed 12:1 without City Engineer's approval.
3. Light broom finish curb parallel with the long axis of curb.
4. Rolled curb prohibited where sidewalk is adjacent to curb, unless specially allowed by the City Engineer. In areas without planter strips, sidewalks adjacent to rolled curb shall be a minimum of six inches (6") thick.
5. All curb roadway planimetric radii dimensions shall be measured to the "Radii Dimension Line" shown in the typical curb section.
6. See table for curb radii requirements. Thirty foot (30') curb radii are required where any City street intersects an Idaho Transportation Department roadway.

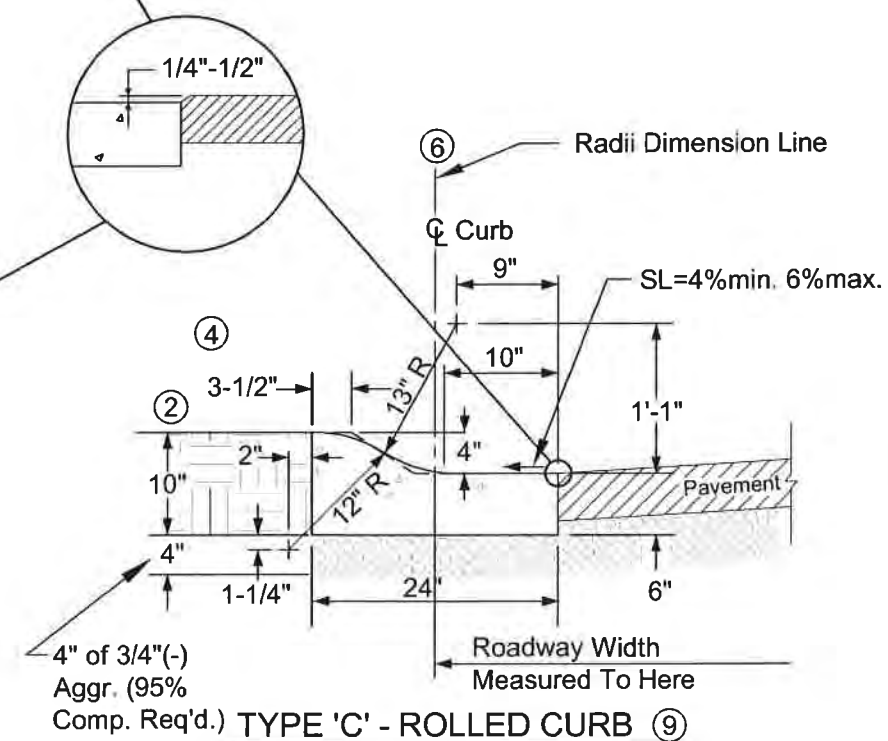
7. 'Shed' section streets require 'spill curb' on the uphill side with gutter matching street cross slope.
8. Type 'A' curb only allowed where extending or replacing existing Type 'A' Curb.
9. Type 'C' curb only allowed in cul-de-sacs and where replacing existing rolled curb.



TYPE 'D' - VALLEY GUTTER



TYPE 'B' - COMBINATION CURB & GUTTER



.) TYPE 'C' - ROLLED CURB ⑨

CURB RADII REQUIREMENTS	
Intersecting Street Classification	Curb Radii Dimension
Local - Local	15'
Local - Collector	15'
Local - Arterial	25'
Collector - Collector	25'
Collector - Arterial	25'
Arterial - Arterial	30'

CURBS & GUTTERS CITY OF MOSCOW ENGINEERING DEPARTMENT	DRAFTED BY: C. Edwards / K. Kipp	 SIGNED AND DATED	REVISIONS	
	CHECKED BY: K. Lilly		DATE	DESCRIPTION
	DRAWING SCALE: NTS			
	DATE: 3-5-2014			
DRAWING NUMBER: 6				

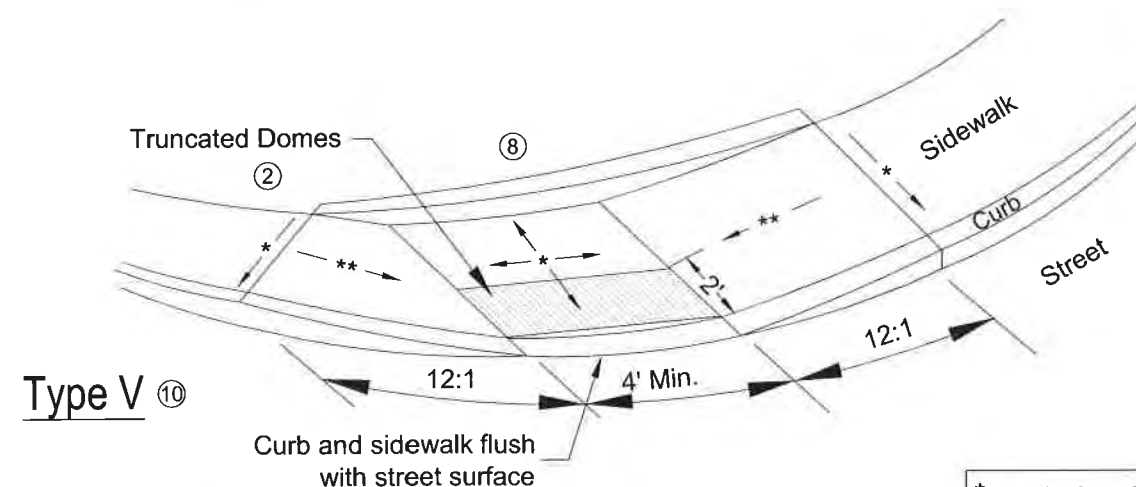
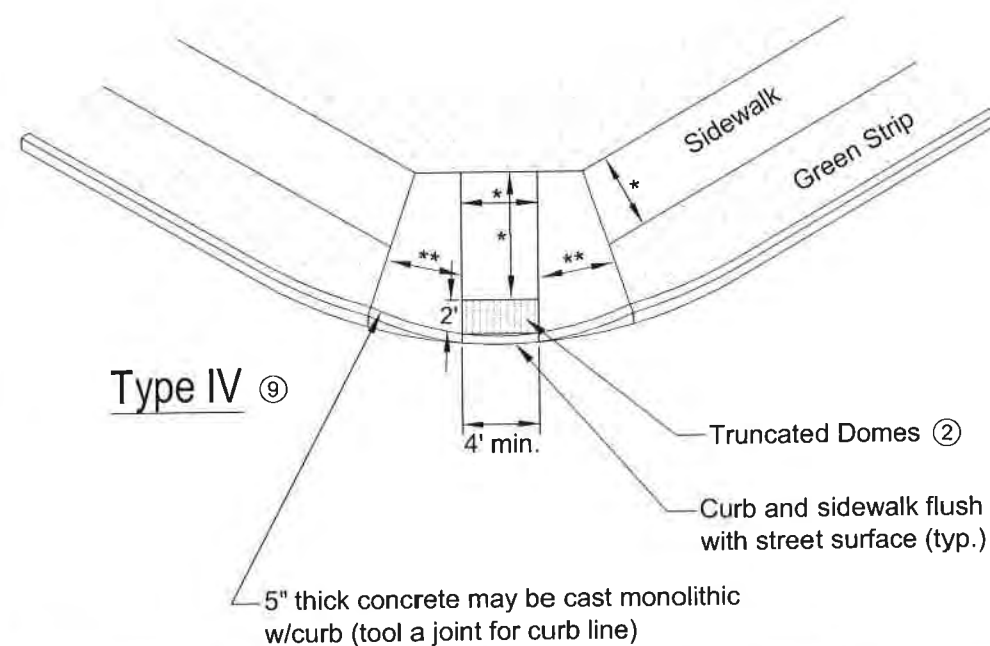
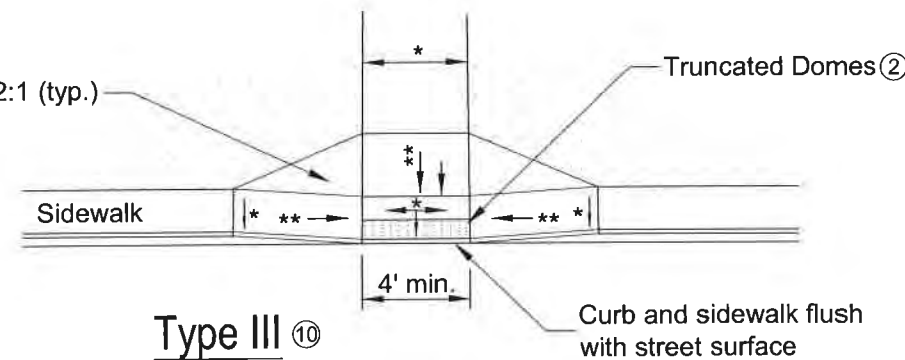
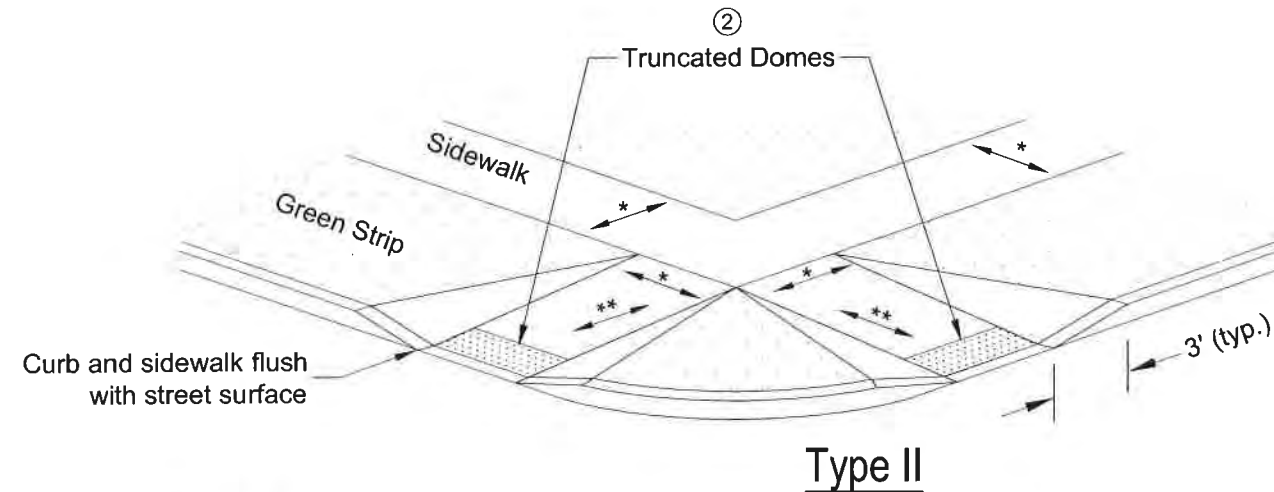
1. Minimum sidewalk widths shall be five feet (5') for local streets. For sidewalk widths for collectors and arterials, see Standard Street Section Drawings. Pathway width shall be ten feet (10') unless otherwise approved by the City Engineer.
2. Maximum cross slope of 2.0%; minimum cross slope of 1% - pathway cross slope may be 'crown' or 'shed'. Maximum sustained longitudinal grade for pathways of 5%. Pathways shall be free of humps, dips, or unnecessary curves.
3. Curb and sidewalk may be cast monolithic for repairs only with prior approval of City Engineer.
4. Slope from sidewalk to back-of-curb may not exceed 12:1 without City Engineer's approval.
5. Green strip required between curb and sidewalk width as specified in Standard Street Section Drawings. In areas of excessive cuts and fills, width may be reduced, as approved by the City Engineer.
6. Sidewalks shall be five inches (5") thick as shown on this drawing - with the following exceptions:
 - a. Sidewalks through driveways shall be six inches (6") thick and constructed per the Std. Dwg. for Driveway Approaches.
 - b. Sidewalks constructed adjacent to rolled curb shall be six inches (6") thick and reinforced as shown on this drawing.
 - c. Reinforcement as directed by City Engineer.
7. Coarse broom finish sidewalk concrete perpendicular to the long axis of sidewalk; light broom finish curb concrete parallel to the long axis of curb.
8. This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
9. Any trees adjacent to or with branches overhanging the pathway shall be kept trimmed such that ten feet (10') of both vertical and horizontal clearance exists between any branches and the pathway. Landscape vegetation cannot overhang sidewalk.
10. If fall protection is required by code, railing should be installed with a minimum height of 42" and a minimum height of 54" for bridges. Railing style must be approved by City Engineer.
11. 'Select' native backfill shall be free of clods, roots, gravel, and other inert material and shall be neatly graded to blend with the path and the adjoining ground. Backfill shall be compacted to 90% within 2' of path edge.
12. Furnish and install drainage culverts as required and as directed by the City Engineer.



SIDEWALKS & PATHWAYS	DRAFTED BY:	C.Edwards		SIGNED AND DATED	REVISIONS	
	CHECKED BY:	K.Lilly			DATE	DESCRIPTION
CITY OF MOSCOW ENGINEERING DEPARTMENT		DRAWING SCALE:	NTS			
		DATE:	3-5-2014			
DRAWING NUMBER: 7						

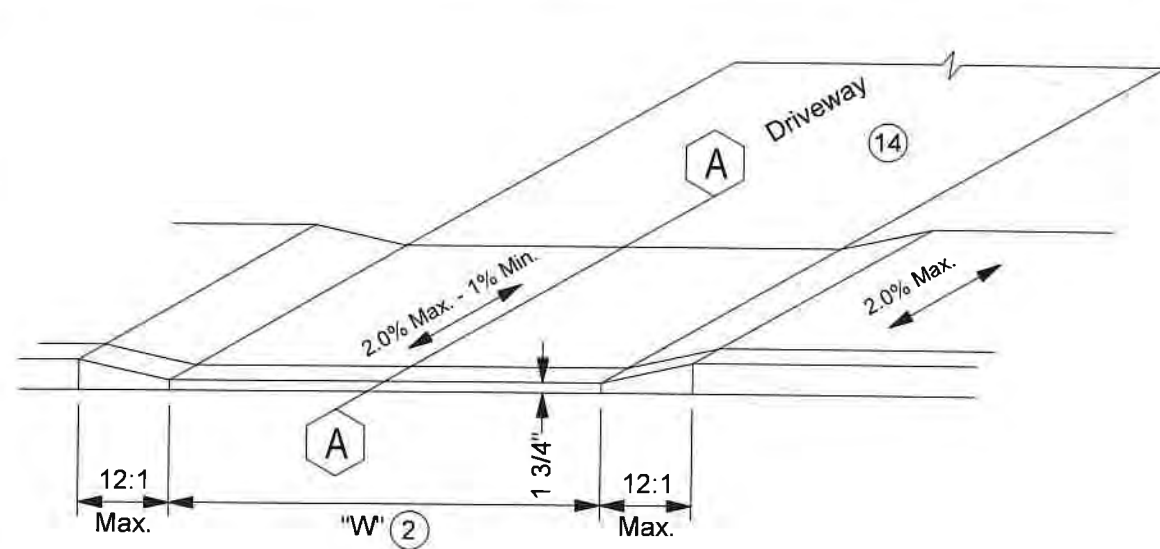
1. Moscow Standard Construction Specifications apply. Pedestrian ramps must comply with current Americans with Disability Act (ADA) Accessibility Guidelines.
2. All ramps shall be textured with Detectable Warnings, "Truncated Domes" as required by the current ADA Guidelines and as allowed by the City Engineer. The truncated domes shall extend the full width of the flush curb ramp and two feet (2') radial to back of curb. Truncated Domes shall be prefabricated plate units cast monolithic with the concrete and set flush and to manufactured specifications. Coarse broom finish the remainder of the ramp.
3. All curb roadway planimetric radii dimensions shall be measured to the 'Radii Dimension Line' shown in the typical curb sections. See Standard Drawing for Curbs & Sidewalks. Curb radii shall conform to "Curb Radii Requirements" table in Standard Drawing for Curbs & Gutters.
4. Light broom finish curbs and gutters parallel with the long axis of the curb and/or curb and gutter. Coarse broom finish sidewalks perpendicular to the long axis of sidewalk.

-
- Truncated Domes ②
- 4' min.
- ⑧
- ⑧
- 3\" min.
- 4' min.
- Max. slope of 12%
- Type I
(Typical - Both Ramps)
- Curb and sidewalk flush with street surface (typ.)

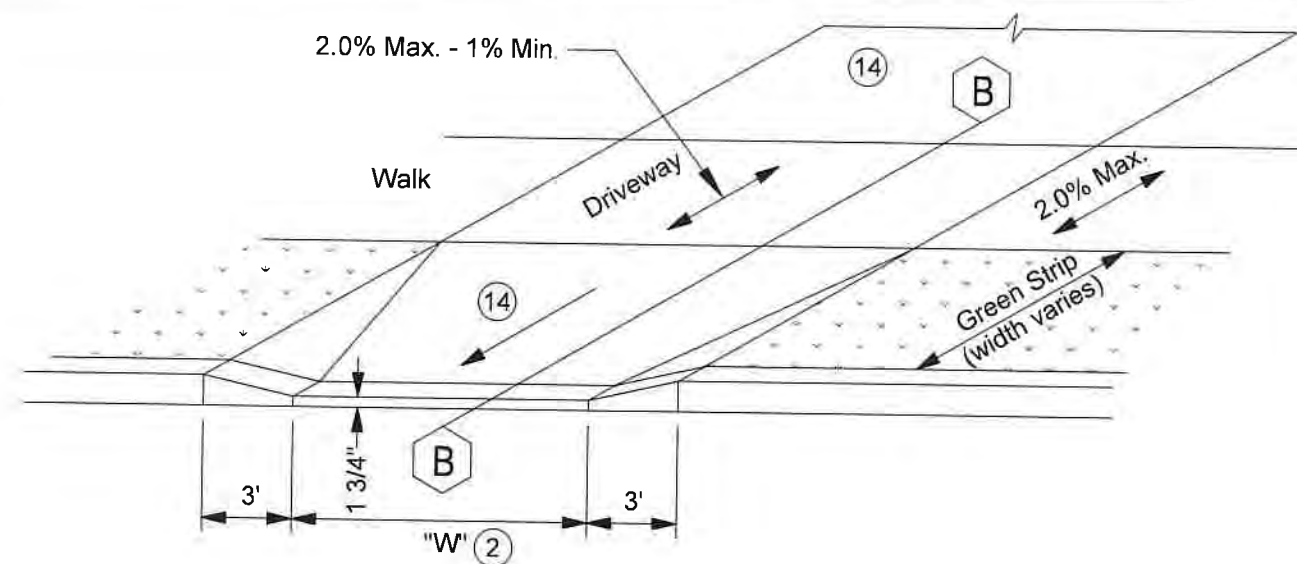


* 2.0% Max. Slope (8)
** 12:1 Max. Slope

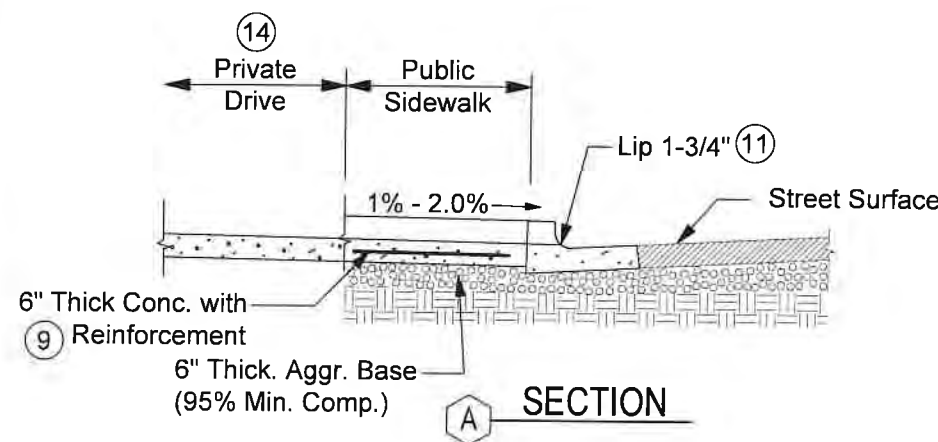
PEDESTRIAN RAMPS CITY OF MOSCOW ENGINEERING DEPARTMENT	DRAFTED BY: K.Kipp / B.Buvel C.Edwards	SIGNED AND DATED 	REVISIONS	
	CHECKED BY: K.Lilly		DATE	DESCRIPTION
	DRAWING SCALE: NTS			
	DATE: 3-5-2014			
DRAWING NUMBER: 8				



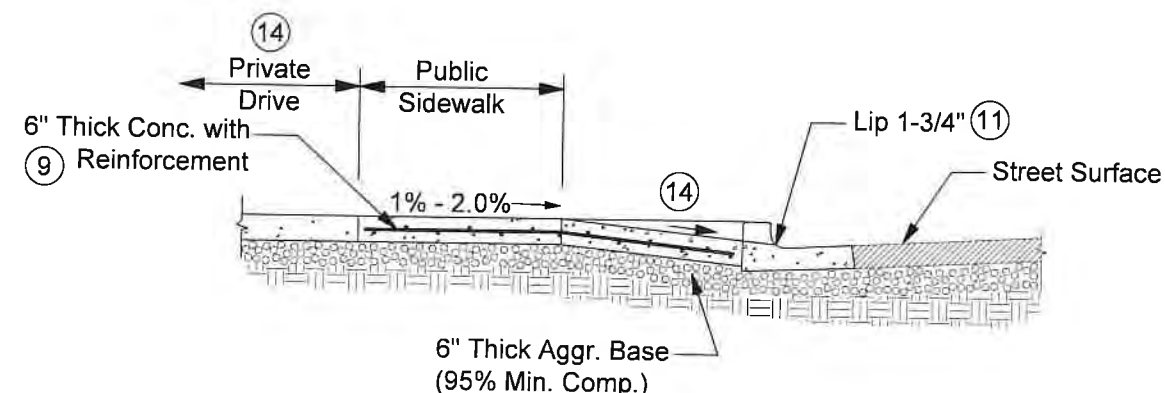
TYPE I



TYPE II



SECTION A



SECTION B

NOTES:

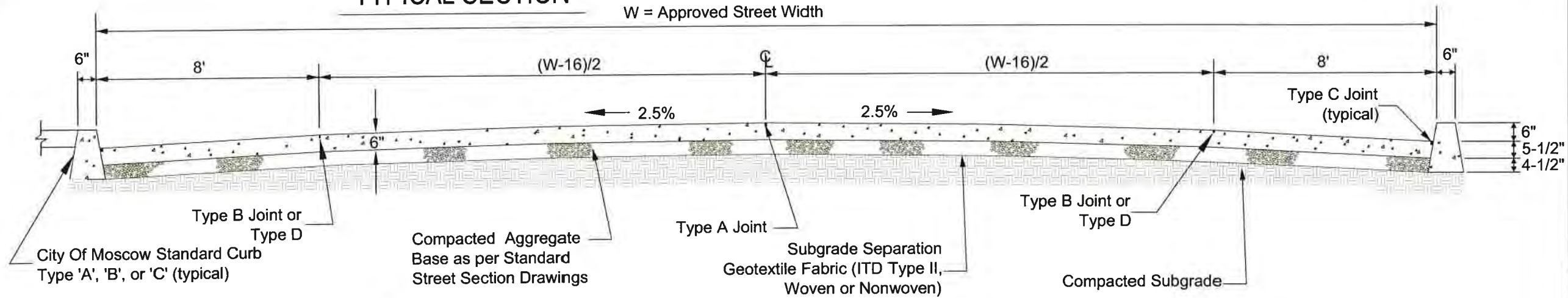
- Existing curb and sidewalk section to be removed (sawcuts required) prior to construction of vehicular approaches.
- The width "W" of a vehicle approach providing access to residential uses shall be a maximum of thirty feet (30'). Vehicle approaches providing two-way access to commercial uses shall be a maximum of forty feet (40') wide unless a wider width is deemed appropriate by the City Engineer.
- Vehicle approaches shall be located at least thirty feet (30') from the intersection of the curb line of an intersecting street.
- Approaches shall be limited to one per street frontage for each lot, with the following exceptions:
 - Two twenty foot (20') curb cuts may be permitted to commercial uses where one cut will be egress only and the other ingress only.
 - Additional approaches may be authorized by the City Engineer where, in his/her opinion, an exceptionally long street frontage or traffic conditions in the area justify such approaches.
- Truncated domes are not to be installed in sidewalk at driveways.
- A City of Moscow excavation permit is required to construct new driveways through existing curbs and sidewalks.

- Curb and sidewalk may be cast monolithic with prior approval of City Engineer. (Strike dummy joint at back of curb)
- Driveways within State of Idaho right-of-way are subject to Idaho Transportation Department standards and permits. Inquire at Moscow Engineering Department (208-883-7034).
- Reinforcement shall be 6 x 6 - W2.1 / 2.1 welded wire mesh or No. 4 rebar @ 1'-0" centers each way centered in slab.
- Forms shall be inspected by the City prior to placing concrete. No Exceptions.
- Lip height shall be 1-3/4" (plus/minus 1/4").
- Vehicle approaches per this standard required for all driveways.
- In areas with rolled curb, the number of driveways shall not exceed the number of curb cuts allowed per lot (as per Zoning Code Section 6-4).
- Allowed gradient per Driveway Grade Limitation Standard Drawing.

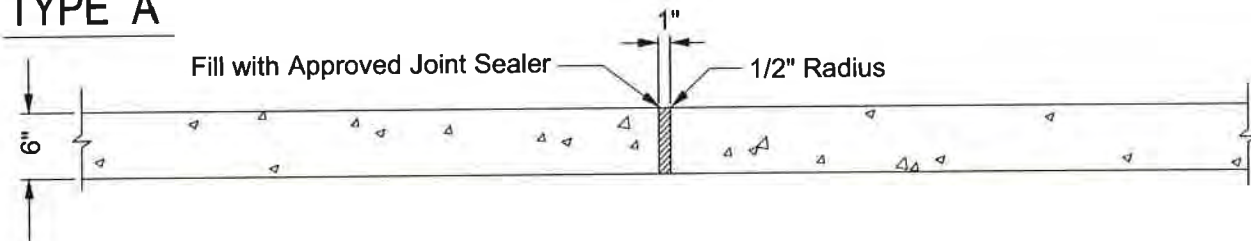
DRIVEWAY APPROACHES CITY OF MOSCOW ENGINEERING DEPARTMENT		DRAFTED BY: K. Kipp / C. Edwards	SIGNED AND DATED PROFESSIONAL ENGINEER LICENSED 14816 2/4/21 STATE OF IDAHO BRIAN SCOTT BONTRAGER		REVISIONS	
		CHECKED BY: K. Lilly			DATE 2-4-2021	DESCRIPTION Changed driveway widths from 20' and 30' to 30' and 40'
		DRAWING SCALE: NOT TO SCALE				
		DATE: 3-5-2014				
DRAWING NUMBER:		9				

TYPICAL SECTION

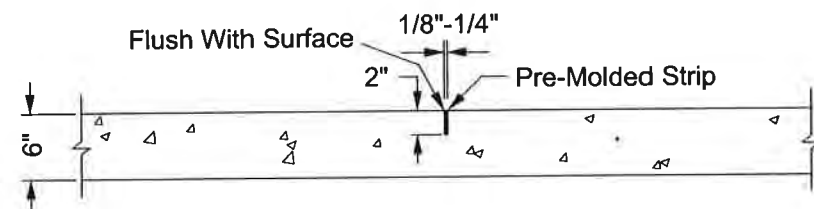
W = Approved Street Width



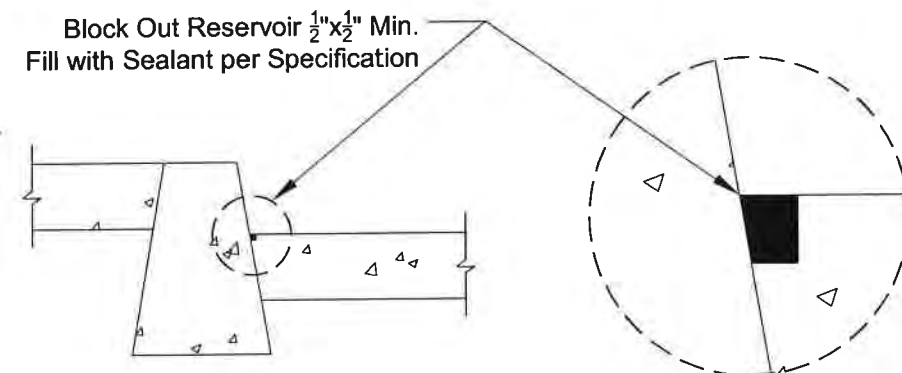
TYPE A



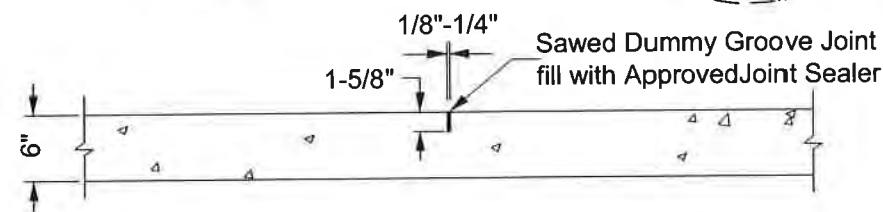
TYPE B



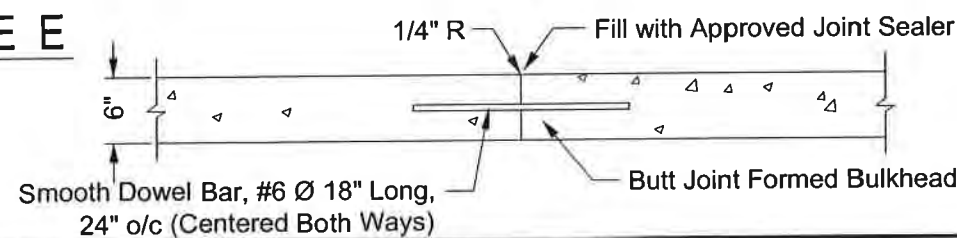
TYPE C



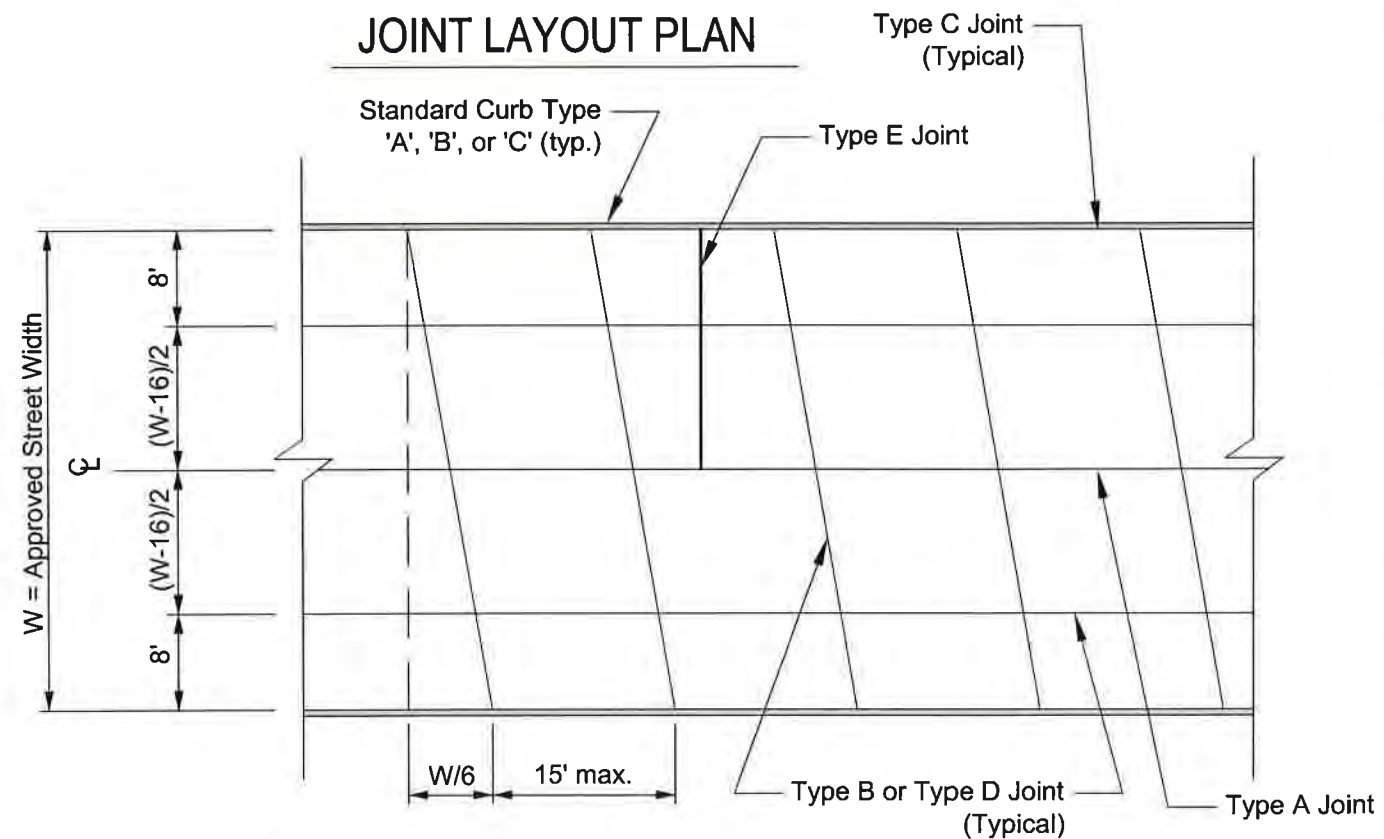
TYPE D



TYPE E



JOINT LAYOUT PLAN



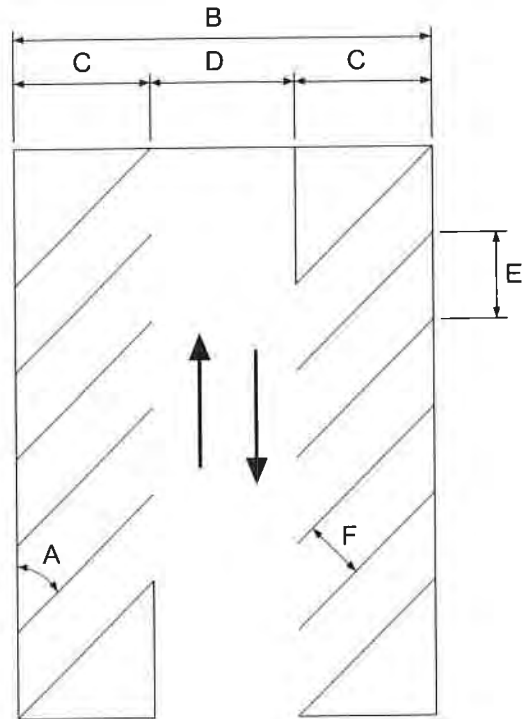
NOTE:

1. The repair of cement concrete street shall include the installation of 9" long 5/8" diameter steel dowels @ 1'-0" o/c @ mid slab, drilled and tightly driven or epoxied 4.5" into the existing slab.
2. Contractor shall submit a pavement joint pattern for entire project for approval by City Engineer.
3. When possible, manholes and other appurtenances shall be centered between joints.
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Cement concrete pavement allowed when approved by the City Engineer.

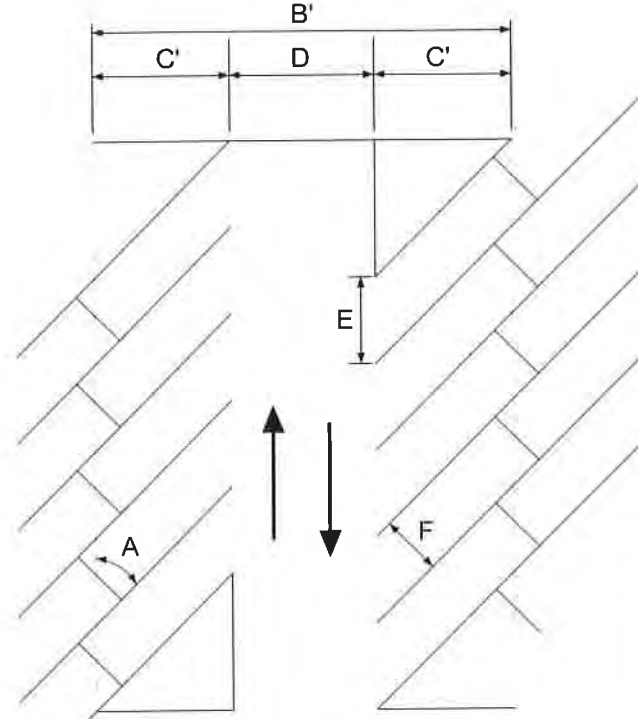
REVISIONS	DESCRIPTION	
	DATE	
SIGNED AND DATED 		
DRAFTED BY:	K. Kipp / C. Edwards	
CHECKED BY:	K. Lilly	
DRAWING SCALE:	NTS	
DATE:	3-5-2014	
CEMENT CONCRETE PAVEMENT		
CITY OF MOSCOW		
ENGINEERING DEPARTMENT		
DRAWING NUMBER:		
10		

NOTE:

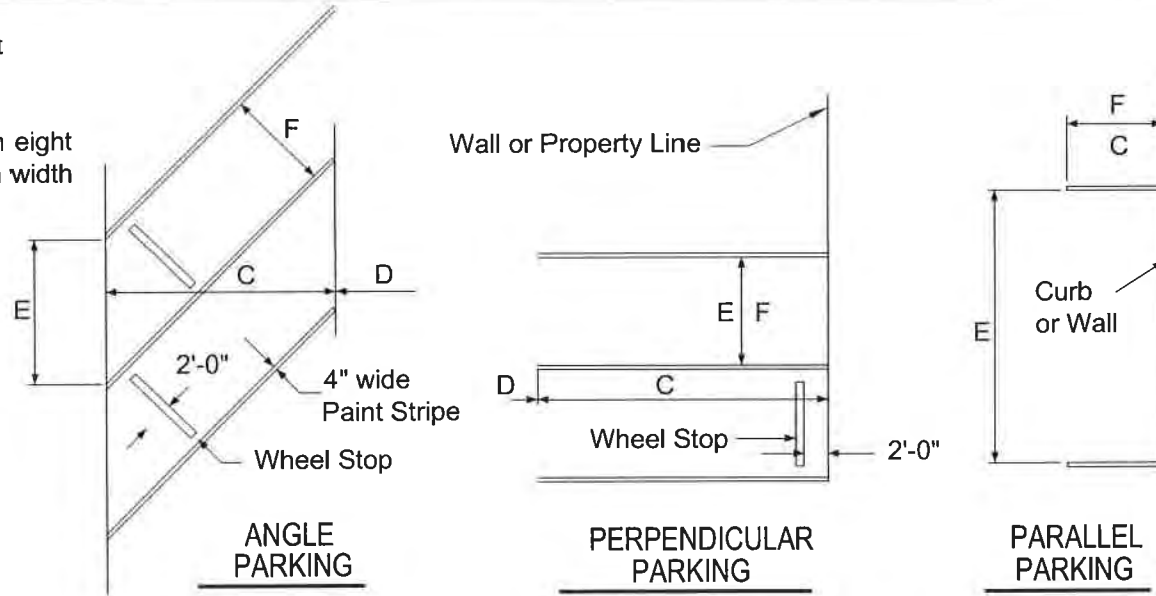
1. CITY CODE HAS PRECEDENCE OVER THIS DRAWING. Parking lots shall conform strictly to the Off-Street Parking Requirements of City Code (Title 4, Section 6-5).
2. See also ADA Standards and International Building Code for Design Accessibility.
3. Single ADA accessible vehicle spaces require a five foot (5') access aisle. Van accessible stalls shall have an eight foot (8') wide aisle width. Two (2) ADA accessible spaces may share a common access aisle with a minimum width of eight feet (8'). Spaces to be standard vehicle size.
4. Dimensions shown are minimum; user friendly lots exceed these dimensions.
5. Fire Code requirements relative to traffic aisle width have precedence over this drawing.
6. Sidewalk adjacent to curb shall slope -2.0% or -1% toward curb.



TWO-WAY TRAFFIC

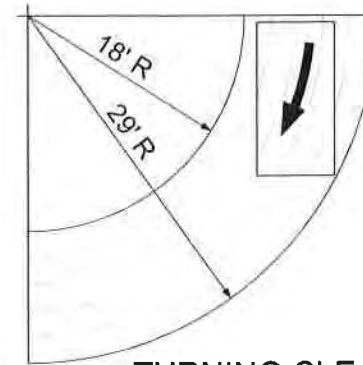


ONE-WAY TRAFFIC



Minimum Number of Accessible Parking Spaces
ADA Standards for Accessible Design 4.1.2(5)

Total Parking Spaces In Lot	Total Minimum Accessible Spaces	Spaces Requiring Van Accessible 8' Access Aisle
1 to 25	1	1
26 to 50	2	1
51 to 75	3	1
76 to 100	4	1
101 to 150	5	1
151 to 200	6	1
201 to 300	7	1
301 to 400	8	1
401 to 500	9	2
501 to 1000	2% of Total	
1001 and over	20 plus 1 for each 100 over 1000	1/8 of Total Minimum Accessible Spaces



TURNING CLEARANCES

A	B	C	D	E	F	B'	C'
PARKING ANGLE	PARKING SECTION WIDTH	PARKING BANK WIDTH	TRAFFIC AISLE WIDTH	CURB LENGTH PER CAR	CAR STALL WIDTH	PARKING SECTION WIDTH	PARKING BANK WIDTH
TWO WAY TRAFFIC STANDARD VEHICLES							
0°	36'	8'	20'	23'	8'		
45°	58'	19'	20'	12'	8.5'	51'	15.5'
60°	60'	20'	20'	9.8'	8.5'	55'	17.5'
90°	64'	20'	24'	9'	9'		
TWO WAY TRAFFIC COMPACT VEHICLES							
0°	35'	7.5'	20'	15'	7.5'		
45°	52'	16'	20'	10.6'	7.5'	47'	13.3'
60°	54'	16.8'	20'	8.7'	7.5'	50'	14.9'
90°	50'	15'	20'	7.5'	7.5'		
ONE WAY TRAFFIC STANDARD VEHICLES							
0°	28'	8'	12'	23'	8'		
45°	50'	19'	12'	12'	8.5'	43'	15.5'
60°	55'	20'	15'	9.8'	8.5'	50'	17.5'
ONE WAY TRAFFIC COMPACT VEHICLES							
0°	27'	7.5'	12'	15'	7.5'		
45°	44'	16'	12'	10.6'	7.5'	39'	13.3'
60°	49'	16.8'	15'	8.7'	7.5'	45'	14.9'

REVISIONS	DESCRIPTION
DATE	

SIGNED AND DATED



DRAFTED BY: MAS/KWK/CEE

CHECKED BY: K. Lilly

DRAWING SCALE: NTS

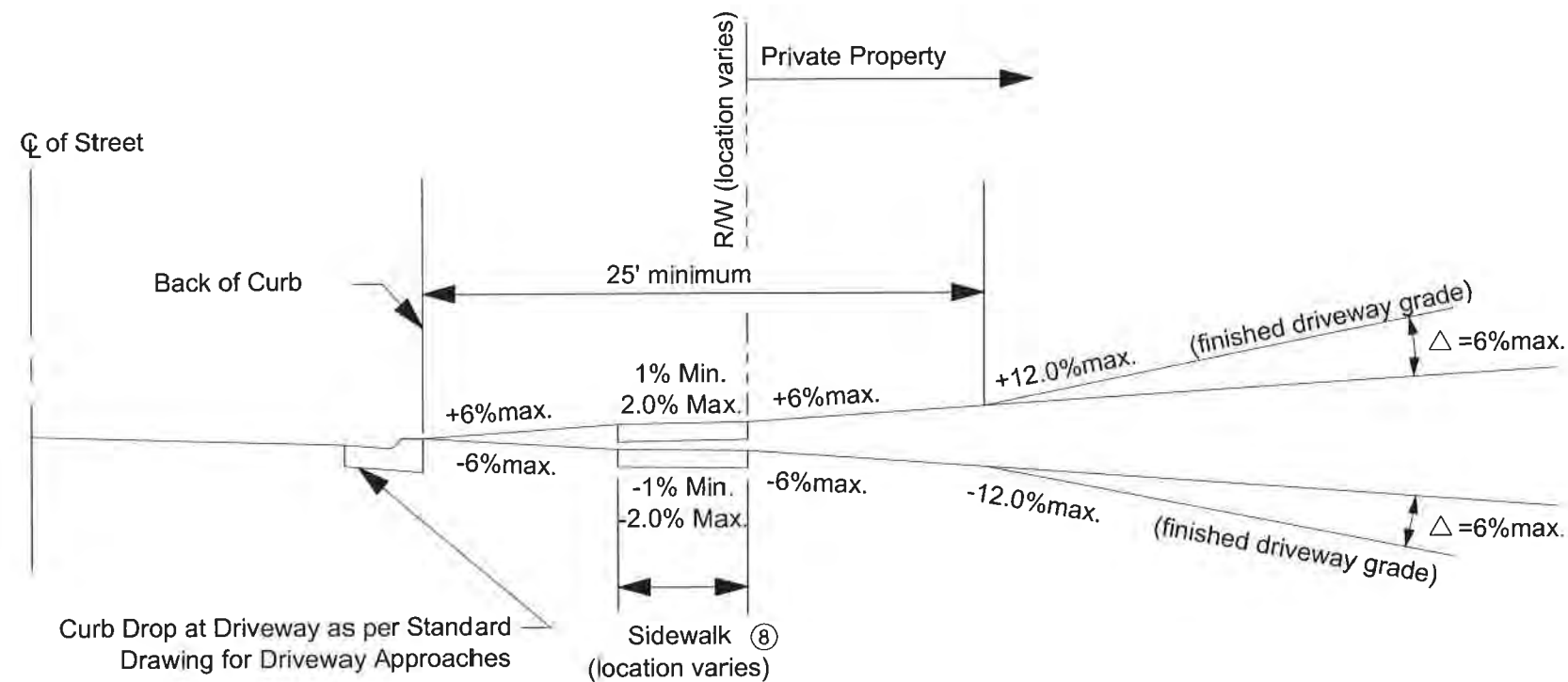
DATE: 1-27-2012

PARKING LOT

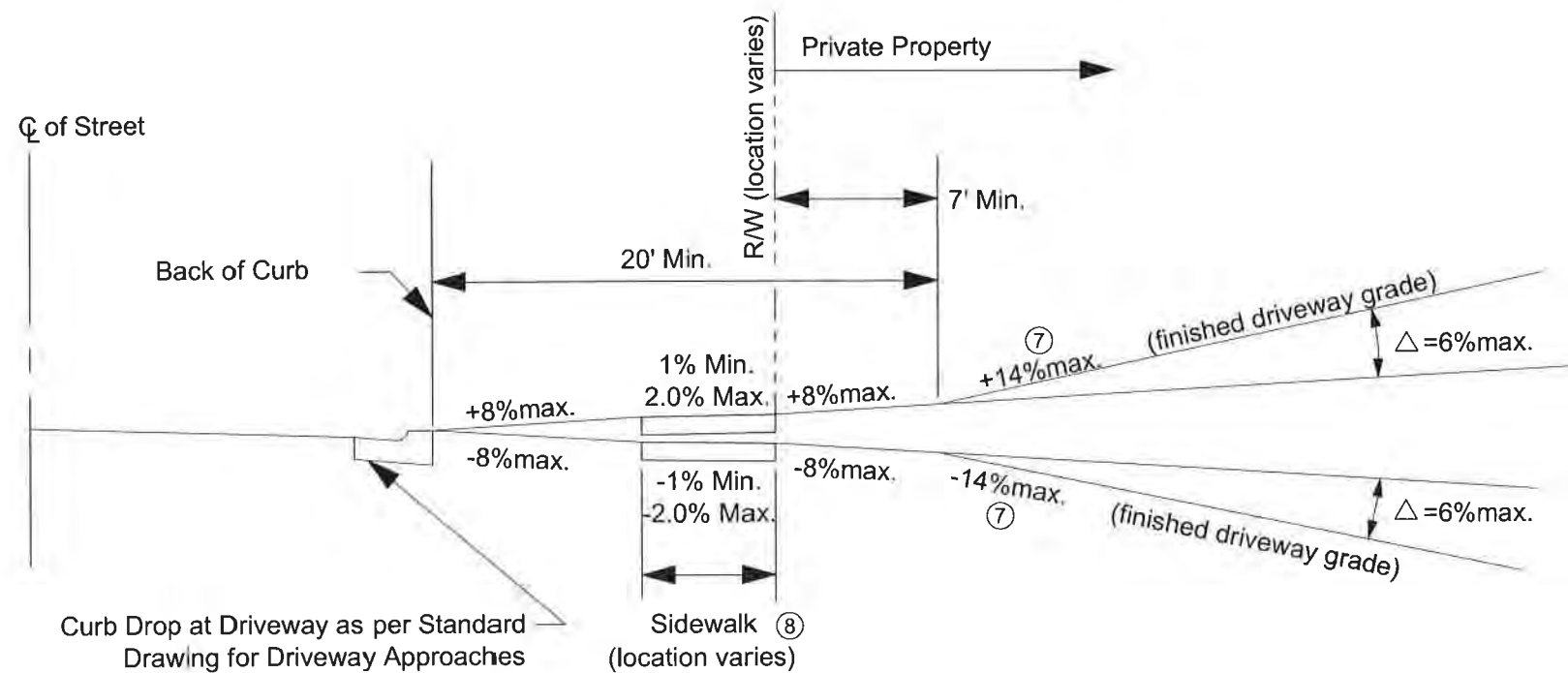
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:

11



TYPE I DRIVEWAY



TYPE II DRIVEWAY

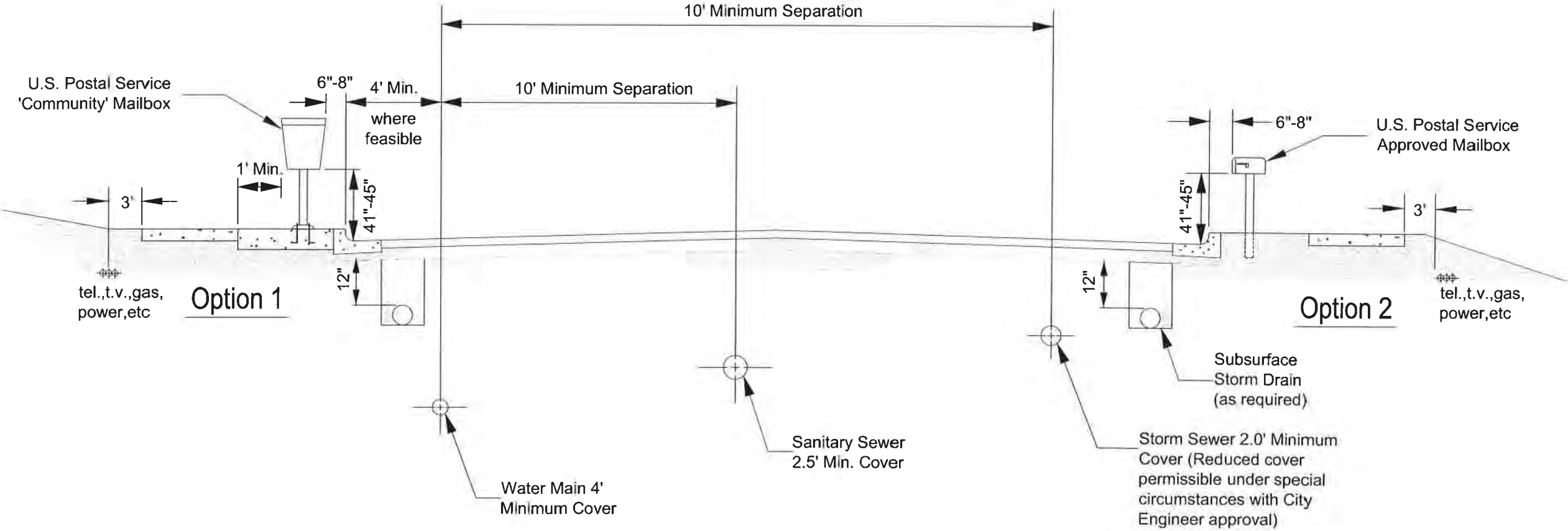
NOTES:

1. TYPE I DRIVEWAY applies to all driveways except those for single family dwellings and duplexes.
2. TYPE II DRIVEWAY applies to single family and duplex lots.
3. Driveway grade must also match existing sidewalk elevation. The City Engineer may allow reconstruction of the sidewalk for the purpose of matching a proposed driveway grade. ADA Standards Apply.
4. Maximum cross slope of driveways shall not exceed 5.0%.
5. Maximum slope of parking areas and aisles shall not exceed 5.0% in any direction.
6. Noted grades measured at driveway centerline.
7. Or as approved by the Building Official.
8. Sidewalk adjacent to curb shall slope -2.0% or -1% towards curb.

REVISIONS		SIGNED AND DATED		DRAWING NUMBER:	
DATE	DESCRIPTION	DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
		K. Kipp, C. Edwards	K. Lilly	N T S	2-27-2014
		DRIVEWAY GRADE LIMITATIONS CITY OF MOSCOW ENGINEERING DEPARTMENT			
DRAWING NUMBER: 12					

NOTES:

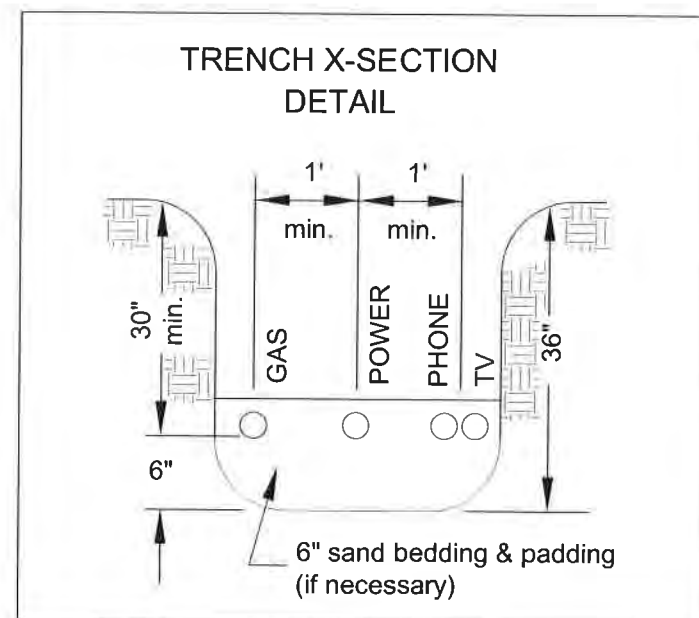
- 1. The locations of City water, sanitary sewer and storm sewer mains shown are preferred where possible; curvilinear street alignment and tangent utility runs dictate other locations, as approved by the City Engineer.
- 2. The 'community' style mailboxes shall be placed in locations approved by both the Postal Service and the City Engineer. The Developer is responsible for the construction of 'community' mailbox concrete support slab, all in accordance with U.S. Postal Service construction requirements. The support slab shall extend to the City sidewalk.
- 3. Utility poles (wood, metal, or other) shall be located with 1.5' minimum clearance from back of curb to face of pole or 1.0' minimum from back of sidewalk to face of pole. Sign posts shall be located 1.5' minimum from back of curb; their location shall also conform to MUTCD requirements.
- 4. Franchise utilities, including pedestals shall be located within street right-of-way or public utility easement and as shown on the Standard Drawing for Franchise Utility Details.



TYPICAL SECTION

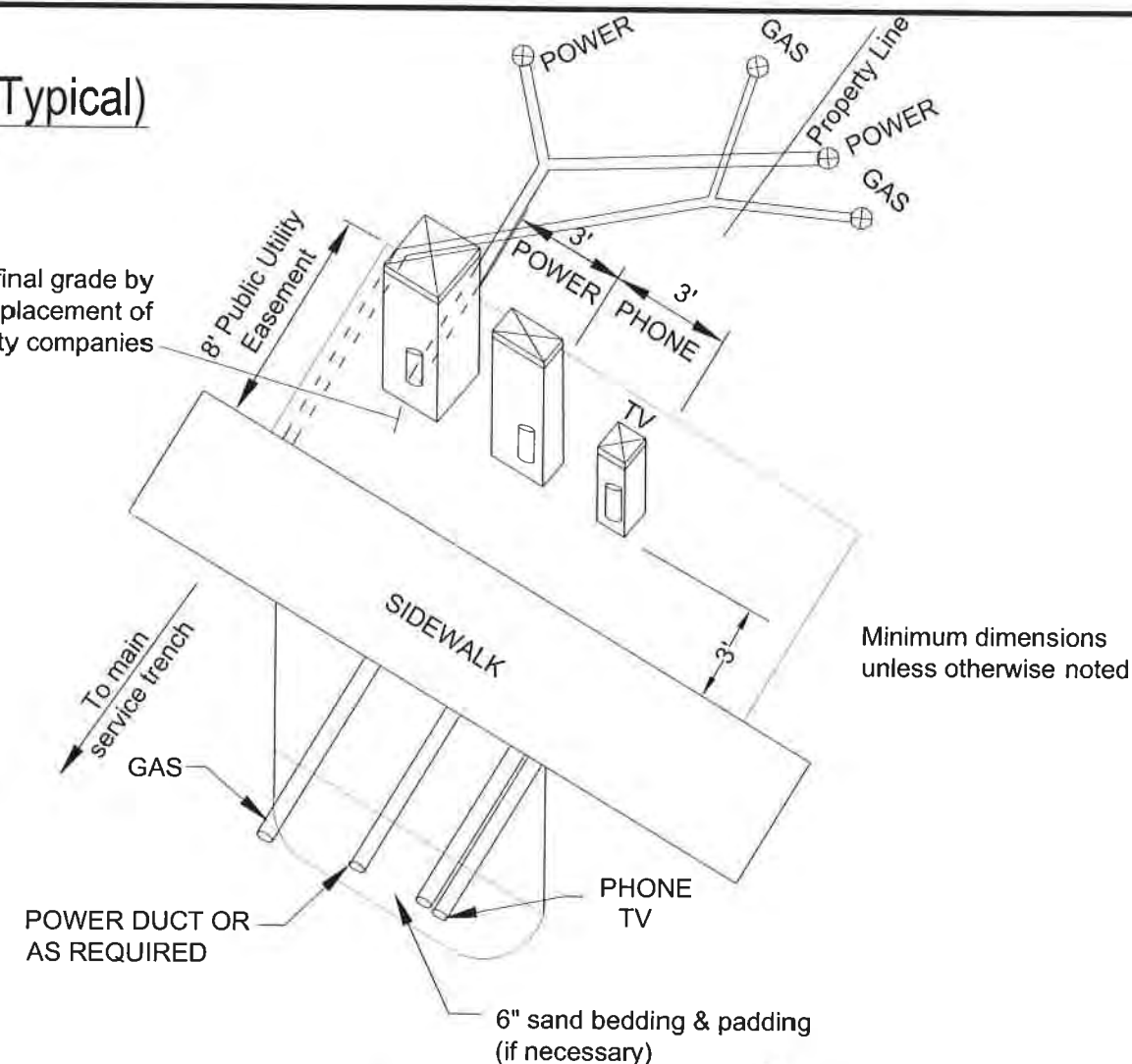
		REVISIONS	
		DATE	DESCRIPTION
UTILITY & MAIL BOX LOCATIONS CITY OF MOSCOW ENGINEERING DEPARTMENT		SIGNED AND DATED	
			
		DRAFTED BY: K.Kipp / M.Sass	
		CHECKED BY: K.Lilly	
		DRAWING SCALE: NTS	
		DATE: 3-31-2014	
DRAWING NUMBER: 13			

ROAD CROSSING FOR SECONDARY PEDESTAL (Typical)

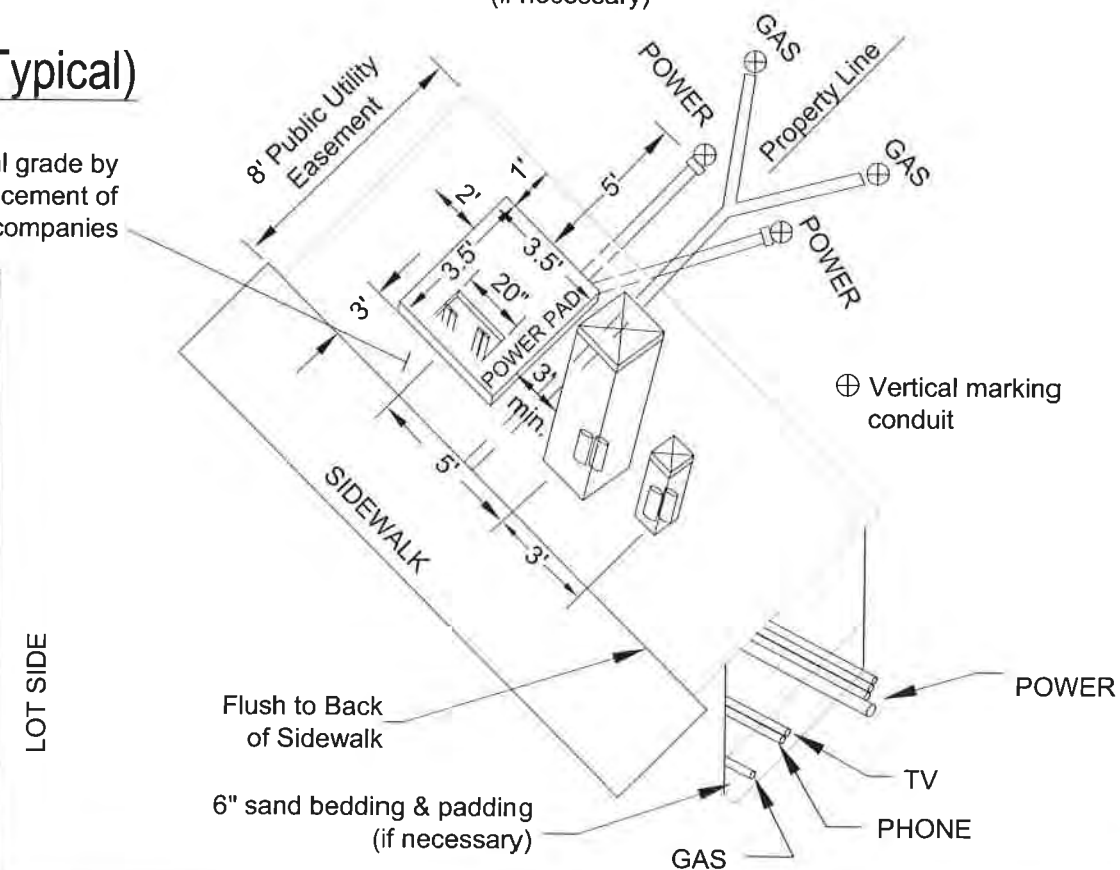
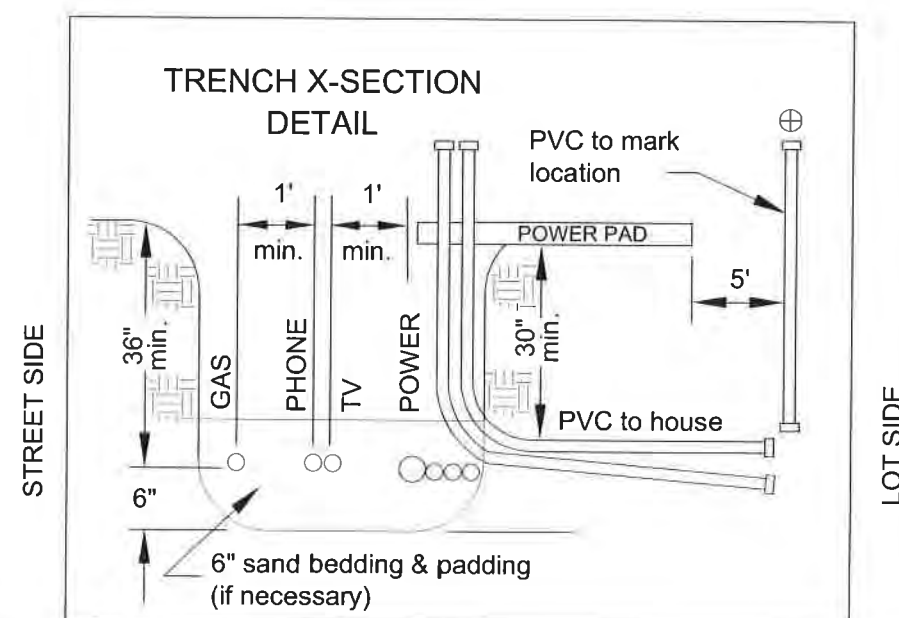


NOTES:

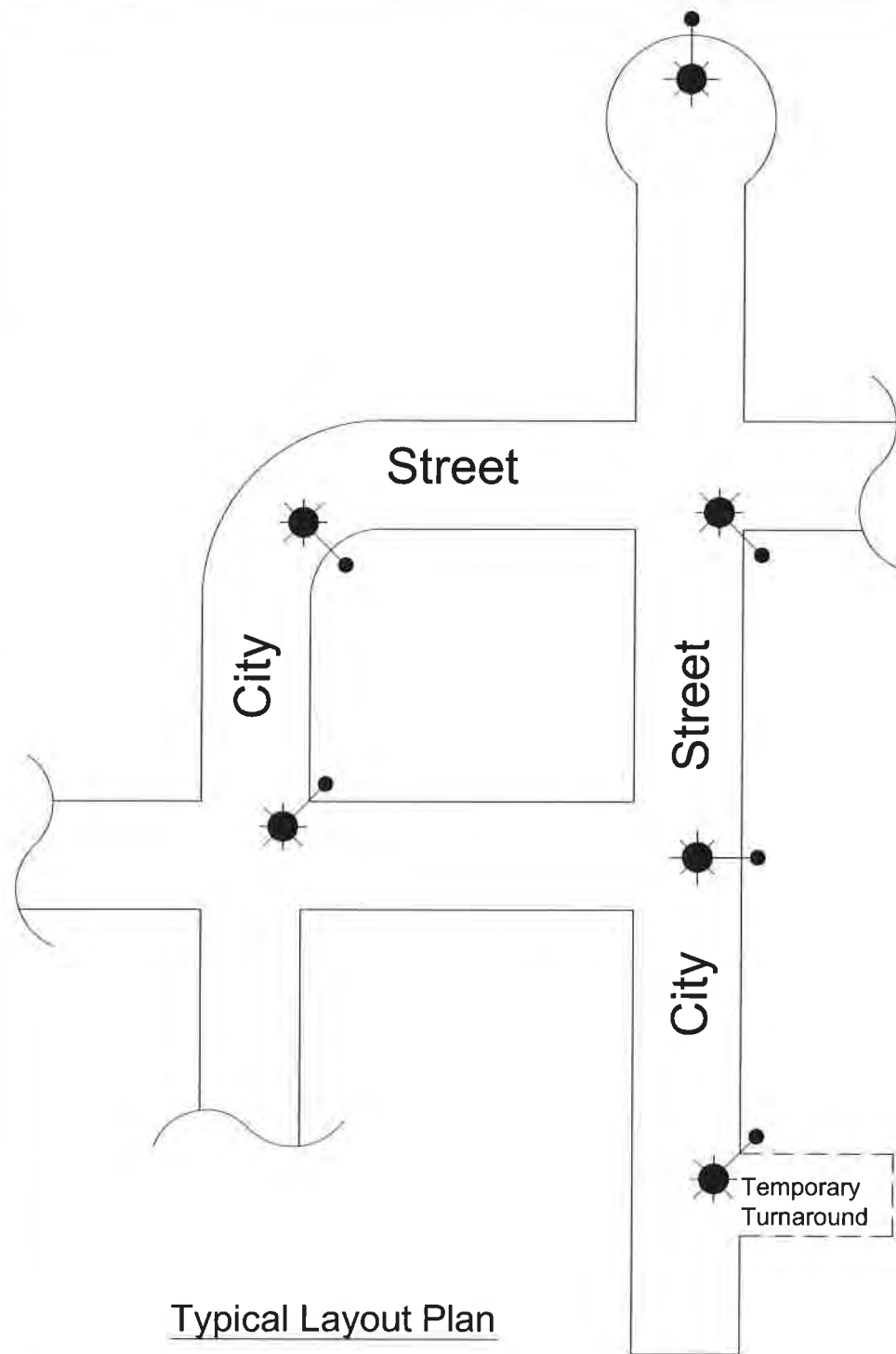
1. Verify conduit sizes with utilities prior to installation.
2. Bundle conduits for each utility at pedestal locations.
3. Dimensions shown are minimum unless otherwise noted.
4. Unless otherwise directed, the Gas, Power, Telephone, and T.V. Cable will be installed on the North and East sides of the street.
5. Furnish and install pull strings in all conduits.



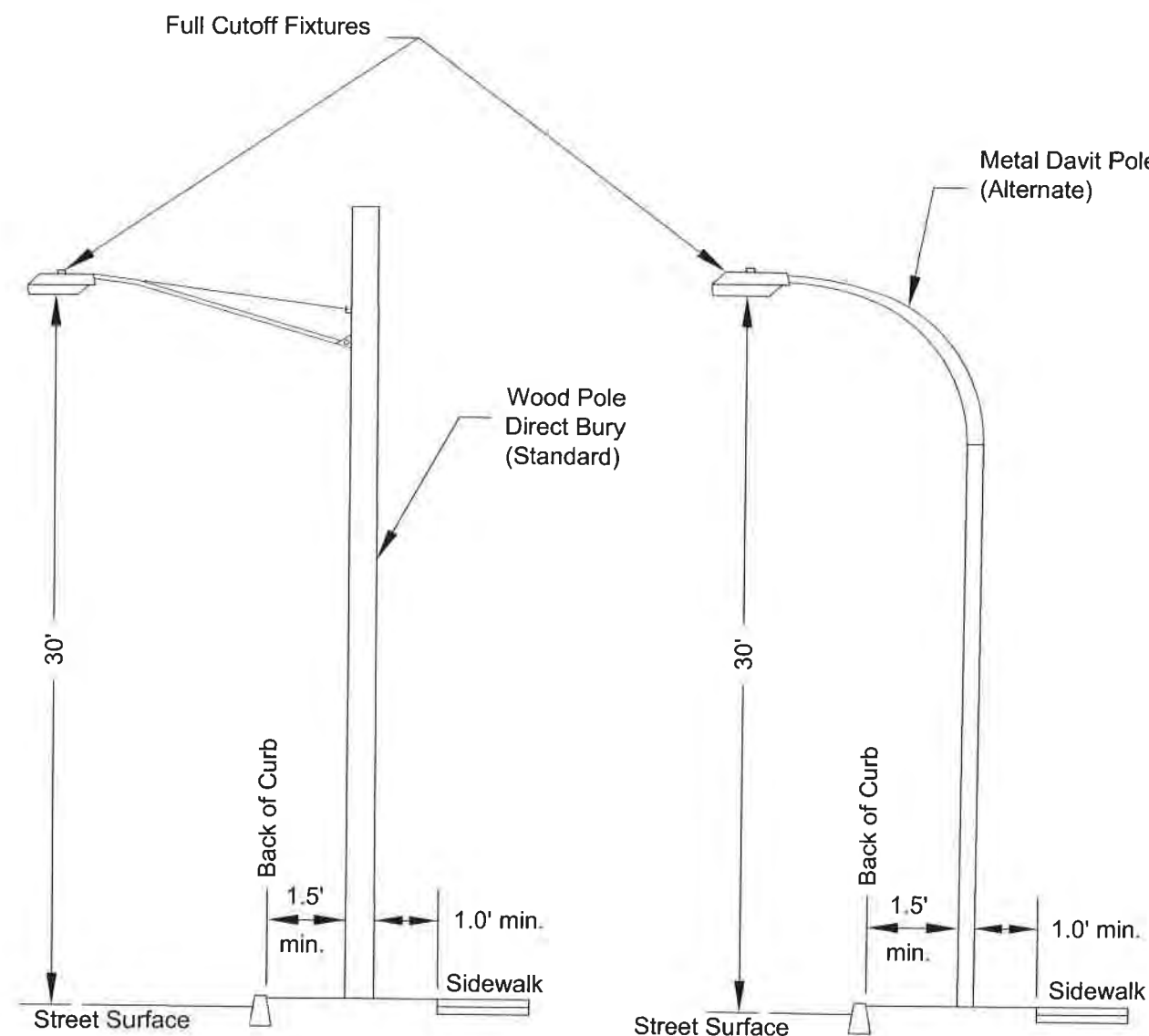
MAIN LINE (Typical)



FRANCHISE UTILITY DETAILS		DRAFTED BY: K.Kipp	DETAIL PROVIDED BY THE FRANCHISE UTILITY COMPANIES	REVISIONS	
				DATE	DESCRIPTION
CITY OF MOSCOW ENGINEERING DEPARTMENT		CHECKED BY: K.Lilly	*		
		DRAWING SCALE: NTS			
		DATE: 1-30-2012			
DRAWING NUMBER: 14					



Typical Layout Plan

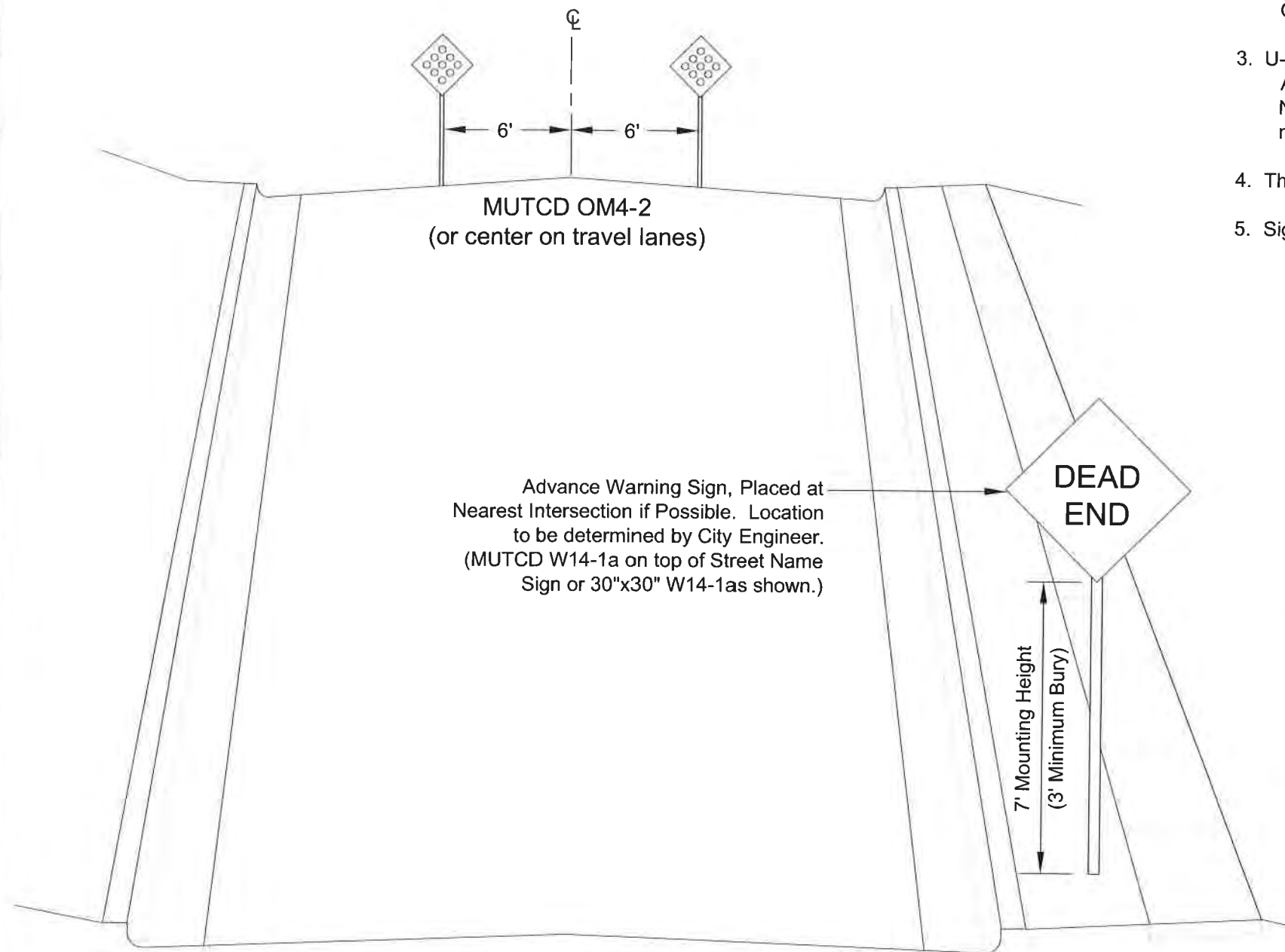


Installation Details

NOTES:

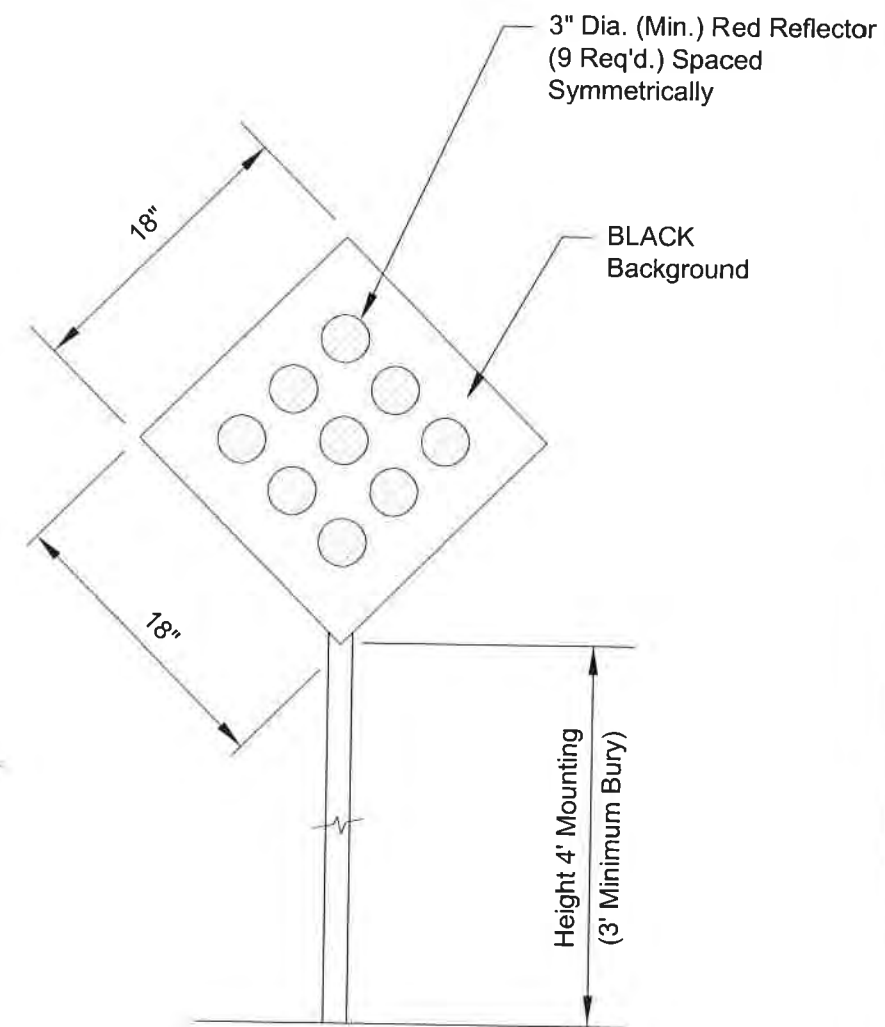
1. Street lights (pole, fixture, and conductors) to be furnished, installed, owned, and maintained by AVISTA. 'Cobra head' style light fixtures are required unless otherwise approve by the City Engineer.
2. Wood street light poles will be furnished and installed as the standard - metal davit poles are allowed but the additional/incremental costs of furnishing metal davit poles shall be paid by the Developer directly to AVISTA.
3. Developer shall furnish and install buried conduit for street lights - all as required by AVISTA - at Developer expense.
4. All street lights shall be full cut-off.
5. Street lights in residential developments will generally be installed at all four-way intersections, three-way (tee) intersections, ninety degree corners, permanent cul-de-sacs, and temporary turnarounds - one at each of these locations. Additional street lights at other locations may be as allowed or required by the City Engineer.
6. Street lights shall comply with Moscow City Code Title 4, Section 6-15.

REVISIONS		SIGNED AND DATED 	DRAFTED BY: C. Edwards CHECKED BY: K. Lilly DRAWING SCALE: NTS DATE: 3-3-2014	RESIDENTIAL STREET LIGHTING	
DATE	DESCRIPTION			CITY OF MOSCOW ENGINEERING DEPARTMENT	
DRAWING NUMBER:		15			

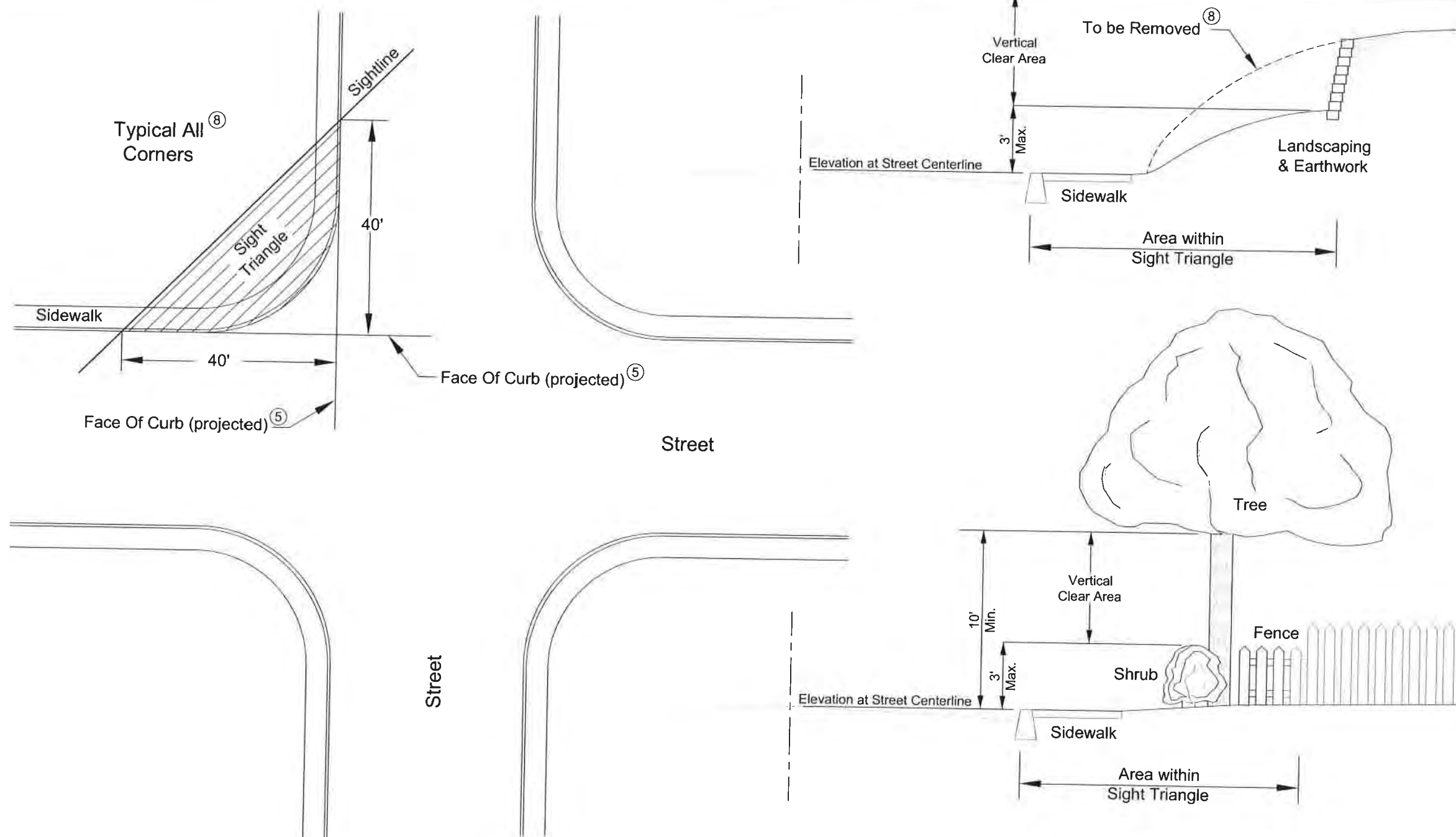


NOTES:

1. DEAD END signs shall be placed as near as possible to the beginning of all streets that terminate (either temporary or permanent) in a dead end or cul-de-sac. END OF ROAD MARKERS (two of them) shall be placed at the end of all terminated streets EXCEPT permanent cul-de-sacs.
2. Reflectors and reflective sheeting shall meet the requirements set forth in the most current editions of the Manual for Uniform Traffic Control Devices and Idaho Transportation Department's Standard Specifications for Highway Construction.
3. U-channel galvanized steel posts weighing 3.0 lbs./ft. and conforming to ASTM A499, or a 4"x4" treated wood post, shall be a minimum requirement. No splicing or bolting of multiple u-channels will be allowed.. All posts shall meet the Engineer's approval.
4. Theft resisting "Tufnut" brand hardware shall be used for sign installation.
5. Signs shall be installed vertically plumb.



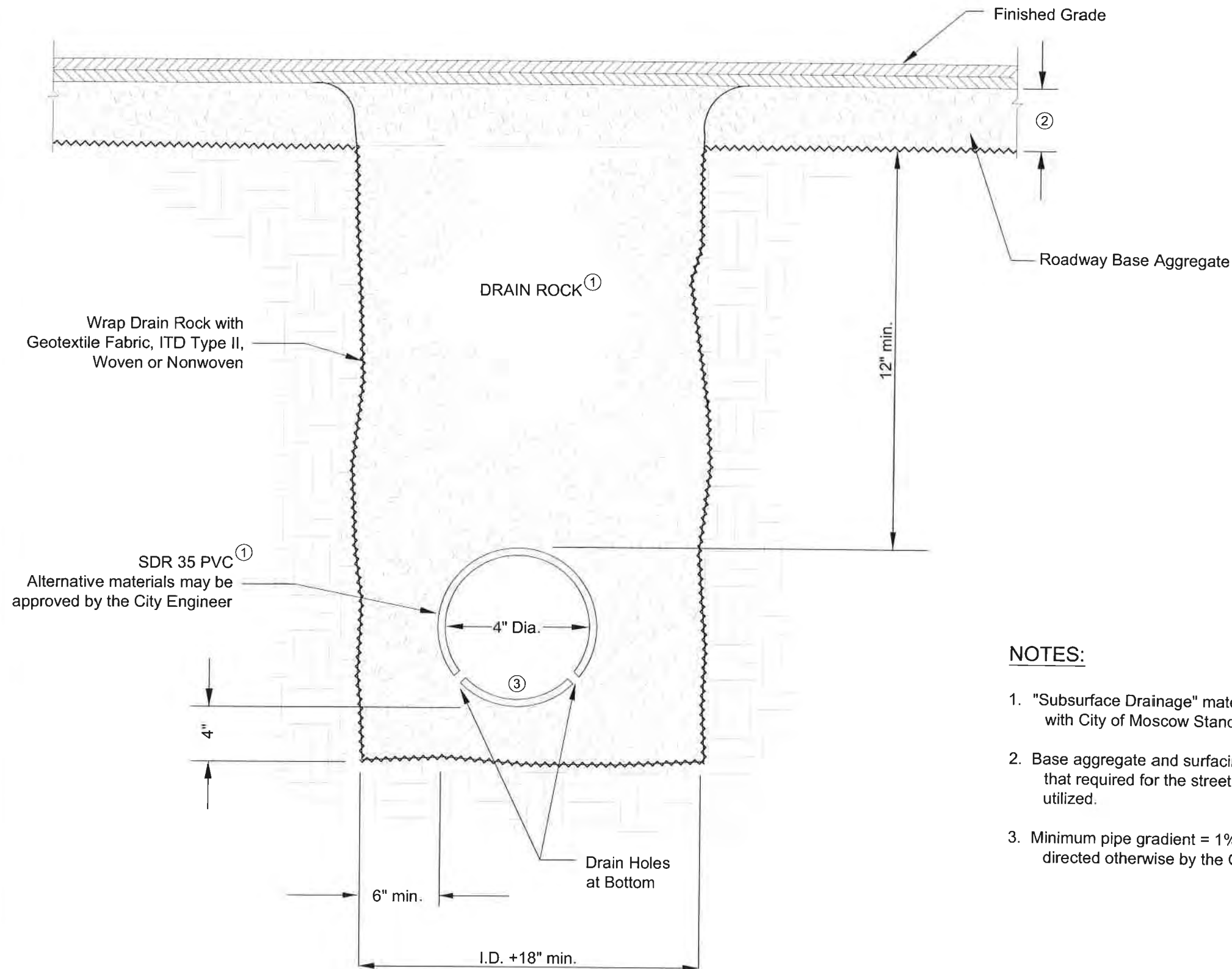
REVISIONS		SIGNED AND DATED	DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
DATE	DESCRIPTION					
			RKC/KWK	K.Lilly	NTS	3-3-2014
END OF ROAD MARKERS & DEAD END SIGNS			CITY OF MOSCOW ENGINEERING DEPARTMENT			
DRAWING NUMBER:			16			



Notes:

1. Area within the Sight Triangle shall be kept clear of obstructions to provide the motorist with adequate field of vision at an intersection.
2. Within the Sight Triangle all existing trees shall be kept trimmed such that ten feet (10') of clearance exists between any branches and the ground. Any tree branches overhanging the sidewalk shall be kept trimmed such that ten feet (10') of clearance exists between any branches and the sidewalk.
3. Within the Sight Triangle, all existing shrubs shall be kept trimmed to a maximum height of three feet (3').
4. Sight obstruction Vertical Clear Area measurements shall be in reference to the existing centerline street elevation within the Sight Triangle.
5. If curb does not exist, then the Sight Triangle will be measured by extending the edges of street pavement; on unpaved streets, the Sight Triangle will be measured by extending the edge of the traveled way as determined by the City Engineer.
6. This City Standard enforces Idaho Code 49-221.
7. All dimensional criteria (as shown) must be satisfied.
8. Unusual topography may require more stringent requirements at some locations to obtain adequate Sight Triangles as determined by City Engineer.

REVISIONS		SIGNED AND DATED	DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
DATE	DESCRIPTION					
			CEE/KWK	K.Lilly	NTS	3-3-2014
INTERSECTION SIGHT TRIANGLE			CITY OF MOSCOW ENGINEERING DEPARTMENT			
DRAWING NUMBER: 17						



TYPICAL SECTION

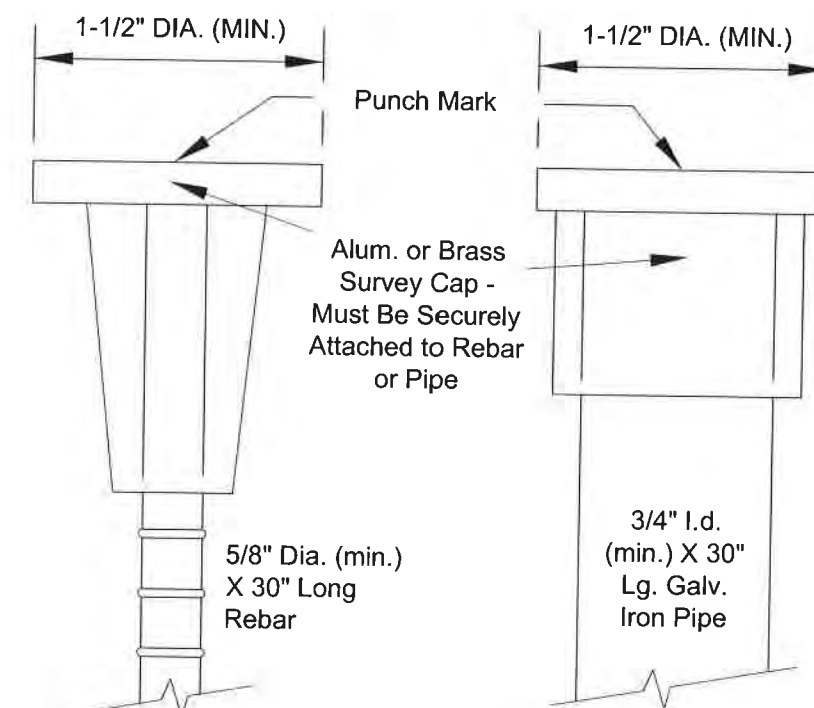
NOTES:

1. "Subsurface Drainage" materials and installation shall comply with City of Moscow Standard Construction Specifications.
2. Base aggregate and surfacing depth and type to be the same as that required for the street section where this trench backfill is utilized.
3. Minimum pipe gradient = 1% unless specifically allowed or directed otherwise by the City Engineer.

REVISIONS <table><tr><th>DATE</th><th>DESCRIPTION</th></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>		DATE	DESCRIPTION											SIGNED AND DATED 		DRAFTED BY: KWK/CEE CHECKED BY: K. Lilly DRAWING SCALE: NTS DATE: 3-3-2014		SUBSURFACE DRAINAGE CITY OF MOSCOW ENGINEERING DEPARTMENT	
		DATE	DESCRIPTION																

DRAWING NUMBER:

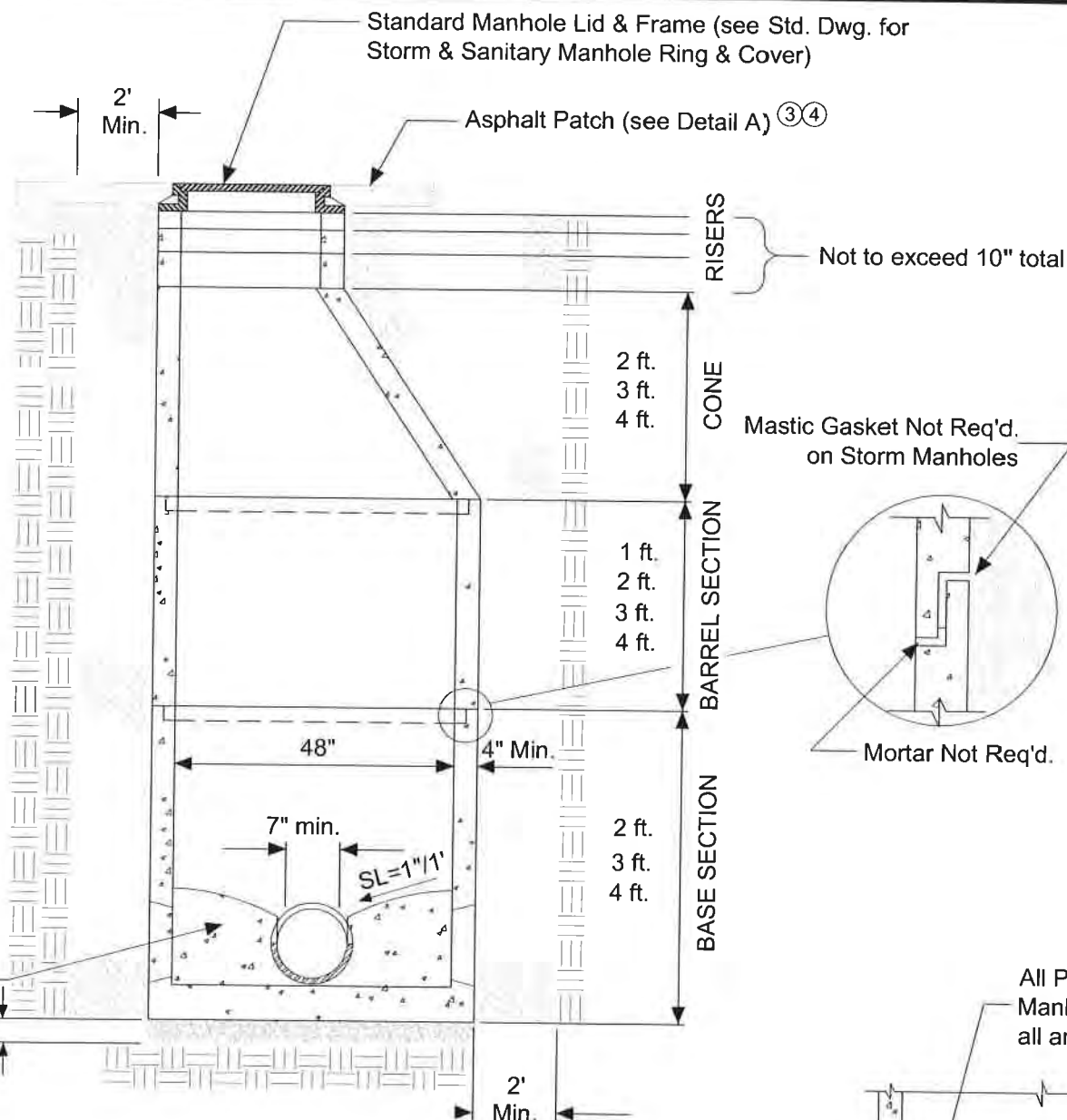
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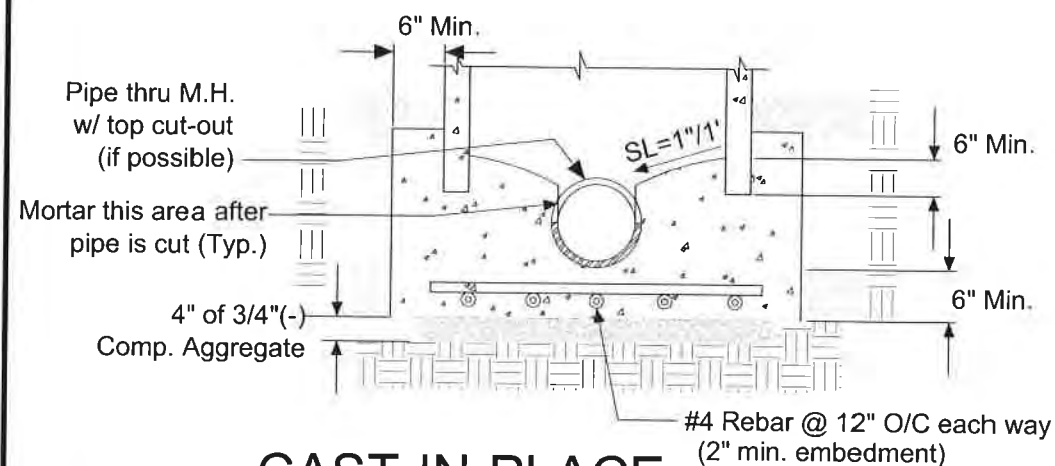
- | | | | | |
|---|-------------------------|--|------------------|-------------|
| <div style="text-align: center;"> <h1>STREET MONUMENT</h1> <h2>CITY OF MOSCOW</h2> <h3>ENGINEERING DEPARTMENT</h3> </div> | DRAFTED BY:
RKC/KWK | <div style="text-align: center;">  </div> | SIGNED AND DATED | |
| | CHECKED BY:
K. Lilly | | DATE | REVISIONS |
| | DRAWING SCALE:
NTS | | | DESCRIPTION |
| | DATE: 1-30-2012 | | | |
| | | | | |
- DRAWING NUMBER:

19

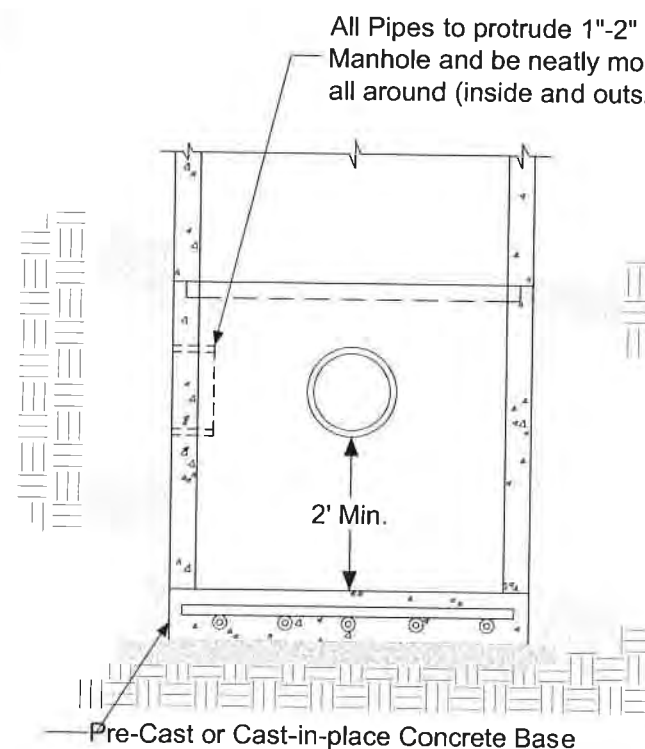
BRASS CAP AND PIPE DETAIL



**48" STANDARD MANHOLE
w/ PRECAST BASE**



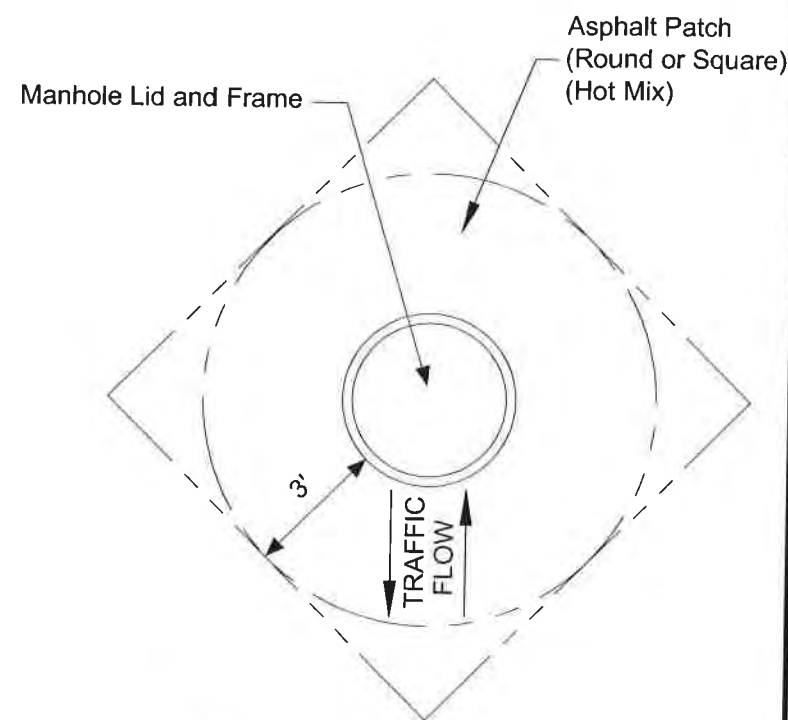
**CAST-IN-PLACE
ALTERNATE BASE**



**MANHOLE
w/ CATCH BASE**

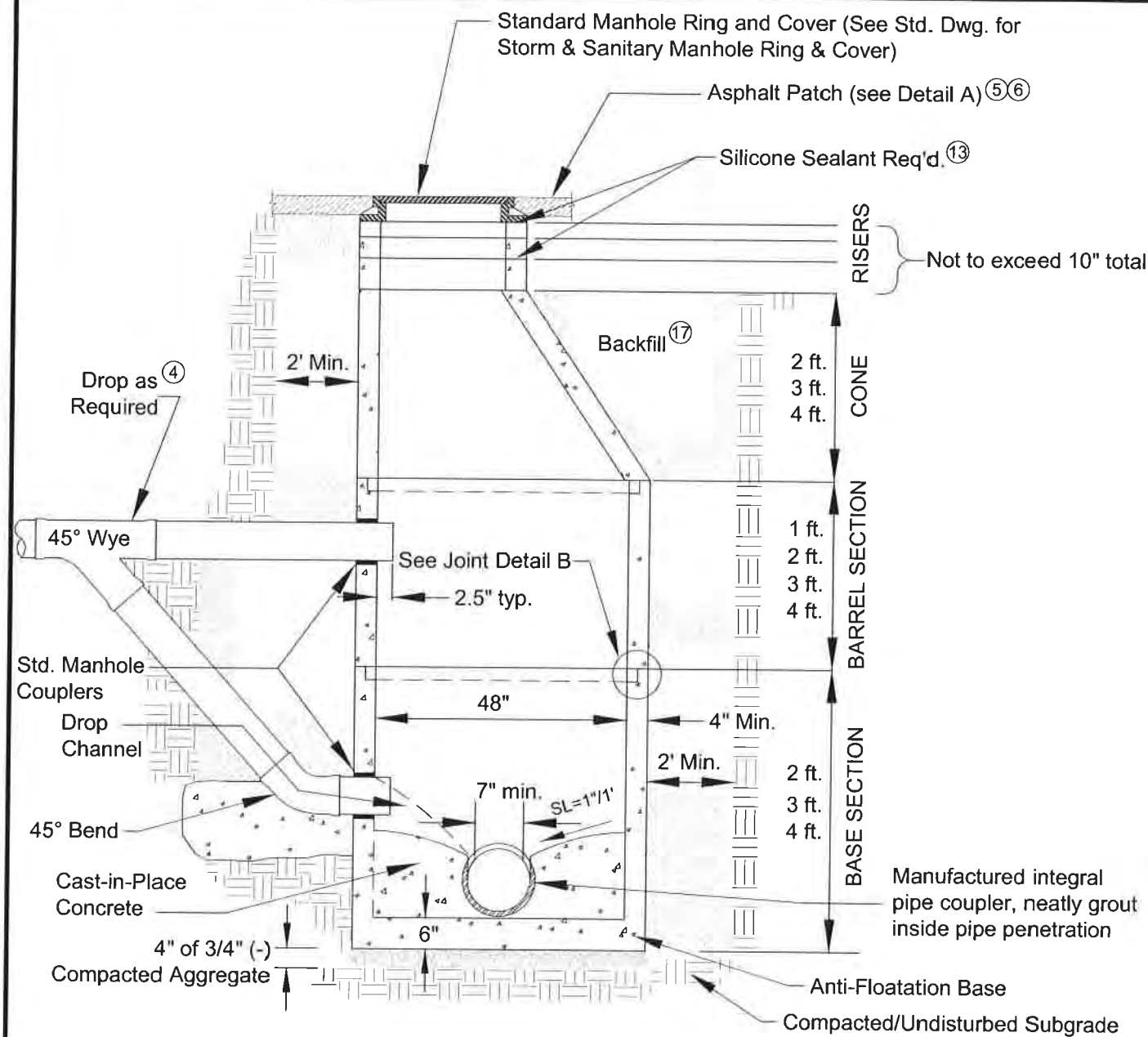
NOTES:

1. Precast bases are preferred.
2. Steps shall not be installed in the manholes.
3. Manholes located in paved areas shall have asphaltic hot mix patch four inches (4") thick with top course mix restoring surface to exact line and grade of street. Manhole lids in new pavement shall be raised and adjusted to finished grade after completion of street paving.
4. Manholes located in unpaved streets or alleys shall have their lids adjusted to two inches (2") below gravel surface.
5. All cast-in-place concrete shall be troweled very smooth.
6. All joints between precast manhole/sections shall be very smooth.
7. All flow across manholes shall be on-tenth of a foot (0.1') fall, unless the flow changes direction more than 45°, then the fall shall be two-tenths of a foot (0.2') or greater.
8. Channels shall be as per Standard Drawing for Manhole Base Details.
9. Lids shall be set a quarter inch ($\frac{1}{4}$ ") below the existing paved street grade.
10. Flat slab top allowed on shallow manholes.
11. Contractors shall comply with the most current OSHA requirements for excavation.
12. WSDOT Catch Basin Type 2 may be required at certain locations by the City Engineer in place of this manhole standard.

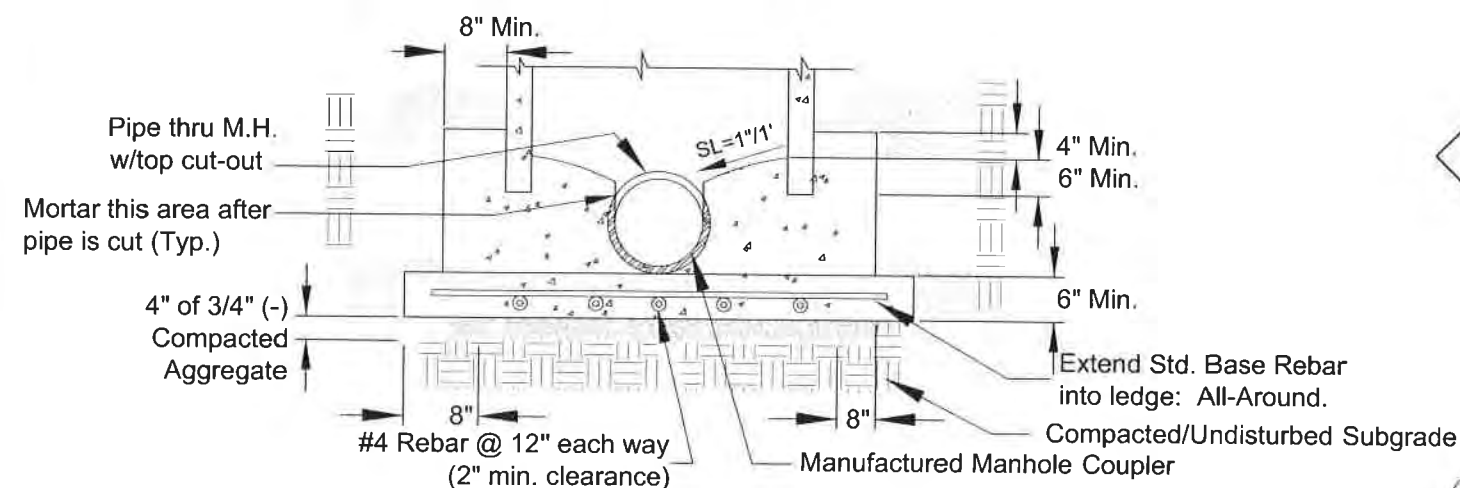


**A ASPHALT PATCH
DETAIL**

REVISIONS	DESCRIPTION	
	DATE	
SIGNED AND DATED 		
DRAFTED BY:	CEE/KWK	
CHECKED BY:	K. Lilly	
DRAWING SCALE:	NTS	
DATE:	3-4-2014	
STORM SEWER MANHOLE		CITY OF MOSCOW ENGINEERING DEPARTMENT
DRAWING NUMBER:		21



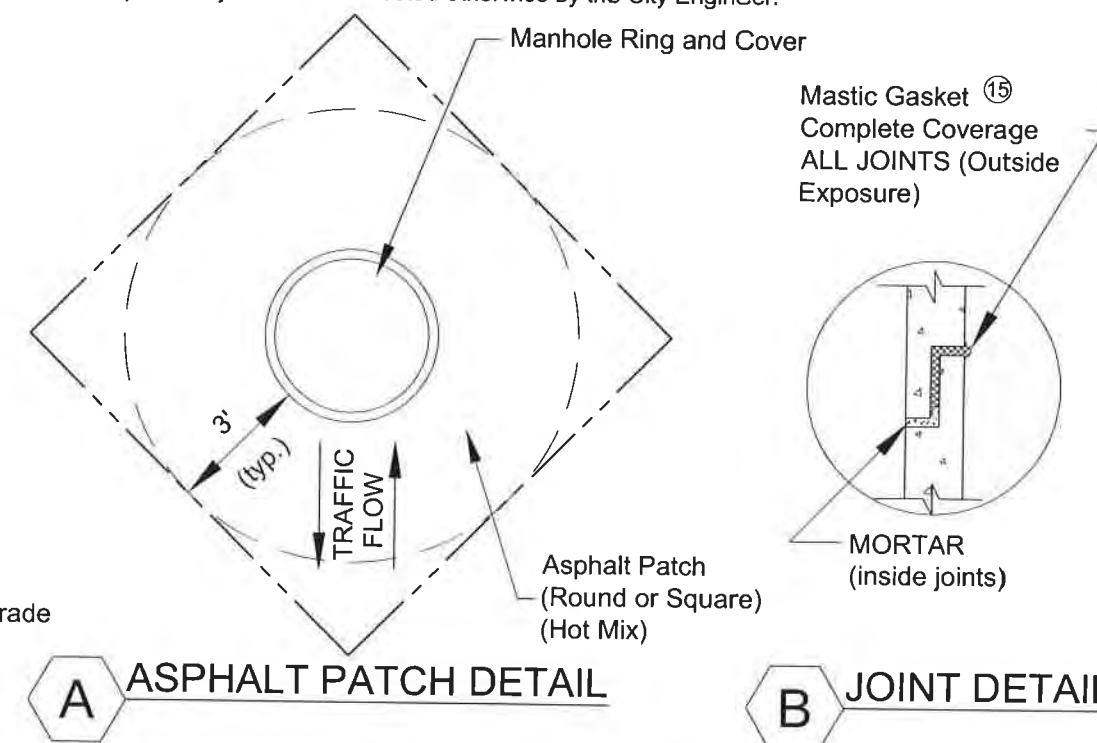
48" STANDARD MANHOLE w/ PRECAST BASE



CAST-IN-PLACE ALTERNATE BASE

- NOTES:

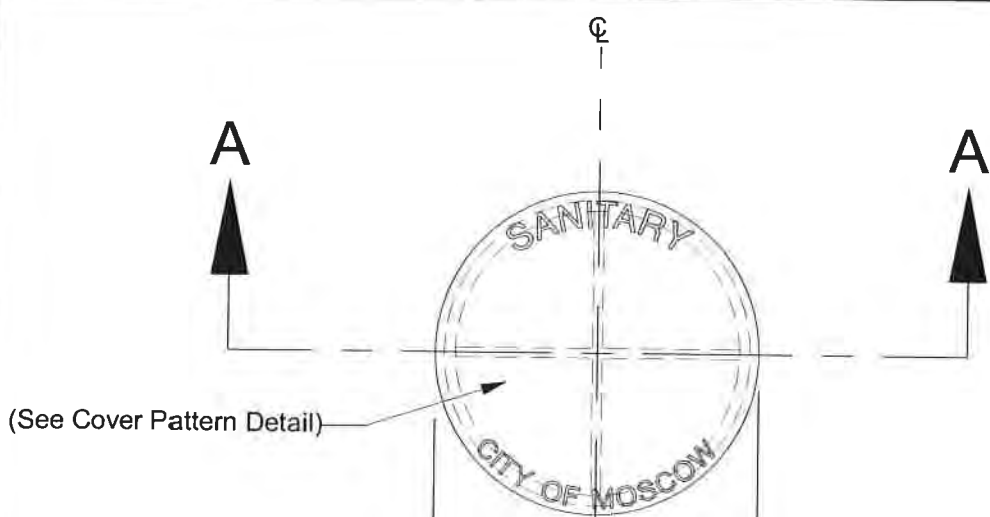
1. Precast bases with integral pipe couplers are preferred.
2. Manholes shall be constructed watertight and tested per Standard Construction Specifications.
3. Steps shall not be installed in the manholes.
4. Drop configuration is used when the entrance pipe exceeds two feet (2') above the top of the exit pipe and only with permission of the City Engineer. Drop pipe penetrations shall be neatly mortared. Drop configuration not allowed in new manhole installations.
5. Manholes located in paved areas shall have asphaltic patch four inches (4") thick placed in two lifts to exact line and grade of street. Manhole ring shall be 1/4" below finished patch.
6. Manholes located in unpaved streets or alleys shall have lid adjusted two inches (2") below gravel surface.
7. All cast-in-place conc. shall be troweled smooth.
8. All joints between precast manhole/sections shall be sealed with mastic gaskets and finished with mortar.
9. All flow across manholes shall be one-tenth of a foot (0.1'), unless the flow changes direction more than 45°, then the fall shall be two-tenths of a foot (0.2') or greater.
10. Manufactured watertight manhole couplings required at all pipe penetrations.
11. Channels shall be per Manhole Base Details Standard Drawing.
12. Shallow manholes may be constructed with flat-top precast lids, as approved by the City Engineer.
13. Seal between riser and cone, riser and riser, and riser and frame with two parallel 3/8" diameter beads of silicone sealant.
14. Where new manholes are constructed on existing mains, or where existing manholes are modified, all pipe penetrations shall also be sealed on the exterior by the careful and ample application(s) of non-shrink grout. Groutable manufactured collars shall be used on new pipes where they enter existing manholes.
15. Manufacturer's standard O-ring joint also acceptable alternate to the standard mastic gasket and mortar joints as shown.
16. Contractor shall comply with the most current OSHA requirements for excavations.
17. Backfill around manholes shall be Class 'D' for all roadways and alleys; Class 'A' for all other locations unless specifically allowed or directed otherwise by the City Engineer.





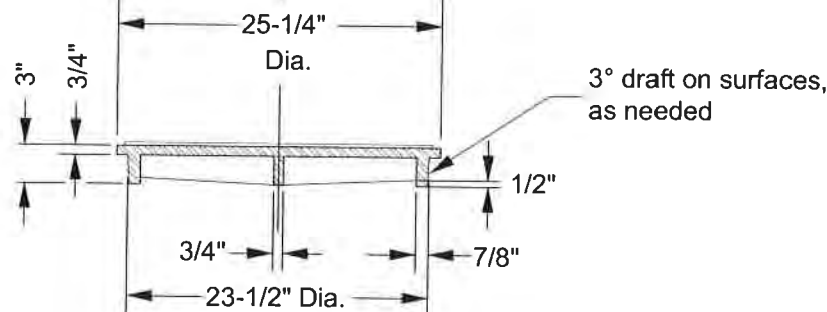
-
- Manhole Lid and Frame
- 3' (typ.)
- Asphalt Patch
(Round or Square)
(Hot Mix)
- TRAFFIC FLOW
- A ASPHALT PATCH
DETAIL**

SHALLOW SANITARY MANHOLE		DRAFTED BY: RHBIII/KWK		SIGNATURE AND DATED	
		CHECKED BY: K.Lilly		DATE	REVISIONS
CITY OF MOSCOW ENGINEERING DEPARTMENT		DRAWING SCALE: NTS			
		DATE: 3-3-2014			
DRAWING NUMBER: 23					

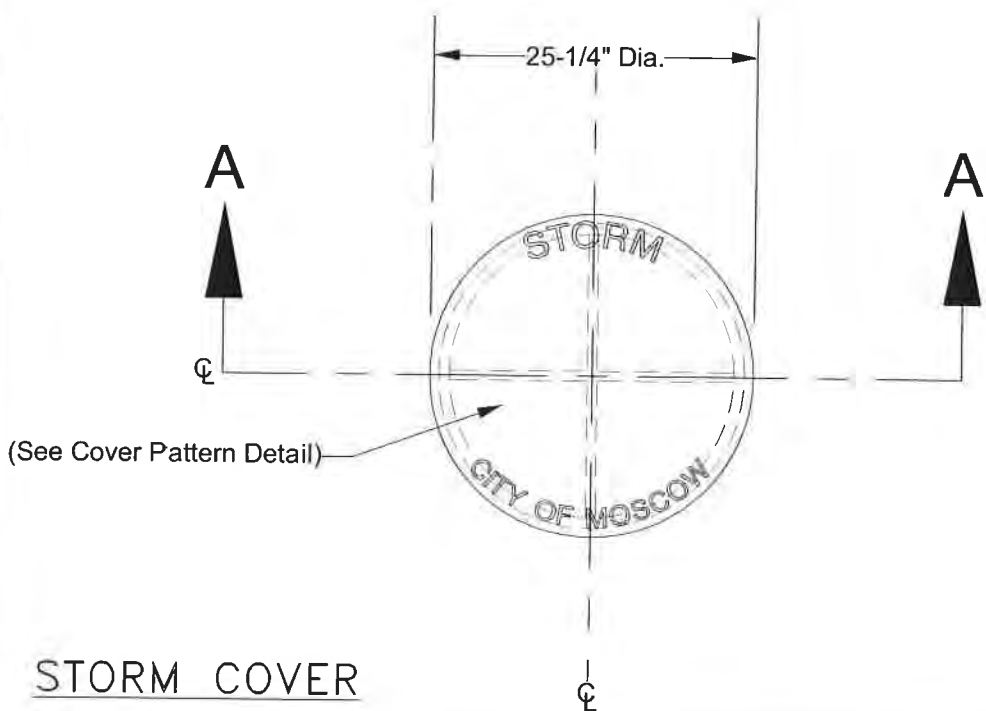


(See Cover Pattern Detail)

SANITARY COVER

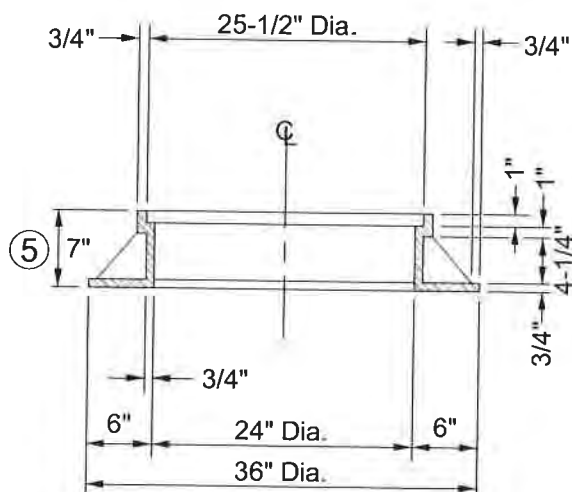


COVER SECTION A-A

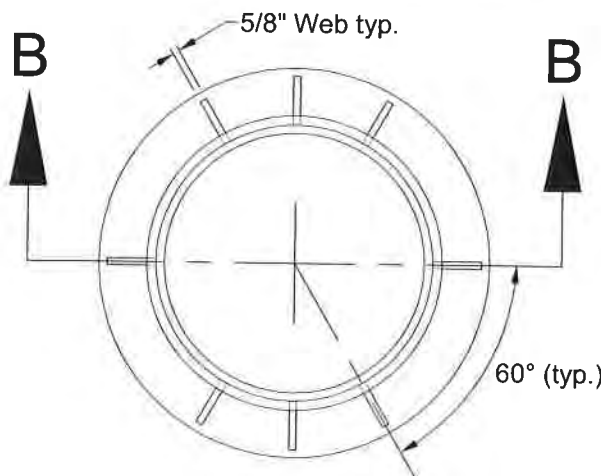


(See Cover Pattern Detail)

STORM COVER



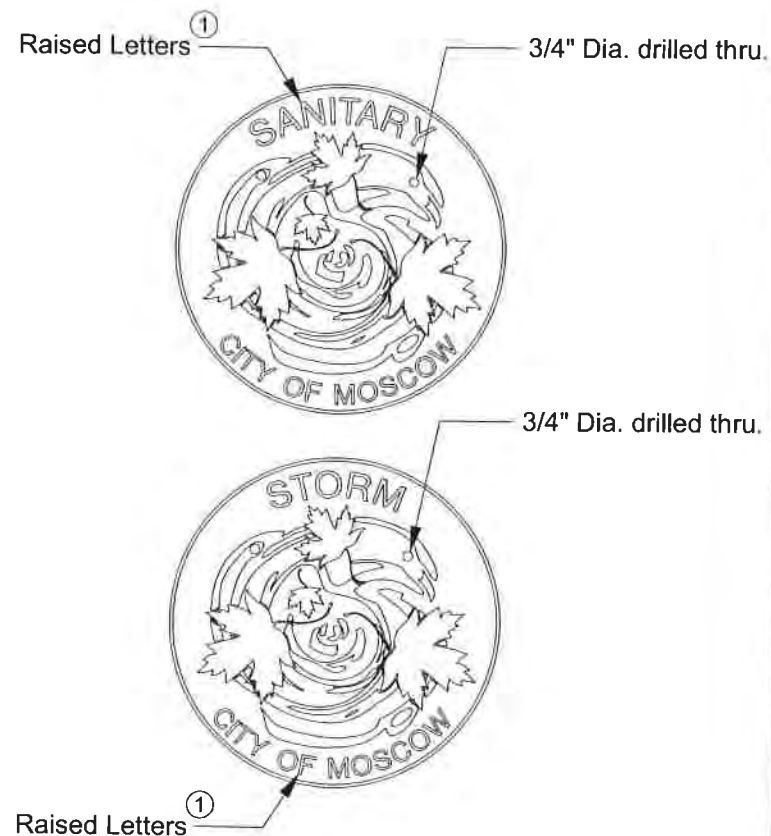
RING SECTION B-B



RING

NOTES:

1. Raised letters are Sharp Face Gothic font; 2.5" for "SANITARY" and "STORM," 1.5" for "CITY OF MOSCOW." Center word about center line.
2. Cast covers of Grey Cast Iron; ASTM A48 Class 138.
3. All covers shall be interchangeable within the dimensions shown. All mating surfaces shall be machine finished to ensure a non-rocking fit. The inside vertical recessed face of the ring and the vertical outside edge of the cover shall be machined or manufactured to the following tolerances:
Ring - +3/32 inch to -3/32 inch
Cover - +3/32 inch to -3/32 inch
4. Rings (traffic rated) of lesser height may be used in special circumstances, as allowed by the City Engineer.



COVER PATTERN DETAILS

REVISIONS	DESCRIPTION	DATE



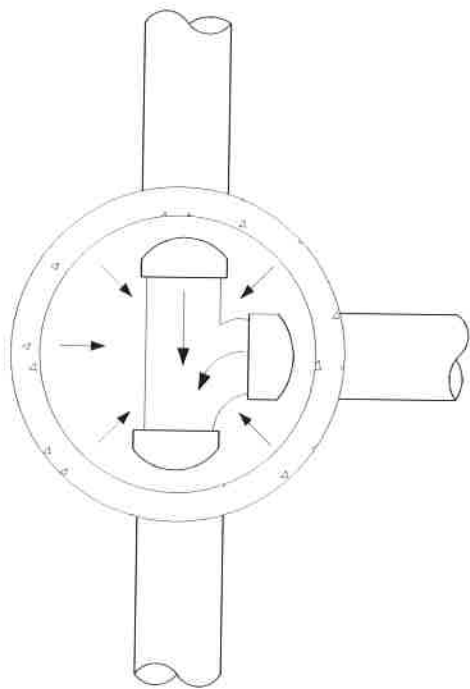
DRAFTED BY: CEE/KWK	CHECKED BY: K.Lilly	DRAWING SCALE: NTS	DATE: 3-4-2014
------------------------	------------------------	-----------------------	-------------------

**STORM & SANITARY
MANHOLE RING & COVER**

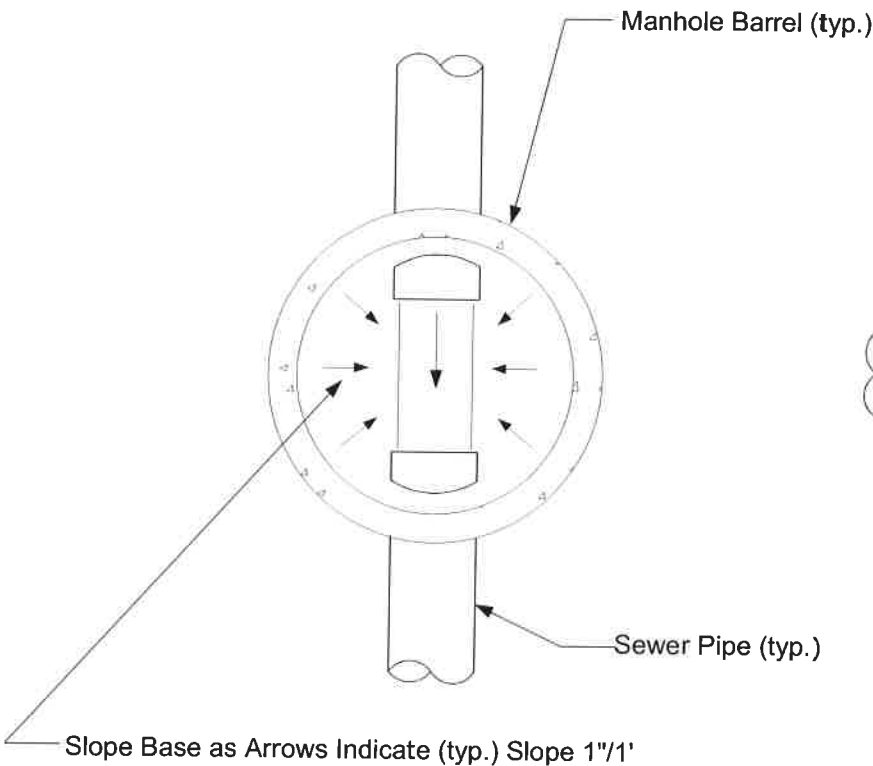
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
24

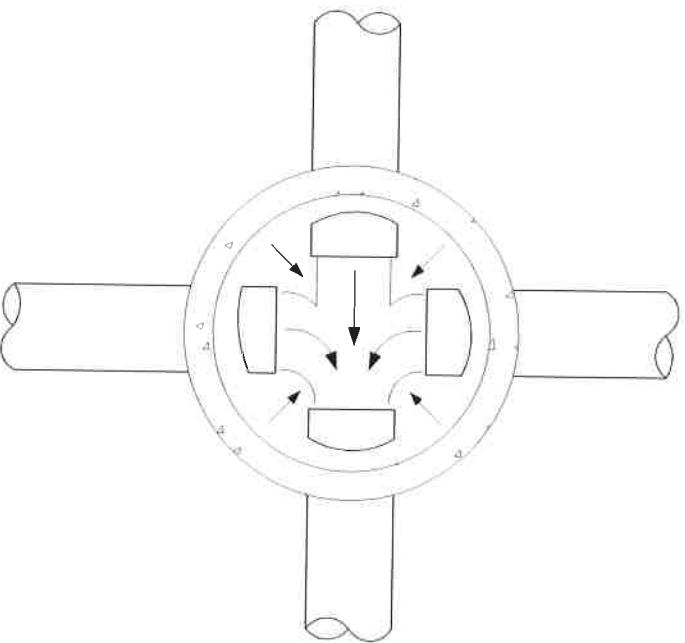
Note:
All channels to be 'U' shaped (See Channel X-Section)



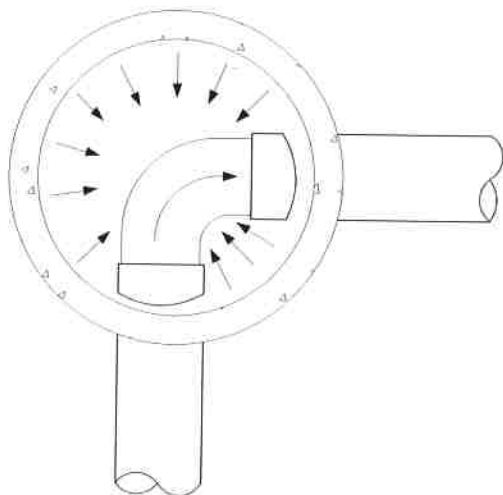
TYPE A



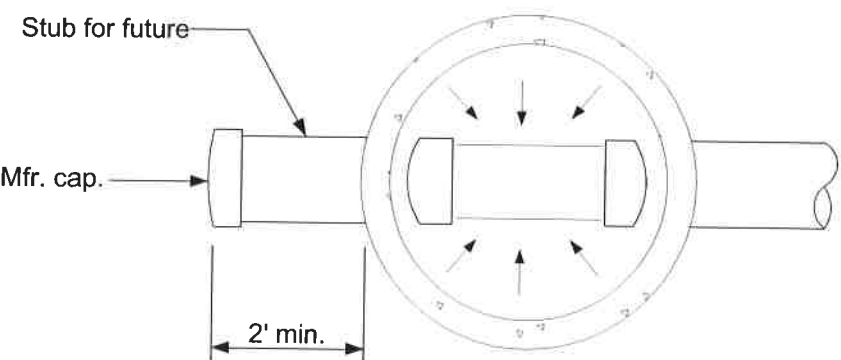
TYPE B



TYPE C

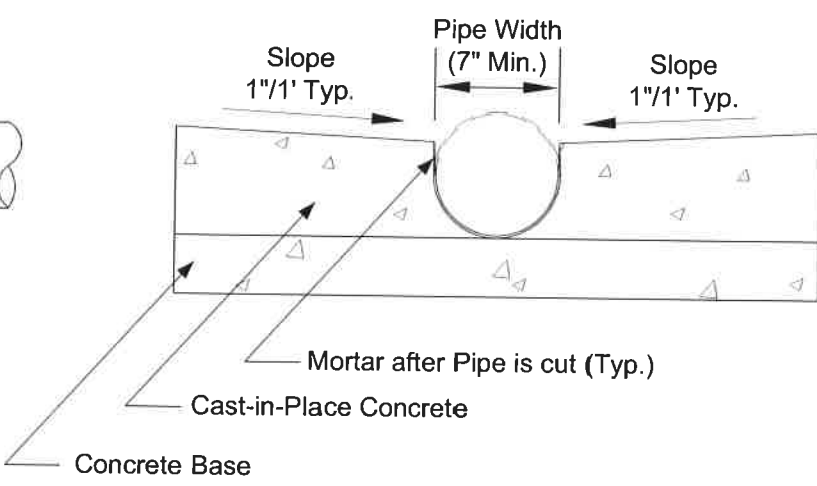


TYPE D



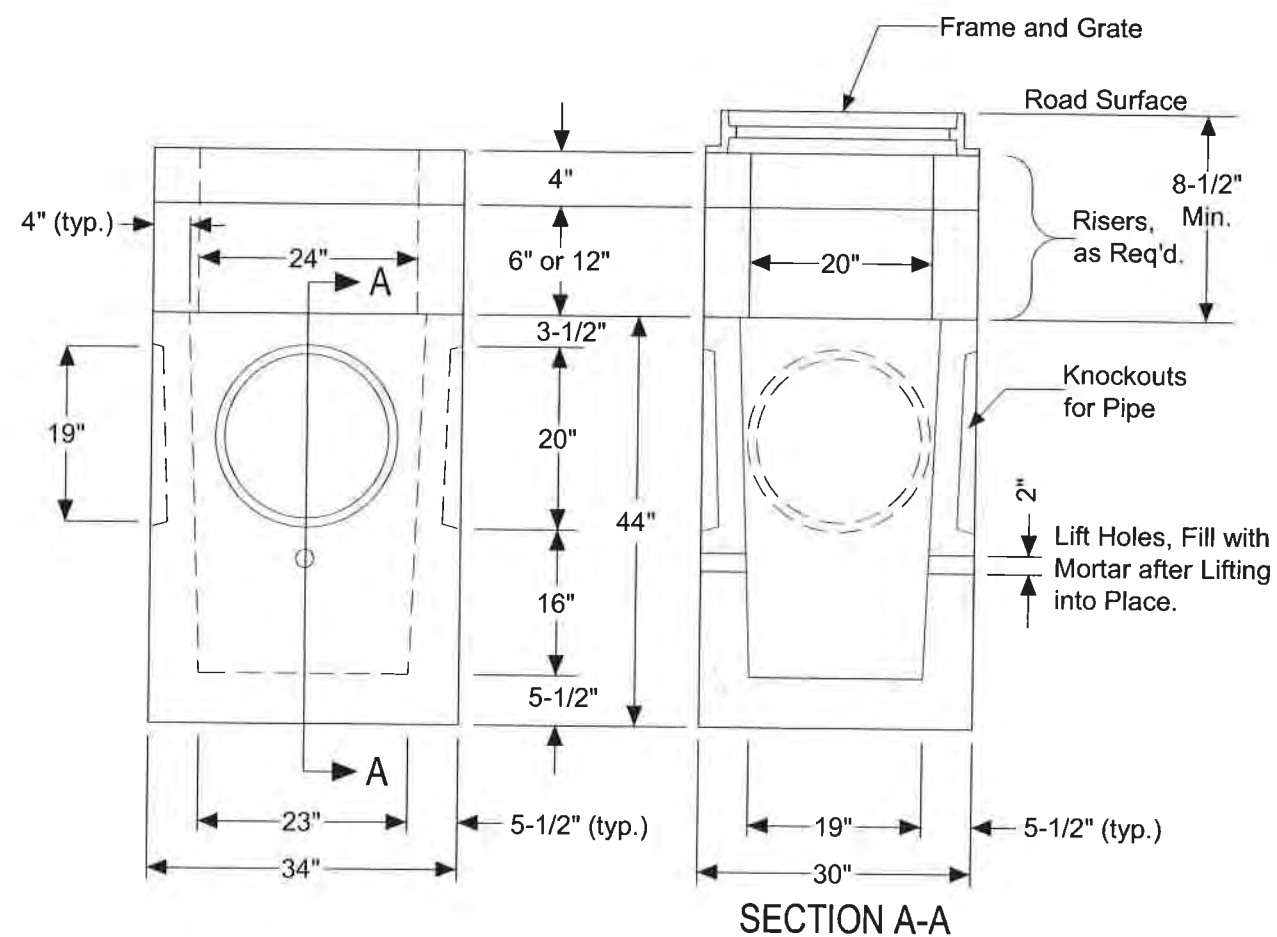
TYPE E

For Dead End Line

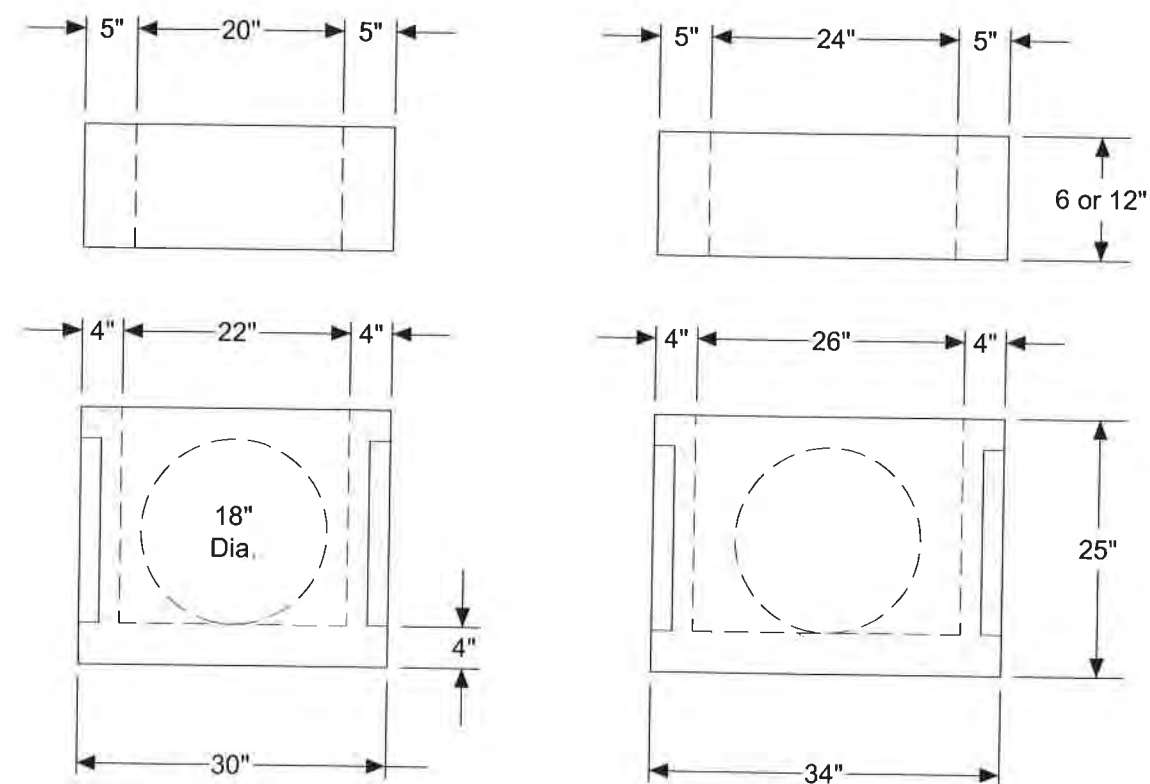


CHANNEL X-SECTION

REVISIONS		SIGNED AND DATED		DRAFTED BY: CEE/KWK	CHECKED BY: K.Lilly	DRAWING SCALE: NTS	DATE: 3-4-2014	MANHOLE BASE DETAILS	CITY OF MOSCOW ENGINEERING DEPARTMENT	DRAWING NUMBER: 25
DATE	DESCRIPTION									



CATCH BASIN



CATCH INLET

NOTES:

1. Catch Basins shall be used in all City streets, City parking lots, and City alleys for catchment and conveyance of surface runoff. Catch Inlets are not to be used in these locations unless specifically allowed by the City Engineer.
2. Catch Basin shall be precast concrete per WSDOT Catch Basin Type 1 and Catch Inlets per WSDOT Concrete Inlet, unless otherwise approved by the City Engineer.
3. Catch Basins located in paved areas shall have asphaltic patch four inches (4") thick (in two lifts) restoring surface to original line and grade. (see note 6)
4. Catch basins located in gravel streets or alleys shall have grate adjusted two inches (2") below gravel surface.
5. All pipes shall protrude 1"-2" into the basin and shall be neatly mortared all around (inside and outside). Exit pipe to manhole or storm main shall have 1'-6" minimum cover.

6. Catch Basins shall be set 0.10 foot lower than adjoining street grade.
7. All materials shall be manufactured in the U.S.A.
8. Catch Basins and Inlets shall be pre-cast concrete conforming to AASHTO M199 or ASTM C478, as shown.
9. Catch Basins and Inlets shall be backfilled to grade as per adjoining pipe trench backfill.
10. Catch Inlets may only be used as a 'bubbler', area drain, or where clearance over some particular obstacle is necessary and if approved by the City Engineer.
11. Frames and Grates shall be as per the Catch Basin & Catch Inlet Gates and/or the Combination Inlet Standard Drawing.

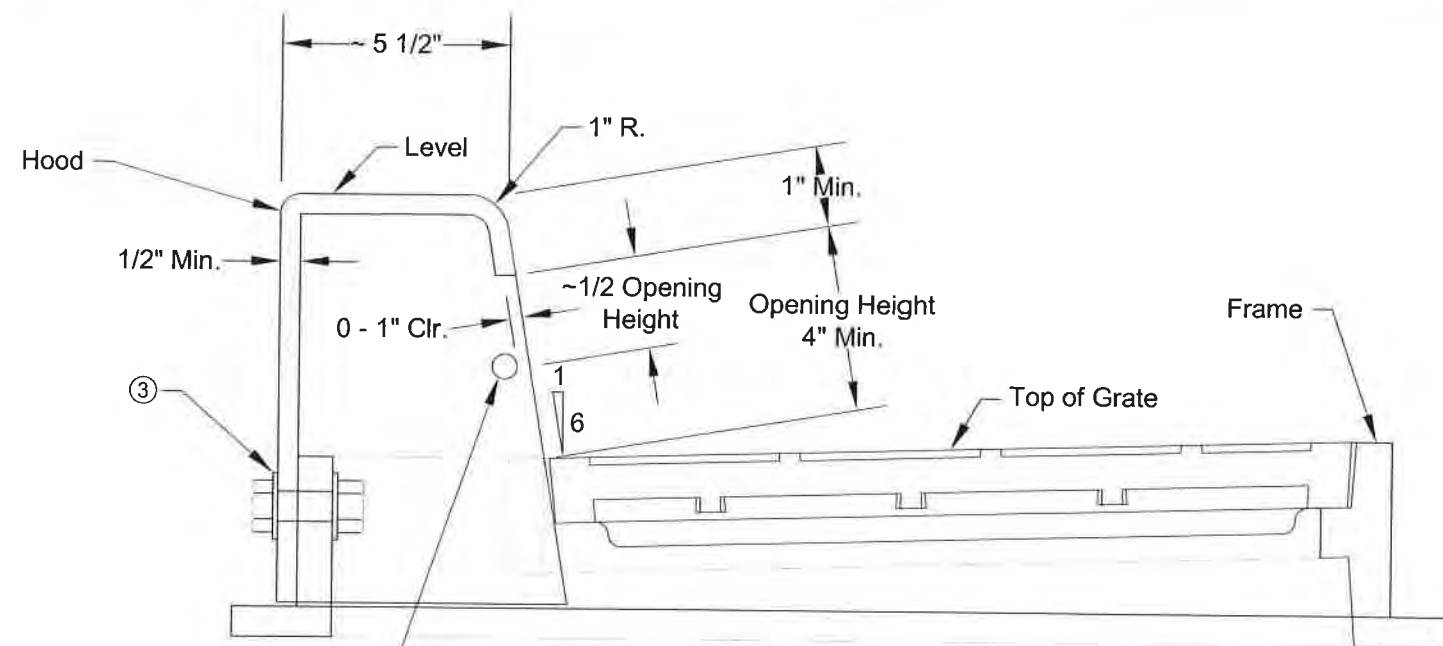
CATCH BASIN & CATCH INLET	DRAFTED BY: MAS/KWK CHECKED BY: K.Lilly DRAWING SCALE: NTS DATE: 3-4-2014	SIGNED AND DATED 	REVISIONS	
			DATE	DESCRIPTION
CITY OF MOSCOW ENGINEERING DEPARTMENT		DRAWING NUMBER: 26		



1. Curb and Gutter Pan design as per WSDOT Cement Concrete Curb And Gutter Pan.
2. The centerline of the drainage structure may differ from the centerline of the frame and grate.
3. The intent of this design is to facilitate the compaction of hot mix asphalt pavement adjacent to a drainage structure.

CITY OF MOSCOW
ENGINEERING DEPARTMENT

27a

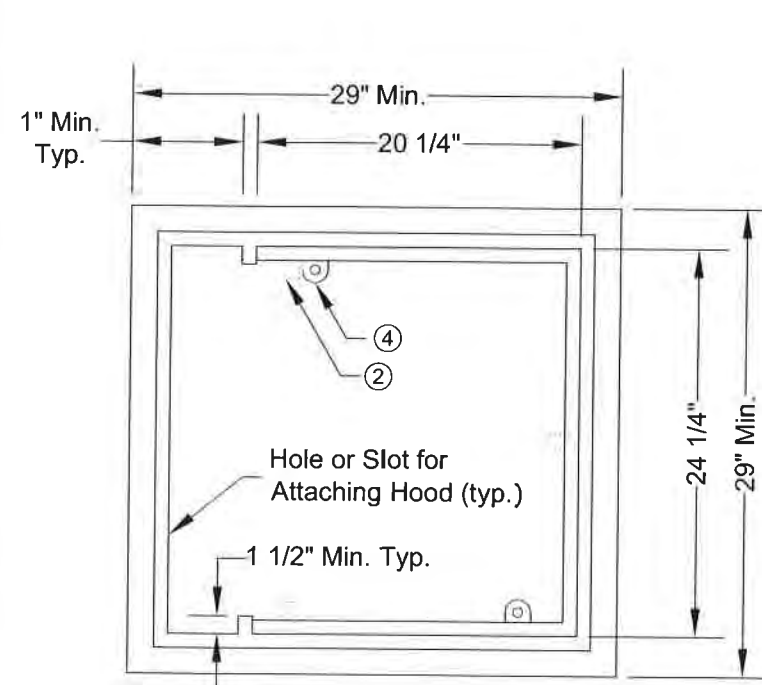


Safety Bar / Debris Guard
5/8" Min. Dia. Steel Rod

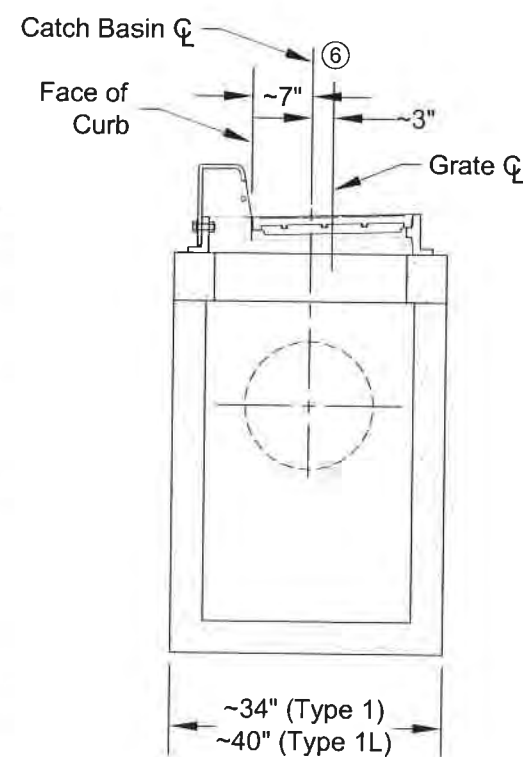
Detail Section A

NOTES:

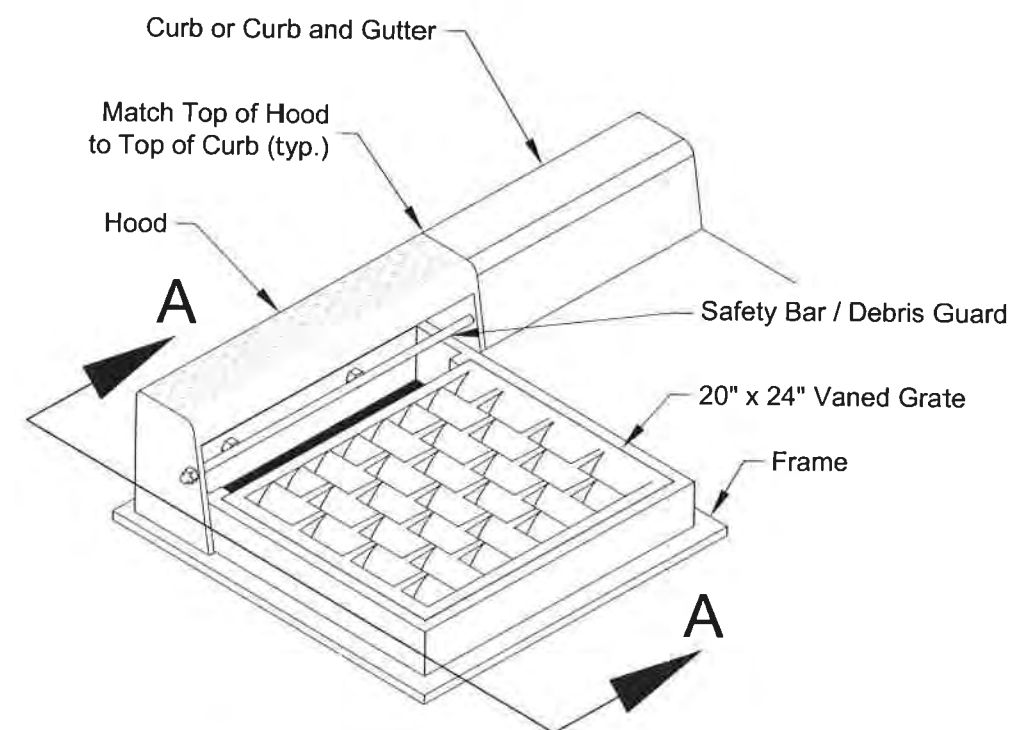
1. Curb and Gutter Pan design as per WSDOT Combination Inlet.
2. The dimensions of the Frame and Hood may vary slightly among different manufacturers. The Frame may have cast features intended to support a grate guard. Hood units shall mount outside of the Frame. The methods for fastening the Safety Bar / Debris Guard Rod to the Hood may vary. The Hood may include casting lugs. The top of the Hood may be cast with a pattern.
3. Attach the Hood to the frame with two 3/4" x 2" hex head bolts, nuts, and oversize washers. The washers shall have diameters adequate to assure full bearing across the slots.
4. When bolt-down grates are specified, provide two holes in the frame that are vertically aligned with the grate slots. Tap each hole to accept 5/8" x 11 NC x 2" hex head cap screws. Location of bolt-down holes varies among different manufacturers. See BOLT-DOWN DETAIL, WSDOT Standard Plan B-30.10.
5. This plan is intended to show the installation details of a manufactured product. It is not the intent of this plan to show the specific details necessary to fabricate the castings shown on this drawing.
6. The asymmetry of the Combination Inlet shall be considered when calculating the offset distance for the catch basin. See SECTION A.



FRAME DETAIL
TOP VIEW



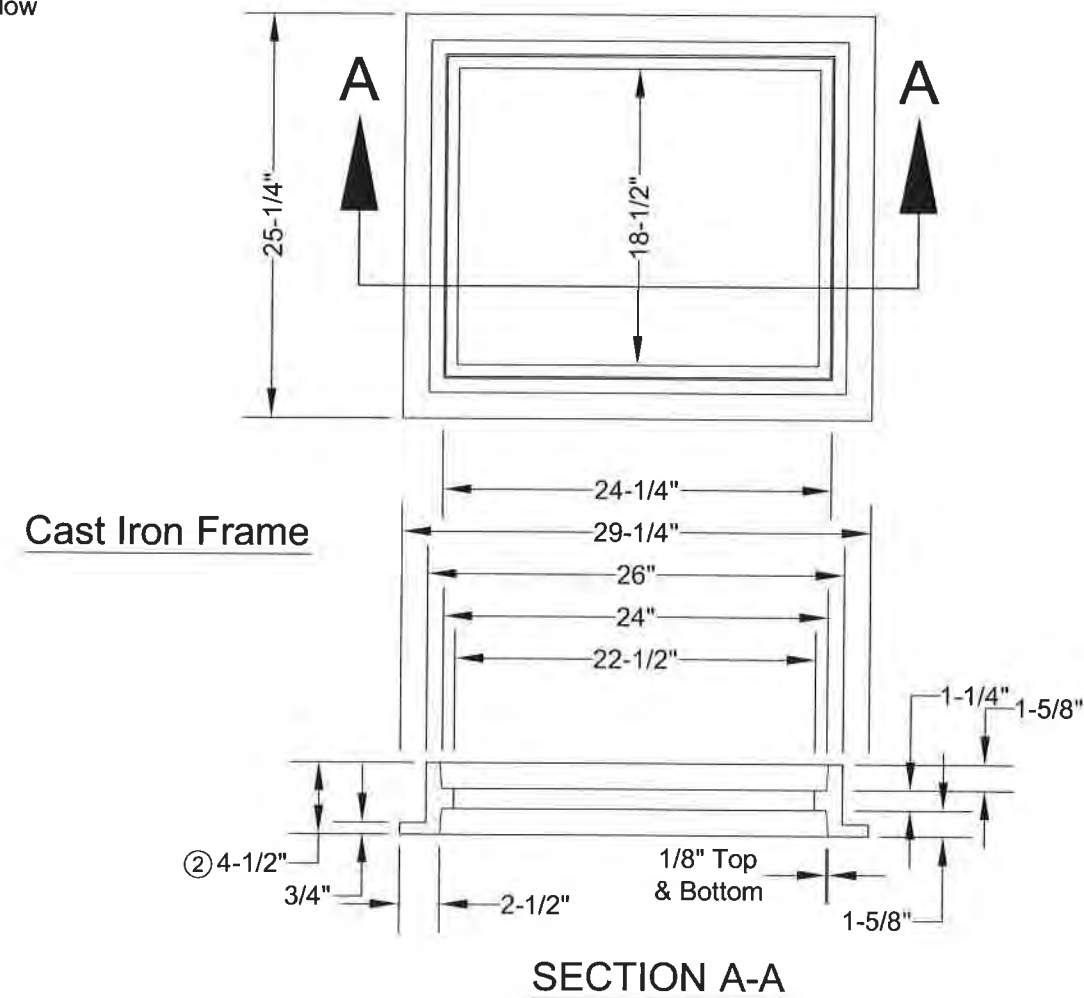
SECTION A



ISOMETRIC VIEW
COMBINATION INLET

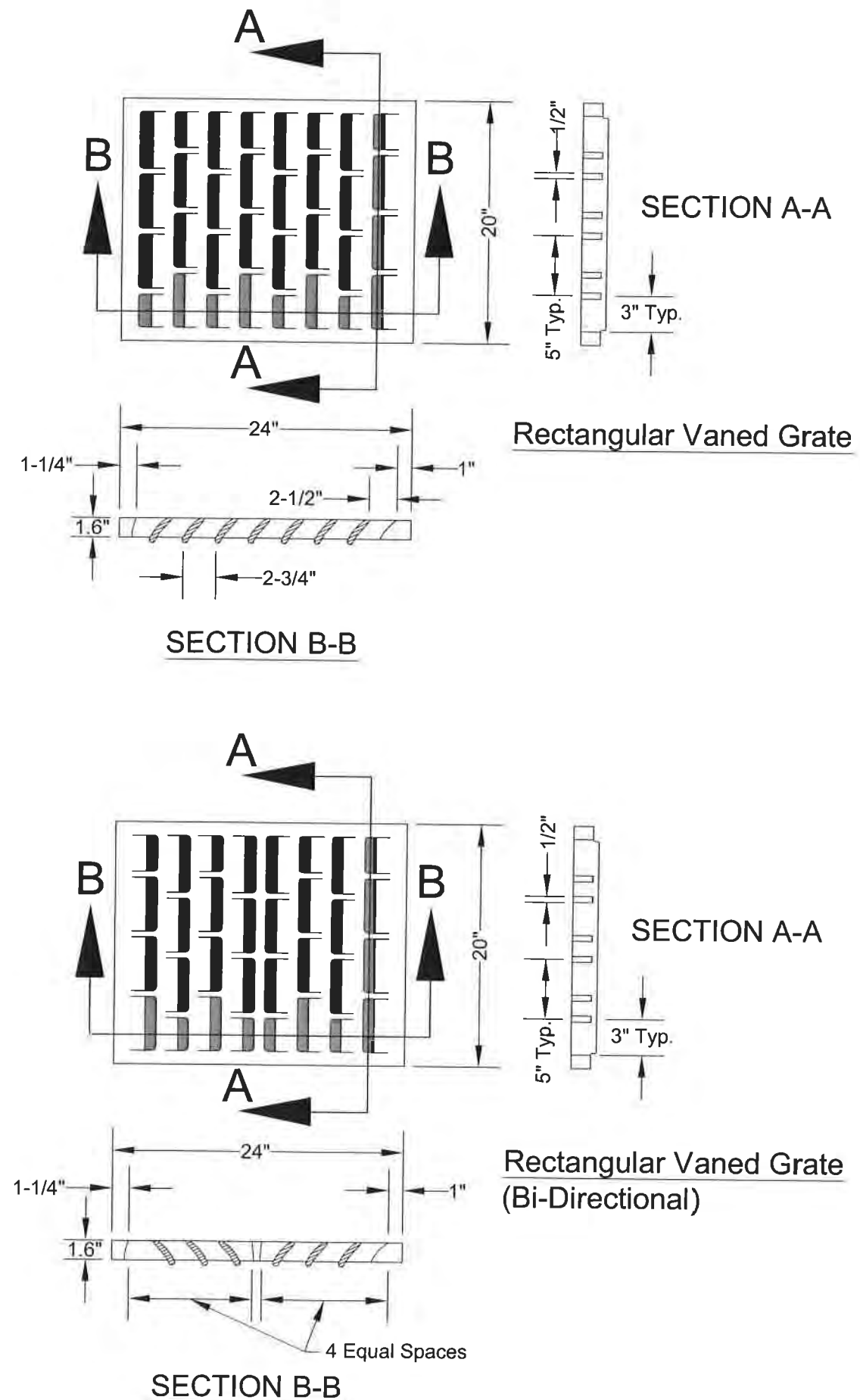
COMBINATION INLET CITY OF MOSCOW ENGINEERING DEPARTMENT		DRAFTED BY: C. Edwards CHECKED BY: K. Lilly DRAWING SCALE: N.T.S. DATE: 3-4-2014	SIGNED AND DATED		REVISIONS	
			PROFESSIONAL ENGINEER REGISTERED KEVIN LILLY 8832 5-19-14 STATE OF IDAHO		DATE	DESCRIPTION
DRAWING NUMBER:		27b				

Vanes to be placed towards origin of water flow



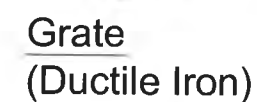
NOTES:

1. Standard Frame and Grate as per WSDOT Rectangular Frame and Rectangular Grate.
2. A 2-1/8" riser is also available.
3. All pipes shall protrude 1"-2" into the inlet and shall be neatly mortared all around (inside and outside). Exit pipe shall have 1.5 foot min. cover.
4. Inlet grates and catch basins in paved areas shall be set one-tenth of a foot (0.10') lower than adjacent ground elevation.
5. All materials shall be manufactured in the U.S.A.
6. Type "A" grate required in all installations unless specifically allowed otherwise by the City Engineer.
7. Catch basins located in unpaved streets, alleys, or landscaped area shall have grate adjusted two inches (2") below gravel surface.
8. All basins, frames, and grates shall be rated for heavy traffic loading.
9. Rectangular solid metal cover may be used at junction points where grate is not necessary.



CATCH BASIN & INLET TYPE 'A' GRATE	DRAFTED BY: CEE/KWK CHECKED BY: K.Lilly DRAWING SCALE: N.T.S. DATE: 3-4-2014	SIGNED AND DATED 	REVISIONS	
			DATE	DESCRIPTION
DRAWING NUMBER: 27c	CITY OF MOSCOW ENGINEERING DEPARTMENT			

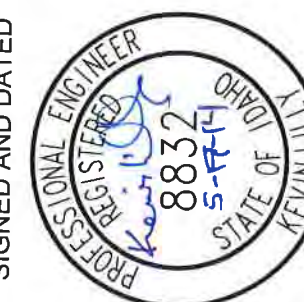
Vanes to be placed towards origin of water flow



1. All pipes shall protrude 1"-2" into the inlet and shall be neatly mortared all around (inside and outside). Exit pipe shall have 1.5 foot min. cover.
2. Inlet grates and catch basins in paved areas shall be set one-tenth of a foot (0.10') lower than adjacent ground elevation.
3. All materials shall be manufactured in the U.S.A.
4. Catch basins located in unpaved streets, alleys, or landscaped areas shall have grate adjusted two inches (2") below gravel surface.
5. All basins, frames, and grates shall be rated for heavy traffic loading.

[illegible]

SIGNED AND DATED



DRAFTED BY:
MAS/KWK

CHECKED BY:
K.Lilly

DRAWING SCALE:
N.T.S.

DATE: 2-2-2012

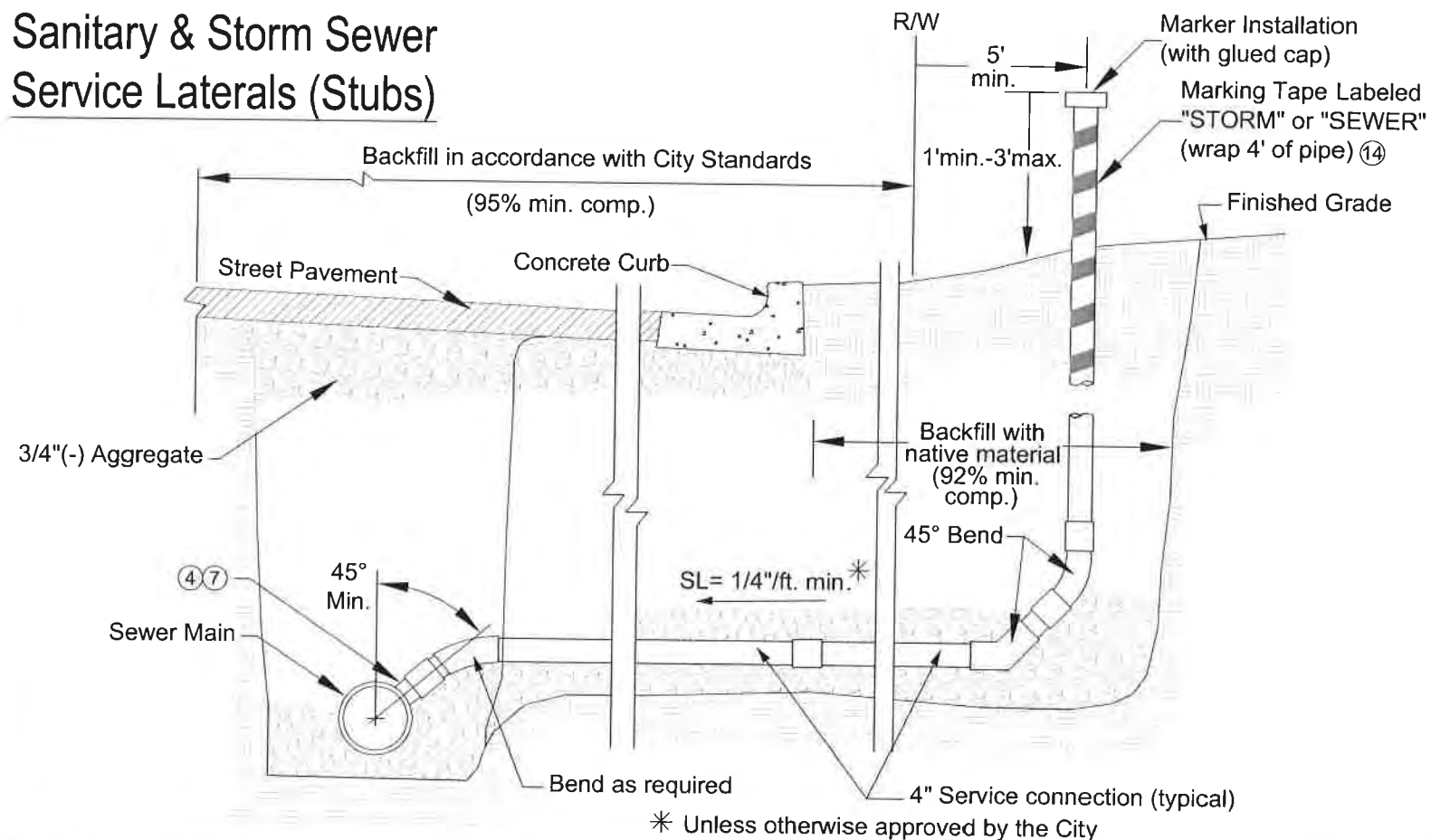
CATCH BASIN & INLET TYPE 'B' GRATE (Rolled Curb)

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:

27d

Sanitary & Storm Sewer Service Laterals (Stubs)



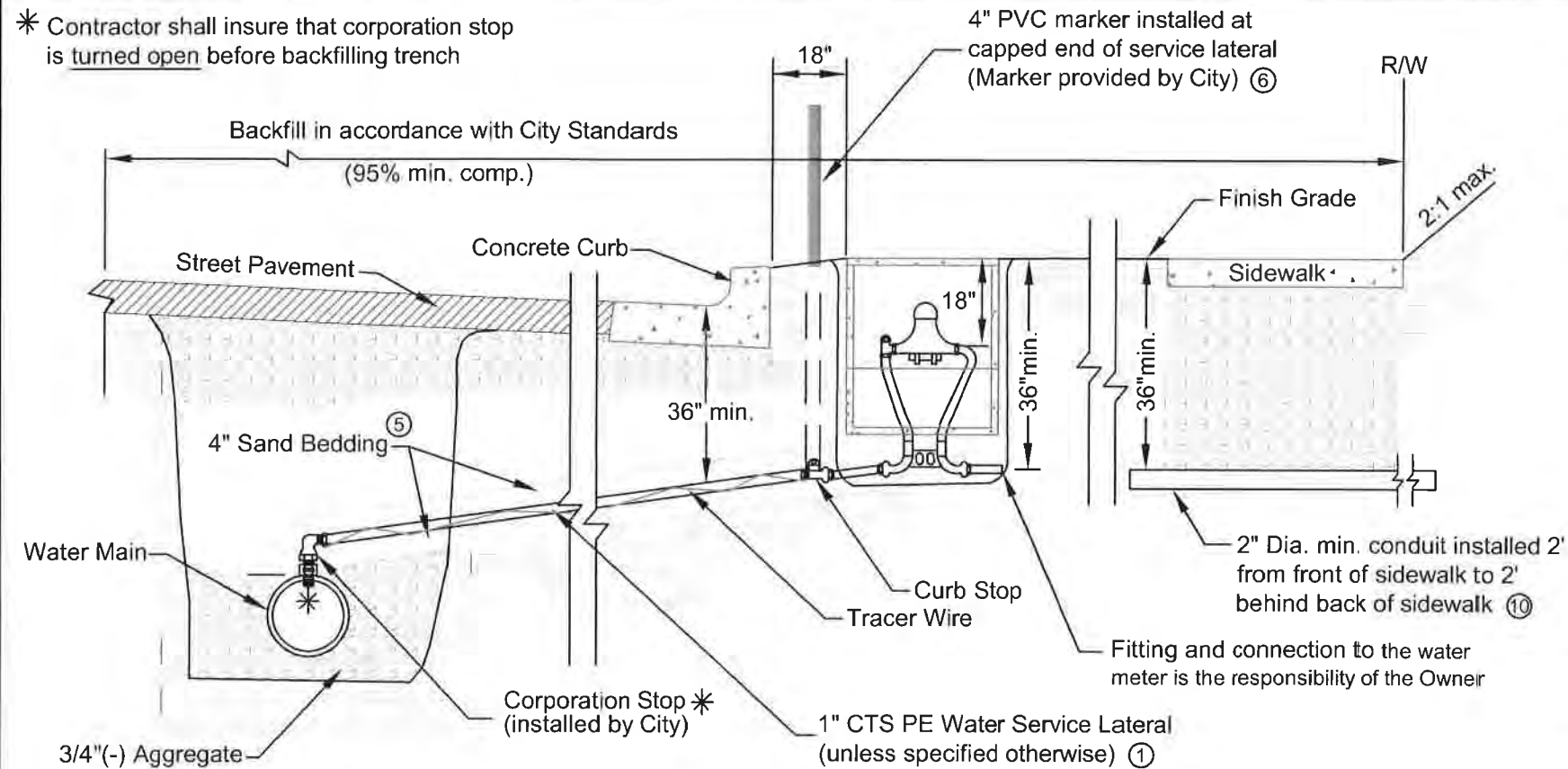
1. Pipe materials shall be as follows:
 - a. Within public right-of-way: SDR 35 PVC, (ASTM D-3034), with integral gasketed bell and spigot joints.
 - b. From right-of way to within two feet (2') of the house:
SDR 35 PVC, (ASTM D-3034), with integral gasketed bell and spigot joints or Schedule 40 ABS plastic pipe with glued fittings.

- a. The bottom of the water pipe, at all joints, shall be at least twelve inches (12") above the top of the sanitary or storm drain service line.
- b. The water pipe shall be placed on a solid shelf, excavated at one side of the common trench, with a minimum clear horizontal distance of at least twelve inches (12") from the sanitary or storm drain service line.
- c. Where the sanitary or storm drain line crosses the water service line, the top of the sanitary or the storm drain line is a minimum of twelve inches (12") below the water service line.

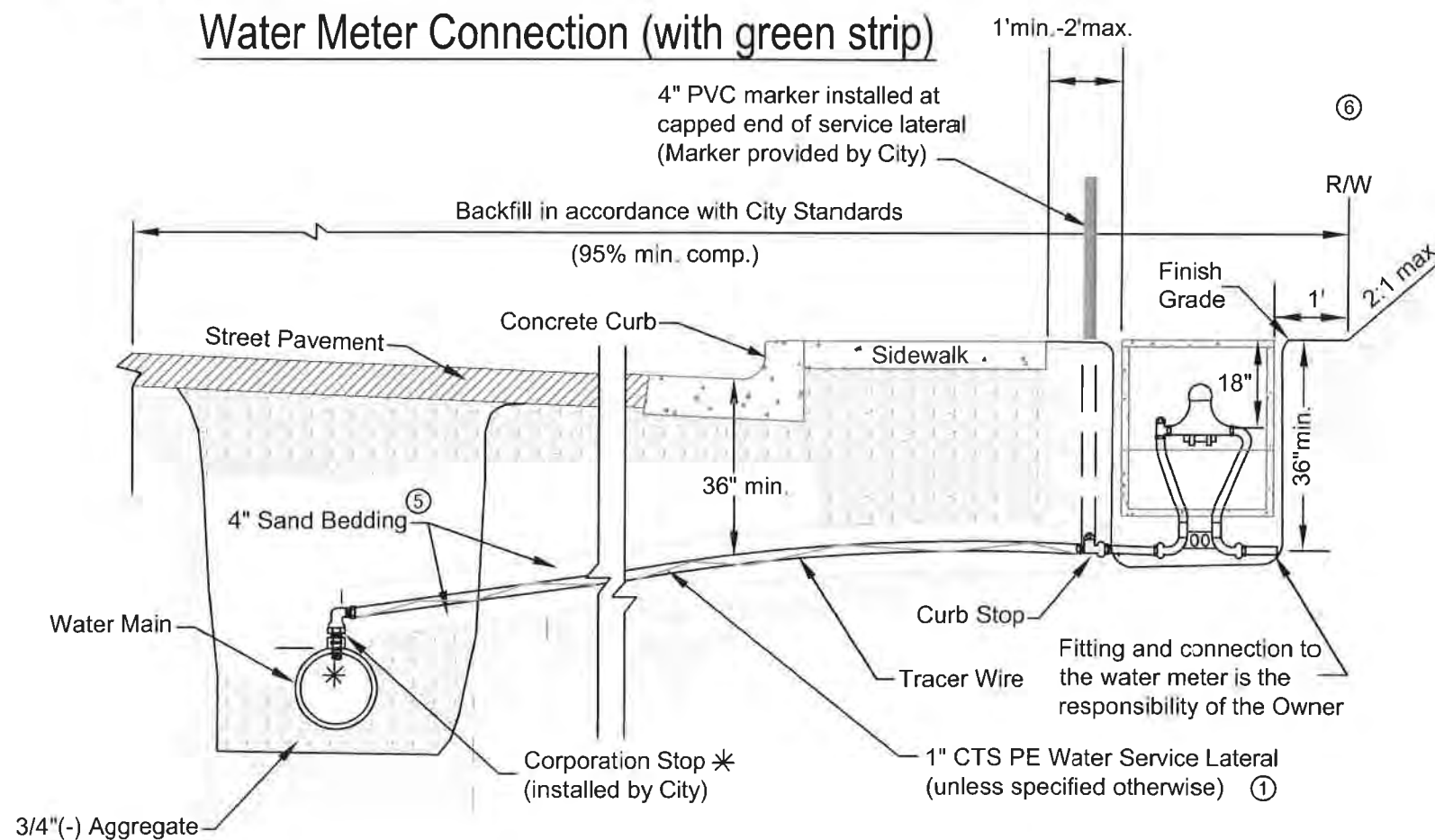
2. Trench bottom to be prepared, as required, for a firm bed.
3. Existing sewer mains shall be tapped by the City, at the Owner's expense.
4. Sewer service laterals shall be connected to the new mains with manufactured wyes. Connection to existing mains require ROMAC 'CB' saddles, or equivalent.
5. Owner to obtain the necessary permits from the Moscow Community Development Department and Public Works Department.
6. This work shall comply with the Uniform Plumbing Code (UPC).
7. Sewer services shall connect to the sanitary sewer main at a point above the centerline of the pipe.
8. Construction to be inspected by the City.
9. Sanitary service laterals (stubs) shall be air tested with the sanitary sewer main.
10. All backfill under sidewalks shall be crushed aggregate. (95% minimum compaction)
11. The service lateral (from main to house) shall be bedded in sand or 3/4"(-) crushed aggregate; from two inches (2") under the pipe to two inches (2") over the pipe.
12. SANITARY service laterals shall be green pipe from the main to the house, including stub outs and markers.
13. STORM service laterals shall be white pipe from the main to the house, including stub outs and markers.
14. Marking tape shall be three inch (3") wide commercially manufactured, and labeled "STORM DRAIN" for storm sewer and "SEWER" for sanitary sewer use.
15. Storm drain and sanitary sewer services (private) located within public street right-of-way or public utility easements shall have a 2.5' minimum burial depth unless specifically allowed otherwise by the City Engineer.

SANITARY & STORM SEWER SERVICE CONNECTIONS	DRAFTED BY: KWK	CHECKED BY: K.Lilly	DRAWING SCALE: NTS	DATE: 2-3-2012		SIGNED AND DATED		REVISIONS	
						DATE	DESCRIPTION		
CITY OF MOSCOW ENGINEERING DEPARTMENT		DRAWING NUMBER: 28							

* Contractor shall insure that corporation stop is turned open before backfilling trench



Water Meter Connection (with green strip)



Water Meter Connection (no green strip)

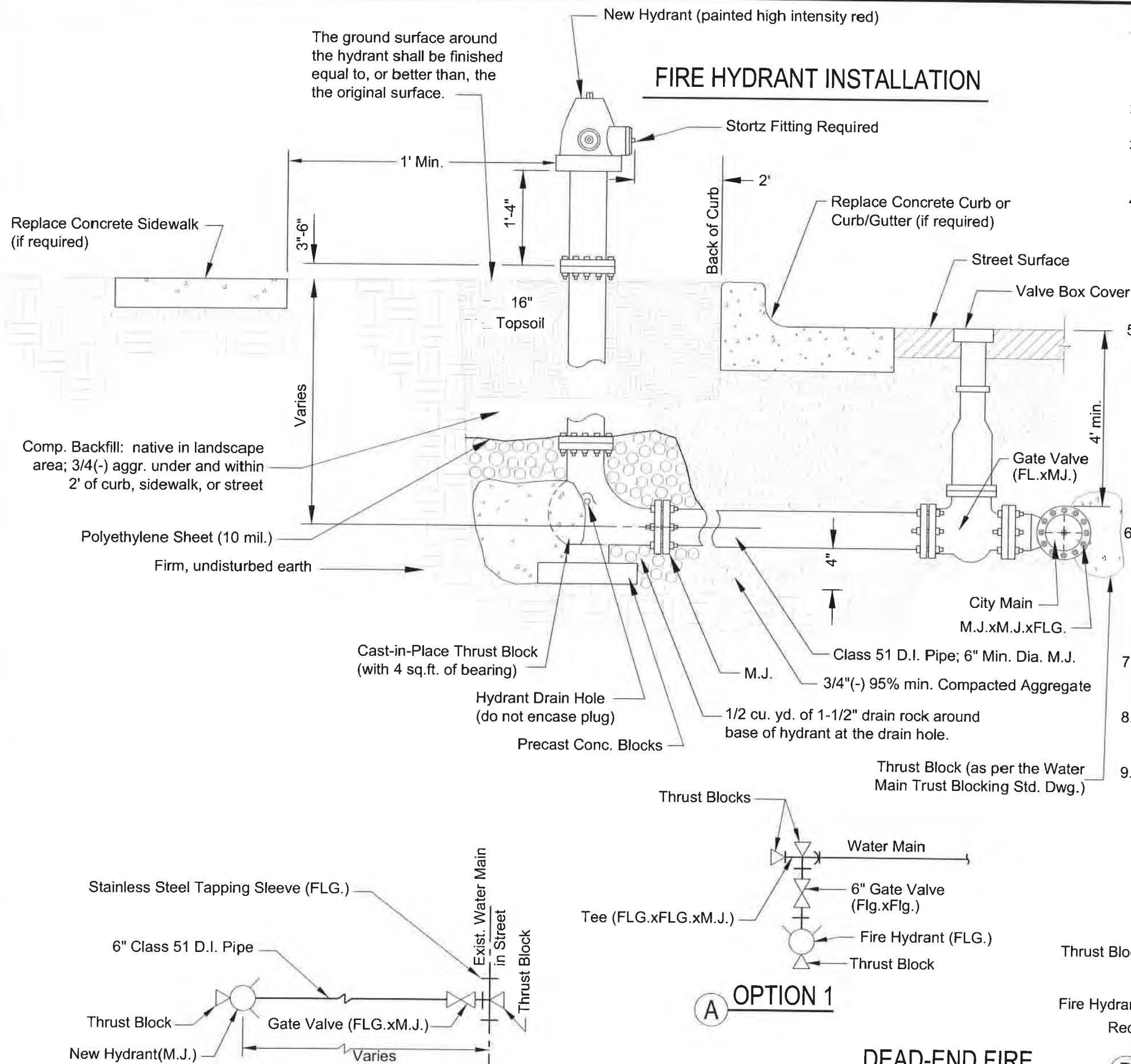
* Contractor shall insure that corporation stop is turned open before backfilling trench

NOTES:

1. Pipe and fittings, from the water main to the curb stop, will be supplied by the City.
2. Water main shall be tapped by the City.
3. Trench bottom to be prepared, as required, for a firm bed.
If the water service line and sanitary or storm drain service lines, from the right-of-way to the house, are installed in the same trench, then all three of the following requirements shall be met:
 - a. The bottom of the water pipe, at all joints, shall be at least twelve inches (12") above the top of the sanitary or storm drain service lines.
 - b. The water pipe shall be placed on a solid shelf, excavated at one side of the common trench, with a minimum clear horizontal distance of at least twelve inches (12") from the sanitary or storm drain service line.
 - c. Where the sanitary or storm drain line crosses the water service line, the top of the sanitary or the storm drain line is a minimum of twelve inches (12") below the water service line.
4. The roadway subgrade shall be established prior to the installation of the water service laterals.
5. The water service lateral shall be bedded in sand or pea gravel from four inches (4") under the pipe to four inches (4") over the pipe.
6. After the installation of the water service lateral, a 4" PVC marker shall be placed at the capped end of the curb stop. The marker will be provided by the City. It shall be the responsibility of the Contractor to install, maintain, and protect the marker.
7. The capped curb stop shall be located eighteen inches (18") beyond the back of curb, if placed in the green strip, and one foot (1') minimum to two feet (2') maximum beyond the back of sidewalk, if sidewalk is installed next to the curb.
8. The capped curb stop shall be buried to a minimum depth of thirty six inches (36") from finished grade elevation.
9. The water service lateral and curb stop shall be installed perpendicular to either the curb or the sidewalk.
10. When water meter is located in the green strip, a two inch (2") minimum diameter conduit shall be installed extending two feet (2') from the front of the sidewalk to two feet (2') behind the back of sidewalk.
11. Pipe installation shall be inspected by the City before the trench is backfilled.
12. Owner to obtain the necessary permits from the Moscow Community Development Department and Public Works Department.
13. The Owner's work shall comply with the Uniform Plumbing Code (UPC).
14. All backfill under sidewalks shall be 3/4"(-) crushed aggregate (95% min. compaction).

WATER SERVICE CONNECTIONS	DRAFTED BY: KWK		SIGNED AND DATED 	REVISIONS	
	CHECKED BY: K. Lilly			DATE	DESCRIPTION
	DRAWING SCALE: NTS				
	DATE: 3-5-2014				
CITY OF MOSCOW ENGINEERING DEPARTMENT					
DRAWING NUMBER: 29					

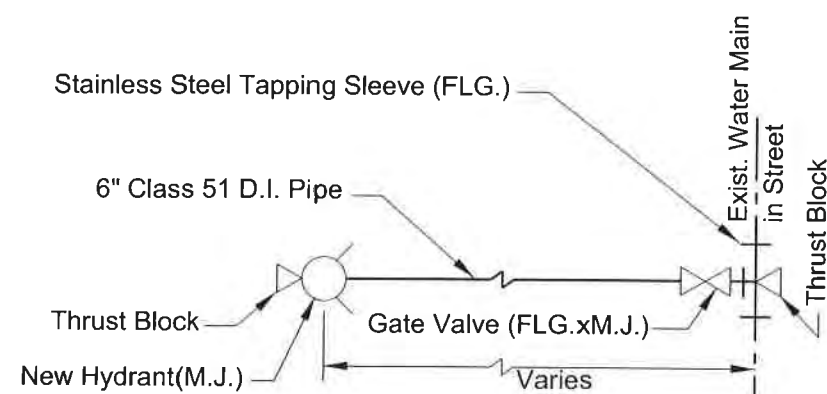
FIRE HYDRANT INSTALLATION



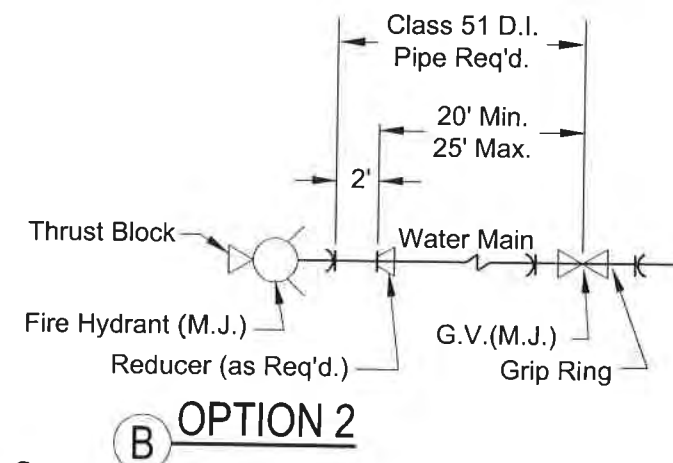
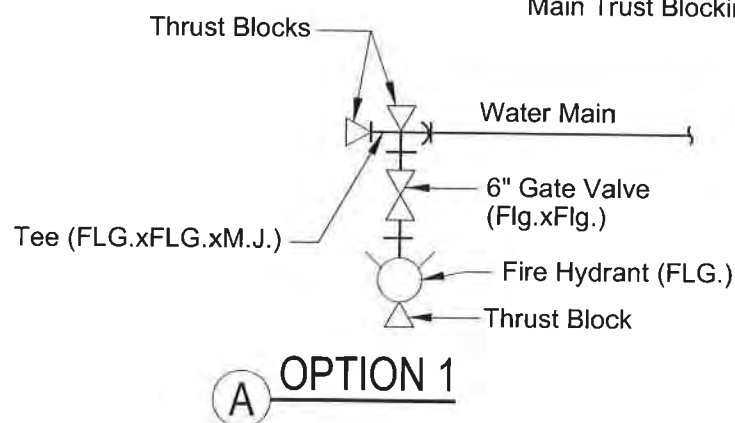
NOTES:

- Thrust blocks shall be cast against undisturbed, firm earth.
- Hydrants shall be set truly vertical.
- Materials and installation shall also conform to the City's Standard Specifications.
- FOR LIVE TAP ONLY: After the Contractor exposes the main, the City will provide the labor and pipe tapping tools for this connection at a set fee to the Contractor. Contractor is responsible for trench backfill and street patch in accordance with City Standards.
- Where sidewalk is adjacent to or within four feet (4') of the back of curb the hydrant shall be located one foot (1') behind the sidewalk (measured from the face of the hydrant cap to back of sidewalk). Where there is curb but no sidewalk the hydrant shall be located two feet (2') from the back of curb (measured to the face of the hydrant cap). Where there is no sidewalk or curb locate the hydrant as directed by the City Engineer.
- All fire hydrants and the water lines to the fire hydrants become the City's once installed. Twenty foot (20') wide public utility easements centered on and around the fire hydrant and the waterline to the fire hydrant shall be granted to the City.
- Furnish and install protective bollards if required by the City Engineer.
- A three foot (3') radius clear zone required all around fire hydrant, maximum slope of 10%.
- Fire hydrant to be set to manufacturer elevation and bury specifications.

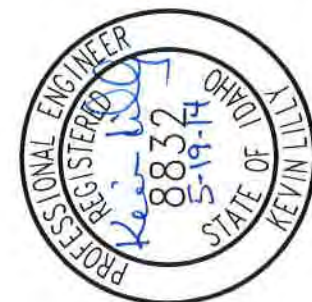
LIVE-TAP HYDRANT DETAIL

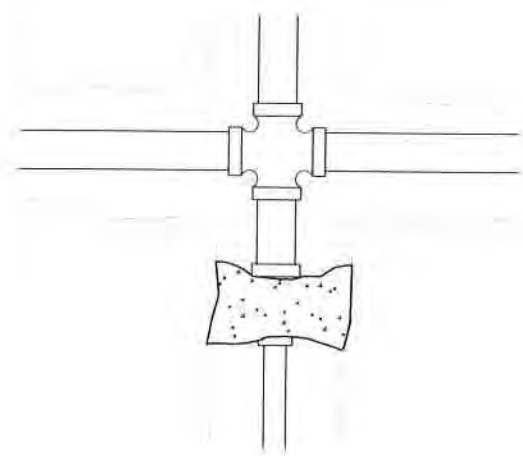


DEAD-END FIRE HYDRANT DETAILS

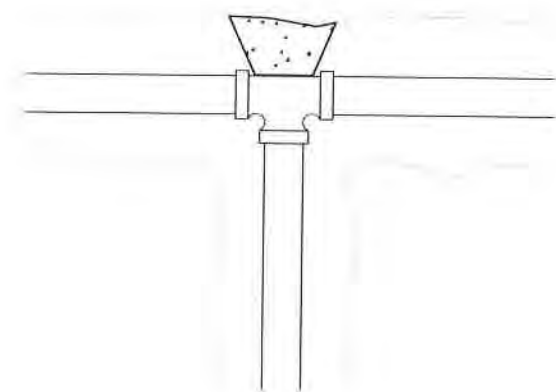


REVISIONS	DESCRIPTION	DATE	SIGNED AND DATED	DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
				CEE/KWK	K.Lilly	NTS	3-5--2014
FIRE HYDRANT ASSEMBLY CITY OF MOSCOW ENGINEERING DEPARTMENT							
DRAWING NUMBER: 30							

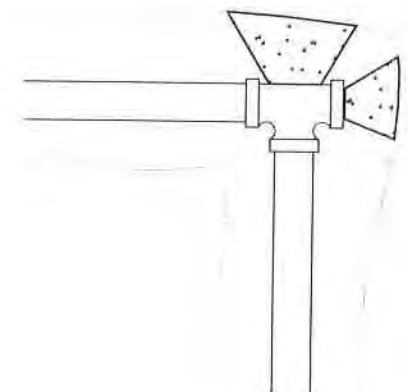




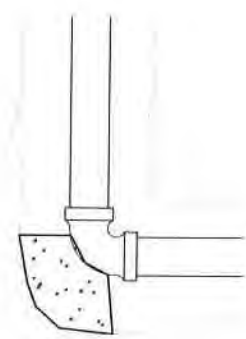
CROSS WITH REDUCER



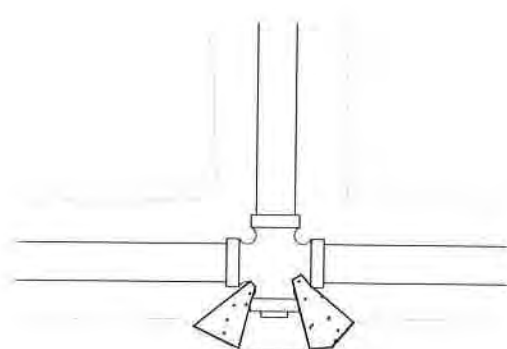
TEE



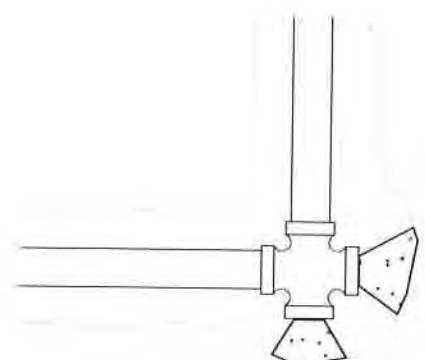
TEE WITH PLUG



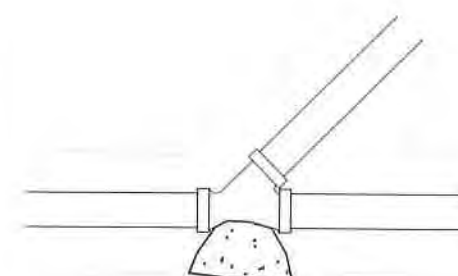
90° ELBOW



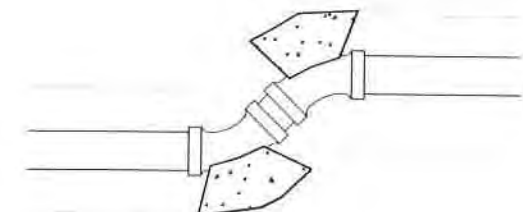
CROSS WITH PLUG



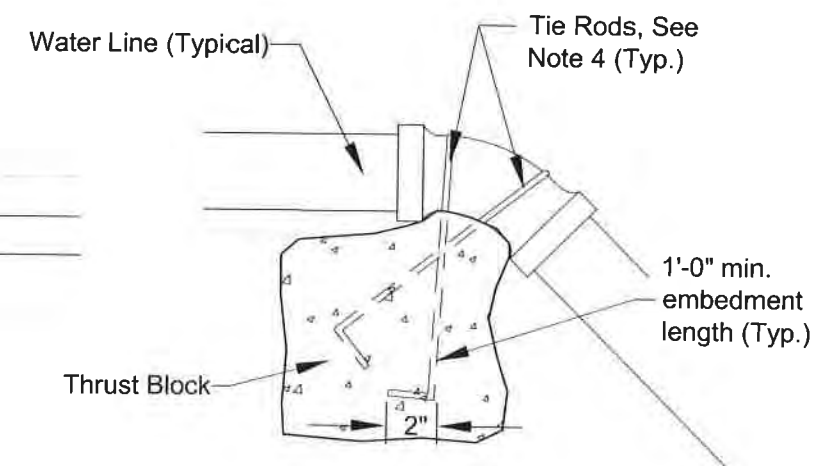
CROSS WITH 2 PLUGS



WYE



11-1/4°, 22-1/2°
OR 45° BENDS



VERTICAL DOWN BENDS

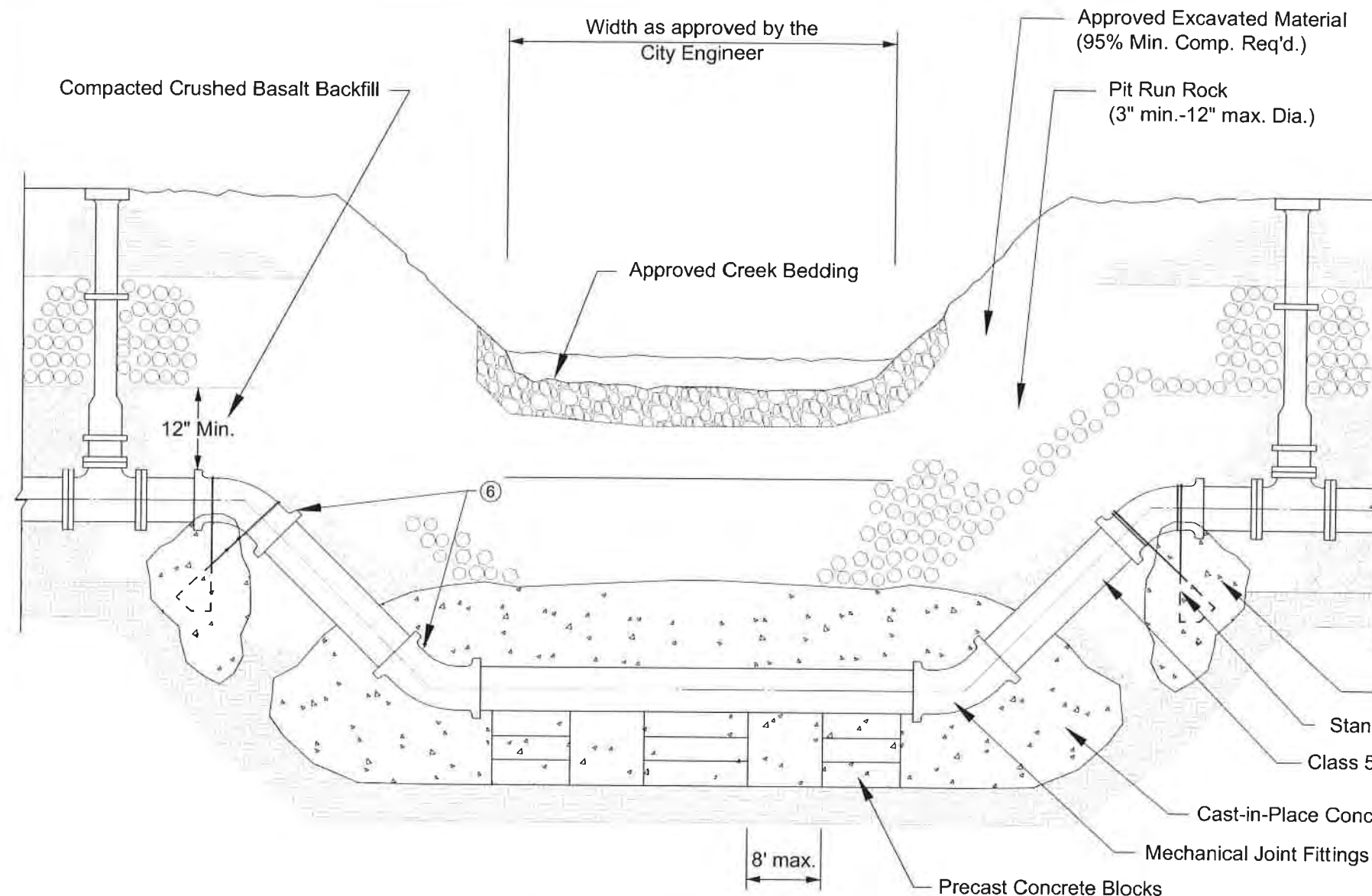
THRUST BLOCK SIZE

Size of Pipe	Horizontal Bends Sq. Feet of Bearing on Undisturbed Earth				Vertical Down Bends Cu.Yds.
	Tees & Deadends	90°	45°	22 1/4° 11 1/4°	
4"	2	3	1-1/2	1	1/2
6"	4	5-1/2	3	1-1/2	1/2
8"	7	9-1/2	5	2-1/2	1
10"	11	15	8-1/2	4	1-1/2
12"	15-1/2	22	12	6	2
16"	21	27	21	11	2-1/2

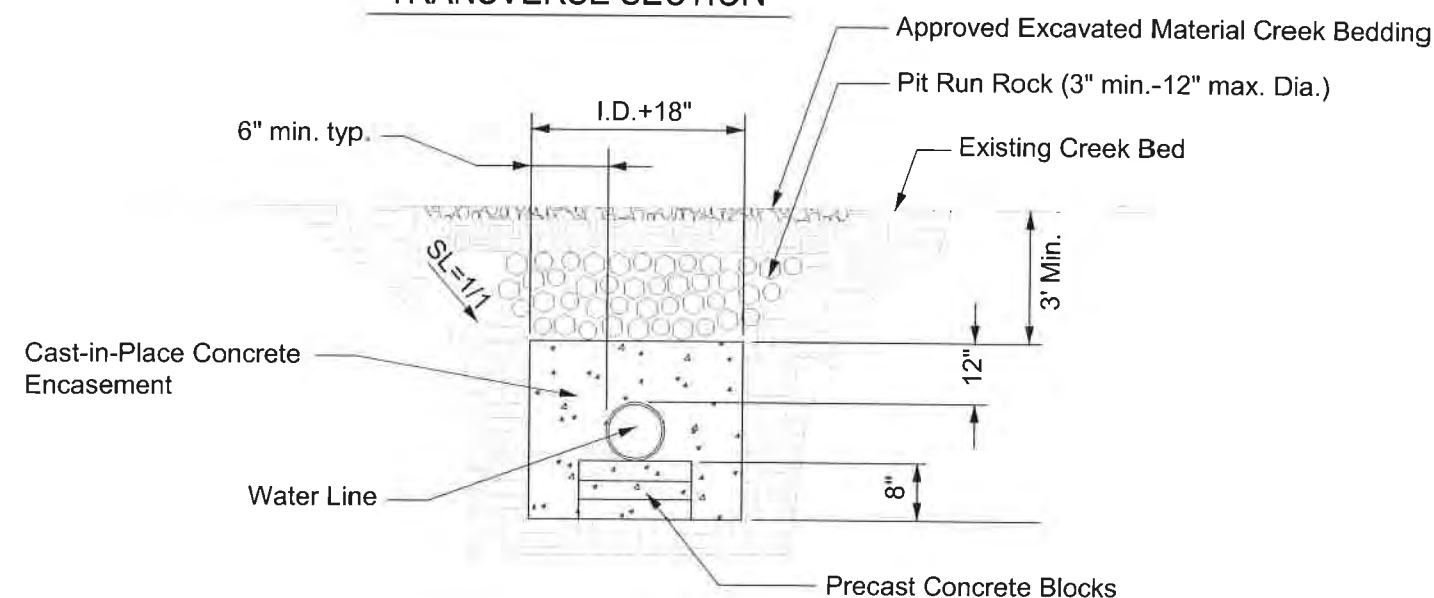
NOTES:

1. Thrust blocking for water mains shall be, as a minimum, the size indicated in the above Table.
2. Concrete shall be from a commercial source and be a minimum of 5-sack mix or ITD Class 22.
3. Concrete shall not be allowed in joints or in contact with pipes. Protect with plastic or paper sheeting prior to placing concrete.
4. Tie rods shall be 3/4" minimum diameter steel; coat tie rods with bituminous coating or approved equal. Hook (2" min.) all embedded ends.
5. The minimum distance between the fitting and excavated bank shall be three (3) pipe diameters.
6. Thrust blocks shall be cast against firm, undisturbed earth, as approved by the City Engineer.
7. Thrust blocks must be inspected by the City prior to backfill.
8. Thrust blocks for vertical up bends shall correspond to the requirements of horizontal bends.

SIGNED AND DATED		REVISIONS	
		DATE	DESCRIPTION
DRAFTED BY:	RKC/KWK	CHECKED BY:	K.Lilly
DRAWING SCALE:	N.T.S.	DATE:	2-6-2012
WATER MAIN THRUST BLOCKING		CITY OF MOSCOW ENGINEERING DEPARTMENT	
DRAWING NUMBER:		31	



TRANSVERSE SECTION



LONGITUDINAL SECTION

NOTES:

1. Gate valves shall be located each side of the crossing.
2. The depth of burial and location must provide for creek bank cleaning excavations.
3. Subgrade at the bottom of the trench must be firm. If not, the trench must be over-excavated as directed by the City Engineer and backfilled with compacted 3/4"(-) crushed basalt.
4. Concrete encasement shall be 6-sack City Standard.
5. Tie rods shall be per City Standard for vertical thrust blocks.
6. Grip rings shall be used with all creek crossing mechanical joint fittings, including the gate valves.
7. Creek crossing permits required as applicable. Creek bottom and bank restoration as required by Army Corps of Engineers Permit.
8. Erosion and sediment control shall comply with City Code.
9. Minimum water main cover = 4.0 ft. throughout the crossing; as measured from finish grade to top of pipe.

REVISIONS	DESCRIPTION	DATE

SIGNED AND DATED



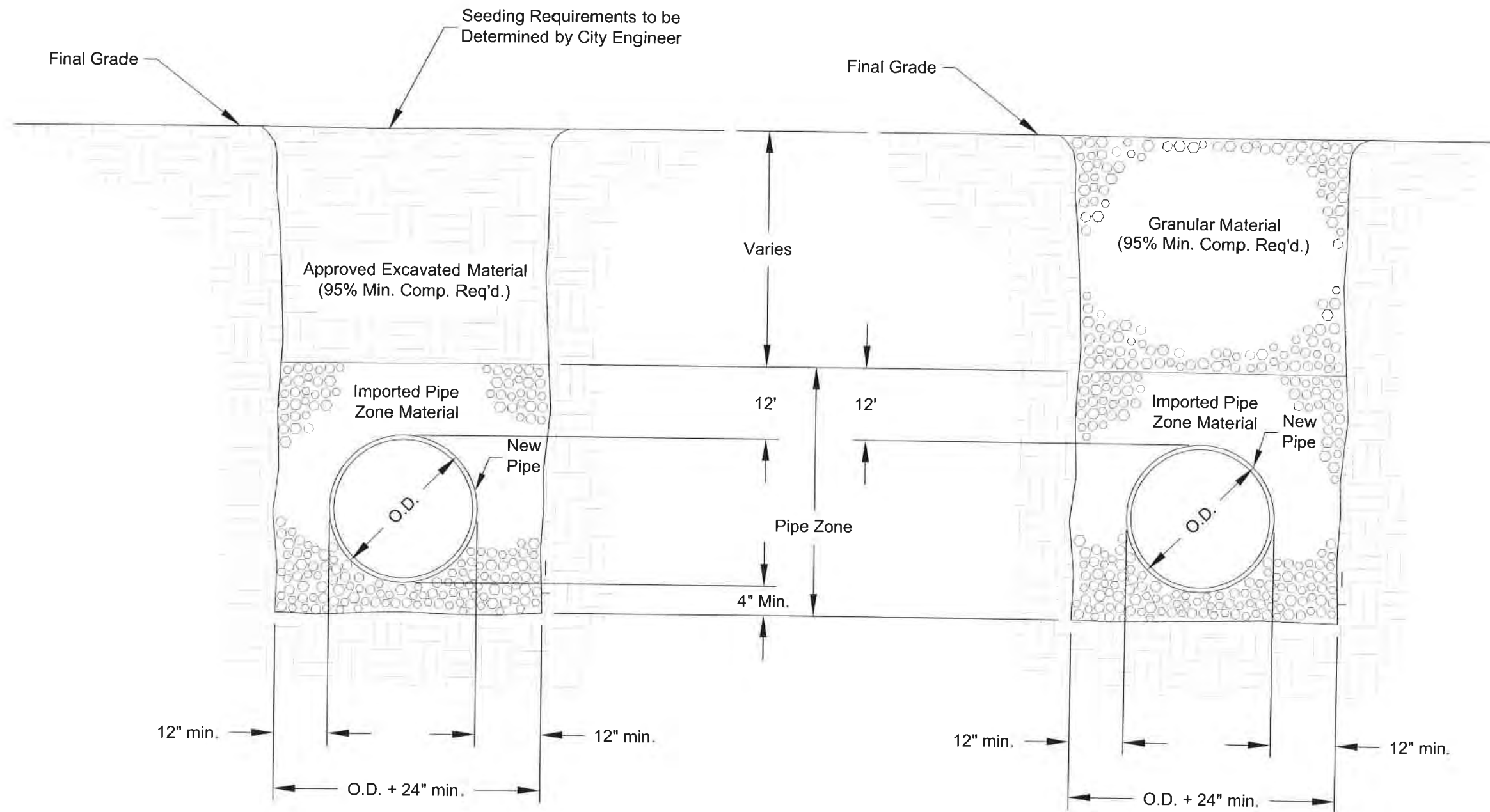
DRAFTED BY:	MAS/KWK
CHECKED BY:	K.Lilly
DRAWING SCALE:	NTS
DATE:	3-5-2014

**WATER MAIN
CREEK CROSSING**

**CITY OF MOSCOW
ENGINEERING DEPARTMENT**

DRAWING NUMBER:

32



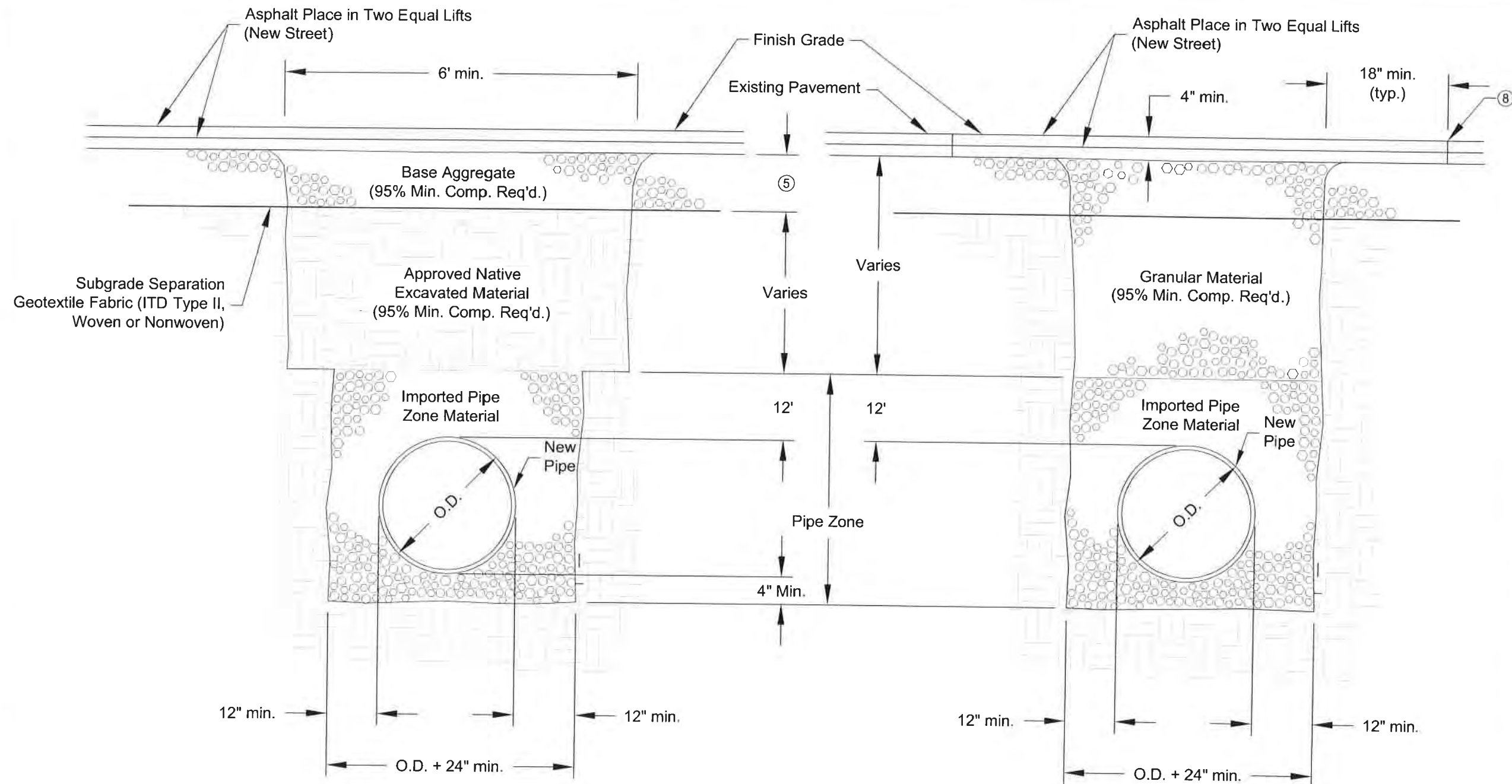
BACKFILL CLASS C
TYPICAL SECTION

BACKFILL CLASS D
TYPICAL SECTION

NOTES:

1. Class 'C' Backfill shall be used in areas where asphalt pavement, concrete curb, sidewalk, driveway, or gravel surfacing is not anticipated and where topsoil is not required.
2. Class 'D' Backfill is for areas where asphalt pavement, concrete, curb, sidewalk, or gravel surfacing is existing or anticipated.
3. Contractor shall comply with the most current OSHA requirements for excavations.
4. Backfill shall comply with the requirements of the City's Standard Construction Specifications.

REVISIONS		SIGNED AND DATED		DRAFTED BY:		CHECKED BY:		DRAWING SCALE:		DATE:	
DATE	DESCRIPTION			K. Kipp/C. Edwards		K. Lilly		NTS		3-5-2014	
				BACKFILL CLASS C & D CITY OF MOSCOW ENGINEERING DEPARTMENT							
DRAWING NUMBER:											
33b											

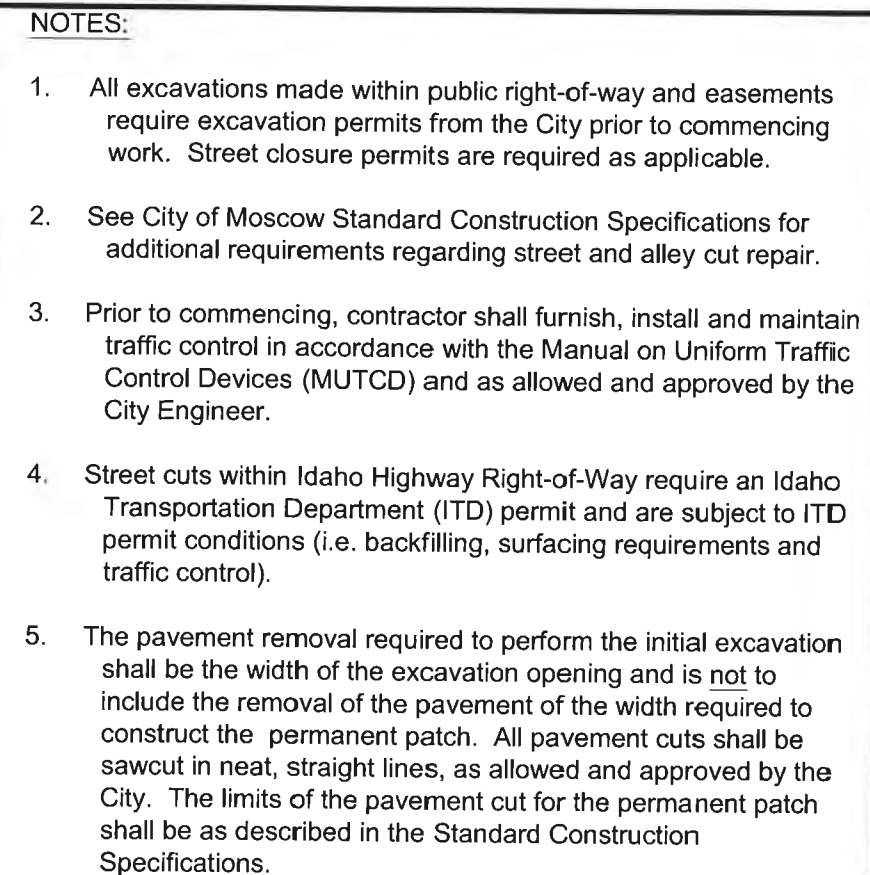


NOTES:

- Class 'E' Backfill may be substituted for Class 'D' Backfill within new streets only (not existing streets) if specifically allowed by the City Engineer.
- Class 'F' Backfill shall be utilized in trenches within existing pavement.
- Compaction for all trench backfill above the pipe zone shall be 95% minimum of AASHTO T99. All native backfill material shall be placed in six inch (6") maximum lifts and wide sheepsfoot roller. Density testing frequency for native backfill will be in excess of that required for the Class 'D' crushed aggregate backfill.
- Backfill around manholes and catch basins shall be all crushed aggregate; native material backfill will not be allowed.
- Base aggregate depth and type to be the same as that required for the street section where this trench backfill is utilized.

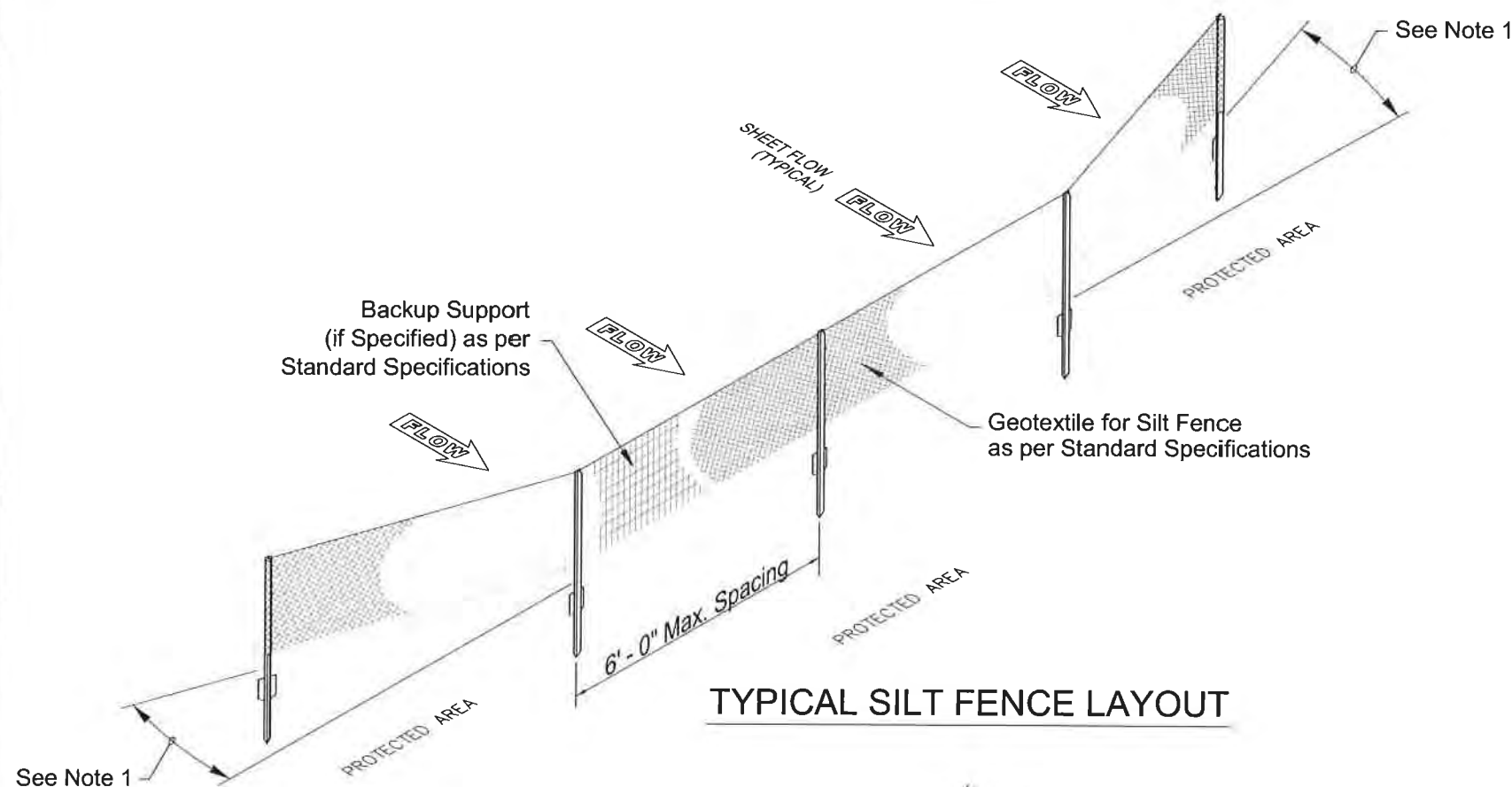
- All trenches excavated within existing paved streets shall be backfilled and surfaced the same day with a two inch (2") thick compacted cold mix asphalt patch (smooth) - to be replaced with the City's standard four inch (4") hot mix asphalt surfacing as soon as scheduling allows; unless specifically approved otherwise by the City Engineer.
- The new asphalt patch shall match the existing pavement grade. Across the width of the trench, the new surface shall not exceed 0.25 inches out-of-level.
- Existing pavement shall be cut full depth and in continuous, straight lines. Broken edges will not be allowed. Pavement cuts shall be 'tacked' immediately prior to installation of the hot mix patch.
- Contractor shall comply with the most current OSHA requirements for excavations.
- Backfill shall comply with the requirements of the City's Standard Construction Specifications.

REVISIONS		SIGNED AND DATED	DRAFTED BY: K.Kipp/C.Edwards	CHECKED BY: K.Lilly	DRAWING SCALE: NTS	DATE: 3-5-2014
DATE	DESCRIPTION					
			BACKFILL CLASS E & F	CITY OF MOSCOW ENGINEERING DEPARTMENT	DRAWING NUMBER: 33c	

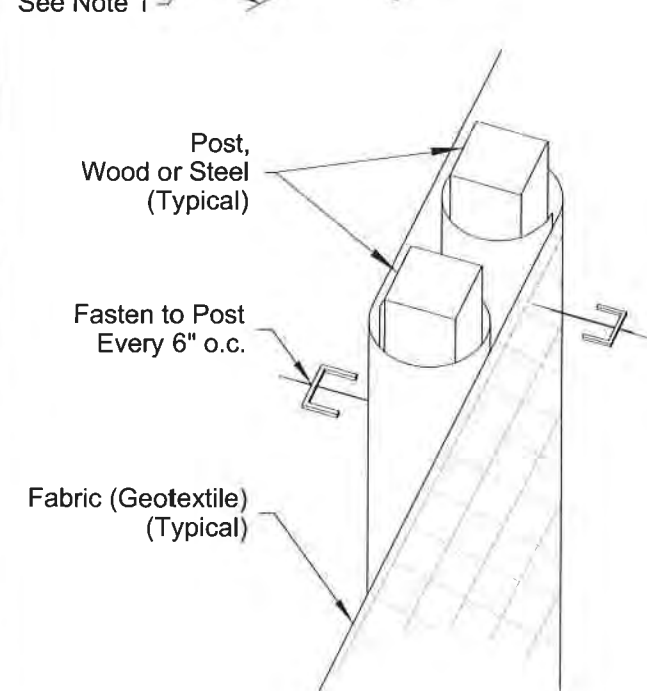


Asphalt Cut Repair (Street or Alley) [Step Two - Permanent]

STREET / ALLEY CUT REPAIR		DRAFTED BY:		C. Edwards		SIGNED AND DATED	REVISIONS	
		CHECKED BY:		K. Lilly			DATE	DESCRIPTION
CITY OF MOSCOW ENGINEERING DEPARTMENT		DRAWING SCALE:		NTS				
		DATE:		3-5-2014				
DRAWING NUMBER:		34						

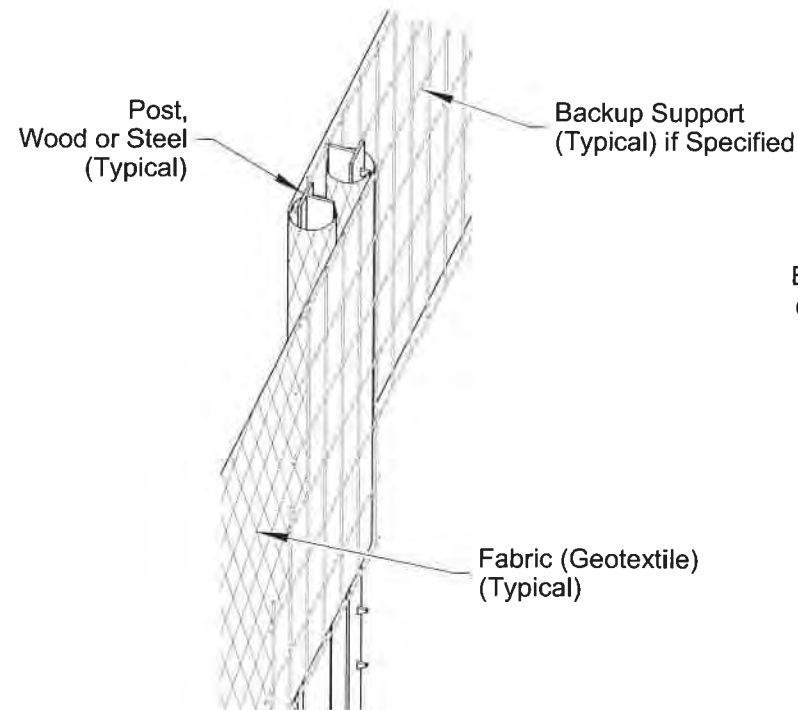


TYPICAL SILT FENCE LAYOUT



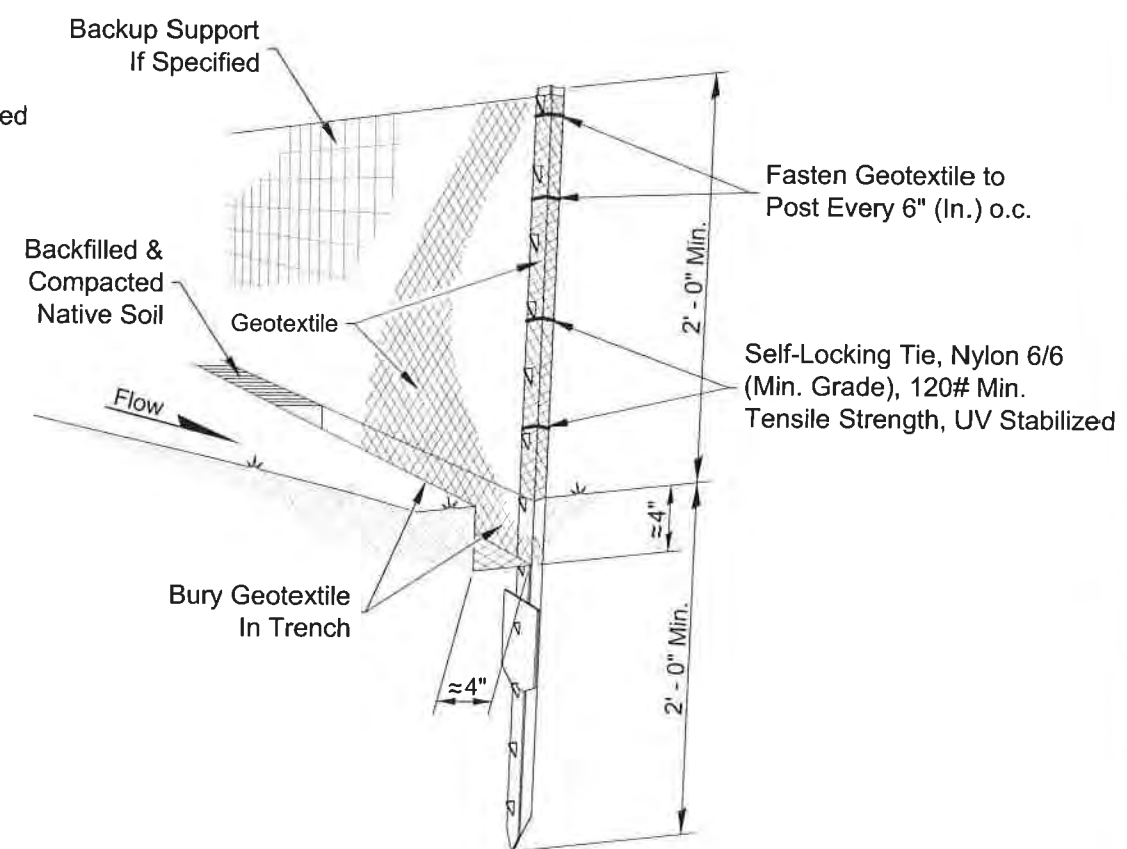
SPlice DETAIL

(WOOD POSTS AND NO BACKUP SUPPORT SHOWN)



SPlice DETAIL

(STEEL POSTS AND BACKUP SUPPORT SHOWN)



TYPICAL INSTALLATION DETAIL

NOTES:

1. Install ends of silt fence slightly up slope to prevent sediment from flowing past ends of fence. See Typical Silt Fence Layout.
2. Overlap vertical silt fence splices eight inches (8") minimum and construct in a manner to prevent silt laden runoff from passing between posts. Avoid placing splices at sumps and other low points.
3. Do not install silt fence in a manner that it will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.
4. If backup support is specified, attach fabric to backup support in a manner to hold fabric securely and reduce the potential of tearing.
5. During excavation, minimize ground disturbance around anchor trench and smooth surface to prevent concentrated flows. Compact backfill in trench in a manner that will prevent underflow.

REVISIONS	DESCRIPTION
DATE	

SIGNED AND DATED



DRAFTED BY:

C. Edwards

CHECKED BY:

K. Lilly

DRAWING SCALE:

NTS

DATE: 3-5-2014

SILT FENCE

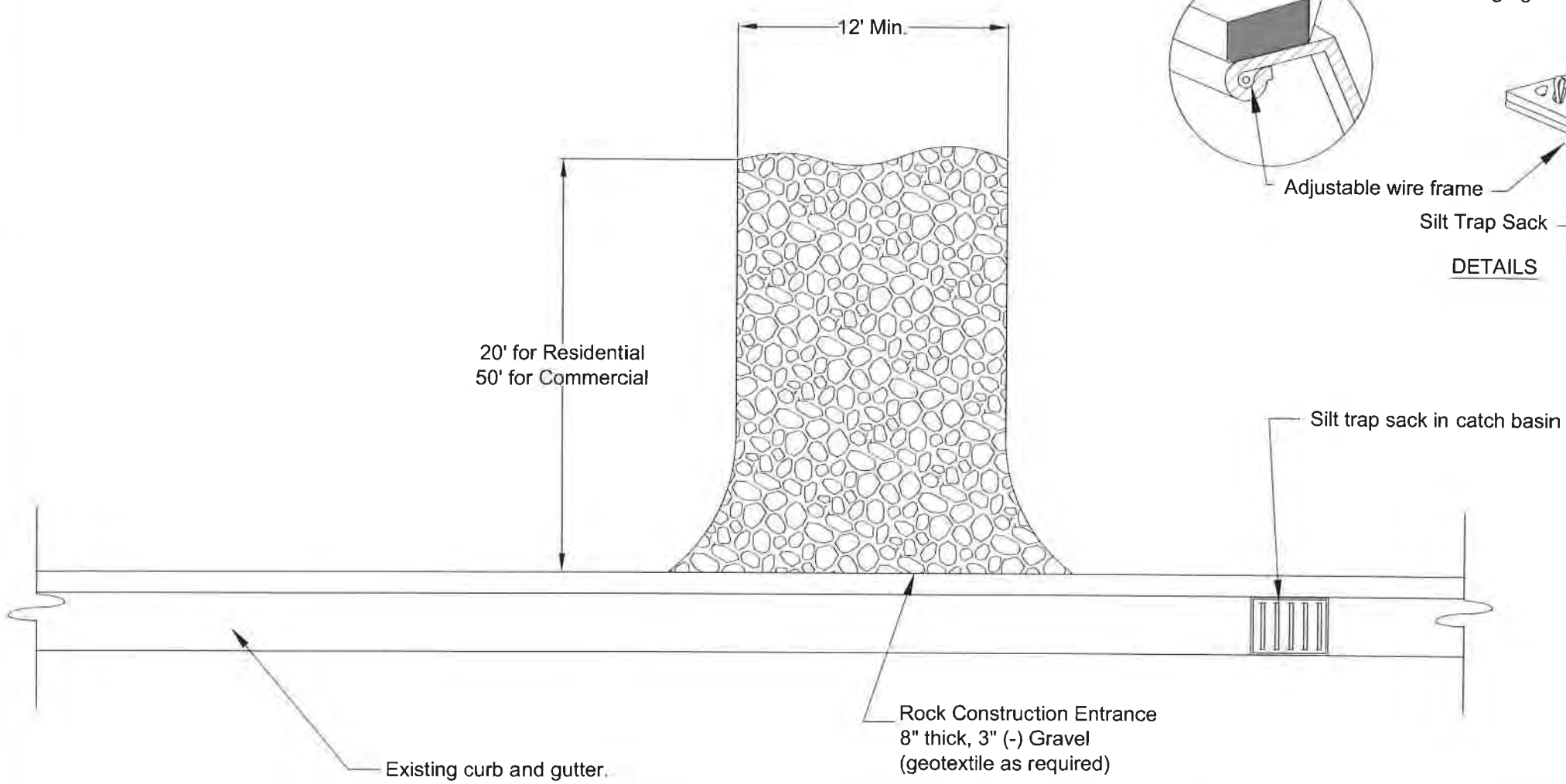
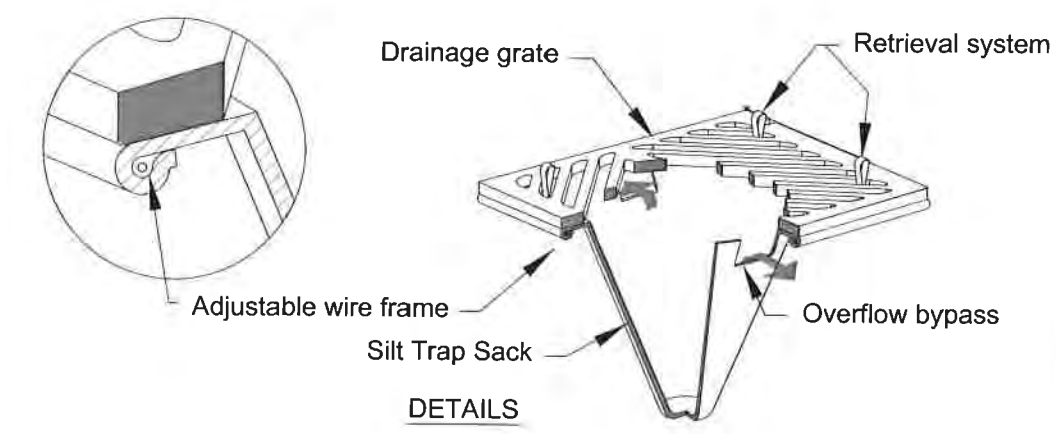
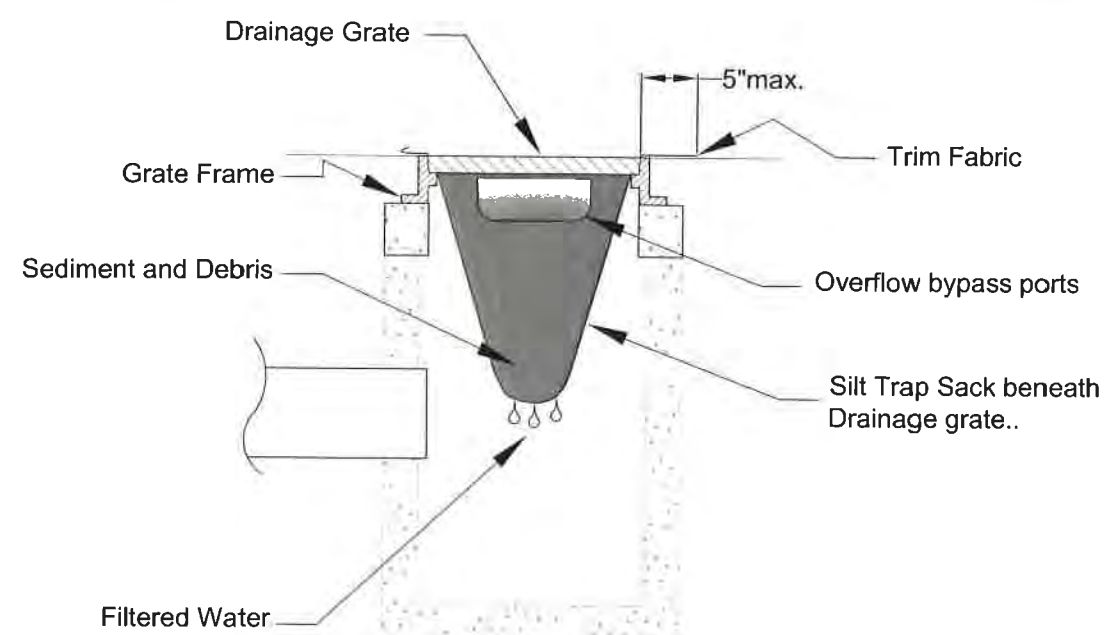
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:

35

NOTES:

1. The size and shape of the silt trap sack to fit the storm structure it will service (rectangular or round).
2. The silt trap sack shall have a built-in high-flow relief system (overflow bypass).
3. The silt trap sack assembly must allow removal without spilling the collected material.
4. Empty silt trap sack and dispose of sediment and debris before the sack is half-full.
5. Ensure the silt trap sack assembly does not spill or fall into the storm structure. If sediment is spilled into the storm structure, remove the spilled material by suction hose or other approved method.
6. Construction entrances should be inspected regularly for signs of thinning areas where mud begins to show through. Add gravel periodically to maintain the integrity of the pad.



REVISIONS	
DATE	DESCRIPTION

SIGNED AND DATED	
DRAFTED BY:	C. Edwards
CHECKED BY:	K. Lilly
DRAWING SCALE:	NTS
DATE:	3-5-2014

CONSTRUCTION ENTRANCE & INLET PROTECTION	CITY OF MOSCOW ENGINEERING DEPARTMENT